

Thermal Beacon

- Thermal Beacon Ltd. is a leading company developing and producing high-end innovative thermal IFF (Identification Friend or Foe) emitters and high power visible and infrared laser illuminators and pointers.
- The company products are being based on state of the art, patented technologies and combines high performance with extremely compact design.
- Among our Infrastructures are :
 - R&D in fields of electronics/optics/mechanics
 - Production abilities
 - Laser laboratory

Past performance

- Major clients:



Pointer / Illuminator for payload

- Power up to 2 watts
- Divergence from 0.5mrad up to few degrees



Pointer / Illuminator for payload

- Possible wavelengths from 532nm up to 1064 nm
- The products are designed to withstand Mil-Std-704D
- The produces have a monitor out ability – allowing the user to know when the laser is activated



Off the shelf products



- **TINY :**
- This compact size laser provides to the system designer the capability of integrating a very powerful laser into the crowded space of the gyro stabilized gimbals system. For small UAVs where the sizes do counts, a new design is provided, in which the diode is encapsulated in sealed aluminum housing. This housing will be mounted inside the gimbals system, with a bore sight mechanism and the optics. Since the weight on the gimbals is a significant problem, we split the system into the laser unit (laser and optics) and laser driver; therefore most of the weight can be located where ever the system designer will decide

Parameters	
Operational mode	Pulse/CW
Wavelength	810 nm other wavelengths available
Output power	1.5 Watt
Repetition rate pulse mode	1.5 - 4 Hz (optional)
Beam divergence	1 mRad other deviances are available
Beam shape	Quadrangular
General Parameters	
Operational voltage	28 VDC
Dimensions: Laser Module	30 mm X 60 mm X 30 mm
Dimensions: Driver Box	45 mm X 40 mm X 35 mm
Weight	85 gr. + 45gr. (driver box)
Boresight	2.1° tilt and 1.4° pan
Altitude	Operational to 40,000 ft.

Off the shelf products

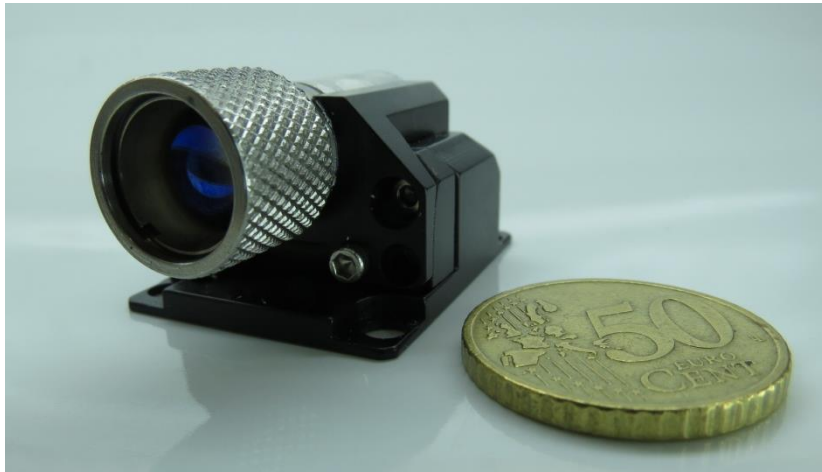
- Lapid Air:



Parameters	
Operational mode	Pulse/CW
Wavelength	830nm
Output power	1.5W
Repetition rate pulse mode	Up to 5 Hz
Beam divergence	4.3mRad
Beam shape	Circle
General Parameters	
Operational voltage	28 VDC
Dimensions: Laser Module	40 mm X 30 mm X 25 mm
Dimensions: Driver box	45 mm X 40 mm X 45 mm
Weight	135 gr
Boresight	2.1° tilt and 1.4° pan

Off the shelf products

- **Micro Lapid Green:**



- The uniqueness of this compact size laser is that the beam points at wavelength of 532nm(green).

Parameters	
Operational mode	Pulse/CW
Wavelength	532 nm
Output power	200mW
Repetition rate pulse mode	1 Hz
Beam divergence	Less than 0.5 mRad on both axes
Beam shape	Circle
General Parameters	
Operational voltage	28 VDC
Dimensions: Laser + Optics	40mm X 30mm X 23mm
Dimensions: Auxiliary box	11 mm X 35 mm X 35 mm
Weight	60 gr. + 45gr. (auxiliary box)
Boresight	Internal boresight mechanism $\pm 3^\circ$ in 2 axes
Altitude	Operational to 40,000 ft.

Micro Lapid Green- Performance

- Green Laser at day-time, 200mW, 0.5mrad



Off the shelf products

- Micro Lapid 200:



Parameters	
Operational mode	Pulse/CW
Wavelength	808nm
Output power	200mW
Repetition rate pulse mode	1.5 Hz
Beam divergence	Less than 0.5 mRad on both axes
Beam shape	Circle
General Parameters	
Operational voltage	9 VDC
Dimensions: Laser + Optics	23mm X 15 mm X 15mm
Dimensions: Elec. board	20mm X 30mm X 5mm
Weight	12gr. + 4gr. (elec. board)
Boresight	Not included
Altitude	Operational to 40,000 ft.

Off the shelf products

- Micro Lapid 200C:



Parameters	
Operational mode	Pulse/CW
Wavelength	830nm
Output power	190mW
Repetition rate pulse mode	Up to 5 Hz
Beam divergence	0.5 mRad on both axes
Beam shape	Rectangular
General Parameters	
Operational voltage	28 VDC
Dimensions	25mm X 85mm X 25mm
Weight	85gr
Boresight	±20mRad

Off the shelf products

- Micro Lapid 70m:



Parameters	
Operational mode	Pulse/CW
Wavelength	830nm
Output power	55-65mW
Repetition rate pulse mode	Up to 5 Hz
Beam divergence	0.5 mRad on both axes
Beam shape	Rectangular
General Parameters	
Operational voltage	12 VDC
Dimensions	23mm X 82mm X 23mm
Weight	90gr
Boresight	±2.5mRad

Off the shelf products

- Ray 200:



Parameters	
Operational mode	Pulse/CW
Wavelength	830nm
Output power	190mW
Repetition rate pulse mode	Up to 5 Hz
Beam divergence	0.5 mRad
Beam shape	Rectangular
General Parameters	
Operational voltage	12 VDC
Dimensions	20mm X 45 mm X 45mm
Weight	25gr
Boresight	Not included



Certifications

- ISO Certification



- AS9100 Certifications



- The laser laboratory was certificated by “Industry, Trade and Labor Ministry”



משרד התמ"ת