

PRECISE FIBER MICROSCOPE

PFM SERIES

Features

- Digital and Analog version support
- Single and Dual view support
- Auto Inspection with Auto Movement
- Easy Operation – Focus and Movement
- Capture and Pass/Fail support
- Support Multiple Tips
- Live Dual-Magnifications View(DMV)
- Multiples-Core Inspection(MCI)
- Live Reverse View



Applications

- End face of ferrule inspection
- 100Gbps QSFP and CoB inspection
- Duplex / Simplex SFP
- MPO/PC and MPO/APC
- All type of Optical Patch Cord
- MIL Standard

Precise Fiber Microscope (PFM) is one of main test equipment in order to testing end face condition of ferrules for passive or active component manufacturers. Nowadays, Testing and evaluating of end face condition of ferrules are very common and one of key requirement for keep maintains high quality of components. To be realized high quality, Precise Fiber Microscope is one of best machine in the worldwide.

Precise Fiber Microscope (PFM) able to providing different platforms and functions depending on requirements. Analog version supports direct inspection and evaluation by operator over LCD monitor. Digital version supports image capturing, saving or pass/fail function (IEC61300-3-35 ED2) by HEI software installed on PC or Laptop. Digital version is able to support dual inspection performances at the same time.

Precise Fiber Microscope (PFM) provides easy operating with manual stage (X/Y/Z) and auto stage. Manual stage can move to two directions. One is X-axis – Move left to right or right to left and the other is Z-axis- make a focusing. Individual tips have Y Axis control which can support make move from up to down or down to up. All combination of X/Y/Z is support easy operation for inspection. Auto stage provides automatic X-axis movement for fast and efficient multicore inspection.

Model	Standard Analog Version	Manual stage Digital Version	Auto stage Digital Version
			
Operating Interface	Direct Inspection over Display LCD	Over PFM HEI Software	Over PFM HEI Software
Resolution	VGA or HDMI	USB2.0	USB2.0
Display Ratio	Max 1280x1024	Max 2595x1944	Max 2595x1944
Camera Sensor	4:3 and 16:9	4:3 and 16:9	4:3 and 16:9
Sensor Size	CMOS	CMOS	CMOS
	1/3 inch	1/2.5 inch and 1/4 inch	1/2.5 inch and 1/4 inch

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Precise Fiber Microscope (PFM) can change front objective depending on type of components. If optical transceiver or related components which is requires long reach inspection, then it is requires to change LWD objective instead of standard objective.

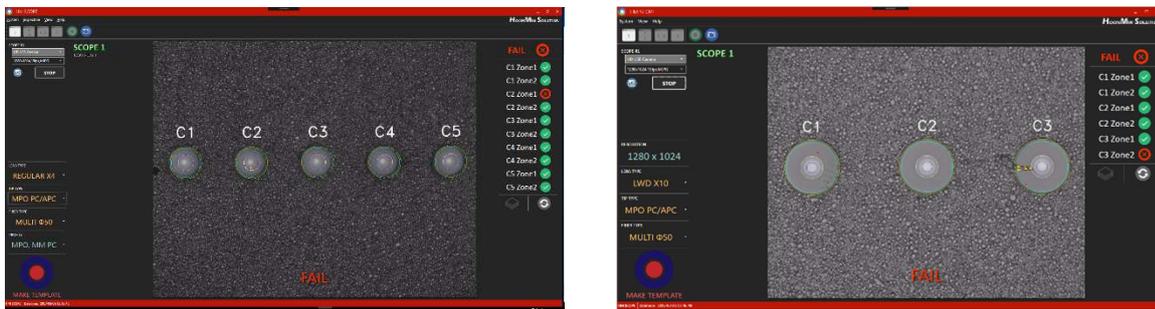
Dual-Magnification View(DMV)

Dual-Magnification Viewer(DMV) provides High and Low Magnification at the same time and gives efficient check at visual inspection over display LCD

- High-Mag gives a best performance to find out scratches/contaminations inside of cladding/core
- Low-Mag gives a best performance to find out some contamination out of cladding/core

