HA-FODC-LLBB-22-XX

HYBRIFLEX™;Hybrid jumper cable, Multi-mode fibre, 6 mm² Power cable, Box to Radio Module; with Duplex LC Connectors

RFS' HYBRIFLEX™cabling solution for Remote Radio Head (RRH) combines optical fibre and DC power for RRHs 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 RRH's. It consists of an armored part of length XX, a breakout part to the RRH and a breakout part to the distribution box. The breakout part to the RRH is outdoor ready and sealed according to IP68.

The cables can be ordered in lengths as stated in the 'Standard Lengths Table' - others lengths available upon request

FEATURES / BENEFITS

· **Aluminum corrugated armor with outstanding bending characteristics** Minimizes installation time and enables mechanical protection and shielding

· **Built 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 fibre 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

MECHANICAL SPECIFICATIONS

Outer Diameter Nominal	mm (in)	15.8 (0.622)
Cable Weight	kg/m (lb/ft)	0.235 (0.158)
Minimum Bending Radius, (Operating)	mm (in)	70 (2.7)
Minimum Bending Radius, (Installation)	mm (in)	125 (5)
Tensile Strength	N (lb)	150 (33.7)

HA-FODC-LLBB-22-XX

HYBRIFLEX™;Hybrid jumper cable, Multi-mode fibre, 6 mm² Power cable, Box to Radio Module; with Duplex LC Connectors

DC POWER CABLE SPECIFICATIONS

Number of DC Pairs		1
Maximum DC-Resistance Power Cable	Ω/km (Ω/kft)	3.3 (1.51)
Cross Section of Power Cable	mm²	6
Shielding		Provided by Al armor
DC Wire Jacket Material		Polyethylene grey / blue (colours will change to comply with British Standards)
DC Wire Jacket Thickness	mm (in)	0.5 (0.02)
DC Cable Jacket		UV stable black PE
DC Standards (Meets or Exceeds)		IEC 60228
Current rating	A	42 (ambient 35°C)
Power Termination End 1		Only barewire without ferrule
Power Termination End 2		With ferrule for box connection

CABLE JACKET

UV-Protection Individual and External Jacket		External Jacket: to IEC 60754-1/-2, Inner Jacket, DC conductors + Fibre cables EN 50289-4-17:2015
Jacket Material		UV stable black PE CPR class F + ISO 14001:2015 RoHS 2011/65/EU - China RoHS SJ/T 11364-2006 REACH (EC 1907/2006) UL1581 - UV Resistance Jacket

ARMOR SPECIFICATIONS

Armor Type		Corrugated aluminum
Maximum DC-Resistance of Armor	Ω/km (Ω/kft)	2.42 (0.74)
Copper Equivalent Cross Section of Armor	mm²	8.45
Diameter Corrugated Armor	mm (in)	13.8 (0.543)

F/O CABLE SPECIFICATIONS

F/O Cable Type		Tight buffer, OM4 Multi-mode
Number of F/O Pairs		2
Core/Clad	μm	50 /125
Optical Loss	dB/Km	3.5 @ 850 nm 1.5 @ 1300 nm
Fibre Termination End 1		LC Connector
Fibre Termination End 2		LC Connector

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)

STANDARD ASSEMBLIES

Length	Model name
2 m	HA-FODC-LLBB-22-02
3 m	HA-FODC-LLBB-22-03
5 m	HA-FODC-LLBB-22-05
7 m	HA-FODC-LLBB-22-07
10 m	HA-FODC-LLBB-22-10

HA-FODC-LLBB-22-XX

HYBRIFLEX™;Hybrid jumper cable, Multi-mode fibre, 6 mm² Power cable, Box to Radio Module; with Duplex LC Connectors

15 m	HA-FODC-LLBB-22-15
20 m	HA-FODC-LLBB-22-20
	Other length available on request

Recommendations:

> **Hangers**	:		MBH-12S (single)
			MBH-12D (double)
> **Earthing**	:		GKSpeed20-12P
> **Boots for RRH**	:	Nokia AOPC	HA-AOPC-01
		IP-RC-ERICSSON :	HA-FOPLUG-A-04