IPC191V5

Gateway hardware with Linux operating system

Datasheet

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Version 1.1

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MADE IN GERMANY

Qualitätsmanagement ISO 9001
www.dekra-siegel.de
DEKRA zertifiziert

Power Supply 115 / 230 V AC (standard variant)	
Voltage	U_{PWR1}: 115 / 230 V AC (90 – 264 V AC)
Power consumption	Max. 50 W; Typ. 25 W (depending on the used type)
Starting current	Max. 30 A (at 230 V AC)
Input frequency	47 – 63 Hz
Holding time	≥ 20 ms at 230 V AC
Fan	Fanless

Power Supply 12 / 24 V DC (optional variant)	
Voltage	U_{PWR1}: 12 / 24 V DC (9 – 32 V DC)
Power consumption	Max. 50 W; Typ. 25 W (depending on the used type)
Starting current	Max. 13 A (at 10V DC)
Holding time	≥ 1 ms at +24 V DC
Fan	Fanless

Power Supply 48 / 60 / 110 V DC (optional variant)	
Voltage	U_{PWR1}: 48 / 60 / 110 V DC (30 – 120 V DC)
Power consumption	Max. 50 W; Typ. 25 W (depending on the used type)
Starting current	n/a
Holding time	n/a
Fan	Fanless

Note: Further power supplies available on request.

Mainboard	
Embedded CPU	Intel® Series CPU Four cores with up to 2.6 GHz passively cooled
RAM	8GB DDR4
Mass storage	SATA & mSATA interface
Real time clock	Supported by a lithium battery (CR2032)

Interfaces

Ethernet	6x RJ45 10/100/1000BaseT LAN interface
Serial interface	1x RJ45 RS232 rear 2x DB9 RS232 rear 1x DB9 RS232 front
Extension port	1x PCI Express x1 slot for 8x/16x RS232- or 4x Ethernet interface card
Mass storage CFast	• Rugged CFast card, industrial – grade • Max. 64 GB supported • MTBF ≥ 4,000,000 hours • No moving parts • Removable flash card • Bad Block Scanning/Handling • Wear-Leveling system • ECC • Very short access time
USB	4 x USB (2x USB 3.0, 2x USB 2.0 front)
Monitor	HDMI

Diagnostics (Status LEDs)

Front	PWR: Power LED CPU: LED to show different software conditions Mass storage: CFast activity LED
Rear	PWR: m/b power LED Mass storage activity LAN 1-6: Link and activity LED

Housing

Body material	Steel chassis
Mounting	19” rack mount chassis (1U)
Expansion slot	1x PCIe x1
IP Code	IP20
Rotating parts	Excellent air flow with temperature-controlled fans which are switched on only if a certain CPU temperature and system temperature respectively has been exceeded (configurable).
Dimensions (W x H x D)	approx. 482.6 mm x 44.45 mm x 381.0 mm (19“ x 1.75" x 15" (W/H/D))
Weight	approx. 5.1 kg

Operating Environment, reliability

Operating temperature	0 °C to 50 °C
Storage temperature	-20 °C to 70 °C
Relative humidity	5% to 95% not condensing
MTBF	n/a

Additional Functions, Features, Others

Linux operating system	ipLinux
Real time clock	Battery buffered real time clock (RTC)
Hardware watchdog	☑
Temperature monitoring	☑
Power supply monitoring	☑

Approval, Standards and Conformity

Approval	CE (industrial)
Standards	EN IEC 61000-6-2:2019; EN IEC 61000-6-4:2019 EN IEC 61000-3-2:2019; EN 61000-3-3:2013 +A1:2019 Inclusive current basic norms (EMC – see below)
Conformity	RoHS; REACH; WEEE, EMC

Electromagnetic Compatibility (EMC) – Emission Requirements

EN 55016-2-1:2014 +A1:2017	Conducted emission from the power port In the frequency range 150 kHz – 30 MHz
EN 55016-2-1:2014 +A1:2017	Conducted emission from signal lines In the frequency range 150 kHz - 30 MHz
EN 55016-2-3:2017	Electric field radiated emission In the frequency range 30 MHz – 1 GHz
EN 55016-2-3:2017	Radiated emission from the enclosure In the frequency range above 1 GHz
EN 61000-3-3:2013	Voltage fluctuations and flicker impressed on the public low-voltage system with rated current ≤ 16 A per phase
EN 61000-3-2:2014	Harmonic current emissions impressed on the public low-voltage system with rated current ≤ 16 A per phase

Electromagnetic Compatibility (EMC) **– Immunity Requirements**	
EN 61000-4-2:2009	Immunity to electrostatic discharge (ESD) - Contact discharge ± 4 kV - Air discharge ± 8 kV
EN 61000-4-3:2006 +A1:2008 +A2:2010	Immunity to RF electromagnetic fields - 80 – 1000 MHz, Test level 10 V/m - 1.4 – 6 GHz, Test level 3 V/m
EN 61000-4-4:2012	Immunity to fast transients (Burst) - AC power port ± 2 kV - DC power port ± 1 kV - Signal lines ± 0.5 kV
EN 61000-4-5:2014 +A1:2017	Immunity to surges on power supply lines (Surge) - AC power port: line <-> ground ± 2 kV - AC power port: line <-> line ± 1 kV - DC power port: line <-> ground ± 1 kV - DC power port: line <-> line ± 0.5 kV
EN 61000-4-5:2014 +A1:2017	Immunity to surges on shielded signal lines (Surge) - Shielded lines ± 1 kV
EN 61000-4-6:2014	Immunity to conducted interference induced by radio-frequency fields - 150 kHz – 80 MHz, test level 10 V
EN 61000-4-11:2004	Immunity to voltage dips and interruptions - residual voltage 0% / 1 cycle - residual voltage 40% / 10 cycle - residual voltage 70% / 25 cycle - residual voltage 0% / 250 cycle