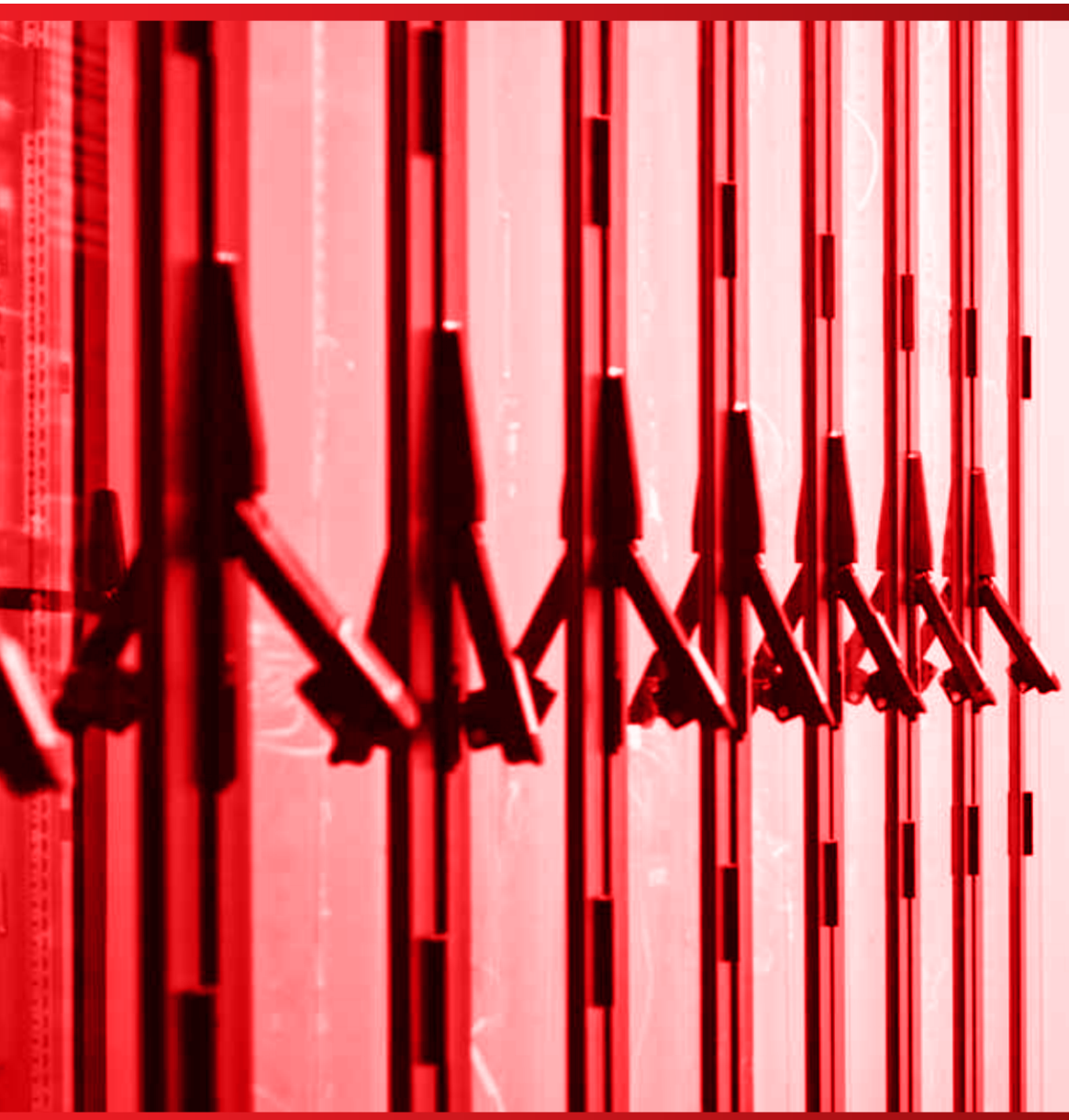
SENKO®
Advanced Components

Network Maintenance



CLEANING

INSPECTION

CONNECT

TESTING

Smart Solutions for the Fiber Optic Industry

SENKO®
Advanced Components

CLEANING AND INSPECTION pg. 10

- SMART CLEANER
- SMART CLEANER REPLACEABLE CARTRIDGE
- SMART CLEANER MINI
- SMART CLEANER MPO
- CASSETTE CLEANER
- SMART PROBE Wi-Fi
- DIGITAL FIBER VIEW

TEST & TROUBLESHOOTING pg. 18

- SMART SOURCE
- SMART METER
- SMART CHECKER
- MPO 12 SMART CHECKER

KITS pg. 22

- MAKE YOUR OWN KIT
- FIBERVIEW KIT
- FTTX KIT
- XP INSTALLATION KIT

XP FIT PLUS Field Termination Connectors pg. 32

- SC FIELD ASSEMBLY CONNECTORS
- LC FIELD ASSEMBLY CONNECTORS

SENKO®
Advanced Components

Smart Solutions for the Fiber Optic Industry

Smart Probe™ for Fiber Inspection

The Smart Probe allows technicians to inspect the fiber endfaces, providing a high-definition image with a resolution up to 720px.



Images are captured digitally and streamed on the monitor of any Android Tablet or Smartphone.

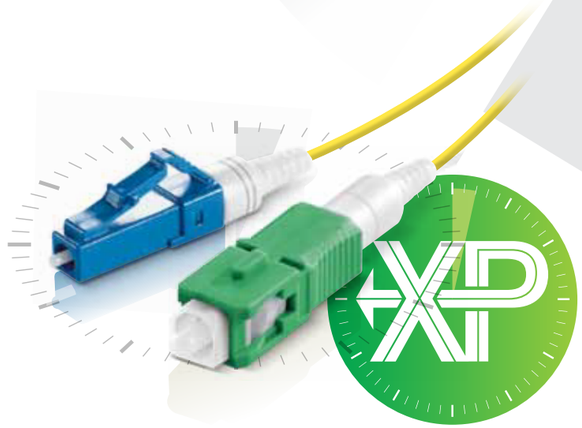
INSPECT

Smart Cleaner™ for Fiber Cleaning

Introducing the new cleaners for MPO, SC, LC optical connectors. Expanding its lineup of optical cleaners, Senko is able to respond to an even wider range of its customers needs.



CLEAN



CONNECT

XP Fit Plus™ Field Installable Connector

The XP Fit Plus is a pre-polished, pre-assembled connector that uses index matching gel. An internal mechanical grip, gently but effectively holds the fiber in place and can be installed in under 2 minutes. Without polishing or adhesives the XP Fit Plus makes on site installations quick and easy, diminishing the need for epoxy curing and hand polishing at the work site.

SENKO®
Advanced Components

Over 50 percent of all network failures are caused by contamination.

CLEAN

When to clean?

Whenever you make a fiber optic connection in any network

Smart Cleaner™



INSPECT

What to inspect?

Old jumpers, New jumpers, OTDR Launch, Test Leads, Fiber Trunk, MPO Connectors

Smart Probe™



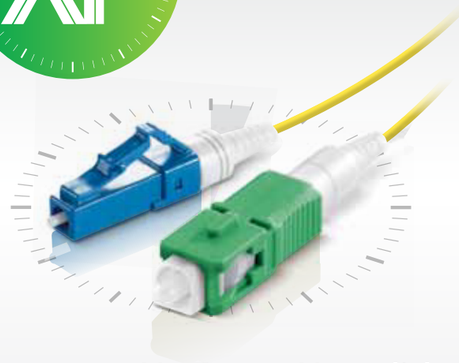
WIRELESS DEVICE
Wi-Fi Transmitter on board

It is imperative that connectors be inspected and cleaned prior to mating.

