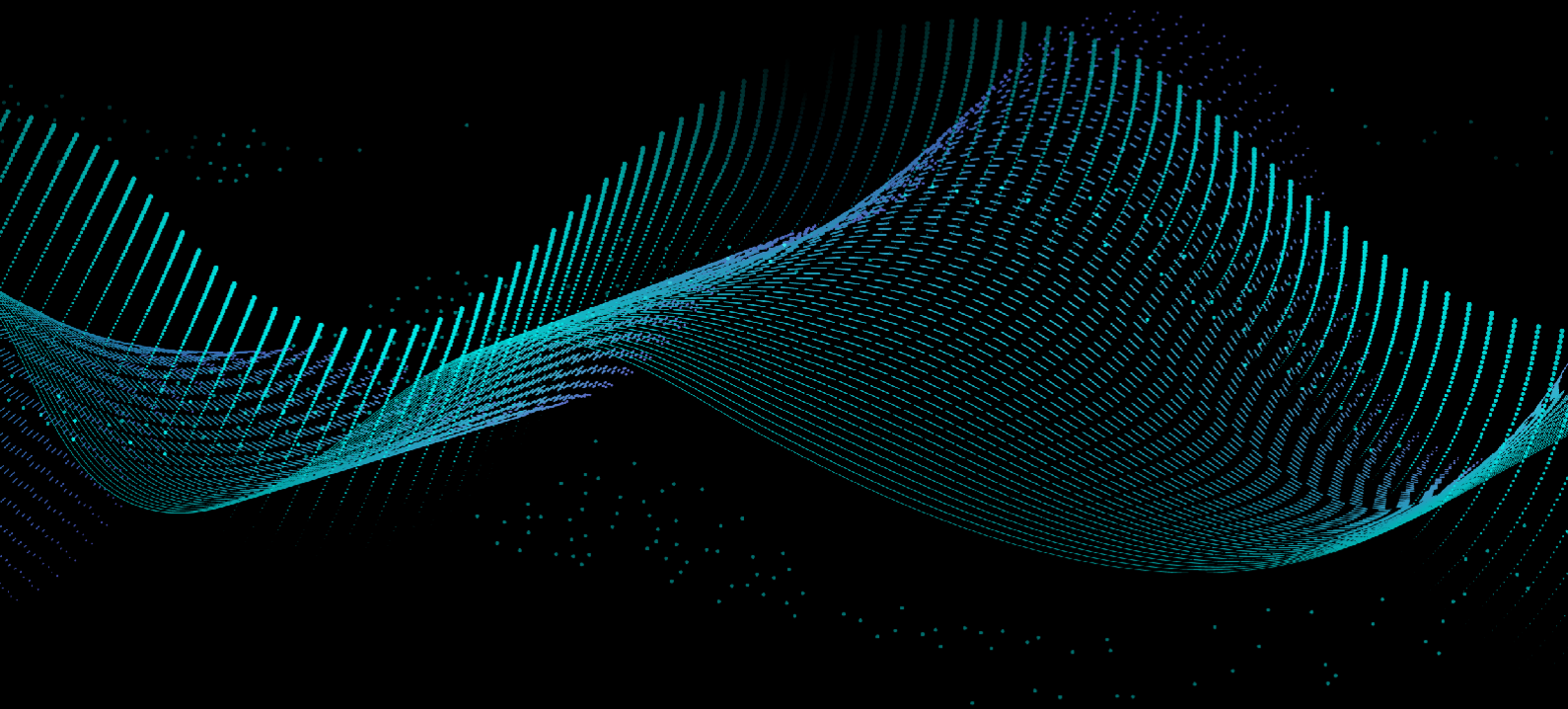


Specification

Microfocus 2F Direct Burial cable SM G.657A1

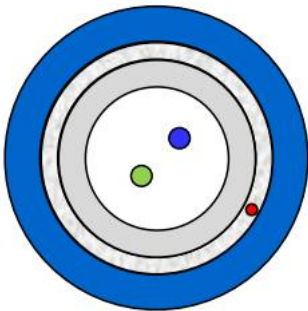


Microfocus 2F Direct Burial cable SM G.657A1

The Microfocus 2F Direct Burial cable SM G.657A1 is a central loose tube design, containing 2 single-mode G.657A1 fibers. The cable is constructed with a buffer tube (containing 2 fibers) surrounded by laminated glass yarns and protected by a blue HDPE outer sheath. The Microfocus 2F Direct Burial cable HDPE G.657A1 is typically used for FttX applications.

