Rugged Computer

RPC COMPACT- 81 Series

Industrial rugged PC with Intel® Atom™ E3900 processor (formerly Apollo Lake)

Preliminary

Rugged IPC

RPC/COMPACT81

This fan less RCP COMPACT 8 generation is based on the Intel® Atom™ E3900 processor technology and offers a wide range of interface options.
The new ultra rugged housing made of tough anodized aluminum offers a IP67 protection and has no rotating parts.
The robust and uncompromising industrial version allows implementation in the most demanding applications and warrants long term availability.

- **Multi-core 64-bit Intel® Atom™ processor**
- **Protection class IP67**
- **Extended temperature range**
- **Shock and Vibration resistant**

Windows IoT

Debian 9 - Stretch

CE

Product Highlights

Ultra rugged (IP67)
Maintenance free
RTC with Goldcap instead of battery backup
Scalable CPU core
Watchdog
Temperature supervision
–40...+85°C on component level
Persistent Flash BIOS
ESD- protection on all interfaces
No active cooling required
No moving parts
Long term availability

Product Features

Intel® Atom™ E3900 Series
up to 2.0GHz, up to 4 Cores
RAM soldered on board up to 8GB
Socket for CFast
Graphic resolution up to WUXGA
Ethernet, USB, RS232, isolated RS422/485
Optional WiFi extensions
Rugged M12 connectors
Rugged aluminum housing
Protection class IP67

Markets / Applications

Heavy Industry
Traffic control
Transportation and vehicle construction
Automated Guided Vehicle (AGV)
Railway

Order Code		RPC/SL81I20-A145E[1]	RPC/SL81I20-A151E[1]	MySyslogic [1]
Processor / Performance				
Intel® Atom™ x7-E3950 2.00GHz (Burst) | 1.6GHz Clock - Quad Core		•	•	•
Intel® Atom™ x5-E3940 1.80GHz (Burst) | 1.6GHz Clock - Quad Core		optional	optional	optional
Memory				
L2 cache		2MB	2MB	2MB
RAM DDR3L 1867MT/s soldered on board		8GB	8GB	up to 8GB
4GB DDR3L RAM		optional	optional	
Features				
Real time clock PC compatible with Goldcap backup (up to 48h)		•	•	•
Hardware Watchdog & Temperature supervisor		•	•	•
Intelligent power management (Ignition controller)		•	•	•
TPM2.0 (SLB9665)		•	optional	optional
Communication Interfaces				
DisplayPort 1.2 up to 4096x2160 @60Hz behind the front cover		•	•	•
CFast socket with retention frame [2]		1	1	•
USB version 3.0 behind the front cover	(Type A)	1	1	1
USB version 2.0 behind the front cover	(Type A)	1	1	up to 4
USB version 2.0 [2]		3	3	
Ethernet 10/100 Mbit (I210-IT)	(M12 female d-coded)	2		up to 2
Ethernet 10/100/1000Mbit (I210-IT)	(M12 female x-coded)		2	up to 2
RS422/485 ESD protected		optional	optional	up to 2
Active/passive-CAN (PEAK, SJA1000 compatible) ESD protected, isolated	(M12 female 8-Pin)	optional	optional	up to 2
Digital I/O (24VDC, galv. isolated)		optional	optional	up to 8
Mini PCIe socket [2]		•	•	•
I2C bus [2]		•	•	•
Buzzer		•	•	•
Technical Data				
Dimensions w276 x h58 x d210 mm (housing, incl. mounting)		•	•	•
Net weight [gram]		3600	3600	3600
Input Voltage 9...30VDC non-isolated	(M12 4P male A-coded)	•	•	•
Input voltage 16.8 ... 30DC isolated	(M12 4P male A-coded)	optional	optional	optional
Current consumption typ. [mA] @ 24V without Add-Ins / WiFi		300	300	
Power consumption typ. [Watt] @ 24V without Add-Ins / WiFi		7.2	7.2	
Environmental Conditions				
Operating temperature		-40°C ... +70°C [3]	-40°C ... +70°C [3]	-40°C ... +70°C [3]
Storage temperature –40 ... +85°C		•	•	•
Protection standard: IP67		•	•	•
Conformal coating		optional	optional	optional
Shock: EN60068-2-27 / EN61373		•	•	•
Vibration: EN60068-2-64 / EN61373		•	•	•
EMI-Conformity EN-50121-3-2		•	•	•
Safety according to EN62368-1		optional	optional	optional
Radio and Telecommunication: Designed to meet RED		•	•	•
MTBF ~200 000h (22.8 Years) @ 25°C excluding battery		•	•	•
Wireless Functions				
Cellular 4G Module (GSM/UMTS/LTE) u-blox MPCI-L210-03S-00 Module (TOBY-L210) - M2M only!		optional	optional	optional
Dual SIM Support		optional	optional	optional
Positioning Module (GPS, Galileo, Glonass, Beidou) u-blox NEO-M8U Module incl. acceleration sensor		optional	optional	optional
Acceleration / Motion Sensor STMicroelectronics ISM330DLC		•	optional	optional
Wireless LAN 802.11a/b/g/n Dual-Band 2T2R mPCIe Module, AR9592		optional	optional	optional

[1] Please contact factory for minimum order quantities
[2] Internal connector
[3] Depending on installation situation and interface connection. Please see user documentation.

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industrial computing