

Aquisição de equipamentos de informática, conforme descrição constante no Termo de Referência, Anexo II, deste edital.

ITEM	QUANTIDADE	UNIDADE	DESCRIÇÃO DOS ITENS	MARCA/MODELO	VALOR UNITÁRIO	VALOR TOTAL
1	18	UNIDADE	NOTEBOOK 8GB DE MEMORIA CONFORME EDITAL	Lenovo - V15 G2 ITL, 82ME0000BR, Intel Core i5-1135G7 (4C / 8T, 2.4 / 4.2GHz, 8MB), 8GB Soldered DDR4-3200, 256GB SSD M.2 2242 PCIe 3.0x4 NVMe, 3-year on-site Garantia 5WS0Q81869_3Years on-site Link para consulta: https://psref.lenovo.com/Detail/Lenovo/Lenovo_V15_G2_ITL?M=82ME0000BR Linha gratuita para suporte: 0800 885 0500 Banco de dados Lenovo: https://www.lenovo.com/br/pt/data-center/solutions/database Assistência Técnica Lenovo: https://www.lenovo.com/br/pt/contato Mídia de recuperação Lenovo: https://support.lenovo.com/br/pt/solutions/ht103653 Abertura de chamado Lenovo: https://support.lenovo.com/br/pt Drivers Lenovo: https://pcsupport.lenovo.com/br/pt Trava de Segurança para Notebook MD9 Segredo - 6359 Mouse USB Fortrek 1000DPI com Mousepad Fortrek Será fornecido um backup pré-instalado em um pendrive conforme solicitado em termo de referência	R\$ 6.000,00	R\$ 108.000,00

2	4	UNIDADE	NOTEBOOK 16GB DE MEMORIA CONFORME EDITAL	Lenovo - V15 G2 ITL, 82ME0000BR, Intel Core i5-1135G7 (4C / 8T, 2.4 / 4.2GHz, 8MB), 8GB + 8GB Soldered DDR4-3200, 256GB SSD M.2 2242 PCIe 3.0x4 NVMe, 3-year on-site Garantia 5WS0Q81869_3Years on-site Link para consulta: https://psref.lenovo.com/Detail/Lenovo/Lenovo_V15_G2_ITL?M=82ME0000BR Linha gratuita para suporte: 0800 885 0500 Banco de dados Lenovo: https://www.lenovo.com/br/pt/data-center/solutions/database Assistência Técnica Lenovo: https://www.lenovo.com/br/pt/contato Mídia de recuperação Lenovo: https://support.lenovo.com/br/pt/solutions/ht103653 Abertura de chamado Lenovo: https://support.lenovo.com/br/pt Drivers Lenovo: https://pcsupport.lenovo.com/br/pt Trava de Segurança para Notebook MD9 Segredo - 6359 Mouse USB Fortrek 1000DPI com Mousepad Fortrek Será fornecido um backup pré-instalado em um pendrive conforme solicitado em termo de referência	R\$ 6.200,00	R\$ 24.800,00
3	2	UNIDADE	NOBREAK 6000VA DISOLADO 16 BATERIAS	SMS - Double Sinus µSS 6000 Di	R\$ 21.800,00	R\$ 43.600,00
4	6	UNIDADE	NOTEBOOK 8GB DE MEMORIA CONFORME EDITAL	Lenovo - V15 G2 ITL, 82ME0000BR, Intel Core i5-1135G7 (4C / 8T, 2.4 / 4.2GHz, 8MB), 8GB Soldered DDR4-3200, 256GB SSD M.2 2242 PCIe 3.0x4 NVMe, 3-year on-site Garantia 5WS0Q81869_3Years on-site Link para consulta: https://psref.lenovo.com/Detail/Lenovo/Lenovo_V15_G2_ITL?M=82ME0000BR Linha gratuita para suporte: 0800 885 0500 Banco de dados Lenovo: https://www.lenovo.com/br/pt/data-center/solutions/database Assistência Técnica Lenovo: https://www.lenovo.com/br/pt/contato Mídia de recuperação Lenovo: https://support.lenovo.com/br/pt/solutions/ht103653 Abertura de chamado Lenovo: https://support.lenovo.com/br/pt Drivers Lenovo: https://pcsupport.lenovo.com/br/pt Trava de Segurança para Notebook MD9 Segredo - 6359 Mouse USB Fortrek 1000DPI com Mousepad Fortrek Será fornecido um backup pré-instalado em um pendrive conforme solicitado em termo de referência	R\$ 6.000,00	R\$ 36.000,00

04374

					TOTAL	R\$	212.400,00
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0438

PRIME

COMÉRCIO E SERVIÇOS LTDA

(18) 3722-6600

TJUNIOR03@HOTMAIL.COM

RUA J.A DE CARVALHO N 1083

ANDRADINA-SP

CNPJ = 42.834.669/0001-29

IE = 170.160.035/29

0439

PROPOSTA DE PREÇOS

PREGÃO N.º 14/2022

DADOS DO PROPONENTE

Razão social: ADEGA PRIME COMÉRCIO E SERVIÇOS LTDA

CNPJ(MF): 42.834.669/0001-129

Inscrição Estadual: 170.160.035-29

Endereço: Rua José Augusto de Carvalho 1083

Fone e Fax: 18 3722-6600

Cidade: Andradina

Estado: SP

E-mail institucional: tjunior03@hotmail.com

Nome do Responsável legal para assinatura do contrato: JULIANA DA COSTA NOBRE

R.G.: 42563821

CPF(MF): 386.954.508-99

Data de Nascimento: 27/11/1994

Endereço Residencial RUA MATO GROSSO
1606 CENTRO

Cidade/UF: Andradina/SP

Nacionalidade: Brasileiro

Profissão: Empresária

Estado Civil: CASADA

Telefone: 18 981289730

E-mail pessoal: julianadacnobre27@gmail.com

PRIME

COMÉRCIO E SERVIÇOS LTDA

(18) 3722-6600
TJUNIOR03@HOTMAIL.COM
RUA J.A DE CARVALHO N 1083
ANDRADINA-SP
GNPJ = 42.834.669/0001-29
IE = 170.160.035/29

0440

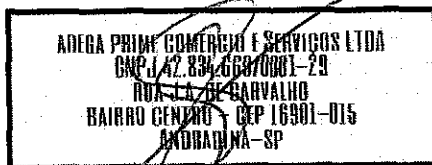
BANCO PARA PAGAMENTO
SANTANDER (033) Agencia 0043 C/C 13-006809-0
EMAIL Para qualquer tipo de comunicação
Tjunior03@hotmail.com

Declaro, de que nos preços propostos encontram-se incluídas todas as despesas diretas e indiretas, tributos incidentes, encargos sociais, previdenciários, trabalhistas e comerciais, frete, seguros e demais despesas com transporte até o destino, embalagens e quaisquer outros ônus que porventura possam recair sobre o fornecimento do objeto da presente licitação;

Declaro, sob as penas da lei, que estou plenamente ciente e de acordo com todas as condições estabelecida no presente edital e seus anexos, bem como declaro que o preço ofertado contempla todos os custos diretos e indiretos incorridos na data da apresentação desta proposta incluindo, entre outros: tributos, encargos sociais, material, despesas administrativas, seguro, frete, lucro e outros

Validade da proposta de, no mínimo, 60 (sessenta) dias contados a partir da data de sua apresentação;

Atenciosamente,



STEPHANO ALCANTARA SOARES, RG: 38.258.428-4
Representante Legal

SOROCABA-SP, 23 DE JUNHO de 2022

124

0441

CPU Benchmarks

Over 1,000,000 CPUs Benchmarked

Intel Core i5-1135G7 @ 2.40GHz

Price and performance details for the Intel Core i5-1135G7 @ 2.40GHz can be found below. This is made using thousands of [PerformanceTest](#) benchmark results and is updated daily.

- The first graph shows the relative performance of the CPU compared to the 10 other common (single) CPUs in terms of PassMark CPU Mark.
- The 2nd graph shows the value for money, in terms of the CPUMark per dollar.
- The pricing history data shows the price for a single Processor. For multiple Processors, multiply the price shown by the number of CPUs.

🏠 CPUS

- 📈 High End
 - High Mid Range
 - Low Mid Range
 - Low End
- 💰 Best Value (On Market)
 - Best Value XY Scatter
 - Best Value (All time)

- 🕒 New Desktop
 - New Laptop

- 📊 Single Thread
 - Systems with Multiple CPUs
 - Overclocked
 - Power Performance
 - CPU Mark by Socket Type
 - Cross-Platform CPU Performance

- 🔍 CPU Mega List
 - Search Model

🔍 Compare 0

Intel Core i5-1135G7 @ 2.40GHz

Description: Intel Iris Xe Graphics

Class:	Socket:
Laptop	BGA1526
Clockspeed:	Turbo Speed:
2.4 GHZ	4.2 GHZ
Cores:	Typical TDP:
4	15 W
Threads:	
8	
TDP Down:	TDP Up
12 W	: 28 W

Other names: 11th Gen Intel(R) Core(TM) i5-1135G7 @ 2.40GHz

CPU First Seen on Charts: Q3 2020

CPUMark/\$Price: 32.67

Overall Rank: 672

Last Price Change: \$309.00 USD (2020-07-01)

Average CPU Mark


10095

Single Thread Rating: 2731
Samples: 2186*
*Margin for error: Low

+ COMPARE

CPU Test Suite Average Results for Intel Core i5-1135G7 @ 2.40GHz

Integer Math

33,528 MOps/Sec

[Handwritten signature]

Lenovo Warranty & Services Offerings

Country: BR

Compatible Model :Lenovo V15 G2 ITL(82ME)

Warranty Starting Point :1 Year Depot



*Data is provided by Lenovo Smartfind. ©2022 Lenovo. All rights reserved.

Upgrade Services

Offering Description

Part Number

List Price(BRL)

Depot

3Y Courier/Carry-in upgrade from 1Y Courier/Carry-in

5WS0Q81869

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PERFORMANCE

Processor

Intel® Core™ i5-1135G7 (4C / 8T, 2.4 / 4.2GHz, 8MB)

Graphics

Integrated Intel Iris® Xe Graphics functions as UHD Graphics

Chipset

Intel SoC Platform

Memory

8GB Soldered DDR4-3200

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Max Memory

Up to 16GB (8GB soldered + 8GB SO-DIMM) DDR4-3200 offering

Storage

256GB SSD M.2 2242 PCIe® 3.0x4 NVMe®

Storage Support

Model with 38Wh battery: up to two drives, 1x 2.5" HDD + 1x M.2 SSD

- 2.5" HDD up to 1TB
- M.2 2242 SSD up to 512GB

Card Reader

None

Optical

None

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 1.5W x2, Dolby® Audio™

Camera

HD 720p with Privacy Shutter

Microphone

2x, Array

Battery

Integrated 38Wh

Max Battery Life

MobileMark® 2018: 5.5 hr (38Wh)

Power Adapter

65W Round Tip (2-pin, Wall-mount)

DESIGN

Display

15.6" FHD (1920x1080) TN 250nits Anti-glare, 45% NTSC

Touchscreen

None

Keyboard

Non-backlit, Portuguese (Brazil)

Case Color

Black

Surface Treatment

Texture

Case Material

PC + ABS (Top), PC + ABS (Bottom)

Dimensions (WxDxH)

359.2 x 235.8 x 19.9 mm (14.14 x 9.28 x 0.78 inches)

Weight

Starting at 1.7 kg (3.75 lbs)

SOFTWARE

Operating System

Windows® 10 Pro 64, Portuguese (Brazil)

Bundled Software

Office Trial

CONNECTIVITY

Ethernet

100/1000M

WLAN + Bluetooth®

11ac, 2x2 + BT5.0

Standard Ports

- 1x USB 2.0
- 1x USB 3.2 Gen 1
- 1x USB-C® 3.2 Gen 1 (support data transfer only)
- 1x HDMI® 1.4b
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Power connector

SECURITY & PRIVACY

Security Chip

Firmware TPM 2.0

Fingerprint Reader

None

Physical Locks

Kensington® Nano Security Slot

Other Security

Camera privacy shutter

SERVICE

Base Warranty

None

Included Upgrade

1Y Onsite upgrade from 0 base warranty (5WS1E23095)

CERTIFICATIONS

Green Certifications

- ENERGY STAR® 8.0
- ErP Lot 3
- RoHS compliant

Other Certifications

TÜV Rheinland® Low Blue Light

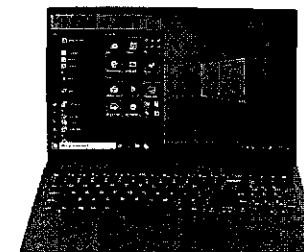
MODEL

TopSeller : Yes

Announce Date : 2021-07-21

EAN / UPC / JAN : 195713392129

End of Support : N/A



intel

• Lenovo reserves the right to change specifications or other product information without notice.

• Product image on this page is a sample, it may not match the real color of this model

• Battery life is an estimated maximum. Actual battery life may vary based on many factors, including screen brightness, active applications, features,

0443

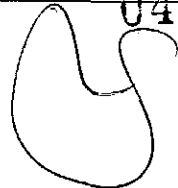


Encontre o que você procura...

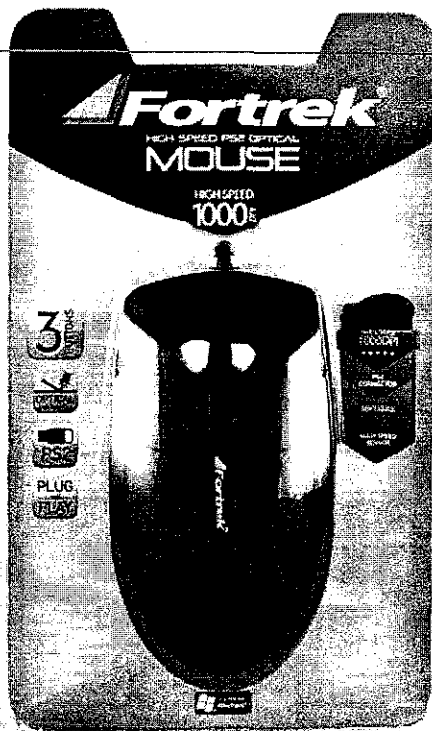
A Fortrek

Entre em contato

0444



Fortrek > Informatica > Mouses > Com Fio



Mouse USB 1000dpi OM-101BK Preto FORTREK

DOWNLOADS

[Manual](#), [Fotos em alta](#), [Banners...](#)

DESCRIÇÃO

[Características e detalhes do produto.](#)

Compartilhe:

Twitter 0

Facebook 0

NAVEGUE

[DESCRIÇÃO](#)

[ESPECIFICAÇÕES](#)

[GARANTIA](#)

[DOWNLOADS](#)

Conector: USB 2.0

Cor: Preto

Número de botões: 3 botões + scroll

Resolução máxima: 1000 DPI

Scroll: Sim

Sensor: Sensor Óptico

Comprimento: Cabo de 1,50 metros

Conserto / Troca: Análise

Informação adicional:

Cadastre-se!

Receba direto no seu email as novidades e ofertas da Fortrek

Digite seu nome...

Digite seu email...

OK

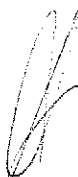
A Fortrek

Produtos para PC Gamer, Mouse, Teclados, Fones de Ouvido, Cabos HDMI, Fontes de Energia para computadores e notebooks, entre outros Itens que desenvolvidos de acordo com as mais recentes tendências dos mercados globais. Conheça a linha de Acessórios Fortrek! [Leia mais.](#)

Segmentos

Institucional

Encontre-nos





Encontre o que você procura...

0445

[A Fortrek](#)

[Entre em contato](#)

[Fortrek](#) > [Informatica](#) > [Mouses](#) > [Mousepads](#)

Mouse Pad (180x220mm) BAP-102BK Preto FORTREK

DOWNLOADS

[Manual](#), [Fotos em alta](#), [Banners...](#)

DESCRIÇÃO

[Características e detalhes do produto.](#)

Compartilhe:

Curtir 0

Twitter



NAVEGUE

[DESCRIÇÃO](#)

[ESPECIFICAÇÕES](#)

[GARANTIA](#)

[DOWNLOADS](#)

Cor: Preto

Dimensões: 180x220x3mm

Material: EVA e tecido

Conserto / Troca: Troca

Informação adicional:

Cadastre-se!

É preciso ter 16 ou mais anos para poder se cadastrar na Fortrek.

Digite seu nome...

Digite seu email...

OK

A Fortrek

Produtos para PC Gamer, Mouse, Teclados, Fones de Ouvido, Cabos HDMI, Fontes de Energia para computadores e notebooks, entre outros itens que desenvolvidos de acordo com as mais recentes tendências dos mercados globais. Conheça a linha de Acessórios Fortrek! [Leia mais.](#)

Segmentos

[Fontes](#)

[Racks e Cadeiras](#)

Institucional

[Quem Somos](#)

[Política de Privacidade](#)

Encontre-nos

DÚVIDAS? ENTRE EM CONTATO
CONOSCO

0446

Características:

- Marca: MD9
- Modelo: 6359

Especificações:

- Trava de Segurança para Notebook c/ Segredo.
- Cabo de aço aço revestido com pvc, super resistente
- Comprimento do cabo: 1 metro

Conteúdo da embalagem:

- 01 Trava de Segurança para Notebook
- 01 Segredo

Garantia:

3 meses de garantia (3 meses de garantia contratual junto ao fabricante + 3 meses referentes à garantia legal, nos termos do artigo 26, II, do Código de Defesa do Consumidor)

Peso:

197 gramas (bruto com embalagem)

[About](#)[Membership](#)[Education](#)[Blog](#)[News](#)[Events](#)[Developers](#)[Public Support](#)

0447

[-Membership List](#)**Unified Extensible Firmware Interface Forum**[Home](#) » [Membership](#)

Membership List

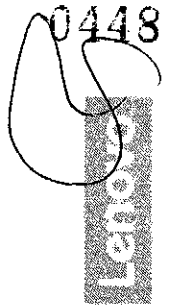
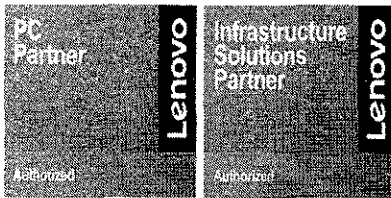
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[ARM Limited](#) [Lenovo](#)
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[Hewlett Packard Enterprise](#) [Phoenix Technologies](#)

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Beijing Bytedance Network Technology Ltd.	Positivo Tecnologia S.A.
Broadcom Corporation	Qualcomm Inc.
Canonical Limited	Realtek Semiconductor Corp.
Cirrus Logic, Inc.	Red Hat, Inc.
Cisco	Rivos Inc.
Citrix Systems, Inc.	Seagate Technology LLC
Cumulus Networks Inc.	SIFIVE, INC.
Daten Tecnologia	SUPER MICRO Computer, Inc.
Dynabook Inc	SUSE LLC
EMC Corporation	Synaptics (DisplayLink (UK) Limited)
Google	Tachyum Inc
Huawei Technologies Co., Ltd	The Linux Foundation



20 jun 2022

STEPHANO ALCANTARA

ADEGAPRIME COMERCIO E SERVICOS LTDA

1083 R JOSE AUGUSTO DE CARVALHO

16901-015

Brazil

1216989665/42834669000129

Esta notificação é para confirmar que ADEGAPRIME COMERCIO E SERVICOS LTDA é um Revendedor Autorizado da Lenovo localizado no Brazil. Esta autorização é válida até 30 jun 2022.

Como membro do Programa Lenovo Partner Engage, ADEGAPRIME COMERCIO E SERVICOS LTDA ganhou:

- Status de Authorized para Lenovo PCSD e está autorizado a revender todos os produtos de PCSD, incluindo, mas não se limitando a:

Produtos de computador pessoal, desktops ThinkCentre, notebooks ThinkPad, monitores ThinkVision, workstation ThinkStation, notebooks e desktops Lenovo Idea, acessórios e opcionais.

- Status de Authorized para Lenovo ISG e está autorizado a revender todos os produtos de ISG, incluindo, mas não se limitando a:

Servidores e Storages ThinkSystem e ThinkAgiler, Produtos associados a ISG, opcionais, softwares e serviços.

