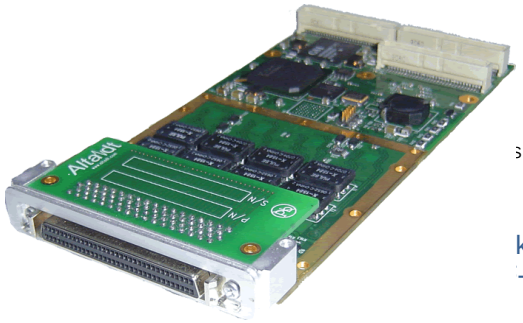
Alta data technologies

PMC-WMUX

Multi Channel WMUX Interface for PMC Carriers/SBCs

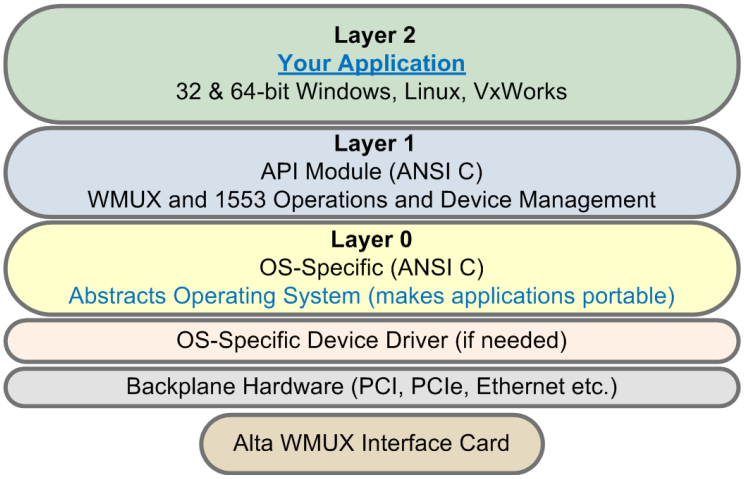


DB50 Connector Optional
SCSI Connector Shown

Selected by kheed Martin for -16 SBS WMUX Replacement!

Alta Data Technologies' PMC-WMUX interface module (PCI Mezzanine Card for Carriers and Single Board Computers) is a single or dual channel (A-B Redundant = 4 Busses per Channel) WMUX card supported by the latest software technologies. This PMC card is based on the industry's most advanced 32-bit WMUX FPGA protocol engine, ***AltaCore***™, and by a feature-rich application programming interface, ***AltaAPI***™, which is a multi-layer, highly portable ANSI C architecture. This hardware and software package provides increased system performance and reduces integration time.

AltaCore-WMUX is guaranteed 16PP194 compliant and is manufactured to the highest IPC-Level 3 standards and ISO 9001:2008 processes. The card is capable of simultaneous CIU, 16x RIU and Bus Monitor (RIU Map and Sequential Monitor). Alta is committed to a risk free integration and will be glad to help with any level of your system development.



Alta's Advanced Software Architecture

Key Features

- One or Two Dual Redundant Channels, Full Duplex/Simplex WMUX A-B Interfaces.
  - 4 Busses (2 RX and 2 TX) per channel
- Full Function CIU, 16x RIU/iRIU & BM
- PCI, PCI Express, PXI/PXIe, cPCI/cPCIe Carrier Options Available

- Works on Compliant 1553 Busses
- 1M Byte of User Memory (4x SBS)
- Commercial or Industrial Extended Temperature Parts, Conduction Cooled and Rear Panel Optional

- Advanced, Portable 32-bit FPGA Design. **Highly Portable Between FPGA Manufactures to Limit Parts Obsolescence Risk!**

- Common Data Packets (CDP) for CIU, RIU and Monitor. **Easily Portable to Previous SBS Data Interfaces!**

- Advanced, Multi-layer ***AltaAPI*** Provided at No Cost with Source Code
- Windows, Linux, VxWorks
  - Contact Factory for Latest RTOS Support

