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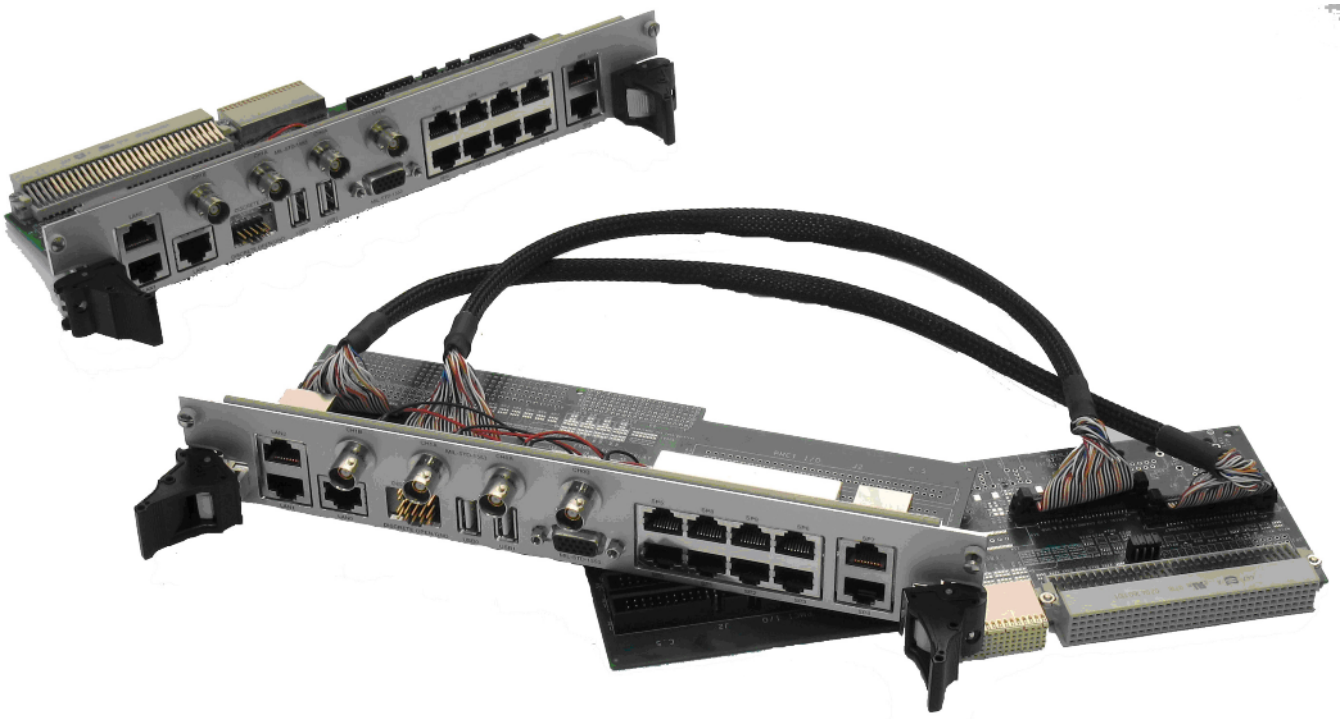
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Find the *Aitech Defense Systems TM106* at our website: *Click HERE*

TM106

Transition Module for the C106 VME SBC and the CM106 PMC VME Carrier Board



- ***Provides Standard Connections for Aitech's C106 PowerPC® VME SBC and CM106 VME Carrier Board***
- ***80mm Rear Module Depth, Fully Compliant with IEEE 1101.11***
- ***Two Versions Available:***
  - ***Complete Front Panel Kit, Including Front Plug-in Unit, Rear Backplane Adapter, and High-Quality Twisted-Pair Flat Cables***
  - ***Rear Plug-in Unit***
- ***Both Versions available in either Single-Slot or Double-Slot Configurations***
- ***Double-Slot Transition Module Provides All C106 or CM106 I/O Interfaces***
- ***Single-Slot Transition Module Provides Most C106 or CM106 I/O Interfaces***
- ***No Active Components***
- ***User Configurable I/O Routing***

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TM106 Transition Module

Aitech's TM106 transition module is designed as a supplement to the C106 G4+ PowerPC® VME SBC, and intended for use in commercial air-cooled enclosures. The TM106 eliminates the need for harnessing and complex cabling fixtures when connecting to the C106 or the CM106.