CONNECT

Easy installation in under 2 minutes

XP Fit Plus™
Field Installable



No Epoxy, No polish field termination in 2 minutes

TEST

Quick and easy solutions to trouble shoot and test your fiber optic network



OPTICAL CONNECTOR CONTAMINATION

What do the standards say?

The test procedures specified by 568-C require tools and procedures for **ensuring connector quality.**

- **End faces on cords and trunks shall be in accordance to IEC 6100-3-35.**
- **Use a microscope that is compatible with IEC 61300-3-35**
- **The microscope must use adapters that are compatible with connectors.**

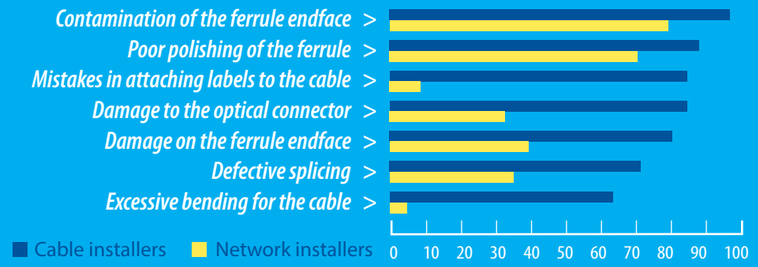
What is IEC 61300-3-35?

- **A set of requirements for Fiber Optic connector quality.**
- **Designed to guarantee insertion loss and return loss performance**
- **Used as reference between supplier & customer**
- **Used as condition for accurate testing of components and links.**

General Acceptance Criteria

Separate criteria for different connector types, and performance.

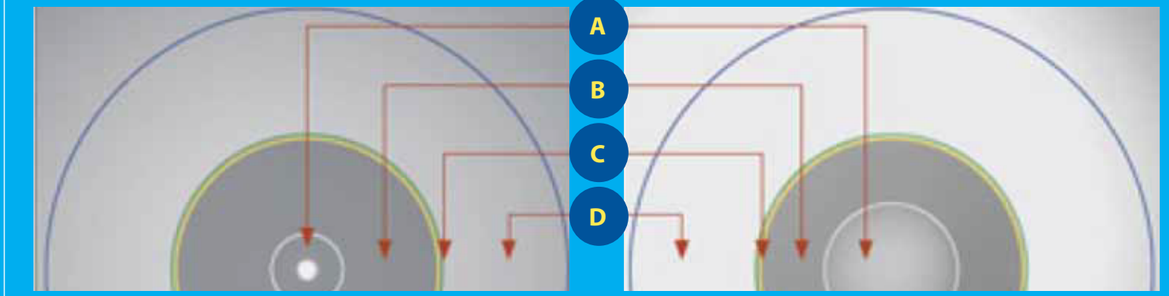
- **SM-UPC IL <= 0.30dB/RL>55dB**
- **SM-APC IL <=0.35dB/RL>65dB**
- **MM-PC IL <0.35dB**
- **Multi Fiber SM IL <0.50dB/RL> 60dB**
- **Multi Fiber MM IL <0.50dB**



In a recent study, 98% of installers (blue) and 80% of network owners (yellow) reported that issues with connector contamination was the greatest cause of network failure.

Source of data NTT

Example of fiber end faces and respective zones



Single mode UPC

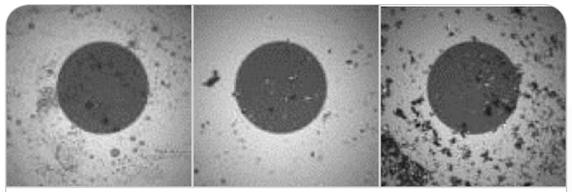
Zone Name		SCRATCHES	DEFECTS
A	CORE (0-25µm)	None	None
B	CLADDING (25-120µm)	No Limit<=3µm None> 3µm	No limit< 2µm 5 from 2-5µm None > 5µm
C	ADHESIVE (120-130µm)	No Limit	No Limit
D	CONTACT (130-250µm)	No Limit	None => 10µm

MM Connector

Zone Name		SCRATCHES	DEFECTS
A	CORE (0-65µm)	None	4<= 5µm None > 5µm
B	CLADDING (65-120µm)	No Limit<=3µm None> 5µm	No limit< 2µm 5 from 2-5µm None > 5µm
C	ADHESIVE (120-130µm)	No Limit	No Limit
D	CONTACT (130-250µm)	No Limit	None => 10µm

What happens if the optical connector end face becomes contaminated?

Examples of common contaminants adhering to end face:



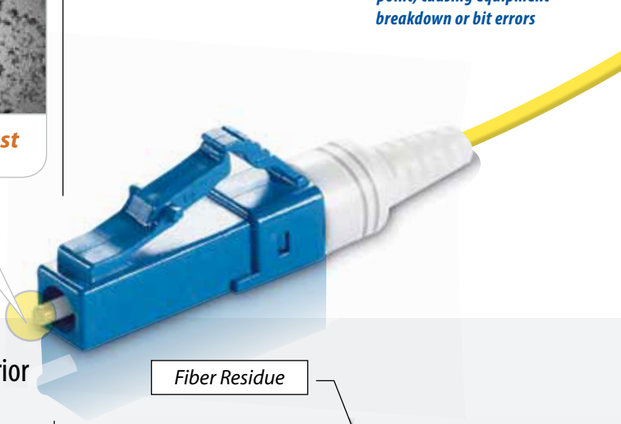
Hand Lotion *Fiber Residue* *Dirt and Dust*

Troubles caused by connector end face contamination

Light is transmitted poorly or not at all

Light is reflected back to connection point*

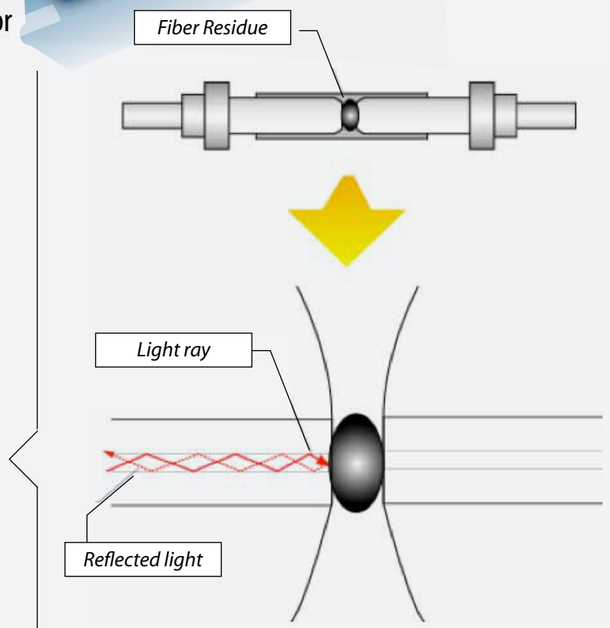
**returning to the transmission point, causing equipment breakdown or bit errors*



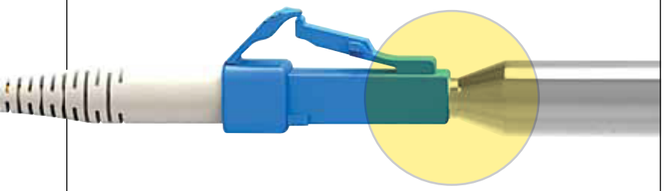
Optical connector must have no contamination prior to mating

What can happen when the optical end face is dirty?
The beam of light may not be able to travel through the core. Optical connectors become contaminated from a variety of reasons. Usually 2-15 micron sized contaminants will have an impact on the signal transmission and could cause damage to the optical end face. The majority of network down time is caused by optical connector contamination.

Light beam is prevented from passing through due to contaminants on the end face, resulting in light reflection.



What can happen when contaminants adhere to the core?



Mating a clean connector to a dirty connector

When the unclean optical connector is mated, the contaminant is forced into the ferrule and may become permanently damaged. In this situation, the damage cannot be removed with an optical cleaner.



