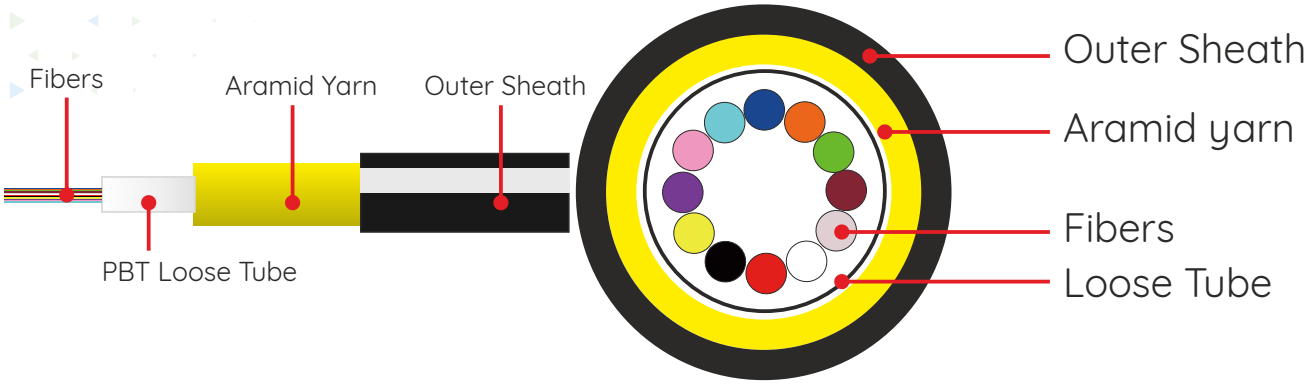
Fiber Solutions

Fiber Cables

Central Loose Tube Indoor-Outdoor Cable



Application

- Designed for indoor/outdoor installation
- Can be installed conveniently and operated easily.
- Suitable for telecommunication usage
- FTTx & Telecommunications Networks
- Cable TV and security applications
- Telemetry applications

Characteristics

- Loose tube jelly filled for superior fiber protection
- Loose Tube construction provides environmental protection
- UV or moisture resistant for outdoor application
- Colored coded fibers and binders for quick and easy identification during installation
- Very lightweight and flexible design allows for easy installation
- High quality outer sheath
- Inner aramid yarn protection
- Fiber core:2~12

Fiber Colors

No.	1	2	3	4	5	6
Color	Blue	Orange	Green	Brown	Grey	White

No.	7	8	9	10	11	12
Color	Red	Black	Yellow	Voilet	Pink	Aqua

Cable Specification

Cable Dimension	2-12 crore	8.0 ± 0.3mm
Fiber type	Single mode / Multi Mode	
Outer Sheath	Color : Black Material : LSZH/PE	
Internal reinforcement	Aramid yarn / fiber glass	

The Properties of Optical Fiber

Fiber Style		Unit	SM	MM 50/125	MM 62.5/125
Condition		nm	1310/1550	850/1300	850/1300
Attenuation		dB/km	≤ 0.36/0.23	≤ 3.0/1.0	≤ 3.0/1.0
Dispersion	1310 nm	Ps/(nm*km)	≤ 18	.....	.....
	1550 nm	Ps/(nm*km)	≤ 22	.....	.....
Bandwidth	850 nm	MHZ.KM	.....	≥ 400	≥ 160
	1300 nm	MHZ.KM	.....	≥ 800	≥ 500
Zero dispersion wavelength		nm	≥1302≤	.....	.....
Zero dispersion slope		nm	≤0.091	.....	.....
PMD Maximum Individual Fiber			≤0.2	.....	.....
PMD Design Link Value		Ps/(nm2*km)	≤0.08	.....	.....
Fiber cutoff wavelength λ c		nm	≥1180≤	.....	.....
Cable cutoff wavelength λ cc		nm	≤1260	.....	.....
MFD	1310 nm	um	9.2 ± 0.4	.....	.....
	1550 nm	um	10.4 ± 0.8	.....	.....
Numerical Aperture(NA)			.....	0.200 ± 0.015	0.275 ±
Step (mean of bidirectional measurement)		dB	≤0.05	≤0.10	≤0.10
Irregularities over fiber length and point discontinuity		dB	≤0.05	≤0.10	≤0.10
Difference backscatter coefficient		dB/km	≤0.03	≤0.08	≤0.10
Attenuation uniformity		dB/km	≤0.01	.....	.....
Core diameter		um		50 ± 1.0	62.5 ± 2.5
Cladding diameter		um	60.0 ± 0.1	60.0 ± 0.1	60.0 ± 0.1
Cladding non-circularity		%	≤1.0	≤1.0	≤1.0
Coating diameter		um	242 ± 7	242 ± 7	242 ± 7
Coating/chaffinch concentrically		um	≤12.0	≤12.0	≤12.0
Coating non cirrcularity error		%	≤6.0	≤6.0	≤6.0
Core/cladding concentricity error		um	≤0.6	≤1.5	≤1.5
Curl(radius)		um	≤4	.....	.....

Geometric Characteristics

Characteristic	Data	Unit
Cladding roundness	≤ 0.7	%
Cladding diameter	125 ± 1	μm
Coating diameter	242 ± 5	μm
Non-curcularity of coating	≤5	%
Coating/package concentricity error	≤10.0	μm
Core/package concentricity error	≤0.6	μm
The warpage (radius)	≥4	m

Enviromental Characteristics

Item		Parameter
Crush Resistance	Short Term	1000(N/100mm)
	Long Term	300(N/100mm)
Temperature Range (°C)	Installation	-40~+50
	Transport&Storage	-40~+60
	Operation	-40~+60
Minimum Bending	Short Term	20D mm
	Long Term	10D mm

Standard Compliance

Telcordia GR-20 | RUS 7 CFR 1755.900 (REA PE-90) | ICEA S 87-640

Fiber Compliance

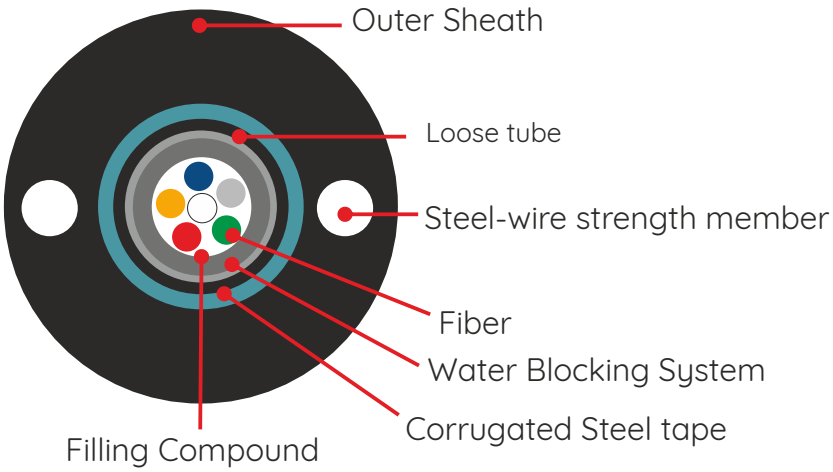
Temperature Cycling	IEC60794-1-2-F2
Tensile Strength Crush	IEC60794-1-2-E1A
Impact	IEC60794-1-2-E3
Repeated Bending	IEC60794-1-2-E4
Torsion	IEC60794-1-2-E6
Kink	IEC60794-1-2-E7
Cable Bend	IEC60794-1-2-E10
Cool Bend	IEC60794-1-2-E11

