Intelligent Machine QA:

Detectors, Phantoms & Accessories

StarTrack

iba

Intelligence and focus

Smartly designed measurement tools are your basis for efficient linac QA. IBA Dosimetry offers a wide range of dedicated solutions to make your routine QA the fastest, most accurate, and most reliable.

Your natural selection

Designed to integrate seamlessly with *my*QA **Machines**

- ✔ Protocol based machine QA (including TG-142 and other protocols)

- ✔ Generic tests and customizable protocols

- ✔ Full coverage of tests with a flexible scheduling tool to manage your tasks, resources, and time

- ✔ Comprehensive analysis, archiving, and reporting tools

- ✔ Interface to myQA Cockpit for quick and easy access to all QA results and trends

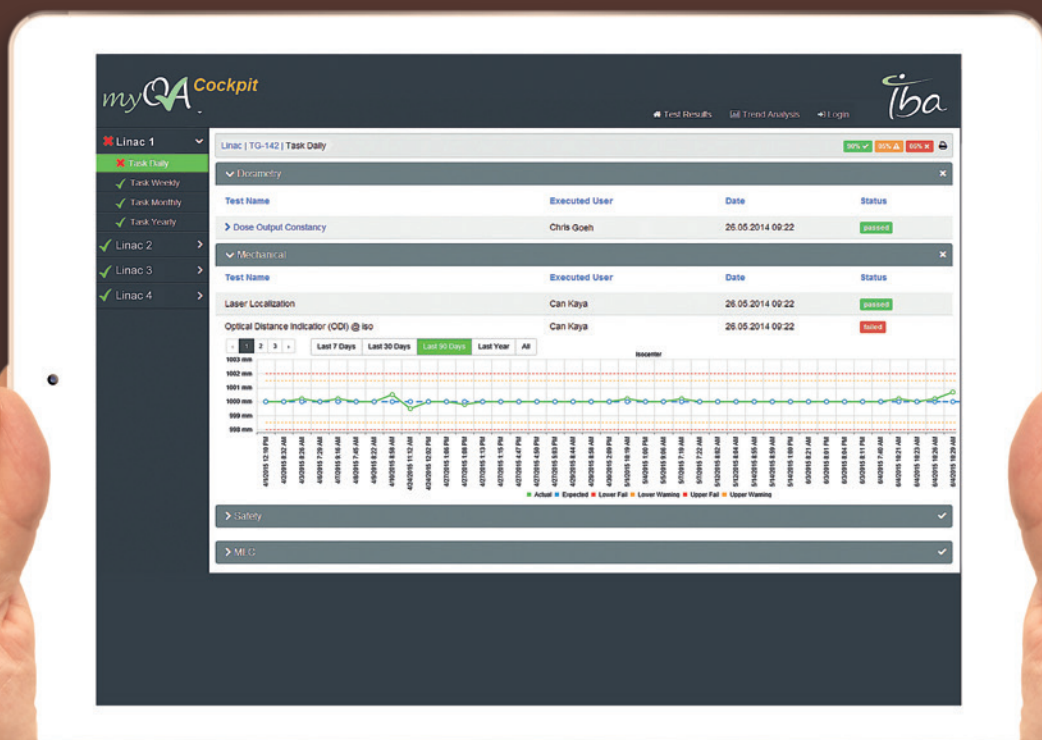All results can be exported to reports, saved in the

*my*QA *Central Database*

benchmarked in the

*my*QA CLOUD *

and are displayed in the

*my*QA *Cockpit*

1 **Test Setup** ▶

2 **Test Run** ▶

3 **Test Archive** ▶

*To be released mid-2015

StarTrack: Linac Dosimetry
Your Universal QA Solution

✓ All main tests in one shot: dose, profiles, diagonals energy verification, etc.

✓ 453 air-vented ionization chambers with optimized geometry for Machine QA

✓ Convenient beam constancy verification in one single shot using specific build-up plates

✓ Automatic k(t,p) correction

✓ Parallel readout from independent electrometers

✓ Instant results and real-time analysis using the Dosimetry Plug-in for myQA Machines

✓ Patented energy verification method

✓ Tabletop or gantry mount (optional)

For more information please refer to the IBA white papers 'Tg-142_Dosimetry' and 'Tg-142_Daily Generic Tests'

MatriXX Family

Connect your MatriXX to myQA Machines for fast and accurate Linac Machine QA.

