iba-dosimetry.com

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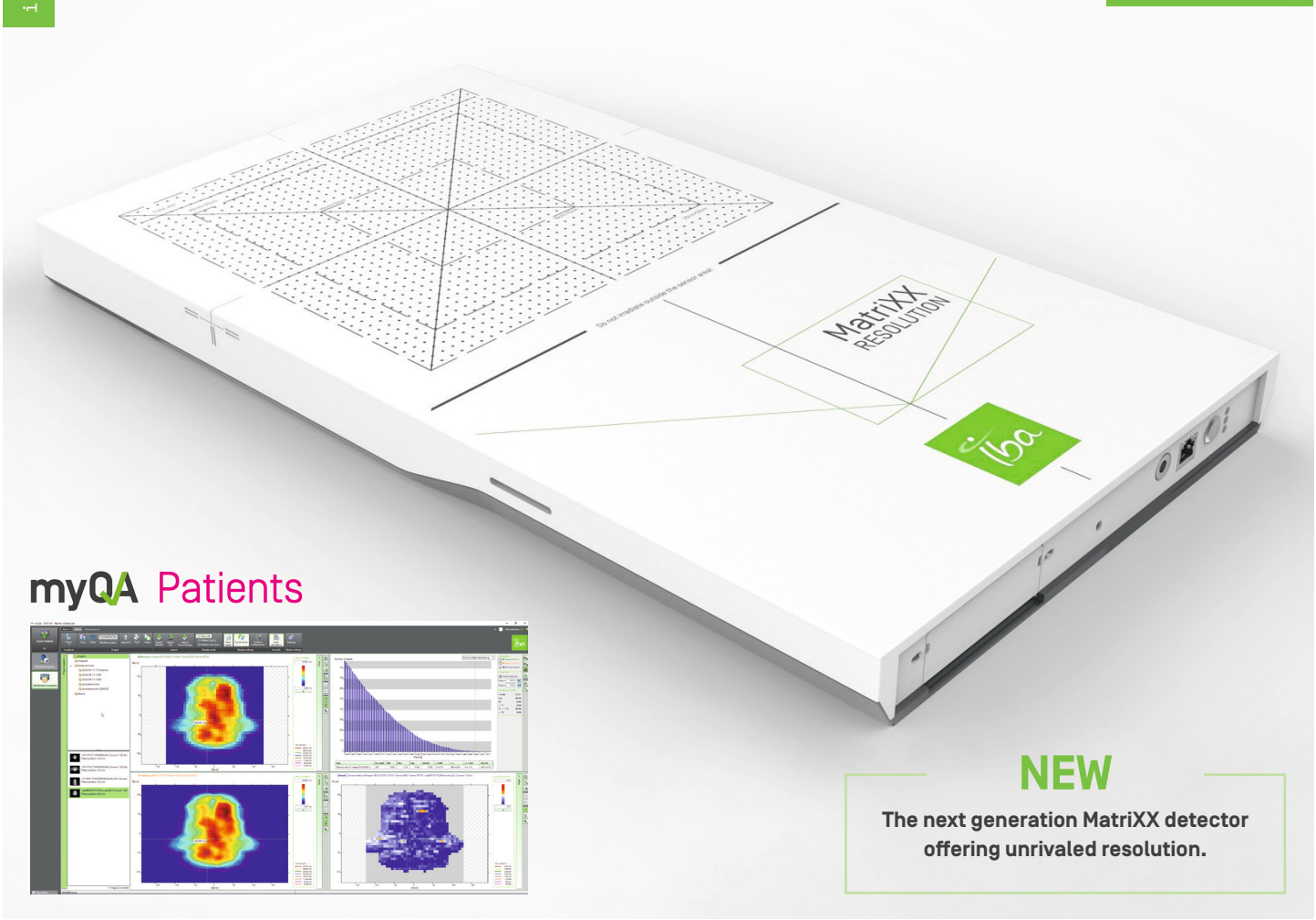


MatriXX RESOLUTION™*

Highest resolution for IMRT & VMAT Patient QA measurements and for Machine QA

PROTECT +
ENHANCE +
SAVE LIVES

MatriXX RESOLUTION™ *

Highest resolution ionization chamber detector array for independent VMAT / IMRT Patient QA and Machine QA

Unrivaled Efficiency

- Fast and straightforward detector setup.
- No cables required through complete wireless and battery-powered design.
- Efficient measurements and verification with myQA® software.

Outstanding Accuracy

- 50 % more data points compared to previous MatriXX detectors for highest IMRT & VMAT measurement resolution.
- Wireless Gantry Sensor+ enables precise QA of rotational cases.
- Confidence through independent QA.

