

### Antenna Upgrade Kit for Helium Hotspot , 3dBi 900MHz Omni w/ N Male to RP-SMA Plug, 20ft Low Loss 400 Cable and Lightning Protector

The FMANKIT1003 Helium Hotspot Antenna Upgrade kit from Fairview Microwave was designed with the serious Helium HNT Miner in mind. FMANKIT1003 provides your LongFi radio with the proper components to get the most out of your hotspot with optimized range and increased Proof-of-Coverage over OEM components. The FMANKIT1003 achieves enhanced performance by utilizing Fairview Microwave's 900 MHz lightweight, low-profile, high-performance Omni-directional antennas designed for the 900 MHz ISM band. These LoRa, LoRaWAN antennas feature all-weather UV-stable fiberglass radome for durability and aesthetics. The FMANKIT1003 comes with a 3 dBi Omni Antenna that operates from 900 MHz to 928 MHz frequency range. Combined with our Low Loss 400 series cable with integrated Lightning Protector, the 400 cable features equal performance and mechanical characteristics to cables from CommScope®, Times Microwave Systems®, Belden® and Andrew®. This 20 ft Low Loss cable comes terminated with an N Male in-line gas discharge tube suppressor, to the antenna, and an RP-SMA Male connector compatible with the leading Hotspot miners on the market. The FMANKIT1003 from Fairview Microwave brings industry proven components direct to the Helium enthusiast, ship worldwide the same day as with our other available RF parts.

#### Configuration

Design	Omni
Band Type	Single
Radiation Pattern	Omni Directional
Polarization	Vertical
Cable Type	400 Series
Cable Length	240 in [609.6 cm]
Connector Type	N Female
Lightning Protection	Lightning Protector

#### Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	900		928	MHz
Input VSWR		1.6:1		
Impedance		50		Ohms
Gain		3		dBi
Horizontal Beam Width		360		Degrees
Vertical Beam Width		44		Degrees
Input Power			50	Watts

#### Cable Assembly

Cable Type	400 Series
Impedance	50 Ohms
Connector 1	N Male
Connector 2	SMA Plug Reverse Polarity

#### Mechanical Specifications

Radome Material	Fiberglass
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#### Size

Overall Length	21 in [533.4 mm]
Width	10 in [254 mm]
Height	3 in [76.2 mm]
Mounting Mast Diameter	2 in [50.80 mm]
Weight	4 lbs [1.81 kg]



#### Features:

- 900 MHz to 928 MHz
- Increased Proof-of-Coverage
- N-Male to RP-SMA Male Low loss CA-400 series coax cable (LMR-400 equivalent)
- Lightweight fiberglass radome
- Integral lightning surge protector with multi-strike capability and replaceable gas tube
- Extruded aluminum mounting bracket
- COAX-SEAL® Hand Moldable Weatherproofing Tape

#### Applications:

- Helium Network (HNT) Mining
- 900 MHz ISM band
- US915, AU915, AS923, KR920
- M2M, LPWAN, LoRA, LoRaWAN, IoT, LongFi
- Industrial & Environmental Monitoring
- Smart Metering Applications
- Inventory Tracking
- Non Line of Sight (NLOS)

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[sales@fairviewmicrowave.com](mailto:sales@fairviewmicrowave.com)

**Environmental Specifications**

**Temperature**

Operating Range  
Wind Loading

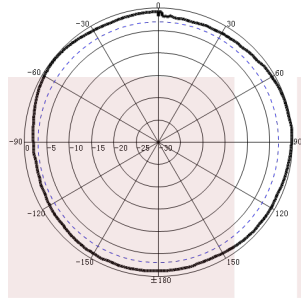
-40 to +60 deg C  
130 MPH [209.21 KPH]

**Compliance Certifications** (see [product page](#) for current document)

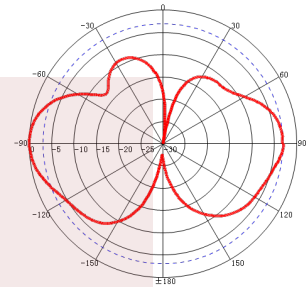
**Plotted and Other Data**

Notes:

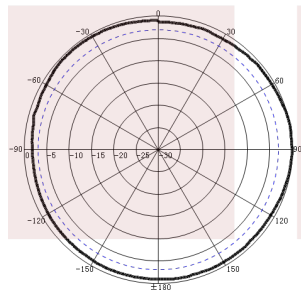
**H-Plane: 902MHz**



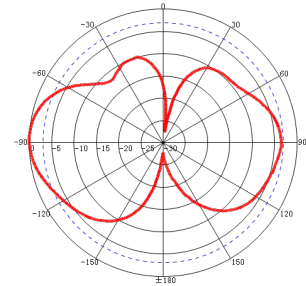
**V-Plane: 902MHz**



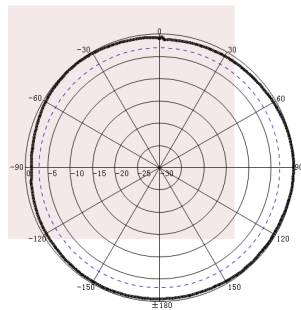
**H-Plane: 915MHz**



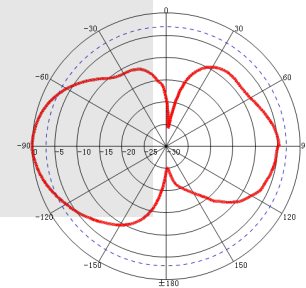
**V-Plane: 915MHz**



**H-Plane: 928MHz**



**V-Plane: 928MHz**



Antenna Upgrade Kit for Helium Hotspot , 3dBi 900MHz Omni w/ N Male to RP-SMA Plug, 20ft Low Loss 400 Cable and Lightning Protector from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

