



RL4R

Single Slot PowerPC 3U CompactPCI SBC

Features

- MPC755 PowerPC @ 400 MHz,
- 1 MB L2 Cache, 1.6 GB/s
- Ultra compact, 1 slot only
- CHRP architecture
- VxWorks®, LynxOS® support
- 128 MB, 100 MHz SDRAM with ECC
- 64 MB Flash, 64-bit
- 8 MB Boot Flash
- 32 kB AutoStore nvSRAM
- Fast Ethernet 10/100 Mbit
- PMC extension slot
- Two asynchronous RS-232
- Two asynchronous RS-422/485
- Four timer/counters
- Two DMA channels
- RTC, Watchdog, temperature sensor
- -40° to +85° C
- Convection/Conduction cooling
- High shock and vibration immunity with stiffener bars and wedge locks
- Conformal coating

RL4R is a CompactPCI® all-in-one 3U single board computer designed to meet the needs of embedded application developers addressing markets like industrial automation, medical, scientific, imaging, telecommunications, military and aerospace.

The RL4R features an ultra compact single slot, all-in-one design with flexible processor and memory configurations, and a wide array of onboard peripherals, fast Ethernet, timers, serial channels and a 32-bit PMC interface.

Rugged and military needs are addressed with optional conduction cooling and extended tem-

perature range of up to -40°C to +85°C, increased shock and vibration immunity using stiffener bars and wedge locks, and conformal coating. Even with an attached conduction cooled PMC module, the RL4R fits into a single slot.

Special features include four serial channels with flexible RS-232 and RS-422/485 interfacing, two DMA controllers, four timers, 32 kBytes non-volatile SRAM, RTC, watchdog, temperature sensor and I2O intelligent I/O support.

GE Fanuc supports VxWorks® on the RL4R with support for others available upon request.



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Specifications

Processor

- Motorola PowerPC 755 @ 400 MHz
- 1 MB L2 cache
- MPC107 Chipset
- 100 MHz system wide bus

SDRAM

- 128 MB SDRAM with ECC
- ECC Single Bit Correction
- ECC detection.
- 72-bit 667 Mhz Memory Bus

Flash Memory

- 64 MB User Flash
- 8 MB boot flash

CPCI Interface

- PICMG 2.0 R3.0 compliant cPCI local bus standard
- 32-bit PCI – PCI bridge for up to 8 slots (33 MHz)
- J1 + J2, 2mm pin and socket connectors

Ethernet

- 10/100 Mbit Ethernet, auto-negotiation interface

Serial I/O

- Four serial I/O
 - Two RS-232 channels
 - Two RS-422/485 channels

PMC Expansion

- 32-bit PCibus Interface with front-panel I/O and partly rear I/O
- Supports ccPMC standard

Real-Time Clock/Watchdog/ETI

- Real-Time Clock
- Watchdog Timer

Temperature Sensors

- CPU die and ambient temperature

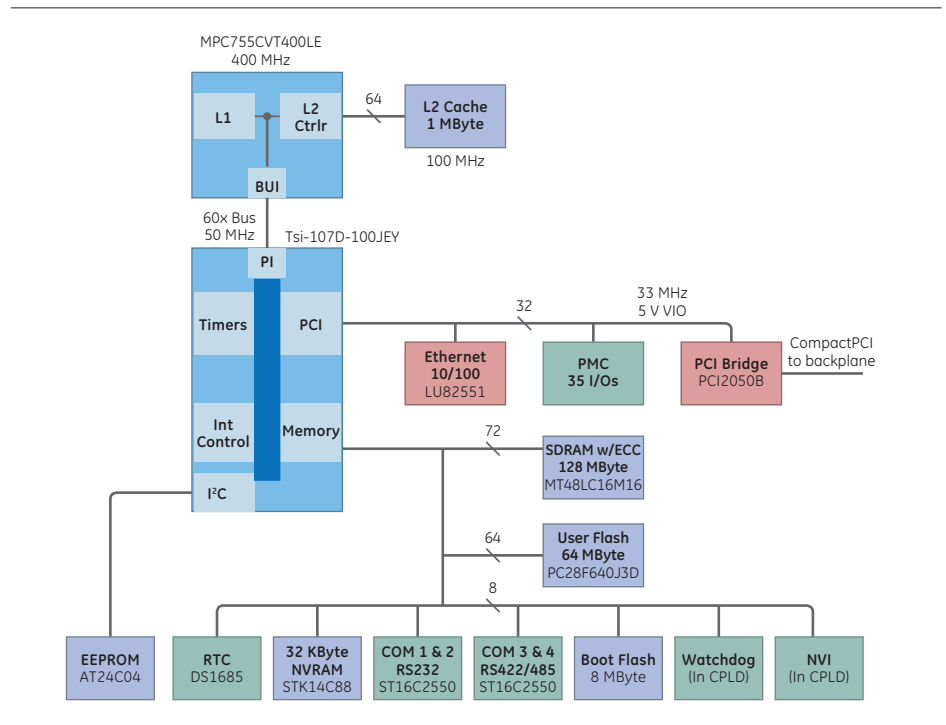
Power Requirements

	5V	3.3V
Idle	0.5A	0.7A
Load	0.5A	0.8A

Environmental

- Style 1 and 8

Block Diagram



About GE Fanuc Intelligent Platforms

GE Fanuc Intelligent Platforms is a leading global provider of embedded computing solutions for a wide range of industries and applications. Our comprehensive product offering includes many types of I/O, single board computers, high performance signal processors, fully integrated, rugged systems including flat panel displays, plus high speed networking and communications products. The company is head-quartered in the U.S. and has design, manufacturing and support offices throughout the world. Whether you're looking for one of our standard products or a fully custom solution, GE Fanuc Intelligent Platforms has the breadth, experience and 24/7 support to deliver what you need. For more information, visit www.gefanuc.com.

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Additional Resources

For more information, please visit the GE Fanuc Intelligent Platforms web site at:

www.gefanuc.com