Se tiver alguma dúvida, entrar em contato através do e-mail: parceiros@lenovo.com

Atenciosamente,

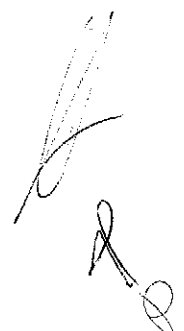


Augusto Rosa - Diretor de Canais BR



Juan Manuel Romero - Diretor de Canais LA

0449



CPU Benchmarks

Over 1,000,000 CPUs Benchmarked

0450

Intel Core i5-1135G7 @ 2.40GHz

Price and performance details for the Intel Core i5-1135G7 @ 2.40GHz can be found below.
This is made using thousands of [PerformanceTest](#) benchmark results and is updated daily.

- The first graph shows the relative performance of the CPU compared to the 10 other common (single) CPUs in terms of PassMark CPU Mark.
- The 2nd graph shows the value for money, in terms of the CPU Mark per dollar.
- The pricing history data shows the price for a single Processor. For multiple Processors, multiply the price shown by the number of CPUs.

🏠 CPUS



High End

High Mid Range

Low Mid Range

Low End



Best Value
(On Market)

Best Value XY
Scatter

Best Value
(All time)



New Desktop

New Laptop



Single Thread

Systems with
Multiple CPUs

Overclocked

Power
Performance

CPU Mark by Socket
Type

Cross-Platform CPU
Performance



CPU Mega List

Search Model



Compare

Intel Core i5-1135G7 @ 2.40GHz

Description: Intel Iris Xe Graphics

Class:

Laptop

Socket:

BGA1526

Clockspeed:

2.4 GHZ

Turbo Speed:

4.2 GHZ

Cores:

4

Typical TDP:

15 W

Threads:

8

TDP Down:

12 W

TDP Up

: 28 W

Other names: 11th Gen Intel(R) Core(TM) i5-1135G7 @

2.40GHz

CPU First Seen on Charts: Q3 2020

CPUmark/\$Price: 32.67

Overall Rank: 672

Last Price Change: \$309.00 USD (2020-07-01)

Average CPU Mark



10095

Single Thread Rating: 2731

Samples: 2186*

*Margin for error: Low

+ COMPARE

CPU Test Suite Average Results for Intel Core i5-1135G7 @ 2.40GHz

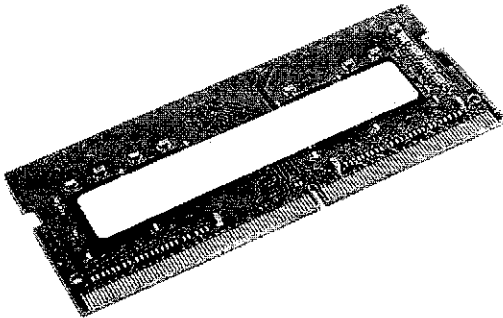
Integer Math

33,528 MOps/Sec

0

20

< Back



Memória SoDIMM 3.200
DDR4 8 GB ThinkPad gen
2

4X71D09532 805 views

List Price (Tax excluded):

Compare



FEATURE

TECH SPECS

Feature

Product Description

A Memória SoDIMM de 8 GB DDR4 3.200 MHz ThinkPad gen 2 atualizará a capacidade da memória padrão em PCs selecionados, aprimorando o desempenho e a capacidade do PC de executar mais programas simultaneamente.

Top Features

- SoDIMM de 8 GB DDR4 3.200 MHz
- Compatível com alguns PCs ThinkPad.

Tech Specs

JAN	4580550404078
EAN	0195890234045
UPC	195890234045
Warranty Type	CRU
Warranty Period	36 meses
Minimum	
Relative	10
Humidity (%)	

Lenovo Warranty & Services Offerings

Country: BR

Compatible Model :Lenovo V15 G2 ITL(82ME)

Warranty Starting Point :1 Year Depot

Lenovo

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Upgrade Services

Offering Description

Part Number

List Price(BRL)

Depot

3Y Courier/Carry-in upgrade from 1Y Courier/Carry-in

5WS0Q81869

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Handwritten mark.

Handwritten signature and date 04/02/22.

PERFORMANCE

Processor

Intel® Core™ i5-1135G7 (4C / 8T, 2.4 / 4.2GHz, 8MB)

Graphics

Integrated Intel Iris® Xe Graphics functions as UHD Graphics

Chipset

Intel SoC Platform

Memory

8GB Soldered DDR4-3200

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Max Memory

Up to 16GB (8GB soldered + 8GB SO-DIMM) DDR4-3200 offering

Storage

256GB SSD M.2 2242 PCIe® 3.0x4 NVMe®

Storage Support

Model with 38Wh battery: up to two drives, 1x 2.5" HDD + 1x M.2 SSD

- 2.5" HDD up to 1TB
- M.2 2242 SSD up to 512GB

Card Reader

None

Optical

None

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 1.5W x2, Dolby® Audio™

Camera

HD 720p with Privacy Shutter

Microphone

2x, Array

Battery

Integrated 38Wh

Max Battery Life

MobileMark® 2018: 5.5 hr (38Wh)

Power Adapter

65W Round Tip (2-pin, Wall-mount)

DESIGN

Display

15.6" FHD (1920x1080) TN 250nits Anti-glare, 45% NTSC

Touchscreen

None

Keyboard

Non-backlit, Portuguese (Brazil)

Case Color

Black

Surface Treatment

Texture

Case Material

PC + ABS (Top), PC + ABS (Bottom)

Dimensions (WxDxH)

359.2 x 235.8 x 19.9 mm (14.14 x 9.28 x 0.78 inches)

Weight

Starting at 1.7 kg (3.75 lbs)

SOFTWARE

Operating System

Windows® 10 Pro 64, Portuguese (Brazil)

Bundled Software

Office Trial

CONNECTIVITY

Ethernet

100/1000M

WLAN + Bluetooth®

11ac, 2x2 + BT5.0

Standard Ports

- 1x USB 2.0
- 1x USB 3.2 Gen 1
- 1x USB-C® 3.2 Gen 1 (support data transfer only)
- 1x HDMI® 1.4b
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Power connector

SECURITY & PRIVACY

Security Chip

Firmware TPM 2.0

Fingerprint Reader

None

Physical Locks

Kensington® Nano Security Slot

Other Security

Camera privacy shutter

SERVICE

Base Warranty

None

Included Upgrade

1Y Onsite upgrade from 0 base warranty (5WS1E23095)

CERTIFICATIONS

Green Certifications

- ENERGY STAR® 8.0
- ErP Lot 3
- RoHS compliant

Other Certifications

TÜV Rheinland® Low Blue Light

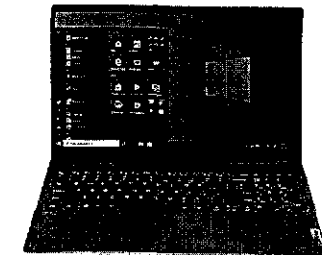
MODEL

TopSeller : Yes

Announce Date : 2021-07-21

EAN / UPC / JAN : 195713392129

End of Support : N/A



Intel

0453

• Lenovo reserves the right to change specifications or other product information without notice.

• Product image on this page is a sample, it may not match the real color of this model

• Battery life is an estimated maximum. Actual battery life may vary based on many factors, including screen brightness, active applications, features, power management settings, battery age and conditioning, and other customer preferences.



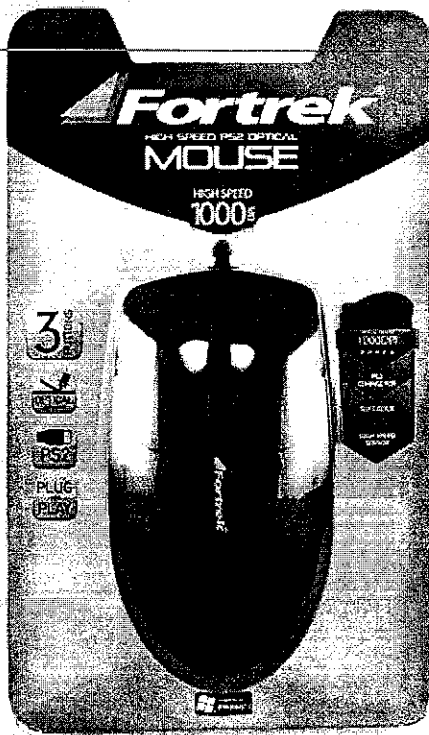
Encontre o que você procura...

0454

A Fortrek

Entre em contato

Fortrek > Informática > Mouses > Com Fio



Mouse USB 1000dpi OM-101BK Preto FORTREK

DOWNLOADS

[Manual](#), [Fotos em alta](#), [Banners...](#)

DESCRIÇÃO

[Características e detalhes do produto.](#)

Compartilhe:

Curtir 0

Tweetar

NAVEGUE

[DESCRIÇÃO](#)

[ESPECIFICAÇÕES](#)

[GARANTIA](#)

[DOWNLOADS](#)

Conector: USB 2.0

Cor: Preto

Número de botões: 3 botões + scroll

Resolução máxima: 1000 DPI

Scroll: Sim

Sensor: Sensor Óptico

Comprimento: Cabo de 1,50 metros

Conserto / Troca: Análise

Informação adicional:

Cadastre-se!

Receba direto no seu email as novidades e ofertas da Fortrek.

Digite seu nome...

Digite seu email...

OK

A Fortrek

Produtos para PC Gamer, Mouse, Teclados, Fones de Ouvido, Cabos HDMI, Fontes de Energia para computadores e notebooks, entre outros itens que desenvolvidos de acordo com as mais recentes tendências dos mercados globais. Conheça a linha de Acessórios Fortrek! [Leia mais.](#)

Segmentos

Institucional

Encontre-nos



Encontre o que você procura...

0455

A Fortrek

Entre em contato

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Mouse Pad (180x220mm) BAP-102BK Preto FORTREK



DOWNLOADS

[Manual](#), [Fotos em alta](#), [Banners...](#)

DESCRIÇÃO

[Características e detalhes do produto.](#)

Compartilhe:

Curtir 0

Twitter

NAVEGUE

[DESCRIÇÃO](#)

[ESPECIFICAÇÕES](#)

[GARANTIA](#)

[DOWNLOADS](#)

Cor: Preto

Dimensões: 180x220x3mm

Material: EVA e tecido

Conserto / Troca: Troca

Informação adicional:

Cadastre-se!

Receba direto no seu email as novidades e ofertas da Fortrek.

Digite seu nome...

Digite seu email...

OK

A Fortrek

Produtos para PC Gamer, Mouse, Teclados, Fones de Ouvido, Cabos HDMI, Fontes de Energia para computadores e notebooks, entre outros itens que desenvolvidos de acordo com as mais recentes tendências dos mercados globais. Conheça a linha de Acessórios Fortrek [leia mais](#).

Segmentos

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Encontre-nos

DÚVIDAS? ENTRE EM CONTATO
CONOSCO



0456



20 jun 2022

STEPHANO ALCANTARA

ADEGAPRIME COMERCIO E SERVICOS LTDA

1083 R JOSE AUGUSTO DE CARVALHO

16901-015

Brazil

1216989665/42834669000129

Esta notificação é para confirmar que ADEGAPRIME COMERCIO E SERVICOS LTDA é um Revendedor Autorizado da Lenovo localizado no Brazil. Esta autorização é válida até 30 jun 2022.

Como membro do Programa Lenovo Partner Engage, ADEGAPRIME COMERCIO E SERVICOS LTDA ganhou:

- Status de Authorized para Lenovo PCSD e está autorizado a revender todos os produtos de PCSD, incluindo, mas não se limitando a:

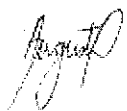
Produtos de computador pessoal, desktops ThinkCentre, notebooks ThinkPad, monitores ThinkVision, workstation ThinkStation, notebooks e desktops Lenovo Idea, acessórios e opcionais.

- Status de Authorized para Lenovo ISG e está autorizado a revender todos os produtos de ISG, incluindo, mas não se limitando a:

Servidores e Storages ThinkSystem e ThinkAgiler, Produtos associados a ISG, opcionais, softwares e serviços.

Se tiver alguma dúvida, entrar em contato através do e-mail: parceiros@lenovo.com

Atenciosamente,



Augusto Rosa - Diretor de Canais BR



Juan Manuel Romero - Diretor de Canais LA



RoHS/REACH Engineering Specification

**Lenovo RoHS/REACH Engineering Specification**
Addendum to Lenovo Environmental Specification 41A7731

Number	41A7733
Version	2016-1
Applicability	Lenovo brand products worldwide
Owner	Global Environmental Affairs

Contents

- 1.0 Purpose and Scope
- 2.0 Requirements
- 3.0 Definitions

Appendix: Guidance: summary checklist

1.0 Purpose and Scope

This Specification communicates Lenovo's requirements for Lenovo brand products and materials, parts and assemblies incorporated into Lenovo Brand products worldwide, in accordance with European Union directive for the Restriction of Hazardous Substances (RoHS) and the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) in electrical and electronic equipment, similar regulations in other markets and more stringent limits set by Lenovo.

This Specification does not apply to spare parts for the repair, or reuse, of electrical and electronic equipment put on the market before the date defined by each regional RoHS directive, batteries or process chemicals.

1.1 Other Jurisdictions

There are other jurisdictions, other than the EU Member States, with RoHS types of requirements. The list below is not complete and is provided for information only. In some jurisdictions the product scope and requirements are different from the scope and requirements of the EU Directive. Deliverables to Lenovo which cite this specification must meet the requirements of this specification irrespective of the jurisdiction where the Deliverable is transferred to Lenovo.

- Multiple US States
- New York City
- People's Republic of China
- European Economic Area (EEA) States
- European Free Trade Association (EFTA) States
- EU Candidate Countries - Albania, Montenegro, Macedonia, Serbia, and Turkey
- EU potential Candidate Countries - Bosnia and Herzegovina, Kosovo
- Brazil
- Korea
- Ukraine
- Vietnam
- India
- Japan
- Thailand

2.0 RoHS Requirements

Lenovo brand products and materials, parts and assemblies in Lenovo brand electrical and electronic products must meet the following requirements:

1. Applicable laws and regulations;

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0459

[-Membership List](#)**Unified Extensible Firmware Interface Forum**[Home » Membership](#)

Membership List

The UEFI Forum community of members is represented by industry-leading OEMs, IHVs, chip manufactures, BIOS and firmware vendors and operating system vendors.

Promoters

AMD	HP, Inc.
American Megatrends, Inc.	Insyde Software
Apple Inc.	Intel
ARM Limited	Lenovo
Dell	Microsoft
Hewlett Packard Enterprise	Phoenix Technologies

Contributors

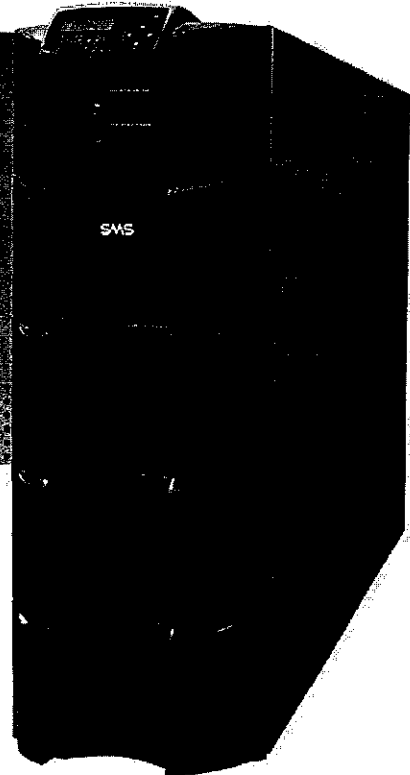
Absolute Software Corporation	Multilaser Industrial S/A
Alibaba (China) Co., Ltd.	Nanjing Byosoft Co., Ltd.
Ampere Computing LLC	NVIDIA
ASMedia Technology Inc.	NXP B.V.
ASUSTeK COMPUTER INC.	Oracle America, Inc.
Beijing Bytedance Network Technology Ltd.	Positivo Tecnologia S.A.
Broadcom Corporation	Qualcomm Inc.
Canonical Limited	Realtek Semiconductor Corp.
Cirrus Logic, Inc.	Red Hat, Inc.
Cisco	Rivos Inc.
Citrix Systems, Inc.	Seagate Technology LLC
Cumulus Networks Inc.	SIFIVE, INC.
Daten Tecnologia	SUPER MICRO Computer, Inc.
Dynabook Inc	SUSE LLC
EMC Corporation	Synaptics (DisplayLink (UK) Limited)
Google	Tachyum Inc
Huawei Technologies Co., Ltd	The Linux Foundation

3

0460
SMS

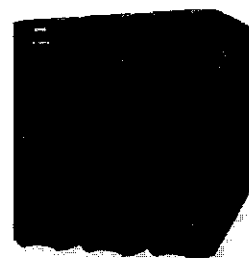
SINUS DOUBLE II BLACK

**NOBREAK
ONLINE
DUPLA CONVERSÃO
3,2 a 20 kVA**



INDICADO PARA CARGAS CRÍTICAS

- › Fator de potência 0,8
- › Expansão de autonomia
- › Bivolt, Monovolt 220V e Tri-Mono
- › Display LCD
- › Tempo de transferência zero
- › 9 proteções para a carga contra problemas da rede elétrica



Módulos externos de baterias



PONTO DE VENDA



SERVIDOR



EQUIPAMENTOS
LABORATORIAIS



TELEFONE/PABX



CIRCUITO
CFTV



ROTEADOR

Uma marca
do Grupo

legrand®

SINUS DOUBLE ONLINE DUPLA CONVERSÃO

- O nobreak inteligente Sinus Double II Black DSP foi desenvolvido com o sistema de dupla conversão, uma das mais avançadas tecnologias na área de conversão de energia.
- Disponível nas potências de 3,2 - 4 - 5 - 6 - 8 - 10 - 15 e 20 kVA, o Sinus Double II Black DSP é ideal para aplicações que necessitam de forma de onda senoidal pura.
- As baterias utilizadas, de longa duração e alta confiabilidade, são indicadas para aplicações que exigem longos períodos de autonomia.
- O nobreak também conta com tensões de entrada e saída diversificadas e bypass automático / manual. Disponível nos modelos Não-Isolado e Isolado, o transformador isolador aumenta o nível de proteção dos equipamentos conectados (em modo inversor ou bypass), isolando eletricamente a entrada da saída do nobreak.



MONITOR



IMPRESSORA OU
MULTIFUNCIONAL
JATO DE TINTA



SCANNER



CPU
(COM PFC ATIVO)



VDIP



NOTEBOOK



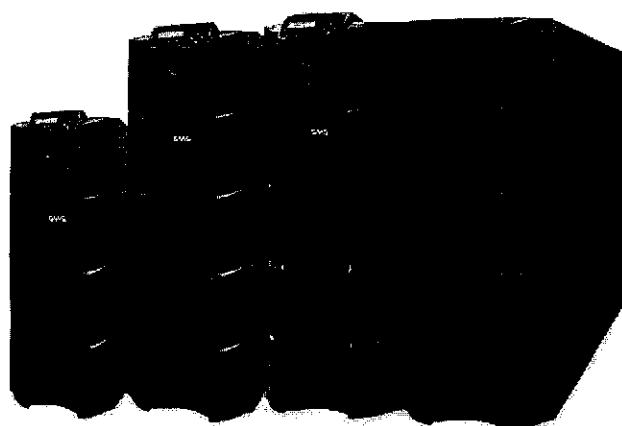
PROJETOR



PERIFÉRICOS

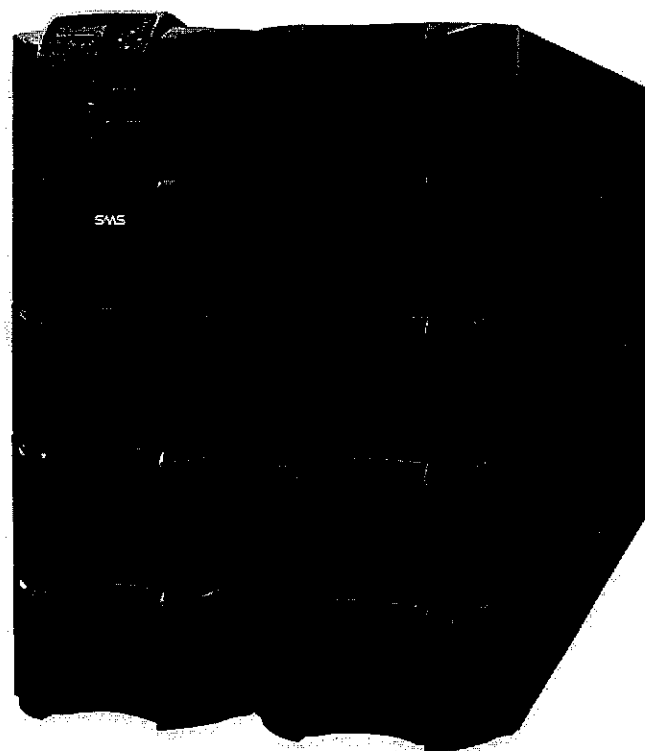
9 Proteções para a carga contra problemas da rede elétrica

- Variações de frequência da rede elétrica.
- Queda de rede (Blackout).
- Distorção harmônica da rede elétrica.
- Ruído de rede elétrica.
- Sobretensão de rede elétrica.
- Subtensão de rede elétrica.
- Surtos de tensão de entrada.
- Afundamento de tensão (SAG).
- Correção linear de variação de rede.





