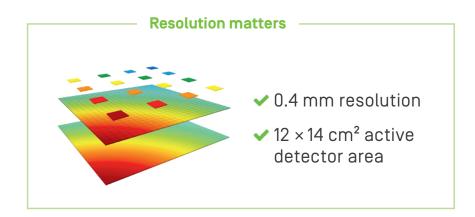


myQA[®] SRS

The power of SRS revealed!

Film-class digital resolution and efficiency for SRS / SBRT Patient QA





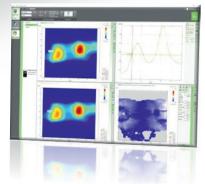
myQA® SRS

The power of SRS revealed!

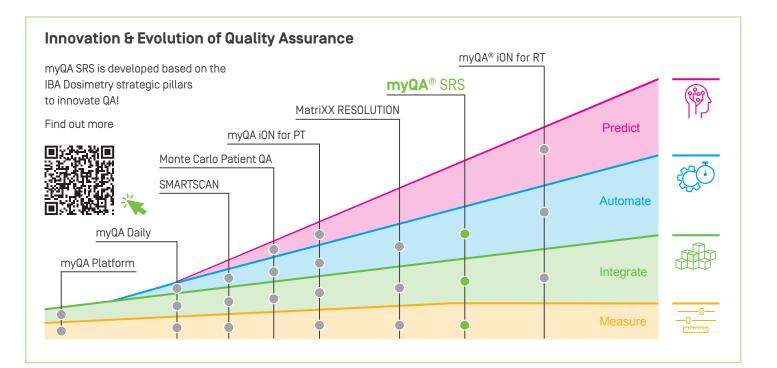
- ✓ 0.4 mm resolution
- ✓ 12 × 14 cm² active detector area

11



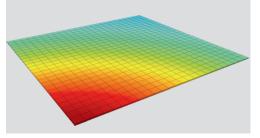


The new myQA SRS solution combines the best of both worlds: unrivaled accuracy and resolution of film QA, with the proven efficiency of digital detector array workflow. It's the new and unique solution for filmless patient plan verification.



myQA® SRS Film-Class SRS/SBRT Patient QA without Film, for All Your Stereotactic Patient QA





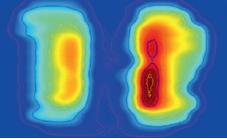
Film-Class Accuracy

The **unique digital solid-state pixel array** provides sub-millimeter high-definition measurement resolution for all stereotactic cases.

Workflow Efficiency

Digital detector QA with advanced verification software ensures seamless and fast QA measurements and verification. Your SRS / SBRT QA workflow is as easy as your proven IMRT QA procedures.

Verification resultsAverage0.285Pass99.0%



Confidence & Safety

Peace of mind that all your SRS and SBRT patient treatment plans and treatment delivery are safe.

Experience with myQA® SRS



Patient-specific SRS and SBRT QA results look great using the myQA SRS even for very tight parameters of 2mm/2%. The digital detector QA workflow with myQA SRS is 10⁶ times faster and easier compared to using film. The film-equivalent resolution for our QA measurements is the basis for better and more meaningful SRS patient plan verification with a high sensitivity and specificity to detect real dosimetric issues.

Yun Yang, PhD, DABR

Department of Radiation Oncology, Rhode Island Hospital, USA



When Accuracy matters, Resolution matters!

Dedicated for Stereotactic QA

- High-resolution measurements even for steep dose gradients.
- Real measurements no dose interpolations required as with low-resolution detectors.
- Avoids false QA results.
- Provides reliable QA test results equivalent to film QA.
- Largest high-resolution SRS detector field size for QA of multiple PTVs at once.
- Measurement-based Patient QA is strongly encouraged:
 AAPM-RSS Medical Physics Practice Guideline 9.a. for SRS/SBRT.
- No resolution compromises even for QA of very small SRS targets.

Film-class detector array optimal for SRS/SBRT

- Unique CMOS solid-state sensor array.
 - _ 0.4 mm resolution with 105,000 pixels.
 - 12 × 14 cm² active detector area.
 - Efficient QA of single-isocenter multiple targets in one measurement setup.

