antenna conceptor

Product Datasheet

2J7807MG

433 MHz ISM and GPS/GLONASS Magnetic Mount

Key Features

Cable 1: 433 MHz ISM
- 433-435 MHz

Cable 2: GPS/GLONASS
- 1575-1610 MHZ

Magnetic Mount
Ground Plane Dependent
Customizable Cable and Connector
Dimensions 185 x 54 mm
Certificates: IP67, IP69K

1. Antenna and electrical specifications

Cable 1

Parameters	433 MHz ISM Antenna
Standards	ISM, LoRa
Band (MHz)	433 MHz
Frequency (MHz)	433-435
Return Loss (dB)	~-14.0
VSWR	~1.5:1
Efficiency (%)	~61
Peak Gain (dBi)	~0.3
Average Gain (dB)	~-2.1
Impendance (Ohm)	50
Polarisation	Linear
Radiation Pattern	Omni-Directional
Max. Input Power (W)	50
Connector Type	SMA-Male Standard (Other Connectors Available)
Cable Length	300 cm Standard (Any Cable Length Available)
Cable Type	RG174 Standard (Other Cables Available)

Cable 2

Parameters	GPS/GLONASS Antenna	
Standard	GPS / GLONASS	
Band (MHz)	1575	1602
Frequency(MHz)	1575.42	1598-1610
Return Loss (dB)	<-20	
VSWR	<1.2:1	
Impedance	50	
Radiation Pattern	Hemispherical	
Polarization	RHCP	
Saw Filter	No Filter	
Active Gain (dB)	26 @ 3V / 27dB @ 5V	
Noise Figure (dB)	1.5	
Voltage (V)	2.7 – 5.5	
Current (mA)	15 - 25	
Power Consumption (mW)	40 - 137	
Connector Type	Most RF Connectors (SMA-Male Standard)	
Cable Length	Any Cable Length (200cm Standard)	
Cable Type	Other Cables Available (RG174 Standard)	

Antenna Measurement Conditions:

Mounted on 30 x 30 cm Metal Plate

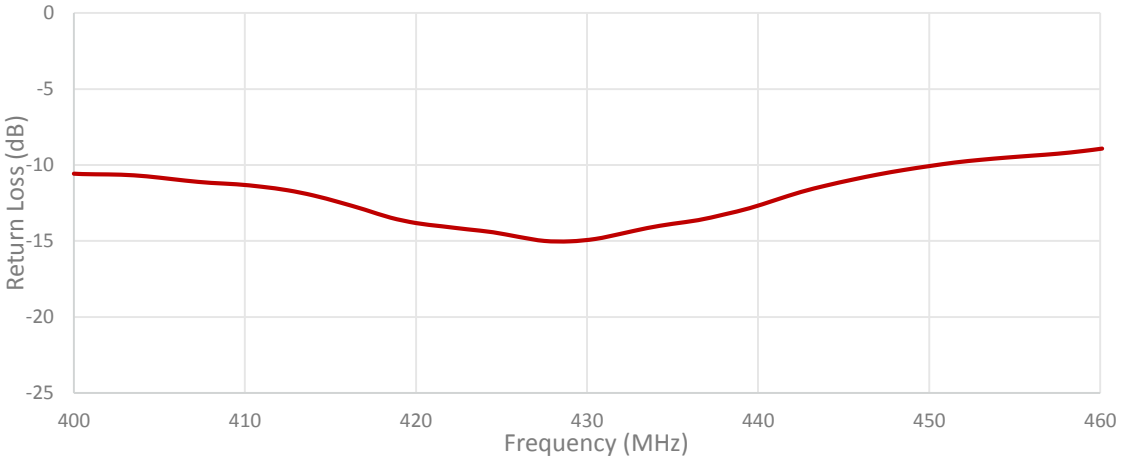
200cm of RG174 Cable

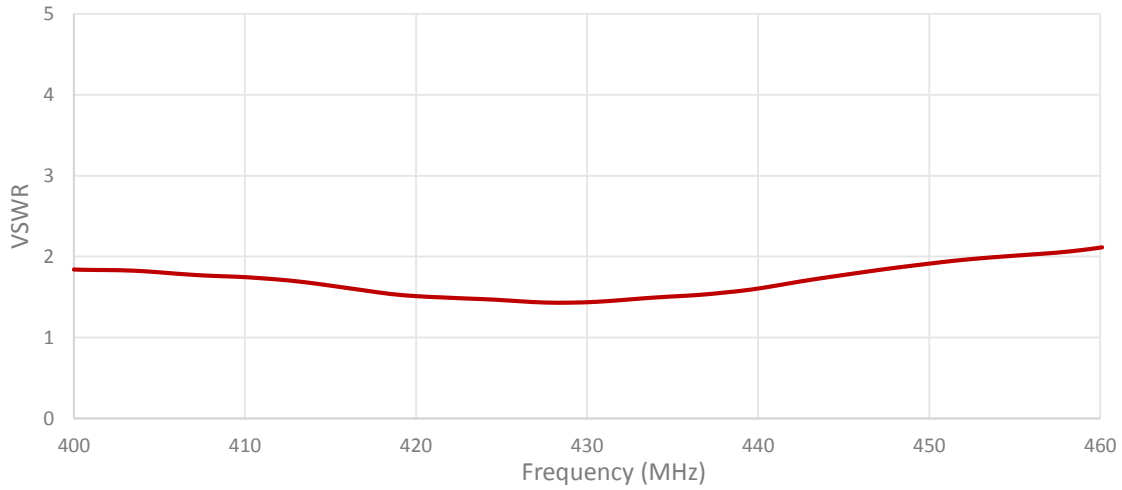
Measured in Certified CTIA 3D Anechoic Chamber

