

Processor

CPU	NXP i.MX8M Mini, quad-core ARM Cortex-A53, 1.8GHz	+
Real-Time, Co-processor	ARM Cortex-M4	+

Memory and Storage

RAM	1GB – 4GB, LPDDR4	D
Primary Storage	4GB - 64GB eMMC flash, soldered on-board	NA
Secondary Storage	16GB - 64GB eMMC flash, optional module	NB

Network

LAN	1000Mbps Ethernet port, RJ45 connector	+
	100Mbps Ethernet port, RJ45 connector	+
WiFi	802.11ax WiFi interface	WB
	Intel WiFi 6 AX200 module	
Bluetooth	Bluetooth 5.1 BLE	WB
	Intel WiFi 6 AX200 module	
Cellular	4G/LTE CAT1 cellular module, Simcom SIM7600G	JS7600G
	On-board micro-SIM card socket	+
GNSS	GPS / GLONASS Implemented with Simcom SIM7600G module	JS7600G

I/O

PCI Express	Primary mini-PCIe socket, full-size	not WB
	* used for WiFi/BT module when “WB” option is present	not WB
	Secondary mini-PCIe socket, USB only, full-size	not
	* used for cellular modem when “JS7600G” option is present	JS7600G
USB	1x serial console via UART-to-USB bridge, micro-USB connector	+
Debug	Bluetooth 5.1 BLE	+
	Intel WiFi 6 AX200 module	
Serial Interface add-on	1x RS485 (2-wire) / RS232 port, terminal-block	+
	Up-to 2x CAN-FD RS485 RS232 ports	Fxx
	Isolated, terminal-block connector	
Digital I/O add-on	Up-to 2x analog 4–20mA input	FCDIO
	4x digital outputs + 4x digital inputs	
PoE add-on	24V, compliant with EN 61131-2, isolated, terminal-block connector	FCDIO
	Additional 100Mbps Ethernet port with PoE capability (powered device)	
	* Cannot be combined with any other add-on board	
Expansion Connector	** Mutually exclusive with one of USB2.0 ports	FPOE
	Expansion connector for add-on boards	not Fxx
	2x SPI, 2x UART, I2C, 12x GPIO	

System

Security	Secure boot, implemented with i.MX8M Mini HAB module TPM 2.0, implemented with Infineon SLB9670	+ FATPM
RTC	Real time clock operated from on-board coin-cell battery	+

Electrical Specifications

Supply Voltage	Unregulated 8V to 36V	157600G
Power Consumption	2W - 7W, depending on system load and configuration	157600G

Mechanical Specifications

Dimensions	112 x 84 x 25 mm
Enclosure Material	Aluminum housing
Cooling	Passive cooling, fanless design
Weight	450 gram

Compliance

Regulatory	CE, FCC	157600G
EMC	EN 55032/5, EN 61000-6-2, EN 61000-6-3	157600G
Safety	EN/UL/IEC 62368-1	157600G
Cellular	PTCRB * with SIM7600A modem	157600G

Reliability and Environmental

MTTF	> 200,000 hours
Warranty	5 years
Operation Temperature	Commercial: 0° to 60° C Extended: -20° to 60° C Industrial: -40° to 80° C
Storage Temperature	-40° to 85° C
Relative Humidity	10% to 90% (operation) 05% to 95% (storage)