

PE100A

NXP® i.MX 8M ARM Cortex-A53 core, 4GB LPDDR4, 16G eMMC, HDMI, Dual LAN, 1*M.2 2230 E-key socket, 1*Mini-PCIe socket, 1*nano SIM Card Slot, 3*USB 3.2 Gen 1

Features

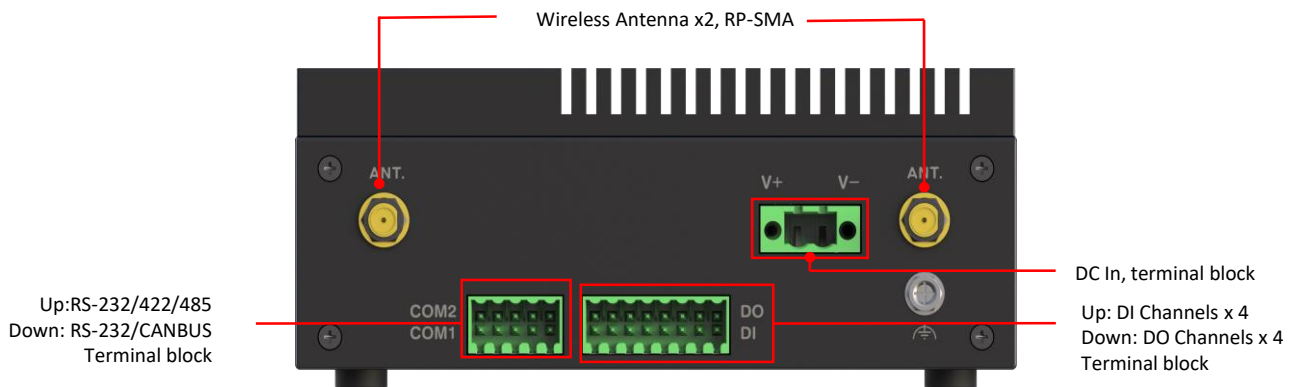
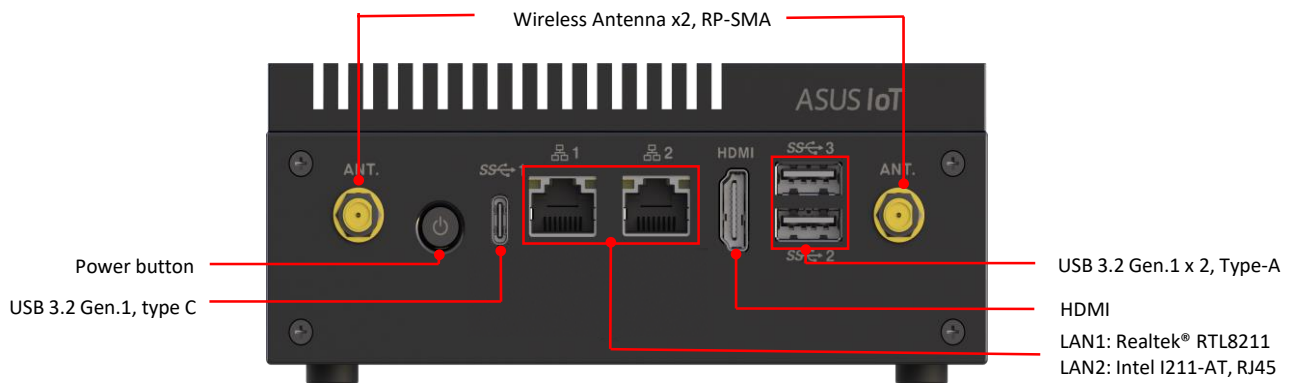
- Certified with RF Regulation: LTE (CE-RED) / Wi-Fi (CE, FCC, VCCI, BSMI, JATE)
- 16GB on board eMMC, Mini PCIe slot for storage capacity
- Compact size gateway with low power consumption and scalable processor for diverse IoT applications
- Support Linux Yocto OS
- Wide Operating Temperature Range: -20~60°C



