VERLIN
SOLUÇÕES EM TI

Bento Gonçalves, quarta-feira, 25 de agosto de 2021

PROPOSTA FINANCEIRA

AO
MUNICÍPIO DE COTIPORÃ-RS
PREGÃO ELETRÔNICO Nº 0008/2021
A/C PREGOEIRO OFICIAL

Lote	Item	Qtd	UND	Marca	Modelo	Descrição do Produto	Valor Unitário	Valor Total
28	28	20	UND	HP	Pro A G3 (Ryzen 3 PRO 3200G) + Monitor V22B + Care Pack U6578E	Descrição do Produto Conforme Anexo de Referência deste Edital ou Anexo de Referencia contido nesta proposta.	**R$ 6.340,00**	**R$ 126.800,00**
33	33	10	UND	HP	V22B	Descrição do Produto Conforme Anexo de Referência deste Edital ou Anexo de Referencia contido nesta proposta.	**R$ 1.440,00**	**R$ 14.400,00**

Preços cotados para entrega e instalação conforme edital;

1. **Prazo de entrega: Conforme Edital;**
2. **Período de Garantia e Assistência Técnica Conforme Edital;**
    a. **A Verlin dispõe de Serviço 0800 para chamadas gratuitas, para fins de esclarecimentos técnicos e abertura de atendimentos e chamados através do número 0800 887 8800.**
3. **Prazo de pagamento conforme termos do edital;**
4. **Cumpre-nos informar-lhes ainda que examinamos os documentos da licitação, inteirando-nos dos mesmos para elaboração da presente proposta. E em consonância aos referidos documentos, declaramos:**
    a. **Que estamos cientes e concordamos com os Termos do Edital em epígrafe e das cláusulas da minuta do contrato em anexo;**
    b. **Que o prazo de validade da presente proposta, contados a partir da data de abertura do conjunto proposta, é de 60 (sessenta) dias ou conforme edital;**
    c. **Que nos preços apresentados já estão contemplados todos os encargos, principalmente os impostos e ou descontos ou vantagens, e frete para a entrega dos materiais.**
5. **Obs.: O preenchimento da presente proposta acarretará na íntegra conformidade de nossa empresa com todas as características do objeto e exigências constantes no edital.**
6. **Contas Bancárias**
    a. **Banco do Brasil, Agência: 2969-6, Conta Corrente: 19919-2;**
    b. **Caixa Econômica Federal, Agência: 3060, Conta Corrente: 933-4 OP: 003;**
    c. **Banrisul, Agência: 0128, Conta Corrente: 06.040764.0-6;**
7. **O responsável pela assinatura do contrato é o representante legal Willian Verlin de Oliveira, CPF: 754.636.012-91, RG: 001244674 SSP/MS, residente na Rua Antônio Michelon, 722 Apto 2, bairro Santa Rita na cidade de Bento Gonçalves/RS.**

WILLIAN VERLIN DE OLIVEIRA:75463601291
Assinado de forma digital por WILLIAN VERLIN DE OLIVEIRA:75463601291
Dados: 2021.08.25 11:36:04 -03'00'

Verlin Soluções em TI

DESCRIÇÃO GERAL DOS ITENS OFERTADOS

ITEM 28

Desktop HP Pro A G3
Processador AMD Ryzen™ 3 PRO 3200G
Monitor V22b
Extensão de Garantia Care Pack -U6578E

QuickSpec: https://www8.hp.com/h20195/v2/GetPDF.aspx/c06471245.pdf
Datasheet: https://www8.hp.com/h20195/v2/GetPDF.aspx/4AA7-6362EEAP.pdf
AMD Ryzen™ 3 PRO: https://www.amd.com/pt/products/apu/amd-ryzen-3-pro-3200g
PassMark: https://www.cpubenchmark.net/cpu.php?cpu=AMD+Ryzen+3+PRO+3200G&id=3570
80 Plus:
https://clearesult5.sharepoint.com/sites/PLS/Shared%20Documents/Forms/AllItems.aspx?id=%2Fsites%2FPLS%2FShared%20Documents%2FHP%2C%20INC%2E%5F%20%28HP%2C%20INC%2E%29%20DPS%2D310AB%2D3%20A%5F310W%5FSOCE%205190%5FReport%2Epdf&parent=%2Fsites%2FPLS%2FShared%20Documents&p=true&originalPath=aHR0cHM6Ly9jbGVhcmVzdWx0NS5zaGFyZXBvaW50LmNvbS86Yjovcy9QTFMvRWVwR3ZDZ2tiR0pQblVzellINzduU29CVEx1MjlLMzQybnJaYzAwejVXaGhZZz9ydGltZT1HZWREcE5GbjJVZw
QuickSpec V22b: https://www8.hp.com/h20195/v2/GetDocument.aspx?docname=c06002337
DMTF: https://www.dmtf.org/about/list
UEFI: https://uefi.org/members

DESKTOP CORPORATIVO COMPLETO COM AS SEGUINTES CARACTERÍSTICAS MÍNIMAS: OS EQUIPAMENTOS DEVEM PERTENCER À LINHA CORPORATIVA, SEREM NOVOS, SEM USO E ESTAR EM LINHA DE PRODUÇÃO, NÃO SENDO ACEITOS EQUIPAMENTOS DESTINADOS AO USO DOMÉSTICO OU DESCONTINUADOS, APRESENTAR DECLARAÇÃO DO FABRICANTE COM A PROPOSTA, COM EMISSÃO NÃO SUPERIOR A 30 DIAS. **PROCESSADOR** – DEVERÁ POSSUIR 4 NÚCLEOS FÍSICOS, FREQUÊNCIA BASE DE 3.6 GHZ, COM CARACTERÍSTICAS E DESEMPENHO EQUIVALENTE OU SUPERIOR AO ÍNDICE DE 6.500 PONTOS REGISTRADO PASSMARK – CPU BENCHMARKS DISPONÍVEL NO SITE HTTP://WWW.CPUBENCHMARK.NET/CPU_LIST.PHP. **MEMÓRIA** - DEVERÁ POSSUIR 8GB DE MEMÓRIA DDR4 INSTALADA, OPERANDO A 2.666 MHZ; **UNIDADE DE ARMAZENAMENTO** – DEVERÁ ESTAR INSTALADA INTERNAMENTE AO EQUIPAMENTO, DO TIPO SSD COM CAPACIDADE MÍNIMA DE 240GB, DO PRÓPRIO FABRICANTE DO COMPUTADOR OU HOMOLOGADA PELO MESMO. **PLACA PRINCIPAL** – A PLACA MÃE DEVERÁ SER DA MESMA MARCA DO FABRICANTE DO EQUIPAMENTO, DESENVOLVIDA ESPECIFICAMENTE PARA O MODELO OFERTADO, NÃO SENDO ACEITAS SOLUÇÕES EM REGIME DE OEM OU CUSTOMIZADAS. DEVERÁ POSSUIR 2 (DOIS) SLOTS PARA EXPANSÃO DE PLACAS DO TIPO PCIE X1 E PCIE X16 E 2 (DOIS) PARA MEMÓRIA, PERMITINDO A EXPANSÃO PARA 32GB. DEVERÁ POSSUIR 4 (QUATRO) INTERFACES USB 3.0 OU SUPERIOR, NÃO SERÁ ACEITO O USO DE ADAPTADORES PARA ATENDER ESTA EXIGÊNCIA. DEVERÁ POSSUIR SEGURANÇA INTEGRADA DO TIPO FTPM PARA CRIPTOGRAFIA DE DADOS. DEVERÁ POSSUIR SAÍDAS DE VÍDEO, SENDO 1 (UM) DO TIPO VGA E 1(UM) DO TIPO HDMI OU DISPLAY PORT. DEVERÁ POSSUIR REDE LAN 10/100/1000MBITS CONECTOR RJ45 E INTERFACE DE ÁUDIO INTEGRADOS; **BIOS** – DEVERÁ SER DESENVOLVIDA PELO MESMO FABRICANTE DO COMPUTADOR COM DIREITOS DE COPYRIGHT, EM PORTUGUÊS, NÃO SENDO ACEITAS SOLUÇÕES EM REGIME DE OEM OU CUSTOMIZADAS. AS ATUALIZAÇÕES, QUANDO NECESSÁRIAS, DEVEM SER DISPONIBILIZADAS NO SITE DO FABRICANTE DO COMPUTADOR. APRESENTAR COMPROVAÇÃO COM A PROPOSTA. **ALIMENTAÇÃO** – FONTE DE ALIMENTAÇÃO COM SELEÇÃO AUTOMÁTICA DE TENSÃO DE ENTRADA DE 100 / 240 VOLTS, COM EFICIÊNCIA COMPROVADA DE 87% E CERTIFICAÇÃO 80 PLUS GOLD. **SISTEMA OPERACIONAL** – DEVERÁ VIR INSTALADO SISTEMA OPERACIONAL WINDOWS 10 PROFESSIONAL 64 BITS OEM, COM LICENÇA DE ATIVAÇÃO ATRAVÉS DA BIOS. **PERIFÉRICOS** – TECLADO PADRÃO ABNT-2 E MOUSE ÓPTICO COM CONECTORES USB, DA MESMA MARCA E FABRICANTE DO COMPUTADOR. NÃO SERÃO ACEITOS MODELOS COMPACTOS, FLEXÍVEL, MOBILE, MINI OU SIMILARES. **MONITOR** – MONITOR LED DE NO MÍNIMO 21", COM RESOLUÇÃO FULL HD DE 1920 X 1080, AJUSTE DE ALTURA, INCLINAÇÃO, ROTAÇÃO E ORIENTAÇÃO DO MONITOR. PORTAS DE CONEXÃO HDMI, DP E VGA INTEGRADAS AO MONITOR. POSSUIR ALIMENTAÇÃO BIVOLT, DEVENDO ACOMPANHAR CABOS E MANUAL. O MONITOR DEVERÁ SER DA MESMA MARCA E FABRICANTE DO COMPUTADOR OFERTADO; **GARANTIA** – OS EQUIPAMENTOS DEVEM POSSUIR GARANTIA PADRÃO DO FABRICANTE DO COMPUTADOR, POR UM PERÍODO DE 36 (TRINTA E SEIS) MESES COM EXCEÇÃO DE COMPONENTES DE UPGRADE, COM MÃO-DE-OBRA DE ASSISTÊNCIA TÉCNICA E SERVIÇO DE SUPORTE NO LOCAL PARA REPOSIÇÃO E REPARO DE PEÇAS DANIFICADAS POR PROBLEMAS DE FABRICAÇÃO. O FABRICANTE, DEVE POSSUIR CENTRAL DE ATENDIMENTO TIPO (0800) PARA ABERTURA DOS CHAMADOS DE GARANTIA CAPAZES DE EXECUTAR TAREFAS DE TROUBLESHOOTING E RESOLVER PROBLEMAS DURANTE O PRÓPRIO ATENDIMENTO, COMPROMETENDO-SE A MANTER REGISTROS DOS MESMOS CONSTANDO A DESCRIÇÃO DO PROBLEMA. NÃO SERÃO ACEITAS ADAPTAÇÕES, ADIÇÃO OU SUBTRAÇÃO DE COMPONENTES NO EQUIPAMENTO POR EMPRESAS NÃO AUTORIZADAS, ESTA EXIGÊNCIA VISA A PROCEDÊNCIA E GARANTIA TOTAL DO EQUIPAMENTO PELO FABRICANTE, APRESENTAR COMPROVAÇÃO DO FABRICANTE JUNTAMENTE COM A PROPOSTA. O FABRICANTE DEVERA POSSUIR SITE NA INTERNET PARA DOWNLOADS DE DRIVERS E DOS SOFTWARES ORIGINAIS INSTALADOS NA FÁBRICA, BEM COMO PARA VERIFICAÇÃO STATUS DE GARANTIA VIGENTE. **COMPROVAÇÕES TÉCNICAS** – O COMPUTADOR OFERTADO DEVERÁ ESTAR DE ACORDO COM AS DIRETIVAS ROHS E ENERGY STAR. O FABRICANTE DO EQUIPAMENTO DEVERÁ SER REGISTRADO NA "MEMBERSHIPLIST" DO UNIFIEDEXTENSIBLE FIRMWARE INTERFACE FÓRUM, ACESSÍVEL PELO WEBSITE WWW.UEFI.ORG/MEMBERS, ESTANDO NA CATEGORIA PROMOTERS, DE FORMA A ATESTAR QUE OS SEUS EQUIPAMENTOS ESTÃO EM CONFORMIDADE COM A ESPECIFICAÇÃO UEFI 2.X OU SUPERIOR. A PROPOSTA DEVERÁ DESTACAR CLARAMENTE A MARCA, MODELO E O PROCESSADOR PARA OS EQUIPAMENTOS OFERTADOS, DEVENDO AINDA SER APRESENTADO JUNTAMENTE COM A PROPOSTA, COMPROVAÇÕES OFICIAIS DO FABRICANTE DESTACANDO MODELO OFERTADO, COMPONENTES E GARANTIA. NO CASO DAS CERTIFICAÇÕES EXTRAÍDAS DA INTERNET, APRESENTAR PÁGINA IMPRESSA ONDE CONSTA TAL INFORMAÇÃO, ESPECIFICANDO O ENDEREÇO ELETRÔNICO DA FONTE EXTRAÍDA. PERMITINDO QUE A COMISSÃO DE LICITAÇÃO, COMPROVE PLENO ATENDIMENTO DE TODAS AS CARACTERÍSTICAS TÉCNICAS DO COMPUTADOR E PERIFÉRICOS EM CONFORMIDADE COM AS DESCRITAS NO EDITAL E SEUS ANEXOS, SOB PENA DE DESCLASSIFICAÇÃO DA PROPOSTA

ITEM 33

QuickSpec V22b: https://www8.hp.com/h20195/v2/GetDocument.aspx?docname=c06002337
DMTF: https://www.dmtf.org/about/list
UEFI: https://uefi.org/members

MONITOR LED DE NO MÍNIMO 21" – E COM AS SEGUINTES CARACTERÍSTICAS MÍNIMAS: ÂNGULOS DE VISUALIZAÇÃO AMPLOS DE 178 GRAUS; RESOLUÇÃO FULL HD DE 1920 X 1080; TAXA DE CONTRASTE DINÂMICO DE 10M:1; AJUSTE DE ALTURA, INCLINAÇÃO, ROTAÇÃO E ORIENTAÇÃO DO MONITOR. PORTAS HDMI, DP E VGA INTEGRADAS AO MONITOR; PADRÃO VESA DE 100 MM ALIMENTAÇÃO: ENTRADA 220V OU BIVOLT; **GARANTIA** DE 12 MESES ONSITE OU TROCA DO MONITOR PRESTADO PELO PRÓPRIO FABRICANTE, APRESENTAR COMPROVAÇÃO DO FABRICANTE JUNTAMENTE COM A PROPOSTA, COMPROVANDO O PRAZO E O TIPO DE GARANTIA OFERTADO, SOB PENA DE DESCLASSIFICAÇÃO DA PROPOSTA. DEVERÁ SER APRESENTADO EM ANEXO A PROPOSTA, COMPATIBILIDADE COMPROVADA COM O PROTOCOLO DMI (DESKTOP MANAGEMENT INTERFACE) OU DMI 2.0. ESTA COMPROVAÇÃO PODERÁ SER DISPENSADA, CASO O FABRICANTE DO PRODUTO SEJA MEMBRO DO CONSELHO (LIST MEMBER) DO CONSÓRCIO DMTF (DESKTOP MANAGEMENT TASK FORCE) – DESENVOLVEDOR DO PROTOCOLO DMI – OU EMPRESA SUBSIDIÁRIA DE ALGUM DESTES MEMBROS. DEVERÁ SER APRESENTADO EM ANEXO A PROPOSTA, DOCUMENTAÇÃO COMPLETA (INCLUINDO CATÁLOGOS E/OU MANUAIS DE REFERÊNCIA) SOBRE O EQUIPAMENTO ORIGINAL, EMITIDA PELO FABRICANTE, QUE COMPROVE TODAS AS CARACTERÍSTICAS TÉCNICAS E DE GARANTIA SOLICITADAS. OS EQUIPAMENTOS OFERTADOS, NA PROPOSTA COMERCIAL, DEVEM SER NOVOS (SEM USO, REFORMADOS OU RECONDICIONADOS), BEM COMO DEVEM ESTAR EM LINHA DE FABRICAÇÃO PERTENCENTE À LINHA CORPORATIVA. NÃO SERÃO ACEITOS EQUIPAMENTOS DESTINADOS AO USO DOMÉSTICO, OU SEJA, EQUIPAMENTOS DE LINHA DOMÉSTICA. APRESENTAR COMPROVAÇÃO DO FABRICANTE JUNTAMENTE COM A PROPOSTA.

