

## HP EliteBook 645 14" G11 Notebook PC (7L713ET)



Configuraciones personalizadas para adaptarse a las necesidades de la empresa

Satisface las distintas necesidades de tu plantilla laboral con la amplia gama de funciones configurables del ordenador HP EliteBook 645, sumamente seguro y fácil de utilizar. Diseñado con una pantalla que tiene una relación de aspecto de 16:10 para reducir la necesidad de realizar desplazamientos, y con un procesador AMD Ryzen de la serie 7000™ que se adapta fácilmente a los entornos de IT existentes.

HP recomienda Windows 11 Pro para empresas

### Procesador AMD principal

Lleva a cabo tu trabajo con un procesador AMD Ryzen™ de la serie 7000 eficiente y seguro.

### Protegido por HP Wolf Security

HP Wolf Security for Business crea una defensa resistente, siempre activa y reforzada por hardware.

### Altavoces que se escuchan claros como el agua

Disfruta de la definición de audio que ofrecen los altavoces optimizados de Poly Studio y de la reducción de ruido por IA.

## Incluye

### Windows 11 Pro

Trabaje en cualquier lugar sin comprometer el rendimiento o la seguridad con Windows 11 con la tecnología de colaboración y conectividad de HP.

### Imponente procesador AMD

Enfréntate a tu trabajo con un procesador AMD Ryzen™ serie 7000 eficiente y confiable que brinda una experiencia de alta capacidad de respuesta, con el moderno modo de espera conectado.

### La Seguridad es la máxima prioridad

HP Wolf Pro Security Edition proporciona protección de PC de nivel empresarial preconfigurada para pequeñas y medianas empresas.

### Rápida y eficiente red inalámbrica WiFi

La portabilidad de su PC y la fiabilidad de una conexión rápida determinan dónde puede trabajar. Consigue una conexión rápida y fiable en entornos inalámbricos densos con Wi-Fi 6 de velocidad gigabit.

### Navegación Segura

Ayude a proteger su PC de los sitios web y lea solo archivos adjuntos de Microsoft Office y PDF con malware, ransomware o virus integrados con seguridad reforzada por hardware de HP Sure Click.

Especificaciones

|                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sistema operativo                                | Windows 11 Pro                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Color del producto                               | Pike silver                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Familia de procesadores                          | AMD Ryzen™ 5 PRO processor, Passmark 17930 , fecha de lanzamiento: 9/30/2023 ( <a href="#">AMD Ryzen™ 5 PRO 7535U</a> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Procesador                                       | AMD Ryzen™ 5 PRO 7535U (hasta 4.5 GHz de reloj acelerado, 16 MB L3 cache, 6 núcleos, 12 hilos)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Memoria                                          | 16 GB DDR5-4800 MHz RAM (1 x 16 GB)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Ranuras de Memoria                               | 2 Ranuras de Memoria, 1 disponible                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Almacenamiento interno                           | 512 GB PCIe® NVMe™ SSD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Gráficos                                         | AMD Radeon™ Graphics, min res 800x600                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Pantalla                                         | WUXGA (1920 x 1200), IPS, narrow bezel, anti-glare, 300 nits, 45% NTSC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Pantalla                                         | WUXGA (1920 x 1200), IPS, narrow bezel, anti-glare, 300 nits, 45% NTSC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Tamaño de la Pantalla (diagonal)                 | 35,6cm (14") diagonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Sonido                                           | Audio de Poly Studio, altavoces estéreo duales con amplificadores independientes y micrófonos de matriz dual integrados                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Dimensiones mínimas (ancho x fondo x alto)       | 31,86 x 22,44 x 1,09 cm (parte delantera); 31,86 x 22,43 x 1,7 cm (parte trasera)<br>(La medida de la altura frontal se realiza cerca del borde delantero donde comienza la cubierta cónica inferior del chasis. La medida de la altura posterior se realiza cerca del borde posterior donde finaliza la cubierta cónica inferior del chasis.)                                                                                                                                                                                                                                                                                                                                |
| Peso                                             | A partir de 1,39 kg<br>(El peso variará según la configuración. No incluye el adaptador de alimentación.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Teclado                                          | Resistente a derrames y retroiluminado con DuraKeys.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Dispositivo señalador                            | Clickpad con soporte de gestos multitáctiles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Dispositivo de entrada                           | Lector de huellas dactilares Bloqueo frente a manipulaciones de HP; Sensor de efecto sala.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Cámara                                           | 1080p FHD camera, obturador de privacidad.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Puertos                                          | 2 USB Type-C® con velocidad de señal de 40 Gbps (suministro de energía mediante USB y DisplayPort™ 1.4); 2 USB Type-A con velocidad de señal de 5 Gbps (1 de carga y 1 de alimentación); 1 HDMI 2.1; 1 conector combinado de auriculares/micrófono estéreo; 1 RJ-45<br>(El cable HDMI se vende por separado.)                                                                                                                                                                                                                                                                                                                                                                 |
| Lector de Tarjetas Inteligentes                  | Integrado con soporte de DNLe 3.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Dimensiones del embalaje (ancho x fondo x alto)  | 6,9 x 44,9 x 30,5 cm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Comunicaciones inalámbricas                      | Wi-Fi 6E MediaTek RZ616 (2x2) and Bluetooth® 5.3 wireless card                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Alimentación eléctrica                           | 65 W USB Type-C™ adapter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Tipo de batería                                  | HP Long Life 3-cell, 56 Wh Li-ion polymer, HP battery Fast Charge and smart charge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Etiquetas ecológicas                             | EPEAT™ Gold certified<br>ENERGY STAR® certified<br>TCO certified                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Especificaciones sobre impacto en sostenibilidad | Bajo contenido en halógenos.<br>Embalajes disponibles a granel.<br>El material de embalaje de celulosa de papel moldeada dentro de la caja es 100 % de origen sostenible y reciclable.<br>Tanto el material del embalaje exterior como el corrugado son 100 % de origen sostenible y reciclable.<br>20 % de plástico reciclado posconsumo en la carcasa del altavoz y en el ventilador del sistema, evitando su destino en el océano.<br>50 % de metal reciclado.                                                                                                                                                                                                             |
| Chip TPM y SecureBoot                            | TPM 2.0 y SecureBoot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Soporte del fabricante                           | Servicio de 1 año de HP Wolf Pro Security Edition.<br>Para consultar las condiciones, visite <a href="https://h20195.www2.hp.com/v2/GetPDF.aspx/4AA8-1150ESE">https://h20195.www2.hp.com/v2/GetPDF.aspx/4AA8-1150ESE</a> &                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Garantía del fabricante                          | Opciones de garantía limitada de software de 1 año y 90 días según el país. Las baterías incluyen de forma predeterminada una garantía limitada de un año. Visita <a href="http://www.hp.com/support/batterywarranty/">http://www.hp.com/support/batterywarranty/</a> para obtener más información sobre las baterías.<br>Los servicios HP Care Pack son contratos opcionales de servicio técnico ampliado que van más allá de las garantías limitadas estándar.<br>Para elegir el nivel adecuado de servicio técnico para tu producto HP, utiliza la herramienta de búsqueda de servicios HP Care Pack en: <a href="http://www.hp.com/go/cpc">http://www.hp.com/go/cpc</a> . |

Accesorios y servicios recomendados para su Ordenador HP

HP dispone de un amplio catálogo de opciones y accesorios testeados para su ordenador HP. Al adquirir estos accesorios de forma conjunta con su ordenador HP, estos accesorios tendrán la misma garantía y soporte técnico que su ordenador.  
A través de su distribuidor puede obtener un listado completo de accesorios y servicios que le proporcionen la mejor experiencia y soporte técnico.

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## Desglose de las evidencias fase 1 para el caso del ordenador portátil

|                           |                                                                                 |
|---------------------------|---------------------------------------------------------------------------------|
| <b>ORDENADOR PORTÁTIL</b> | HP EliteBook 645 G11                                                            |
| <b>CPU</b>                |                                                                                 |
| Procesador                | AMD Ryzen 5 PRO 7535U                                                           |
| Velocidad (GHz)           | 4.5 GHz frecuencia máxima o turbo                                               |
| Núcleos físicos           | 6 núcleos                                                                       |
| Fecha de lanzamiento      | 9/30/2023                                                                       |
| Puntuación PassMark       | 17930                                                                           |
| <b>Otros dispositivos</b> |                                                                                 |
| Memoria RAM               | 16 GB DDR5-4800 MHz                                                             |
| Almacenamiento interno    | 512 GB SSD NVMe                                                                 |
| Sistema Operativo         | Windows 11 Pro-64                                                               |
| Tarjeta gráfica           | 3840x2160 @ 60Hz , 3440x1440 @ 144Hz ,<br>2560x1440 @ 180Hz , 1920x1080 @ 240Hz |
| Nº pantallas soportadas   | Integrada + 1 x pantalla externa                                                |

