

C381ES-IM-AA

3.5" form factor, Intel® Core™ i3-8145UE Processor, DDR4 SO-DIMM, DP, HDMI, LVDS, Dual-LAN, Multiple COM, 12-24V DC

Features

- Up to 6 COM ports, includes 2 x RS-232/422/485
- Supports 3 display configuration by multiple interface: DP/HDMI/LVDS
- Supports I2C, SMBus and GPIO
- Wide temperature range endurance: -20~60 °C



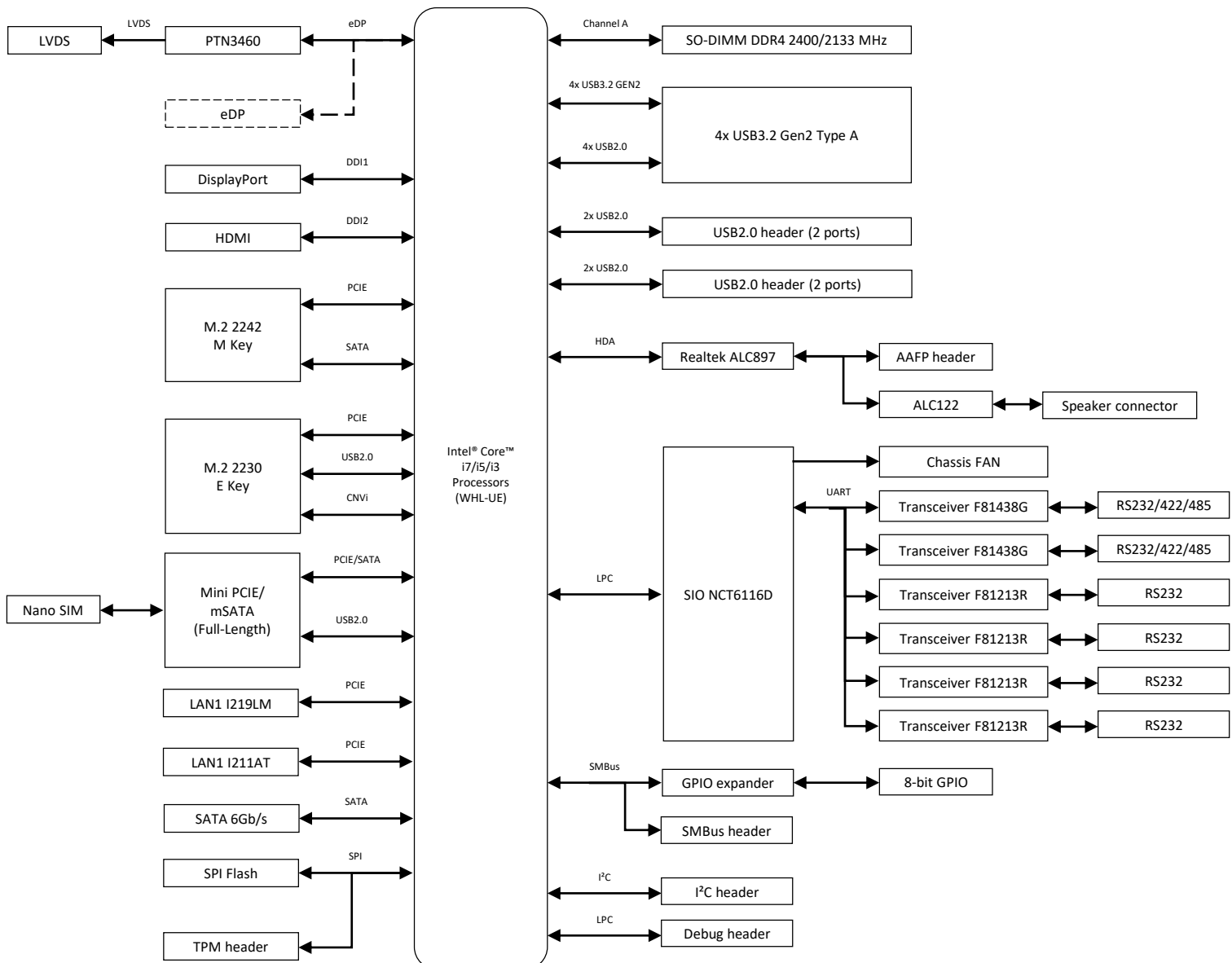
Specifications

Processor System	CPU	Intel® Core™ i3-8145UE Processor (SoC) ,non-ECC, un-buffered memory
	Base Frequency	2.2GHz Dual-core
	L2 Cache	4MB
	Chipset	Integrated
Memory	Technology	DDR4 2400/2133 MHz
	Max.	32GB
	Socket	1 x SO-DIMM
Display	Controller	Intel UHD Graphics 620
	HDMI	1, Supports HDMI 1.4 up to 4096 x 2160 @ 24 Hz
	Display Port	1, Supports DP 1.2a up to 4096 x 2304 @ 60 Hz
	LVDS	1, Supports 24 bits up to 1920 x 1200 @ 60Hz (colay with eDP)
	Embedded Display Port	1, Supports up to 4096 x 2304 @ 60Hz (colay with LVDS, reserved and support by request)
Expansion Slot	Mini PCIe	1 x Full-Length Mini PCIe slot with on-board Nano-SIM socket
	M.2	1 x M.2 Socket 1 with E key, type 2230 for WIFI/BT device and Intel® CNVi 1 x M.2 Socket 3 with M key, type 2242(PCIe & SATA mode)
Ethernet	Speed	10/100/1000Mbps
	Controller	1 x Intel® i219LM, supports WOL/PXE 1 x Intel® i211AT, supports WOL/PXE
	Connector	2 x RJ-45
Audio	Codec	Realtek ALC897-VA2 High Definition Audio
Storage	SATA port	1 x SATA Gen 3.0, up to 6Gb/s
	mSATA	1 x Full-size (shared with Mini PCIe slot)
Rear I/O	Display Port	1
	HDMI	1
	USB3.2 gen2	4
	Ethernet	2
Internal Connector	Serial Port	6 x header (2 x RS232/422/485, 4 x RS232)
	USB2.0	2 x header support additional 4 x USB2.0 connectors
	Chassis fan header	1
