



HYBRIFLEX™ Direct LTE, Cabling Solution for 3 RRU

Product Description

RFS' HYBRIFLEX™ cabling solution for Remote Radio Unit (RRU) combines optical fiber and DC power in a single lightweight aluminum corrugated cable, making it the world's most innovative solution for RRU deployments. It was developed to reduce installation complexity and cost at Cellular sites. HYBRIFLEX™ cabling solutions allows mobile operators deploying RRU architecture to standardized installation process and eliminates the need and the cost for an internal grounding wire. The HYBRIFLEX™ cable is part of a site installation kit. It consists of an armored bundle of 3 shielded DC cables, 3 F/O distribution cables and a rip cord to adjust the breakout part of the cable.

Features

- A corrugated armor with excellent bending characteristics minimizes installation time and enables mechanical protection and EMC shielding
- Outer conductor grounding eliminates typical additional grounding requirement and saves on installation costs
- Lightweight solution and compact design decreases tower loads
- Robust cabling eliminates need for expensive cable trays and conduits
- Installation of stripped fiber optic cable pairs directly to RRH reduces CAPEX and wind load by eliminating need for junction boxes
- F/O and DC housed in single corrugated cable saves CAPEX by standardizing RRH cable installation and reducing installation equipments

Specification

Structure

Cable Type	3 RRU HYBRIFLEX™ Direct LTE
Size	7/8"
Fire Performance	Halogene Free

Mechanical Specifications

Outer Diameter Nominal, mm (in)	27.8 (1.09)
Cable Weight, kg/m (lb/ft)	0.76 (0.51)
Minimum Bending Radius, Single Bend, mm (in)	120 (4.7)
Minimum Bending Radius, Repeated Bends, mm (in)	250 (9.8)
Tensile Strength, N (lb)	700 (157)
Recommended / Maximum Clamp Spacing, m (ft)	0.8 / 1 (2.75 / 3.3)

Cable Jacket

UV-Protection Individual and External Jacket	Yes
Jacket Material	UV stable black PE

Armor Specifications

Armor Type	Corrugated Aluminum tube
Maximum DC Resistance of Armor, Ω/1000m (Ω/1000ft)	1.21 (0.37)
Copper Equivalent Cross Section of Armor, mm² (AWG)	16 (5)
Diameter of Corrugated Armor, mm (in)	25.2 (0.99)

F/O Cable Specifications

Number of F/O Pairs	6
Type	Tight-Buffer, Multimode
Core/Clad, μm	50 /125
Secondary Protection Nominal, μm (in)	900 (0.035)
Single Bending Radius, mm (in)	50 (1.97)
Cable Diameter, mm (in)	4.8 (0.19)
F/O Cable Jacket	UV stable black PE
F/O Standards (Meets or Exceeds)	IEC 60793-2-10

DC Power Cable Specifications

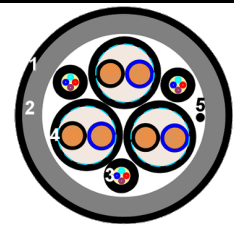
Number of DC Pairs	3
Maximum DC-Resistance of Power Cable, ohm/1000 m (ohm/1000 ft)	4.95 (1.51)
Cross Section of Power Cable, mm² (AWG)	4 (12)
Shielding	braid
DC Wire Jacket Material	Polyethylene, PE, Metalhydroxite Filling
DC Wire Jacket Thickness, mm (in)	0.5 (0.02)
DC Cable Single Bending Radius, mm (in)	100 (3.94)
DC Cable Diameter, mm (in)	9.9 (0.39)
DC Cable Jacket	UV stable black PE
DC Standards (Meets or Exceeds)	IEC 60229

Testing and Environmental

Storage Temperature, °C (°F)	-40 to 85 (-40 to 185)
Operation Temperature, °C (°F)	-40 to 85 (-40 to 185)
Installation Temperature, °C (°F)	-20 to 50 (-4 to 122)
Flame Retardant Jacket Specifications	not applicable
LSZH Specification	not applicable



Footprint Overview



- 1) External Jacket
- 2) Aluminium Armor
- 3) F/O Cable
- 4) Shielded Power Cable
- 5) Rip Cord

Footprint F/O Cable

Related Links

- [Handling Instruction.pdf](#)
- [Ordering_code.pdf](#)
- [Solution_Overview_1.pdf](#)
- [Solution_Overview_3.pdf](#)

All information contained in the present datasheet is subject to confirmation at time of ordering