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Intel CD8069504446300

Intel Xeon Gold (2nd Gen) 5218R Icosa-core Processor

Model: CD8069504446300 | Brand: Intel

Introduction

This instruction manual provides essential information for the proper installation, operation, and maintenance of your Intel Xeon Gold (2nd Gen) 5218R Icosa-core Processor. Designed for demanding data center, multi-cloud compute, and network and storage workloads, this processor delivers significant performance improvements, advanced reliability, and hardware-enhanced security. Please read this manual thoroughly before proceeding with installation.

Safety Information

Always observe the following safety precautions when handling and installing your processor:

- **Electrostatic Discharge (ESD) Prevention:** Processors are highly sensitive to ESD. Always wear an anti-static wrist strap connected to a grounded surface when handling the processor. Avoid touching the gold contacts or pins on the processor.
- **Power Off:** Ensure your computer system is completely powered off and unplugged from the wall outlet before installing or removing any components.
- **Handle with Care:** Hold the processor by its edges. Do not drop or apply excessive force to the processor.
- **Ventilation:** Ensure adequate ventilation for your system to prevent overheating, which can damage the processor and other components.

Package Contents

Your Intel Xeon Gold 5218R Processor (OEM Pack) typically includes:

- Intel Xeon Gold 5218R Processor
- Product documentation (may be digital)

Note: Thermal solution (CPU cooler) and thermal interface material (thermal paste) are sold separately for OEM processors.

Setup and Installation

Follow these steps carefully to install your Intel Xeon Gold 5218R Processor:

1. **Prepare Your Workspace:** Ensure a clean, well-lit, and static-free environment. Place your motherboard on a non-conductive surface.

2. **Locate the CPU Socket:** Identify the LGA 3647 socket on your motherboard. It will have a protective cover.
3. **Open the CPU Socket Lever:** Gently push down and away on the socket retention lever(s) to open the socket. Refer to your motherboard manual for specific instructions, as LGA 3647 sockets often have multiple levers.
4. **Unpack the Processor:** Carefully remove the processor from its packaging, holding it by the edges. Avoid touching the gold contacts or the top surface.
5. **Align the Processor:** The Intel Xeon Gold 5218R processor has specific notches or alignment triangles that must match the corresponding keys on the LGA 3647 socket. Carefully align the processor with the socket. Do not force it into place. It should drop in with minimal effort.

Image: Top view of the Intel Xeon Gold processor, showing the Intel logo and overall design. This side faces up during installation.

6. **Close the Socket Lever:** Once the processor is correctly seated, gently close the socket retention lever(s) until they click into place. This will secure the processor.
7. **Apply Thermal Paste:** Apply a small amount of high-quality thermal paste (not included) to the center of the processor's integrated heat spreader (IHS). A pea-sized dot or a thin line is usually sufficient. Consult the thermal paste manufacturer's instructions for optimal application.

