



# CRS Freescale-based Systems

## 3U CompactPCI Application Ready Control Systems

### Features

- Rugged convection or conduction cooled chassis
  - 2 or 3 3U CompactPCI slots
  - MIL-C-38999 connectors
- Lightweight
- Freescale-based single board computer
- VxWorks Real-time operating system
- BIT support
- Broad operating temperature range
- Optimized for rugged shock and vibration conditions
- Designed for use in rugged environments:
  - UAVs
  - Manned and unmanned vehicles
  - Launch vehicles

GE Intelligent Platforms' CRS series of application-ready, packaged, pre-validated Control computer systems provide a highly flexible COTS Rugged System computing platform suited for mission applications requiring rock-solid reliability such as UAVs, ground vehicles, and manned aircraft.

GE's CRS series of COTS packaged computer systems can be deployed in the field as soon as your application is ready, or use the CRS COTS series as a starting point that GE can modify for your application.

The arduous task of integrating off the shelf boards has already been done for you — shortening your time to project completion. You have one point of contact for purchase and a single part number, not a collection of parts, to help reduce your program risk.

The CRS series successfully integrates GE Intelligent Platforms wide selection of COTS products and third-party products into modular systems that are tested and designed for rugged systems deployment in harsh environments such as extreme temperatures, and high humidity.

GE Intelligent Platforms' Military and Aerospace group is fully compliant with AS9100 processes and brings years of experience

designing rugged systems to your project. Our world class program management competencies are tailored to help mitigate your risk.

GE Intelligent Platforms maintains a parts, materials and processes plan, and performs design, manufacturing, and testing in accordance with industry standards including IPC (Class 3) and ANSI/VITA and applicable military standards. For systems containing MIL-STD-1553 or ARINC interfaces, we include the Integrated Avionics Library, a full suite of C functions, to help reduce your software development cycle time.

To help jump start your project, GE offers Engineering Development Units, or starter kits, preconfigured for development purposes. Based on the required system controller architecture, GE Intelligent Platforms can provide the appropriate development system for your specific needs.

GE Intelligent Platforms offers a Product Lifecycle Management (PLM) program of innovative Long-Term Support services to reduce the overall cost of ownership and provide industry-leading safeguards against component obsolescence. We are committed to supporting customer programs throughout their lifecycle.



# CRS Freescale-based Systems

CRS Systems	CRS-C2P-3CC1-xx	CRS-C3P-3CB1-xx
Processor	Freescale MPC7448 @ 1.0 GHz	Freescale MPC7448 @ 1.0 GHz
SBC RAM	512 MB	512 MB
SBC Flash Memory	256 MB	256 MB
Additional Memory (Flash, SSD, etc.)	Optional SATA Drive (up to 64 GB) or up to 4 GB CompactFlash Carrier	Up to 4 GB CompactFlash Carrier
Ethernet Ports	Up to 3x 10/100/1000BaseT	Up to 11x 10/100/1000BaseT
Serial Ports	Up to 14x RS422; 2x RS232 or 1x RS485	Up to 14x RS422; 2x RS232 or 1x RS485
USB Ports	1x USB 2.0	1x USB 2.0
MIL-STD-1553 Channels	Up to 4x	Up to 4x
ARINC 429 Channels	NA	Up to 15x RX and 15x TX
DAC	NA	Up to 8x
ADC	NA	Up to 12x
Discrete I/O	Up to 30x (SE)	Up to 30x (SE)
Other I/O	Up to: 2x IRIG IN/Out; 6x HL Discrete (SE) In; 4x HL Discrete (SE) Out; 8x Discrete (DIFF) In/Out	Up to: 2x IRIG IN/Out; 12x HL Discrete (SE) In; 8x HL Discrete (SE) Out; 12 Discrete (DIFF) In/Out; 12x RTD
Operating system	VxWorks 6.7	VxWorks 6.7
Cooling Type	Convection cooled	Cold plate cooled
Form Factor	3U CompactPCI	3U CompactPCI
Slots	2 + optional storage slot	3
Dimensions (H x W x D)	3.96" x 7.15" x 9.03" (excludes connectors)	5.60" x 4.25" x 8.76" (excludes connectors)
Weight	~ 11 lbs	~ 9 lbs
Input Power (MIL-STD)	28VDC nominal (MIL-STD-704)	28VDC nominal (MIL-STD-704)
Power Dissipation	42W max.	75W max.
Operating Temperature Range	-40° C to +45° C (Qual. -40° C to +55° C)	-40° C to +71° C at cold plate (Qual. -40° C to +71° C)
Shock	+40g SRS (MIL-STD-810G)**	+40g SRS (MIL-STD-810G)**
Random Vibration	0.1g <sup>2</sup> /Hz 15-1000Hz; 6dB/octave 1K to 2KHz**	0.1g <sup>2</sup> /Hz 15-1000Hz; 6dB/octave 1K to 2KHz**
Humidity	95% RH with varying temp.	95% RH with varying temp.

\* Varies by system configuration. \*\* System may have been qualified to higher levels. Consult factory for more information. SE=Single Ended; HL=High Level; DIFF=Differential

## Ordering Information

<b>CRS-C2P-3CC1</b>	2 slots	920-100830-0xx
<b>CRS-C3P-3CB1</b>	3 slots	920-100834-0xx

## GE Intelligent Platforms Contact Information

Americas: **1 800 433 2682** or **1 434 978 5100**

Global regional phone numbers are listed by location on our web site at [www.ge-ip.com/contact](http://www.ge-ip.com/contact)

[defense.ge-ip.com](http://defense.ge-ip.com)

