DPX-E265

AMD Ryzen™ Embedded V1000 mITX with Four DP++, ECC, PCIe expansion

Features

- AMD Ryzen™ Embedded V1000 processors
- Two 260-pin SO-DIMM up to 32 GB DDR4 2666 MHz ECC/Non-ECC SDRAM
- Supports 4 x DP++ 1.4 (1 x DP with HBR3 support)
- Supports PCIe x8 (PCIe x16 connector, Gen 3.0)
- Edge connector expansion port supporting 2 x full PCIe x1 gen 1.0 ports (non-standard x4 pin definition) and 2 x USB2.0
- Supports 2 x SATA / 2 x CFast / 1 x M.2
- Secureboot support
- Removable Gaming BIOS module for field verification

Specifications

Processor System	CPU	AMD Ryzen™ Embedded V1000 processors
	TDP (W)	Up to 54W
	BIOS	AMI EFI 128 Mbit SPI with Secureboot support, dual chip BIOS module for separate BIOS and OPROM implementation.
Expansion Slot	PCIe x16 (Gen3)	16 GB/s per direction, 1 slot
	PCIe x4 (Custom)	Two fully featured independent PCI-e x1 gen 1.0 lanes and a USB2.0 port on a proprietary pin defined PCIe x4 form factor 'golden finger' for off board expansion.
Memory	Technology	Dual Channel DDR4 @ 1.2V 2666 MHz SDRAM
	Max. Capacity	32 GB/ 16 GB per SO-DIMM
	Socket	2 x 260 PIN DDR4 SO-DIMM (Non-ECC or ECC supported, BIOS selectable)
Graphics	Controller	Radeon™ VEGA GPU with up to 11 compute units. Supports H.265[2] (10-bit) Decode and (8 bit) Encode, VP9 DecodeDirectX12, OpenGL 4.6 and EGL 1.4
	VRAM	Shared system memory, 2 GB and above, total system memory shared 1 GB maximum video memory
	Display Port	Four DP++ 1.4 ports supporting 4K displays, one port with HBR3 8K support
	Features	HBR3, HDR, AMD Freesync, Windows MPO
Ethernet	Interface	10/100/1000 Mbps
	Controller	Two GbE LAN, (PXE boot supported, BIOS Enable/Disable selectable)
	Connector	2 x RJ-45
SATA	Max Data Rate	600 MB/s (SATA 3.0)
	SATA/C-Fast	2 x SATA 3.0, 2 x C-FAST (Jumper select any two SATA devices)
IO Panel	DP/DP++	2 x dual connector (4 ports)
	LAN/USB	2 x USB/LAN towers containing 1 x Gigabit LAN & 2 x USB3.0/2.0, 1 Gigabit LAN & 2x USB2.0. (BIOS – can disable bootable USB devices)
	Audio	Audio jack tower (Mic-in, Line-out (L,R), Line-in(L,R))
	Serial	2 x (RS-232 full signal, supports 9 bit data) COM1 & COM2
	Power & Reset	Vertical Power and reset momentary pushbuttons
Internal Connector	USB	1x vertical USB 3.0 Type A, 2 x USB2.0 on an 8 pin 0.1" Connector
	Serial	1 x 20 pin 0.1" COM connector: 3 serial ports; COM3 – RS232 Tx/Rx/CCTalk, COM4 – TTL/RS232/ID003 Tx/Rx, COM5 – RS232/RS485
	SATA	2 x SATA 3.0 with locking slots, 2x SATA power 2 pin header (supports two devices, 3.3V/5V options at the time of manufacture)
	C-Fast	2 x CFast (Each C-fast/SATA selection is jumper selectable)
	M.2	1 x M.2 supporting up to M2280 form factor devices
	LPC	1 x pin header LPC bus for PORT80 debug
	Audio	1 x 0.1" pitch audio connector for Mic In, Line-In, and Line-out (Io-Z driver, > 32ohm load)
	BIOS	Proprietary BIOS module header for the field verifiable removable BIOS module, optional 1 x WSOIC clamshell
	DC Power	12 pin Minifit Jr 12V d.c. in power header with ATX control signals. Power and Reset header for remote control
	CPU Fan	4 pin PWM controlled 'smart fan' header
	Battery	CR2032 battery holder with off board solder hoops for an external battery connection
Embedded Microcontroller	PuC	Protected I²C port; Protected and precision RTC (+/- 2.5mins per year); Intrusion monitoring; Event logging; System health monitoring; Unique serial number; Power Up timer; Serially accessible using the WinPuC protocol via COM6
Watchdog Timer	Output	System reset, Programmable 1 ~ 255 sec/min
Security	TPM (standard)	Infineon SLB9660 (soldered).
	SoC & BIOS	AMD PSP, Platform Crypto acceleration, integrated DRM
Power Requirements	Input power	12VDC single rail, or ATX power supply (v2.3 or newer with zero minimum load).
Environment	Temperature Operating:	0 ~ 50° C, (depends on CPU speed and cooler solution) Non-Operating: -40 ~ 85° C (-40 ~ 185° F)
Software	OS	Windows 10, Linux
Physical Characteristics	Dimensions	Modified "Mini-ITX" - 170 mm x 185 mm (6.69" x 7.28"). Standard width, mounting holes, I/O plate and slot locations. Extended length.