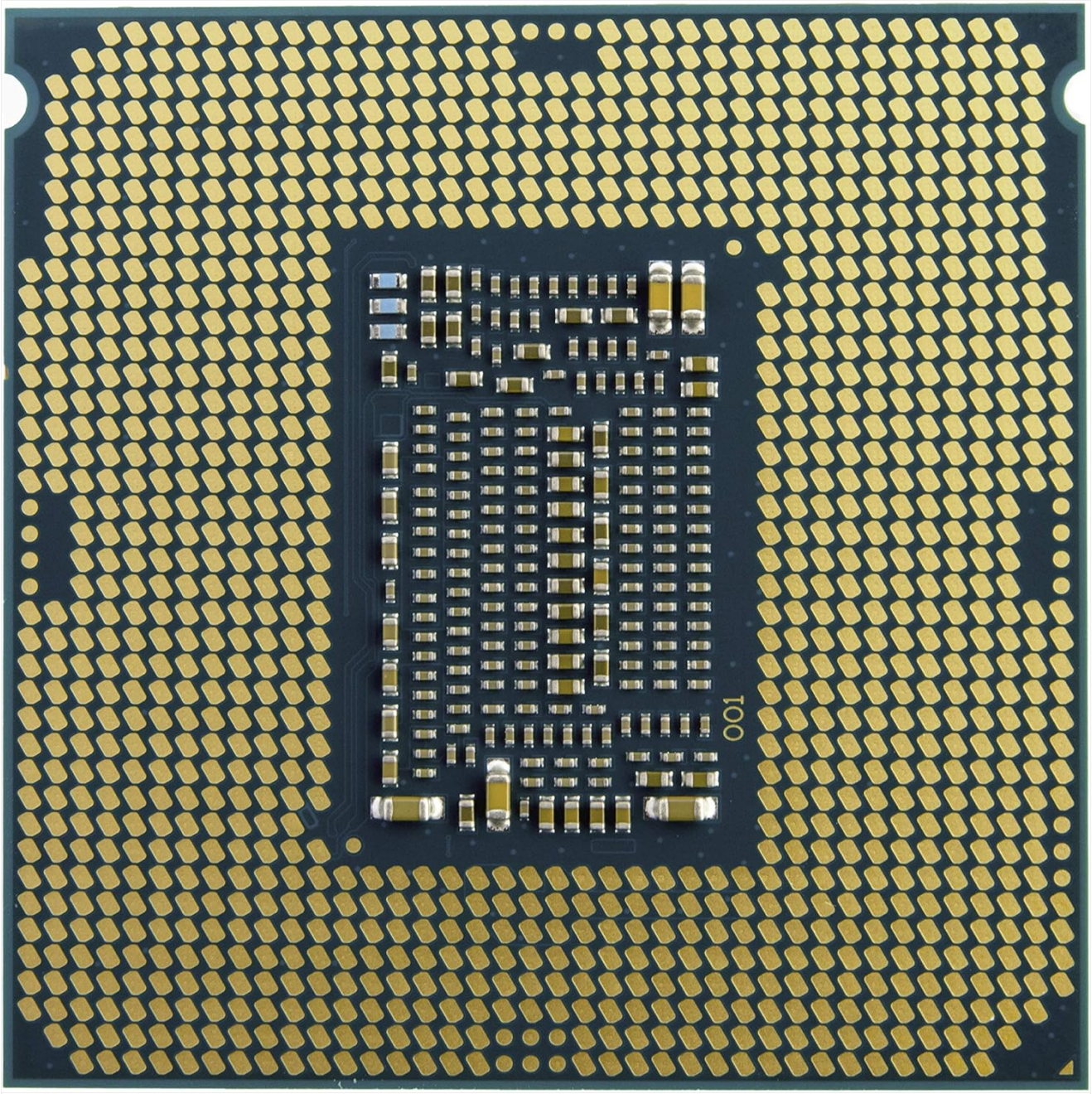


Image: Bottom view of the Intel Xeon Gold processor, displaying the numerous gold contact pads that interface with the motherboard socket.

8. **Install the CPU Cooler:** Carefully place your compatible CPU cooler (not included) onto the processor, ensuring even pressure distribution. Secure the cooler according to its manufacturer's instructions. Connect the CPU cooler's fan cable to the designated CPU_FAN header on your motherboard.

Image: A combined perspective showing both the top and bottom sides of the Intel Xeon Gold processor, illustrating its complete physical form factor.

Operating Principles

The Intel Xeon Gold 5218R is a high-performance server processor designed to execute complex computations and manage data flow within a computer system. Once installed and powered on, the processor works in conjunction with the motherboard, memory (RAM), and other components to run operating systems, applications, and services. Its 20 cores and 40 threads enable efficient multitasking and parallel processing, crucial for server and workstation environments. The processor dynamically adjusts its clock speed up to 4 GHz (overclocking speed) based on workload demands, ensuring optimal performance while managing power consumption.

Image: The official 'Intel Xeon Gold Inside' logo, signifying the processor's brand and series.

Maintenance

Proper maintenance ensures the longevity and stable performance of your processor:

- **Dust Removal:** Regularly clean dust from your CPU cooler and case fans using compressed air. Dust accumulation can impede airflow and lead to overheating.
- **Thermal Paste:** The thermal paste between the processor and cooler can degrade over time. Consider reapplying fresh thermal paste every 2-3 years, or if you remove and re-install the CPU cooler.
- **Temperature Monitoring:** Use system monitoring software to keep an eye on your CPU temperatures. High

temperatures can indicate insufficient cooling or a problem with thermal paste application.