Ordering Information

Part Number	Product Description
RF2-02CLSMIO-<JT>	2 Core Central Loose tube Indoor / Outdoor Cable, 09/125um Single mode, <Jacket Type>
RF2-04CLSMIO-<JT>	4 Core Central Loose tube Indoor / Outdoor Cable, 09/125um Single mode, <Jacket Type>
RF2-06CLSMIO-<JT>	6 Core Central Loose tube Indoor / Outdoor Cable, 09/125um Single mode, <Jacket Type>
RF2-08CLSMIO-<JT>	8 Core Central Loose tube Indoor / Outdoor Cable, 09/125um Single mode, <Jacket Type>
RF2-012CLSMIO-<JT>	12 Core Central Loose tube Indoor / Outdoor Cable, 09/125um Single mode, <Jacket Type>
RF2-02CLSM1IO-<JT>	2 Core Central Loose tube Indoor / Outdoor Cable, 62.5/125um OM1 Multi-Mode, <Jacket Type>
RF2-04CLSM1IO-<JT>	4 Core Central Loose tube Indoor / Outdoor Cable, 62.5/125um OM1 Multi-Mode, <Jacket Type>
RF2-06CLSM1IO-<JT>	6 Core Central Loose tube Indoor / Outdoor Cable, 62.5/125um OM1 Multi-Mode, <Jacket Type>
RF2-08CLSM1IO-<JT>	8 Core Central Loose tube Indoor / Outdoor Cable, 62.5/125um OM1 Multi-Mode, <Jacket Type>
RF2-12CLSM1IO-<JT>	12 Core Central Loose tube Indoor / Outdoor Cable, 62.5/125um OM1 Multi-Mode, <Jacket Type>
RF2-02CLSM2IO-<JT>	2 Core Central Loose tube Indoor / Outdoor Cable, 50/125um OM2 Multi-Mode, <Jacket Type>
RF2-04CLSM2IO-<JT>	4 Core Central Loose tube Indoor / Outdoor Cable, 50/125um OM2 Multi-Mode, <Jacket Type>
RF2-06CLSM2IO-<JT>	6 Core Central Loose tube Indoor / Outdoor Cable, 50/125um OM2 Multi-Mode, <Jacket Type>
RF2-08CLSM2IO-<JT>	8 Core Central Loose tube Indoor / Outdoor Cable, 50/125um OM2 Multi-Mode, <Jacket Type>
RF2-12CLSM2IO-<JT>	12 Core Central Loose tube Indoor / Outdoor Cable, 50/125um OM2 Multi-Mode, <Jacket Type>
RF2-02CLSM3IO-<JT>	2 Core Central Loose tube Indoor / Outdoor Cable, 50/125um OM3 Multi-Mode, <Jacket Type>
RF2-04CLSM3IO-<JT>	4 Core Central Loose tube Indoor / Outdoor Cable, 50/125um OM3 Multi-Mode, <Jacket Type>
RF2-06CLSM3IO-<JT>	6 Core Central Loose tube Indoor / Outdoor Cable, 50/125um OM3 Multi-Mode, <Jacket Type>
RF2-08CLSM3IO-<JT>	8 Core Central Loose tube Indoor / Outdoor Cable, 50/125um OM3 Multi-Mode, <Jacket Type>
RF2-12CLSM3IO-<JT>	12 Core Central Loose tube Indoor / Outdoor Cable, 50/125um OM3 Multi-Mode, <Jacket Type>
RF2-02CLSM4IO-<JT>	2 Core Central Loose tube Indoor / Outdoor Cable, 50/125um OM4 Multi-Mode, <Jacket Type>
RF2-04CLSM4IO-<JT>	4 Core Central Loose tube Indoor / Outdoor Cable, 50/125um OM4 Multi-Mode, <Jacket Type>
RF2-06CLSM4IO-<JT>	6 Core Central Loose tube Indoor / Outdoor Cable, 50/125um OM4 Multi-Mode, <Jacket Type>
RF2-08CLSM4IO-<JT>	8 Core Central Loose tube Indoor / Outdoor Cable, 50/125um OM4 Multi-Mode, <Jacket Type>
RF2-12CLSM4IO-<JT>	12 Core Central Loose tube Indoor / Outdoor Cable, 50/125um OM4 Multi-Mode, <Jacket Type>

JT=Jacket Type PV-PVC / LZ-LSZH / PE-PE / FV-FRPVC / FZ-FRLSZH

Central Loose Tube Outdoor Armored FO Cable



Application

- Adopted to Outdoor distribution.
- Suitable for aerial pipeline laying method.
- Long distance and local area network communication

Characteristics

- Steel-wire parallel member filler protect tube fiber steel tape amored.
- Excellent mechanical and environmental performance.
- Compact structure light weight
- Can be installed conveniently and operated simply.

Standar Compliance

- Temperature Cycling : IEC60794-1-2-F2
- Tensile Strength Crush : IEC60794-1-2-E1A
  : IEC60794-1-2-E3
- Impact Test : IEC60794-1-2-E4
- Cable UV resistance : IEC60794-1-2,9.12
  : IEC60794-1-2,F14
  : ISO 4892-2
- Torsion Test : IEC60794-1-2-E7

Standard Color of Fiber & Tube

The color of the individual fibers, shall be in accordance with the table below:

No.	1	2	3	4	5	6
Color	Blue	Orange	Green	Brown	Grey	White

No.	7	8	9	10	11	12
Color	Red	Black	Yellow	Voilet	Pink	Aqua

Fiber Parameters

Fiber Style		Unit	SM	MM 50/125	MM 62.5/125
Condition		nm	1310/1550	850/1300	850/1300
Attenuation		dB/km	≤ 0.36/0.23	≤ 3.0/1.0	≤ 3.0/1.0
Dispersion	1310 nm	Ps/(nm*km)	≤ 18	.....	.....
	1550 nm	Ps/(nm*km)	≤ 22	.....	.....
Bandwidth	850 nm	MHZ.KM	.....	≥ 400	≥ 160
	1300 nm	MHZ.KM	.....	≥ 800	≥ 500
Zero dispersion wavelength		nm	≥1302≤	.....	.....
Zero dispersion slope		nm	≤0.091	.....	.....
PMD Maximum Individual Fiber			≤0.2	.....	.....
PMD Design Link Value		Ps/(nm2*km)	≤0.08	.....	.....
Fiber cutoff wavelength λ c		nm	≥1180≤	.....	.....
Cable cutoff wavelength λ cc		nm	≤1260	.....	.....
MFD	1310 nm	um	9.2 ± 0.4	.....	.....
	1550 nm	um	10.4 ± 0.8	.....	.....
Numerical Aperture(NA)			.....	0.200 ± 0.015	0.275 ±
Step (mean of bidirectional measurement)		dB	≤0.05	≤0.10	≤0.10
Irregularities over fiber length and point discontinuity		dB	≤0.05	≤0.10	≤0.10
Difference backscatter coefficient		dB/km	≤0.03	≤0.08	≤0.10
Attenuation uniformity		dB/km	≤0.01	.....	.....
Core diameter		um		50 ± 1.0	62.5 ± 2.5
Cladding diameter		um	60.0 ± 0.1	60.0 ± 0.1	60.0 ± 0.1
Cladding non-circularity		%	≤1.0	≤1.0	≤1.0
Coating diameter		um	242 ± 7	242 ± 7	242 ± 7
Coating/chaffinch concentrically error		um	≤12.0	≤12.0	≤12.0
Coating non crircularity error		%	≤6.0	≤6.0	≤6.0
Core/cladding concentricity error		um	≤0.6	≤1.5	≤1.5
Curl(radius)		um	≤4	.....	.....

Fiber Compliance

ITU-T G.652.D/G.657.A,IEC 60793-2-50 G677B.3

Enviromental Characteristics

Environmental Characteristics	1310nm, 1550nm & 1625nm
Temperature Dependence Induced Attenuation	-40°C to +85°C

Cable Count	Out Sheath Diameter	Minimum Allowable Tensile Strength (N)		Minimum Allowable Crush Load (N/100mm)		Minimum Bending Radius (MM)	
Core	(MM)	Short Term	Long Term	Short Term	Long Term	Short Term	Long Term
2	8.3	1500	600	1000	300	20D	10D
4	8.3	1500	600	1000	300	20D	10D
6	8.3	1500	600	1000	300	20D	10D
8	8.3	1500	600	1000	300	20D	10D
10	8.3	1500	600	1000	300	20D	10D
12	8.3	1500	600	1000	300	20D	10D

Geometric Characteristics

Characteristic	Specified Value	Unit
Cladding roundness	≤ 0.7	%
Cladding Diameter	125 ± 0.7	μm
Coating Diameter	245 ± 5	μm
Coating/Packaging Concentricity error	≤12.0	μm
Core/Packaging concentricity error	≤6.0	μm
The wrapage(radius)	≥ 4	m