|                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tarjeta de sonido                                          | Integrada                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Conectividad inalámbrica</b>                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| WiFi                                                       | WiFi 6E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Bluetooth                                                  | Bluetooth 5.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Interfaces E/S</b>                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| USB 3.0 tipo A                                             | 2 x USB 3.1 Tipo A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| USB 3.0 tipo C                                             | 2 x USB 3.1 Tipo C (DisplayPort + Power Delivery + USB)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Red Ethernet                                               | 1 x RJ-45 1 Gbps                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Video                                                      | HDMI 2.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Audio E/S                                                  | Interfaz de audio jack 3.5 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Dock station                                               | NO se suministra dock station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Pantalla</b>                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Tamaño de la pantalla                                      | 14 pulgadas                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Periféricos</b>                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Teclado español                                            | Teclado español ES-ES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Ratón                                                      | Ratón integrado táctil con dos botones o ratón óptico con dos botones y scroll                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Webcam                                                     | Webcam FullHD con obturador de privacidad                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Lector de tarjetas inteligentes integrado ISO-7816 (DNI-e) | SÍ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Batería</b>                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Batería tipo smartbattery                                  | Batería tipo smart battery                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Certificados energéticos</b>                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| EPEAT                                                      | SI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Energy Star 8.0                                            | SI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| TCO                                                        | SI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| ECMA 370                                                   | SI, como ECO Declaration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Certificados de robustez</b>                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Certificación MIL STD 810H                                 | <p>Método de prueba 501.7 Alta temperatura<br/>Método de prueba 502.7 Baja temperatura<br/>Método de prueba 507.6 Humedad.</p> <p>Métodos adicionales:</p> <p>Caída<br/>Choque Funcional<br/>Vibración (Categoría 4)<br/>Vibración (Categoría 5)<br/>Vibración (Categoría 24)<br/>Polvo<br/>Humedad<br/>Altitud (Procedimiento I)<br/>Altitud (Procedimiento II)<br/>Alta Temperatura (Procedimiento I)<br/>Alta Temperatura (Procedimiento II)<br/>Baja Temperatura (Procedimiento I)<br/>Baja Temperatura (Procedimiento II)<br/>Choque de Temperatura<br/>Arena<br/>Congelación/Descongelación<br/>Choque de Manipulación en Banco<br/>Choque de Peligro de Colisión<br/>Choque de Transporte</p> |
| <b>Seguridad</b>                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Arranque seguro                                            | SÍ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Chip                                                       | TPM 2.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

|                                               |    |
|-----------------------------------------------|----|
| Cámara compatible con reconocimiento facial   | NO |
| Lector de huellas dactilares                  | SÍ |
| Otro dispositivo de identificación biométrica | NO |

| Test                            | HP EliteBook<br>630/640/645/650 G9/G10;655 G10;<br>630/635 Aero/640/645/660/665 G11 | HP EliteBook Ultra G1q;<br>830/840/860/835/845/865 G9/G10/G11;<br>1040 G9/G10/G11 |
|---------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Tested Under                    | 810H                                                                                | 810H                                                                              |
| Drop                            | Passed                                                                              | Passed                                                                            |
| Functional Shock                | Passed                                                                              | Passed                                                                            |
| Vibration (Category 4)          | Passed                                                                              | Passed                                                                            |
| Vibration (Category 5)          | Passed                                                                              | Passed                                                                            |
| Vibration (Category 24)         | Passed                                                                              | Passed                                                                            |
| Dust                            | Passed                                                                              | Passed                                                                            |
| Humidity                        | Passed                                                                              | Passed                                                                            |
| Altitude (Procedure I)          | Passed                                                                              | Passed                                                                            |
| Altitude (Procedure II)         | Passed                                                                              | Passed                                                                            |
| High Temperature (Procedure I)  | Passed                                                                              | Passed                                                                            |
| High Temperature (Procedure II) | Passed                                                                              | Passed                                                                            |
| Low Temperature (Procedure I)   | Passed                                                                              | Passed                                                                            |
| Low Temperature (Procedure II)  | Passed                                                                              | Passed                                                                            |
| Temperature Shock               | Passed                                                                              | Passed                                                                            |
| Sand                            | Passed                                                                              | Passed                                                                            |
| Freeze/Thaw                     | Passed                                                                              | Passed                                                                            |
| Bench Handling Shock            | Passed                                                                              | Passed                                                                            |
| Crash Hazard Shock              | Passed                                                                              | Passed                                                                            |
| Transportation Shock            | Passed                                                                              | Passed                                                                            |





(en) DECLARATION OF CONFORMITY / (de) KONFORMITÄTSERKLÄRUNG / (fr) DÉCLARATION DE CONFORMITÉ / (es) DECLARACIÓN DE CONFORMIDAD

