KI 23400/KI 27400 Series

HANDHELD 2-WAY +LENGTH +ORL FIBER CERTIFIER

Test Applications

- SM, MM & both fiber types
- Tier 1 cable certification & reporting
- Bidirectional loss, length & ORL in one hook-up with integrated VFL (VisiTester)
- Optical power, continuity & polarity

Revision 23

The KI 2x400 series is a fast, accurate and easy bi-directional Tier 1 certifier for multimode and single mode fiber.

2-Way loss, length & ORL pass/fail are displayed in real time on both instruments, at multiple λ , for one test hook-up per fiber^{*}.

The compact instrument is also a standalone light source, optical power meter and VFL.

The VisiTester feature mixes a VFL laser with the test signal, making a connected test fiber obvious at the other end.

Excel-based reporting software provides tamper-proof and Standards-based certification and reporting, ensuring a combination of flexibility, productivity, and confidence. Datalogging, download and a real time mimic display are also included.



Features

- Ease to use, slim & versatile
- \bullet Loss, length & ORL tester for high fiber counts *
- Real time pass / fail
- Sunlight readable & backlit LCD
- SM, MM (EF Compliant) & quad test options
- Large memory & USB key file dump
- Interchangeable connectors
- Real-time, secure PC reporting software
- Continuity test tone with multi-Fiber ID
- VFL VisiTester option
- Long battery life, USB external power
- >25 calibration λ , 1% accuracy
- ISO 17025 traceable calibration
- 3-year warranty
- 3-year recommended calibration cycle
- Made in Australia

* Length, ORL and VisiTester on selected instrument models







KI 23400/KI 27400 Series - Handheld 2-way +ORL +Length Fiber Certifier

A pair of fully featured KI 23400/ KI27400 Loss Test Sets easily tests and reports fiber optic loss, length and ORL pass / fail against standards. Backed up by ILAC/ ISO 17025 traceable calibration, it is ideal for test applications requiring accuracy with high throughput.

The real-time and comprehensive test display helps the user ensure there is a good optical connection before storing a reading. This ensures superior practical accuracy and makes fault finding easier and quicker.

Two identical instruments are used, one of them automatically takes over as the master, and the same information is displayed at each end, which simplifies practical operation. The test procedure is the same for all fiber types.

The instruments provide flexible ways of working and, can be used with or without an on-site computer. They are compact, lightweight and have >80 hours battery life.

Associated KITS[™] software is tightly integrated and provides an easy workflow to set up, test and report against international standards or specific customer requirements, in a tamper-proof yet flexible reporting environment.

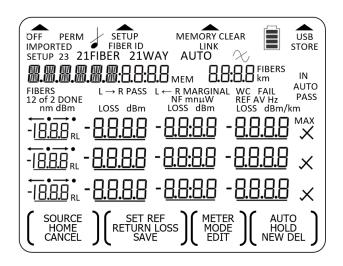
Test results can be stored in the 10,000 fibers memory, along with a text-input cable name and timestamp, and then dumped directly onto a USB memory key, providing limitless, secure, and future-

TWO WAY AUTOTEST SPECIFICATIONS

Using a pair of instruments, bi-directional test is achieved in real time over a single fiber with one hook-up, giving greatly superior speed, accuracy and ease of use compared to conventional twostep, two-fiber instruments. This saves training, skill, time, cleaning and materials, while also improving test confidence.

All 3 loss, length & ORL measurements are seamlessly integrated into the real time display. Loss referencing can be performed

proof data handling. These secure files or instrument memory can then be downloaded into KITS™. Alternatively, if a computer is available on-site, live readings can be clicked directly onto a customer report using our proven KITS™ customizable Excel-based reporting software. Pass / Fail standards can be selected as: international, in-house, or ad hoc, so the user can enter updated standards as appropriate.



locally or remotely.

VisiTester illuminates the test fiber, making the other end easy to find, particularly when cable or fiber labelling is mis-matched or missing.

A handy two-way Autotest communications feature helps both users step quickly through a large fiber array.

Fiber			Loss		Length	
Туре	Wavelengths	Range	Repeatability / Linearity	Range	Accuracy ¹	Resolution
MM	850, 1300 nm (62.5 μm) 850, 1300 nm (50 μm)	27 dB 24.5 dB	0.06 dB	6.0 dB / 20 Km 4.0 dB / 20 Km		
MM	850, 1300 nm VisiTester (62.5 μm) 850, 1300 nm VisiTester (50 μm)	24 dB 21.5 dB	0.06 dB	4.5 dB / 20 Km 4.5 dB / 20 Km		1 m (0.000~9.999 Km)
SM	1310, 1550 (VFL) nm	47 dB	0.04 dB	30 dB / 128 Km	- 0.01 % ± 4 m	10 m (10.00~99.99 Km)
SM	1310, 1490, 1550, (VFL) nm 1310, 1550, 1625 (VFL) nm	44 dB	0.04 dB	27 dB / 128 Km	0.01 /0 ± 4111	100 m (100.0~127.9 Km)
SM	1310, 1550 nm, VisiTester	44 dB	0.04 dB	27 dB / 128 Km		
SM	1310, 1490, 1550, nm, VisiTester 1310, 1550, 1625 nm, VisiTester	41 dB	0.04 dB	24 dB / 128 Km	-	
SM	1310, 1490, 1550, 1625 (VFL) nm	41 dB	0.04 dB	24 dB / 128 Km	-	

For detailed source & ORL specifications, refer Light Source and ORL specifications

Note 1: Up to 3 dB above optical measuring loss limit. Cable ORL variation and fiber/cable length mismatch are typically dominant







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ONE WAY AUTOTEST SPECIFICATIONS

Using a single instrument, the light source and power meter can be looped around in one-way Autotest mode, to measure loss only.

The 2-way test ports also operate as one-way Autotest light sources, compatible with other Kingfisher Autotest power meters, or as basic light sources.

The power meter is also compatible with other Kingfisher Autotest sources with matching wavelengths.

One-way Autotest provides fast & easy loss testing at up to 3 λ , in one direction, along with the source nominal power level and λ , with either local or remote referencing.

Fiber Type	Wavelengths	Loss Range	Loss Repeatability / Linearity
MM	850, 1300 nm (62.5 μm)	27 dB	0.06 dB
IVIIVI	850, 1300 nm (50 μm)	24.5 dB	0.00 aB
MM	850, 1300 nm, VisiTester (62.5 μm)	24 dB	0.06 dB
101101	850, 1300 nm, VisiTester (50 μm)	21.5 dB	0.00 ab
SM	1310, 1550 nm	47 dB	0.04 dB
SM	1310, 1490, 1550, nm	44 dB	0.04 dB
2101	1310, 1550, 1625 nm	44 UB	0.04 UB
SM	1310, 1550 nm, VisiTester	44 dB	0.04 dB
SM	1310, 1490, 1550, nm, VisiTester	41 dB	0.04 dB
	1310, 1550, 1625 nm, VisiTester	41 00	0.04 00
SM	1310, 1490, 1550, 1625 (VFL) nm	41 dB	0.04 dB

OPTICAL POWER METER SPECIFICATIONS

The power meter port uses the same interchangeable connector adaptors as the other ports.

ISO17025 Traceable calibration at many wavelengths at 1% accuracy, and full linearity test, is the best in the industry.

The tight Total Uncertainty specification covers the full range of power levels, ambient temperatures, connectors, and fibers, without user dark current offset.

The multi-Fiber ID feature tests common test tones and, can also positively identify 1 of 12 test tones from multiple test sources. This can speed up continuity / polarity testing.

Please enquire for non-standard power meter configurations such as high-power detectors up to +33 dBm, POF / MPO. MTP / MXC applications, special connectors, wavelength selective detectors, special calibrations etc.

Response λ Nm InGaAs detea	Damage level dBm ctor	Calibration λ nm	Power range dBm	Tone ⁶ & Autotest Min dBm	Midrange linearity ² dB	Calibration Accuracy ³ %	Polarization Sensitivity ⁵ dB	λ Sensitivity ± 30 nm ⁴ dB
600 ~ 1700	+15	780, 820, 850, 980 1270, 1290, 1300, 1310, 1330, 1350, 1370, 1390, 1410, 1430, 1450, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610, 1625, 1650	+10 ~ -60 +10 ~ -70	-40	0.04	1 % (0.06 dB)	< 0.05	0.2
					Typical		Typical	typical

Note 2: Mid-range linearity excludes top 5 dB and bottom 10 dB of range.

Note 3: Calibration condition: non coherent light, -35±5 dBm, 23±1°C, ±0.5 nm, 20±3 nm FWHM, PC ceramic connector, 50 µm fiber.

Note 4 At calibration wavelengths in bold type.

Note 5: For APC connector only.

Note 6: For tone detection up to 1000 Hz.







LIGHT SOURCE SPECIFICATIONS

The emitters feature excellent repeatability and stability. Reconnection repeatability is < 0.1 dB, which contributes to exceptional test confidence.

LED sources are Encircled Flux (EF) compliant, to provide the most consistent and reliable testing results.

The Zero Warm Up (Ultra Stable) source option uses a unique optical design, to provide zero warm up, ultra-high temperature stability, and is unaffected by varying back reflection. It provides unmatched test stability in arduous conditions.

The multi-Fiber ID feature tests common test tones and, can also

positively identify 1 of 12 test tones from multiple test sources. This can speed up continuity / polarity testing.

Please enquire for non-standard source configurations such as other wavelengths, power levels, connectors etc.

