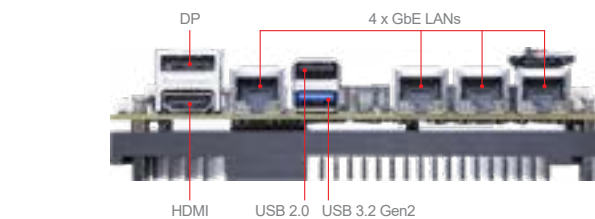
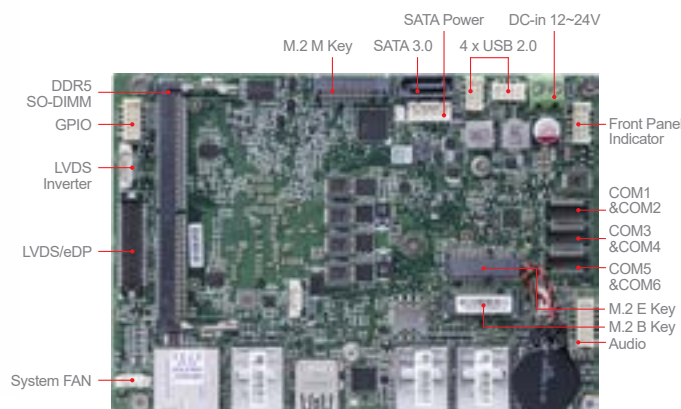


MS-CF27

3.5" SBC with Intel® Alder Lake-N, Twin Lake-N & Amston Lake for Fanless, Ultra Low-Power, Wide Voltage Range & High-Performance Solution



Features

- Intel® Alder Lake-N, Amston Lake, Twin Lake-N PC Client & Embedded Series SoC
- DDR5 4800 MHz SODIMM slot up to 32GB
- Triple independent displays: DP, HDMI, LVDS/eDP
- 4 1 GbE LAN with RJ-45
- 1 M.2 B Key, 1 M.2 E Key slot
- 1 M.2 M Key, SATA 3.0 for storage
- 1 USB 3.2 Gen 2, 5 USB 2.0, 6 COM (2 RS-485), GPIO, Audio
- Wide Voltage DC-IN 12~24V

Ordering Information

Part Number	Description
916-CF27-001	CF27MS-CF27/606-CF27-010/806-CF27-001/STD MS-CF27 10 Intel Amston Lake X7433RE, 1*DDR5 SO-DIMM, 1*DP+1*HDMI+1*LVDS+1*eDP, 1*M.2 M Key, 4*1GbE LAN, 1*SATA 3.0, 1*USB 3.2, 5*USB 2.0, 6*COM, HD Audio, DC 12-24V, 3.5 inch MS-CF27/MS-CF27/606-CF27-020/806-CF27-002 STD MS-CF27 VER 0A OPT A INTEL ALDER LAKE-N i3-N305, 1*DDR5 SO-DIMM, 1*DP+1*HDMI+1*LVDS+1*eDP, 1*M.2 M Key, 4*1GbE LAN, 1*SATA 3.0, 1*USB 3.2, 5*USB 2.0, 6*COM, HD AUDIO, TPM2.0, DC 12-24V, 3.5 INCH SINGLE
916-CF27-002	MS-CF27/MS-CF27/606-CF27-030/806-CF27-003/STD MS-CF27 VER 0A OPT B INTEL TWIN LAKE N150, 1*DDR5 SO-DIMM, 1*DP+1*HDMI+1*LVDS+1*eDP, 1*M.2 M Key, 4*1GbE LAN, 1*SATA 3.0, 1*USB 3.2, 5*USB 2.0, 6*COM, HD AUDIO, TPM2.0, DC 12-24V, 3.5 INCH SINGLE
916-CF27-003	MS-CF27/MS-CF27/606-CF27-040/806-CF27-004/STD MS-CF27 VER 10 OPT C INTEL ALDER LAKE-N 7425E, 1*DDR5 SO-DIMM, 1*DP+1*HDMI+1*LVDS+1*eDP, 1*M.2 M Key, 4*1GbE LAN, 1*SATA 3.0, 1*USB 3.2, 5*USB 2.0, 6*COM, HD AUDIO, DC 12-24V, 3.5 INCH SINGLE
916-CF27-004	

