

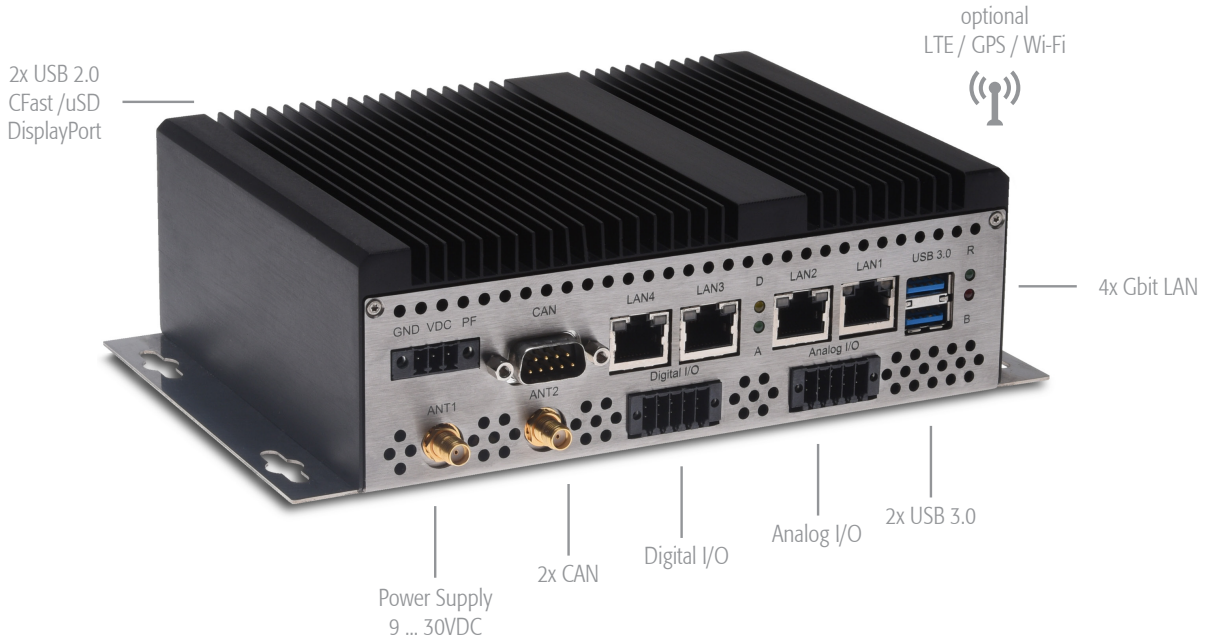
preliminary

Embedded Box PCs

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**COMPACT-M OEM Series**

Industrial compact PC with Intel® Atom™ E3900 processor (Apollo Lake) | Celeron™ or Pentium®



**IPC/COMPACT81 OEM**

This fanless COMPACT81-M OEM generation is based on the latest Intel® Atom™ E3900 (Apollo Lake) processor technology and offers a wide range of interface options. The robust and uncompromising industrial design allows the implementation in the most demanding applications and guarantees long term availability with Windows IoT and Debian Linux support.

- Multi-core 64-bit Intel® Atom™ processor
- 24/7 continuous operation
- No moving parts
- Product lifecycle management
- Long term availability with fixed BOM



**Product Highlights**

- Hardware Watchdog
- Temperature supervision
- Real time clock
- Persistent Flash BIOS
- ESD- protection on all interfaces
- Aluminum housing
- No active cooling required
- Fanless design

**Product Feature**

- Intel® Atom™ E3900 Series
- Intel® Celeron™ or Pentium®
- up to 2.0GHz, up to 4 Cores
- RAM soldered on board up to 8GB
- Socket for CFast
- DisplayPort, Ethernet, USB 3.0, CAN, Mini PCIe
- Up to 4K resolution

**Markets / Applications**

- Industrial Automation
- Traffic control
- AGV (Automated Guided Vehicle)
- Cleantech