	Chassis intrusion header	1
	Front panel audio header (AAFP)	1
	Internal speaker header	1 (4-pin, 3 Watt/Channel Amplifier IC)
	System panel header	1
	Clear CMOS jumper	1
	SATA power header	1(4-pin)
	LPC Debug header	1
	GPIO header	1 (8 bit)
	SMBus header	1
	I ² C header	1
	power connector	1 x 4-pin ATX power connector

Specifications

Watchdog Timer	H/W	Yes
Security	TPM	1 x SPI TPM header
Power	Power Type	DC input
	Voltage	12-24V DC input
Operating System	Microsoft Windows	Windows® 10 (64bit) / Win10 IoT Enterprise
	Linux	Ubuntu, RedHat Enterprise, Fedora Workstation, OpenSUSE
Environment	Operating Temperature	-20~60° C
	Non-Operating Temperature	-40~85° C
	Relative Humidity	Operational humidity: 40°C@5%~95%
Dimension	Form Factor	3.5 ", 146 x 105 mm
Certification	EMC	CE, FCC, CCC

Block Diagram



Order Information

Model name	Part number	Description
C381ES-IM-AA	90ME03K0*	i3-8145UE,MINI PCIE,DUAL LAN,MB
C381ES-IM-AA	90ME03K1*	i3-8145UE,WITH HEAT SINK_15W,MB
C381ES-IM-AA	90ME03K2*	i3-8145UE,WITH HEAT SPREADER,MB

* The part number might vary for different regulations and package. Please consult the TPM in your region for exact 90PN.

Packing List

Part number	Description	Quantity
14013*	SATA 6G CABLE	1

* The part number might vary due to part number revision.

Optional Accessories

Part number	Description	Quantity
13071*	HEAT SPREADER, WITH SPRING SCREW PACK (5pcs)	1
13ME* (Compatible with M3.0mm screw)	HEAT SINK_15W, WITH SPRING SCREW PACK (5pcs), SIDE SCREW PACK (12pcs)	1

* The part number might vary due to part number revision.

* The optional accessories can be configured with SBC by case. Please refer to Order Information and contact the TPM in your region if needed.