



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

| | | |
|------------------|--|------------------------------------|
| Cable Type | | Single RRU HYBRIFLEX™ Standard LTE |
| Size | | 1/2 |
| Fire Performance | | Halogene Free |

DC POWER CABLE SPECIFICATIONS

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



MECHANICAL SPECIFICATIONS

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

CABLE JACKET

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

ARMOR SPECIFICATIONS

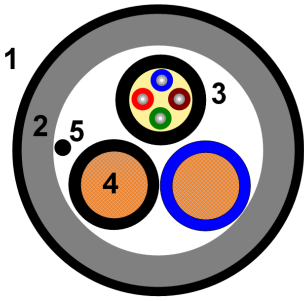
| | | |
|---|-----------------------|--------------------------|
| Armor Type | | Corrugated Aluminum tube |
| Maximum DC-Resistance of Armor | Ω/km (Ω/kft) | 2.78 (0.85) |
| Copper Equivalent Cross Section of Armor | mm ² (AWG) | 8 (8) |
| Diameter Corrugated Armor | mm (in) | 13.8 (0.54) |

F/O CABLE SPECIFICATIONS

| | | |
|---|---------|--------------------------|
| F/O Cable Type | | Tight-Buffer, Singlemode |
| Number of F/O Pairs | | 2 |
| Core/Clad | μm | 9 /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) | | ITU G 657.A2 |

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) |
| Jacket Specifications | | not applicable |
| LSZH Specification | | 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