



Data Sheet

LUNA 3D

Surface imaging for patient positioning and monitoring in radiation therapy

Features

- Robust multi-camera pod calibration to reduce the impact of camera blockage
- Expanded field of view allows therapists to set up the patient at a comfortable loading position and in a more ergonomic way
- The virtual laser tool mimics the positioning laser in the room, resulting in LUNA 3D being as easy to use a laser
- The browser-based software architecture makes it possible to access data when and where needed, independent of hardware

Configurations



1 camera system for patient breathing coaching and motion recording during CT-SIM



3 camera system for patient positioning and motion monitoring even for non-coplanar treatments. Patient positioning support also in pre-treatment position below isocenter for ergonomic position



4 camera system for reliable patient positioning at bore-type LINACs and motion monitoring with patient in isocenter

System

Camera frame rate	>12 Hz
Latency 6DOF registration 1 & 3 Pod system	<250 ms
Latency 6DOF registration 4 pod system	<275 ms
Registration algorithm	Rigid body
Shift accuracy* 1 pod system	<1.5 mm
Shift accuracy* multi pod system	<0.5 mm
Rotation accuracy* 1 pod system	<0.5 °
Rotation accuracy* multi pod system	<0.5 °
Measurement volume	longitudinal ≥ 130cm, lateral ≥ 120cm, vertical ≥ 100cm
Ambient conditions	15–30 °C, 25–80 % rel. humidity, non-condensing 100–
Power supply (distribution box)	240 V AC, 50–60 Hz
Operating system	Windows 10 IoT, Windows Server 2022, iOS / iPadOS

*Maximum deviation from the actual shift/rotation

Camera Pod

Dimensions (L × W × H) (without holding arm and ceiling mount)	540 × 245 × 90 mm
Weight (without holding arm and ceiling mount)	6.4 kg
Power supply (internal)	24 V DC
International protection rating	IP 20
Projection wavelength	465 nm
Approved	LUNA 3D has successfully passed the European CE conformity assessment procedure and is cleared in the USA under 510(k) K232031

Scope of delivery

- LUNA 3D camera pod(s)
- LUNA 3D Desktop PC
- Setup Screen
- Calibration plate
- Tablet
- SGRT PC
- WLAN access point
- Distribution box
- Coaching screen
- Setup PC
- Camera pod verification plate

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