Light field check

- Field size markers 5 cm × 5 cm and 10 cm × 10 cm.
- Easy verification of the light field's conformity with the radiation field.

Designed for non-coplanar fields

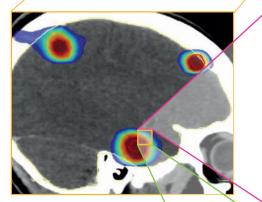
Compact design enables QA of flexible
 SRS beam rotation angles.

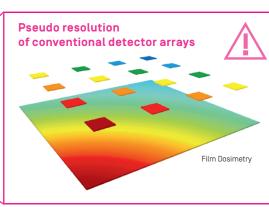
Gantry Sensor+

_QA accuracy for rotational cases.

Laser setup marker

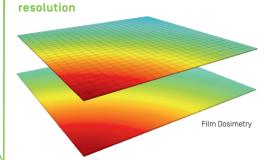
Precise and fast setup through laser alignment.





myQA[®] SRS film-class

11



Limitations of conventional "SRS detector arrays"

- Measurements of only a few discrete points.
- Need to fill the dose gaps through software interpolation.

Your Solution for SRS & SBRT: myQA[®] SRS

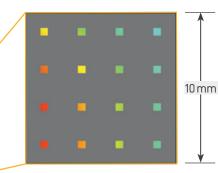
- Real measurement of the complete delivered dose.
- No dose gaps, no need to interpolate.



Clinical Examples – SRS cases with steep dose gradients

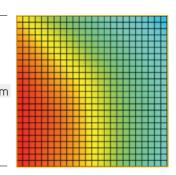
SRS brain lesion





Conventional SRS detector

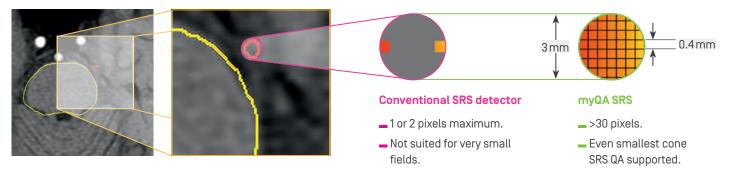
- 16 pixels.^{#]}
- 2.5 mm resolution (or larger).^{#)}
- Data-gaps between pixels.
- Requires "data-filling" through interpolation.



myQA SRS

- >600 pixels.
- 0.4 mm resolution.
- No gaps between pixels.
- No missing data, no interpolation needed.

Trigeminal Neuralgia 3 mm Cone SRS



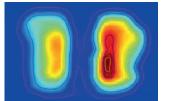
The Significance of Resolution

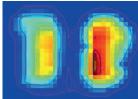
"... detector resolution is of main importance to avoid getting false positive [QA results]."

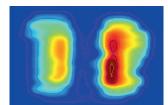
A. Bruschi et al.: Detector resolution affects the clinical significance of SBRT QA.



Avoid false QA results, make better QA decisions.







TPS dose -1mm grid

2.5 mm array

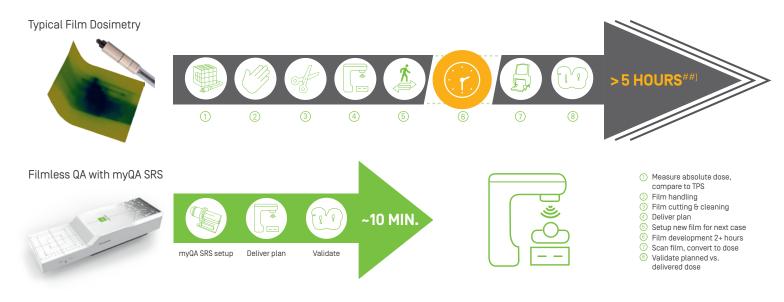
myQA SRS

Figure: Reconstructed Dose

- Avoid pixelized results of poor-resolution detectors.
- Avoid falsely failing QA results caused by low resolution.
- myQA SRS provides superior gradient and peak detection.
- High-quality gamma verification results for better QA decisions.



