



Technical Specifications:
Self Supporting Aerial Installation Cable
(According to ITU-T G.652)

Part Numbers:
12 Count Fiber: MADSS012SM-350
24 Count Fiber: MADSS024SM-350
48 Count Fiber: MADSS048SM-350

1. GENERAL

1.1 SCOPE

This specification covers the design requirements and performance standard for Multicom's optical fiber cable.

Cable type	Application
ADSS	Self support aerial installation cable

1.2 Cable Description

Multicom's cable possesses high tensile strength and flexibility in compact cable sizes. At the same time, it provides excellent optical transmission and physical performance.

1.3 Quality

Excellent quality control is achieved through rigorous in-house quality control and assurance by ISO 9001 process control technology.

1.4 Reliability

Initial and ongoing product qualification tests for performance and durability are performed to ensure product reliability.

1.5 Reference

Multicom's cable is designed, manufactured and tested according to the international standards as follows:

IEC 60793-1	Optical fiber Part 1: Generic specifications
IEC 60793-2	Optical fiber Part 2: Product specifications
IEC 60794-4	Optical fiber cables-Part 4: Sectional specification-Aerial optical cables along electrical power lines
EIA/TIA 598 B	Color code of fiber optic cables
ITU-T G.650	Definition and test methods for the relevant parameters of single-mode fibers
ITU-T G.652	Characteristics of a single-mode optical fiber cable
ITU-T G.655	Characteristics of a non-zero dispersion-shifted single-mode optical fiber and cable



Technical Specifications:
Self Supporting Aerial Installation Cable
(According to ITU-T G.652)

Part Numbers:
12 Count Fiber: MADSS012SM-350
24 Count Fiber: MADSS024SM-350
48 Count Fiber: MADSS048SM-350

2. OPTICAL FIBER

- The optical fiber is made of high-purity germanium-doped silica. UV curable acrylate material is applied over the fiber cladding as a protective coating. The detailed data of optical fiber performance is shown in the following table.
- ITU/T G.652 optical fiber uses special manufacturing equipment to successfully control the value of PMD to ensure stability during cabling.

G.652D Fiber in cable

Category	Description	Specifications	
		Before cabling	After cabling
Optical Specifications	Attenuation @1310 nm	≤0.34 dB/km	≤0.36 dB/km
	Attenuation @1383 nm	≤0.34 dB/km	≤0.35 dB/km
	Attenuation @1550 nm	≤0.20 dB/km	≤0.22 dB/km
	Attenuation @1625 nm	≤0.23dB/km	≤0.25 dB/km
	Zero Dispersion Wavelength	1300~1324 nm	
	Zero Dispersion Slope	≤ 0.092 ps/nm ² ·km	
	PMD Link value (M=20cables Q=0.01%) maximum PMD _Q	0.2 ps/√km	
	Cable Cutoff Wavelength (λ _{cc})	≤1260 nm	
	Macro bending Loss (100 turns; Φ50 mm) @1550 nm	≤ 0.05 dB	
	(100 turns; Φ50 mm) @1625 nm	≤ 0.10 dB	
Dimensional Specifications	Mode Field Diameter @1310 nm	9.2±0.4μm	
	Cladding Diameter	125 ±1μm	
	Core/clad concentricity error	≤0.6μm	
Mechanical Specifications	Cladding Non-Circularity	≤1.0%	
	Proof stress	≥0.69Gpa	