Design

- > Central loose tube: loose tube filled with a suitable water tightness compound containing 2 G.657A1 fibers
- > Laminated glass yarns: reinforcement members
- > Ripcord: 1 ripcord under outer sheath
- > Outer sheath: Blue HDPE (RAL 5015)



Cable specification

Characteristic	Value
No. of fibers	2
No. of tubes	1
Fibers per tube	2
Tube Ø [mm]	2.8
Outer sheath thickness [mm]	1.0
Max. cable diameter Ø [mm]	5.8
Nominal cable weight [kg/km]	27

Cable application

Temperature range		Minimum bend radius	
Transportation & storage	-40~+70 °C	Load	20xD
Operation	-30~+70 °C	Unload	10xD

Main mechanical and environmental characteristics

Test	Test standard	Specified value	Acceptance criteria
Tensile	IEC 60794-1-2-E1	1000N, 5min	$\Delta\alpha$ reversible, fiber strain $\leq 0.6\%$
Crush	IEC 60794-1-2-E3	1500N, 1min, 3 times	$\Delta\alpha$ reversible, no damage
Impact	IEC 60794-1-2-E4	5J, R=300mm, 3 times	$\Delta\alpha$ reversible, no damage

Repeated bending	IEC 60794-1-2-E6	R=20D, 100N, 100 cycles	$\Delta\alpha$ reversible, no damage
Torsion	IEC 60794-1-2-E7	100N, 5cycles, +/-180°	$\Delta\alpha$ reversible, no damage
Temperature cycling	IEC 60794-1-2-F1	-30~+70 °C, 2 cycles, 12h	$\Delta\alpha\leq 0.1\text{dB/km}$, no damage

Coloring

Fibers	
1	2
Blue	Green

Cabled fiber performance

Characteristic		Value
Attenuation	@1310nm	$\leq 0.35\text{dB/km}$
	@1383nm	$\leq 0.34\text{dB/km}$
	@1550nm	$\leq 0.21\text{dB/km}$
	@1625nm	$\leq 0.23\text{dB/km}$
Mode Field Diameter	@1310nm	$8.8\pm 0.4\mu\text{m}$
	@1550nm	$9.8\pm 0.5\mu\text{m}$
Dispersion	@1300 +30/-15nm	$\leq 3.5\text{ps}/(\text{nm}\cdot\text{km})$
	@1550nm	$\leq 18\text{ps}/(\text{nm}\cdot\text{km})$
	@1625nm	$\leq 22\text{ps}/(\text{nm}\cdot\text{km})$
Zero-dispersion wavelength		1300nm~1324nm
Zero-dispersion slope		$\leq 0.092\text{ps}/(\text{nm}^2\cdot\text{km})$
Cable cutoff wavelength $\lambda_{cc}(\text{nm})$		$\leq 1260\text{nm}$
Macrobend loss	15mm radius, 10 turn, @1550	$\leq 0.25\text{dB}$
	15mm radius, 10 turn, @1625	$\leq 1.00\text{dB}$
	10mm radius, 1 turn, @1550	$\leq 0.75\text{dB}$
	10mm radius, 1 turn, @1625	$\leq 1.5\text{dB}$
Effective group index (Neff)	@1330	1.4683
	@1550	1.4688
	@1625	1.4688
Cladding diameter		$125\pm 0.7\mu\text{m}$
Cladding non-circularity		$\leq 0.7\%$
Core/cladding concentricity error		$\leq 0.5\mu\text{m}$
Proof test		$\geq 0.69\text{GPa}$ (100kpsi)
Dynamic fatigue		≥ 20

Printing

"2 x SM G.657A1 – Microfocus – Fiberklaar – DBAC 409737 {Batch Number} {Production Date} {Meter Marking}"

Ordering information

Characteristic	Value
Article number	409737
Description	Microfocus cable SM 2F (1x2) DBAC 5.8 mm blue Fiberklaar
Standard Pack Quantity	6.000 meter (± 5% tolerance)

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