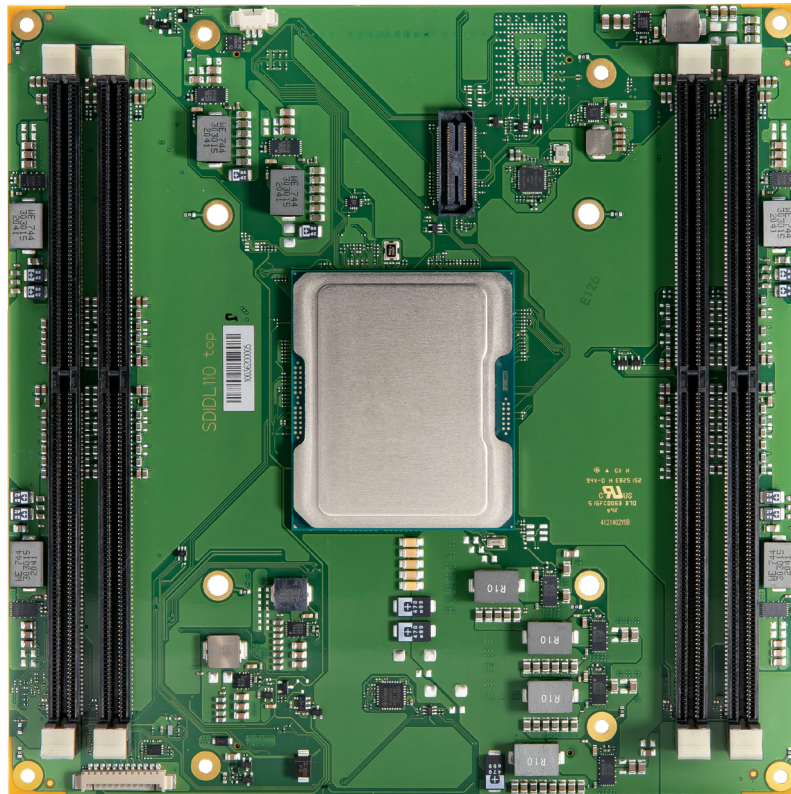




COM+HPC®

## COM-HPC®/Server Size D with Intel® XEON® D-2700 / D-2800 SOC processors

- ▶ High-end server-grade platform
- ▶ 8x LAN Ports: versatile configurations up to 100G
- ▶ High-speed connectivity 32x PCIe 4.0  
+ 16x PCIe 3.0, SATA, USB 3.0
- ▶ Up to 1 TByte NVMe SSD onboard
- ▶ Industrial grade versions

