A fully digital multi-channel analyzer (MCA) mounted on a compact 14-pin tube base of a photo-multiplier

full Pulse-Height Analysis (PHA) and Multi-Channel Scaling (MCS) modes for data acquisition

up to 4096 channels for PHA and sixteen simultaneous MCS acquisitions

advanced electronic noise reduction algorithms

smallest MCA available

USB 2.0 and Power over Ethernet (PoE) for data communication and device control

miniature and advanced power supply

basic spectrum acquisition and device control software supplied

programming library for Windows XP, 7 (32-64 bit) and Linux Operating System

LED indications for communications and device power, HV power and incoming count rates (ICR)

Excellent price / performance ratio

The bMCA multi channel analyzer is able to perform Pulse Height Analysis and Multi Channel Scaling of the electronic pulses from a 14-pin standard photomultiplier. This electronic arrangement is commonly used with scintillator type of radiation detectors (e.g. NaI(Tl), LaBr, CeBr)

The bMCA retrieves spectrum of the photon radiation being detected by these detectors and it can be easily couple with an standard PC or notebook with data communication via standard USB port or Ethernet. The bMCA comes with a basic software to control it, acquire and visualize the energy spectrum in an easy way. The programming libraries are for MS Windows (including Windows 7 32,64 bit) and Linux operating systems.

Ordering information

MetorX B.V. (Ltd.)
Oostdijkseweg 12
3252LN Goedereede
+31 187 630176
info@metorx.com
bMCA Technical Specifications

**PHA acquisition mode**
Memory of 256, 512, 1024, 2048 and maximum of 4096 channels
Gain and Fine Gain.
Gain settings with amplification factors of 1, 2, 4 and 8. Fine Gain from 1 to 2 in steps of 1/4096
Upper and Lower Level discriminator settings given in channels

**MCS acquisition mode**
Memory of 256, 512, 1024, 2048 and maximum of 4096 channels
Dwell time from 0.1 sec to “count-forever”
Easy to setup via stored ROIs or ROIs marked in the PHA mode

**Digital Settings**
Rise Time: from 0.1 to 12 μsec in steps of 0.2 μsec
Flat Top: from 0.1 to 8.0 in steps of 0.1 μsec
Threshold: 1 to 255
Digital Base Line Restorer (BLR)
Pile Up Rejector (PUR)

**High Voltage Power Supply**
Miniature HV power supply embedded into the MCA assembly
Maximum Voltage: 0 to 1 500 Volts in 4096 steps
Data communication
USB 2.0, cable included

**Physical**
Connections: USB type mini B
Size: Height 60 mm, Diameter of 55 mm
Weight: 120 grams

Connections: Ethernet Power over Ethernet
Size Height 70 mm, diameter of 55 mm
Weight:

**Indicators:** Red color LED for detector high voltage, Yellow color LED for incoming count rate (ICR), Green color LED for power and communication

**Others**
The device is supplied with a basic software for its operations, data acquisition control and visualization. The software also includes a digital oscilloscope

**Certifications**
The device is CE compliant