DATASHEET

Rackmount PC and Server
Model: RPCS-3

P/N
560-00830-000

The RPCS systems are a family of rugged rackmount computers/servers. designed to support severe environmental conditions. These solutions include:

- Last generation of DP motherboards in Enhanced-Extended ATX (EE-ATX), E-ATX and ATX frame;
- Fixed or Hot-swappable Hard Disk drives;
- Fixed or Hot-swappable full redundant AC/DC power supply;
- COTS modules, such as motherboard, power supply, mass storage device integrated into a rugged mechanical frame;
- IPMI controller;
- Suitable for Virtual Systems like Hyper-V, VMWare ESXi, ProxMox.

TECHNICAL SPECIFICATIONS

CPUs	:	One or two Intel® Xeon® E5-2600 series processors
HARD DISKS	:	Up to 12TB of Hot-swappable SAS/SATA 2.5'' Storage
Motherboard (MDB)	:	X9 SuperMicro Series Motherboard
RAM	:	Up to 1TB in 16 modules
Form Factor	:	Dimensions: 133.3mm x 446mm x 561mm
Rack mount	:	19'' 3U standard rack installation: by means of Jonathan lateral slides and frontal handhelds
Weight	:	Approximately 18Kg (40 lbs)
Frontal interface	:	12 slots for Hot Swappable SAS/SATA 2.5'' disk, CD/DVD/RW, 4 USB
Fan	:	4 Fan modules with PWM Control
Power Supply	:	Dual Redundant AC inlet, Hot Swappable, Power Supply up to 2 x 800W
Front panel, controls and indications	:	Frontal cover removable by key lock Main Power, Power Supply, System, Overheat FAN, LAN, HDD
Color	:	Gray RAL-7030, Black

SOFTWARE SPECIFICATIONS

OPERATING SYSTEM	:	• Windows Server 2008/2012 • Windows 7/10 64bit

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	:	-5° to +50°C (with TCS Active), as per MIL-810F methods 501.4 and 502.4
Storage and Non-Op Temperature	:	-40°C to +70°C, as per MIL-810F methods 501.4 and 502.4
Operating Altitude	:	Up to 10,0000 ft. a.s.l., as per MIL-810F method 504
Non-op Altitude	:	Up to 40,000 ft. a.s.l., as per MIL-810F method 504
Humidity	:	Up to 95% Non-Condensing, 30° to 60°C 48 hours, as per MIL-810F method 507.4
Vibration	:	0,5g RMS 5 to 50Hz, as per MIL STD 167-1A, Type I
Shock	:	±40g, 11 ms half sine, as per MIL STD 810F, method 516.5, proc. I
Roll	:	± 22,5 ° period 10 s, as per AECTP-400-3, method 418
Pitch	:	± 7,5 ° period 5 s, as per AECTP-400-3, method 418
Safety Regulations	:	EN 60950, RoHS, REACH, CE
Reliability	:	10 Years Operating Life Maintainability <20 minutes @ Line-Replaceable Unit (LRU) Level

EMC SPECIFICATIONS

CE102	:	Conducted Emissions through Power Leads, 10KHz ÷ 10MHz, as per MIL STD 461F – Sect. 5.5

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		• Red Hat® 6.0+ • Ubuntu® 14+ • CentOS 6.0+

POWER SUPPLY SPECIFICATIONS

Tolerances	:	• Voltage: 90 ÷ 264 Vac • Frequency: 47 ÷ 63 Hz • Power: 650 VA Max as per MIL STD 1399-300B sect. 5.3.1
Line current	:	• Surge (inrush): 30 Apk @115V; ≤ 15 Apk @ 230V • Operating: ≤ 10 A rms @ 115V; ≤ 5 A rms @ 230V as per MIL STD 1399-300B sect. 5.3.6
Current waveform	:	• Percent coeff.: 5000/f_H @ 50Hz nominal freq. • Percent coeff.: 6000/f_H @ 60Hz nominal freq. as per MIL STD 1399-300B sect. 5.3.7
Emergency condition (Power supply and Hot swap)	:	Interruptions: • 70 ms (bus transfer) • 2 min (re-configuration) as per MIL STD 1399-300B sect. 5.3.4
Voltage and frequency transient	:	• 230 Vrms ±20% & 50Hz ±5,5% @ 230 V, 50 Hz • 115 Vrms ±20% & 60Hz ±5,5% @ 115 V 60 Hz as per MIL STD 1399-300B sect. 5.3.2
Leakage current	:	≤ 2 mA rms, as per MIL STD 1399-300B sect. 5.3.9
Insulation resistance	:	≥ 10 MOhm @1000 Vac, as per MIL STD 1399-300B sect. 5.3.10
Electrical continuity	:	≤ 25 mOhm

CS101	:	Conducted Susceptibility through Power Leads, 30Hz ÷ 150Hz, as per MIL STD 461F – Sect. 5.7
CS114	:	Conducted Susceptibility, bulk cable injection, 10 kHz ÷ 200 MHz, as per MIL STD 461F – Sect. 5.13
CS115	:	Conducted Susceptibility, bulk cable injection, impulse excitation, 30 Hz pulses for 1 min., as per MIL STD 461F – Sect. 5.14, fig. CS-115-1
CS116	:	Conducted Susceptibility, damped sinusoidal transients, cables and power leads, 10 kHz ÷100 MHz, freq: 0,01; 0.1; 1; 10; 30; 100 MHz as per MIL STD 461F – Sect. 5.15, fig. CS-116-1 and -2
RE101	:	Radiated Emissions, magnetic field, 30 Hz ÷ 100 kHz as per MIL STD 461F – Sect. 5.16
RE102	:	Radiated Emissions, electric field, 10 kHz ÷ 18 GHz as per MIL STD 461F – Sect. 5.17
RS101	:	Radiated Susceptibility, magnetic field, 30 Hz ÷ 100 kHz as per MIL STD 461F – Sect. 5.19, fig. RS 101-1
RS103	:	Radiated Susceptibility, electric field, 2MHz ÷ 18GHz., as per MIL STD 461F – Sect. 5.20

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