

# DATA SHEET FOR AZURE STACK HCI RACK-SERIES

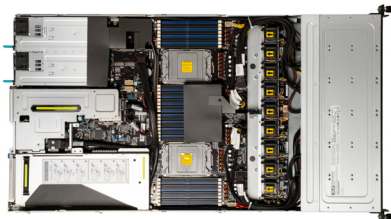
## Dual-Intel Family v3

- Certified hardware for the use of Azure Stack HCI with the software defined storage technology Storage Spaces Direct (S2D)
- Certified for Windows Server 2022 & Azure Stack HCI
- High available Azure Stack HCI Clusters between 1 and 16 Nodes
- Optional preinstallation of Windows Server or Azure Stack HCI
- Optional configuration of Azure Stack HCI (S2D) with Best-Practices
- U.3 NVMe technology
- PCIe 4.0 standard

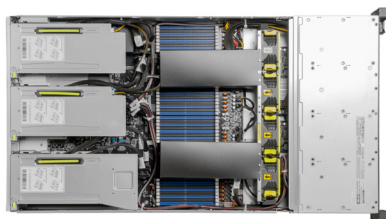


## The Dual-Intel Family v3 contains the following solutions:

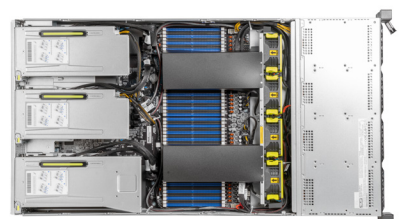
AzSHCI Series RI2112 v3






AzSHCI Series RI2224 v3

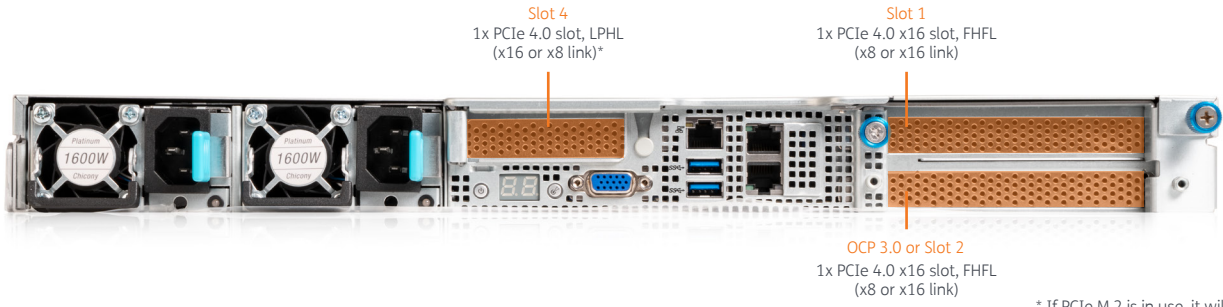


AzSHCI Series RI2212 v3



	AzSHCI Series RI2112 v3	AzSHCI Series RI2224 v3	AzSHCI Series RI2212 v3
			
<b>Barebone</b>			
Barebone	ASUS RS700-E10-RS12U	ASUS RS720-E10-RS24U	ASUS RS720-E10-RS12
Units	1U	2U	2U
Size (LxBxH) in cm	84,3 x 44,9 x 4,4	84,0 x 44,9 x 8,8	
Rails	58,9cm – 90cm		
Operatingtemperature	10 °C - ~25 °C		
<b>Mainboard</b>			
Mainboard	ASUS Z12PP-D32		
CPU	2x Intel Xeon Scalable 3rd Generation (Ice Lake) configurable between 16 – 80 Cores		
RAM	32x DDR4 3200MHz configurable between 128GB – 4TB		
TPM	TPM 2.0 Modul		
BMC/IPMI	ASUS ASMB10-iKVM		
<b>Drives</b>			
OS Disk	M.2 Drives (240GB or 480GB) – optional configured in a RAID1		
U.3 NVMe Disk Slots	12x	24x	4x
2,5“ SATA Disk Slots	-	-	8x
3,5“ SATA Disk Slots	-	-	
<b>PCIe</b>			
M.2 RAID-Controller	PCIe 4.0 x8		
VMNet NIC	OCP 3.0 Slot – PCIe 4.0 x16		
Storage RDMA NIC	PCIe 4.0 x16		
unused PCIe Slots	-	2x PCIe 4.0 x16 or 1x PCIe 4.0 x16 & 2x PCIe 4.0 x8 or 4x PCIe 4.0 x8 for Single- & Dual-Slot-GPUs or additional NICs	