Technical Specifications

Energy Range
Photons: Co60, 4 MV-18 MV, flattened and FFF beams. Electrons: 6 MeV-21 MeV.

Dose Linearity
0.5% from 10 cGy to 5 Gy integral dose.
0.5% from 0.1 Gy/min up to 4 Gy/min dose rate.

k(t,p) Correction
Temperature (10-40 °C), pressure (70-110 kPa).

Sensor Layout
Chamber arrays organized along main axes and diagonals, 8 additional chambers for energy constancy check.

Spatial Resolution
5mm for horizontal and vertical lines.
7mm for diagonals.

Chamber Type
Vented pixel ionization chambers.

Chamber Size
Cylindrical, 3 (O) x 5 (h) mm, sensitive volume 0.035 cm^3.

Typical Sensitivity
1.1 nC/Gy (Co60).

Electrometer
8 TERA ASICs (each contains 64 independent electrometers).
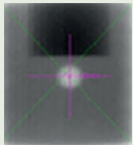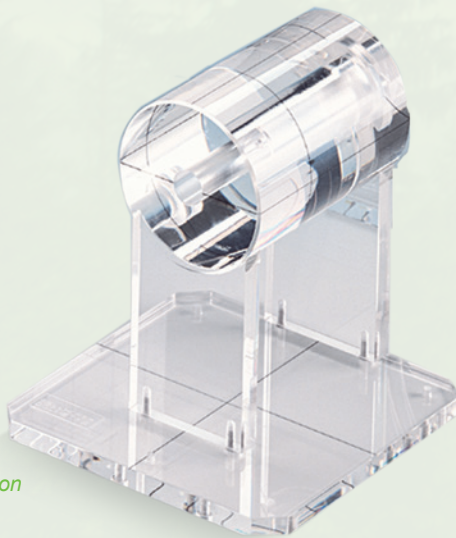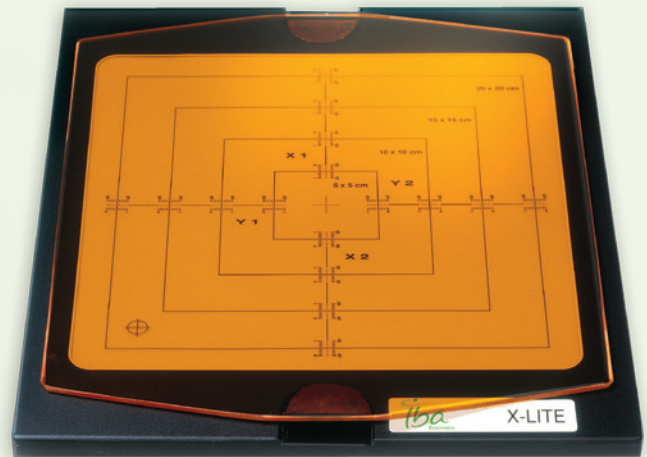
Sampling Time min. 10 ms.

Readout
Parallel and synchronous readout with no dead time.

X-LITE
Light Field Alignment Checks

✓ Fast and precise check of the radiation and light fields without film or additional hardware

✓ Easy setup against the light field

✓ Fluorescent plate visualizes your radiation field right after the irradiation without additional processing

✓ Field scales marked for 5x5, 10x10, 15x15, and 20x20 cm^2

Cylindrical Phantom
Dose constancy and isocenter check
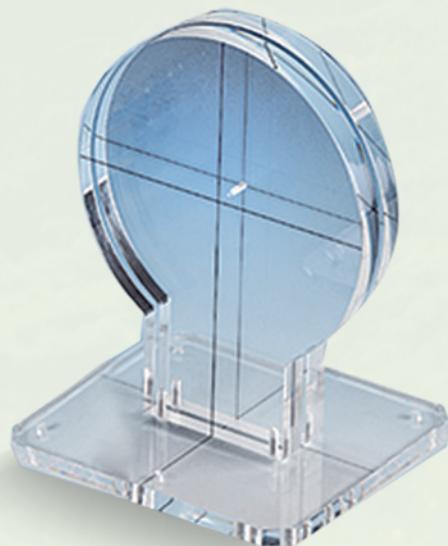
✓ Verify the mechanical stability of gantry/ imager position (CBCT/ EPID) with a small steel ball insert (Winston Lutz Test)

