

Datasheet

2U Intel single-CPU RI1203-SMXEH server

[Ver. 1.0]

Highlights at a glance:

- Incl. Intel Pentium G6405, can be equipped with a CPU (Intel Xeon E-2300 (Rocket Lake)) up to 8 cores
- Incl. 4 GB RAM, upgradable to 128GB RAM, (4 DIMMs)
- 3x 3.5" / 2.5" (Hot-swap) up to 66 TB, SSDs: 23.04 TB
- Optional additional drives: 2x 2.5" (Rear, hot-swap)
- Optional 4 x 1 GBit/s LAN (RJ-45)
- Expandable with 3 LP/ HL add-on card(s), 1x PCIe 4.0 x16 1x PCIe 4.0 x8
- Energy-efficient power supply 80 PLUS Titanium (>96%) red. NT
- Integrated IPMI (dedicated NIC)



Mainboards

Manufacturer	ASUS	Supermicro	Supermicro
Mainboards	ASUS P12R-M	X12STH-F	X12STH-LN4F
Chipset	Intel C252	Intel C252	Intel C256
Socket	Intel LGA 1200	Intel LGA 1200	Intel LGA 1200
Processor	Intel Xeon E-2300 (Rocket Lake)	Intel Xeon E-2300 (Rocket Lake)	Intel Xeon E-2300 (Rocket Lake)
Main Memory	4 DIMMs 128 GB DDR4 3200 ECC Unbuffered	4 DIMMs 128 GB DDR4 3200 ECC Unbuffered	4 DIMMs 128 GB DDR4 3200 ECC Unbuffered
LAN Onboard	2 x 1 GBit/s LAN (RJ-45)	2 x 1 GBit/s LAN (RJ-45)	4 x 1 GBit/s LAN (RJ-45)
LAN chipset	Intel I210-AT	Intel i210	Intel i210
LAN Onboard (dedicated IPMI)	1x Management LAN	1 Management LAN	1x Management LAN
Onboard graphic	1x VGA ASPEED AST2600 BMC	1x VGA ASPEED AST2600 BMC	1x VGA ASPEED AST2600 BMC
Additional card (optional)	PNY NVIDIA Quadro T1000 (4GB)	PNY NVIDIA Quadro T1000 (4GB)	PNY NVIDIA Quadro T1000 (4GB)
Onboard Input/Output	USB (no PS2 ports!) 1x TPM Header	USB (no PS2 ports!) 1x TPM Header	USB (no PS2 ports!) 1x TPM Header
USB ports	2x USB (rear) 2 x USB 3.2 Gen2 1x USB on board (type A) (USB 3.0)	4x USB (rear) 2x USB 2.0, 2x USB 3.2 Gen1 1x USB on board (type A) (USB 3.2)	4x USB (rear) 2x USB 2.0, 2x USB 3.2 Gen1 1x USB on board (type A) (USB 3.2)

Extension-slots for additional cards

PCI slots (mainboard)	1x PCIe 4.0 x16 1x PCIe 4.0 x8	1x PCIe 3.0 x4 (in x8) 1x PCIe 4.0 x16	1x PCIe 3.0 x4 (in x8) 1x PCIe 4.0 x16
Available slots in the chassis	2x Low profile/Half Length	3x Low profile/Half Length	3x Low profile/Half Length
Possible Riser cards	1x PCI-E (x8) Riserkarte	1x PCI-E (x8) Riserkarte	1x PCI-E (x8) Riserkarte

Onboard ports

SATA-3 (6 Gb/s)	6x SATA-3 (6 Gbit/s) Intel 252 RAID 0, 1, 10, 5, Software-Raid	8x SATA-3 (6 Gbit/s) Intel C256 RAID 0, 1, 10, 5	8x SATA-3 (6 Gbit/s) Intel C256 RAID 0, 1, 10, 5, Software-Raid
M.2	1 x M.2 PCIe 3.0 x4	1 x M.2 PCIe 3.0 x4	1 x M.2 PCIe 3.0 x4
M.2 form factor	2242, 2260, 2280	2280, 22110	2280, 22110

Drives / storage capacity

Drive slots (total)	3x 3.5" / 2.5" (Hot-swap) 2x 2.5" (Rear, hot-swap) 22.5" (rear of chassis, hot-swap)
SAS / SATA slots	3x SAS / SATA
Backplane	SATA / SAS-3 (12 Gb/s)
Max. capacity HDD (SAS)	66 TB
Max. capacity HDD (SATA)	66 TB
Max. capacity SSD (SATA)	23.04 TB
Max. capacity SSD (SATA)	23.04 TB

Server management

Management software	ASUS Control Center (Classic)
Remote management	Integrated IPMI (dedicated NIC)

Chassis

Unit	2U
Dimensions	89 mm (H), 437 mm (W), 450 mm (D),
drives (in scope of delivery)	not contained, optional available
Drives (optional)	1x Slim CD/DVD/DVD-R External USB-drives
Fan (center)	4x 40x40x56mm Hot-swap (13000rpm, 61dBA)
Silent blowerkit option	no

Power supply

Power supply unit	2HE Supermicro Chassis SC825MBTQC-R802LPB
energy efficiency	96%
Redundant power supply (selectable option)	2x 800 watt
PMBus support	Yes, Ver.1.2PSU single: no, redundant PSU: Yes, Ver.1.2

Rack Assembly

Assembly rails	contained in the scope of supply
rail length	675 - 925 mm
Total length server front to end of assembly rail	715 mm
Max. extraction length	710 mm
Recommended maneuvering space	75 mm (minimum)

environment-requirements

Recommended ambient temperature	20 - 22 degree
Recommended humidity	max. 40%
Recommended deployment location	To ensure the optimal cooling of the system, we recommend running the server in an air conditioned server room and as part of a rack installation. The server is not ideal for use in an office environment due to its high noise levels.