

PMC Carrier / Adapter

Basic CMC Extender for PrPMC, PMC, and PMC-X

The Basic Common Mezzanine Card (CMC) extender provides a means to extend IEEE 1386 boards for signal accessibility. PrPMC (VITA 32), PMC (IEEE 1386.1), PMC-X (VITA 39) and any other CMC-derived board is supported.

The primary function is to connect the carrier card PMC JN1, JN2, JN3, and JN4 connectors to a second set of connectors onto which a PMC can be mounted for testing. The PMC is thereby positioned at the end of the extender card such that the majority of the SIDE 1 area of the PMC is exposed for probing.

The extender supports 3.3V and 5V PCI bus signaling. The product will work with either 33 MHz and 66 MHz clock speeds and with either 32-bit or 64-bit bus widths. The user is cautioned that the round-trip insertion delay imposed by the signal propagation delay from one end of the extender to the other is approximately 2.1ns. This delay represents 15% of a 66 MHz clock cycle which must be accommodated in the PCI bus cycle timing. Faster clock speeds such as

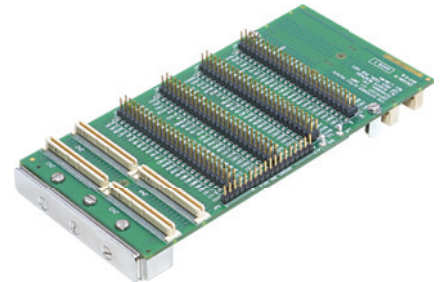
100 MHz or 133 MHz PCI-X may be possible but are not guaranteed.

Four break-out headers with 0.1-inch grid pins on the body of the board (JP1, JP2, JP3, and JP4) pick off the bus signals and rear I/O signals on JN1, JN2, JN3, JN4 mezzanine connectors. Signal names are clearly labeled on the silk screen legend for PCI application and ease of use.

The extension function of this board has been carefully implemented; hand layout was used to achieve the best possible signal quality for a passive extender. Six signal layers and four planes comprise the 10-layer board stack-up. The board is impedance controlled at 55 ohms.

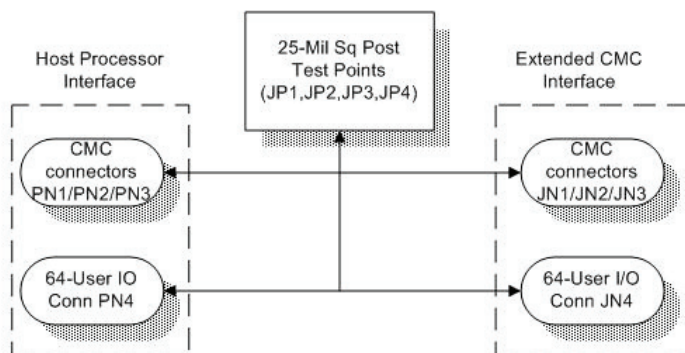
A row of GND headers and two GND turret-style test points facilitate attachment of GND probe leads for a logic analyzer or oscilloscope.

Placement of the JNx connectors for the PMC under test is such that the PMC should easily clear a single-wide CompactPCI or VMEbus front panel.



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- **Extends PMC, PrPMC, or PMC-X board for test access**
- **Direct access to bus and rear I/O signals**
- **Headers and test points for logic analyzer connections**
- **Supports 33/66 MHz, 32/64-bit modes**
- **3.3- and 5-volt bus signaling**
- **Optimized 10-layer design preserves signal quality**



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