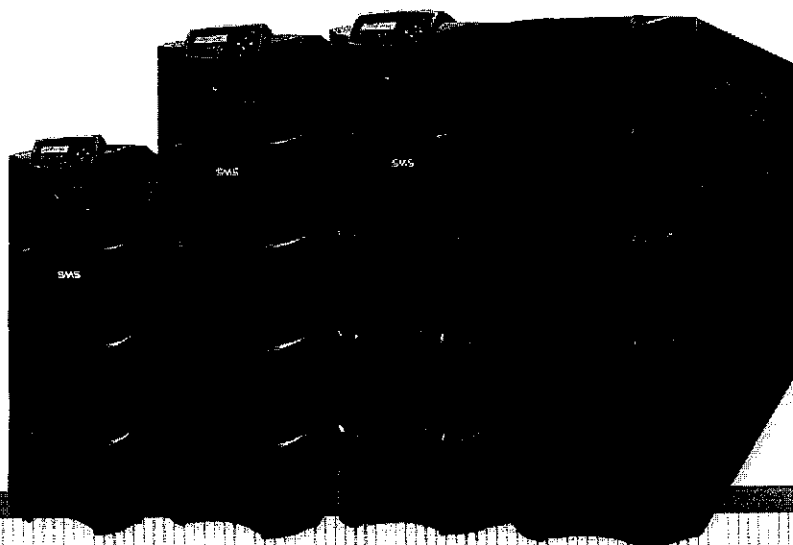
- O display LCD inteligente permite a visualização rápida e precisa dos eventos pertinentes ao gerenciamento de energia realizado pelo nobreak. Por meio do teclado, é possível selecionar as informações que serão exibidas no display, configurar as tensões de saída, habilitar/desabilitar o alarme sonoro ou acionar/desacionar o bypass manual.
- Duas portas de comunicação serial nos padrões RS-232 e RS-485 permitem a monitoração remota provendo informações sobre o status do sistema. Além das portas de comunicação, são integradas também ao nobreak: A placa de rede com uma porta RJ45, que permite o gerenciamento do nobreak através do protocolo SNMP/HTTP e a placa de contato seco com 4 saídas, para sinalizar as ocorrências de falhas, falta de rede, bypass acionado e fim de autonomia.
- A linha Sinus Double II Black DSP disponibiliza a solução Gerenciamento de Missões Críticas da SMS, oferecendo serviços como: Gerenciamento de Energia, Monitoramento Remoto, Net Torpedo, PC Remoto, Alarme Anti-intrusão e Vídeo Conferência.



9

MODELOS

- › **Modelos Bii:** Entrada 115-127/220V com seleção através de bornes e saída 115/127V configurada através do painel de comandos (display/teclado).
- › **Modelos Di:** Para os modelos de 3,2 a 6kVA, entrada 115-127/220V com seleção através de bornes e saída simultânea em 110+110/220V ou 120+120/240V. Para os modelos de 8, 10, 15 e 20kVA, entrada 220V e saída simultânea em 110+110/220V ou 120+120/240V.
- › **Modelos Ti:** Entrada 220V e saída 115/127V configurada através do painel de comandos (display/teclado).
- › **Modelos THi:** Entradas trifásicas e saídas monofásicas, disponíveis nas opções:
 - Entrada em 220V com saída em 115/127V.
 - Entrada em 220V com saída dupla 110+110/220V ou 120+120/240V.
 - Entrada em 380V com saída em 115/127V.
 - Entrada em 380V com saída dupla 110+110/220V ou 120+120/240V.
- › **Modelos S:** Entrada 220V e saída não isolada 220V. A tensão de saída também pode ser configurada para 240V através do painel de comandos (display / teclado).
- › **Modelos TH:** Entradas trifásicas e saídas não isoladas 220V monofásicas. A tensão de saída também pode ser configurada para 240V através do painel de comandos (display / teclado).



Handwritten signature or mark.

Modelos com saída dupla - Isolado: 3,2 a 6kVA – 16 baterias internas

Sinus Double II DSP			μSS 3200 Di	μSS 4000 Di	μSS 5000 Di	μSS 6000 Di
CARACTERÍSTICAS DE ENTRADA	Tensão nominal [V~]		115-127/220			
	Variação máxima de tensão com carga máxima resistiva [V~]		98 a 139 (entrada 115-127V) e 180 a 260 (entrada 220V)			
	Corretor de fator de potência		0,99 (modelos PFC ⁽¹⁾)			
	Frequência nominal [Hz]		60			
	Faixa de frequência admissível		± 5%			
	Conexão de entrada		Barras de Terminais (Bornes)			
CARACTERÍSTICAS DE SAÍDA	Potência máxima		3200VA/2560W	4000VA/3200W	5000VA/4000W	6000VA/4800W
	Fator de potência		0,8			
	Tensão nominal [V~]		110 + 110/220 ou 120 + 120/240 (selecionável)			
	Fator de crista		3:1			
	Regulação estática para carga resistiva		± 1%			
	Regulação dinâmica para carga resistiva		< 4%			
	Frequência [Hz]		60 ± 0,5%			
	Forma de onda no inversor		Senoidal Pura			
	Distorção harmônica (THD) com 100% de carga resistiva		< 3%			
	Conexão de saída		6 Tomadas Padrão NBR14136 ⁽²⁾ e Barras de Terminais (Bornes)			
	Rendimento a plena carga		90%			
	Sobrecarga ⁽³⁾		100 a 120%	Opera em modo inversor por 15 minutos. Após este período o BYPASS é acionado.		
120 a 150%			Opera em modo inversor por 15 segundos. Após este período o BYPASS é acionado.			
Acima de 150%			Acima de 150% BYPASS imediato			
CARACTERÍSTICAS GERAIS	BYPASS		Automático e Manual			
	Isolação galvânica		Sim			
	Tempo de transferência		Zero			
	Baterias internas		16 baterias 12VDC/7Ah (192VDC/7Ah)			
	Tensão do Banco de Baterias Externo		192VDC			
	Conexão de baterias externas		Barra de Terminais (Bornes)			
	Tempo de recarga das baterias internas		8 horas			
	Contato Seco		Sim			
	Display LCD		4 linhas e 20 colunas			
	Comunicação inteligente		RS-232/RS-485/RJ-45 (Agente SNMP)			
	Dissipação térmica [BTU]		1330	1640	2050	2460
	Peso líquido (com bateria) [kg]		123	130	144	146,5
	Peso bruto (com bateria) [kg]		133	140	154	156,5
	Dimensões A x L x P [mm]		740 x 304 x 780			
	MTBF (Tempo Médio entre Falhas)		40.000 horas			
	MTTR (Tempo Médio para Reparos)		120 minutos			
	Faixa de temperatura [°C]		0-40			
	Umidade relativa		90% (sem condensação)			

⁽¹⁾ Modelos PFC somente sob consulta. ⁽²⁾ As tomadas de saída NBR14136 tem como capacidade máxima 10A – 115VAC e a sua polarização é mostrada na figura ao lado:

⁽³⁾ Em modo BYPASS o nobreak opera por 15 minutos. Após este período o produto retornará para o modo inversor, porém sem energia nas tomadas ou no borne de saída.



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Modelos com saída dupla - Isolado: 3,2 a 6kVA – 32 baterias internas

Sinus Double II DSP			μSS 3200 Di	μSS 4000 Di	μSS 5000 Di	μSS 6000 Di
CARACTERÍSTICAS DE ENTRADA	Tensão nominal [V~]		115-127/220			
	Variação máxima de tensão com carga máxima resistiva [V~]		98 a 139 (entrada 115-127V) e 180 a 260 (entrada 220V)			
	Corretor de fator de potência		0,99 (modelos PFC ⁽¹⁾)			
	Frequência nominal [Hz]		60			
	Faixa de frequência admissível		± 5%			
	Conexão de entrada		Barras de Terminais (Bornes)			
CARACTERÍSTICAS DE SAÍDA	Potência máxima		3200VA/2560W	4000VA/3200W	5000VA/4000W	6000VA/4800W
	Fator de potência		0,8			
	Tensão nominal [V~]		110 + 110/220 ou 120 + 120/240 (selecionável)			
	Fator de crista		3:1			
	Regulação estática para carga resistiva		± 1%			
	Regulação dinâmica para carga resistiva		< 4%			
	Frequência [Hz]		60 ± 0,5%			
	Forma de onda no inversor		Senoidal Pura			
	Distorção harmônica (THD) com 100% de carga resistiva		< 3%			
	Conexão de saída		6 Tomadas Padrão NBR14136 ⁽²⁾ e Barras de Terminais (Bornes)			
	Rendimento a plena carga		90%			
	Sobrecarga ⁽³⁾	100 a 120%	Opera em modo inversor por 15 minutos. Após este período o BYPASS é acionado.			
		120 a 150%	Opera em modo inversor por 15 segundos. Após este período o BYPASS é acionado.			
Acima de 150%		Acima de 150% BYPASS imediato				
CARACTERÍSTICAS GERAIS	BYPASS		Automático e Manual			
	Isolação galvânica		Sim			
	Tempo de transferência		Zero			
	Baterias internas		32 baterias 12VDC/7Ah (192VDC/14Ah)			
	Tensão do Banco de Baterias Externo		192VDC			
	Conexão de baterias externas		Barra de Terminais (Bornes)			
	Tempo de recarga das baterias internas		16 horas			
	Comunicação inteligente		RS-232/RS-485/RJ-45 (Agente SNMP)			
	Contato Seco		Sim			
	Display LCD		4 linhas e 20 colunas			
	Dissipação térmica [BTU]	1330	1640	2050	2460	
	Peso líquido (com bateria) [kg]	169	171	189	192	
	Peso bruto (com bateria) [kg]	180	182	200	203	
	Dimensões A x L x P [mm]		920 x 304 x 780			
	MTBF (Tempo Médio entre Falhas)		40.000 horas			
	MTTR (Tempo Médio para Reparos)		120 minutos			
	Faixa de temperatura [°C]		0-40			
	Umidade relativa		90% (sem condensação)			

⁽¹⁾ Modelos PFC somente sob consulta. ⁽²⁾ As tomadas de saída NBR14136 tem como capacidade máxima 10A – 115VAC e a sua polarização é mostrada na figura ao lado.

⁽³⁾ Em modo BYPASS o nobreak opera por 15 minutos. Após este período o produto retornará para o modo inversor, porém sem energia nas tomadas ou no borne de saída.

**À
CAMARA MUNICIPAL DE SOROCABA
PREGÃO N.º 14/2022**

PROPOSTA COMERCIAL

A MICROTÉCNICA INFORMÁTICA LTDA, empresa situada à Rodovia Darly Santos, nº 4000 - Galpão 01-B - Sala 10 - Bairro Darly Santos - Vila Velha/ES - CEP: 29103-300, inscrita no CNPJ/MF sob o nº. 01.590.728/0009-30, apresenta PROPOSTA COMERCIAL para fornecimento de equipamentos de informática, na forma e condições abaixo:

ITEM	PRODUTO/MARCA/MODELO	QUANT (UND)	VALOR UNITÁRIO (R\$)	VALOR TOTAL (R\$)
1	Notebooks MARCA/MODELO: Lenovo ThinkPad E14 Processador AMD Ryzen 5 Pro 4500U Memória 8GB Armazenamento SSD 256GB Windows 10 PRO + Mouse C3teck USB MS-26BK + Mouse Pad + Trava para Notebook MD9 6359 + Extensão de Garantia Lenovo 36 (trinta e seis meses) On site - Part Number - 5WS0K27114	18 Und.	6.393,43	115.081,74
Valor total da proposta: R\$ 115.081,74 (Cento e quinze mil, oitenta e um reais e setenta e quatro centavos)				

ESPECIFICAÇÕES TÉCNICA

ITEM 1 - NOTEBOOK

Gabinete com composto de carbono, magnésio, titânio ou alumínio ou plástico de alta resistência ABS.

Espessura máxima de 3,5 cm com equipamento fechado

Sistema de ventilação monitorado pela BIOS. Ventilação dimensionada para a perfeita refrigeração dos componentes internos.

Botão de liga/desliga e luzes de indicação de atividade da unidade de disco rígido e de computador ligado (power-on) na parte frontal e/ou lateral do gabinete

O equipamento deverá possuir indicadores (LED, display ou Bips) para facilitar a identificação do componente (memória, processador, vídeo, etc) que esteja com problema, para agilizar o reparo.

Entrada universal para trava de segurança

Câmera integrada ao gabinete com resolução de 720 Pixels HD

Adaptador AC universal - entrada de 110/220 VAC - 50/60 Hz, com comutação automática com cabo de alimentação.

O gabinete deverá possuir entrada específica para fixação de trava de segurança

Destino Federal

Endereço: Rua da Liberdade, 100 - Centro - Sorocaba - SP - CEP: 13506-100
Fone: (13) 3333-1000

Santa

Endereço: Rua da Liberdade, 100 - Centro - Sorocaba - SP - CEP: 13506-100
Fone: (13) 3333-1000

São Paulo

Endereço: Rua da Liberdade, 100 - Centro - Sorocaba - SP - CEP: 13506-100
Fone: (13) 3333-1000

Estado de São Paulo

Endereço: Rua da Liberdade, 100 - Centro - Sorocaba - SP - CEP: 13506-100
Fone: (13) 3333-1000

Município de Sorocaba

Endereço: Rua da Liberdade, 100 - Centro - Sorocaba - SP - CEP: 13506-100
Fone: (13) 3333-1000

Santa Catarina

Endereço: Rua da Liberdade, 100 - Centro - Sorocaba - SP - CEP: 13506-100
Fone: (13) 3333-1000

mtec

PESO

Peso do notebook incluindo a bateria primária e a unidade de Disco rígido (HDD): 1,59 KG.

MULTIMÍDIA

1 (uma) interface combo para microfone e fone de ouvido

Autofalantes estéreos integrados;

ALIMENTAÇÃO ELÉTRICA E BATERIA

Adaptador de corrente/tensão com tensão de entrada 110/220 VAC e tensão de saída compatível com o notebook.

Bateria primária, interna, com no mínimo, 02 células.

BIOS

Implementação em "flash memory", atualizável diretamente pelo microcomputador, com senhas separadas para acesso do usuário comum e do administrador do equipamento, proteção integrada contra vírus de "boot", alerta de troca ou remoção de memória e, suportando o registro de número de série do equipamento, podendo estes números, serem lidos, remotamente via comandos DMI 2.0.

TECLADO/ MOUSE (integrados)

1 (um) teclado padrão ABNTII. O equipamento deverá funcionar corretamente quando o Sistema Operacional estiver configurado para o Teclado Brasileiro ABNTII.

Presença de, doze teclas de funções (F1- F12) situadas na porção superior do teclado.

A impressão sobre as teclas deverá ser do tipo permanente, não podendo apresentar desgaste por abrasão ou uso prolongado.

Dispositivo apontador do tipo touch pad com dois botões além de função de rolagem.

O teclado deve ser resistente a derramamento acidental de líquido

1 (um) mouse externo, possuindo conector USB, compatível com o padrão intel mouse (botão scroll) e resolução de 1000 DPIs por hardware. Mouse óptico com botão de rolagem;

Mouse pad com superfície adequada para utilização de mouse ótico.

SOFTWARE

O notebook deverá possuir licenciamento para sistema operacional Microsoft Windows 10 Professional (OEM) ou superior - 64 bits em português Brasil.

Deverá haver uma chave digital do produto individualizada no sistema firmware.

A chave digital do produto deverá ser automaticamente detectada pelo Windows.

Serão fornecidos os drivers correspondentes às interfaces instaladas no equipamento, de forma a permitir a perfeita configuração das mesmas;

Os drivers de todos os dispositivos ofertados com o equipamento são compatíveis com o sistema operacional Windows 10;

SISTEMA DE "BACKUP" E SEGURANÇA DE INFORMAÇÃO

Será fornecido um programa de "backup" pré-instalado ou em um pen drive, tendo as seguintes funções ou características:

O programa de backup não deverá fazer backup de arquivos repetidos.

A restauração do backup poderá ser: apenas de um arquivo selecionando pelo usuário ou realizar a restauração total do último backup.

Software deverá possuir recurso para que o usuário crie pen drive recuperação da imagem padrão do equipamento.

GARANTIA

A garantia do(s) produto(s) ofertado(s) é de 36 (trinta e seis) meses, para tal, a Empresa vencedora do certame licitatório, se responsabiliza pelo funcionamento incondicional do equipamento(s), mantendo-o(s) operacional(is) ininterruptamente durante o período de garantia.

Deverá ser informada a linha gratuita (0800) do fabricante dos equipamentos para abertura dos chamados técnicos durante o período de garantia técnica dos produtos ofertados.

O técnico do atendimento ON-SITE deverá comparecer às dependências da Câmara

Unidade Federal
Rua da Glória, 11-949, Centro Histórico,
Rio de Janeiro - RJ, CEP: 20040-000
(21) 3021-2070 / 3021-2080

Sistema
Rua Manoel de Albuquerque, 197, Rio de Janeiro,
Rio de Janeiro - RJ, CEP: 20040-000
(21) 3021-2070 / 3021-2080

Sistema de Vídeo
Rua Manoel de Albuquerque, 197, Rio de Janeiro,
Rio de Janeiro - RJ, CEP: 20040-000
(21) 3021-2070 / 3021-2080

Sistema de Som
Rua Manoel de Albuquerque, 197, Rio de Janeiro,
Rio de Janeiro - RJ, CEP: 20040-000
(21) 3021-2070 / 3021-2080

Sistema de Iluminação
Rua Manoel de Albuquerque, 197, Rio de Janeiro,
Rio de Janeiro - RJ, CEP: 20040-000
(21) 3021-2070 / 3021-2080

Sistema de Segurança
Rua Manoel de Albuquerque, 197, Rio de Janeiro,
Rio de Janeiro - RJ, CEP: 20040-000
(21) 3021-2070 / 3021-2080

Imagem não legível

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Municipal de Sorocaba das 8:00 às 17:00 horas de segunda a sexta-feira somente.

A garantia técnica, oferecida pelo fabricante, contempla a substituição do disco rígido, em caso de aviso de pré-falha, identificado pelo software de gerenciamento.

O atendimento no período coberto pela garantia descrita acima inclui mão de obra, peças e em caso de necessidade de manutenção fora das dependências da CÂMARA MUNICIPAL DE SOROCABA transportes e seguros também se aplicam a mesma garantia;

A relação do(s) Posto(s) de Serviço ou Assistências Técnicas autorizadas a prestação dos serviços de Garantia e Suporte Técnico, com sua identificação, endereço, CNPJ/CPF, responsável técnico e região de atuação. (VIDE ANEXO DE PROPOSTA)

OUTROS REQUISITOS

O(s) equipamento(s) serão fornecidos com todos os itens acessórios de hardware e software, necessários a sua perfeita ativação e funcionamento, incluindo cabo(s), conector(e)s, interface(s) suporte(s), driver(s) de controle, programa(s) de configuração etc.

Existe compatibilidade integral de software(s) utilitário(s) porventura ofertados com o computador, possibilitando a habilitação de todas as funcionalidades presentes no(s) software(s), comprovada por documentação expedida pelo fabricante do equipamento.

O equipamento pertence a linha corporativa do fabricante, não sendo aceito equipamentos da linha doméstica;

O fabricante deverá disponibilizar na Internet, na página de especificação técnica do modelo ofertado, atualizações de BIOS, drivers e aplicativos desenvolvidos pelo fabricante. Quando houver a disponibilização de atualizações de drivers e softwares, o fabricante deverá notificar o usuário, seja por solução de software ou ainda notificação por e-mail.

http://support.lenovo.com/pt_BR/.

