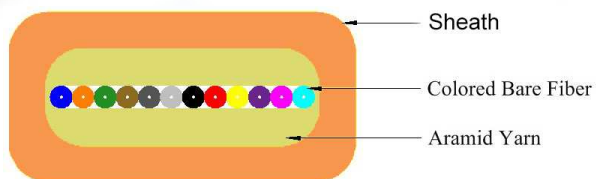


DATASHEET

4-12F Ribbon fanout 2.0mm Fiber Optic pigtail

Make High-speed Optical network Racks&equipment Connections.



RoHS



OMC INDUSTRY CO.LIMITED

2018|En version1.0



4-12F Ribbon fanout 2.0mm pigtail

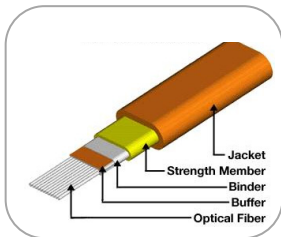
Description

4/8/12F Ribbon Fan-out Fiber Optic Pigtail is a multi-fibers pigtail which made by Ribbon cable. The ribbon fiber fan-out via a 1x12 fanout kit. The fanout cable can be 900um or 2.0mm cable.

OMC's 4-12F Ribbon Fan-out Fiber Optic Pigtail are available in both single and multimode versions with either APC or UPC polish types.

All of OMC pigtails are factory inspected and tested, with available interferometer data upon request.

Products Materials



G652D, G657A1, G657A2/B2, G657B3, OM1, OM2, OM3, OM4, OM5 Fibers

4F OD: 2.5x3.5mm ; 6F OD: 2.5x3.8mm

8F OD: 2.5x4.5mm ; 12F OD: 2.5x5.0mm

PVC (Riser/OFNR), LSZH, Plenum (OFNP) Jacket materials



High quality SM Ceramic ferrule, Good concentricity < 0.5um

High quality MM Ceramic ferrule, Good concentricity < 4.0um



High Quality 1x12 fanout kits for 12F ribbon fiber and ribbon cable.

Connector Type

LC

Standard boot . Short boot

Typical Applications : High-density



SC

Standard boot , Short boot

Typical Applications : Telecom; GPON; EPON; GBIC.



FC

Standard boot

Typical Applications : Datacom, Telecom, measurement equipment, single-mode lasers



ST

Standard boot

Typical Applications : Datacom



Connector Standard

SC: TIA/EIA, FOCIS3, GR-326.NTT-SC IEC61754-4 and JIS C5973.

LC: TIA/EIA, FOCIS10, GR-326 EIA/TIA-604-10, IEC61754-20 and JIS C5973.

FC: EIA /TIA-604-04, FOCIS4, NTT-FC, GR-326. IEC61754-13 and JIS C5973

ST: TIA/EIA, FOCIS2, GR-326. IEC61754-2 and JIS C5973 Etc.

MU: TIA/EIA-604-3A, GR-326.NTT-MU, JIS and IEC.

MTRJ: TIA/EIA, FOCIS12, GR-326. IEC and JIS C5973.

DIN: IEC61754-3



4-12F Ribbon fanout 2.0mm pigtail

Optical Specifications

Connector	SC,LC,FC,ST,E2000,MU,LX.5,DIN,D4	Jacket OD(mm)	4cores:3.5x2.5mm 6cores: 3.8x2.5mm 8cores: 4.5x2.5mm 12cores: 5.0x2.5mm
Fiber Mode	9/125μm, 50/125μm, 62.5/125μm,	Jacket Color	SM:Yellow/Blue/White; OM1&OM2: Orange; OM3:Aqua; OM4:Aqua/Violet/ Magenta
Polish	PC,UPC,APC	Wavelength	SM:1310/1550nm MM:850nm
Cable Type	Multi-fibers Breakout 2.0mm unit cable	Jacket Material	LSZH/PVC/OFNR/OFNP
Insertion loss	≤0.3dB(IEC Grade C)	Insertion loss	≤0.12dB(IEC Grade B)
Return loss	SM UPC ≥ 50dB(min) SM APC ≥ 60dB(min) MM PC ≥ 35dB(min)	Interchangeability &Vibration	≤0.2dB
Operating temperature	-40~75°C	Storage temperature	-45~85°C