Up to 2 test ports with 6 assorted LED or laser emitters can be custom specified per instrument, making this a versatile tester for mixed multimode / single mode fiber testing.

Laser options can be compliant with CWDM standards to cover typical cable qualification for O, E, S, C, & L bands, including the water absorption peak, 1625 and 1650 nm.

	1310 / 1550 nm F-P Laser	1490 / 1625 nm CWDM 7 Laser	650 nm VisiTester	850 / 1300 nm LED	Comments
Power accuracy		±1dB (LED	@ 62.5 µm)		Refer to ORDERING INFORMATION for specific model's nominal power level.
Short term stability (dB) KI27400 ⁸ / KI23400 ⁹	0.04 / 0.03	0.06 / 0.04	NA	0.01	
Stability over temp (dB) KI27400 / KI23400	0.6 / 0.2	0.6 / 0.2	NA	0.35	Typical / Max
λ initial tolerance (nm)	20	6.5	5	NA	At 25 °C
λ width, nm	3	< 1	3	NA	FWHM, typical
λ nm/°C	0.4	0.1	0.1	0.4	Typical
Mode Controlled Source	NA	NA	NA	Mode controlled	50/125 compliant: IEC 61280-4-1 {Ed.1.0}, TIA/EIA 526-14A & TIA TSB-178.
Reconnection repeatability (dB)	0.1	0.1	0.1	0.05	95 % confidence
Laser output power	Adjusta	able over 7 dB in 0.01 dl	B steps	NA	
Modulation	270 Hz, 1 kHz,	2 kHz ± 2 %, 12 multi-F	iber ID tones, 2 Hz bli	ink for VisiTester	

Note 7: CWDM laser wavelengths: 1270, 1290, (1310), 1330, 1350, 1370, 1390, 1410, 1430, 1450, 1470, 1490, 1510, 1530, (1550), 1570, 1590, 1610 nm

Note **8**: For 15 min, typ. $\pm \Delta$ 2°C, after warmup, ORL < -25 dB

Note **9**: For 15 min, max, $\pm \Delta$ 3°C

VisiTester or VFL SPECIFICATIONS

On "V" part numbers the unique VisiTester mixes a powerful red laser with Two-Way Autotest, so at the far end, the active test fiber winks, making the fiber to be tested obvious to the user. The red laser is mixed with a test tone for a clip-on fiber identifier. This mixed signal extends practical fault-finding options since a clipon fiber identifier can be used simultaneously. The red laser can also be selected in stand-alone mode, for typical fault-finding applications.

On "F" part numbers the VFL on a separate optical port offers a stand-alone fault and continuity finder.

Parameters	Values
Wavelength	650 ± 5 nm
Power	0 dBm ± 1 dB (@ SM / MM fiber)
Laser Safety	Class 1, IEC60825-2
Blink rate (Stand-alone mode)	CW or 2 Hz







ORL SPECIFICATIONS

The full-featured ORL meter can operate in stand-alone mode or integrated with Autotest.

In two-way Autotest, the ORL is measured at each end of the link, and the results displayed on both instruments.

A Zero-function compensates for residual reflections, and to

provide extended measurement range with improved linearity. A User-Calibration Mode compensates for losses in a test set-up, which improves overall accuracy.

Multimode ORL ports all have APC connectors to ensure the full ORL measuring range.

Parameters		Laser	LED
	1 or 2 λ	3 or 4 λ	
Range ⁹	0 ~ 60 dB	0 ~ 57 dB	0 ~ 30 dB (62.5 µm)
Range	0 ~ 60 dB	0 ~ 57 dB	0 ~ 27.5 dB (50 μm)
Port isolation / residual ⁹		>50 dB	> 20 dB
ORL linearity ⁹	0.1 dB 55 ~ 60 dB: 1 dB after zero offset	0.1 dB 52 ~ 57 dB: 1 dB after zero offset	0.1 dB 22.5 ~ 30 dB: 1 dB after zero offset
ORL calibration accuracy ¹⁰	0.2 dB	0.2 dB	0.2 dB
D I	0 ~ 50 dB: 0.01 dB	0 ~ 45 dB: 0.01 dB	0 ~ 30 dB: 0.01 dB
Resolution	50 ~ 65 dB: 0.1 dB	45 ~ 60 dB: 0.1 dB	30 ~ 45 dB: 0.1 dB
λ available		See source options in LIGHT SOURCE SPECI	FICATIONS

Note 9: Instruments with PC connectors will have reduced ORL range due to ORL limitations of the PC connector, typically around 40 dB. We suggest an APC instrument connector is always preferable unless low-range ORL measurements are acceptable

Note 10: Under calibration conditions: ORL of approximately 14.5 dB, 25 °C

GENERAL SPECIFICATIONS

The practical interchangeable optical connectors are dust & drop protected and are very simple to swap over or clean. SC adaptors are supplied, with others available including small form factor LC and universal styles. The metal-free adaptors avoid damaging contamination of connectors in high power systems.

The instrument has excellent battery life. Flexible instrument power options include alkaline or rechargeable batteries, with a jumper selectable on-board battery charger. External power is via micro-USB. The custom LCD is clearly sunlight readable, operates over a wide temperature range, and has a reliable LED backlight.

Memory operation is simple, with 10,000 fiber capacity, and the memory can be easily dumped directly onto a USB key, providing effectively infinite capacity. Auto-incrementing identification text is stored with each test result and, can meet standard-based labelling schemes. The user can go back and re-test a fiber.

Firmware & software updates (with standards and other updates) are free.

Parameters	Value	Parameters	Value
Battery life	Laser/LED source: 50 hours in Autotest, typical	Operating/Storage	-15 to 55 °C / -25 to 70 °C
Size	Power meter: 100 hours, typical 190 x 105 x 35 mm (7.5 x 4.1 x 1.4")	Relative humidity	0 ~ 95 %
Weight	420 gm (0.9 lb.) / Shipping 1.5 Kg (3.3 lb.)	Tone detection	150 ~ 9900 Hz ± 1 %
LCD size	74 x 55 mm / 2.9 x 2.2"	Recommended calibration cycle	3 years
Case	Polycarbonate / rubber edges & corners, moisture resistant, 1-meter drop tested	Power	2 Alkaline AA cells or 2 x NiMH AA cells, user selectable charging; Ext power input via
Dust cap	Captive, functions as tilt bail when open		micro-USB or USB-C depending on instrument version; Selectable auto-off, low
Memory	Test results & timestamp for 8,000 fibers, unlimited on USB memory key		battery indicator, backlit display

Australian and international patents. Technical data is subject to change without notice as part of our program of continuous improvements. Class 1 Laser / LED infra-red device compliant with IEC60825-2.