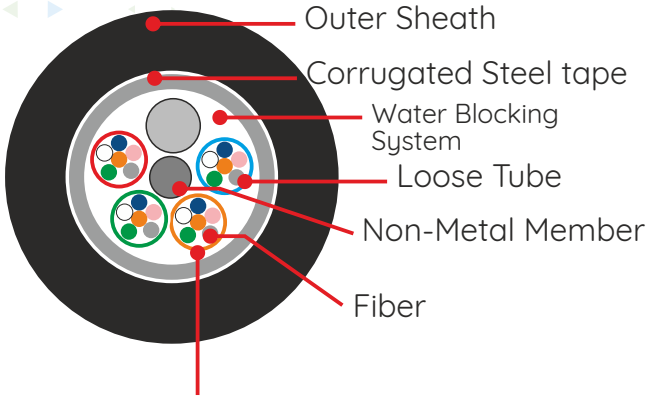
Ordering Information

Part Number	Product Description
RF2-02CLSMOA-<JT>	2 Core Central Loose Tube Outdoor Armored Cable, 09/125um Single mode, <Jacket Type>
RF2-04CLSMOA-<JT>	4 Core Central Loose Tube Outdoor Armored Cable, 09/125um Single mode, <Jacket Type>
RF2-06CLSMOA-<JT>	6 Core Central Loose Tube Outdoor Armored Cable, 09/125um Single mode, <Jacket Type>
RF2-08CLSMOA-<JT>	8 Core Central Loose Tube Outdoor Armored Cable, 09/125um Single mode, <Jacket Type>
RF2-12CLSMOA-<JT>	12 Core Central Loose Tube Outdoor Armored Cable, 09/125um Single mode, <Jacket Type>
RF2-02CLM1OA-<JT>	2 Core Central Loose Tube Outdoor Armored Cable, 62.5/125um OM 1 Multi-Mode, <Jacket Type>
RF2-04CLM1OA-<JT>	4 Core Central Loose Tube Outdoor Armored Cable, 62.5/125um OM 1 Multi-Mode, <Jacket Type>
RF2-06CLM1OA-<JT>	6 Core Central Loose Tube Outdoor Armored Cable, 62.5/125um OM 1 Multi-Mode, <Jacket Type>
RF2-08CLM1OA-<JT>	8 Core Central Loose Tube Outdoor Armored Cable, 62.5/125um OM 1 Multi-Mode, <Jacket Type>
RF2-12CLM1OA-<JT>	12 Core Central Loose Tube Outdoor Armored Cable, 62.5/125um OM 1 Multi-Mode, <Jacket Type>

Part Number	Product Description
RF2-02CLM2OA-<JT>	2 Core Central Loose Tube Outdoor Armored Cable, 50/125um OM 2 Multi-Mode, <Jacket Type>
RF2-04CLM2OA-<JT>	4 Core Central Loose Tube Outdoor Armored Cable, 50/125um OM 2 Multi-Mode, <Jacket Type>
RF2-06CLM2OA-<JT>	6 Core Central Loose Tube Outdoor Armored Cable, 50/125um OM 2 Multi-Mode, <Jacket Type>
RF2-08CLM2OA-<JT>	8 Core Central Loose Tube Outdoor Armored Cable, 50/125um OM 2 Multi-Mode, <Jacket Type>
RF2-12CLM2OA-<JT>	12 Core Central Loose Tube Outdoor Armored Cable, 50/125um OM 2 Multi-Mode, <Jacket Type>
RF2-02CLM3OA-<JT>	2 Core Central Loose Tube Outdoor Armored Cable, 50/125um OM 3 Multi-Mode, <Jacket Type>
RF2-04CLM3OA-<JT>	4 Core Central Loose Tube Outdoor Armored Cable, 50/125um OM 3 Multi-Mode, <Jacket Type>
RF2-06CLM3OA-<JT>	6 Core Central Loose Tube Outdoor Armored Cable, 50/125um OM 3 Multi-Mode, <Jacket Type>
RF2-08CLM3OA-<JT>	8 Core Central Loose Tube Outdoor Armored Cable, 50/125um OM 3 Multi-Mode, <Jacket Type>
RF2-12CLM3OA-<JT>	12 Core Central Loose Tube Outdoor Armored Cable, 50/125um OM 3 Multi-Mode, <Jacket Type>
RF2-02CLM4OA-<JT>	2 Core Central Loose Tube Outdoor Armored Cable, 50/125um OM 4 Multi-Mode, <Jacket Type>
RF2-04CLM4OA-<JT>	4 Core Central Loose Tube Outdoor Armored Cable, 50/125um OM 4 Multi-Mode, <Jacket Type>
RF2-06CLM4OA-<JT>	6 Core Central Loose Tube Outdoor Armored Cable, 50/125um OM 4 Multi-Mode, <Jacket Type>
RF2-08CLM4OA-<JT>	8 Core Central Loose Tube Outdoor Armored Cable, 50/125um OM 4 Multi-Mode, <Jacket Type>
RF2-12CLM4OA-<JT>	12 Core Central Loose Tube Outdoor Armored Cable, 50/125um OM 4 Multi-Mode, <Jacket Type>

JT=Jacket Type PV-PVC / LZ-LSZH / PE-PE / FV-FRPVC / FZ-FRLSZH

Multi Loose Tube Outdoor Armored FO Cable



Application

- Adopted to outdoor Distribution.
- Suitable for aerial pipeline laying method.
- Long distance and local area network communication.
- Designed for outside plant providing extra protection to cables.

Characteristics

- Steel wire strength filler protect tube fiber steel tape armord.
- Good ultra violet radiation resistant property.
- Good moisture-resistance
- Loose Tube construction provides environmental protection
- Loose tube jelly filled for superior fiber protection
- UV resistant for outdoor application
- PE black jacket or customized.

Fiber Compliance

ITU-T G.652.D/G.657.A,IEC 60793-2-50 G677B.3

Standard

- Temperature Cycling : IEC60794-1-2-F1 (-10°C to +70°C)
- Tensile Strength Crush : IEC60794-1-2-E1A
  : IEC60794-1-2-E3
- Impact Test : IEC60794-1-2-E4
- Cable UV resistance : IEC60794-1-2,9.12
  : IEC60794-1-2,F14
  : ISO 4892-2
- Torsion Test : IEC60794-1-2-E7

Technical Parameters

Cable Count	Outer Sheath Diameter	Weight	Minium Allowable Tensile Strength (N)		Minium Allowable Crush Load (N/100mm)		Minium Bending Radius (MM)	
Core	(MM)	(Kg)	Short Term	Long Term	Short Term	Long Term	Short Term	Long Term
24	10.5	105	1500	600	1000	300	20D	10D
36	10.5	105	1500	600	1000	300	20D	10D
42	10.5	105	1500	600	1000	300	20D	10D
48	10.5	105	1500	600	1000	300	20D	10D
60	10.5	105	1500	600	1000	300	20D	10D
72	10.5	10.5	1500	600	1000	300	20D	10D
96	14.5	208	1500	600	1000	300	20D	10D
144	18.3	295	1500	600	1000	300	20D	10D

Fiber Parameters

Fiber Style		Unit	SM	MM 50/125	MM 62.5/125
Condition		nm	1310/1550	850/1300	850/1300
Attenuation		dB/km	≤ 0.36/0.23	≤ 3.0/1.0	≤ 3.0/1.0
Dispersion	1310 nm	Ps/(nm*km)	≤ 18	.....	.....
	1550 nm	Ps/(nm*km)	≤ 22	.....	.....
Bandwidth	850 nm	MHZ.KM	.....	≥ 400	≥ 160
	1300 nm	MHZ.KM	.....	≥ 800	≥ 500
Zero dispersion wavelength		nm	≥1302≤, ≤1322	.....	.....
Zero dispersion slope		nm	≤0.091	.....	.....
PMD Maximum Individual Fiber			≤0.2	.....	.....
PMD Design Link Value		Ps/(nm2*km)	≤0.08	.....	.....
Fiber cutoff wavelength λ c		nm	≥1180,≤1330	.....	.....
Cable cutoff wavelength λ cc		nm	≤1260	.....	.....
MFD	1310 nm	um	9.2 ± 0.4	.....	.....
	1550 nm	um	10.4 ± 0.8	.....	.....
Numerical Aperture(NA)			.....	0.200 ± 0.015	0.275 ±
Step (mean of bidirectional measurement)		dB	≤0.05	≤0.10	≤0.10
Irregularities over fiber length and point discontinuity		dB	≤0.05	≤0.10	≤0.10
Difference backscatter coefficient		dB/km	≤0.03	≤0.08	≤0.10
Attenuation uniformity		dB/km	≤0.01	.....	.....
Core diameter		um		50 ± 1.0	62.5 ± 2.5
Cladding diameter		um	105.0+-0.1	105.0+-0.1	105.0+-0.1
Cladding non-circularity		%	≤1.0	≤1.0	≤1.0
Coating diameter		um	242 ± 7	242 ± 7	242 ± 7
Coating/chaffinch concentrically error		um	≤12.0	≤12.0	≤12.0
Coating non crircularity error		%	≤6.0	≤6.0	≤6.0
Core/cladding concentricity error		um	≤0.6	≤1.5	≤1.5
Curl(radius)		um	≤4	.....	.....

