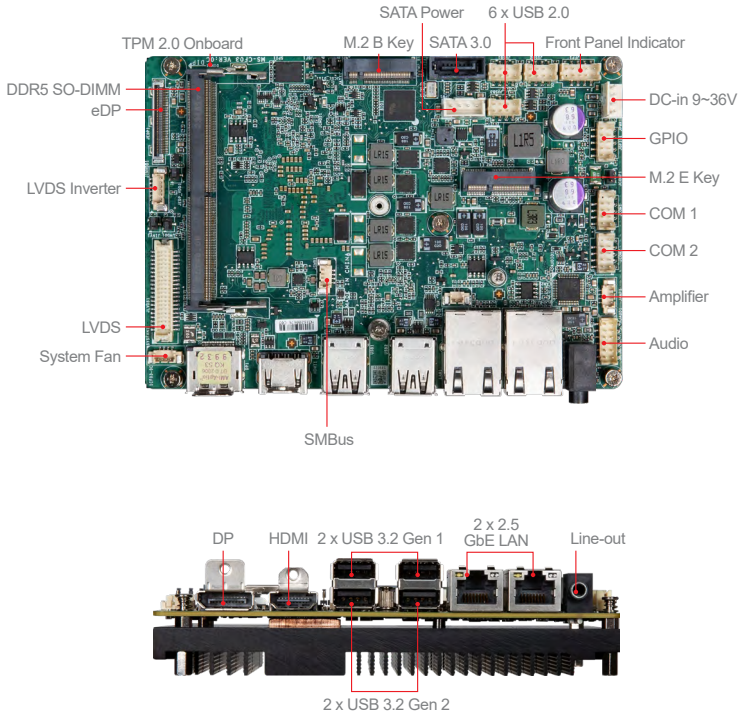


# MS-CF03

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

NEW



## Features

- Intel® Alder Lake-N PC Client & Embedded Series SoC
- DDR5 4800 MHz SODIMM Slot up to 16GB
- Triple independent displays: DP, HDMI, LVDS, eDP
- 2 2.5 GbE LAN with RJ-45
- 1 M.2 B Key, 1 M.2 E Key Slot
- SATA 3.0 for storage
- 2 USB 3.2 Gen 2, 2 USB 3.2 Gen 1, 6 USB 2.0, 2 COM (1 RS-485), GPIO, Audio, Amplifier-6W
- Wide Voltage DC-IN 9~36V

## Ordering Information

Part Number	Description
911-CF03-001	MS-CF03\601-CF03-010\801-CF03-010 10 STD, Intel ADL-N N97, 1*DDR5 SO-DIMM, 1*DP+1*HDMI+1*LVDS+1*eDP, 1*M.2 E key, 1*M.2 B key, 2*2.5GbE LAN, 1*SATA 3.0, 4*USB 3.2, 6*USB 2.0, 2*COM, TPM2.0, DC 9-36V, 3.5 inch
911-CF03-002	MS-CF03\601-CF03-020\801-CF03-011 10 OPT:A, Intel ADL-N Core i3-N305, 1*DDR5 SO-DIMM, 1*DP+1*HDMI+1*LVDS+1*eDP, 1*M.2 E key, 1*M.2 B key, 2*2.5GbE LAN, 1*SATA 3.0, 4*USB 3.2, 6*USB 2.0, 2*COM, TPM2.0, DC 9-36V, 3.5 inch
911-CF03-003	MS-CF03\601-CF03-030\801-CF03-012 10 OPT:B, Intel ADL-N Atom x7425E, 1*DDR5 SO-DIMM, 1*DP+1*HDMI+1*LVDS+1*eDP, 1*M.2 E key, 1*M.2 B key, 2*2.5GbE LAN, 1*SATA 3.0, 4*USB 3.2, 6*USB 2.0, 2*COM, TPM2.0, DC 9-36V, 3.5 inch
911-CF03-004	MS-CF03\601-CF03-040\801-CF03-013 10 OPT:C, Intel ADL-N N200, 1*DDR5 SO-DIMM, 1*DP+1*HDMI+1*LVDS+1*eDP, 1*M.2 E key, 1*M.2 B key, 2*2.5GbE LAN, 1*SATA 3.0, 4*USB 3.2, 6*USB 2.0, 2*COM, TPM2.0, DC 9-36V, 3.5 inch

