

## 3 dBi DualBand Rubber Duck Portable Antenna 698-2700 MHz SMA Connector



### FM51RD1027

#### Features

- IP67 Ruggedized Waterproof Design
- 0 to 4 dBi gain
- Rigid SMA Male Connector

#### Applications

- Infotainment Systems, Routers, WiFi Hotspots, HD Video Transmission, Gateways, Dash Cameras, Public Transportation
- Connected Cars or Self-Driving Cars, Fleet Management, Logistics
- 4G & 5G Networks
- 700, 850, 900, 1800, 1900, 2100, 2600 MHz Bands
- IoT, Cellular, Zigbee, Z-Wave, Bluetooth

#### Description

The FM51RD1027 4G Rubber Duck Antenna from Fairview Microwave is a high performance omnidirectional "rubber-duck" antenna. This rubber duck is designed for the 698 MHz to 2700 MHz bands and is available to ship same day. It features a RIGID SMA-Plug (male) connector. This straight SMA allows the FM51RD1027 to be mounted directly to terminals and other fixed radios. It is a coaxial sleeve design with an omni-directional pattern. The FM51RD1027 is ideally suited for 4G, LTE, IoT, Zigbee, Z-Wave and Bluetooth bands.

The Fairview Microwave high performance rubber-duck FM51RD1027 is a rubber coated RIGID antenna providing broad coverage and 3 dBi gain. This SMA male rubber duck is suitable for commercial radios in public and private 4G and Cellular networks that are equipped with SMA female connectors. Fairview Microwave's FM51RD1027 supports 700, 800, 850, 900, 1800, 2100, 2400, and 2600 MHz bands.

This 4G 698 MHz to 2700 MHz rubber duck antenna with a SMA male connector, as well as our wide selection of superior quality RF parts, ships same day. Contact our knowledgeable and friendly technical support and sales staff for your answers on antennas or other Fairview Microwave products.

#### Configuration

Design	Portable
Band Type	Dual
Radiation Pattern	Omni Directional
Wavelength	1/2
Polarization	Vertical
Connector Type	SMA Male

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	698		2,700	MHz
Input VSWR		2:1	4.5:1	
Impedance		50		Ohms
Gain	1	3		
Horizontal (Azimuth) HPBW		360		Degrees
Vertical (Elevation) HPBW		45		Degrees
Input Power			5	Watts

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**Specifications by Band**

Description	Band 1	Band 2	Band 3	Band 4	Band 5	Units
Range	0.698 to 0.96	1.71 to 2.7				GHz
Gain	1	3				dBi
Horizontal HPBW	360	360				
Vertical HPBW	60	45				Degrees
VSWR Max	4.5:1	2:1				

**Mechanical Specifications**

Radome Material	PU
<b>Size</b>	
Length	0.39 in [9.91 mm]
Width	0.39 in [9.91 mm]
Height	2.1 in [53.34 mm]
Weight	0.19 lbs [86.18 g]

**Environmental Specifications**

<b>Temperature</b>	
Operating Range	-20 to +65 deg C
Storage Range	-30 to +70 deg C
Environment	Waterproof
Humidity	95%
Ingress Protection	IP67

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

**Plotted and Other Data**

Notes:

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#### Typical Radiation Pattern

#### Appendix

**Electrical Downtilt:** Angle in the antenna's elevation pattern in which the maximum gain occurs.

**Gain:** Antenna's average gain.

**Front to Back Ratio @ 180°±30°:** Average difference between the antenna's maximum gain and the maximum gain in the antenna's back lobe over ±30° angles.

**Cross-polarization Ratio (dB):** Typical difference between the co-polarization and cross-polarization gain across the sector's 3 dB Beam Width.

Dedicated to serving the needs of the Wireless Internet Service Provider (WISP) market, KP Performance Antennas offers purpose built products that reliably perform in the field. KP Performance Antennas product line consists of Yagi, Grid, Omni, Dish and other style antennas that operate in the 900 MHz, 2.4 GHz, 3 GHz, and 5 GHz frequencies.

3 dBi DualBand Rubber Duck Portable Antenna 698-2700 MHz SMA Connector 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.

