



PRODUCT DESCRIPTION

RFS' HYBRIFLEX Remote Radio Head (RRH) hybrid feeder cabling solution combines any combination of optical fiber and/or DC power for RRHs in a single lightweight armored or unarmored cable, making it the world's most innovative solution for RRH deployments. Hybrid, Fiber Optic and DC riser trunk and jumper cables are available in a large variety of fiber counts, DC counts and cross sections. Both pre-connectorized and on-site options are available.



FEATURES / BENEFITS

- Ruggedized, bend-insensitive fiber design with outstanding bending characteristics
• Lightweight solution and compact design - Decreases tower loading
• Robust cabling - Eliminates need for expensive cable trays and ducts
• Installation of tight bundled fiber optic cable pair directly to the RRH - Reduces CAPEX and wind load by eliminating need for interconnection
• Outdoor, black jacket - Ensures long-lasting cable protection
• 100% Factory tested - Online test results available

TECHNICAL FEATURES

STRUCTURE

Table with 3 columns: Property, Unit, Value. Rows include Cable Type (HYBRIFLEX®), Fire Performance (Flame Retardant), and Length (0.3 (1) m (ft)).

MECHANICAL SPECIFICATIONS

Table with 3 columns: Property, Unit, Value. Rows include Outer Diameter Nominal (5.5 (0.217) mm (in)), Cable Weight (0.033 (0.022) kg/m (lb/ft)), Minimum Bending Radius (66 (2.6) mm (in)), and Recommended / Maximum Clamp Spacing (1 / 1.2 (3.25 / 4) m (ft)).

F/O CABLE SPECIFICATIONS

Table with 3 columns: Property, Unit, Value. Rows include Number of F/O Pairs (1), F/O Cable Type (G657-A2 Single Mode, Bend Tolerant), Core/Clad (9/125 μm), Secondary Protection Nominal (900 (0.035) μm (in)), F/O Standards (UL Listed Type OFNR (UL1666), RoHS Compliant), Optical Loss (0.5 @ 1310 nm, 0.5 @ 1550 nm dB/Km), FO Break-out Length (279 (11) mm (in)), FO Break-out Length (228 (9) mm (in)), and Cable Sealing Method (Semi-rigid flame-retardant polyolefin, with hot melt adhesive).



FR-N-1SM-01-1F

HYBRIFLEX® RRH Optical Fiber Cable, 1 Pair, Ruggedized Bend-Insensitive Single-Mode Fiber, DLC Connectors, 1 ft

Fiber Termination End 1		DLC Connector
Fiber Termination End 2		DLC Connector

CABLE JACKET

UV-Protection Individual and External Jacket		Yes
Jacket Material		Flame Retardant, Indoor/Outdoor, PVC, Black

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		UL 1666

EXTERNAL DOCUMENT LINKS

Installation Guidelines: [Download](#)
 QuickShip 2.0 Program Information: [Download](#)
 On-line Factory Test Results: [View](#)

NOTES





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ADDITIONAL ASSEMBLIES - 1 PAIR SM FIBER

Length, ft	Model Number
6	FR-N-1SM-01-6F
10	FR-N-1SM-01-10F
15	FR-N-1SM-01-15F
20	FR-N-1SM-01-20F
30	FR-N-1SM-01-30F
40	FR-N-1SM-01-40F
50	FR-N-1SM-01-50F
60	FR-N-1SM-01-60F
79	FR-N-1SM-01-70F
80	FR-N-1SM-01-80F
90	FR-N-1SM-01-90F
100	FR-N-1SM-01-100F

ADDITIONAL ASSEMBLIES - 2 PAIR SM FIBER

Length, ft	Model Number
10	FR-N-2SM-01-10F
20	FR-N-2SM-01-20F
30	FR-N-2SM-01-30F
40	FR-N-2SM-01-40F
50	FR-N-2SM-01-50F
60	FR-N-2SM-01-60F
70	FR-N-2SM-01-70F
80	FR-N-2SM-01-80F
90	FR-N-2SM-01-90F
100	FR-N-2SM-01-100F

