



**RFS' 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 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
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#### 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	Ω/km (Ω/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	μm	9 /125
Secondary Protection Nominal	μm (in)	900 (0.036)
F/O Standards (Meets or Exceeds)		ITU-T G.657.A
Optical Loss	dB/Km	1 @ 1310 nm 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

**RRU F/O connector**



**RRU DC connector**



External Document Links

Notes