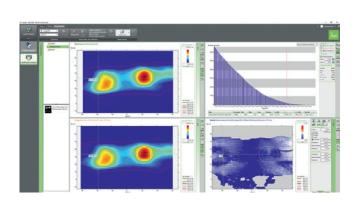
myQA® SRS – save hours of QA physics time!





Digital Detector Workflow Efficiency

- Straightforward SRS / SBRT QA workflow as easy as your proven IMRT QA procedures.
- Avoid time-consuming film dosimetry.
- Fast and straightforward SRS QA implementation.
- Easy and accurate detector setup with dedicated SRS QA phantom.
- Multiple PTV and plan QA measurements with one single detector setup, no need to return to the Linac to change film etc.
- Avoid "false results" as reported with conventional detectors, and save time by avoiding remeasuring and searching for source of errors.



Software Workflow Efficiency - myQA Patients

Smart software reduces typical SRS validation times:

- -Automated beam triggered measurements.
- Automatic location of the isocenter.
- -Automated alignment.
- Field by Field measurement mode.
- Easy benchmarking to film QA in myQA Patients.



Peace of Mind in SRS/SBRT

The complete Radiosurgery Patient QA Solution



The myQA SRS Phantom

- For verification of single beams and for composite SRS plans using the myQA SRS detector.
- Cylindrical shape with cap for non-coplanar arc delivery.**
- Easy setup on the couch through lightweight design and laser alignment markers.
- Including dedicated inserts for film and for small field dosimetry chambers.
- Film insert for benchmarking and for your seamless transition from film-based QA to myQA SRS QA.
- Advanced tissue-equivalent phantom material.

QA of rotational cases and multiple couch angles supported.
GANTRY SENSOR +

The Gantry Sensor+

- Accuracy for rotational cases.
- Precise measurements of your Linac rotation angles corresponding to your detector measurement.
- Easy setup without cables (wireless data exchange).

All Stereotactic Systems Supported¹

- -All standard and stereotactic C-arm Linacs
- MLC and cone-based SRS systems
- Varian® Ethos™ / Halcyon ™**
- CyberKnife[®] MLC, Iris or Cones**
- TomoTherapy[®] / Radixact[®]**
- BrainLAB Novalis®





myQA SRS supports QA of stereotactic cones. Image courtesy of Aktina Medical.¹

Treat more SRS/SBRT patients safely and with the confidence it's done right.

Specifications

myQA [®] SRS Detector Array	
Field Size/Active measurement area [cm]	12 × 14
Number of detectors	105,000
Resolution [center-center distance] [mm]	0.4
Detector/sensor type	CMOS
Detector size [mm]	0.4 × 0.4
Array dimensions [cm]	48 × 15.4 × 10.4
Array weight [kg]	~4.5
Supported energies	FF-FFF
Power	cable
Data transfer	Ethernet
mvQA [®] SRS Phantom	

inger oner huncern	
Outer dimensions [cm]	59 × 29.7 × 45.2
Weight [without inserts, kg]	14.7
Material	ABS

myQA [®] Software	
Supported operating systems:	Windows 10, 64-bit, US English
Supported SQL Servers®:	SQL Server [®] 2016 SP2 or higher
Minimum hardware requirements [or equivalent virtual runtime environments]:	 Processor: Intel Core i5 desktop or mobile processor or better.
	 Graphics card: DirectX 9c compatible, 256 MB Video RAM, no shared memory.
	 16GB RAM required.
	 Ethernet minimum 10Mbit/s.
	 Ethernet [RJ-45] plug to connect controllers and other measurement devices.
Supported screen resolutions and optimal DPI settings:	 1920 x 1080 [FHD] with 100% or 125%
	• 2560 x 1600 with 200%
	 3840 x 2160 [QHD = 4K] with 250%
Supported virtual runtime environments:	 Full desktop virtualizations simulating the above require- ments, e.g.
	• VMware ESXi
	• Oracle VirtualBox
	• Microsoft Hyper-V

• XenDesktop 7.15.2000.291 [Windows 10 64-bit, 1 user]

More solutions that shape the future of your Patient QA

NEW: Need high resolution for your

IMRT & VMAT Patient QA?

Discover the new MatriXX RESOLUTION™



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