

Fiber Optic Pigtail



Features & Benefits

- ✓ Suitable for fiber splicing in Patch panels and Joint Closures.
- ✓ Compatible with *DME PROLINK's* equipment components
- ✓ Available in LC, ST & SC terminations.
- ✓ Available in different lengths.
- ✓ Easy to install and terminate.
- ✓ Connector compliant with IEC JIS, TIA/EIA.
- ✓ Complies with Telcordia GR-326-CORE clause 4.1
- ✓ Ultra low Return & Insertion loss
- ✓ LSZH construction
- ✓ Available in ITU-T G652D and G657B zero water peak fiber.



Technical Assistance
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Test Report

Insertion Loss Test

Test procedure :

The test samples are measured in the following system. (Figure 1)
 The insertion loss (I.L) is defined as $I.L = -10 \log P_0 / P_1$.
 The result data of measurement is an average of values measured 3 times.

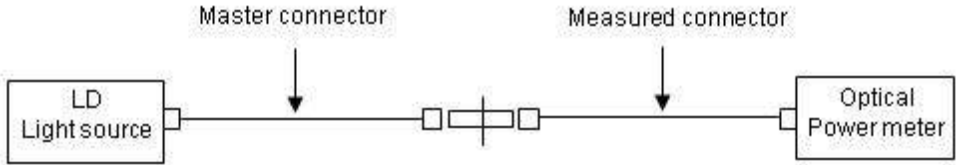


Figure 1. Insertion loss measuring system

Test Reference :

Telcordia Technologies Generic Requirements GR-326-CORE clause 4.1

Criteria :

The product shall meet the Table-1 Optical Performance.

Test Result & Judgment: (Table-1)

Sample	Test Result								Judgment
	Step. 1		Step. 2		Step. 3		Average		
Cut	PC	APC	PC	APC	PC	APC	PC	APC	-
#1	0.15	0.16	0.16	0.15	0.18	0.18	0.16	0.16	PASS
#2	0.17	0.2	0.18	0.19	0.18	0.22	0.18	0.2	PASS
#3	0.2	0.19	0.19	0.18	0.22	0.17	0.2	0.18	PASS

Return Loss Test

Test Procedure :

The test samples are measured in the following system. (Figure 2)
The result data of measurement is an average of values measured 3 times.

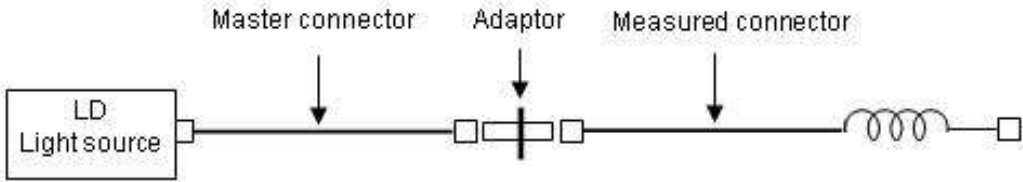


Figure 2. Return Loss Measuring system

Test Reference :

Telcordia Technologies Generic Requirements GR-326-CORE clause 4.1

Criteria :

The product shall meet the Table-2 Optical Performance.

Test Result & Judgment: (Table-2)

Sample	Test Result								Judgment
	Step. 1		Step. 2		Step. 3		Average		
Cut	PC	APC	PC	APC	PC	APC	PC	APC	-
#1	35.1	65.2	35.1	65.4	35.4	65.2	35.3	65.3	PASS
#2	35.8	65.1	35.2	65.3	35.2	65.1	35.1	65.2	PASS
#3	35.8	65.3	35	65.4	35	65.5	35	65.4	PASS

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Difference between PC, UPC and APC

Fiber optic cables have different types of mechanical connections. The type of connection determines the quality of the fiber optic light wave transmission. The different types are the flat-surface, Physical Contact (PC), Ultra Physical Contact (UPC), and Angled Physical Contact (APC).

The original fiber connector is a flat-surface connection, or a flat connector. When mated, an air gap naturally forms between the two surfaces from small imperfections in the flat surfaces. The back reflection in flat connectors is about -14 dB or roughly 4%.

As technology progresses, connections improve. The most common connection now is the PC connector. Physical Contact connectors are just that—the end faces and fibers of two cables actually touch each other when mated.

In the PC connector, the two fibers meet, as they do with the flat connector, but the end faces are polished to be slightly curved or spherical. This eliminates the air gap and forces the fibers into contact. The back reflection is about -40 dB. This connector is used in most applications.

An improvement to the PC is the UPC connector. The end faces are given an extended polishing for a better surface finish. The back reflection is reduced even more to about -55 dB. These connectors are often used in digital, CATV, and telephony systems.

The latest technology is the APC connector. The end faces are still curved but are angled at an industry-standard eight degrees. This maintains a tight connection, and it reduces back reflection to about -70 dB. These connectors are preferred for CATV and analog systems.

PC and UPC connectors have reliable, low insertion losses. But their back reflection depends on the surface finish of the fiber. The finer the fiber grain structure, the lower the back reflection. And when PC and UPC connectors are continually mated and re-mated, back reflection degrades at a rate of about 4 to 6 dB every 100 matings for a PC connector. APC connector back reflection does not degrade with repeated matings.



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D161x-apmsl
TECHNICAL DATA

D	1	6	1	x	-	a	p	m	s	l
x				Pin assigned by ECS						
0-9				Inventory Management Index						
a						Connector Type A-End				
ST						ST				
SC						SC				
LC						LC				
FC						FC				
p						Polish Type				
P						PC				
A						APC				
U						UPC				
m						Mode				
0						OM-1				
1						OM-2				
2						OM-3				
3						OM-4				
6						OS-1				
7						OS-2				



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TECHNICAL DATA

D	1	6	1	x	-	a	p	m	s	l
s						Specification				
2D						G.652D				
7A1						G.657A1				
7A2						G.657A2				
7B						G.657B				
7B2						G.657B2				
7B3						G.657B3				
0						Not Applicable for MM				
l						Length				
1						1m				
1.5						1.5m				
2.5						2.5m				



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