HP Brasil Indústria e Comércio de Equipamentos Eletrônicos Ltda.
Alameda Xingu, n.º 350, 8º andar
Alphaville Industrial, Barueri/SP
CEP: 06455-030
Brasil

declaração

Barueri, 18 de Agosto de 2021

Ao/À
MUNICÍPIO DE COTIPORÃ

Assunto:
PREGÃO /RFP Nº 0008/2021

BDI 17359

A **HP BRASIL INDÚSTRIA E COMÉRCIO DE EQUIPAMENTOS ELETRÔNICOS LTDA**. (**HP**), em atendimento ao quanto solicitado pelo Parceiro HP **Verlin & Piontkoski Ltda**, declara que:

A empresa **VERLIN TECNOLOGIA DA INFORMAÇÃO LTDA**, inscrita no CNPJ **10.894.828/0001-94** sediada na RUA Rua Lino Colussi, 123, Vinosul, Bento Gonçalves, Rio Grande do Sul - CEP 95701-504, é um **PARCEIRO AUTORIZADO HP PARA COMPRA DE PRODUTOS HP DE DISTRIBUIDORES AUTORIZADOS HP**, estando apto a comercializar Produtos HP.

Declaramos ainda que, os produtos **1Q380LA#AC4-**HP Desktop Pro A G3 **8RE20LA#AC4-**HP Desktop Pro A G3**, 9XM17LA#AC4-**HP Desktop Pro A G3, vendidos pela **HP** a seus **Distribuidores Autorizados** possuem:

- Os equipamentos pertencem à linha corporativa, são novos, sem us.
- A Placa mãe é de fabricação própria e exclusiva para os modelos ofertados
- BIOS em português, desenvolvida pela HP, em conformidade com a normativa NIST 800-147
- Permite a inserção de código de identificação do equipamento dentro do próprio BIOS (número do patrimônio e número de série).
- A BIOS está em conformidade com a normativa NIST 800-147
- Permite salvar as configurações da BIOS em um arquivo e carregá-las em outros equipamentos do mesmo modelo, estando este com senha configurada na BIOS ou não, facilitando assim a aplicação automatizada de configurações e políticas de segurança;
- Software embarcado no BIOS com Funções de diagnóstico de problemas, e gerenciamento permitindo o teste do equipamento, com independência do sistema operacional instalado, o software de diagnóstico é capaz de ser executado (inicializado) a partir da UEFI (Unified Extensible Firmware Interface) ou do Firmware do equipamento através do acionamento de tecla função (F1...F12). O software de diagnóstico é capaz de informar, através de tela gráfica: O fabricante e modelo do equipamento; processador; memória RAM; firmware do equipamento; capacidade do disco rígido.
- Todos os componentes serão integrados em fábrica pela HP

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- Possuem sistema operacional Windows 10 Professional instalado em fábrica com ativação pela BIOS;
- Possuem botão de liga/desliga e luzes de indicação de computador ligado (Power-on) e de acesso ao HD;
- Equipamentos possuem certificação PPB
- Garantia padrão do próprio fabricante conforme solicitado no edital 36 meses on-site, com mão-de-obra e suporte no local para reposição e reparo de peças danificadas por problemas de fabricação.
- A Verlin Tecnologia da Informação Ltda está autorizada a fazer upgrades de unidades de armazenamento, memória e processamento, mantendo-se a garantia padrão HP. A garantia dos componentes utilizados no upgrade possuem a sua própria política de garantia, não sendo "absorvida" pela garantia padrão (ou carepack) do equipamento.

Declaramos ainda que, os produtos **2XM32AA#AC4-**HP V19b 18.5-inch Monitor **2XM33AA#AC4-**HP V22b 21.5-inch Monitor**, 2XM34AA#AC4-**HP V24b 23.6-inch Monitor, vendidos pela **HP** a seus **Distribuidores Autorizados** possuem:

- Os monitores pertencem à linha corporativa, são novos, sem uso.
- A Placa mãe é de fabricação própria e exclusiva para os modelos ofertados
- Possuem botão de liga/desliga e luzes de indicação de computador ligado (Power-on).
- Equipamentos possuem certificação PPB
- Garantia padrão do próprio fabricante conforme solicitado no edital
- Todos os componentes serão integrados em fábrica pela H

Declaramos ainda que, os produtos **3G5A2LA#AK4-**HP 250 G8 **3G5A4LA#AK4-**HP 250 G8**, 4B0D3LA#AK4-**HP 250 G8**, 4B0D4LA#AK4-**HP 250 G8**, 21Y20LA#AC4-**HP 240 G7**, 21Y21LA#AC4-**HP 240 G7 **, 200G5LA#AC4-**HP 240 G7 **200G6LA#AC4-**HP 240 G7, vendidos pela **HP** a seus **Distribuidores Autorizados** possuem

- Os equipamentos pertencem à linha corporativa, são novos, sem us.
- A Placa mãe é de fabricação própria e exclusiva para os modelos ofertados
- BIOS em português, desenvolvida pela HP, em conformidade com a normativa NIST 800-147
- Permite a inserção de código de identificação do equipamento dentro do próprio BIOS (número do patrimônio e número de série).
- A BIOS está em conformidade com a normativa NIST 800-147
- Permite salvar as configurações da BIOS em um arquivo e carregá-las em outros equipamentos do mesmo modelo, estando este com senha configurada na BIOS ou não, facilitando assim a aplicação automatizada de configurações e políticas de segurança;
- Software embarcado no BIOS com Funções de diagnóstico de problemas, e gerenciamento permitindo o teste do equipamento, com independência do sistema operacional instalado, o software de diagnóstico é capaz de ser executado (inicializado) a partir da UEFI (Unified Extensible Firmware Interface) ou do Firmware do equipamento através do acionamento de tecla função (F1...F12). O software de diagnóstico é capaz de informar, através de tela gráfica: O fabricante e modelo do equipamento; processador; memória RAM; firmware do equipamento; capacidade do disco rígido.
- Todos os componentes serão integrados em fábrica pela HP
- Possuem sistema operacional Windows 10 Professional instalado em fábrica com ativação pela BIOS;
- Possuem botão de liga/desliga e luzes de indicação de computador ligado (Power-on) e de acesso ao HD;

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- Equipamentos possuem certificação PPB
- Garantia padrão do próprio fabricante conforme solicitado no edital 36 meses on-site, com mão-de-obra e suporte no local para reposição e reparo de peças danificadas por problemas de fabricação.
- A Verlin Tecnologia da Informação Ltda está autorizada a fazer upgrades de unidades de armazenamento, memória e processamento, mantendo-se a garantia padrão HP . A garantia dos componentes utilizados no upgrade possuem a sua própria politica de garantia, não sendo "absorvida" pela garantia padrão (ou carepack) do equipamento.

Durante o período de garantia do Produto HP, a Fabricante HP responsabiliza-se pela garantia no prazo e condições padrão HP, conforme especificado no termo de garantia que acompanha o Produto HP e no manual técnico do Produto HP.

Serviços adicionais ao especificado na garantia padrão da Fabricante HP poderão ser adquiridos pelo Parceio HP Autorizado para Compra Direta/Distribuidores Autorizados HP, com prazos e condições customizados.

1Q380LA#AC4-HP Desktop Pro A G3-Carepack adicional-U6578E- HP Serviço de Suporte no Local para Desktop por 3 anos para eq 1/1/1
8RE20LA#AC4-HP Desktop Pro A G3-Carepack adicional-U6578E- HP Serviço de Suporte no Local para Desktop por 3 anos para eq 1/1/1
9XM17LA#AC4-HP Desktop Pro A G3-Carepack adicional-U6578E- HP Serviço de Suporte no Local para Desktop por 3 anos para eq 1/1/1

3G5A2LA#AK4-HP 250 G8-Carepack adicional-U9BA7E- HP Serviço de Suporte no Local para Notebook por 3 anos para eq 1/1/0
3G5A4LA#AK4-HP 250 G8-Carepack adicional-U9BA7E- HP Serviço de Suporte no Local para Notebook por 3 anos para eq 1/1/0
4B0D3LA#AK4-HP 250 G8-Carepack adicional-U9BA7E- HP Serviço de Suporte no Local para Notebook por 3 anos para eq 1/1/0
4B0D4LA#AK4-HP 250 G8-Carepack adicional-U9BA7E- HP Serviço de Suporte no Local para Notebook por 3 anos para eq 1/1/0
21Y20LA#AC4-HP 240 G7-Carepack adicional-U9BA7E- HP Serviço de Suporte no Local para Notebook por 3 anos para eq 1/1/0
21Y21LA#AC4-HP 240 G7-Carepack adicional-U9BA7E- HP Serviço de Suporte no Local para Notebook por 3 anos para eq 1/1/0
200G5LA#AC4-HP 240 G7-Carepack adicional-U9BA7E- HP Serviço de Suporte no Local para Notebook por 3 anos para eq 1/1/0
200G6LA#AC4-HP 240 G7-Carepack adicional-U9BA7E- HP Serviço de Suporte no Local para Notebook por 3 anos para eq 1/1/0

Declaramos que os equipamentos fabricados pela HP são novos, que não foram submetidos a uso, nem recondicionamento, ressalvados os testes de fábrica.

Os Produtos da marca HP são de fabricação própria ou homologados por regime de O&M e estão em linha de produção atual.

Declaramos, ainda, que a HP possui site na internet - www.hp.com.br – onde pode ser efetuado download de drivers para os Produtos HP e número de telefone para Grande São Paulo – (011) 4004-7751 e demais regiões – 0800 709 77 51 - para informações e aberturas de chamados técnicos.

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A Rede de Serviços Autorizados HP está distribuída em todo território nacional, ou conforme indicado a seguir, com uso de peças e componentes originais e com técnicos devidamente treinados pela HP:

Esta declaração é válida por 30 (trinta) dias corridos, a contar da data de sua emissão.

Atenciosamente*,*

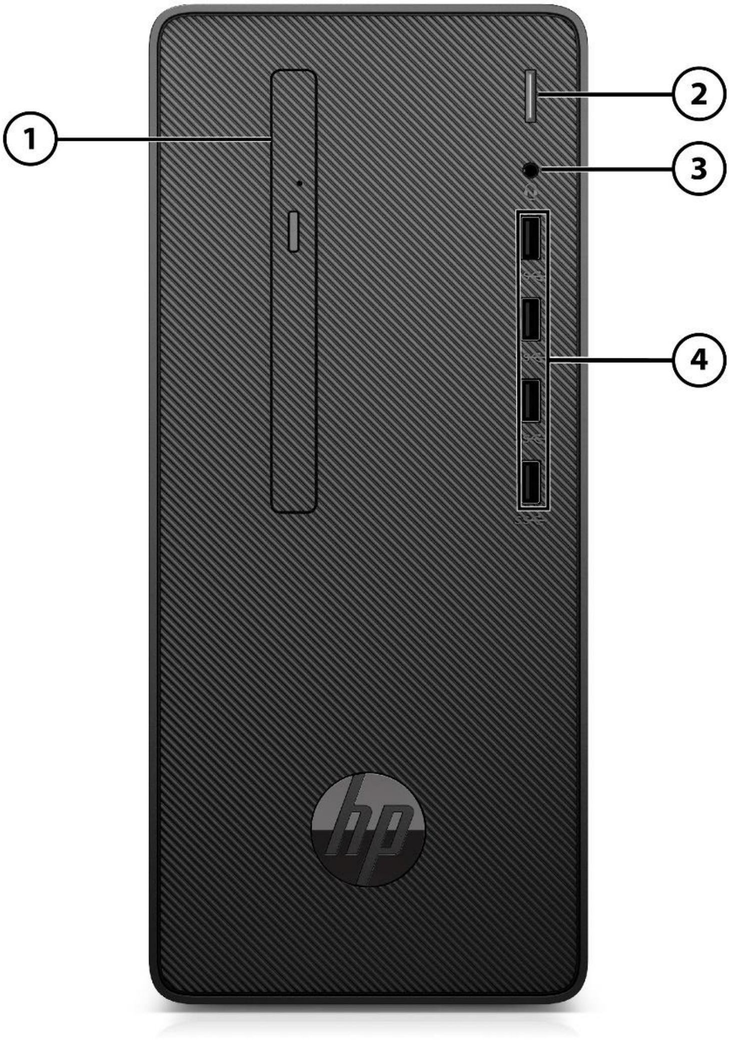
LUANA MELATTO VILAS BOAS:28755606890

Digitally signed by LUANA MELATTO VILAS BOAS:28755606890
Date: 2021.08.19 17:06:25 -03'00'

Luana Melatto Vilas Boas
Representante Legal
HP Indústria e Comércio de Equipamentos Eletrônicos Ltda.

Overview

HP Desktop Pro A G3



Front

1. Slim optical drive (optional)
2. Dual-state power button
3. Combo jack, Headphone/Microphone
4. (4) USB 3.1 Gen 1 port (5 Gb/s signaling data rate*)

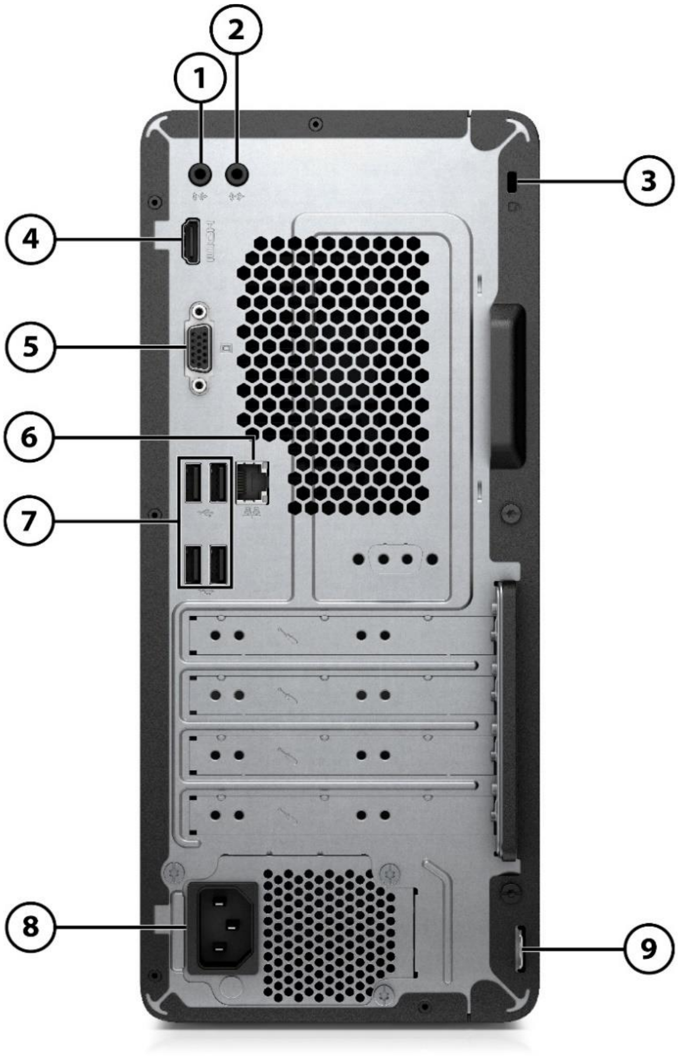
Not Shown

(1) PCIe x16 (x8)
(1) PCIe x1
(1) PCI
(1) M.2 2230 for WLAN

1*Actual throughput may vary.

Overview

HP Desktop Pro A G3



Rear

1. Audio-out connector
2. Audio-in connector
3. Standard lock slot
4 (1) HDMI 1.4 port
5. (1) VGA Port
6. RJ-45 (network) jack
7. (4) USB2.0 ports
8. Power cord connector
9. Padlock Loop

Not Shown

Port

Optional serial port
Optional PS/2 port
Optional parallel port

Bay

(1) 9.5mm internal optical drive bay
(1) 3.5" internal storage drive bay
(1) 2.5" internal storage drive bay

Note: Following configurations are supported:
a) 3.5" internal storage & 9.5mm optical drive
b) 2.5" internal storage & 9.5mm optical drive
c) 3.5" internal storage & 2.5" internal storage
d) 2.5" internal storage & 2.5" internal storage

Features

AT A GLANCE

- Latest AMD® Ryzen™ PRO Processor with Radeon™ Vega Graphics*
- Integrated AMD® Radeon™ Vega Graphics,and optional Radeon™ RX discrete graphics
- Supports up to 32GB DDR4-2666 Unbuffered Memory (UDIMM)
- 8 USB Ports, with USB3.1 Gen1x4 at front and USB2.0x4 at rear
- Windows 10 Pro, Windows 10 Home or FreeDos
- Integrated 10/100/1000 Ethernet Controller, with 802.11ac WiFi®/ Bluetooth® as optional feature
- Firmware TPM 2.0 support**
- HP Support Assistant
- High efficiency energy saving power supply
- EPEAT ® 2019 registered where applicable. EPEAT ® registration varies by country. See http://www.epeat.net for registration status by country.****
- Protected by HP Services, including limited warranties 1-1-1 or up to 3-3-3 (terms and conditions vary by country; certain restrictions and exclusions apply); Care Packs available with up to 5 years Next Business Day Onsite Hardware Support

*Multi-Core is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. AMD's numbering, branding and/or naming is not a measurement of higher performance.

**TPM feature will be turned off on machine pre-configured with FreeDOS. In some scenarios, machines pre-configured with Windows OS might ship with TPM turned off.

****Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit http://www.epeat.net for more information.

Features

PRODUCT NAME

HP Desktop Pro A G3

OPERATING SYSTEM

Preinstalled	Windows® 10 Pro 64* Windows® 10 Pro 64 (National Academic License)** Windows® 10 Home 64* Windows® 10 Home Single Language 64*
Pre-installed (other)	FreeDOS

*Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows 10 is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See http://www.windows.com/.

**Some devices for academic use will automatically be updated to Windows 10 Pro Education with the Windows 10 Anniversary Update. Features vary; see https://aka.ms/ProEducation for Windows 10 Pro Education feature information.

NOTE: Your product does not support Windows 8 or Windows 7. In accordance with Microsoft's support policy, HP does not support the Windows® 8 or Windows 7 operating system on products configured with Intel and AMD 7th generation and forward processors or provide any Windows® 8 or Windows 7 drivers on http://www.support.hp.com.

PROCESSORS

AMD Ryzen 3 PRO

AMD® Ryzen™ 3 PRO 2200G APU with AMD® Radeon™ Vega Graphics (3.5 GHz base frequency with max up to 3.7 GHz, 6MB, 65W, Quad Core)
Supports DDR4 memory up to 2666 MT/s

AMD® Ryzen™ 3 PRO 3200G APU with AMD® Radeon™ Vega 8 Graphics (4T, 6MB cache, 4.0GHz, 65W, Quad Core)
Supports DDR4 memory up to 2666 MT/s

AMD Ryzen 5 PRO

AMD® Ryzen™ 5 PRO 2400G APU with AMD® Radeon™ Vega Graphics (3.6 GHz base frequency with max up to 3.9 GHz, 6MB, 65W, Quad Core)
Supports DDR4 memory up to 2933 MT/s

AMD® Ryzen™ 5 PRO 3400G APU with AMD® Radeon™ Vega 11 Graphics (8T, 6MB cache,4.2GHz, 65W, Quad Core)
Supports DDR4 memory up to 2933 MT/s

Multi-core is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. AMD´s numbering, branding and/or naming is not a measurement of higher performance.

Features

CHIPSET

AMD® PRO 500

GRAPHICS

System Integrated Graphics
AMD Radeon™ Vega 8 Graphics (integrated on AMD® Ryzen™ 3 PRO 2200G/ AMD® Ryzen™ 3 PRO 3200G)
AMD Radeon™ RX Vega 11 Graphics (integrated on AMD® Ryzen™ 5 PRO 2400G/ AMD® Ryzen™ 5 PRO 3400G)

Optional Discrete Graphics Solutions
AMD® Radeon™ R7 430 2GB LP 2DP
AMD® Radeon™ R7 430 2GB LP DP+VGA
AMD® Radeon™ 520 1GB LP
AMD® Radeon™ RX 550X 4GB LP

MEMORY

Type
DDR4 2666 (Transfer rates up to 2666 MT/s)

Maximum
Supports up to 32 GB capacity

# of Slots
2 DIMM
4GB DDR4-2666 UDIMM (1x4GB)
8GB DDR4-2666 UDIMM (1x8GB)
8GB DDR4-2666 UDIMM (2x4GB)
16GB DDR4-2666 UDIMM (1x16GB)
16GB DDR4-2666 UDIMM (2x8GB)

Memory modules support data transfer rates up to 2666 MT/s; actual data rate is determined by the system's configured processor. See processor specifications for supported memory data rate.

Features

STORAGES AND DRIVES

3.5 inch SATA Hard Disk Drives (HDD)
500GB 7200RPM 3.5in SATA HDD
1TB 7200RPM 3.5in SATA HDD
2TB 7200RPM 3.5in SATA HDD

2.5 inch SATA Hard Disk Drives (HDD)
500GB 7200RPM 2.5in SATA HDD
1TB 7200RPM 2.5in SATA HDD

2.5 inch Solid State Drives (SSD)
128GB 2.5in SATA Three Layer Cell SSD
256GB 2.5in SATA Three Layer Cell SSD
512GB 2.5in SATA Three Layer Cell SSD

For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

OPTICAL DISK DRIVES

HP 9.5mm Slim DVD-ROM Drive
HP 9.5mm Slim DVD Writer Drive

Optical drives are optional or add on features. HD-DVD disks cannot be played on this drive. No support for DVD-RAM. Actual speeds may vary. Don't copy copyright-protected materials. Double Layer discs can store more data than single layer discs. Discs burned with this drive may not be compatible with many existing single-layer DVD drives and players.

NETWORKING/COMMUNICATIONS

Ethernet (RJ-45)
Realtek RTL8111HSH-CG Gigabit Network Connection (standard)

Wi-Fi® and Bluetooth®
Realtek RTL8821CE 802.11ac 1x1 with Bluetooth® M.2 Combo Card*

*Wireless access point and internet service required. Availability of public wireless access point limited.

AUDIO/MULTIMEDIA

Integrated Hi-Definition Audio: Internal amplifier (Realtek ALC3601 Audio Codec)
Combo Microphone/Headphone Jack
Line-out and Line-in rear port (3.5mm)

KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS

Keyboards
Business Slim PS/2 Standalone Wired Keyboard
Business Slim USB Standalone Wired Keyboard
Standalone Wired Keyboard
Business Slim USB Antimicrobial Standalone Wired Keyboard (China only)

Features

No KB Option

Mouse
HP PS/2 Mouse
HP USB Optical Wired Mouse
USB Universal Wired Mouse
USB Antimicrobial Mouse (China only)
USB Hardened Wired Mouse
No Mouse Option

Availability may vary by country

PORTS/SLOTS

Front
Slim optical drive (optional)
Combo jack, Headphone/Microphone
(4) USB 3.1 Gen 1 port (5 Gb/s signaling data rate)*

Rear
Audio-in connector
Audio-out connector
(1) HDMI 1.4
(1) VGA Port
Cable lock slot
Padlock Loop
RJ-45 (network) jack
(4) USB2.0 ports
Power cord connector

Not Shown
Optional serial port
Optional PS/2 port
Optional parallel port

*Actual throughput may vary

BAYS

(1) 9.5mm internal optical drive bay
(1) 3.5" internal storage drive bay
(1) 2.5" internal storage drive bay

Note: Following configurations are supported:
a) 3.5” HDD & 9.5mm optical drive
b) 2.5” HDD & 9.5mm optical drive
c) 3.5” HDD & 2.5” HDD
d) 2.5” HDD & 2.5” HDD

SOFTWARE COMPONENTS AND APPLICATIONS WITH WINDOWS

Preinstalled Software (varies by country)
Buy Office (sold separately)
HP JumpStart
HP Support Assistant*
HP PC Hardware Diagnostics UEFI
HP Hotkey Support
Bing Search for IE11
McAfee LiveSafe**
HP Privacy Settings

Security
Security lock slot (Locks sold separately)

*HP Support Assistant requires Windows and Internet access.
**McAfee® LiveSafe™: Free 1-year subscription of McAfee LiveSafe service included. Internet access required and not included. Subscription required after expiration.

POWER

Power Supply

180 W
EStar Libra2 EPA90 (Gold) Full range 115V/230V

310W
EStar EPA90 (Gold) Full range 115V/230V

WEIGHT AND DIMENSIONS

Unboxed Dimensions and weight	**Dimensions**	136 x 310 x 261.8 mm (with bezel)	**Volume:** 11.0 (l)
		136 x 310 x 251.5 mm (without bezel)	**Volume:** 10.6 (l)
	Weight	9.52 lbs/4.32kg*	
Packaging dimensions and weight	**Dimensions**	19.65 x 9.37 x 16.14 in 499 x 238 x 410 mm	
	Weight	14.54 lbs 6.6 kg*	
Packaging dimensions and weight by Air palletization	**Dimensions**	1200 x 1000 x 940 mm	
	Weight	140.5 kg*	
Packaging dimensions and weight by Ocean/truck palletization	**Dimensions**	1200 x 1000 x 2170 mm	
	Weight	338.5 kg*	

*Weight will vary by configuration.

Features

UNIT ENVIRONMENT AND OPERATING CONDITIONS

General Unit Operating Guidelines

Environmental & industry	• Keep the computer away from excessive moisture, direct moisture and the extremes of heat and cold, to ensure that unit is operated within the specified operating range. • Keep the fan duct to lead airflow to chassis rear sides of the computer to permit the required airflow. • Never restrict airflow into the computer by blocking any vents or air intakes. • Do not stack computers on top of each other or place computers so near each other that they are subject to each other's re-circulated or preheated air. • If the computer is to be operated within a separate enclosure, intake and exhaust ventilation must be provided on the enclosure, and the same operating guidelines listed above will still apply.
Temperature Range	Operating: 10° to 35° C Non-operating: -30° to 65° C
Relative Humidity	Operating: 15% to 90% (non-condensing at ambient) Non-operating: 15% to 90% (non-condensing at ambient)
Maximum Altitude (unpressurized)	Operating: 10° to 35° C, 7500 ft (2286 m) Non-operating: -40° to 40° C, 15,000 ft (4572 m)

Features

SERVICE AND SUPPORT

On-site Warranty 1: Available one-year (1-1-1) or three-year (3-3-3) limited warranty (varies by country) delivers on-site, next business day 2 service for parts and labor and complimentary limited technical support.3 Three-year onsite and labor are not available in all countries. Service offers terms up to 5 years by choosing an optional HP Care Pack.4 To choose the right level of service for your HP product, visit HP Care Pack Central: http://www.hp.com/go/cpc.

1. Terms and conditions may vary by country. Certain restrictions and exclusions apply. Other warranty variations may be offered in your region.
2. On-site service may be provided pursuant to a service contract between HP and an authorized HP third-party provider, and is not available in certain countries. Global service response times are based on commercially reasonable best effort and may vary by country.
3.Technical support applies only to HP-configured and third-party HP qualified hardware and software.
4. Service levels and response times for HP Care Packs may vary depending on your geographic location. Service starts on date of hardware purchase. Restrictions and limitations apply. For details, visit www.hp.com/go/cpc. HP services are governed by the applicable HP terms and conditions of service provided or indicated to Customer at the time of purchase. Customer may have additional statutory rights according to applicable local laws, and such rights are not in any way affected by the HP terms and conditions of service or the HP Limited Warranty provided with your HP Product.

CERTIFICATION AND COMPLIANCE

Energy Efficiency Compliance	ENERGY STAR® certified; EPEAT ® 2019 registered where applicable. EPEAT ® registration varies by country. See www.epeat.net for registration status by country*.

*Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit http://www.epeat.net for more information.

GRAPHICS

AMD Radeon™ Vega 8 Graphics (integrated on AMD® Ryzen™ 3 PRO 2200G, AMD® Ryzen™ 3 PRO 3200G)
AMD Radeon™ RX Vega 11 Graphics (integrated on AMD® Ryzen™ 5 PRO 2400G, AMD® Ryzen™ 5 PRO 3400G)

Graphics Controller	Integrated
HDMI	Supports HDMI 1.4 features including audio, HDCP 2.2 and a maximum resolution of 3440x1440@60Hz or 4096x2160@30Hz**
VGA	VGA Output with a maximum resolution of 2048x1536@60Hz**
Memory	512MB when less than 8GB of system memory is installed* 1GB when 8GB or more of system memory is installed*
Maximum Color Depth	up to 10 bits
Graphics/Video API Support	DirectX 12 Vulkan 1.0 OpenCL 2.0 OpenGL 4.5 Dedicated decoding of the H.264 format at up to 4K and 60Hz. Decoding the VP9 format at resolutions up to 3840 x 2160 using a hybrid approach where the video and shader engines collaborate to offload work from the CPU. Encoding H.264 video is also supported at 1080p120, 1440p60, and 2160p60

*The actual amount of maximum graphics memory can be less than the amounts listed above depending upon your computer's configuration.
**Other resolutions may be available but are not recommended as they may not have been tested and qualified by HP.

AMD® Radeon™ R7 430 2GB LP 2DP

Engine Clock	780 MHz
Memory Clock	1100 MHz
Memory Size(width)	2GB(128-bit)
Memory Type	128M x 32 GDDR5
Max. Resolution(DP)	4096 x 2160@60Hz
Multi Display Support	2 displays
HDCP Compliance	yes
Rear I/O connectors(bracket)	2DP
Cooling(active/passive)	Active fan-sink (Active cooling with dynamic speed)
Total power consumption(W)	<50W
PCB form-factor with bracket	LP PCB with FH/LP bracket

AMD® Radeon™ R7 430 2GB LP VGA+DP

Engine Clock	780 MHz
Memory Clock	1100 MHz
Memory Size(width)	2GB(128-bit)
Memory Type	128M x 32 GDDR5
Max. Resolution(VGA)	2048 x 1536
Max. Resolution(DP)	4096 x 2160@60Hz
Multi Display Support	2 displays
HDCP Compliance	yes
Rear I/O connectors(bracket)	VGA+DP
Cooling(active/passive)	Active fan-sink(Active cooling with dynamic speed)
Total power consumption(W)	<50W
PCB form-factor with bracket	LP PCB with FH/LP bracket

STORAGE

500GB 7200RPM 3.5in SATA HDD	**Capacity**	500 GB
	Rotational Speed	7,200 rpm
	Interface	SATA 6.0 Gb/s
	Buffer Size	32 MB
	Logical Blocks	976,773,168
	Seek Time	11 ms (Average)
	Height (nominal)	1 in/2.54 cm
	Width	Media diameter: 3.5 in/8.89 cm Physical size: 4 in/10.2 cm
	Operating Temperature	41° to 131° F (5° to 55° C)

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

1TB 7200RPM 3.5in SATA HDD	**Capacity**	1 TB
	Rotational Speed	7,200 rpm
	Interface	SATA 6.0 Gb/s
	Buffer Size	32 MB
	Logical Blocks	1,953,525,168
	Seek Time	11 ms (Average)
	Height	1 in/2.54 cm
	Width (nominal)	Media diameter: 3.5 in/8.89 cm Physical size: 4 in/10.2 cm
	Operating Temperature	41° to 131° F (5° to 55° C)

NOTE: For hard rives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

2TB 7200RPM 3.5in SATA HDD	**Capacity**	2 TB
	Rotational Speed	7,200 rpm
	Interface	SATA 6.0 Gb/s
	Buffer Size	64 MB
	Logical Blocks	3,907,029,168
	Seek Time	11 ms (Average)
	Height	1.028 in/26.11 mm
	Width	4.0 in/101.6 mm
	Operating Temperature	41° to 131° F (5° to 55° C)

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

Technical Specifications - Storage

500GB 7200RPM 2.5in SATA HDD	**Capacity**	500GB
	Rotational Speed	7,200 rpm
	Interface	SATA 6 Gb/s
	Buffer Size	Up to 128 MB
	Logical Blocks	976,773,168
	Seek Time	12 ms (Average)
	Height	0.267 in/6.8 mm (nominal)
	Width	2.75 in/70 mm (nominal)
	Operating Temperature	41° to 131° F (5° to 55° C)

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

1TB 7200RPM 2.5in SATA HDD	**Capacity**	1TB
	Rotational Speed	7,200 rpm
	Interface	SATA 6 Gb/s
	Buffer Size	Up to 128 MB
	Logical Blocks	1,953,525,168
	Seek Time	12 ms (Average)
	Height	0.374 in/9.5 mm (nominal)
	Width	2.75 in/70 mm (nominal)
	Operating Temperature	41° to 131° F (5° to 55° C)

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

128GB 2.5in SATA Three Layer Cell SSD	**Drive Weight**	78g
	Capacity	128GB
	Height	7mm
	Length	100.45mm
	Width	69.85mm
	Interface	SATA 3.0 (6Gb/s)
	Performance	Up to Random Read/Write = 70K/40K IOPS
	Maximum Sequential Read	Up to 530MB/s
	Maximum Sequential Write	Up to 380MB/s
	Logical Blocks	250,069,680
	Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
	Features	DIPM; TRIM

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

Technical Specifications - Storage

256GB 2.5in SATA Three Layer Cell SSD	**Drive Weight**	78g
	Capacity	256GB
	Height	7mm
	Length	100.45mm
	Width	69.85mm
	Interface	SATA 3.0 (6Gb/s)
	Performance	Up to Random Read/Write = 55K/68K IOPS
	Maximum Sequential Read	Up to 530MB/s
	Maximum Sequential Write	Up to 500MB/s
	Logical Blocks	1,000,215,216
	Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
	Features	DIPM; TRIM

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

512GB 2.5in SATA Three Layer Cell SSD	**Drive Weight**	<50g
	Capacity	512GB
	Height	7mm
	Length	100.45mm
	Width	69.85mm
	Interface	SATA 3.0 (6Gb/s)
	Maximum Sequential Read	Up to 530MB/s
	Maximum Sequential Write	Up to 500MB/s
	Logical Blocks	1, 000,215,216
	Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
	Features	DIPM; TRIM

