

HITSD-X, HITSD-Y and HITSD-XY

The **HITSD-X**, **HITSD-Y** and **HITSD-XY** mobile lasers are precision alignment solutions for patient setup in the field of radiation therapy. The units create one or two manually 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 **HITSD-XY** crosshair model features two independently adjustable orthogonal laser planes.

Features

- High-accuracy positioning
- Single-plane or crosshair
- 3 degrees of freedom per plane: translation, tilt and rotation
- Red, green or blue high-quality laser line module for each plane
- Easy by-screw adjustment from the outside
- Flexible on-wall, in ceiling or on post mounting
- Usable with MRI/MR-Linac machines
- MR conditional

Applications

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

Technical specifications

Power supply.....	110/240 V _{AC} @ 50/60 Hz
Power consumption	25 W max.
Internal voltage	12 V _{DC}
Operating humidity	≤ 80%, non-condensing
Operating temperature	15–30 °C
Dimensions (H×W×D)	205×220×97 mm
Weight (HITSD-X, HITSD-Y)	3.9 kg
Weight (HITSD-XY)	4 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	0–18 mm
Translation resolution	0.5 mm/turn
Tilt range	±3.6 deg
Tilt resolution	30 µm/m
Rotation range	±3.5 deg
Rotation resolution	50 µm/m



External connections

The **HITSD** units embed an IEC/EN 60601-1 compliant 110/240 V_{AC} IEC inlet.

Related products

AXE950IRM	Motorized long-range MR alignment laser
AXE900	Motorized long-range medical alignment laser
HITM-XY	Motorized medical alignment crosshair lasers
HITM-X	Motorized medical alignment horizontal lasers
HITM-Y	Motorized medical alignment vertical lasers
WLC635-5-LGCP	Modulated red laser-line module
WLC532-5-LGCP	Modulated green laser-line module
SF-CT	5-plane CT laser alignment smart-phantom
SF-RTH	5-plane LINAC laser alignment smart-phantom

Ordering codes

HITSD-X*	Horizontal-plane model
HITSD-Y*	Vertical-plane model
HITSD-XY*	Dual-plane model (crosshair)

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