

Features

- ✦ **Intelligent Vehicle Ignition Interface**
 SoC-based monitoring reacts to turn on/off the system according to predefined on/off delays based on ignition status with a broad voltage input range of 8-35VDC.
- ✦ **Certification**
 CE/FCC Class A, EMC-EN 55022 & 55024, Shock-IEC600858-2-27 and Vibration IEC60068-2-64 certificates for in-vehicle usage.
- ✦ **Versatile I/O Functions**
 Triple Monitor Output, Up to 1 x Gigabit Ethernet Ports and either 8 or 16 PoE Ports, Multiple Serial Ports and USB Ports provide a host of functionalities.
- ✦ **Dual mPCIe and USIM sockets**
 Sockets support 3G, 4G, LTE, WLAN and GPS cards.
- ✦ **Solid State CFast drive**
 Operating System and applications run on Solid Status vibration proof internal CFast disk drive.
- ✦ **Quad 2.5" HDD**
 Four (4) 2.5" removable HDD bays with hardware RAID 0, 1, 5, 10 configurations.
- ✦ **Broad Temperature Range**
 -25C~60C at 100% CPU Processing level setting and HDD temperature specifications.
- ✦ **Compact Size**
 255mm x 240mm x 71mm
- ✦ **POE+**
 Eight (8) or Sixteen (16) POE+ Ports 25.4W each
- ✦ **Vehicle Application Specific Recording Software**
 Patronus Labs **Concert II Hybrid DVR/NVR Software** supports two User Interfaces with vehicle specific functionalities such as: Touch Screen Interface, Multi-channel Instant Playback, Mutli-channel playback speed adjust, Multi-Channel Audio Monitoring, simple archiving, etc..
- ✦ **Power on Record Mode**
 The **Concert II Hybrid DVR/NVR Software** supports Power on record mode to prevent operator error. When the system is powered it is recording with no operator interaction required. This guarantees recording without failure.

FIRMUS II RUGGED

PC - 8 or 16 PoE

Series

...From Patronus Labs



Applications

The 8 or 16 POE model *FIRMUS II RUGGED PC* is one in a series of 11 *FIRMUS II RUGGED PC* models. The series can be used for any application fixed or mobile where high reliability, high vibration or broad temperatures are required. Patronus Labs typically uses this series as: Rugged DVR/NVR servers, Rugged Work Stations, High-End Digital Signage appliances, GPS tracking device, Wi-Fi, 3G/4G/LTE gateway or a combination of all the above.

Custom software development is available to meet customer specific needs. Contact us for more details.

Models

Part Number	Description
CSRU1327	Rugged, PC, Intel™ i5, Fanless, 8 POE ports, 4x2.5" Drive bays, RAID 0, 1, 5, 10, ignition control, 8-35 V DC
CSRU1328	Rugged, PC, Intel™ i7, Fanless, 8 POE ports, 4x2.5" Drive bays, RAID 0, 1, 5, 10, ignition control, 8-35 V DC
CSRU1329	Rugged, PC, Intel™ i5, Fanless, 16 POE ports, 4x2.5" Drive bays, RAID 0, 1, 5, 10, ignition control, 8-35 V DC
CSRU1330	Rugged, PC, Intel™ i7, Fanless, 16 POE ports, 4x2.5" Drive bays, RAID 0, 1, 5, 10, ignition control, 8-35 V DC

Options

Part Number	Description
CCCC0957	4GB DDR3 RAM, 0°C to 85°C
CCCC1294	8GB DDR3 RAM, 0°C to 85°C
CCCC1295	64GB Cfast MLC, 0°C to 70°C for Operating System
CCCC1331	110/220VAC to 24VDC, 280W Power Supply
CCSW0178	Windows 7-Pro 64-bit
CCSW0267	Windows Embedded Standard 64-bit

Image



Specifications

Part Number	CSRU1327	CSRU1328	CSRU1329	CSRU1330
Audio	1x mic-in and speaker-out			
CFast	1x CFast socket for Operating System			
Chipset	Intel® QM77 Platform Controller Hub with AMT & RAID support			
DC Input	1x 3-pin pluggable terminal block for 8~35V DC input (for direct DC wiring)			
Dimension	240 mm (W) x 255 mm (D) x 70 mm (H)			
Ethernet	1x Gigabit Ethernet port by Intel® 82579LM			
EMC	CE/FCC Class A, according to EN 55022 & EN 55024			
Graphics	Integrated Intel® HD Graphics 4000 Controller			
Humidity	10%~90% , non-condensing			
Ignition Control	Ignition power control with configurable on/off delay (V+/GND/IGN)			
KB/MS	1x 6-pin mini-DIN connector for PS/2 keyboard/mouse			
Memory	2x 204-pin SO-DIMM sockets, up to 16 GB DDR3 1333/1600 MHz SDRAM			
Mini PCI-E	1x internal mini PCI Express socket with USIM socket, 1x internal mini PCI Express socket			
Mounting	Wall-mounting (Standard)			
Operating Temperature	-25°C ~ 60°C */**			
POE	8x IEEE 802.3at (25.5W) PoE+ Ports with per-port power on/off control 80W total power budget		16x IEEE 802.3at (25.5W) PoE+ Ports with per-port power on/off control 160W total power budget	
Processor	Intel® Core™ i5-3610ME (2.7/3.3 GHz, 3 MB cache)	Intel® Core™ i7-3610QE (2.3/3.3 GHz, 6 MB cache)	Intel® Core™ i5-3610ME (2.7/3.3 GHz, 3 MB cache)	Intel® Core™ i7-3610QE (2.3/3.3 GHz, 6 MB cache)
Remote Ctrl. & Status Output	1x 10-pin (2x5) wafer connector for remote on/off control and status LED output			
SATA HDD	4x Internal SATA port for 2.5" HDD/SSD installation with RAID 0/1/5/10			
Serial Port	2x software-programmable RS-232/422/485 (COM1 & COM2)			
Shock	Operating, 50 Grms, Half-sine 11 ms Duration (w/ SSD, according to IEC60068-2-27)			
Storage Temperature	-40°C ~ 85°C			
USB	2x USB 3.0 ports and 2x USB 2.0 ports			
Vibration	Operating, 5 Grms, 5-500 Hz, 3 Axes(w/ SSD, according to IEC60068-2-64)			
Video Port	1x DB-15 connector for analog RGB, supporting 2048x1536 resolution. 2x DVI-D connectors for DVI/HDMI outputs, supporting 1920x1080 resolution (Supporting dual independent display outputs)			
Weight	3.8 Kg			

*The 100% CPU loading is applied using Intel® Thermal Analysis Tool. For detail testing criteria, please contact Patronus Laboratories.

**For sub-zero operating temperature, a wide temperature HDD drive or Solid State Disk (SSD) is required.