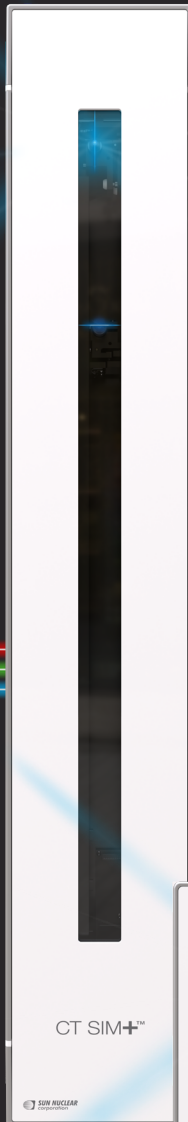


NEWLY REDESIGNED

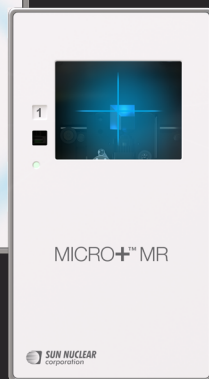
PRECISION LASER SYSTEMS

Patient-Centered Accuracy for PET/CT Simulation,
MR Simulation, MR-Guided RT, and Linac-Based RT



CT SIM+

SUN NUCLEAR
corporation



MICRO+ MR

SUN NUCLEAR
corporation

CT SIM+™ Precision Laser Systems

Ensure accurate **patient marking and positioning** during CT Simulation, with patient-centered precision and accuracy.

CT SIM+ moveable precision lasers have been designed from the ground up to support your CT Simulation workflow. Incomparable precision and accuracy provide confidence in patient safety. A modern, unassuming design, combined with intuitive software, allow your team to work unimpeded by physical or technological barriers.

Patient-Centered Accuracy

In support of CT and PET simulation and marking, CT SIM+ offers accuracy at the patient of +/- 0.5 mm. Laser line widths of ≤ 0.5 mm for all colors (blue, green, or red), and industry-leading lengths of ≥ 4 meters at 3 meters, offer precision and flexibility for your workflow.

Workflow-Compatible Software & Hardware

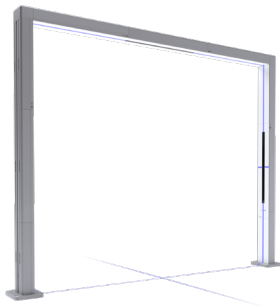
RapidSIM™ Software, compatible with all major third-party systems, allows control of all laser functions easily from a touchscreen control monitor or handheld tablet. Reinforced housing offers reliability, with tool-less entry for easy serviceability.

THREE LASER WAVELENGTH OPTIONS—ONE PRICE



The Complete Connectivity Suite includes:

- RapidSIM Software for reading and directing lasers to the correct coordinates
- IsoDRIVE™ mode sends treatment planning and simulation coordinates automatically to lasers for hands-free laser movement
- Handheld Wireless Tablet for in-room control
- Touchscreen Control Monitor for convenient patient workflow
- DICOM and Text file interconnectivity
 - Complies with DICOM radiation oncology standards
 - Compatible with major CT manufacturers' system



CT SIM+ Configurations

- **3-Arm System:** Any coordinate can be achieved using the lasers and CT couch Y-axis adjustment. All laser functions can be performed in the control room or via the wireless tablet at the scanner.
- **5-Arm System:** Any coordinate can be achieved with no need to manually move the couch in and out of the bore. CT SIM+ reads treatment planning and other simulation system coordinates for easy, accurate movement to the marked location.

Additional Highlights

- Closed loop mechanical and software systems ensure sub-millimeter accuracy
- Choice of red, green or blue lasers — each available at the same price
- Multiple installation configurations including wall / ceiling, bridge, and floor mount post
- Steel frame and rails provide strength and sturdiness
- 2-year warranty

Laser Output

Power (mW):	<1.0
Range (m):	Up to 6
Line Width:	≤0.5 mm for all colors @ 4 m
Line Length:	≥4 meter @ 3 m
Available Colors:	Wavelength 635 nm Red Wavelength 515 nm Green Wavelength 450 nm Blue

Mechanical

Length of travel:	70 cm
Mechanical Resolution:	0.02 mm
Projected Laser Accuracy at the Patient:	±0.5 mm at 3.0 m

