



**PHILIPS**

Image guided therapy

***Azurion***

User Quality Control Mode




**More control over  
radiation-related assessment with  
User Quality Control Mode**

# Work conveniently and consistently

As a medical physicist in a healthcare facility, you need to meet local radiation regulations and maintain high standards of care. The Azurion User Quality Control Mode (UQCM) supports you in providing superior care by enabling you to work with a wide set of standard and easy to use tools. With this option, you can independently verify and audit the radiation-related factors of your Azurion system.

## How we help you meet your challenges

Philips is an active member of the interventional group that developed the NEMA XR 27-2012 standard. It defines the essential set of equipment controls and quality tools required to support quality assurance testing of interventional X-ray systems. As such, we understand the challenges you face when trying to meet your radiation regulations and requirements. The User Quality Control Mode is designed to give you more control in assessing the radiation-related aspects of your image guided therapy system to support your radiation management program.

	<b>Challenge</b>	<b>Key benefits UQCM</b>
	No standard tools available to run internal radiation assessments of the image guided therapy equipment.	Users can independently validate radiation parameters in a consistent way and in compliance with the NEMA XR 27-2012 standard.
	Validation and testing of radiation factors requires assistance of an external engineer and availability of the interventional lab.	Healthcare facilities can make efficient use of staff and lab. No external assistance is required.
	Difficult to retrieve test data and images for validation and reporting.	UQCM reduces the complexity of validating quality, retrieving data and images, and reporting results.

### Are you ready for the new radiation standards?

To address the increasing levels of medical radiation exposure and complexity of X-ray equipment, regulatory bodies and professional medical associations across the globe are introducing new quality assurance standards and regulations, including the European 2013/59/ EURATOM directive and the NEMA XR 27-2012 standard. The UQCM option aids you in complying with these regulations. We've designed it for easy access and use to fit your daily work.

#### Easy to access



Learn proper use of the UQCM option with an online course



Access UQCM option with your personal key

#### Easy to use



In an emergency situation, switch from test to clinical mode instantly



Track the status of the extensive tests at any time





“ This standard intends to facilitate and aid users in meeting their responsibility to assure safety, regulatory compliance, and validated equipment performance in a time and cost-effective manner. ”

**NEMA XR 27-2012 standard**

## UQCM feature overview

Feature	Details
3 factor technique	Xper technique: Large/Small focus
	Tube exposure: voltage (kV)
	Tube exposure: current (mA)
	X-ray pulse time (ms)
Image quality and dose performance related tests (manufacturer recommended tests)	Beam filter control: <ul style="list-style-type: none"> <li>- None</li> <li>- 1mm Al + 0.1mm Cu</li> <li>- 1mm Al+0.4mm Cu</li> <li>- 1mm Al +0.9mm Cu</li> </ul>
	Monitor performance
	Detector dose input test
	kV and mA stabilization test
	Entrance dose rate limitation test
	Verification of Dose Area Product (DAP), Air Kerma, and KV display indication accuracy
Air Kerma rate verification of clinical imaging protocols	Tube-related parameters: half value layer, X-ray beam output, focal spot size
	System related parameters e.g.: X-ray beam alignment, field limitation test, limiting resolution
	Verification of fluoroscopy dose related settings: <ul style="list-style-type: none"> <li>- Fluoroscopy flavor settings</li> <li>- Source image distance (SID) variation</li> <li>- Field of view variation (FOV)</li> <li>- Documenting protocol settings for reporting</li> </ul>
Cosmetics test (check the image uniformity)	<ul style="list-style-type: none"> <li>- Test settings: <ul style="list-style-type: none"> <li>o KV</li> <li>o Beam quality</li> </ul> </li> <li>- Save image in DICOM format: <ul style="list-style-type: none"> <li>o For processing image</li> <li>o For presentation image</li> </ul> </li> </ul>
Report the status of measurements done in UQCM	<ul style="list-style-type: none"> <li>- Inspect detailed data</li> <li>- Store results in standard format (XPS and CSV)</li> </ul>
Calibration input fields for RDSR	- Calibration protocol, calibration factor, date, responsible party
Verify and review exam protocols	- Export radiation related settings of the protocols in CSV format

**For more information about the Azurion User Quality Control Mode option, please contact your local Philips representative.**



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