DoC #: HSN-Q39C-4- R3

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-------------------------------------------|-----------------------------------------------------------------------------------------------------|------------------|------------------------|-------------------|-------------------------------|------------------------|-------------------|-------------------|-------------------|-------------------|---------------|----------------------------|-------------------|---------------|---------------------|----------------------|---------------|---------------------|----------------------|---------------|----------------------|-----------------------|--|----------------------|-------------------|--|----------------------|-------------------|--|------------------------------|--|--|--------------------|--|--|-------------------|--|
| (en) Manufacturer's Name<br>(de) Herstellername<br>(fr) Nom du fabricant<br>(es) Nombre del fabricante                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | HP Inc.                                                                                                                                                                                                                  |                                                                                                     |                                           |                                                                                                     |                  |                        |                   |                               |                        |                   |                   |                   |                   |               |                            |                   |               |                     |                      |               |                     |                      |               |                      |                       |  |                      |                   |  |                      |                   |  |                              |  |  |                    |  |  |                   |  |
| (en) Manufacturer's Address<br>(de) Adresse des Herstellers<br>(fr) Adresse du fabricant<br>(es) Dirección del fabricante                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1501 Page Mill Road, Palo Alto, CA 94303-1112 USA                                                                                                                                                                        |                                                                                                     |                                           |                                                                                                     |                  |                        |                   |                               |                        |                   |                   |                   |                   |               |                            |                   |               |                     |                      |               |                     |                      |               |                      |                       |  |                      |                   |  |                      |                   |  |                              |  |  |                    |  |  |                   |  |
| (en) declare, under its sole responsibility that the product<br>(de) erklärt, dass das Produkt<br>(fr) déclare que le produit<br>(es) declara que el producto                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                          |                                                                                                     |                                           |                                                                                                     |                  |                        |                   |                               |                        |                   |                   |                   |                   |               |                            |                   |               |                     |                      |               |                     |                      |               |                      |                       |  |                      |                   |  |                      |                   |  |                              |  |  |                    |  |  |                   |  |
| (en) Product Name and Model <sup>5.2</sup><br>(de) Produktname und Modell <sup>5.2</sup><br>(fr) Nom du produit et modèle <sup>5.2</sup><br>(es) Nombre del producto y modelo <sup>5.2</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | HP ProBook 445 14 inch G11 Notebook PC; HP ProBook 445 14 inch G11 series; HP Elite mt645 G8 Mobile Thin Client; HP Elite mt645 G8 series; HP EliteBook 645 14 inch G11 Notebook PC; HP EliteBook 645 14 inch G11 series |                                                                                                     |                                           |                                                                                                     |                  |                        |                   |                               |                        |                   |                   |                   |                   |               |                            |                   |               |                     |                      |               |                     |                      |               |                      |                       |  |                      |                   |  |                      |                   |  |                              |  |  |                    |  |  |                   |  |
| (en) Regulatory Model Number <sup>5.1</sup><br>(de) Regulatorische Modell Nummer <sup>5.1</sup><br>(fr) Numéro de modèle réglementaire <sup>5.1</sup><br>(es) Número de modelo reglamentario <sup>5.1</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | HSN-Q39C-4                                                                                                                                                                                                               |                                                                                                     |                                           |                                                                                                     |                  |                        |                   |                               |                        |                   |                   |                   |                   |               |                            |                   |               |                     |                      |               |                     |                      |               |                      |                       |  |                      |                   |  |                      |                   |  |                              |  |  |                    |  |  |                   |  |
| (en) Product Options<br>(de) Produktoptionen<br>(fr) Options du produit<br>(es) Opciones del producto                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | (en) Please See ANNEX 1<br>(de) Siehe Anhang I<br>(fr) Voir l'annexe I<br>(es) Ver Anexo I                                                                                                                               |                                                                                                     |                                           |                                                                                                     |                  |                        |                   |                               |                        |                   |                   |                   |                   |               |                            |                   |               |                     |                      |               |                     |                      |               |                      |                       |  |                      |                   |  |                      |                   |  |                              |  |  |                    |  |  |                   |  |
| (en) conforms to the following Product Specifications and Regulations<br>(de) entspricht den folgenden Produktspezifikationen und Vorschriften<br>(fr) est conforme aux normes et règlements de produit suivants<br>(es) cumple con las siguientes especificaciones y normas de productos                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                          |                                                                                                     |                                           |                                                                                                     |                  |                        |                   |                               |                        |                   |                   |                   |                   |               |                            |                   |               |                     |                      |               |                     |                      |               |                      |                       |  |                      |                   |  |                      |                   |  |                              |  |  |                    |  |  |                   |  |
| <table><tr><td>(en) Safety / (de) Sicherheit / (fr) Sécurité / (es) Seguridad</td><td>(en) EMC / (de) EMV / (fr) EMC / (es) EMC</td><td>(en) Spectrum / (de) Frequenzspektrum / (fr) Spectre radioélectrique / (es) Espectro radioeléctrico</td></tr><tr><td>IEC 62368-1:2018</td><td>EN 55032:2015+A11:2020</td><td>EN 300 328 V2.2.2</td></tr><tr><td>EN IEC 62368-1:2020 +A11:2020</td><td>EN 55035:2017+A11:2020</td><td>EN 301 893 V2.1.1</td></tr><tr><td>EN IEC 62311:2020</td><td>EN 61000-3-2:2014</td><td>EN 300 440 V2.1.1</td></tr><tr><td>EN 50665:2017</td><td>EN 61000-3-3:2013 +A1:2019</td><td>EN 303 687 V1.1.1</td></tr><tr><td>EN 62479:2010</td><td>EN 301 489-1 V2.2.3</td><td>EN 301 908-1 V15.2.1</td></tr><tr><td>EN 50663:2017</td><td>EN 301 489-3 V2.3.2</td><td>EN 301 908-2 V13.1.1</td></tr><tr><td>EN 50364:2018</td><td>EN 301 489-17 V3.2.4</td><td>EN 301 908-13 V13.2.1</td></tr><tr><td></td><td>EN 301 489-19 V2.2.1</td><td>EN 303 413 V1.2.1</td></tr><tr><td></td><td>EN 301 489-52 V1.2.1</td><td>EN 300 330 V2.1.1</td></tr><tr><td></td><td>EN 60601-1-2:2015+ AMD1:2021</td><td></td></tr><tr><td></td><td>FCC CFR 47 Part 15</td><td></td></tr><tr><td></td><td>ICES-003, Issue 7</td><td></td></tr></table> |                                                                                                                                                                                                                          | (en) Safety / (de) Sicherheit / (fr) Sécurité / (es) Seguridad                                      | (en) EMC / (de) EMV / (fr) EMC / (es) EMC | (en) Spectrum / (de) Frequenzspektrum / (fr) Spectre radioélectrique / (es) Espectro radioeléctrico | IEC 62368-1:2018 | EN 55032:2015+A11:2020 | EN 300 328 V2.2.2 | EN IEC 62368-1:2020 +A11:2020 | EN 55035:2017+A11:2020 | EN 301 893 V2.1.1 | EN IEC 62311:2020 | EN 61000-3-2:2014 | EN 300 440 V2.1.1 | EN 50665:2017 | EN 61000-3-3:2013 +A1:2019 | EN 303 687 V1.1.1 | EN 62479:2010 | EN 301 489-1 V2.2.3 | EN 301 908-1 V15.2.1 | EN 50663:2017 | EN 301 489-3 V2.3.2 | EN 301 908-2 V13.1.1 | EN 50364:2018 | EN 301 489-17 V3.2.4 | EN 301 908-13 V13.2.1 |  | EN 301 489-19 V2.2.1 | EN 303 413 V1.2.1 |  | EN 301 489-52 V1.2.1 | EN 300 330 V2.1.1 |  | EN 60601-1-2:2015+ AMD1:2021 |  |  | FCC CFR 47 Part 15 |  |  | ICES-003, Issue 7 |  |
| (en) Safety / (de) Sicherheit / (fr) Sécurité / (es) Seguridad                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | (en) EMC / (de) EMV / (fr) EMC / (es) EMC                                                                                                                                                                                | (en) Spectrum / (de) Frequenzspektrum / (fr) Spectre radioélectrique / (es) Espectro radioeléctrico |                                           |                                                                                                     |                  |                        |                   |                               |                        |                   |                   |                   |                   |               |                            |                   |               |                     |                      |               |                     |                      |               |                      |                       |  |                      |                   |  |                      |                   |  |                              |  |  |                    |  |  |                   |  |
| IEC 62368-1:2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | EN 55032:2015+A11:2020                                                                                                                                                                                                   | EN 300 328 V2.2.2                                                                                   |                                           |                                                                                                     |                  |                        |                   |                               |                        |                   |                   |                   |                   |               |                            |                   |               |                     |                      |               |                     |                      |               |                      |                       |  |                      |                   |  |                      |                   |  |                              |  |  |                    |  |  |                   |  |
| EN IEC 62368-1:2020 +A11:2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | EN 55035:2017+A11:2020                                                                                                                                                                                                   | EN 301 893 V2.1.1                                                                                   |                                           |                                                                                                     |                  |                        |                   |                               |                        |                   |                   |                   |                   |               |                            |                   |               |                     |                      |               |                     |                      |               |                      |                       |  |                      |                   |  |                      |                   |  |                              |  |  |                    |  |  |                   |  |
| EN IEC 62311:2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | EN 61000-3-2:2014                                                                                                                                                                                                        | EN 300 440 V2.1.1                                                                                   |                                           |                                                                                                     |                  |                        |                   |                               |                        |                   |                   |                   |                   |               |                            |                   |               |                     |                      |               |                     |                      |               |                      |                       |  |                      |                   |  |                      |                   |  |                              |  |  |                    |  |  |                   |  |
| EN 50665:2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | EN 61000-3-3:2013 +A1:2019                                                                                                                                                                                               | EN 303 687 V1.1.1                                                                                   |                                           |                                                                                                     |                  |                        |                   |                               |                        |                   |                   |                   |                   |               |                            |                   |               |                     |                      |               |                     |                      |               |                      |                       |  |                      |                   |  |                      |                   |  |                              |  |  |                    |  |  |                   |  |
| EN 62479:2010                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | EN 301 489-1 V2.2.3                                                                                                                                                                                                      | EN 301 908-1 V15.2.1                                                                                |                                           |                                                                                                     |                  |                        |                   |                               |                        |                   |                   |                   |                   |               |                            |                   |               |                     |                      |               |                     |                      |               |                      |                       |  |                      |                   |  |                      |                   |  |                              |  |  |                    |  |  |                   |  |
| EN 50663:2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | EN 301 489-3 V2.3.2                                                                                                                                                                                                      | EN 301 908-2 V13.1.1                                                                                |                                           |                                                                                                     |                  |                        |                   |                               |                        |                   |                   |                   |                   |               |                            |                   |               |                     |                      |               |                     |                      |               |                      |                       |  |                      |                   |  |                      |                   |  |                              |  |  |                    |  |  |                   |  |
| EN 50364:2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | EN 301 489-17 V3.2.4                                                                                                                                                                                                     | EN 301 908-13 V13.2.1                                                                               |                                           |                                                                                                     |                  |                        |                   |                               |                        |                   |                   |                   |                   |               |                            |                   |               |                     |                      |               |                     |                      |               |                      |                       |  |                      |                   |  |                      |                   |  |                              |  |  |                    |  |  |                   |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | EN 301 489-19 V2.2.1                                                                                                                                                                                                     | EN 303 413 V1.2.1                                                                                   |                                           |                                                                                                     |                  |                        |                   |                               |                        |                   |                   |                   |                   |               |                            |                   |               |                     |                      |               |                     |                      |               |                      |                       |  |                      |                   |  |                      |                   |  |                              |  |  |                    |  |  |                   |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | EN 301 489-52 V1.2.1                                                                                                                                                                                                     | EN 300 330 V2.1.1                                                                                   |                                           |                                                                                                     |                  |                        |                   |                               |                        |                   |                   |                   |                   |               |                            |                   |               |                     |                      |               |                     |                      |               |                      |                       |  |                      |                   |  |                      |                   |  |                              |  |  |                    |  |  |                   |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | EN 60601-1-2:2015+ AMD1:2021                                                                                                                                                                                             |                                                                                                     |                                           |                                                                                                     |                  |                        |                   |                               |                        |                   |                   |                   |                   |               |                            |                   |               |                     |                      |               |                     |                      |               |                      |                       |  |                      |                   |  |                      |                   |  |                              |  |  |                    |  |  |                   |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | FCC CFR 47 Part 15                                                                                                                                                                                                       |                                                                                                     |                                           |                                                                                                     |                  |                        |                   |                               |                        |                   |                   |                   |                   |               |                            |                   |               |                     |                      |               |                     |                      |               |                      |                       |  |                      |                   |  |                      |                   |  |                              |  |  |                    |  |  |                   |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ICES-003, Issue 7                                                                                                                                                                                                        |                                                                                                     |                                           |                                                                                                     |                  |                        |                   |                               |                        |                   |                   |                   |                   |               |                            |                   |               |                     |                      |               |                     |                      |               |                      |                       |  |                      |                   |  |                      |                   |  |                              |  |  |                    |  |  |                   |  |
| (en) Ecodesign / (de) Öko-Design / (fr) Écoconception / (es) Diseño ecológico<br>Regulation (EU) 2023/826<br>EN 50564:2011<br>IEC 62301:2011                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                          |                                                                                                     |                                           |                                                                                                     |                  |                        |                   |                               |                        |                   |                   |                   |                   |               |                            |                   |               |                     |                      |               |                     |                      |               |                      |                       |  |                      |                   |  |                      |                   |  |                              |  |  |                    |  |  |                   |  |
| RoHS<br>EN IEC 63000:2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                          |                                                                                                     |                                           |                                                                                                     |                  |                        |                   |                               |                        |                   |                   |                   |                   |               |                            |                   |               |                     |                      |               |                     |                      |               |                      |                       |  |                      |                   |  |                      |                   |  |                              |  |  |                    |  |  |                   |  |
| (en) The product herewith complies with the requirements of the following and carries the <b>CE</b> -marking accordingly<br>(de) Das Produkt hiermit entspricht den Anforderungen der folgenden und trägt das entsprechende <b>CE</b> -Kennzeichen<br>(fr) Le produit est conforme aux exigences suivantes et porte le marquage <b>CE</b> en conséquence<br>(es) El producto presente cumple con los requisitos de lo siguiente y conlleva el marcado <b>CE</b> en consecuencia                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Radio Equipment Directive 2014/53/EU<br>Ecodesign Directive 2009/125/EU<br>RoHS Directive 2011/65/EU<br>Battery Regulation 2023/1542                                                                                     |                                                                                                     |                                           |                                                                                                     |                  |                        |                   |                               |                        |                   |                   |                   |                   |               |                            |                   |               |                     |                      |               |                     |                      |               |                      |                       |  |                      |                   |  |                      |                   |  |                              |  |  |                    |  |  |                   |  |

**(en) DECLARATION OF CONFORMITY / (de) KONFORMITÄTSERKLÄRUNG / (fr) DÉCLARATION DE CONFORMITÉ / (es) DECLARACIÓN DE CONFORMIDAD**

