

## FR-N-1SSM-01-40FS

HYBRIFLEX® RRH Optical Fiber Cable, 1 Single Strand, Ruggedized Bend-Insensitive Single-Mode Fiber, LC to Elongated LC Clip, 40 ft

## **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**

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Fire Performance		Flame Retardant		
Length	m (ft)	12 (40)		
MECHANICAL SPECIFICATIONS				
Outer Diameter Nominal	mm (in)	5.5 (0.217)		
Cable Weight	kg/m (lb/ft)	0.033 (0.022)		
Minimum Bending Radius, Single Bend	mm (in)	66 (2.6)		
Minimum Bending Radius,	mm (in)	83 (3.3)		

**HYBRIFLEX®** 

Recommended / Maximum Clamp	m (ft)	1 / 1.2 (3.25 / 4)
Spacing	111 (11)	171.2 (3.2374)

### **F/O CABLE SPECIFICATIONS**

**Multiple Bends** 

The distribution				
Number of F/O Strands		1		
F/O Cable Type		G657-A2 Single Mode, Bend Tolerant		
Core/Clad	μm	9/125		
Secondary Protection Nominal	μm (in)	900 (0.035)		
F/O Standards (Meets or Exceeds)		UL Listed Type OFNR (UL1666), RoHS Compliant		
Optical Loss	dB/Km	0.5 @ 1310 nm 0.5 @ 1550 nm		
FO Break-out Length (Top)	mm (in)	279 (11)		
FO Break-out Length (Bottom)	mm (in)	228 (9)		
Cable Sealing Method		Semi-rigid flame-retardant polyolefin, with hot melt adhesive		



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		LC Connector
Fiber Termination End 2		LC Connector with Elongated Clip
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
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## **EXTERNAL DOCUMENT LINKS**

Installation Guidelines: Download

QuickShip 2.0 Program Information: Download

On-line Factory Test Results: View

## NOTES

Specifically designed for Samsung RRH.



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## **ADDITIONAL ASSEMBLIES - 1 PAIR SM FIBER**

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

## **ADDITIONAL ASSEMBLIES - 1 STRAND SM FIBER**

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Length, ft	Model Number			
10	FR-N-1SSM-01-10FS			
15	FR-N-1SSM-01-15FS			
20	FR-N-1SSM-01-20FS			
30	FR-N-1SSM-01-30FS			
40	FR-N-1SSM-01-40FS			
50	FR-N-1SSM-01-50FS			
60	FR-N-1SSM-01-60FS			
70	FR-N-1SSM-01-70FS			
80	FR-N-1SSM-01-80FS			
90	FR-N-1SSM-01-90FS			
100	FR-N-1SSM-01-100FS			
120	FR-N-1SSM-01-120FS			
130	FR-N-1SSM-01-130FS			
150	FR-N-1SSM-01-150FS			
160	FR-N-1SSM-01-160FS			
170	FR-N-1SSM-01-170FS			

## **ADDITIONAL ASSEMBLIES - 2 PAIR SM FIBER**

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

## **ADDITIONAL ASSEMBLIES - 2 STRAND SM FIBER**

Length, ft	Model Number
10	FR-N-2SSM-01-10FS
15	FR-N-2SSM-01-15FS
20	FR-N-2SSM-01-20FS
30	FR-N-2SSM-01-30FS
40	FR-N-2SSM-01-40FS
50	FR-N-2SSM-01-50FS
60	FR-N-2SSM-01-60FS
70	FR-N-2SSM-01-70FS
80	FR-N-2SSM-01-80FS
90	FR-N-2SSM-01-90FS
100	FR-N-2SSM-01-100FS



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

RFS 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		RFS-TRUNK-KIT	(2) 190 0620, Insert, M75, 1H, 40mm	
HBK058	HBF058	1	RFS-JUMP-KIT	(1) 190 0621, Insert, M75, 3H, 22mm, Split w/ plugs	4
HBK012	HBF012		RFS-JUMP-KIT-2	(1) 190 0903, Insert, M75, 2H, 15mm, Split w/ plugs	'
FRK-N	FR-N		RFS-FIBER-KIT	(1) 190 0657, Insert, M75, 6H, 6.1mm, Split w/ plugs	