AI Vehicle Computer

COMPACT AI Vehicle Series

Computer Vision Edge Unit with NVIDIA Jetson TX2 NX

IPC/COMPACT A2N - RS

This fanless COMPACT A2N generation is based on the NVIDIA Jetson TX2 NX processor module and offers a wide range of interface options.
The robust and uncompromising industrial design allows the implementation in the most demanding mobile AI applications and guarantees long term availability.

- **24/7 continuous operation**
- **Extended AI Computing**
- **Passively cooled, no moving parts**
- **Long term availability with fixed BOM**

NVIDIA Linux for Tegra (L4T)

Product Highlights

Maintenance free
Power Ignition Controller
Shock and vibration resistant
LTE, GNSS and Wi-Fi connectivity options
No moving parts / passively cooled

Product Features

256-core NVIDIA Pascal™ GPU Dual-Core
NVIDIA Denver 2 64-Bit CPU Quad-Core
ARM® Cortex®-A57 MPCore
4GB 128-bit LPDDR4x RAM soldered on board
M.2 NVMe slot for storage expansion up to 2TB
Ethernet, USB, passive or active CAN
LTE, GNSS & WiFi options
Aluminum & Stainless steel housing
Protection class IP65

Industries / Applications

Autonomous Mobile Robots (AMRs)
Automotive
Transportation
Robotics
Agriculture
Construction Vehicles

CE

© 2023 Syslogic Datentechnik AG

Your partner for reliable embedded computer solutions.

AI Vehicle Computer

		Order Code IPC/RSA2NH20-E102S[1,5]
Processor module / Performance		
NVIDIA Jetson TX2 NX | 256-core NVIDIA Pascal™ GPU		•
6-Core ARM CPU (Dual-Core NVIDIA Denver 2 64-Bit CPU and Quad-Core ARM® Cortex®-A57 MPCore)		•
AI Performance		1.33 TFLOPs
Memory / Storage		
Data Cache Size		2MB
128-bit LPDDR4 RAM soldered on board		4GB
eMMC 5.1 Flash Storage on board		16GB
M.2 2280 Key M socket (for NVMe SSD) [5]		1
microSD card socket [2]		1
Features		
Real time clock (RTC) with battery backup Renata CR2477N (950mAh)		•
Hardware Watchdog & Temperature supervisor		•
Inertial measurement unit (IMU) [1] STMicroelectronics ISM330DHCXTR		on request
Buzzer		on request
Communication Interfaces		
Video output behind the service cover		DisplayPort 1.4
Internal USB version 2.0 OTG behind the service cover	(micro USB Type AB)	1
USB version 2.0 behind the service cover	(Type A)	2
Video output		HDMI 2.0
USB version 3.1 (5 Gbit/s)	(Type A)	1
Ethernet 10/100/1000 BASE-T (1x native, 1x I210-IT)	(M12 female, x-coded)	2
CAN 2.0A / CAN 2.0B (active/passive), CAN FD supported, isolated	(M12 female, a-coded)	1
Mini PCIe socket [2]		2
I2C bus [2]		1
Serial RS232 [1]	(M12 female, a-coded)	on request
USB version 2.0 [1]	(M12 female, a-coded)	on request
MIPI CSI-2 / GMSL2 / FPDLinkIII Camera interface [1]		on request
Wireless Connectivity		
Cellular 4G Module (LTE/UMTS/GSM) with built-in GNSS		none
Wireless LAN IEEE 802.11a/b/g/n/ac dual-band 2x2 MIMO & Bluetooth		none
High precision GNSS module [1] u-blox ZED-F9R / F9P		none
Technical Data		
Dimensions [mm] (housing, excl. mounting)		w182 x h60 x d127
Dimensions [mm] (housing, incl. mounting)		w218 x h60 x d127
Net weight [gram]		~1600
Non isolated input voltage, with ignition controller, reverse polarity protected	(M12 male, a-coded)	9... 45VDC
Idle power consumption typ. in Watt @ 24V without Add-Ins		~8.5
Environmental Conditions		
Operating temperature [3]		–25°C ... +70°C
Storage temperature		–25°C ... +85°C
Ingress protection standard according to EN60529		IP65
Conformal coating [4]		on request
Shock (designed to meet)		EN60068-2-27
Vibration (designed to meet)		EN60068-2-64
EMI-Conformity (designed to meet)		EN55032 / EN55035
Safety (designed to meet)		EN62368-1
Radio and Telecommunication (designed to meet)		n/a
MTBF @ 25°C ambient excluding battery		~550 000h

[1] Please contact factory for minimum order quantities
[2] Internal connector
[3] Depending on installation situation and interface connection. Derating of max. operating temp. is possible when using the cellular LTE module. Please see user documentation.
[4] On all possible components (excl. TX2 NX module, connectors and wireless devices)
[5] It is possible to equip the products with an Industrial grade Apacer PV210 NVMe SSD. Retrofitting an SSD is not possible by the user without complete disassembly. Use these part codes: IPC/RSA2NH20-[E/F]102S-01 = 120GB | IPC/RSA2NH20-[E/F]102S-02 = 240GB | IPC/RSA2NH20-[E/F]102S-05 = 480GB | IPC/RSA2NH20-[E/F]102S-10 = 960GB

Product specifications subject to change without notice. | All data is for information purposes only and not guaranteed for legal purposes. Information in this data sheet has been carefully checked and is believed to be accurate. However, no responsibility is assumed for inaccuracies. Please refer to the user documentation for additional product specification.

© 2023 Syslogic Datentechnik AG
All rights reserved

Syslogic Datentechnik AG
Täfernstrasse 28
CH-5405 Baden Dättwil

Version 2.0 | January 2023

For further information and support:
info@syslogic.com
support@syslogic.com
www.syslogic.com

+41 56 200 90 40 **Switzerland (Headquarters)**
+49 7741 9671-420 **Germany and Austria**

syslogic
industrial computing

Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

US

sales@assured-systems.com

Sales: +1 347 719 4508
Support: +1 347 719 4508

1309 Coffeen Ave
Ste 1200
Sheridan
WY 82801
USA

EMEA

sales@assured-systems.com

Sales: +44 (0)1785 879 050
Support: +44 (0)1785 879 050

Unit A5 Douglas Park
Stone Business Park
Stone
ST15 0YJ
United Kingdom

VAT Number: 120 9546 28
Business Registration Number: 07699660