	Order Code	IPC/OEMM81G13-A101E <sup>1</sup>	IPC/OEMM81H18-A101E <sup>1</sup>	IPC/OEMM81I20-A101E <sup>1</sup>	MySyslogic <sup>1</sup>
<b>Processor / Performance</b>					
Intel® Atom™ x5-E3930 1.80GHz (Burst)   1.3GHz Clock - Dual Core		•			on request on request
Intel® Atom™ x5-E3940 1.80GHz (Burst)   1.6GHz Clock - Quad Core			•		
Intel® Atom™ x7-E3950 2.00GHz (Burst)   1.6GHz Clock - Quad Core				•	
Intel® Celeron® N3350 2.4GHz (Burst)   1.1GHz Clock - Dual Core					
Intel® Pentium® N4200 2.5GHz (Burst)   1.1GHz Clock - Quad Core					
<b>Memory / Storage</b>					
L2 cache		2MB	2MB	2MB	2MB
DDR3-1867 RAM with ECC		2GB	4GB	8GB	
CFast socket		1	1	1	1
microSD card socket		1	1	1	1
<b>Features</b>					
Real time clock PC compatible with battery backup		•	•	•	•
Multistage Watchdog		•	•	•	•
Temperature supervisor		•	•	•	•
TPM2.0 (SLB9665)		•	•	•	•
<b>Communication Interfaces</b>					
DisplayPort 1.2 (DDI) up to 4096x2160@60Hz (4K)		1	1	1	1
USB version 2.0 (Type A)		2	2	2	2
USB version 3.0 (Type A)		2	2	2	2
USB version 2.0 <sup>2</sup> (shared with mPCIe)		2	2	2	2
Ethernet 10/100/1000 BASE-T with Intel I210 (RJ45)		4	4	4	up to 4 optional
RS232 Serial Interface (RX, TX, RTS, CTS) <sup>2</sup>		1	1	1	
CAN (PEAK, SJA1000 compatible) isolated (1x DSUB9)		2	2	2	2
Mini PCIe socket with miniSIM <sup>2</sup>		1	1	1	1
Digital I/O, internally connected via I2C (latency <1ms)		4 inputs, 4 outputs	4 inputs, 4 outputs	4 inputs, 4 outputs	
Analog I/O, internally connected via USB, input: 0-10V		4 inputs	4 inputs	4 inputs	
<b>Technical Data</b>					
Dimensions w174 x h59 x d127 mm (housing without mounting bracket)		•	•	•	•
Wall or DIN Rail mounting		•	•	•	•
Net weight [gram]		~1150	~1150	~1150	
Input voltage 9 ... 30VDC non-isolated		•	•	•	
Current consumption typ. [mA] @ 24V without Add-Ins		375	500	625	
Power consumption typ. [Watt] @ 24V without Add-Ins		9	12	15	
<b>Environmental Conditions</b>					
Operating temperature (ambient) <sup>3</sup>		-40°C ... +70°C	-40°C ... +70°C	-40°C ... +70°C	-40°C ... +70°C
Storage temperature		-40°C ... +85°C	-40°C ... +85°C	-40°C ... +85°C	-40°C ... +85°C
Protection standard: IP20		•	•	•	•
Conformal coating <sup>4</sup>		optional	optional	optional	optional
Shock: designed to meet EN60068-2-27		•	•	•	•
Vibration: designed to meet EN60068-2-6		•	•	•	•
EMC according to EN-55032/55035		•	•	•	•
Safety according to IEC/EN62368		•	•	•	•
UL / CSA certification <sup>1</sup>		on request	on request	on request	on request
Radio and Telecommunication: Designed to meet RED		•	•	•	•
MTBF ~ 150 000h (17 Years) <sup>excl. battery</sup>		•	•	•	•
<b>Optional enhancement cards</b>					
Wireless Module (LTE / GSM / GPS / BT / WiFi) <sup>1</sup>		optional	optional	optional	optional

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

<sup>2</sup>Internal connector

<sup>3</sup> Depending on installation situation and interface connection. Please see user documentation.

<sup>4</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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Version 0.1 | February 2020

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## 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.

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