PRODUCT DATASHEET

# HB012-05U1S1-160F

HYBRIFLEX® Hybrid Feeder Cabling Solution, 1x1, 1/2”, 1 pair 10AWG, 1 pair Single-Mode Fiber with DLC-DLC Connectors, 160 ft

## PRODUCT DESCRIPTION



RFS Technologies’ 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 was developed to reduce installation complexity and costs at Cellular sites. HYBRIFLEX allows mobile operators deploying an RRH architecture to standardize the RRH installation process. HYBRIFLEX combines optical fiber (multi-mode or single-mode) and power in a single corrugated cable. It may eliminate the need for junction boxes and can connect multiple RRHs with a single feeder. Standard RFS Technologies CELLFLEX® accessories can be used with HYBRIFLEX cable.

## FEATURES / BENEFITS

- Aluminum corrugated armor with outstanding bending characteristics - Minimizes installation time and enables mechanical protection and shielding
- Outer conductor grounding - Saves on installation costs
- 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 pairs directly to the RRH - Reduces CAPEX and wind load by eliminating need for interconnection
- Optical fiber and power cables housed in single corrugated cable - Saves CAPEX by standardizing RRH cable installation and reducing installation requirements
- UL-Listed, flame-retardant jacket, UV protected assembles - Allows both indoor and outdoor applications
- **100% Factory tested - Online test results available**

# TECHNICAL FEATURES

### STRUCTURE

| | | |
|---|---|---|
| **Cable Type** | | HYBRIFLEX® |
| **Fire Performance** | | Flame Retardant |
| **Size** | | 1/2 |
| **Length** | m (ft) | 48.7 (160) |

### MECHANICAL SPECIFICATIONS

| | | |
|---|---|---|
| **Outer Diameter Nominal** | mm (in) | 15.8 (0.62) |
| **Cable Weight** | kg/m (lb/ft) | 0.36 (0.24) |
| **Minimum Bending Radius, Single Bend** | mm (in) | 76.2 (3) |
| **Minimum Bending Radius, Multiple Bends** | mm (in) | 127 (5) |
| **Recommended / Maximum Clamp Spacing** | m (ft) | 1 / 1.2 (3.25 / 4) |

### CABLE JACKET

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



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## ARMOR SPECIFICATIONS

| | | |
|---|---|---|
| **Armor Type** | | Corrugated Aluminum |
| **Maximum DC-resistance of Armor** | | 2.4 (0.73) |
| **Diameter Corrugated Armor** | | 13.8 (0.55) |

## DC POWER CABLE SPECIFICATIONS

| | | |
|---|---|---|
| **Number of DC Pairs** | | 1 |
| **Maximum DC-Resistance Power Cable** | Ω/km (Ω/kft) | 3.41 (1.04) |
| **Cross Section of Power Cable** | $mm^2$ (AWG) | 5.3 (10) |
| **DC Wire Jacket Material** | | PVC/Nylon |
| **DC Cable Single Bending Radius** | mm (in) | 83 (3.3) |
| **DC Cable Diameter** | mm (in) | 4.2 (0.165) |
| **DC Standards (Meets or Exceeds)** | | For use in Type MC per UL 1569, PVC Nylon, RoHS/REACH Compliant |
| **Break-out length (Top)** | mm (in) | 559 (22) |
| **Break-out length (Bottom)** | mm (in) | 914 (36) |

## 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 |
| **Single Bending Radius** | mm (in) | 83 (3.3) |
| **F/O Standards (Meets or Exceeds)** | | UL Listed Type OFNR (UL1666), RoHS Compliant |
| **Optical Loss** | dB/Km | 0.5 @ 1310 nm<br>0.5 @ 1550 nm |
| **FO Break-out Length (Top)** | mm (in) | 584 (23) |
| **FO Break-out Length (Bottom)** | mm (in) | 965 (38) |

| | | |
|---|---|---|
| **Fiber Termination End 1** | | DLC Connector |
| **Fiber Termination End 2** | | DLC Connector |

