

SSMS-050-XX(OM3)

1Core MM(OM3) Patch Cord cable XXM

TECHNICAL SPECIFICATIONS

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1. Application

- Application period

This document is valid from Jan 31th, 2010 before distributing next term technical material.

- Application manufactured goods

This production is restricted within connecting as one body from Multi-mode optical cable

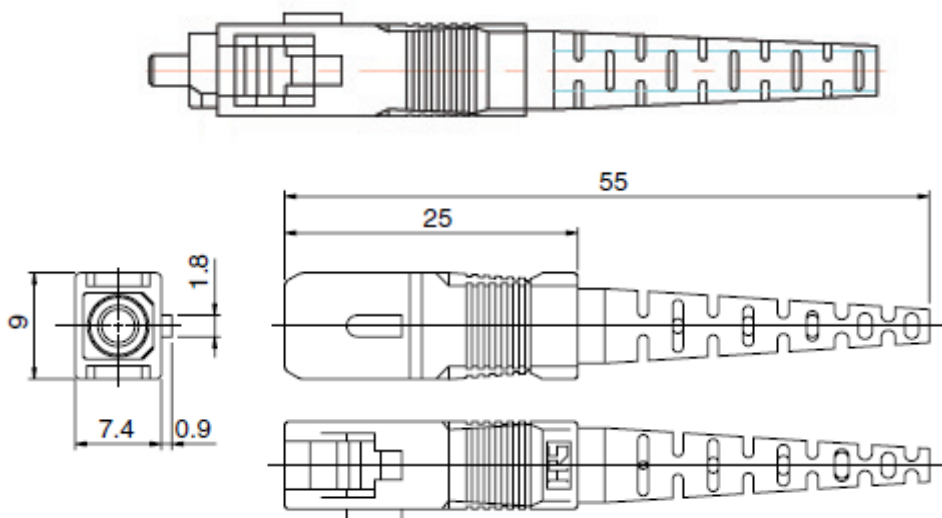
- Production Model and Number: P/N: SSMS-050-XX(OM3)

Model: Optical Multi-mode(50/125µm, OM3) Simplex (1core) SC to SC Patch Cord cable

2. Product summary

2.1 Connector

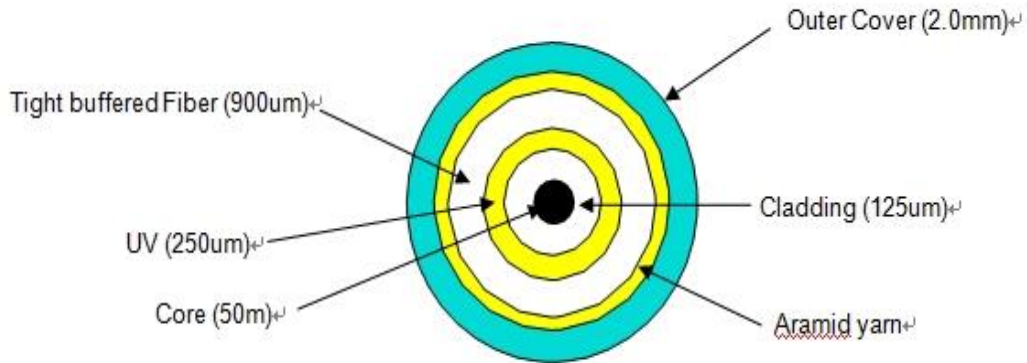
PART		MATERIAL	COLOR
1	Ferrule Cap	LDPE	Clear
2	Ferrule	Ceramic	White
3	Housing	PBT	Blue
4	Plug Frame	PBT	White
5	Spring	SUS	Silver
6	Stopper	PEI	Black
7	Boot	Elastomer	Blue



CONFIGURATIONS OF THE CONNECTOR ASSEMBLY

2.2 Optical Fiber Cable

2.2.1 Cross Section



2.2.2 Construction

Structure		Material	SPECIFICATIONS
Optical Fiber		Fiber	- MMF : 50/125µm (OM3)
Tight Buffer		Material	- LSZH
		Diameter	- 0.90 ± 0.05 mm
		Color	- Aqua
Outer Jacket	Strength Member		Aramid yarn
	jacket	Material	- LSZH
		Diameter	- Diameter : 2.2.3 Reference - Jacket thickness - 1.0 ± 0.3 mm
		Color	- Aqua
Marking		Ink Jet	- White , 1m

2.2.3 Cable diameter & Tensile strength

Fiber Count	Outer Diameter	Weight (Nominal)	Max. Pulling Strength
1	2.0± 0.3 mm	20 Kg/km	600 N

2.2.4 Length: XXm ± 3% (drawing reference)

2.2.5 Manufacturing company

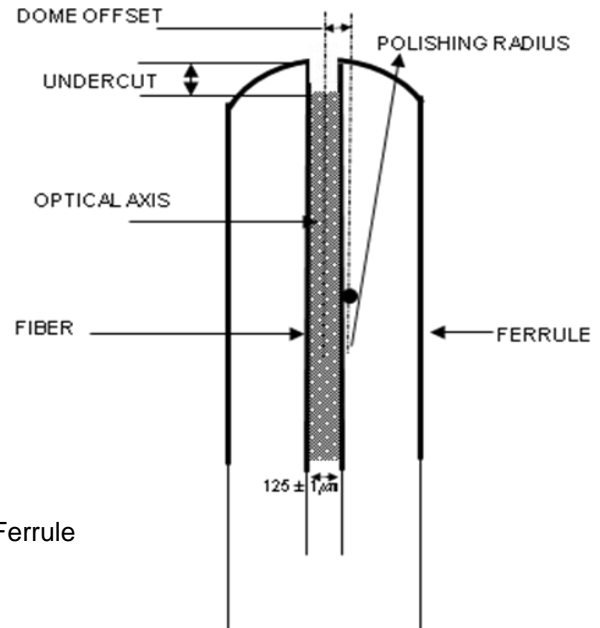
1) Optical Fiber Cable - Global Optical Communication Co.,Ltd (GOC)

