

# Carrier Card

## Micro Mezzanine System Electrical Conversion Modules

The 5024 is the entry-level PMC form factor carrier for Technobox Micro Mezzanine System Electrical Conversion Modules (ECMs). As many as four ECMs can be accommodated by the carrier. There is a single population configuration based on an 20K Logic Element Altera(R) Cyclone II FPGA (EP2C20).

The FPGA is effectively the engine for the carrier, executing a resident IP core design and orchestrating various processing and I/O functions for the installed ECMs. The ECMs themselves have unique characteristics and capabilities that are supported by the FPGA and for which separate drivers and code are installed as needed. Each ECM site can be populated by a different module to allow considerable design flexibility. The 5024 supports PCI target mode only and provides both front and rear I/O connectivity. A PLX 9030 serves as the PCI bridge (Universal 3.3 or 5V signaling, 32-bit, 33 MHz).

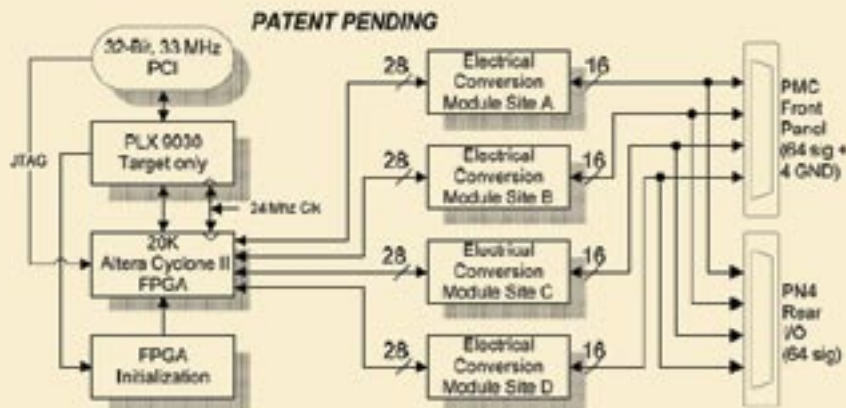
On power up, the EP2C20 configuration cells are automatically loaded from a serial FLASH chip located on the PMC. Technobox provides a sample design, including Altera Quartus files and "C" source code. The user may override this default configuration by dynamically reprogramming the FPGA from the host processor or by in-circuit burning of the re-programmable 16Mbit serial flash chip.

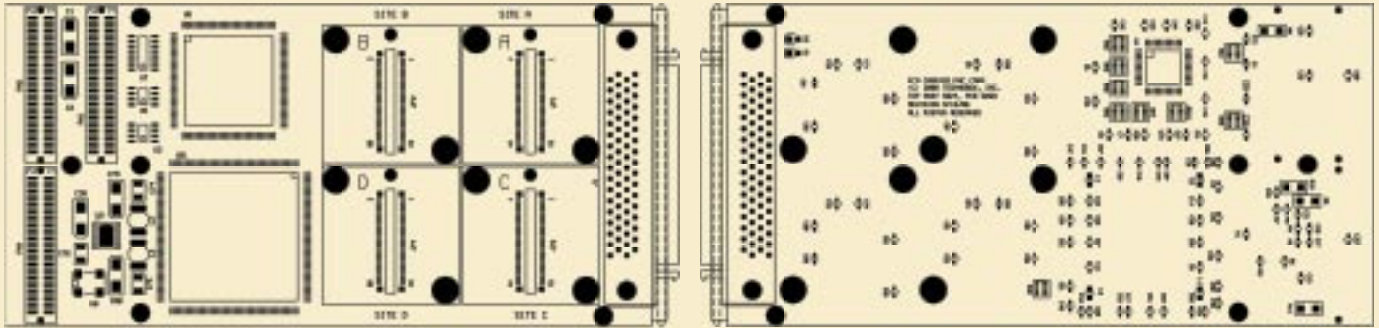
The 68-pin front panel connector is compatible with standard fast/wide differential SCSI cables. Optional Technobox transition panels (e.g., P/N 4988) may be used to break out the differential signals into more convenient individual connectors, such as DB9 interface connectors.



## 5024

- Lower cost ECM carrier PMC
- 32 bit 33 MHz PCI interface
- 3.3V or 5V PCI interface
- PLX PCI9030 PCI to local bus interface
- Supports PCI Target only
- Altera Cyclone II FPGA
- EP2C20Q240C8N with 20K Logic Elements
- Four ECM sites
- Configure FPGA by serial FLASH, PCI or JTAG
- Two status LEDs
- Industrial temperature
- RoHS compliant





## Specifications

Temperature (Operating):	-40 to +85 degrees C
Temperature (Storage):	-55 to +105 degrees C
Altitude:	Not Specified or Characterized Typical similar equipment is at 15,000 ft.
Humidity (Operating/Storage):	5% to 90% non-condensing
Vibration:	Not specified or Characterized
Shock:	Not specified or Characterized
MTBF:	Available on request
Weight:	78 grams
Power:	TBD
PCI Signaling:	5V/3.3V, 32 bits
PCI Clock:	33MHz PCI
Voltages Required:	+12V,-12V,+5V. Tol: +/-5%
Size	74 mm x 149 mm

## Ordering Information

- **5024: Electrical Conversion Module (ECM) Carrier, PMC Form Factor with 20K LE Altera (EP2C20Q240C8N)**



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