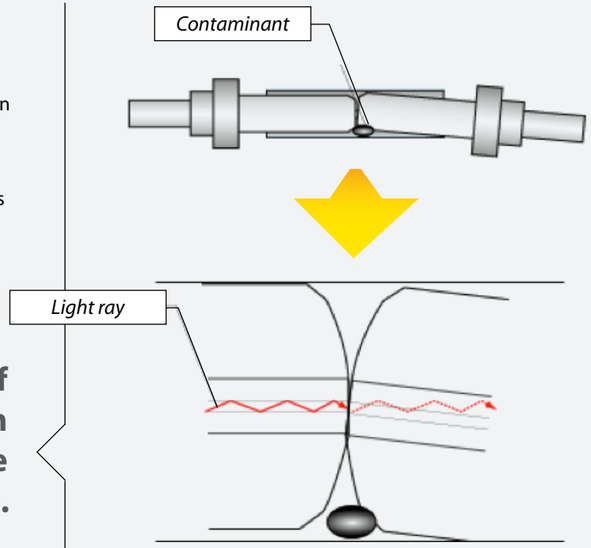
Clean connector

Dirty connector

Dirty or Damaged connector

When contaminants adhere to the core, they will cause increase in signal interruption and increase amount of insertion loss and degradation of return loss. Also, these kinds of contaminants can cause chips, pits, and scratches in the connector end face under the pressure of the physical connection. Large contaminants can result in gaps in the physical connection, resulting in increased loss. These kinds of contaminants can actually spread and migrate by the physical connection.

Contaminants at the side of the ferrule prevent light from properly passing through due to poor alignment.



Where High Power Lasers are used

When residue or contaminants adhere to the optical connector, it will produce heat. This not only could melt the optical fiber, but could also destroy devices and equipment.

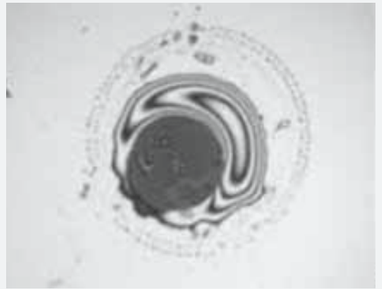
Core damage caused by high power laser in contact with end face contaminants



Why not IPA?

- Infinitely hydroscopic-self contaminating
- Slow drying (hangs in slit of alignment sleeve, and guide pin holes in MPO)
- Bottled IPA is easily contaminated during handling
- Leaves Residue

Residue remains after cleaning with IPA





The Smart Probe allows technicians to inspect the fiber endfaces, providing a high-definition image with a resolution up to 720px.

Smart Probe™ for Fiber Inspection



Wi-Fi STREAMING

Images are captured digitally and streamed on the monitor of any Android Tablet

Smart Cleaner™

make the switch Orange is better

FEATURES

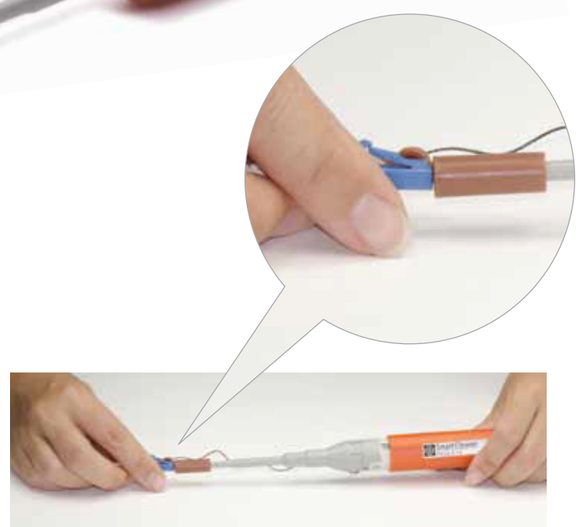
- Designed for all types connectors
- Compact size for easy hand-held operations
- Dry-clean without the use of harmful substances
- Cleaning micro fibers are densely stranded and debris free
- Replaceable cartridge
- Constructed with anti-static material.
- 750+ cleanings per unit
- Easy pushing motion engages connector and initiates cleaner
- Extendable tip reaches recessed connectors
- Cleaning system rotates 180 for a full sweep



The Smart Cleaner is a dry cloth cleaner specifically designed to clean connections of patch cords, in adapter, faceplates and bulkheads.





Smart Cleaner

REPLACEMENT CARTRIDGE TYPE

Smart Cleaner™

750+ CLEANINGS **FOR EACH CARTRIDGE**

ORDER CODE	DESCRIPTION
SCK-SS-125	Smart Cleaner 1.25 for LC, MU
SCK-SS-250	Smart Cleaner 2.50 for SC, FC, ST, E-2000

SPECIFICATIONS

Product Name	Smart Cleaner 1.25	Smart Cleaner 2.50
Compatible Connectors	MU, LC PC and APC	SC, FC, ST, E-2000 PC and APC
Attachment Color	Brown	White



Designed to specially work well with the LC/MU and SC/FC/ST/E-2000 connectors, this instrument cleans the ferrule end faces removing dust, oil, and other debris without nicking or scratching the end face. The SENKO Fiber Optic Cleaner for simplex connections is a dry cloth cleaner specially designed to clean single fiber connectors. Designed as an adapter, the dust cap of the cleaner acts as an adapter for cleaning unmated connectors.

Replacement Cartridges

SMART CLEANER 1.25 AND 2.50

Smart Cleaner™

750+ CLEANINGS **FOR EACH CARTRIDGE**

ORDER CODE	DESCRIPTION
SCK-SS-125-R	Replacement Cartridge for 1.25 (LC, MU)
SCK-SS-250-R	Replacement Cartridge for 2.50 (SC, FC, ST, E-2000)

SPECIFICATIONS

Product Name	Smart Cleaner 1.25	Smart Cleaner 2.50
Compatible Connectors	MU, LC PC and APC	SC, FC, ST, E-2000 PC and APC
Attachment Color	Brown	White



Senko's Smart Cleaner is composed of a replaceable cartridge containing the cleaning string and the retaining handle which holds it. The handle unit and the cartridge are sold as one unit, while replacement cartridges may also be purchased separately. Each pack contains 3 replacement cartridges (750+ Cleanings for each cartridge).

Smart Cleaner MINI



for **LC, MU**

for **SC, FC, ST, E-2000**

Designed to specially work well with the LC/MU and SC/FC/ST/E-2000 connectors, this instrument cleans the ferrule end faces removing dust, oil, and other debris without nicking or scratching the end face. The SENKO Fiber Optic Cleaner for simplex connections is a dry cloth cleaner specially designed to clean single fiber connectors. Designed as an adapter, the dust cap of the cleaner acts as an adapter for cleaning unmated connectors.

Smart Cleaner

400+ CLEANINGS **FOR EACH CLEANER**

ORDER CODE	DESCRIPTION
SSCK-SS-M-125	Smart Cleaner Mini 1.25 for LC, MU
SCK-SS-M-250	Smart Cleaner Mini 2.50 for SC, FC, ST

SPECIFICATIONS

Product Name	Smart Cleaner Mini 1.25	Smart Cleaner Mini 2.50
Compatible Connectors	MU, LC PC and APC	SC, FC, ST, E-2000 PC and APC
Attachment Color	Brown	White

- Designed for all types of simplex connectors
- Compact size for easy hand-held operations
- Dry-clean without the use of harmful substances
- Cleaning micro fibers are densely stranded and debris free
- Constructed with anti-static material
- 400+ cleanings per unit
- Easy pushing motion engages connector and initiates cleaner
- Extendable tip reaches recessed connectors
- Cleaning system rotates 180 for a full sweep

Smart Cleaner for MPO



Designed to work with MPO connectors, this instrument cleans the ferrule end faces removing dust, oil, and other debris without nicking or scratching the end face. The SENKO Smart Cleaner for MPO is a dry cloth cleaner to clean MPO connector with "push and click" mechanism. Like the other Smart Cleaner series, the cleaner the dust cap of the cleaner acts as an adapter for cleaning unmated connectors.

