

# MICRO+™ Fixed Lasers

Enhance patient alignment workflow and accuracy with an elegant, all-in-one platform.

- Choose from red, green or blue wavelengths
- Remotely control laser positioning with ease – to an accuracy of 0.15 mm
- MR-compatible systems available



## Intelligent innovation

The MICRO+ fixed laser system offers the latest technology in remote controlled lasers for patient alignment. The elegant design of the remote allows 12 possible adjustments from only 4 intuitive controls. Accuracy of 0.15 mm ensures optimal laser positioning, every time.

With embedded Bluetooth technology, the MICRO+ system enables staff to move freely as they work. There is no need to stop and point the remote at the laser in order to make adjustments.

Additional smart design touches – such as backlighting on the remote for use in dark rooms and a remote locator feature for fast finding in case of misplacement – help increase efficiency at every step.

## Easy implementation

To design your MICRO+ fixed laser system, simply select from crosshair, vertical or horizontal individual lines – and choose from red, green or blue wavelengths. In keeping with the all-in-one approach, there are no additional costs or external receivers to consider.

THREE LASER WAVELENGTH OPTIONS—ONE PRICE



BLUE



RED



GREEN



**MICRO+™ // Fixed Lasers**

≤ 0.5 mm laser line width @ 3 m

0.15 mm adjustment accuracy

Laser ID label

IR receiver can be used as a backup connectivity option

LED provides visual cue of laser power and activity with no disruption to the laser line

> 4 m laser line length at 3 m

Remote Control Locator

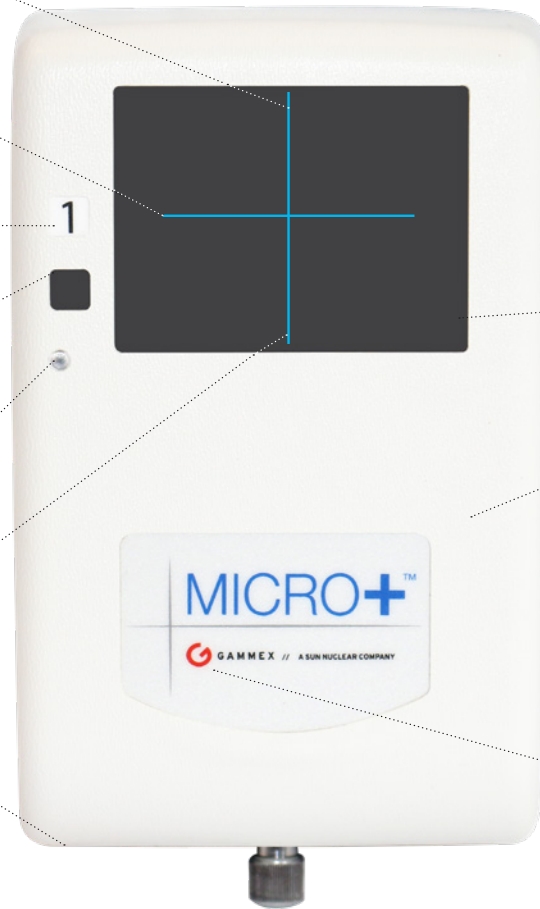
Integrated Bluetooth technology eliminates the need for external receivers and provides maximum range of motion without the need for line-of-sight adjustments

High impact optical window minimizes refraction and distortion for all colors

High strength polycarbonate cover minimizes weight and maximizes MR-compatibility

Solid aluminum back plate ensures stability

A name you can trust with more than 40 years of experience designing and supporting lasers exclusively for medical imaging



Ergonomic design lets you adjust multiple axes without removing your finger from each multi-speed control

Low battery indicator

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

OneTouch™ laser selection with audible connection verification means there is no need to press multiple buttons each time you select a different laser

