



## Dielectric Outdoor Cable

### Multitube Microcable HDPE - For Air Blowing

12 Fibres per tube

SM-G.657.A1 | 12 - 24 - 48 - 96 - 144 Fibres

### Fca

LightMax<sup>®</sup> Multitube Microcable is suitable for air blown fiber applications. Loose tubes of thermoplastic material house the bend insensitive optical fibers and contain gel as protection against water. It has central strength member of FRP and aramid yarn for tensile performance.

#### Features:

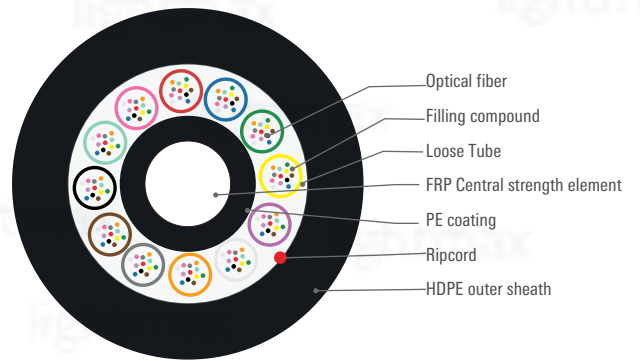
- Dielectric cable
- FRP strength member
- Loose tube with 12 fibres
- Gel inside loose tube as water protection
- SM - G.657.A1 fibre type
- Fibre count : 12 - 24 - 48 - 96 - 144
- One ripcord for easy strip
- Softer outer sheath for a good micro duct inside performance

#### Applications:

- Air blown



[Picture only for reference purposes]



G.657.A1 FIBRE OPTIC SPECIFICATIONS			
Fibre type	SM		
Core diameter	9 μm		
MFD	@1310 nm	8.8 ±0.4 μm	
	@1550 nm	9.8 ±0.5 μm	
Cladding diameter	125 ±0.7 μm		
Coating diameter	Before colour	After colour	245 ±5 μm    250 ±15 μm
Cladding non circularity	≤ 0.7 %		
Core concentricity error	≤ 0.5 μm		
Coating/Cladding concentricity error	≤ 12 μm		
Chromatic Dispersion	@1285 ~ 1330 (nm)	-3.5 ~ 3.5 ps/(nm.km)	
	@1550 nm	≤ 18 ps/(nm.km)	
	@1625 nm	≤ 22 ps/(nm.km)	
	Zero-Dispersion wavelength	1300 nm - 1324 nm	
PMD	Zero-Dispersion slope	≤ 0.092 ps/(nm <sup>2</sup> .km)	
	Individual fibre	0.20 ps <sup>2</sup> /km	
Attenuation	Design link value	0.10 ps <sup>2</sup> /km	
	@1310 nm	≤ 0.46 dB/km	
	@1383 nm	≤ 0.35 dB/km	
Macro-bend loss	@1550 nm	≤ 0.30 dB/km	
	[10 turns, 30mm radius, @1550 nm]	≤ 0.25 dB	
Standard	ITU-T	G.657.A1	



**Fibres and Tube colours**

[FOTAG]

<b>Fibres</b>	<b>1</b>	Blue	<b>7</b>	Red
	<b>2</b>	Orange	<b>8</b>	Black
	<b>3</b>	Green	<b>9</b>	Yellow
	<b>4</b>	Brown	<b>10</b>	Violet
	<b>5</b>	Gray	<b>11</b>	Pink
	<b>6</b>	White	<b>12</b>	Aqua

<b>CABLE SPECIFICATIONS</b>						
Fibre count		12	24	48	96	144
Loose tubes	fibre count	12				
	diameter (mm)	1.45 ±0.1				
Fillers	count	5	4	2	0	
	mm	5.4 ±0.2		6.1 ±0.2		7.9 ±0.8
Nominal cable diameter	mm	8 ~ 12		10 ~ 14		
Recommended Micro duct inner diameter (mm)	mm	8 ~ 12				10 ~ 14
	mm	8 ~ 12				10 ~ 14
Cable weight	kg/km	26		36		52
	material	HDPE				
Outer sheath	colour	Black				
	thickness (mm)	0.5 Approx.				
	-	Filling compound				
Water blocking protection	material	FRP				
	diameter (mm)	1.6		2.4		4.1
Central strength member	diameter (mm)	1.6		2.4		4.1
	diameter of PE layer (mm)	—				4.1
Ripcord	-	1				
Temperature	storage	-40 ~ 70 (°C)				
	operating	-40 ~ 70 (°C)				
Bending radius	static	10 X D				
	dynamic	20 X D				
Crush (N/100mm)	short term	500				
	long term	200				
Tensile (N)	short term	600		800		
	long term	200		267		
<b>Standard</b>						
						E1 - Tensile
						E3 - Crush
						E4 - Impact
<b>IEC 60794-1-2</b>						E6 - Repeated bending
						E7 - Torsion
						E11 - Bend
						F1 - Temperature cycling
						F5 - Water penetration

**Part Numbers**

LMCAOUA1MC012FM12HDPB1F | LMCAOUA1MC024FM12HDPB1F | LMCAOUA1MC048FM12HDPB1F  
LMCAOUA1MC096FM12HDPB1F | LMCAOUA1MC144FM12HDPB1F

Rel. 5-EN/FEB23