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

HP 9.5mm Slim DVD ROM Drive	**Height**	9.5 mm height
	Orientation	Either horizontal or vertical
	Interface type	SATA/ATAPI
	Dimensions (W x H x D)	5.04 x 0.37 x 5.0 in (128 x 9.5 x 127 mm) without bezel
	Weight (max)	Up to 0.31 lb (140g) without bezel
	Read Speeds	DVD+R/-R/+RW/ -RW/+R DL /-R DL Up to 8X DVD-ROM Up to 8X CD-ROM, CD-R Up to 24X CD-RW Up to 24X
	Access time (typical reads, including settling)	Random: DVD-ROM: 170 ms (typical), CD-ROM: 170 ms (typical) Full stroke: DVD-ROM: 320 ms (typical), CD-ROM: 320 ms (typical) Stop Time 6 seconds (typical)
	Power	Source Slimline SATA DC power receptacle DC Power Requirement 5 VDC ± 5%-100 mV ripple p-p DC Current 5 VDC (< 1000 mA typical, 1600 mA maximum)

Technical Specifications - Storage

	Environmental conditions (operating - non-condensing)	Temperature 41° to 122° F (5° to 50° C) Relative Humidity 10% to 80% Maximum Wet Bulb Temperature 84° F (29° C)

HP 9.5mm Slim DVD Writer Drive	**Height**	9.5 mm height
	Orientation	Either horizontal or vertical
	Interface type	SATA/ATAPI
	Disc recording capacity	Up to 8.5 GB DL or 4.7 GB standard
	Dimensions (W x H x D)	5.04 x 0.37 x 5.0 in (128 x 9.5 x 127 mm) without bezel
	Weight (max)	0.31 lb (140 g) without bezel
	Read Speeds	DVD-R DL - Up to 6X DVD+R - Up to 8X DVD+RW - Up to 8X DVD+R DL - Up to 6X DVD-R - Up to 8X DVD-RW - Up to 6X CD-R - Up to 24X CD-RW - Up to 10X DVD-RW, DVD+RW - Up to 8X DVD-R DL, DVD+R DL - Up to 8X DVD+R, DVD-R - Up to 8X DVD-ROM DL, DVD-ROM - Up to 8X CD-ROM, CD-R - Up to 24X CD-RW - Up to 24X
	Access time (typical reads, including settling)	Random DVD-ROM: 170 ms (typical), CD-ROM: 170 ms (typical) Full Stroke DVD-ROM: 320 ms (typical), CD-ROM: 320 ms (typical) Stop Time 6 seconds (typical)
	Power	Source Slimline SATA DC power receptacle DC Power Requirement 5 VDC ± 5%-100 mV ripple p-p DC Current 5 VDC (< 1000 mA typical, 1600 mA maximum)
	Environmental conditions (operating - non-condensing)	Temperature 41° to 122° F (5° to 50° C) Relative Humidity 10% to 80% Maximum Wet Bulb Temperature 84° F (29° C)

Technical Specifications - Audio

AUDIO

Integrated High Definition Audio

Type	Integrated
HD Stereo Codec	Realtek ALC3601
Audio I/O Ports	Front: Headset connector supports a CTIA style headset and is re-taskable as a Line-in, Line-out, Microphone-in or Headphone-out port Rear: Line-out connector; Line-in connector All ports are 3.5mm and support stereo
Internal Speaker Amplifier	Integrated amplifier drives the integrated buzzer
Multi-streaming Capable	Allows independent audio streams to be sent to/from the front and rear output jacks.
Sampling	Independent sampling rates for DAC's and ADC's; supports resolutions of 16/20/24-bit and sampling rates of 44.1/48/96/192 kHz
Analog Audio	Yes
# of Channels on Line-Out	Stereo (Left & Right channels)
Internal Speaker	Optional Internal speaker, 2W
External Speaker Jack	External speakers can be connected to the front headset jack or rear line out jack. External speakers must be powered externally.

Technical Specifications - Power

POWER

Operating Voltage Range	90 – 264 VAC
Rated Voltage Range	100-240V AC
Rated Line Frequency	50/60 HZ
Operating Line Frequency	47 – 63 Hz
Rated Input Current	180W : <2.3A 310W: <4A
Rated Input Current with Energy Efficient* Power Supply	180W active PFC 87/90/87% efficient at 20/50/100% load (115V) 88/91/88% efficient at 20/50/100% load (230V) 310W active PFC 87/90/87% efficient at 20/50/100% load (115V) 88/91/88% efficient at 20/50/100% load (230V)
DC Output	+12.1V
Current Leakage (NFPA 99: 2102)	Less than 500 microamps of leakage current at 120 Vac with the ground wire disconnected, as required for Non-patient Electrical Appliances and Equipment used in a patient care facility or that contact patients in normal use. Per section 10.3.5.1. Less than 100 microamps of leakage current at 120 Vac with the ground wire intact with normal polarity, as required for Non-patient Electrical Appliances and Equipment used in a patient care facility or that contact patients in normal use. Per section 10.3.5.1.
Power Supply Fan	50*20mm (linear type)

Technical Specifications – Weight and Dimensions

WEIGHT AND DIMENSIONS

Unboxed Chassis (W x D x H)	136 x 310 x 261.8 mm (with bezel)	**Volume**	11.0(L)
	136 x 310 x 251.5 mm (without bezel)	**Volume**	10.6(L)
System Volume	672.93 cu in 11 L		
Unboxed System Weight	9.52 lbs/4.32kg*		
Max Supported Weight (desktop orientation)	77.0 lb 35.0 kg		
Packaged Dimensions (W x D x H)	19.65 x 9.37 x 16.14 in 499 x 238 x 410 mm		
Packaged Weight	14.54 lbs/6.6 kg*		
Palletization Profile	10-units per layer 5 layer max 50 per pallet Footprint (H x W x D) - 46.85 x 39.29 x 80.71 in (1200 x 1000 x 2170 mm)**		

*Weight varies by configuration and component.
**Ocean/truck palletization.

NETWORKING

Realtek RTK8111HSH 10/100/1000 Integrated NIC

Connector	RJ-45
System Interface	PCIe + SMBus
Data rates supported	10 Mbit/s operation (10BASE-T; IEEE 802.3i; IEEE 802.3 clauses 13-14) 100 Mbit/s operation (100BASE-TX; IEEE 802.3u; IEEE 802.3 clauses 21-30) 1000 Mbit/s operation (1000BASE-T; IEEE 802.3ab; IEEE 8023 clauses 40) Auto-Negotiation (Automatic Speed Selection) Full Duplex Operation at all Speeds, Half Duplex operation at 10 and 100 Mbit/s
IEEE Compliance	IEEE 802.1p QoS (Quality of Service) Support IEEE 802.1q VLAN support IEEE 802.3x Flow Control (IEEE 802.3 clauses 31-32; configurable) IEEE 802.3az EEE (Energy Efficient Ethernet)
Performance	TCP/IP/UDP Checksum Offload (configurable) Protocol Offload (ARP & NS) Large send offload and Giant send offload Receiving Side Scaling Jumbo Frame 9K
Power consumption	Cable Disconnection: 25mW 100Mbps Full Run: 450mW 1000bp Full Run: 1000mW WoL Enable(S3/S4/S5): 50mW WoL Disable(S3/S4/S5): 25mW
Power Management	ACPI compliant – multiple power modes Situation-sensitive features reduce power consumption Advanced link down power saving for reducing link down power consumption
Management Interface	Auto MDI/MDIX Crossover cable detection
IT Manageability	Wake-on-LAN from standby and hibernation (Magic Packet and Microsoft Wake-Up Frame); Wake-on-LAN from off (Magic Packet only) PXE 2.1 Remote Boot Statistics Gathering (SNMP MIB II, Ethernet-like MIB, Ethernet MIB (802.3x, clause 30)) Comprehensive diagnostic and configuration software suite Virtual Cable Doctor for Ethernet cable status

Realtek RTL8821CE 802.11ac 1x1 with Bluetooth® M.2 Combo Card

Wireless LAN Standards	IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n IEEE 802.11ac
Interoperability	Wi-Fi® certified
Frequency Band	802.11b/g/n •2.402 – 2.482 GHz 802.11a/n •4.9 – 4.95 GHz (Japan) •5.15 – 5.25 GHz •5.25 – 5.35 GHz •5.47 – 5.725 GHz •5.825 – 5.850 GHz
Data Rates	•802.11b: 1, 2, 5.5, 11 Mbps •802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps •802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps

Technical Specifications – Networking

	•802.11n: MCS 0 ~ MCS 15, (20MHz, and 40MHz) •802.11ac : MCS0 ~ MCS9, (1SS, and 2SS) (20MHz, 40MHz, and 80MHz)
Modulation	Direct Sequence Spread Spectrum BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM
Security	•IEEE and WiFi® compliant 64 / 128 bit WEP encryption for a/b/g mode only •AES-CCMP: 128 bit in hardware •802.1x authentication •WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES. •WPA2 certification •IEEE 802.11i •Cisco Certified Extensions, all versions through CCX4 and CCX Lite •WAPI
Network Architecture Models	Ad-hoc (Peer to Peer) Infrastructure (Access Point Required)
Roaming	**IEEE 802.11 compliant roaming between access points**
Output Power	• 802.11b : +14dBm minimum • 802.11g : +12dBm minimum • 802.11a : +12dBm minimum • 802.11n HT20(2.4GHz) : +12dBm minimum • 802.11n HT40(2.4GHz) : +12dBm minimum • 802.11n HT20(5GHz) : +10dBm minimum • 802.11n HT40(5GHz) : +10dBm minimum • 802.11ac VHT80(5GHz) : +10dBm minimum
Power Consumption	•Transmit mode2.0 W •Receive mode1.6 W •Idle mode (PSP)180 mW(WLAN Associated) •Idle mode50 mW(WLAN unassociated) •Connected Standby 10mW •Radio disabled8 mW
Power Management	ACPI and PCI Express compliant power management 802.11 compliant power saving mode
Receiver Sensitivity	802.11b, 1Mbps : -93.5dBm maximum 802.11b, 11Mbps : -84dBm maximum 802.11a/g, 6Mbps : -86dBm maximum 802.11a/g, 54Mbps : -72dBm maximum 802.11n, MCS07 : -67dBm maximum 802.11n, MCS15 : -64dBm maximum 802.11ac, MCS0 : -84dBm maximum 802.11ac, MCS9 : -59dBm maximum
Antenna type	High efficiency antenna. One embedded dual band 2.4/5 GHz antenna is provided to the card to support WLAN communications and Bluetooth communications
Form Factor	**PCI-Express M.2 MiniCard**
Dimensions	Type 2230 : 2.3 x 22.0 x 30.0 mm
Weight	Type 2230 : 2.8g
Operating Voltage	3.3v +/- 9%
Temperature	Operating: 14° to 158° F (–10° to 70° C) Non-operating: –40° to 176° F (–40° to 80° C)
Humidity	Operating: 10% to 90% (non-condensing) Non-operating: 5% to 95% (non-condensing)
Altitude	Operating: 0 to 10,000 ft (3,048 m) Non-operating: 0 to 50,000 ft (15,240 m)
LED Activity	LED Amber – Radio OFF; LED White – Radio ON
Subtitle	HP Integrated Module with Bluetooth 4.0/4.1/4.2 Wireless Technology

Technical Specifications – Networking

Bluetooth Specification	4.0/4.1/4.2 Compliant
Frequency Band	2402 to 2480 MHz
Number of Available Channels	Legacy : 0~79 (1 MHz/CH) BLE : 0~39 (2 MHz/CH)
Data Rates and Throughput	Legacy : 3 Mbps data rate; throughput up to 2.17 Mbps BLE : 1 Mbps data rate; throughput up to 0.2 Mbps Legacy : Synchronous Connection Oriented links up to 3, 64 kbps, voice channels Legacy : Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric (3-DH5) or 864 kbps symmetric (3-EV5)
Transmit Power	The Bluetooth component shall operate as a Class II Bluetooth device with a maximum transmit power of + 4 dBm for BR and EDR.
Power Consumption	Peak (Tx) 330 mW Peak (Rx) 230 mW Selective Suspend 17 mW
Electrical Interface	USB 2.0 compliant
Bluetooth Software Supported	Microsoft Windows Bluetooth Software
Link Topology	
Power Management	Microsoft Windows ACPI, and USB Bus Support
Certifications	FCC (47 CFR) Part 15C, Section 15.247 & 15.249
Power Management Certifications	ETS 300 328, ETS 300 826 Low Voltage Directive IEC950 UL, CSA, and CE Mark
Bluetooth Profiles Supported	BT4.1-ESR 5/6/7 Compliance LE Link Layer Ping LE Dual Mode LE Link Layer LE Low Duty Cycle Directed Advertising LE L2CAP Connection Oriented Channels Train Nudging & Interlaced Scan BT4.2 ESR08 Compliance LE Secure Connection- Basic/Full LE Privacy 1.2 –Link Layer Privacy LE Privacy 1.2 –Extended Scanner Filter Policies LE Data Packet Length Extension FAX Profile (FAX) Basic Imaging Profile (BIP)2 Headset Profile (HSP) Hands Free Profile (HFP) Advanced Audio Distribution Profile (A2DP)

Technical Specifications – Environmental

ENVIRONMENTAL & INDUSTRY

Eco-Label Certifications & declarations

This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks:

- IT ECO declaration
- US ENERGY STAR®
- EPEAT ® 2019 registered where applicable. EPEAT ® registration varies by country. See http://www.epeat.net for registration status by country*.

*Based on EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit http://www.epeat.net for more information.

System Configuration

The configuration used for the Energy Consumption and Declared Noise Emissions data for the Desktop model is based on a "Typically Configured Desktop".

Energy Consumption (in accordance with US ENERGY STAR® test method)	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 60Hz**
Normal Operation (Short idle)			
Normal Operation (Long idle)			
Sleep			
Off			

NOTE: Energy efficiency data listed is for an ENERGY STAR® certified product if offered within the model family. HP computers marked with the ENERGY STAR® Logo are compliant with the applicable U.S. Environmental Protection Agency (EPA) ENERGY STAR® specifications for computers. If a model family does not offer ENERGY STAR® certified configurations, then energy efficiency data listed is for a typically configured PC featuring a hard disk drive, a high efficiency power supply, and a Microsoft Windows® operating system. Search keyword generator on HP's 3rd party option store for solar generator accessories at www.hp.com/go/options

Heat Dissipation*	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 60Hz**
Normal Operation (Short idle)			
Normal Operation (Long idle)			
Sleep			
Off			

NOTE: Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.

Longevity and Upgrading

This product can be upgraded, possibly extending its useful life by several years. Upgradeable features and/or components contained in the product may include:

Spare parts are available throughout the warranty period and or for up to 5 years after the end of production.

Technical Specifications – Environmental

Batteries

This battery(s) in this product comply with EU Directive 2006/66/EC

Batteries used in the product do not contain:
Mercury greater the1ppm by weight
Cadmium greater than 20ppm by weight
Battery size: CR2032 (coin cell)
Battery type: Lithium

Additional Information

- This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2011/65/EC.
- This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive – 2002/96/EC.
- This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986).
- This product is in compliance with the to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit http://www.epeat.net for more information. Search keyword generator on HP's 3rd party option store for solar generator accessories at http://www.hp.com/go/options
- Plastics parts weighing over 25 grams used in the product are marked per ISO11469 and ISO1043.
- This product contains 0% post-consumer recycled plastic (by wt.)
- This product is 95.1% recycle-able when properly disposed of at end of life.

