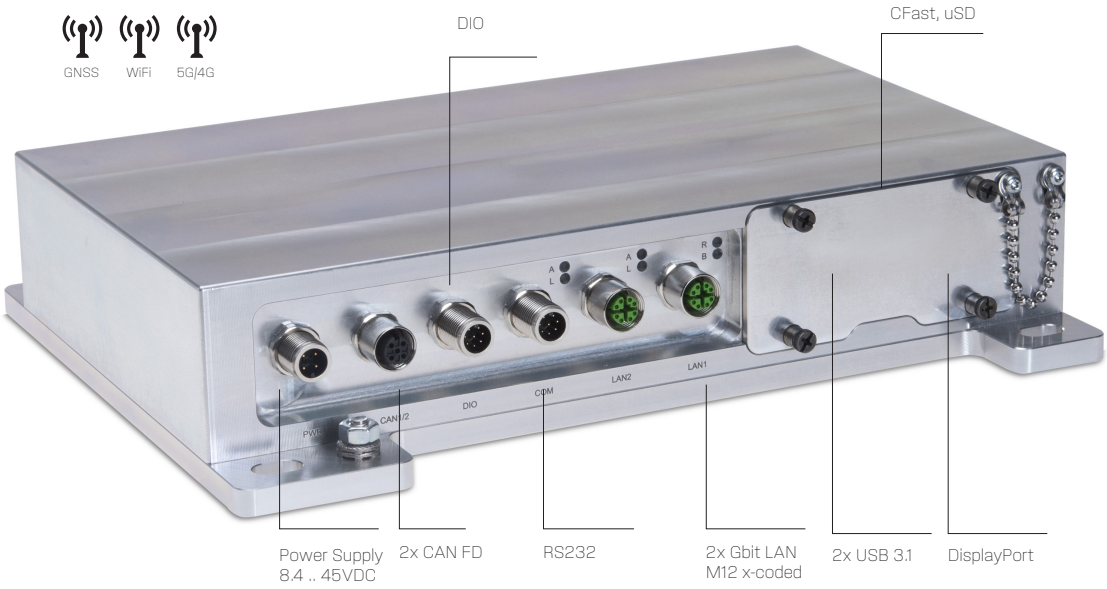
Rugged Computer

syslogic

Rugged Computer RSL 82

Embedded Rugged Computer with Intel® Atom™ Elkhart Lake processor (x6000 Series)

PRELIMINARY



Product Highlights
Maintenance free
Long term availability
Power Ignition controller
Inertial measurement unit (IMU)
Trusted platform module (TPM 2.0)
UEFI Secure Boot
GNSS with dead reckoning
Fanless, no moving parts

Market/Applications
Heavy Industry
Agriculture
Construction
Mining vehicles
Automated guided vehicles (AGV)
Outdoor applications
Transportation

RPC RSL 82

This fanless Rugged Computer RSL 82 generation is based on the Intel® Atom™ Elkhart Lake (EHL) processor technology, using the new 10nm "Tremont" architecture, it 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.

→ Intel® Atom™ Elkhart Lake Series
→ Rugged aluminium housing
→ IP 67/69 approved
→ Schock and vibration resistant

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		Order Code	RPC/RSL82H15-A154E[1]
Processor / Performance			
Intel® Atom™ x6425RE - Quad core 1.9GHz clock | 16GB RAM			✓
Intel® Atom™ x6414RE - Quad core 1.5GHz clock | 4GB RAM			on request
Memory / Storage			
L2 cache			1.5MB
4267MT/s LPDDR4x RAM soldered on board			16GB
Internal eMMC			32GB
CFast socket with latching retainer [2]			1
MicroSD Card socket [2]			1
Features			
Real time clock PC compatible with Goldcap backup (up to 48h)			✓
Hardware Watchdog & Temperature supervisor			✓
Intelligent power management (Ignition controller)			✓
TPM 2.0 according to ISO/IEC11889			✓
UEFI Secure Boot key material must be provided by customer			✓
Inertial measurement unit STMicroelectronics ISM330DHCXTR (Please see user documentation for more detailed information and maximum sampling rate)			✓
Communication Interfaces			
DisplayPort 1.4 (4096 x 2160 @ 60Hz)			1
USB version 3.1	(Type A)		2
Ethernet 10/100/1000 BASE-T (1x Intel® GbE | 1x Intel® I210-IT)	(M12 female x-coded)		2
Serial RS232 (not isolated)	(M12 male, 8P a-coded)		1
Digital I/O, 24VDC, (4 inputs, 4 outputs)	(M12 male, 8P a-coded)		1
CAN 2.0A/B & CAN FD (PEAK FPGA chip, SJA1000 compatible) active/passive, isolated	(M12 female)		2
M.2 Key B socket [2]	(3042)		1
M.2 Key E socket [2]	(2230)		1
Mini PCIe socket [2]			1
Buzzer			✓
Wireless connectivity			
4G LTE Cat-13 (3G fallback) Sierra Wireless EM7590 - M2M only!	(2x SMA)		✓
Dual nano SIM slot for cellular modules for 4G module			✓
GNSS module u-blox NEO-M9V Module	(1x SMA)		✓
High precision GNSS module (with IMU, RTK) u-blox ZED-F9P/R	(1x SMA)[3]		on request
Wireless LAN (Wi-Fi 6) 802.11ac/a/b/g/n/ax Intel, Bluetooth 5.2 Module Intel Wireless- AX210	(2x RP-SMA)		✓
Technical Data			
Exterior Dimensions [mm] (housing incl. mounting plate)			w276 x h58 x d210
Net weight [gram]			~3500
Non-Isolated input voltage, with ignition controller function, reverse polarity protected	(M12 4P male a-coded)		8.4...45VDC
Interruption of voltage supply time			EN50155 - Class: S1
Power consumption typ. in Watt @ 24V without Add-Ins, idle			~17
Environmental Conditions			
Operating temperature (complies with EN50155 class OT4/STO)[4]			-40°C ... +70°C
Non operating temperature (Recommended storage temperature 20°C .. 25°C)			-40°C ... +85°C
Ingress protection standard according to EN60529			IP67, 69
Conformal coating [5]			PCX
MTBF @ 25°C according to Telcordia SR-332, Environment GB, excluding CFast and optional interfaces			378'088 hours
Certifications			
Shock EN60068-2-27 / EN61373			✓
Vibration EN60068-2-64 / EN61373			✓
EMI-Conformity EN50121-3-2 / EN301489-1			✓
Safety (according to EN62368-1)			designed to meet
Fire protection DIN EN45545-2			HL3
UKCA/CE			✓
Software			
Linux Debian 10.0			✓
BSP Windows 10 IoT Enterprise LTSC			✓

Scope of delivery
3x Protective cap for M12 Female
3xProtective cap for M12 Male
5xProtective cap for SMA
1x Device packaging

[1] Please contact factory for minimum order quantities
[2] Internal connector
[3] Multiband antenna needed (GNSS L1 band and L2/E5b/B2I bands). Example u-Blox type ANN-MB
[4] Depending on installation situation and interface connection. Please see user documentation.
[5] on all possible components (excl. Connectors and wireless devices)

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For support and further information:
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or **syslogic.com**

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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