Será pré-instalado o sistema operacional, os drivers, os utilitários e o antivírus, sendo que esta pré-instalação ocorrerá através de imagem desenvolvida pela contratada em conjunto com os Analistas de Sistemas da Câmara Municipal de Sorocaba, e após isto, a contratada deverá replicar estas imagens para todos os equipamentos sem custo adicional;

Será fornecido o kit de recuperação da imagem do equipamento com a sua respectiva licença de uso;

Será ser fornecido um software para gravação de pendrive.

CERTIFICADOS

O fabricante do equipamento deverá estar aderente à norma RoHS, (European Union Restriction of Hazardous Substances).

GARANTIA

Os equipamentos possuem garantia on-site de 36 (trinta e seis) meses – On Site

A fabricante do equipamento dispõe de um número telefônico Gratuito 0800 773 6437, site eletrônico <https://pcsupport.lenovo.com/br/pt/livechatpc>, <https://www.lenovo.com/br/pt/premier-support/> ou e-mail premier_br@lenovo.com para suporte técnico e abertura de chamados em garantia e conta com serviço de assistência em todo o território nacional.

CONDIÇÕES GERAIS

VALIDADE DA PROPOSTA	O prazo de validade da proposta é de 60 (sessenta) dias contados da data estipulada para sua entrega, qual seja 23 de junho de 2022.
CONDIÇÕES DE PAGAMENTO	O prazo máximo para efetivação do pagamento será de 10 (dez) dias, contados da data de liberação da nota fiscal pelo fiscalizador do contrato.

Distrito Federal

End: Rua B-141, 1407, Torre B, Edifício
Residencial - CEP: 70100-000, Brasília - DF

Minas Gerais

Rua Marechal Deodoro, 241, Sala 06, Bairro Centro,
Bairro Centro, Belo Horizonte - MG - CEP: 30130-020

Rio de Janeiro

Rua: Marechal Deodoro, 241, Sala 06, Bairro Centro,
Bairro Centro, Belo Horizonte - MG - CEP: 30130-020

São Paulo

Rua: Marechal Deodoro, 241, Sala 06, Bairro Centro,
Bairro Centro, Belo Horizonte - MG - CEP: 30130-020

Santa Catarina

Rua: Marechal Deodoro, 241, Sala 06, Bairro Centro,
Bairro Centro, Belo Horizonte - MG - CEP: 30130-020

Estado de São Paulo

Rua: Marechal Deodoro, 241, Sala 06, Bairro Centro,
Bairro Centro, Belo Horizonte - MG - CEP: 30130-020

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PRAZO DE ENTREGA	O prazo para entrega do material é de 60 (sessenta) dias corridos, contados a partir da data de solicitação da Câmara, SOROCABA/SP
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DECLARAÇÕES

Todos os impostos, taxas, frete/seguro, embalagens e demais encargos encontram-se inclusos no valor ofertado, considerando as especificações do termo de referência, bem como as demais exigências do Edital.

DADOS DO RESPONSÁVEL PELA ASSINATURA DO CONTRATO

NOME	ROBERTO MÁRCIO NARDES MENDES
CARGO	DIRETOR
R.G.	3.073.088 - SSP/DF
CPF	327.962.266-20
NACIONALIDADE	BRASILEIRO
ESTADO CIVIL	CASADO
PROFISSÃO	EMPRESÁRIO
ENDEREÇO	SAA, QUADRA 01 Nº 995 - BRASÍLIA/DF - CEP: 70.632-100

DADOS DA EMPRESA

EMPRESA	MICROTECNICA INFORMÁTICA LTDA
ENDEREÇO	Rodovia Darly Santos, nº 4000 - Galpão 01-B - Sala 10 - Bairro Darly Santos - Vila Velha/ES - CEP: 29103-300
CNPJ	01.590.728/0009-30
INSC. ESTADUAL	083794484
CONTATO	FRANCIS MICHEL
TELEFONE	(61) 3327-6666
E-MAIL	licitacao@microtecnica.com.br; anapaula@microtecnica.com.br
DADOS BANCÁRIOS	CEF (104) - AG. 4316 - OP. 003 - CC: 721-1

Solicitamos que a minuta do instrumento contratual e a respectiva Nota de Empenho sejam enviados nos seguintes emails: licitacao@microtecnica.com.br e/ou empenho@microtecnica.com.br.

Sem mais para o momento, colocamo-nos ao vosso inteiro dispor para quaisquer esclarecimentos adicionais.

Distrito Federal

Sala 10, Lt. 905, Torre Industrial,
Sorocaba - SP | CEP: 13506-900
FAX: 013 3327-6666

Minas Gerais

Rua Nisei Sereno de Castro, nº 245, Sala 06, Centro,
Sorocaba - SP | CEP: 13506-900

Paraná

Rua Manoel - Rua 25, Km 25, Jd. Santa
Cruz - PR | CEP: 85453-400
FAX: 041 3327-6666

São Paulo

Rua Frei Damião, 254, Gr. 1, Edif. Parque
Comercial - São Paulo - SP | CEP: 01154-000
FAX: 011 3327-6666

Estado de Santa

Rua Manoel - Rua 25, Km 25, Jd. Santa
Cruz - PR | CEP: 85453-400

Santa Catarina

Rua Manoel - Rua 25, Km 25, Jd. Santa
Cruz - PR | CEP: 85453-400

microtecnica

Atenciosamente,

Vila Velha - ES, 23 de junho de 2022.


MICROTÉCNICA INFORMATICA LTDA
PRISCILA CAMARGO SUZUKI
CPF: 315.567.598-51
PROCURADOR




Orcito Pires

Rua Os Átila 405, Zoro Indus-
trial - Jd. I - 130-000-000
Belo Horizonte - MG - CEP: 31250-000

Priscila Camargo

Rua Adão Serrano do Carmo, nº 265, Sala 06, Centro
Belo Horizonte - MG - CEP: 31250-000

André

Rodovia, Unipar, 260 KM, Chapada
Belo Horizonte - MG - CEP: 31555-100
Belo Horizonte - MG - CEP: 31555-100

Seu Paulo

Rua São João, 100, 1º Andar, Vila Velha
Vila Velha - ES - CEP: 27060-000
Vila Velha - ES - CEP: 27060-000

Luís Roberto

Rua São João, 100, 1º Andar, Vila Velha
Vila Velha - ES - CEP: 27060-000
Vila Velha - ES - CEP: 27060-000

Sandra Cristina

Rua São João, 100, 1º Andar, Vila Velha
Vila Velha - ES - CEP: 27060-000
Vila Velha - ES - CEP: 27060-000

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Av. Pasteur, 138/146 - Rio de Janeiro/RJ

CEP 22290-240 Tel.: (21) 2132-5252 Fax: (21) 2132-5082

Internet: www.ibm.com.br CNPJ: 33.372.251/0001-56

DECLARAÇÃO

A IBM Brasil - Indústria, Máquinas e Serviços Ltda., inscrita no CNPJ 33.372.251/0001-56, por intermédio do seu representante legal abaixo assinado, declara para os devidos fins, que presta serviços de suporte técnico para a Lenovo Tecnologia (Brasil) Ltda, incluindo serviços de instalação e reparos para toda a sua linha de produtos Think (Servidores, Workstation, Desktops, Notebook e Tablets) em todo o território nacional, de acordo com o contrato Master Agreement for Services & MA-14-000138 (the "Master Agreement") e os contratos: SERVICES AGREEMENT SOW & SA-49S1600326 (the "CC&FS SOW") e o contrato SERVICES AGREEMENT SOW SA-49S1600327 the "Parts SOW") firmados entre ambas as partes.

Informamos ainda que possuímos centros de apoio reparos para assegurar atendimento local, na modalidade Centro de Atendimento Técnico do Próprio Fabricante, através de nossas filiais assim distribuídas:

REGIONAL	SEDE TÉCNICA	ENDEREÇO	CIDADE	UF	TELEFONE	GERENTE REGIONAL	E-MAIL
BARRA DA TIJUCA	BARRA DA TIJUCA	Av Ministro Ivan Lins, 300 - 2º andar - Barra da Tijuca	BARRA DA TIJUCA	RJ	21 99747 2476	PAULO JORGE GASPAR	pjgasppx@br.ibm.com
BARRA DA TIJUCA	CAMPOS DOS GOYTACASES	Avenida Boulevard Francisco de Paula Carneiro, 28 - 2º Andar - Centro	CAMPOS DOS GOYTACASES	RJ	21 99747 2476	PAULO JORGE GASPAR	pjgasppx@br.ibm.com
BARRA DA TIJUCA	CABO FRIO	Rua Leicy Gomes da Costa, 127 - São Cristóvão	CABO FRIO	RJ	21 99747 2476	PAULO JORGE GASPAR	pjgasppx@br.ibm.com
BAURU	MARILIA	Avenida Sampaio Vidal, 659 - 1º andar - Centro	MARILIA	SP	14 98136 0984	MARCO ANTONIO	marcant1@br.ibm.com

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BAURU	TUPA	Avenida Tamoios, 666 - 1º andar - Centro	TUPA	SP	14 98136 0984	MARCO ANTONIO	marcant1@br.ibm.com
BAURU	OURINHOS	Praga Mello Peixoto, 18 - Estacionamento - Centro	OURINHOS	SP	14 98136 0984	MARCO ANTONIO	marcant1@br.ibm.com
BAURU	BAURU	Rua Ezequiel Ramos, 3-33 - 2º andar - Centro	BAURU	SP	14 98136 0984	MARCO ANTONIO	marcant1@br.ibm.com
BAURU	ARACATUBA	Rua Marechal Deodoro, 64 - Estacionamento - Centro	ARACATUBA	SP	14 98136 0984	MARCO ANTONIO	marcant1@br.ibm.com
BAURU	FERNANDOPOLIS	Rua São Paulo, 1995 - Estacionamento - Centro	FERNANDOPOLIS	SP	14 98136 0984	MARCO ANTONIO	marcant1@br.ibm.com
BAURU	PRESIDENTE PRUDENTE	Rua Tenente Nicolau Mafei, 286 - Subsolo - Centro	PRESIDENTE PRUDENTE	SP	14 98136 0984	MARCO ANTONIO	marcant1@br.ibm.com
BELEM	REDENCAO	Avenida Brasil, 525 - Centro	REDENCAO	PA	85 98219 3781	FABIO REGIS	fabregm@br.ibm.com
BELEM	SAO LUIS	Avenida Magalhães de Almeida, 300 / 334 Centro	SAO LUIS	PA	85 98219 3781	FABIO REGIS	fabregm@br.ibm.com
BELEM	MARABA	Quadra 1 - Casa 1 - Folha 31	MARABA	PA	85 98219 3781	FABIO REGIS	fabregm@br.ibm.com
BELEM	SANTA INES	Rua do Comércio, 197 - Térreo - Centro	SANTA INES	PA	85 98219 3781	FABIO REGIS	fabregm@br.ibm.com

0474

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BELEM	PRESIDENTE DUTRA	Rua Magalhães de Almeida, 68, Centro.	PRESIDENTE DUTRA	PA	85 98219 3781	FABIO REGIS	fabregm@br.ibm.com
BELEM	IMPERATRIZ	Rua Piaui, 745 Centro	IMPERATRIZ	PA	85 98219 3781	FABIO REGIS	fabregm@br.ibm.com
BELEM	BELEM	Tv. Padre Eutiquio, 1379 - Batista Campos, Belém - PA, entrada pelo estacionamento 2 Andar	BELEM	PA	85 98219 3781	FABIO REGIS	fabregm@br.ibm.com
BELO HORIZONTE	DIVINOPOLIS	Avenida 1º de Junho, 333 - Centro	DIVINOPOLIS	MG	31 99897 3254	GUSTAVO CAIXETA	gcaixepx@br.ibm.com
BELO HORIZONTE	BELO HORIZONTE	Via Expressa de Contagem, 3115 Galpão 4 - Módulo D - Contagem - MG	BELO HORIZONTE	MG	31 99897 3254	GUSTAVO CAIXETA	gcaixepx@br.ibm.com
BRASILIA	GOIANIA	Avenida Goiás, 414 - 3º andar - Centro (caixa postal 23219 / CEP 74660-970)	GOIANIA	GO	61 9 9911 6068	MARCELLO BRAGA MATTOS	marcbrag@br.ibm.com
BRASILIA	URUACU	Avenida Tocantins, 1818 - Térreo - Centro	URUACU	GO	61 9 9911 6068	MARCELLO BRAGA MATTOS	marcbrag@br.ibm.com
BRASILIA	PORANGATU	Rua Adelino Américo Azevedo, 158 - Centro	PORANGATU	GO	61 9 9911 6068	MARCELLO BRAGA MATTOS	marcbrag@br.ibm.com
BRASILIA	RIO VERDE	Rua Rozulino Ferreira	RIO VERDE	GO	61 9 9911 6068	MARCELLO BRAGA MATTOS	marcbrag@br.ibm.com

0473

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		Guimarães, 581 - 1º andar - Centro					
BRASILIA	BRASILIA	SCN QD.02 BLOCO B ED. CENTRO EMPRESARIAL VARIG - SALA 1201 - ASA NORTE	BRASILIA	DF	61 9 9911 6068	MARCELLO BRAGA MATTOS	marcbrag@br.ibm.com
CAMPINAS	CAMPINAS	Avenida Dr. Moraes Sales, 668 - 3º andar - Bloco B - Centro	CAMPINAS	MG	19 98187 1385	AUGUSTO JOSE LEONESSA	augustoj@br.ibm.com
CAMPINAS	MOGI DAS CRUZES	Avenida Francisco Ferreira Lopes, 2737 - Brás Cubas	MOGI DAS CRUZES	SP	19 98187 1385	AUGUSTO JOSE LEONESSA	augustoi@br.ibm.com
CAMPO LIMPO	CAMPO LIMPO	Estrada do Campo Limpo, 4.519 - 1º Andar - Campo Limpo	CAMPO LIMPO	SP	11 94443 3941	RUDY	rudypx@br.ibm.com
CUIABA	JUINA	Av. Mato Grosso, s/n - Centro	JUINA	MT	65 98131 0002	TAIRAN GUISTAVO B. GUBERT	taigugu@br.ibm.com
CUIABA	RONDONOPOLIS	Avenida Cuiabá, 857 - Centro	RONDONOPOLIS	GO	65 98131 0002	TAIRAN GUISTAVO B. GUBERT	taigugu@br.ibm.com
CUIABA	SINOP	Avenida Governador Júlio Campos, 731 - Centro	SINOP	MT	65 98131 0002	TAIRAN GUISTAVO B. GUBERT	taigugu@br.ibm.com
CUIABA	BARRA DO GARCAS	Avenida XV de Novembro, 772 - 1º andar - Porto	BARRA DO GARCAS	GO	65 98131 0002	TAIRAN GUISTAVO B. GUBERT	taigugu@br.ibm.com

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Internet: www.ibm.com.br CNPJ: 33.372.251/0001-56

CUIABA	CUIABA	Avenida XV de Novembro, 772 - 1º andar - Porto	CUIABA	MT	65 98131 0002	TAIRAN GUISTAVO B. GUBERT	taigugu@br.ibm.com
CUIABA	UMUARAMA	Praça Santos Dumont	UMUARAMA	MS	65 98131 0002	TAIRAN GUISTAVO B. GUBERT	taigugu@br.ibm.com
CUIABA	CAMPO GRANDE	Rua Trindade, 451, Jardim Paulista	CAMPO GRANDE	MS	65 98131 0002	TAIRAN GUISTAVO B. GUBERT	taigugu@br.ibm.com
CUIABA	CACERES	Rua Cel. José Dulce, 183 - Centro	CACERES	MT	65 98131 0002	TAIRAN GUISTAVO B. GUBERT	taigugu@br.ibm.com
CUIABA	CORUMBA	Rua Delemare, 1067 - 1º andar - Centro	CORUMBA	MS	65 98131 0002	TAIRAN GUISTAVO B. GUBERT	taigugu@br.ibm.com
CUIABA	COXIM	Rua Filinto Muller, 885 - Térreo - Centro	COXIM	GO	65 98131 0002	TAIRAN GUISTAVO B. GUBERT	taigugu@br.ibm.com
CUIABA	PARANAIBA	Rua Generoso Ponce, 1653 - Térreo - Centro	PARANAIBA	GO	65 98131 0002	TAIRAN GUISTAVO B. GUBERT	taigugu@br.ibm.com
CUIABA	DOURADOS	Rua Joaquim Teixeira Alves, 1750	DOURADOS	MS	65 98131 0002	TAIRAN GUISTAVO B. GUBERT	taigugu@br.ibm.com
CURITIBA	CASCADEL	Avenida Brasil, 5277 - 2º Andar - Fundos - Centro - (entrada pelo estacionamento)	CASCADEL	PR	41 99178 8712	VALMIR	vfariapx@br.ibm.com
CURITIBA	MARINGA	Avenida Getúlio Vargas, 147 - Fundos - 1º andar - Centro (entrada pelo estacionamento)	MARINGA	PR	41 99178 8712	VALMIR	vfariapx@br.ibm.com

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Internet: www.ibm.com.br CNPJ: 33.372.251/0001-56

CURITIBA	PONTA GROSSA	Praça Barão de Guaraúna, 131 - Fundos - Centro (entrada pelo estacionamento)	PONTA GROSSA	PR	41 99178 8712	VALMIR	vfariapx@br.ibm.com
CURITIBA	CURITIBA	Rua Bom Jesus de Iguape, 6230, Boqueirão	CURITIBA	PR	41 99178 8712	VALMIR	vfariapx@br.ibm.com
CURITIBA	LONDRINA	Rua Minas Gerais, 337 (esquina com rua Sta Catarina) - Fundos - Centro (entrada pelo estacionamento)	LONDRINA	PR	41 99178 8712	VALMIR	vfariapx@br.ibm.com
FEIRA DE SANTANA	FEIRA DE SANTANA	Av. Senhor dos Passos, 1094 - Centro	FEIRA DE SANTANA	BA	71 99609 0061	GILBERTO MAIA	maiapx@br.ibm.com
FEIRA DE SANTANA	PAULO AFONSO	Avenida Getúlio Vargas, 40 - 1º andar - Centro	PAULO AFONSO	BA	71 99609 0061	GILBERTO MAIA	maiapx@br.ibm.com
FEIRA DE SANTANA	SALVADOR	Avenida Tancredo Neves, 450 - Sala 3201 - Bairro Caminho das Árvores	SALVADOR	BA	71 99609 0061	GILBERTO MAIA	maiapx@br.ibm.com
FEIRA DE SANTANA	ARACAJU	Rua Santa Catarina, 311 - 2º andar - Siqueira Campos	ARACAJU	AL	71 99609 0061	GILBERTO MAIA	maiapx@br.ibm.com
FLORIANOPOLIS	BLUMENAU	Alameda Rio Branco, 19 - 1º andar - Centro	BLUMENAU	SC	11 998017708	KAIO PEDRASSOLLI	kaiopc@br.ibm.com

IBM BRASIL - Indústria, Máquinas e Serviços Ltda.