ORDERING INFORMATION

Image: Note:	Description		urce Po	(μm		iber Type	Ports	P/N
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K127400 series: Loss Testing Instrument, LTS-2W 1310-1550-1625 nm Laser APC, InGaAs -7 - - - 2 K127410-InGaAs-APC Instrument, LTS-2W 850-1300 nm LED, 1310-1550 nm Laser, InGaAs -3 -35 -25.5 -23 - 3 K127424-InGaAs K127400 series: Loss Testing, Length, VisiTester (depends on model) - - - 2 K127403LV-InGaAs Instrument, LTS-2W Length VisiTester, 850-1300 nm LED, InGaAs - - -39 -29.5 -27 0 2 K127403LV-InGaAs Instrument, LTS-2W Length VisiTester, 1310-1550 nm Laser, InGaAs -7 -9 - 0 2 K127402LV-InGaAs Instrument, LTS-2W Length VisiTester, 1310-1550 nm Laser, InGaAs -7 -8 - 0 2 K12742LV-InGaAs-APC Instrument, LTS-2W Length VisiTester, 1310-1550 nm Laser, APC, InGaAs -7 -8 - 0 2 K12742LV-InGaAs-APC Instrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-1550 nm Laser, APC, InGaAs -7 -39 -29.5 -27 0 2 K12742LV-InGaAs-APC Instrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-1550 nm Laser APC, InGaAs -7 <		SMF	SMF	50	62.5	SMF		
Instrument, LTS-2W 1310-15S0 nm Laser APC, InGaAs-72KI27410-InGaAs-APCInstrument, LTS-2W 850-1300 nm LED, 1310-15S0 nm Laser, APC, InGaAs-3-35-25.5-23-3KI27424-InGaAsInstrument, LTS-2W 850-1300 nm LED, 1310-1550 nm Laser APC, InGaAs-3-35-25.5-23-3KI27424-InGaAs-APCKI27400 series: Loss Testing, Length, VisiTester (depends on model)39-29.5-2702KI27403LV-InGaAsInstrument, LTS-2W Length VisiTester, 1310-1550 nm Laser, InGaAs-7-7-7-702KI27422LV-InGaAsInstrument, LTS-2W Length VisiTester, 1310-1550 nm Laser APC, InGaAs,-7-7-702KI27410LV-InGaAs-APCInstrument, LTS-2W Length VisiTester, 1310-1550-1625 nm Laser APC, InGaAs-7-7-702KI27424LV-InGaAs-APCInstrument, LTS-2W Length VisiTester, 1310-1550-1625 nm Laser APC, InGaAs-7-7-702KI27424LV-InGaAs-APCInstrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-1550 nm Laser APC, InGaAs-7-39-29.5-2703KI27424LV-InGaAs-APCInstrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-1550 nm Laser APC, InGaAs-7-39-29.5-2703KI27424LV-InGaAs-APCInstrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-1550 nm Laser APC, InGaAs-7-39-29.5-2703KI27424LV-InGaAs-APCInstrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-		Re	er to LIC	GHT <mark>SOL</mark>	JRCE SP	ECIFICATION	5 for Po	wer Accuracy specifications
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Instrument, LTS-2W Length VisiTester, 1310-1550 nm Laser, InGaAs -7 - - 0 2 KI27422LV-InGaAs Instrument, LTS-2W Length VisiTester, 1310-1550 nm Laser APC, InGaAs, -7 - - 0 2 KI27422LV-InGaAs-APC Instrument, LTS-2W Length VisiTester, 1310-1550 nm Laser APC, InGaAs, -7 - - 0 2 KI27422LV-InGaAs-APC Instrument, LTS-2W Length VisiTester, 1310-1550-1625 nm Laser APC, InGaAs -10 - - 0 2 KI27422LV-InGaAs-APC Instrument, LTS-2W Length VisiTester, 1310-1490-1550-1625 nm Laser APC, InGaAs -7 - - 0 2 KI2742LV-InGaAs-APC Instrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-1550 nm Laser, InGaAs -7 -39 -29.5 -27 0 3 KI27424LV-InGaAs-APC Instrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-1550 nm Laser APC, InGaAs -7 -39 -29.5 -27 0 3 KI27424LV-InGaAs-APC Instrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-1550 nm Laser APC, InGaAs -7 -39 -29.5 -27 0 3 KI27424LV-InGaAs-APC Instrument, LTS-2W CRL Length VisiTester, 850-1300 nm LED APC, InGaAs <t< td=""><td>KI27400 series: Loss Testing, Length, VisiTester (depends on model)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	KI27400 series: Loss Testing, Length, VisiTester (depends on model)							
Instrument, LTS-2W Length VisiTester, 1310-1550 nm Laser APC, InGaAs, -7 - - 0 2 Kl27422LV-InGaAs-APC Instrument, LTS-2W Length VisiTester, 1310-1550-1625 nm Laser APC, InGaAs -10 - - 0 2 Kl27410LV-InGaAs-APC Instrument, LTS-2W Length VisiTester, 1310-1490-1550-1625 nm Laser APC, InGaAs -7 - - 0 2 Kl27410LV-InGaAs-APC Instrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-1550 nm Laser, InGaAs -7 - - 0 2 Kl2742LV-InGaAs-APC Instrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-1550 nm Laser APC, InGaAs -7 -39 -29.5 -27 0 3 Kl2742LV-InGaAs-APC Instrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-1550 nm Laser APC, InGaAs -7 -39 -29.5 -27 0 3 Kl27425L-InGaAs-APC Instrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-1550 nm Laser APC, InGaAs -7 -39 -29.5 -27 0 3 Kl27425L-InGaAs-APC Instrument, LTS-2W ORL Length VisiTester, 850-1300 nm LED APC, InGaAs -7 -39 -29.5 -27 0 2 Kl234030LV-InGaAs-APC Instrument, LTS-2W ORL Length VisiT	Instrument, LTS-2W Length VisiTester, 850-1300 nm LED, InGaAs	-	-39	-29.5	-27	0	2	KI27403LV-InGaAs
Instrument, LTS-2W Length VisiTester, 1310-1550-1625 nm Laser APC, InGaAs -10 - - 0 2 KI27410LV-InGaAs-APC Instrument, LTS-2W Length VisiTester, 1310-1490-1550-1625 nm Laser APC, InGaAs -7 - - 0 2 KI27410LV-InGaAs-APC Instrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-1550 nm Laser APC, InGaAs -7 -39 -29.5 -27 0 3 KI27424LV-InGaAs-APC Instrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-1550 nm Laser APC, InGaAs -7 -39 -29.5 -27 0 3 KI27424LV-InGaAs-APC Instrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-1550 nm Laser APC, InGaAs -7 -39 -29.5 -27 0 3 KI27424LV-InGaAs-APC Instrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-1490-1550-1625 nm Laser APC, InGaAs -7 -39 -29.5 -27 0 3 KI27425L-InGaAs-APC Instrument, LTS-2W ORL Length, ORL, VisiTester or VFL (depends on model), Ultra Stable (U/S, depends -7 -39 -29.5 -27 0 2 KI23403OLV-InGaAs-APC Instrument, LTS-2W ORL Length VisiTester, 850-1300 nm LED APC, 50 µm, Ge - -39 -29.5 -27 0 2	Instrument, LTS-2W Length VisiTester, 1310-1550 nm Laser, InGaAs	-7	-	-	-	0	2	KI27422LV-InGaAs
Instrument, LTS-2W Length VisiTester, 1310-1490-1550-1625 nm Laser APC, InGaAs-702KI27416LV-InGaAs-APCInstrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-1550 nm Laser, InGaAs-7-39-29.5-2703KI27424LV-InGaAs-APCInstrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-1550 nm Laser APC, InGaAs-7-39-29.5-2703KI27424LV-InGaAs-APCInstrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-1550 nm Laser APC, InGaAs-7-35-25.5-23-3KI27425L-InGaAs-APCKI23400 series: Loss, Length, ORL, VisiTester or VFL (depends on model), Ultra Stable (U/S, depends on model)39-29.5-2702KI234030LV-InGaAs-APCInstrument, LTS-2W ORL Length VisiTester, 850-1300 nm LED APC, InGaAs39-29.5-2702KI234030LV-InGaAs-APCInstrument, LTS-2W ORL Length VisiTester, 850-1300 nm LED APC, 50 µm, Ge39-29.5-2702KI234030LV-InGaAs-APC-50UInstrument, LTS-2W ORL Length VisiTester, 850-1300 nm U/S Laser, InGaAs-702KI234220LV-InGaAsInstrument, LTS-2W ORL Length VisiTester, 1310-1550 nm U/S Laser, InGaAs-703KI234220LV-InGaAsInstrument, LTS-2W ORL Length VFL, 1310-1550 nm U/S Laser APC, InGaAs-703KI234220LF-InGaAs-APCInstrument, LTS-2W ORL Length VFL, 1310-1490-1550 nm U/S Laser APC, InGaAs-703KI234270LF-InGaAs-	Instrument, LTS-2W Length VisiTester, 1310-1550 nm Laser APC, InGaAs,	-7	-	-	-	0	2	KI27422LV-InGaAs-APC
Instrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-1550 nm Laser, InGaAs -7 -39 -29.5 -27 0 3 KI27424LV-InGaAs Instrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-1550 nm Laser APC, InGaAs -7 -39 -29.5 -27 0 3 KI27424LV-InGaAs Instrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-1490-1550-1625 nm Laser APC, InGaAs -7 -35 -25.5 -23 - 3 KI27425L-InGaAs-APC KI23400 series: Loss, Length, ORL, VisiTester or VFL (depends on model), Ultra Stable (U/S, depends on model), Ultra Stable (U/S, depends on model) -7 -39 -29.5 -27 0 2 KI234030LV-InGaAs-APC Instrument, LTS-2W ORL Length VisiTester, 850-1300 nm LED APC, InGaAs - -39 -29.5 -27 0 2 KI234030LV-InGaAs-APC Instrument, LTS-2W ORL Length VisiTester, 850-1300 nm LED APC, S0 µm, Ge - -39 -29.5 -27 0 2 KI234030LV-InGaAs-APC-50U Instrument, LTS-2W ORL Length VisiTester, 1310-1550 nm U/S Laser, InGaAs -7 - - 0 2 KI234220LV-InGaAs-APC-50U Instrument, LTS-2W ORL Length VFL, 1310-1550 nm U/S Laser APC, InGaAs -7 - - 0	Instrument, LTS-2W Length VisiTester, 1310-1550-1625 nm Laser APC, InGaAs	-10	-	-	-	0	2	KI27410LV-InGaAs-APC
Instrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-1550 nm Laser APC, InGaAs -7 -39 -29.5 -27 0 3 KI27424LV-InGaAs-APC Instrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-1490-1550-1625 nm Laser APC, InGaAs -7 -35 -25.5 -23 -3 KI27425L-InGaAs-APC KI23400 series: Loss, Length, ORL, VisiTester or VFL (depends on model), Ultra Stable (U/S, depends on model) -7 -39 -29.5 -27 0 2 KI23403OLV-InGaAs-APC Instrument, LTS-2W ORL Length VisiTester, 850-1300 nm LED APC, InGaAs - -39 -29.5 -27 0 2 KI23403OLV-InGaAs-APC Instrument, LTS-2W ORL Length VisiTester, 850-1300 nm LED APC, InGaAs - -39 -29.5 -27 0 2 KI23403OLV-InGaAs-APC Instrument, LTS-2W ORL Length VisiTester, 850-1300 nm LED APC, InGaAs - -39 -29.5 -27 0 2 KI23403OLV-InGaAs-APC Instrument, LTS-2W ORL Length VisiTester, 1310-1550 nm U/S Laser, InGaAs -7 - - 0 3 KI23422OLV-InGaAs Instrument, LTS-2W ORL Length VFL, 1310-1550 nm U/S Laser APC, InGaAs -7 - - 0 3 KI23422OLF-InGaAs-APC	Instrument, LTS-2W Length VisiTester, 1310-1490-1550-1625 nm Laser APC, InGaAs	-7	-	-	-	0	2	KI27416LV-InGaAs-APC
Instrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-1490-1550-1625 nm Laser APC, InGaAs-7-35-25.5-23-3KI27425L-InGaAs-APCKI23400 series: Loss, Length, ORL, VisiTester or VFL (depends on model), Ultra Stable (U/S, depends on model)-7-39-29.5-2702KI23403OLV-InGaAs-APCInstrument, LTS-2W ORL Length VisiTester, 850-1300 nm LED APC, InGaAs39-29.5-2702KI23403OLV-InGaAs-APC-50UInstrument, LTS-2W ORL Length VisiTester, 1310-1550 nm U/S Laser, InGaAs-7-7-702KI23422OLV-InGaAs-APC-50UInstrument, LTS-2W ORL Length VFL, 1310-1550 nm U/S Laser APC, InGaAs-7-7-703KI23422OLV-InGaAs-APCInstrument, LTS-2W ORL Length VFL, 1310-1550 nm U/S Laser APC, InGaAs-7-7-703KI23422OLF-InGaAs-APCInstrument, LTS-2W ORL Length VFL, 1310-1550 nm U/S Laser APC, InGaAs-7-7-703KI23427OLF-InGaAs-APCInstrument, LTS-2W ORL Length VFL, 1310-1550 nm U/S Laser APC, InGaAs-7-7-703KI23427OLF-InGaAs-APCInstrument, LTS-2W ORL Length VFL, 1310-1550 nm U/S Laser APC, InGaAs-7-7-703KI23427OLF-InGaAs-APCInstrument, LTS-2W ORL Length VFL, 1310-1550 nm U/S Laser APC, InGaAs-7-7-703KI234100LF-InGaAs-APCInstrument, LTS-2W ORL Length VFL, 1310-1550-1625 nm U/S Laser APC, InGaAs-7-7-703KI234100LF-InGaAs-APC	Instrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-1550 nm Laser, InGaAs	-7	-39	-29.5	-27	0	3	KI27424LV-InGaAs
KI23400 series: Loss, Length, ORL, VisiTester or VFL (depends on model), Ultra Stable (U/S, depends on model)39-29.5-2702KI23403OLV-InGaAs-APCInstrument, LTS-2W ORL Length VisiTester, 850-1300 nm LED APC, InGaAs39-29.5-2702KI23403OLV-InGaAs-APC-50UInstrument, LTS-2W ORL Length VisiTester, 850-1300 nm LED APC, 50 μm, Ge39-29.5-2702KI23403OLV-InGaAs-APC-50UInstrument, LTS-2W ORL Length VisiTester, 1310-1550 nm U/S Laser, InGaAs-702KI23422OLV-InGaAsInstrument, LTS-2W ORL Length VFL, 1310-1550 nm U/S Laser APC, InGaAs-303KI23422OLF-InGaAs-APCInstrument, LTS-2W ORL Length VFL, 1310-1550 nm U/S Laser APC, InGaAs-703KI23427OLF-InGaAs-APCInstrument, LTS-2W ORL Length VFL, 1310-1550 nm U/S Laser APC, InGaAs-703KI23427OLF-InGaAs-APCInstrument, LTS-2W ORL Length VFL, 1310-1550 nm U/S Laser APC, InGaAs-703KI23427OLF-InGaAs-APCInstrument, LTS-2W ORL Length VFL, 1310-1550 nm U/S Laser APC, InGaAs-703KI23410OLF-InGaAs-APCInstrument, LTS-2W ORL Length VFL, 1310-1550 nm U/S Laser APC, InGaAs-703KI23410OLF-InGaAs-APC	Instrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-1550 nm Laser APC, InGaAs	-7	-39	-29.5	-27	0	3	KI27424LV-InGaAs-APC
Instrument, LTS-2W ORL Length VisiTester, 850-1300 nm LED APC, InGaAs39-29.5-2702KI23403OLV-InGaAs-APCInstrument, LTS-2W ORL Length VisiTester, 850-1300 nm LED APC, 50 μm, Ge39-29.5-2702KI23403OLV-InGaAs-APC-50UInstrument, LTS-2W ORL Length VisiTester, 1310-1550 nm U/S Laser, InGaAs-702KI23422OLV-InGaAsInstrument, LTS-2W ORL Length VFL, 1310-1550 nm U/S Laser APC, InGaAs-303KI23422OLF-InGaAs-APCInstrument, LTS-2W ORL Length VFL, 1310-1550 nm U/S Laser APC, InGaAs-703KI23427OLF-InGaAs-APCInstrument, LTS-2W ORL Length VFL, 1310-1550 nm U/S Laser APC, InGaAs-703KI23427OLF-InGaAs-APCInstrument, LTS-2W ORL Length VFL, 1310-1550-1625 nm U/S Laser APC, InGaAs-703KI234100LF-InGaAs-APCInstrument, LTS-2W ORL Length VFL, 1310-1550-1625 nm U/S Laser APC, InGaAs-703KI234100LF-InGaAs-APC	Instrument, LTS-2W Length VisiTester, 850-1300 nm LED, 1310-1490-1550-1625 nm Laser APC, InGaAs	-7	-35	-25.5	-23	-	3	KI27425L-InGaAs-APC
Instrument, LTS-2W ORL Length VisiTester, 850-1300 nm LED APC, 50 μm, Ge - -39 -29.5 -27 0 2 KI23403OLV-InGaAs-APC-50U Instrument, LTS-2W ORL Length VisiTester, 1310-1550 nm U/S Laser, InGaAs -7 - - 0 2 KI23422OLV-InGaAs Instrument, LTS-2W ORL Length VFL, 1310-1550 nm U/S Laser APC, InGaAs -3 - - 0 3 KI23422OLF-InGaAs-APC Instrument, LTS-2W ORL Length VFL, 1310-1550 nm U/S Laser APC, InGaAs -3 - - 0 3 KI23422OLF-InGaAs-APC Instrument, LTS-2W ORL Length VFL, 1310-1550 nm U/S Laser APC, InGaAs -7 - - 0 3 KI23427OLF-InGaAs-APC Instrument, LTS-2W ORL Length VFL, 1310-1550-1625 nm U/S Laser APC, InGaAs -7 - - 0 3 KI234100LF-InGaAs-APC	KI23400 series: Loss, Length, ORL, VisiTester or VFL (depends on model), Ultra Stable (l	J/S, dep	oends o	n model)			
Instrument, LTS-2W ORL Length VisiTester, 1310-1550 nm U/S Laser, InGaAs-702KI23422OLV-InGaAsInstrument, LTS-2W ORL Length VFL, 1310-1550 nm U/S Laser APC, InGaAs-303KI23422OLF-InGaAs-APCInstrument, LTS-2W ORL Length VFL, 1310-1490-1550 nm U/S Laser APC, InGaAs-703KI23427OLF-InGaAs-APCInstrument, LTS-2W ORL Length VFL, 1310-1550-1625 nm U/S Laser APC, InGaAs-703KI23427OLF-InGaAs-APCInstrument, LTS-2W ORL Length VFL, 1310-1550-1625 nm U/S Laser APC, InGaAs-703KI234100LF-InGaAs-APC	Instrument, LTS-2W ORL Length VisiTester, 850-1300 nm LED APC, InGaAs	-	-39	-29.5	-27	0	2	KI23403OLV-InGaAs-APC
Instrument, LTS-2W ORL Length VFL, 1310-1550 nm U/S Laser APC, InGaAs -3 - - 0 3 KI23422OLF-InGaAs-APC Instrument, LTS-2W ORL Length VFL, 1310-1550 nm U/S Laser APC, InGaAs -7 - - 0 3 KI23427OLF-InGaAs-APC Instrument, LTS-2W ORL Length VFL, 1310-1550-1625 nm U/S Laser APC, InGaAs -7 - - 0 3 KI23427OLF-InGaAs-APC	Instrument, LTS-2W ORL Length VisiTester, 850-1300 nm LED APC, 50 μ m, Ge	-	-39	-29.5	-27	0	2	KI23403OLV-InGaAs-APC-50U
Instrument, LTS-2W ORL Length VFL, 1310-1490-1550 nm U/S Laser APC, InGaAs -7 - 0 3 KI23427OLF-InGaAs-APC Instrument, LTS-2W ORL Length VFL, 1310-1550-1625 nm U/S Laser APC, InGaAs -7 - 0 3 KI23410OLF-InGaAs-APC	Instrument, LTS-2W ORL Length VisiTester, 1310-1550 nm U/S Laser, InGaAs	-7	-	-	-	0	2	KI23422OLV-InGaAs
Instrument, LTS-2W ORL Length VFL, 1310-1550-1625 nm U/S Laser APC, InGaAs -7 - 0 3 KI23410OLF-InGaAs-APC	Instrument, LTS-2W ORL Length VFL, 1310-1550 nm U/S Laser APC, InGaAs	-3	-	-	-	0	3	KI23422OLF-InGaAs-APC
	Instrument, LTS-2W ORL Length VFL, 1310-1490-1550 nm U/S Laser APC, InGaAs	-7	-	-	-	0	3	KI23427OLF-InGaAs-APC
Instrument, LTS-2W ORL Length VFL, 1310-1490-1550-1625 nm U/S Laser APC, InGaAs -7 0 3 KI23416OLF-InGaAs-APC	Instrument, LTS-2W ORL Length VFL, 1310-1550-1625 nm U/S Laser APC, InGaAs	-7	-	-	-	0	3	KI23410OLF-InGaAs-APC
	Instrument, LTS-2W ORL Length VFL, 1310-1490-1550-1625 nm U/S Laser APC, InGaAs	-7	-	-	-	0	3	KI23416OLF-InGaAs-APC
Instrument, LTS-2W ORL Length, 850-1300 nm LED APC, 1310-1550 nm U/S Laser APC, InGaAs -3 -38 -25.5 -23 - 3 KI23424OL-InGaAs-APC	Instrument, LTS-2W ORL Length, 850-1300 nm LED APC, 1310-1550 nm U/S Laser APC, InGaAs	-3	-38	-25.5	-23	-	3	KI23424OL-InGaAs-APC

