

LAFT

Mobile measuring set for testing thermal imagers



Fig. 1. Photo of the LAFT measuring set

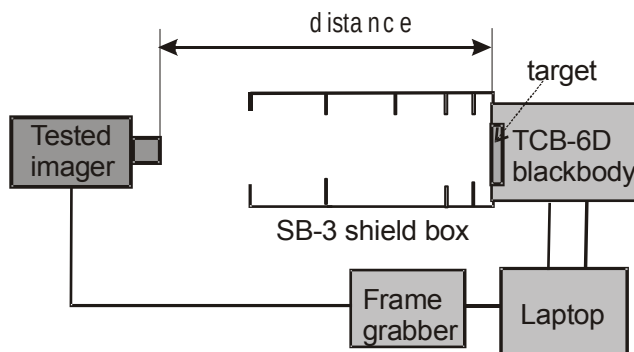


Fig. 2. Block diagram of the LAFT measuring set

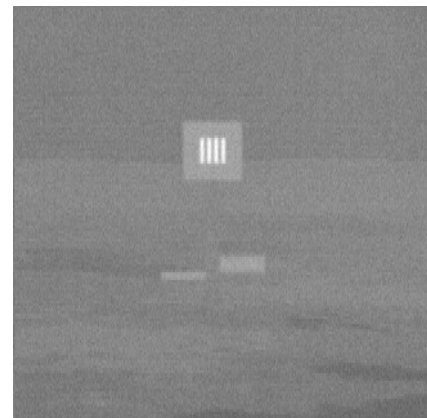


Fig. 3. Image of the LAFT set generated by the tested imager during MRTD measurements

BASIC INFORMATION:

The LAFT measuring set is a mobile variable distance measuring system that project images of the target directly to the tested thermal camera. The tested imager generates a distorted copies of the projected images. Quality of the images generated by the imager is evaluated and its important characteristics are measured.

The LAFT test set does not use collimator for image projection and the distance target-imager must be longer than the minimal focusing distance of the tested imager. Different patterns can be projected

into the direction of the tested imager. All important parameters of thermal imagers can be measured.

The LAFT test system are recommended for testing thermal imagers at field conditions or at laboratory/depot conditions when a long corridor as a test place can be used. Accuracy of measurements with LAFT test systems is at the same level as accuracy of measurements with laboratory class DT series test systems assuming proper measurement conditions.

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FEATURES:

- Versatile measuring tool that can be used in both field and laboratory applications
- No limitations on optical aperture of tested thermal imagers
- Can be packed in a large suitcase and easily transported to any location
- Possible to test thermal imagers from some distance (no necessity to remove imager from a helicopter to test it)
- A few thermal imagers can be tested at the same time (LAFT can projects imagers to a few thermal imagers at the same time)
- Minimal distance between the LAFT measuring set and the tested imager must be higher than the minimal focusing distance of the tested imager
- Enable measurement of the following parameters:
 - LAFT-A: MRTD, MDTD
 - LAFT-B: MRTD, MDTD, MTF, NETD, FPN, non-uniformity, SiTF, distortion, FOV, detection, recognition, identification ranges of some silhouette targets
 - More parameters can be optionally measured (please contact Inframet)

SPECIFICATIONS

Parameter	Value
Modules	LAFT-A: TCB-6D blackbody/controller, multi-pattern target, SB-3 shield box, transport box/tripod, laptop, TCB Control program, LAFT-B: TCB-6D blackbody/controller, multi-pattern target, FOV/distortion target, set of three silhouette targets, SB-3 shield box, transport box/tripod, laptop, TCB Control program, analog video frame grabber, SUB-T computer program, TAS-T computer program
Target emitting aperture	300×300 mm
Blackbody active aperture	150×150 mm
Differential temperature range	-20°C to +80°C (in comparison to ambient temperature)
Set point and resolution	0.001°C
Response time	10°C step - < 50 sec
Uniformity	< 0.01°C or 0,5% T-Tamb
Blackbody emissivity	0.98±0.01
Temporal stability	±0.003°C for ΔT<10°C
Target emissivity	0.97±0.01
Operating temperature range	5°C to 45°C
Storage temperature range	5°C to 55°C
Humidity	Up to 90% (non-condensing)
Power	230 V (option 12V)
Accessories	DC 12V/AC 220V converter
Mass	20 kg plus weight of typical laptop (about 3 kg)
Dimensions	600x310x370 mm (blackbody, target, shield) and dimensions of typical laptop (340x250x40)

*specifications are subject to change without prior notice

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