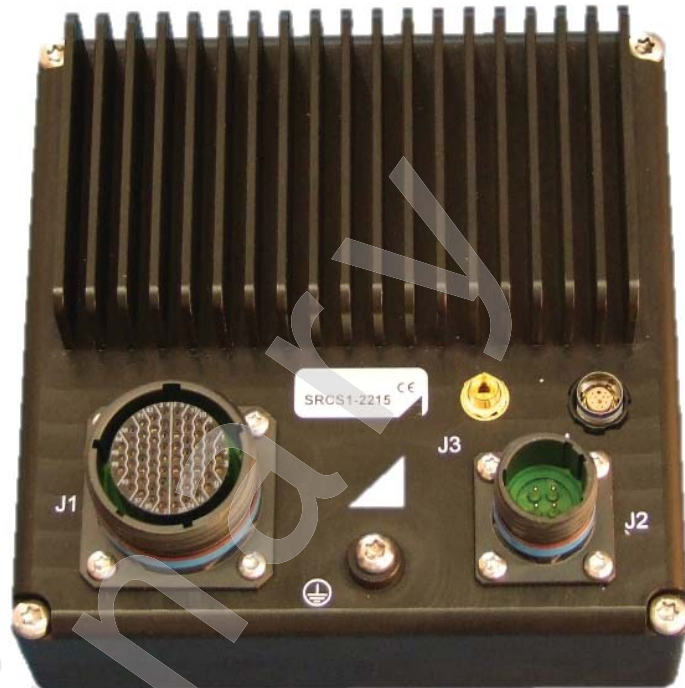# SRCS Small Rugged Computer System

Facts

- Intel Atom® inside

- Convection and conduction cooled

- 5x5x2.5" ultra small form factor, only 1l volume

- -40°C .. +70°C operating temperature range

- Up to 40W power dissipation @ T_A = 55°C

- ITAR free, European manufacturing

The SRCS system designed by powerBridge Computer is a rugged high performance small form factor computer for tough environments. Requiring only 5"x5" base area the enclosure has the smallest possible footprint fitting perfectly into applications with limited space, but is also as a VITA 75 compliant version available. The SRCS system is intended for use in land, air and marine applications. The lightweight compact and fully sealed case operates fanless, resists contamination and humidity with its IP67 prevention and is shock and vibration protected up to 40G according to MIL-STD-810-G. The SRCS operates in a temperature range from -40 up to +70 °C allowing up to 45W power dissipation at 45°C. An external 9-36V DC power supply is required.

The internal computing platform comes in form of a ComExpress type 6 module and is expandable with additional features when required. Also two Mini-PCIe module slots are available for custom options. SSD storage up to 2 TB can be configured. All interfaces are routed to a MIL 38999 circular connector, and optional a separate USB 3.0 and an antenna connector is provided. The inside chassis surface is colorless passivated, the outside is either powder-coated or anodized.

The SRCS system perfectly fits in new designs as also in retrofit solutions. Due to the ComEx form factor it is easily adaptable to different application requirements and future-proof.

Contact Details

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powerBridge Computer

System Specifications	
Processor	Intel Atom® x7-E3950 quad core @1.6 GHz (burst 2.0 GHz), 2 MB L2 cache, 12 W TDP
Memory	Dual channel 8 GB DDR3L-1866 non-ECC DRAM
Storage	Opt. 32GB eMMC Drive 5.0 soldered onboard
	Up to 2TB via M2 NVMe module 2280
	SDCard slot onboard
	2 external SATA Gen3 channels
Graphics	Intel® HD graphics 500 series controller
	HW decoding of HEVC (H.265), H.264, MVC, VP8, VP9, MPEG2, VC-1, WMV9, JPEG/MJPEG formats
	HW encoding of HEVC (H.265), H.264, MVC, VP8, VP9 and JPEG/MPEG formats

I/O	
Video	2x DDI DP 1.2, DVI, HDMI 1.4b and eDP 1.3
Audio	HD audio
LAN	2x GbE
USB	1x USB 3.0 via separate connector
	3x USB 2.0
Serial	2x UART (RS232, 422, 485)
CAN	Extended option
GPIO	4x GPIO
I/O expansion	SPI, I2C, SMbus
I/O options	GPS, GSM, WiFi

Power Supply	
Power input	9 ... 36 V DC
Power consumption	40 W max. @ 55 °C T_A, 45 W max. @ 45 °C T_A, depending on configuration

Environmental	
Cooling	Convection and cold plate conduction
Operating temperature range	-40 ... +70 °C
Storage temperature range	-40 ... +85 °C
Vibration	MIL STD-810-G
Operating shock	MIL-STD-810-G
Ingress protection	IP 67
Altitude	-1,500 to +60,000 ft
Humidity	0 ... 95% relative humidity
EMI/RFI	MIL-STD-461

Certification and Standards	
Compliance	CE, prepared for MIL-STD-810 certification
MTBF	acc. to MIL-HDBK-217F on req.

Mechanical	
Dimension	127 x 127 x 62 mm³, < 1dm³
Form factor	Proprietary, opt. VITA 75 compliant
Weight	< 1.3 kg, depending on configuration
Connectors	MIL 38999, opt. SMA

Software	
BIOS	AMI BIOS
Security	TPM 2.0
OS	Microsoft® Windows 10 (64bit), Wind River Linux (64 bit)

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C o m p u t e r