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FLORIANOPOLIS	CHAPECO	Avenida Getúlio Vargas, 325N - Centro	CHAPECO	RS	11 998017708	KAIO PEDRASSOLLI	kaiopc@br.ibm.com
FLORIANOPOLIS	TUBARAO	Avenida Marcolino Martins Cabral, 1197 1o. Andar Centro	TUBARAO	RS	11 998017708	KAIO PEDRASSOLLI	kaiopc@br.ibm.com
FLORIANOPOLIS	JOINVILLE	Rua Alvarenga Peixoto, 2525 1o Andar - Bairro América	JOINVILLE	PR	11 998017708	KAIO PEDRASSOLLI	kaiopc@br.ibm.com
FLORIANOPOLIS	FLORIANOPOLIS	Rua Dom Pedro II, 63 - Capoeiras	FLORIANOPOLIS	SC	11 998017708	KAIO PEDRASSOLLI	kaiopc@br.ibm.com
FLORIANOPOLIS	PATO BRANCO	Rua Guarany, 261 Centro	PATO BRANCO	PR	11 998017708	KAIO PEDRASSOLLI	kaiopc@br.ibm.com
FLORIANOPOLIS	PASSO FUNDO	Rua Independência, 656 - Centro	PASSO FUNDO	RS	11 998017708	KAIO PEDRASSOLLI	kaiopc@br.ibm.com
FLORIANOPOLIS	JOACABA	Rua XV de Novembro, 505 - 1º andar - Centro	JOACABA	PR	11 998017708	KAIO PEDRASSOLLI	kaiopc@br.ibm.com
FORTALEZA	PARNAIBA	Avenida Presidente Getúlio Vargas, 403 - Térreo - Centro	PARNAIBA	CE	91 98219-2210	LEONARDO RABELLO	leopx@br.ibm.com
FORTALEZA	NATAL	Avenida Rio Branco, 477 - 2º andar	NATAL	PB	95 98219-2210	LEONARDO RABELLO	leopx@br.ibm.com
FORTALEZA	TERESINA	Rua Alvaro Mendes, 991 - 2º andar	TERESINA	MA	93 98219-2210	LEONARDO RABELLO	leopx@br.ibm.com

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FORTALEZA	SOBRAL	Rua Coronel José Saboia, 427 - 2º andar - Centro	SOBRAL	CE	87 98219-2210	LEONARDO RABELLO	leopx@br.ibm.com
FORTALEZA	MOSSORO	Rua Coronel Vicente Sabóia, 74 - 2º andar - Centro	MOSSORO	CE	88 98219-2210	LEONARDO RABELLO	leopx@br.ibm.com
FORTALEZA	CRATEUS	Rua Coronel Zezé, 1068 - Centro	CRATEUS	CE	89 98219-2210	LEONARDO RABELLO	leopx@br.ibm.com
FORTALEZA	JUAZEIRO DO NORTE	Rua da Conceição, 503 1º. Andar - Centro	JUAZEIRO DO NORTE	CE	85 98219-2210	LEONARDO RABELLO	leopx@br.ibm.com
FORTALEZA	FORTALEZA	Rua Floriano Peixoto, 875 - 2 andar - Centro	FORTALEZA	CE	86 98219-2210	LEONARDO RABELLO	leopx@br.ibm.com
FORTALEZA	FLORIANO	Rua São João, 405A - Centro	FLORIANO	MA	94 98219-2210	LEONARDO RABELLO	leopx@br.ibm.com
FORTALEZA	PICOS	Rua São José, 85 - Térreo - Centro	PICOS	CE	92 98219-2210	LEONARDO RABELLO	leopx@br.ibm.com
FORTALEZA	QUIXADA	Travessa Tiradenies, 230 - Centro	QUIXADA	CE	90 98219-2210	LEONARDO RABELLO	leopx@br.ibm.com
GUARULHOS	GUARULHOS	Av. Sete de Setembro, 1652/1698 - 2º. Andar - Vila Galvão	GUARULHOS	SP	11 98481 4744	EDISON ALVARENGA	edisonjr@br.ibm.com
LAPA	LAPA	Rua 12 de Outubro, 125 - 4º Andar - Lapa	LAPA	SP	11 98481 8695	REGINALDO FERNANDES DOS SANTOS	carsiluc@br.ibm.com

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MANAUS	MANAUS	Av Torquato Tapajos, 1290, Bairro da Paz	MANAUS	AM	92 98125 1119	LUCIENE	carsiluc@br.ibm.com
MANAUS	SANTAREM	Av. Rui Barbosa, 758 Centro	SANTAREM	PA	92 98125 1119	LUCIENE	carsiluc@br.ibm.com
MANAUS	GURUPI	Avenida Goiás, 1934 - 1º andar - Centro	GURUPI	TO	92 98125 1119	LUCIENE	carsiluc@br.ibm.com
MANAUS	PALMAS	Avenida JK ACNE 1 - conjunto 1 - lotes 1, 2, 3 e 4	PALMAS	TO	92 98125 1119	LUCIENE	carsiluc@br.ibm.com
MANAUS	CACOAL	Avenida Porto Velho, 2091 - 2º andar - Centro	CACOAL	RO	92 98125 1119	LUCIENE	carsiluc@br.ibm.com
MANAUS	PORTO VELHO	Rua Barão do Rio Branco, 199 - fundos - Centro	PORTO VELHO	RO	92 98125 1119	LUCIENE	carsiluc@br.ibm.com
MANAUS	MACAPA	Rua Candido Mendes, 1316 - Centro	MACAPA	AP	92 98125 1119	LUCIENE	carsiluc@br.ibm.com
MANAUS	BOA VISTA	Rua Inácio Magalhães, 75 - 1º Andar - Centro	BOA VISTA	RR	92 98125 1119	LUCIENE	carsiluc@br.ibm.com
MANAUS	RIO BRANCO	Rua Rua Arlindo Porto Leal, 65 - 2º andar - sala 01 - Praça Eurico Dutra - Centro	RIO BRANCO	AC	92 98125 1119	LUCIENE	carsiluc@br.ibm.com
PAISSANDU	PAISSANDU	Avenida Rio Branco, 112 -	PAISSANDU	SP	11 98439 5384	RENATO JOIA	renedjc@br.ibm.com

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		1º e 2º Andar - Campos Eliseos					
PORTO ALEGRE	PORTO ALEGRE	Av. Dolores Alcaraz Caldas, 90 - Praia de Belas	PORTO ALEGRE	RS	55 99725 7976	SCHNEIDER	schneipx@br.ibm.com
PORTO ALEGRE	SANTO ANGELO	Avenida Brasil, 832	SANTO ANGELO	RS	53 99725 7976	SCHNEIDER	schneipx@br.ibm.com
PORTO ALEGRE	SANTA MARIA	Avenida Rio Branco, 705	SANTA MARIA	RS	52 99725 7976	SCHNEIDER	schneipx@br.ibm.com
PORTO ALEGRE	PELOTAS	Praça Coronel Pedro Osório, 152	PELOTAS	RS	56 99725 7976	SCHNEIDER	schneipx@br.ibm.com
PORTO ALEGRE	CAXIAS DO SUL	Rua Moreira César, 1675	CAXIAS DO SUL	RS	54 99725 7976	SCHNEIDER	schneipx@br.ibm.com
RECIFE	CARUARU	Av. Agamenon Magalhães, 483 - bairro: Maurício de Nassau,	CARUARU	PB	81 8299- 4205	JULIUS	reichpx@br.ibm.com
RECIFE	RECIFE	Cais do Apolo, 222 - 14 andar	RECIFE	PE	81 8299- 4205	JULIUS	reichpx@br.ibm.com
RECIFE	SERRA TALHADA	Rua Enock Inacio nº 416 1º Andar Sala 3 - Centro	SERRA TALHADA	PB	81 8299- 4205	JULIUS	reichpx@br.ibm.com
RECIFE	CAMPINA GRANDE	Rua Marquês do Herval, 129 - 1º andar - Centro	CAMPINA GRANDE	PB	81 8299- 4205	JULIUS	reichpx@br.ibm.com
RIBEIRAO PRETO	UBERABA	Av. Leopoldino de Oliveira, 3446	UBERABA	MG	17 99622 7064	ALBANY	albanypx@br.ibm.com
RIBEIRAO PRETO	UBERLANDIA	Avenida Afonso Pena, 273 - subsolo Centro	UBERLANDIA	GO	17 99622 7064	ALBANY	albanypx@br.ibm.com

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RIBEIRAO PRETO	RIBEIRAO PRETO	Avenida da Saudade, 935 - 2º andar	RIBEIRAO PRETO	SP	17 99622 7064	ALBANY	albanypx@br.ibm.com
RIBEIRAO PRETO	PARACATU	Avenida Dep. Quintino Vargas, 431 - 1º andar - Centro	PARACATU	MG	17 99622 7064	ALBANY	albanypx@br.ibm.com
RIBEIRAO PRETO	FRUTAL	Praça da Matriz, 39 - 1º andar - Centro	FRUTAL	MG	17 99622 7064	ALBANY	albanypx@br.ibm.com
RIBEIRAO PRETO	CATANDUVA	Praça da República, 52 - Centro -	CATANDUVA	SP	17 99622 7064	ALBANY	albanypx@br.ibm.com
RIBEIRAO PRETO	FRANCA	Rua Monsenhor Rosa, 1685 - Centro	FRANCA	MG	17 99622 7064	ALBANY	albanypx@br.ibm.com
RIBEIRAO PRETO	SAO JOSE DO RIO PRETO	Rua João Clemente 550 - São Deodéciano	SAO JOSE DO RIO PRETO	SP	17 99622 7064	ALBANY	albanypx@br.ibm.com
RIO DE JANEIRO	RIO DE JANEIRO	Rua São Cristovao, 600 - 2 andar - São Cristovão	RIO DE JANEIRO	RJ	21 98921 7368	MARCIO HENRIQUES DE MELLO	mamello@br.ibm.com
SALVADOR	IBOTIRAMA	Avenida Ex- combatente, S/N, sala 01 - Centro	IBOTIRAMA	BA	71 9 9928- 3402	WILSON	wilsapx@br.ibm.com
SALVADOR	PAULO AFONSO	Avenida Getúlio Vargas, 40 - 1º andar - Centro	PAULO AFONSO	BA	71 9 9928- 3402	WILSON	wilsapx@br.ibm.com
SALVADOR	EUNAPOLIS	Avenida Porto Seguro, 510 - 1º andar - Centro	EUNAPOLIS	BA	71 9 9928- 3402	WILSON	wilsapx@br.ibm.com

0483

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SALVADOR	FEIRA DE SANTANA	Avenida Sr. dos Passos, 1094 - Centro	FEIRA DE SANTANA	BA	71 9 9928-3402	WILSON	wilsapx@br.ibm.com
SALVADOR	SALVADOR	Avenida Tancredo Neves, 450 - Sala 3201 - Bairro Caminho das Árvores	SALVADOR	BA	71 9 9928-3402	WILSON	wilsapx@br.ibm.com
SALVADOR	JUAZEIRO	Rua Aprigio Duarte, 09 - Centro	JUAZEIRO	BA	71 9 9928-3402	WILSON	wilsapx@br.ibm.com
SALVADOR	IRECE	Rua Aurélio José Marques, 110 - 1º andar - Centro	IRECE	BA	71 9 9928-3402	WILSON	wilsapx@br.ibm.com
SALVADOR	BARREIRAS	Rua Dom Pedro II, s/n - 1º andar - Centro	BARREIRAS	BA	71 9 9928-3402	WILSON	wilsapx@br.ibm.com
SALVADOR	ILHEUS	Rua Marquês de Paranaguá, 08 - Centro	ILHEUS	BA	71 9 9928-3402	WILSON	wilsapx@br.ibm.com
SALVADOR	VITÓRIA DA CONQUISTA	Rua Maximiliano Fernandes, 50	VITÓRIA DA CONQUISTA	BA	71 9 9928-3402	WILSON	wilsapx@br.ibm.com
SALVADOR	JACOBINA	Rua Senador Pedro Lago, 177 - 1º andar - Centro	JACOBINA	BA	71 9 9928-3402	WILSON	wilsapx@br.ibm.com
SAO BERNARDO DO CAMPO	SANTOS	Avenida Dr. Pedro Lessa, 847 - 1º andar - Ponta da Praia	SANTOS	SP	11 972843715	RICARDO GALLINA	gallina@br.ibm.com
SAO BERNARDO DO CAMPO	SAO BERNARDO DO CAMPO	Avenida Dr. Rudge Ramos, 155 - 1º andar	SAO BERNARDO DO CAMPO	SP	11 972843715	RICARDO GALLINA	gallina@br.ibm.com

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SAO BERNARDO DO CAMPO	REGISTRO	Avenida Prefeito Jonas Banks Leite, 520 - Centro	REGISTRO	SP	11 972843715	RICARDO GALLINA	gallina@br.ibm.com
SAO BERNARDO DO CAMPO	SAO SEBASTIAO	Rua Duque de Caxias, 214 - 1º andar	SAO SEBASTIAO	SP	11 972843715	RICARDO GALLINA	gallina@br.ibm.com
SAO JOSE DOS CAMPOS	SAO JOSE DOS CAMPOS	Av. Benedito Friggi, 3330 Fundos - Bairro Vista Verde	SAO JOSE DOS CAMPOS	MG	11 94444 8449	ALEXANDRE NOVAK	alenovak@br.ibm.com
SAO JOSE DOS CAMPOS	VOLTA REDONDA	Avenida Amaral Peixoto, 424 - Centro	VOLTA REDONDA	MG	11 94444 8449	ALEXANDRE NOVAK	alenovak@br.ibm.com
SAO JOSE DOS CAMPOS	GUARATINGUETA	Rua Dr. Morais Filho, 129 - 2º Subsolo - Centro	GUARATINGUETA	MG	11 94444 8449	ALEXANDRE NOVAK	alenovak@br.ibm.com
SAO JOSE DOS CAMPOS	SAO JOAO DE MERITI	Rua Gessyr Gonçalves Fontes, 52 - 2º andar - Centro	SAO JOAO DE MERITI	RJ	11 94444 8449	ALEXANDRE NOVAK	alenovak@br.ibm.com
SOROCABA	POUSO ALEGRE	Avenida Dr. Lisboa, 31 - 1º andar - Centro	POUSO ALEGRE	MG	11 97254 0262	ANDESON COSTA	ancostpx@br.ibm.com
SOROCABA	SAO JOAO DA BOA VISTA	Praça Governador Armando Sales, 35, Sala 01 - Piso Superior - Centro	SAO JOAO DA BOA VISTA	MG	11 97254 0262	ANDESON COSTA	ancostpx@br.ibm.com
SOROCABA	VARGINHA	Praça José Resende Paiva, 02	VARGINHA	MG	11 97254 0262	ANDESON COSTA	ancostpx@br.ibm.com
SOROCABA	SOROCABA	Rua São Bento, 233 - 2º andar	SOROCABA	SP	11 97254 0262	ANDESON COSTA	ancostpx@br.ibm.com

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SOROCABA	ARARAQUARA	Rua São Bento, 975 - 1o. Andar - Centro	ARARAQUARA	SP	11 97254 0262	ANDESON COSTA	ancostpx@br.ibm.com
VITORIA	IPATINGA	Avenida 28 de Abril, 176 - Térreo - Centro	IPATINGA	MG	19 99726- 1784	EDUARDO PONSONI	eponsopx@br.ibm.com
VITORIA	GOVERNADOR VALADARES	Avenida Minas Gerais, 395	GOVERNADOR VALADARES	MG	19 99726- 1784	EDUARDO PONSONI	eponsopx@br.ibm.com
VITORIA	CACHOEIRO DO ITAPEMIRIM	Rua Capitão Deslandes, 60 - 1 andar - Centro	CACHOEIRO DO ITAPEMIRIM	ES	19 99726- 1784	EDUARDO PONSONI	eponsopx@br.ibm.com
VITORIA	VITORIA	Rua General Osório 124 - 2 andar - Centro	VITORIA	ES	19 99726- 1784	EDUARDO PONSONI	eponsopx@br.ibm.com
VITORIA	COLATINA	Rua Germano Nawmann Filho , 232, sala 07 Edifício Mantel - Centro	COLATINA	ES	19 99726- 1784	EDUARDO PONSONI	eponsopx@br.ibm.com
VITORIA	MONTES CLAROS	Rua Governador Valadares, 265	MONTES CLAROS	MG	19 99726- 1784	EDUARDO PONSONI	eponsopx@br.ibm.com
VITORIA	ALMENARA	Rua Hermanno de Souza, 92	ALMENARA	MG	19 99726- 1784	EDUARDO PONSONI	eponsopx@br.ibm.com
VITORIA	JUIZ DE FORA	Rua São Mateus, 506 - 2o. Andar - Centro	JUIZ DE FORA	MG	19 99726- 1784	EDUARDO PONSONI	eponsopx@br.ibm.com

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São Paulo, 07 de Outubro de 2021

e-Signed by Carlos Affonso Formici

Carlos Affonso Formici

cformici@br.ibm.com

Gerente de Vendas Consultor

IBM Brasil Indústria Máquinas e Serviços Ltda &
PROXXI TECNOLOGIA LTDA.

0487

ThinkPad E14 Gen 2 (AMD)

Lenovo

PSREF
Product Specifications
Reference

PERFORMANCE

Processor
AMD Ryzen™ 5 4500U (6C / 6T, 2.3 / 4.0GHz, 3MB L2 / 8MB L3)

Graphics
Integrated AMD Radeon™ Graphics

Chipset
AMD SoC Platform

Memory
8GB Soldered DDR4-3200

Memory Slots
One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Max Memory
Up to 24GB (8GB soldered + 16GB SO-DIMM) DDR4-3200

Storage
256GB SSD M.2 2242 PCIe® 3.0x4 NVMe™

Storage Support
Up to two drives, 2x M.2 SSD
• M.2 2242 SSD up to 512GB
• M.2 2280 SSD up to 1TB

Optical
None

Audio Chip
High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers
Stereo speakers, 2W x2, Dolby® Audio™, Harman Speakers

Camera
720p with Privacy Shutter

Microphone
2x Array

Battery
Integrated 45Wh

Max Battery Life
MobileMark® 2014: 15 hr
MobileMark 2018: 10.7 hr

Power Adapter
65W USB-C® (3-pin)

DESIGN

Display
14" FHD (1920x1080) TN 220nits Anti-glare

Touchscreen
None

Keyboard
Backlit, Portuguese (Brazil)

Case Color
Black

Case Material
Aluminium (Top), PC + ABS (Bottom)

Dimensions (WxDxH)
324 x 220 x 18.9 mm (12.76 x 8.66 x 0.74 inches)

Weight
1.59 kg (3.51 lbs)

SOFTWARE

Operating System
Windows® 10 Pro 64, Portuguese (Brazil)

Bundled Software
None

CONNECTIVITY

General
100/1000M

Wi-Fi & Bluetooth®
RTL8822CE 11ac, 2x2 + BT5.0

Cellular
None

Cell Card
None

4G/LTE
None

Standard Ports
• 1x USB 2.0
• 1x USB 3.2 Gen 1 (Always On)
• 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery and DisplayPort™ 1.2)
• 1x HDMI® 1.4b
• 1x Ethernet (RJ-45)
• 1x Headphone / microphone combo jack (3.5mm)

Docking
Various docking solutions supported via USB-C.
For more compatible docking solutions, please visit [Docking for ThinkPad® E14 Gen 2 \(AMD\)](#)

Monitor Cable
None

SECURITY & PRIVACY

Smart Card Reader
None

Securely View
Discrete TPM 2.0

Fingerprint Reader
Touch Style

Physical Locks
Kensington® Security Slot

Other Security
Camera privacy shutter

MANAGEABILITY

System Management
Non-DASH

SERVICE

Open Warranty
1-year, Onsite

Extended Support
None

ACCESSORIES

Bundled Accessories
None

CERTIFICATIONS

Green Certifications
• EPEAT™ Gold
• ENERGY STAR® 8.0
• ErP Lot 3
• TCO Certified
• RoHS compliant

MIL-STD-883C
MIL-STD-883C military test passed

MODEL

TopSeller	: Yes	Associate Date	: 2021-06-01
EWI / WPC / LAN	: 195891649831	End of Support	: 2027-01-09

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Product image on this page is a sample. It may not match the real color of this model.

Battery life is an estimated maximum. Actual battery life may vary based on many factors, including screen brightness, active applications, features, power management settings, battery age and conditioning, and other customer preferences.

0488

Premier Support - A direct 24x7x365 line to our most elite technicians.



Advanced technical support,
24x7x365, in more than 100 markets



Technical Account Managers for
proactive relationship and escalation
management



Comprehensive hardware & OEM
software support



Priority on service delivery and repair
parts



Single point of contact for simplified
end-to-end case management



Lenovo Service Connect Portal for
customized reporting and product
support

Accidental Damage Protection - Protection of your PC from the unexpected.

Experience shows that a significant portion of devices may be damaged (and not covered under warranty) in the first three years. Lenovo's Accidental Damage Protection service covers accidents beyond the system warranty such as drops, spills, bumps and even electrical surges. Make sure your new device has maximum protection, avoid unplanned costs and get peace of mind.

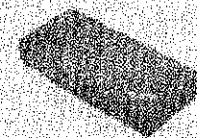
Base Warranty - Included with the systems you purchase, default 1- or 3-year coverage window.

Warranty Extensions & Upgrades - Service and protection that's right for your circumstances.

- Pick Up & Return Courier
- Technician Installed Customer
- Onsite Support
- Replaceable Unit Service
- International Warranty Upgrade

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Recommended Accessories



ThinkPad USB-C Dock Gen 2

- Lenovo understands that modern business depends on a wide variety of PCs and even brands to meet their business needs. To make this easier, Lenovo USB-C dock is compatible with Lenovo notebooks as well as Acer...



Lenovo Business Casual 15.6-inch Topload

Lenovo Business Casual Line is a collection focusing on lightweight, clean lines and modern details for young professionals, daily commute and occasional travel. For professionals who are seeking for a functional...