Smart Cleaner

600+ CLEANINGS **FOR EACH CLEANER**

ORDER CODE	DESCRIPTION
SCK-SS-MPO	Smart Cleaner MPO

SPECIFICATIONS

Product Name	Smart Cleaner MPO
Compatible Connectors	MPO, MTP
Compatible End Face	Compatible with flat and 8 degree angled endface with or without guide pins

- Designed for all types of multifiber connectors
- Cleans jumper end face both male and female
- Compact size for easy hand-held operations
- Dry-clean without the use of harmful substances
- Cleaning micro fibers are densely stranded and debris free
- Constructed with anti-static material
- 600+ cleanings per unit
- Easy pushing motion engages connector and initiates cleaner

Cassette Cleaner



The Cassette Cleaner wipes away contaminants from optical connector end face with ease. Just as with our previous products, the cleaning tape does not produce dust, and provides special cleaning strength while resisting foreign particles to mix into the tape. The main body also is made from antistatic material. The tape advance mechanism has been simplified, reducing the number of assembly parts to a minimum resulting in cost reductions for both manufacturing and assembly.

Smart Cleaner

400+ CLEANINGS **FOR EACH CLEANER**

ORDER CODE	DESCRIPTION
SCK-CC-100	Cassette Cleaner

SPECIFICATIONS

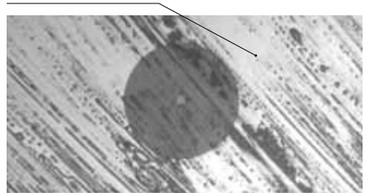
Product Name	Cassette Cleaner
Compatible Connectors	SC, FC, ST, E-2000, LC, MU PC and APC
Cleanings	400+ (tape cannot be replaced)
Dimensions	W 115mm × H 55mm × D 25mm

- Designed for all types of connectors
- Compact size for easy hand-held operations
- Dry-clean without the use of harmful substances
- Cleaning micro fibers are densely stranded and debris free
- Constructed with anti-static material
- 400+ cleanings per unit

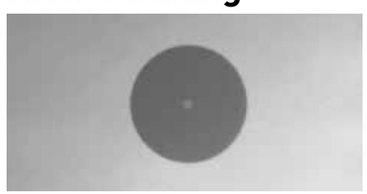


Before Cleaning

Oil Contamination



After Cleaning



Smart Probe™
for Fiber Inspection

The Smart Probe allows technicians to inspect the fibre endfaces, providing a high-definition image

WIRELESS DEVICE
Wi-Fi Transmitter on board



*Tablet/phone not included

ANDROID APP ON Google play

Images are captured digitally and streamed on the monitor of any compatible device

The FTTA Smart Probe allows technicians to inspect the fiber endfaces. Images are captured digitally and streamed on the monitor of any Android Tablet or Smartphone. The FTTX Smart Probe is an ergonomically designed, compact, Wi-Fi probe for smart phones and tablets. Featuring integrated Wi-Fi module and left/right handed thumb or finger operation for greater ease of use and convenience. Incorporating high resolution sensor outputting 960 x 544 pixel resolution images at 16:9 aspect ratio, the Smart Probe can easily view two MT/MPO fibers rather than just a single fiber. The App, available from Google Play, includes digital zoom and still capture capabilities.

FEATURES

- WiFi streaming: easily connect with Smartphones and Tablets
- Replaceable and rechargeable battery
- Available adapter tips (LC, SC, FC, ST, DIN, MPO)
- High-Definition image
- True completely wireless probe.
- Integrated Wi-Fi module
- Highly compact easy to use design
- Left or right handed thumb/finger operation
- Free Smart Phone/Tablet app with digital zoom and still capture functions
- Tips for all common connector types for both patchcord and patch panel inspection

Smart Probe™

Smart Probe Wi-Fi
FOR FIBER INSPECTION



MPO Tip Up to 24F Available

- For SM & MM MPO (up to 24F)
- High precision alignment
- Available in APC and PC version



Visualization of MT 12 fiber connector end face (two fibers of MT 12 fiber connector)

ORDER CODE	DESCRIPTION
SCK-VM2000-01	Smart Probe Wi-Fi

SPECIFICATIONS

Field of View	457µm x 259µm
Image Resolution	960 x 544
Magnification	328 (based on 7" tablet screen)
Frame Rate	15 fps
Video Format	MJPG
Still Format	JPEG
Sensor Type	CMOS Monochrome
Zoom Magnification	Digital x1.25; x1.5; x2:
Illumination Method	Coaxial
LED	Blue LED (470nm)
Connectivity	Wi-Fi 802.11 b/g/n
Wireless Signal Rates	11n: up to 150Mbps (dynamic) 11g: up to 54 Mbps (dynamic) 11b: up to 11 Mbps (dynamic)
Frequency Range	2.412Ghz (channel 1)
Power	2 x Removable BL-5C Batteries
Operating Time	3 hours Continuous Operation
Operating Temperature	-10°C ~ +50°C
Storage Temperature	-30°C ~ +100°C
Weight	147g including 2 x BL-5C batteries 138g including 2 x BL-4C batteries
Dimension Without Tips	137.7mm (L) x 40.0mm (H) x 37.4mm (W)
Relative Humidity	10% - 90%, Non-Condensing
Storage Humidity	5% - 90%, Non-Condensing
Software	Live image (inspection) and still capture viewing. Zoom (live image) and stills capture functions
OS Compatibility	Android 4.0.1 (API level 14) and above

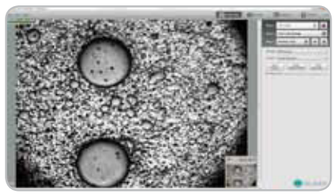
DISPOSABLE TIPS

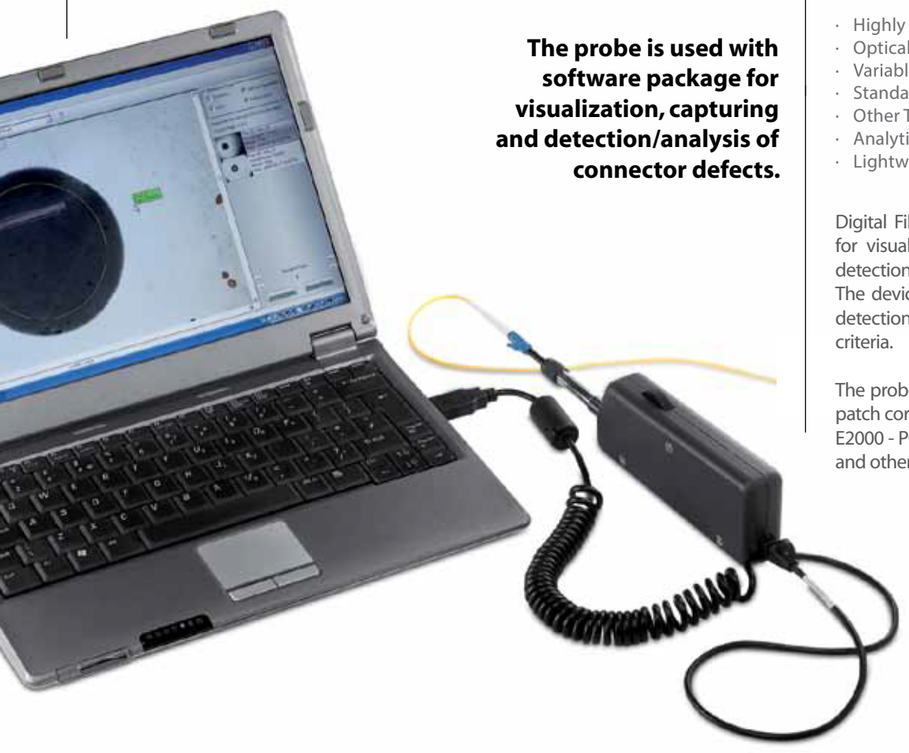
PICTURE	PART NUMBER	DESCRIPTION	PICTURE	PART NUMBER	DESCRIPTION
	SCK-FTV-LC/MU	LC and MU In Adapter Tip		SCK-FTV-SC/FC	SC and FC In Adapter Tip
	SCK-FTV-SCAPC	SC APC In Adapter Tip		SCK-FTV-ST	ST In Adapter Tip
	SCK-FTV-PC250	2.5mm Universal Tip For Digital FTTX Fiber View		SCK-FTV-APC250	2.5mm APC Universal Tip

Digital Fiber View









The probe is used with software package for visualization, capturing and detection/analysis of connector defects.