Geometric Characteristics

Characteristic	Specified Value	Unit
Cladding roundness	≤ 0.7	%
Cladding Diameter	125 ± 0.7	μm
Coating Diameter	245 ± 5	μm
Coating/Packaging Concentricity error	≤12.0	μm
Core/Packaging concentricity error	≤6.0	μm
The wrapage(radius)	≥ 4	m

Enviromental Characteristics

Item		Parameter
Tensile	Short Term	1500N
	Long Term	600N
Crush Resistance	Short Term	1000N
	Long Term	300N
Temperature Range (°C)	Transport&Storage	-40~+85
Minimum Bending	Short Term	20D mm
	Long Term	10D mm

Part Number	Product Description
RF2-24MLSMOA-<JT>	24 Core Multi Loose Tube Outdoor Armored Cable, 09/125um Single-Mode, <Jacket Type>
RF2-36MLSMOA-<JT>	36 Core Multi Loose Tube Outdoor Armored Cable, 09/125um Single-Mode, <Jacket Type>
RF2-42MLSMOA-<JT>	42 Core Multi Loose Tube Outdoor Armored Cable, 09/125um Single-Mode, <Jacket Type>
RF2-48MLSMOA-<JT>	48 Core Multi Loose Tube Outdoor Armored Cable, 09/125um Single-Mode, <Jacket Type>
RF2-60MLSMOA-<JT>	60 Core Multi Loose Tube Outdoor Armored Cable, 09/125um Single-Mode, <Jacket Type>
RF2-72MLSMOA-<JT>	72 Core Multi Loose Tube Outdoor Armored Cable, 09/125um Single-Mode, <Jacket Type>
RF2-96MLSMOA-<JT>	96 Core Multi Loose Tube Outdoor Armored Cable, 09/125um Single-Mode, <Jacket Type>
RF2-144MLSMOA-<JT>	144 Core Multi Loose Tube Outdoor Armored Cable, 09/125um Single-Mode, <Jacket Type>
RF2-24MLM1OA-<JT>	24 Core Multi Loose Tube Outdoor Armored Cable, 62.5/125um OM 1 Multi-Mode, <Jacket Type>
RF2-36MLM1OA-<JT>	36 Core Multi Loose Tube Outdoor Armored Cable, 62.5/125um OM 1 Multi-Mode, <Jacket Type>
RF2-42MLM1OA-<JT>	42 Core Multi Loose Tube Outdoor Armored Cable, 62.5/125um OM 1 Multi-Mode, <Jacket Type>
RF2-48MLM1OA-<JT>	48 Core Multi Loose Tube Outdoor Armored Cable, 62.5/125um OM 1 Multi-Mode, <Jacket Type>
RF2-60MLM1OA-<JT>	60 Core Multi Loose Tube Outdoor Armored Cable, 62.5/125um OM 1 Multi-Mode, <Jacket Type>
RF2-72MLM1OA-<JT>	72 Core Multi Loose Tube Outdoor Armored Cable, 62.5/125um OM 1 Multi-Mode, <Jacket Type>
RF2-96MLM1OA-<JT>	96 Core Multi Loose Tube Outdoor Armored Cable, 62.5/125um OM 1 Multi-Mode, <Jacket Type>
RF2-144MLM1OA-<JT>	144 Core Multi Loose Tube Outdoor Armored Cable, 62.5/125um OM 1 Multi-Mode, <Jacket Type>

Part Number	Product Description
RF2-24MLM2OA-<JT>	24 Core Multi Loose Tube Outdoor Armored Cable, 50/125um OM 2 Multi-Mode, <Jacket Type>
RF2-36MLM2OA-<JT>	36 Core Multi Loose Tube Outdoor Armored Cable, 50/125um OM 2 Multi-Mode, <Jacket Type>
RF2-42MLM2OA-<JT>	42 Core Multi Loose Tube Outdoor Armored Cable, 50/125um OM 2 Multi-Mode, <Jacket Type>
RF2-48MLM2OA-<JT>	48 Core Multi Loose Tube Outdoor Armored Cable, 50/125um OM 2 Multi-Mode, <Jacket Type>
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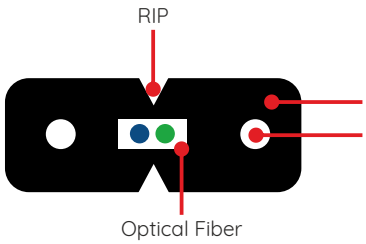
RF2-96MLM2OA-<JT>	96 Core Multi Loose Tube Outdoor Armored Cable, 50/125um OM 2Multi-Mode, <Jacket Type>
RF2-144MLM2OA-<JT>	144 Core Multi Loose Tube Outdoor Armored Cable, 50/125um OM 2 Multi-Mode, <Jacket Type>
RF2-24MLM3OA-<JT>	24 Core Multi Loose Tube Outdoor Armored Cable, 50/125um OM 3 Multi-Mode, <Jacket Type>
RF2-36MLM3OA-<JT>	36 Core Multi Loose Tube Outdoor Armored Cable, 50/125um OM 3 Multi-Mode, <Jacket Type>
RF2-42MLM3OA-<JT>	42 Core Multi Loose Tube Outdoor Armored Cable, 50/125um OM 3 Multi-Mode, <Jacket Type>
RF2-48MLM3OA-<JT>	48 Core Multi Loose Tube Outdoor Armored Cable, 50/125um OM 3 Multi-Mode, <Jacket Type>
RF2-60MLM3OA-<JT>	60 Core Multi Loose Tube Outdoor Armored Cable, 50/125um OM 3 Multi-Mode, <Jacket Type>
RF2-72MLM3OA-<JT>	72 Core Multi Loose Tube Outdoor Armored Cable, 50/125um OM 3 Multi-Mode, <Jacket Type>
RF2-96MLM3OA-<JT>	96 Core Multi Loose Tube Outdoor Armored Cable, 50/125um OM 3 Multi-Mode, <Jacket Type>
RF2-144MLM3OA-<JT>	144 Core Multi Loose Tube Outdoor Armored Cable, 50/125um OM 3 Multi-Mode, <Jacket Type>
RF2-24MLM4OA-<JT>	24 Core Multi Loose Tube Outdoor Armored Cable, 50/125um OM 4 Multi-Mode, <Jacket Type>
RF2-36MLM4OA-<JT>	36 Core Multi Loose Tube Outdoor Armored Cable, 50/125um OM 4 Multi-Mode, <Jacket Type>
RF2-42MLM4OA-<JT>	42 Core Multi Loose Tube Outdoor Armored Cable, 50/125um OM 4 Multi-Mode, <Jacket Type>
RF2-48MLM4OA-<JT>	48 Core Multi Loose Tube Outdoor Armored Cable, 50/125um OM 4 Multi-Mode, <Jacket Type>
RF2-60MLM4OA-<JT>	60 Core Multi Loose Tube Outdoor Armored Cable, 50/125um OM 4 Multi-Mode, <Jacket Type>
RF2-72MLM4OA-<JT>	72 Core Multi Loose Tube Outdoor Armored Cable, 50/125um OM 4 Multi-Mode, <Jacket Type>
RF2-96MLM4OA-<JT>	96 Core Multi Loose Tube Outdoor Armored Cable, 50/125um OM 4 Multi-Mode, <Jacket Type>
RF2-144MLM4OA-<JT>	144 Core Multi Loose Tube Outdoor Armored Cable, 50/125um OM 4 Multi-Mode, <Jacket Type>

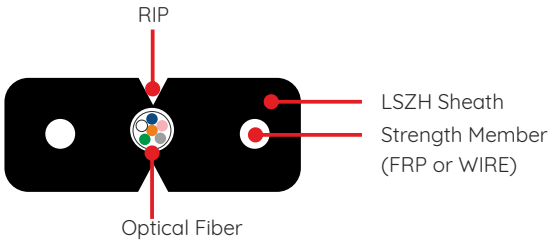
JT=Jacket Type PV-PVC / LZ-LSZH / PE-PE / FV-FRPVC / FZ-FRLSZH

2/4 Core Single Mode Drop Cable – FTTH Indoor

Ritchfield Single Mode FTTH Drop Fiber Cables offer reliable high-speed connectivity for residential and business applications. They ensure seamless performance, easy installation, and durability. Ideal for internet, IPTV, VoIP, cloud services, online gaming, smart homes, remote work, e-learning, and security systems.

