

MULTITUBE SINGLE JACKET STEEL TAPE ARMORED FIBER CABLE

Product Details

Multitube Single Jacket Steel Tape Armored Cables are suitable for direct burial as well as for duct applications. This cable is a stranded loose tube cable with optical fibers placed inside robust buffer tubes, stranded around a fiber reinforced plastic (FRP) central strength member. The cable core is surrounded with water-swellable tape to prevent water ingress in the interstices of cable core. Corrugated steel tape armor surrounds the cable core with thermoplastic jacket bonded over the armor layer making the cable robust and installation friendly.

Applications

These cables are typically used for outside plant (OSP) applications, including duct, direct buried and lashed aerial in harsh environments. They can be direct buried using plowing or trenching techniques. These cables can also be installed in ducts with either pulling or blowing techniques and in aerial applications with traditional lashing methods.

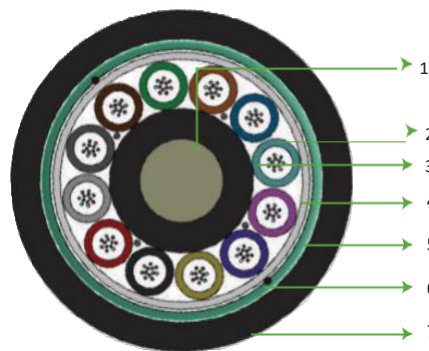
Features & Benefits

- Available up to 864 fiber count in either single-mode or multi-mode optical fibers
- Steel tape armor and PE jacket provide rodent

protection along with improved crush and impact protection

- The Steel tape enables post installation cable locating
- Multitube design with ripcords for easy and quick mid span access
- Dry water-blocking technology for gel free core helps in quicker end preparation
- Easily removable rugged thermoplastic jacket
- Flexible, light weight, easy to handle & install
- Tensile and crush resistant
- UV protected
- Tightly controlled physical parameters
- Combination of fiber types available on request:

Typical construction of cable



1. CENTRAL STRENGTH MEMBER
2. LOOSE TUBE WITH FIBERS & GEL
3. WS YARNS
4. COREWRAPPING
5. CORRUGATED STEEL TAPE
6. RIPCORD(S)
7. OUTER SHEATH



Underground



Rodent Protection



Water blocked



UV Protected

Standard: Minimum Cable Attenuation 1310 nm: 0.35 1550 nm: 0.25

Available in Low Loss Fiber:

Low Loss: Minimum Cable Attenuation 1310 nm: 0.33 1550 nm: 0.19

Performance Standards

Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, RoHS, CPR Certification for LSZH sheath

Specifications

Physical Characteristics*								
Fiber Count	12-72	96	144	288	432	576	864	
Fibers per tube	12	12	12	12	24	24	24	
No. of tubes	1~6	8	12	24	18	24	36	
Nominal Cable Diameter (mm) ± 0.5mm	11.5	12.2	14.7	17.2	19.2	22.2	25.0	
Nominal Cable Weight (kg/km) ± 10%	130	145	205	260	320	450	520	
Mechanical and environmental Characteristics								
Test	Standard / Notes	Product Performance						
Max. Tensile Strength (N)	IEC-60794-1-21-E1	2700	3500	3500	3500	3500	3500	3500
Bending Radius	IEC-60794-1-21-E11	Dynamic = 20D, Static = 15D						
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	3000	3000	3000	3000	3000	3000	3000
Impact strength (N.m)	IEC-60794-1-21-E4	25						
Torsion	IEC-60794-1-21-E7	±180°						
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr						
Temperature Cycling	IEC-60794-1-22-F1	Installation: -20°C to +60°C		Operation: -30°C to +70°C			Storage: -40°C to +70°C	
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage						

* After the test, the change in attenuation shall be ≤ 0.05 dB/km.No damage or crack on cable & no fiber break.

Cabled Optical Fibers' Characteristics

The optical fibers are in accordance to the specifications ITU-T G.652D andITU-T G.655. Refer to specific data sheets for details.

Transmission Characteristics*						
Fiber Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV ps/√km	Cut-off Wavelength (cc), nm <small>1310nm</small>
	1310nm	1550nm	1625nm			
G652D**	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0,20	≤ 0,1	≤ 1260
G655	-	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0,20	≤ 0,15	≤ 1450

** This fiber is also available as a bend insensitive fiber.

Fiber Standard Color Code

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua
13	14	15	16	17	18	19	20	21	22	23	24
Blue	Orange	Green	Brown	Grey	White	Red	Natural	Yellow	Violet	Pink	Aqua

Tube Standard Color Code

Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua
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* For more than 12 tubes, single or double stripes marking are done as per EIA/TIA 598.

Packing and Lengths

Packing: Wooden drums

Lengths (tolerance ±5%): 2km, 4km

Note - Customised drum lengths available on request.