

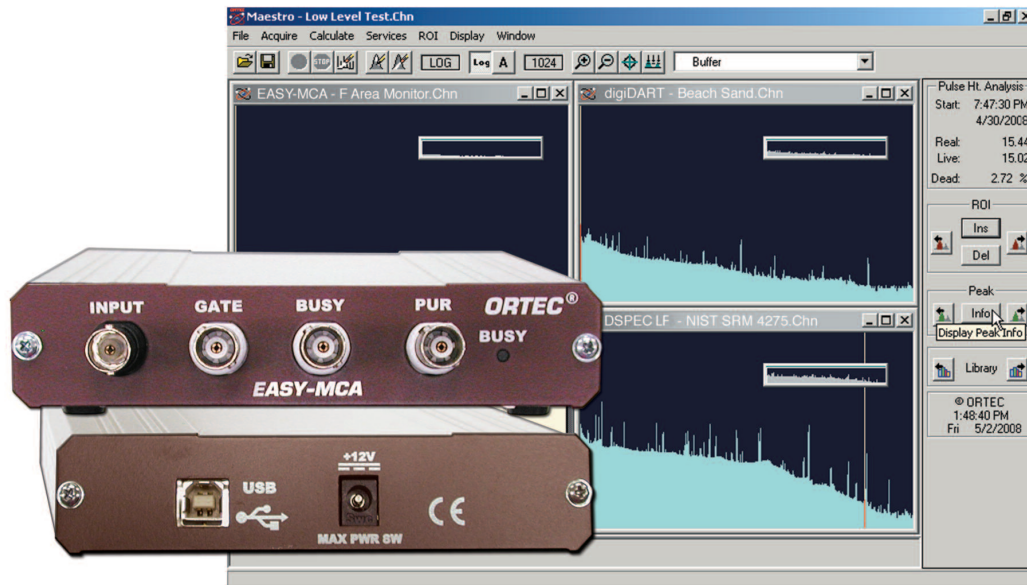
**ORTEC®**

**EASY-MCA-2k/8k™**

2k or 8k Channel MultiChannel Analyzer  
with MAESTRO® Software

"Does Your New PC No Longer Support Plug-in MCA Cards?"

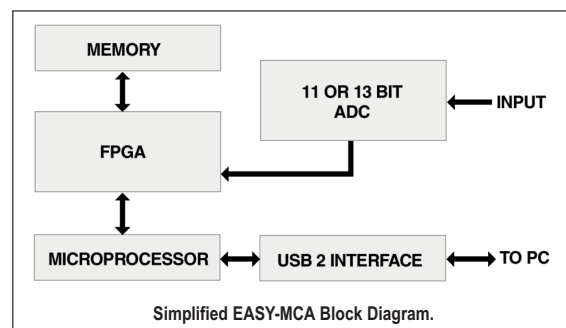
*Now an Inexpensive Solution Using the Latest USB Technology!*



- Compact stand-alone MCA
- Two available versions in 2k or 8k resolution
- Fast (<2 μs) conversion time
- Includes Dead-Time Correction Logic Inputs (Busy and PUR)
- Gate Input Provided
- The easy to use and powerful MAESTRO software is included
- Fast, convenient USB2 connectivity
- Advanced Analysis Software Options

EASY-MCA interfaces to a PC via a USB2 cable. This compact MCA is stackable and portable, and no PC option slots are needed. Each EASY-MCA has memory capable of holding the complete spectrum. You have the option of 2k channels of resolution which can be switched to 1k or 0.5k channels or 8k channels of resolution which can be switched to 4k, 2k, 1k, or 0.5k channels.

EASY-MCA will accept inputs from a shaping amplifier for Pulse Height Analysis (PHA). In addition to the Input signal, EASY-MCA accepts an ADC GATE input, a (Pile-Up Rejection input (PUR), and a BUSY input used by the live-time correction circuits. A single computer subject to USB-2.0 speed of data transfer can control multiple units using USB ports or a powered USB hub.