The TM106 is available in both front plug-in unit and rear plug-in unit versions, and both versions come in both double-slot and single-slot configurations.

The front plug-in kit is for use with enclosures that support only front plug-in units, or for use with enclosures that support both front and rear plug-in units where the user requires front-panel access to the I/O connections. The TM106 rear plug-in unit is for use with enclosures that support both front and rear plug-in units where the user requires rear-panel access to the I/O connections.

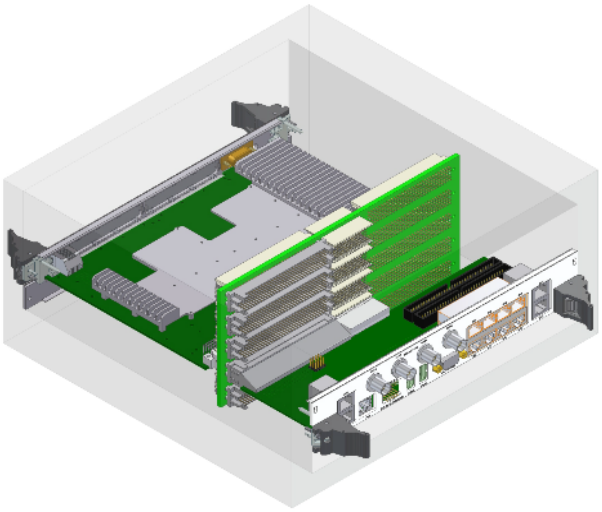
The TM106 is designed for use with enclosures with a rear module depth of 80 mm, and is fully compliant with the IEEE 1101.11 specification. The TM106 may be adapted for use with enclosures whose rear module depth is greater than 80 mm by adding an extender (not included).

The single-slot configuration provides access to the following C106 I/O channels: two Fast Ethernet ports, two USB ports, two dual redundant MIL-STD-1553B ports (via four twinax connectors), five multi-protocol high-speed serial ports supporting RS-232/422/485, eight single-ended or four differential Discrete I/O channels, and a Mictor connector that routes the PCI interface between the C106 and CM106.

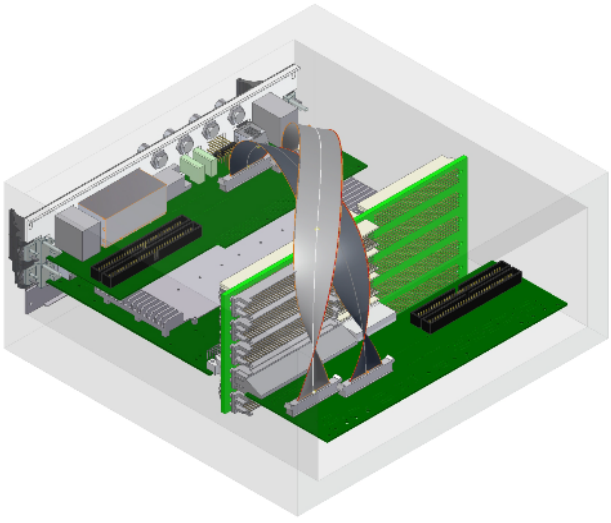
The double-slot configuration provides access to all C106 I/O channels: three Fast Ethernet ports, two USB ports, two dual redundant MIL-STD-1553B ports (via four twinax connectors), 10 multi-protocol high-speed serial ports supporting RS-232/422/485, and eight single-ended or four differential Discrete I/O channels, and a Mictor connector that routes the PCI interface between the C106 and CM106.