ORDER CODE	DESCRIPTION
SCK-VM1000-3	Digital Fiber View

SPECIFICATIONS

Field of View	d = 0.4 mm
Defect SizeDetection	0.5 µm
Optical Resolution	2 µm
Magnification	560× (variable)
Light Source	Blue LED, wave length 470nm
Camera Type	Digital
Sensor Type	1280 x 1024 Monochrome 1/2" CMOS
Live Image	800 x 800, 28 fps default 1280 x 1024, 14 fps full resolution
Power Source	USB 2.0 Port of PC
Cable Connector	USB 2.0
Dimensions (H x W x L)	56.3 x 25 x 201 mm (2.22 x 0.98 x 7.91 inches)
Weight	330 g (0.73 lbs)
Housing Material	Aluminum
Barrel Material	Stainless Steel

FEATURES

- Highly Portable
- Optical Resolution to 0.5um
- Variable Magnification
- Standard 2.5mm PC Tip
- Other Tips Available
- Analytical Software
- Lightweight Rugged Carry Case

Digital Fiberview is a digital inspection probe for visualization of connector end faces and detection/analysis of connector defects.
The device features high resolution, fiber auto detection/centering and user defined Pass/Fail criteria.

The probes can be used for either bulkhead or patch cord inspection, such as SC, FC, ST, LC, MU, E2000 - PC & APC as well as MT, MTP/MPO, SMA and other military connectors.

USB

Report in MS Excel

Visual inspection single port fiber

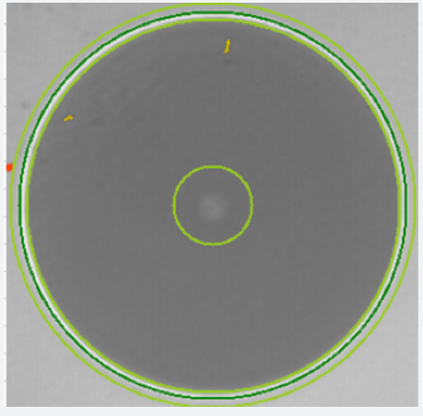
Test name:	25
Test ID:	25
Preset:	IEC PC SM RL 45 dB
Device:	SMX-Scopio
Hardware ID:	4022
SMX-Scopio inspection:	2.1.55.1977
Operator:	Operator 1

FAIL

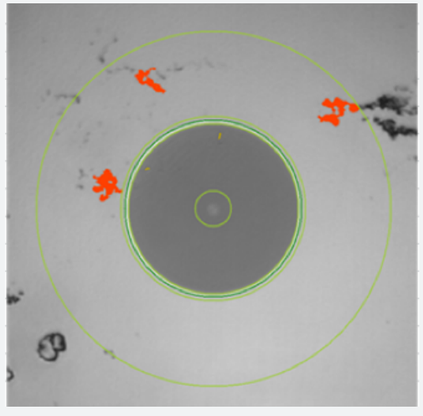
Inspection summary

ZONE	Diameter (um)		Anomalies					
	Inner	Outer	Type	Criterion	Size range	Result	Count	Allowed
A	0	25	Scratch	Width	>0	PASS	0	0
			Defect	Encompassing circle diameter	>0	PASS	0	0
B	25	120	Scratch	Width	>3	PASS	0	5
			Defect	Encompassing circle diameter	2-5	PASS	2	5
			Defect	Encompassing circle diameter	>5	PASS	0	5
C	120	130						
D	130	250	Defect	Encompassing circle diameter	>10	FAIL	3	5

Fiber View



Full View



Smart Source



Smart Source is ideal for field or laboratory testing of optical communication systems at 850 nm / 1300 nm for datacom testing, 1310 nm / 1550 nm / CWDM 1270 nm ~ 1625 nm (20 nm spans) for all WDM testing, as well as 1490 nm for FTTX testing by using interchangeable SFP transceiver modules. Smart Source features zero warm up time, superb productivity and has an easy to use, pocket-sized, rugged design. The smart source can be changed to accommodate either SM or MM by simply switching out the SFP's. The lightweight hand held design eliminates the need to carry big and bulky test equipment.



ORDER CODE	DESCRIPTION
AFT-G-MF-LS	Smart Source Mainframe

SPECIFICATIONS

Laser Class	Class 1
Wavelength (nm)	Select required wavelength Smart Source SFP Plug-In module and order separately
Output Power	1mW @ 25°C into singlemode fiber
Mode	CW/2 kHz Pulse
Battery Type	AAA 1.5Vx2
Output Power Accuracy	+/-0.2 dB
Stability (8 Hours)	+/-0.05 dB
Operating Temperature	0~ 50°C
Storage Temperature	0~ 70°C

FEATURES

- No pre-warm up time
- Interchangeable SFP module design for wavelength flexibility
- Excellent output wavelength stability
- Excellent re-connection repeatability
- Low Voltage Battery warning
- Compatible to LC Connectors

Interchangeable Modules for Smart Source



FEATURES

- Lightweight and portable
- Excellent wavelength stability
- Excellent output power stability
- Also available in other wavelengths*

ORDER CODE	DESCRIPTION
AFT-G-LS-S-1550	SM SMART SOURCE SFP Module 1550
AFT-G-LS-S-1310	SM SMART SOURCE FP SFP Module 1310
AFT-G-LS-M-1300	MM SMART SOURCE SFP Module 1300
AFT-G-LS-M-850	MM SMART SOURCE SFP Module 850 VCSEL

SPECIFICATIONS

Laser Class	Class 1
Wavelength (nm)	Select the required wavelength Smart Source SFP Plug-In module and order separately
Output Power	1mW @ 25°C into singlemode fiber
Mode	CW/2 kHz Pulse
Battery Type	AAA 1.5Vx2
Output Power Accuracy	+/-0.2 dB
Stability (8 Hours)	+/-0.05 dB
Operating Temperature	0~ 50°C
Storage Temperature	0~ 70°C

Note:* Other Wavelength options such as 850, 1300, 1310, 1550 1270, 1290, 1310, 1330, 1350, 1370, 1390, 1410, 1430, 1450, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1625 available upon request.

Smart Meter



FEATURES

The Smart Meter measures power in both 850 nm / 1300 nm (Multimode) and 1310nm ~ 1625nm (Singlemode) respectively. The SENKO smart meter, in conjunction with the SENKO smart source is an effective, quick way to test and certify a fiber optic link. The meter comes in multimode and single mode with respective wavelengths at 850/1300 MM and 1310/1550 SM.



