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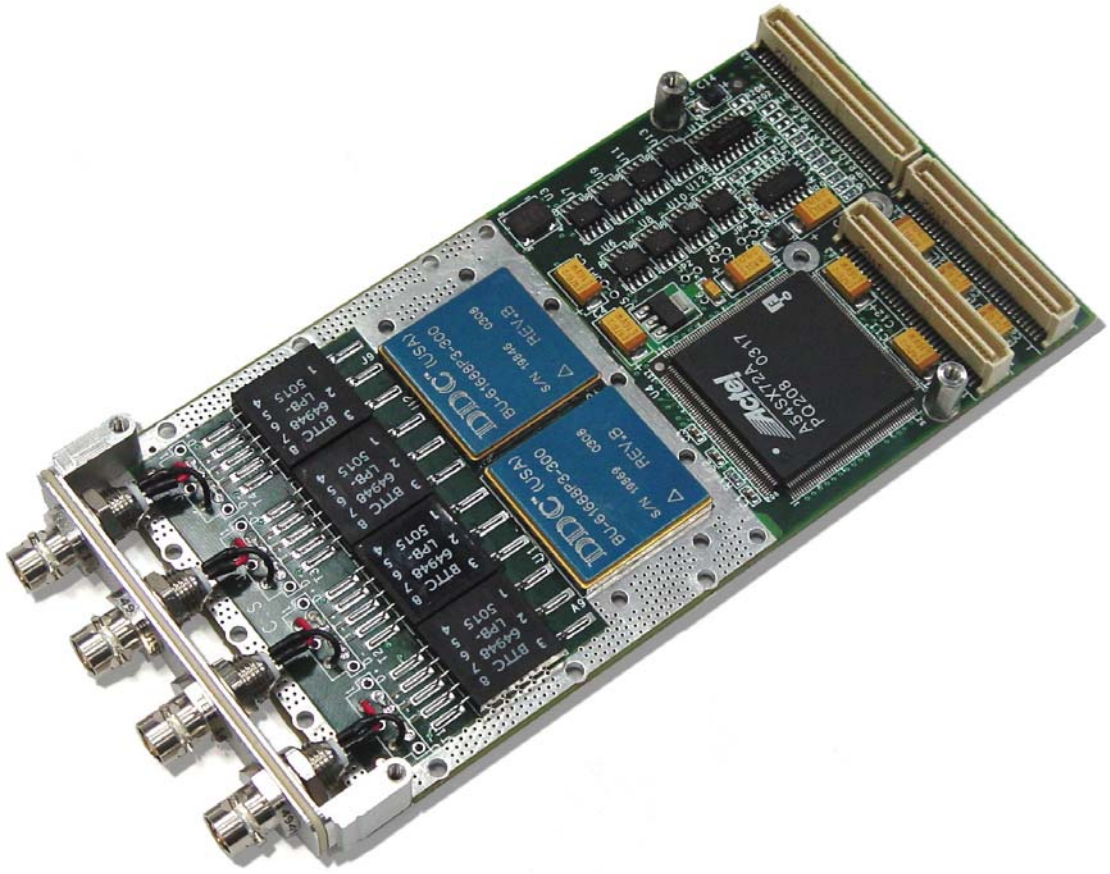
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Find the *Aitech Defense Systems 2M703-03* at our website: *Click HERE*

M703
MIL-STD-1553B and Serial I/O PMC



- ***One or Two MIL-STD-1553B Dual Redundant BC/RT/MT Channels***
- ***Four User Configurable RS-422/ RS- 232/ RS-485 Serial Channels***
- ***64k X 16 Shared RAM per 1553B Channel***
- ***Optimized for Minimum Traffic on Host PCI Bus***
- ***Drivers for VxWorks***
- ***33 MHz PCI 2.1 Interface Compliant***
- ***IEEE P1386.1 (air cooled) or VITA 20-200x (conduction cooled)***
- ***Military/Space Level Ruggedization***

Aitech Defense Systems, Inc.
A member of the Ai-Rugged Group
9301 Oakdale Ave, Chatsworth, Ca 91311
Tel: (888) Aitech-8 (248-3248) Fax: (818) 718-9787 e-mail: sales@rugged.com web: www.rugged.com

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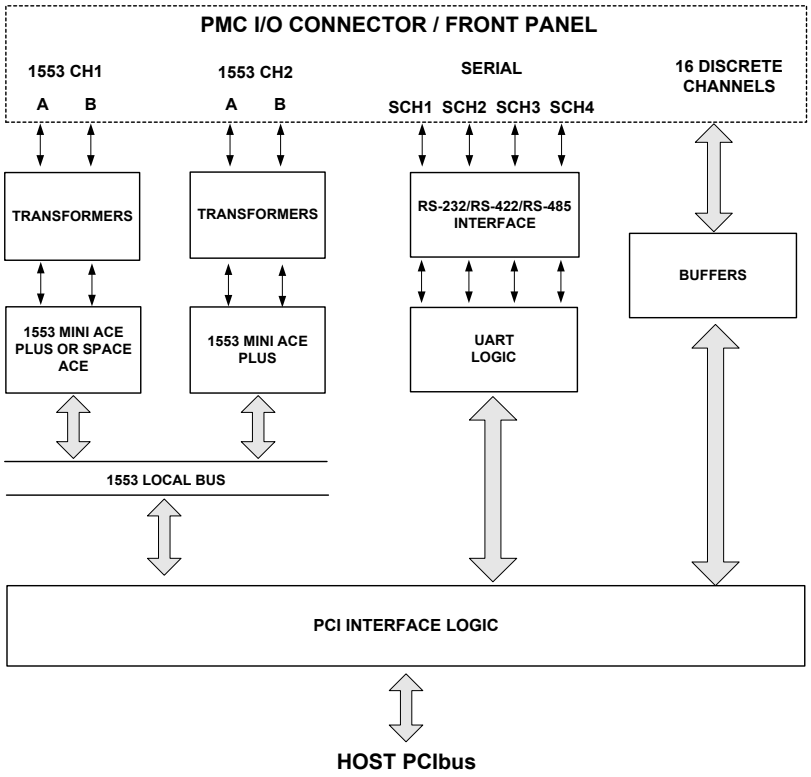
Overview

