

# KI-TK800 Series

## Hand Held MPO Visual Cable Verifier

Optical Communications

MPO / MTP Test Applications

- Cable type identification: A, B, C
- Polarity & continuity checking to 1.5 Km
- Quick visual inspection of MPO connector end
- One solution for SM, MM, 4 – 24 fibers
- Other solutions for 12, 16, 32, 48, 72 fibers



Revision 6

The KI-TK800 series Handheld MPO Visual Cable Verifier comprises a multicolor Light Source, used in conjunction with a 40x Optical Microscope, to verify / identify MPO fiber patch cable types, and complete links.

This innovative solution requires negligible learning or training, and will enable a variety of staff to quickly verify the general status of a cable or link up to 1.5 Km.

The complete kit comprises an MPO Visual Cable Verifier Source, a x40 FiberSafe Microscope, and MPO cleaning materials, in a durable semi-rigid case.

In combination with other Kingfisher MPO optimized loss testers and microscopes, users can achieve a comprehensive, versatile, and accurate MPO capability at a modest price point.

### Features

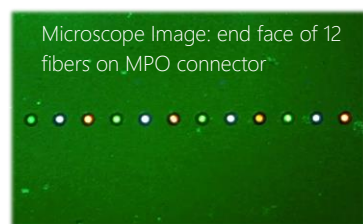
- Easily identify Type A (straight), B (cross), C (cross pair), D (universal) cable assemblies
- Identify fiber-1 of MPO cable
- Check end to end polarity of installed links up to around 1.5 km MM, 1 Km SM
- Simple & quick to use
- A single unit works for most applications: 4, 10, 12, 24 fiber, SM and MM
- Long battery life & external power via micro USB
- Microscope has enhanced eye laser safety
- Microscope can find dirt around MPO pins etc.
- 3 ~ 7 Year warranty
- Made in Australia

# KI-TK800 Series - Hand Held MPO Visual Cable Verifier

The innovative KI-TK800 MPO Visual Cable Verifier is a unique and practical solution for easy and versatile verification of MPO fiber cable assemblies and links.

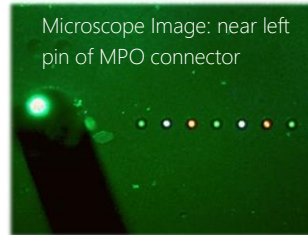
This solution comprises a novel light source that generates a color pattern that is inspected at the far MPO connector tip using the microscope. The repetitive color pattern enables the user to identify a cable type quickly and easily and, confirm continuity in all fibers. Fiber-1 is identified with a blinking green light with just a press of a button on the light source. The general connector end-face quality can also be checked using the microscope.

The distance range of over 1 Km is not very sensitive to the number of MPO connections, making it suitable for checking many installed cable systems.

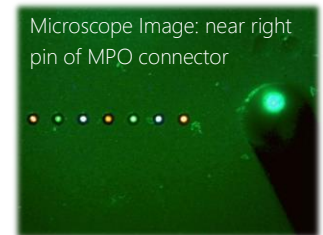


The 40x magnification microscope can also be used to inspect the entire connector end face, and around the pins. The oblique illumination mode makes this an effective tool to ensure cleanliness of the entire MPO connector end face.

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Microscope Image: near left pin of MPO connector



Microscope Image: near right pin of MPO connector

The equipment kit is versatile, compact and inexpensive. Just one part number meets the current & future needs of most users.

KI-TK800 series verifier pattern guides for different MPO connector types

Cable type	Pattern - MPO12 (Microscope adaptor's "TOP" label facing up)	Cable type	Pattern - MPO24 (Microscope adaptor's "TOP" label facing up)
A (Straight)		A (Straight)	
B (Cross)		B (Cross)	
C (Cross Pair)		C (Cross Pair)	
D (Universal)		D (Universal)	

Cable type	Pattern - MPO16 (Microscope adaptor's "TOP" label facing up)	Cable type	Pattern - MPO32 (Microscope adaptor's "TOP" label facing up)
A (Straight)		A (Straight)	
B (Cross)		B (Cross)	
C (Cross Pair)		C (Cross Pair)	

## LIGHT SOURCE OPTICAL SPECIFICATIONS

Parameters	Value	MPO Capability
Emission color	Green, White, Amber	
Output ports: KI28812	MPO-12	4, 8, 12
Output ports: KI28824	MPO-12, MPO-24	4, 8, 12, 24
Output ports: KI28832	MPO-16, MPO-32	16, 32
Output ports: KI28872	MPO-72	48, 72
Output ports: KI28872 + Adaptor cables	MPO-72 + 72/48 to 12 fiber Test Adaptor Cable (OPT812) + 72/48 to 24 fiber Test Adaptor Cable (OPT824)	4, 8, 12, 24, 48, 72
Minimum power per fiber, dBm	> -50	
Total Emission power, all fibers dBm <sup>1</sup>	< -20	
Fiber type, μm	50/125	
Fiber-1 identification	Green light blinking @ 2 Hz	
Connector type	MPO pinned (male) works with both MM/PC & SMF/APC fiber types	
Distance, Km <sup>2</sup>	1.5 @ MMF, 1 @ SMF	

Note 1: Class 1 Laser / LED infra-red device. Compliant with IEC60825-1.

