



LASER RANGEFINDER, DESIGNATOR AND ILLUMINATOR

The Type 158 laser provides designation, ranging and illumination for airborne platforms. Configured in a two-box format to ease integration, this highly capable dual wavelength laser is designed to support gated Burst Illumination LADAR (BIL) sensor systems.

The Type 158 LRDI has been designed for high energy, airborne operations within high performance targeting pods and turret based Electro Optic (EO) systems.

Utilising state-of-the-art laser design and manufacturing techniques developed by the company, the Type 158 LRDI provides a highly compact laser in a flexible configuration.

This multi-function laser extends the normal rangefinding and designation capability as used with laser-guided weapons.

It provides high energy output at $1.57\mu\text{m}$ and incorporates a dynamic variable beam divergence capability for use with BIL imaging systems to provide long range Combat Identification.

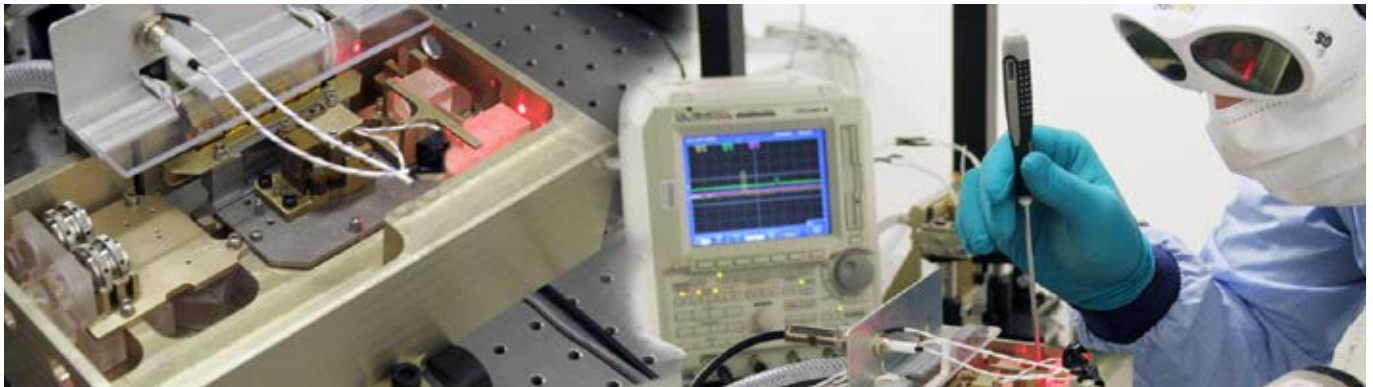
The Type 158 LRDI consists of 2 modules:

- Laser transmitter/receiver
- Electronics Unit and PSU

LATEST LASER TECHNOLOGY

The Type 158 LRDI incorporates a range of the latest laser technologies particularly in the area of laser diode pumping, Nd:YAG slabs, optical parametric oscillators and high efficiency heat exchangers. With these technologies, the laser delivers a highly reliable performance with every shot fired at maximum energy, consistent good beam quality and a substantially reduced heat-load.

TYPE 158



KEY FEATURES

- Compact and Lightweight laser transceiver
- Dual-band (switchable) using common optics
- High MTBF
- Diode technology for increased reliability and low cost of ownership
- Good Beam Quality
- Reduced heat load
- Variable beam divergence telescope for use with BIL systems

LASER CENTRE OF EXCELLENCE

The Laser Centre of Excellence is a state-of-the-art facility, with the design based on extensive research into manufacturing best practice within the defence and commercial sectors.

This world leading facility produces a range of high and mid-energy laser systems for a range of military programmes including:

- F35 Joint Strike Fighter EOTS
- SNIPER Advanced Targeting Pod
- AH-64 Apache M-TADS
- LITENING G4 Laser Designation Pod

TECHNICAL SPECIFICATIONS

DIMENSIONS

Laser transceiver unit	251mm x 105mm x 104mm
Laser electronics unit	150mm x 103mm x 75mm

MASS

Laser transceiver unit	< 3.4kg
Laser electronics unit	< 1.3kg

OUTPUT ENERGY

Tactical	>150mJ at 1.06 μ m
Training	> 40mJ at 1.57 μ m

BEAM DIVERGENCE

Tactical	<0.22mRad
Training	<0.6 to <3.2mRad

REPETITION RATE

Both wavelengths	Single shot to 20Hz
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RECEIVER PERFORMANCE

Range	500m to >20km
Accuracy	\pm 5m

POWER

Average input power	< 200W
Power supply	28V DC

TEMPERATURE

Full performance	-40°C to +55°C
Storage	-54°C to +85°C



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