Workflow simplicity

MatriXX Resolution is optimized for your workflow efficiency. The complete process is typically completed in less than 5 minutes, from detector setup to measurement to test result:

Fast and easy setup

- Laser alignment of the detector or phantom on the treatment couch.
- Wireless connection to the software or alternatively with Ethernet cable.

Beam-triggered measurements

- The detector is waiting for the beam.
- Automatic measurements of all beam energies in a single run with myQA software.
- FF / FFF beams supported.

Instant results

- Immediate and automatic processing of the measurements in myQA.
- Easy validation of test results.

Test approval and archiving

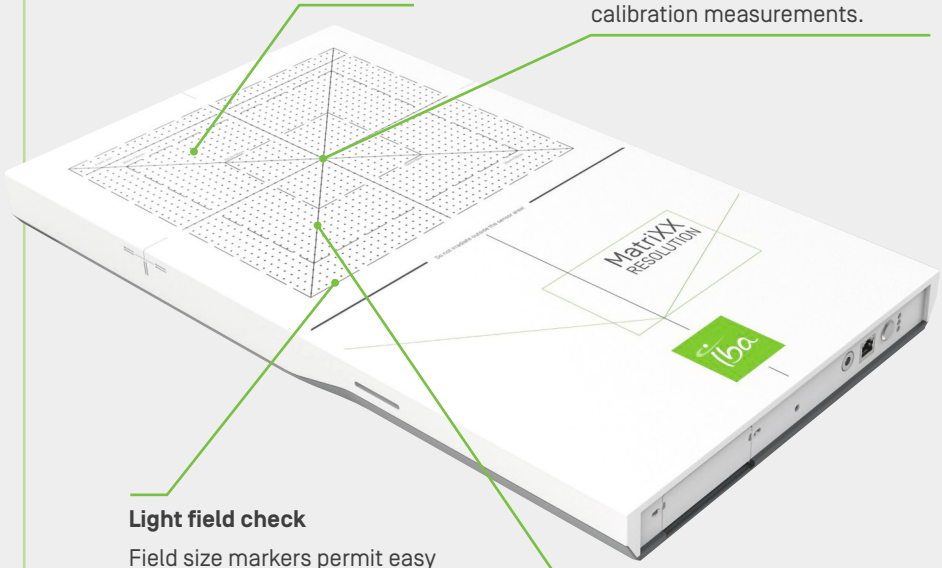
- Approval and commenting option with adjustable user rights.
- Results are stored centrally for in-depth reviews, analysis, and reporting.

6.5 mm highest resolution for VMAT / IMRT

- 1521 ionization chambers.
- 25.3 x 25.3 cm² field size.

Center chamber

9 chambers in the center of the array provide accurate dose and calibration measurements.



Light field check

Field size markers permit easy verification of the light field's conformity with the radiation field.

High-resolution centerline and diagonal measurements

The 39 ionization chambers for each centerline offer greater accuracy, especially in the penumbra regions.

Rechargeable battery

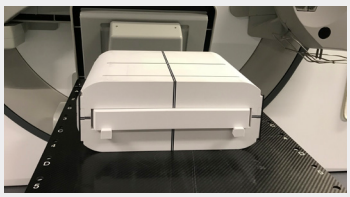
Wireless data exchange

The wireless / cable-free design enables a convenient workflow from fast system setup to the flexible use of MatriXX Resolution at multiple Linacs.

myQA® software and accessories

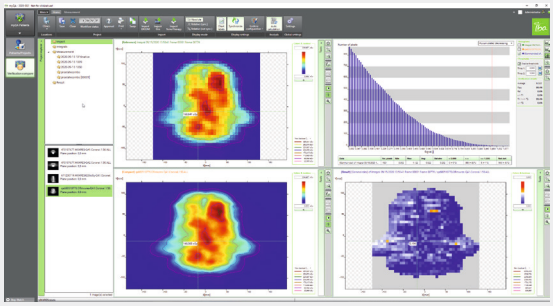
Smartly designed measurement tools and advanced integrated verification software are your basis for efficient & precise QA. MatriXX Resolution represents the optimal solution for pre-treatment plan verification and Linac QA.

For Patient Plan QA



miniPhantom R & Gantry Sensor+

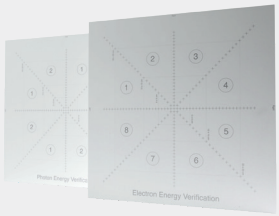
- Solid phantom with elliptical geometry used for optimal Patient and Machine QA with the MatriXX Resolution, film, and ionization chambers.
- Simulate measurements at a certain material depth.
- Fast and reproducible setup and position of the MatriXX detector, chambers, or films.
- Optional: 3 different chamber inserts and film insert with effective points of measurement matching the MatriXX Resolution detector.
- Gantry Sensor+ for accurate measurements of the gantry rotation angles vs. measured segment.



