

Barracuda

A Flexible Arrangement



The Barracuda is an "all-in-one" X-ray multimeter for QA. The Barracuda can be configured to meet each user's specific need and requirements. It is easily upgradeable when the needs increase and new technology becomes available. The cabinet can house up to six different modules.

It can measure on all modalities; R/F, mammography, fluoroscopy, pulsed fluoroscopy, dental, panoramic dental and CT systems. Auto Compensation ensures that data is accurate and no manual corrections of measured kVp and dose readings are required. The Barracuda is compact, the setup time is short, and it is easily transported in its carrying case.

Barracuda is a modular system and can be configured in many different ways. A number of add-on probes are available, for example: mAs probes, ionization chambers, dose detectors and light

detector. If additional probes are used, the required electrometer module can be easily added in minutes.

Multi-Purpose Detector

The Multi-Purpose Detector (MPD) is a dedicated detector for the Barracuda system. It can be used for all modalities - from mammography at 18 kVp to conventional radiography or CT. The MPD measures the following parameters: kVp, time, dose, dose rate, dose/pulse, pulse rate, total filtration (with one exposure), HVL (with one exposure), kV and dose rate waveforms. Even for small C-arm units the kVp can be measured reliably, due to the MPD's sensitivity.

Modular System - EMM

The Barracuda can be equipped with one or several electrometer modules (EMMs). Measuring charge and current from a probe. The calibration factor for the detector or probe is used to calculate the measured value, for example dose and dose rate. Six different electrometer modules are available, two without bias and three with bias.

Scatter and Leakage

EMM-BiasB and EMM-BiasW are ideal for ion chambers, which can also, optionally, be used with the bias on a banana jack. The EMM-BiasW has a wide measuring range and the high sensitivity of 1 nGy/s enables measurement also of scatter and leakage radiation.

Graphical display with waveforms

The Barracuda uses a graphical display (QABrowser) to display measured data. Both measured values and waveforms are instantly displayed after each exposure. Up to six measured values and three waveform are shown at the same time. The graphical display also provides an intuitive user-interface that makes it very simple to setup the meter for different type of measurements. The display connects wireless via Bluetooth or via cable to the Barracuda. The Barracuda can also be used with the oRTIgo PC software.

PC Software

The oRTIgo software connects to the Barracuda, measured data and waveforms are automatically collected and stored. The oRTIgo software has a large number of templates for different tests; accuracy, reproducibility, linearity, HVL, AEC, and much more. Pass/Fail criteria can be defined, reports can be generated and printed. The PC can be connected using USB, Bluetooth or RS-232.

Rad/Flu/Dent/CT

Range	Inaccuracy
35 – 155 kVp	± 1.5 %
0.1 ms – 2000 s	± 1 % or ± 0.5 ms
1 – 65535 pulses	± 1 pulse
30 nGy – 1000 Gy	± 5 %
4 μ R – 100 kR	± 5 %
15 nGy/s – 450 mGy/s	± 5 % or ± 7 nGy/s
1.7 μ R/s – 50 R/s	± 5 % or ± 0.8 μ R/s
0.1 mR/min – 3000 R/min	± 5 % or ± 0.05 mR/min
1.5 – 38 mm Al Total Filtr.	± 10 % or ± 0.3 mm
1.2 – 14 mm Al HVL	± 10 % or ± 0.2 mm

Mammography

Range	Inaccuracy
18 – 49 kVp (Mo/Mo)	± 0.7 kV
0.1 ms – 2000 s	± 1 % or ± 0.5 ms
1 – 65535 pulses	± 1 pulse
70 nGy – 2000 Gy	± 5 %
8 μ R – 200 kR	± 5 %
15 nGy/s – 750 mGy/s	± 5 % or ± 0.04 μ Gy/s
17 μ R/s – 86 R/s	± 5 % or ± 4 μ R/s
1 mR/min – 5100 R/min	± 5 % or ± 0.3 mR/min

Calibrations for beam qualities

Mo/Mo, Mo/Rh, Rh/Rh, Rh/Al, W/Al, W/Rh, W/Ag