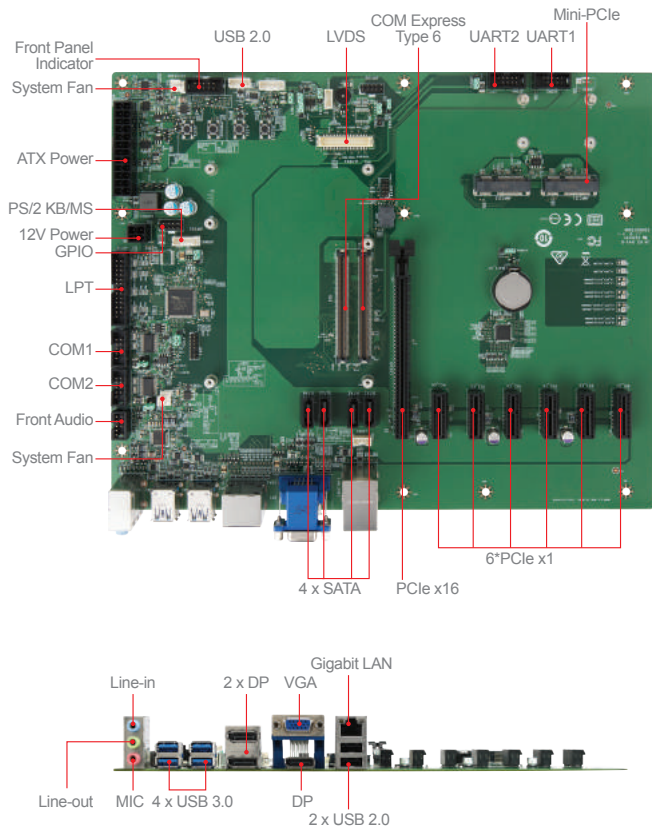


# MS-9988

## COM Express Type 6 Carrier Board



### Features

- Supports VGA, LVDS, and 3 DP ports
- 1 RJ45 for COM Express module board
- 4 USB 3.0, 4 USB 2.0, 2 COM ports and 2 UART
- Supports 4 SATA ports, 6 PCIe x1, 2 Mini-PCle, and PCIe x16

### Ordering Information

Part Number	Description
919-9988-002	MS-9988 20 COM Express Carrier M/B, 1*PCle x16, 6*PCle x1, 2*Mini-PCle, 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
K14-1018004-V03	COM port cable, 510mm
K18-1025011-V03	Parallel port cable, 300mm
K1D-1008261-V03	SATA Cable, 500mm

### Specifications

<b>Processor</b>	CPU	N/A
	BIOS	AMI
<b>Display</b>	Controller	N/A
	LVDS	Dual channel 24-bit (depends on module board)
	VGA	1
	DisplayPort	3
	Multiple Display	3 independent displays
<b>Ethernet</b>	Controller	1 x RJ45 for COM Express module board
	Controller	Realtek® ALC887 HD Audio Codec
<b>Super I/O</b>	Controller	Fintek F81866
	Watchdog Timer	256-level Watchdog Timer
<b>H/W Monitor</b>	Smart Fan	Yes
	Controller	Pin header
<b>I/O Interface</b>	USB	4 x USB 3.0 (4 x rear) 4 x USB 2.0 (2 x rear; 2 x internal)
	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
	PCle x16	1
<b>Expansion Slot</b>	PCle x1	6
	M.2	N/A
	Mini-PCle	2 x Full-size
<b>Storage</b>	SATA	4 x SATA
	DC	N/A
<b>Power Supply</b>	ATX	ATX-24P, 12V-4P
	Operating Temperature	0 ~ 60°C
<b>Environment</b>	Operating Humidity	10 ~ 90%, non-condensing
	Storage Temperature	-20 ~ 80°C
	Storage Humidity	10 ~ 90%, non-condensing
<b>Form Factor</b>	Dimensions (W x D x H)	305 x 244mm (ATX)
	Weight	0.60 kg
<b>Certification</b>	EMC	FCC, CE, RCM, VCCI, BSMI
	OS Support	Depends on CPU Module Board