TAMC900   AMC with 8 high Speed ADCs 105MSps, 14Bit

Application Information

The TAMC900 is a high speed, high performance analog to digital converter AdvancedMC. In addition to the eight high speed ADCs, it provides excessive preprocessing power by a Virtex-5 FPGA and high speed on board memory for e.g. full bandwidth snapshots.

The up to x8 PCIe link of the TAMC900 is used to transmit the ADC data to the CPU.

To adapt the TAMC900 to different customer requirements, the TAMC900 is equipped with a Signal Conditioning Adapter (SiCA) that holds the connector for the analog inputs, the connectors for the clock and trigger inputs and the analog signal conditioning. The TAMC900 provides three clock inputs and three trigger inputs. The three external clock inputs and the PCIe reference clock are routed to a flexible clocking scheme that allows independent clocking of the ADCs in two groups. The trigger inputs are routed to the FPGA .

Eight LTC2254 ADCs provide up to 105 MSps and 14 bit resolution each. The minimum sample rate is 1 Msps.

4 MByte high speed on board SRAM enables snapshots of all ADCs at full speed and full resolution for 2ms.

According to AMC.0, the TAMC900 provides an IPMI compliant Module Management Controller (MMC) with temperature monitoring and hot-swap support.

For First-Time-Buyers the engineering documentation TAMC900-ED is recommended. The engineering documentation includes TAMC900-DOC, schematics and data sheets of TAMC900.

02/2009
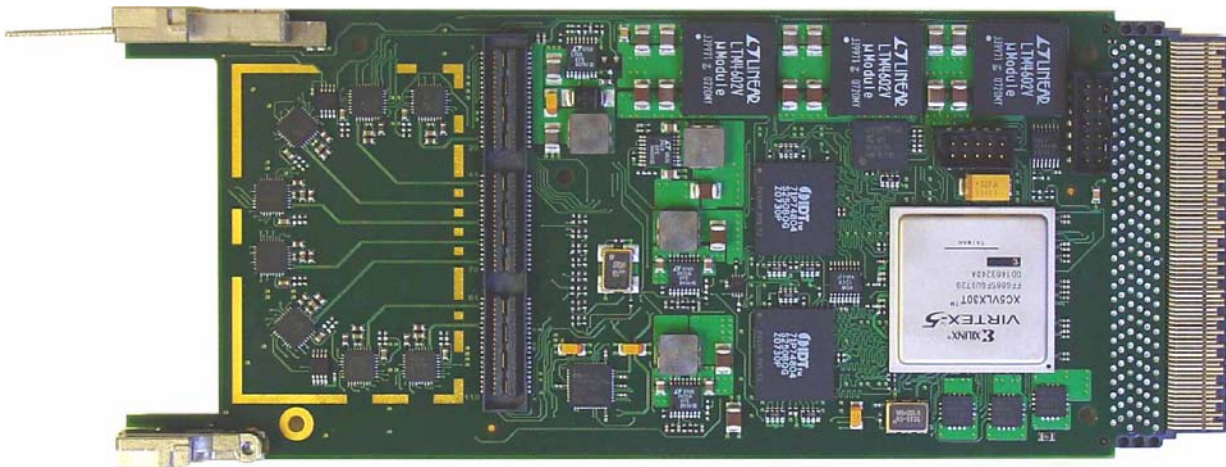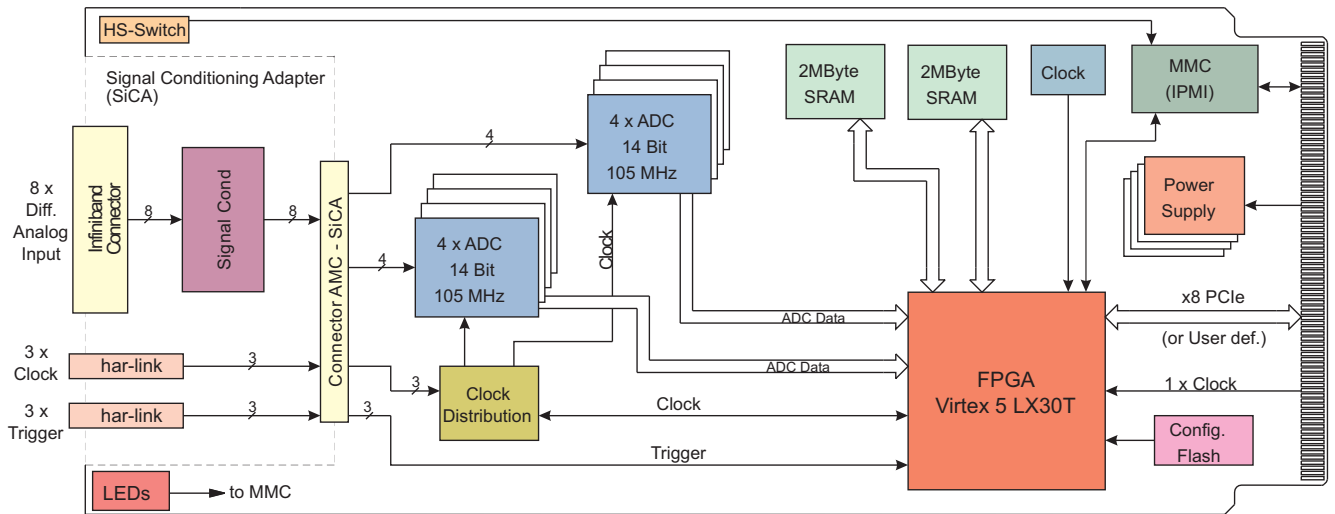
Technical Information

- ❍ Form Factor: PCIMG AMC.1 Module
  - ❍ Board size: 180.6 mm x 73.5 mm
  - ❍ Single width / Mid-height
- ❍ x8 PCIe port (AMC.1 Type 8 compliant)
- ❍ Virtex-5 LXT FPGA
- ❍ 4 MByte QDR-II SRAM
- ❍ IPMI Support
- ❍ Front Panel LEDs:
  - ❍ Blue Hot-Swap LED
  - ❍ Red Power Good LED (LED1)
  - ❍ Green User LED (LED 2)
- ❍ Analog-to-Digital Converter:
  - ❍ 8 x LTC2254 ADCs
  - ❍ 105 MSps
  - ❍ 14 bit
- ❍ Signal Conditioning Adapter for flexible adoption to customer analog input requirements
- ❍ 3 external clock inputs
- ❍ 3 external trigger inputs
- ❍ Operating temperature: 0°C to +55°C

Order Information

TAMC900-10	AMC with 8 high speed ADCs 105 MSps 14 bit, requires Signal Conditioning Adapter
TAMC900-10R	RoHS compliant version of TAMC900-10
TAMC900-A1-10	Signal Conditioning Adapter, Gain = 1
TAMC900-DOC	User Manual
TAMC900-ED	Engineering documentation (TAMC900-DOC, Schematics, Assembly Drawing, Data Sheets)

02/2009