**FR-N-1SM-01-1F**

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ADDITIONAL ASSEMBLIES - 3 PAIR SM FIBER

Length, ft	Model Number
3	FR-N-3SM-01-3F
4	FR-N-3SM-01-4F
6	FR-N-3SM-01-6F
8	FR-N-3SM-01-8F
10	FR-N-3SM-01-10F
15	FR-N-3SM-01-15F
20	FR-N-3SM-01-20F
30	FR-N-3SM-01-30F
50	FR-N-3SM-01-50F

ADDITIONAL ASSEMBLIES - 6 PAIR SM FIBER

Length, ft	Model Number
3	FR-N-6SM-01-3F
4	FR-N-6SM-01-4F
6	FR-N-6SM-01-6F
8	FR-N-6SM-01-8F
10	FR-N-6SM-01-10F
15	FR-N-6SM-01-15F
20	FR-N-6SM-01-20F
30	FR-N-6SM-01-30F
40	FR-N-6SM-01-40F

ADDITIONAL ASSEMBLIES - 12 PAIR SM FIBER

Length, ft	Model Number
3	FR-N-12SM-01-3F
4	FR-N-12SM-01-4F
6	FR-N-12SM-01-6F
8	FR-N-12SM-01-8F
10	FR-N-12SM-01-10F
15	FR-N-12SM-01-15F
20	FR-N-12SM-01-20F
30	FR-N-12SM-01-30F



FR-N-1SM-01-1F

HYBRIFLEX® RRH Optical Fiber Cable, 1 Pair, Ruggedized Bend-Insensitive Single-Mode Fiber, DLC Connectors, 1 ft

ADDITIONAL ASSEMBLIES - 1 STRAND SM FIBER

Length, ft	Model Number
10	FR-N-1SSM-01-10F
20	FR-N-1SSM-01-20F
30	FR-N-1SSM-01-30F
40	FR-N-1SSM-01-40F
50	FR-N-1SSM-01-50F
60	FR-N-1SSM-01-60F
70	FR-N-1SSM-01-70F
80	FR-N-1SSM-01-80F
90	FR-N-1SSM-01-90F
100	FR-N-1SSM-01-100F

ADDITIONAL ASSEMBLIES - 2 STRAND SM FIBER

Length, ft	Model Number
10	FR-N-2SSM-01-10F
20	FR-N-2SSM-01-20F
30	FR-N-2SSM-01-30F
40	FR-N-2SSM-01-40F
50	FR-N-2SSM-01-50F
60	FR-N-2SSM-01-60F
70	FR-N-2SSM-01-70F
80	FR-N-2SSM-01-80F
90	FR-N-2SSM-01-90F
100	FR-N-2SSM-01-100F



FR-N-1SM-01-1F

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PRE-PACKED HYBRIFLEX KITS FOR EASY INTEGRATION INTO RAYCAP JUNCTION BOXES

RFS Technologies now offers Kitting options for most hybrid risers and jumpers that include both the cable assembly and the Raycap inserts. For reference, kits have a “K” as the third digit in the model number. HB158 does not require an additional gland/insert for proper installation and sealing into the Distribution Boxes.

Kit Model Prefix	Assembly Prefix	Assembly Qty	Raycap Insert Kit	Insert Kit Contents	Raycap Insert Kit Qty
HBK114	HB114	1	RFS Technologies-TRUNK-KIT	(2) 190 0620, Insert, M75, 1H, 40mm	1
HBK058	HBF058		RFS Technologies-JUMP-KIT	(1) 190 0621, Insert, M75, 3H, 22mm, Split w/ plugs	
HBK012	HBF012		RFS Technologies-JUMP-KIT-2	(1) 190 0903, Insert, M75, 2H, 15mm, Split w/ plugs	
FRK-N	FR-N		RFS Technologies-FIBER-KIT	(1) 190 0657, Insert, M75, 6H, 6.1mm, Split w/ plugs	