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## 48ct ADSS MFOU10263/E



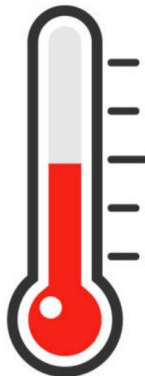
### Application

Micro module cable for aerial installation Cross  
Section (not to scale)

12-144 fibers

### Configuration

- Micro module with 12 optical fibers and jelly inside
- Easy to strip the micro module
- Aramid yarns
- Cable strand: Dry, with water blocking yarns and water blocking tape



### Temperature Range Standards

Storage and Transport: -40°C to +70°C

Installation: -5°C to +40°C

Operation: -40°C to +70°C

IEC 60793-1, IEC 60793-2, IEC 60794-4-20

# DIMENSIONS

Modularity 12

Module  $\Phi$  MM 1.35

Outer Diameter MM  $9.5 \pm 0.5$

Weight/km 67 KG

Tensile Strength (Tm) 2500N

Impact 5Nm

Min. Bending Radius Without tension 10D

\*See Point 6: Test Methods

Fiber	1	2	3	4	5	6	7	8	9	10	11	12
Color	Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua
Module	1	2	3	4	5	6	7	8	9	10	11	12
Color	Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Outer Sheath: Black, Ink print, Marking in 1 meter intervals as follows for example:  
**MFOU20267-1/// H 36 FO G.652D M 12 <year> <week> <BatchNumber> <meter>**

## SAG Sheet

Span Meteres	Installation		NESC Light		NESC Me- dium		NESC Heavy	
	SAG %	Tension N	SAG %	TENSION N	SAG %	TENSION N	SAG%	TENSION N
30	1.3%	193	1.98%	811	2.07%	937	2.55%	1498
40	1.3%	257	2.12%	1011	2.23%	1161	2.76%	1843
50	1.3%	321	2.24%	1199	2.36%	1371	2.95%	2156
60	1.3%	386	2.34%	1375	2.47%	1570	3.12%	2455
70	1.3%	450	2.43%	1546	2.57%	1760	/	/
80	1.3%	514	2.52%	1708	2.67%	1943	/	/

# OPTICAL FIBER

Standard ITU-T G.652D

## Optical

Fiber attenuation (dB/km)

Before cable  $\leq 0.34 @ 1310\text{nm}$

$\leq 0.20 @ 1550\text{nm}$

After cable  $\leq 0.36 @ 1310\text{nm}$

$\leq 0.23 @ 1500\text{nm}$

Zero Dispersion Wavelength 1300~1324 nm

Zero Dispersion Slope  $\leq 0.092 \text{ ps/nm}^2 \cdot \text{km}$

Cable Cutoff Wavelength ( $\lambda_{cc}$ )  $*\leq 1260 \text{ nm}$

PMD Max. Value  $\leq 0.12 \text{ ps}/\sqrt{\text{km}}$  Optical

PMD Average  $\leq 0.1 \text{ ps}/\sqrt{\text{km}}$

PMD Link Design Value (M=20 cables, Q=0.01%)  $\leq 0.06 \text{ ps}/\sqrt{\text{km}}$

Macro Bending Loss:

(100 turns;  $\Phi 50 \text{ mm}$ ) @ 1550nm  $\leq 0.05 \text{ dB}$

(100 turns;  $\Phi 50 \text{ mm}$ ) @ 1625nm  $\leq 0.10 \text{ dB}$

Mode Field Diameter  $9.2 \pm 0.4 \mu\text{m} @ 1310 \text{ nm}$

$10.2 \pm 0.4 \mu\text{m} @ 1550 \text{ nm}$

## Geometric

Cladding Diameter  $125 \pm 1.0 \mu\text{m}$

Cladding Non Circularity  $\leq 1.0\%$

Core/Clad Concentricity Error  $\leq 0.6 \mu\text{m}$

## Mechanical

Proof Stress  $\geq 0.69\text{GPa}$

\*Remark: Cable cut-off wavelength according to IEC 60793-1-44-201 Annex A method

## Standard ITU-T G.657A2

Fiber attenuation (dB/km)	
Before cable	$\leq 0.35 @ 1310\text{nm}$ $\leq 0.21 @ 1550\text{nm}$
After cable	$\leq 0.36 @ 1310\text{nm}$ $\leq 0.23 @ 1500\text{nm}$
Zero Dispersion Wavelength	1300~1324 nm
Zero Dispersion Slope	$\leq 0.092 \text{ ps/nm}^2 \cdot \text{km}$
Cable Cutoff Wavelength ( $\lambda_{cc}$ )	$*\leq 1260 \text{ nm}$
PMD Max. Value	$\leq 0.2 \text{ ps}/\sqrt{\text{km}}$ Optical
PMD Average	$\leq 0.1 \text{ ps}/\sqrt{\text{km}}$
PMD Link Design Value	
(M=20 cables, Q=0.01%)	$\leq 0.06 \text{ ps}/\sqrt{\text{km}}$
Macro Bending Loss	
(10 turns; $\Phi 30 \text{ mm}$ ) @ 1550nm	$\leq 0.03 \text{ dB}$
(10 turns; $\Phi 30 \text{ mm}$ ) @ 1625nm	$\leq 0.10 \text{ dB}$
(1 turns; $\Phi 20 \text{ mm}$ ) @ 1550nm	$\leq 0.10 \text{ dB}$
(1 turns; $\Phi 20 \text{ mm}$ ) @ 1625nm	$\leq 0.20 \text{ dB}$
(1 turns; $\Phi 15 \text{ mm}$ ) @ 1550nm	$\leq 0.50 \text{ dB}$
(1 turns; $\Phi 15 \text{ mm}$ ) @ 1625nm	$\leq 1.00 \text{ dB}$
Mode Field Diameter	$8.6 \pm 0.4 \mu\text{m} @ 1310 \text{ nm}$ $9.6 \pm 0.5 \mu\text{m} @ 1550 \text{ nm}$
Cladding Diameter	$125 \pm 0.7 \mu\text{m}$ Geometric
Cladding Non Circularity	$\leq 1.0\%$
Core/Clad Concentricity Error	$\leq 0.5 \mu\text{m}$
Proof Stress	$\geq 1.05\%$

\*Remark: Cable cut-off wavelength according to IEC 60793-1-44-201 Annex A method A

## TEST METHODS

Test	Conditions	Acceptance Criteria
Tension Loading IEC 60794-1-2 E1	Tensile strength: 2.1xCable weight Sample length: $\geq 25$ m, 1 min	Fiber strain $\leq 0.33\%$ , cable strain $\leq 0.5\%$ $\Delta a \leq 2$ dB/km during test $\Delta a$ reversible
Crush IEC 60794-1-2 E3	2000N/10cm Test: 1 min, number of tests: 3	$\Delta a \leq 0.1$ dB
Impact IEC 60794-1-2 E4	5Nm, R = 300 mm Number of places/tests: 3	$\Delta a$ reversible No damage
Torsion IEC 60794-1-2 E7	Sample length: 1 m $\pm 180^\circ$ , 20N	$\Delta a \leq 0.1$ dB 5 cycles No damage
Bend IEC 60794-1-2 E11	R=10D, 4 bends, 3 cycles	$\Delta a$ reversible
Temperature Cycling IEC 60794-1-2 F1	-40°C $\rightarrow$ +70°C 12h each step, 2 cycles	$\Delta a \leq 0.10$ dB/km
Water Penetration IEC 60794-1-2 F5	Sample: 3 m, water column height: 1m Test duration: 24 h	No water leakage (FRP not included)
All optical measurements at 1550 nm		