# Technical Information

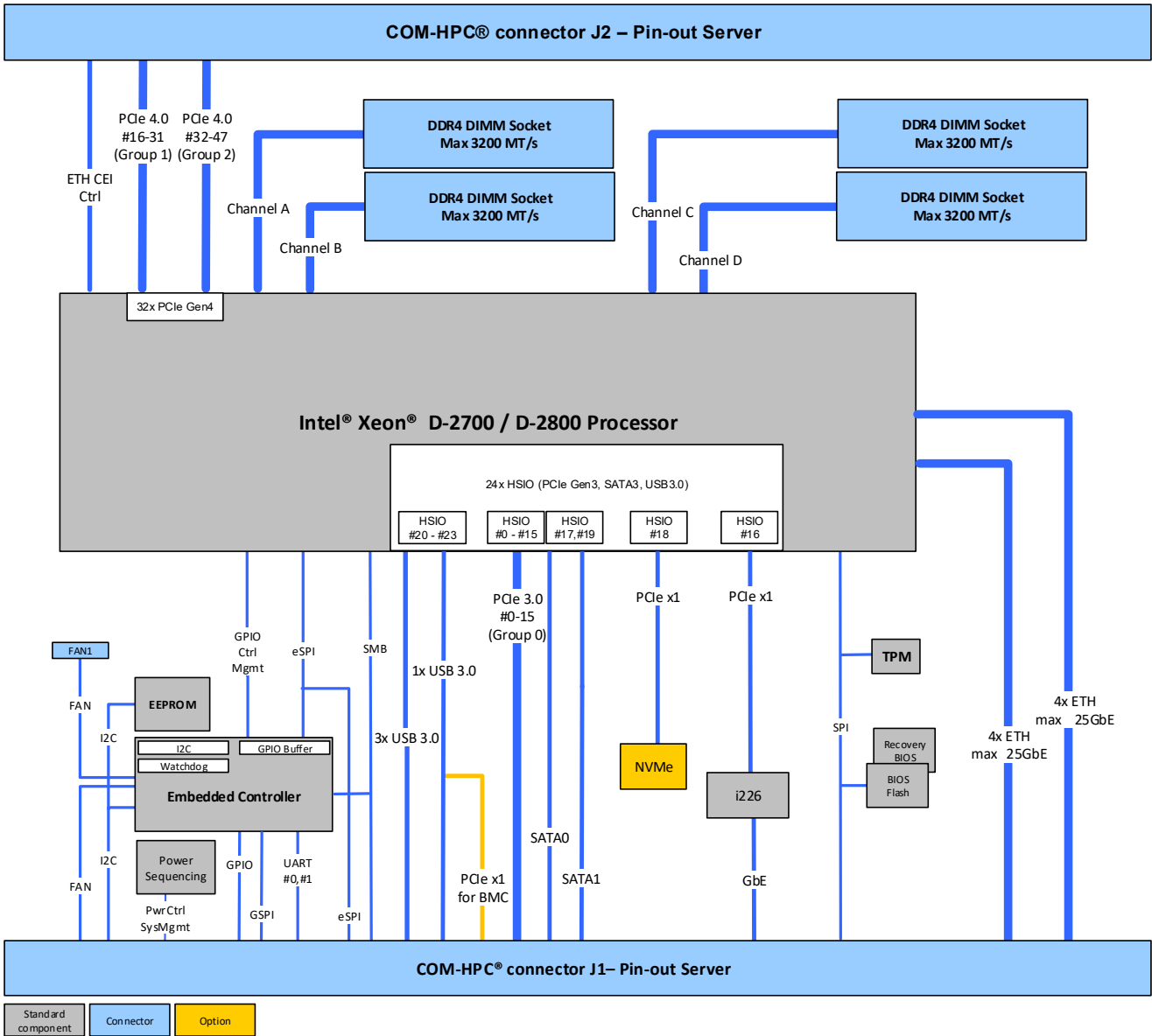
| FEATURES            | DESCRIPTION                                                                                                                                                            |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| COMPLIANCE          | COM-HPC®/Server, Size D                                                                                                                                                |
| DIMENSIONS          | 160 mm x 160 mm                                                                                                                                                        |
| CPU (SOC)           | Intel Xeon® D-2700 / D-2800 Processor Series<br>For details see table "CPU variants" given below                                                                       |
| CHIPSET             | -                                                                                                                                                                      |
| MAIN MEMORY         | 4x DDR4 DIMM sockets for up to 128GB LRDIMM                                                                                                                            |
| ETHERNET CONTROLLER | Intel® I226-LM/IT Intel® 2x Quad 25GbE LAN integrated in SoC                                                                                                           |
| ETHERNET            | 1x 1/2.5 Gb Ethernet<br>8x Ethernet ports supporting versatile configurations:<br>100GbE/2x 50GbE/4x 25GbE/2x 25GbE + 4x 10GbE/8x 10GbE                                |
| STORAGE             | 2x SATA 6Gb/s                                                                                                                                                          |
| FLASH ONBOARD       | Up to 1 TByte NVMe SSD (on request)                                                                                                                                    |
| PCI EXPRESS®        | 32x PCIe Gen4 (2 x16, 4 x8, 8 x4) 16x PCIe Gen3 (2 x8, 4 x4, 8 x2)                                                                                                     |
| USB                 | 4x USB 3.0 / USB 2.0                                                                                                                                                   |
| SERIAL              | 2x serial interface (RX/TX only)                                                                                                                                       |
| OTHER FEATURES      | SPI, eSPI, SMB, Staged Watchdog, RTC                                                                                                                                   |
| SPECIAL FEATURES    | TPM 2.0                                                                                                                                                                |
| FEATURES ON REQUEST | NVMe SSD, 1x PCIe Gen3 for BMC instead of 4th USB3.0                                                                                                                   |
| POWER MANAGEMENT    | ACPI 6.0                                                                                                                                                               |
| POWER SUPPLY        | 12V DC                                                                                                                                                                 |
| BIOS                | AMI UEFI                                                                                                                                                               |
| OPERATING SYSTEM    | Linux. Windows 10/11, Windows Server 2022                                                                                                                              |
| TEMPERATURE         | Commercial temperature: 0 °C to +60 °C operating, -30 °C to +80 °C non-operating<br>Industrial temperature: -40 °C to +80 °C operating, -40 °C to +80 °C non-operating |
| HUMIDITY            | 93 % relative Humidity at 40 °C, non-condensing (according to IEC 60068-2-78)                                                                                          |
| SUPPORTED MODULES   | COMh-sdID xxxxx commercial grade<br>COMh-sdID E2 xxxxx industrial grade                                                                                                |