Cross-sectional Drawing of cable





Characteristics

Items	Parameter
Core Concentricity Error	≤0.6 μ m
Cladding Non-Circularity	≤1.0%
Primary Coating Diameter	250±15 μ m
Coating - Cladding Concentricity Error	≤12.5 μ
Cable Weight	8kg/km
Cable Diameter	3.1*2.0MM
Fiber Range	2/4 Core
Fiber Type	G657A, G657B or G652D

Standards

ITU.T G.652D / G.657A/B

IEC 60332-1-2, IEC 60754-1,2 & IEC 61034-2

Specifications

Fiber Style		Conditions	Specified Values	Units
Optical Characteristics ITU-G.657A1				
Attenuation		1310nm	≤0.35	[dB/km]
		1383nm(after H_2 aging)	≤0.35	[dB/km]
		1460nm	≤0.25	[dB/km]
		1550nm	≤0.21	[dB/km]
		1625nm	≤0.23	[dB/km]
Attenuation vs. Wavelength Max. a Diffeence		1285-1330nm, in reference to 1310nm	≤0.03	[dB/km]
		1525-1575m, in reference to 1550nm	≤0.02	[dB/km]
Dispersion Coefficient		1285-1341nm	-3.5 to 3.5	[ps/nm.km)]
		1550nm	≤18	[ps/nm.km)]
		1625nm	≤22	[ps/nm.km)]
Zero Dispersion Wavelength (λ_0)		- -	1300-1324	[nm]
Zero Dispersion Slope (δ_0)		- -	≤0.092	[ps/nm^2.km)]
Typical Value		- -	0.086	[ps/nm^2.km)]
PMD	Maximum Individual Fiber	- -	≤0.1	[ps/√km)]
	Link Design Value (M=20, Q=0.01%)	- -	≤0.06	[ps/√km)]
	Typical Value	- -	0.04	[ps/√km)]
Cable Cutoff avelength (λ_{cc})		- -	≤1260	[nm]
Mode Field Diameter (MFD)		1310nm	8.4 - 9.2	[μm]
		1310nm	8.4 - 9.2	[μm]
		1550nm	9.3 - 10.3	[μm]

Geometric Characteristics

Characteristic	Specified Value	Unit
Cladding diameter	125.0 ± 0.7	μm
Cladding Non-circularity	≤0.7	%
Coating diameter	235 - 245	μm
Coating-Cladding concentricity error	≤12.0	μm
Coating Non-circularity	≤6.0	%
Core-Cladding concentricity error	≤0.5	μm
Curl(radius)	≥4	m

Enviromental Characteristics

Fiber Style	Conditions	Specified Values	Units
	1310nm, 1550nm & 1625nm		
Temperature Dependence Induced Attenuation	-60°C to +85°C	≤0.5	dB/km
Temperature-Humidity Cycling Induced Attenuation	-10°C to +85°C, 98% RH	≤0.5	dB/km
Watersoak Dependence Induced Attenuation	23°C for 30 Days	≤0.5	dB/km
Damp Heat Dependence Induced Attenuation	85°C and 85% RH, for 30 Days	≤0.5	dB/km
Dry Heat Aging	85°C for 30 Days	≤0.5	dB/km

Mechanical Specifications

Fiber Style		Conditions	Specified Values	Units
Proof Test		–	≥9.0	[N]
		–	≥1.0	[%]
		–	≥100	[kpsi]
Macro-bend Induced Loss	10 Turns Around a Mandrel of 15 mm Radius	1550 nm	≤0.25	[dB]
	10 Turns Around a Mandrel of 15 mm Radius	1625 nm	≤1.0	[dB]
	1 Turns Around a Mandrel of 10 mm Radius	1550 nm	≤0.75	[dB]
	1 Turns Around a Mandrel of 10 mm Radius	1625 nm	≤1.5	[dB]
Coating Strip Force		Typical Average Force	1.5	[N]
		peak force	1.3-8.9	[N]
Dynamic Fatigue Parameter (n_d)		–	≥20	–

Color Code of the Fiber

Each fiber can be identifiable throughout the length of the drop wire cable in accordance with the following color sequence(in accordance with EIA/TIA-598-A).

Fiber Colors

No.	1	2	3	4
Color	Blue	Orange	Green	Brown

Technical Parameters

Fiber Count	OD (nm)	Tensile Strength		Crush Resistance (N/100MM)		Bending Radius (nm)	
		Short-Term	Long-Term	Short-Term	Long-Term	Short-Term	Long-Term
2 Core	3.0±0.1*2.0±0.1	200	100	1000	500	20D	15D
4 Core	3.0±0.1*2.0±0.1	200	100	1000	500	20D	15D
Storage/Working temperature(°C)		-20°C - +60°C					

Ordering Information

Part Number	Product Description
RF2-02FTSMIN-LZ	2 Core FTTH Indoor Drop Cable, 09/125um Single mode, LSZH Sheath
RF2-04FTSMIN-LZ	4 Core FTTH Indoor Drop Cable, 09/125um Single mode, LSZH Sheath

2/4 Core Single Mode FTTH Drop Cable - Outdoor

Application

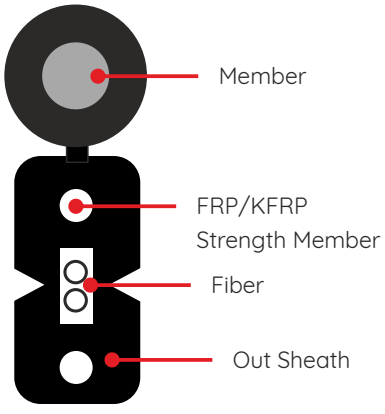
- Can be used in outdoor applications
- Can be used as access building cable
- Can be used as aerial drop cable

Characteristics

- Good mechanical and environmental features
- Flame retardant features meet the requirements of relevant standards
- The mechanical features meet the relevant standards
- Soft,flexible,easy to lay and splice,with big capacity data transmission
- Meet the requirements of the market and customers

Specifications

Items	Parameter
Cladding Non-Circularity	≤1.0%
Primary Coating Diameter	250±15 μ m
Coating - Cladding Concentricity Error	≤12.5 μ
Cable Weight	21.7kg/km
Cable Diameter	5.3 x 2.0 MM
Range Temperature	-30+70°C
Fiber Type	G657A, G657B or G652D



Standards

ITU.T G.652D / G.657A/B

IEC 60332-1-2,IEC 60754-1,2 & IEC 61034-2

Specifications

Fiber Style		Conditions	Specified Values	Units
Optical Characteristics ITU-G.657A1				
Attenuation		1310nm	≤0.35	[dB/km]
		1383nm(after H_2 aging)	≤0.35	[dB/km]
		1460nm	≤0.25	[dB/km]
		1550nm	≤0.21	[dB/km]
		1625nm	≤0.23	[dB/km]
Attenuation vs. Wavelength Max. a Diffeence		1285-1330nm, in reference to 1310nm	≤0.03	[dB/km]
		1525-1575m, in reference to 1550nm	≤0.02	[dB/km]
Dispersion Coefficient		1285-1340nm	-3.5 to 3.5	[ps/nm.km)]
		1550nm	≤18	[ps/nm.km)]
		1625nm	≤22	[ps/nm.km)]
Zero Dispersion Wavelength (λ_0)		- -	1300-1324	[nm]
Zero Dispersion Slope (δ_0)		- -	≤0.092	[ps/nm^{2}km)]
Typical Value		- -	0.086	[ps/nm^{2}km)]
PMD	Maximum Individual Fiber	- -	≤0.1	[ps/√km)]
	Link Design Value (M=20, Q=0.01%)	- -	≤0.06	[ps/√km)]
	Typical Value	- -	0.04	[ps/√km)]
Cable Cutoff avelength (λ_{cc})		- -	≤1260	[nm]
Mode Field Diameter (MFD)		1310nm	8.4 - 9.2	[μm]
		1310nm	8.4 - 9.2	[μm]
		1550nm	9.3 - 10.3	[μm]
Effective Goup Index of Refration (N_{eff})		1310nm	1.466	-
		1550nm	1.467	-
Point Discontinuties		1310nm	≤ 0.05	[dB]
		1550nm	≤ 0.05	[dB]

