DOSIMETRY





myQA® SRS

The power of SRS revealed!

Film-class digital resolution for SRS / SBRT Patient QA

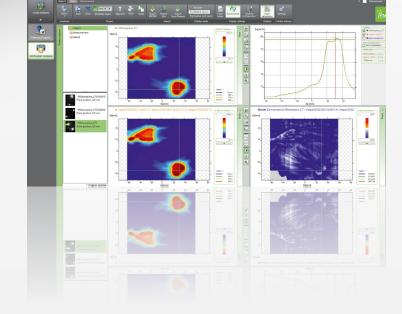
Life, Science.

myQA[®] SRS – The power of SRS revealed!

√0.4 mm resolution

✓ 12 × 14 cm² active detector area

myQA Patients

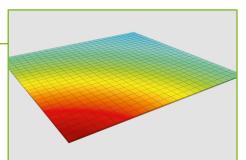


The myQA® SRS solution combines the best of both worlds: unrivaled accuracy and film-class resolution of film QA, with the proven efficiency of the digital detector array workflow.

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myQA[®] SRS Film-Class SRS/SBRT Patient QA





Film-Class Accuracy

The unique digital solid-state solution with pixel array CMOS technology provides sub-millimeter measurement resolution for all stereotactic cases.

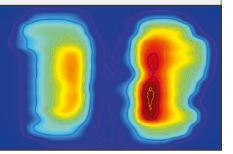


Workflow Efficiency

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.

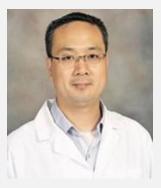
Verification results

0.285 Average Pass 99.0% Gamma criteria 3%/1mm



Confidence & Safety

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



Dr. Guoqiang Cui, a medical physicist from Duke University Medical Center, shares his stereotactic clinical experience with myQA® SRS in the USA.



Watch his presentation here

More presentations here:



A new high-resolution digital SRS and SBRT QA detector array: Performance characterization and clinical advantages



Novel stereotactic QA with film-class resolution: First clinical experience with myQA® SRS





When Accuracy matters, Resolution matters!

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Dedicated for Stereotactic QA

- _ High-resolution measurements even for steep dose gradients
- _ Real measurements no dose interpolations required as with low-resolution detectors
- _TG 218 compliant
- _ Provides true value in QA results

Provides reliable QA test results equivalent to film QA
 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 \times 14 cm^2 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 geometry incl. vertex beams

Gantry Sensor+

Precise angular corrections for rotational cases



Pseudo resolution of conventional detector arrays

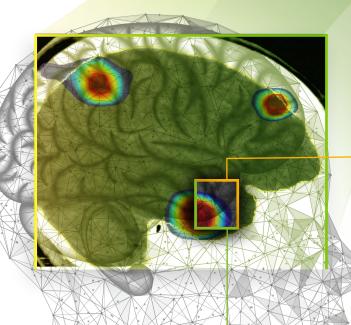
- _Measurements of only a few discrete points
- _ Need to fill the dose gaps through software interpolation

myQA® SRS film-class resolution

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

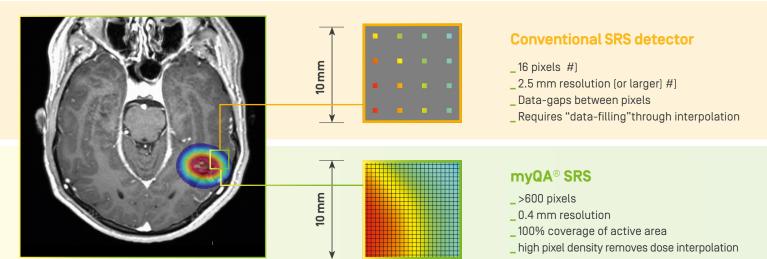
Laser setup marker

Precise and fast setup through laser alignment

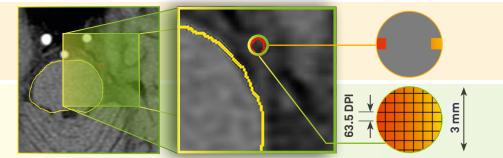


Clinical Examples – SRS cases with steep dose gradients

SRS brain lesion



Trigeminal Neuralgia 3 mm Cone SRS



Conventional SRS detector

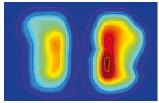
- _1 or 2 pixels maximum
- Not suited for very small fields

myQA® SRS

- >30 pixels
- _ Even smallest cone SRS QA supported

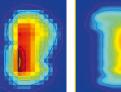
Avoid false QA results, make better QA decisions.

