Rugged Computer RS A4NA

Computer Vision Edge Unit with NVIDIA Jetson Orin Nano

Rugged Series

image similar

Product Highlights

24/7 continuous operation
GMSL2 camera inputs with PoC
IP67 protection, extended temperature range
Power ignition controller
High shock and vibration resistance

ACCESSORIES

CE UK CA

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Order Code	RPC/RSA4NA4-M112S-02[1,5]	RPC/RSA4NA4-N112S-02[1,5]
Processor module / Performance		
NVIDIA Jetson Orin Nano | (4GB RAM) 512-core NVIDIA Ampere GPU with 16 Tensor Cores 6-core NVIDIA Arm® Cortex A78AE 64-bit CPU	✓	✓
NVIDIA Jetson Orin Nano | (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	20 TOPs	20 TOPs
Memory / Storage		
LPDDR5 RAM in SoC	4GB	4GB
NVMe SSD (M.2 2280) [6], an SSD is required, no internal eMMC storage available	240GB	240GB
Features		
Inertial measurement unit (IMU) STMicro ISM330DHCXTR	✓	✓
Real time clock (RTC), with battery backup Renata CR2477 (950 mAh)	✓	✓
Communication Interfaces		
DisplayPort 1.2 @ 4K30 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
Ethernet 10/100/1000 BASE-T (1× native, 1× I210-IT) (M12 female, x-coded)	2	2
GMSL2 camera inputs, with Power over Coax (PoC) 12VDC+/-5% Total max power for all ports combined: 9W | Bandwith: 5Gbps / port (Fakra-Z, IP67)	4	4
CAN 2.0A / CAN 2.0B (active/passive), CAN FD supported, isolated [1] (M12 female, a-coded)	1	1
Digital I/O's, current sinking, isolated (12/24VDC) [1, instead of CAN] (M12 male, a-coded)	on request [6]	on request [6]
Serial RS232 [1, instead of CAN] (M12 male, a-coded)	on request	on request
Wireless Connectivity		
Cellular 4G Module (LTE/UMTS/GSM) with GNSS Sierra Wireless EM7590 (Dual nano SIM support)	3 × SMA	on request
Wireless LAN (Wi-Fi 6/6E) 802.11ax/ac/a/b/g/n dual-band 2x2 MIMO & Bluetooth 5.2 Intel AX210	2 × RP-SMA	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]	w196 × h66 × d165	w196 × h66 × d165
Net weight [gram]	~2500	~2400
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 (designed to meet)	EN55032 / EN55035	EN55032 / EN55035
Safety (designed to meet)	EN62368-1	EN62368-1
Radio and Telecommunication (designed to meet)	n/a	n/a
estimated MTBF @ 25ºC ambient according to Telcordia SR-332, Environment GB, excluding battery and SSD	~tbd	~tbd

(CAN / Digital I/O / Serial RS232 rows: choose one)

[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. Orin NX module, connectors and wireless devices)
[5] The product must be ordered with an SSD, use the following order codes: xxx-**02**(240GB), xxx-**05**(480GB), xxx-**10**(960GB), xxx-**20**(1920GB)
[6] If you need GMSL2 and digital I/O's contact Syslogic, not all configurations are possible

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