DoC #: HSN-Q39C-4- R3

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>UK ONLY: This product herewith complies with the requirements of the following and carries the <b>UK CA</b> marking.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <p><b>Radio Equipment Regulations 2017</b><br/><b>Ecodesign for Energy-Related Products Regulations 2010</b><br/><b>Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012</b></p> |
| <p>(en) Additional Information<br/>(de) Zusätzliche Information<br/>(fr) Informations complémentaires<br/>(es) Información Adicional:</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                            |
| <p>5.1)<br/>(en) This product is assigned a Regulatory Model Number which stays with the regulatory aspects of the design. The Regulatory Model Number is the main product identifier in the regulatory documentation and test reports, this number should not be confused with the marketing name or the product numbers.<br/>(de) Für die regulatorischen Aspekte zum Design wurde diesem Produkt eine Regulatorische Modell Nummer zugeordnet. Zur Produktidentifizierung in der regulatorischen Dokumentation und den Prüfberichten wird diese Regulatorische Modell Nummer verwendet und sollte nicht zu Verwechslungen von Marketingnamen oder Produktnummern führen.<br/>(fr) A ce produit est assigné un numéro de modèle réglementaire qui est associé avec les aspects réglementaires liés à la conception du produit. Le numéro de modèle réglementaire est le principal identificateur du produit dans la documentation réglementaire et les rapports d'essais, ce nombre ne doit pas être confondu avec le nom commercial ou les numéros de produit.<br/>(es) A este producto se asigna un número de modelo regulatorio que cumple con los aspectos regulatorios del diseño. El número de modelo normativo es el identificador principal del producto en la documentación reglamentaria e informes de ensayo, este número no se debe confundir con el nombre comercial o los números del producto.</p> |                                                                                                                                                                                                                                            |
| <p>5.2)<br/>(en) This product was tested in a typical HP environment.<br/>(de) Dieses Produkt wurde in einer typischen HP Konfiguration getestet.<br/>(fr) Ce produit a été testé dans un environnement typique HP.<br/>(es) Este producto se ha probado en un entorno típico de HP.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                            |
| <p>(en) The listed Notified Body issued the listed EU-type examination certificate, according to Annex III, for the essential requirement of article 3.2 of the RED Directive.<br/>(de) Die aufgeführte angegebene Einrichtung hat das aufgeführte EU-Prüfungszertifikat gemäß Anhang III für die wesentliche Anforderung von Artikel 3.2 der Red Richtlinie herausgegeben.<br/>(fr) L'organisme notifié répertorié a délivré le certificat d'examen de type UE répertorié, selon l'annexe III, pour l'exigence essentielle de l'article 3.2 de la directive rouge.<br/>(es) El organismo notificado listado emitió el certificado de examen de tipo UE listado, de acuerdo con el Anexo III, para el requisito esencial del Artículo 3.2 de la Directiva Roja.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <p><b>Notified Body: SPORTON INTERNATIONAL (USA) INC</b><br/><b>Notified Body Number: 2907</b><br/><b>Certificate ID: SN24C0011</b></p>                                                                                                    |

Palo Alto, CA  
30-04-2024

 **HP Inc.**  
1501 Page Mill Road, Palo Alto, CA  
Gilles Soulard, Manager  
Product Compliance Center  
*Gilles Soulard*  
Gilles Soulard, Manager  
Product Compliance Center

|                                                                                                                                                                                                                                                                                             |                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| <p>(en) Local contact for regulatory topics only<br/>(de) Lokale Ansprechpartner für Richtlinien und Bestimmungen<br/>(fr) Contact local uniquement pour les réglementations<br/>(es) Contacto local únicamente para temas de normativa:</p>                                                |                                                                                         |
| <p>EU: HP REG 23010, 08028 Barcelona, Spain<br/>UK: HP Inc UK Ltd, Regulatory Enquiries, Earley West, 300 Thames Valley Park Drive, Reading, RG6 1PT<br/>U.S.: HP Inc., 1501 Page Mill Road, Palo Alto 94304, U.S.A. 650-857-1501<br/>Email: <a href="mailto:reg@hp.com">reg@hp.com</a></p> | <p align="right"><a href="http://www.hp.eu/certificates">www.hp.eu/certificates</a></p> |

**(en) DECLARATION OF CONFORMITY / (de) KONFORMITÄTSERKLÄRUNG / (fr) DÉCLARATION DE  
CONFORMITÉ / (es) DECLARACIÓN DE CONFORMIDAD**

DoC #: HSN-Q39C-4- R3

|                                                                                                                                                                           |                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| <b>(en) ANNEX I</b><br><b>(de) ANHANG I</b><br><b>(fr) ANNEXE I</b><br><b>(es) ANEXO I</b>                                                                                |                   |
| (en) Regulatory Model Number (RMN)<br>(de) Regulatorische Modell Nummer (RMN)<br>(fr) Numéro de modèle réglementaire (RMN)<br>(es) Número de modelo reglamentario (RMN)   | <b>HSN-Q39C-4</b> |
| 1 (en) DESCRIPTION   2 (en) OPTION RMN*<br>1 (de) BESCHREIBUNG   2 (de) RMN OPTION*<br>1 (fr) DESCRIPTION   2 (fr) RMN OPTION*<br>1 (es) DESCRIPCIÓN   2 (es) RMN OPCIÓN* |                   |

| 1                                       | 2                                                                                                                |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Power Adapter                           | TPN-XA07<br><br>TPN-XA15<br><br>TPN-XA19<br><br>TPN-XA20<br><br>TPN-XA21<br><br>TPN-XA23<br><br>TPN-XA01         |
| Battery Pack                            | HSTNN-XB1G<br><br>HSTNN-XB3Q<br><br>HSTNN-XB3R<br><br>HSTNN-XB0H<br><br>TPN-XB1Y<br><br>TPN-XB1Z<br><br>TPN-XB1C |
| Transceiver 2,4 and 5/6 GHz WLAN and BT | MT7922A22M<br><br>RTL8852CE                                                                                      |
| WWAN Transceiver, GPS Receiver          | FM350-GL-16                                                                                                      |
| NFC                                     | XRAV-1                                                                                                           |

**(en) DECLARATION OF CONFORMITY / (de) KONFORMITÄTSERKLÄRUNG / (fr) DÉCLARATION DE  
CONFORMITÉ / (es) DECLARACIÓN DE CONFORMIDAD**

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DoC #: HSN-Q39C-4- R3

(en) \*Where X represents any alpha numeric character.  
(de) \*Wo X steht für eine beliebige alphanumerische Zeichen  
(fr) \*Où X représente n'importe quel caractère alphanumérique  
(es) \*Donde X representa cualquier carácter alfanumérico

HP Inc.  
1501 Page Mill Road  
Palo Alto, CA 94304 US

Martin Glagla  
Email: mglagla@us.tuv.com

March 6, 2024

Attn: Katherine Kim

**Confirmation of ENERGY STAR® certification**

Type of Equipment: Notebook Computer  
Model Name: HP ProBook 445 14 inch G11 Notebook PC (ENERGY STAR);  
HP Elite mt645 G8 Mobile Thin Client (ENERGY STAR);  
HP EliteBook 645 14 inch G11 Notebook PC (ENERGY STAR)  
Model Number: HSN-Q39C-4  
Product Specification: ENERGY STAR Program Requirements for Computers,  
Eligibility Criteria Version 8.0  
TUV File Number: 2024ES-X8VP2-001

Dear Katherine Kim:

This is notification that TUV Rheinland has certified the performance of the  
aforementioned product according to the ENERGY STAR® Program Requirements and  
will report all required information for the certified product to the U.S. Environmental  
Protection Agency (EPA).

The certified product meets ENERGY STAR® eligibility criteria and will be listed on the  
ENERGY STAR Qualified Product website if the model is intended for commerce in the  
U.S. and/or Canada. You may begin labeling the certified product in accordance to your  
ENERGY STAR® Partnership Agreement and Commitments.

Please review the above for accuracy and address desired changes to the below  
mentioned contact.

If this product is listed on the ENERGY STAR Qualified Product website it is eligible for  
re-testing based on the ENERGY STAR randomly selected 'Verification Testing'  
program. In the event your product is randomly selected a separate notification will be  
sent out requesting product availability information. This information will be used for  
quoting the required 'Verification Testing'. Failure to reply to the product availability  
request within 10 business days will result in further action. This may include forfeiture to  
use the ENERGY STAR mark and termination of your partner agreement with EPA.  
TUV Rheinland offers a broad portfolio of service providing global energy efficiency  
testing solutions, including EPA (ENERGY STAR®), Natural Resources Canada  
(NRCan), Energy Related Products (ErP) Directive, Europe EcoLabel, and Germany's  
Blue Angel Quality Seal as well as Green Services.

If we can be of any further assistance, please do not hesitate to call upon us.

Sincerely,  
TUV Rheinland of North America, Inc.

Martin Glagla  
Certifier

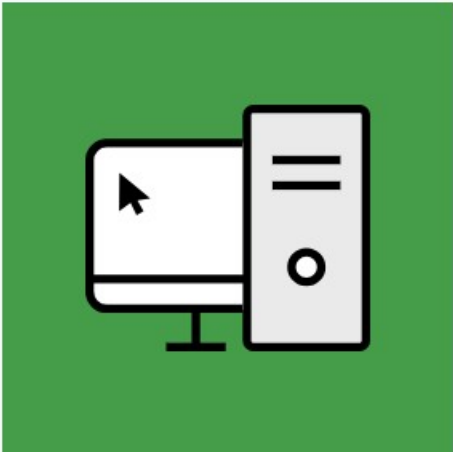


TUV Rheinland  
of North America, Inc.

