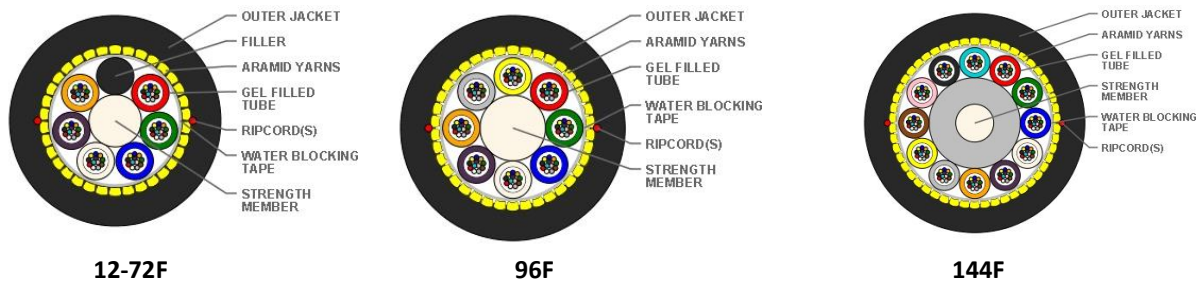


Product Name : 12-144F SM (G.657A1) Aerial Lite [ADSS] 3kN Multitube Single Sheath OFC		
Product Code : AA0XXXFSTNNTGP1CC	Local Product Code : ADSS-XOTKtsdD-XXXJ7A1(NNx12) ST	
Revision : 1.3	Date : 27-Sept-2021	

Product Details

Sterlite Tech Aerial Lite-3 multi-tube single sheath ADSS cable can be installed in short to medium span applications. High strength yarns are evenly distributed over the core to provide the required tensile strength for aerial self-supporting applications and for installation directly in subducts or primary ducts. An overall thermoplastic jacket provides the cable with both mechanical and environmental protection. This cable is suitable for aerial to duct /underground transitions. That Aerial Lite-3 was designed with tensile force 3000N.

Construction Diagram (*)



* Typical Construction Diagram - Not to Scale

Features & Benefits

- This cable can be designed to suit specific requirements of span length, wind speed and other loading conditions
- 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

Specifications

Physical Characteristics	
Fibre Count	12-144
Fibre Type	Sterlite Fibre ITU-T G657A1 BOW-LITE™ 250 um
Maximum Cabled Attenuation (dB/km)	1310nm : 0.35 & 1550nm : 0.23
PMD LDV (ps/sqrt.km)	<= 0.1
Fibers per Tube ²	12
Fibre & Tube Color Sequence (IEC60304 ver.T) ¹	Red, Green, Blue, White, Violet, Orange, Grey, Yellow, Brown, Pink, Black, Aqua
Fibre & Tube Color Sequence (IEC60304 ver.O) ¹	Red, Blue, White, Green, Violet, Orange, Grey, Yellow, Brown, Pink, Black, Aqua
Tube Size (mm)	2.1 ± 0.2
Central Strength Member	FRP (Fibre Reinforced Plastic) with or without PE coating (depends on design needs)
Cable Core Design	Elements are SZ Stranded (Left-Right) around FRP
Filler Color	White or natural
Peripheral Strength Members	High Strength Aramid Yarns
Outer Sheath Material	UV Proof Black HDPE
Nominal Sheath Thickness (mm)	1.4 ± 0.1
No of Ripcords Below Outer Sheath	2

⁽¹⁾ other color sequence standards available upon request
⁽²⁾ other cable design with 4, 6, 8F in tube – available upon request

Cable Characteristics					
Fibre Count	Fibre Per Tube	Tubes	Cable Diameter [mm ± 0.5mm]	Cable Weight [kg/km ± 10%]	Max Allowable Tension [N]
12	4	3	10.1	80	3000N
24	4	6	10.1	80	3000N
48	4	12	13.2	130	3000N
12	12	1	10.1	80	3000N
24	12	2	10.1	80	3000N
36	12	3	10.1	80	3000N
48	12	4	10.1	81	3000N
72	12	6	10.1	82	3000N
96	12	8	11.0	98	3000N
144	12	12	13.2	130	3000N