Geometric Characteristics

Characteristic	Condition	Specified Value	Unit
Cladding diameter	-	125.0 ± 0.7	μm
Cladding Non-circularity	-	≤0.7	%
Coating diameter	-	235 - 245	μm
Coating-Cladding concentricity error	-	≤12.0	μm
Coating Non-circularity	-	≤6.0	%
Core-Cladding concentricity error	-	≤0.5	μm
Curl(radius)	-	≥4	m
Delivery Length	-	Upto 50.4	km/reel

Enviromental Characteristics

Fiber Style	Conditions	Specified Values	Units
	1310nm, 1550nm & 1625nm		
Temperature Dependence Induced Attenuation	-60°C to +85°C	≤0.5	dB/km
Temperature-Humidity Cucling Induced Attenuation	-10°C to +85°C, 98% RH	≤0.5	dB/km
Watersoak Dependence Induced Attenuation	23°C for 30 Days	≤0.5	dB/km
Damp Heat Dependence Induced Attenuation	85°C and 85% RH, for 30 Days	≤0.5	dB/km
Dry Heat Aging	85°C for 30 Days	≤0.5	dB/km

Mechanical Specifications

Fiber Style		Conditions	Specified Values	Units
Proof Test		–	≥9.0	[N]
		–	≥1.0	[%]
		–	≥100	[kpsi]
Macro-bend Induced Loss	10 Turns Around a Mandrel of 15 mm Radius	1550 nm	≤0.25	[dB]
	10 Turns Around a Mandrel of 15 mm Radius	1625 nm	≤1.0	[dB]
	1 Turns Around a Mandrel of 10 mm Radius	1550 nm	≤0.75	[dB]
	1 Turns Around a Mandrel of 10 mm Radius	1625 nm	≤1.5	[dB]
Coating Strip Force		Typical Average Force	1.5	[N]
		peak force	1.3-8.9	[N]
Dynamic Fatigue Parameter (n_d)		–	≥20	–

Color Code of the Fiber

Each fiber can be identifiable throughout the length of the drop wire cable in accordance with the following color sequence(in accordance with EIA/TIA-598-A).

Fiber Colors

No.	1	2	3	4
Color	Blue	Orange	Green	Brown

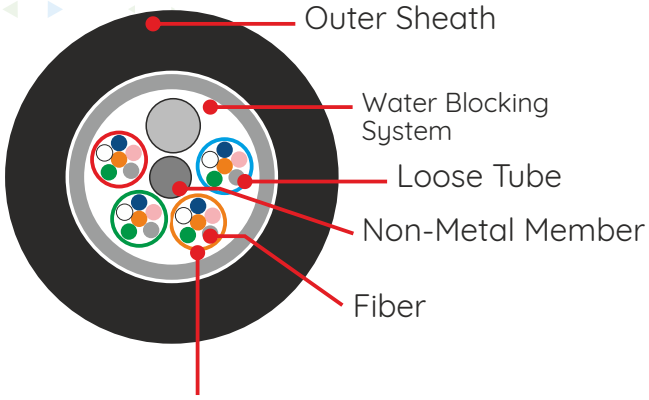
Technical Parameters

Cores	OD (nm)	Tensile Strength		Crush Resistance (N/100MM)	
		Short-Term	Long-Term	Short-Term	Long-Term
2 Core	5.3 x 2.0 (±0.2mm)	600	400	2000	1000
4 Core	5.3 x 2.0 (±0.2mm)	600	400	2000	1000

Ordering Information

Part Number	Product Description
RF2-02FTSMOD-LZ	2 Core FTTH Outdoor Drop Cable, 09/125um Single mode, LSZH Sheath
RF2-04FTSMOD-LZ	4 Core FTTH Outdoor Drop Cable, 09/125um Single mode, LSZH Sheath

Multi Loose Tube Indoor/Outdoor Cable



Application

- Adopted to Indoor & Outdoor Distribution
- Adopted to trunk power transmission system
- Access network and local network in high electromagnetic interfering places

Characteristics

- Non-metal strength member
- Filler protect loose tuber fiber
- Non-metal strength has an excellent-antielectromagnet ability

Fiber Compliance

.ITU-T G.652.D/G.657.A,IEC 60793-2-50 G677B.3

Technical Parameters

Cable Count	Outer Sheath Diameter	Minium Allowable Tensile Strength (N)		Minium Allowable Crush Load (N/100mm)		Minium Bending Radius (MM)	
Core	(MM)	Short Term	Long Term	Short Term	Long Term	Short Term	Long Term
24	9.8	1500	600	1000	300	20D	10D
36	9.8	1500	600	1000	300	20D	10D
42	9.8	1500	600	1000	300	20D	10D
48	10.5	1500	600	1000	300	20D	10D
60	10.5	1500	600	1000	300	20D	10D
72	10.5	1500	600	1000	300	20D	10D
96	14.5	1500	600	1000	300	20D	10D
144	18.3	1500	600	1000	300	20D	10D

Fiber Colors

No.	1	2	3	4	5	6
Color	Blue	Orange	Green	Brown	Grey	White

No.	7	8	9	10	11	12
Color	Red	Black	Yellow	Voilet	Pink	Aqua

The Properties of Optical Fiber

Fiber Style		Unit	SM	MM 50/125	MM 62.5/125
Condition		nm	1310/1550	850/1300	850/1300
Attenuation		dB/km	≤ 0.36/0.23	≤ 3.0/1.0	≤ 3.0/1.0
Dispersion	1310 nm	Ps/(nm*km)	≤ 18	.....	.....
	1550 nm	Ps/(nm*km)	≤ 22	.....	.....
Bandwidth	850 nm	MHZ.KM	.....	≥ 400	≥ 160
	1300 nm	MHZ.KM	.....	≥ 800	≥ 500
Zero dispersion wavelength		nm	≥1302≤	.....	.....
Zero dispersion slope		nm	≤0.091	.....	.....
PMD Maximum Individual Fiber			≤0.2	.....	.....
PMD Design Link Value		Ps/(nm2*km)	≤0.08	.....	.....
Fiber cutoff wavelength λ c		nm	≥1180≤	.....	.....
Cable cutoff wavelength λ cc		nm	≤1260	.....	.....
MFD	1310 nm	um	9.2 ± 0.4	.....	.....
	1550 nm	um	10.4 ± 0.8	.....	.....
Numerical Aperture(NA)			.....	0.200 ± 0.015	0.275 ±
Step (mean of bidirectional measurement)		dB	≤0.05	≤0.10	≤0.10
Irregularities over fiber length and point discontinuity		dB	≤0.05	≤0.10	≤0.10
Difference backscatter coefficient		dB/km	≤0.03	≤0.08	≤0.10
Attenuation uniformity		dB/km	≤0.01	.....	.....
Core diameter		um		50 ± 1.0	62.5 ± 2.5
Cladding diameter		um	60.0 ± 0.1	60.0 ± 0.1	60.0 ± 0.1
Cladding non-circularity		%	≤1.0	≤1.0	≤1.0
Coating diameter		um	242 ± 7	242 ± 7	242 ± 7
Coating/chaffinch concentrically error		um	≤12.0	≤12.0	≤12.0
Coating non crircularity error		%	≤6.0	≤6.0	≤6.0
Core/cladding concentricity error		um	≤0.6	≤1.5	≤1.5
Curl(radius)		um	≤4	.....	.....

