



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 2 DC cables, 1 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**

<b>Cable Type</b>		Single RRU HYBRIFLEX™ Standard
<b>Size</b>		1/2
<b>Fire Performance</b>		Halogene Free

**DC POWER CABLE SPECIFICATIONS**

<b>Number of DC Pairs</b>		1
<b>Maximum DC-Resistance Power Cable</b>	$\Omega/\text{km}$ ( $\Omega/\text{kft}$ )	4.95 (1.51)
<b>Cross Section of Power Cable</b>	$\text{mm}^2$ (AWG)	4 (12)
<b>Shielding</b>		provided by the Al armor
<b>DC Wire Jacket Material</b>		Polyethylene, PE
<b>DC Wire Jacket Thickness</b>	mm (in)	0.5 (0.02)
<b>DC Cable Single Bending Radius</b>	mm (in)	25 (0.98)
<b>DC Cable Diameter</b>	mm (in)	4 (0.157)
<b>DC Cable Jacket</b>		UV stable black PE
<b>DC Standards (Meets or Exceeds)</b>		IEC 60228



**MECHANICAL SPECIFICATIONS**

<b>Cable Weight</b>	kg/m (lb/ft)	0.23 (0.155)
<b>Minimum Bending Radius, (Operating)</b>	mm (in)	70 (2.7)
<b>Minimum Bending Radius, (Installation)</b>	mm (in)	125 (5)
<b>Tensile Strength</b>	N (lb)	150 (33.7)
<b>Recommended / Maximum Clamp Spacing</b>	m (ft)	0.6 / 1 (2 / 3.25)

**CABLE JACKET**

<b>UV-Protection Individual and External Jacket</b>		Yes
<b>Jacket Material</b>		UV stable black PE
<b>Outer Diameter Nominal</b>	mm (in)	15.8 (0.62)

**ARMOR SPECIFICATIONS**

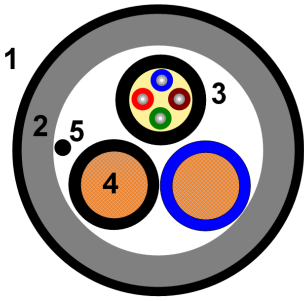
<b>Armor Type</b>		Corrugated Aluminum tube
<b>Maximum DC-Resistance of Armor</b>	Ω/km (Ω/kft)	2.78 (0.85)
<b>Copper Equivalent Cross Section of Armor</b>	mm <sup>2</sup> (AWG)	8 (8)
<b>Diameter Corrugated Armor</b>	mm (in)	13.8 (0.54)

**F/O CABLE SPECIFICATIONS**

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

**TESTING AND ENVIRONMENTAL**

<b>Storage Temperature</b>	°C (°F)	-40 to 85 (-40 to 185 )
<b>Operation Temperature</b>	°C (°F)	-40 to 85 (-40 to 185 )
<b>Installation Temperature</b>	°C (°F)	-20 to 50 (-4 to 122 )
<b>Jacket Specifications</b>		not applicable
<b>LSZH Specification</b>		not applicable



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

Product Detail

External Document Links

[Handling Instruction.pdf](#)

[Ordering\\_code.pdf](#)

[Solution Overview\\_2.pdf](#)

Notes