

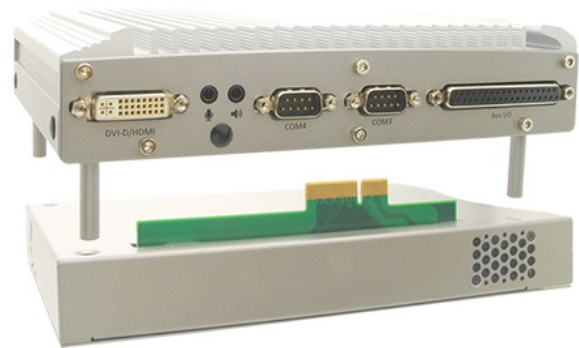
## Features

- ✦ **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 - IEC60068-2-27, Vibration - IEC60068-2-64 certificates for in-vehicle usage.
- ✦ **Versatile I/O Functions**  
Dual Monitor Output, 2 x Gigabit Ethernet Ports, 37 pin Aux I/O, Multiple Serial Ports and USB Ports provide a host of functionalities.
- ✦ **mPCIe and USIM socket**  
1 x Socket support 3G, 4G, LTE, WLAN and GPS cards.
- ✦ **Solid State mSATA drive**  
Operating System and applications run on Solid Status vibration proof internal mSATA disk drive.
- ✦ **2.5" HDD**  
One (1) internal Hard Drive bay.
- ✦ **Broad Temperature Range**  
-25C~70C at 100% CPU load.
- ✦ **Compact Size**  
205 mm (W) x 146 mm (D) x 76 mm (H)
- ✦ **PCIe Slot**  
PCIe 2.0 x4 slot a x1 speed Supports 8 channels NTSC/PAL(With Audio).
- ✦ **Standardized Compression**  
H.264 compression of analog video and ONVIF support for IP Encoders and IP Cameras.
- ✦ **Full Motion Recording with Audio**  
Record between 1-30 frames per second per channel (up to 240fps in 8 channel systems) from analog cameras with perfectly synchronized audio.
- ✦ **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, Multi-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 - Small PCIe

## Series

...From Patronus Labs



## Applications

The Small PCIe 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
CSRU1305	Rugged PC, Intel® Celeron® Bay Trail J1900, Fanless, PCIe, 1x2.5" HDD, ignition control, 8-35 V DC

## Options

Part Number	Description
CCC1333	4GB Low Voltage DDR3 RAM, 0°C to 85°C
CCC1334	8GB Low Voltage DDR3L RAM, 0°C to 85°C
CCSD1311	32GB mSATA MLC, 0°C to 70°C for Operating System
CCSD1312	64GB mSATA MLC, 0°C to 70°C for Operating System
CCAC1314	110/220VAC to 12VDC, 60W Power Supply
CCSW0178	Windows 7-Pro 64-bit
CCSW0267	Windows Embedded Standard 64-bit

## Images



## Specifications

Model	CSRU1305
Audio Port	1x Mic-in, 1x Speaker-out
Aux I/O Port	1x DB-37 female connector, 4x DI and 8x DO, 6x PWM, 1x encoder and 2x ADC are available as an option
Certification	CE/FCC Class A, according to EN 55022 & EN 55024
Dimensions	205 mm (W) x 146 mm (D) x 76 mm (H)
Ethernet	2x Gigabit Ethernet ports by Intel I210
Graphics	Integrated Intel® HD Graphics
Humidity	10%~90% , non-condensing
Memory	1x 204-pin SO-DIMM socket, up to 8GB DDR3L 1333MHz SDRAM
Mini PCI-E	1x full-sized mini PCI Express socket with USIM socket (PCIe + USB)
Mounting	Wall-mounting (standard), DIN-Rail mounting (optional)
mSATA	1x internal half-sized mSATA (SATA + USB)
Operating Temperature	-25°C ~ 70°C with SSD, 100% CPU loading **/**, -10°C ~ 50°C with HDD, 100% CPU loading */**
PCIe	1x PCIe x4 slot @ 1-lane PCIe 2.0 signal in Cassette
Power	8~35V DC input , 1x 3-pin pluggable terminal block for DC input
Processor	Intel® Celeron® Bay Trail J1900 quad-core processor (2.42 GHz, 2M cache)
SATA HDD	1x Internal SATA port for 2.5" HDD/SSD installation
Serial Port	2x software-programmable RS-232/422/485 (COM1 & COM2)
Series Port	2x RS-232 (COM3 & COM4)
Shock	Operating, 50 Grms, Half-sine 11 ms Duration (w/ SSD, according to IEC60068-2-27)
Storage Temperature	-40°C ~ 85°C
USB	1x USB 3.0 port and 3x 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 2560 x 1600 resolution / 1x DVI-I connector with DVI-D output, supporting 2560 x 1600 resolution (Supports HDMI Adaptor)
Weight	2.3 Kg (including one 2.5" HDD and DDR3 SO-DIMM)

\*The 100% CPU loading is applied using Passmark® BurnInTest™ v7.0.

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