Note 2: Estimated from typical fiber loss figures. Not guaranteed

## LIGHT SOURCE GENERAL SPECIFICATIONS

Parameter	Value	Parameter	Value
Battery life	70 hours, typical	Dust cap	Captive, functions as tilt bail when slid open
Size	190 x 105 x 35 mm / 7.5 x 4.1 x 1.4 "	Operating / Storage	-15 to 55 °C / -25 to 70 °C
Weight	420 gm / 0.9 lb.	Relative humidity	<95 %
LCD size	74 x 55 mm / 2.9 x 2.2 "	Power	2x AA Alkaline / NiMH cells, user selectable on-board charging; micro USB Ext power input; Selectable auto-off, low battery indicator, backlit display
Case	Polycarbonate / rubber edges & corners, moisture resistant, 1-meter drop tested		

## MICROSCOPE GENERAL SPECIFICATIONS

Parameter	Value	Parameter	Value
Size	184.4 x 49.3 mm / 7.3 x 1.9 "	Input damage level	+30 dBm / 1 Watt
Weight	0.21 kg / 0.47 lb.	Max Eye Safe input level	+30 dBm / 1 Watt 800 – 1650 nm +20 dBm / 100 mW 635 – 800 nm
Optical magnification	x40	Relative humidity	95 %
Max viewable diameter	5mm	Operating / Storage	-15 to 55 °C / -25 to 70 °C
Battery life	Up to 300 hours	Power	1x AAA battery, External power via micro-USB, Low battery indicator, Auto-time off
Triple-mode illumination	Coaxial, Oblique, Core illumination		
LED life	100,000 hours		

Note: This microscope is not recommended for final connector acceptance, because it has low x40 magnification. However, it's good image quality may sometimes be sufficient, and is also extremely useful for finding dirt around MPO pins and elsewhere away from the fiber tips. A x200 microscope is suggested for final connector acceptance. Refer to microscope brochure in [Kingfisher website](#).

Australian and international patents. Technical data is subject to change without notice as part of our program of continuous improvements. The visible laser is a Class 1 Laser product compliant with IEC60825-1 and 21CFR1040.10.

## ORDERING INFORMATION

Description	P/N
Kit, Cable Verifier, MPO-12	KI-TK812
<b>Kit, Cable Verifier, MPO-12/24 (for typical users)</b>	<b>KI-TK824</b>
Kit, Cable Verifier, MPO-72	KI-TK872
Kit, Cable Verifier, MPO-16/32	KI-TK832

## STANDARD EQUIPMENTS/ACCESSORIES

Description	P/N	Quantity			
		KI-TK812	KI-TK824	KI-TK872	KI-TK832
Instrument, Source MPO-12 Visual Cable Verifier	KI 28812	1			
Instrument, Source, MPO-12/24 Visual Cable Verifier	KI 28824		1		
Instrument, Source, MPO-72 Visual Cable Verifier	KI 28872			1	
Instrument, Source, MPO-16/32 Visual Cable Verifier	KI 28832				1
Instrument, Microscope Optical 40x, 2.5 mm Univ	KI 6608	1	1	1	1
Option, Scope Adaptor MPO/MTP 12 x n	OPT677	1	1	1	
Option, Scope Adaptor MPO/MTP 16 x n	OPT674				1
Option, Carry Case, KI2x / KI9x, case only	OPT154B-CASE	1	1	1	1
Stick-Type, MPO Connector Cleaner, 10-stick Pack	TOOL CLEAN-05A	1	1	1	1
Quick Reference Guide, KI-TK800 series	NA	1	1	1	1
Operation manual (source & microscope)	NA	1 (each)	1 (each)	1 (each)	1 (each)
QA certificate (source & microscope)	NA	1 (each)	1 (each)	1 (each)	1 (each)
Carry Pouch (source & microscope)	NA	1 (each)	1 (each)	1 (each)	1 (each)
Carry strap (source & microscope)	NA	1 (each)	1 (each)	1 (each)	1 (each)
USB-A to USB-micro type cable (source & microscope)	NA	1 (each)	1 (each)	1 (each)	1 (each)

## OPTIONAL ACCESSORIES

Description	Part number
Option, MPO Test Adaptor, 72/48 Female to 12 Male	OPT812
Option, MPO Test Adaptor, 72/48 Female to 24 Male	OPT824
Option, MPO-12xn Through Adaptor	OPT800
Option, Scope Digital Eyepiece, 1.3 MB	OPT684
Option, MPO/MTP reel cleaner	OPT401

## SHIPMENT SIZE / WEIGHT

Description	Value
Carry case (OPT154B-CASE)	430 (L) x 330 (W) x 80 (H) mm / 16.9 (L) x 13.0 (W) x 3.1 (H) "
Weight of a complete test kit	2.5 Kg / 5.5 lbs.

## AUTHORIZED DEALER