Geometric Specification(if Customer requested)

Items		Parameter	
Polishing		PC	APC
ROC	SC/FC/ST	10 ~ 25	5 ~ 12
	LC/MU	7~ 25	5 ~ 12
Apex Offset		≤ 50	
Fiber Spherical Height		±100	
Angle		± 0.5	8 ± 0.5

Polishing Method



UPC(Ultra-Polished connector)



APC(8 Angled Polished connector)



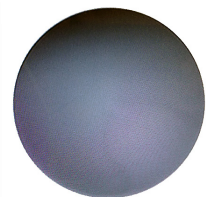
4-12F Ribbon fanout 2.0mm pigtail

End-face Quality (SM)

Zone	Range (μm)	Scratches	Defects	Reference
A: Core	0 to 25	None	None	IEC 61300-3 -35:2015
B: Cladding	25 to 115	None	None	
C: Adhesive	115 to 135	None	None	
D: Contact	135 to 250	None	None	
E: Rest of ferrule		None	None	



SM UPC



SM APC

End-face Quality (MM)

Zone	Range (μm)	Scratches	Defects	Reference
A: Core	0 to 65	None	None	IEC 61300-3 -35:2015
B: Cladding	65 to 115	None	None	
C: Adhesive	115 to 135	None	None	
D: Contact	135 to 250	None	None	
E: Rest of ferrule		None	None	



MM PC

Length Tolerance

Overall Length(L)(m)	length of tolerance(cm)
0<L<1	+5/-0
1<L<10	+10/-0
10<L<40	+15/-0
40<L	+0.5% x L/-0

Standard Compliance

- TIA 604 (FOCIS)
- TIA/EIA 492AAAE
- IEC 61754
- IEC 60793-2-10
- IEC61300-3-35
- YD/T1272.1-2003
- RoHS, ISO9001 Compliant

Features

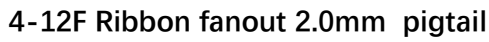
- High quality zirconia ferrules.
- Good repeatability and interchange.
- Flame-retardant, rugged and durable jacket.
- 100% optically tested for insertion loss to ensure high quality

Application

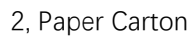
- Data Center
- Enterprise
- Fiber to the X (FTTX)
- LAN and WAN
- CATV Network
- Telecommunications Network

OME service

1. Cable color, printing word, material of cable jacket, connector's color
2. OEM Label, Identify ring, cable's label, box, shipping marks
3. Different quality Level.



This easily taken and well-protected fiber optical cable package has been labelled and marked by OMC as default .Standard carton size : 34*22*15 cm; 44*34*24 cm ; 54*39*34 cm . Which carton to be used depends on goods Qty . Packing can be customized.



Pigtail	Fiber+Qaulity	Fiber Grade	Connector A	Out jacket	Cable Color	—	length
E1-Fanout 0.9mm	Standard Quality, No Geometric request	1 - G652D	A LC UPC	H- LSZH	A Blue		1=1m
		2 - G657A1	B SC UPC	C - PVC	B Orange		...
		3 - G657A2/B2	C FC UPC	R - OFNR	C Green		
E2-Fanout 2.0mm	R1- 4cores R2- 6cores R3- 8cores R4- 12cores	4 - G657B3	D ST UPC	P - OFNP	D Brown		
		5 - OM1	E LC APC	B - bare ribbon Fiber	E Grey		
		6 - OM2	F SC APC		F White		
		7 - OM3	G FC APC		G Red		
		8 - OM4	H ST APC		H Black		
	Standard Quality, Geometric Passed	9 - OM5	I E2000 UPC		I Yellow		
	G1- 4cores G2- 6cores G3- 8cores G4- 12cores		J E2000 APC		J Purple		
			L DIN UPC		K Pink		
			M DIN APC		L aqua		
			N D4		M Magenta		
			O MU UPC		O- No jacket		
			P MU APC				
			R LX.5 UPC				
	IEC B+ Geometric Passed		S LX.5 APC				
	B1- 4cores B2- 6cores B3- 8cores B4- 12cores						