Please enquire for instrument with other combinations of wavelength, power levels, PC/APC connectors and measurement capabilities.

STANDARD ACCESSORIES

Description	Quantity
SC/SC (OPT046) Hybrid adaptors	1 per port
SC/LC (OPT076) Hybrid adaptors	1 per port
SC/ST (OPT040) Hybrid adaptors [only for KI23400 & KI27400 series with LED sources]	1 per port
SC PC Terminator (OPT703) [only for KI23400 series]	1
SC APC Terminator (OPT704) [only for KI23400 series]	1
SC-SCAPC SMF Test Lead (OPT730-SCP-SCA) [only for KI23400 series with Laser sources]	1
SC-SCAPC MMF Test Lead (OPT706) [only for KI23400 series with LED sources]	1
SC-SC(APC) MMF Test Lead (OPT740-SCP-SCA) [only for KI23400 series with LED sources @ 50 μ m]	1
50 & 62.5 µm fiber mandrel wrap set for Multimode sources (OPT701) [only for KI23400 & KI27400 series with LED sources]	1 set
USB cable (USB-A to micro-USB <i>or</i> USBA to USB-C type)	1
Carry Pouch	1
Wrist Strap	1
Operation manual	1
QA certificates	1 set
ILAC/ NATA traceable calibration certificates including Power Meter, Light Source, Two-way detector	1 set







OPTIONAL INTERCHANGEABLE CONNECTOR ADAPTORS

This instrument is supplied with metal-free sleeve optical interchangeable connector adaptors. The source ferrule type is fixed, and customer specified as either PC or APC. The power meter is for both PC & APC. Green is associated with APC. You

can order any number of connector adaptors. Order quantity one per port. Universal adaptors are recommended to be used only on power meter ports.

Description	P/N	Description	P/N
FC	OPT051	E2000/LSH, Green	OPT060G
ST	OPT040	E2000/LSH	OPT060
LC	OPT076	1.25mm universal	OPT085
SC	OPT046	POF Multi-Connector	OPT077
MU	OPT080	2.5mm universal	OPT081
HFBR	OPT078	F3000	OPT072
LSA / DIN47256	OPT071	SMA	OPT082



OPTIONAL ACCESSORIES

Description	P/N
Option, Carry Case for 2 Instruments	OPT153
Option, Carry Case includes Cletop-style cleaner & Cleaning Sticks	OPT154B

AUTHORIZED DEALER



Kingfisher International Pty Ltd 720 Springvale Road, Mulgrave VIC 3170 Australia T +61 3 8544 1700 F +61 3 8544 1793 E sales@kingfisher.com.au

kingfisherfiber.com

KI 2000 Series LS / LTS / 2-way LTS / PM General Features



Revision: 5

Full Feature Family

Full featured handheld optical Power Meter (purple), Light Source (yellow), Loss Test Set (red).

Calibrations of all instruments are ISO 17025 traceable.

Ease of Use

Fewer key-strokes with custom LCD and 3λ loss test display, Autotest & guided button usage.

Long Battery Life

Just 2x AA batteries work for 1000 hours for Power Meter, 90 hours for Light Source & Loss Test Set. Choice of batteries is available with a jumper selectable battery charger.



All Systems

Models for all fiber optic systems inclusive of Telco, PON, LAN, WAN, MPO/MTP Ribbon fiber, POF. A meter can test many fiber & connector types.

VisiTester Option

Mixes a laser VFL with Autotest Light Source, so the active test fiber winks, making it obvious.



Total Uncertainty Specification

The Power Meter's unique Total Uncertainty Specification covers accuracy over all power levels, temperatures, connector and fiber types.







USB Key Data

Results in internal memory can be copied onto a USB memory key with one button push, providing unlimited test data storage capacity, backup or send from a cell phone.



Autotest

Provides automatic real time multi λ loss testing up to 6 λ , with up to 3 λ displayed at once, with the respective source power levels. Use any Autotest source / meter / LTS with matching λ . One key-stroke to set all references or store all reading.

Large LCD Display

The large custom LCD screen, is sunlight readable & backlit. It displays loss test data for 3 λ including reference or source power levels in Autotest.

USB Power & Charging

Instruments can be powered or charged (if rechargeable batteries are fitted) via micro-USB.

Test Tone with Multi-Fiber ID Function

Multi-Fiber ID Sources and meters provide a tone feature which can uniquely identify up to 12 fibers, in addition to common test tones, perfect for high density polarity and continuity testing.

Class 1 Laser

Kingfisher Laser Light Sources are Class 1 as per international laser eye safety standard, IEC 60825-2 (2011).

Encircled Flux Compliant Multimode Light Sources

All LED sources are Encircled Flux (EF) standards compliant, to provide the most consistent and reliable testing results.

Ribbon Fiber Test

The large detector area XLversion Power Meter is ideal for testing MPO/MT/MTP ribbon fiber connectors up to 72 fibers, 1 mm POF, fiber bundles, or any fiber with an active area up to 3 mm across.



Text Naming for Test Data

Loss test results can be stored in the large memory, along with a user-input cable name. Capacity is 1000 $4-\lambda$ tests with text, timestamp, reference levels etc.



Captive Dust Cap

The flip-over captive dust cap functions as tilt bail when open.





Worldwide recognized accuracy and quality



Other Features

- Useful standard accessories include pouch & wrist strap, connectors & documentation.
- Selectable auto-off & low battery indicator
- Versatile, rugged, reliable, moisture resistant constructions
- Power averaging mode for modulated signal
- Max / Min recording & display hold
- Displays mW, µW, nW, dB, dBm to 0.01 dB resolution
- Zero-warm up time Light Source option
- Up to 6 mixed LED, Laser & VFL Light Sources
- Up to 25 genuine Power Meters calibration wavelengths
- 3 ~ 7 Year warranty
- 2-way LTS capable of ORL & Length measurements
- 2-way LTS with large memory for 10,000 fibers
- ILAC/ ISO 17025 traceable calibration certificate

Interchangeable Connector

The practical interchangeable optical connectors are dust & drop protected and very simple to swap over or clean. Refer to Kingfisher's websites below for details;

For standard instrument



For XL Power Meter

Most Kingfisher adaptors are metal free to avoid contamination of connectors in high power systems.







Revision record:

