

## HITM-X, HITM-Y and HITM-XY

The **HITM-X**, **HITM-Y** and **HITM-XY** motorized lasers are OEM precision alignment solutions for patient setup in the field of radiation therapy. The units create one or two remote-controlled adjustable laser planes by projecting high-quality red, green or blue laser lines. When combined with other similar units, this allows the creation of a virtual isocenter in all three body planes.

The **HITM-XY** crosshair model features two independently adjustable orthogonal laser planes.

### Features

- High-accuracy positioning
- Single-plane or crosshair
- Radio or cabled PC remote control
- 3 degrees of freedom per plane: translation, tilt and rotation
- Dual laser: two laser lines modules of any color
- Flexible on-wall, in ceiling or on post mounting

### Applications

- Patient setup and marking during CT/PET simulation
- Patient alignment and setup for external beam radiation therapy

### Technical specifications

Power supply .....	100–240 V <sub>AC</sub> @ 50/60 Hz
Power consumption .....	49 W max.
Internal voltage .....	12 V <sub>DC</sub>
Operating humidity .....	≤ 80%, non-condensing
Operating temperature .....	15–30 °C
Dimensions (H×W×D) .....	205×220×107 mm
Weight (HITM-X, HITM-Y) .....	4.5 kg
Weight (HITM-XY) .....	4.7 kg

### Laser output\*

Laser class .....	2
Output power** .....	< 1 mW
Focus range .....	1.5–7 m
Line width .....	≤ 1 mm @ 4 m
Line length .....	≥ 4 m @ 4 m

\* with laser modules **WLCxxx-5-LGCP**, not included (see separate datasheet)  
 \*\* measured on a 7 mm aperture at 100 mm

### Mechanical

Adjustment accuracy .....	±0.1 mm @ 3 m
Translation range .....	0–20 mm
Translation resolution .....	2.5 μm/step
Tilt range .....	±2.2 deg
Tilt resolution .....	25 μm/m
Rotation range .....	±3.5 deg
Rotation resolution .....	40 μm/m

### Connectivity

Physical layer .....	RS485 or radio*
Data rate .....	115200 Baud
Protocol .....	proprietary
5 V <sub>DC</sub> output .....	100 mA max.

\* with the **RDB9-2.4G** external adapter



### External connections

The **HITM** units embed a DB9 male connector for communication and an IEC/EN 60601-1 compliant 100–240 V<sub>AC</sub> IEC inlet.

DB9 connector	Function
1	5 V <sub>DC</sub> power supply output, 100 mA max.
5	Ground
8	RS485 L+ (high for logic 1, low for logic 0)
9	RS485 L- (low for logic 1, high for logic 0)

### Related products

<b>AXE20-</b>	Non-OEM version of this product
<b>HIT</b>	Motorized long-range medical alignment laser
<b>HITSD-XY</b>	Manual medical MR alignment crosshair lasers
<b>HITSD-X</b>	Manual medical MR alignment horizontal lasers
<b>HITSD-Y</b>	Manual medical MR alignment vertical lasers
<b>WLC635-5-LGCP</b>	Modulated red laser-line module
<b>WLC532-5-LGCP</b>	Modulated green laser-line module
<b>SF-CT</b>	5-plane CT laser alignment smart-phantom
<b>SF-RTH</b>	5-plane LINAC laser alignment smart-phantom
<b>RDB9-2.4G</b>	Radio to RS485 ATB protocol converter
<b>USBRF-2.4G</b>	Radio to USB ATB protocol converter
<b>ISOUSB485</b>	USB to RS485 isolated serial converter

### Ordering codes

<b>HITM-X*</b>	Horizontal-plane model
<b>HITM-Y*</b>	Vertical-plane model
<b>HITM-XY*</b>	Dual-plane model (crosshair)

\* laser modules not included (see **WLCxxx-5-LGCP**)