4-12F Ribbon fanout 2.0mm pigtail

Transmission Distance Comparison

Data Rate	Interface Type	Fiber Mode	Wavelength	Maximum Distance
1G	1000BASE-LX	OM5	850nm	550m
		OM4	1300nm	550m
		OM3	1300nm	550m
		OM2	1300nm	550m
		OM1	1300nm	550m
		SMF	1310nm	10km
	1000BASE-SX	OM4	850nm	550m
		OM3	850nm	550m
		OM2	850nm	550m
		OM1	850nm	275m
10G	10GBASE-SR	OM4	850nm	400m
		OM3	850nm	300m
		OM2	850nm	82m
		OM1	850nm	33m
	10GBASE-LRM	OM5	850nm	220m
		OM3	1300nm	220m
		OM2	1300nm	220m
		OM1	1300nm	220m
	10GBASE-LR	SMF	1310nm	10km
	10GBASE-ER	SMF	1550nm	30-40km
	10GBASE-ZR	SMF	1550nm	80-100km
40G	40G-BIDI	OM5	850nm	200m
		OM4	850nm	150m
		OM3	850nm	100m
	40GBASE-SR4	OM5	850nm	150m
		OM4	850nm	150m
		OM3	850nm	100m
	40G-SWDM4	OM5	850nm	440m
		OM4	850nm	350m
		OM3	850nm	240m
	40GBASE-LR4	SMF	1310nm	10km



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Transmission Distance Comparison

Data Rate	Interface Type	Fiber Mode	Wavelength	Maximum Distance
100G	100GBASE-SR4	OM5	850nm	100m
		OM4	850nm	100m
		OM3	850nm	70m
	100G-SWDM4	OM5	850nm	150m
		OM4	850nm	100m
		OM3	850nm	75m
	100GBASE-SR10	OM4	850nm	125m
		OM3	850nm	100m
	100GBASE-LR4	SMF	1310nm	10km
	100GBASE-ER4	SMF	1310nm	40km

How to Choose The Right Fiber Optic Cable Type?

Designation	Fiber Dia. (μm)	Type	Fast Ethernet 100BASE-FX	1 Gigabit Ethernet 1000BASE-SX	1 Gigabit Ethernet 1000BASE-LX	10Gbps Ethernet 10GBASE	40Gbps Ethernet 40GBASE	100Gbps Ethernet 100GBASE
OM1	62.5/125	Multi-mode	2000 Meters	275 Meters	550 Meters	33 Meters	Not supported	Not supported
OM2	50/125	Multi-mode	2000 Meters	550 Meters	550 Meters	82 Meters	Not supported	Not supported
OM3(Laser)	50/125	Multi-mode	2000 Meters	550 Meters	550 Meters	300 Meters	100 Meters	100 Meters
OM4(Laser Optimized)	50/125	Multi-mode	2000 Meters	550 Meters	550 Meters	400 Meters	150 Meters (SR4)	150 Meters (SR4)
Singlemode	9/125	Single-mode	2000 Meters	5km at 1310nm	5km at 1310nm	10km at 1310nm	N/A	N/A

PS: The difference of OM4 and OM3 fiber mode as the following

1. OM4 was developed specifically for VSCSEL laser transmission and allows 10 Gig / second link distances of up to 550 Meters (compared to 300M with OM3).
2. The effective modal bandwidth for OM4 is more than double that of OM3.