



The RFMAX RBDM Low Profile Brick Antenna is an extremely rugged outdoor antenna system designed for high performance mobile applications. Designed for Public Safety and Fleet assets that demand constant connectivity, the RBDM provides a flexible and modular design allowing for configurable frequency ranges that can accommodate the most popular mobile routers. The antenna system can be configured with up to two LTE/5G radiating elements, three dual band WiFi, and a high rejection GNSS capabilities. The RBDM is designed for high vibration applications and can withstand extreme environments.

- 2 x Wideband 4G/LTE/5G Elements (MIMO) - 617-6000 MHz
- 3 x 2.4/4.9-6 Ghz Wi-Fi Elements - 2400-5925 MHz
- 1 x GPS/GNSS/Beidou
- Low profile and super rugged
- Built-in Ground Plane
- Available in black or white



WIFI



LTE



GPS / GNSS



FIRSTNET



5G



FRONTLINE

### Example of Part Numbers:

RBDM-G55WW-17-SSSRR-B

RBDM-G55WWW-17-SSSRR-B

RBDM-55-SS-10-B

RBDM-G55WW-2-SSSRR-B

The RBDM Rugged Low Profile antenna was designed for mobile and fleet applications where reliability, durability and cost efficiencies are all met. The antenna is also perfect for kiosk and digital signage and other M2M applications. The customizable coaxial lengths and antenna elements make this solution perfect for many applications. Its ruggedness and vibration dampening helps in many industrial mobile applications.

### Part Numbers Configurator:

RBDM	G	5	W	4/10/17	SSSRR	B/W
Model	GPS/ GNSS	5G	WiFi	Coax Length (feet)	Connectors (SMA, RPSMA)	Color (Black/White)

## CELLULAR SPECIFICATIONS

Frequency		617-960 MHz, 1710-6000 MHz 2400-2500 MHz, 5150-5925 MHz
Nominal Impedance		50 Ω
VSWR	617-960 MHz	<2.2 Cell
	1710-6000 MHz	<2.2 Cell
	2400-2500 MHz	<2 WiFi
	5150-5925 MHz	<2 WiFi
Isolation	617-960 MHz, 1710-6000 MHz	-10 dB Cell
	2400-2500 MHz, 5150-5925 MHz	-10 dB WiFi
Average Peak Gain	617-960 MHz	3.3 dBi Cell
	1710-6000 MHz	5.2 dBi Cell
	2400-2500 MHz	5.4 dBi WiFi
	5150-5925 MHz	6.3 dBi WiFi
Polarization		Vertical

## MECHANICAL SPECIFICATIONS

Overall Length Inch (mm)	7.97 (202.3) X 3.48 (88.5) X 1.77 (45)
Weight	2.5 lbs / 1.15 Kg
Stud Diameter Inch (mm)	M22 7/8 (22.5)
Stud Length Inch (mm)	3/4 (19)

## OTHER SPECIFICATIONS

Total cable assembly loss for 5.2m (17') LMR-195 @850MHz	2.1dB
Total cable assembly loss for 5.2m (17') LMR-100 @1575MHz	5.9dB
Total cable assembly loss for 5.2m (17') LMR-195 @1930MHz	3.2dB
Total cable assembly loss for 5.2m (17') LMR-195 @2450MHz	3.6dB
Total cable assembly loss for 5.2m (17') LMR-195 @2500MHz	3.7dB
Total cable assembly loss for 5.2m (17') LMR-195 @5350MHz	5.5dB

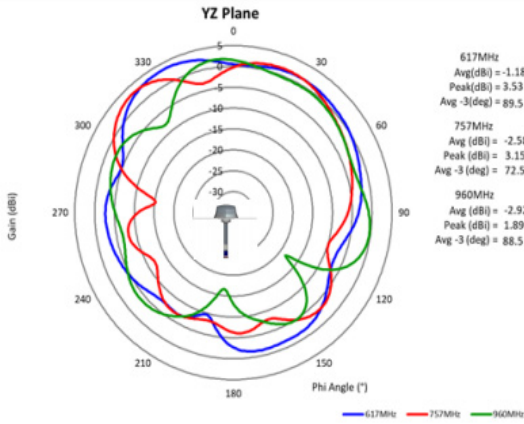
## GPS ANTENNA SPECIFICATIONS

Frequency		1561.098±2.046 MHz 1575.42±1.023 MHz 1602.5625±4 MHz
Nominal Impedance		50 Ω
VSWR		<2
Gain (Radiating Element)		1 dBi±1 dB
Gain (LNA Gain)		30 dB±2 dB
Polarization		RHCP
Out of Band Rejection	698MHz	>70 dB
	960MHz	>65 dB
	1710MHz	>60 dBi
	2170MHz	>65 dB
	2400MHz	>65 dB
	2700MHz	>65 dB
NoiseFigure		<2.4 dB
OperatingVoltage		3.3 -5 Vdc
Current Consumption		<15mA

