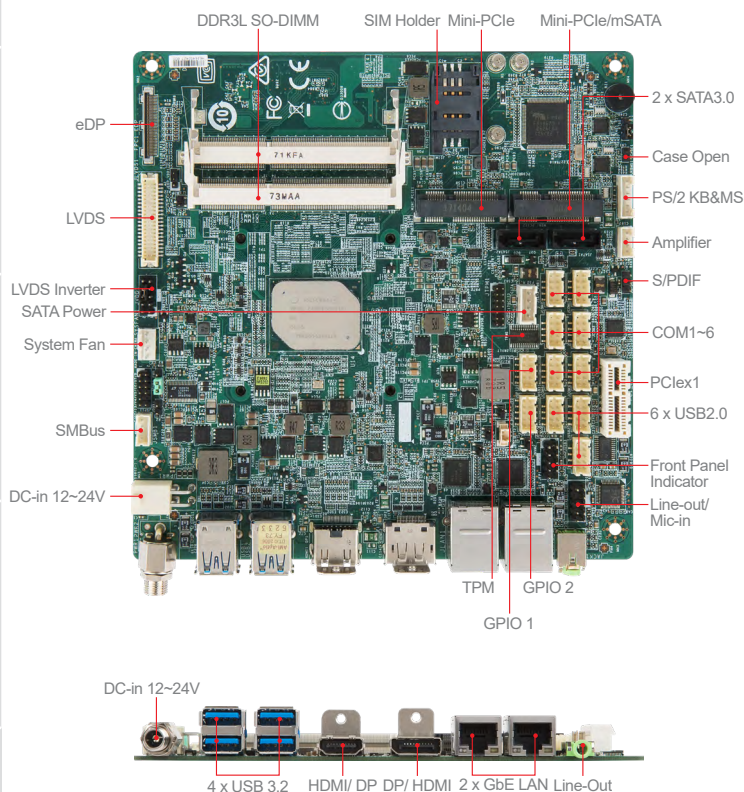




Features

- Intel® Apollo Lake/Apollo Lake-I Series SoC
- 2 DDR3L 1866 MHz SODIMM slots up to 8GB
- Triple independent displays : DP, HDMI, LVDS/eDP
- 2 GbE LAN with RJ-45
- 1 PCIe x1 (Gen 2), 1 Mini-PCle (Full/Half size, with SIM Holder), 1 Mini-PCle (Full size, with mSATA) slots
- mSATA, 2 SATA 3.0 for storage
- 4 USB 3.2 Gen 1, 6 USB 2.0, 6 COM (2 RS-485), GPIO, PS/2, Audio, S/PDIF, System FAN
- Onboard TPM 2.0
- SMBus, Chassis Intrusion
- Wide operating temperature : -40~85°C (by option)
- Wide Voltage DC-IN 12~24V

Ordering Information

Part Number	Description
Please check MSI IPC website at http://ipc.msi.com for details.	

Packing List

Part Number	Description	Quantity
K14-1018003-V03	COM Port Cable, 300mm	1
K1D-1012115-V03	SATA Cable with Power, 230mm	1
E21-9892010-C22	I/O SHIELDING	1

Specifications

		SKU1	SKU2
		Intel® Pentium® Processor N4200, QC, 6W Intel® Celeron® Processor N3350, DC, 6W Intel® Celeron® Processor J3455, QC, 10W Intel® Atom™ x5 Processor E3940, QC, 9W	Intel® Atom™ x5 Processor E3940, QC, 9W Intel® Atom™ x5 Processor E3930, DC, 6W
System Processor	CPU		
	Frequency	N4200, 1.1 GHz, up to 2.5 GHz N3350, 1.1 GHz, up to 2.4 GHz J3455, 1.5 GHz, up to 2.3 GHz E3940, 1.6 GHz, up to 1.8 GHz	E3940, 1.6 GHz, up to 1.8 GHz E3930, 1.3 GHz, up to 1.8 GHz
	L2 Cache	1MB~2MB (Depends on CPU)	
	CPU Type	BGA	
	Chipset	Integrated in SoC	
Memory	BIOS	AMI	
	Technology	Dual-channel DDR3L 1866 MHz	
	Max. Capacity	Up to 8 GB	
Display	Socket	2 x 204-pin SO-DIMMs	
	Controller	Intel® HD Graphics	
	Graphic Memory	Depends on CPU	
	LVDS	1 x Dual channel 18/24-bit	
	eDP	1 (co-layer with LVDS)	
	HDMI	1 (co-layer with DP)	
	DisplayPort	1 (co-layer with HDMI)	
	Multiple Display	3 independent displays	
	Display Interface	LVDS up to 1920 x 1200 @60 Hz	
		eDP up to 4096 x 2160 @60Hz HDMI up to 3840 x 2160 @30Hz DP up to 4096 x 2160 @60Hz	
Ethernet	Controller	2 x Intel® I211-AT GbE LAN	2 x Intel® I210-IT GbE LAN
Audio	Controller	Realtek® ALC887-VD2-CG HD Audio Codec	
Super I/O	Controller	Fintek F81867D-I	
H/W Monitor	Watchdog Timer	256-level Watchdog Timer	
	Smart Fan	Yes	
TPM	Controller	Infineon SLB9665TT 2.0	Infineon SLB9665XT 2.0
I/O Interfaces	USB	6 x USB 2.0 (internal) 4 x USB 3.2 Gen 1 (rear)	
	Serial	6 x COM ports (internal) COM1/2: RS-232/422/485, 0V/5V/12V COM3~6: RS-232, W/O Power	
	Parallel	N/A	
	PS/2	1 (pin header)	
	GPIO	GPIO 1: 8-bits (4 x GPI; 4 x GPO), 3.3V GPIO 2: 8-bits (4 x GPI; 4 x GPO), 5V	
	PCIe x1	1	
Expansion Slot	M.2	N/A	
	Mini-PCle	2 x Full-size (one w/SIM holder & one w/mSATA)	
Storage	SATA	2 x SATA 3.0 (SATA2 share with mSATA)	
	mSATA	1 (shared w/SATA2)	
Power Supply	DC	DC-in 12V~24V	
	ATX	N/A	
Environment	Operating Temperature	-10 ~ 60°C Note: Thermal w/ Airflow:0.7m/s	-40 ~ 85°C Note: Thermal w/ Airflow:0.7m/s
	Operating Humidity	10 ~ 90%, non-condensing	
	Storage Temperature	-20 ~ 80°C	-40 ~ 85°C
	Storage Humidity	10 ~ 90%, non-condensing	
Form Factor	Dimensions (W x D x H)	170 x 170 mm (Mini-ITX)	
	Weight	0.38 kg	0.45 kg
Certification	EMC	FCC, CE, RCM, VCCI, BSMI	
Software Platform	OS Support	Windows 10 IoT Enterprise LTSC/SAC 1809 (64-bit, RS5) Linux (Support by request)	