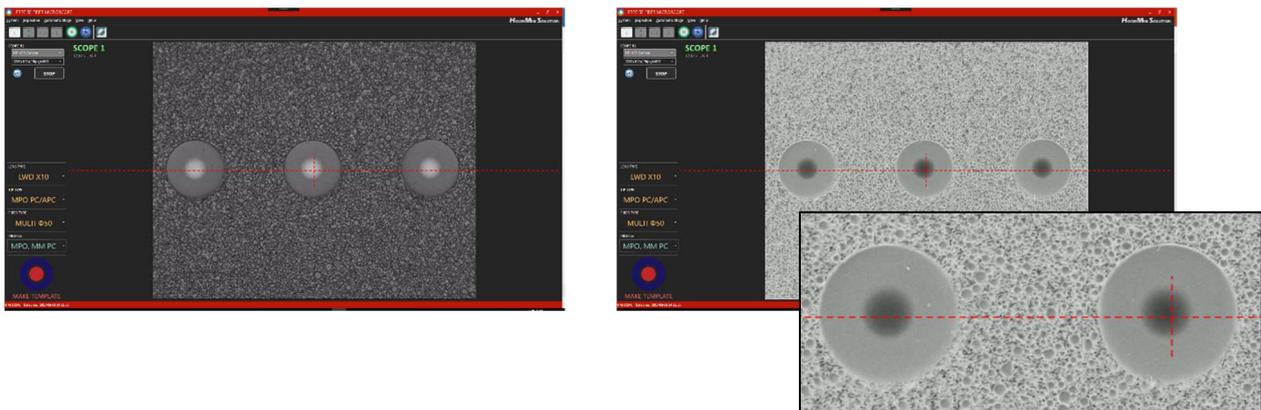
Multiples-Core Inspection(MCI)

Multiple-Cores Inspection(MCI) is compliant with IEC-61300-3-35 Ed2 and MCI can test pass/fail of multi-cores within live-view area on display LCD at the same time (If 5 cores displayed, MCI can test 5 cores at the same time)



Reverse View(RV)

Reverse View is providing intuitive visibility at visual inspection



Optional Scanning On Action (SoA)

Scanning on action is one of option for PFM which supports fast and efficient management / inspection for SFP or other components. Once scanning barcode on SFP, HEI recognizes part number, serial number of SFP and automatically start inspection and inspection result is saved into database. All inspection results are able to be managed by HEI Software.

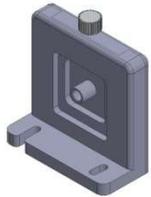


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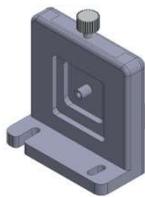
PFM SERIES

PFM Tips

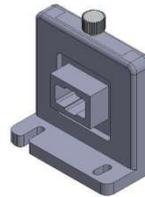
PFM supports various tips for inspecting passive and active components. Depending on type of components, operator can easily change tip on stage. One of advantage is some of tips are supporting PC (UPC) and APC (Angled PC) together with one tip.



