



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

| | | |
|------------------|--------|-----------------|
| Cable Type | | HYBRIFLEX® |
| Fire Performance | | Flame Retardant |
| Length | m (ft) | 9 (30) |

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, Multiple Bends | mm (in) | 83 (3.3) |
| Recommended / Maximum Clamp Spacing | m (ft) | 1 / 1.2 (3.25 / 4) |

F/O CABLE SPECIFICATIONS

| | | |
|----------------------------------|---------|---|
| Number of F/O Pairs | | 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 |
| 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



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-01-30F

HYBRIFLEX® RRH Optical Fiber Cable, 1 Pair, Ruggedized Bend-Insensitive Single-Mode Fiber, DLC Connectors, 30 ft

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 |

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 |