






1. Application / Construction

Identification	Mini A-DQ2Y 24..576 E9 G.652D				
Application	Mini cable for blowing into micro-duct				
Cross Section (not to scale)	24..72 fibers /144(200µm) fibers	288 fibers	432 fibers (200µm)	432 fibers	576 fibers (200µm)
					
Recommended for microduct dimension (O/I-Ø in mm)	≥ 12/8	≥ 16/12	≥ 16/12	≥ 20/15	≥ 20/15
Configuration	<ul style="list-style-type: none"> - Loose tubes with up to 24 optical fibers, filled with thixotropic compound - Stranded loose tubes with dummies if necessary - Central strength member made of fibre reinforced plastic (FRP) - Cable strand: dry, with water blocking materials - Outer sheath: HDPE, 1 ripcord under the sheath 				
Temperature Range	Storage and transport -30 to +70°C		Installation -10 to +50°C		Operation -30 to +70°C
Standards	IEC 60793-1, IEC 60793-2, IEC 60794-5				
ZTT Specification	23-XJ23609-2-A				
Customer Reference	Common standard				

2. Dimensions

Number of fibers		24	72	144 (200µm)	288	432 (200µm)	432	576 (200µm)
Loose tubes x fibers		2x12	6x12	6x24	24x12	18x24	18x24	24x24
Loose tubes / Dummies	1L 2L	2/4	6/0	6/0	9/0 15/0	6/0 12/0	6/0 12/0	9/0 15/0
Outer diameter (±0.3)	mm	5.7	5.7	6.2	9.6	9.6	11.1	11.3
Weight /km (± 20%)	kg	31	31	35	84	77	97	113

Sizes and values without tolerances are reference values

3. Mechanical Properties

Max. tensile load (Install.)	N	500	500	500	500	500	750	750
Crush resistance / 10 cm	N	700						
Bending radius (installation)	20x cable Ø							
Bending radius (operation)	10x cable Ø							

See Point 6: Test Methods

4. Marking

Fiber Colors	1	2	3	4	5	6	7	8	9	10	11	12			
	red	green	yellow	blue	white	violet	orange	black	grey	brown	pink	aqua			
Tube Colors	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	red	green	yellow	blue	white	violet	orange	black	grey	brown	pink	aqua	red	green	yellow

Note: each layer starts from tube color No.1. Tubes 13~15 will be printed with black stripe on the surface perpendicular to the axis of the tube.

Outer Sheath: black, laser print, marking in 1 meter intervals as follows:

ZTT OPTICAL CABLE MINI A-DQ2Y <n> G.652D <batch ID> <meter marking >

5. Optical Fiber

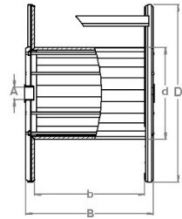
Standard	ITU-T G.652D		
Optical	Fibre attenuation .. cabled	@1310 nm ≤0.36 dB/km	@1550 nm ≤0.23 dB/km
	Mode field diameter (MFD)	@1310nm 9.0 ± 0.4 μm	
	Zero dispersion wavelength	1300~1324 nm	
	Zero dispersion slope	≤0.092 ps/nm ² ·km	
	Cut-off wavelength	≤1260 nm	
	Macro bending loss .. 100 turns Ø50 mm	@1550 nm ≤0.05 dB	@1625 nm ≤0.10 dB
Geometric	Outer diameter	200 ± 10 μm	245 ± 15 μm
	Cladding diameter	125 ± 1.0 μm	
	Core/clad concentricity error	≤0.6 μm	
	Cladding non-circularity	≤ 1.0 %	
Mechanical	Proof stress	≥ 0.69 Gpa	

6. Test Methods

Test	Conditions	Acceptance criteria
Tensile strength IEC 60794-1-2 E1	Tensile strength: see Point 3 Sample length: ≥ 50 m, Test duration: 1 min	- Δα reversible - No damage
Crush resistance IEC 60794-1-2 E3	Crush: see Point 3 Test duration: 1 min, number of tests: 3	- Δα reversible - No damage
Impact IEC 60794-1-2 E4	Impact energy: 1 J R = 300 mm, number of places/tests: 3	- Δα reversible - No damage
Repeated bending IEC 60794-1-2 E6	Bending radius: 20x cable Ø 25 cycles, 100N load	- Δα reversible - No damage
Torsion IEC 60794-1-2 E7	Sample length: 2 m ± 180°, 10 cycles, 100N	- Δα reversible - No damage
Bend IEC 60794-1-2 E11A	Bending radius: 10x cable Ø 4 bends, 3 cycles	- Δα reversible - No damage
Temperature cycling IEC 60794-1-2 F1	-30°C.. +70°C 4 hours at each temperature step, 2 cycles	- Δα≤0.15dB/km - No damage
Water penetration IEC 60794-1-2 F5	Sample length: 3 m Water column height: 1 m, duration: 24 h	- No water leakage

All optical measurements at 1550 nm

7. Logistics

Cable type	Length Tolerance	6km -2% / +2%	 D*d*B in cm
Mini A-DQ2Y 24/72	Wooden drum Dimensions (Weight)	105*60*75(245 kg)	
Mini A-DQ2Y 144(200μm)		115*70*75(280 kg)	
Mini A-DQ2Y 288		145*80*75(615 kg)	
Mini A-DQ2Y 432(200μm)		145*80*75(573 kg)	
Mini A-DQ2Y 432		165*00*75(729 kg)	
Mini A-DQ2Y 576(200μm)		165*00*75(825 kg)	

Dimensions including protection. Indicative values, actually delivered drum sizes and weights may deviate. Cable ends sealed with caps

A	March 07, 2023	John	Shen Bingbing	Erica	/
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