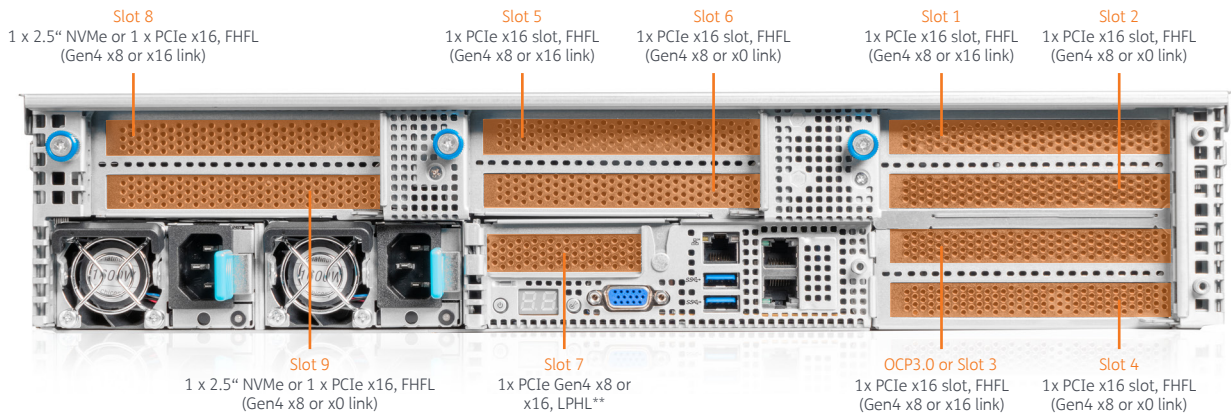
## PCIe Slots - AzSHCI Series RI2112 v3



\* If PCIe M.2 is in use, it will drop to x8 link

Slot	PCIe-Lanes (1)	Device
1	X16	Storage-Network RDMA NIC
OCP 3.0/2	X16	VM-Network OCP 3.0 NIC
3	X8	M.2 RAID-Card

## PCIe Slots - AzSHCI Series RI2224 v3

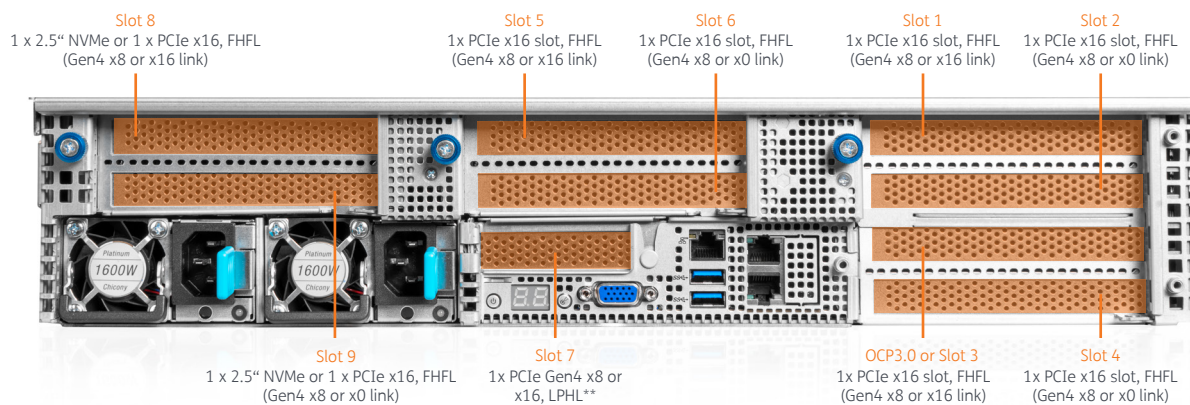


\*\* If PCIe M.2 is in use, it will drop to x8 link

Slot	PCIe-Lanes (1)	PCIe-Lanes (2)	Device
1	X16	X8	Storage-Network RDMA NIC
2	X0	X8	-
OCP 3.0/3	X16	X8	VM-Network OCP 3.0 NIC
4	X0	X8	-
5	X16	X8	Usable for GPU or additional NIC
6	X0	X8	Usable for GPU or additional NIC
7	X8		M.2 RAID-Card
8	X16	X8	Usable for GPU or additional NIC
9	X0	X8	Usable for GPU or additional NIC

PCIe-Lanes (1) or PCIe-Lanes (2) possible (they are alternates)