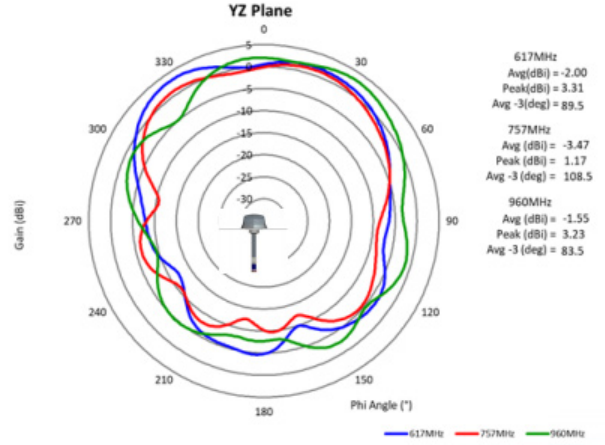
## ENVIRONMENTAL DATA

Operating Temperature	-40 ~ +85° C
Storage Temperature	-40 ~ +85° C
Ingress Protection	IP67
RoHS Compliant	Yes

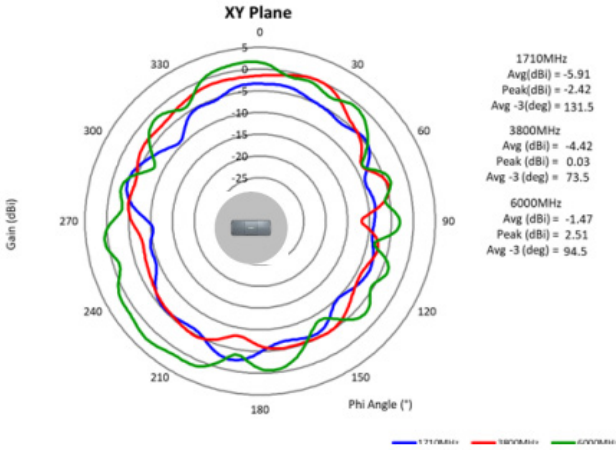
## RADIATION PATTERNS



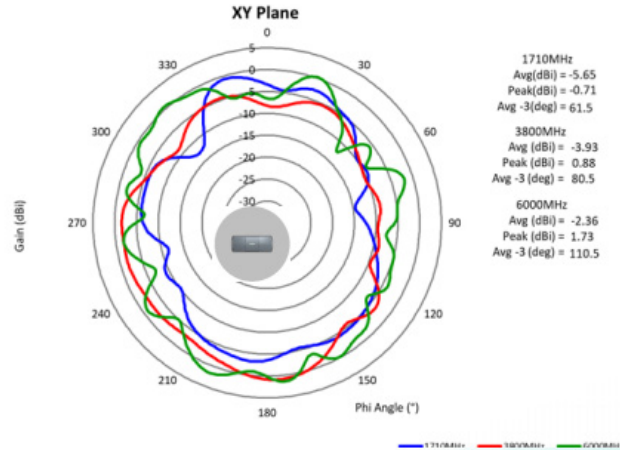
LTE1 YZ plane radiation pattern



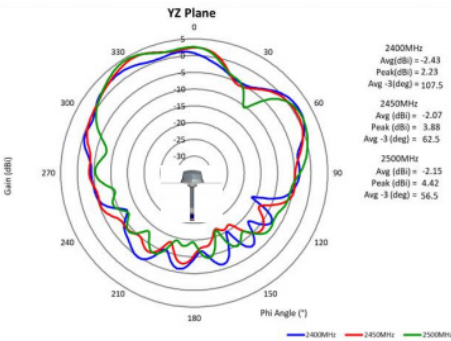
LTE2 YZ plane radiation pattern



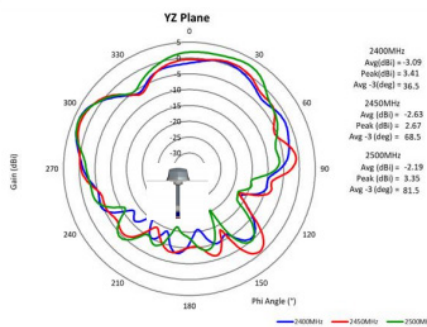
5G1 XZ plane radiation pattern



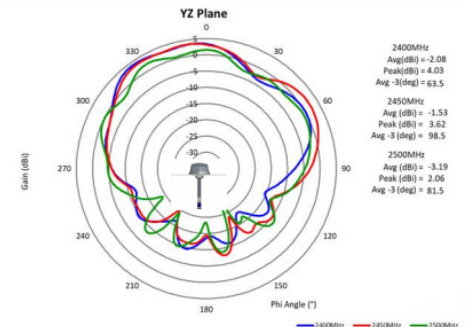
5G2 XZ plane radiation pattern



Wifi1 YZ plane radiation pattern



Wifi2 YZ plane radiation pattern



Wifi3 YZ plane radiation pattern