Cable Selection Guide

Introduction

The Belden line of Optical Fiber Cables represents a new selection of the best optical fiber cable products offered by the consolidated resources of the Belden organization. The unmatched resources of Belden have now generated a complete line of indoor and outdoor cable products in tight buffered and loose tube constructions. This offering now expands the available applications for Belden optical fiber cable.

Customer Service

Most of our optical fiber cables are available from stock. Many of these are available off-the-shelf from distributors. If you have a new or unusual application, or you cannot find a optical fiber cable in this catalog section that meets your technical requirements, contact Technical Support at 1-800-BELDEN-1 for additional information.

Cable Selection Guide

Optical Fiber

Fiber Selection Chart

Type	Grade	Fiber Size (µ)	Standards Compliance	Link Length (m)	Data Rate (Gb)
Multimode	6	50/125	exceeds TIA/EIA-568-B.3-1 ISO 11801 OM3	500	10
	5	50/125	TIA/EIA-568-B.3-1 ISO 11801 OM3	300	10
	4	50/125	TIA/EIA-568-B.3	600	1
	3	62.5/125	TIA/EIA-568-B.3	1,000	1
	2	62.5/125	TIA/EIA-568-B.3	550	1
	1▲	62.5/125	FDDI grade†	—	—
Single-mode	—	—	ITU G.652.c/d††	—	—

▲ Grade 1 fibers are available upon request.

† Used in most current cable plants, but not recommended for future installations, except as patch cordage

†† Low water peak fiber with advantages for CWDM applications

Color Code Charts

Jacket Color Chart

Cable Type	Jacket Color
Loose Tube & Outside Plant Cables	Black
Industrial Tray Cables	Orange
Tight Buffered Cables	
Grades 2,3,4	Orange
Grades 5,6	Aqua
Single-mode	Yellow

Nonstandard jacket colors are available upon request.

Fiber Sub-unit Color Code Chart*

Fiber/Tube No.	Color	Fiber/Tube No.	Color
1	Blue	7	Red
2	Orange	8	Black
3	Green	9	Yellow
4	Brown	10	Violet
5	Slate	11	Rose
6	White	12	Aqua

*Per EIA/TIA 598-A

Optical Specifications

Grade:	2	3	4	5	6	Single-mode Enhanced[6]
Glass Type:	62.5/125µ	62.5/125µ	50/125µ	50/125µ	50/125µ	
Operating Wavelength (nm)	850/1300	850/1300	850/1300	850/1300	850/1300	1310/1550
Min. OFL[1] Bandwidth (MHz-km)	200/500	200/500	500/500	1500/500	3000/500	—
Min. Laser[2] Bandwidth (MHz-km)	220/500	385/500	510/500	2000/500	4000/500	—
Max. Attenuation Loose Tube (dB/km)	3.25/1.0	3.25/1.0	3.0/1.0	3.0/1.0	3.0/1.0	0.40/0.30
Max. Attenuation Tight Buffered[3] (dB/km)	3.50/1.25	3.50/1.25	3.50/1.25	3.50/1.25	3.50/1.25	0.80/0.50
100 Mb Fast Ethernet Min. Link Length (meters S/L[4])	300/2000	300/2000	300/2000	300/2000	300/2000	—/5000
1 Gb Ethernet Min. Link Length (meters S/L[4])	300/550	500/1000	600/600	1000[5]/600	1000[5]/600	—/5000
10 Gb Ethernet Min. Link Length (meters S/L[4])	35/300	35/300	85/300	300/300	500/300	—/10,000

[1] OFL = Overfilled Launch

[2] Effective Modal Bandwidth, determined by RML or DMD performance specifications

[3] Max. Attenuation for Tight Buffered, Ribbon, Micro-Loose Tube and Loose Tube Plenum Cables

[4] S/L = Short wavelength (850 nm) / Long wavelength (1310 nm)

[5] >2000 meters for engineered links

[6] Low water peak Single-Mode suitable for CWDM use complies with ITU G.652.c/d