1279 Quarry Lane, Suite A  
Pleasanton, CA 94566

Tel 925-249-9123  
Fax 925-249-9124  
Toll Free TUV-RHEINLAND  
Mail info@tuv.com  
Web www.tuv.com

Member of  
TUV Rheinland Group



COMPUTERS &  
DISPLAYS

# HP EliteBook 645 14 inch G11 Notebook PC ENERGY STAR

## Product Summary:

|                    |                                                                                           |
|--------------------|-------------------------------------------------------------------------------------------|
| Product Type:      | Notebook                                                                                  |
| Registered In:     | Spain                                                                                     |
| Manufacturer:      | HP                                                                                        |
| EPEAT Tier:        | Gold                                                                                      |
| Registration Date: | 2024-04-22                                                                                |
| Product Status:    | Active                                                                                    |
| Exceptions:        | Configurations that are not ENERGY STAR qualified do not meet required criterion 4.5.1.1. |

Universal Product Code(s): 197498563039, 197498563046, 197498563053, 197498563060, 197498563077, ...  
[View all \(17\)](#)

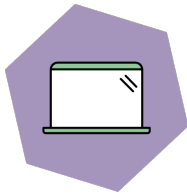
All unique product identifiers existing for this product may not be listed here. If the unique product identifier you are looking for is not listed, please contact EPEAT at [EPEAT@GEC.org](mailto:EPEAT@GEC.org).

EXPORT PRODUCT SUMMARY



# CERTIFICATE

## TCO Certified, generation 9 for notebooks



**Brand name:** HP

**Sales name:** HP EliteBook 645 14 inch G11 Notebook PC

**Certification date:** 2024-04-14

**Expiry date:** 2026-04-14

### **Toward sustainable IT products**

TCO Certified is the world-leading sustainability certification for IT products. It is an easy-to-use tool that helps you get environmental and social sustainability right. Criteria are mandatory, tough, and apply globally. Compliance is always independently verified.

For more information, visit [tcocertified.com](https://tcocertified.com).

**No. N924040469**

**Jarl Stephansson**  
Certification process  
TCO Development

This certificate confirms that a sample of the certified product, as stated herein, has been tested and approved as to its compliance with the criteria document valid at the time of the laboratory test. The certified product may, subject to the use of the unique combination of brand name, type/model name and sales name as stated in this certificate, be marked and sold with the TCO Certified label in accordance with the agreement.

# Appendix to certificate No. N924040469



Brand name: HP

Sales name(s):

HP EliteBook 645 14 inch G11 Notebook PC

Separate power supply: Yes, Class 1  
Operating mode sound level: 3.7 B



## 22%

Recycled plastic



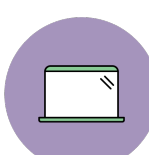
## 1.7 kg

Total weight of product



**Energy consumption:**

For energy consumption and  
yearly emissions, visit  
[tcocertified.com/product-finder/](https://tcocertified.com/product-finder/)



**Aspect ratio:** Other

**Panel size:** 14 in

**Min. resolution width:** 1920 px

**Min. resolution height:** 1200 px



**Battery longevity:**

The main battery in this product is  
tested to withstand at least: **300**  
full discharges until it reaches  
80% of the initial capacity



**Durability**

**Drop test height:** 76.2 cm

**High temp operational:** 60° C

**Low temp operational:** -29° C

**Model names(s)**

HSN-Q39C-4

**Model name type key(s)**

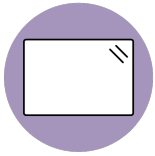
1st \* : N/A

2nd \* : N/A

A handwritten signature in black ink.

Jarl Stephansson  
Certification process  
TCO Development

## Appendix to certificate No. N924040469



### Panels:

AUO B140UAN04.6, BOE NV140WUM-N41, INNOLUX N140JCA-EEK, LG Display LP140WU4 (SP)(D1), AUO B140UAN02.4, BOE NE140WUM-N67, INNOLUX N140JCG-GS9, LG Display LP140WU1 (SP) (D2), AUO B140UAK02.3, BOE NV140WUM-T01, INNOLUX N140JCN-EEK, BOE NE140WUM-N6P, IVO X140NV4J R0



### Batteries:

Dynapack TPN-DB1Z, Simplo TPN-IB1C, Dynapack TPN-DB1Y, CosMX HSTNN-OB3R, CosMX HSTNN-OB3Q, SUNWODA HSTNN-WB0H, ATL HSTNN-AB1G



### Adapters:

hp TPN-AA07, hp TPN-CA20, hp TPN-DA15, hp TPN-LA19, hp TPN-CA21, hp TPN-DA20, hp TPN-HA01, hp TPN-LA23, hp TPN-CA31, hp TPN-DA32, hp TPN-LA31

A handwritten signature in black ink, appearing to read 'Jarl Stephansson'.

**Jarl Stephansson**  
Certification process  
TCO Development

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## Annex B2 - Product environmental attributes Computers and computer monitors

The declaration may be published only when all rows and/or fields marked with \* are filled-in (n.a. for not applicable). Additional information regarding each item may be found under P15.

|                        |                                                                                                                               |                                                                                     |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Brand *                | HP                                                                                                                            |  |
| Company name *         | HP                                                                                                                            |                                                                                     |
| Contact information *  | HP Sustainability and Compliance Center                                                                                       |                                                                                     |
| e-mail address         | <a href="mailto:sustainability@hp.com">sustainability@hp.com</a>                                                              |                                                                                     |
| Internet site *        | <a href="http://www.hp.com/hpinfo/globalcitizenship/environment/">http://www.hp.com/hpinfo/globalcitizenship/environment/</a> |                                                                                     |
| Additional information |                                                                                                                               |                                                                                     |

|                                                                                                                                                                                  |                                                                                                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The company declares (based on product specification or test results based obtained from sample testing), that the product conforms to the statements given in this declaration. |                                                                                                                                                                                                       |
| Type of product *                                                                                                                                                                | Notebook PC                                                                                                                                                                                           |
| Commercial name *                                                                                                                                                                | HP EliteBook 645 14 inch G11 Notebook PC ENERGY STAR                                                                                                                                                  |
| Model number *                                                                                                                                                                   | 645 G11                                                                                                                                                                                               |
| Issue date *                                                                                                                                                                     | 4/19/2024                                                                                                                                                                                             |
| Intended market *                                                                                                                                                                | <input checked="" type="checkbox"/> Global <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Asia, Pacific & Japan <input type="checkbox"/> Americas <input type="checkbox"/> Other |
| Additional information                                                                                                                                                           |                                                                                                                                                                                                       |

This is an uncontrolled copy when in printed form. Please refer to the contact information for the latest version.

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|                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>About Annex B2</b><br>Annex B2 reflects Product environmental attributes relevant for Computers and Computer Monitors. The following items from the ECMA-370 Main body are not shown in the template:<br>P4.1 – P4.3 Consumable materials<br>P9.1 TEC and Print speed<br>P10.2 - P10.3 Chemical emissions from printing products<br>P11.1 - P11.3 Consumable materials for printing products. |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                |           |      |                                                                                     |
|----------------|-----------|------|-------------------------------------------------------------------------------------|
| Model number * | 645 G11   | Logo |  |
| Issue date *   | 4/19/2024 |      |                                                                                     |

| Product environmental attributes - Legal requirements |                                                                                                                                                                                                                                                                                                                                                                                                                                          | Requirement met                     |                                     |                          |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|--------------------------|
| Item                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                          | Yes                                 | No                                  | n.a.                     |
| <b>P1</b>                                             | <b>Hazardous substances and preparations</b>                                                                                                                                                                                                                                                                                                                                                                                             |                                     |                                     |                          |
| P1.1*                                                 | Products do comply with current European RoHS Directive. (See legal reference and NOTE B1)                                                                                                                                                                                                                                                                                                                                               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                          |
| P1.2*                                                 | Products do not contain Asbestos (see legal reference).<br>Comment: Legal reference has no maximum concentration value.                                                                                                                                                                                                                                                                                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                          |
| P1.3*                                                 | Products do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), hydrobromofluorocarbons (HBFC), hydrochlorofluorocarbons (HCFC), Halons, carbontetrachloride, 1,1,1-trichloroethane, methyl bromide (see legal reference). Comment: Legal reference has no maximum concentration values.                                                                                                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                          |
| P1.4*                                                 | Products do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polychlorinated terphenyl (PCT) in preparations (see legal reference).                                                                                                                                                                                                                                                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                          |
| P1.5*                                                 | Products do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 carbon atoms in the chain containing at least 48% per mass of chlorine in the SCCP (see legal reference).                                                                                                                                                                                                                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                          |
| P1.6*                                                 | Parts with direct and prolonged skin contact do not release nickel in concentrations above 0,5 µg/cm <sup>2</sup> /week (see legal reference).<br>Comment: Max limit in legal reference when tested according to EN1811:2011-5.                                                                                                                                                                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| P1.7*                                                 | REACH Article 33 information about substances in articles is available at (add URL or mail contact):<br><a href="#">REACH Article 33 Declarations (hp.com)</a>                                                                                                                                                                                                                                                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| <b>P2</b>                                             | <b>Batteries</b>                                                                                                                                                                                                                                                                                                                                                                                                                         |                                     |                                     |                          |
| P2.1*                                                 | If the product contains a battery or an accumulator, the battery/accumulator is labeled with the disposal symbol. Information on proper disposal is provided in user manual. (See legal reference)                                                                                                                                                                                                                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| P2.2*                                                 | Batteries or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadmium. (See legal reference)                                                                                                                                                                                                                                                                                                                        | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| P2.3*                                                 | Batteries and accumulators are readily removable. (See legal reference)                                                                                                                                                                                                                                                                                                                                                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| P2.4*                                                 | Documentation includes the number of cycles the (secondary) battery can withstand. (See legal reference)                                                                                                                                                                                                                                                                                                                                 | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| P2.5*                                                 | When internal batteries of a notebook computer cannot be "accessed and replaced by a nonprofessional user", the related text is present and legible on the external packaging (see legal reference)                                                                                                                                                                                                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| <b>P3</b>                                             | <b>Conformity verification &amp; Eco design (ErP)</b>                                                                                                                                                                                                                                                                                                                                                                                    |                                     |                                     |                          |
| P3.1*                                                 | The product is CE-marked to show conformance with applicable legal requirements (see legal reference). The Declaration of Conformity can be requested at (add link or e-mail address):<br><a href="http://www8.hp.com/uk/en/certifications/technical/regulations-certificates.html">http://www8.hp.com/uk/en/certifications/technical/regulations-certificates.html</a> <a href="mailto:sustainability@hp.com">sustainability@hp.com</a> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| P3.2*                                                 | The product complies with the applicable Eco design requirements for energy-related products, (see legal reference).<br>Required information is; <input checked="" type="checkbox"/> given in item P15 or added to this document,<br><input type="checkbox"/> available at (add URL):                                                                                                                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| <b>P5</b>                                             | <b>Product packaging</b>                                                                                                                                                                                                                                                                                                                                                                                                                 |                                     |                                     |                          |
| P5.1*                                                 | Packaging and packaging components do not contain more than 0,01% lead, mercury, cadmium and hexavalent chromium by weight of these together.                                                                                                                                                                                                                                                                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                          |
| P5.2*                                                 | The packaging materials are marked with abbreviations and numbers indicating the nature of the material(s) used (see legal reference).                                                                                                                                                                                                                                                                                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| P5.3*                                                 | The product packaging material is free from ozone depleting substances as specified in the Montreal Protocol (see legal reference).<br>Comment: Legal reference has no maximum concentration values.                                                                                                                                                                                                                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| <b>P6</b>                                             | <b>Treatment information</b>                                                                                                                                                                                                                                                                                                                                                                                                             |                                     |                                     |                          |
| P6.1*                                                 | Information for recyclers/treatment facilities is available (see legal reference).                                                                                                                                                                                                                                                                                                                                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |

NOTE B1 Restriction applies to the homogeneous material, unless other specified and expressed in weight %. Stating "Yes" means that the product is compliant with the mandatory requirements.

|                |           |      |                                                                                     |
|----------------|-----------|------|-------------------------------------------------------------------------------------|
| Model number * | 645 G11   | Logo |  |
| Issue date *   | 4/19/2024 |      |                                                                                     |

| Product environmental attributes - Market requirements (See General NOTE GN below) |                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                     |                                     |
|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| - Environmental conscious design                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                  | Requirement met                     |                                     |
| Item                                                                               | *=mandatory to fill in. Additional information regarding each item may be found under P14.                                                                                                                                                                                                                                                                                                                                       | Yes                                 | No n.a.                             |
| <b>P7 Design</b>                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                     |                                     |
| <b>Disassembly, recycling</b>                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                     |                                     |
| P7.1*                                                                              | Parts that have to be treated separately are easily separable                                                                                                                                                                                                                                                                                                                                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| P7.2*                                                                              | Plastic materials in covers/housing have no surface coating.                                                                                                                                                                                                                                                                                                                                                                     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| P7.3*                                                                              | Plastic parts > 100 g consist of one material or of easily separable materials.                                                                                                                                                                                                                                                                                                                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| P7.4*                                                                              | Plastic parts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.                                                                                                                                                                                                                                                                                                                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| P7.5                                                                               | Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.                                                                                                                                                                                                                                                                                                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| P7.6*                                                                              | Labels are easily separable. (This requirement does not apply to safety/regulatory labels).                                                                                                                                                                                                                                                                                                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| <b>Product lifetime</b>                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                     |                                     |
| P7.7*                                                                              | Upgrading can be done e.g. with processor, memory, cards or drives                                                                                                                                                                                                                                                                                                                                                               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| P7.8*                                                                              | Upgrading can be done using commonly available tools                                                                                                                                                                                                                                                                                                                                                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| P7.9                                                                               | Spare parts are available after end of production for: 5 years                                                                                                                                                                                                                                                                                                                                                                   |                                     | <input type="checkbox"/>            |
| P7.10                                                                              | Service is available after end of production for: 5 years                                                                                                                                                                                                                                                                                                                                                                        |                                     | <input type="checkbox"/>            |
| <b>Material and substance requirements</b>                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                     |                                     |
| P7.11*                                                                             | Product cover/housing material type (e.g. plastics, metal, aluminum):<br>Material type: <b>aluminium</b> Material type: <b>stainless steel</b> Material type:                                                                                                                                                                                                                                                                    |                                     |                                     |
| P7.12                                                                              | Insulation materials of external electrical cables are PVC free.                                                                                                                                                                                                                                                                                                                                                                 | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| P7.13                                                                              | Insulation materials of internal electrical cables are PVC free.                                                                                                                                                                                                                                                                                                                                                                 | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| P7.14                                                                              | External plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) bromine and 0,1% weight (1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flame retardants, and polyvinyl chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine in parts containing more than 25% post-consumer recycled content.                                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| P7.15                                                                              | Printed circuit boards, PCBs (without components) are low halogen: all <input type="checkbox"/> PCBs > 25 g <input checked="" type="checkbox"/> are low halogen as defined in IEC 61249-2-21. (See <sup>5</sup> NOTE B2)                                                                                                                                                                                                         | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| P7.16                                                                              | Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4:<br>Marking:                                                                                                                                                                                                                                                                                                                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| P7.17                                                                              | Alt. 1: Chemical specifications of flame retardants in printed circuit boards > 25 g (without components):<br>TBBPA (additive) <input type="checkbox"/> , TBBPA (reactive) <input type="checkbox"/> (See NOTE B3), Other; chemical name: , CAS #:<br><br>Alt. 2: Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g according ISO 1043-4: <b>FR(40)</b>                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| P7.18                                                                              | Alt. 1: Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations in concentrations above 0,1%:<br>1. Chemical name: , CAS #: (See NOTE B4)<br>2. Chemical name: , CAS #: "<br>3. Chemical name: , CAS #: "<br><br>Alt. 2: Chemical specifications of flame retardants in plastic parts > 25 g according ISO 1043-4:                                                                     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| P7.19                                                                              | In plastic parts > 25 g, flame retardant substances/preparations above 0,1% are used which have been assigned the following Risk phrases; and Hazard statements: The source(s) for these classifications is/are found at (add URL(s)): <a href="http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database">http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database</a> (See note B5) | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

GENERAL NOTE Standard references should direct to the latest version of a standard. If an older version of a standard is used, section P15 shall be used for explanation.

NOTE B2 IEC 61249-2-21 defines maximum limits of 900 ppm for each of the substances chlorine and bromine and a maximum limit of 1500ppm of these substances combined. The standard does not address fluorine, iodine and astatine which are included in the group of halogens.

NOTE B3 and B4 A Guidance document on Chemical substances is available; see <http://www.ecma-international.org/publications/standards/Ecma-370.htm>.

NOTE B5 If a certain substance has been assigned a certain risk phrases / hazard statement in the referenced source, this does not necessarily mean the substance has been tested for all of the hazards referred to by a certain customer.

|                |           |      |                                                                                     |
|----------------|-----------|------|-------------------------------------------------------------------------------------|
| Model number * | 645 G11   | Logo |  |
| Issue date *   | 4/19/2024 |      |                                                                                     |

| Product environmental attributes - Market requirements (continued)                                             |                                                                                                                                                                |                         |                         |                                                       | Requirement met                     |                                     |                                     |
|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------------------|-------------------------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Item                                                                                                           |                                                                                                                                                                |                         |                         |                                                       | Yes                                 | No                                  | n.a.                                |
| Material and substance requirements (continued)                                                                |                                                                                                                                                                |                         |                         |                                                       |                                     |                                     |                                     |
| P7.20*                                                                                                         | Postconsumer recycled plastic material content is used in the product (See NOTE B6):                                                                           |                         |                         |                                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
|                                                                                                                | If YES; at least one of the two alternatives below shall be answered;                                                                                          |                         |                         |                                                       |                                     |                                     |                                     |
|                                                                                                                | a) Of total plastic parts' weight > 25 g, the postconsumer recycled plastic material content (calculated as a percentage of total plastic by weight) is 23.4%. |                         |                         |                                                       |                                     |                                     |                                     |
|                                                                                                                | or                                                                                                                                                             |                         |                         |                                                       |                                     |                                     |                                     |
|                                                                                                                | b) The weight of recycled material is g.                                                                                                                       |                         |                         |                                                       |                                     |                                     |                                     |
| P7.21*                                                                                                         | Biobased plastic material content is used in the product (See NOTE B7):                                                                                        |                         |                         |                                                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|                                                                                                                | If YES; at least one of the two alternatives below shall be answered;                                                                                          |                         |                         |                                                       |                                     |                                     |                                     |
|                                                                                                                | a) Of total plastic parts' weight > 25 g, the biobased plastic material content (calculated as a percentage of total plastic by weight) is %.                  |                         |                         |                                                       |                                     |                                     |                                     |
|                                                                                                                | or                                                                                                                                                             |                         |                         |                                                       |                                     |                                     |                                     |
|                                                                                                                | b) The weight of the biobased plastic material is g.                                                                                                           |                         |                         |                                                       |                                     |                                     |                                     |
| P7.22*                                                                                                         | Light sources are free from mercury, i.e. less than 0,1 mg/lamp.                                                                                               |                         |                         |                                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
|                                                                                                                | If mercury is used specify: Number of lamps: and maximum mercury content per lamp: 0 mg                                                                        |                         |                         |                                                       |                                     |                                     |                                     |
| P7.23*                                                                                                         | If product includes an integral display, the total mercury content in the integrated display: 0 mg                                                             |                         |                         |                                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| P8 Batteries                                                                                                   |                                                                                                                                                                |                         |                         |                                                       |                                     |                                     |                                     |
| P8.1*                                                                                                          | Battery chemical composition:                                                                                                                                  |                         |                         |                                                       |                                     |                                     | <input checked="" type="checkbox"/> |
| P9 Energy consumption (See NOTE B8)                                                                            |                                                                                                                                                                |                         |                         |                                                       |                                     |                                     |                                     |
| P9.1                                                                                                           | For the product the following power levels or energy consumptions are reported:                                                                                |                         |                         |                                                       |                                     |                                     |                                     |
| Energy mode *                                                                                                  | Power level at 100 V AC                                                                                                                                        | Power level at 115 V AC | Power level at 230 V AC | Reference/Standard for energy modes and test method * | <input type="checkbox"/>            |                                     |                                     |
| EPS No-load<br>(External power supply / charger plugged in the wall outlet but disconnected from the product.) | 0.044 W                                                                                                                                                        | 0.045 W                 | 0.080 W                 | EPS Energy Test Report                                |                                     |                                     |                                     |
| PTEC *<br>Typical Energy Consumption                                                                           | N/A W                                                                                                                                                          | N/A W                   | N/A W                   | EnergyStar@ Program Requirements for Computer         | <input checked="" type="checkbox"/> |                                     |                                     |
| ETEC *<br>Annual Energy Consumption                                                                            | 13.89 kWh/year                                                                                                                                                 | 14.62 kWh/year          | 15.08 kWh/year          | EnergyStar@ Program Requirements for Computer         | <input type="checkbox"/>            |                                     |                                     |
| External Power Supply Efficiency Level (International Efficiency Marking Protocol) *: VI                       |                                                                                                                                                                |                         |                         | EnergyStar@ Program Requirements for Computer         | <input type="checkbox"/>            |                                     |                                     |
| Display resolution * : 1920*1200 megapixels                                                                    |                                                                                                                                                                |                         |                         | EnergyStar@ Program Requirements for Computer         | <input type="checkbox"/>            |                                     |                                     |
| Default time to enter energy save mode: minutes                                                                |                                                                                                                                                                |                         |                         | EnergyStar@ Program Requirements for Computer         | <input type="checkbox"/>            |                                     |                                     |
| P9.2*                                                                                                          | Information about the energy save function is provided with the product.                                                                                       |                         |                         |                                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| P9.3                                                                                                           | Energy efficiency class (monitors only):                                                                                                                       |                         |                         |                                                       |                                     |                                     | <input checked="" type="checkbox"/> |

