

Multichannel Analyzers

Multichannel Analyzers (MCAs) are workhorse instruments in many scientific measurements. An MCA analyzes a stream of voltage pulses and sorts them into a histogram, or “spectrum” of number of events, versus pulse-height, which may often relate to energy or time of arrival. The stored spectrum may then be displayed and analyzed.

ORTEC’s MCA offering is one of the world’s largest, providing solutions through a variety of formats. These types of MCAs include:

Basic Analog MCAs for routine applications:

- Standalone USB Connected MCAs
- NIM Modular MCAs

Digital all-in-a-PMT-Base MCAs with Bias Supply and Digital Signal Processors for use with Scintillation Radiation Detectors

Integrated Digital Workstation MCAs for use with HPGe Radiation Detector systems

Portable Digital MCAs for HPGe and Scintillation Radiation Detectors

Model	DSP	NIM	Stabilizer	Interface	Conversion	Channels	Special Features
DSPEC-50	Yes	No	Yes	Ethernet/USB	N/A	16k	Single or dual MCA, PHA and List Mode, Zero Dead Time Corrections, Low Frequency Reject Filter
DSPEC-Pro	Yes	No	Yes	USB	N/A	16k	High Throughput Mode, Zero Dead Time Corrections, Low Frequency Reject Filter, List Mode, Charge Trapping Correction
DSPEC-Jr. 2.0	Yes	No	Yes	USB	N/A	16k	Low Frequency Reject Filter
DSPEC-LF	Yes	No	Yes	USB	N/A	16k	SMART-1 Compatible
DIGIDART	Yes	No	Yes	USB	N/A	16k	Small (*860 grams), Portable (>9 hour battery), Operates without PC, Holds 23 16k spectra
DIGIDART-LF	Yes	No	Yes	USB	N/A	2k	Small (*860 grams), Portable (>9 hour battery), Operates without PC, Holds >150 2k spectra
DIGIBASE	Yes	No	Yes	USB	N/A	1k	Powered by USB, PMT base form, HV supply included
DIGIBASE-E	Yes	No	Yes	Ethernet	N/A	2k	PoE, single port injector provided, synchronous operation, special gating options
EASY-MCA-2K	No	No	No	USB 2	<2.0µs	2k	
EASY-MCA-8K	No	No	No	USB 2	<2.0 µs	8k	
ASPEC-927	No	Yes	Yes	USB	<2.0 µs	16k	Dual MCA, Zero Dead Time Correction
928	No	Yes	Yes	USB 2	<2.0 µs	16k	Zero Dead Time Correction