3. Specific character Production

3.1 Connector

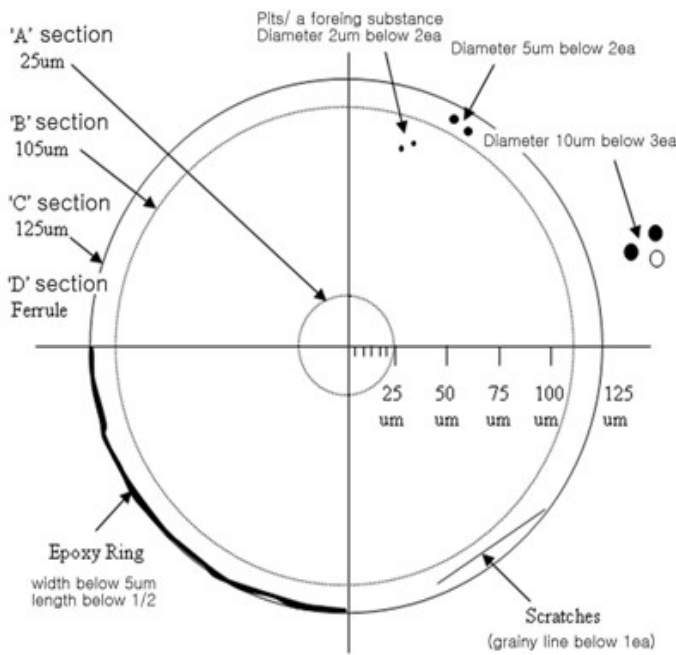
3.1.1 Connector ferrule section standard

Items	UPC
Radius of curvature	7-25mm
Fiber undercut	± 50 nm
Dome offset	MAX 50µm



Picture .UPC Ferrule

3.1.2 Polished ferrule inspection standard



No	Inspection Item	Section	Inspection condition
1	Crack	A	None
		B	None
		C	None
2	Scratches	A	None
		B	length 2um below 2ea
		C	length 2um below 5ea
		D	Diameter 10um below 3ea
3	Pits	A	None
		B	Diameter 2um below 2ea
		C	length 2um below 5ea
		D	Diameter 5um(5ea),10um(2ea)
4	Dust (a foreign substance)	A	None
		B	None
		C	None
		D	Diameter 5um(5ea),10um(2ea)
5	Epoxy Ring	C~D	spot diameter 2um below 5ea sum lenath below fiber external diameter1/4

3.2 Optical Cable

3.2.1 Properties of Multi-mode fiber

Parameter	Specification
	50/125 μ m (OM3)
Attenuation coefficient	
@ 850 nm	≤ 3.0 dB/km
@ 1300 nm	≤ 1.0 dB/km
Bandwidth	
@ 850 nm	≥ 1500 Mhz
@ 1300 nm	≥ 500 Mhz
Numerical Aperture	0.200 ± 0.015
Core diameter @ 1300 nm	50.0 ± 2.5 μ m
Core / Cladding concentricity error	≤ 3.0 μ m
Core non-circularity	$\leq 6\%$
Cladding diameter	125.0 ± 2.0 μ m
Cladding non-circularity	≤ 2.0 %
Primary Coating diameter	245 ± 15 μ m
Proof test level	100 kpsi, 1%

4. Optical cable character

4.1 Optical Character

Item	Insert Loss(dB)		Return Loss(dB)	
	Max. (dB)	Typ. (dB)	Min. (dB)	Typ. (dB)
U P C	0.3	0.15	40	45

4.2 Environment / Mechanical Character

No	Item	Test Method	Specification
1	Tensile load IEC60794-1-E1	- Load: Refer 1.3 - Length: 100 m - Time: 10 mins	-Loss change ≤ 0.1 dB @1300 nm (MM)
2	Crush test IEC60794-1-E3	- Load: 500 N - plate : 100*100 - Time: 5 mins.	-Loss change ≤ 0.1 dB @1300 nm (MM)
3	Bending test IEC60794-1-E11A	- Mandrel dia. 15 x cable diameter - 6 turns	-Loss change ≤ 0.1 dB @1300 nm (MM)
4	Impact test IEC60794-1-E4	- Radius of impacted surface: 25 mm - Impact load: 0.5 kg - Falling height: 150mm - times : 10	-Loss change ≤ 0.1 dB @1300 nm (MM)
5	Torsion IEC60794-1-E7	- Length: 2 m - Load: 50 N - Twist angle: $\pm 180^\circ$ - No. of cycle : 5	-Loss change ≤ 0.1 dB @1300 nm (MM)
6	Temperature Cycling IEC60794-1-F1	- Length : 1,000m: - Temperature cycle: - Indoor : 20°C→-20°C→+70°C→-20°C→+70°C→20°C - Outdoor : 20°C→-40°C→+70°C→-40°C→+70°C→20°C - Number of cycle: 1 - Time per step: 12 hours	-Loss change ≤ 0.3 dB @1300 nm (MM)

5. Drawing picture

