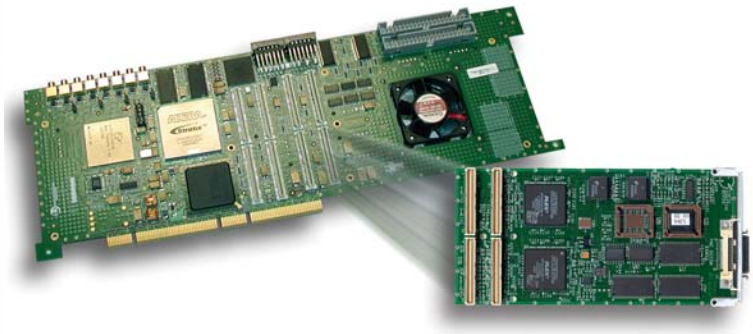
PCI Mezzanine Carrier

ZCM796



- Accepts one or two standard PMCs
- Eliminates the need to define the physical location of PMCs through plug-and-play technology
- Occupies only a single PCI system bus slot
- Sustains full onboard PCI bandwidth between modules
- Provides onboard tag space for one million parameters
- Bridges data between the PMCs and the real-time system bus at full data rates
- Electronically controlled patch panel moves signal streams between PMCs
- Full-size PCI-X and 133 MHz Rev. 1.0b compliant
- 1.25 Gbps MUXnet connections
- Performs MUX arbitration
- Compatible with Multifunction PCI Telemetry Module (MFT733-PCI)

L3 communications
Telemetry–West

Excellence You Can Measure

The PCI Mezzanine Carrier (ZCM796) provides a true "real-time" hardware architecture in a PC, combining the speed and interoperability of PCI with a high-reliability connector system and the flexibility of the mezzanine form factor. Each Carrier accommodates up to two PCI Mezzanine Cards (PMCs) effectively doubling the functional density of a standard PC chassis for multi-stream and mixed input/output applications. The ZCM796 shares the same family of high-performace PMC modules with L-3's VME carrier-based systems.

PMC modules are defined by the IEEE 1386.1 standard to follow the same electronic design as PCI cards, but in a mezzanine card form factor. One to two 2.9-inch by 5.9-inch (75mm by 150mm) PMC cards attach to the Carrier motherboard as daughter cards and together occupy a single full-length PCI slot.

The PCI Mezzanine Carrier transfers data between the PMC modules and the MUXbus, a high-speed PCI-based data broadcast bus running at 16 Mwords per second. Data moves between PMCs on the Carrier at full PCI bus rates or with an onboard "electronic patch panel" to move serial data between PMCs. A MUXnet interface on each Carrier allows tag/data transfers between Carrier cards within a single PC system, or between PCs, System 550, or Avalon systems. This breakthrough architecture allows the PCI Mezzanine Carrier to perform true data-driven time-deterministic processing using off-the-shelf commercial PC hardware.

ZCM796 Specifications

Inputs See individual PMC data sheets

Outputs See individual PMC data sheets

PMC Carrier

Mechanical I/F Spec.	IEEE1386.1
Electrical Spec	IEEE1386 (PCI)
Address/Data	A32/D32, PMC PN1, PN2, PN3, PN4 connectors
PCI Bus Clock	33 MHz
Signaling	3V, 5V tolerant
Power	+3.3V, +5V, ±12V, 7.5W max. per station; 12W max per 2 stations
Quantity	1 or 2 PMC modules
PMC Slot Module Types	Single-wide or double-wide
Inter-PMC Link	8 programmable serial lines to route outputs from one PMC to another
Trigger	Tags, Data Words

MFT Interface

Compatibility	Multifunction PCI Telemetry Board (MFT733-PCI)
Boards Supported	2 per PCI Carrier
Connectivity	40-pin 0.1" center header
Inputs Supported	Telemetry data, IRIG time

Program Setup and Control

PMCs	See individual PMC data sheets
Keyboard and Mouse	Fill-in-the-blank displays with pick-list selections
ASCII Text File	User-created description
API	Application Programming Interface for remote setup (option)

General Requirements

PC ATX Chassis	1 full-length, full height PCI slot
Mezzanines	1 to 2 PMCs
Maximum per Chassis	Depends on available PCI slots
Maximum per System	Virtually unlimited
Rear Panel	0 slots; see individual PMC module data sheets for requirements
Power	3.3V @ 3.0 A for Carrier card; see individual PMC module data sheets for requirements
Operating Temperature	0°C to 50°C
Relative Humidity	<90% (non-condensing)
Dimensions	107mm x 341mm
Status Display	8-character dot matrix

Compatibility

VISTA 350P PC Hardware
VISTA Software

Ordering Information

ZCM796	PCI Mezzanine Carrier

U.S. Headquarters
9020 Balboa Avenue
San Diego, CA 92123-3507
858-694-7500 800-351-8483
Fax: 858-279-0693

www.L-3Com.com/tw

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