MS-9988

COM Express Type 6 Carrier Board

Industrial Computer

COM Express Board

Pico-ITX Board

3.5" Board

EPIC Board

Mini-ITX Board

Micro-ATX Board

ATX Board

Peripheral

Specifications

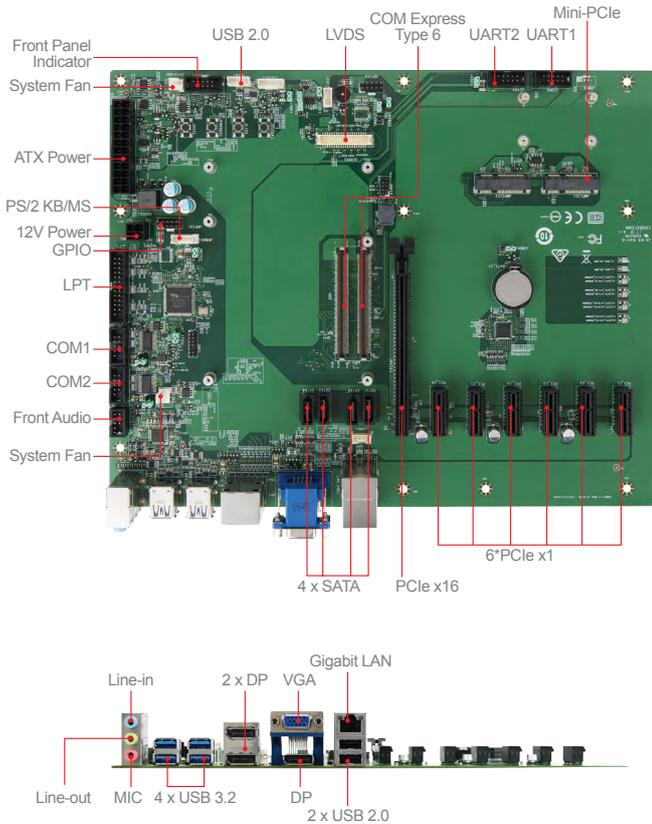| Processor	CPU	N/A
	BIOS	AMI
Display	Controller	N/A
	LVDS	Dual-channel 24-bit (depends on module board)
	VGA	1
	DisplayPort	3
	Multiple Display	3 independent displays
	Display Interface	Depends on module board
Ethernet	Controller	1 x RJ45 for COM Express module board
Audio	Controller	Realtek® ALC887 HD Audio Codec
Super I/O	Controller	Fintek F81866
H/W Monitor	Watchdog Timer	256-level Watchdog Timer
	Smart Fan	Yes
TPM	Controller	Pin header
I/O Interface	USB	4 x USB 2.0 (2 x rear, 2 x internal) 4 x USB 3.2 Gen 1 (rear)
	Serial	2 x COM ports COM1 RS-232/422/485, 0V/5V/12V COM2 RS-232, 0V/5V/12V 2 x UART ports (From COM Express module board)
	Parallel	1
	PS/2	1 (wafer connector)
	GPIO	8-bits (4 x GPI; 4 x GPO), 5V
Expansion Slot	PCIe x16	1
	PCIe x1	6
	M.2	N/A
	Mini-PCIe	2 x Full-size
Storage	SATA	4 x SATA
Power Supply	DC	N/A
	ATX	ATX-24P, 12V-4P
Environment	Operating Temperature	0 ~ 60°C
	Operating Humidity	10 ~ 90%, non-condensing
	Storage Temperature	-20 ~ 80°C
	Storage Humidity	10 ~ 90%, non-condensing
Form Factor	Dimensions (W x D x H)	305 x 244mm (ATX)
	Weight	0.60 kg
Certification	EMC	FCC, CE, RCM, VCCI, BSMI
Software Platform	OS Support	Depends on CPU Module Board

Features

- Triple independent displays: VGA, 3 DP, LVDS
- GbE LAN with RJ-45
- 1 PCIe x16, 6 PCIe x1, 2 Mini-PCIe (Full/Half size)
- 4 SATA 3.0 for storage
- 4 USB 3.2 Gen 1, 4 USB 2.0, 2 COM
- iAMT 11.x, SMBus

Ordering Information

Part Number	Description
919-9988-002	MS-9988 20 COM Express Carrier M/B, 1*PCIe x16, 6*PCIe x1, 2*Mini-PCIe, 3*DP, 1*VGA, 1*LVDS, 4*SATA3.0, 1*LAN, 4*USB3.0, 1*USB 2.0, 2*COM, 2*UART

Packing List

Part Number	Description	Quantity
K14-1018004-V03	COM port cable, 510mm	1
K18-1025011-V03	Parallel port cable, 300mm	1
K1D-1008261-V03	SATA Cable, 500mm	1