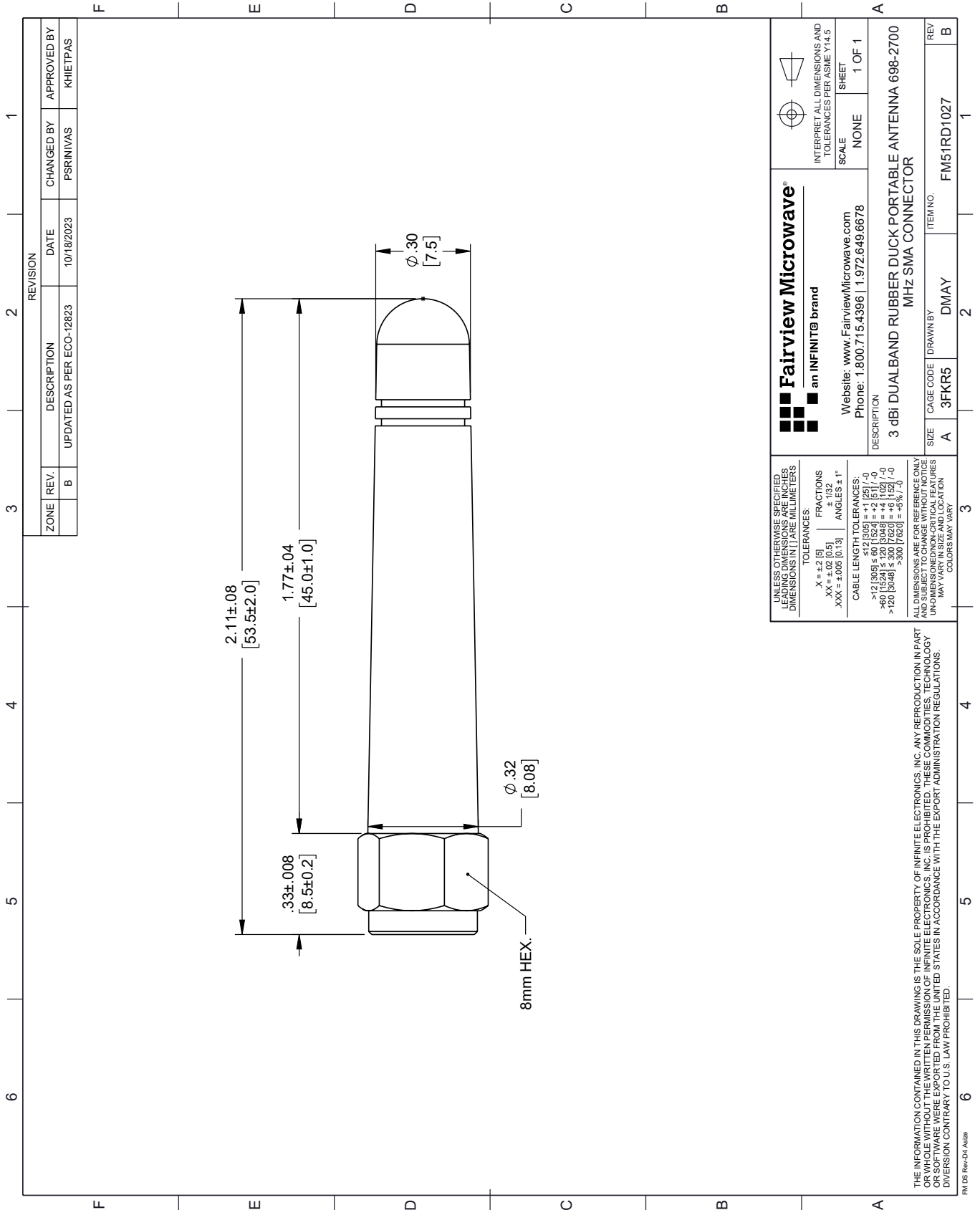
For additional information on this product, please click the following link: [3 dBi DualBand Rubber Duck Portable Antenna 698-2700 MHz SMA Connector FM51RD1027](#)

URL: <https://www.fairviewmicrowave.com/dual-antenna-698-mhz-2.7-ghz-3-dbi-gain-sma-fm51rd1027-p.aspx>

The information contained within this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume liability arising out of the use of any part or document.

# FM51RD1027 CAD Drawing

3 dBi DualBand Rubber Duck Portable Antenna 698-2700 MHz SMA Connector



REVISION		DATE	CHANGED BY	APPROVED BY
ZONE	REV.	DESCRIPTION	PSRINIVAS	KHETTPAS
	B	UPDATED AS PER ECO-12823		

 <b>Fairview Microwave®</b> an INFINIT® brand		 INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 SCALE: NONE SHEET: 1 OF 1
Website: <a href="http://www.FairviewMicrowave.com">www.FairviewMicrowave.com</a> Phone: 1.800.715.4396   1.972.649.6678		
DESCRIPTION: 3 dBi DUALBAND RUBBER DUCK PORTABLE ANTENNA 698-2700 MHz SMA CONNECTOR		
SIZE: A	CAGE CODE: 3FKR5	ITEM NO.: FM51RD1027
REV: B	DRAWN BY: DMAY	REV: B

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES AND DIMENSIONS IN [ ] ARE MILLIMETERS.

TOLERANCES:  
 .X = ±.2 [5]      FRACTIONS ± 1/32  
 .XX = ±.02 [0.5]      ANGLES ± 1°  
 .XXX = ±.005 [0.13]

CABLE LENGTH TOLERANCES:  
 <12 [305] ±.60 [15.24] = ±.2 [5.1] / -0  
 >12 [305] ≤ 60 [1524] = ±.4 [10.2] / -0  
 >60 [1524] ≤ 120 [3048] = ±.4 [10.2] / -0  
 >120 [3048] ≤ 300 [7620] = ±.6 [15.2] / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED/NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

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FM DS Rev-D4 Alt26