

INTERFEROMETRY



DAISI MT FP

Digital Automated interferometer with Floating Pastille Technology

The Daisi MT FP combines the well-known Daisi MT-V3 with the new **Floating Pastille fixture technology** from DATA-PIXEL (patent US 10,274,397 B2).

This major technological breakthrough for multi-fiber connector fixtures is perfectly suited for **highly accurate X/Y endface angle measurements**.

With the Floating Pastille fixtures, measurement results are completely **independent from the influence of the fiber optic cables** and the operator. Floating Pastille is perfectly suitable for the inspection of connectors mounted with heavy cables. With the help of the Floating Pastille, the Daisi MT is now easier to operate, without compromising any of its existing features : accuracy of measurements, reproducibility, speed, robustness. **No calibration is now required, as it is factory set**, per fixture, by DATA-PIXEL.

SPECIFICATIONS :

Measurement Method :	Phase shifting + Z scanning
Connector Type (PC/APC) :	MT12/24 & MT16/32
Illumination :	White light + Red light
Measurement speed (sec.) :	6 (MT12)
Lateral resolution (µm) :	2.5
Field of view (mm) :	5.6 x 5.6
Power source :	12V
USB outputs :	USB 3.0 + USB 2.0
Weight (kg) :	9.3
Dimensions H x W x L (mm) :	133 x 171 x 244

KEY FEATURES :

Combined White-Light and Red-Light phase-shifting interferometer for precise tip radius and core-dip measurement

Fast Autofocus that simplifies operator's handling

Very high accuracy and reproducibility for small X/Y angles measurements

Suitable for field heavy cables, standard small cables MTP/MPO connectors and pigtailed with MT ferrules

No calibration required

Floating Pastille Flange is compatible with existing DAISI MT units*

Vibration insensitive

High resolution optics and camera for a better resolution

Large field of view able to scan up to 96 fibers

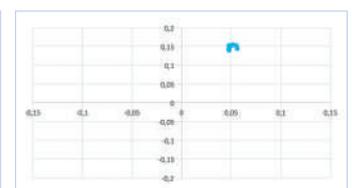
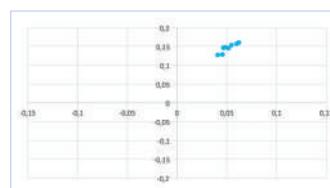
Measurement of all Single-Fiber and Multi-Fiber ferrules and connectors (with standard flanges and adaptors)

* existing units may need to be upgraded, depending on their configuration/version

X / Y ANGLES MEASUREMENTS :

Without Floating Pastille fixture

With Floating Pastille fixture



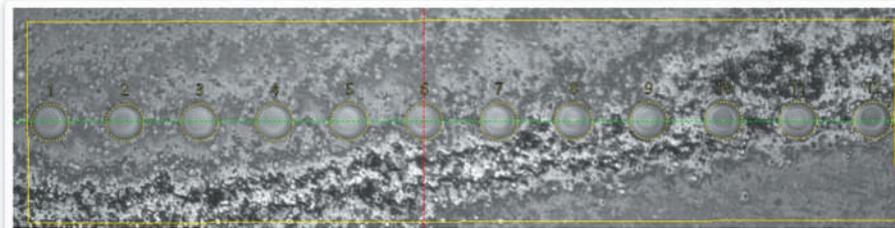
Interferometry report

Generated by Blink Data-Pixel

Date	2023-01-12 19:57	Serial number	1570	PASS
Measurement device	Daisi MT	Operator	Pierre	
Device s/n	22090287-220569	Station s/n	22090287-220569	
Type	12F PC sub1			
Profile	MT-12_PC_HQ.efd			

Parameter	min allowed	max allowed	Measurement result	Pass/Fail
Ferrule X angle [SX]	-0.15 °	0.15 °	0.034 °	PASS
Ferrule Y angle [SY]	-0.2 °	0.2 °	0.097 °	PASS
Ferrule X radius [RX]	2000 convex mm	-10000 concave mm	7114 mm	PASS
Ferrule Y radius [RY]	convex 5 mm	concave -9999999 mm	218 mm	PASS
Max adjacent height diff.	-	300 nm	74.8 nm	PASS
Max all height diff.	-	500 nm	91.3 nm	IGNORED
Max core dip [CD]	-	120 nm	19.6 nm	PASS
Minus coplanarity [CF]	-	150 nm	70.5 nm	PASS
Fibers X angle [GX]	-0.15 °	0.15 °	0.034 °	IGNORED
Fibers Y angle [GY]	-0.2 °	0.2 °	- °	IGNORED
Geometry limit [GL]	-	17.4 N	- N	IGNORED
Flatness deviation	-5000 nm	5000 nm	295.7 nm	IGNORED
Valid pixels	23 %	-	90 %	PASS

Parameter \ Fiber	1	2	3	4	5	6	7	8	9	10	11	12
Fiber height (nm)	1258	1333	1330	1349	1331	1348	1328	1337	1307	1299	1284	1270
Adjacent height	75	75	20	20	19	20	20	30	30	15	15	14
Core dip (nm)	13.3	11.2	14.8	-	-	-	14.4	-	-	10.7	19.6	11.2
Tip radius (mm)	-	-	-	36.7	41.5	34.2	-	53.2	54.9	-	-	-

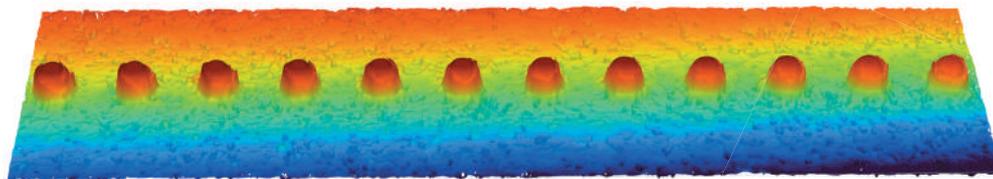


PERFORMANCE :

Parameters	Repeatability *	Reproducibility **	Range
X/Y angles (°) :	0.001	< 0.01	± 1 (PC or APC)
Fiber height (µm) :	0.003	0.01	Up to 20

* values calculated from 50 measurements without interaction on connector between measurements

** values calculated from 50 measurements while removing and inserting connector in ferrule holder between measurements



ORDER OPTIONS :

DAISI MT FP unit with Blink Interferometry	70-DAMT-V3-A02-01
Flange Floating Pastille Female MT 12/24	40-FL-002323
Flange Floating Pastille Female MT 16/32	40-FL-002325
Flange Male MT 12/24	10-FL-001354
Flange Male MT 16/32	10-FL-001729
Flange Female MT 12/24	30-FL-001355
Flange Female MT 16/32	30-FL-001357
Adapter MPO 12/24	30-AD-002930
Adapter MPO 16/32	30-AD-001776