

T2803 Series Handheld Optical Light Source

OPTICAL COMMUNICATIONS TEST APPLICATIONS

- Enhanced 50/125µm multimode fiber testing at 850 & 1300nm
- Industry-specific launch conditions (EF, Avionics, EMI)
- No additional mandrel wraps or patch cords required
- Multi-Fiber polarity checking and fiber identification
- Tone source for fiber identifier

The T2803 Series Handheld Fiber Sources are enhanced 850/1300nm LED sources designed for 50/125µm multimode fiber testing with industry-specific launch conditions. These customized instruments feature a 50µm output port with a predefined launch condition. No additional patch cords or mandrels are required.

All specs are identical to the base T2803 model. Variants differ only in the intensity profile across the fiber, defined by the corresponding IEC or MIL STD documents. High productivity, high availability and ease of use combine to achieve superior measurement confidence. This Autotest source can be used with any Kingfisher Autotest optical power meter, loss test set or two-way tester. Kingfisher Autotest optical power meter, loss test set or two-way tester.

T2803 SERIES — MULTIMODE LED SOURCE

The T2803 series sources are used with optical power meters for testing optical loss on multimode fibers. A Multi-Fiber tone feature makes for handy continuity / polarity testing and fault finding, also for use with clip-on traffic identifiers.

Industry-specific variants are available as customized versions of the T2803 platform, featuring a 50µm output port with predefined launch conditions. No additional patch cords or mandrels are required.

All emitters feature excellent repeatability and stability. Re-connection repeatability is < 0.1 dB, resulting in exceptional test accuracy. Calibration is ISO 17025 traceable.

This instrument meets the general requirements of MIL PRF 28800F class 2. The large display provides the user with an easy view of instrument status and test results.

Practical interchangeable optical connectors are easily changed and are protected with a captive dust cover / tilt bail. Metal free adaptors help avoid contamination of connectors.

When used with a Kingfisher Autotest compatible power meter or loss test set, automatic λ identification is achieved, and the nominal source power is displayed on the meter.



FEATURES

- Reliable, rugged & versatile
- Simple to use
- Ideal for 50/125µm multimode testing
- 850 & 1300nm LED sources
- Industry-specific launch conditions
- No mandrel wraps required
- Excellent optical power stability
- Excellent re-connection repeatability
- LCD is large, clear, sunlight readable & backlit
- Autotest compatibility with other instruments
- Optical test tone with Multi-fiber ID function
- Interchangeable connectors with dust cap / tilt bail
- Mode controlled multimode LED sources
- Long battery life
- External power / charging via USB
- 3 Year warranty
- ISO 17025 traceable calibration certificate
- Made in Australia

CUSTOM VARIANTS AVAILABLE:

- T2803-50EF — EF launch condition on 50µm fiber (per IEC 61280-4-1)
- T2803-50A — 70/70 launch condition on 50µm fiber (Avionics / MIL STD)
- T2803-EMI — EMI-specific variant (enquire for details)

OPTICAL SPECIFICATIONS — 850 / 1300NM LED

Parameter	Value	Comments
Wavelengths	850 / 1300 nm	LED source
Output Power @ 50/125µm	-23 dBm	(-20 dBm available on request)
Output Power @ 62.5/125µm	-20 dBm	(nominal) Standard T2803 baseline
Output Power @ 9/125µm (SMF)	-32 dBm (nominal)	Standard T2803 baseline
Short Term Stability	0.01 dB	For 15 min, typical ±2°C
Stability Over Temp	0.35 dB	Typical
Mode Controlled Source	Yes	50/125: IEC 61280-4-1, TIA 526-14A
Reconnection Repeatability	0.05 dB	95% confidence
Modulation	270 Hz, 1 kHz, 2 kHz ±2%	12 Multi-Fiber ID tones
Mandrel Wrap Required	No	Predefined launch — no external conditioning
Laser/LED Class	Class 1	IEC60825-1 compliant
Output power accuracy	±1 dB	MM LED @ 62.5 µm

GENERAL SPECIFICATIONS

Battery Life	80 hours in Autotest, typical
Size	190 x 105 x 35 mm (7.5 x 4.1 x 1.4")
Weight	420 gm (0.9 lb). Shipping 1.5 Kg (3.3 lb)
LCD Size	74 x 55 mm / 2.9 x 2.2"
Case	Polycarbonate / rubber edges, 1-meter drop tested
Operating / Storage	-15 to 55°C / -25 to 70°C
Relative Humidity	0 ~ 95%
Warranty	3 years
Power	2 AA cells (alkaline or NiMH) +USB-C external
Ports	1

APPLICABLE STANDARDS

EF: IEC 62614-1:2020, IEC 61280-4-1 (Ed.2.0+), IEC 61300-3-53 (EAF)
70/70: NAVSEA Fiber Optics Optical Test Guide (OpTestGuide0510a)
General: MIL PRF 28800F Class 2, IEC 60825-1 (Laser/LED safety)

ORDERING INFORMATION

Industry specific options available on customer demand. Please enquire for non-listed specifications.

Description	Power (dBm)	Ports	P/N
Instrument, Source 850-1300nm LED EF Launch Condition (50µm fiber)	-23	1	T2803-50EF
Instrument, Source 850-1300nm LED 70/70 Launch Condition (Avionics)	-23	1	T2803-50A
Instrument, Source 850-1300nm LED EMI-Specific Variant	TBD	1	T2803-EMI

STANDARD ACCESSORIES

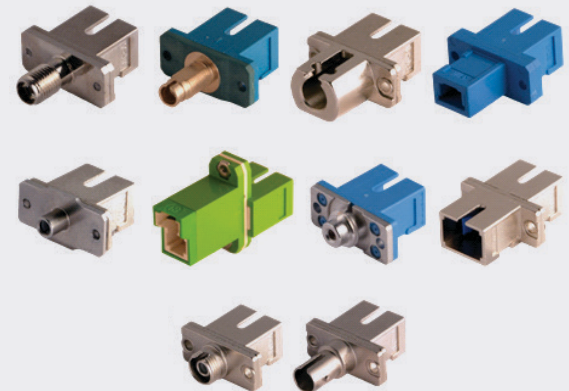
SC connector adaptor (OPT046)	1 per port
Operation manual	1
QA certificate	1
ILAC/NATA traceable calibration certificates	1 set
Carry Pouch	1
Carry strap	1
USB-A to USB-C cable	1

OPTIONAL ACCESSORIES

Carry Case for 2 Instruments	OPT153
Carry Case with Cletop-style cleaner & Cleaning Sticks	OPT154B

OPTIONAL INTERCHANGEABLE CONNECTOR ADAPTORS

SC/FC – OPT051	SC/E2000 Green – OPT060G
SC/MU – OPT080	SC/Universal 1.25mm – OPT084
SC/ST – OPT040	SC/LC metal body – OPT076
SC/LSA DIN47256 – OPT071	SC/F3000 or LC Simplex – OPT072
SC/E2000 – OPT060	SC/Universal 2.5mm – OPT081
SC/SMA 905/906 – OPT082	



Metal-free sleeve interchangeable connector adaptors. Green is associated with APC.

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