- **BIOS/UEFI Updates:** Keep your motherboard's BIOS/UEFI firmware updated to ensure optimal compatibility and performance with your processor.

Troubleshooting

If you encounter issues, consider the following troubleshooting steps:

- **No Boot/No Display:**
  - Ensure all power cables (24-pin ATX, 8-pin CPU) are securely connected to the motherboard.
  - Reseat the processor in its socket, ensuring it is properly aligned and the lever(s) are secured.
  - Reseat RAM modules. Try booting with only one RAM stick.
  - Check that the CPU cooler is properly installed and its fan is spinning.
- **System Instability/Crashes:**
  - Verify CPU temperatures are within safe operating limits using monitoring software.
  - Ensure your power supply unit (PSU) provides sufficient wattage for all components.
  - Run memory diagnostic tools to check for RAM issues.
- **Overheating:**
  - Check if the CPU cooler is properly seated and making good contact with the processor.
  - Ensure thermal paste was applied correctly and is not dried out.
  - Clean any dust from the CPU cooler fins and case fans.
  - Improve case airflow by adding or repositioning fans.

If issues persist, consult your motherboard's manual, Intel's official support website, or a qualified technician.

Specifications

Feature	Detail
Product Name	Intel Xeon Gold 5218R Icosa-core (20 Core) Processor
Model Number	CD8069504446300
CPU Manufacturer	Intel
CPU Model	Xeon Gold 5218R
Core Count	20 Cores
Thread Count	40 Threads
Base Clock Speed	2.10 GHz
Max Turbo Frequency	4.0 GHz
Cache	27.50 MB
Process Technology	14 nm

Feature	Detail
CPU Socket	LGA 3647
Thermal Design Power (TDP)	125 W
Product Dimensions	2.2 x 3 x 1 inches
Item Weight	1.76 ounces
Date First Available	March 2, 2020

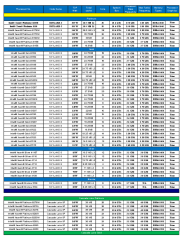
Warranty Information

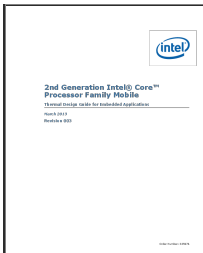
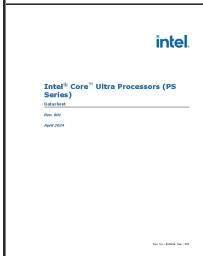
Intel processors typically come with a limited warranty. The specific terms and duration of the warranty for your Intel Xeon Gold 5218R processor depend on whether it was purchased as a boxed product or an OEM (Original Equipment Manufacturer) component. For OEM processors, warranty support is often provided by the system integrator or reseller from whom the complete system or component was purchased. Please retain your proof of purchase. For detailed warranty terms and conditions, please refer to the official Intel website or contact your point of purchase.

Support

For further assistance, technical support, driver downloads, and additional product information, please visit the official Intel support website:
Intel Support Website
You may also refer to the documentation provided by your motherboard manufacturer for system-specific information.

Related Documents

	Intel Xeon CPU Support List for C621-WD12 Motherboard Find detailed specifications for Intel Xeon Platinum, Gold, Silver, and Bronze processors compatible with the C621-WD12 motherboard, including SKYLAKE-S and Cascade Lake series.
	Intel Core i7-4790K Processor User Manual and Technical Specifications Comprehensive user manual and technical specifications for the Intel Core i7-4790K desktop processor, codenamed Haswell. Includes product overview, installation guide, overclocking guidelines, and troubleshooting tips for PC enthusiasts and builders.

	[2nd Generation Intel Core Mobile Processor Thermal Design Guide for Embedded Applications] This guide from Intel provides comprehensive thermal and mechanical design specifications and recommendations for the 2nd Generation Intel® Core™ Processor Family Mobile, focusing on embedded applications. It covers thermal management, package details, reference solutions, and metrology to ensure optimal system performance and reliability.
	[Intel Core Ultra Processors (PS Series) Datasheet] Detailed technical datasheet for Intel Core Ultra Processors (PS Series). Covers processor architecture, features, power management, security, virtualization, graphics, NPU, audio, and connectivity for OEM/ODM product development.