- Industry First: 20ns Signal Generation
  - Bit Construction – WMUX PHY TX
  - Most Advanced Error Injection Capability in the Industry

- IRIG-B RX PAM or RX/TX PPS Ext Clock
- Avionics Level & RS-485 Discretes/Clk
- Advanced BIT Features and Dual Temperature Sensors

- Full HW Interrupt Features
  - CIU, RIU and BM Interrupt Settings
- PCI 32 Bit, 33/66MHz & PCI-X Compatible

www.altadt.com

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Multi Channel
PMC-WMUX Specifications

General

- Full PP194 Compatible – 1 or 2 Channels Dual Redundant WMUX Channels or Wings (4 or 8 Busses) Selected by Lockheed as SBS Replacement! MIL-STD-1553 System Compatible
- Full Function CIU, 16x RIU/iRIU & BM.
- 32-Bit PCI 33/66MHz/PCI-X Compatible
  - PCI-SIG PCI 2.1 Compliant
  - ANSI/VITA 20-2001 Compliant
- 1Mbyte RAM (2x SBS WMUX Card)
- Common Data Packets (CDPs) for all CIU, RIU and Monitor Functions – Industry First
- Weight: 4oz/120grams
- Power (Estimated @ Max Bandwidth)
  - 1CH@6.5W; 2CH@8.5W
- Temps (C) : -55 to +120 Storage, 0 to +70 Commercial, -40 to +85 Extended
- Rear or Front Panel Configurations
- Same SBS DB50 Front Panel Connector (optional)! Use Existing Cable Harnesses.
- Loop-Back & User BIT, Dual Temp Sensors
- IRIG-B RX PAM and TX/RX PPS Time Sync
- IPC Class 3 and ISO 9001:2008 Processes

CIU Features

- Simple One-Shot Lists to Advanced Message Framing with 100 nSec Accuracy
- Infinite Linked CDP Data Buffers
  - 64-Bit, 20 ns Time Tags, Interrupts, Triggers
- Auto Master Reset TX on RIU Error Option
- Hardware Interrupt any Message or Buffer/CDP
- Inverted TX capability
- Full Error Injection/Detection

RIU Features

- Full Regular and Inverted Support (Inverted RX is normalized)
- Infinite Linked CDP Data Buffers
  - 64-Bit, 20 ns Time Tags, Interrupts, Triggers
- Hardware Interrupt Option for Any Buffer/CDP
- Full Error Injection/Detection

Bus Monitor

- Sequential and RT Mapped Monitoring with 64-Bit, 20 ns Time Tags, Interrupts, Triggers. Full Error Detection.

Signal Vector PHY TX (as CIU)

- Signal Vector Generation at 20 nsecs
  INDUSTRY FIRST
  - Construct WMUX/1553 Bit Signals at 20 nsecs

Software: *AltaAPI*

- Multi-Layer ***AltaAPI*** Architecture to Support Windows, Linux and VxWorks
  - Contact Factory For RTOS Platforms
  - 32 & 64-bit Windows and Linux Support
  - Easily Convert SBS Formats with Example Programs

Part Numbers: PMC-WMUX-1F/2F
Full Function Model: CIU, 16x RIU/iRIU & BM
One to Two Channel (1F or 2F) Configurations.

Options: -A AltaView, -C Conduction Cooled/Coated, -E Ext Temp Parts, -F Conformal Coating, -I TX Inhibit (BM only), -N NVRAM Disable, -R Rear Panel, -X cPCIe/PXIe. **(Example: PMC-WMUX-2F-AX).**

Ask factory about cable options.

PCI, PCI Express, PXI/PXIe, cPCI/cPCIe Carrier Options Available

5 Year Limited Warranty!
EU and China RoHS Compliant
Contact Alta for Special Lead Build Configurations

AltaAPI Software with ANSI C Source Provided at No Cost.

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