## **COMPACT AI Vehicle Series**

Intelligent Machine Learning 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 Al applications and guarantees long term availability.

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



### **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 II	C KSAZINIIZU-E1025	IPC/RSAZINHZU-F1023
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-Co	ore ARM® Cortex®-A57 MPCore)		•	•
Al 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 <sup>2</sup>			1	1
microSD card socket <sup>2</sup>			<u>.</u> 1	<u>·</u> 1
Features				
Inertial measurement unit (IMU) STMicroelectronics ISM330DHCXTR			•	•
Real time clock (RTC) with battery backup Renata CR2477N (950mAh)			•	•
Hardware Watchdog & Temperature supervisor			•	•
				•
Communication Interfaces			D: 1 D 114	D: 1 D +14
Graphic interface behind the service cover	(minus LICE T. A.D.)		DisplayPort 1.4	DisplayPort 1.4
Internal USB version 2.0 OTG behind the service cover	(micro USB Type AB )		<u> </u>	<u> </u>
USB version 2.0 behind the service cover	(Type A )		2	2
Graphic interface			HDMI 2.0	HDMI 2.0
USB version 3.1	(Type A )		1	1
USB version 2.01	(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 <sup>2</sup>			2	2
Mini PCle socket <sup>2</sup>			2	2
I2C bus <sup>2</sup>			1	1
Buzzer			1	1
MIPI CSI-2 / GMSL2 / FPDLinkIII Camera interface <sup>1</sup>			on request	on request
Wireless Connectivity				
Cellular Module (LTE/UMTS/GSM) with GNSS positioning functionality s	ierra 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		, 31111)	none	2x RP-SMA
High precision GNSS module 1 u-blox ZED-F9P module	The spaints are the EB 2007 (ETM(ET)		optional	optional
Technical Data			oparona.	optional .
Dimensions [mm] (housing, excl. mounting)			w182 x h55 x d127	w182 x h55 x d127
Dimensions [mm] (housing, exc. 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 prote	ected (M12 male, a-coded)		9 45VDC	9 45VDC
Idle current consumption typ. in mA @ 24V without Add-Ins	ected (M12 IIIale, a-coded)		~400	~400
Idle power consumption typ. in Watt @ 24V without Add-Ins			~400	~400
			~10	~10
Environmental Conditions			06	06
Operating temperature <sup>3</sup>			−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 <sup>4</sup>			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 excluding battery			tbd	tbd
Dloggo contact factory for minimum order quantities				

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<sup>1</sup> Please contact factory for minimum order quantities

<sup>3</sup> Depending on installation situation and interface connection. Please see user documentation <sup>4</sup> On all possible components (excl. TX2 NX module, connectors and wireless devices)

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