# PCIe Slots - AzSHCI Series RI2212 v3



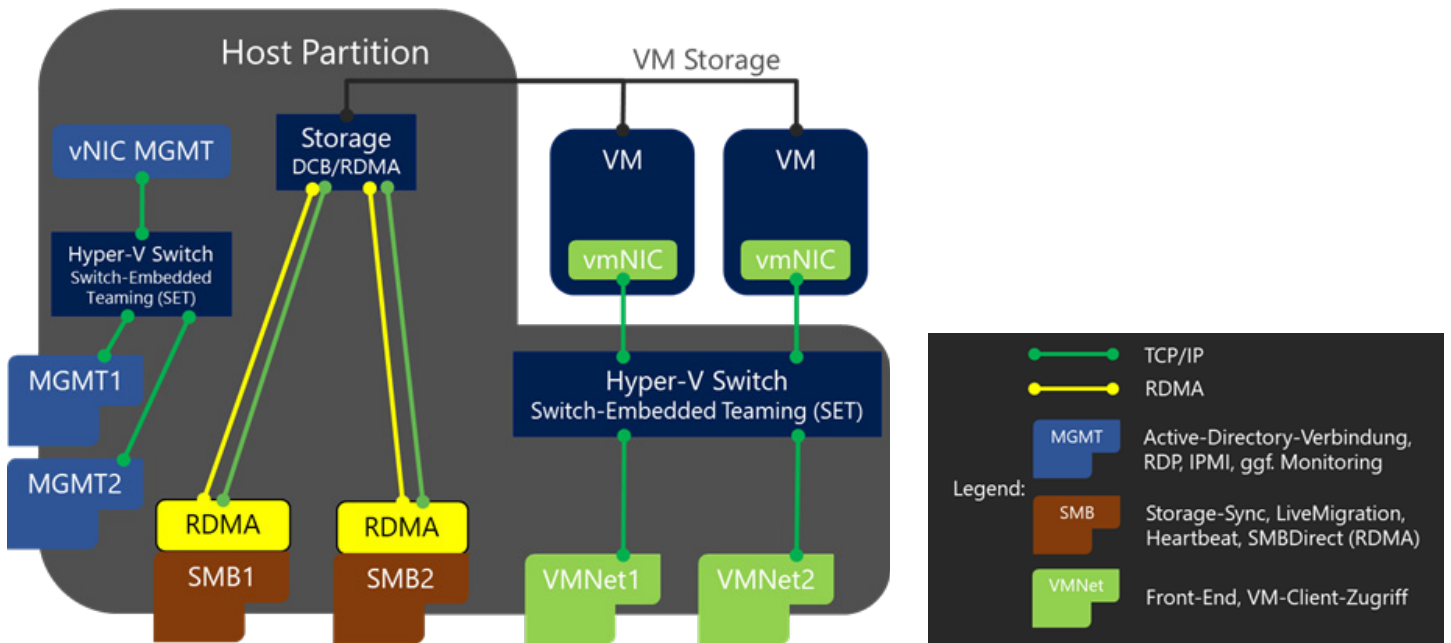
\*\* If PCIe M.2 is in use, it will drop to x8 link

