

# Datasheet

## 2U Intel dual-CPU RI2208-LCS Scalable

[Ver. 1.1]

### Highlights at a glance:

- Complete package with innovative direct hot-water cooling
- Reduction of energy consumption with significantly increased power density
- Savings on heating and electricity costs through effective server cooling and waste heat utilization
- Including Intel 2x Xeon Cascade Lake CPUs (6 - 8 cores)
- Incl. 16 GB RAM, upgradable to 1TB RAM, (16 DIMMs)
- 8x 2.5" (hot-swap) up to 30.72 TB
- Energy-efficient power supply 80 PLUS Titanium (>96%) red. NT
- Integrated IPMI (dedicated NIC)



### Water cooling

Water inlet temperature	up to 53 °C
ASHRAE class	Water cooling: W5 (>45 °C, local waste heat utilization) Air cooling: A1 (15-32 °C, 8-80%)
Temperature difference	10 K
Volume flow	0.3l/min
Environmental conditions	20-22 °C, max. 40% Luftfeuchte

## Water quality

pH value	7...9
Corrosion	Inhibitors necessary
Sulfides	<10 ppm
Sulphate	<100 ppm
Chloride	<50 ppm
Bacteria	<1000 CFUs/mL (Colony Forming Unit)
Water hardness (calcium carbonate)	<200 ppm
Evaporation residues	<500 ppm
Turbidity	<20 NTU (Nephelometric Turbidity Unit)

## Mainboards

Manufacturer	Supermicro
Mainboards	Supermicro X11DPi-NT
Chipset	Intel C622
Socket	Intel LGA 3647-0
Processor	Intel Xeon Scalable (Skylake SP / Cascade Lake SP)
Main Memory	bis zu 1 TB DDR4 2400/2666 RDIMM (16 DIMMs)
LAN Onboard	2x 10 Gbit/s LAN (RJ-45)
LAN chipset	Intel X557
LAN Onboard (dedicated IPMI)	1x RJ45 Dedicated IPMI LAN port
Onboard graphic	1x VGA Aspeed AST2500 BMC
Onboard Input/Output	USB (no PS2 ports!) 1x TPM Header 2x COM Ports (1 rear, 1 header)
USB-ports	1x USB on board (type A) 4x USB (rear)

## Onboard ports

SATA-3 (6 Gb/s)	14x SATA-3 (6 Gbit/s) Intel C622 RAID 0, 1, 10, 5, Software-Raid 8x Intel PCH 4x Intel SCU 2x SuperDOM support
SATA-3 port distribution	8x Intel PCH 4x Intel SCU 2x SuperDOM support
M.2	1 x M.2 PCIe 3.0 x4
M.2 form factor	2260, 2280, 22110

## Extension-slots for additional cards

PCI slots (mainboard)	4 x PCIe 3.0 x16 2 x PCIe 3.0 x8
Available slots in the chassis	6 Low profile, Half Length, Full Length

## Storage capacity

Possible number of HDDs	8x 3.5" / 2.5" (Hot-swap)
Backplane	SATA / SAS-3 (12 Gb/s)
Max. capacity SAS	61.44 TB
Max. capacity SATA	30.72 TB
Maximum capacity SSD	61.44 TB
Maximum capacity M.2	3.84 TB

## Server management

Management software	Supermicro SuperDoctor 5
Remote management	Integrated IPMI (dedicated NIC)
Features	Managementsoftware IPMI View IPMI with KVM Over LAN Serial Over LAN (SOL) Virtual Media Over LAN (Virtual USB Floppy/CD and Drive Redirection) LAN Alert-SNMP Trap Event Log OS Independent Hardware Health Monitor Remote Power Control Support RMCP & RMCP + Protocols Fan Speed Control Dedicated 3. network interface card
IPMI-sensors	CPU-temperature (OK / warning) system-temperature (Celsius degree) Electronic voltage (volt) Cooler speed (RPM) Additional model-dependent sensors ( <a href="http://www.thomas-krenn.com/ipmi-sensoren">www.thomas-krenn.com/ipmi-sensoren</a> )

## Chassis

Unit	2U
Dimensions	89 mm (H), 437 mm (W), 647 mm (D)
drives (in scope of delivery)	not contained, optional available
Drives (optional)	1x Slim CD/DVD/DVD-R External USB-drives
Fan (center)	3x 80x80x38mm Hot-swap (9400rpm, 53.5dBA)
Silent blowerkit option	no

## Power supply

Power supply unit	2x 800 Watt redundantes Hot Swap Netzteil (80plus Titanium)
energy efficiency	96%
PMBus support	Yes, Ver.1.2

## Rack Assembly

Assembly rails	contained in the scope of supply
rail length	675-880 mm
Total length server front to end of assembly rail	820 mm
Max. extraction length	670 mm
Recommended maneuvering space	75 mm (minimum)

## environment-requirements

Recommended environment-temperature (appropriate BSI)	20 - 22 degree
Recommended air humidity (appropriate BSI)	max. 40%