NOTE B6 Applies to a product containing plastic parts whose combined weight exceeds 100 g with the exception of printed circuit boards, cables, connectors and electronic components and bio-based plastic material.

NOTE B7 The following is to be excluded from the calculation of percentage: printed circuit boards, labels, cables, connectors and electronic components and postconsumer recycled plastic

NOTE B8 A Guidance document on Energy Efficiency is available;  
see <http://www.ecma-international.org/publications/standards/Ecma-370.htm>.

|                |           |      |                                                                                     |
|----------------|-----------|------|-------------------------------------------------------------------------------------|
| Model number * | 645 G11   | Logo |  |
| Issue date *   | 4/19/2024 |      |                                                                                     |

| Product environmental attributes - Market requirements (continued) |                                                                                                                                                                                                                                                                   |                               |                                                                      | Requirement met                       |                          |                          |
|--------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|----------------------------------------------------------------------|---------------------------------------|--------------------------|--------------------------|
| Item                                                               |                                                                                                                                                                                                                                                                   |                               |                                                                      | Yes                                   | No                       | n.a.                     |
| <b>P10 Emissions</b>                                               |                                                                                                                                                                                                                                                                   |                               |                                                                      |                                       |                          |                          |
| Noise emission – Declared according to ISO 9296 (See NOTE B9)      |                                                                                                                                                                                                                                                                   |                               |                                                                      |                                       |                          |                          |
| P10.1                                                              | Mode                                                                                                                                                                                                                                                              | Mode description              | Statistical upper limit A-weighted sound power level, $L_{WA,c}$ (B) |                                       |                          |                          |
|                                                                    | Idle                                                                                                                                                                                                                                                              | * Fans on                     | * 2.6                                                                |                                       | <input type="checkbox"/> |                          |
|                                                                    | Operation                                                                                                                                                                                                                                                         | * Operating SSD               | * 3.7                                                                |                                       | <input type="checkbox"/> |                          |
|                                                                    | Other mode                                                                                                                                                                                                                                                        |                               |                                                                      |                                       |                          |                          |
|                                                                    | Measured according to: <input checked="" type="checkbox"/> ISO 7779 <input checked="" type="checkbox"/> ECMA-74<br><input type="checkbox"/> Other (only if not covered by ECMA-74)                                                                                |                               |                                                                      |                                       |                          |                          |
| <b>Electromagnetic emissions</b>                                   |                                                                                                                                                                                                                                                                   |                               |                                                                      |                                       |                          |                          |
| P10.4                                                              | Computer display meets the requirement for low frequency electromagnetic fields of the following voluntary program(s):                                                                                                                                            |                               |                                                                      | <input type="checkbox"/>              | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>P12 Ergonomics for computing products</b>                       |                                                                                                                                                                                                                                                                   |                               |                                                                      |                                       |                          |                          |
| P12.1*                                                             | The display meets the ergonomic requirements of ISO 9241-307 for visual display technologies.                                                                                                                                                                     |                               |                                                                      | <input checked="" type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> |
| P12.2*                                                             | The physical input device meets the requirements of ISO 9995 and ISO 9241-410.                                                                                                                                                                                    |                               |                                                                      | <input checked="" type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>P13 Packaging and documentation</b>                             |                                                                                                                                                                                                                                                                   |                               |                                                                      |                                       |                          |                          |
| P13.1*                                                             | Product packaging material type(s): PAPER/ Corrugated                                                                                                                                                                                                             |                               | weight (kg): 0.230                                                   |                                       |                          |                          |
|                                                                    | Product packaging material type(s): PAPER/Molded Pulp                                                                                                                                                                                                             |                               | weight (kg): 0.140                                                   |                                       |                          |                          |
|                                                                    | Product packaging material type(s): PAPER/paperboard                                                                                                                                                                                                              |                               | weight(kg):0.014                                                     |                                       |                          |                          |
|                                                                    | Product packaging material type(s): PLASTIC/Polyethylene low density – LDPE                                                                                                                                                                                       |                               | weight(kg):0.016                                                     |                                       |                          |                          |
| P13.2*                                                             | Product plastic primary packaging is free from PVC.                                                                                                                                                                                                               |                               |                                                                      | <input checked="" type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> |
| P13.3*                                                             | For product primary corrugated fiberboard packaging, specify the contained percentage of minimum post-consumer recovered fiber content: 58 %                                                                                                                      |                               |                                                                      |                                       |                          | <input type="checkbox"/> |
| P13.4*                                                             | Specify media for user and product documentation (tick box):<br>Electronic <input type="checkbox"/> , Paper <input type="checkbox"/> , Other <input checked="" type="checkbox"/> Available on HP.com                                                              |                               |                                                                      |                                       |                          | <input type="checkbox"/> |
| P13.5                                                              | (Please only complete this item if paper documentation used)<br>User and product documentation on paper media is chlorine-free:<br>If Yes, please specify:<br><br>Totally chlorine-free<br>Elemental chlorine-free<br>Processed chlorine-free                     |                               |                                                                      | <input checked="" type="checkbox"/>   | <input type="checkbox"/> |                          |
| <b>P14 Voluntary programs</b>                                      |                                                                                                                                                                                                                                                                   |                               |                                                                      |                                       |                          |                          |
| P14.1                                                              | The product meets the requirements of the following voluntary program(s):                                                                                                                                                                                         |                               |                                                                      |                                       |                          |                          |
|                                                                    | ENERGY STAR®                                                                                                                                                                                                                                                      | Criteria version: 8.0         | Date: 4/19/2024                                                      | Product category: Commercial Notebook |                          |                          |
|                                                                    | Eco-label: EPEAT                                                                                                                                                                                                                                                  | Criteria version: IEEE 1680.1 | Date: 4/19/2024                                                      | Product category: Commercial Notebook |                          |                          |
|                                                                    | Eco-label: TCO                                                                                                                                                                                                                                                    | Criteria version: 9.0         | Date: 4/19/2024                                                      | Product category: Commercial Notebook |                          |                          |
| <b>P15 Additional information (See NOTE B10)</b>                   |                                                                                                                                                                                                                                                                   |                               |                                                                      |                                       |                          |                          |
| P9                                                                 | Energy consumption of computer products; description of the tested product configuration:                                                                                                                                                                         |                               |                                                                      |                                       |                          |                          |
| All Sections                                                       | 1. Product environmental information contained in this declaration is valid as of the date the declaration is published.<br>Changes to external standards referenced in the IT Eco-Declaration may invalidate some information contained in this declaration over |                               |                                                                      |                                       |                          |                          |
| P1                                                                 | 1. This product does not include DEHP, BBP, DIBP, or DBP.                                                                                                                                                                                                         |                               |                                                                      |                                       |                          |                          |

NOTE B9 A Guidance document on Acoustic Noise is available;  
see <http://www.ecma-international.org/publications/standards/Ecma-370.htm>.

NOTE B10 Additional lines may be inserted to declare further items, by positioning the cursor at the far right of the row and hitting the <Enter> key.