Packaging Materials

External: PAPER/Corrugated

Internal: PLASTIC/EPE (Expanded Polyethylene)
PLASTIC/Polyethylene low density

Material Usage

This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/gse.pdf):

- Asbestos
- Certain Azo Colorants
- Certain Brominated Flame Retardants – may not be used as flame retardants in plastics
- Cadmium
- Chlorinated Hydrocarbons
- Chlorinated Paraffins
- Formaldehyde
- Halogenated Diphenyl Methanes
- Lead carbonates and sulfates
- Lead and Lead compounds
- Mercuric Oxide Batteries
- Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user.
- Ozone Depleting Substances
- Polybrominated Biphenyls (PBBs)
- Polybrominated Biphenyl Ethers (PBBEs)
- Polybrominated Biphenyl Oxides (PBBOs)
- Polychlorinated Biphenyl (PCB)
- Polychlorinated Terphenyls (PCT)
- Polyvinyl Chloride (PVC) – except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.
- Radioactive Substances
- Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)

Technical Specifications – Environmental

Packaging Usage	HP follows these guidelines to decrease the environmental impact of product packaging: • Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials. • Eliminate the use of ozone-depleting substances (ODS) in packaging materials. • Design packaging materials for ease of disassembly. • Maximize the use of post-consumer recycled content materials in packaging materials. • Use readily recyclable packaging materials such as paper and corrugated materials. • Reduce size and weight of packages to improve transportation fuel efficiency. • Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards. HP Inc. offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: http://www.hp.com/go/reuse-recycle or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner. The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/recyclers. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment. Global Citizenship Report http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html Eco-label certifications http://www8.hp.com/us/en/hp-information/environment/ecolabels.html ISO 14001 certifications: http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=c04755842 and http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf

Options and Accessories (sold separately and availability may vary by country)

Type	Description	Part #
Memory	HP 16GB DDR4-2666 DIMM (DDR4-2666) - AMO	3TK83AA
	HP 8GB DDR4-2666 DIMM (DDR4-2666) - AMO	3TK87AA
	HP 4GB DDR4-2666 DIMM (DDR4-2666) - AMO	3TK85AA
Storage	HP 500GB 7200rpm 3.5 SATA 6.0Gb/s Smart IV Hard Drive - AMO	QK554AA
	HP 1TB 7200rpm 3.5 SATA 6.0Gb/s NCQ Smart IV Hard Drive (16MB) - AMO	QK555AA
	HP 256GB SATA TLC Non-SED Solid State Drive (SSD_TLC) - AMO	P1N68AA
Graphics	AMD Radeon R7 430 2GB 2DP Card - AMO	3MQ82AA
	AMD Radeon R7 430 PCIe x16 GFX (China_Card) - AMO	1MX32AA
	AMD Radeon RX550X 4GB Display Port Card- AMO	5LH79AA
Security	HP Business PC Security Lock v3 Kit - AMO	3XJ17AA
	HP Keyed Cable Lock 10mm - AMO	T1A62AA
	HP Master Keyed Cable Lock 10mm - AMO	T1A63AA
Adapters	HP PCIe x1 Parallel Port Card (Parallel Port) - AMO	N1M40AA
	HP USB to Serial Port Adapter (Win7/8/10) - AMO	J7B60AA
Networking	Intel Ethernet I210-T1 GbE NIC - AMO	E0X95AA
Input	HP PS/2 Business Slim Keyboard (Skylab) - AMO	N3R86AA
	HP USB Business Slim Keyboard (Skylab) - AMO	N3R87AA
	HP USB Mouse (Apollo) - AMO	QY777AA
	HP USB hardened optical mouse- AMO	P1N77AA
Others	HP Business Headset v2 (Headset v2) - AMO	T4E61AA
	HP S101 Speaker Bar-AMO	5UU40AA

Summary of Changes

Date of change:	Version History:		
February 7, 2020	V1 to V2	Update	Call outs in first image corrected.
March 4, 2020	V2 to V3	Update	512GB SSD added.
	V3 to V4		

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AMD Ryzen™ 3 PRO 3200G Processor

Tecnologias

AMD GuardMi Technology

A tecnologia AMD GuardMI possibilita proteção na ativação/desativação com um coprocessador de segurança potente dentro de cada CPU AMD Ryzen™ PRO.

SAIBA MAIS

AMD Ryzen™ 3 PRO 3200G

Especificações

Nº de núcleos de CPU	4
Nº de threads	4
Nº de núcleos de GPU	8
Clock básico	3.6GHz
Clock de Max Boost	Até 4.0GHz
Total de Cache L1	384KB
Total de Cache L2	2MB
Cachê L3 total	4MB
Desbloqueado	Não
CMOS	12nm
Pacote	AM4
Versão PCI Express	PCIe® 3.0
TDP / TDP Padrão	65W

TDP / TDP Padrão 65W

cTDP 45-65W

Temps máx 95°C

Memória

Velocidade máxima da memória 2933MHz

Tipo de memória DDR4

canais de memória 2

Especificações da placa de vídeo

Frequência gráfica 1250 MHz

Modelo gráfico Radeon™ Vega 8 Graphics

Contagem de núcleos gráficos 8

Principais recursos

Tecnologias compatíveis
AMD Memory Guard
AMD GuardMi Technology
DASH 1.2

Display Port Sim

HDMI™ Sim

Base

Família de produto AMD Ryzen™ PRO Processors

Linha de produto AMD Ryzen™ 3 PRO Desktop Processors with Radeon™ Vega Graphics

Plataforma Computador de mesa

Bandeja OPN YD320BC5M4MFH

Data de lançamento 9/30/19

CPU Benchmarks

Benchmarks de CPU

Mais de 1.000.000 de CPUs comparadas

AMD Ryzen 3 PRO 3200G

Detalhes de preço e desempenho do AMD Ryzen 3 PRO 3200G podem ser encontrados abaixo. Isso é feito usando milhares de resultados de benchmark do PerformanceTest e é atualizado diariamente.

- O primeiro gráfico mostra o desempenho relativo da CPU em comparação com as outras 10 CPUs comuns (únicas) em termos de marca de CPU do PassMark.
- O segundo gráfico mostra a relação custo / benefício, em termos de CPUMark por dólar.
- Os dados do histórico de preços mostram o preço de um único processador. Para vários processadores, multiplique o preço mostrado pelo número de CPUs.

CPUS

High End
High Mid Range
Faixa média baixa
Baixo nível

Melhor valor (no mercado)
Dispersão XY de melhor valor
Melhor valor (desde sempre)

Nova área de trabalho
Novo laptop

Single Thread
Sistemas com várias CPUs
Overclock
Desempenho de energia
Marca da CPU por tipo de soquete

Mega List da CPU
Modelo de Pesquisa

Compare 0

Comum

AMD Ryzen 3 PRO 3200G

Descrição: com gráficos Radeon Vega	**Classe:** Desktop
Soquete: AM4	**Velocidade de relógio:** 3,6 GHz
Velocidade Turbo: 4,0 GHz	**No de núcleos:** 4
TDP baixo: 45 W	**TDP típico:** 65 W[3]

Outros nomes: AMD Ryzen 3 PRO 3200G com Radeon Vega Graphics

CPU vista pela primeira vez nos gráficos: quarto trimestre de 2019

CPUmark / $ Preço: NA

Classificação geral: 413

Última alteração de preço: NA

Marca média da CPU

8445

Classificação de rosca única: 2057
Amostras: 27 *
* Margem para erro : baixa

+ COMPARAR

---

[3] O desempenho real da CPU pode diferir da média, dependendo da troca de potência / desempenho da CPU especificada pelo fornecedor.

Maiscomparados

CPU Benchmarks

Desempenho ano a ano

CPU Mark Relative to Top 10 Common Desktop CPUs

As of 17th of March 2020 - Higher results represent better performance

Processor	Average CPU Mark	
AMD Ryzen 9 3900X		32,685
AMD Ryzen 7 3700X		22,806
Intel Core i9-9900K @ 3.60GHz		19,091
AMD Ryzen 7 2700X		17,963
AMD Ryzen 5 3600		17,878
Intel Core i7-9700K @ 3.60GHz		15,019
Intel Core i7-8700 @ 3.20GHz		13,723
AMD Ryzen 5 2600		13,506
Intel Core i5-9400F @ 2.90GHz		9,804
AMD Ryzen 3 PRO 3200G		8,445
Intel Core i7-4790 @ 3.60GHz		7,354

CPU Value (CPU Mark / $Price)

As of 17th of March 2020 - Higher results represent better value

Processor	CPU Mark / $Price	
AMD Ryzen 5 2600		108.06
AMD Ryzen 5 3600		102.17
Intel Core i5-9400F @ 2.90GHz		81.71
AMD Ryzen 9 3900X		78.03
AMD Ryzen 7 3700X		76.28
AMD Ryzen 7 2700X		69.75
Intel Core i7-4790 @ 3.60GHz		44.16

Intel Core i7-9700K @ 3.60GHz		39.52
Intel Core i7-8700 @ 3.20GHz		35.37
AMD Ryzen 3 PRO 3200G		0.00

Last 5 Baselines for AMD Ryzen 3 PRO 3200G

Most recent listed first

Baseline	CPU Mark	
BL1350338 - Feb 17 2020		6272
BL1302472 - Nov 26 2019		8705
BL1302466 - Nov 26 2019		8727
BL1301986 - Nov 25 2019		8698
BL1301648 - Nov 24 2019		8554

Popular comparisons for AMD Ryzen 3 PRO 3200G

As of 17th of March 2020 - Higher results represent better performance

Processor	Average CPU Mark	
AMD Ryzen 3 PRO 3200G		8,445
AMD Ryzen 3 3200G		7,408
Intel Core i3-9100F @ 3.60GHz		7,171
Intel Core i3-9100 @ 3.60GHz		7,200
AMD Ryzen 3 2200G		6,881
Intel Core i3-9100T @ 3.10GHz		7,690
Intel Core i5-7600K @ 3.80GHz		6,683
Intel Core i3-9300T @ 3.20GHz		8,777
Intel Core i3-8100 @ 3.60GHz		6,629
Intel Core i5-6600K @ 3.50GHz		6,615
Intel Core i5-9500 @ 3.00GHz		9,511
Intel Core i5-7500 @ 3.40GHz		6,464

Intel Core i3-9320 @ 3.70GHz		10,144

CPU Benchmarks

Intel Core i5-9400F @ 2.90GHz		9,793
Intel Core i3-8100T @ 3.10GHz		6,896
Intel Core i5-9500T @ 2.20GHz		9,845

Software

BurnInTest
PerformanceTest
OSForensics
MemTest86
WirelessMon
Zoom Search Engine
Free Software

Hardware

USB3.0 Loopback Plugs
USB2.0 Loopback Plugs
PCIe Test Cards
USB Power Delivery Tester
Serial and Parallel Loopback Plugs
USB Short Circuit Testers

Benchmarks

CPU Benchmarks
Video Card Benchmarks
Hard Drive Benchmarks
RAM Benchmarks
PC Systems Benchmarks
Android Benchmarks
iOS / iPhone Benchmarks

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Social

Relatório de certificação de hardware **Aprovado**

ID do produto privado:	**13578949177924241**
ID do produto compartilhado:	**1152921504607815676**
ID da submissão:	**1152921504628220454**
Data de submissão:	**25/10/2019**
Data de conclusão:	**25/10/2019**
Companhia:	**HP Inc.**
Nome do produto:	**HP Desktop Pro A G3 (86FC)**
Categoria:	**Sistema**
Tipo de produto:	**Desktop**
Nível de qualificação:	**certificado para a família de clientes Microsoft Windows 10 versão 1903, x64**
Nome de marketing:	**HP Desktop Pro A G3 HP ZHAN 66 Pro A G1 R MT HP Desktop Pro A 300 G3 HP Desktop Pro A G3 MT HP 215 Pro G5 MT**

ENERGY STAR CERTIFIED

Computers

HP - HP Desktop Pro A G3 MT (ENERGY STAR) : Desktop Pro A G3 MT

Specifications

Brand Name:	HP
Model Name:	HP Desktop Pro A G3 MT (ENERGY STAR)
Model Number:	Desktop Pro A G3 MT
Type:	Desktop
Notebooks, Desktops, Integrated Computers, Slate/Tablets, Two-in-one Notebooks, and Portable All-in-ones Category for TEC (Typical Energy Consumption) Criteria:	I3,D1,I2,D2
Category I2: Processor Brand:	AMD
Category I2: Processor Name:	Athlon Pro 300GE
Category I2: Operating System Name:	Windows 10
Category I2: Physical CPU Cores (count):	2
Category I2: Base Processor Speed Per Core (GHz):	3.4
Category I2: System Memory (GB):	16
Category I2: Default Low-power Mode:	Sleep Mode
Category I2: Long Idle Power Used for Sleep Mode:	No
Category I2: Off Mode (watts):	0.7
Category I2: Sleep Mode (watts):	1.2
Category I2: Long Idle (watts):	11.3
Category I2: Short Idle (watts):	12.1
Category I2: Base TEC Allowance (kWh):	120
Category I2: Functional Adder Allowances (kWh):	39.7
Category I2: TEC of Model (kWh):	55.1
Category I3: Processor Brand:	AMD
Category I3: Processor Name:	Ryzen 5 Pro 3400G
Category I3: Operating System Name:	Windows 10
Category I3: Physical CPU Cores (count):	4
Category I3: Base Processor Speed Per Core (GHz):	3.7
Category I3: System Memory (GB):	16
Category I3: Default Low-power Mode:	Sleep Mode

Category I3: Long Idle Power Used for Sleep Mode:	No
Category I3: Off Mode (watts):	0.7
Category I3: Sleep Mode (watts):	1.2
Category I3: Long Idle (watts):	11.8
Category I3: Short Idle (watts):	12.0
Category I3: Base TEC Allowance (kWh):	135
Category I3: Functional Adder Allowances (kWh):	39.7
Category I3: TEC of Model (kWh):	55.4
Category D1: Processor Brand:	AMD
Category D1: Processor Name:	Athlon Pro 300GE
Category D1: Operating System Name:	Windows 10
Category D1: Physical CPU Cores (count):	2
Category D1: Base Processor Speed Per Core (GHz):	3.4
Category D1: System Memory (GB):	16
Category D1: Graphics Category:	G5
Category D1: Default Low-power Mode:	Sleep Mode
Category D1: Long Idle Power Used for Sleep Mode:	No
Category D1: Off Mode (watts):	0.7
Category D1: Sleep Mode (watts):	1.2
Category D1: Long Idle (watts):	16.1
Category D1: Short Idle (watts):	19.8
Category D1: Base TEC Allowance (kWh):	115
Category D1: Functional Adder Allowances (kWh):	144.7
Category D1: TEC of Model (kWh):	85.1
Category D2: Processor Brand:	AMD
Category D2: Processor Name:	Ryzen 5 Pro 3400G
Category D2: Operating System Name:	Windows 10
Category D2: Physical CPU Cores (count):	4
Category D2: Base Processor Speed Per Core (GHz):	3.7
Category D2: System Memory (GB):	16
Category D2: Graphics Category:	G5
Category D2: Default Low-power Mode:	Sleep Mode
Category D2: Long Idle Power Used for Sleep Mode:	No
Category D2: Off Mode (watts):	0.7
Category D2: Sleep Mode (watts):	1.2
Category D2: Long Idle (watts):	20.4
Category D2: Short Idle (watts):	16.9

Category D2: Base TEC Allowance (kWh):	135
Category D2: Functional Adder Allowances (kWh):	144.7
Category D2: TEC of Model (kWh):	87.9
Sleep Mode Default Time Upon Shipment (min.):	20
Display Sleep Mode Default Time Upon Shipment (min.):	10
WOL (Wake on LAN) From Sleep:	Shipped Enabled Under All Conditions
Will the Speed of Any Active 1 GB/s or Higher Ethernet Network Links be Reduced to Less Than 1 GB/s When Transitioning to Sleep or Off Mode?:	Yes
WLAN Capability:	Yes
Ethernet Capability:	Yes
Bluetooh Capability:	Yes
Date Available On Market:	2019-11-13
Date Certified:	2019-10-18
Markets:	United States, Switzerland, Taiwan, Japan, Canada
ENERGY STAR Certified:	Yes

Additional Model Information

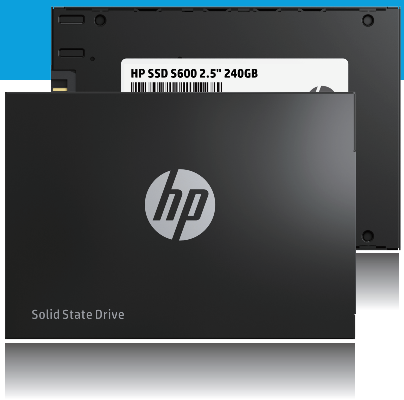
HP 215 Pro G5 MT (ENERGY STAR),215 Pro G5 MT,; HP Desktop Pro A 300 G3 (ENERGY STAR),Desktop Pro A 300 G3,; HP Desktop Pro A G3 (ENERGY STAR),Desktop Pro A G3,; HP ZHAN 66 Pro A G1 R MT (ENERGY STAR),ZHAN 66 Pro A G1 R MT,

Captured On:
09/25/2020

Designed to Rejuvenate Your PC

HP SSD S600 2.5"

HP SSD S600 2.5" SATA is suitable for use in Notebook and Desktop PC's, regardless of whether it is a new or old machine. This upgrade will raise the performance level of your Notebook or Desktop PC and allow you to enjoy better responsiveness on your computer regardless of the task.



HP SSD S600 is specifically designed to speed up mobile and desktop computing tasks.Super quick response for reads and writes will invigorate slower computer systems and improve your productivity and user experience. HP SSD S600 has undergone rigorous HP Labs testing to provide highest quality assurance and reliability. There is also a limited 3 year product warranty.

- High Performance
- Durability
- Silent
- Power Savings

Marvell Controller

HP SSD S600 utilizes the Marvell 88NV1120 controller with integrated SRAM and reaches 520MB/s read and 500MB/s write speeds, raising overall PC responsiveness and operational efficiency.

Uses 3D NAND Flash

HP SSD S600 series is built using 3D NAND Flash. This new multilayer stacking technique is superior to older 2D NAND technology, affording higher levels of storage density and durability.

Superior Durability

HP SSD S600 series employs NAND Edge LDPC algorithms, as well as Embedded SRAM (in place of external DRAM) to enhance durability and reliability for today's demanding users.

Special Firmware for Data Security

Strict adherence to HP Authentication Firmware provides effective protection from hackers and computer viruses for the data passed between the system and the HP SSD S600.

