



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 4 unshielded DC cables, 8 F/O distribution cables and a rip cord to adjust the breakout part of the cable.

FEATURES / BENEFITS

- 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



HYBRIFLEX Series

Technical features

STRUCTURE

Cable Type		4 RRU HYBRIFLEX™ Standard LTE
Size		7/8
Fire Performance		Flame Retardant, LSZH

DC POWER CABLE SPECIFICATIONS

Number of DC Pairs		4
Maximum DC-Resistance Power Cable	Ω/km (Ω/kft)	3.3 (1)
Cross Section of Power Cable	mm^2 (AWG)	6 (10)
Shielding		provided by aluminium armor
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 and blue PE
DC Standards (Meets or Exceeds)		IEC 60228



MECHANICAL SPECIFICATIONS

Cable Weight	kg/m (lb/ft)	0.86 (0.58)
Minimum Bending Radius, (Operating)	mm (in)	120 (4.7)
Minimum Bending Radius, (Installation)	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
Outer Diameter Nominal	mm (in)	27.8 (1.09)

ARMOR SPECIFICATIONS

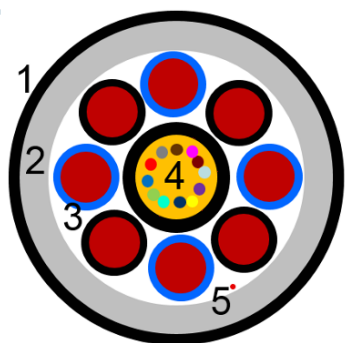
Armor Type		Corrugated Aluminum tube
Maximum DC-Resistance of Armor	Ω/km (Ω/kft)	1.21 (0.37)
Copper Equivalent Cross Section of Armor	mm^2 (AWG)	16 (5)
Diameter Corrugated Armor	mm (in)	25.2 (0.99)

F/O CABLE SPECIFICATIONS

F/O Cable Type		Tight-Buffer, Single mode
Number of F/O Pairs		8
Core/Clad	μm	9 / 125
Secondary Protection Nominal	μm (in)	900 (0.035)
Single Bending Radius	mm (in)	69 (2.71)
Cable Diameter mm (in)		6.9 (0.27)
F/O Cable Jacket		UV stable black PE
F/O Standards (Meets or Exceeds)		ITU G 657.A2

TESTING AND ENVIRONMENTAL

Storage Temperature	$^{\circ}\text{C}$ ($^{\circ}\text{F}$)	-40 to 85 (-40 to 185)
Operation Temperature	$^{\circ}\text{C}$ ($^{\circ}\text{F}$)	-40 to 85 (-40 to 185)
Installation Temperature	$^{\circ}\text{C}$ ($^{\circ}\text{F}$)	-20 to 50 (-4 to 122)
Jacket Specifications		IEC 60332-3-24, UL 1581.sec.1080
LSZH Specification		IEC 60754-1 / 2, IEC 61034-1/2



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

Product Detail

[External Document Links](#)

[Handling Instruction.pdf](#)

[Ordering_code.pdf](#)

[Solution Overview_4.pdf](#)

[Solution Overview_5.pdf](#)

Notes