Software myQA Patients

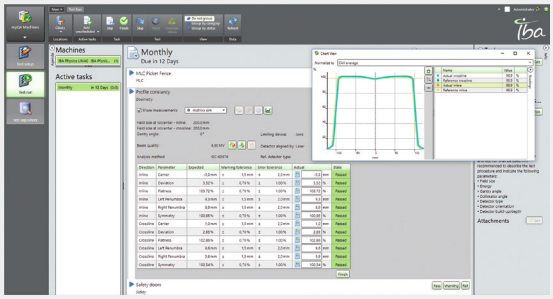
- Latest myQA Patients software enables efficient menu-guided plan verification in 4 easy steps. Discover more about myQA on our website.
- Connected to myQA and central database for network-wide data access.
- Automated gantry angle correction with the new wireless Gantry Sensor+.
- Supports field-combination for measurements and verification of large cases (e.g. spine).
- Includes single beam analysis and many more automated functions.

For Machine QA



Build-Up Plates for Energy Constancy Verification

- Dedicated build-up plates for the MatriXX Resolution detector.
- Convenient beam constancy verification in one single shot.



Software myQA Machines

- MatriXX Resolution with myQA Machines software enables advanced Linac Machine QA, e.g. periodic checks (weekly, monthly...). TG-142 supported.
- Tests include profile analysis, trend analysis, energy & dose output / wedge factor.
- Measure all tests with a single beam.
- Enhance your tests with the Energy Verification Plates.

Instant results at your fingertips

The myQA Cockpit is your browser-based interface that provides all your essential QA data and status overviews.

- Instant QA overview with intuitive and clear reporting, accessible anytime and anywhere.
- Quick access to your Patient & Machine QA status and test results.

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SAVE LIVES

MatriXX Resolution, your ideal solution for independent VMAT / IMRT Patient QA, and Machine QA

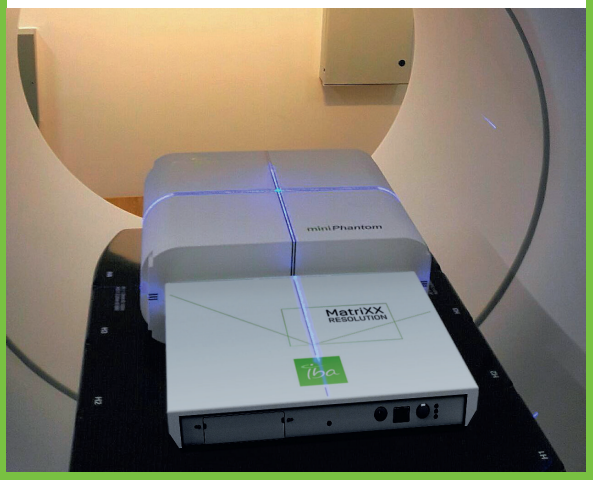
MatriXX Resolution Detector Array Specifications	
Outer dimensions	560 x 60 x 320 mm^3
Weight	~ 8.5 kg
Sensor type	Vented parallel ion chamber
Number of sensors	1521, arranged in a 39 × 39 grid
Active measurement area	25.3 cm × 25.3 cm (SSD:100cm)
Chamber diameter	3.2 mm
Chamber height	2 mm
Chamber volume	16 mm^3
Distance between chambers	6.5 mm (center to center)
Nominal sensitivity	0.5 nC/Gy
Dose range	0.02-10 Gy 0–2,35 mGy/pulse
Absorber material on top	16.9 mm ABS Tecaran (density 1.06 g/cm^3)
Geometrical isocenter depth (indicated by markers)	17.9 mm
Effective point of measurement (Peff)	18.9 mm water equivalent depth
Deviation from linearity	≤ 1% for dose ≥ 0.02 Gy

miniPhantom R Specifications	
Outer dimensions	380 mm × 321.2 mm × 144.5 mm
Weight (without inserts)	12.5 kg
Material	RW3
Mass-density	1.045 g/cm^3
Electron-density	3.386 × $10^{23}/cm^3$

Supported Treatment Delivery Systems

MatriXX Resolution, your ideal solution for independent Patient QA and Machine QA:

- Standard c-arm Linacs (FF / FFF beams)
- Varian® Ethos™ / Halcyon™ [1]



Another product that is shaping the future of Quality Assurance:

NEW: Need high resolution for your **SRS & SBRT Patient QA**?

Discover **myQA SRS***

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