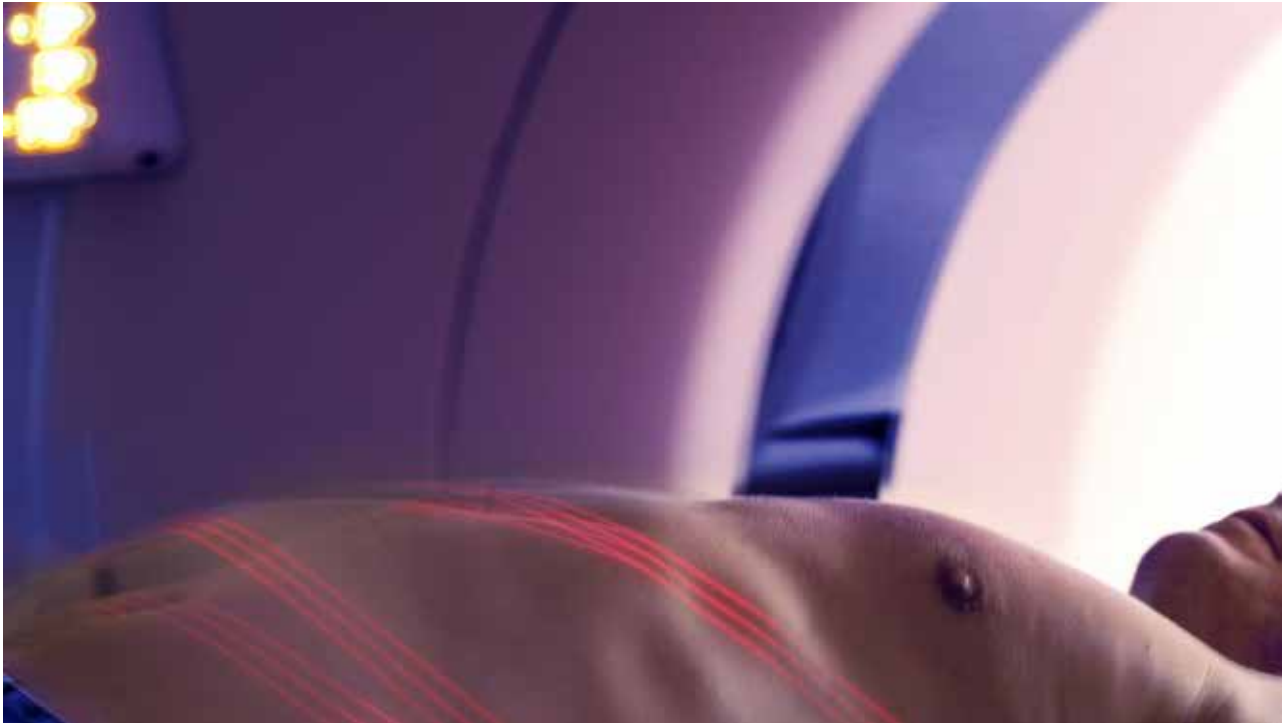


SENTINEL™

C-RAD

The New Benchmark
in 4D CT



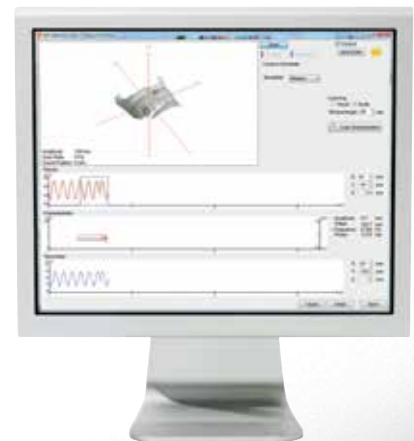
C-RAD Sentinel™ is an easy-to-use, laser based optical surface scanning system with functionality for 4D CT reconstruction and gated imaging in a CT room, as well as intra-fraction motion detection and patient positioning in a radiation therapy treatment room.

At the CT, the system provides the following benefits compared to other respiratory tracking solutions:

- No markers or other equipment to be placed on or around the patient.
- Tracking of both thoracic and abdominal respiratory motion in parallel.
- Optional audio-visual coaching through in-room speakers and video goggles, assisting the patient to follow the optimal breathing pattern.

Breath-hold, deep inspiration and coached/free breathing modes are all supported, along with different triggering modes. This provides maximum flexibility to adapt to different patient capabilities and clinical requirements.

As part of the C-RAD gating solution with a Catalyst™ system in the treatment room, all data is stored in a central database and the same surface points will be automatically tracked at every fraction without manual intervention.



Intuitive user interface for a streamlined clinical workflow.





SENTINEL™

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Physical dimensions

Size (L * W * H): 700 * 200 * 200 mm
Weight: 8 kg

Power

Input voltage: 100–240 VAC
Frequency: 47–63 Hz
Power consumption: 1.35 A

Environment

Operating temperature: +10 °C to +40 °C (50 °F to 104 °F)

Laser

Power: <1 mW (class 2M) according to IEC-60825-1
Wavelength: 635–690 nm

Interfaces

CT Interfaces: Integration with major oncology CT models

Performance

Scan volume (X * Y * Z): 800 * 1300 * 700 mm.
Measurement reproducibility: 0.2 mm
Long term stability: Within 0.3 mm
Warm up time: ~ 30 min
Scan speed: Up to 100 contours per second. Typically 1–2 s for a 40 cm scan
Respiratory detection frequency: 15 Hz

Computer requirements

Operating system: Windows XP SP3 or Windows 7 (32-bit)
Min. system requirements for Sentinel c4D Workstation: 2GHz, 2 GB RAM, SXGA graphics, min 20 GB available space on the hard disk and 2 full height PCI slots
Min. system requirements for Sentinel c4D Client: 2GHz, 2 GB RAM, SXGA graphics, min 20 GB available space on the hard disk
Min. system requirements for Sentinel Server: 2GHz, 2 GB RAM, SVGA graphics
Computer EMC conformance: Class B, EN 55022, EN 55024



LASER RADIATION
DO NOT STARE INTO THE BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENTS
CLASS 2M LASER PRODUCT
Max. output: 1mW Type: 635nm
IEC 60825-1:1993

Complies with the IEC-60825-1 standard, Safety of Laser products.

Complies with FDA performance standards for laser products except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007.

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