**AMETEK®**

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BIC RABONL2U



# EASY-MCA-2k/8k™

2k or 8k Channel MultiChannel Analyzer  
with MAESTRO® Software

## Specifications

### PERFORMANCE

**ADC:** The ADC includes sliding scale linearization and <2  $\mu$ s dead time including memory transfer.

**INTEGRAL NONLINEARITY:**  $\leq \pm 0.025\%$  over the top 99% of the dynamic range.

**DIFFERENTIAL NONLINEARITY:**  $< \pm 1\%$  over the top 99% of the dynamic range.

**GAIN INSTABILITY:**  $\leq \pm 50$  ppm/°C.

**DEAD TIME CORRECTION:** Extended Live-Time correction according to the Gedcke-Hale method.

**USB INTERFACE:** The USB 2.0 to PC as data transfer speeds up to a maximum of 480 Mbps.

### INPUTS AND OUTPUTS

**INPUT:** Accepts positive unipolar, positive gated integrator, or positive leading bipolar analog pulses in the dynamic range from 0 to +10 V; +12 V maximum; semi-Gaussian-shaped time constants from 0.25 to 30  $\mu$ s, gated-integrator-shaped time constants from 3 to 30  $\mu$ s, or delay-line-shaped with widths >0.25  $\mu$ s.  $Z_{in} = 1$  k $\Omega$ , dc-coupled. No internal delay, BNC connector.

**ADC GATE:** Optional TTL input with computer selectable Coincidence mode, Anti-coincidence mode, or Off. Signal must occur prior to and extend 0.5  $\mu$ s beyond the peak of the pulse;  $Z_{in} = 1$  k $\Omega$ . BNC connector.

**PUR:** Pile-up rejection input; accepts TTL signal; signal must occur prior to peak detect.  $Z_{in} = 1$  k $\Omega$ . BNC connector.

**BUSY:** Busy input used by live-time correction circuits. Accepts TTL signal; signal must occur prior to peak detect.  $Z_{in} = 1$  k $\Omega$ . BNC connector.

**POWER:** Positive 12 V with up to 8 W power capacity. Mains supply with cable is supplied with the EASY-MCA.

### INDICATOR

**ADC:** Indicates activity for the ADC.

### SOFTWARE CONTROLS

(Operates with included MAESTRO – see MAESTRO data sheet for details.)

**ADC LLD:** Computer controlled from 0 to 100% full scale.

**ADC ULD:** Computer controlled from 0 to 100% full scale.

### PRESETS

**REAL TIME/LIVE TIME:** Multiples of 20 ms.

**REGION OF INTEREST:** Peak count/Integral count.

**DATA OVERFLOW:** Terminates data collection when any channel exceeds  $2^{31}-1$ .

**PEAK UNCERTAINTY:** Stops acquisition when the statistical or counting uncertainty of a user-selected net peak reaches the specified value.

**NUCLIDE MDA:** Stops data collection when the value of the Minimum Detectable Activity (MDA) for a user-specified MCA reaches the specified value.

**LIVE TIME CORRECTION:** Gedcke-Hale method.

**GATE:** Coincidence, Anti-Coincidence, Off.

### ELECTRICAL AND MECHANICAL

**POWER REQUIRED:** +12 V at 0.4 amps is supplied via a power cord and wall mounted dc supply (mains power 110–230 V / 50–60 Hz) included with the product.

#### WEIGHT

Net: 0.6 kg (1.3 lbs.)  
Shipping: 2.3 kg (5 lbs.)

#### DIMENSIONS

Width: 134 mm (5.25 in.)  
Depth: 205 mm. (8.1 in.) [Includes 28.6 mm (1.13 in.) BNC connectors]  
Height: 34.9 mm (1.38 in.)  
Operating Environment: 0 to 50°C at 0 to 80% relative humidity, non-condensing.

## Ordering Information

Model	Description
EASY-MCA-2K	Compact stand-alone 2k-channel MCA. Includes MAESTRO, 10-ft. USB interface cable, and 6-ft power cord with mains supply.
EASY-MCA-8K	Compact stand-alone 8k-channel MCA. Includes MAESTRO, 10-ft. USB interface cable, and 6-ft power cord with mains supply.

Specifications subject to change  
073117



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