

Vehicle Computer

COMPACT VSL Vehicle Series

Embedded In-Vehicle Computer with Intel® Atom™ Elkhart Lake processor (x6000 Series)



IPC/COMPACT82 - VSL

This fanless RSL COMPACT82 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.

- Multi-core Intel® Atom™ processor
- Shock and vibration resistant
- Wide Temp. -40...+85°C on component level
- Made for 24/7 continuous operation



Product Highlights

Maintenance free & long term availability
 Power Ignition controller
 Hardware Watchdog
 Trusted platform module (TPM 2.0)
 UEFI Secure Boot
 Temperature supervision
 Persistent Flash BIOS
 Fanless, no moving parts

Product Features

Intel® Atom™ Elkhart Lake, up to 4 cores
 up to 16GB LPDDR4 RAM
 LTE-4G, GNSS and WiFi6 connectivity
 CFAST socket
 microSD socket
 1Gbit Ethernet and USB 3.1
 CAN-FD and Serial Ports
 Modular product design
 wide range of expansion options

Industries / Applications

Automotive
 Transportation
 Automated Guided Vehicles (AGV)
 Special purpose vehicles
 Agriculture
 Industrial trucks

Order Code IPC/VSL82J19-A153E¹

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 (RTC) with battery backup		CR2477N
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		•
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
CAN 2.0A/B & CAN FD (PEAK FPGA chip, SJA1000 compatible) active/passive, isolated	(DSUB9)	2
M.2 Key B socket ² - used for LTE-4G extensions	(3042)	
M.2 Key E socket ² - used for WiFi extensions	(2230)	
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)		w228 x h53 x d127
Net weight [gram]		~1750
Non-isolated input voltage, with ignition controller function, reverse polarity protected	(M12 4P male a-coded)	8.4 ... 45VDC
Power consumption typ. in Watt @ 24V without Add-Ins, idle		~17
Environmental Conditions		
Operating temperature 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		IP40
Conformal coating ⁵		on request
UNECE-R10 certified (E-mark)		on request
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
MTBF @ 25°C according to Telcordia SR-332, Environment GM, excluding CFast and optional interfaces		tbd

¹ Please contact factory for minimum order quantities

² Internal connector

³ Multiband antenna needed (GNSS L1 band and L2/E5b/B2l 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)

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.

© 2023 Syslogic Datentechnik AG
All rights reserved

Syslogic Datentechnik AG
Täferstrasse 28
CH-5405 Baden Dättwil

Version 1.0 | July 2023

For further information and support:
info@syslogic.com
support@syslogic.com
www.syslogic.com

+41 56 200 90 40 Switzerland (Headquarters)
+49 7741 967 14 20 Germany and Austria



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