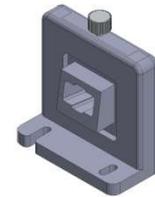
Tip, 2.5mm Universal PC and APC



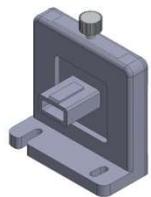
Tip, 1.25mm Universal PC and APC



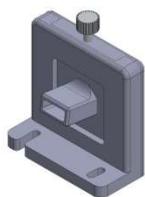
Tip, MPO/PC Patch Cord



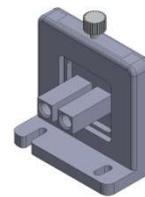
Tip, MPO/APC Patch Cord



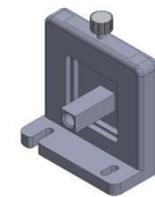
Tip, MPO/PC Bulkhead



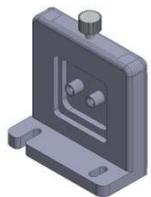
Tip, MPO/APC Bulkhead



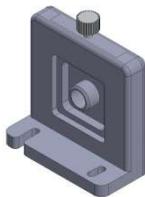
Tip, Duplex SFP Bulkhead



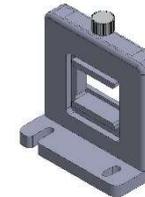
Tip, Simplex SFP, LC/PC Bulkhead



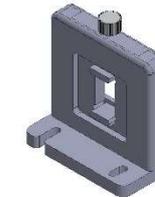
Tip, Duplex LC/PC_APC Patch Cord



Tip, FC/PC_APC Bulkhead



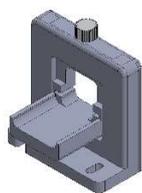
Tip, SC/PC_APC Bulkhead



Tip, LC/PC_APC Bulkhead



Tip, Lens Module



Tip, COB(MPO)

※ Customized Tip is available upon request

PRECISE FIBER MICROSCOPE PFM SERIES

PFM Operating Software, HEI (HAWK EYE INSPECTION)

HEI is working with digital version of PFM over USB and there are two different versions – HEI Standard and HEI Advanced. HEI Advanced supports not only all functions of standard version but also AOS and database management functions. For multi core testing such as MPO, HEI supports multi core pass/fail function.

Parameters	HEI Standard	HEI Advanced
Operating System	Windows (7, 10 recommended)	
Interface	USB2.0	
Live Inspection View	Yes	
Dual Live Inspection View	Support (If dual version)	
Capture	Yes	
Save	Yes	
Brightness control	Yes(w auto stage only)	
File Format	PNG	PNG
Database	No	Yes
Pass/Fail (IEC61300-3-35)	Yes	Yes
AOS(using external scanner)	No	Yes