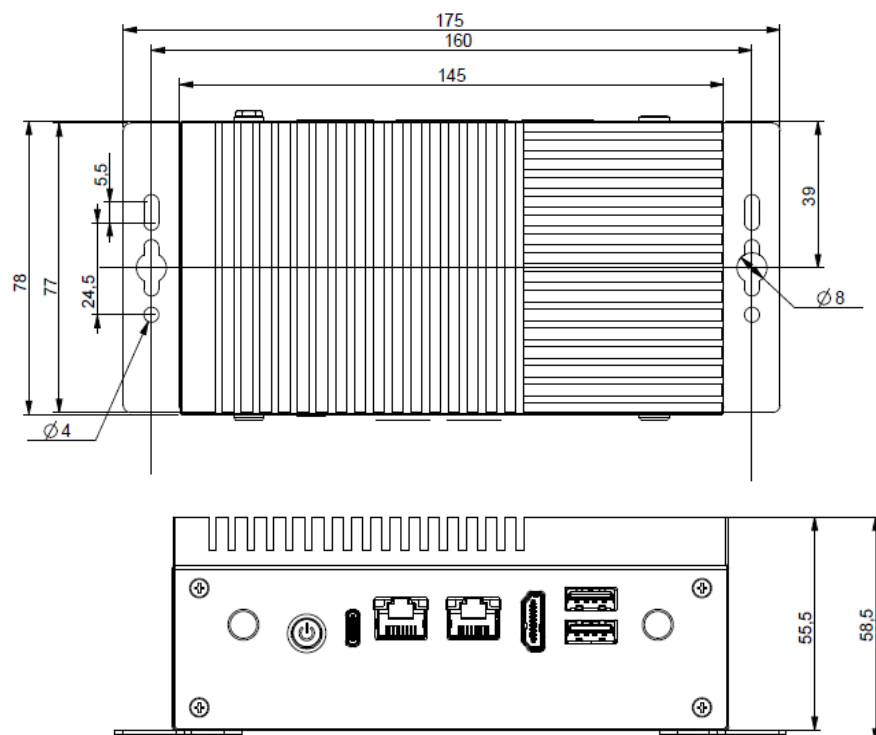
Specifications

System	CPU	NXP® i.MX 8M ARM Cortex-A53 Quad core, 1.3 GHz
	Memory	4 GB LPDDR4 onboard
	OS Storage	16 GB eMMC onboard
Wired Interfaces	Video	1 x HDMI 2.0, supports up to 3840 x 2160 @60Hz
	Ethernet	2 x 10/100/1000 Mbps, RJ45
		1 x Realtek® RTL8211, supports WOL
		1 x Intel I211-AT, supports WOL
	USB	2 x USB 3.2 Gen.1, Type-A 1 x USB 3.2 Gen.1, supports OTG, Type-C
	COM	1 x RS-232/422/485 1 x RS-232/CANBus, 2 x 5 terminal block
Wireless Interfaces	DIO	4 x DI, 4 x GND, 2.5 KV optical isolation 4 x DO, 4 x GND, 10KV relay isolation, 2 x 8 terminal block
	Wi-Fi	1 x M.2 2230 E-key socket, supports 802.11 a/b/g/n/ac + BT 4.2 module
	SIM	1 x nano-SIM slot
Expansion Slot	mPCIe	1 x mPCIe socket, supports SATA or USB signal for mSATA/LTE/Google TPU module (Can support single TPU module after validation, 2022/02)
	M.2 E key	1 x M.2 2230 E key socket, supports PCIe or USB signal for Wi-Fi/BT
Storage	Micro SD	1 x Micro SD Card slot (onboard)
	mSATA	1 x full/half mini-PCIe with SATA
Power	Power	12 to 24 V DC, 2-pin terminal block
Mechanical	Mounting	Wall mount/ Din Rail
	Dimensions	55.5(H) x 145(W) x 78(D) mm
	Weight	0.775 KG
Environment	Operating Temp.	-20~60°C with wide temperature parts, fanless
	Storage Temp.	-40~85°C
	Relative Humidity	5 to 95% (non-condensing)
	EMC	CE(ITE), FCC, VCCI,BSMI, RCM, CCC
	RF Regulation	LTE: CE-RED Wi-Fi: CE, FCC, VCCI, BSMI, JATE
	Safety	UL,CB, CCC, BSMI, CE
	Vibration	Operating: 0.21Grms, 5~500 Hz, 20min duration
	Shock	Operating: 50 G, half sine 11ms duration
	Green	GA (RoHS)
Security	TPM header	Cooperate with TPM 2.0 powered by Nuvoton NCPT 750 (Optional)
Others	Watch dog timer	Yes. Set up by software
	Operating System	Linux Yocto

Appearance



Dimension (mm)



Ordering Information

90 P/N	CPU	DRAM	eMMC	TPM built-in	mPCIe socket	M.2 2230 E-key socket	Operating temperature
90AE0020*	NXP® i.MX 8M	4 GB	16 GB	optional	Built-in TPU or LTE module(EC25-AU)	Built-in TPU or Wi-Fi module	-20~60°C / 0~40°C

* The part number might vary for different regulations and package. Please consult the local sales representative for the exact 90PN.

Packing list

Description	Quantity
PE100A wall mount bracket	2

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

Optional Accessories

Part Number	Description
ADAPTER	
0A001-01050900	Power adapter, input voltage 100 to 264VAC, output voltage 12VDC with 2A DC load, 0 to 40°C operating temperature
POWER CORD	
14009-00021400	Power cord with United States (US) plug, 180cm
14009-00021000	Power cord with Europe (EU) plug, 180cm
14009-00021100	Power cord with China (CN) plug, 180cm
14009-00020600	Power cord with Japan (JP) plug, 180cm
14009-00020800	Power cord with Australia (AU) plug, 180cm
14009-00020900	Power cord with United Kingdom (UK) plug, 180cm
14009-00021000	Power cord with Korea (KR) plug, 180cm
14009-00020700	Power cord with Swiss (CH) plug, 180cm
14009-00021200	Power cord with Taiwan (TW) plug, 180cm
WIRELESS EXTENSION CABLE	
14012-00880000	External wireless extension cable, RP-SMA to RP-SMA, 60cm
4G LTE ANTENNA	
14008-03440000	Omni-directional rubber duck GPRS/EDGE/UMTS/HSPA/LTE antenna, 704 to 960MHz & 1710 to 2690MHz, 3.5 dBi, RP-SMA, antenna length 10cm
WI-FI ANTENNA	
14008-02990100	Omni-directional rubber duck Wi-Fi antenna, 2.4/5GHz, 2dBi, RP-SMA, antenna length 8.6cm
Terminal Blocks	
12031-00060300	2x5 terminal plugs
12031-00080300	2x8 terminal plugs
14026-00190000	Adapter cable terminal block 2 pin to DC, 10cm (without switch)

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