HP SSD Advantages

HP SSD has continuously innovated and improved on storage technology for every consumer application for both mainstream and enthusiast computer systems. Compared with traditional spinning platter hard drive storage devices, upgrading to HP SSD will improve your overall computing experience, such as: faster read and write speeds, shorter computer boot times, better responsiveness, excellent shock resistance and durability.Coming from the leading PC Brand, HP SSD are built better beginning from research, design, and all the way through strict quality control in the manufacturing process. This is the HP Brand philosophy in action.

HP SSD are fully compliant with the HP DST self test preinstallation environment, which means that it is 100% compatible and works reliably with all contemporary consumer HP PC's. HP SSD is supported by a Global network of service locations and also a local 800-number for service and support. You can also find additional information and supporting documentation on the HP product web site.

S600 Hardware Specifications

Specifications	HP SSD S600	
	120GB	240GB
Interface		
HP SSD S600 2.5" / 7mm	SATA 6.0 Gb/s	SATA 6.0 Gb/s
Operating Speeds		
Sequential Read Speed Up To	520 MB/s	
Sequential Write Speed Up To	500 MB/s	
Random Read Operations	23 K IOPS	24 K IOPS
Random Write Operations	58 K IOPS	59 K IOPS
Durability		
MTBF (Mean Time Between Failures)	2,000,000 hours	
Operating Environment		
Storage Temperature	-40℃ to 85℃ / -40℉ to 185℉	
Working Temperature	0℃ to 70℃ / 32℉ to 158℉	
Shock Resistance	3.1G RMS (2-500 Hz)	
Certifications	CE、CB、FCC、cTUVus、KCC、BSMI、VCCI、RoHS、RCM	
Warranty/Endurance:	3 years or 70 TBW	3 years or 145 TBW
Product Dimensions		
Size	100 x 69.8 x 6.7 mm / 3.94" x 2.75" x 0.26"	
Weight	≤ 50g	

Specifications subject to change without notice.

1. Backwards compatible with SATA II and I.
2. May not available for sale in some regions.
3. When calculating storage, 1 Megabyte (MB) = 1 million bits, 1 Gigabyte (GB) = 1 billion bits, 1 Terabyte (TB) = 1 Trillion bits. Depending on operating environment, the usable storage space may vary. When describing buffer or cache, 1 Megabyte (MB) = 1,048,576 Bytes. When representing transmission rate or interface, 1 Megabyte/s (MB/s) = 1 million bytes per second, 1 Gigabyte/s (Gb/s) = 1 billion bytes/s. SATA 6 Gb/s maximum effective data transmission rate is based on the Serial ATA specifications published by the SATA-IO organization. For more information about this, please visit www.sata-io.org
4. DIPM (Device-Initiated Power Management) was measured using the MobileMark™ 2012 benchmark.
5. MTBF was based on actual tests using Telcordia mean time to failure stress tests.

THE ECO DECLARATION

ecma INTERNATIONAL

Ecma/TC38-TG3/2015/026
(Rev. 1 – 15 April 2015)

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*	**Logo**
Company name *	*HP*	
Contact information * e-mail address	*HP Sustainability and Compliance Center* *sustainability@hp.com*	
Internet site *	*http://www.hp.com/hpinfo/globalcitizenship/environment/*	
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 *	*Desktop*
Commercial name *	HP Desktop Pro A G3
Model number *	*Pro A G3*
Issue date *	*2019/11/13*
Intended market *	☒ Global ☐ Europe ☐ Asia, Pacific & Japan ☐ Americas ☐ Other
Additional information	

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

About Annex B2

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:
P4.1 – P4.3 Consumable materials
P9.1 TEC and Print speed
P10.2 - P10.3 Chemical emissions from printing products
P11.1 - P11.3 Consumable materials for printing products.

Model number *	***Pro A G3***	**Logo**
Issue date *	***2019/11/13***	

Product environmental attributes - Legal requirements		**Requirement met**		
Item		Yes	No	n.a.
P1	**Hazardous substances and preparations**			
P1.1*	Products do comply with current European RoHS Directive. (See legal reference and NOTE B1)	☒	☐	
P1.2*	Products do not contain Asbestos (see legal reference). Comment: Legal reference has no maximum concentration value.	☒	☐	
P1.3*	Products do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), hydrobromofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrachloride, 1,1,1-trichloroethane, methyl bromide (see legal reference). Comment: Legal reference has no maximum concentration values.	☒	☐	
P1.4*	Products do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polychlorinated terphenyl (PCT) in preparations (see legal reference).	☒	☐	
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).	☒	☐	
P1.6*	Parts with direct and prolonged skin contact do not release nickel in concentrations above 0,5 μg/cm^2/week (see legal reference). Comment: Max limit in legal reference when tested according to EN1811:2011-5.	☒	☐	☐
P1.7*	REACH Article 33 information about substances in articles is available at (add URL or mail contact): http://www.hp.com/hpinfo/globalcitizenship/environment/productdata/reachdesktop-pcs.html	☒	☐	☐
P2	**Batteries**			
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)	☒	☐	☐
P2.2*	Batteries or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadmium. (See legal reference)	☒	☐	☐
P2.3*	Batteries and accumulators are readily removable. (See legal reference)	☒	☐	☐
P3	**Conformity verification & Eco design (ErP)**			
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): http://www8.hp.com/uk/en/certifications/technical/regulations-certificates.html sustainability@hp.com	☒	☐	☐
P3.2*	The product complies with the Eco design requirements for energy-related products, (see legal reference).	☒	☐	☐
	Required information is; ☐ given in item P15 or added to this document, ☒ available at (add URL): ***http://h22235.www2.hp.com/hpinfo/globalcitizenship/environment/productdata/europeErPLot3desktop-pc.html***	☒	☐	☐
P5	**Product packaging**			
P5.1*	Packaging and packaging components do not contain more than 0,01% lead, mercury, cadmium and hexavalent chromium by weight of these together.	☒	☐	
P5.2*	The packaging materials are marked with abbreviations and numbers indicating the nature of the material(s) used (see legal reference).	☒	☐	☐
P5.3*	The product packaging material is free from ozone depleting substances as specified in the Montreal Protocol (see legal reference). Comment: Legal reference has no maximum concentration values.	☒	☐	☐
P6	**Treatment information**			
P6.1*	Information for recyclers/treatment facilities is available (see legal reference).	☒	☐	☐

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 *	*Pro A G3*	**Logo**	
Issue date *	*2019/11/13*		

Product environmental attributes - Market requirements (See General NOTE GN below)
- Environmental conscious design

Item	*=mandatory to fill in. Additional information regarding each item may be found under P14.	Yes	No	n.a.
		Requirement met		
P7	**Design** **Disassembly, recycling**			
P7.1*	Parts that have to be treated separately are easily separable	☒	☐	☐
P7.2*	Plastic materials in covers/housing have no surface coating.	☒	☐	☐
P7.3*	Plastic parts > 100 g consist of one material or of easily separable materials.	☒	☐	☐
P7.4*	Plastic parts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.	☒	☐	☐
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.	☒	☐	☐
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).	☒	☐	☐
	Product lifetime			
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives	☒	☐	☐
P7.8*	Upgrading can be done using commonly available tools	☒	☐	☐
P7.9	Spare parts are available after end of production for: **5** years			☐
P7.10	Service is available after end of production for: **5** years			☐
	Material and substance requirements			
P7.11*	Product cover/housing material type (e.g. plastics, metal, aluminum): Material type: ***>ABS<*** Material type: ***>PC<*** Material type:			
P7.12	Insulation materials of external electrical cables are PVC free.	☐	☒	☐
P7.13	Insulation materials of internal electrical cables are PVC free.	☐	☒	☐
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.	☒	☐	☐
P7.15	Printed circuit boards, PCBs (without components) are low halogen: all ☐ PCBs > 25 g ☒ are low halogen as defined in IEC 61249-2-21. (See 1NOTE B2)	☐	☒	☐
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4: Marking: ***>PBT-GF30 FR(40)<***	☒	☐	☐
P7.17	Alt. 1: Chemical specifications of flame retardants in printed circuit boards > 25 g (without components): TBBPA (additive) ☐, TBBPA (reactive) ☐ (See NOTE B3), Other; chemical name: , CAS #:	☐	☐	☐
	Alt. 2: Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g according ISO 1043-4: ***FR(16)***	☒	☐	☐
P7.18	Alt. 1: Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations in concentrations above 0,1%: 1. Chemical name: , CAS #: (See NOTE B4) 2. Chemical name: , CAS #: " 3. Chemical name: , CAS #: "	☐	☐	☐
	Alt. 2: Chemical specifications of flame retardants in plastic parts > 25 g according ISO 1043-4: ***>PBT-GF30 FR(40)<***	☒	☐	☐
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)): ***http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database*** (See note B5)	☐	☒	☐
P7.20*	Postconsumer recycled plastic material content is used in the product (See Note B6 and B7): If YES; at least one of the two alternatives below shall be answered;	☒	☐	☐

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.
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: Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 standard, criterion 4.2.1

a) Of total plastic parts' weight > 25 g, the postconsumer recycled plastic material content (calculated as a percentage of total plastic by weight) is ***7***%.
or
b) The weight of recycled material is g.

Model number *	***Pro A G3***	**Logo**	
Issue date *	***2019/11/13***		

Product environmental attributes - Market requirements (continued)	**Requirement met**
Item	Yes No n.a.

		Yes	No	n.a.
	Material and substance requirements (continued)			
P7.21*	Biobased plastic material content is used in the product (See NOTE B7): 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. If mercury is used specify: Number of lamps: and maximum mercury content per lamp: mg	☒	☐	☐
P8	**Batteries**			
P8.1*	Battery chemical composition:			☐
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 *	☐
EPS No-load (External power supply / charger plugged in the wall outlet but disconnected from the product.)	W	W	W	***EPS Energy Report Data***	☒
PTEC * Typical Energy Consumption	W	W	W	***ENERGY STAR® Program Requirements for Computers***	☒
ETEC * Annual Energy Consumption	***87.1*** kWh/year	***87.8*** kWh/year	***87.3*** kWh/year	***ENERGY STAR® Program Requirements for Computers***	☐
External Power Supply Efficiency Level (International Efficiency Marking Protocol) * :				***ENERGY STAR® Program Requirements for Computers***	☒
Display resolution * : megapixels				***ENERGY STAR® Program Requirements for Computers***	☒
Default time to enter energy save mode: minutes				***ENERGY STAR® Program Requirements for Computers***	☒

		Yes	No	n.a.
P9.2*	Information about the energy save function is provided with the product.	☒	☐	☐
P9.3	Energy efficiency class (monitors only):			☒
P10	**Emissions**			
	Noise emission – Declared according to ISO 9296 (See NOTE B9)			

	Mode	Mode description	Statistical upper limit A-weighted sound power level, $L_{WA,c}$ (B)	
P10.1	Idle	* ***Fans on, HDD spinning (if applicable)***	* ***3.5***	☐
	Operation	* ***Fans on, HDD spinning***	* ***3.8***	☐
	Other mode			

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

Model number *	***Pro A G3***	**Logo**
Issue date *	***2019/11/13***	

Product environmental attributes - Market requirements (continued)		**Requirement met**		
Item		Yes	No	n.a.
	Electromagnetic emissions			
P10.4	Computer display meets the requirement for low frequency electromagnetic fields of the following voluntary program(s):	☐	☐	☐
P12	**Ergonomics for computing products**			
P12.1*	The display meets the ergonomic requirements of ISO 9241-307 for visual display technologies.	☐	☐	☒
P12.2*	The physical input device meets the requirements of ISO 9995 and ISO 9241-410.	☒	☐	☐
P13	**Packaging and documentation**			
P13.1*	Product packaging material type(s): ***PAPER/Corrugated*** weight (kg): ***0.99*** Product packaging material type(s): ***PLASTIC/Polyethylene Expanded - EPE*** weight (kg): ***0.416*** Product packaging material type(s): ***PLASTIC/Polyethylene low density - LDPE*** weight (kg): ***0.032***			
P13.2*	Product plastic primary packaging is free from PVC.	☒	☐	☐
P13.3*	For product primary corrugated fiberboard packaging, specify the contained percentage of minimum post-consumer recovered fiber content: ***80*** %			☐
P13.4*	Specify media for user and product documentation (tick box): Electronic ☒, Paper ☐, Other ☐			☐
P13.5	(Please only complete this item if paper documentation used) User and product documentation on paper media is chlorine-free: If Yes, please specify:	☒	☐	
	Totally chlorine-free	☒		
	Elemental chlorine-free	☐		
	Processed chlorine-free	☐		
P14	**Voluntary programs**			
P14.1	The product meets the requirements of the following voluntary program(s):			

ENERGY STAR®	Criteria version: ***7.1***	Date: ***2019/11/13***	Product category: ***Commercial desktop***
Eco-label: ***EPEAT***	Criteria version: ***IEEE 1680.1***	Date: ***2019/11/13***	Product category: ***Commercial desktop***
Eco-label:	Criteria version:	Date:	Product category:

P15	**Additional information (See NOTE B10)**
All Sections	***1. Product environmental information contained in this declaration is valid as of the date the declaration is published. 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 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[6] criterion 4.4.2.5.

Feature	Available [1]	Repairable [2]	Replaceable [3]	Upgradeable [4]
Processor	y	Y	Y	Y
main memory	Y	Y	Y	Y
mass storage (internal)	N	N/A	N/A	N/A
wireless networking	Y	Y	Y	Y
integrated graphics	Y	Y	Y*	Y
discrete graphics	Y	Y	Y	Y
display panel	N	N/A	N/A	N/A
integrated keyboard	N	N/A	N/A	N/A
Batteries	Y	Y	Y	Y
power supply	Y	Y	Y	Y
fan assemblies	Y	Y	Y	N
speaker(s) (internal)	Y	Y	Y	N
Camera	N	N/A	N/A	N/A
Touchpad	N	N/A	N/A	N/A
I/O connectors and external power connector	Y	Y	Y	N
readers [5]	N	N/A	N/A	N/A

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 ***Energy consumption of computer products; description of the tested product configuration:***

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 / Conditi (if applicable)
Off Mode (if applicable)		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)		
Network Standby / Sleep / Long Idle Mode (if applicable)		

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.

P10 **Sound Pressure Level**

Noise emission – Declared according to ISO 9296 (See NOTE B9**)**

	Mode	Mode description	Statistical upper limit A-weighted sound pressure level, $L_{pA,m}$ (dB)
P10.1			
	Idle	* ***Fans on, HDD spinning (if applicable)***	* ***23*** ☐
	Operation	* ***Fans on, HDD spinning***	* ***29*** ☐
	Other mode		

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[6] IEEE Standard for Environmental and Social Responsibility Assessment of Computers and Displays

	Measured according to: ☒ ISO 7779 ☒ ECMA-74 ☐ Other (only if not covered by ECMA-74)

Legal references Europe Annex B2

Reference	Declaration item
Directive 2011/65/EU (RoHS Directive) * * Specific exemptions apply for certain products and applications.	P1.1
Regulation (EC) 1907/2006(REACH, 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 2013/56/EC (Battery and accumulators Directive) * * 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 2006/95/EC (Low Voltage Directive)	P3.1
Directive 2004/108/EC (EMC Directive)	P3.1
Directive 1999/5/EC (R&TTE 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
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)	P6.1

Ecma/TC38-TG3/2015/024

Company environmental profile - THE ECO DECLARATION

Brand	***HP***	***Logo***
Company name *	***HP***	
Contact information *	***HP Sustainability and Compliance Center (SCC)*** ***sustainability@hp.com***	
Internet site *	***www.hp.com/hpinfo/globalcitizenship/environment/index.html***	
Issue date *	***2014-06-01***	
Intended market *	☒ **Global** ☐ **Europe** ☐ **Asia, Pacific & Japan** ☐ **Americas** ☐ **Other**	
Additional information		

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

The declaration may be published only when all rows and/or fields marked with an * are filled-in (n.a. for not applicable). Additional information regarding each item may be found under C7.

