

» CFT

COMPACT FIELD TESTER

The CFT (Compact Field Tester) is a compact, lightweight, self-contained camera test system supporting the IR or Visible spectral ranges. The CFT units are designed for use in a laboratory environment and outdoors in a field environment. The CFT is available in three configurations:

- The **CFT-IR** for testing infrared systems
- The **CFT-VIS** for testing visible camera systems

They house a lens-based (refractive) collimator, energy source (blackbody or visible light), and one or more targets, all in single compact, man-portable unit.



CFT-IR units



CFT-VIS-3 unit with resolution target

Main Features: CFT-IR

- ▶ Portable, compact and lightweight
- ▶ Four user-settable differential temperatures
- ▶ Motorized or manual target wheel with five targets
- ▶ Automated NIST-traceable calibration (*)
- ▶ Ethernet or RS232 communication for temperature and target wheel remote control
- ▶ Full MRTD testing with a PC interface (optional)


Main Features: CFT-VIS

- ▶ Portable, compact and lightweight
- ▶ Capable of projecting a variety of visible targets
- ▶ Various visible light sources are available

(*) "NIST": National Institute of Standards and Technology

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» Specifications

Model:	IR Spectral Band		Visible Spectral Band
	CFT-IR-2	CFT-IR-5	CFT-VIS-3
Collimating element	IR Lens	IR Lens	Vis. Lens
Spectral band options	3-5µm or 8-12µm	3-5µm or 8-12µm	400-1000nm
Clear Aperture	Ø 48 mm (1.9")	Ø 125 mm (4.9")	75 mm (2.95")
Effective Focal Length	250mm (~ 10")	500mm (~ 19.7")	335mm (~ 13.2")
Field of View	4°	2°	5.6°
Resolution	5.0 cy/mrad @ 3-5µm, 3.5 cy/mrad @ 8-12µm		10 cy/mrad
Transmission	90% Average		95% Average
Blackbody Differential Temp.	-2.5 °C to +20 °C (See note 4)		NA
Blackbody Accuracy	±0.05°C (minimum) or ±0.01 x ΔT (the greater of the two)		NA
Blackbody Stability	±0.01°C	±0.01°C	NA
Illumination Uniformity	NA		>90%
Weight [kg]	3.5 kg	4.8 kg	10 kg
Dimensions, cm (inches) (see note 2)	43L x 17W x 22H (16.9L x 6.7W x 8.7H)	45L x 19W x 22H (17.7L x 7.5W x 8.7H)	50L x 13W x 16H (19.7L x 5.1W x 6.3H)
Operating Temperature	-20 to +50°C	-20 to +40°C	-20 to +50°C
Storage Temperature	-40 to +70 °C		
Input Power	20-30 VDC		
Images (for reference only)	 CFT-IR-2	 CFT-IR-5	 CFT-VIS-3

General Notes:

- For additional configurations, please contact CI Systems.
- General tolerances for mechanical dimensions and weights are ±10%. For an ICD please contact CI Systems.
- Mechanical interface between the CFT and the UUT is available upon request.

Notes for CFT-IR models:

- Offered with four user-settable differential temperatures, set through a user-friendly PC interface
- Includes five user-specified targets
- Includes a manual target wheel (motorized wheel available upon request)
- For accurate MRTD testing, the CFT-IR units should be used in the lab. A built-in s/w uses an algorithm to ensure that it emits the same radiance regardless of ambient temp

Notes for CFT-VIS-3 model:

- Offered with a single user-defined target
- Tripod interface included
- Optional: The CFT-VIS-3 can be configured with the SR-300N Integrating Sphere highly-uniform source or with a visible LED-based Backlight
- Optional: RS232 communication for controlling the luminance of the SR-300N Integrating Sphere.