

# TRAX-1







## PRODUCT HIGHLIGHTS

- NXP i.MX 8M Plus Application Processor ideal for machine learning, video analytics and industrial IoT applications
- Powerful quad-core ARM® Cortex® CPU with Neural Processing Unit (NPU) delivering 2.3 TOPS of Al processing
- Optional Hailo-8 AI Accelerator providing 26 TOPS of AI processing performance

- OS support for Linux and Android
- OCAN bus (6 to 10 interfaces) for vehicle applications
- Programmable sensors (up to 9-axis): accelerometer, gyroscope, magnetometer
- Wireless interfaces: GNSS (GPS+GLONASS), WiFi 802.11 a/b/g/n/ac, BT 4.2, LTE
- Made in Canada & USA





## **TECHNICAL SPECS**



#### **FEATURES**

OPERATING System	Linux (Yocto/Debian), Android, FreeRTOS	POWER REQUIREMENT	10-36V <sub>DC</sub> Input Voltage Protection for UV, OV, and Reverse Voltage
PROCESSOR	NXP i.MX 8M Plus application processor, up to four (4) ARM® CORTEX® A53 cores @ 1.8GHz		
MEMORY	4GB LP-DDR4 with ECC option	MECHANICAL	Dimension: 3.1"×5.7"×8.5" (H×W×D) Fan-less operation
STORAGE	16GB eMMC One (1) MicroSD slot for additional storage	CAN BUS OPTIONS	Up to ten (10) isolated CAN bus: - Option 1: 2x CAN FD + 4x CAN2.0 - Option 2: 2x CAN FD + 6x CAN2.0 (LTE not available in this configuration)
SERIAL	One (1) RS232 (Tx/Rx) serial port One (1) RS232 or RS485 serial port		
USB	One (1) USB 3.0 port (maintenance port)		
ETHERNET	One (1) 1GbE ethernet port with TSN support Optional: One (1) additional 1GbE ethernet port		- Option 3: 2x CAN FD + 8x CAN2.0 (LTE not available in this configuration)
WIRELESS CONNECTIVITY	Options for: GNSS (GPS, GLONASS, QZSS, BeiDou) WiFi 802.11 a/b/g/n/ac BT 4.2 LTE Cellular (via mPCle slot)	MANAGEABILITY	Integrated Programmable sensors: 3-axis accelerometer, 3-axis gyroscope, and 3-axis magnetometer
GPI0	Four (4) isolated, configurable GPI0 that is compliant to the IEC 61131-2 industrial specification	REGULATORY	Operational temperature: -40°C to 70°C Storage temperature: -40°C to 85°C Humidity: 5-95% Non-Condensing IP65 Dust/Moisture Rating Shock & Vibration: MIL-STD 810G • Method 514.5c-3, Composite Wheeled Vehicle • Method 516.5, 20g/11ms, Terminal sawtooth
EXPANSION SLOTS	One (1) Full Feature mPCle slot		
	Integrated GC7000UL GPU with OpenCL and Vulkan support		
GRAPHICS / AI	Onboard NPU operating up to 2.3TOPS (only with the i.MX 8M Plus processor option)		FCC Class A CE Mark ROHS Compliant
	Optional Hailo-8 Al acceleration (via mPCIe slot) delivering 26 TOPS		

#### **ORDERING INFORMATION**

Contact us at 855.365.2188 or visit jsquared.com/general-inquiries to begin the ordering process.