Documents - Intel – CD8069504446300

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SERVER SHOP UA Сервери DELL HP Б В з гарантією за розумну ціну Процессор серверный INTEL Xeon Gold 5218R Server ShopSERVER ПН ПТ с 09 00 до 18 г Ирпень ул Соборная 11 СЕРВЕРЫ IBM У ВОССТАНОВЛЕННЫЕ НОВЫЕ Страница оборудования на сайтeserver shop ua 13746 protsessor servernyj intel xeon gold 5218r cd8069504446300 srsltid AfmBOorPwH u2m67uu7HWxX340WjqwcG5s Vq6rzWD3wYqI4VxEgl53k |||

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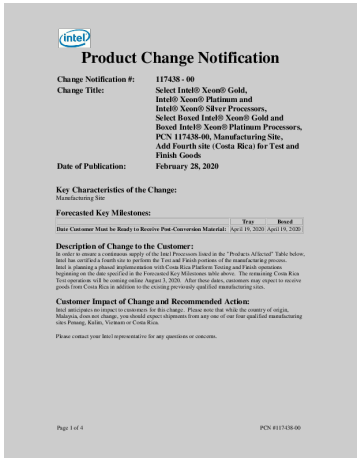

Product Change Notification

Change Notification #: 117438 - 00
Change Title: Select Intel® Xeon® Gold, Intel® Xeon® Platinum and Intel® Xeon® Silver Processors, Select Boxed Intel® Xeon® Gold and Boxed Intel® Xeon® Platinum Processors, PCN 117438-00, Manufacturing Site, Add Fourth site (Costa Rica) for Test and Finish Goods
Date of Publication: February 28, 2020

Key Characteristics of the Change:
Manufacturing Site

Forecasted Key Milestones:

	Tray	Boxed
Date Customer Must be Ready to Receive Post-Conversion Material:	April 19, 2020	April 19, 2020

Description of Change to the Customer:
In order to ensure a continuous supply of the Intel Processors listed in the "Products Affected" Table below, Intel has certified a fourth site to perform the Test and Finish portions of the manufacturing process. Intel is planning a phased implementation with Costa Rica Platform Testing and Finish operations beginning on the date specified in the Forecasted Key Milestones table above. The remaining Costa Rica Test operations will be coming online August 3, 2020. After those dates, customers may expect to receive goods from Costa Rica in addition to the existing previously qualified manufacturing sites.

Customer Impact of Change and Recommended Action:
Intel anticipates no impact to customers for this change. Please note that while the country of origin, Malaysia, does not change, you should expect shipments from any one of our four qualified manufacturing sites Penang, Kulim, Vietnam or Costa Rica.

Please contact your Intel representative for any questions or concerns.

Page 1 of 4 PCN #117438-00

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Product Change Notification Change Notification #: Change Title: Date of Publication: 117438 - 00 ... cessor Intel Xeon Gold 5220R Processor CD8069504285004 S RFQ4 999FWK CD8069504285204 S RFQ5 999FWL **CD8069504446300** S RGZ7 999PKD CD8069504448600 S RGZ8 999PKF CD8069504448701 S RGZ9 999PKG CD80695044...

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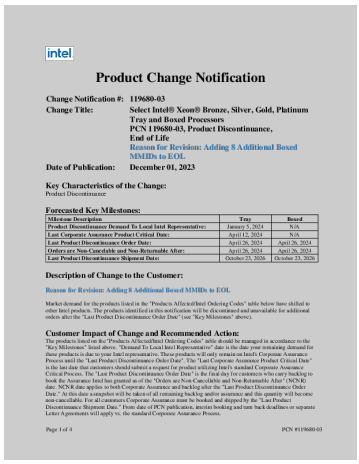

Product Change Notification

Change Notification #: 119680-03
Change Title: Select Intel® Xeon® Bronze, Silver, Gold, Platinum Tray and Boxed Processors PCN 119680-03, Product Discontinuance, End of Life
Reason for Revision: Adding 8 Additional Boxed MMIDs to EOL
Date of Publication: December 01, 2023

Key Characteristics of the Change:
Product Discontinuance

Forecasted Key Milestones:

Milestone Description	Tray	Boxed
Product Discontinuance Demand To Local Intel Representative:	January 5, 2024	N/A
Last Corporate Assurance Product Critical Date:	April 12, 2024	N/A
Last Product Discontinuance Order Date:	April 26, 2024	April 26, 2024
Orders are Non-Cancelable and Non-Returnable After:	April 26, 2024	April 26, 2024
Last Product Discontinuance Shipment Date:	October 23, 2026	October 23, 2026

Description of Change to the Customer:

Reason for Revision: Adding 8 Additional Boxed MMIDs to EOL

Market demand for the products listed in the "Products Affected/Intel Ordering Codes" table below have shifted to other Intel products. The products identified in this notification will be discontinued and unavailable for additional orders after the "Last Product Discontinuance Order Date" (see "Key Milestones" above).

Customer Impact of Change and Recommended Action:
The products listed in the "Products Affected/Intel Ordering Codes" table should be managed in accordance to the "Key Milestones" listed above. "Demand To Local Intel Representative" date is the date your remaining demand for these products is due to your Intel representative. These products will only remain on Intel's Corporate Assurance Process until the "Last Product Discontinuance Order Date". The "Last Corporate Assurance Product Critical Date" is the last date that customers should submit a request for product utilizing Intel's standard Corporate Assurance Critical Process. The "Last Product Discontinuance Order Date" is the final day for customers who carry backlog to book the Assurance Intel has granted as of the "Orders are Non-Cancelable and Non-Returnable After." (NCNR) date. NCNR date applies to both Corporate Assurance and backlog after the "Last Product Discontinuance Order Date." At this date a snapshot will be taken of all remaining backlog and/or assurance and this quantity will become non-cancellable. For all customers Corporate Assurance must be booked and shipped by the "Last Product Discontinuance Shipment Date." From date of PCN publication, interim booking and turn back deadlines or separate Letter Agreements will apply vs. the standard Corporate Assurance Process.

Page 1 of 4 PCN #119680-03

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Product Change Notification Change Notification #: 119680-03 Change Title: Select Intel Xeon Bron ... 4285004 CD8069504285204 CD8069504344600 BX806955220 BX806954208 BX806953204 BX806956238 BX806956234 **CD8069504446300** CD8069504448600 CD8069504448701 CD8069504449301 CD8069504449401 CD8069504449601 CD80...

lang:en score:16 filesize: 31.16 K page_count: 4 document date: 2023-12-01

Product Change Notification

Change Notification #: 119027-00
Change Title: MINOR CHANGE Select Intel® Xeon® Gold, Intel® Xeon® Platinum and Intel® Xeon® Silver Processors, Select Boxed Intel® Xeon® Gold and Boxed Intel® Xeon® Platinum Processors PCN 119027-00, Manufacturing Site, Label Adding site (Costa Rica) for Assembly
Date of Publication: April 29, 2022

Key Characteristics of the Change:
Manufacturing Site, Label

Forecasted Key Milestones:

Date Customer Must be Ready to Receive Post-Conversion Material	October 21, 2022

Description of Change to the Customer:
Intel is certifying their Manufacturing Site in Costa Rica to perform full flow manufacturing (including Assembly, Test, and Finish) for the products listed in the Products Affected / Intel Ordering Codes table below.

Assembly in Costa Rica will begin on the date specified in the Forecasted Key Milestones table above. Customers may expect to receive goods from Costa Rica in addition to Malaysia and Vietnam.

The box labels will represent the Country of Origin, depending on the site which performed assembly.

Image below shows the "assembled in" value for COO, Costa Rica.
Example only:

Page 1 of 4 PCN #119027-00

[pdf] Label

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Product Change Notification Change Notification #: Change Title: Date of Publication: 119027-00 MI ... S RFQ1 CD8069504284704 S RFQ2 CD8069504284804 S RFQ3 CD8069504285004 S RFQ4 CD8069504285204 S RFQ5 **CD8069504446300** S RGZ7 CD8069504448600 S RGZ8 CD8069504448701 S RGZ9 CD8069504448800 S RGZA CD806950...

