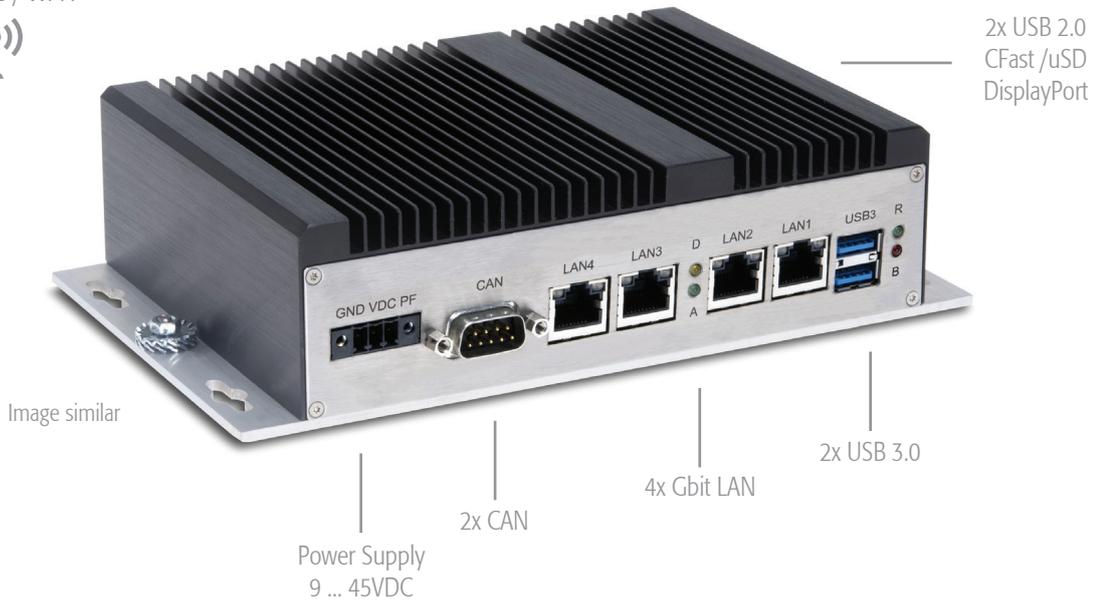


COMPACT-S AI Series

Intelligent Machine Learning Unit with NVIDIA Jetson TX2(i)

preliminary

LTE / GPS / WI-FI



AI Embedded BOX PC

IPC/COMPACTA2 - S

This fanless S 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
- No moving parts
- Product lifecycle management
- Long term availability with fixed BOM

NVIDIA. Linux for Tegra (L4T)

Product Highlights

- Maintenance free
- 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

Markets / Applications

- Industrial Automation
- Automated Guided Vehicle (AGV)
- Traffic control
- Transportation and vehicle construction
- Cleantech



Processor module / Performance		
NVIDIA Jetson TX2 256-core NVIDIA Pascal™ GPU		•
NVIDIA Jetson TX2i 256-core NVIDIA Pascal™ GPU		optional
NVIDIA Jetson TX2 4GB 256-core NVIDIA Pascal™ GPU		on request
Dual-Core NVIDIA Denver 2 64-Bit CPU and Quad-Core ARM® Cortex®-A57 MPCore		•
AI Performance		1.3 TOPs
Memory / Storage		
Data Cache Size		2MB
4ch x 32-bit LPDDR4 RAM soldered on board		8GB
eMMC 5.1 Flash Storage on board		32GB
microSD Card socket ²		1
CFast socket with retention frame ²		1
Features		
Real time clock PC compatible with battery backup Renata CR2477N (950mAh)		•
Real time clock PC compatible with Goldcap backup (48h)		optional
Hardware Watchdog & Temperature supervisor		•
Intelligent power management		•
Communication Interfaces		
Graphic interface		DisplayPort 1.2
USB version 3.0	(Type A)	2
Internal USB version 2.0 OTG <small>behind the cover</small>	(micro USB Type AB)	1
Ethernet 10/100/1000Mbit (1x native, 3x I210-IT)	(RJ45)	4
Active/passive-CAN ESD protected, isolated	(1x DSUB9)	2
RS232 / RS422/485 ESD protected	(DSUB9)	optional
Mini PCIe socket ²		1
I2C bus ²		•
Buzzer		•
MIPI CSI-2 Camera Interface ²		•
Wireless Connectivity		
Cellular Module (LTE/UMTS/GSM) with GNSS positioning functionality Sierra Wireless MC7455 - M2M only!	(3x SMA)	optional
Dual SIM Support (nanoSIM to mPCIe slot ²)		•
Inertial measurement unit (IMU) STMicroelectronics ISM330DLC		•
Wireless LAN IEEE 802.11a/b/g/n/ac dual-band 2x2 MIMO & Bluetooth 4.1	(2x RP-SMA)	•
Technical Data		
Dimensions w174 x h52 x d127 mm <small>(housing without mounting bracket)</small>		•
Net weight in gram		~950
Non isolated input voltage, with Ignition controller, reverse polarity protected		9... 45VDC
Current consumption typ. in mA @ 24V without Add-Ins, idle		~400
Power consumption typ. in Watt @ 24V without Add-Ins, idle		~10
Environmental Conditions		
Operating temperature ³		-25°C ... +65°C
Storage temperature		-25°C ... +80°C
Extended operating temperature -40°C ... +70°C		with TX2i
Extended storage temperature -40°C ... +85°C		with TX2i
Protection standard: IP40		•
Conformal coating ⁴		tbd
Shock: EN60068-2-27 / EN61373		•
Vibration: EN60068-2-64 / EN61373		•
EMI-Conformity EN-50121-3-2		•
Safety according to EN62368-1		•
Radio and Telecommunication: Designed to meet RED		•
MTBF ~ 150 000h (17.1 Years) @ 25°C <small>excluding battery</small>		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(i) 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.

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