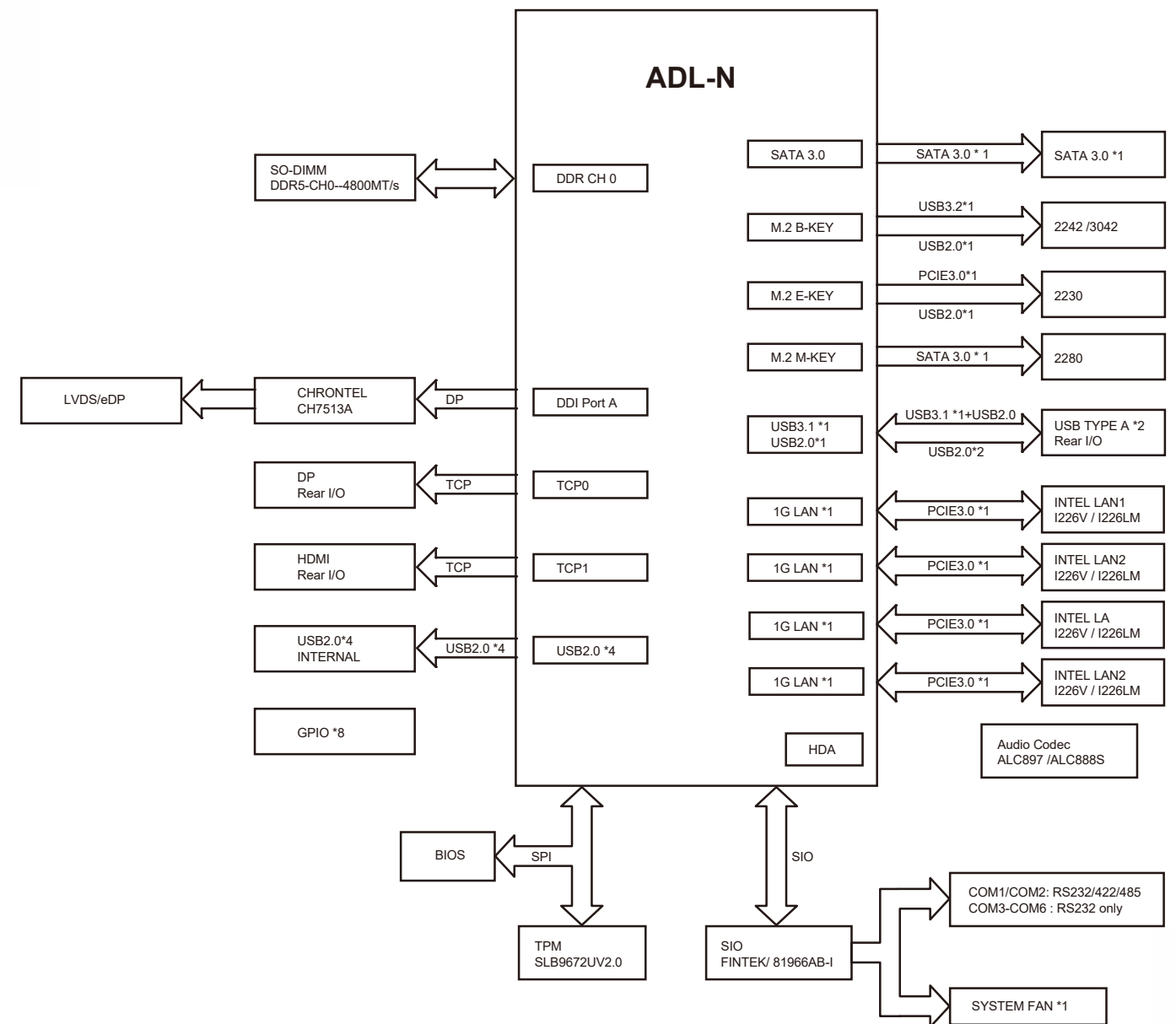
Packing List

Part Number	Description	Quantity
K1D-1012115-V03	SATA Cable with Power, 230mm	1
K1G-3002031-V03	Power cable DC to DC, 150mm	1
K14-3018001-V03	COM port cable, 150mm	1
K1B-3008067-V03	USB Cable, 150mm	1

Specifications

Processor	CPU	Intel® Alder Lake-N x7425E, QC, 12W Intel® Alder Lake-N Core i3-N305, 8C, 15W Intel® Amston Lake x7433RE, QC, 9W Intel® Twin Lake-N Processor N150, QC, 6W
	Frequency	x7425E, 1.5GHz, up to 3.4GHz i3-N305, 1.8GHz, up to 3.8GHz x7433RE, 1.5GHz, up to 3.4GHz N150, 0.8GHz, up to 3.6GHz
	L2 Cache	6MB
	CPU Type	BGA
Memory	Chipset	Integrated in SoC
	BIOS	AMI
	Technology	Single Channel for DDR5 4800MT/s
	Max. Capacity	Up to 16GB (i3-N305, N150) Up to 32GB (x7425E, x7433RE)
Display	Socket	1 x 262-pin SO-DIMM
	Controller	Intel® UHD Graphics
	Graphic Memory	Depends on CPU
	LVDS	1 x Dual Channel 18/24-bit
Ethernet	eDP	1 x eDP (Connector shared with LVDS)
	VGA	N/A
	DVI	N/A
	HDMI	1
Audio	DisplayPort	1
	Multiple Display	3 independent displays
	Display Interface	LVDS up to 1920 x 1200 @60Hz eDP up to 1920 x 1080 @ 60Hz HDMI up to 3840 x 2160 @30Hz DP up to 4096 x 2304 @60Hz
	Controller	4 x Intel® I226-V 1 GbE LAN
