



XPLORER CM5 OEM

AUSTRAL

2025 Novelty

Ready for AI and upcoming
IoT & Satellite NTN connectivity

B2B Ready :
Customize configuration & markings

Positioning:
GNSS
GNSS-RTK
GNSS-INS

Cellular & Sat:
4G LTE, 5G
3GPP NTN
Starlink DTC
Starlink IoT

Security:
TMP 2.0
Unique ID

Removable Storage:
μSD & eMMC Boot
Switch Cap Seal

Storage:
NVMe SSD up to
2x 2 TB & 24000 TBW

AI: HAILO
13 to 2x 40 TOPS

LPWAN:
Matter/Thread/Zigbee
LoRa/SigFox
LTE-M, NB-IoT

WLAN/WPAN:
WiFi/Bluetooth

Config:
Nano SIM
& μHDMI
Cap Seal

Compute Module:
Raspberry PI CM5
- ARM 4x 2.4Ghz, RTC
- Up to 32GB eMMC
- Up to 16GB RAM

Activity LED

Enclosure:
**Aluminum
& Carbon**
Shockproof
IP67
M12, SMA
Connectors

Ethernet:
1x GbE

Field connectivity:
1x Isol. CANFD
2x Open Drain Out
2x 12 bits Analog Out
4x 12 bits Analog In
or 4x RX Only RS232

Docking Station:
1x USB-C Host

Field connectivity:
1x CANFD + 8-33V Power In
N2K Compatible

Field connectivity:
2x RS232
1x Isol. RS232/485/Modbus
1x Isol. RS485/Modbus
1x PPS In

**Waterproof Rugged Industrial Edge IoT, AIoT & Mission Computer
Raspberry PI 5 & Hailo AI Ecosystems**

Xplorer CM5 Product Line

Waterproof Dustproof
3x M.2 Expansions
Shockproof Vibration-proof
AI Performance
Wide Temperature
Power Efficiency
Lightweight Compact
High Scalability
Passive Cooling
Security
Real-time Performance

Unleash your creativity with the best-in-class SWAP-C platform for:

Sea, Air & Land Intelligent Mobility:

- Boat/RV Smart Automation Assistant
- AI Cameras Vehicle & Personal Security
- 4G/DTC Mobile Router-Gateway
- Docking System / Collision Avoidance
- Smart Autopilot / Wind Processor
- Foilers Flight Control System
- Unmanned Vehicle
- Marine Mission Computer
- Software-Defined Vehicle
- Tracking, Voyage/Flight Data Recorder

Smart, Connected Automation & Supervision:

- Industry 4.0, Energy, Mining, Oil & Gas: Machine Automation, PLC/Cloud Gateway, Overall Equipment Effectiveness, Predictive Maintenance, Smart Quality control...
- Building, Home, Ship: Automation, Voice Assistant, Energy, Safety, Security, Fire Control, Climate Control, HVAC, NAS...
- Big Data Collection: Site survey, AI training Recorder, Ocean Science...
- Farming: AI Supervision & Automation...

SPECIFICATIONS:

CPU	Raspberry PI CM5 Industrial Module ARM Cortex A76 Quad-core, 64 bits, 2.4Ghz
GPU	VideoCore VII
eMMC	Up to 32 GB (may be read only)
RAM	Up to 16 GB
LAN	1x GbE
USB	1x USB-C Host (USB 2.0 & 3.0)
WLAN/WPAN	Dual-band 802.11ac Wi-Fi + Bluetooth 5.0
Removable Storage	µSD Card (no boot, under a cap) External USB-C 3.0 Key/Disk
CANbus	1x CANFD + 1x Isolated CANFD
RS232	2x RS232
RS485	1x Isolated RS232/RS485/Modbus
Modbus RTU	1x Isolated RS485/Modbus Up to 4x RS232 Rx only (share with A/D Input)
DAQ	2x Open Drain digital Output 2x 12 bits Analog/Digital Output 4x 12 bits A/D Input (share with RS232 Rx Only)
Cybersecurity	TMP 2.0 + Unique ID
Other	RTC, Watchdog, PPS Input
Development Debug	1x µHDMI 4K (under a cap) 1x USB-C Host 3.0 Docking Station Ready 1x EMMC USB-C Boot switch (under a cap)
Connectors	Circular M12 and SMA, IP67 USB-C
Power Supply	8-33V, 6-15 W (depending on options & loads)
Dimension	PCB : 93x67mm
Weight	Enclosure: 114x104x28 mm, 230-260 g
Assembly	Wall-mounted (DIN Rail on demand)
Enclosure	Anodized Aluminum & Carbon Fiber
Protection	IP67 (caps in place), Fanless
Op.Temp.	-20° to +60/65°C (depending on options & loads)
Certifications	CE, FCC, PSE, UKCA (more on demand)
Cables & Antennas	Available on distributor shelves at affordable price (1m, 2m, 3m, 5m...). Can be supplied.

OPTIONS: (2x soldered + 3x M.2 modules)

AI TPU	Up to 2x Hailo AI 8L, 8, 10H (13, 26, 40 TOPS each)
NVMe SSD	Up to 2x 2 TB (up to 24000 TBW each)
Cellular	4G, 5G
NTN & Satellite	<ul style="list-style-type: none"> Starlink Direct To Cell (2025) Starlink IoT (2025) Skylo (3GPP NTN) Upcoming: LoRa, NTN NB-IoT, eMTC, NTN 5G NR...
LPWAN	<ul style="list-style-type: none"> Matter + Thread + Zigbee + BLE Mesh LoRa + SigFox LTE-M + NB-IoT And more: Wi-Fi Halow, WiGig, UHF RF-ID...
GNSS	GNSS, GNSS UDR, GNSS RTK Upcoming: GNSS/INS
Industrial	Ethercat, Profinet, FPGA

More wireless capability with IP or Serial external antenna:
Starlink Broadband, OneWeb, Kuiper, Qiafan, Iridium, Inmarsat...

More:



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Intelligent Technologies for Marine, Industry, IoT & Drones