PRODUCT DATASHEET

HB114-21U3S6-250J

HYBRIFLEX® Hybrid Feeder Cabling Solution 3x6, 1-1/4”, 3 pair 4AWG, 6 pair Single-Mode Fiber, DLC to DLC Connectors, 250 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 as well as works in conjuction with and can connect multiple RRHs with a single feeder. Standard RFS Technologies CELLFLEX® accessories can be used with HYBRIFLEX cable. Both pre-connectorized and on-site options are available.

Picture to choose

FEATURES / BENEFITS

- Aluminum corrugated armor with outstanding bending characteristics – Minimizes installation time and enables mechanical protection and shielding
- Same accessories as 1-1/4" coaxial cable
- Outer conductor grounding – Utilizes same grounding methods as coaxial cable
- 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
- Outdoor, black PE jacket – Ensures long-lasting cable protection

TECHNICAL FEATURES

STRUCTURE

Cable Type		HYBRIFLEX®
Size		1-1/4"
Length	m (ft)	76.2 (250)

MECHANICAL SPECIFICATIONS

Outer Diameter Nominal	mm (in)	39.0 (1.54)
Cable Weight	kg/m (lb/ft)	2.52 (1.7)
Minimum Bending Radius, Single Bend	mm (in)	152 (6)
Minimum Bending Radius, Multiple Bends	mm (in)	254 (10)
Recommended / Maximum Clamp Spacing	m (ft)	1 / 1.2 (3.25 / 4)

ARMOR SPECIFICATIONS

Armor Type		Corrugated Aluminum
Maximum DC-Resistance of Armor	Ω/km (Ω/kft)	0.9 (0.27)
Diameter Corrugated Armor	mm (in)	36.0 (1.42)

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CABLE JACKET

UV-Protection Individual and External Jacket		Yes
Jacket Material		Outdoor, Polyethylene, Black

DC POWER CABLE SPECIFICATIONS

Number of DC Pairs		3
Maximum DC-Resistance Power Cable	Ω/km (Ω/kft)	0.83 (0.25)
Cross Section of Power Cable	mm^2 (AWG)	21.1 (4)
DC Wire Jacket Material		PVC/Nylon
DC Cable Single Bending Radius	mm (in)	137 (5.4)
DC Cable Diameter	mm (in)	7.8 (0.308)
DC Standards (Meets or Exceeds)		For use in Type MC per UL 1569, PVC Nylon, RoHS/REACH Compliant
Break-out Length (Top)	mm (in)	609 (24)
Break-out Length (Bottom)	mm (in)	1016 (40)

F/O CABLE SPECIFICATIONS

F/O Cable Type		G657-A1 Single Mode, Bend Tolerant
Number of F/O Pairs		6
Core/Clad	µm	9/125
Secondary Protection Nominal	µm (in)	900 (0.035)
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 0.5 @ 1550 nm
Fiber Termination End 1		DLC connector
Fiber Termination End 2		DLC connector
FO Break-out Length (Top)	mm (in)	889 (35)
FO Break-out Length (Bottom)	mm (in)	1016 (40)

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)

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EXTERNAL DOCUMENT LINKS

Installation Guidelines: Download
On-line Factory Test Results: View

NOTES

Nominal length equals length of trunk not including top and bottom breakouts; breakout lengths add additionally to the total assembly length tip to tip.