The M703 combines a powerful MIL-STD-1553B bus interface with general purpose serial communication UART ports on a standard single slot PMC (PCI Mezzanine Card). The card is categorized as single-function PCI device but has separate dedicated register sets accessible from the PCI bus to control each of the modules integrated on the card.

The 1553B interface includes two DDC Mini ACE Plus hybrids. Each DDC device features dual transceiver and encoder/decoder, complete 1553B protocol, 64K words of shared RAM and memory management logic for all three modes (BC\RT\MT).

The serial communication function includes four general purpose UART ports with RS-422, RS-232 or RS-485 interface. UART logic also features an interrupt mechanism on the PCI bus.

The M703 is available in commercial, rugged military level ruggedization.



M703 Block Diagram

Features

MIL-STD-1553B Interface

- 1553B Notice 2 Dual Redundant BC\RT\MT (STANAG 3838 compliant)
- Single or Dual Channel using DDC Mini-ACE Plus devices
- PCI burst transfers using FIFOs
- Simultaneous RT/Monitor mode
- Automatic BC frame retries
- On-board interrupt mask and status register
- Programmable BC gap timing
- Programmable RT address (software or ext/int hardwired)
- Integrated built-in test capability

Serial Interface

- Four general purpose asynchronous UARTs
- RS-422, RS-232 or RS-485 interface
- Independent programmable port configuration

I/O Pinout Configuration

- All 1553 bus and serial signals are routed to the PMC I/O connector
- Optional: Front panel I/O connectors for 1553B bus

Physical Characteristics

- Single wide PCI mezzanine card (PMC)
- 2.9-inch x 5.9-inch (74 mm x 149 mm)
- Weight – Less than 125 gr
- Host PCI bus revision 2.1
- Rugged version available (Air cooling or Conduction cooled)

PCI Bus Interface

The M703 supports 32-bit PCI bus operation at 33MHz and is fully compliant with the PCI Rev. 2.1 Specification.

The PMC is a universal PMC supporting both +5V and +3.3V PCI signaling levels. It does not utilize the PCI V_I/O power supply.

Software Drivers

- Wind River Systems, Inc. –VxWorks

Mechanical Format

The M703 PMC is available in two mechanical formats:

- Air-cooled per IEEE 1386-2001 for installation on top commercial and rugged air-cooled carrier boards.
- Conduction cooled per ANSI/VITA20-2001 for installation on top IEEE 1101.2 conduction-cooled carrier boards.

High power components are cooled by an aluminum heatsink.

Dimensions

Air-cooled:	per IEEE 1386-2001
Conduction cooled:	per ANSI/VITA 20-2001

Power Requirements

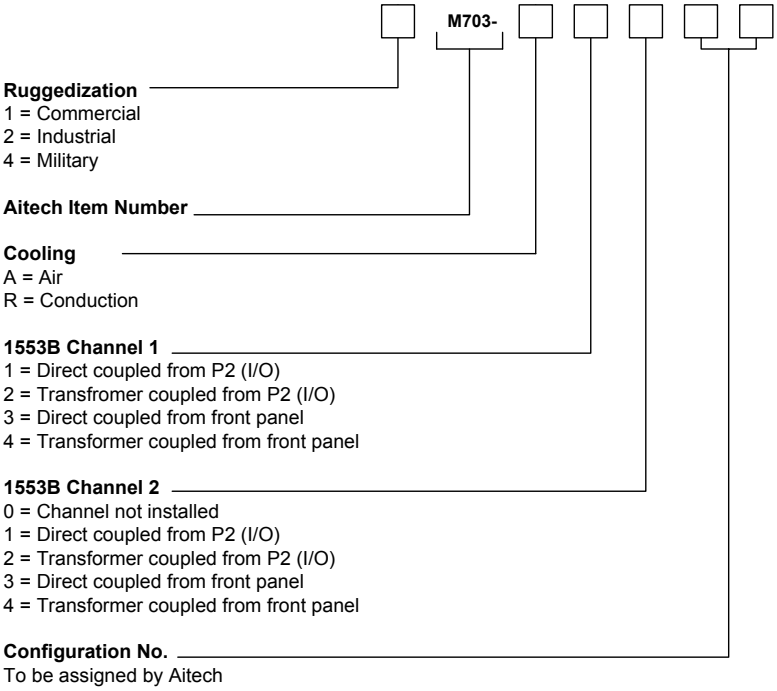
+ 5V (±5%)	0.92A (Typ)	0.95A (Max)
+12V (±10%)	20mA (Typ)	25mA (Max)
-12V (±10%)	20mA (Typ)	25mA (Max)

- Total power consumption (full operation): Less than 5.35 W

Environmental Features

Please refer to the Aitech ruggedization datasheet.

Ordering Information for the M703



Example: 4M703-R3200

For more information about the M703 or any Aitech product, please contact Aitech Defense Systems sales department at (888) Aitech-8 (248-3248).

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