Smart Meter
2.5 (SC, FC, ST) to LC (1.25)
Conversion Adapter



ORDER CODE	DESCRIPTION
AFT-G-FM-3DG-S	SM Smart Meter 1310/1550nm 3 digits
AFT-G-FM-2DG-M	MM Smart Meter 850/1300nm 2 digits
AFT-G-CAM	2.5 mm to 1.25 mm Adapter

SPECIFICATIONS

Wavelength (Multimode)	850 nm/ 1300 nm
Optical Power Range (Multimode)	-30 dBm ~ -15 dBm
Wavelength (Singlemode)	1310nm ~ 1625nm
Optical Power Range (Singlemode)	-40dBm ~ +5dBm
Battery	AAA 1.5VX2
Resolution	1 dBm/ 0.1dBm
Fiber Connector	Universal Type
Display	2 Digit (MM) / 3 Digit (SM)
Operating Temperature	0~ 50°C
Storage Temperature	0~ 70°C

Smart Checker

VISIBLE FAULT LOCATOR



Refraction of the 650nm red light caused by any breaks and or cracks in the fiber will glow red, thus giving an exact visual location of the fault in the fiber.



Smart Checker
2.5 (SC, FC, ST) to LC (1.25)
Conversion Adapter



ORDER CODE	DESCRIPTION
AFT-G-FC	SM Smart Checker 1310/1550nm 2 digits
AFT-G-CAC	2.5mm to 1.25mm Adapter

SPECIFICATIONS

Laser Class	Class 2M
Wavelength	650 nm +/-10 nm@ 25
Spectral Width	< 10nm
Output Power	>0.5 mW@ 25 into singlemode fiber
Mode	CW/ Pulse
Battery Type	AAA 1.5Vx2
Output Power Reliable	+/-0.2 mW
Transmitting Range	Visibility to 3 Km
Operating Temperature	0~ 50°C
Storage Temperature	0~ 70°C

FEATURES

- Continuous / Pulse Mode options
- Auto Power Control circuit design to provide a stable LD output power
- Low Voltage Battery warning signal in LED
- Compatible to SC / ST / FC / LC Connectors
- Visibility to 3 Km

MPO 12 Smart Checker

VISIBLE FAULT LOCATOR



OVERVIEW

The MPO Visible light source is a useful tool designed for checking the Fiber ports in both MM and SM assemblies, or checking for defects in a MPO arrayed fiber cable. It emits a visible 650nm wavelength visible red laser light through fiber optic cables; if there are breaks or defects in the fiber then the light will refract, creating a bright glow around the faulty area. The Laser Diode output signal can be switched from all fibers at the same time or sequentially through each individual fiber in either Continuous Wave Mode or Flashing Mode to obtain different visual effects.

ORDER CODE	DESCRIPTION
AFT-G-FC-MPO	MPO 12 Smart Checker

SPECIFICATIONS

Cable Compatibility	4, 8 and 12 channel MPO Single Mode and Multi-Mode
Measurement	Fibre continuity by Visible Fault Location
Functions	Individual fibre channels selected using rotary switch and two digit LED display Select mode for all channels: continuous wave or pulsed
Light Source and Detector	Red laser on each output channel
Power	Internal lithium battery, re-chargeable via USB port Capacity: 1400mAh, min. battery life: 5 hours
Laser Class	Class 2B
Wavelength	650 nm ± 10 nm @ 25 degC
Spectral Width	< 10 nm
Optical Output Power	> 0.4 mW @ 25 degC into 9 µm fibre
Light Emitting Range	> 3 km
Operating Temperature	0~ 50°C
Storage Temperature	0~ 70°C
Weight	0.65 kg
Dimensions	168mm (W), 128mm (D), 35mm (H)

INSPECT CLEAN CONNECT KITS

CLEANING

Smart Cleaner 1.25 or 2.50



Designed to specially work well with the LC/MU and SC/FC/ST/E-2000 connectors, this instrument cleans the ferrule end faces removing dust, oil, and other debris without scratching the end face.

Smart Cleaner Mini 1.25 or 2.50



Designed to specially work well with the LC/MU and SC/FC/ST/E-2000 connectors, this instrument cleans the ferrule end faces removing dust, oil, and other debris without scratching the end face.

Smart Cleaner MPO



Designed to work with MPO connectors, this instrument cleans the ferrule end faces removing dust, oil, and other debris without nicking or scratching the end face.

Cassette Cleaner



The Cassette Cleaner wipes away contaminants from optical connector end face with ease. The cleaning tape does not produce dust, and provides special cleaning strength.

Fiber Optic Cleaning Pen



This precision cleaner quickly cleans the end faces of fiber optic connectors, while eliminating electrostatic charge which can attract airborne contaminants to the end face.

Lint Free Wipes



These inexpensive tissues can be used dry or with several cleaning solvents to clean off ferrule endfaces or prepare fibers for termination and/or splicing.

Cleaning Solvent



This fast-acting cleaner can be used with dry fiber wipes or tissues to remove dirt and soils from optical fibers prior to termination and fiber optic splicing or to clean the end of connector ferrules.

4x4 NON-Woven Wipes

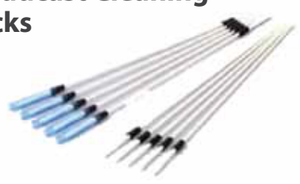


Non-Woven cloth wipes can be used alone or with alcohol or solvents. Provides superior cleaning of fiber optic connector ferrules without risk of scratching or lint residue.

Cleaning Stick 1.25 or 2.50



Broadcast Cleaning Sticks



INSPECTION

Smart Probe WiFi for fiber inspection



Digital FiberView with Inspection Software



TESTING

Smart Testers for network troubleshooting



Make your own kit

Choose the right product you want and need for your work, and create your own custom kit

Make Your Own Kit	PART NUMBER
Cassette Cleaner Disposable	SCK-CC-100
Smart Cleaner 1.25	SCK-SS-125
Smart Cleaner 2.50	SCK-SS-250
Smart Cleaner Mini 1.25	SCK-SS-M-125
Smart Cleaner Mini 2.50	SCK-SS-M-250
Smart Cleaner MPO	SCK-SS-MPO
Lint Free Wipes	AFT-A-KW
Fiber Optic Cleaning Pen	AFT-A-EWP
4x4 NON-WOVEN WIPES	AFT-A-NW
1.25 MM Stick 250 pcs.	CSK-01
2.5 MM Stick 250 pcs.	CSK-02
Broadcast Stick 200 pcs.	CSK-03
Cleaning Solvent (Not Available in Europe)	AFT-A-FS
Smart Probe Wi-Fi	SCK-VM2000-01
Digital FiberView	SCK-VM1000-01
Smart Source	AFT-G-MF-LS
Smart Meter	AFT-G-FM-3DG-S
Smart Checker	AFT-G-FC
Soft Case	AFT-A-CS-XP

We put everything in a Soft Case and we deliver it to you



CLEANING

Cartridge Type for use in Plugs



Pen Type Convertible for Plugs and Adaptors



Stick Type for Adaptors



Senko's Optical Connector Lineup creates reliability in telecommunications service

The cause of numerous problems in optical communication equipment is contamination of the end face of optical connectors. Senko has developed optical fiber cleaners with fiber specifically for optical connectors to help create a reliable telecommunications service. Senko's optical connector cleaners eliminate even the smallest contaminants that are visible only through magnification.

LC Adapter / MU Adapter



Ferrule End Face Cleaners



Cleaning Sticks 1.25 | Smart Cleaner Reusable 1.25 | Smart Cleaner Mini 1.25

E-2000 Adapter / SC Adapter





Cleaning Sticks 2.50 | Smart Cleaner Reusable 2.50 | Smart Cleaner Mini 2.50

FC Adapter / ST Adapter





Cleaning Sticks 2.50 | Smart Cleaner Reusable 2.50 | Smart Cleaner Mini 2.50

Multi-Core Connectors

MPO Plug



MPO Adapter

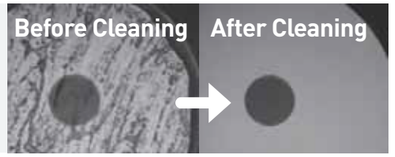


Ferrule End Face Cleaners



Smart Cleaner Cassette | Smart Cleaner MPO

Connector and Cleaner Compatibility



Why is cleaning optical connectors so important?

