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ITECH INSTRUMENTS

dual MCA

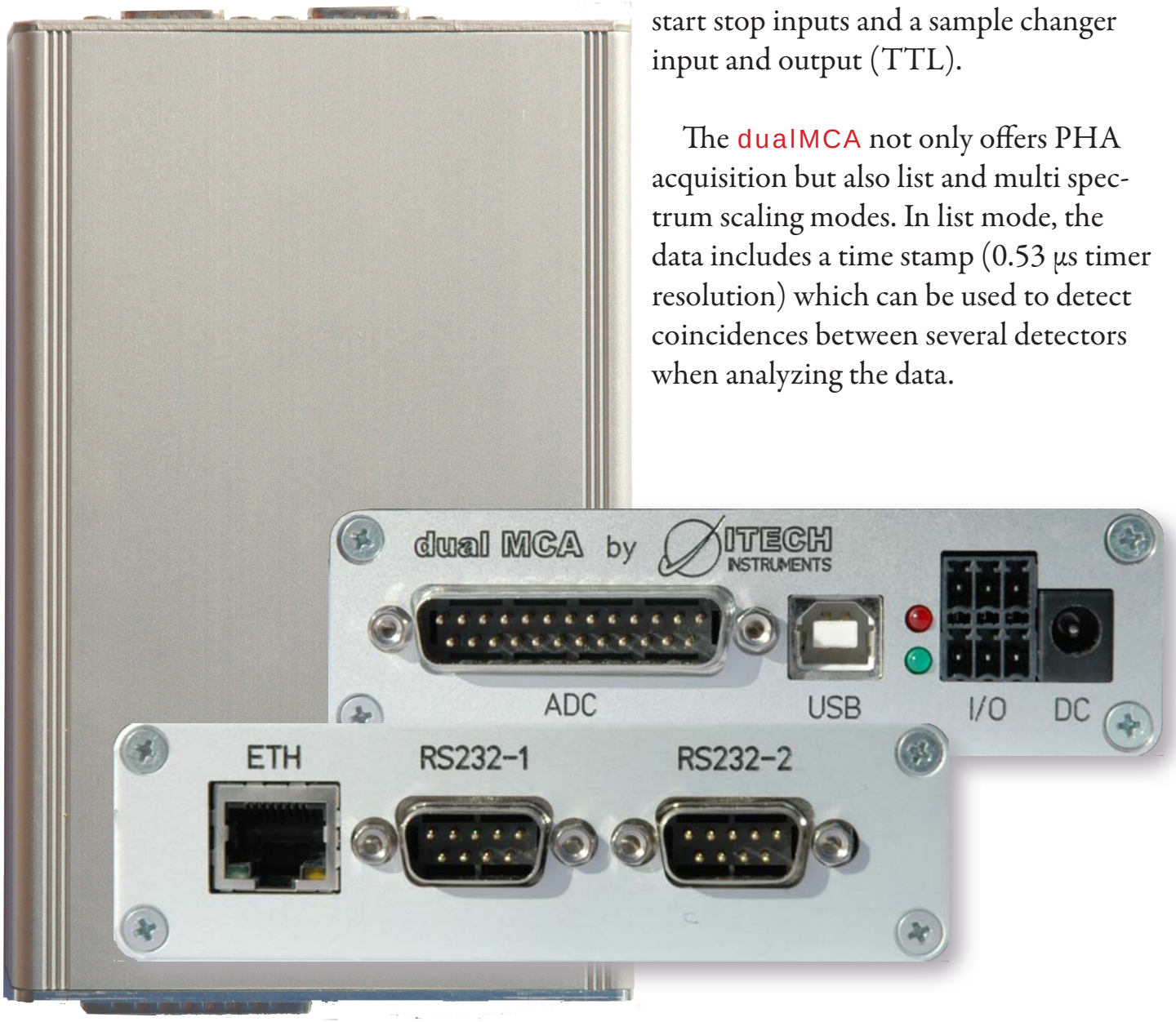
Makes your ADC go network

The dualMCA is an Embedded Linux based high performance Multi Channel Analyzer (MCA). It connects to NIM ADC's from different manufacturers making those ADC's accessible over Ethernet (TCP/IP) and USB.

Due to the TCP/IP protocol used the dualMCA can be connected locally but also over the Intranet or Internet allowing an arbitrary distance between PC and detector.

The dualMCA also features external start stop inputs and a sample changer input and output (TTL).

The dualMCA not only offers PHA acquisition but also list and multi spectrum scaling modes. In list mode, the data includes a time stamp (0.53 µs timer resolution) which can be used to detect coincidences between several detectors when analyzing the data.



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TECHNICAL DATA:

Housing

- Aluminium box, 164x105x30 mm

Power supply

- 6-35 volt input voltage. External power supply.

Connectors

- Connection to PC: USB, Ethernet and RS-232
- Connection to ADC: 25pin-connector. ADC type can be configured by software.
- External start / stop.

Acquisition modes

- PHA acquisition, external start/stop available
- Spectrum multiscaling : Starting from an external signal the spectrum will be acquired in time slices defined by the user. The length of the time slices can be set by the user in multiples of microseconds. Up to 256 time slices with 16384 channels can be used. This mode is useful for decay studies.
- List mode: The raw channel data will be stored. Each event will have the current live and real times associated. The timer resolution is 0.5 µs.

Software compatibility

- Compatible with WINNER and similar software.
- Example programs and drivers available for Windows and Linux

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