## Packing List

Part Number	Description	Quantity
K14-1009062-V03	COM Port Cable, 250mm	1
K1G-3004069-V03	DC Power Cable, 150mm	1
K1D-1012115-V03	SATA Cable with Power, 230mm	1
K1B-3008067-V03	USB Cable, 150mm	1

## Optional Item

Part Number	Description
E31-0807460-K08	Heatspreader

## Specifications

<b>System Processor</b>	CPU	Intel® IOTG Alder Lake-N Processor N97, QC, 12W Intel® IOTG Alder Lake-N Processor N200, QC, 6W Intel® IOTG Alder Lake-N Core i3-N305, OC, 9W up to 15W Intel® IOTG Alder Lake-N Atom x7425E, QC, 12W
	Frequency	N97, 2.0GHz, up to 3.6GHz N200, 1.0GHz, up to 3.7GHz i3-N305, 1.8GHz, up to 3.8GHz x7425E, 1.5GHz, up to 3.4GHz
	L2 Cache	6MB
	CPU Type	BGA
	Chipset	Integrated in SoC
	BIOS	AMI
<b>Memory</b>	Technology	Single Channel for DDR5 4800MHz
	Max. Capacity	Up to 16GB
	Socket	1 x 262-pin SO-DIMM
<b>Display</b>	Controller	Intel® UHD Graphics
	Graphic Memory	Depends on CPU
	LVDS	1 x Dual Channel 18/24-bit
	eDP	1 x eDP
	VGA	N/A
	DVI	N/A
	HDMI	1
	Display Port	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
<b>Ethernet</b>	Controller	2 x Intel® I225-V 2.5 GbE LAN
<b>Audio</b>	Controller	Realtek® ALC897 HD Audio Codec
<b>Super I/O</b>	Controller	Fintek F81966AB-I
<b>H/W Monitor</b>	Watchdog Timer	256-level Watchdog Timer
	Smart Fan	Yes
<b>TPM</b>	Controller	Infineon SLB9672VU.2.0
<b>I/O Interfaces</b>	USB	6 x USB 2.0 (internal) 2 x USB 3.2 Gen 2 (rear) 2 x USB 3.2 Gen 1 (rear)
	Serial	2 x COM ports (internal) COM1: RS-232/422/485, 0V/5V/12V COM2: RS-232
	Parallel	N/A
	PS/2	N/A
	GPIO	8-bit (4 x GPI; 4 x GPO), 5V
<b>Expansion Slot</b>	PCIe x16	N/A
	PCIe x8	N/A
	PCIe x4	N/A
	PCIe x1	N/A
	PCI	N/A
	M.2	1 x M.2 B key (SATA/PCIe x1), 2242/3042/2280 1 x M.2 E key (PCIe x1, USB 2.0), 2230
	Mini-PCIe	N/A
<b>Storage</b>	SATA	1 x SATA 3.0
	IDE	N/A
	eSATA	N/A
	CFast	N/A
	mSATA	N/A
<b>Power Supply</b>	DC Input	DC-in 9~36V
	AC Input	N/A
<b>Environment</b>	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
	Dimensions (W x D x H)	146 x 102 mm (3.5")
<b>Form Factor</b>	Weight	0.58 kg
	<b>Certification</b>	EMC CE, FCC Class B, BSMI, VCCI, RCM, UKCA
<b>Software Platform</b>	OS Support	Windows 10 IoT Enterprise LTSC (64-bit, 21H2) Windows 11 IoT Enterprise (64-bit, 22H2, Pre-scan) Linux Kernel 5.xx Ubuntu 22.04.1 LTS (64-bit) (by request)