

ADSS Ribbon Cable

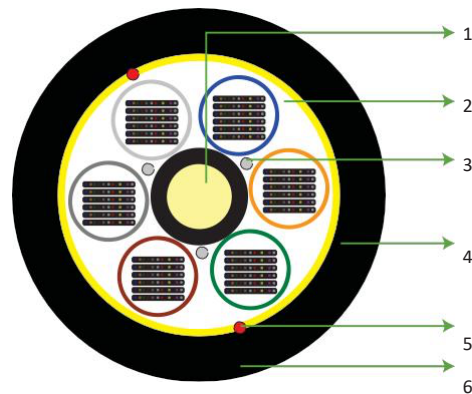
Product Details

Multitube Single Jacket ADSS Ribbon Cable combines robust performance for duct installations with the productivity of high-count mass fusion splicing. The optical fibers are arranged into ribbon units by placing the fibers in an array of 12 color-coded fibers bonded together by a UV-curable matrix material. The Ribbon units placed inside robust buffer tubes are stranded around a fiber reinforced plastic (FRP) central strength member. In addition to optical fibers, and the cable core is surrounded with water-swellaable tape to prevent water ingress in the interstices of cable core. High strength aramid yarns are evenly distributed over the core to provide the required tensile strength for aerial self-supporting applications. An overall thermoplastic jacket provides the cable with both mechanical and environmental protection.

Application

Ribbon cable design meets the application which requires delivering the highest fiber density in the most compact cable package possible. This cable offers an outstanding solution for demanding high-growth, high-bandwidth communications applications like data centers, equipment connections within cabinets, outside plant applications. These cables are used in aerial applications for short to medium span-lengths including deployment along existing aerial Right of Way and electric transmission towers. This cable is suitable for aerial- to-duct / underground transitions.

Typical construction of cable



1. CENTRAL STRENGTH MEMBER
2. LOOSE TUBE WITH RIBBONS
3. WS YARNS
4. CORE WRAPPING WITH PERIPHERAL STRENGTH MEMBERS (ARAMID YARNS)
5. RIPCORD(S)
6. OUTER SHEATH



Features & benefits

- Available up to 288 fiber count in either single-mode or multi-mode optical fibers
- These cables have high fiber count leading to more efficient use of limited duct space or aerial use
- Anti-tracking PE can be used for installation in the proximity of high tension power lines (Optional)
- This cable can be designed to suit specific requirements of span length, wind speed and other loading conditions
- Ribbon cable can be prepared and spliced much more rapidly
- Precise fiber and ribbon geometries result in excellent mass-fusion splicing yields
- Fiber ribbons are individually marked for easy identification
- These are easy to install due to dry water-blocking design
- 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



Aerial



Totally Dielectric



Water blocked



UV Protected



Quick Splice

Performance Standards

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

Specifications

Physical characteristics				
Fiber Count		96	144	288
No of Ribbon		8	12	24
Ribbon / Tube		2	2	4
Fibers/ Tube		24	24	48
Nominal Cable Diameter (mm) ± 0.5mm		18.0	20.0	200
Nominal Cable Weight (kg/km) ± 10%		237	280	285
Mechanical and environmental characteristics*				
Test	Standard / Notes	Product Performance		
NESC Conditions/Span		NESC Light/100 m NESC Medium/ 80 m NESC Heavy/ 50 m	NESC Light/100 m NESC Medium/ 80 m NESC Heavy/ 50 m	NESC Light/100 m NESC Medium/ 80 m NESC Heavy/ 50 m
Maximum Operating Tension	IEC-60794-1-21-E1	6000	6000	6000
Maximum Allowable Tension	IEC-60794-1-21-E1	12000	12000	12000
Installation Sag %		1%		
Bending Radius	IEC-60794-1-21-E11	Dynamic = 25D, Static = 20D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	2000	2000	2000
Impact strength (N.m)	IEC-60794-1-21-E4	25		
Torsion	IEC-60794-1-21-E7	± 180°		
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. 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 1310nm
	1310nm	1550nm	1625nm			
G652D**	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0,20	≤ 0,10	≤ 1260

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

Fiber Standard Color Code ("As Per EIA/TIA 598")



Tube Standard Color Code ("As Per EIA/TIA 598")