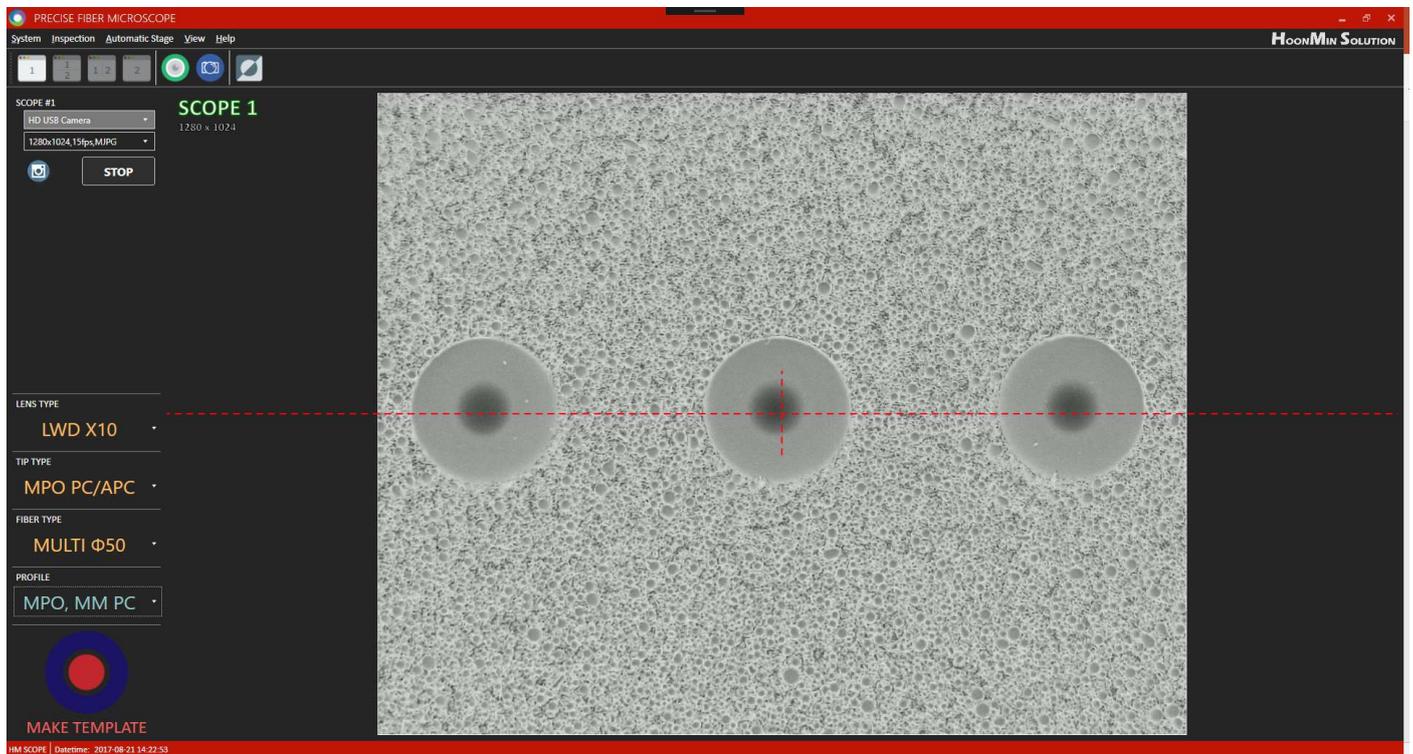


Single View

Dual View



Multi core Pass/Fail



PRECISE FIBER MICROSCOPE

PFM SERIES

Ordering Information

PN	Descriptions
PFM MAIN FRAME	
PFM-01	PRECISE FIBER MICROSCOPE SINGLE CHANNEL, MAIN BODY, X/Y STAGE, ADJUSTABLE LIGHT SOURCE, 12V/5V DC Output, 12VDC INPUT
PFM-02	PRECISE FIBER MICROSCOPE DUAL CHANNEL, MAIN BODY, X/Y STAGE, SECONDARY CAMERA MOUNT, BLANK COVER, ADJUSTABLE LIGHT SOURCE, 12V/5V DC Output, 12VDC INPUT
PFM-03	PRECISE FIBER MICROSCOPE SINGLE CHANNEL, MAIN BODY, Auto-X/Manual-Y STAGE, ADJUSTABLE LIGHT SOURCE, 12V/5V DC Output, 12VDC INPUT
PFM-04	PRECISE FIBER MICROSCOPE DUAL CHANNEL, MAIN BODY, AUTO-X/MANUAL-Y STAGE, ADJUSTABLE LIGHT SOURCE, 12V/5V DC Output, 12VDC INPUT
CAMERA MODULE	
PFM-03-007	13MP 1/3" CMOS Industry Microscope Camera HDMI VGA
PFM-03-003	5MP Digital Camera Module 1/2.5, USB
PFM-03-005	5MP Digital Camera Module 1/4, USB
OBJECTIVE	
PFM-02-001	x4 Objective Lens
PFM-02-002	x10 Objective Lens
PFM-02-003	x20 Objective Lens
PFM-02-004	X5 LWD Objective Lens
PFM-02-005	x10 LWD Objective Lens
TIPS	
PFM-05-006	Tip, 2.5mm Universal PC and APC
PFM-05-007	Tip, 1.25mm Universal PC and APC
PFM-05-008	Tip, MPO/PC Patch Cord
PFM-05-009	Tip, MPO/APC Patch Cord
PFM-05-010	Tip, MPO/PC Bulkhead
PFM-05-011	Tip, MPO/APC Bulkhead
PFM-05-012	Tip, Duplex SFP Bulkhead
PFM-05-013	Tip, Simplex SFP, LC/PC Bulkhead
PFM-05-014	Tip, Duplex LC/PC_APC Patch Cord
PFM-05-015	Tip, FC/PC_APC Bulkhead
PFM-05-016	Tip, SC/APC Bulkhead
PFM-05-017	Tip, LC/APC Bulkhead
PFM-05-018	Tip, Lens Module Bulkhead
PFM-05-019	Tip, COB (Chip On Board)
PFM OPERATIONAL SOFTWARE	
PFM-06-001	PFM, HEI(HAWK EYE INSPECTION) operating software for Windows
PFM-06-002	AOS option software for scanner synchronization with HEI, plus Database management
EXTERNAL MONITOR (Optional)	
PFM-04-005	7 inch LCD monitor
PFM-04-006	13.3 inch LCD monitor