In addition, the TM106 provides a header for each of the C106's PMC sites, enabling attachment of cables to the PMC I/O.

The TM106 also provides jumpers to enable I/O routing for the C106 shared I/O pins as well as interface type customization for serial I/O interfaces.



TM106 KIT Rear Plug-in Unit (Double Slot)



TM106 KIT Front Plug-in Kit (Double Slot)

Functional Description

System Support

The TM106 is available in both front panel kit and rear plug-in unit versions.

All TM106 versions are designed for enclosures whose rear module depth is 80mm, as specified in IEEE 1101.11. The TM106 may be adapted for use with enclosures whose rear module depth is greater than 80 mm by adding an extender (not included).

The TM106 front panel kit consists of a front plug-in unit wired via high-quality twisted-pair flat cables to an I/O adapter connected to the backplane. The rear I/O adapter is assembled only with VME rear I/O connectors and flat cable headers. The transition module itself is assembled with flat cable headers and front panel standard I/O connectors.

The TM106 rear plug-in unit combines both the VME rear I/O connectors and the front panel standard I/O connectors on a single board. Both TM106 versions provide identical functionality.

Two configurations are available, single slot and double slot. The double slot transition module provides connectors for all C106 and CM106 I/O interfaces. Four standard twinax connectors are available for the MIL-STD-1553B channels in addition to the 15-pin D-type connector.

The single slot transition module provides connectors to almost all C106 and CM106 I/O interfaces, including five of the ten serial I/O ports (serial ports 0-4); two of the three Fast Ethernet ports; as well as all other C106 and CM106 I/O. The MIL-STD-1553B channels are available via the 15-pin D-type connector. If twinax connectors are required, the 1553 D-type-to-twinax adapter box accessory (available separately) may be used.

PCI signals between the C106 and the CM106 may be routed via Mictor connectors on the primary and/or secondary side of the TM106. For specific configuration information please contact your Aitech representative.

I/O Connectors

The transition module provides standard connectors for the CM106 and C106 I/O interfaces:

- Two USB 2.0 type A connectors
- Three modular RJ-45 jacks for Fast Ethernet ports
- Four twinax jacks for the two dual redundant MIL-STD-1553B channels (double-slot configuration only)
- One 15 Pin D-type connector for the two dual redundant MIL-STD-1553B channels
- 10-pin 90° header for 8 discrete I/O channels (4 differential pairs)
- 10-pin 90° header for 8 discrete ground isolated I/O channels (5 input and 3 output)
- Five-by-two (five-by-one for the single slot version) modular block of RJ-45 jacks for the ten serial I/O ports
- 114-pin Mictor connectors for PCI interface on the primary and/or secondary sides (optional)

Configuration Jumpers

The TM106 is designed to accommodate all C106 and CM106 I/O configurations.

Since some of the C106 I/O signals share the same I/O pins at the P0/P2 I/O connectors, the TM106 transition module provides the option to route these signals in accordance with the C106's I/O configuration.

These shared I/O signals may be routed to the high-speed and serial I/O flat cable headers as well as front panel connectors when the SBC is configured to route its local resources to the shared I/O pins (Ethernet, USB, Serial I/O or Discrete I/O). When the SBC is configured to route these shared I/O pins to the PMC I/O, the transition module may be configured to route these signals to the PMC I/O flat cable headers.

