Real time
Real world
Real tough

RMB-C1

Product Specification



FEATURES

CPU
- 1.5 GHz low-power, VIA C7 with dynamic frequency scaling

TEMPERATURE
- –40°C to 75° C fanless operation

POWER
- 8V to 42V mobile power supply
- Load dump, reverse voltage, and brown-out protection
- Meets SAE J1113-11, ISO-7637-2-2004 and MIL-1275B

MODULAR / EXPANDABLE
- PC/104 and Mini PCI expansion
- Optional modules: UPS, 32GB - 128GB Flash Drive, 802.11 b/g WiFi, 16-channel GPS

CONNECTIVITY & I/O
- COM, USB, Digital I/O, Ethernet, Audio, Video

MECHANICAL
- Marine grade extrusion, powder coated paint and stainless steel hardware
- MIL-C-26482 connectors

SUPPORTED OPERATING SYSTEMS
- Windows® XP or Linux

APPLICATIONS
- Military
- Industrial
- Mesh networks
- Transportation
- Security

RMB-C1

RUGGEDIZED WIRELESS SERVER

The RMB–C1 is a rugged mobile server designed for applications where severe environments and high performance meet. As a member of our CORE Systems™ product line, it tightly integrates the electrical, thermal and mechanical components into a complete system with no compromise to any one segment.

The RMB-C1 can be used as a central server, a stand-alone CPU, or a remote terminal. A full complement of I/O and expansion is provided. The back panel contains three TNC connectors for GPS and wireless communications options. The RMB-C1's modularity enables custom functionality with COTS convenience without large up-front costs.

Long term reliability is at the core of our design philosophy. Power supply failure has been eliminated by the best-in-class power supply. It rejects load dumps, repeated transients and over voltage. The marine grade extrusion is environmentally sealed to protect against dust and moisture. The unique thermal design allows for fanless operation over a –40°C to 75° C range.

The RMB-C1 excels in applications for bulkhead mounting on military equipment and heavy machinery. The careful circuit design, component selection, testing and superior heat dissipation maximize reliability and minimize costly downtime whether on a haul truck, dozer, tank or mining drill. The high shock and vibration ratings make it ideal for use in mining, transportation and military environments.

The RMB-C1 is a fully-developed platform designed to accelerate your design process. It can be supplied with Windows XPe or Linux installed. Contact our sales department to spec out your application.

RMB-C1

Product Specification

SPECIFICATIONS

LOW-POWER PROCESSOR
- VIA C7, 1.5 GHz
- Front-side Bus speed: 400 MHz
- Watchdog timer

RAM MEMORY
- 2 GB DDR2, industrial grade

COMPACT FLASH
- 4 GB, industrial grade, error-correcting

SERIAL PORTS
- Three RS-232
- One RS-232/485

USB
- Five 2.0 ports

CAN BUS
- CAN 1.2 and 2.0 compatible, up to 1 Mbps

DIGITAL I/O
- Four output lines with ground
- Eight input lines, 3V to 42V

ETHERNET
- Two 10/100 Base–T ports

AUDIO
- AC 97: line in, line out, microphone and speaker

VIDEO
- CRTs up to 1920 x 1440 x 24 bpp resolution

KEYBOARD AND MOUSE
- Supported through USB ports
- Wake–on keyboard supported

POWER
- 8-42VDC input voltage (10-36 VDC continuous)
- Meets SAE J1113-11, ISO-7637-2-2004 and MIL-1275B
- Load dump, reverse voltage, brown-out, and transient protection
- 2A of filtered battery power for displays, etc.
- Conducted-emissions minimized by internal filter

TEMPERATURE
- –40°C to +75°C ambient air temperature (brief excursions outside range are well tolerated)
- CPU case and internal air temperature sensors
- Fanless operation

SHOCK
- 30g, 3 axis per MIL–STD 202G, Test 213B, condition J

VIBRATION
- 5g, 3 axis per MIL–STD 214AG, Test 214A, condition A

PHYSICAL
- Size: 340 x 170 x 122 mm (12 x 6.7 x 4.8 in.)
- Weight: 8.7 lbs. (4.0 Kg)
- Meets FCC & CE Class A requirements
- IP65 dust / moisture rating
- Finish: Marine grade, powder coated paint
- Connectors: MIL-C-26482

OPTIONAL MODULES
- UPS: internal battery-backup
- Flash Drive: 32GB – 128GB with SATA interface
- 802.11 b/g Wifi: FCC part 15.247 & CE certified with Mini PCI interface
- 16-channel GPS: -158 dBm sensitivity with PC/104–*Plus* interface

ORDERING - HARDWARE

#7758 RMB–C1 with 1.5 GHz CPU, 2 GB industrial, DDR2 DRAM and 4 GB of industrial grade CompactFlash, GPS, WiFi and UPS function

ORDERING - ACCESSORIES

#7201 Shock and vibration dampening mounting system
#7980 Quick–release shock and vibration dampening mounting system.

Contact Octagon for information on the optional Mini PCI cards, PC/104 cards, connector caps, and SATA drives.