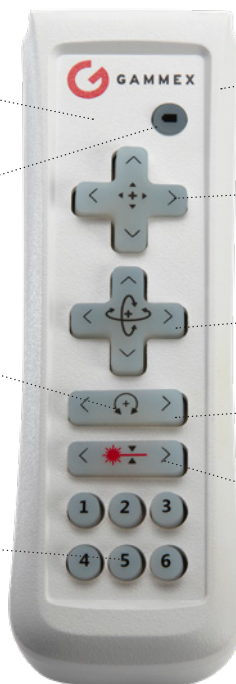
Internal alert for misplaced remote

Linear Up/Down & Left/Right

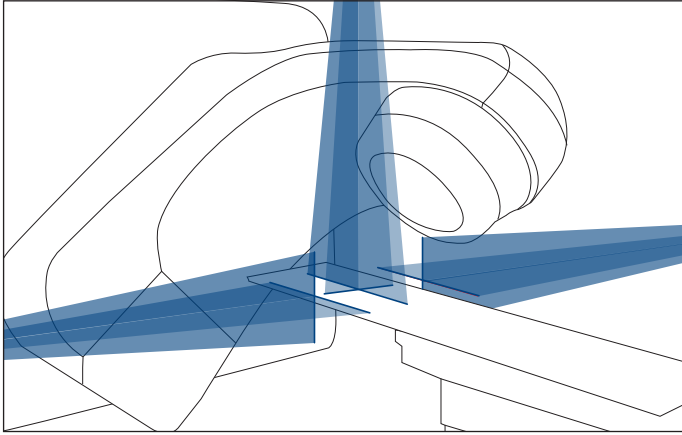
Tilt Up/Down & Left/Right

Rotate Clockwise & Counter Clockwise

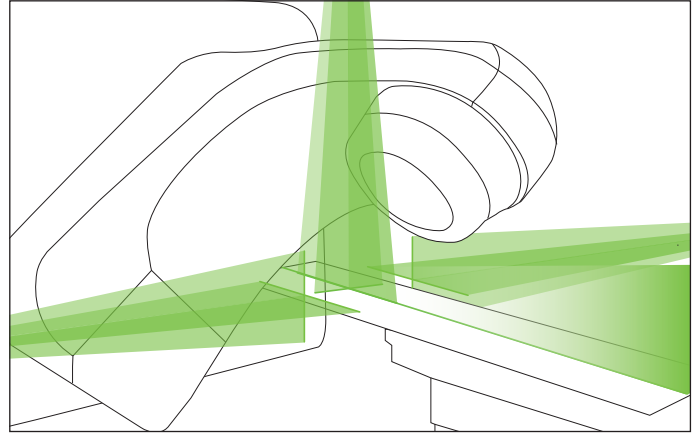
Focus near/far for <0.5 mm line width



### Laser configurations



3-Laser System - 3 Crosshair Lasers

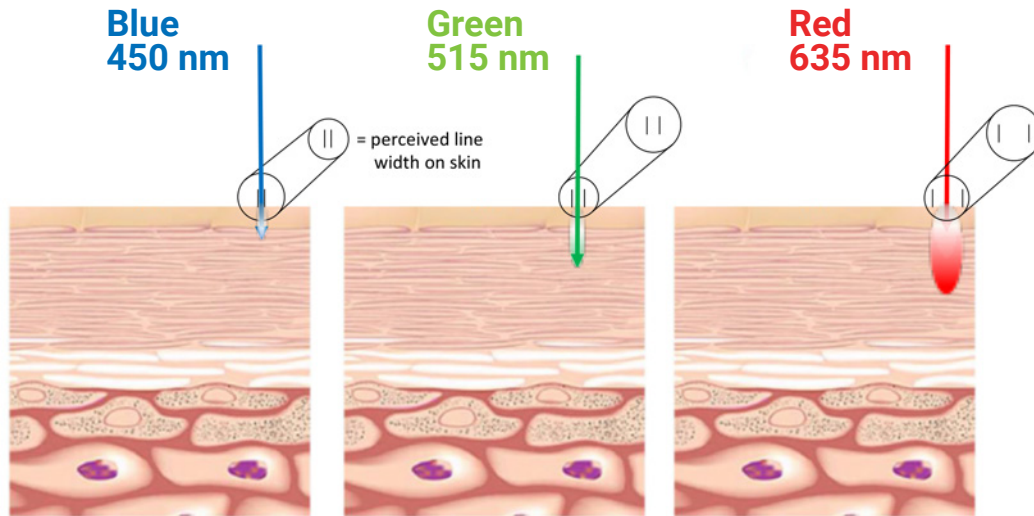


4-Laser System - 3 Crosshair Lasers, 1 Sagittal Laser

### Color Considerations

Room lighting, patient population and one's own experience are important factors in choosing a wavelength color for your laser system. With MICRO+, budget does not have to be one of those factors. Blue, green and red lasers are available at the same price-point, eliminating cost as a consideration.

All colors project a 0.5 mm line width. Blue will appear as the finest line on skin. Green may appear as the brightest. Red is commonly used and well-accepted. The illustration below shows diffusion profiles for the different colors. The choice is yours.



The shorter wavelength blue laser deposits the light closer to the surface creating a more crisp line on the skin surface.

The longer wavelength red laser deposits the light photons deeper in the skin creating a less crisp appearance on the skin surface.

## 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 (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 ± 45° (with optional tilt and adapter bracket) Post mount (optional)

## Certifications

Gammex is a ISO13485 certified medical device manufacturer. Made in the USA. Complies with Center for Devices and Radiological Health regulations for Class II lasers and all CE requirements.

(21 CFR 1040) (IEC 60601) (IEC 60825-1) (MDD 93/42/EEC)