Dimensions

	Wall	Post	Bridge
Length (cm):	119.1/46.9	117.0/69.7	253.9/100.0
Width (cm):	20.1/7.9	20.1/7.9	56.7/10.5
Depth (cm):	11.9/4.7	11.9/4.7	11.9/4.7

Power Requirements

Voltage: 110/240 VAC (auto-select)

Wireless Connectivity

Wifi: 802.11 b/g/n

Certifications

Complies with Center for Devices and Radiological Health regulations 21 CFR 1040 for Class II lasers and all CE requirements
 Certified to: IEC 60601 (Safety); IEC 60825-1 (Laser). 510(k) clearance (K152303). Gammex is an ISO13485 certified medical device manufacturer.

Everything you need for CT Simulation QA

In addition to our CT SIM+ laser systems, we offer the following resources to support the full CT simulation process.

Patient QA

Laser Alignment Phantom

Enables daily verification of the CT imaging plane and monthly checks of your CT SIM+ laser alignments

Machine QA

Advanced Electron Density Phantom

Enables automated CT-to-electron density calibration

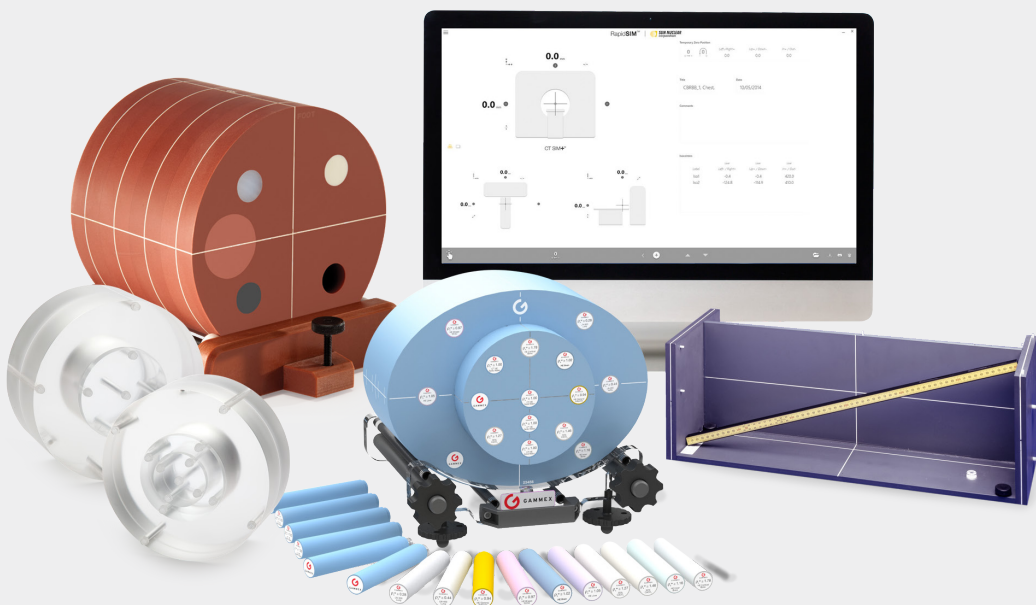
Diagnostic QA

CT ACR 464 Phantom

CT image quality and accreditation phantom

CTDI Phantoms

Computed Tomography Dose Index Phantom



MICRO™ Family

Enhance **patient alignment** workflow and accuracy for diagnostic imaging and radiotherapy

The MICRO family of precision lasers supports fixed patient alignment for diagnostic imaging and radiation therapy, including MR Simulation and MR linacs. Designed with a clinical focus, MICRO lasers increase clinical confidence in alignment accuracy and simplify your workflow. Reinforced housing offers reliability, with tool-less entry for easy serviceability.

Patient-Centered & Workflow-Focused

Remote control backlighting helps visibility in darkly lit rooms, and Bluetooth technology enables intuitive positioning adjustments. Plus, longer laser lines – available in blue, green, or red – aid in ease of positioning. An MR version supports simulation and patient alignment in the presence of magnetic fields.

Flexible Options

Based on the unique needs of your clinical environment, Sun Nuclear offers MICRO+, MICRO+ MR, and MICRO fixed laser systems.