Rev	Date	Editor	Change De	escript	ion									
3	30ct2024	TO Ng	Change	s ma	ade are	e as show	n belov	ν,						
			λ Nm	Damage level dBm	Cal	ibration λ nm	Power range dBm	Tone ⁶ & Autotest Min dBm	Midrange linearity ² dB	Calibration Accuracy ³ %	Polarization Sensitivity ⁵ dB	λ Sensitivity ± 30 nm ⁴ dB		
			InGaAs detecto	r	780, 8	20, 850, 980	+10 ~ -60	-45 <u>40</u>						
			600 ~ 1700	+15	1350, 1370, 1450, 1470,	1300, 1310, 1330, 1390, 1410, 1430, 1490, 1510, 1530, 390, 1610, 1625, 1650	+10 ~ -70	-50	0.04	1 % (0.06 dB)	< 0.05	0.2		
									Typical		Typical	typical		
						5 dB and bottom 10 c								
			Note 3: Calibr	ation cond	ition: non cohere	ent light, -35±5 dBm, i	23±1°C, ±0.5 nm,	20±3 nm FWHM,	PC ceramic connector	r, 50 μm fiber.				
					elengths in bold	d type.								
			Note 5: For Al											
			Note 6: For to	Note 6: For tone detection up to 1000 Hz.										
					1310 / 1550 nm F-P Laser	1490 / 1625 nm CWDM ⁶ CWDM ⁷ Laser	650 nm VisiTester	850 / 1300 nm LED	Comm	nents				
			Power accuracy			±1 dB (LED (Φ 62.5 μm)		Refer to ORDERING specific model's non					
			Short term stability KI27400 ² KI27400 ⁸ KI23400 ⁸ KI23400 ⁹		0.04 / 0.03	0.06 / 0.04	NA	0.01						
			Stability over temp KI27400 / KI23400		0.6 / 0.2	0.6 / 0.2	NA	0.35	Typical	/ Max				
			λ initial tolerance		20	6.5	5	NA	At 25					
			λ width, nm λ nm/°C		3	< 1 0.1	3	NA 0.4	FWHM, Typi	ical				
			Mode Controlled	Source	NA	NA	NA	Mode controlled	50/125 compliant: IE	C 61280-4-1 (Ed.1.0),				
		1	TIA/EIA 525-14A & TIA 158-178. Reconnection 0.1 0.1 0.1 0.05 95% confidence											
					0.1	repeatability (db)								
			repeatability (dB) Laser output powe	er	Adjus	table over 7 dB in 0.01 dB	steps	NA	95 76 001	indence				
			repeatability (dB) Laser output powe Modulation		Adjus 270 Hz, 1 kHz		steps er ID tones, 2 Hz bl	NA nk for VisiTester		indence				
			repeatability (dB) Laser output powe Modulation Note 67: CWDM lase Note 78: For 15 min, Note 89: For 15 min,	r wavelengths typ. ±∆ 2°C, a	Adjus 270 Hz, 1 kHz : 1270, 1290, (1310), 1: ifter warmup, ORL <	table over 7 dB in 0.01 dB , 2 kHz ± 2 %, 12 multi-Fiib 330, 1350, 1370, 1390, 1410, 1 -25 dB	steps er ID tones, 2 Hz bl 430, 1450, 1470, 1490	NA nk for VisiTester , 1510, 1530, (1550), 157	0, 1590, 1610 nm	inderke				
			repeatability (dB) Laser output powe Modulation Note 67, CWDM lase Note 78, For 15 min, Note 89, For 15 min, Parameters	r wavelengths typ. ±Δ2°C, a max, ±Δ3°C	Adjus 270 Hz, 1 kHz : 1270, 1290, (1310), 1: fter warmup, ORL < V	table over 7 dB in 0.01 dB . 2 kHz ± 2 %, 12 multi-Fito 330, 1350, 1370, 1390, 1410, 1 -25 dB falue	steps er ID tones, 2 Hz bli 430, 1450, 1470, 1490 Paran	NA nk for VisiTester , 1510, 1530, (1550), 157 neters	0, 1590, 1610 nm Value					
			repeatability (dB) Laser output powe Modulation Note 62 CWDM lase Note 82 For 15 min, Note 82 For 15 min, Parameters Battery life	r wavelengths typ. ± ∆ 2°C, a max, ± ∆ 3°C Laser/ Power	Adjus 270 Hz, 1 kHz : 1270, 1290, (1310), 1: :fter warmup, ORL < 	table over 7 dB in 0.01 dB , 2 kHz ± 2 %, 12 multi-Fit 330, 1350, 1370, 1390, 1410, -25 dB Yalue urs in Autotest, typical typical	steps er ID tones, 2 Hz bli 430, 1450, 1470, 1490 Paran Operat	NA nk for VisiTester , 1510, 1530, (1550), 157 neters ing/Storage -15	0, 1590, 1610 nm Value 5 to 55 °C / ~25 to 70 °C					
			repeatability (d) Laser output powe Modulation Note 62 CWDM lase Note 32 For 15 min, Note 82 For 15 min, Parameters Battery life Size	r wavelengths typ. ± ∆ 2°C, a max, ± ∆ 3°C Laser/ Power 190 x 1	Adjus 270 Hz, 1 kHz 1270, 1290, (1310), 13 11270, 1290, (1310), 13 11270, 1290, (1310), 13 11270, 1290, (1310), 13 11270, 13 11700, 13 1	table over 7 dB in 0.01 dB , 2 kHz ± 2 %, 12 multi-File 330, 1350, 1370, 1390, 1410, -25 dB /alue urs in Autotest. typical typical 4.1 x 1.4 ²)	steps er ID tones, 2 Hz bli 430, 1450, 1470, 1490 430, 1450, 1470, 1490 Paran Operat Relative	NA nk for VisiTester , 1510, 1530, (1550), 157 heters ing/Storage e humidity 0 -	0, 1590, 1610 nm Value					
			repeatability (dB) Laser output powe Modulation Note 62 CWDM lase Note 42 For 15 min, Note 48 For 15 min, Parameters Battery life	r wavelengths typ. ± ∆ 2°C, a max, ± ∆ 3°C Laser// Power 190 × 1 420 gr	Adjus 270 Hz, 1 kHz : 1270, 1290, (1310), 1: :fter warmup, ORL < 	table over 7 dB in 0.01 dB , 2 kHz ± 2 %, 12 multi-File 330, 1350, 1370, 1390, 1410, -25 dB /alue urs in Autotest. typical typical 4.1 x 1.4 ²)	steps er ID tones, 2 Hz bil 430, 1450, 1470, 1490 Paran Operat Relativ Tone d Recom	NA nk for VisiTester 1510, 1530, (1550), 157 ing/Storage -11 humidity 0 etection 1510, 1520, 1520, 1520	0, 1590, 1610 nm Value 5 to 55 °C / -25 to 70 °C ~ 95 %					
			repeatability (dB) Laser output powe Modulation Note 62 CWDM lase Note 32 For 15 min, Note 82 For 15 min, Parameters Battery life Size Weight LCD size Case	r wavelengths typ. ±∆ 2°C, i max, ±∆ 3°C Laser/ Power 190 × 1 420 gr 74 × 5: Polyca resista	Adjus 270 Hz, 1 kHz 1270, 1290, (1310), 1: fter warmup, ORL < V ED source: 50 hours, 05 x 35 mm (7.5 x n (0.9 lb.) / Shippin 5 mm / 2.9 x 2.2" rbonate / rubber e nt, 1-meter drop to	table over 7 dB in 001 dB 2 kHz ± 2 %, 12 multi-Fib 30, 1350, 1370, 1390, 1410, - -25 dB /alue urs in Autotest, typical typical 4,1 x 1,4 ⁻) ng 15 Kg (3,3 lb.) edges & comers, molsture ested	steps er ID tones, 2 Hz bli 430, 1450, 1470, 1490 Veran Relative Tone d Recom calibrat	NA nk for VisiTester 1510, 1530, (1550), 157 ing/Storage -15 e humidity 0 - etection 151 mended 3 j ion cycle 2 5	0, 1590, 1610 nm Value 5 to 55 °C / - 25 to 70 °C - 95 % - 9500 Hz ± 1 % years Alkaline AA cells or 2 × N	iiMH AA celis, user power input via				
			repeatability (d) Laser output powe Modulation Note 42: CWDM lase Note 42: For 15 min, Note 42: For 15 min, Parameters Battery life Size Weight LCD size	r wavelengths typ. ± ∆ 2°C, ↓ max, ± ∆ 3°C Laser/ Power 190 × 1 420 gr 74 × 5: Polyca resista Captiv Test ret	Adjur 270 Hz, 1 kHz 1270, 630, 1910, 19, 1270, 630, 1910, 19, 1270, 630, 1910, 19, 1270, 630, 191	table over 7 dB in 001 dB 2 kHz ± 2 %, 12 multi-Fib 30, 1350, 1370, 1390, 1410, - -25 dB /alue urs in Autotest, typical typical 4,1 x 1,4 ⁻) ng 15 Kg (3,3 lb.) edges & comers, molsture ested	steps er ID tones, 2 Hz bil 430, 1450, 1470, 1490 Paran Operat Relativ Tone d Recom calibrat re Power	NA nk for VisiTester 1510, 1530, (1550), 157 heters heters humidity tetection 151 mended 3 y ion cycle 2 set min in	0, 1590, 1610 nm Value 5 to 55 °C / -25 to 70 °C ~ 95 % 0 ~ 9900 Hz ± 1 % vears Alkaline AA cells or 2 × N	iMH AA cells, user power input via <u>depending</u> on able auto-chf. low				
			repeatability (dB) Laser output powe Modulation Note 62 CVDM lase Note 38 For 15 min, Note 69 For 15 min, Parameters Battery life Size Weight LCD size Case Dust cap Memory	r wavelengths typ. ± ∆ 2°C, <i>i</i> max, ± ∆ 3°C Laser// Power 190 × 1 420 gr 74 × 5: Polyca resista Captiv Test re USB m	Adjur 270 Hz. 1 kHz 1270, 1290, (1310), 11, 11270, 1290, (1310), 11, 1147, 1290, (1310), 12, 120, 1290, 120,	table over 7 dB in 0.01 dB .2 kHz ± 2 %, 12 multi-File 330, 1350, 1370, 1390, 1410, - -25 dB (alue urs in Autotest, typical ty	steps er ID tones, 2 Hz bil 430, 1450, 1470, 1490 Paran Operat Relativ Tone d Recom calibrat re Power	NA nk for VisiTester 1510, 1530, (1550), 157 heters heters humidity tetection 151 mended 3 y ion cycle 2 set min in	0, 1590, 1610 nm Value 5 to 55 °C / - 25 to 70 °C - 95 % 0 - 9900 Hz ± 1 % years Alkaline AA cells or 2 x N Hectable charging: Ext incro-USB or USB-C	iMH AA cells, user power input via <u>depending</u> on able auto-chf. low				
