

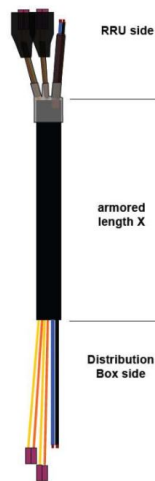


RFS Technologies' HYBRIFLEX™ cabling solution for Remote Radio Head (RRU) combines optical fiber and DC power for RRUs in a single lightweight aluminum corrugated cable, making it the world's most innovative solution for RRH deployments. It was developed to reduce installation complexity and cost at Cellular sites.

HYBRIFLEX™ cabling solutions allows mobile operators deploying RRH architecture to standardize RRH installation process and eliminates the need for and the cost of cable grounding.

The HYBRIFLEX™ Jumper is part of the cabling solution for RRU's. It consists of an armored part of length XX, a breakout part to the RRU and a breakout part to the Distribution Box. The breakout part to the RRU is outdoor ready and sealed according to IP68. The breakout part to the Distribution Box is suitable to be installed to the RFS Technologies Distribution Box DB-T1-4Z-8B-0Z.

This Jumper cable is suitable for Ericsson RRUs. The Jumper cables can be ordered in 1m, 2m, 3m, 4m and 5m armored length.



#### FEATURES / BENEFITS

- **Aluminum corrugated armor with outstanding bending characteristics**

Minimizes installation time and enables mechanical protection and shielding

- **Build in Animal Protection**

Improves the reliability of the installation

- **Outer conductor grounding**

Eliminates typical grounding requirement and saves on installation costs

- **Lightweight solution and compact design**

Decreases tower loads

- **Optical Fiber and power cables housed in single corrugated cable**

Saves CAPEX by standardizing RRH cable installation and reducing installation equipments

- **Outdoor polyethylene jacket**

Ensure long-lasting cable protection

## Technical features

#### STRUCTURE

|            |  |               |
|------------|--|---------------|
| Cable Type |  | Hybrid Jumper |
|------------|--|---------------|

#### 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 <sup>2</sup> (AWG) | 4 (12)                   |
| Shielding                         |                       | provided by Al armor     |
| DC Wire Jacket Material           |                       | Polyethylene Black/ Blue |
| DC Wire Jacket Thickness          | mm (in)               | 0.5 (0.02)               |
| DC Cable Jacket                   |                       | UV stable black PE       |
| DC Standards (Meets or Exceeds)   |                       | IEC 60228                |



## MECHANICAL SPECIFICATIONS

|                                        |         |            |
|----------------------------------------|---------|------------|
| Minimum Bending Radius, (Operating)    | mm (in) | 70 (3)     |
| Minimum Bending Radius, (Installation) | mm (in) | 125 (5)    |
| Tensile Strength                       | N (lb)  | 150 (33.7) |

## 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 |
| Maximum DC-Resistance of Armor           | $\Omega/\text{km}$ ( $\Omega/\text{kft}$ ) | 2.78 (0)            |
| Copper Equivalent Cross Section of Armor | mm <sup>2</sup> (AWG)                      | 8.4 (8)             |
| Diameter Corrugated Armor                | mm (in)                                    | 13.8 (0.54)         |

## F/O CABLE SPECIFICATIONS

|                                  |                    |                            |
|----------------------------------|--------------------|----------------------------|
| F/O Cable Type                   |                    | Tight Buffer, Single Mode  |
| Number of F/O Pairs              |                    | 2                          |
| Core/Clad                        | $\mu\text{m}$      | 9 /125                     |
| Secondary Protection Nominal     | $\mu\text{m}$ (in) | 900 (0.036)                |
| F/O Standards (Meets or Exceeds) |                    | ITU-T G.657.A              |
| Optical Loss                     | dB/Km              | 1 @ 1310 nm<br>1 @ 1550 nm |
| Fiber Termination End 1          |                    | FULLAXS for Ericsson RRUs  |
| Fiber Termination End 2          |                    | LC Connector               |

## TESTING AND ENVIRONMENTAL

|                          |         |                         |
|--------------------------|---------|-------------------------|
| Storage Temperature      | °C (°F) | -40 to 70 (-40 to 158 ) |
| Operation Temperature    | °C (°F) | -40 to 65 (-40 to 149 ) |
| Installation Temperature | °C (°F) | -20 to 65 (-4 to 149 )  |

## ADDITIONAL ASSEMBLIES

|        |                    |
|--------|--------------------|
| Length | Model Name         |
| 1 m    | HA-FODC-ALBB-04-01 |
| 2 m    | HA-FODC-ALBB-04-02 |
| 3 m    | HA-FODC-ALBB-04-03 |
| 4 m    | HA-FODC-ALBB-04-04 |
| 5 m    | HA-FODC-ALBB-04-05 |



## HA-FODC-ALBB-04-XX

HYBRIFLEX® Hybrid Trunk Cable, Single-Mode Fiber, 4 mm<sup>2</sup> Power Cable

**RRU F/O connector**



**RRU DC connector**



External Document Links

Notes