

Acqiris

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**10-bit Digitizers**

The DC152 and DC122 10-bit Digitizers achieve an unequalled 4 GSps sampling rate. The DC122 offers a choice of front-end input mezzanines, providing 3 GHz input bandwidth or switchable high impedance input coupling with up to 50 V full scale sensitivity.

The two models combine ultra fast sampling rates with standard acquisition memories of 256 kpoints (DC152) or 512 kpoints (DC122), and optional memories of 256 Mpoints and 512 Mpoints respectively.

These digitizers are fully compliant with both PXI and CompactPCI standards, and incorporate Acqiris' proprietary XLFidelity and JetSpeed II ADC chipsets, designed for optimizing high-speed ADC performance.

The XLFidelity ADC front-end chipset integrates the signal conditioning, amplification, and interleaving functions essential to high-speed data acquisition, allowing the accurate interleaving of two very high-speed ADCs.

JetSpeed II represents the next generation in Acqiris' dedicated ADC chipsets. It is designed to enhance high-speed ADC performance through the distribution of accurate synchronization and time base signals along with memory acquisition and control functions to increase the data throughput from the acquisition to internal memory.

The trigger mezzanine includes the XLFidelity FEA102 front-end amplifier chip. The trigger processing circuit embedded in the package includes dual comparators for window triggering mode, on chip DACs for threshold adjustment, additional filters for LF and HF reject trigger coupling, and a prescaler to allow a HF-divide-by-four mode.

The trigger mezzanine provides access to the circuit via a standard 50 ohm terminated BNC connector and to Acqiris' unique control I/O. These four front-panel MMCX connectors provide access for an external clock or 10 MHz reference signal, a trigger output, and two additional I/O digital control lines (I/O A and B) for monitoring or modifying the digitizer's status and configuration, or to extract a 10 MHz clock signal.

**FEATURES**

- › Four times higher vertical resolution than oscilloscopes
- › Single- or dual-channel 10-bit data acquisition with up to 4 GSps sampling rate
- › Choice of single channel front-end mezzanines with up to 3 GHz bandwidth
- › Dual-channel 2 GHz mezzanine for cross-channel timing measurements such as jitter, phase, and propagation delay
- › 3U single-slot digitizers for use in any PXI or CompactPCI chassis
- › Ideal for telecom, digital radio, ATE, lidar, radar, semiconductors, ultrasonic, and physics applications
- › Long acquisition memory for maintaining fast sampling rates
- › Multipurpose I/O connectors for trigger, clock, reference, and control signals
- › Exceptionally low power consumption
- › Flexible multi-mode trigger processor
- › Optional frequency counter firmware for real-time frequency measurement
- › Device drivers for Windows, VxWorks, and Linux
- › Application software compatible with industry standard signal processing packages