Super I/O	Controller	Realtek® ALC897 HD Audio Codec
	Controller	Fintek F81966AB-I
	Watchdog Timer	256-level Watchdog Timer
	Smart Fan	Yes
H/W Monitor	Controller	N/A
	Controller	N/A
TPM	USB	4 x USB 2.0 (internal) 1 x USB 2.0 (rear) 1 x USB 3.2 Gen 2 (rear)
	Serial	6 x COM ports (internal) COM1~2: RS-232/422/485 COM3~6: RS-232
	Parallel	N/A
	PS/2	N/A
I/O Interface	GPIO	8-bit (8 x GPIO), 5V
	PCIe x 16	N/A
Expansion Slot	M.2	1 x M.2 M key (SATA), 2280 1 x M.2 B key (USB 3.2 Gen1), 3042 1 x M.2 E key (PCIe x1, USB 2.0), 2230
	Mini-PCIe	N/A
Storage	SATA	1 x SATA 3.0
	mSATA	N/A
	DC	DC-in 12~24V
	ATX	N/A
Power Supply	Operating Temperature	-10 ~ 60°C Note: Thermal w/ Airflow: 0.7m/s
	Operating Humidity	10 ~ 90%, non-condensing
	Storage Temperature	-20 ~ 80°C
	Storage Humidity	10 ~ 90%, non-condensing
Environment	Dimensions	146 x 102 mm (3.5")
	Weight	0.58 kg
Form Factor	CE, FCC Class B, BSMI, VCCI, RCM, UKCA	
	EMC	
Certification	OS Support	Windows 10 IoT Enterprise LTSC (64-bit, 21H2, only for ADL-N) Windows 11 IoT Enterprise LTSC (64-bit, 24H2) Linux (Support by request)
	Software Platform	

Block Diagram



msi

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