Temperature Cycling	IEC60794-1-2-F1
Tensile Strength Crush	IEC60794-1-2-E1A IEC60794-1-2-E3
Impact Test	IEC 60794-1-2-E4
Cable UV Resistance	EC 60794-1-2,9.12 IEC 60794-1-2,F14 ISO 4892-2
Torsion Test	IEC60794-1-2-E7

Geometric Characteristics

Characteristic	Condition	Data	Unit
Cladding roundness	-	≤ 0.7	%
Cladding diameter	-	125 ± 0.7	μm
Coating diameter	-	245 ± 5	μm
Coating/package concentricity error	-	≤12.0	μm
Core/package concentricity error	-	≤0.6	μm
The warpage (radius)	-	≥4	m

Enviromental Characteristics

Item		Parameter
Tensile	Short Term	1500N
	Long Term	600N
Crush Resistance	Short Term	1000N
	Long Term	300N
Temperature Range (°C)	Transport&Storage	-40~+70
Minimum Bending	Short Term	20D mm
	Long Term	10D mm

Ordering Information

Part Number	Product Description
RF2-24MLSMIO-<JT>	24 Multi Loose tube Indoor / Outdoor Cable, 09/125um Single mode, <Jacket Type>
RF2-36MLSMIO-<JT>	36 Multi Loose tube Indoor / Outdoor Cable, 09/125um Single mode, <Jacket Type>
RF2-42MLSMIO-<JT>	42 Multi Loose tube Indoor / Outdoor Cable, 09/125um Single mode, <Jacket Type>
RF2-48MLSMIO-<JT>	48 Multi Loose tube Indoor / Outdoor Cable, 09/125um Single mode, <Jacket Type>
RF2-60MLSMIO-<JT>	60 Multi Loose tube Indoor / Outdoor Cable, 09/125um Single mode, <Jacket Type>
RF2-72MLSMIO-<JT>	72 Multi Loose tube Indoor / Outdoor Cable, 09/125um Single mode, <Jacket Type>
RF2-96MLSMIO-<JT>	96 Multi Loose tube Indoor / Outdoor Cable, 09/125um Single mode, <Jacket Type>
RF2-144MLSMIO-<JT>	144 Multi Loose tube Indoor / Outdoor Cable, 09/125um Single mode, <Jacket Type>
RF2-24MLM1IO-<JT>	24 Core Multi Loose tube Indoor / Outdoor Cable, 62.5/125um OM1 Multi-Mode, <Jacket Type>
RF2-36MLM1IO-<JT>	36 Core Multi Loose tube Indoor / Outdoor Cable, 62.5/125um OM1 Multi-Mode, <Jacket Type>
RF2-42MLM1IO-<JT>	42 Core Multi Loose tube Indoor / Outdoor Cable, 62.5/125um OM1 Multi-Mode, <Jacket Type>
RF2-48MLM1IO-<JT>	48 Core Multi Loose tube Indoor / Outdoor Cable, 62.5/125um OM1 Multi-Mode, <Jacket Type>
RF2-60MLM1IO-<JT>	60 Core Multi Loose tube Indoor / Outdoor Cable, 62.5/125um OM1 Multi-Mode, <Jacket Type>
RF2-72MLM1IO-<JT>	72 Core Multi Loose tube Indoor / Outdoor Cable, 62.5/125um OM1 Multi-Mode, <Jacket Type>
RF2-96MLM1IO-<JT>	96 Core Multi Loose tube Indoor / Outdoor Cable, 62.5/125um OM1 Multi-Mode, <Jacket Type>
RF2-144MLM1IO-<JT>	144 Core Multi Loose tube Indoor / Outdoor Cable, 62.5/125um OM1 Multi-Mode, <Jacket Type>
RF2-24MLM2IO-<JT>	24 Core Multi Loose tube Indoor / Outdoor Cable, 50/125um OM2 Multi-Mode , <Jacket Type>
RF2-36MLM2IO-<JT>	36 Core Multi Loose tube Indoor / Outdoor Cable, 50/125um OM2 Multi-Mode , <Jacket Type>
RF2-42MLM2IO-<JT>	42 Core Multi Loose tube Indoor / Outdoor Cable, 50/125um OM2 Multi-Mode , <Jacket Type>
RF2-48MLM2IO-<JT>	42 Core Multi Loose tube Indoor / Outdoor Cable, 50/125um OM2 Multi-Mode , <Jacket Type>
RF2-60MLM2IO-<JT>	60 Core Multi Loose tube Indoor / Outdoor Cable, 50/125um OM2 Multi-Mode , <Jacket Type>
RF2-72MLM2IO-<JT>	72 Core Multi Loose tube Indoor / Outdoor Cable, 50/125um OM2 Multi-Mode , <Jacket Type>
RF2-96MLM2IO-<JT>	96 Core Multi Loose tube Indoor / Outdoor Cable, 50/125um OM2 Multi-Mode , <Jacket Type>
RF2-144MLM2IO-<JT>	144 Core Multi Loose tube Indoor / Outdoor Cable, 50/125um OM2 Multi-Mode , <Jacket Type>
RF2-24MLM3IO-<JT>	24 Core Multi Loose tube Indoor / Outdoor Cable, 50/125um OM3 Multi-Mode, <Jacket Type>
RF2-36MLM3IO-<JT>	36 Core Multi Loose tube Indoor / Outdoor Cable, 50/125um OM3 Multi-Mode, <Jacket Type>
RF2-42MLM3IO-<JT>	42 Core Multi Loose tube Indoor / Outdoor Cable, 50/125um OM3 Multi-Mode, <Jacket Type>
RF2-48MLM3IO-<JT>	42 Core Multi Loose tube Indoor / Outdoor Cable, 50/125um OM3 Multi-Mode, <Jacket Type>
RF2-60MLM3IO-<JT>	60 Core Multi Loose tube Indoor / Outdoor Cable, 50/125um OM3 Multi-Mode, <Jacket Type>
RF2-72MLM3IO-<JT>	72 Core Multi Loose tube Indoor / Outdoor Cable, 50/125um OM3 Multi-Mode, <Jacket Type>
RF2-96MLM3IO-<JT>	96 Core Multi Loose tube Indoor / Outdoor Cable, 50/125um OM3 Multi-Mode, <Jacket Type>
RF2-144MLM3IO-<JT>	144 Core Multi Loose tube Indoor / Outdoor Cable, 50/125um OM3 Multi-Mode, <Jacket Type>

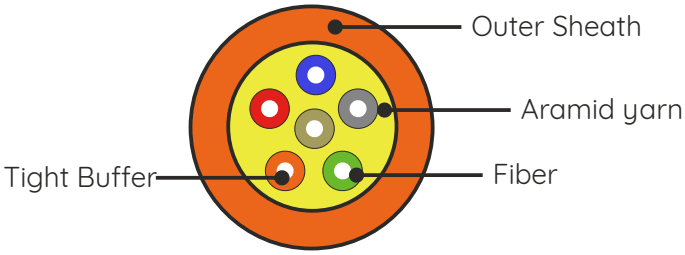
Part Number	Product Description
RF2-24MLM4IO-<JT>	24 Core Multi Loose tube Indoor / Outdoor Cable, 50/125um OM4 Multi-Mode, <Jacket Type>
RF2-36MLM4IO-<JT>	36 Core Multi Loose tube Indoor / Outdoor Cable, 50/125um OM4 Multi-Mode, <Jacket Type>
RF2-42MLM4IO-<JT>	42 Core Multi Loose tube Indoor / Outdoor Cable, 50/125um OM4 Multi-Mode, <Jacket Type>
RF2-48MLM4IO-<JT>	42 Core Multi Loose tube Indoor / Outdoor Cable, 50/125um OM4 Multi-Mode, <Jacket Type>
RF2-60MLM4IO-<JT>	60 Core Multi Loose tube Indoor / Outdoor Cable, 50/125um OM4 Multi-Mode, <Jacket Type>
RF2-72MLM4IO-<JT>	72 Core Multi Loose tube Indoor / Outdoor Cable, 50/125um OM4 Multi-Mode, <Jacket Type>
RF2-96MLM4IO-<JT>	96 Core Multi Loose tube Indoor / Outdoor Cable, 50/125um OM4 Multi-Mode, <Jacket Type>
RF2-144MLM4IO-<JT>	144 Core Multi Loose tube Indoor / Outdoor Cable, 50/125um OM4 Multi-Mode, <Jacket Type>

JT=Jacket Type PV-PVC / LZ-LSZH / PE-PE / FV-FRPVC / FZ-FRLSZH

Tight Buffered Distribution Cable

Cable Description

Ritchfielld Tight Buff ed Distibution indoor fiber optic cable is made by evenly applying strands of Aramid yarns or High strength glass yarns as the strengthmember over ϕ900μm or ϕ600μm tight buffer fibers and then is com eted with PVC / LSZH jacket.



Application

- Adopted to indoor distribution.
- As pigtail of communication equipment.
- Suitable for communication equipment served.
- Suitable for floor connection.

Characteristics

- Hight strength aramid yarn member.
- More tight buffeed design.
- Round construction.
- Saft. Easy to strip.

Features

Items		Description
Number of fiber		1~48 cores
Fiber type		G652D/G657A/G657B/G655/OM1/OM2/OM3/OM4/OM5
Out sheath	Material	LSZH/PVC/PE

Fiber Colors

The color of the individual fibers, shall be in accordance with the table as below:

No.	1	2	3	4	5	6
Color	Blue	Orange	Green	Brown	Grey	White

No.	7	8	9	10	11	12
Color	Red	Black	Yellow	Voilet	Pink	Aqua

When the fibers are over 12, the 13-24 fibers will be marked with a black tracer, the black fiber will be marked with white tracer. The tracer should be marked on the fiber surface with a interval.