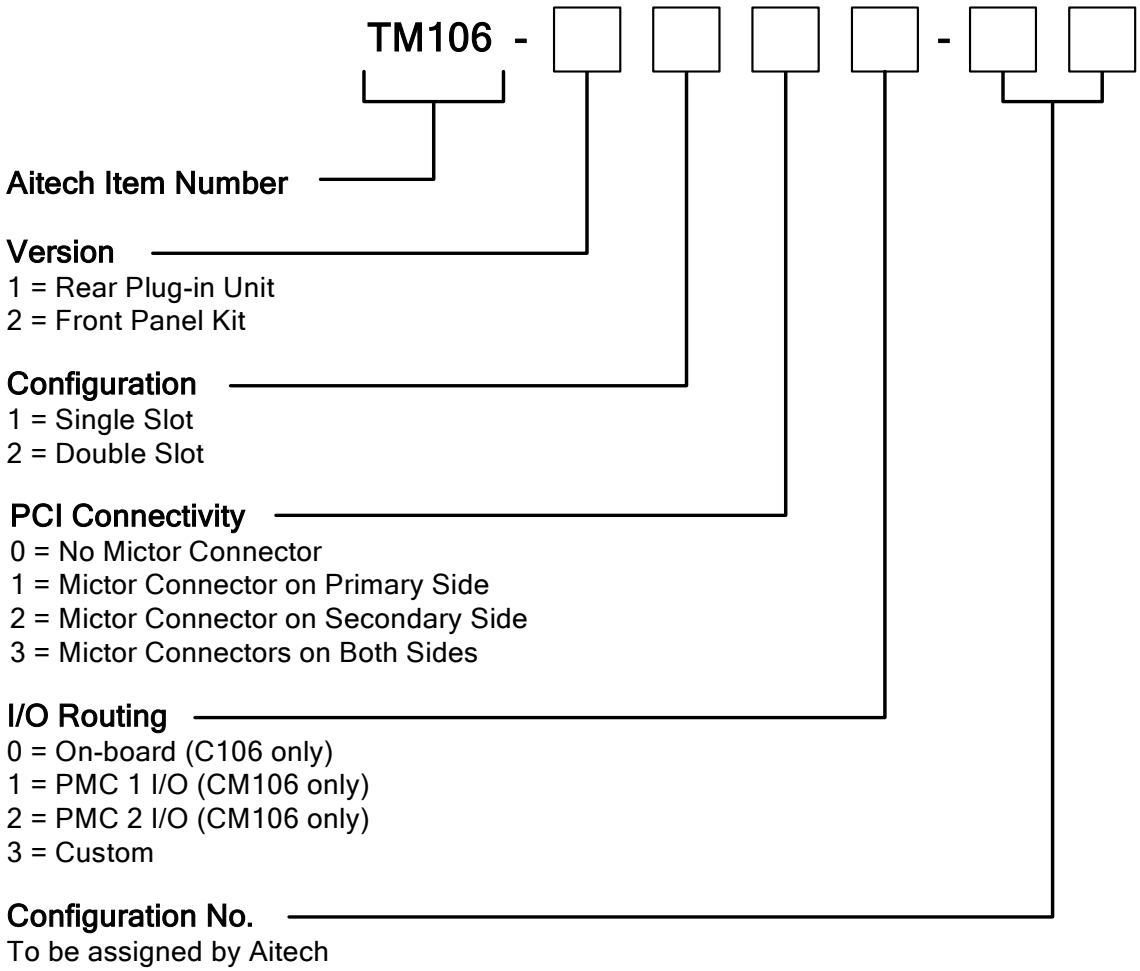
Mechanical Features

The TM106 fully complies with IEEE 1101.11.

Dimensions

- Backplane Adapter- per IEEE 1101.11 80mm depth type.
- Single Slot Transition Module – per IEEE 1101.1 Single slot front panel.
- Double Slot Transition Module – per IEEE 1101.1 Double slot front panel.

Ordering Information for the TM106



Example: TM106-1130-00

To order the MIL-STD-1553B D-type connector-to-twinax adapter box accessory (for use with the single-slot configuration only), order part number TM1020-X1-00.

For more information about the TM106 or any Aitech product, please contact Aitech Defense Systems sales department at (888) Aitech-8 (248-3248).

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