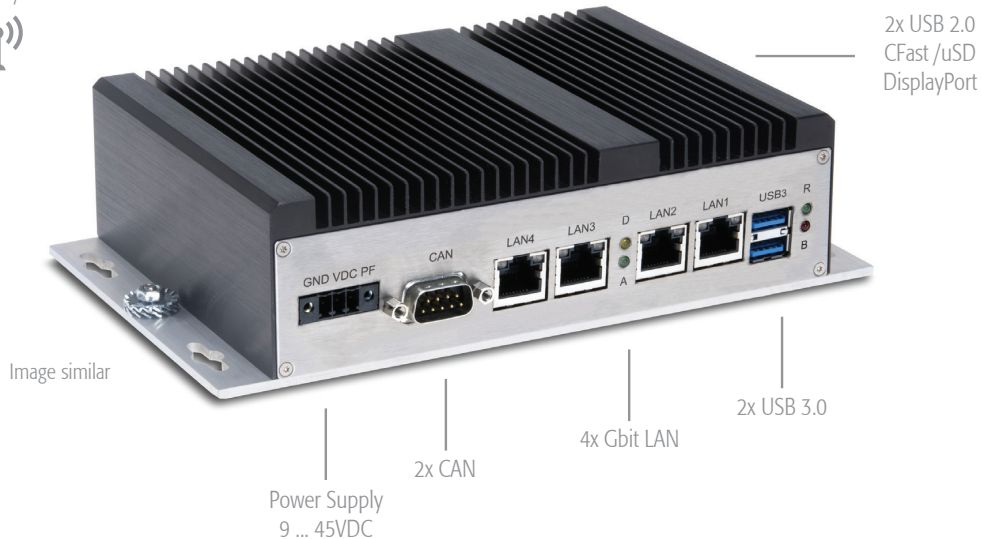AI Embedded Box PCs

COMPACT-S AI Series

Intelligent Machine Learning Unit with NVIDIA Jetson TX2(i)

preliminary

AI Embedded BOX Pc

LTE / GPS / WI-FI

2x USB 2.0
CFast /uSD
DisplayPort

GND VDC PF   CAN   LAN4 LAN3   D LAN2 LAN1 USB3 R
                                   A   B

Image similar

2x USB 3.0

Power Supply
9 ... 45VDC

2x CAN

4x Gbit LAN

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

CE

Your partner for reliable embedded computer and display solutions.

	Order Code	IPC/SA2I20-TBD[1]
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 behind the cover	(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 (housing without mounting bracket)		•
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 excluding battery		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)

AI Embedded BOX Pc

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