Slot	PCIe-Lanes (1)	PCIe-Lanes (2)	Device
1	X16	X8	Storage-Network RDMA NIC
2	X0	X8	-
OCP 3.0/3	X16	X8	VM-Network OCP 3.0 NIC
4	X0	X8	-
5	X16	X8	Usable for GPU or additional NIC
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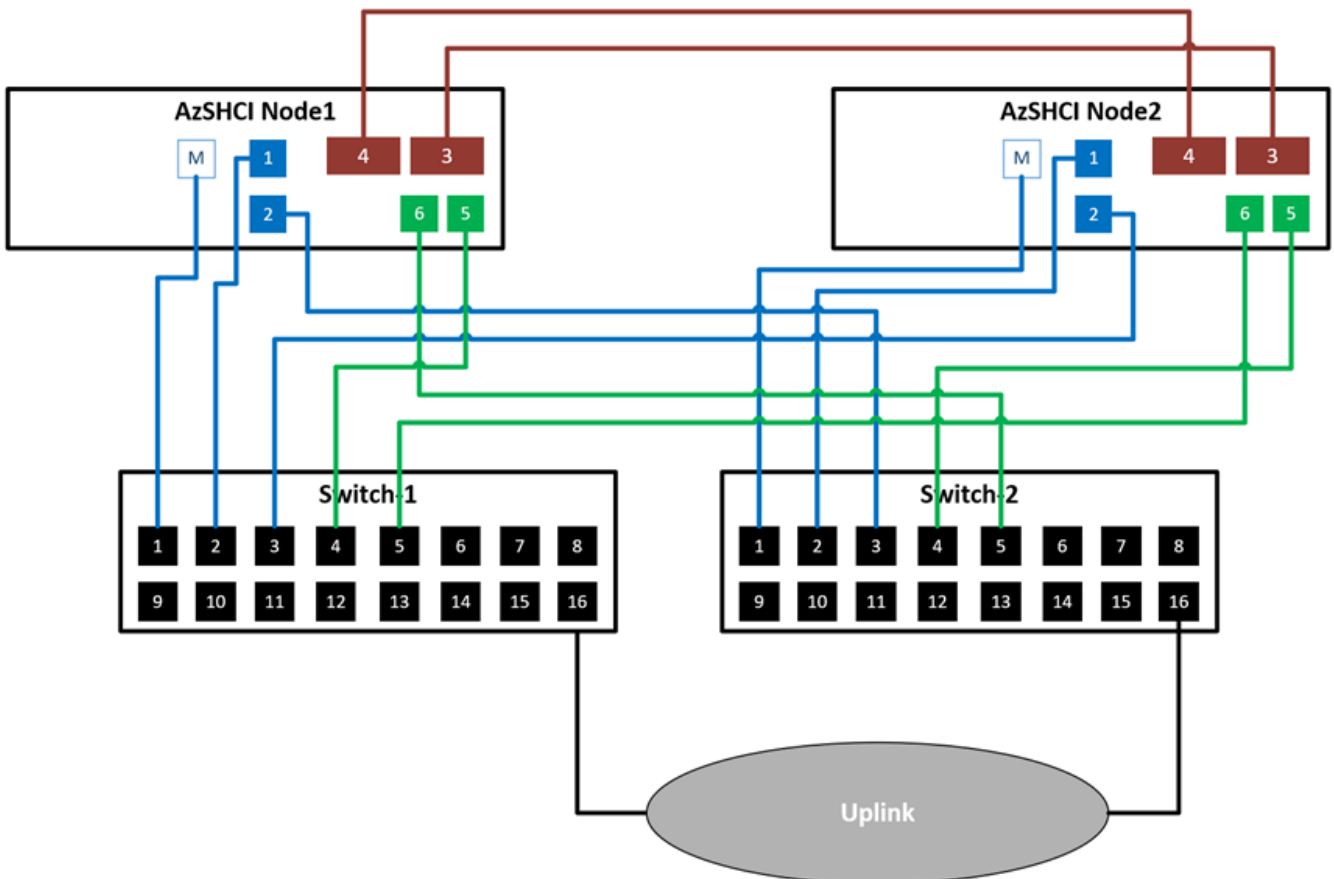
PCIe-Lanes (1) or PCIe-Lanes (2) possible (they are alternates)

# Network recommendation

Thomas-Krenn.AG recommends the following Network setup



Default setup of the networking components in the Azure Stack HCI rack solution.



Example cabling plan of a 2-Node Azure Stack HCI cluster with redundant management switches and direct-attached connection between the storage NICs.

## Selectable networking components

connection	count	speed	connector
MGMT			
Onboard	2	10 GbE	RJ45
SMB (RDMA - RoCEv2)			
PCIe 4.0 x16	2	25 GbE	SFP28
PCIe 4.0 x16	2	100 GbE	QSFP56
SMB (RDMA - iWarp)			
PCIe 4.0 x16	2	25 GbE	SFP28
PCIe 4.0 x16	2	100 GbE	QSFP56
VMNet			
OCP 3.0 - PCIe 4.0 x16	2	10 GbE	RJ45
OCP 3.0 - PCIe 4.0 x16	2	10/25 GbE	SFP28
OCP 3.0 - PCIe 4.0 x16	4	10/25 GbE	SFP28

## Selectable components

### Processors

- 2x Intel Xeon Scalable 3rd Generation (Ice Lake)
- 16 – 80 Cores

### RAM (Optional with Intel-Optane Memory)

- 32x DDR4 3200MHz
- 128 GB RAM (8x 16 GB)
  - 256 GB RAM (16x 16 GB)
  - 512 GB RAM (16x 32 GB)
  - 1 TB RAM (16x 64 GB)
  - 2 TB RAM (16x 128 GB)
  - 4 TB RAM (32x 128 GB)

### OS-Drives

- 240 GB or 480 GB M.2 as Single-Disk
- 2x 240 GB or 2x 480 GB M.2 in a RAID1

### U.3 NVMe-Drives

- Capacity: 800 GB, 1,6 TB, 3,2 TB, 6,4 TB or 12,8 TB

### SATA SSD-Drives

- Capacity: 960 GB, 1,92 TB or 3,84 TB

### SATA HDD-Drives

- Capacity: 4TB, 6 TB, 8 TB, 10 TB, 12 TB, 14 TB, 16 TB or 18 TB

### Datacenter GPU

- Single-Slot GPUs: NVIDIA A2, NVIDIA A10
- Dual-Slot GPUs: NVIDIA A16, NVIDIA A40