

Phoenix Optix Quality Assurance

Thriving For Excellence

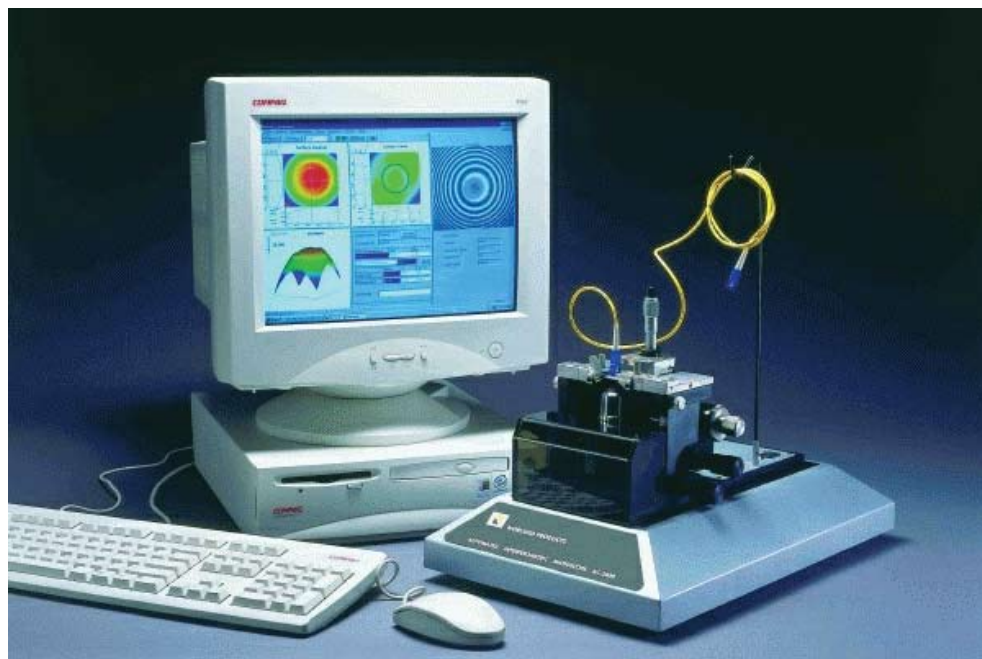


Phoenix Optix

Phoenix Optix is an ISO 9001-2008 registered manufacturer of copper and fiber optic connectivity products, made proudly 100% in the U.S.A.

Understanding the futures demanding bandwidth requirements

We at Phoenix Optix take the time and resource to research the latest trends in the information transport business. We are continuously updating our strict manufacturing processes to meet the demanding needs of ever increasing bandwidth requirements.



Mission Statement

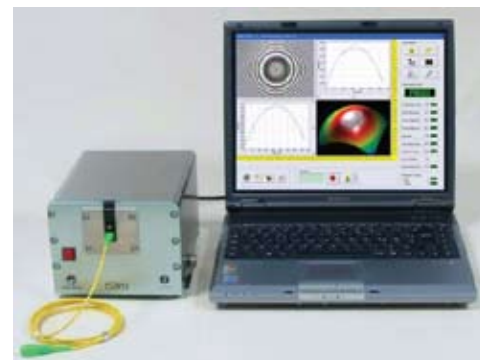
Here at Phoenix Optix our goal is to assure our customers our products exceed the latest industry standards, with all of the state of the art test equipment available today.

Phoenix Optix Offers Flexibility

With two state of the art manufacturing facilities, one in Ashaway R.I., and our new facility in Pearl River N.Y., Phoenix Optix can meet our customers demanding deliveries.

Interferometry

- Norland NC 3000 And 6000 interferometers for single fiber ferrule end face geometry testing.
- Daisi multifiber interferometer for MTP® Single mode and multimode end face geometry testing.
- Fiber Check 2 pass fail visual testing for full IEC compliance.