## CPU Variants

| CPU       | STD /ON<br>REQUEST | CORES | TDP,<br>W | IOTG | ETEMP | DDR4<br>1DPC<br>(MT/S) | ETHERNET<br>MODE | QAT         | BASE<br>FREQ<br>(GHZ) | ALL<br>CORE<br>TURBO<br>(GHZ) |
|-----------|--------------------|-------|-----------|------|-------|------------------------|------------------|-------------|-----------------------|-------------------------------|
| D-2796TE  | yes                | 20    | 118       | Yes  | Yes   | 2933                   | 100G             | DISABLED    | 2                     | 2,4                           |
| D-2896TER | on<br>request      | 20    | 110       | Yes  | Yes   | 2933                   | 100G             | DISABLED    | 2                     | 2,5                           |
| D-2775TE  | yes                | 16    | 100       | Yes  | Yes   | 2933                   | 100G             | DISABLED    | 2                     | 2,4                           |
| D-2752TER | yes                | 12    | 77        | Yes  | Yes   | 2667                   | 50G              | DISABLED    | 1,8                   | 2,1                           |
| D-2733NT  | on<br>request      | 8     | 80        | Yes  | No    | 2667                   | 50G              | 50G         | 2,1                   | 2,6                           |
| D-2712T   | on<br>request      | 4     | 65        | Yes  | No    | 2667                   | 50G              | DISABLED    | 1,9                   | 2,4                           |
| D-2899NT  | on<br>request      | 22    | 135       | No   | No    | 3200                   | 100G             | 100G        | 2,2                   | 2,8                           |
| D-2798NX  | on<br>request      | 20    | 126       | No   | No    | 2933                   | 100G             | 100G Inline | 2,1                   | 2,6                           |
| D-2796NT  | yes                | 20    | 120       | No   | No    | 2933                   | 100G             | 100G        | 2                     | 2,5                           |
| D-2798NT  | on<br>request      | 20    | 125       | No   | No    | 3200                   | 100G             | 100G        | 2,1                   | 2,6                           |
| D-2896NT  | on<br>request      | 20    | 120       | No   | No    | 2933                   | 100G             | 100G        | 2                     | 2,6                           |
| D-2786NTE | on<br>request      | 18    | 118       | No   | Yes   | 2933                   | 100G             | 100G        | 2,1                   | 2,5                           |
| D-2777NX  | on<br>request      | 16    | 116       | No   | No    | 2667                   | 100G             | 100G Inline | 2,2                   | 2,7                           |
| D-2776NT  | on<br>request      | 16    | 117       | No   | No    | 2933                   | 100G             | 100G        | 2,1                   | 2,6                           |
| D-2876NT  | on<br>request      | 16    | 100       | No   | No    | 2933                   | 100G             | 50G         | 2                     | 2,5                           |
| D-2766NT  | on<br>request      | 14    | 97        | No   | No    | 2667                   | 100G             | 50G         | 2                     | 2,5                           |
| D-2753NT  | on<br>request      | 12    | 87        | No   | No    | 2667                   | 100G             | 50G         | 2                     | 2,5                           |
| D-2752NTE | on<br>request      | 12    | 84        | No   | Yes   | 2667                   | 50G              | 50G         | 1,9                   | 2,3                           |
| D-2757NX  | on<br>request      | 12    | 107       | No   | No    | 2667                   | 50G              | 50G Inline  | 2,5                   | 3                             |
| D-2745NX  | on<br>request      | 10    | 96        | No   | No    | 2667                   | 50G              | 50G Inline  | 2,4                   | 2,9                           |
| D-2843NT  | on<br>request      | 10    | 80        | No   | No    | 2667                   | 50G              | 50G         | 2                     | 2,6                           |
| D-2832NT  | on<br>request      | 8     | 70        | No   | No    | 2667                   | 50G              | 50G         | 2,1                   | 2,6                           |
| D-2799    | on<br>request      | 20    | 129       | No   | No    | 3200                   | DISABLED         | DISABLED    | 2,4                   | 2,6                           |
| D-2779    | on<br>request      | 16    | 126       | No   | No    | 3200                   | DISABLED         | DISABLED    | 2,5                   | 2,8                           |
| D-2738    | on<br>request      | 8     | 88        | No   | No    | 2933                   | DISABLED         | DISABLED    | 2,5                   | 3                             |

