LBAND

Tool for determination of spectral band of LRFs/designators

Fig. 1. Photo of LBAND

1 What is LBAND?

Laser range finders/designators are laser systems that are used in big numbers in both military and civilian applications. Laser range finders/designators are typically designed using pulsed (high power mono pulse or low power multi pulse) lasers that emit laser pulses at several narrow spectral band: 910nm, 980nm, 1060nm, 1530nm, 1550nm, 1570nm. However, there are sometimes exceptions from these rules and these laser systems can emitt at different wavelengths. In addition, there are cases when the manufacturer has not specified the emission spectral band. Therefore ability to determine spectral band (wavelength) of light emitted by laser range finders/designators is interesting for many users of these laser systems.

LBAND is a system enables rough determination of spectral band of tested laser range finders/designators. In detail, LBAND does not measure spectral intensity of emitted pulses but does indicate if the tested laser emits light in one of earlier listed narrow spectral bands. The number of spectral bands to be checked can be optionally increased.

It should be noted that LBAND system is not optimized to test laser weapons (high power directional weapons). These laser emits beam of too high average power or pulses of too high peak power.

2. How is built?

LBAND is built in form of two blocks:1)BAND receiver, 2)power supply. The first block incorporates such modules like: integration optics, rotary wheel with spectral filters, set of attenuators, detector, electronic, indicators.

3. How to operate?

It is easy to use LBAND test set. User is expected to follow four step algorithm:
1. Put tested laser opposite input optics of the LBAND
2. Choose spectral band to be checked using rotary wheel,
3. Choose proper attenuator (depending on expected pulse energy).
4. Shoot tested laser.

If the laser emit light in the active spectral band then LBAND will indicate it (green light).

Attention: user should have laser protection goggle in case of testing high power LRFs/designators.

4. Specifications

Parametr	Value
Type of tested lasers	Laser range finders/designators
Typical spectral bands to be checked	910nm, 980nm, 1060nm, 1530nm, 1550nm, 1570nm
Input aperture	50mm
Range of min/max mean power of tested multipulse lasers	From about 0.1mW to about 10W
Max pulse energy of tested monopulse LRF/designators	200mJ
Power	AC230V/110V (option DC9V battery)
Dimensions/Mass	About 300x140x130mm/ About 3.5 kg

version 2.2

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