Company environmental profile - Legal requirements		**Requirement met**		
Item		Yes	No	n.a.
C1	**Product recycling**			
C1.1*	The company participates in a system or has its own system for collection and recycling of end of life products in countries where the company puts them on the market and where required (see legal reference)	☒	☐	
C2	**Battery recycling**			
C2.1*	The company participates in a system or has its own system for collection and recycling of batteries in countries where the company puts products on the market (see legal reference) or pays eco tax / fee where required.	☒	☐	
C3	**Packaging recycling**			
C3.1*	The company participates in a system or has its own system for collection and recycling of packaging material in countries where the company puts products on the market and where required (see legal reference)	☒	☐	

Company environmental profile - Market requirements		**Requirement met**		
Item		Yes	No	n.a.
C4	**Environmental policy and environmental management**			
C4.1*	The company has a documented environmental policy approved by the management.	☒	☐	
C4.2*	The company has an environmental management system covering:			
	Product development	☒	☐	
	Manufacturing	☒	☐	
	If so certified according to: ☒ ISO 14001 ☒ Other as specified in C7			
C4.3	The company regularly publishes an environmental report. If so, it meets the recommendations of ☒￼☐7	☒	☐	☐
C5	**Recycling**			
C5.1*	Information about the product, battery & packaging take back system (C1, C2 and C3) is available in printed or electronic format.	☒	☐	
C6	**Voluntary programs**			
C6.1	The company meets the requirements of the following voluntary program/s: Voluntary Agreement: Criteria version: Date: Product category: Voluntary Agreement: Criteria version: Date: Product category:			
C7	**Additional information**			
	HP has received ISO 14001 certification for its manufacturing operations (Worldwide Manufacturing of Computing and Imaging Products and Related Operations) and for product design for its Personal Systems Products and LaserJet and Enterprise Printing Products. The product design certifications include HP-wide product environmental design processes (such as HP's General Specification for the Environment) that cover all HP products. ***HP is committed to responsible business practices and transparency in its global citizenship policies and performance. We have a long history of working with suppliers to monitor and improve their social and environmental responsibility (SER) performance when required, as well as improving standards in the industry. HP endorses the EICC Code of Conduct in its entirety, and we have supplemented it with additional requirements specific to freedom of association as well as HP's Student and Dispatch Worker Guidance Standard for Supplier Facilities in the People's Republic of China (PRC). HP also has a strong Global Human Rights Policy in place. HP expects its suppliers to establish policies and processes regarding conflict minerals. HP conducts due diligence on its supply chain annually including requesting information about our suppliers' own due diligence and the smelters and refiners used. HP was the first IT company to publish its supply chain smelter list. HP follows the Global Reporting Initiative (GRI) guidelines as a basis for reporting. The GRI index provides easy reference to HP's Living Progress Report (LPR) content. HP offers take back services of products and printing suppliers in some 70 countries. Please refer to HP's Livings Progress Report for more details on our global efforts.***			

Legal references Europe Annex A

Reference	Declaration item
Directive 2012/19/EU (WEEE directive)	C1.1
Directive 2006/66/EC (Battery and accumulators Directive) * * 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.	C2.1
Directive 2004/12/EC (Packaging Directive)	C3.1
Decision 97/129/EC (Secondary packaging legislation)	C3.1

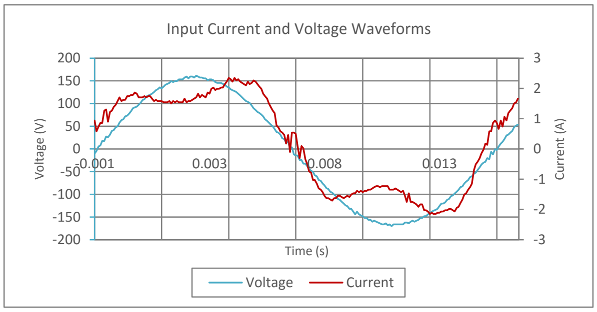
80 PLUS Verification and Testing Report

TYPICAL EFFICIENCY (50% Load):	**90.97%**
AVERAGE EFFICIENCY :	**89.68%**
80 PLUS COMPLIANT:	**YES**

ID Number	5190
Manufacturer	HP, Inc.
Model Number	(HP, Inc.) DPS-310AB-3 A
Serial Number	N/A
Year	2017
Type	OTHER
Test Date	1/4/18

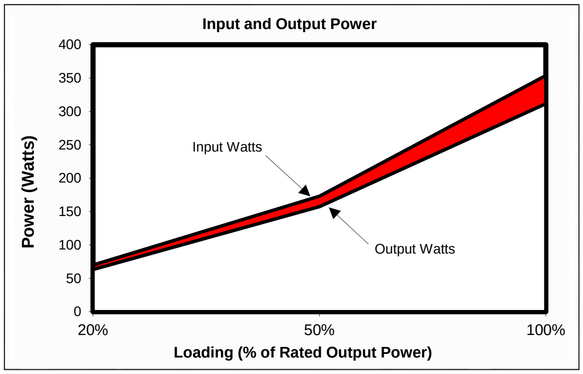
Rated Specifications	Value	Units
Input Voltage	100-240	Volts
Input Current	3.8	Amps
Input Frequency	50-60	Hz
Rated Output Power	**310**	**Watts**

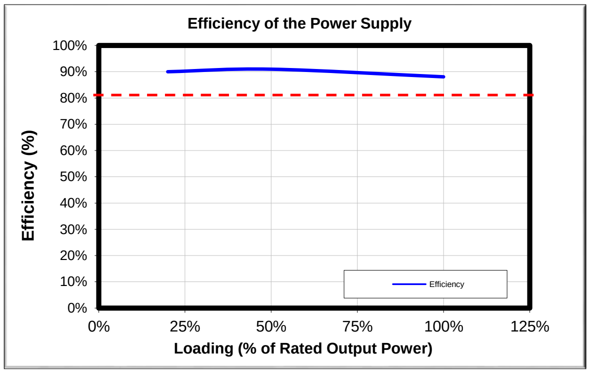
Note: All measurements were taken with input voltage at 115 V nominal at 60 Hz.



Input AC Current Waveform (ITHD = 30.8%, 50% Load)

I_{RMS}	PF	I_{THD}	Load	Input Watts	DC Terminal Voltage (V)/ DC Load Current (A) 12.1V (cumulative of 12.1V1, 12.1V2, etc.)	Output Watts	Efficiency
0.51	0.63	69.40%	10%	36.74	12.3/2.57	31.57	**85.92%**
0.75	0.81	55.59%	20%	70.10	12.29/5.14	63.09	**90.01%**
1.59	0.95	30.80%	50%	173.09	12.24/12.86	157.45	**90.97%**
3.09	0.99	9.59%	100%	353.90	12.17/25.61	311.65	**88.06%**





PLUG LOAD solutions

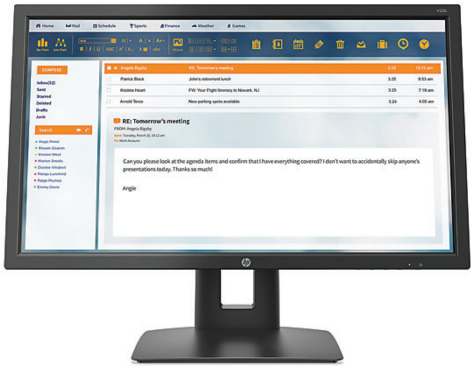
These tests were conducted by a third party independent testing firm on behalf of the 80 PLUS Program. 80 PLUS is a certification program to promote highly-efficient power supplies (greater than 80% efficiency in the active mode) in technology applications. *http://www.80plus.org/*

80 PLUS

Folheto de especificações

Monitor HP V22b

Visualização incrível de detalhes, na tela grande com uma resolução de 1920 x 1080 nítida e ângulos de visualização amplos. As imagens brilhantes, a conectividade conveniente, a capacidade de adaptação e o preço acessível são ideais para os negócios do dia a dia.



Visualizações de trabalho vívidas

- Experimente visualizações nítidas e amplas em uma tela de 21,5” na diagonal com ângulos de visualização de 178 graus, resolução Full HD 1920 x 1080 e uma taxa de contraste dinâmico de 10M:1.[1]

Confortavelmente produtivo

- Maximize a produtividade otimizando seu conforto de visualização. O suporte de 4 vias fornece flexibilidade para ajustar a altura, inclinação, rotação e orientação do monitor.

Conectividade conveniente

- Conecte dispositivos facilmente com portas HDMI, DP e VGA centralizadas, para acesso digital e compatibilidade legada.

Local de trabalho simplificado

- Conecte um Desktop HP Mini diretamente ao monitor para criar um espaço de trabalho eficiente. Use o padrão VESA de 100 mm para montar o monitor em uma parede ou braço.[2]

Recursos

- Fique tranquilo, pois o seu investimento em TI conta com o suporte de uma garantia limitada padrão de três anos. Para estender sua proteção, selecione Serviços HP Care Pack opcionais.
- Libere espaço valioso na mesa e melhore a ergonomia; o padrão VESA de 100 mm integrado suporta todos os acessórios HP Quick Release, incluindo o braço para um único monitor HP.

Monitor HP V22b Tabela de especificações

Referência	2XM33AA
Tamanho da tela (diagonal)	54,61 cm (21,5”)
Tipo do visor	IPS com retroiluminação LED
Área Ativa do Painel	18.74 x 10.53 in; 47,6 x 26,77 cm
Ângulo de visualização	178° horizontal; 178° vertical
Brilho	250 cd/m^2 [1]
Relação de contraste	1000:1 estático; 10000000:1 dinâmico [1]
Tempo de resposta	5 ms cinza para cinza (com overdrive) [1]
Relação largura-altura	16:9
Resolução nativa	FHD (1920 x 1080 a 60 Hz)
Resoluções admitidas	1024 x 768; 1280 x 1024; 1280 x 720; 1280 x 800; 1440 x 900; 1600 x 900; 1680 x 1050; 1920 x 1080; 640 x 480; 720 x 400; 800 x 600
Características do visor	Antirreflexo; IPS (In plane switching); Seleção de idioma; Retroiluminação LED; Controles na tela; Rotação em pivô; Plug and Play; Programável pelo usuário
Controles do usuário	Brilho; Controle de cor; Contraste; Sair; Controle de imagem; Informações; Idioma; Gerenciamento; Controle de energia; Controle de entrada; Controle de menu
Sinal de entrada	1 DisplayPort™ 1.1; 1 HDMI 1.4; 1 VGA; ((com suporte a HDCP))
Potência de entrada	Tensão de entrada 100 - 240 VCA
Consumo de energia	18 W (máximo), 16 W (típico), 0,5 W (estado de espera)
Dimensões com o suporte (L × P × A)	20.2 x 19.3 x 8.58 in 51,32 x 49,02 x 21,8 cm
Dimensões sem o suporte (L × P × A)	20,2 x 12 x 1,88” 51,32 x 30,47 x 4,79 cm
Peso	11,24 lb. 5,10 kg Com base.
Funcionalidades ergonômicas	Rotação: ±360°; Inclinação: -5º a +20°; Rotação em pivô: 90°
Ambiental	Vidro do monitor sem arsênio; Retroiluminação sem mercúrio
Conteúdo da caixa	Cabo de alimentação CA; Cabo DisplayPort™; Documentação; Cabo VGA; Certificado de garantia

Veja avisos legais de isenção de responsabilidade importantes na última página

Notas de rodapé de mensagens

[1] Todas as especificações representam as especificações típicas fornecidas pelos fabricantes dos componentes utilizados nos produtos HP; o desempenho real pode ser maior ou menor.
[2] Consulte o resumo de especificações do produto para ver a compatibilidade exata do PC, vendido separadamente. HP Quick Release necessário e vendido separadamente. Hardware de montagem vendido separadamente. Opcionais vendidos separadamente.
[3] Serviços HP Care Pack vendidos separadamente. Os níveis de serviço e tempos de resposta dos Serviços HP Care Pack podem variar, dependendo de sua localização geográfica. O serviço é iniciado na data de compra do hardware. Restrições e limitações se aplicam. Acesse www.hp.com/go/cpc para obter mais informações. Os serviços HP são regidos pelos termos e condições de serviço aplicáveis da HP, fornecidos ou indicados ao cliente no momento da compra. O cliente pode ter direitos legais adicionais, conforme as leis locais aplicáveis, e tais direitos não são afetados de nenhuma forma pelos termos e condições de serviços HP ou pela garantia limitada HP fornecida com o seu produto HP.
[4] Cada acessório vendido separadamente. Hardware de montagem vendido separadamente.

Notas de rodapé das especificações técnicas

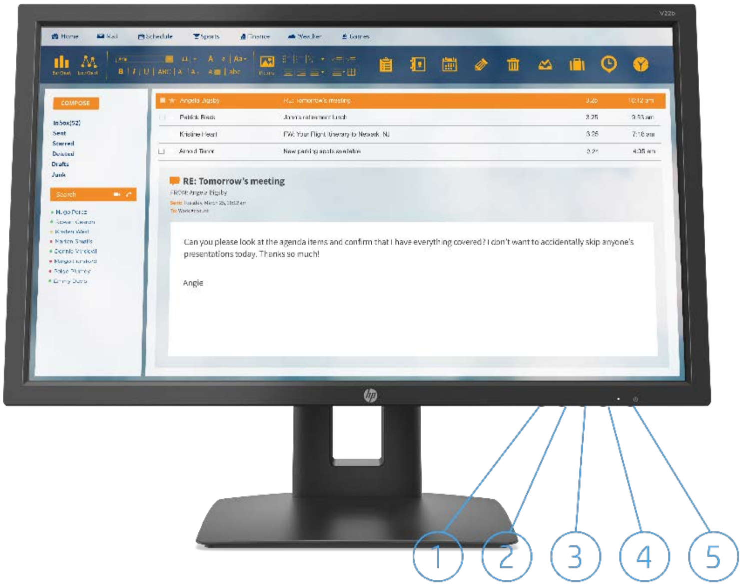
[1] Todas as especificações representam as especificações típicas fornecidas pelos fabricantes dos componentes utilizados nos produtos HP; o desempenho real pode variar para mais ou para menos.
[2] Trava vendida separadamente.

Receba atualizações
hp.com/go/getupdated

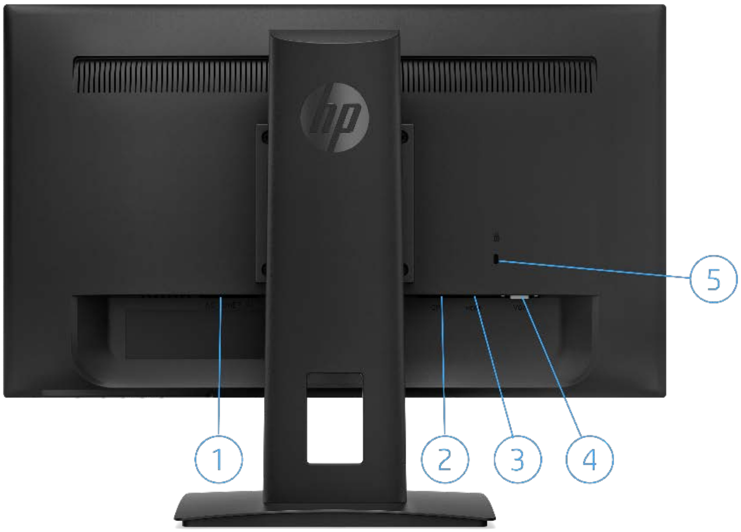
Aprenda mais em
hp.com

Overview

HP V22b 21.5-inch Monitor



1. **Menu**
2. **Minus (“-“)**
3. **Plus (“+”)**
4. **OK**
5. **Power**



1. **Power connector**
2. **DP**
3. **HDMI**
4. **VGA**
5. **Security lock slot**

Technical Specifications

Model: 2XM33AA

Panel	**Type**	21.5-inch IPS
	Viewable Image Area (diagonal)	**54,61 cm** (21.5 in) widescreen; diagonally measured
	Panel Active Area (W × H)	**47,60 x 26,77 cm** (18.74 × 10.54 in)
	Resolution	1920 x 1080 @ 60 Hz
	Aspect Ratio	16:9
	Viewing Angle*	178° horizontal/178° vertical
	Brightness*	250 cd/m^2
	Contrast Ratio*	1000:1 Static (Typical)
	Response Times*	5ms (Grey to Grey) Typical
	Pixel Pitch*	0.24795 mm
	Pixels Per Inch (PPI)*	102
	Backlight Lamp Life* (to half brightness)	30,000 hours minimum
	Panel Bit Depth	8bit (6 bit + Hi-FRC)
	Color Production*	Can display up to 16.7 million colors with the use of FRC technology
	Color Gamut* (Typical)	72% (NTSC)
	Default Color Temperature	Neutral (6500)
	Low Blue Light Modes	No

* Performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.