For a full list of accessories and services, please visit:
<https://smartfind.Lenovo.com>



PSREF
Product Specifications
Reference

0489

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 / 7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 1300U	4	4	2.7GHz	3.7GHz	2MB L2 / 4MB L3	DDR4-3200	AMD Radeon™ Graphics
AMD Ryzen 5 4500U	6	6	2.3GHz	4.0GHz	3MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 4600U	6	12	2.1GHz	4.0GHz	3MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 PRO 4650U	6	12	2.1GHz	4.0GHz	3MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 4700U	8	8	2.0GHz	4.1GHz	4MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 4800U	8	16	1.8GHz	4.2GHz	4MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics

Notes:

- Ryzen 5 4600U, Ryzen 5 PRO 4650U and Ryzen 7 4800U are NOT available in EMEA

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- No operating system

Graphics

Graphics	Type	Memory	Key Features
AMD Radeon Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI* (up to 3840x2160@30Hz) or USB-C (up to 3840x2160@60Hz)

Chipset

AMD SoC (System on Chip) platform

Memory

Memory Type

DDR4-3200

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Max Memory

- Up to 20GB (4GB soldered + 16GB SO-DIMM) DDR4-3200
- Up to 24GB (8GB soldered + 16GB SO-DIMM) DDR4-3200

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

Up to two drives, 1x M.2 2242 SSD + 1x M.2 2280 SSD

- M.2 2280 SSD up to 1TB
- M.2 2242 SSD up to 512GB

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-

Removable Storage**Optical**

None

Card Reader

No card reader

Multi-Media**Audio Chip**

High Definition (HD) Audio, Realtek® ALC3297 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™, HARMAN-branded

Microphone

Dual array microphone

Camera

- 720p, with privacy shutter, fixed focus
- IR & 720p, with privacy shutter, fixed focus

Battery**Battery**

Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Max Battery Life

MobileMark® 2014: 13 hr

MobileMark 2018: 10,7 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

65W USB-C AC adapter

DESIGN**Display****Display**

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD (1920x1080)	None	TN	220 nits	Anti-glare	16:9	400:1	-	90°	-
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	-	170°	-



ThinkPad E14 Gen 2 (AMD)

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

Non-touch

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar™ surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

Models	Dimensions
Aluminium (top), PC + ABS (bottom) models	324 x 220 x 18.9 mm (12.76 x 8.66 x 0.74 inches)
PC + ABS (top), PC + ABS (bottom) models	324 x 220 x 20.5 mm (12.76 x 8.66 x 0.81 inches)
Aluminium (top), aluminium (bottom) models	324 x 220 x 17.9 mm (12.76 x 8.66 x 0.7 inches)

Weight

Models	Weight
Aluminium (Top), PC + ABS (Bottom) models	1.59 kg (3.51 lbs)
PC + ABS (Top), PC + ABS (Bottom) models	1.69 kg (3.73 lbs)
Aluminium (Top), Aluminium (Bottom) models	1.64 kg (3.62 lbs)

Case Color

Black

Case Material

- Aluminium (top), aluminium (bottom)
- Aluminium (top), PC + ABS (bottom)
- PC + ABS (top), PC + ABS (bottom)

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8111GUS

WLAN + Bluetooth™

- Intel® Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card

Notes:

- Realtek RTL8822CE is NOT available in EMEA
- Intel Wi-Fi 6 full features might be limited by country level restrictions
- Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

Not Support

SIM Card

No SIM card

NFC

Not support

Ports

Standard Ports

- 1x USB 2.0
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x HDMI 1.4b
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset

Physical Locks

Kensington® Security Slot

Smart Card Reader

No smart card reader

Fingerprint reader

- Touch style fingerprint reader on power button
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) iR camera for Windows Hello

SERVICE

Warranty

Base Warranty

- 1-year mail-in service
- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- No base warranty

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO
- RoHS compliant

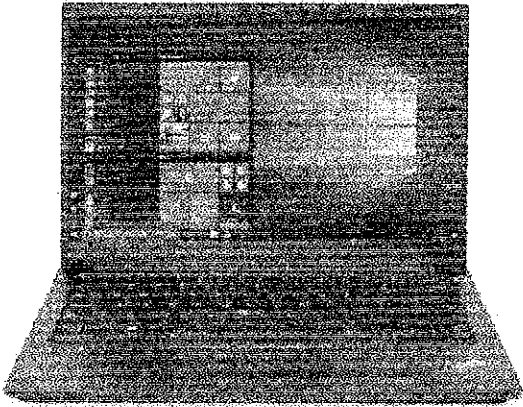


ThinkPad E14 Gen 2 (AMD)

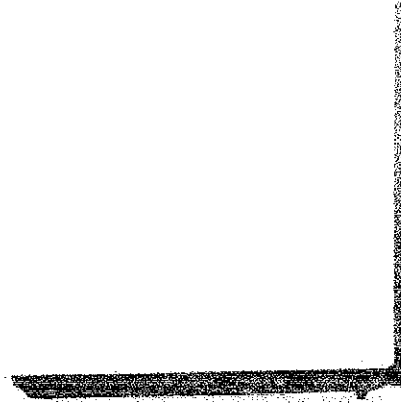
Other Certifications

MIL-Spec Test

MIL-STD-810H military test passed



AMD47



AMD47



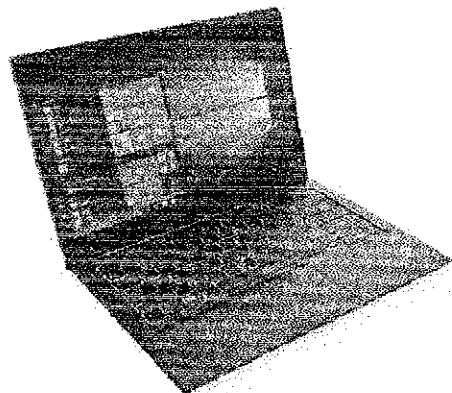
AMD47



AMD47



AMD47



AMD47



AMD Ryzen™ 5 4500U

[ESPECIFICAÇÕES](#) [DRIVERS & SUPPORT](#)

AMD Ryzen™ 5 4500U

General Specifications

Plataforma: MoboW.

Família de produto: AMD Ryzen™ Processors

Linha de produto: AMD Ryzen™ 5 Mobile Processors with Radeon™ Graphics

Nº de núcleos da CPU: 5

Nº de threads: 5

Clock de Max Boost: Até 4,0GHz

Clock básico: 2,3GHz

Total de Cache L2: 3MB

Cache L3 total: 8MB

TDP / TDP Padrão: 15W

AMD Configurable TDP (cTDP): 10-25W

Processor Technology for CPU Cores: 7nm FinFET

Processo: 7nm

Temperatura máx: 100°C

Data de lançamento: 1Q12022

***Suporte de SO:**
 Windows 10 - 64-bit
 Windows 11 - 64-bit
 Linux - 64-bit
 Ubuntu - 64-bit
 *O suporte a SO depende da configuração de SO e do hardware da máquina. Consulte o site da AMD para mais informações.

Connectivity

Versão PCIe Express: PCIe 3.0

Tipo de memória:
 DDR4 - até 32GB (40GB)
 LPDDR4 - até 16GB (16GB)

Graphics Capabilities

Modelo gráfico: AMD Radeon™ Graphics

Nº de unidades de GPU: 5

Frequência gráfica: 1900MHz

Product IDs

Bandeira CPU: 54500U

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Nome



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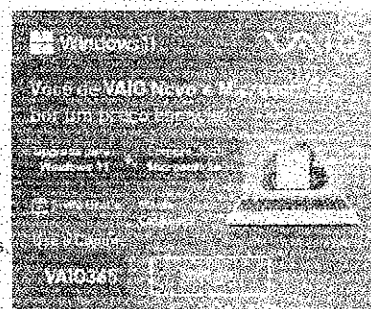
CPU Benchmarks

www.cpubenchmarks.com

AMD Ryzen 5 PRO 4500U

Price and performance details for the AMD Ryzen 5 PRO 4500U can be found below. This is made using thousands of [Cpubenchmark.net](#) benchmark results and is updated daily.

- The first graph shows the relative performance of the CPU compared to the 10 other common (single) CPUs in terms of PassMark CPU Mark.
- The 2nd graph shows the value for money, in terms of the CPUmark per dollar.
- The pricing history data shows the price for a single Processor. For multiple Processors, multiply the price shown by the number of CPUs.



CPUS

High End

High Mid Range

Low Mid Range

Low End

Best Value
(On Market)Best Value XY
ScatterBest Value
(All time)

New Desktop

New Laptop

Single Thread

Systems with
Multiple CPUs

Overclocked

Power
PerformanceCPU Mark by Socket
TypeCross-Platform CPU
Performance

CPU Mega List

Search Model

Compare

Common

Most
BenchmarkedAMD vs Intel
Market Share

AMD Ryzen 5 PRO 4500U

Average CPU Mark

Description: with Radeon Graphics

Class:
LaptopSocket:
FP6Clockspeed:
2.3 GHzTurbo Speed:
4.0 GHzCores:
6Typical TDP:
15 WThreads:
12TDP Down:
10 WTDP Up:
25 W

12848

Single Thread Rating: 2486

Samples: 4+

*Maximization: High

Other names: AMD Ryzen 5 PRO 4500U with Radeon Graphics

CPU First Seen on Charts: Q2 2020

CPUmark/\$Price: NA

Overall Rank: 580

Last Price Change: NA

CPU Test Suite Average Results for AMD Ryzen 5 PRO 4500U

Integer Math

41,751 MOps/Sec

Floating Point Math

22,543 MOps/Sec

Find Prime Numbers

27 Million Primes/Sec

Random String Sorting

17 Thousand Strings/Sec

Data Encryption

9,641 MBytes/Sec

Year on Year
Performance

Data Compression

144.6 MBytes/Sec

0498



CPU Benchmarks



Extended Instructions

9,094 Million Markers/Sec

Single Thread

2,488 MOps/Sec

From submitted results to PerformanceTest V19.0 as of 14th of June 2022.

CPU Mark Distribution for AMD Ryzen 5 PRO 4500U

Submitted Baseline Distribution Graph as of 16th of June 2022

Not Enough Data from Current Version of PerformanceTest to Create Distribution Graph.

From submitted results to PerformanceTest V19.0 as of 16th of June 2022.



VAIO em até 24x no Boletão Flex
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Search for AMD Ryzen 5 PRO 4500U
from the Featured Merchants below:

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newegg

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Note: PriceMark Software may earn commissions on purchases from links on this site through affiliate programs.

CPU Mark Relative to Top 10 Common Laptop CPUs

As of 20th of June 2022 - Higher results represent better performance

Processor	Average CPU Mark
Apple M1 Max 10 Core 3200 MHz	22,422
Apple M1 Pro 10 Core 3200 MHz	24,234
AMD Ryzen 7 5800H	21,412

CPU Benchmarks

AMD Ryzen 7 4800H	12,049
Intel Core i7-11750H @ 2.60GHz	12,213
AMD Ryzen 5 PRO 4500U	12,049
Intel Core i7-8750H @ 2.60GHz	11,201
Intel Core i7-8250H @ 2.20GHz	10,061
AMD Ryzen 5 3500U	7,032
Intel Core i7-7700HQ @ 2.60GHz	8,870

0499

CPU Value (CPU Mark / \$Price)

As of 20th of June 2022 - Higher results represent better value

Processor	CPU Mark / \$Price
Intel Core i7-8750H @ 2.60GHz	28.22
Intel Core i7-7700HQ @ 2.60GHz	21.14
Intel Core i7-8750H @ 2.60GHz	11.67
AMD Ryzen 5 PRO 4500U	NA
Apple M1 8 Core 1200 MHz	NA
Apple M1 Max 10 Core 3200 MHz	NA
Apple M1 Pro 10 Core 3200 MHz	NA
AMD Ryzen 7 4800H	NA
AMD Ryzen 7 5800H	NA
AMD Ryzen 5 3500U	NA
Intel Core i7-10750H @ 2.60GHz	NA

Single Thread Rating

As of 20th of June 2022 - Higher results represent better performance

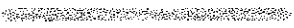
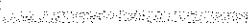
Processor	Average Thread Rating
Apple M1 Max 10 Core 3200 MHz	4,293
Apple M1 Pro 10 Core 3200 MHz	3,741
Apple M1 8 Core 1200 MHz	4,224
AMD Ryzen 7 5800H	4,177
Intel Core i7-10750H @ 2.60GHz	3,711

0500

AMD Ryzen 7 4800H		1.412
Intel Core i7-9750H @ 2.80GHz		1.402
Intel Core i7-9750H @ 2.20GHz		1.364
Intel Core i7-7700HQ @ 2.80GHz		1.374
AMD Ryzen 5 3500U		1.123

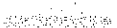
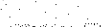
Last 4 Baselines for AMD Ryzen 5 PRO 4500U

Most recent listed first

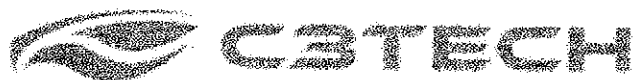
Baseline	CPU Mark
BI 1247546 - May 31 2020	 1.189
BI 1249275 - May 29 2020	 1.191
BI 1248208 - May 28 2020	 1.186
BI 1248066 - May 28 2020	 1.183

Popular comparisons for AMD Ryzen 5 PRO 4500U

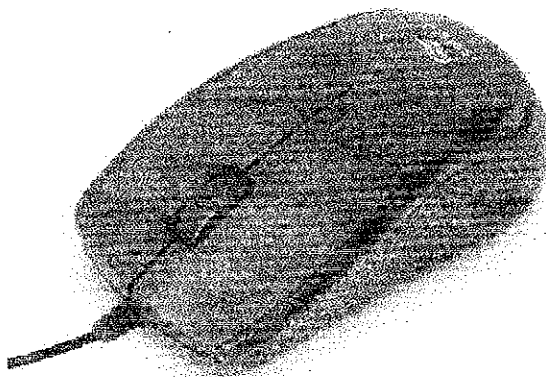
As of 20th of June 2022 - Higher results represent better performance

Processor	Average CPU Mark
AMD Ryzen 5 PRO 4500U	 12,049
AMD Ryzen 5 4800H	 14,235
Intel Core i7-10750H @ 2.50GHz	 12,113
AMD Ryzen 7 4730U	 13,615
AMD Ryzen 5 PRO 4450U	 14,208
Intel Core i7-10850H @ 2.70GHz	 12,167
AMD Ryzen 5 4500U	 11,528
Intel Core i7-1155G7 @ 2.50GHz	 10,311
Intel Core i5-1135G7 @ 2.40GHz	 10,099
AMD Ryzen 5 4600H	 14,216
AMD Ryzen 5 4630U	 13,438
Intel Xeon W-10950M @ 2.80GHz	 12,251
Intel Core i7-8750H @ 2.50GHz	 11,259

[illegible]



Mouse USB MS-26BK Preto C3Tech



Características

Modelo: MS-26BK

Referência: 302021040120

Apresentação: O MS-26 é um mouse óptico USB de fácil configuração que oferece ótima navegabilidade, precisão e cabo mais extenso.

Especificações Técnicas

Cor: Preto

Principais Recursos

- * Sensor ótico
- * Resoluções: 1000 DPI
- * Conexão USB
- * Compatível USB1.1 / USB 2.0
- * Plug and Play.
- * Botões: 3 (Direito, Esquerdo, Rolagem)
- * 3D Wheel "botão de rolagem"

Comprimento do Cabo: 195cm ± 0,5cm

* Sistema Plug & Play

* Compatível com: Windows

XP/Vista/7/8/8.1/10/Mac-OS X/Linux 2.6.x

Altura da embalagem: 13 CM

Largura embalagem: 4 CM

Comprimento embalagem: 8.5 CM

Peso embalagem: 1.06 KG

Part Number/SKU: MS-26BK

EAN do produto: 7898555213319

Requisito de Sistema

* Microcomputador desktop, notebook

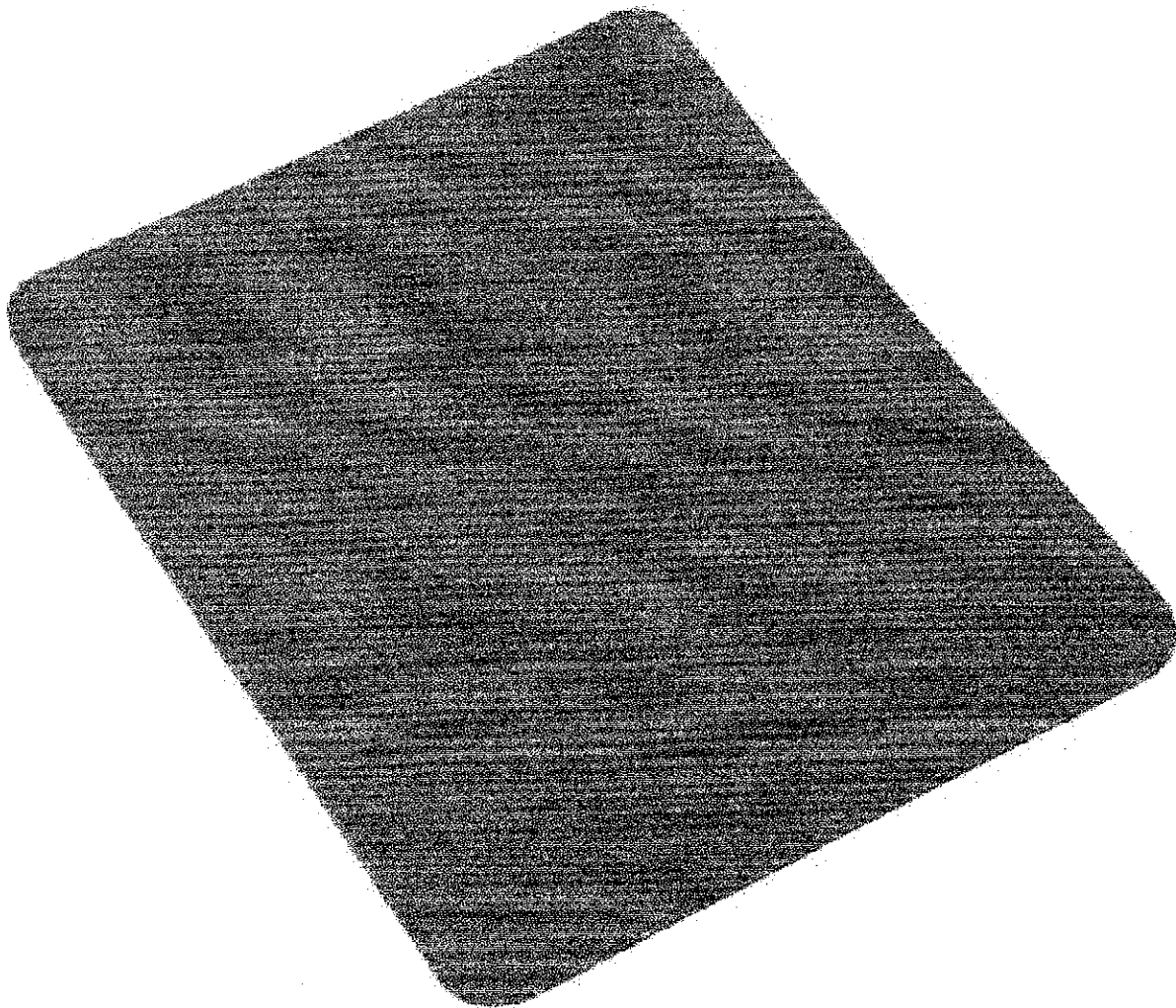
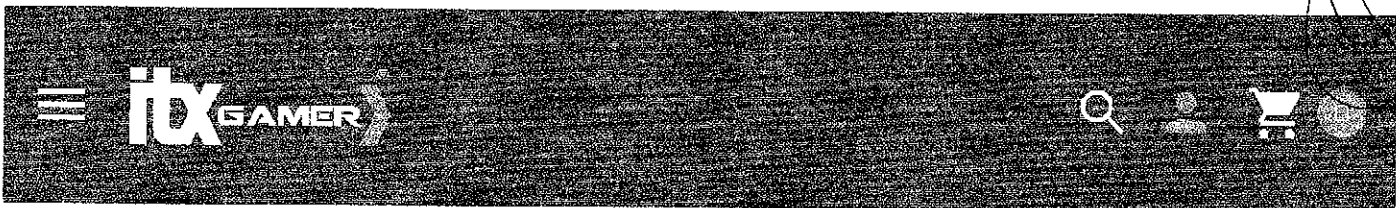
* Porta USB disponível

