

Sumix provides advanced support for Polarization-Maintaining fiber inspection. Our quality control includes automatic angle measurement and custom Pass/Fail parameters that match connector specification.

New feature of MaxInspect software for Polarization-Maintaining fiber

Fiber configuration



Different stress rod angles

Set all as: Regular PM Vertical PM Horizontal

PM rods diameter, μm

Distance between PM rods, μm

New feature of MaxInspect software enables setting custom orientation of individual fiber stress rods which allows precise control of the polarization direction. The ability to adjust the size and distance between rods provides full support for all possible configurations of PM fibers (Panda fibers). It provides geometry and anomalies inspection of connectors according to criteria as close as possible to international standards for assessing the quality of optical connectors, opening wide opportunities for manufacturers.

Features:

- Applicable with Interferometers and Microscope probes
- Multi-fiber and Single fiber support
- Shift MT handling with Polaris benchtop microscope
- Custom fiber configuration
- Adjustable stress rods angle for each individual fiber
- Change PM rods diameter
- Set custom distance between PM rods
- Pass/Fail result for rods angle

Sample measurement report for MPO 24 PM fiber

Name:	Result342
Date & Time:	2/23/2024 3:22:4 PM
Task name:	MT24-APC PM
Scan quality:	Ok
Device SN, Fixture SN:	QUANTUM 40031, not defined
Connector ID:	
Customer:	
Technician:	Tanya
Company:	Sumix
Core dip algorithm:	Parabolic
Fitting regions:	L=2900µm; H=1160µm; E=140µm; F=50µm; CumA=20%; Top=3%
Pass/Fail standard:	IEC 61755-3-32 (based on)
Calculation standard:	IEC 61300-3-30/Ed2
SD Pass/Fail standard:	IEC 61300-3-35/Ed3 SM APC (SFOV)
Anomalies detection method:	2D



FERRULE

Measurement Parameter	Units	Pass/Fail Limits		Measured Value	Verdict
		Min	Max		
Ferrule Radius of Curvature X	mm	-10000.00*	2000.00*	4790.36	PASS
Ferrule Radius of Curvature Y	mm	5.00	200.35	200.35	PASS
Tilt Angle X	°	-0.1500	0.1500	0.0091	PASS
Tilt Angle Y	°	7.8000	8.2000	8.0179	PASS
Dome Height	nm			793.96	N/A

* - Pass value must be less than Min and greater than Max

FIBER HEIGHT LIMITS

Measurement Parameter	Units	Pass/Fail Limits		Measured Value	Verdict
		Min	Max		
Max-Min	nm			313	N/A
Max Adj Diff	nm	0	500	173	PASS
Minus Coplanarity	nm	0.0	300.0	117.3	PASS
Coplanarity Plane Angle X	°			0.0213	N/A
Coplanarity Plane Angle Y	°			8.0436	N/A

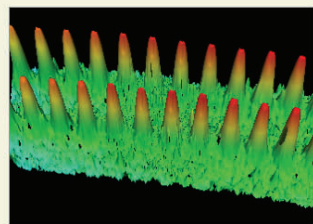
FIBERS FROM 1 TO 12

Measurement Parameter	Units	Pass/Fail Limits		Fiber Number / Measured Value / Verdict											
		Min	Max	1	2	3	4	5	6	7	8	9	10	11	12
Height	nm	1000	3500	2133	2169	2213	2269	2303	2282	2230	2224	2170	2192	2143	2102
ROC	mm	1.00		4.34	4.34	4.26	4.60	4.76	4.49	4.24	4.45	4.68	4.58	4.51	4.23
Core Dip	nm			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Rods Angle	°			88.4	88.4	87.8	89.3	89.3	87.9	89.0	89.0	88.2	88.0	88.4	88.3

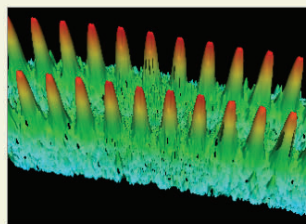
FIBERS FROM 13 TO 24

Measurement Parameter	Units	Pass/Fail Limits		Fiber Number / Measured Value / Verdict											
		Min	Max	13	14	15	16	17	18	19	20	21	22	23	24
Height	nm	1000	3500	1990	2045	2090	2151	2162	2109	2162	2163	2114	2062	2029	2017
ROC	mm	1.00		4.11	4.70	4.32	4.58	4.76	4.53	4.98	4.65	5.14	4.33	4.33	4.25
Core Dip	nm			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Rods Angle	°			88.8	88.0	88.7	88.9	88.7	90.7	90.3	90.9	89.2	91.5	89.9	91.2

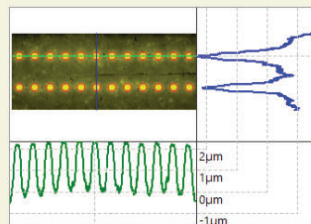
3D Surface



3D Subtracted Surface



2D Subtracted Surface



Modulation

