LOF

Mobile measuring set for testing surveillance VIS/NIR cameras

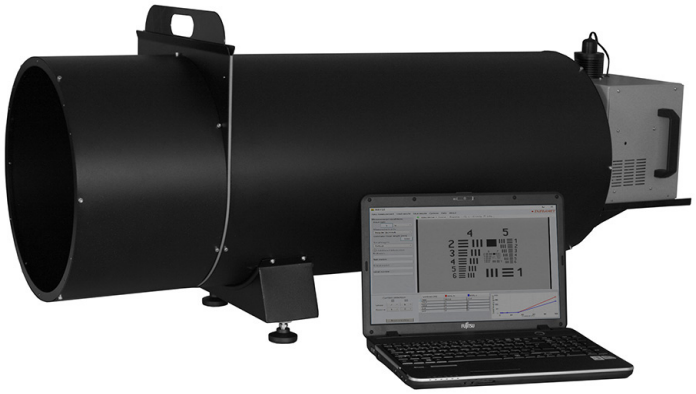

Fig. 1. Photo of the LOF measuring set

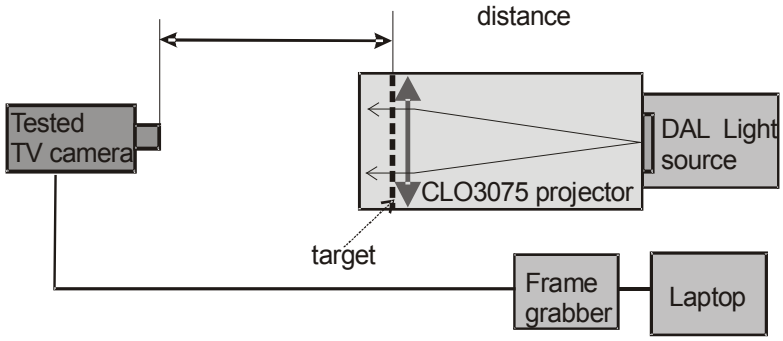

Fig.2. Block diagram of the LOF measuring set

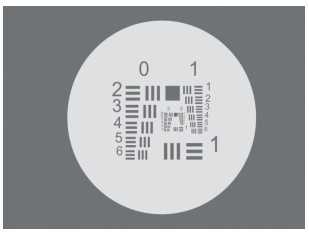

Fig.2. Image of USAF 1951 target generated by tested TV camera during MRC measurements

BASIC INFORMATION:

The LOF measuring set is a mobile variable distance measuring system that project images of a set of standard targets directly to the tested VIS/NIR camera. The tested camera generates a distorted copies of the projected images. Quality of the images generated by the TV camera is evaluated and its important characteristics are measured.

The LOF test set does not use collimator for image projection and the distance target- camera 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 surveillance VIS/NIR cameras can be measured but LOF system is recommended for basic tests of cameras (resolution, MRC, sensitivity, dynamic range).

The LOF test system are recommended for testing surveillance TV cameras field conditions or at laboratory/depot conditions when a long corridor as a test place can be used. Accuracy of measurements with LOF test systems is similar as accuracy of measurements with laboratory class TVT series test systems assuming proper measurement conditions.

LOF

Mobile measuring set for testing surveillance VIS/NIR cameras

FEATURES:

- Versatile measuring tool that can be used in both field and laboratory applications
- Enable testing both level TV cameras and LLLTV cameras for night applications
- Small size test set suitable for field/depot applications
- No limitations on optical aperture of tested TV cameras when minimal distance between the LOF measuring set and the tested imager is higher that than the minimal focusing distance of the tested imager
- Possible to test TV cameras from some distance (no necessity to remove imager from a helicopter to test it)
- A few TV cameras can be tested at the same time (LOF can projects imagers to a few TV cameras at the same time)
- Test capabilities: resolution, MRC, MTF, sensitivity, NEI, FPN, non uniformity, SNR, distortion, FOV.

SPECIFICATIONS

Parameter	**Value**
Modules	DAL light source, CLO 3075 projector, set of targets, transport box/tripod, laptop, frame grabber, TAS-V computer program, DAL Control program
Light emitting aperture	Diameter 300 mm
Uniform aperture	Diameter 250 mm
Modes of work light source:	1) halogen bulb of 2856K color temperature for night and typical day simulation 2) white LED of color temperature over 5000K for simulation of ultra bright days
Total luminance range of light source	30 µcd/m2 - 3 kcd/m2
Simulated illuminance ranges (approximate values)	About 100 µlx - 10 000 lx
Spectral band	Calibrated for testing TV cameras of spectral band not wider than 400-1100nm
Targets	Set of five variable contrast USF 1951 targets, edge target, distortion/FOV target
PC Control	RS 232/USB 2.0 (all functions of DAL light source)
Accepted electronic image formats	PAL, NTSC, Fire Wire, USB 2.0 and optional: HD SDI, Camera Link, LVDS, GigE
Mass	22 kg
Dimensions	350x350x1100 mm
Operating temperature range	5°C to 40°C
Storage temperature range	5°C to 55°C
Humidity	Up to 95% (non-condensing)
Power	AC230/110 V (option DC12V)
Accessories	DC 12V/AC 220V converter

*specifications are subject to change without prior notice

VERSIONS

LOF-A: Test capabilities: resolution, MRC

LOF-B : Test capabilities: Basic version: resolution, MRC; Expanded version: resolution, MRC, MTF, sensitivity, NEI, FPN, non uniformity, SNR, distortion, FOV.

Options: a)customized light intensity range, b)internal control keyboard of DAL light source.

Version 1.2 dated 28.05.2013

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