			repeatability (dB) Laser output powe Modulation Note 62 CWDM lase Note 32 For 15 min, Note 82 For 15 min, Parameters Battery life Size Weight LCD size Case Dust cap Memory STANDARD AC	r wavelengths typ. ± ∆ 2°C, <i>i</i> max, ± ∆ 3°C Laser// Power 190 × 1 420 gr 74 × 5: Polyca resista Captiv Test re USB m	Adjur 270 Hz. 1 kHz 1270, 1290, (1310), 11, 11270, 1290, (1310), 11, 1147, 1290, (1310), 12, 120, 1290, 120,	table over 7 dB in 0.01 dB .2 kHz ± 2 %, 12 multi-File 330, 1350, 1370, 1390, 1410, - -25 dB (alue urs in Autotest, typical ty	steps er ID tones, 2 Hz bil 430, 1450, 1470, 1490 Paran Operat Relativ Tone d Recom calibrat re Power	NA nk for VisiTester 1510, 1530, (1550), 157 heters heters humidity tetection 151 mended 3 y ion cycle 2 set min in	0, 1590, 1610 nm Value 5 to 55 °C / - 25 to 70 °C - 95 % 0 - 9900 Hz ± 1 % years Alkaline AA cells or 2 x N Hectable charging: Ext incro-USB or USB-C	iMH AA cells. user power input via <u>degending</u> auto-off, low lisplay				
			repeatability (dB) Laser output powe Modulation Note 67, CV/DM lase Note 78, For 15 min, Note 89, For 15 min, Note 89, For 15 min, Parameters Battery life Size Weight LCD size Case Dust cap Memory STANDARD AC Description SC/SC (OPT046)	r wavelengths typ. ± ∆ 2°C, t max, ± ∆ 3°C Laser// Power 190 × 1 420 gr 74 × 5: Polyca resista Captiv Test re USB m CESSORIF	Adjur 270 Hz. 1 HHz 1270, 1290, (130), 11, 1270, 1290, (130), 11, 1270, 1290, (130), 12, 1270, 1290, (130), 12, 1270, 1290, 1290, 1290, 1290, 1290, 1270, 1290, 1	table over 7 dB in 0.01 dB .2 kHz ± 2 %, 12 multi-File 330, 1350, 1370, 1390, 1410, - -25 dB (alue urs in Autotest, typical ty	steps er ID tones, 2 Hz bil 430, 1450, 1470, 1490 Paran Operat Relativ Tone d Recom calibrat re Power	NA nk for VisiTester 1510, 1530, (1550), 157 heters heters humidity tetection 151 mended 3 y ion cycle 2 set min in	0, 1590, 1610 nm Value 5 to 55 °C / - 25 to 70 °C - 95 % 0 - 9900 Hz ± 1 % years Alkaline AA cells or 2 x N Hectable charging: Ext incro-USB or USB-C	IIMH AA cells, user power input via depending depending of able auto-off, low isplay Quantity 1 per port				
			repeatability (dB) Laser output powe Modulation Note 62, CWDM lase Note 78, For 15 min, Note 89, For 15 min, Parameters Battery life Size Weight LCD size Case Dust cap Memory STANDARD AC Description SC/SC (OPT046) SC/LC (OPT046)	r wavelengths typ. ± ∆ 2°C, 4 max, ± ∆ 3°C Laser/ Power 190 × 1 420 gr 74 × 5: Polyca resista Captiv Test re USB rr USB rr USB rr	Adjur 270 Hz. 1 kHz 1270, I290, (1310), 131 11270, I290, (1310), 131 11270, I290, (1310), 131 11270, I290, I290, I290, I290, I290 I290, I290, I2	table over 7 dB in 0.01 dB .2 kHz ± 2 %, 12 multi-File 330, 1350, 1370, 1390, 1410, - -25 dB (alue urs in Autotest, typical ty	steps er ID tones. 2 Hz bi 430, 1450, 1470, 1490 A30, 1450, 1470, 1490 Relativ Tone d Recom Recom Recom e Power e Power	NA nk for VisiTester 1510, 1530, (1550), 157 heters heters humidity tetection 151 mended 3 y ion cycle 2 set min in	0, 1590, 1610 nm Value 5 to 55 °C / - 25 to 70 °C - 95 % 0 - 9900 Hz ± 1 % years Alkaline AA cells or 2 x N Hectable charging: Ext incro-USB or USB-C	iMH AA cells user power input via <u>depending</u> on <u>able suto-off</u> low lisplay Quantity				
			repeatability (dB) Laser output powe Modulation Note 62 CWDM lase Note 28 For 15 min, Note 82 For 15 min, Parameters Battery life Size Weight LCD size Case Dust cap Memory STANDARD AC Description SC/SC (OPT046) SC/LC (OPT046) SC/SC (OPT046)	r wavelengths typ. ± ∆ 2°C, 4 max, ± ∆ 3°C Laser// Power 190 x 1 420 gr 74 x 5: Polyca resista Captiv Test re USB m CESSORII Hybrid adap Hybrid adap Hybrid adap	Adjur 270 Hz. 1 HHz 1270, 1290, (1310), 11, 1270, 1290, (1310), 11, 1270, 1290, (1310), 12, 1270, 1290, (1310), 12, 1270, 1290, 1200, 1290	table over 7 dB in 001 dB 2 6/tz ± 2 %, 12 multi-FiL 330, 1350, 1370, 1390, 1410, - -28 dB (alue urs in Autotest, typical typical 4,1 x 147) ang 15 Kg (3,3 lb.) edges & corners, molistu ested bail when open for 8,000 fibers, unlimite 400 & K/27400 series with eres/	steps er ID tones. 2 Hz bi 430, 1450, 1470, 1490 A30, 1450, 1470, 1490 Relativ Tone d Recom Recom Recom e Power e Power	NA nk for VisiTester 1510, 1530, (1550), 157 heters heters humidity tetection 151 mended 3 y ion cycle 2 set min in	0, 1590, 1610 nm Value 5 to 55 °C / - 25 to 70 °C - 95 % 0 - 9900 Hz ± 1 % years Alkaline AA cells or 2 x N Hectable charging: Ext incro-USB or USB-C	IMH AA cells, user power input via desending of a state able suco-off, low isplay Quantity 1 per port 1 per port				
			repeatability (dB) Laser output powe Modulation Note 62 CVDM lase Note 38 For 15 min, Note 69 For 15 min, Parameters Battery life Size Weight LCD size Case Dust cap Memory STANDARD AC Description SC/SC (OPT046) SC/LC (OPT046) SC/SC (OPT046) SC/SC (OPT046)	r wavelength typ. ± Δ 2°C, r A 3°C Laser/r A 3°C Laser/r A 3°C Powene 1190 r A 3°C Powene 1190 r A 11 190 r A 11 Polyca r exista Polyca r exista Polyca r exista Polyca Captivity Polyca r exista Polyca r exista Polyca r exista Polyca r exista Polyca r exista Polyca r exista Polyca r exista r exista r exista (Captivity Polyca r exista r exista r exista (Captivity Polyca r exista r exista r exista (Captivity Polyca r exista r exista r exista (Captivity Polyca r exista r exista r exista r exista (Captivity Polyca r exista r exista r exista (Captivity Polyca r exista r exista r exista (Captivity Polyca r exista r exis	Adjur 270 Hz. 1 kHz 1270, 1290, (1310), 11, 1270, 1290, (1310), 11, 1270, 1290, (1310), 11, 1270, 1290, (1310), 12, 1270, 1290, 1290, 1290, 1290, 1290, 1290, 1270, 129	table over 7 dB in 001 dB 2 kHz ± 2 %, 12 multi-Fib 330, 1350, 1370, 1390, 1410, - -25 dB (alue urs in Autotest, typical typical 4,1 x 147) ng 15 Kg (3,3 lb.) edges & comers, molistu ested bail when open -for 8,000 fibers, unlimite 400 & K(27400 series with eries) (series)	steps er ID tones. 2 Hz bil A30, 1450, 1470, 1490 A30, 1450, 1470, 1490 A30, 1450, 1470, 1490 A30, 1470, 1470, 1490 A30, 1470, 1470, 1490 A30, 1470,	NA nk for VisiTester 1510, 1530, (1550), 157 heters heters humidity tetection 151 mended 3 y ion cycle 2 set min in	0, 1590, 1610 nm Value 5 to 55 °C / - 25 to 70 °C - 95 % 0 - 9900 Hz ± 1 % years Alkaline AA cells or 2 x N Hectable charging: Ext incro-USB or USB-C	iMH AA cells user power input via <u>degending</u> out able auto-off, low lisplay Quantity 1 per port 1 per port 1 per port 1 1				
			repeatability (dB) Laser output powe Modulation Note 62, CWDM lase Note 78, For 15 min, Note 89, For 15 min, Parameters Battery life Size Weight LCD size Case Dust cap Memory STANDARD AC Description SC/SC (OPT046) SC/LT (OPT040) SC/ST (OPT040) SC/ST (OPT040) SC/ST (OPT040)	r wavelengtht syp. ± 4 2*C, + A 3*C Powers 199 × 1 4 2*C Powers 199 × 11 420 gr 420 gr	Adjus 270 Hz. 1 HHz 11270, 1290, (310), 13: 11270, 1290, (310), 13: 11270, 1290, (310), 13: 1200, 13: 100, 100, 100, 100, 100, 100, 100, 100,	table over 7 dB in 001 dB 2 6/tz ± 2 %, 12 multi-FiL 330, 1350, 1370, 1390, 1410, - -28 dB (alue urs in Autotest, typical typical 4,1 x 147) ang 15 Kg (3,3 lb.) edges & corners, molistu ested bail when open for 8,000 fibers, unlimite 400 & K/27400 series with eres/	steps er ID tones, 2 Hz bil A30, 1450, 1470, 1492 Paran Qoperat Relativ Relati	NA nk for VisiTester 1510, 1530, (1550), 157 heters heters humidity tetection 151 mended 3 y ion cycle 2 set min in	0, 1590, 1610 nm Value 5 to 55 °C / - 25 to 70 °C - 95 % 0 - 9900 Hz ± 1 % years Alkaline AA cells or 2 x N Hectable charging: Ext incro-USB or USB-C	IMH AA cells user power input via <u>depending</u> on able auto-off, low isplay Quantity 1 per port 1 per port				
