



## IPC/COMPACTA2 - RS

This fan less RS COMPACT-A2 generation is based on the Nvidia Jetson TX2(i) processor module and offers a wide range of interface options.

The robust and uncompromising industrial design allows the implementation in the most demanding AI applications and guarantees long term availability.

- 24/7 continuous operation
- Extended AI Computing
- Temperature acc. EN50155 OT 4 (former TX)
- Fully railway approved (EN50155 & EN45545)
- Optional EN50155 Class S2 power supply



### Product Highlights

- Maintenance free
- Goldcap instead of battery backup
- No moving parts / passive cooling
- ARM CPU core
- Hardware watchdog
- Temperature supervision
- ESD- protection on all interfaces
- Long term availability (fixed BOM)
- Shock and vibration resistant

### Product Features

- NVIDIA Pascal™ architecture GPU
- Dual-core Denver 2 64-bit CPU
- Quad-core ARM A57 Complex
- 8GB 128-bit LPDDR4 RAM soldered on board
- Socket for CFast
- Graphic resolution
- Ethernet, USB, Passive-CAN
- Optional WiFi extensions
- Aluminum & Stainless steel housing
- Protection class IP40
- EN50155 certified (OT4 /Tx Class)

### Markets / Applications

- Railway (rolling stock)
- Automated Guided Vehicle (AGV)
- Transportation and vehicle construction

Processor module / Performance				
NVIDIA Jetson TX2i   1.95GHz Clock - Quad Core GPU		•	•	
NVIDIA Jetson TX2   1.95GHz Clock - Quad Core GPU				•
Memory / Storage				
Data Cache Size		2MB	2MB	2MB
8GB RAM DDR4L soldered on board		51.2 GB/s	51.2 GB/s	58.2GB/s
eMMC on board		32GB	32GB	32GB
microSD Card socket		1	1	1
CFast socket with retention frame <sup>2</sup>		1	1	1
Features				
Real time clock PC compatible with Goldcap backup		•	•	•
Hardware Watchdog & Temperature supervisor		•	•	•
Intelligent power management (Ignition controller)		optional	optional	optional
Communication Interfaces				
Graphic interface		DisplayPort 1.2	DisplayPort 1.2	DisplayPort 1.2
Dual Channel LVDS <sup>2</sup>		1	1	1
USB version 3.0 (Type A)		2	2	2
USB version 2.0 OTG (micro USB Type AB)		1	1	1
Ethernet 10/100/1000Mbit (M12 female x-coded)		1	1	1
Ethernet 10/100/1000Mbit (I210-IT) (M12 female x-coded)		1	1	1
RS232 / RS422/485 ESD protected (DSUB9)		optional	optional	optional
Active/passive-CAN ESD protected, isolated (DSUB9)		1	1	1
Mini PCIe socket <sup>2</sup>		1	1	1
I2C bus <sup>2</sup>		•	•	•
Optional Wireless Functions				
Cellular 4G Module (GSM/UMTS/LTE) u-blox or Sierra Wireless - M2M only!		optional	optional	optional
Dual SIM Support (microSIM)		•	optional	optional
Positioning Wireless Module (GPS, Galileo, Glonass, Beidou) u-blox NEO-M8U Module incl. acceleration sensor		optional	optional	optional
Acceleration / Motion Sensor STMicroelectronics ISM330DLC		•	•	•
Wireless LAN & Bluetooth (BCM4354)		optional	optional	•
Technical Data				
Dimensions w174 x h47 x d127 mm (housing without mounting bracket)		•	•	•
Net weight in gram		~950	~950	~950
Input voltage isolated and reverse polarity protected (M12 4P male A-coded)		16.8 ... 45VDC	16.8 ... 45VDC	16.8 ... 45VDC
16.8... 137.5VDC Input voltage, isolated and reverse polarity protected <sup>3</sup> (M12 4P male A-coded)		optional	optional	optional
Interruption of voltage supply time: EN50155		optional	optional	optional
Current consumption typ. in mA @ 24V without Add-Ins, idle		~1040	~1040	~1040
Power consumption typ. in Watt @ 24V without Add-Ins, idle		~25	~25	~25
Environmental Conditions				
Operating temperature <sup>4</sup>		-40°C ... +70°C	-40°C ... +70°C	-25°C ... +60°C
Operating temperature (up to 85°C for 10 min. according to EN50155 OT4) <sup>4</sup>		•	•	•
Storage temperature -40 ... +85°C		•	•	•
Protection standard: IP40		•	•	•
Conformal coating <sup>5</sup>		tbd	tbd	tbd
Shock: EN60068-2-27 / EN61373		•	•	•
Vibration: EN60068-2-64 / EN61373		•	•	•
EMI-Conformity EN-50121-3-2		•	•	•
Safety according to EN62368-1		•	•	•
Fire protection: DIN EN45545-2 HL3		•	•	•
Radio and Telecommunication: Designed to meet RED		•	•	•
MTBF ~200 000h (22.8 Years) @ 25°C excluding battery and S2 power supply		tbd	tbd	tbd

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

<sup>2</sup> Internal connector

<sup>3</sup> Different and slightly bigger housing required (approx: 227 x 47 x 127 mm)

<sup>4</sup> Depending on installation situation and interface connection. Please see user documentation.

<sup>5</sup> on all possible components (excl. 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.

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