Rugged Computer **RML A4NX**

Computer Vision Edge Unit with NVIDIA Jetson Orin NX (16GB)

preliminary

Rugged Series

Product Highlights

24/7 continuous operation
IP67 protection, extended temperature range
Power ignition controller
High shock and vibration resistance
Power Over Ethernet (PoE+)

ACCESSORIES

CE   UK CA

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	Order Code	RPC/RMLA4NX16-A202S-02[1,6]	RPC/RMLA4NX16-B202S-02[1,6]
Processor module / Performance			
NVIDIA Jetson Orin NX	(16GB RAM) 1024-core NVIDIA Ampere GPU with 32 Tensor Cores 8-core NVIDIA Arm® Cortex A78AE 64-bit CPU		✓	✓
NVIDIA Jetson Orin NX	(8GB RAM) 1024-core NVIDIA Ampere GPU with 32 Tensor Cores 6-core NVIDIA Arm® Cortex A78AE 64-bit CPU		on request [1]	on request [1]
AI Performance		100 TOPs	100 TOPs
Memory / Storage			
128-Bit LPDDR5 (102,4 GB/s) RAM soldered on board		16GB	16GB
M.2 2280 Key M socket (for NVMe SSD) [6, an SSD is required, no internal eMMC storage available]		240GB	240GB
microSD Card socket [2]		1	1
Features			
Inertial measurement unit (IMU) STMicro ISM330DHCXTR		✓	✓
Real time clock (RTC), with battery backup Renata CR2477 (950 mAh)		✓	✓
Communication Interfaces			
DisplayPort 1.4a @ 8K30 behind the service cover (rear)		1	1
Internal USB version 2.0 behind the service cover (rear), for device flashing and SSH access only	(micro USB Type AB)	1	1
USB version 2.0 behind the service cover (rear)	(Type A)	2	2
USB version 3.1 (5 Gbit/s) with dustcap	(Type A)	1	1
Ethernet 10/100/1000 BASE-T (1× native, 1× I210-IT)	(M12 female, x-coded)	2	2
Power over Ethernet - IEEE802.3at 10/100/1000Mbit PSE - Power sourcing equipment, producing 48VDC out	(M12 female x-coded)	4	4
CAN 2.0A / CAN 2.0B (active/passive), CAN FD supported, isolated	(M12 female, a-coded)	1	1
CAN 2.0B only (active/passive), CAN FD supported, isolated	(M12 female, a-coded)	1	1
Digital I/O's, current sinking, isolated 12/24VDC	(M12 male, a-coded)	4in / 2out [5]	4in / 2out [5]
Serial RS232	(M12 male, a-coded)	1	1
Mini PCIe socket [2, PCIe bandwidth shared with PoE ports]		1	1
USB version 2.0 [1]	(M12 female, a-coded)	on request	on request
Wireless Connectivity			
Cellular 4G Module (LTE/UMTS/GSM) with GNSS Sierra Wireless EM7590 (Dual nano SIM support)		none	3 × SMA
Wireless LAN (Wi-Fi 6/6E) 802.11ax/ac/a/b/g/n dual-band 2x2 MIMO & Bluetooth 5.2 Intel AX210		none	2 × RP-SMA
Cellular 5G module (4G/3G fallback) with GNSS		on request	on request
High precision multiband GNSS module with optional heading support [1] u-blox ZED-F9P/F9R		on request	on request
Technical Data			
Dimensions excl. mounting holes [mm]		w250 × h100 × d170	w250 × h100 × d170
Net weight [gram]		~3600	~3650
Non-isolated input voltage with ignition controller and RP protection (M12 male, a-coded)		9 … 45VDC	9 … 45VDC
Power consumption [3]		~tbd	~tbd
Software / OS			
NVIDIA JetPack SDK – Jetson Linux (Ubuntu based)		✓	✓
Environmental Conditions			
Operating temperature [3]		−25ºC … +70ºC	−25ºC … +70ºC
Storage temperature		−25ºC … +85ºC	−25ºC … +85ºC
Ingress protection standard according to EN60529		IP67	IP67
Conformal coating [4]		on request	on request
Shock according to ISO 15003 (designed to meet)		50g peak acc. (11ms)	50g peak acc. (11ms)
Vibration according to ISO 15003 (designed to meet)		2g (10 – 350Hz)	2g (10 – 350Hz)
EMC-Conformity		EN55032 / EN55035	EN55032 / EN55035
Safety (designed to meet)		EN62368-1	EN62368-1
Radio and Telecommunication (designed to meet)		n/a	RED
estimated MTBF @ 25ºC ambient according to Telcordia SR-332, Environment GB, excluding battery and SSD		~tbd	~tbd

[1] Please contact factory for minimum order quantities
[2] Internal connector
[3] Depending on installation situation and interface connection. Please see user documentation.
[4] On all possible components (excl. Xavier NX module, connectors and wireless devices)
[5] The six total digital I/Os are each configurable as either output or input via software.
[6] The product must be ordered with an SSD, use the following order codes: RPC/RMLA4NX16-x202S-**02**(240GB), **-05**(480GB), **-10**(960GB), **-20**(1920GB)

For support and further information support@syslogic.ai or www.syslogic.ai