Contamination of the optical connector end face can easily occur. The transmission quality will be affected once the contaminants adhere to the 10μm diameter optical fiber core, and there is increased danger that the fiber end face will be damaged by any high powered light. Cleaning the optical connector end face is extremely important before making a connection.

LC Plugs / MU Plugs



Ferrule End Face Cleaners



Smart Cleaner Cassette | Smart Cleaner Reusable 1.25 | Smart Cleaner Mini 1.25

E-2000 Plugs / SC Plugs





Smart Cleaner Cassette | Smart Cleaner Reusable 2.50 | Smart Cleaner Mini 2.50

FC Plugs / ST Plugs





Smart Cleaner Cassette | Smart Cleaner Reusable 2.50 | Smart Cleaner Mini 2.50

For Video Equipment



LEMO Connector

Optimal compound connectors

Cleaners for Video Equipment

CLETOP Stick 2.0/2.5mm Double Ended



CLETOP Stick 2.0mm Type

Optimal cleaning for various video equipment (LEMO, Tajimi brand, etc.)

CLEANING YOUR CONNECTORS

Dry Cleaning
How to Dry Clean

Remember, always use the dry cleaning method first before attempting wet-dry cleaning.

Insert the jumper and push the outer shell to begin cleaning. A click sound will indicate that the cleaning is complete. Some mechanical cleaners are compatible with male and female jumpers as well as the MPO and other connectors.





Smart Cleaner
Single-fiber mechanical cleaner (male/female)



Smart Cleaner MPO
Multifiber mechanical cleaner (MTP/MPO, male/female)



Cassette Cleaner
Patch-cord mechanical cleaner (female only)

Dry cleaning using a mechanical cleaner is recommended as the first step. If, after two dry cleaning attempts, soil is still present on the connector, try Wet-Dry cleaning.

Wet-Dry cleaning
How to Wet-Dry clean

Wet-Dry cleaning is a mix of wet and dry cleaning methods and involves using a solvent. The first step is to clean the connector endface with a solvent and then dry any remaining residue with either a wipe or a swab. If, after using the Wet-Dry cleaning method, the connector still fails to meet the acceptance criteria, consider replacing the connector.



Fiber Optic Cleaning Pen
Used to dispense optical grade solvent to clean connectors



Cleaning Stick
Used to clean the inside of female connectors and adaptors



4x4 NON-Woven Wipes
Used in dry cleaning procedures and also used to dry off any solvent

How to Clean Using the Wet-Dry Method

1. Wet a corner of the wipe with solvent.
2. In a smooth linear motion, trace the endface of the jumper twice over the wet area.
3. In a smooth linear motion, trace the endface of the jumper three times over the dry area.







KITS

CLEANING & INSPECTION

Pre-packaged kits



FiberView Kit

CONTENT FOR FIELD INSTALLATION KIT	SENKO PN
Smart Probe Wi-Fi	SCK-VM2000-01
Smart Cleaner 1.25	SCK-SS-125
Smart Cleaner 2.50	SCK-SS-250
1 4x4 Non Woven Wipes	AFT-A-NW
1 Solvent	AFT-A-FS
Soft Case	AFT-A-CS-XP

Smart Probe WiFi for fiber inspection

ANDROID APP ON Google play

*Tablet not included

Smart Cleaner 1.25 or 2.50



Lint Free Wipes



Cassette Cleaner



CLEANING & INSPECTION

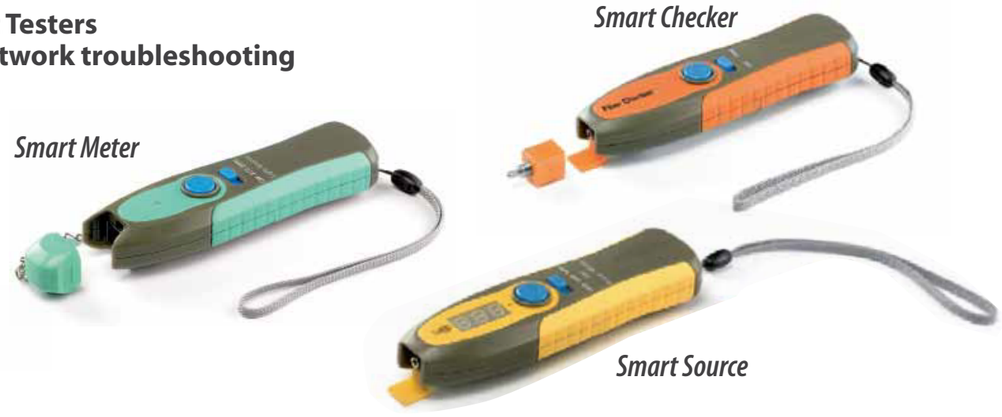
Pre-packaged kits



FTTX Kit

CONTENT FOR FTTX KIT	SENKO PN
Smart Source Mainframe	AFT-G-MF-LS
SM Smart Meter 1310/1550nm 3 digits	AFT-G-FM-3DG-S
MM Smart Meter 850/1300nm 2 digits	AFT-G-FM-2DG-M
2.5 mm to 1.25 mm Adapter	AFT-G-CAM
SM Smart Checker 1310/1550nm 2 digits	AFT-G-FC
2.5mm to 1.25mm Adapter	AFT-G-CAC
Smart Cleaner 1.25	SCK-SS-125
Smart Cleaner 2.50	SCK-SS-250
1 4x4 Non Woven Wipes	AFT-A-NW
1 Solvent	AFT-A-FS
Soft Case	AFT-A-CS-XP

Smart Testers for network troubleshooting



Smart Cleaner 1.25 or 2.50



Lint Free Wipes



Cassette Cleaner



FIELD INSTALLATION

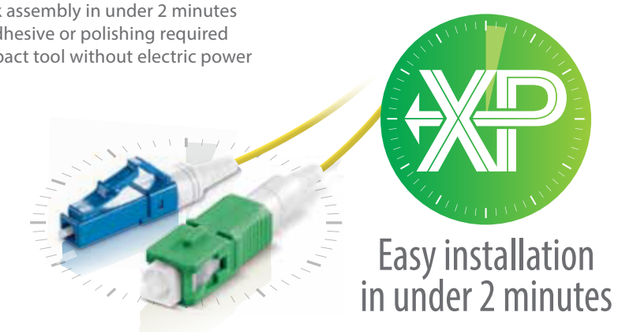
Pre-packaged kits



The XP-Fit Installation Kit contains everything needed for installation of the SC and LC XP FIT PLUS connectors. No epoxy, polishing film, or other consumables are required, and there is no need for electrical power, allowing installers to get in and out of installation sites quickly.

FEATURES

- Fast installation to minimize onsite labour costs
- Compatible with conventional LC & SC connectors and adaptors
- Easy operation
- Quick assembly in under 2 minutes
- No adhesive or polishing required
- Compact tool without electric power



Easy installation in under 2 minutes

XP Fit Installation KIT

ORDER CODE	DESCRIPTION
XPF-P-F	XP Fit Field Installation Kit with Flat Cleaver - PREMIUM
XPF-S-F	XP Fit Field Installation Kit with Flat Cleaver - STANDARD
XPF-P-A	XP Fit Field Installation Kit with Angled Cleaver

DESCRIPTION	SENKO PN
XP Fit Field Installation Kit with Flat Cleaver - PREMIUM	XPF-P-F
Jacket and 250µm Fiber Stripper + 125µm Buffer Remover	AFT-T-223-S
Thermal Buffer Removal Tool	AFT-T-TBR
Replacement Blade Set	AFT-T-TBR-R
Precision Cleave Tool (Flat) - Premium	AFT-T-CL-SMT
Lint Free Dry Wipes	AFT-A-KW
Fiber Optic Cleaning Pen	AFT-A-EWP
Kevlar Scissors	AFT-T-KS
Fibre Disposal Unit	AFT-A-FU
Fine Permanent Marker Pen	AFT-A-PMB
Fibre Checker	AFT-G-FC
2.5mm to 1.25mm Adapter	AFT-G-CAC
Launch Cables	XPF-TEST-KIT
Soft Case	AFT-A-CS-XP

DESCRIPTION	SENKO PN
XP Fit Field Installation Kit with Flat Cleaver- Standard	XPF-S-F
Precision Cleave Tool *(Flat) - Standard*	AFT-T-CL-01

Note: The contents of this Kit are the same as the XPFP- F, but alternatively, includes a Premium Flat Cleaver.