**P7 Product Upgradability and Reparability**

The following table is provided in accordance with IEEE 1680.1-2018<sup>6</sup> criterion 4.4.2.5.

| feature                                     | Available[1] | Repairable[2] | Replaceable[2] | Upgradeable[3] |
|---------------------------------------------|--------------|---------------|----------------|----------------|
| processor                                   | Y            | Y             | Y*             | N              |
| main memory                                 | Y            | Y             | Y              | Y              |
| mass storage (internal)                     | Y            | Y             | Y              | Y              |
| wireless networking                         | Y            | Y             | Y              | Y              |
| integrated graphics                         | Y            | Y             | Y*             | N              |
| discrete graphics                           | N            | N/A           | N/A            | N/A            |
| display panel                               | Y            | Y             | Y              | Y              |
| integrated keyboard                         | Y            | Y             | Y              | Y              |
| battery                                     | Y            | Y             | Y              | N              |
| power supply                                | Y            | Y             | Y              | Y              |
| fan assemblies                              | Y            | Y             | Y              | N              |
| speaker(s) (internal)                       | Y            | Y             | Y              | N              |
| camera                                      | Y*           | Y             | Y              | N              |
| touchpad                                    | Y            | Y             | Y              | N              |
| I/O connectors and external power connector | Y            | Y             | Y              | N              |
| readers [5]                                 | Y*           | Y             | Y              | N              |

**Table notes:**

[1] Y\* = feature is available, but may not be included in every configuration

[2] Product can be repaired (returned to fully functional state) if feature fails.

[3] Feature can be replaced using only commonly available tools without soldering or de-soldering. Y\* = replacement may require replacing an assembly to which the feature is attached.

[4] Base feature may be upgraded by replacing it with a higher performance module or by expanding capacity through use of expansion slots. NOTE: This evaluation does not account for situations in which the initial configuration purchased is already maximized. Contact HP Sales or an HP authorized reseller to determine the availability of upgrade parts and method to obtain them in your geography.

[5] This feature category includes readers such as fingerprint readers, smart card readers, and other read-only devices, but excludes read/write devices.

**P9 1. European Union Commission Regulation 1275/2008- Energy Efficiency Information:**

| Mode / Condition                                                                                                                               | Power Consumption in Watts at 230 VAC Input Voltage | Default Time to Mode / Condition (if applicable) |
|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|--------------------------------------------------|
| Off Mode (if applicable)                                                                                                                       | <b>0.38W</b>                                        | Not Applicable                                   |
| Standby Mode (if applicable)                                                                                                                   | Not Applicable                                      | Not Applicable                                   |
| Network Standby / Sleep / Long Idle Mode if all wired network ports are connected and all wireless network ports are activated (if applicable) | <b>N/A</b>                                          | <b>N/A</b>                                       |
| Network Standby / Sleep / Long Idle Mode (if applicable)                                                                                       | <b>N/A</b>                                          | <b>N/A</b>                                       |

**2. European Union Commission Regulation 1275/2008- Wireless Network Instructions:**

Where applicable, activate and deactivate a wireless network using the instructions provided in the product user guide or the operating system. Information is also available at [www.hp.com/support](http://www.hp.com/support).

**P10 Sound Pressure Level**

**Noise emission** – Declared according to ISO 9296 (See NOTE <sup>B9</sup>)

| P10.1                                                                                                           | Mode       | Mode description       | Statistical upper limit A-weighted sound pressure level, $L_{pA,m}$ (dB) |
|-----------------------------------------------------------------------------------------------------------------|------------|------------------------|--------------------------------------------------------------------------|
|                                                                                                                 | Idle       | <b>* Fans on</b>       | <b>* 14.8</b>                                                            |
|                                                                                                                 | Operation  | <b>* Operating SSD</b> | <b>* 29.1</b>                                                            |
|                                                                                                                 | Other mode |                        |                                                                          |
| Measured according to: <input checked="" type="checkbox"/> ISO 7779 <input checked="" type="checkbox"/> ECMA-74 |            |                        |                                                                          |

<sup>6</sup> IEEE Standard for Environmental and Social Responsibility Assessment of Computers and Displays

## Legal references Europe Annex B2

| Reference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Declaration item                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| Directive 2011/65/EU (RoHS Directive)*<br>* Specific exemptions apply for certain products and applications.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | P1.1, P3.1                          |
| Regulation (EC) 1907/2006 (REACH Regulation), annex XVII                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | P1.2, P1.4, P1.6, P1.7              |
| Regulation (EC) 2037/2000, 2038/2000, 2039/2000 (Marketing and use of Ozone layer depleting substances)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | P1.3, P5.3                          |
| Norwegian regulation relating to restrictions on the use of certain dangerous chemicals 20.12.2002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | P1.5                                |
| Directive 2006/66/EC (Battery and accumulators Directive), as amended.*<br>* These provisions shall not apply where, for safety, performance, medical or data integrity reasons, continuity of power supply is necessary and requires a permanent connection between the appliance and the battery or accumulator.                                                                                                                                                                                                                                                                               | P2.1, P2.2, P2.3, P8.1              |
| Directive 2014/35/EU (Low Voltage Directive)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | P3.1                                |
| Directive 2014/30/EU (EMC Directive)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | P3.1                                |
| Directive 2014/53/EU (RE Directive)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | P3.1                                |
| Regulation (EC) 801/2013 amending Regulation (EC) No 1275/2008 with regard to ecodesign requirements for standby, off mode electric power consumption of electrical and electronic household and office equipment, and amending Regulation (EC) No 642/2009 with regard to ecodesign requirements for televisions                                                                                                                                                                                                                                                                                | P3.1, P3.2                          |
| Commission Regulation (EC) No 278/2009 of 6 April 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for no-load condition electric power demand and average active efficiency of external power supplies                                                                                                                                                                                                                                                                                                                | P3.1, P3.2, P9.1                    |
| COMMISSION REGULATION (EU) No 617/2013 of 26 June 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for computers and computer servers                                                                                                                                                                                                                                                                                                                                                                                 | P2.4, P2.5, P3.1, P3.2, P7.23, P9.1 |
| Regulation (EC) No 1272/2008 (CLP Regulation)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | P7.19                               |
| Directive 2004/12/EC (Packaging Directive)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | P5.1                                |
| Decision 97/129/EC (Secondary packaging legislation)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | P5.2                                |
| Directive 2012/19/EU (WEEE directive)<br><br>Implementing Regulation (EU) 2019/290 establishing the format for registration and reporting of producers of electrical and electronic equipment to the register.<br><br>Commission Implementing Regulation 2017/699 establishing a common methodology for the calculation of the weight of electrical and electronic equipment (EEE) placed on the national market in each Member State and a common methodology for the calculation of the quantity of waste electrical and electronic equipment (WEEE) generated by weight in each Member State. | P6.1                                |

# Product Carbon Footprint Report

16-Apr-2024

## HP EliteBook 645 14 inch G11 Notebook PC ENERGY STAR

### Estimated impact

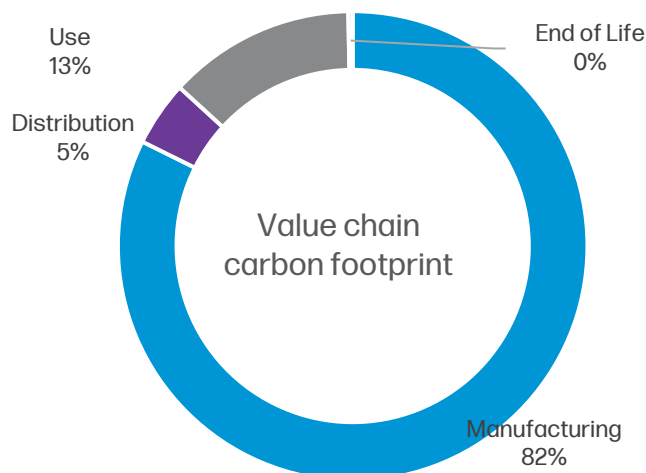
240  
kg CO<sub>2</sub> eq.



As part of HP's commitment to continually improve the environmental performance of our products, we utilize product carbon footprinting (PCF) to better understand environmental impacts that occur at different stages of the product life cycle. A product carbon footprint is defined as the total amount of greenhouse gases emitted directly and indirectly by a product over its lifetime. Greenhouse gas emissions are reported as global warming potential for 100-year time horizon (GWP-100) in units of CO<sub>2</sub> equivalence. Our product carbon footprints include full value chain emissions, which incorporate carbon emissions due to raw materials extraction, manufacturing, distribution, use, and product end-of-use.

The information provided here represents the lifecycle carbon footprint of an industry-average notebook computer with the specifications listed in Assumptions table.

### GHG Emissions



### Manufacturing Breakout

|                                     |     |
|-------------------------------------|-----|
| Solid State Drive (SSD)             | 55% |
| Mainboard and other boards          | 19% |
| Display                             | 15% |
| Chassis                             | 4%  |
| Batteries                           | 3%  |
| Power Supply Unit & External Cables | 2%  |
| Others*                             | 2%  |

HP's environmental impact calculations are done in accordance with ISO 14040/44. All estimates of impact results are uncertain, resulting largely from data limitations and data quality. To mitigate this uncertainty, HP has developed HP-specific tools that use a combination of HP processes and product data, as well as high-quality lifecycle assessment data. HP strives to provide the most accurate environmental impact results but uncertainty will never be completely minimized and results should be considered accordingly.

### Assumptions

|                              |               |
|------------------------------|---------------|
| Lifetime of product (years)  | 4             |
| Use location                 | North America |
| Use energy demand (kWh/year) | 14.62         |
| Product weight (kg)          | 1.69          |
| Screen size (in)             | 14            |
| Final manufacturing location | China         |

### Additional product environmental performance

Additional information about HP's carbon footprinting program can be found in HP's yearly Sustainability Report, which is available on the HP Sustainability website.

The site also contains IT Eco Declarations, which provide product-specific environmental information, as well as information on HP's product recycling programs.

\* Others section includes assembly energy, other subassemblies and all subassemblies packaging and transport

### Learn more at

[HP's Sustainability Website](#)

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