

Scalable T2G Onboard Gateway

AVA-1000

Datasheet

Features

- EN50155 compliant
- NXP i.MX8M Plus with Quad Cortex-A53
- Intel Atom® 7th Gen series Amston Lake
- Supports 3x 1GbE M12 LAN, 1x USB 3.0, 1x HDMI 2.0
- Supports multiple connectivity of 5G, WiFi 6 and GNSS
- Wide range 24-110VDC power input with ignition
- Fanless extended temperature OT4, ST1



Ordering Information

AVA-1000/iMX8MP/8G/64G, CC	Fan-less T2G gateway with NXP Quad core i.MX8M-PLUS NPU, 8 GB LPDDR4 , 64 GB eMMC, supporting 3x X-coded M12 GbE ports, DI/DO, RS-232, GNSS, 1x 5G Slot, 1x Wifi M.2 slot, 1x M.2 NVME storage slot
AVA-1000/x7433RE/8G/64G, CC	Fan-less T2G gateway Intel ASL x7433RE, 8GB LPDDR5, 64GB eMMC, supporting 3x X-coded M12 GbE ports, DI/DO, RS-232, GNSS, 2x 5G Slot, 1x Wifi M.2 slot, 1x M.2 NVME storage slot

Optional Accessories

AVA-1000 AC-DC power supply	100W AC-DC power adapter with A-coded connector
AVA-1000 A-coded power connector	1x M12 A-coded connector
AVA-1000 cable kit	1x M12 A-coded power cord, 3x M12 X-coded Ethernet cables

Specifications

Model	AVA-1000/x7433RE/8G/64G,CC	AVA-1000/iMX8MP/8G/64G,CC
System		
SMARC Processor	Intel Atom® x7433RE Quad-Core 1.5 GHz, 9W TDP	NXP i.MX8M Plus with Quad core ARM Cortex-A53
Memory/eMMC	LPDDR5 8 Gbyte soldered	LPDDR4L-4266 8GB soldered
BIOS	AMI® Aptio V	-
Ethernet	3x 1GbE via M12 X-coded	
DI/DO	4 DI/4 DO in 1x 2x6 terminal block	4 DI/4 DO in 1x 2x6 terminal block
COM	RS-232in 1x 2x6 terminal block RS-485	RS-232/422 in 1x 2x6 terminal block RS-485
Display	1x HDMI 1.4 1920 x 1080 @ 60Hz	
USB	1x USB 3.1 Gen1 5G Type A 1x USB 2.0 Micro USB	1x USB 3.1 Gen1 5G Type A
Reserved IO	I²C, CAN reserved upon request	
ARM Maintainance	-	Micro SD/UART to Micro USB console port Console/Micro-B/Dip switch Covered with lid for security purpose
Storage		
Storage	64GB eMMC	
	-	1x Micro SD slot for NXP image loading
	1 M.2-2242 M Key with PCIe Gen3 PCIe/NVME only	1 M.2-2242 M Key with PCIe Gen2 PCIe/NVME only
Connectivity		
Connectivity	2x M.2-3042/4052 B Key (USB 3.0+USB 2.0) 3042/52 for 5G/LTE	1x M.2-3042/4052 B Key (USB 3.0+USB 2.0) 3042/52 for 5G/LTE (CN1) 1x M.2-3042/3052 B Key (USB 3.0) 3042/52 for 5G/LTE(CN4)
	1x M.2-2230 E Key (PCIe Gen3/ USB 2) for WiFi and BT	1x M.2-2230 E Key (PCIe Gen2/ USB 2) for WiFi and BT
GNSS	GPS, Galileo, GLONASS, BeiDou supported by uBlox NEO-M8N	
QMA	6x antenna QMA for LTE	
	4x antenna QMA for Wifi	
	1x antenna QMA for GNSS	
SIM	4x Nano Sim card slots 2 Sim per one 5G modem	
Miscellaneous		
Indicator LEDs	1x Power/Reset LED (Green) 1x Watchdog LED (Yellow) 3x Ethernet Link LEDs (Green) 12x User define LEDs (Green)	
Reset Button	1x Reset button	
TPM	TPM 2.0	
Power input	24V to 110VDC nominal input on M12 A-coded connector Support EN50155 S2, C1. Configurable power ignition	
Power Consumption	TBD	

Specifications

Model	AVA-1000/x7433RE/8G/64G,CC		AVA-1000/iMX8MP/8G/64G,CC
Mechanical			
Material	Aluminium heatsink		
Cooling	Passive cooling Fan-less design Suggested air flow 0.6m/s		
Grounding screw	Stainless steel M6 20mm stud		
Mounting	Wall mount		
Ingress Protection	EN60529 IP40		
Dimensions	L: 220mm; W:130mm; H: 72.3mm		
Net Weight	2.025 kg with 2x modems, 1x Wifi, 1x NVME modules		
MTBF			
MTBF	TBD		TBD
PCB Coating	Coating PCBA		
CMOS Battery	MuRata CR2032X Battery by default		
Software			
BIOS	AMI® Aptio V UEFI BIOS		-
Operating System	Ubuntu Linux 22.04		Yacto Linux
Watchdog	1~255 sec. system reset		
Environment			
Operating Temperature	-40 °C to +70 °C, +85°C for 10 min (-40 °F to 158 °F , 185 °F for 10 min) acc. EN50155, class OT4, ST1		
Storage temperature	-40°C to +85°C		
Humidity	+25°C to +55 °C, 95 %		
EMC			
EMC	EN 50155:2021 Clause 13.4.9 EN 50121-3-2		
Safety			
Rolling stock	EN50155:2021		
Fire Protection	EN45545-2:2013+A1:2015 (HL 1-3) EL9 for PCB (R24 / R25) Exclude add on modules		

contact@steliau.fr ✉

steliau.fr 🌐

6 rue des Gémeaux, 94150, Rungis 📍

STELIAU
TECHNOLOGY - FRANCE
● ● ● ●

