



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 LTE |
| <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> | Ω/km (Ω/kft)          | 4.95 (1.51)              |
| <b>Cross Section of Power Cable</b>      | mm <sup>2</sup> (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**

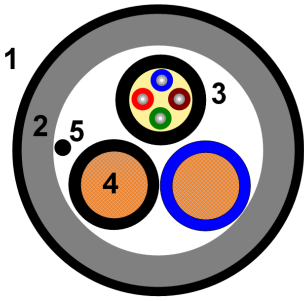
|   |                       |                          |
|---|-----------------------|--------------------------|
| <b>Armor Type</b>                               |                       | Corrugated Aluminum tube |
| <b>Maximum DC-Resistance of Armor</b>           | Ω/km (Ω/kft)          | 2.78 (0.85)              |
| <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, Singlemode |
| <b>Number of F/O Pairs</b>              |         | 2                        |
| <b>Core/Clad</b>                        | μm      | 9 /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> |         | ITU G 657.A2             |

**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