Itens Inclusos

01 - Mouse USB MS-26BK

www.c3technology.com.br

0504



9

MD.9

BASE PARA MOUSE DE TECIDO PRETO MDS - 3461

REF: 7898443800362

Infelizmente o estoque deste item acabou :|

AVISE-ME QUANDO CHEGAR



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Avaliação do Comprador

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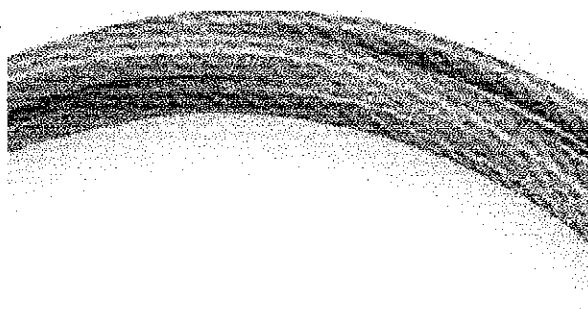
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Você está em: Computadores > Notebooks > Acessórios para Notebook > Trava > Código: 79374

Trava de Segurança para Notebook MD9 Segredo - 6359

MD9

★★★★★ (9)



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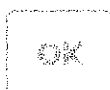
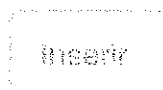
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PRODUTOS SIMILARES

Fabricante: MD9

Consultar frete e prazo de entrega



[Não tenho mais](#)



R\$ 34,90

DESCRIÇÃO DO PRODUTO

Trava de Segurança para Notebook MD9 Segredo - 6359

INFORMAÇÕES TÉCNICAS

Características:

- Marca: MD9
- Modelo: 6358

Especificações:

- Trava de Segurança para Notebook c/ Segredo.
- Cabo de aço aço revestido com pvc, super resistente
- Comprimento do cabo: 1 metro

Conteúdo da embalagem:

- 01 Trava de Segurança para Notebook
- 01 Segredo

Garantia:

6 meses de garantia (3 meses de garantia contratual junto ao fabricante + 3 meses referentes à garantia legal, nos termos do artigo 26. II, do Código de Defesa do Consumidor)

Peso:

197 gramas (bruta com embalagem)

AVALIAÇÕES DOS USUÁRIOS

PERGUNTAS E RESPOSTAS

MAIS PROCURADOS

RoHS/REACH Engineering Specification



Lenovo RoHS/REACH Engineering Specification

Addendum to Lenovo Environmental Specification 41A7731

Number	41A7733
Version	2020-1
Applicability	Lenovo brand products worldwide
Owner	Global Environmental Affairs

Contents

- 1.0 Purpose and Scope
- 2.0 ROHS Requirements
- 3.0 Substances of Very High Concern (SVHC) in Articles - Reporting Requirements
- 4.0 Definitions
- Appendix: RoHS Guidance: summary checklist
- Revision History

1.0 Purpose and Scope

This Specification communicates Lenovo's requirements for Lenovo brand products and materials, parts and assemblies incorporated into Lenovo Brand products worldwide, in accordance with European Union directive for the Restriction of Hazardous Substances (RoHS) and the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) in electrical and electronic equipment, similar regulations in other markets and more stringent limits set by Lenovo.

This Specification does not apply to spare parts for the repair, or reuse, of electrical and electronic equipment put on the market before the date defined by each regional RoHS directive, batteries or process chemicals.

1.1 Other Jurisdictions

There are other jurisdictions, other than the EU Member States, with RoHS types of requirements. The list below is not complete and is provided for information only. In some jurisdictions the product scope and requirements are different from the scope and requirements of the EU Directive. Deliverables to Lenovo which cite this specification must meet the requirements of this specification irrespective of the jurisdiction where the Deliverable is transferred to Lenovo.

- Multiple US States
- New York City
- People's Republic of China
- European Economic Area (EEA) States
- European Free Trade Association (EFTA) States
- EU Candidate Countries - Albania, Montenegro, Macedonia, Serbia, and Turkey
- EU potential Candidate Countries - Bosnia and Herzegovina, Kosovo
- EAEU
- UEE
- Brazil
- Korea
- Ukraine
- Vietnam
- India
- Japan
- Thailand

0509

Lenovo RoHS/REACH Specification 41A7733

2.0 RoHS Requirements

Lenovo brand products and materials, parts and assemblies in Lenovo brand electrical and electronic products must meet the following requirements:

1. Applicable laws and regulations;
2. Lenovo Engineering Specification 41A7733 Baseline Environmental Requirements for Materials, Parts and Products for Lenovo Hardware Products; and
3. This Lenovo RoHS/REACH Engineering Specification 41A7733.

Homogeneous materials within new Lenovo brand products and parts and assemblies for new Lenovo brand products must comply with the criteria shown in Table 1.

Non-Lenovo brand (i.e., third-party/Supplier logo) products must comply with applicable legal requirements.

Should the requirements of this Specification conflict with applicable governmental regulations or legislation the more stringent requirements shall take precedence.

2.2 Verification

Suppliers are expected to complete and submit an IPC 1752A XML Full Material Disclosure (FMD) via the Green Data Exchange (GDx), refer to Lenovo Guide to Full Material Disclosures (Version 2).

At Lenovo's request, the supplier must be able to provide technical documentation in the form of internal design controls, supplier data or analytical test reports.

An authorized person, product assurance or similar must also sign the Lenovo Supplier Material Self-Declaration. Lenovo specifications are available at: www.lenovo.com-About Lenovo-Sustainability - Resources-Procurement/Suppliers.

2.3 Substances Prohibited from Use

The DIRECTIVE 2011/65/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 8 June 2011 bans the use of the following in new electrical and electronic products put on the market after July 1, 2006:

- Lead (Pb),
- Mercury (Hg),
- Cadmium (Cd),
- Hexavalent chromium (Cr+6),
- Polybrominated biphenyl (PBB) flame retardants and
- Polybrominated diphenyl ether (PBDE) flame retardants.
- Bis (2-ethylhexyl) phthalate (DEHP)¹
- Butyl benzyl phthalate (BBP)¹
- Dibutyl phthalate (DBP)¹
- Diisobutyl phthalate (DIBP)¹

¹ On 4 June 2015, the EU commission published a new Directive (EU) 2015/863 to amend Annex II to EU RoHS 2 (Directive 2011/65/EU) to add the following 4 phthalates onto the list of restricted substances. Restriction become effective July 22, 2019.

This prohibition applies to the above substances and all compounds containing these substances. These substances and compounds must not be in or on any Deliverable above the allowed concentrations found in **Table 1** below; except for the exemptions listed in Section 2.4. The maximum allowable level found in a Homogeneous Material (e.g., metal, adhesive, paint, plastic, plating), cannot exceed the levels found in the table below.

Table 1: EU RoHS Maximum Concentration Values (MCV)		
Substance	RoHS Maximum Concentration Value in a Homogeneous Material % by weight or (ppm)	Additional application restrictions may apply. See Lenovo specification 41A7733 for more details
Lead (Pb)	0.1% or 1,000 ppm	Specific applications have more restrictive levels.

Lenovo RoHS/REACH Specification 41A7733

Mercury (Hg)	0.1% or 1,000 ppm	Any detectable level must be reported except unavoidable impurities at levels below 10ppm.
Cadmium (Cd)	0.01% or 100 ppm	0.0 Any detectable level must be reported for plating and surface coating applications.
Hexavalent chromium (Cr +6)	0.1% or 1,000 ppm	Specific applications have more restrictive levels.
Polybrominated biphenyl (PBB) flame retardants	0.1% or 1,000 ppm	Any detectable level must be reported.
Polybrominated diphenyl ether (PBDE) flame retardants. Note: IBM includes Decabromodiphenyl ether in this category	0.1% or 1,000 ppm	Any detectable level must be reported.
Bis (2-ethylhexyl) phthalate (DEHP)	0.1% or 1,000 ppm	Specific applications have more restrictive levels.
Butyl benzyl phthalate (BBP)	0.1% or 1,000 ppm	Specific applications have more restrictive levels.
Dibutyl phthalate (DBP)	0.1% or 1,000 ppm	Specific applications have more restrictive levels.
Diisobutyl phthalate (DIBP)	0.1% or 1,000 ppm	Specific applications have more restrictive levels.

Note:

1 - Certain substances affected by the European Commission's Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) are already restricted by other regulations at concentration levels that are more stringent than those associated with RoHS compliance. Lenovo Engineering Specification 41A7731 provides the detailed requirements for these substances as defined by certain existing legislation and/or Lenovo internal standards.

2 - Test methodology for RoHS substances must be in accordance with the latest version of IEC 62321 Electrotechnical products – Determination of levels of six regulated substances (lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, polybrominated diphenyl ethers) as referred to in EN50581:2012, Technical Documentation for the Assessment of Electrical and Electronic Products with Respect to the Restriction of Hazardous Substances.

2.4 Exemptions

The following are the applications which are exempt from the requirements of RoHS as cited by the EU Directive, and subsequent amendments. The prohibition, as stated in Section 2.3, is in place for all other applications. Lenovo has determined some of the exemptions will be allowed for Lenovo products. This information is noted by the exemption. Where specified by Lenovo in the procurement documents some of these exemptions may still be used when the order is for spare parts for the repair and reuse of equipment placed on the market prior to a specific date.

The exemptions in **Table 2** were set to expire on July 21st, 2016. Currently these exemptions have been submitted for extension. Under the RoHS-2 Directive, exemptions remain in effect until a decision is made on the renewal applications that have been submitted. If notification is received from the EU regarding exemption expirations, Lenovo will assess and update this specification and table as necessary.

Note: A table providing an overview of Annex III and IV exemptions, including their validity status and submitted exemption requests is available for download [here](#).

Table 2: ROHS Exemptions			
Exemption No.	Description	Current EU Expiration Date	Current Status
5(b)	Lead (Pb) in glass of fluorescent tubes not exceeding 0.2% by weight		Extension requested
6(a)	Lead (Pb) as an alloying element in steel for machining purposes and in galvanized steel containing up to 0.35% lead by weight	Various dates, see next column and next row. Information technology equipment is generally in Category 3	Expires 1 July 2019 for Categories 1 to 7 and 10 Expires 21 July 2021 for Categories 8, 9 and 11
6(a)-I	Lead as an alloying element in steel for machining purposes containing up to 0.35% lead by weight and in batch hot	21-Jul-21	Expires 21 July 2021 for Categories 1 to 7 and 10

Lenovo RoHS/REACH Specification 41A7733

	dip galvanised steel components containing up to 0.2% lead by weight		
6(b)	Lead (Pb) as an alloying element in aluminium containing up to 0.4% lead by weight	Various dates, see next column and next row. Information technology equipment is generally in Category 3	Expires 1 July 2019 for Categories 1 to 7 and 10 Expires 21 July 2021 for Categories 8, 9 and 11
6(b)-I	Lead as an alloying element in aluminium containing up to 0.4% lead by weight, provided it stems from lead-bearing aluminium scrap recycling	21-Jul-21	Expires 21 July 2021 for Categories 1 to 7 and 10
6(b)-II	Lead as an alloying element in aluminium for machining purposes with a lead content of up to 0.4% lead by weight	18-May-2021	Expires 18 May 2021 for Categories 1 to 7 and 10
6(c)	Copper alloy containing up to 4% lead (Pb) by weight	Various dates, see next column and next row. Information technology equipment is generally in Category 3	Expires 21 July 2021 for Categories 1 to 7 and 10 Expires on: 21 July 2023 for category 8 in vitro diagnostic medical devices; 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11; 21 July 2021 for all other categories and subcategories
7(a)	Lead (Pb) in high melting temperature type solders (i.e. lead-based alloys containing 85% by weight or more lead)	Various dates, see next column and next row. Information technology equipment is generally in Category 3	Expires 21 July 2021 for Categories 1 to 7 and 10 Expires on: 21 July 2023 for category 8 in vitro diagnostic medical devices; 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11; 21 July 2021 for all other categories and subcategories
7(c)-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectric devices, or in a glass or ceramic matrix compound	Various dates, see next column and next row. Information technology equipment is generally in Category 3	Expires 21 July 2021 for Categories 1 to 7 and 10 Expires on: 21 July 2023 for category 8 in vitro diagnostic medical devices; 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11; 21 July 2021 for all other categories and subcategories
7(c)-II	Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher		Expires 21 July 2021 for Categories 1 to 7 and 10
8(b)	Cadmium and its compounds in electrical contacts		Applies to categories 8, 9 and 11 and expires on: —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; —21 July 2023 for category 8 in vitro diagnostic medical devices; —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.

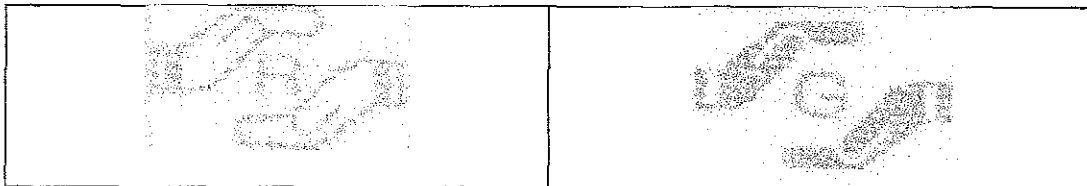
Lenovo RoHS/REACH Specification 41A7733

8(b)-I	Cadmium and its compounds in electrical contacts used in: - circuit breakers, - thermal sensing controls, - thermal motor protectors (excluding hermetic thermal motor protectors), - AC switches rated at: - o 6A and more at 250V AC and more, or - o 12A and more at 125V AC and more, - DC switches rated at 20 A and more at 18 V DC and more, and - switches for use at voltage supply frequency > 200 Hz,		Applies to categories 1 to 7 and 10 and expires on 21 July 2021.
13(a)	Lead in white glasses used for optical applications	21-Jul-21	Expires on: 21 July 2023 for category 8 in vitro diagnostic medical devices; 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11; 21 July 2021 for all other categories and subcategories
13(b)	Cadmium and lead in filter glasses and glasses used for reflectance standards		Expires 5 July 2018 for Categories 1 to 7 and 10 Expires 21 July 2021 for Categories 8, 9 and 11
13(b)-(I)	Lead in ion coloured optical filter glass types	21-Jul-21	Valid for Categories 1 to 7 and 10 from 6 July 2018
13(b)-(II)	Cadmium in striking optical filter glass types; excluding applications falling under point 39 of this Annex	21-Jul-21	Valid for Categories 1 to 7 and 10 from 6 July 2018
13(b)-(III)	Cadmium and lead in glazes used for reflectance standards	21-Jul-21	Valid for Categories 1 to 7 and 10 from 6 July 2018
15	Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages		Extension requested
24	Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors	Various dates, see next column and next row. Information technology equipment is generally in Category 3	Expires 21 July 2021 for Categories 1 to 7 and 10 Expires on: 21 July 2023 for category 8 in vitro diagnostic medical devices; 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11; 21 July 2021 for all other categories and subcategories
34	Lead in cermet-based trimmer potentiometer elements	Various dates, see next column and next row. Information technology equipment is generally in Category 3	Expires 21 July 2021 for Categories 1 to 7 and 10 Expires on: 21 July 2023 for category 8 in vitro diagnostic medical devices; 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11; 21 July 2021 for all other categories and subcategories
37	Lead in the plating layer of high voltage diodes on the basis of a zinc borate glass body		Extension requested
39(a)	Cadmium selenide in downshifting cadmium-based semiconductor nanocrystal quantum dots for use in display lighting applications (less than 0.2 microgram Cd per mm ² of display screen area)	31-Oct-19	Expires for all categories on 31 October 2019

2.5 Product Marking and Information Disclosure

2.5.1 Products for Japan: must meet the requirements of Japanese Industrial Standard for The Marking the presence of the Specific Chemical Substances for electrical and electronic equipment (JIS C 0950:2005, "J-MOSS"). Product development teams must provide product conformity declarations to Lenovo's Japan Environment representative before offering product for sale in Japan.

1. Mandatory "R" mark if the product does not meet the requirements of the RoHS Directive.
2. Optional* green "G" mark to show no such substances are contained (*not required by Lenovo).
3. Product material declaration table in Japanese on external [Lenovo Japan Environmental website](#)



2.5.2 "Korea RoHS": must meet the requirements of The Act for Resource Recycling of Electrical and Electronic Equipment and Vehicles ("Korea RoHS"). Product development teams must provide product conformity declarations to Korea's Country Manager representative before offering product for sale in Korea. Product declarations must be on the Korea ECOAS (<http://www.ecoas.or.kr/>) web page before offering product for sale in Korea.

2.5.3 Products for Turkey: must meet the requirements of Turkey's Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) regulation. Product development teams must provide product conformity declarations to Lenovo's Turkey Country Manager representative, annually beginning June 2009 for submission to the Turkey Ministry of Environment and Forestry.

2.5.4 Products for People's Republic of China: must meet requirements of "Management Methods for Restricted Use of Hazardous Substances in Electronic and Electrical Products" ("China RoHS"). The official documents are in Chinese at <http://www.mii.gov.cn/>

1. Environmental Protection Use Period (EPUP)

Electronic and electrical products, parts, accessories, options, Field Replacement Units (FRUs) and Customer Replaceable Units (CRUs) for "independent commercial sale" in China must be marked with one of two logos:

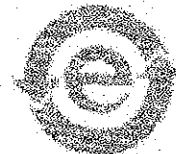
Logo 1: "e" inside circle indicates product is compliant with Requirements of concentration limits for certain substances in electrical and electronic products GB/T 26572-2011or

Logo 2: Environment Protection Use Period (EPUP) in years in circle indicating product is noncompliant (exceeds) Requirements of concentration limits for certain substances in electrical and electronic products GB/T 26572-2011

Exception: Parts purchased for manufacturing (internal to a product) do NOT need to be marked

EPUP Mark artwork, color, size, font specifications are provided in: Labeling Standard SJ/T 11364-2014

- Logo 1 Green Mark:
C:85,M:30,Y:85,K:20; Logo 2 Orange
Mark: C:0,M:75,Y:100,K:0



No "China RoHS" Substances



Contains "China RoHS" Substances

In this example: "10" means EPUP period is 10 years

Lenovo RoHS/REACH Specification 41A7733

- EPUP mark must be on product unless the product total surface area is $<5000\text{mm}^2$ or is of irregular shape. In this case, the EPUP mark must be included in the product documentation that accompanies the product.
- Minimum 5 mm x 5 mm EPUP mark size
- There are no marking color restrictions as long as the mark is visible (black and white is acceptable). The color green should not be used for Logo 2.
- Lenovo products use EPUP number is "10" for most PC products, monitors and options; "20" for enterprise and mobile products; "5" for batteries. Should the EPUP mark on a product differ from the EPUP mark on product documentation, the mark on the product shall take precedence.

2. Substance Disclosure Table

Products that require **Logo 2** must have a Substance Disclosure Table in the product documentation that accompanies the product (software or paper-based). This includes system products, parts, FRUs, accessories and options for independent commercial sale.

- Text must be in Simplified Chinese (except for "O" and "X")
- Table must include Product Name, Part Name(s), Insert "O" or "X" for each key part. In cases where "X" is shown, Lenovo uses an EU RoHS exemption
- Minimum font size is 1.8 mm
- See the example table below

Example: Substance Disclosure Table

物料名称 (Material Name)	有害物质 (Hazardous Substances)					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr VI)	多溴联苯 (PBB)	多溴联苯醚 (PBDE)
笔记本电脑	X	O	O	O	O	O
笔记本电脑配件	X	O	O	O	O	O

注：本表格仅用于内部使用，不作为对外宣传材料。
 (1) 本表格仅用于内部使用，不作为对外宣传材料。
 (2) 本表格仅用于内部使用，不作为对外宣传材料。
 (3) 本表格仅用于内部使用，不作为对外宣传材料。
 (4) 本表格仅用于内部使用，不作为对外宣传材料。
 (5) 本表格仅用于内部使用，不作为对外宣传材料。
 (6) 本表格仅用于内部使用，不作为对外宣传材料。

2.5.4.1 China RoHS Conformity Assessment System

According to Arrangements for the Implementation of the RoHS Conformity Assessment System for Electrical and Electronic Products (hereinafter referred to as "Arrangements"), which are hereby announced. All products that are included in the Management Catalogue of Electrical and Electronic Products (EEP) that Should Meet the RoHS Standards and are shipped out of factory or imported after November 1, 2019 shall meet the requirements of the Arrangements.

