

MICRO+™ MR Fixed Lasers

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

- New design for serviceability and durability
- Remotely control laser positioning with ease — to an accuracy of 0.15 mm
- Choose from red, green or blue wavelengths
- Includes MRI-compliant power supply kit



MICRO+™ MR supports fixed patient alignment for diagnostic imaging and radiation therapy. Designed with clinical focus, MICRO+ MR increases clinical confidence in alignment accuracy and simplifies your workflow.

Patient-Centered

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.

Zero Interference™ for MR-Simulation and MR-Guided Radiotherapy

The MICRO+ MR fixed laser system is the patient alignment solution for any MR environment, up to 3 Tesla. System design allows power to pass through a noise filter prior to connecting with each unit, retaining Zero Interference with MR image quality.

Workflow-Focused

- Reinforced housing offers reliability, and tool-less entry for easy serviceability
- Smart design remote increases efficiency with:
 - Backlighting to help visibility in darkly lit rooms
 - Bluetooth technology for intuitive positioning adjustments
 - Locator feature for fast finding in case of misplacement
- Service life of 50,000+ hours supports the life of your linac

Easy Implementation

MICRO+ MR lasers mount to the wall and ceiling, keeping MR rooms organized, with a clear path for patient transport and injector equipment.

THREE LASER WAVELENGTH OPTIONS—ONE PRICE

Zero Interference System Offerings

MICRO+ MR systems are available as a 3-unit or 4-unit offering, each with three color options: red, green, or blue. All systems include a power supply designed to convert AC to DC outside of the Faraday cage, cable/connectors to run DC power through the Filter Panel before entering the MR environment, and a Junction Box to distribute DC power to each individual laser unit.

Filter Panel Interface - Planning

Power going into an MR suite is filtered for low frequency noise at the penetration panel. Each site should work with their RF shield designer to ensure a filtered 9-pin D-sub connection is available for lasers at the Penetration Panel. MICRO+ MR includes D-sub connectors to field terminate cables that will pass power through the Panel. Contact your RF shield designer to ensure lasers are included in the site plan.

Specifications

Adjustment Type:	Hand held remote control
Degrees of Movement/ Freedom:	6
Left - Right:	$\geq \pm 15$ mm
Up - Down:	$\geq \pm 15$ mm
Rotation:	$\geq \pm 5^\circ$
Horizontal Tilt (yaw):	$\geq \pm 5^\circ$
Vertical Tilt (pitch):	$\geq \pm 5^\circ$
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 for all colors @ 4 m
Line Length:	≥ 4 meter @ 3 m
Laser Type:	Diode
Laser Output:	< 1 mW
Power Supply:	100 – 240 volt (auto select)
Dimensions:	216 mm × 134 mm × 80 mm (H×W×D)
Weight:	< 1 kg
Available Colors:	Wavelength 635 nm Red Wavelength 515 nm Green Wavelength 450 nm Blue
Installation Options:	Wall mount $\pm 45^\circ$ (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.