✓ Measurement of dose constancy in various gantry angles and in rotational beams

✓ Adaptors available for most common ion chambers

For more information please refer to the IBA white paper 'Tg-142_Daily Generic Tests' and 'Winston Lutz & Star Shot Test'

Example of a verification image using the IBA Cylindrical Phantom.

Disk Phantom
Isocenter Verification with Film

✓ Easy and precise method of verifying isocenter accuracy (e.g. for stereotactic applications, star-shot)
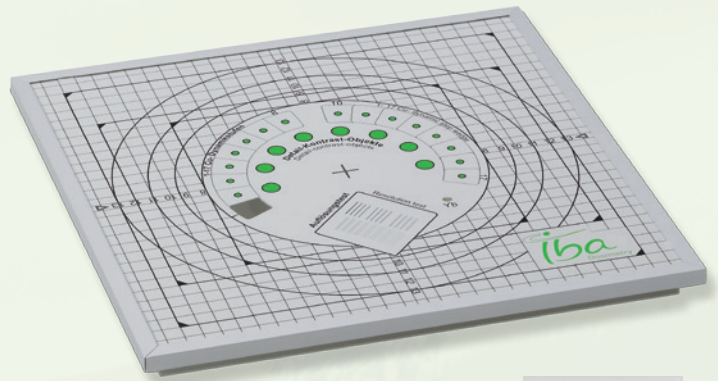
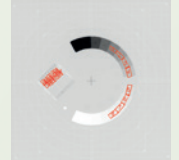✓ Isocenter is determined by an appendant marker

Primus L Test Plate
kV/MV planar image QA

✓ Easy image QA of your IGRT imaging systems or flat-panel imager (EPID)

✓ Verify complete contrast determination, special resolution, scaling discrepancy, uniformity and positioning offsets

✓ Automatic image analysis using the EPID QA Plug-in for myQA Machines

For more information please refer to the IBA white paper 'Tg-142_Planar-Imaging-kV-MV'

kV image of Primus L automatically analyzed in myQA Machines highlighting passed, warning and failed test status.

MagicMaX
Imaging-Dose Multimeter

✓ Fast, simple, and accurate beam analysis and dosimetry for your CBCT, OBI, and CT-Sim

✓ In a single exposure, evaluate your kV beam and imaging dose or flat-panel imager (with the Primus L Test Plate)

✓ Ideally suited for Varian OBI, Elekta or CyberKnife

Additional Hardware

✓ Gantry holders for MatriXX and Star*Track*

✓ Full set of chambers and diodes

✓ Reference class electrometers

✓ Plastic slabs Phantoms and chamber inserts

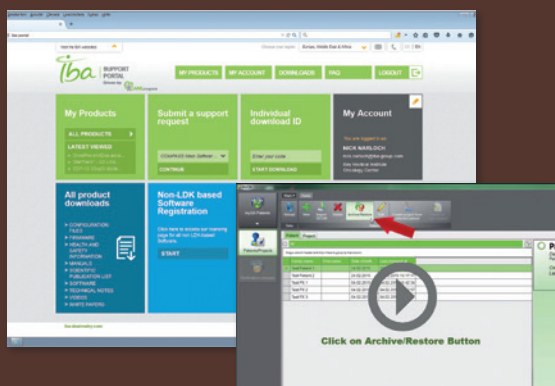✓ Round CT and RTPS Phantom

Fast and easy
Machine QA implementation

White Papers

✔ Learn various applications step-by-step

✔ Efficient use of myQA Machines, detectors, and phantoms

NEW Support Portal

✔ Training videos

✔ Papers and publications

✔ Manuals & technical notes

✔ Software updates

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Protect,
enhance
and save
lives

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