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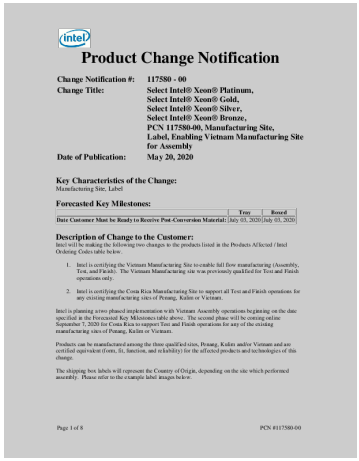

Product Change Notification

Change Notification #: 117580 - 00
Change Title: Select Intel® Xeon® Platinum, Select Intel® Xeon® Gold, Select Intel® Xeon® Silver, Select Intel® Xeon® Bronze, PCN 117580-00, Manufacturing Site, Label, Enabling Vietnam Manufacturing Site for Assembly
Date of Publication: May 20, 2020

Key Characteristics of the Change:
Manufacturing Site, Label

Forecasted Key Milestones:

	Tray	Boxed
Date Customer Must be Ready to Receive Post-Conversion Material:	July 03, 2020	July 03, 2020

Description of Change to the Customer:
Intel will be making the following two changes to the products listed in the Products Affected / Intel Ordering Codes table below.

1. Intel is certifying the Vietnam Manufacturing Site to enable full flow manufacturing (Assembly, Test, and Finish). The Vietnam Manufacturing site was previously qualified for Test and Finish operations only.
2. Intel is certifying the Costa Rica Manufacturing Site to support all Test and Finish operations for any existing manufacturing sites of Penang, Kulim or Vietnam.

Intel is planning a two phased implementation with Vietnam Assembly operations beginning on the date specified in the Forecasted Key Milestones table above. The second phase will be coming online September 7, 2020 for Costa Rica to support Test and Finish operations for any of the existing manufacturing sites of Penang, Kulim or Vietnam.

Products can be manufactured among the three qualified sites, Penang, Kulim and/or Vietnam and are certified equivalent (form, fit, function, and reliability) for the affected products and technologies of this change.

The shipping box labels will represent the Country of Origin, depending on the site which performed assembly. Please refer to the example label images below.

Page 1 of 8 PCN #117580-00

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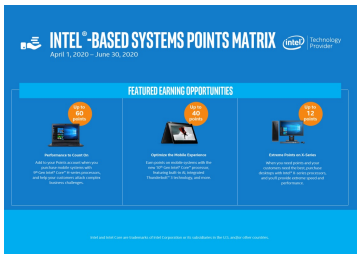

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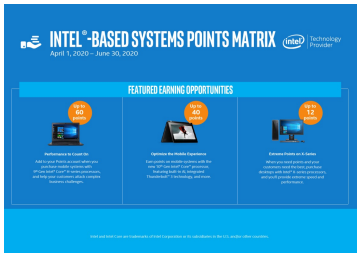

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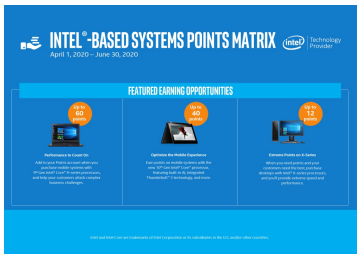

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Industry-Electronics
Preisliste vom 17.08.2022

[Lieske Industry-Electronics Preisliste: Computerkomponenten, Server & Zubehör]
Umfassende Preisliste von Lieske Industry-Electronics (17.08.2022) mit Computerkomponenten, Barebone-Systemen, Servern, Eingabegeräten und Zubehör von Marken wie ASUS, Intel, Supermicro, Logitech, Cherry und mehr.
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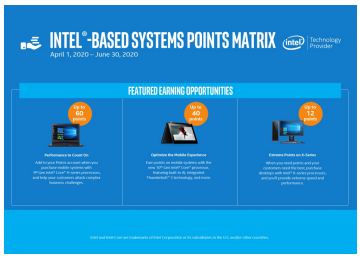

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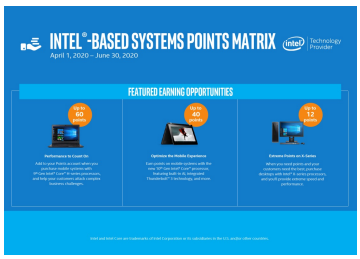

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