Mechanical & Environmental Characteristics		
Cable Characteristics	Testing Standard	Cable Performance
Tensile Strength(Short Term)(N)	IEC-60794-1-21-E1	3000N at 0,6% fibre strain, $\Delta\alpha \leq 0.1$ dB, $\Delta\alpha$ reversible, No damage
Tensile Strength(Long Term)(N)	IEC-60794-1-21-E1	1800N at 0,2% fibre strain, $\Delta\alpha \leq 0.1$ dB, $\Delta\alpha$ reversible, No damage
Crush Resistance (N/100 mm)	IEC-60794-1-21-E3	1500N / 100 mm, max. 5 min
Impact Strength(Nm)	IEC-60794-1-21-E4	5 Nm / 3 impacts, R= 300 mm
Torsion	IEC-60794-1-21-E7	$\pm 180^\circ$
Min. Bend Radius (During Installation)	IEC-60794-1-21-E11	20 D
Min. Bend Radius (After Installation)	IEC-60794-1-21-E11	15 D
Water Penetration Test	IEC-60794-1-22-F5B	1m waterhead, 3m samples, 24 h
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 h
Temperature Performance	IEC-60794-1-22-F1	Max. change in attenuation shall be ≤ 0.15 dB/km
Installation		-10°C to +55°C
Operation		-40°C to +70°C
Storage		-40°C to +70°C

Note: All tests shall be carried out as per IEC standards. Change in attenuation after and before testing shall be ≤ 0.1 dB/km

Loading Conditions				
Operating Condition	Span Length(mts)	Installation Sag(%)	Ice Load(mm)	Wind Speed(km/hr)
NESC Light	Up to 150m	1.5%	0	97
NESC Medium	Up to 120m	1.5%	6.35	64
NESC Heavy	Up to 60m	1.5%	12.7	64

Cable Performance Standards

Cable complies to the following standards IEC 60793, IEC 60794, Telcordia GR-20, IEEE, ITU-T, RoHS, Reach.

Packing and Lengths

- Drum Type : Wooden Drums
- Length Multiple : 4, 6km \pm 5%
- Order Tolerance : \pm 5%
- Short Lengths : Max 5%, Customer Approval

Printing Details

Printing : STERLITE AERIALITE 3KN ADSS-XOTKTSDD-XXXJ7A1(NNX12)ST-OPTICAL CABLE-<year of production> -ID<lot number>-CC<color code>- <length marker>M

Note : Length Marking at each 1m. The accuracy of marking shall be + 0.5%. Occasional loss of printing & remarking shall be as per Bell core GR 20 and this supersedes the earlier markings.

Ordering Details

Fibre	Vendor Code	Local code	Product name
12F	AA0012FS103TGP1020150M	AL3-ADSSXOTKtsdD-012J7A1(03x4)STc	STERLITE all dielectric self-supporting AerialLite3 12F G.657A1 (3x4F), 3kN, PE
24F	AA0024FS106TGP1020150M	AL3-ADSSXOTKtsdD-024J7A1(06x4)STc	STERLITE all dielectric self-supporting AerialLite3 24F G.657A1 (6x4F), 3kN, PE
48F	AA0048FS112TGP1020150M	AL3-ADSSXOTKtsdD-048J7A1(12x4)STc	STERLITE all dielectric self-supporting AerialLite3 48F G.657A1 (12x4F), 3kN, PE
12F	AA0012FS101TGP1020150M	AL3-ADSSXOTKtsdD-012J7A1(01x12)STc	STERLITE all dielectric self-supporting AerialLite3 12F G.657A1 (1x12F), 3kN, PE
24F	AA0024FS102TGP1010150M	AL3-ADSSXOTKtsdD-024J7A1(02x12)STc	STERLITE all dielectric self-supporting AerialLite-3 24F G.657A1 (2x12F), 3kN, PE
36F	AA0036FS103TGP1010150M	AL3-ADSSXOTKtsdD-036J7A1(03x12)STc	STERLITE all dielectric self-supporting AerialLite-3 36F G.657A1 (3x12F), 3kN, PE
48F	AA0048FS104TGP1010150M	AL3-ADSSXOTKtsdD-048J7A1(04x12)STc	STERLITE all dielectric self-supporting AerialLite-3 48F G.657A1 (4x12F), 3kN, PE
72F	AA0072FS106TGP1010150M	AL3-ADSSXOTKtsdD-072J7A1(06x12)STc	STERLITE all dielectric self-supporting AerialLite-3 72F G.657A1 (6x12F), 3kN, PE
96F	AA0096FS108TGP1010150M	AL3-ADSSXOTKtsdD-096J7A1(08x12)STc	STERLITE all dielectric self-supporting AerialLite-3 96F G.657A1 (8x12F), 3kN, PE
144F	AA0144FS112TGP1010150M	AL3-ADSSXOTKtsdD-144J7A1(12x12)STc	STERLITE all dielectric self-supporting AerialLite-3 144F G.657A1 (12x12F), 3kN, PE

where "c" – means chosen tube & fibre color coding

Revision History

Revision No.	Date	Description	Prepared By
1.0	13-Jan-2021	Initial Issue	Zaid
1.1	25-Feb-2021	Cable Diameter Updated	Zaid
1.2	11-Mar-2021	Country localisation	Zaid
1.3	27-Sept-2021	Added 12,24,48 with 4F/T	Zaid