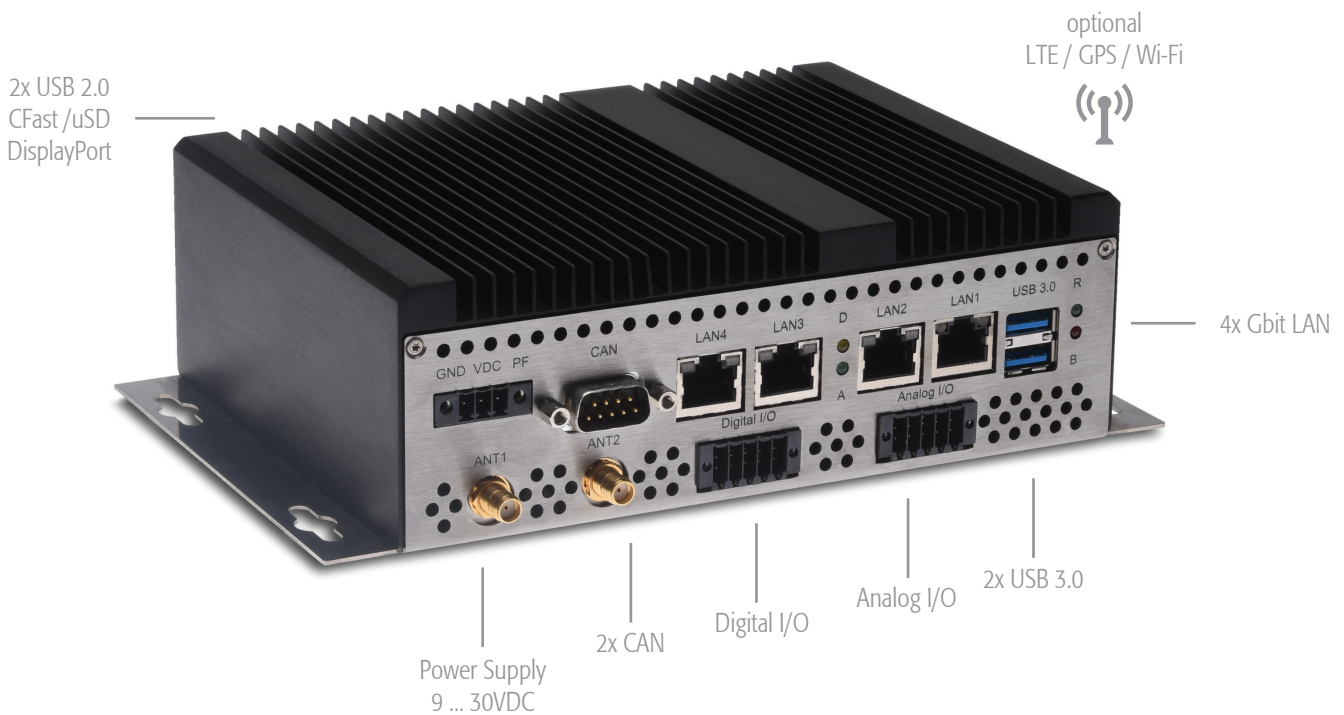


## COMPACT-M OEM Series

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

Processor / Performance				
Intel® Atom™ x5-E3930 1.80GHz (Burst)   1.3GHz Clock - Dual Core		•		
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				on request
Intel® Pentium® N4200 2.5GHz (Burst)   1.1GHz Clock - Quad Core				on request
Memory / Storage				
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
Features				
Real time clock PC compatible with battery backup	•	•	•	•
Multistage Watchdog	•	•	•	•
Temperature supervisor	•	•	•	•
TPM2.0 (SLB9665)	•	•	•	•
Communication Interfaces				
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 Mbit 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	
Technical Data				
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	
Environmental Conditions				
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) <small>excluding battery</small>	•	•	•	•
Optional enhancement cards				
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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