

TAMC640 Mid Performance Virtex-5 AMC with FMC Slot

Application Information

The TAMC640 is a standard single Mid-Size/Full-Size AMC module providing different types of user configurable Virtex-5 FPGA.

For flexible I/O solutions the TAMC640 provides a VITA 57 high pin count FMC Module slot, allowing active and passive signal conditioning.

All FMC I/O lines are directly connected to the FPGA, which maintains the flexibility of the Select I/O technology of the Virtex-5 FPGA.

In addition, the FPGA is connected to the following external memories:

- two banks of DDR2 DRAM (up to 128 M x 16 (256 MB) each)

- one bank of QDR-II SRAM (up to 4 M x 18 (8 MB))

The FPGA is configured by a flash device. The flash device is in-system programmable. An in-circuit debugging option is available via a JTAG header for readback and real-time debugging of the FPGA design (using Xilinx "ChipScope").

Multiple clocks are supplied to the FPGA.

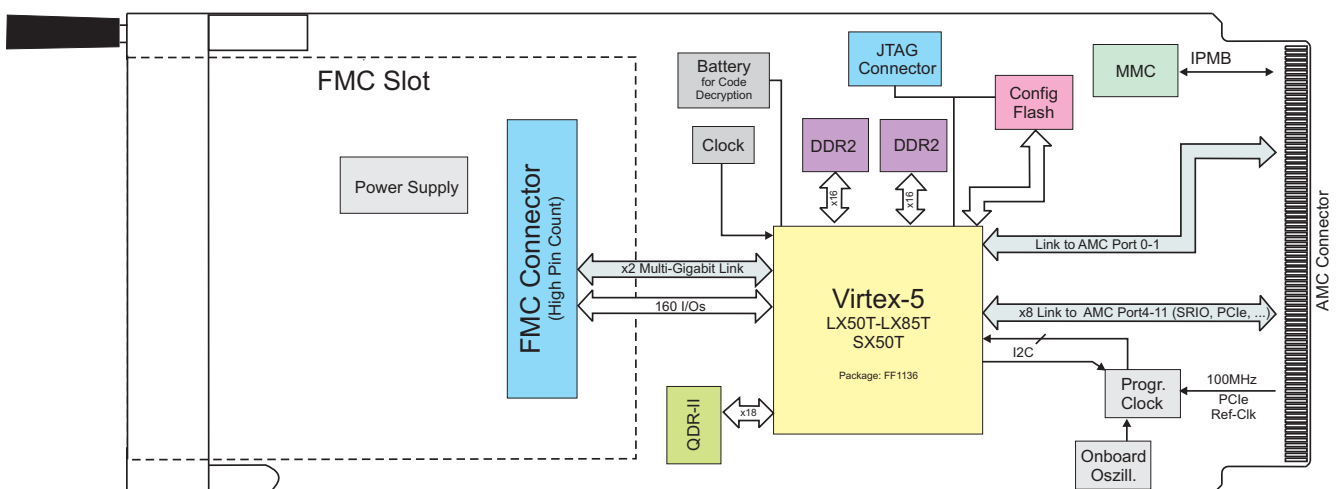
The IPMI Connectivity Records located inside the MMC (Module Management Controller) can be modified by the customer, to adapt to the different possible communication protocols (PCIe, SRIO, XAUI, ...).

User applications for the TAMC640 require the full ISE Foundation software, which must be purchased from Xilinx.

For First-Time-Buyers the engineering documentation TAMC640-ED is recommended.

Technical Information

- Form Factor: PICMG AMC.0 R2.0 Module
 - Board size: single Mid-Size/Full-Size AMC
- Virtex-5 FPGA
 - XC5VLX50T or XC5VLX85T
 - XC5VSX50T
- 1x QDR-II SRAM bank, 1 M x 18 (2 MB)
- 2 x DDR2 DRAM bank, 64 M x 16 (128 MB) each
- IPMI V1.5 support
- Front panel LEDs:
 - Blue Hot Swap LED
 - Red FAIL LED (LED1)
 - Green USER / Power Good LED (LED2)
- FMC Slot (high pin count)
 - 160 single ended I/Os or 80 differential
 - x2 Multi-Gigabit Link to FMC
- Operating temperature 0°C to +70°C
- MTBF (MIL-HDBK217F/FN2 G_B 20°C) TAMC640-xx: tbd h



Order Information**RoHS Compliant**

TAMC640-10R XC5VLX50T-1, 256 MB DDR2, 2 MB QDR-II, Mid-Size Front panel, RoHS compliant
TAMC640-11R same as TAMC640-10R but Full-Size Front Panel
TAMC640-12R XC5VLX85T-1, 256 MB DDR2, 2 MB QDR-II, Mid-Size Front panel, RoHS compliant
TAMC640-13R same as TAMC640-12R but Full-Size Front Panel
TAMC640-14R XC5VSX50T-1, 256 MB DDR2, 2 MB QDR-II, Mid-Size Front panel, RoHS compliant
TAMC640-15R same as TAMC640-14R but Full-Size Front Panel

Optional available on request:

- Operating temperature -40°C to +85°C
- Faster FPGA speed grades
- 512 MB DDR2 (2 banks 128 M x 16)
- 4 MB QDR-II (1 bank of 2 M x 18) or 8 MB QDR-II (1 bank of 4 MB x 18)

Documentation

TAMC640-DOC User Manual
TAMC640-ED Engineering documentation