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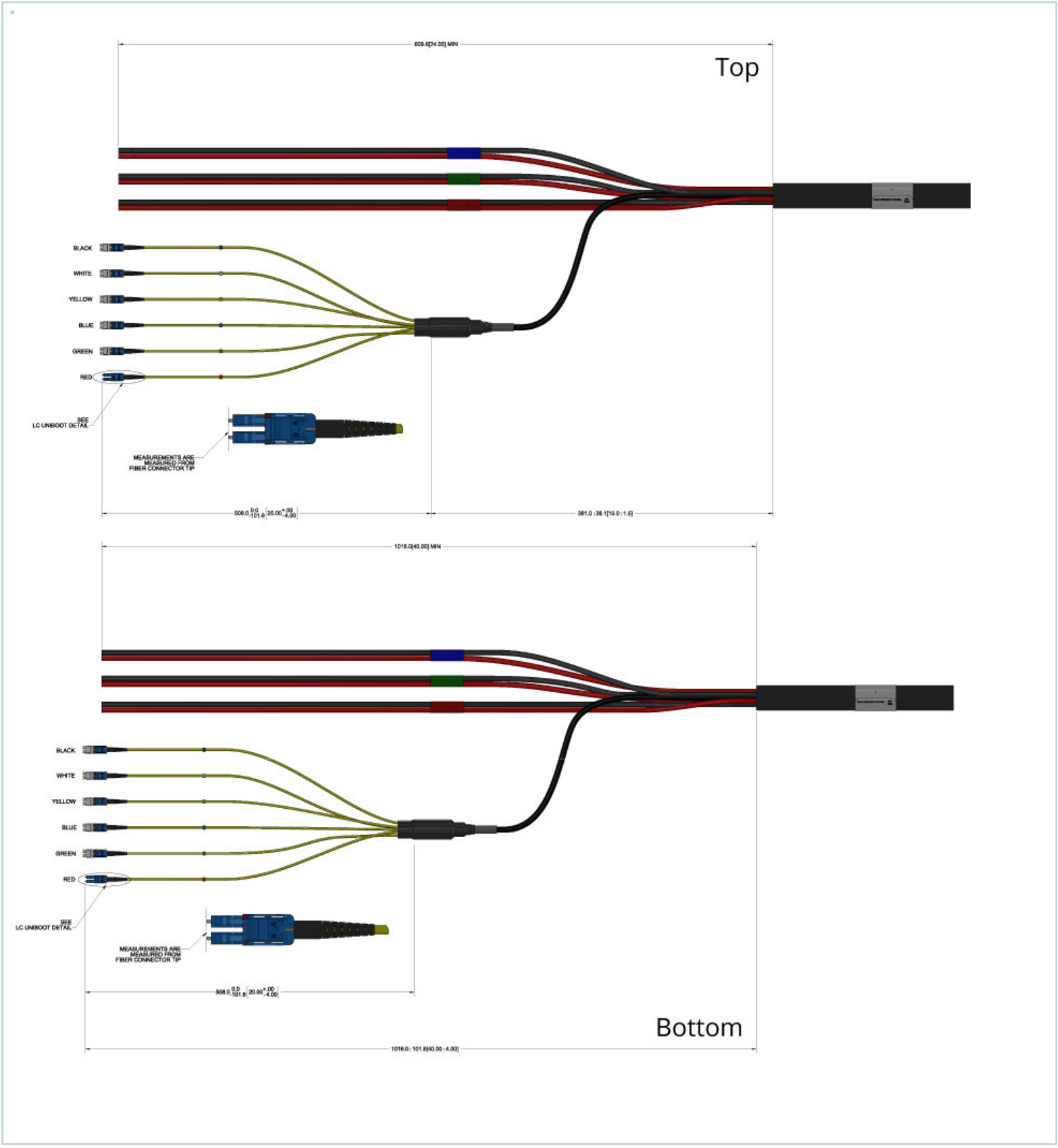

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ADDITIONAL ASSEMBLY LENGTHS

Length (ft)	Model Number
70	HB114-21U3S6-70J
200	HB114-21U3S6-200J
210	HB114-21U3S6-210J
220	HB114-21U3S6-220J
230	HB114-21U3S6-230J
240	HB114-21U3S6-240J
250	HB114-21U3S6-250J
260	HB114-21U3S6-260J
270	HB114-21U3S6-270J
280	HB114-21U3S6-280J
290	HB114-21U3S6-290J
300	HB114-21U3S6-300J
310	HB114-21U3S6-310J
320	HB114-21U3S6-320J
330	HB114-21U3S6-330J
340	HB114-21U3S6-340J
350	HB114-21U3S6-350J

ADDITIONAL ASSEMBLY LENGTHS

Length (ft)	Model Number
360	HB114-21U3S6-360J
370	HB114-21U3S6-370J
380	HB114-21U3S6-380J
390	HB114-21U3S6-390J
400	HB114-21U3S6-400J
410	HB114-21U3S6-410J
420	HB114-21U3S6-420J
430	HB114-21U3S6-430J
440	HB114-21U3S6-440J
450	HB114-21U3S6-450J
460	HB114-21U3S6-460J
470	HB114-21U3S6-470J
480	HB114-21U3S6-480J
490	HB114-21U3S6-490J
500	HB114-21U3S6-500J
540	HB114-21U3S6-540J

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