myQA® SRS
The power of SRS revealed!
Film-class digital resolution for SRS / SBRT Patient QA
myQA® SRS –
The power of SRS revealed!

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

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.
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

| Average | 0.285 |
| 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.

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

Watch his presentation here
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
- TG 218 compliant
- Provides true value in QA results

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 geometry incl. vertex beams
- Precise angular corrections for rotational cases

Laser setup marker

- Precise and fast setup through laser alignment

myQA® SRS film-class resolution

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

Film Dosimetry
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
- 100% coverage of active area
- High pixel density removes dose interpolation

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.

#) depends on detector setup and type
Save time with the efficiency of a digital workflow

**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

**Workflow Efficiency**
- 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

**Typical Film Dosimetry**
- Measure absolute dose, compare to TPS
- Film handling
- Film cutting & cleaning
- Delivery plan
- Setup new film for next case
- Film development 2+ hours
- Scan film, convert to dose
- Validate planned vs. delivered dose

**Filmless QA with myQA® SRS**
- myQA® SRS setup
- Deliver plan
- Validate

**Software Workflow Efficiency – myQA Patients**
- Smart software reduces typical SRS validation times
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- Automatic location of the isocenter and alignment
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- Plane viewer tool for in-phantom rotation measurements
Confidence & Safety

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

Film insert
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 film-class 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**

<table>
<thead>
<tr>
<th>Specifications</th>
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</thead>
<tbody>
<tr>
<td>Field size/Active measurement area [cm²]</td>
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<tr>
<td>Number of detectors</td>
</tr>
<tr>
<td>Resolution [center-to-center distance] [mm]</td>
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<tr>
<td>Detector/sensor type</td>
</tr>
<tr>
<td>Detector size [mm²]</td>
</tr>
<tr>
<td>Array dimensions [cm³]</td>
</tr>
<tr>
<td>Array weight [kg]</td>
</tr>
<tr>
<td>Supported energies</td>
</tr>
<tr>
<td>Power</td>
</tr>
<tr>
<td>Data transfer</td>
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</tbody>
</table>

**myQA® Software**

<table>
<thead>
<tr>
<th>Recommended specifications</th>
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</thead>
<tbody>
<tr>
<td>Supported operating systems:</td>
</tr>
<tr>
<td>Supported SQL Servers*:</td>
</tr>
<tr>
<td>Minimum hardware requirements [or equivalent virtual runtime environments]:</td>
</tr>
<tr>
<td>· Processor:</td>
</tr>
<tr>
<td>· Graphics card:</td>
</tr>
<tr>
<td>· 16GB RAM required</td>
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<tr>
<td>· Ethernet minimum 10Mbit/s</td>
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**myQA® SRS Phantom**

<table>
<thead>
<tr>
<th>Specifications</th>
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<tbody>
<tr>
<td>Outer dimensions [cm]</td>
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<tr>
<td>Weight [without inserts, kg]</td>
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<tr>
<td>Material</td>
</tr>
</tbody>
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For more details, please contact your IBA Dosimetry representative.