DESCRIPTION	SENKO PN
Content for XP Fit Field Installation Kit with Angled Cleaver	XPF-P-A
Precision Cleave Tool *(Angled)*	AFT-SE-AFC-08

Note: The contents of this Kit are the same as the XPFP- F, but alternatively, includes a Angled Cleaver.

Contents may vary according to region

FIELD INSTALLATION

Pre-packaged kits

1. Soft Case
2. Fibre Disposal Unit
3. Lint Free Wipes
4. Standard Cleaver
5. Smart Checker
6. Buffer Remover
7. Launch cables
8. Fiber Stripper
9. Kevlar scissors

XP Fit Installation KIT
content detail



Premium Cleaver Flat



Standard Cleaver Flat

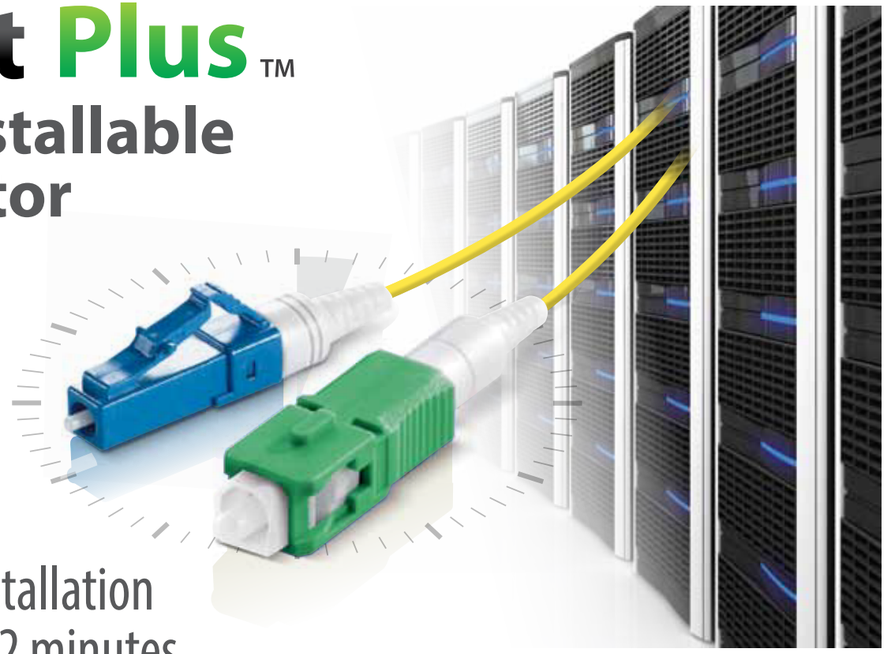


Precision Cleaver Angled



XP Fit Plus™

Field Installable Connector



Easy installation in under 2 minutes

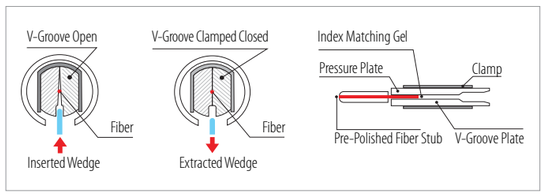
The SENKO XP Fit Plus is a pre-polished, pre-assembled connector compatible with standard SC and LC connectors. No epoxy is required as an internal mechanical grip effectively holds the fiber in place and can be installed in under two minutes. Without polishing or adhesives, the XP Fit Plus makes on site installations quick and easy, diminishing the need for epoxy curing and hand polishing at the work site. The XP Fit Plus comes with an assembly jig and fiber holder for 250µm and 900µm tight buffered fiber, ensuring accurate alignment and fiber cleave when terminating.



▶ 1 Cutting Fiber ▶ 2 Inserting Fiber ▶ 3 Take Out Connector

FEATURES

- Mechanical Splice (index matching gel)
- Highly Stable & Reliable
- Perfect Performance
- Compact Package
- RoHS Compliant
- Finished Connector meets UL94-V0 Flammability Rated
- TIA/EIA 568-C.3 Compliant



XP Fit Plus SC

FIELD INSTALLABLE CONNECTOR



PART NUMBER	DESCRIPTION	HOUSING	BOOT COLOR
318-191-627	XPFit Plus SC Connector SM: PC 900µm/250µm (120 pack)	Blue	White
318-091-427	XPFit Plus SC Connector SC: APC 900µm/250µm (120 pack)	Green	White
318-291-727	XPFit Plus SC Connector MM: 50/125 900µm/250µm (120 pack)	Black	White
318-391-927	XPFit Plus SC Connector MM: 62.5/125 900µm/250µm (120 pack)	Beige	White
318-491-527	XPFit Plus SC Connector MM: 50/125 10G OM3 900µm/250µm (120 pack)	Aqua	White
318-091-457	XPFit Plus SC Connector SC: APC Drop Cable	Green	Black

Note: 12 pack available Add -12 to existing part number

SPECIFICATIONS	SINGLEMODE	MULTIMODE
For XP Fit Plus SC	Typical	
Insertion Loss	0.2dB (PC) 0.3dB (APC)	0.1dB
Return Loss	55dB (PC) 60dB (APC)	35dB
Durability	<0.1dB change, 500 matings	
Operating Temperature	-40ºC to +75ºC	
Tensile	TIA/EIA 568-C.3	
Intermateability	IEC 61754-4	

Note: *Specifications shown above were obtained using SENKO recommended products and procedures.

Note: The connector performance specifications include an internal mechanical splice

XP Fit Plus LC

FIELD INSTALLABLE CONNECTOR



PART NUMBER	DESCRIPTION	HOUSING	BOOT COLOR
951-191-111	XPFit Plus LC Connector SM: PC 900µm/250µm (120pack)	Blue	White
951-291-411	XPFit Plus LC Connector MM: 50/125 900µm/250µm (120pack)	Black	White
951-391-211	XPFit Plus LC Connector MM: 62.5/125 900µm/250µm (120pack)	Beige	White
951-491-511	XPFit Plus LC Connector MM: 50/125 10G OM3 900µm/250µm (120pack)	Aqua	White

Note: 12 pack available Add -12 to existing part number

SPECIFICATIONS	SINGLEMODE	MULTIMODE
For XP Fit Plus SC	Typical	
Insertion Loss	0.2dB (PC) 0.3dB (APC)	0.1dB
Return Loss	55dB (PC) 60dB (APC)	35dB
Durability	<0.1dB change, 500 matings	
Operating Temperature	-40ºC to +75ºC	
Tensile	TIA/EIA 568-C.3	
Intermateability	IEC 61754-4	

Note: *Specifications shown above were obtained using SENKO recommended products and procedures.

XP Fit KIT

No epoxy, polishing film, or other consumables are required for installation.



The XP Fit Installation Kit contains everything needed for installation of the SC and LC XP FIT PLUS connectors.

No epoxy, polishing film, or other consumables are required, and there is no need for electrical power, allowing installers to get in and out of installation sites quickly.

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