

AI Vehicle Computer

COMPACT AI Vehicle Series

Intelligent Machine Learning Unit with NVIDIA Jetson TX2 NX

first draft
preliminary

AI Vehicle Computer

optional
LTE / GPS / Wi-Fi




2x USB 2.0
microSD
DisplayPort

Image similar

Power Supply
9 ... 45VDC

CAN

2x GBit LAN

USB 3.1

HDMI

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 slot for storage expansion
Ethernet, USB, Passive or Active CAN
LTE, GNSS & WiFi options
Aluminum & Stainless steel housing
Protection class IP65

Industries / Applications

Automated Guided Vehicles (AGV)
Automotive
Transportation
Robotics
Agriculture
Construction Vehicles



	Order Code	IPC/RSA2NH20-tbd1 ¹	IPC/RSA2NH20-tbd2 ¹
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	1.33 TFLOPs
Memory / Storage			
Data Cache Size		2MB	2MB
128-bit LPDDR4 RAM soldered on board		4GB	4GB
eMMC 5.1 Flash Storage on board		16GB	16GB
M.2 2280 slot for SSD storage up to 2TB ²		1	1
microSD card socket ²		1	1
Features			
Inertial measurement unit (IMU) STMicroelectronics ISM330DHCXTR		•	•
Real time clock (RTC) with battery backup Renata CR2477N (950mAh)		•	•
Hardware Watchdog & Temperature supervisor		•	•
Communication Interfaces			
Graphic interface <small>behind the service cover</small>		DisplayPort 1.4	DisplayPort 1.4
Internal USB version 2.0 OTG <small>behind the service cover</small>	(micro USB Type AB)	1	1
USB version 2.0 <small>behind the service cover</small>	(Type A)	2	2
Graphic interface		HDMI 2.0	HDMI 2.0
USB version 3.1	(Type A)	1	1
USB version 2.0 ¹	(Type A)	optional	optional
Ethernet 10/100/1000Mbit (1x native, 1x I210-IT)	(M12 female, x-coded)	2	2
Active/passive-CAN ESD protected, isolated	(M12 female, a-coded)	1	1
Serial RS232 ²		2	2
Mini PCIe socket ²		2	2
I2C bus ²		1	1
Buzzer		1	1
MIPI CSI-2 / GMSL2 / FPDLinkIII Camera interface ¹		on request	on request
Wireless Connectivity			
Cellular Module (LTE/UMTS/GSM) with GNSS positioning functionality Sierra Wireless MC7455 - M2M only! (Dual nano SIM)		none	3x SMA
Wireless LAN IEEE 802.11a/b/g/n/ac dual-band 2x2 MIMO & Bluetooth 4.1 SparkLAN WPEB-263ACNI(BT)		none	2x RP-SMA
High precision GNSS module ¹ u-blox ZED-F9P module		optional	optional
Technical Data			
Dimensions [mm] (housing, excl. mounting)		w182 x h55 x d127	w182 x h55 x d127
Dimensions [mm] (housing, incl. mounting)		w218 x h55 x d127	w218 x h55 x d127
Net weight [gram]		~ 1400	~ 1500
Non isolated input voltage, with ignition controller, reverse polarity protected	(M12 male, a-coded)	9... 45VDC	9... 45VDC
Current consumption typ. in mA @ 24V without Add-Ins, idle		~ 400	~ 400
Power consumption typ. in Watt @ 24V without Add-Ins, idle		~ 10	~ 10
Environmental Conditions			
Operating temperature ³		-25°C ... +70°C	-25°C ... +70°C
Storage temperature		-25°C ... +85°C	-25°C ... +85°C
Ingress protection standard according to EN60529		IP65	IP65
Conformal coating ⁴		on request	on request
Shock (designed to meet)		EN60068-2-27	EN60068-2-27
Vibration (designed to meet)		EN60068-2-64	EN60068-2-64
EMI-Conformity (designed to meet)		EN55032 / EN55035	EN55032 / EN55035
Safety (designed to meet)		EN62368-1	EN62368-1
Radio and Telecommunication (designed to meet)		RED	RED
MTBF @ 25°C ambient <small>excluding battery</small>		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. TX2 NX module, connectors and wireless devices)

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.

© 2021 Syslogic Datentechnik AG
All rights reserved

Syslogic Datentechnik AG
Täferstrasse 28
CH-5405 Baden Dättwil

Version 0.1 | February 2021

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



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