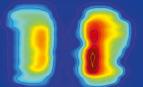
- _ Avoid pixelized results of low resolution detectors
- _ Avoid falsely failing QA results caused by low resolution





- _ myQA[®] SRS provides superior gradient and peak detection
- High-quality gamma verification results for better QA decisions





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.

2.5 mm array

myQA® SRS

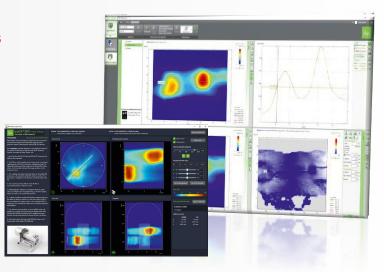


Save time with the efficiency of a digital workflow



Software Workflow Efficiency - myQA Patients

- _ Smart software reduces typical SRS validation times
- _ Automated beam triggered measurements
- _ Automatic location of the isocenter and alignment
- Field by Field measurement mode and/ or composite measurement mode
- Easy benchmarking to film QA in myQA Patients
- _ Plane viewer tool for in-phantom rotation measurements





Digital Detector Workflow Efficiency

- _ Fast and straightforward SRS QA implementation
- _ Avoid time-consuming film dosimetry
- _ Easy and accurate detector setup with dedicated SRS QA phantom
- _ SIMT [Single Target Multiple Isocenter] QA measurements with one detector setup; large active area eliminates need to return to the linac to change the detector location
- _ Avoid "false results" as reported with conventional detectors, and save time by avoiding remeasuring and searching for source of errors



Peace of Mind in SRS/SBRT

The myQA[®] SRS Phantom

- _ Cylindrical shape with cap for non-coplanar arc delivery
- _ Advanced tissue-equivalent phantom material
- Easy setup through lightweight design and laser alignment markers
- _Set of inserts for advanced QA features is available (see below)
- Film insert for your seamless transition from film-based QA to myQA® SRS QA



The Gantry Sensor+

- _ Allows precise angular correction
- _Easy setup without cables
- _ Automated angle correction by software possible

Verify your patient plan by using the original plan geometry. No need to reset couch parameters to zero. myQA® SRS supports all available couch angles.

Complement your Stereotactic QA solution

Multiple chamber inserts Film insert

Uniform insert with multiple adapters for small field dosimetry chambers from various vendors

Easy evaluation and benchmarking of myQA® SRS measurements vs. film

Winston-Lutz test

Verify the coincidence of the mechanical linac isocenter vs. the machine radiation isocenter and visualize your results



End-to-End insert

Imaging and planning insert with multiple test objects

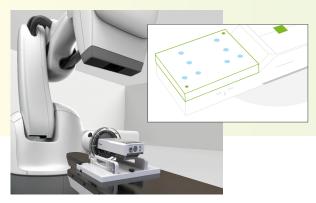






For detailed information about Machine QA inserts, refer to our myQA® SRS System for Machine QA flyer.

COMING SOON:



Your SRS/SBRT QA solution dedicated for CyberKnife®

myQA® SRS for CyberKnife® provides all tools CyberKnife® users need for accurate and fast patient specific pretreatment QA. With 0.4 mm filmclass resolution and a 12 × 14 cm² sensor area, myQA® SRS for CyberKnife® combines the accuracy and resolution of film QA with the proven efficiency of a digital detector array. PSQA workflow supports measurements and analysis in the native plan geometry to fully match patient treatment delivery.

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



myQA[®] SRS Detector Array

	Specifications
Field size/Active mea- surement area [cm²]	12 × 14
Number of detectors	105,000
Resolution [center- to-center distance][mm]	0.4
Detector/sensor type	CMOS
Detector size [mm ²]	
Array dimensions [cm³]	48 × 15.4 × 10.4
Array weight [kg]	~4.5
Supported energies	FF-FFF
Power	Cable
Data transfer	Ethernet

myQA[®] Software

	Recommended specifications
Supported oper-	Windows® 10, 64-bit,
ating systems:	US English
Supported SQL	SQL Server® 2016
Servers®:	SP3 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

For more details, please contact your IBA Dosimetry representative.

myQA[®] SRS Phantom

	Specifications
Outer dimensions [cm]	59 × 29.7 × 45.2
Weight [without inserts, kg]	14.7
Material	RW3







IBA Dosimetry

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