User Controls	**Buttons or Switches**	Menu/OK, Minus ("-")/Information, Plus ("+") /Input Control/Power
	On Screen Display (OSD) **User Controls**	Brightness, Contrast, Color Control, Input Control, Image Control, Power Control, Menu Control, Management, Language, Information, Exit
	Audio Controls	N/A
	Languages	10 (English, Spanish, German, French, Italian, Netherlands, Portuguese, Japanese, Traditional Chinese, and Simplified Chinese)
Signal Interface/ Performance	**Horizontal Frequency**	30–80 kHz
	Vertical Frequency	50-60 Hz
	Native Resolution	1920 x 1080 @ 60 Hz
	Preset Graphic Modes (non-interlaced)	640 x 480 @ 60Hz 720 x 400 @ 70Hz 800 x 600 @ 60Hz 1024 x 768 @ 60Hz

		1280 x 720 @ 60Hz 1280 x 800 @ 60Hz 1280 x 960 @ 60 Hz 1280 x 1024@ 60Hz 1440 x 900 @ 60 Hz 1600 x 900 @ 60Hz 1680 x 1050@ 60 Hz 1920 x 1080 @ 60Hz	
	Maximum Pixel Clock Speed	170 MHz	
	Anti-Glare	Yes	
Video/Other Inputs	**Plug and Play**	Yes	
	Input Connectors	(1) VGA (1) HDMI (1) DP (HDCP Support),	
	Cables Included	no	
Audio	**Speakers**	N/A	
Power	**Power Supply**	Internal	
	Input Power	100 - 240 VAC 50/60 Hz	
	Maximum Power	18 W	
	Typical Power	16 W	
	Sleep Power	0.5 W	
	Power Cable Length	**1,9 m** (6.23 ft)	
Mechanical	**Dimensions** (W × D × H)	**Unpacked w/stand** (lowest setting)	**51,32 x 2,18 x 49,02 cm** (20.2 x 8.58 x 19.3 in)
		Unpacked w/o stand (head only)	**51,32 x 4,79 x 30,47 cm** (20.2 x 1.89 x 12 in)
		Packaged	**58,5 x 20,5 x 37,5 cm** (23.03 x 8.07 x 14.76 in)
	Weight	**Head Only**	**3 kg** (6.6 lb)
		Unpacked	**5,1 kg** (11.22 lb)
		Packaged	**6,5 kg** (14.3 lb)
Ergonomic Features - Not available on head only model	**Detachable Stand**	Yes, ships detached	
	Tilt Range	-5° to + 20° vertical	
	Swivel	Yes. 360°	
	Pivot	Yes, 90°	
	Height	Yes, 100mm	
Environmental	**Temperature - Operating**	**5° to 35° C** (41° to 95° F)	
	Temperature - Non-operating	**–20° to 60° C** (–4° to 140° F)	

Technical Specifications

	Humidity - Operating	20% to 80% non-condensing
	Humidity - Non-operating	5% to 95%
	Altitude - Operating	**0 to 5,000 m** (0 to 16,400 ft)
	Altitude – Non-operating	**0 to 12,192 m** (0 to 40,000 ft)
	White LED Backlights	Yes
	CCFL Panel	No
	Arsenic-Free Display Glass	Yes
	Low Halogen[1]	N/A
	Mercury-Free Display Backlights	Yes
Options (each sold separately)	**HP LCD Monitor Quick Release —** Part number EM870AA[4]	An easy-to-use, VESA-compliant, LCD monitor mounting solution that allows you to quickly and securely attach an LCD monitor to a variety of stands, brackets, arms or wall mounts. For more information, refer to this product's QuickSpecs document.
	HP Business PC Security Lock V2 Kit — Part number N3R93AA	Help prevent chassis tampering and secure your PC and display in workspaces and public areas. Simply route the cable through the PC's lock slot and your display, anchor to a desk, table, or other fixed surface, and lock with your individual key. A master key configuration is also available upon request.
What's in the box?	**Monitor and Accessories**	HP V22b 21.5-inch Monitor, AC power cable **1,9 m** (6.2 ft), VGA cable **1,8 m** (5.9 ft), DP cable 1,8 m (5.9 ft)
	Documentation	Setup Poster, Product Notice, Warranty
	Software	N/A

Other	**User Guide Languages**	English, Portuguese Brazil, Spanish
	Warranty Languages	Portuguese Brazil, Spanish
	Color	Black
	VESA Mounting	100 mm VESA mount
	Security Lock-Ready	Yes
	Country of Origin	Brazil

Certification and Compliance	CB/FCC/cTUVus/S-Mark(Argentina)/WEEE, Certification (Win 7, Win 8, Win 10)
Compatibility	Compatible with platforms using the VESA standard video modes. Recommended for use with HP products.
Service and Warranty	Protected by HP, including a 3-year standard limited warranty (may vary by region). Optional HP Care Pack Services are extended service contracts that extend your protection beyond the standard warranties.[3]

Technical Specifications

1. External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.
2. Service levels and response times for HP Care Packs may vary depending on your geographic location. Service starts on date of hardware purchase. Restrictions and limitations apply. For details, visit: www.hp.com/go/cpc.

Change Log

Change Log	
V1 to V2	Updated Ergonomic Features and Height Adjustment
	Updated Response Time

HP Sales Central

Suporte a hardware no local no próximo dia útil para desktops por 3 anos HP (U6578E)

Ativo desde 01/11/2010

HP Care Pack

Visão geral

Quando problemas de hardware aparecem, quanto antes tudo voltar a funcionar, melhor. Conte com nossa experiência com o serviço HP de hardware no local no próximo dia útil[1] e melhore amplamente o tempo de disponibilidade de seu produto. Com assistência remota de alta qualidade ou suporte conveniente no local disponível no próximo dia útil, você dispõe de ajuda sempre que precisar para poder voltar ao trabalho.

Estaremos presentes no próximo dia útil[1]

Reparos presenciais, peças e serviços chegam à sua porta exatamente no dia útil seguinte. Nossos especialistas estão a postos nove horas por dia, cinco dias por semana.[1]

Suporte com o qual você pode contar

Saiba que seu hardware ficará como se fosse novo assim que possível, graças a nosso conhecimento especializado e eficiência em serviço e suporte.

A ajuda está na linha - ou à sua porta

Nossos especialistas de suporte estão sempre prontos para auxiliá-lo em qualquer situação, seja remotamente por telefone ou pessoalmente.

- **Suporte e diagnóstico remotos de problemas**
  Suporte de hardware no local, no próximo dia útil[1]
  Materiais e peças de substituição incluídos
- **Gerenciamento e procedimentos formais de encaminhamento**
  Acesso a ferramentas e informações de suporte eletrônico
  Suporte e acesso remoto ao sistema HP

Especificações

Tipo de suporte
Reparo no local

Duração
3 anos

Tempo de resposta
Resposta no dia útil seguinte

Período de cobertura
Dias úteis padrão - 9 horas

Local de serviço
No local

Método do serviço
Reparo no local

Cobertura da garantia
Dentro da garantia

Informações adicionais
Exclui monitor externo

Visão geral

1 Os níveis dos serviços e o tempo de resposta dos HP Care Packs podem variar dependendo de sua localização geográfica. O serviço é iniciado na data de aquisição do hardware. Restrições e limitações se aplicam. Para mais detalhes, visite www.hp.com/go/cpc. Os serviços HP são regidos pelos termos e condições da HP aplicáveis aos serviços fornecidos ou indicados ao cliente no momento da compra. O cliente pode ter direitos estatutários adicionais, conforme as leis locais aplicáveis, e tais direitos não são afetados de nenhuma forma pelos termos e condições da HP para serviços ou pela garantia limitada HP fornecida com o seu produto HP.

Especificações detalhadas

Características de serviço, cabeçalho
Acesso a ferramentas e informações de suporte eletrônico

Características de serviço, cabeçalho
Gerenciamento e procedimentos formais de encaminhamento

Características de serviço, cabeçalho
Materiais e peças de substituição incluídos

Características de serviço, cabeçalho
Suporte de hardware no local, no próximo dia útil[1]

Características de serviço, cabeçalho
Suporte e acesso remoto ao sistema HP

Características de serviço, cabeçalho
Suporte e diagnóstico remotos de problemas

Cobertura da garantia
Dentro da garantia

Código UNSPSC
81111812

Duração
3 anos

Informações adicionais
Exclui monitor externo

Local de serviço
No local

Método do serviço
Reparo no local

Nome do código
216

Número de publicação de folheto de especificações
4AA5-6385

Período de cobertura
Dias úteis padrão - 9 horas

Período de cobertura (mês)
36

Tempo de resposta
Resposta no dia útil seguinte

Tipo Care Pack
Eletrônica - Para garantia base de 1 ano para hardware

Tipo de garantia
S

Tipo de suporte
Reparo no local

Contact HP - Phone Assist

Telefones para obter suporte técnico de produtos HP

IMPORTANTE: Antes de ligar, certifique-se de ter em mãos o produto, o número de série do produto, o número da nota fiscal e a data da compra. Estas são informações necessárias para um atendiment adequado.

Telefones:	**Produtos / Servicios:**	**Horário de operação (horário de Brasília)**
Para Grande São Paulo: 01138788338 Demais localidades: 0800 709-7751	Vendas	Opção 2 Usuário doméstico e empresariais – 8h – 18h (Horário de Brasilia) Segunda a Sexta
	Suporte Tecnico	Opção 3 Usuário doméstico – 8h – 22h (Horário de Brasilia) Segunda a Sábado Empresarial – 8h – 18h (Horário de Brasilia) Segunda a Sexta
	Programas Especiais	Opção 5 8h – 18h (Horário de Brasilia) Segunda a Sexta * Mais código de programa

***As opções do menu podem indicar alternativas para atendimento não técnico e para produtos sem garantia.**

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Verificar a garantia manualmente

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Brasil

Número de série * ?

Exemplo: HU265BM18V

Verificar garantia

Verificar várias garantias

Continuar

Há mais de uma garantia para verificar? Utilize nossa opção para verificar várias garantias para agilizar o processo.

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Encontre artigos de solução de problemas,

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Encontre facilmente software e drivers que

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Diagnosticar e corrigir problemas da

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Jabil (http://jabil.com)

KIOXIA Corporation (http://www.kioxia.com)

KNS Group LLC (YADRO Company) (http://www.yadro.com)

LOGIN INFORMATICA (http://www.login.com.br)

Loongson Technology Corporation Limited (http://www.loongson.cn)

Marvell Asia Pte, Ltd. (http:/www.marvell.com)

Microchip Technology Inc. (http://www.microchip.com/)

MULTILASER INDUSTRIAL S/A (https://www.multilaser.com.br/)

Oracle (http://www.oracle.com)

Phoenix Technologies Ltd. (http://www.phoenix.com)

Qualcomm Inc

Quanta Computer Inc (http://www.quantatw.com/)

Realtek Semiconductor (http://www.realtek.com.tw)

Synopsys (http://www.synopsys.com)

US Department of Defense

VIA Technologies, Inc. (http://www.via.com.tw/)

Xilinx Inc (https://www.xilinx.com)

Alliance Partner

Learn more: Current Work Registers (/about/registers)

ASHRAE (https://www.ashrae.org/home)

Broadband Forum (BBF) (https://www.broadband-forum.org/)

China Communications Standards Association (http://www.ccsa.org/cn/english)

China Electronics Standardization Institute (CESI) (http://www.en.cesi.cn/)

CXL Consortium (https://www.computeexpresslink.org/)

ETSI-NFV (http://portal.etsi.org/portal/server.pt/community/NFV/367)

Gen-Z (https://genzconsortium.org/)

HDBaseT (https://hdbaset.org/)

MIPI Alliance (https://www.mipi.org/)

NVM Express (http://nvmexpress.org/)

OMG-Cloud Working Group (http://www.cloud-council.org)

Open Compute Project (OCP) (http://www.opencompute.org/)

Open Data Center Committee (ODCC) (http://www.opendatacenter.cn/)

Open Fabrics Alliance (OFA) (https://www.openfabrics.org/)

Open Grid Forum (http://ogf.org)

OpenStack Foundation (http://www.openstack.org)

PCI Industrial Computer Manufacturer Group (PICMG) (https://www.picmg.org/)

PCI-SIG (https://pcisig.com/)

Storage Networking Industry Association (http://www.snia.org/)

TeleManagement Forum (http://www.tmforum.org/)

The Green Grid (http://www.thegreengrid.org)

The Open Group (http://www.opengroup.org)

Unified Extensible Firmware Interface (http://www.uefi.org/)

Academic Alliance

"Gheorghe Asachi" Technical University of Iaşi (http://www.tuiasi.ro/en/)

Athens University of Economics and Business (https://www.aueb.gr/en)

Dongguk University (http://www.dongguk.edu)

Federal Institute of Technology of Espirito Santo (https://www.ufes.br/)

George Mason University (http://c4i.gmu.edu)

Hungarian Academy Of Sciences Institute For Computer Science And Control (https://sztaki.hu/en)

Indian Institute of Technology Roorkee (https://www.iitr.ac.in/)

Institute of Information Security (IISEC) (https://www2.iisec.ac.jp/english/)

Kasetsart University (https://www.ku.ac.th/th)

Logitrain (https://logitrain.edu.au)

Marshall University (http://www.marshall.edu)

National Technical University of Athens (http://www.ntua.gr/)

Paul Sabatier University (https://www.univ-tlse3.fr/)

Research Center on Scientific and Technical Information (CERIST) (http://www.cerist.dz/index.php/en/)

Ruprecht-Karls-University Heidelberg (https://www.uni-heidelberg.de/en)

Shanghai Jiao Tong University (http://en.sjtu.edu.cn/)

Swami Rama Himalayan University (http://www.srhu.edu.in/)

Technische Universitaet Dresden (https://tu-dresden.de/)

Texas Tech University (http://www.ttu.edu/)

University of California (https://www.universityofcalifornia.edu/)

University of New Hampshire (http://unh.edu)

University of Pisa - Italy (https://www.unipi.it/)

University of Seville (https://www.us.es/)

University of Sydney (https://www.sydney.edu.au/)

University of Western Ontario (https://www.uwo.ca/)

University of Wuerzburg (https://www.uni-wuerzburg.de/startseite/)

CIM Forum Leadership

Advanced Micro Devices (http://www.amd.com/)

Broadcom Inc. (http://www.broadcom.com)

Dell Technologies (http://www.dell.com)

CIM Forum Participatory

HP, Inc (http://www.hp.com/)

Lenovo (http://www.lenovo.com)

(/)

CIM Forum

The DMTF’s CIM Forum (formerly SMF) develops and implements programs for verifying compliance of software and hardware that implement DMTF’s system management standards. This includes the Desktop and mobile Architecture for System Hardware (DASH) (http://www.dmtf.org/standards/dash) and Systems Management Architecture for Server Hardware (SMASH) (http://www.dmtf.org/standards/smash) standards. CIM Forum also enables adoption of DASH and SMASH through programs and activities that allow developers to validate their implementations.

DMTF's DASH (http://www.dmtf.org/standards/dash) standard is a suite of specifications that takes full advantage of the DMTF’s Web Services for Management (WS-Management) specification – delivering standards-based web services management for desktop and mobile client systems. Through DASH, DMTF provides the next generation of standards for secure out-of-band and remote management of desktop and mobile systems.

DMTF's SMASH (http://www.dmtf.org/standards/smash) standard – which includes the Server Management Command Line Protocol specification – is a suite of specifications that deliver industry standard semantics, protocols and profiles to make data center resource management interoperable.

As of January 2019, the CIM Forum has taken on the work of the Architecture, CPPS and Schema working groups. The expanded scope of the forum will enable continued development and maintenance of the important standards provided by the afforementioned groups - now task forces under the CIM Forum.

Forum Membership

To participate in CIM Forum, an organization must be a member of the DMTF at the Participation, Leadership or Board level, and must also join the Forum as a member. Granted at the company level, membership in the CIM Forum allows an unlimited number of representatives from a member company to participate in Forum activities.

Annual membership dues - $5,000 for the CIM Forum Leadership Level and $2,500 for CIM Forum Participatory membership - are prorated (http://www.dmtf.org/join/smf/dues_schedule) for companies that join during the fiscal year (the new DMTF membership year begins on April 1).

Membership in CIM Forum provides a number of valuable privileges:

Leadership Members ($5,000)

In addition to all rights granted to Participatory members, Leadership members of the CIM Forum receive:

- Access to all Forum governance, communication and documents
- Eligibility for role as a Forum officer
- Eligible for unlimited product submissions and DMTF registry listings
- Ability to contribute company quotes to Forum publications and press releases (/join/company-signup)

Participatory Members ($2,500)

In addition to all rights granted to Non-CIM Forum members, Participatory members of the CIM Forum receive:

- Participate in conference calls and face-to-face meetings of the Forum
- Vote on all Forum matters
- Early access to Forum conformance test suite software and process
- Eligible for unlimited product submissions and DMTF registry listings
- Company name listed in Forum publications and press releases
- Participate in plugfests (/join/company-signup)

Non-CIM Forum Members ($0)

Companies that are members of DMTF and not members of the CIM Forum receive:

- Access to the binaries of the final releases of the certification suite
- Ability to view the product certification registry (if applicable).
- Access to the general discussion reflector
- Participation a Task Force formed within the CIM Forum
- Eligible to be elected as a Task Force Chair of a Task Force within the CIM Forum
- Participate in open plugfests (provided proper fees are paid if required, the company is a DMTF Member, and the DMTF membership allows participation in plugfests)

Join the CIM Forum members (http://www.dmtf.org/about/list) and take advantage of this unique opportunity to shape the future of systems management in the data center. For more information, DMTF members can view the full "Rules Governing Forum Membership" document on the CIM Forum WG page (http://www.dmtf.org/apps/org/workgroup/cimf/).

How to Join

If you are a current DMTF member at the Participation, Leadership or Board level, visit our Add Forum Membership page (http://www.dmtf.org/join/add-forum-membership) to join CIM Forum.

If you are not yet a member of DMTF, you can sign up for both organization and Forum membership simultaneously via the New Company Sign-Up form (https://www.dmtf.org/join/company-signup). Select either the CIM Forum Leadership or CIM Forum Participatory level in the form’s optional “Forum Membership” drop-down. If you have any questions, please complete our Contact Us form (http://www.dmtf.org/contact).

Forum Dues Renewal

Existing Forum members will receive renewal invoices in late February for the upcoming membership year (April 1 to March 31).

If you have any questions about joining the DMTF’s CIM Forum, please contact DMTF Administration (http://www.dmtf.org/about/contact?to=admin).