Fiber characteristic

Fiber Style		Unit	SM	MM 50/125	MM 62.5/125
Condition		nm	1310/1550	850/1300	850/1300
Attenuation		dB/km	≤ 0.36/0.23	≤ 3.0/1.0	≤ 3.0/1.0
Dispersion	1310 nm	Ps/(nm*km)	≤ 18	.....	.....
	1550 nm	Ps/(nm*km)	≤ 22	.....	.....
Bandwidth	850 nm	MHZ.KM	.....	≥ 400	≥ 160
	1300 nm	MHZ.KM	.....	≥ 800	≥ 500
Zero dispersion wavelength		nm	≥1302 ≤1322	.....	.....
Zero dispersion slope		nm	≤0.091	.....	.....
PMD Maximum Individual Fiber			≤0.2	.....	.....
PMD Design Link Value		Ps/(nm2*km)	≤0.08	.....	.....
Fiber cutoff wavelength λ c		nm	≥1180, ≤ 133	.....	.....
Cable cutoff wavelength λ cc		nm	≤1260	.....	.....
MFD	1310 nm	um	9.2 ± 0.4	.....	.....
	1550 nm	um	10.4 ± 0.8	.....	.....
Numerical Aperture(NA)			.....	0.200 ± 0.015	0.275 ±
Step (mean of bidirectional measurement)		dB	≤0.05	≤0.10	≤0.10
Irregularities over fiber length and point discontinuity		dB	≤0.05	≤0.10	≤0.10
Difference backscatter coefficient		dB/km	≤0.03	≤0.08	≤0.10
Attenuation uniformity		dB/km	≤0.01	.....	.....
Core diameter		um	.....	50 ± 1.0	62.5 ± 2.5
Cladding diameter		um	60.0 ± 0.1	60.0 ± 0.1	60.0 ± 0.1
Cladding non-circularity		%	≤1.0	≤1.0	≤1.0
Coating diameter		um	242 ± 7	242 ± 7	242 ± 7
Coating/chaffinch concentrically error		um	≤12.0	≤12.0	≤12.0
Coating non crircularity error		%	≤6.0	≤6.0	≤6.0
Core/cladding concentricity error		um	≤0.6	≤1.5	≤1.5
Curl(radius)		um	≤4	.....	.....

Fiber Standards

ITU-T G.652.D/G.657.A,IEC 60793-2-50 G677B.3

Standard Compliance

Temperature Cycling	IEC60794-1-2F1(-10°c TO +70°c)
Tensile Strength Crush	IEC60794-1-2E1A IEC60794-1-2E3
Impact Test	IEC60794-1-2E4
Torsion Test	IEC60794-1-2E7

Geometric Characteristics

Characteristic	Data	Unit
Cladding roundness	≤ 0.7	%
Cladding diameter	125 ± 0.7	μm
Coating diameter	242 ± 5	μm
Coating/package concentricity error	≤12.0	μm
Core/package concentricity error	≤0.6	μm
The warpage (radius)	≥4	m

Enviromental Characteristics

Item		Parameter
Tensile	Short Term	600N
	Long Term	200N
Crush Resistance	Short Term	1000N
	Long Term	200N
Temperature Range (°C)	Transport&Storage	-40~+70
Minimum Bending Radius	Short Term	20D mm
	Long Term	10D mm

Ordering Information

Part Number	Product Description
RF2-02TDSMIN-<JT>	2 Core Central Tight Buffeed Distribution FO cable, 09/125um Single mode, Indoor, <jacket type>
RF2-04TDSMIN-<JT>	4 Core Central Tight Buffeed Distribution FO cable, 09/125um Single mode, Indoor, <jacket type>
RF2-08TDSMIN-<JT>	8 Core Central Tight Buffeed Distribution FO cable, 09/125um Single mode, Indoor, <jacket type>
RF2-12TDSMIN-<JT>	12 Core Central Tight Buffeed Distribution FO cable, 09/125um Single mode, Indoor, <jacket type>
RF2-24TDSMIN-<JT>	24 Core Central Tight Buffeed Distribution FO cable, 09/125um Single mode, Indoor, <jacket type>
RF2-48TDSMIN-<JT>	48 Core Central Tight Buffeed Distribution FO cable, 09/125um Single mode, Indoor, <jacket type>

Part Number	Product Description
RF2-02TDSM1IN-<JT>	2 Core Central Tight Buffeed Distribution FO cable, 62.5/125um OM1 Multi Mode, Indoor, <jacket type>
RF2-04TDSM1IN-<JT>	4 Core Central Tight Buffeed Distribution FO cable, 62.5/125um OM1 Multi Mode, Indoor, <jacket type>
RF2-08TDSM1IN-<JT>	8 Core Central Tight Buffeed Distribution FO cable, 62.5/125um OM1 Multi Mode, Indoor, <jacket type>
RF2-12TDSM1IN-<JT>	12 Core Central Tight Buffeed Distribution FO cable, 62.5/125um OM1 Multi Mode, Indoor, <jacket type>
RF2-24TDSM1IN-<JT>	24 Core Central Tight Buffeed Distribution FO cable, 62.5/125um OM1 Multi Mode, Indoor, <jacket type>
RF2-48TDSM1IN-<JT>	48 Core Central Tight Buffeed Distribution FO cable, 62.5/125um OM1 Multi Mode, Indoor, <jacket type>
RF2-02TDSM2IN-<JT>	2 Core Central Tight Buffeed Distribution FO cable, 50/125um OM2 Multi Mode, Indoor, <jacket type>
RF2-04TDSM2IN-<JT>	4 Core Central Tight Buffeed Distribution FO cable, 50/125um OM2 Multi Mode, Indoor, <jacket type>
RF2-08TDSM2IN-<JT>	8 Core Central Tight Buffeed Distribution FO cable, 50/125um OM2 Multi Mode, Indoor, <jacket type>
RF2-12TDSM2IN-<JT>	12 Core Central Tight Buffeed Distribution FO cable, 50/125um OM2 Multi Mode, Indoor, <jacket type>
RF2-24TDSM2IN-<JT>	24 Core Central Tight Buffeed Distribution FO cable, 50/125um OM2 Multi Mode, Indoor, <jacket type>
RF2-48TDSM2IN-<JT>	48 Core Central Tight Buffeed Distribution FO cable, 50/125um OM2 Multi Mode, Indoor, <jacket type>
RF2-02TDSM3IN-<JT>	2 Core Central Tight Buffeed Distribution FO cable, 50/125um OM3 Multi Mode, Indoor, <jacket type>
RF2-04TDSM3IN-<JT>	4 Core Central Tight Buffeed Distribution FO cable, 50/125um OM3 Multi Mode, Indoor, <jacket type>
RF2-08TDSM3IN-<JT>	8 Core Central Tight Buffeed Distribution FO cable, 50/125um OM3 Multi Mode, Indoor, <jacket type>
RF2-12TDSM3IN-<JT>	12 Core Central Tight Buffeed Distribution FO cable, 50/125um OM3 Multi Mode, Indoor, <jacket type>
RF2-24TDSM3IN-<JT>	24 Core Central Tight Buffeed Distribution FO cable, 50/125um OM3 Multi Mode, Indoor, <jacket type>
RF2-48TDSM3IN-<JT>	48 Core Central Tight Buffeed Distribution FO cable, 50/125um OM3 Multi Mode, Indoor, <jacket type>
RF2-02TDSM4IN-<JT>	2 Core Central Tight Buffeed Distribution FO cable, 50/125um OM4 Multi Mode, Indoor, <jacket type>
RF2-04TDSM4IN-<JT>	4 Core Central Tight Buffeed Distribution FO cable, 50/125um OM4 Multi Mode, Indoor, <jacket type>
RF2-08TDSM4IN-<JT>	8 Core Central Tight Buffeed Distribution FO cable, 50/125um OM4 Multi Mode, Indoor, <jacket type>
RF2-12TDSM4IN-<JT>	12 Core Central Tight Buffeed Distribution FO cable, 50/125um OM4 Multi Mode, Indoor, <jacket type>
RF2-24TDSM4IN-<JT>	24 Core Central Tight Buffeed Distribution FO cable, 50/125um OM4 Multi Mode, Indoor, <jacket type>
RF2-48TDSM4IN-<JT>	48 Core Central Tight Buffeed Distribution FO cable, 50/125um OM4 Multi Mode, Indoor, <jacket type>

JT = Jacket Type PV - PVC, LZ - LSZH