

- ❖ Developed around the high-performance μTCA infrastructure
- ❖ The standard FMC interface supports a wide variety of I/Os
- ❖ Benefit from very large DDR3 and QDR2 memory interfaces
- ❖ Add processing with the supplied Virtex-6 FPGA framework
- ❖ Supports remote GigE access from Windows and Linux
- ❖ Develop applications more quickly with model-based design



AdvancedMC™

μTCA®

XILINX. VIRTEx 6



μDigitizer solutions are customizable, embedded solutions incorporating tremendous FPGA logic and memory, and that combine high-speed, multichannel A/D and D/A I/Os.

μDigitizers are capable of uplinking and downlinking streams of data to a remote computer running on Linux or Windows through high-speed GigE interfaces. (We also offer stand-alone embedded PC configurations that use an AMC slot through PCIe or GigE, contact [info@lyrtech.com](mailto:info@lyrtech.com)).

μDigitizers can also be connected to external RF front end systems for extended signals coverage.

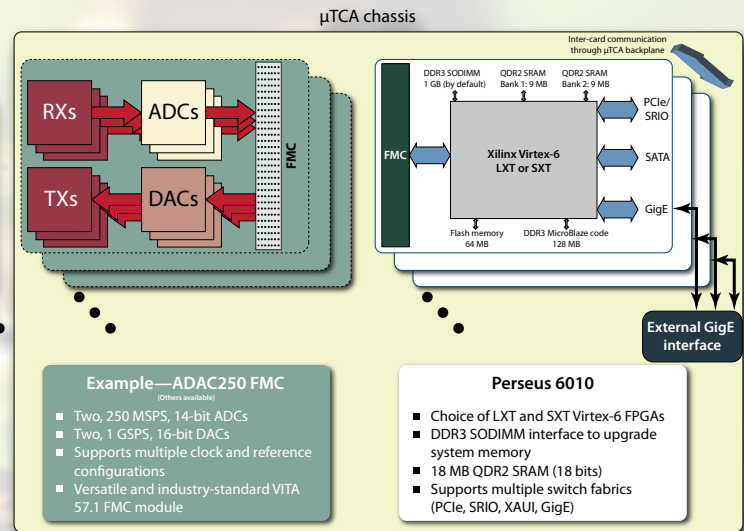
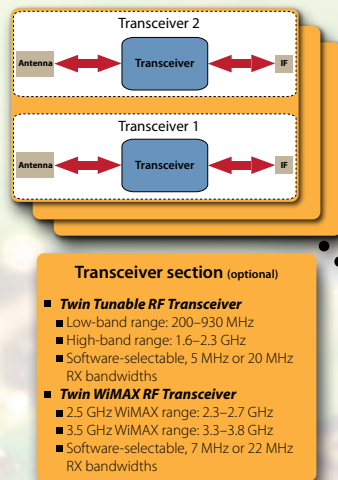
μDigitizers reduce your time to market, bringing the performance you need for a wide range of applications such as:

- Telecommunications—wireless, software-defined radio, MIMO, etc.
- Military applications—radar, software-defined radio, spectral analysis, etc.
- Medical applications—medical imaging such as PET and ultrasounds
- Industrial applications—DAQ systems, spectral analysis, VSGs, VSAs, etc.

### Features

Based on the μTCA architecture, μDigitizers offer limitless channel expansion possibilities and the number of AMC slots necessary to any specific application. More specifically, the entry-level, dual-slot system (pictured above) constitutes a very cost-effective and competitive

**Infinite possibilities...**



solution for applications where space is an issue and only a small number of channels is necessary.

μDigitizers also benefit from ultrahigh bandwidth cross-point links between FPGA elements through the μTCA backplane, making it possible to add DSP algorithms that can be simultaneously applied to all system channels—useful in such applications as MIMO telecommunications and medical imaging.

### Fully integrated solutions

μDigitizers integrate a complete array of tools and capabilities for added efficiency and ease of use:

- Available FPGA to process, trigger and buffer I/O data
- Complete Lyrtech FPGA framework, including embedded Linux MicroBlaze Ethernet server
- Tools for real-time GigE data exchanges between a host device CPU (Linux or Windows) and GigE data streaming (PCIe available for embedded PC)
- Tools for recording and playback

- Capability for local and remote access
- Capability for real-time and hardware-in-the-loop co-simulation with the FPGA
- Seamless integration to the MATLAB/Simulink model-based design flow
- Capability for stand-alone operation, running directly from the flash memory
- Available graphical control applications

## Optional external RF front ends

The RF front ends offered with  $\mu$ Digitizers allow them to cover the following RF frequency bands:

- Low band (200–930 MHz), 5 MHz or 20 MHz selectable bandwidth
- High band (1.6–2.3 GHz), 5 MHz or 20 MHz selectable bandwidth
- 2.5 GHz WiMAX (2.3–2.7 GHz), 7 MHz or 22 MHz selectable bandwidth
- 3.5 GHz WiMAX (3.3–3.8 GHz), 7 MHz or 22 MHz selectable bandwidth

For details, visit the Twin Tunable RF Transceiver and Twin WiMAX RF Transceiver pages on Lyrtech's Web site at [www.lyrtech.com](http://www.lyrtech.com).

## Available configurations

### $\mu$ Digitizer250

- 2-slot  $\mu$ TCA chassis (720-560)
- Perseus 6010 (LSP158-611)
  - Full-size AMC
  - Complete Mestor debugging kit (including MBB1)
  - Board software development kit
  - Model-based design kit
- ADAC250 FMC module (LSP159-601-MOQ1)
  - Two, 250 MSPS, 14-bit ADCs
  - Two, 1 GSPS, 16-bit DACs

### Options

- Embedded PC configuration with hard disk drive unit for storage (SATA or solid state). Contact Lyrtech for details and availability.
- Twin Tunable RF Transceiver
- Twin WiMAX RF Transceiver

**Other configurations (more channels, different FMCs) are also available on demand. Contact Lyrtech for details.**

## Purchase information

### Phone

(1) 418-877-4644

Toll free in the US and Canada: 1-888-922-4644

### Fax

(1) 418-877-7710

### E-mail

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Visit us on the Web at [www.lyrtech.com](http://www.lyrtech.com).

Lyrtech products are constantly being improved; therefore, Lyrtech reserves itself the right to modify the information herein at any time and without notice.

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