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Phoenix Optix vs. The Standards

Insertion Loss and Return Loss Testing

Connector Type	Governing IEC Standard	Governing TIA Standard	Standard's (IL)	Phoenix Optix (IL)	Standard's (RL)	Phoenix Optix (RL)
LC	IEC-61754-20	TIA/EIA 568-C.3, TIA/EIA-604-10	0.75	0.25	20 MM, 26 SM	30 MM, 57 SM
SC	IEC-60874-14	TIA/EIA 568-C.3, TIA/EIA-604-3	0.75	0.25	20 MM, 26 SM	30 MM, 57 SM
ST	IEC-60874-10	TIA/EIA 568-C.3, TIA/EIA-604-2	0.75	0.25	20 MM, 26 SM	30 MM, 57 SM
FC	IEC-60874-13	TIA/EIA 568-C.3, TIA/EIA-604-3	0.75	0.25	20 MM, 26 SM	30 MM, 57 SM
MT-RJ	IEC-61754-1	TIA/EIA 568-C.3, TIA/EIA-604-12	0.75	0.35	20 MM, 26 SM	25 MM, 55 SM
MTP	IEC-61754-7	TIA/EIA-604-5 Type MPO	0.75	0.4	20 MM, 26 SM	30 MM, 60 SM

A Closer Look at End Face Geometry...

Endface Geometry-Single Fiber

IEC Multimode & SM/UPC Ceramic Ferrule		
PARAMETER	1.25mm DIAMETER LC FERRULE	2.5mm DIAMETER SC or FC FERRULE
Fiber Undercut/Protrusion	-100 to 50um	-100 to 50um
Radius of Curvature (ROC)	5 to 30mm	5 to 30mm
Apex Offset	<70um	<70um
Outside Diameter	1.249 to 1.2495mm	2.499 to 2.4995mm
POX Multimode & SM/UPC Ceramic Ferrule		
PARAMETER	1.25mm DIAMETER LC FERRULE	2.5mm DIAMETER SC or FC FERRULE
Fiber Undercut/Protrusion	-100 to 50um	-100 to 50um
Radius of Curvature (ROC)	7 to 25mm	7 to 25mm
Apex Offset	<50um	<50um
Outside Diameter	1.249 to 1.2495mm	2.499 to 2.4995mm



Why is EFG so Critical?

Our end face testing process enables us to continually improve our process to assure intermateability, long lasting connections, and optimal optical performance.

Phoenix Optix end face testing requirements are performed to our own stringent in house standards using automated industry recognized equipment.

Optical Interface Parameter Values For MTP® Connector

Parameter	IEC PAS 61755-3-31	Phoenix Optix
X Radius of Curvature	> 2000 mm	> 2000 mm
Y Radius of Curvature	> 5 mm	> 5 mm
X and Y Endface Angle (also Y for flat polished connectors)	-0.2 Deg < GX < 0.2 Deg	-0.15 Deg < GX < 0.15 Deg
Y Endface Angle (SM)	7.8 Deg < GY < 8.2 Deg	7.85 Deg < GX < 8.15 Deg
Fiber Protrusion Height	1000 nm < H < 3500 nm	1000 nm < H < 3500 nm
Fiber Protrusion Differential Total	< 500 nm	< 400 nm
Fiber Protrusion Differential Adjacent	< 300 nm	< 200 nm
Core Dip	N/A	-200 nm < CD < 150 nm
Maximum Co-planarity	N/A	< 500 nm
Flatness Deviation	N/A	< 2000 nm
Minimum Valid Pixels Ration	N/A	> 23 %

MTP is a registered trademark of USCONEC

Optical Test Procedures

Insertion Loss: TIA/EIA-455-171; Method B1 For Multimode; Method B3 Singlemode

Return Loss: TIA/EIA-455-107, Method 1

Single Fiber End Face Geometry Per IEC 617553-1

MTP® End Face Geometry Per 61755-3-31

End Face Visual Scratch/Dust Inspection Per IEC 61300-3-35

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