THREE LASER WAVELENGTH OPTIONS—ONE PRICE



MICRO+ Highlights

- Elegant, all-in-one system for radiation therapy workflows
- No additional costs or external receivers
- Smart design features include:
 - Remote backlighting for ease of use in dark rooms
 - Remote locator in case of misplacement
- OneTouch™ control of any laser increases efficiencies at every step
- With the omni-directional remote, you no longer have to point the remote at the laser during adjustments

Integrated Bluetooth technology eliminates the need for external receivers and provides maximum range of motion without the need for line-of-sight adjustments



Backlit controls for hassle- and error-free use in darkened rooms

MICRO+ Specifications

Adjustment Type:	Hand held remote control
Degrees of Movement/Freedom:	6
Left - Right:	≥ ± 15 mm
Up - Down:	≥ ± 15 mm
Rotation:	≥ ± 5°
Horizontal Tilt (yaw):	≥ ± 5°
Vertical Tilt (pitch):	≥ ± 5°
Focus Range:	1.5 m - 4 m
Adjustment Accuracy:	0.15 mm
Adjustments Speeds:	Slow – Ultra accurate steps (0.15 mm) for each touch of the control
	Medium - Hold the control for continuous motion
	Fast – Continue to hold the control for faster speeds and larger movements
Remote Technology:	Bluetooth & infrared
Remote Receiver:	Integrated
Remote Operational Range:	> 10 m
Remote Locator:	“Find remote” option on each laser

Number of Lasers per Remote:	6
Laser Selection:	OneTouch™ automatic laser and remote pairing
Line Width (All Colors):	(@ 3 m) ≤ 0.5 mm
Line Length:	(@ 3 m) > 4 m
Laser Type:	Diode
Laser Output:	< 1 mW
Power Supply:	100 – 240 volt (auto select)
Dimensions:	254 mm × 140 mm × 89 mm (H×W×D)
Weight:	1.5 kg
Available Colors:	Wavelength 635 nm Red
	Wavelength 515 nm Green
	Wavelength 450 nm Blue
Installation Options:	Wall mount ± 45° (with optional tilt and adapter bracket) , Post mount (optional)

Certifications

Complies with Center for Devices and Radiological Health regulations 21 CFR 1040 for Class II lasers and all CE requirements
 Certified to: IEC 60601 (Safety); IEC 60825-1 (Laser). Gammex is an ISO13485 certified medical device manufacturer.

MICRO+ MR Highlights

- Remotely control laser positioning with ease – to an accuracy of 0.15 mm
- MR-compatible system up to 3 Tesla
- Mounts to wall or ceiling, keeping MR rooms organized
- Available as 3-unit or 4-unit
 - Each with three color options – red, green, or blue
- Includes MRI-compliant power supply kit



MICRO+ MR Specifications

Adjustment Type:	Hand held remote control
Degrees of Movement/ Freedom:	6
Left - Right:	≥ ± 15 mm
Up - Down:	≥ ± 15 mm
Rotation:	≥ ± 5°
Horizontal Tilt (yaw):	≥ ± 5°
Vertical Tilt (pitch):	≥ ± 5°
Focus Range:	1.5 m - 4 m
Adjustment Accuracy:	0.15 mm
Adjustments Speeds:	Slow – Ultra accurate steps (0.15 mm) for each touch of the control Medium - Hold the control for continuous motion Fast – Continue to hold the control for faster speeds and larger movements
Remote Technology:	Bluetooth & infrared
Remote Receiver:	Integrated
Remote Operational Range:	> 10 m
Remote Locator:	"Find remote" option on each laser

Number of Lasers per Remote:	6
Laser Selection:	OneTouch™ automatic laser and remote pairing
Line Width (All Colors):	≤ 0.5 mm @ 3 m
Line Length:	4 m @ 3 m
Laser Type:	Diode
Laser Output:	< 1 mW
Power Supply:	100 – 240 volt (manual select)
Unit Dimensions:	254 mm × 140 mm × 89 mm (H×W×D)
Unit Weight:	1.5 kg
Available Colors:	Wavelength 635 nm Red Wavelength 515 nm Green Wavelength 450 nm Blue
Installation Options:	Wall mount ± 45° (with optional tilt and adapter bracket)

Certifications

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**MORE THAN 4,000
MOVING & FIXED LASER SYSTEMS
INSTALLED GLOBALLY**

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