			repeatability (dB) Laser output powe Modulation Note 62 CWDM lase Note 82 For 15 min, Note 89 For 15 min, Parameters Battery life Size Weight LCD size Case Dust cap Memory STANDARD AC Description SC/SC (OPT046) SC/LC (OPT046) SC/SC (OPT046) SC (OPT0	r wavelengthstyp ± & 24 × 7. × 7. × 7. × 7. × 7. × 7. × 7. × 7	Adjur 270 Hz. 1 kHz 1270, 1290, (1310), 11, 1270, 1290, (1310), 11, 1270, 1290, (1310), 11, 1270, 1290, (1310), 12, 1270, 1290, 1290, 1290, 1290, 1290, 1290, 1290, 1280, 129	table over 7 dB in 001 dB .2 kHz ± 2 %, 12 multi-Fib 330, 1350, 1370, 1390, 1410, - -25 dB (alue urs in Autotest, typical typical 4,1 x 1,4 - main Autotest, typical 4,1 x 1,4 - main Autotest, typical 4,1 x 1,4 - 4,1 x 1,4	steps er ID tones. 2 Hz bil stags, 1450, 1470, 1490 Alage, 1470, 1490 Parana Relative Tone d Recom Recam Relative Tone d Recom	NA nk for VisiTester 1510, 1530, (1550), 157 weters ing/Storage 1510, 1530, (1550), 157 weters ing/Storage 1510, 1530, (1550), 157 weters ing/Storage 1510, 1530, 157 weters 1510, 1530, 157 weters 1510, 1530, 157 152, 1530, 1530, 157 1510, 1530, 1570, 1530, 1	0, 1590, 1610 nm Value 5 to 55 °C / -25 to 70 °C 2 95 % 0 - 9900 Hz ± 1 % vears Alkaline AA cells or 2 × N Alkaline AA cells or 2 × N Alkaline AA cells or 2 × N tatetable charging. Ex- strument version: Select	iMH AA cells user power input via degending out able auto-off, low lisplay Quantity 1 per port 1 per port 1 1 1 1 1 1				
			repeatability (dB) Laser output powe Modulation Note 62, CWDM lase Note 78, For 15 min, Note 89, For 15 min, Parameters Battery life Size Weight LCD size Case Dust cap Memory STANDARD AC Description SC/SC (OPT040) SC/AC (OPT040) SC/SC (OPT040) SC (OPT040) SC/SC (OPT040) SC/SC (OPT040) SC	r wavelengthstyp ± 4 2°C, r/, v yp ± 4 2°C, r/, v Laser/ Power ± 4 3°C 190 x 1 190 x 1	Adjus 270 Hz. 1 HHz 11270, 1280, (1310), 11, 11270, 1280, (1310), 11, 11270, 1280, (1310), 11, 11270, 1280, (1310), 112 400, 11270, 11270, 11270, 11270, 11270, 105, 1250, 112700, 11270, 11270, 11270	table over 7 dB in Q01 dB 2 BHz ± 2 %, 12 multi-Fic 330, 1350, 1370, 1390, 1410, -28 dB (alue urs in Autotest, typical typical urs in Autotest, typical typical 4 x 1 x 1 47 ng 15 Kg (3,3 lb.) edges & comers, molstuu edges & comers, mo	steps er ID tones. 2 Hz bil stags, 1450, 1470, 1490 Alage, 1470, 1490 Parana Relative Tone d Recom Recam Relative Tone d Recom	NA nk for VisiTester 1510, 1530, (1550), 157 weters ing/Storage 1510, 1530, (1550), 157 weters ing/Storage 1510, 1530, (1550), 157 weters ing/Storage 1510, 1530, 157 weters 1510, 1530, 157 weters 1510, 1530, 157 152, 1530, 1530, 157 1510, 1530, 1570, 1530, 1	0, 1590, 1610 nm Value 5 to 55 °C / -25 to 70 °C 2 95 % 0 - 9900 Hz ± 1 % vears Alkaline AA cells or 2 × N Alkaline AA cells or 2 × N Alkaline AA cells or 2 × N tatetable charging. Ex- strument version: Select	IMH AA cells, user power input via depending on able auto-off, low isplay Quantity 1 per port 1 per port 1 1 1 1				
			repeatability (dB) Laser output powe Modulation Note 62 CWDM lase Note 78 For 15 min, Note 89 For 15 min, Parameters Battery life Size Weight LCD size Case Dust cap Memory STANDARD AC Description SC/SC (0PT046) SC/LC (0PT046) SC/LC (0PT0470) SC/ST (0PT040) SC/ST (0PT040) SC SC/SC/SM ⁻ SC-SCAPC MMF	r wavelengthstyp ± 4 2°C, r/, v yp ± 4 2°C, r/, v Laser/ Power ± 4 3°C 190 x 1 190 x 1	Adjur 270 Hz. 1 kHz 1270, 1290, (1310), 11, 1270, 1290, (1310), 11, 1270, 1290, (1310), 11, 1270, 1290, (1310), 12, 1270, 1290, 1290, 1290, 1290, 1290, 1290, 1290, 1280, 129	table over 7 dB in Q01 dB 2 BHz ± 2 %, 12 multi-Fic 330, 1350, 1370, 1390, 1410, -28 dB (alue urs in Autotest, typical typical urs in Autotest, typical typical 4 x 1 x 1 47 ng 15 Kg (3,3 lb.) edges & comers, molstuu edges & comers, mo	steps er ID tones. 2 Hz bil stags, 1450, 1470, 1490 Alage, 1470, 1490 Parana Relative Tone d Recom Recam Relative Tone d Recom	NA nk for VisiTester 1510, 1530, (1550), 157 weters ing/Storage 1510, 1530, (1550), 157 weters ing/Storage 1510, 1530, (1550), 157 weters ing/Storage 1510, 1530, 157 weters 1510, 1530, 157 weters 1510, 1530, 157 152, 1530, 1530, 157 1510, 1530, 1570, 1530, 1	0, 1590, 1610 nm Value 5 to 55 °C / -25 to 70 °C 2 95 % 0 - 9900 Hz ± 1 % vears Alkaline AA cells or 2 × N Alkaline AA cells or 2 × N Alkaline AA cells or 2 × N tatetable charging. Ex- strument version: Select	IMH AA cells user power input via desending on able auto-off, low isplay Quantity 1 per port 1 per port 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
			repeatability (dB) Laser output powe Modulation Note 62 CWDM lase Note 28 For 15 min, Note 82 For 15 min, Parameters Battery life Size Weight LCD size Case Dust cap Memory STANDARD AC Description SC/SC (OPT046) SC/SC	r wavelength typ ± å 2°C, i / k k a 2°C, i / k Laser/ Power 190 x 1 420 gr 74 x 5 Polyca reista 20 gr 74 x 5 Polyca 20 gr 74 x 5 Polyca 20 gr 75 Polyca 20 gr 20	Adjus 270 Hz. 1 HHz 11270, 1280, (1310), 11, 11270, 1280, (1310), 11, 11270, 1280, (1310), 11, 11270, 1280, (1310), 112 400, 11270, 11270, 11270, 11270, 11270, 105, 1250, 112700, 11270, 11270, 11270	table over 7 dB in Q01 dB 2 BHz ± 2 %, 12 multi-Fic 330, 1350, 1370, 1390, 1410, -28 dB (alue urs in Autotest, typical typical urs in Autotest, typical typical 4 x 1 x 1 47 ng 15 Kg (3,3 lb.) edges & comers, molstuu edges & comers, mo	steps er ID tones. 2 Hz bil stags, 1450, 1470, 1490 Alage, 1470, 1490 Parana Relative Tone d Recom Recam Relative Tone d Recom	NA nk for VisiTester 1510, 1530, (1550), 157 weters ing/Storage 1510, 1530, (1550), 157 weters ing/Storage 1510, 1530, (1550), 157 weters ing/Storage 1510, 1530, 157 weters 1510, 1530, 157 weters 1510, 1530, 157 152, 1530, 1530, 157 1510, 1530, 1570, 1530, 1	0, 1590, 1610 nm Value 5 to 55 °C / -25 to 70 °C 2 95 % 0 - 9900 Hz ± 1 % vears Alkaline AA cells or 2 × N Alkaline AA cells or 2 × N Alkaline AA cells or 2 × N tatetable charging. Ex- strument version: Select	IMH AA cells, user power input via depending of depending on able auto-off, low isplay Quantity 1 per port 1 per port 1 1 1 1 1 1 1 1 1 set 1				
			repeatability (dB) Laser output powe Medulation Note 67, CVIDM less Note 78, For 15 min, Note 89, For 15 min, Parameters Battery life Size Weight LCD size Case Dust cap Memory STANDARD AC Description SC/SC (OPT040) SC/ST (OPT040) S	r wavelengthstyp ± å 2°C, i / a 2°C, i / b 2	Adjus 270 Hz. 1 HHz 11270, 1280, (1310), 11, 11270, 1280, (1310), 11, 11270, 1280, (1310), 11, 11270, 1280, (1310), 112 11270, 1280,	table over 7 dB in Q01 dB 2 BHz ± 2 %, 12 multi-Fic 330, 1350, 1370, 1390, 1410, -28 dB (alue urs in Autotest, typical typical urs in Autotest, typical typical 4 x 1 x 1 47 ng 15 Kg (3,3 lb.) edges & comers, molstuu edges & comers, mo	steps er ID tones, 2 Hz bil er ID tones, 2 Hz bil data ato, 1470, 1490 Paran P	NA nk for VisiTester (1510, 1530, (1550), 157 heters ing/Storage -15 humidity 0 etection 1510, isso, (1550), 157 mended 3) ion cycle 2 se min in bit bit KI27400 series with 1	0, 1590, 1610 nm Value 5 to 55 °C / -25 to 70 °C 2 95 % 0 - 9900 Hz ± 1 % vears Alkaline AA cells or 2 × N Alkaline AA cells or 2 × N Alkaline AA cells or 2 × N tatetable charging. Ex- strument version: Select	IMH AA cells, user power input via depending depending able auto-off, low lippiay 1 per port 1 per port 1 1 1 1 1 1 1 1 1 1 1 set 1 1 1 1 1 1				