Modes of Conformity Assessment

- The unified voluntary RoHS certification scheme introduced by the State for EEPs (hereinafter referred to as "State-introduced voluntary certification")
- The supplier's declaration of RoHS conformity for EEPs (hereinafter referred to as "SDoC")

The supplier of an EEP included in the Management Catalogue shall choose the State-introduced voluntary certification mode or SDoC mode to complete the RoHS conformity assessment. Product conformity information should be submitted to China RoHS public service platform within 30 days after the product is put on the market. And Enterprise self-declaration and technical support documents are conformity information for SDoC mode.

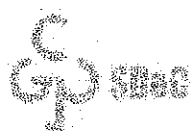
Labels of Conformity Assessment

The below Design I will be used as the conformity assessment label for the products undergoing the State-introduced voluntary certification, and The identification of the certification authority in the box should be confirmed with the corresponding certification authority. While Design II will be used as the conformity assessment label for the products going through the SDnC procedure.

Vector drawings of basic patterns of green product identification can be downloaded on the information platform. Green product labels can be scaled up or down, and should be clearly identifiable after labeling.

Unless otherwise required by relevant systems or certification bodies, enterprises can independently choose any manufacturing process (such as printing, molding, etc.) to use or display the green product logo on the product body, nameplate, packaging, attached documents (such as instruction manual, qualification certificate, etc.), operating system, electronic sales platform, etc.

The color of green product logo should be white background plate, green pattern.



Design II



Design I

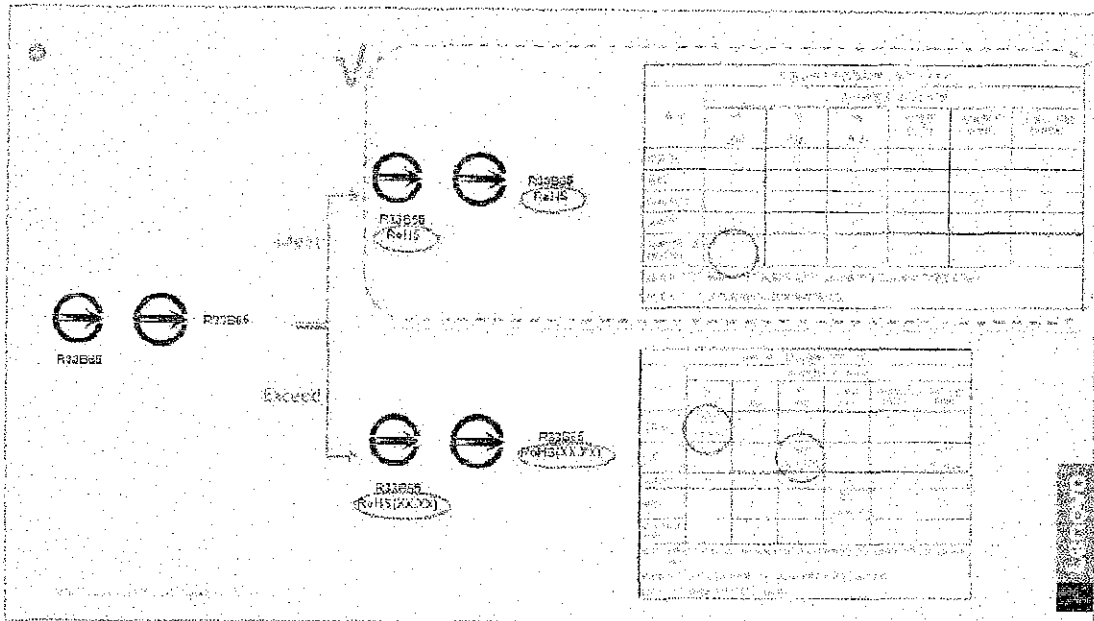
For China RoHS and China RoHS Conformity Assessment related requirement, please refer to <http://www.cesi.cn/rohs/page/fqptbz.jsp?catalog=/001/001-008/001-008-006/001-008-006-001>

2.5.5 Vietnam RoHS: must meet the requirements of Circular, provisionally stipulating allowable limit contents of a number of toxic or hazardous chemicals in electric or electronic products ("Vietnam RoHS"). Product development teams can choose one of following disclosure to show the information on the allowable limits of restricted substances before offering product for sale in Vietnam:

- Upload on Website of company
- User's guide / Instruction manual of product
- Information in electronic form (e.g. CD)
- Printing on the product or packaging

2.5.6 Taiwan RoHS: Must meet the requirements for the certified national standards, Guidance for the reduction of restricted chemical substances in electrical and electronic equipment (CNS15663). This provides the product categories, types of restricted hazardous substances, quantity standards and standardisation methods.

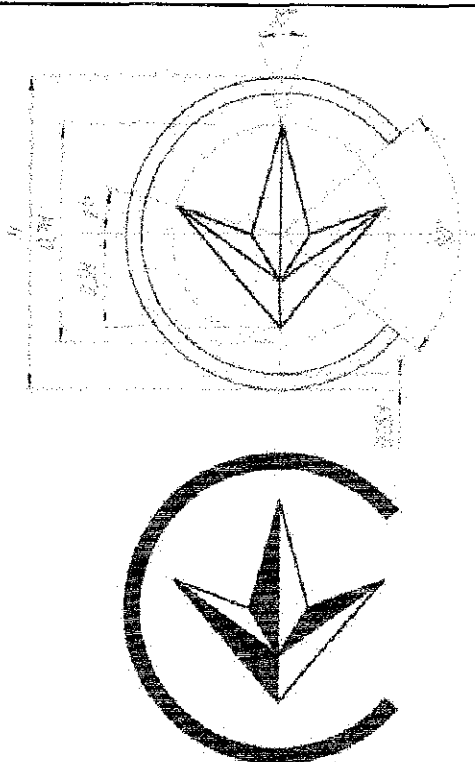
The presence restricted substances requires the use of the following mark and disclosure table on the body, packages, stickers, or user documentation:



2.5.7 Ukraine RoHS: Must meet the requirements in accordance with Decree #139 of the Council of Ministers of Ukraine. This provides the product categories, types of restricted hazardous substances, quantity standards and standardization methods.

Beginning July 23, 2018 the national conformity mark of Ukraine must be placed directly on the EEE or on a nameplate with the technical specifications of the equipment. The mark must be visible, clear and indelible. If this is not possible or feasible due to the nature of the product, then the national conformity mark must be placed on the packaging and the accompanying documentation.

The general principles of placing the national mark of conformity are set out by Decree No. 1184, 2015. The Decree provides for the description of the national mark of conformity and the rules of its application.



3.0 REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation

3.0.1 Substances of Very High Concern (SVHC) in Articles - Reporting Requirements

Lenovo requires suppliers to identify if any Substances of Very High Concern (SVHC) present in an Article (Deliverable or Sub-Deliverable as defined by latest EU Article definition) at or above the 0.1% weight by weight (w/w) concentration and report the name and CAS number of the SVHC candidate and the quantity on the IPC 1752A XML Full Material Disclosure (FMD) via the Green Data Exchange (GDX), refer to Lenovo Guide to Full Material Disclosures (Version 2), for the Deliverable/Sub-Deliverable.

The current candidate list of REACH SVHC as published by the EU is located at:

http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp.

This list is subject to change by the European Chemicals Agency (ECHA); contains 209 unique substances/entries on the date this specification was published. Also refer to Lenovo Engineering Specification 41A7731 Annex DD for the list of SVHC Candidate Substances as of the date of this document.

If an SVHC is present in a Deliverable at or above the reporting concentrations, the Supplier must provide a customer communication to Lenovo meeting the requirements of Article 33 of the EU REACH Regulation.

EU REACH Regulation Number 1907/2006 can be found at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02006R1907-20140410>

The EU provides guidance documents for REACH, specifically guidance documents for Substances in Articles as well as the candidate list for SVHC at http://guidance.echa.europa.eu/guidance_en.htm. Additional information about REACH can be found at the European Chemicals Agency web site at <http://echa.europa.eu>

0518
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3.0.2 Restricted Substances in Articles (Annex XVII) - Reporting Requirements

Lenovo requires suppliers to identify if any Restricted Substances (Annex XVII) present in an Article (Deliverable or Sub-Deliverable as defined by latest EU Article definition) at or above the prescribed weight by weight (w/w) concentration (ranging from 0-0.1%) and report the name and CAS number of the SVHC candidate and the quantity on the IPC 1752A XML Full Material Disclosure (FMD) via the Green Data Exchange (GDx), refer to Lenovo Guide to Full Material Disclosures (Version 2), for the Deliverable/Sub-Deliverable.

The current candidate list of REACH Restricted Substances as published by the EU is located at:

<https://echa.europa.eu/substances-restricted-under-reach>.

This list is subject to change by the European Chemicals Agency (ECHA); contains 70 unique substances/entries on the date this specification was published. Also refer to Lenovo Engineering Specification 41A7731 Annex DD for the list of SVHC Candidate Substances as of the date of this document.

If a Restricted Substance is present in a Deliverable at or above the reporting concentrations, the Supplier must provide a customer communication to Lenovo meeting the requirements of Article 33 of the EU REACH Regulation.

EU REACH Regulation Number 1907/2006 can be found at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02006R1907-20140410>

The EU provides guidance documents for REACH, specifically guidance documents for Substances in Articles as well as the candidate list for SVHC at http://guidance.echa.europa.eu/guidance_en.htm. Additional information about REACH can be found at the European Chemicals Agency web site at <http://echa.europa.eu>

4.0 Definitions

REACH: an acronym for the European Commission Regulation Number 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals.

RoHS: European Union Directive 2011/65/EU restriction of the use of certain hazardous substances in new electrical and electronic equipment that became effective July 1, 2006.

Substance(s) of Very High Concern (SVHC)

1. Substances meeting the criteria for classification in accordance with EU Directive 67/548/EEC:

- Carcinogenic category 1 or 2
- Mutagenic category 1 or 2
- Toxic for reproduction category 1 or 2;

2. Substances which are persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) in accordance with the criteria set out in Annex XIII of the EU REACH Regulation;

3. Substances- such as those having endocrine disrupting properties or those having PBT properties or vPvB properties which do not fulfill the criteria of 2 above - for which there is scientific evidence of probable serious effects to human health or the environment which give rise to an equivalent level of concern to those of other substances listed in 1 or 2 and which are identified on a case-by-case basis in accordance with the procedure set out in Article 59 of REACH. This definition is from the EU REACH Regulation, Article 57.

Article - an object composed of one or more substances or mixtures which during production is given a special shape, surface or design which determines its function to a greater degree than does its chemical composition. Every single component in a product can also be defined as an article. This definition is from EU Regulation 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Deliverable(s): any tangible item(s) delivered by or for a Supplier to Lenovo in accordance with a purchase contract or other agreement with Lenovo. Deliverables include, but are not limited to,

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Lenovo RoHS/REACH Specification 41A7733
components, materials, parts, and products.

Electronic Product Environmental Assessment Tool (EPEAT): based upon IEEE Standard 1680 for the Assessment of Personal Computer Products (1680). Refer to: <http://www.epeat.net/>

Intentionally added: deliberate use in a product, material, part, assembly

Homogenous material: of uniform composition throughout (e.g., plastics, ceramics, glass, metals, alloys, resins, coatings, solder, flux).

Mechanically disjointed: Separated by mechanical actions such as unscrewing, cutting, crushing, grinding, and abrasive processes

ppm = parts per million = mg / kg. Mass of substance as a percentage of the homogenous material, not the weight of substance in the entire part or product unless otherwise noted. 1000 ppm = 0.1%; 100 ppm = 0.01% by weight

Preparation: a mixture or solution composed of two or more substances, for example paint, lubricant or ink. This definition is found in the EU Council Directive relating to restrictions on the marketing and use of certain dangerous substances and preparations and EU Regulation 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Substance: a chemical element and its compounds in the natural state or obtained by any manufacturing process, including any additive necessary to preserve its stability and any impurity deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition. This definition is found in the EU Council Directive relating to restrictions on the marketing and use of certain dangerous substances and preparations and EU Regulation 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). Substance includes such examples as ethanol and metals. Note: metals are included here not in the form of a part or product such as a heat sink or sheet metal cover but as a metal such as aluminum or aluminum alloy. Substance goes beyond a pure chemical compound defined by a single molecular structure. The definition of the substance includes different constituents such as impurities. Also note the word "substance" is used throughout this specification, only the "Substance" with a capital letter refers to this specific definition.

Threshold level: Concentration limit above which the presence of a substance in a material or product must be declared.

0520

Lenovo RoHS/REACH Specification 41A7733

Appendix: Guidance: RoHS summary checklist			Requirement Met	
			Yes	No
1. General				
a. Lenovo Environmental Specifications 41A7731, 417733	Requirement:	Mandatory for new Lenovo brand products, materials, parts and assemblies incorporated into Lenovo Brand products worldwide*.		
	Affected Parts: Supplier must declare compliance by:	Electronic Hardware parts / Products <u>Lenovo Supplier Material Declaration</u>		
b. European Union RoHS Compliance	Requirement:	Mandatory for new Lenovo brand products, materials, parts and assemblies incorporated into Lenovo Brand products worldwide*.		
	Affected Parts: Supplier must declare compliance by:	New electronic Hardware products and parts. Does not apply to spare parts for equipment put on the market before July 1, 2006, batteries. <u>Lenovo Supplier Material Declaration</u>		
c. "China RoHS" Compliance	Requirement:	Mandatory for products offered for sale in the People's Republic of China		
	China Affected Parts: Supplier must declare compliance by:	Electronic hardware parts / products with batteries, 1. EPUP Mark on the product/option (or on the Pubs if the product is small or of irregular shape) 2. Substance Disclosure Table inside the product box shipping into China (must be in Chinese, except "O", "X") 3. Date of manufacture in YYYY-MM-DD format on the product or on the product's sales package 4. "China RoHS" Packaging Recycle Marks		
d. "J-Moss" Compliance	Requirement:	Mandatory for products imported into or manufactured in Japan		
e. "Turkey RoHS" Compliance	Requirement:	Mandatory for products offered for sale in the Republic of Turkey		
	Affected parts: Supplier must declare compliance by:	New products, options and parts must comply with Turkey RoHS material restrictions (same as European Union RoHS material restrictions) <u>Lenovo Supplier Material Declaration</u> Keep all information and documents showing that products they sale to Lenovo meet the technical criteria mentioned in this Regulation for 5 years starting from the date the product is released to the market. Retain information in Lenovo Filenet(ECM)-Worldwide Supplier Material Declarations		
f. "Korea RoHS" Compliance	Requirement:	Mandatory for products for Korea, Product Declaration required on Korea website before product is offered for sale		

0521

Lenovo RoHS/REACH Specification 41A7733

Appendix: Guidance: RoHS summary checklist			Requirement Met
g. Supplier RoHS-compliance	Supplier responsibility	Mandatory. Supplier maintains effective compliance process including technical documentation which demonstrates actions to verify RoHS-compliance. Upon request by Lenovo the supplier will verify compliance of materials, parts, components, and/or products to Lenovo's RoHS Specification via analytical testing or other suitable means.	
h. Lenovo approved Lead (Pb)-free solder	Supplier	Lenovo approved lead (Pb)-free solders: Tin-silver-copper (Sn-Ag-Cu (SAC)) solder. Other lead (Pb)-free solders must be approved by Lenovo, on a case by case basis	
i. Lenovo approved Lead (Pb)-free printed circuit board finish	Supplier	Lenovo approved lead (Pb)-free Printed Circuit Boards finishes: Organic Solder Preservatives (OSP). Other materials may be approved by Lenovo, on a case by case basis	
j. Whisker Mitigation	Supplier	Suppliers shall implement whisker growth countermeasures. Reference: JEDEC Standard JESD22-A121. Lenovo reserves the right to request Supplier tin whisker test data	

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Lenovo RoHS/REACH Specification 41A7733

Revision History

Version	Date	Change Description
0	Jun 2006	Initial issue
1	Nov 2006	Added EU RoHS exemptions 22-29, Revised Cd threshold from 75 to 100 ppm, Added requirement for Supplier Test Report upon request, Defined OEM-contract manufacturer responsibility for Supplier Material Declaration, Added reference to China RoHS, J-Moss, US RoHS regulations
2	Jun 2007	Updated to include systems, printers, options, visual display devices, Deleted expired RoHS exemption for Cr6, Updated Packaging Specification Reference
3	Dec 2007	Added reference to Korea RoHS Declaration, ppm calculation, exemption 9a may not be used, Added Consumer product signoff
4	Aug 2008	EC M07149H, Added Lenovo RoHS Checklist, China RoHS Supplier Letter, J-Moss marks,
5	October 2008	Cr6 threshold changed to intentionally added; corrected typo (Table 1: 0.01 corrected to 0.1 for lead), added reference to Turkey RoHS effective June 2009; added 3 new RoHS exemptions 30. Cadmium alloys as electrical/mechanical solder joints to electrical conductors located directly on the voice coil 31. Lead in soldering materials in mercury free flat fluorescent lamps (which e.g. are used for liquid crystal displays, design or industrial lighting). 32. Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes
6	March 2010	Added REACH information (requirements, SVHC listing, etc.); added/updated EU RoHS exemptions 33-38 (Cadmium, Lead, Mercury); updated Turkey RoHS information.
7	September 2012	Updated RoHS exemption list; updated REACH SVHC listing
8	September 2013	Updated and included other jurisdictions with RoHS requirements. Updated RoHS exemption list per Directive 2011/65/EU. Updated REACH SVHC listing per 20 June 2013 Candidate List. Updated Environmental Protection Use Period (EPUP) information to reflect current regulation requirements. Added information describing Vietnam RoHS requirements. Updated EU Directive to reflect the current version.
9	July 2014	Updated REACH SVHC listing per 16 June 2014 Candidate List
10	March 2015	Updated REACH SVHC listing per 17 December 2014 Candidate List. Update: 600ppm allowance for PBBs, PBDEs, excluding DecaBDE in PCC recycle and plastic resins.
11	August 2015	Added 4 phthalates per new Directive (EU) 2015/863 to amend Annex II to EU RoHS 2 (Directive 2011/65/EU). Updated REACH SVHC listing per 15 June 2015 Candidate List
2016-1	March 2016	Updated REACH SVHS listing per 17 December 2015 Candidate List. Added Taiwan RoHS mark and Disclosure table information.
2016-2	October 2016	Added: Section 2.3 Substances Prohibited from Use Updated: Table 1: EU RoHS Maximum Concentration Values (MCV) Added: Section 2.4 Exemptions Added: Table 2: RoHS Exemptions Removed: Table 2, Lenovo Maximum Concentrations for Substances of Very High Concern (SVHC) Revised: Section 3 to refer to ECHA online candidate list of SVHC Update: Lenovo Guide to Full Material Disclosure (Version 2); new link Update: Lenovo Supplier Material Self-Declaration; new link
2017-1	March 2017	Update/corrected: Table of Contents. Update: Removed RoHS exemptions 13(b), 34, 38 that were not renewed by the EU. Update: Section 3 – number of unique substances in SVHC candidate list (173). Update: Taiwan RoHS mark and Disclosure table information.
2018-1	April 2018	Update: Section 3 – number of unique substances in SVHC candidate list (181).
2018-2	September 2018	Update: Added Section 2.5.7 – Ukraine RoHS requirements. Update: Section 3 – number of unique substances in SVHC candidate list (191).
2018-3	November 2018	Update: Table 2: RoHS Exemptions – expiration dates for multiple exemptions.
2019-1	January 2019	Update: Added reference to RoHS 3 effective date for 4 phthalates (DEHP, DPB, BBP, DIBP). Update: Section 3 – number of unique substances in SVHC candidate list (197). Update: Listed a link to a table providing an overview of Annex III and IV exemptions, including their validity status and submitted exemption requests Update: Hyperlinks for Lenovo Guide to Full Material Disclosures (Version 2), Lenovo Supplier Material Self-Declaration, Lenovo Japan Environmental website, EU REACH Regulation Number 1907/2006

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Lenovo RoHS/REACH Specification 41A7733

2019-2	September 2019	Update: Various url's and hyperlinks to new Lenovo sustainability web pages Update: Added sec 2.5.4.1 China RoHS Conformity Assessment System Update: Section 3 - number of unique substances in SVHC candidate list (201).
2020-1	May 2020	Update: Section 3 - number of unique substances in SVHC candidate list (205). Update: Section 3 - added REACH Restricted Substance requirement
2020-2	June 2020	Update: Section 3 - number of unique substances in SVHC candidate list (209).