Note: DTR applies to these processors. See user guide for further information

# Block Diagram



## Variants

| PART NO.        | CPU       | 1/2.5 GBE | SOC-LAN      | DIMM | NVME | Op. Temperature  |
|-----------------|-----------|-----------|--------------|------|------|------------------|
| HSD01-0000-96-2 | D-2796NT  | I226-LM   | 8x LAN ports | 4    | no   | 0 °C to +60 °C   |
| HSD01-0000-76-2 | D-2776NT  | I226-LM   | 8x LAN ports | 4    | no   | 0 °C to +60 °C   |
| HSD01-0000-53-2 | D-2753NT  | I226-LM   | 8x LAN ports | 4    | no   | 0 °C to +60 °C   |
| HSD02-0000-96-1 | D-2796TE  | I226-IT   | 8x LAN ports | 4    | no   | -40 °C to +80 °C |
| HSD02-0000-75-1 | D-2775TE  | I226-IT   | 8x LAN ports | 4    | no   | -40 °C to +80 °C |
| HSD02-0000-52-1 | D-2752TER | I226-IT   | 8x LAN ports | 4    | no   | -40 °C to +80 °C |

Please contact your sales representative for other CPU versions or LAN configurations  
Please contact tech support for custom UEFI firmware

## Carrier

| ARTICLE                        | PART NO.        | DESCRIPTION                                |
|--------------------------------|-----------------|--------------------------------------------|
| COM-HPC/SERVER<br>EVAL-CARRIER | HST01-0000-10-0 | Eval-Carrier with 10-mm stack-up connector |

## Cooling

| ARTICLE                                     | PART NO.        | DESCRIPTION                                                                                                                                  |
|---------------------------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| COMH-SDID (E2) HSP<br>THREADED              | HSD01-0000-99-0 | COMh-sdID (E2) heatspreader threaded                                                                                                         |
| COMH-SDID (E2) HSP<br>THROUGH HOLE          | HSD01-0000-99-1 | COMh-sdID (E2) heatspreader through hole                                                                                                     |
| COMH SIZE D ACTIVE UNI<br>COOLER (W/O HSP)  | HSD99-0000-99-0 | COM-HPC Size D Universal Active Cooler for Heatspreader Mounting<br>(160 x 100 x 46 mm)                                                      |
| COMH SIZE D PASSIVE UNI<br>COOLER (W/O HSP) | HSD99-0000-99-1 | COM-HPC Size D Universal Passive Cooler for Heatspreader Mounting<br>(160 x 100 x 46 mm)                                                     |
| COOLING COMH-SDID (E2):<br>ADAPTER          | HSD01-0000-99-A | Cooling Solution for COMh-sdID (E2), adapter for a standard LGA115x cooling<br>solution<br>To be used with HSD01-0000-99-B & HSD01-0000-99-C |
| COOLING COMH-SDID (E2):<br>BACKPLATE        | HSD01-0000-99-B | Cooling Solution for COMh-sdID (E2), backplate<br>To be used with HSD01-0000-99-A & HSD01-0000-99-C                                          |
| COOLING COMH-SDID (E2):<br>COOLER           | HSD01-0000-99-C | Cooling Solution for COMh-sdID (E2), LGA115x cooler<br>To be used with HSD01-0000-99-A & HSD01-0000-99-B                                     |

## Memory

| PART NO.        | DESCRIPTION      | SIZE      | ECC/NON-ECC | OP. TEMPERATURE  |
|-----------------|------------------|-----------|-------------|------------------|
| 97100-0832-SDID | DDR4-3200 RDIMM  | 8 GByte   | ECC         | 0 °C to +60 °C   |
| 97100-1632-SDID | DDR4-3200 RDIMM  | 16 GByte  | ECC         | 0 °C to +60 °C   |
| 97100-3232-SDID | DDR4-3200 RDIMM  | 32 GByte  | ECC         | 0 °C to +60 °C   |
| 97100-6432-SDID | DDR4-3200 RDIMM  | 64 GByte  | ECC         | 0 °C to +60 °C   |
| 97101-0832-SDID | DDR4-3200 RDIMM  | 8 GByte   | ECC         | -40 °C to +85 °C |
| 97101-1632-SDID | DDR4-3200 RDIMM  | 16 GByte  | ECC         | -40 °C to +85 °C |
| 97101-3232-SDID | DDR4-3200 RDIMM  | 32 GByte  | ECC         | -40 °C to +85 °C |
| 97101-6432-SDID | DDR4-3200 RDIMM  | 64 GByte  | ECC         | -40 °C to +85 °C |
| 97102-1232-SDID | DDR4-3200 LRDIMM | 128 GByte | ECC         | 0 °C to +60 °C   |
| 97103-1232-SDID | DDR4-3200 LRDIMM | 128 GByte | ECC         | -40 °C to +85 °C |

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