



LASER TARGET DESIGNATOR WITH LASER RANGEFINDER

The Type 163 Laser Target Designator is a man portable laser designed to provide laser designation for semi-active laser guided weapons.

The company has developed a new generation of athermal lasers providing low divergence and $>70\text{mJ}$ per pulse. Full NATO STANAG 3733 capability in a very compact, light weight and low power configuration. In all, establishing a new landmark in size for lasers of this class.

Based on user needs and feedback, the focus has been on a laser which is simple and easy to operate yet rugged and reliable. This is consistent with our proven capability in laser designator manufacturing for the military.

The Type 163 laser form factor supports ease of packing and portability, whilst the athermal laser technology allows rapid deployment with negligible warm up time, and near-silent continuous operation without duty cycle restriction.

The laser is designed to support a modular-and-separable approach to target acquisition and sensor equipment as used by Forward Air Controllers, Joint Terminal Attack Controllers, Tactical Air Control Parties and Forward Observers. This provides maximum flexibility in mission planning and helps to minimise the individuals' carrying load.

TYPE 163

LATEST LASER TECHNOLOGY

The Type 163 utilises recent advances in laser technology, particularly in the areas of diode-pumping design, Nd:YAG slab configuration, athermal resonator design, active q-switch and high efficiency heat exchangers.

This results in the Type 163 laser offering full performance over a broad operating temperature and robust packaging suitable for military applications.

Diode-pumping provides exceptional reliability, lifetime and performance and, combined with the athermal laser resonator approach, delivers dramatic reductions in size, weight and cost over traditionally fielded equipment.

KEY FEATURES

- Compact athermal laser resonator
- Diode technology for increased efficiency and long life performance
- High energy with low beam divergence
- Detection range up to 10km
- No significant warm up time
- Reduced heat-load
- Continuous lasing
- Low life-cycle costs.

MAN-PORTABLE LASER DESIGNATOR

The primary motivation has been to dramatically reduce weight, yet maintain a performance level exceeding the current NATO STANAG 3733 and US PIM requirement over the extended military environmental envelope. Size, weight and power performance are combined to provide a truly portable and usable designator, are the key features of the Type 163 Laser Target Designator.



VISIBLE AND INVISIBLE LASER RADIATION
AVOID EYE OR SKIN EXPOSURE TO
DIRECT OR SCATTERED RADIATION
CLASS 4 LASER PRODUCT

EXPERIENCE

We have a reputation for providing customers with the best in high performance and cost-effective technology for laser requirements. More than 5,000 lasers have been produced and supported for over 25 countries - with integration complete on some 40 platforms across air, land and sea.

TECHNICAL SPECIFICATION

Output energy	> 70mJ
Pulse width	18 ±7ns
Repetition rate	NATO STANAG 3733
Beam diameter	< 40mm
Beam divergence	< 300µRad
Boresight jitter	<60µRads (peak)
Laser rangefinder	100m to 9,999km ±5m (first/last pulse logic)
Temperature	Operating -30 to +50°C Storage -40 to +85°C
MTBF	6000hrs (Mil-Hdbk-217 prediction)
Direct view optics	10X Magnification 2° Field of View Open Cross Reticle
Dimensions (w x d x h)	220mm x 110mm x 70mm
Mass	< 2.3Kg
Power supply	Integrated rechargeable battery pack (>15mins life at max PRF and continuous operation. Combined re-charger and power adaptor for external/alternate batteries