## 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** | | UL1569 Type MC, UL Listed |

## EXTERNAL DOCUMENT LINKS

On-line Factory Test Results: View

## NOTES

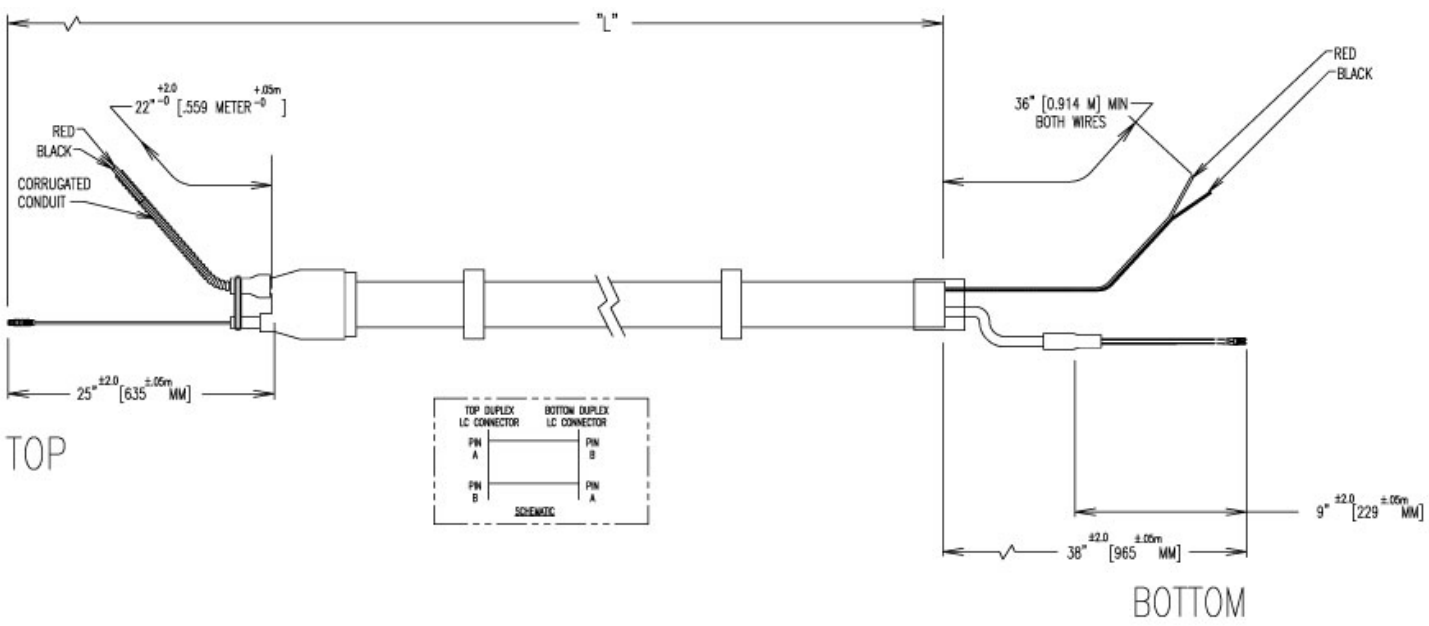
Nominal length equals length of armored trunk plus top breakout, does not include bottom breakout; bottom breakout length adds additionally to the total assembly length tip to tip



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## ADDITIONAL ASSEMBLIES - 1 PAIR SM FIBER

| Length, ft | Model Number |
|---|---|
| **100** | HB012-05U1S1-100F |
| **120** | HB012-05U1S1-120F |
| **130** | HB012-05U1S1-130F |
| **140** | HB012-05U1S1-140F |
| **150** | HB012-05U1S1-150F |
| **160** | HB012-05U1S1-160F |
| **170** | HB012-05U1S1-170F |
| **180** | HB012-05U1S1-180F |
| **190** | HB012-05U1S1-190F |
| **200** | HB012-05U1S1-200F |



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