



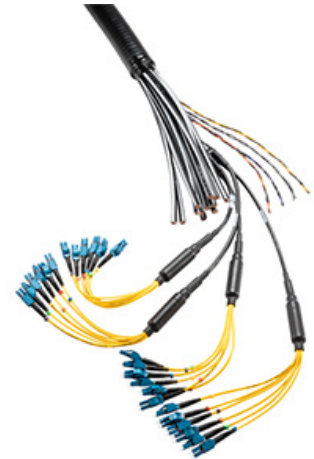
HB158-U12S24-450-LI

HYBRIFLEX® RRH Hybrid Cable Solution 12 x 24, 6AWG, Low-Inductance, 1-5/8", Single-Mode Fiber, DLC Connectors Top and Bottom, 450 ft

RFS' HYBRIFLEX Remote Radio Head (RRH) hybrid feeder cabling solution combines optical fiber and DC power for RRHs in a single lightweight aluminum corrugated cable, making it the world's most innovative solution for RRH deployments. It combines bend-insensitive single-mode fiber (24 pairs of DLC connectors), 12 pairs of low-inductance 6AWG DC wires, and 4 pairs of wires used to carry alarm signals. The package also includes a special RFS-designed DC insulating boot, used to properly protect and insulate the DC wires after stripping the jacket, avoiding possible short-circuits while wiring it to the distribution boxes. Standard RFS CELLFLEX® accessories can be used with HYBRIFLEX cable.

FEATURES / BENEFITS

- DC Wire Insulator (Patented) – Used at the DC wire connection in distribution boxes, prevents potential short circuits
- Aluminum corrugated armor with outstanding bending characteristics – Minimizes installation time and enables mechanical protection and shielding
- Standard RFS CELLFLEX accessories can be used for HYBRIFLEX cable. Saves installation costs and time
- Outer conductor grounding – Eliminates typical grounding requirements and saves on installation costs
- Lightweight solution and compact design – Decreases tower loading
- Robust cabling – Eliminates need for expensive cable trays and ducts
- Optical fiber and power cables housed in single corrugated cable – Saves CAPEX by standardizing RRH cable installation and reducing installation requirements
- Outdoor, flame-retardant jacket – Ensures long-lasting cable protection



Technical features

STRUCTURE

Cable Type		HYBRIFLEX® Low Inductance
Size		1-5/8
Fire Performance		Flame Retardant
Length	m (ft)	137.16 (450)

MECHANICAL SPECIFICATIONS

Outer Diameter Nominal	mm (in)	50.19 (1.976)
Cable Weight	kg/m (lb/ft)	4.76 (3.2)
Minimum Bending Radius, Single Bend	mm (in)	254 (10)
Minimum Bending Radius, Multi Bends	mm (in)	508 (20)
Recommended / Maximum Clamp Spacing	m (ft)	1 / 1.2 (3.25 / 4)



HB158-U12S24-450-LI

HYBRIFLEX® RRH Hybrid Cable Solution 12 x 24, 6AWG, Low-Inductance, 1-5/8", Single-Mode Fiber, DLC Connectors Top and Bottom, 450 ft

DC POWER CABLE SPECIFICATIONS

Number of DC Pairs		12
Maximum DC-Resistance Power Cable	Ω/km (Ω/kft)	1.4 (0.41)
Cross Section of Power Cable	mm ² (AWG)	13.3 (6)
DC Wire Jacket Material		PVC/Nylon
DC Cable Single Bending Radius	mm (in)	137 (5.4)
DC Cable Diameter	mm (in)	9.3 (0.365)
DC Cable Jacket		PVC/Nylon
DC Standards (Meets or Exceeds)		For use in Type RHC per UL 2882,PVC/Nylon,RoHS/REACH Compliant (Cable Rating)
Break-out length	mm(in)	812.8 +/-0 (32 +/-0)
Alarm Wire		8 (4 twisted pairs), 0.8 mm ² (8), 18 AWG

CABLE JACKET

UV-Protection Individual and External Jacket		Yes
----------------------------------------------	--	-----

ARMOR SPECIFICATIONS

Armor Type		Corrugated Aluminum
Maximum DC-Resistance of Armor	Ω/km (Ω/kft)	0.59 (0.18)
Diameter Corrugated Armor	mm (in)	46.5 (1.83)

F/O CABLE SPECIFICATIONS

F/O Cable Type		Single Mode, Bend Tolerant
Number of F/O Pairs		24
Core/Clad	μm	9 /125
Secondary Protection Nominal	μm (in)	900 (0.035)
Single Bending Radius	mm (in)	137 (5.4)
F/O Standards (Meets or Exceeds)		UL Listed Type OFNR (UL1666), F/O Cable Rating ICEA Indoor/Outdoor
Optical Loss	dB/Km	0.5 @ 1310 nm 0.5 @ 1550 nm
Fiber Termination End 1		LC Connectors, 0.4 dB Loss
Fiber Termination End 2		LC Connectors, 0.4 dB Loss
FO Break-out length	mm(in)	1777 +/-0 (70 +/-0)
Cable sealing method		Semi-rigid flame-retardant polyolefin, with hot melt adhesive

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)
Jacket Specifications		UL2882 Type RHC, UL listed
Alarm Wire Standards (Meets or Exceeds)		UL Standard 1063, 1581 VW-1, MTW Oil and Gasoline RES1 SUNRES (Cable meets UL requirements), RoHS/REACH Compliant



PRODUCT DATASHEET

HB158-U12S24-450-LI

HYBRIFLEX® RRH Hybrid Cable Solution 12 x 24, 6AWG, Low-Inductance, 1-5/8", Single-Mode Fiber, DLC Connectors Top and Bottom, 450 ft



DC Wire Insulator

[External Document Links](#)

[Installation Guidelines](#)

[Quick Ship 2.0 Program Information](#)

[Notes](#)