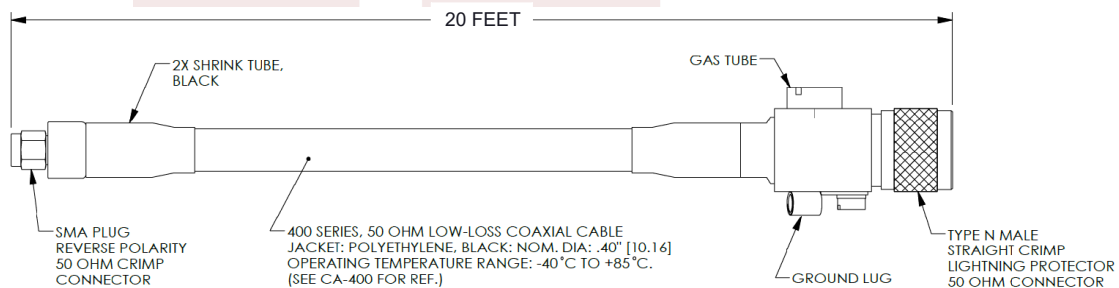
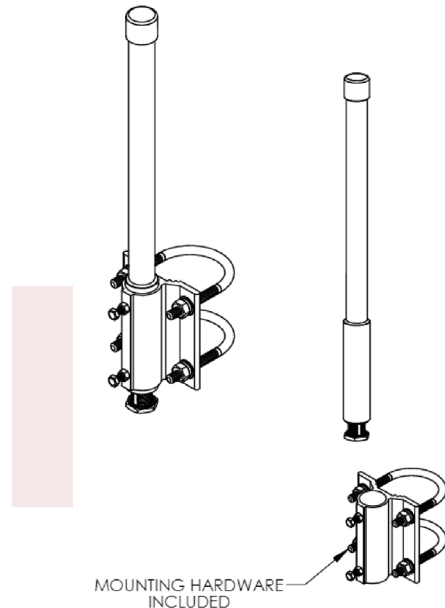
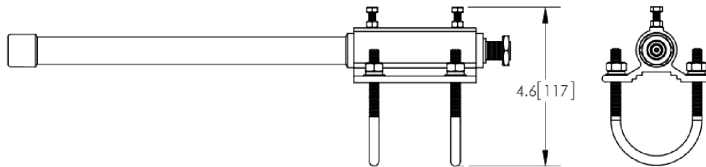
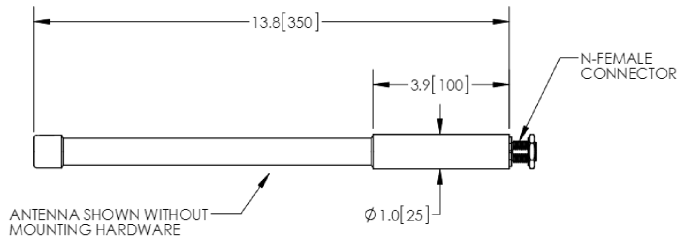
For additional information on this product, please click the following link: [Antenna Upgrade Kit for Helium Hotspot , 3dBi 900MHz Omni w/ N Male to RP-SMA Plug, 20ft Low Loss 400 Cable and Lightning Protector FMANKIT1003](#)

URL: <https://www.fairviewmicrowave.com/antenna-kit-3dbi-900mhz-omni-w-n-male-to-rp-sma-male-20ft-low-loss-400-cable-and-lightning-protector-FMANKIT1003-p.aspx>

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	4/6/2022	K. HIETPAS



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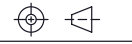
TITLE  
Antenna Upgrade Kit for Helium Hotspot , 3dBi  
900MHz Omni w/ N Male to RP-SMA Plug, 20ft Low  
Loss 400 Cable and Lightning Protector

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES  
DIMENSIONS IN [ ] ARE MILLIMETERS

TOLERANCES: CABLE LENGTH (L) TOLERANCES:

.X = ±.2 [5.08] FRACTIONS L ≤ 12 [305] = +1 [25] / -0  
.XX = ±.02 [.51] ± 1/32 12 [305] < L ≤ 60 [1524] = +2 [51] / -0  
.XXX = ±.005 [.13] ANGLES ± 1° 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0  
120 [3048] < L ≤ 300 [7620] = +6 [152] / -0  
300 [7620] < L = +5%L / -0

THIRD-ANGLE PROJECTION



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SHEET 1 OF 1

SCALE N/A

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SIZE A	CAGE CODE 3FKR5	DRAWN BY K.DANG	ITEM NO. FMANKIT1003	REV A
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T-Rev.D