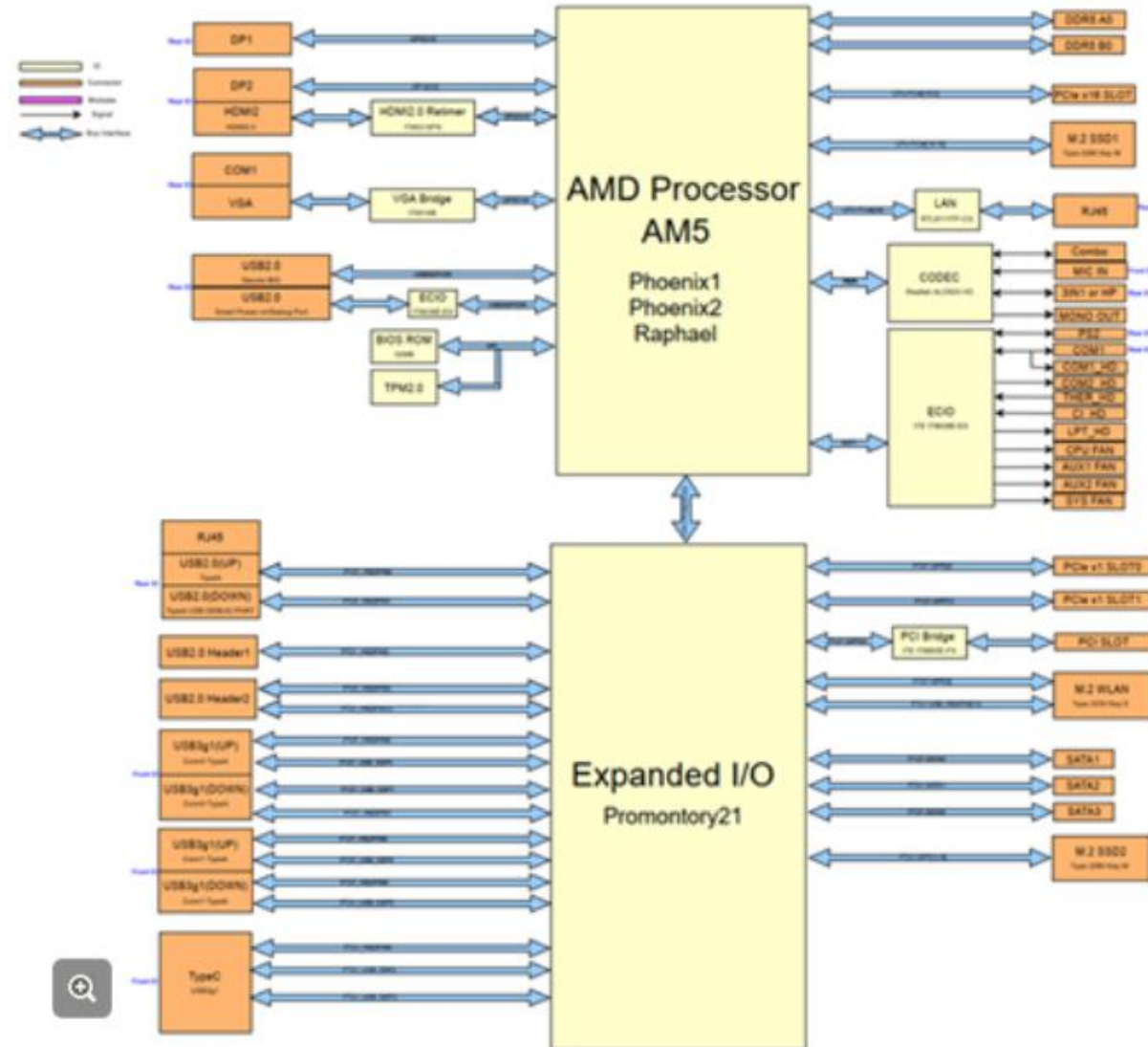


System specifications and diagrams

System block diagrams and board connector diagrams

Lenovo

System block diagram



System limitations

The ST45 V3 has the following system limitations:

- Maximum processor TDP is 65 W
- PCIe slot speeds support up to PCIe 3.0
- The ST45 V3 doesn't support XCC management features
 - You cannot use remote control or collect logs from the system
- The audio feature is only supported in a Windows OS environment
- Firmware update limitations
 - The ST45 V3 does not support UpdateXpress or OneCLI; it only supports OneCLI-Lite (for checking the inventory only)
 - Use LXPM-Lite to update UEFI firmware only
 - Use BoMC to update all system component firmware (including UEFI)

Management tools

The ST45 V3 only supports a limited number of Lenovo management tools. The following table lists tool support capabilities on the ST45 V3:

Tool	Description
LXPM	Supports LXPM-Lite version only
LCP	Supported
LXEM	Not supported
LXCA	Not supported
LXCM	Not supported
OneCLI	Supports OneCLI-Lite version only
UpdateXpress	Not supported
BoMC	Supported
XCC logger utility	Not supported

DIMM population rules



Total memory installed	Slot 1	Slot 2	Memory speed
One	√		UDIMM 5200 MHz
One		√	
Two	√	√	

- A mix of DIMMs from different manufacturing brands is supported (but they must be Lenovo-certified DIMMs)
- A mix of DIMM capacities is not supported

Internal storage features

Drive type	Onboard SATA only – no RAID adapter				Onboard SATA + RAID card			
	Option 1	Option 2	Option 3	Option 4	Option 1	Option 2	Option 3	Option 4
3.5-inch	1	0	1	2	2*	2*	3*	3*
2.5-inch	0	1	1	0	1	0	1	0
ODD	1	1	0	0	1	1	0	0

* Drive signal cables connect to the RAID adapter

Note: On the ST45 V3, 2.5-inch and 3.5-inch drives must be SATA drives.

Storage controllers

The ST45 V3 supports the following storage controllers

RAID level	Storage controller	Supported drives	Hot spares support	Connection
RAID 0	ThinkSystem 5350-8i RAID adapter	Two to three	No support	Drive bay 0, 2, 3 to 5350-8i RAID adapter (3.5-inch drives)
RAID 1	ThinkSystem 5350-8i RAID adapter	Two to three		Drive bay 0, 2, 3 to 5350-8i RAID adapter (3.5-inch drives)
RAID 5	ThinkSystem 5350-8i RAID adapter	Three		Drive bay 0, 2, 3 to 5350-8i RAID adapter (3.5-inch drives)
Non-RAID	ThinkSystem 4350-8i HBA adapter	Two to three		Drive bay 0, 2, 3 to 4350-8i HBA adapter (3.5-inch drives)
Non-RAID	Onboard PCH chip – AHCI mode	One to two		Onboard SATA connectors