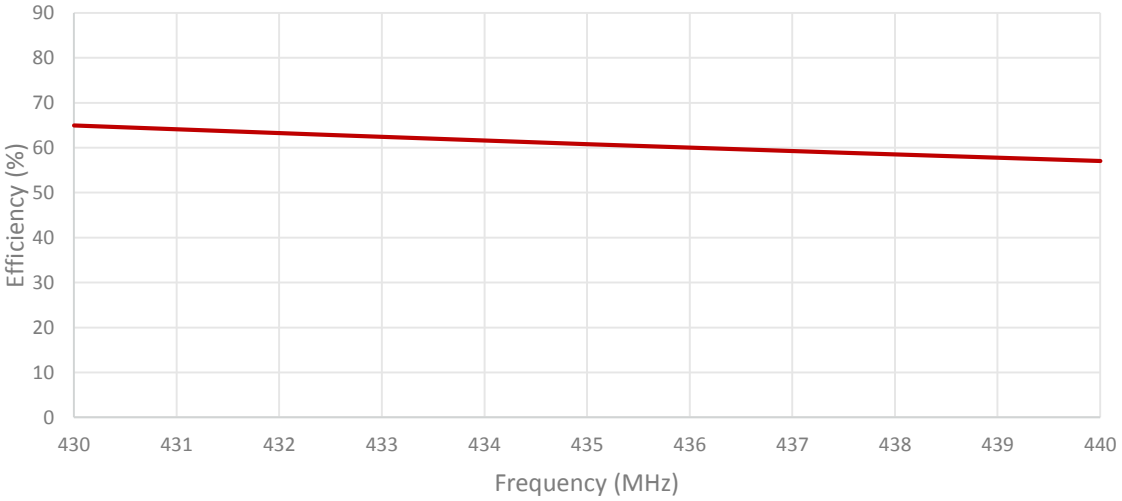
2. Mechanical and environmental specifications

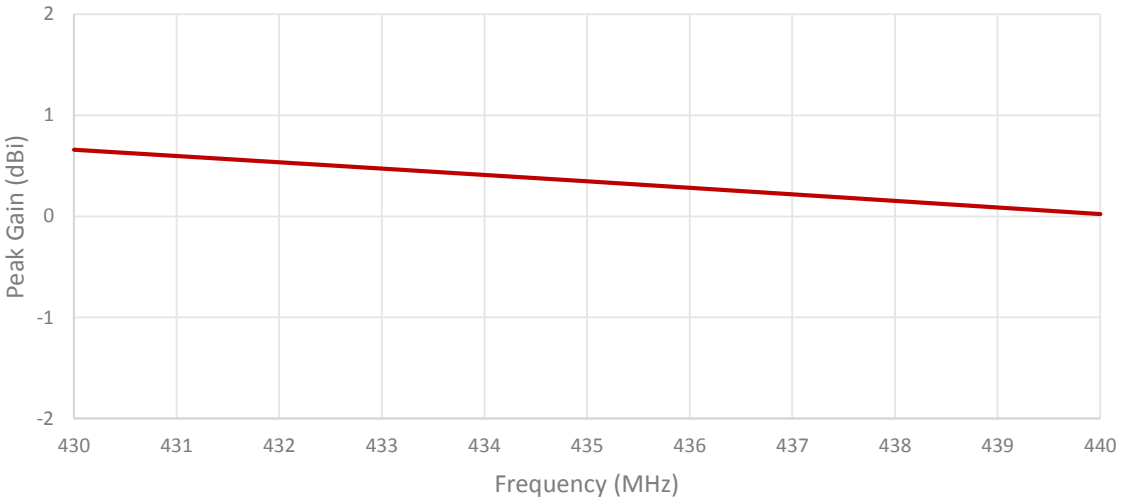
Specifications	2J7807MG
Mounting Type	Magnetic Mount
Dimensions (mm)	185 x 54
Radome	ABS
Radome color	Black
Antenna Base	Zamak
Operating Temperature (C)	-40 to +85
Storage Temperature (C)	-40 to +85
Substance Compliance	RoHS
Certificates	IP67, IP69K

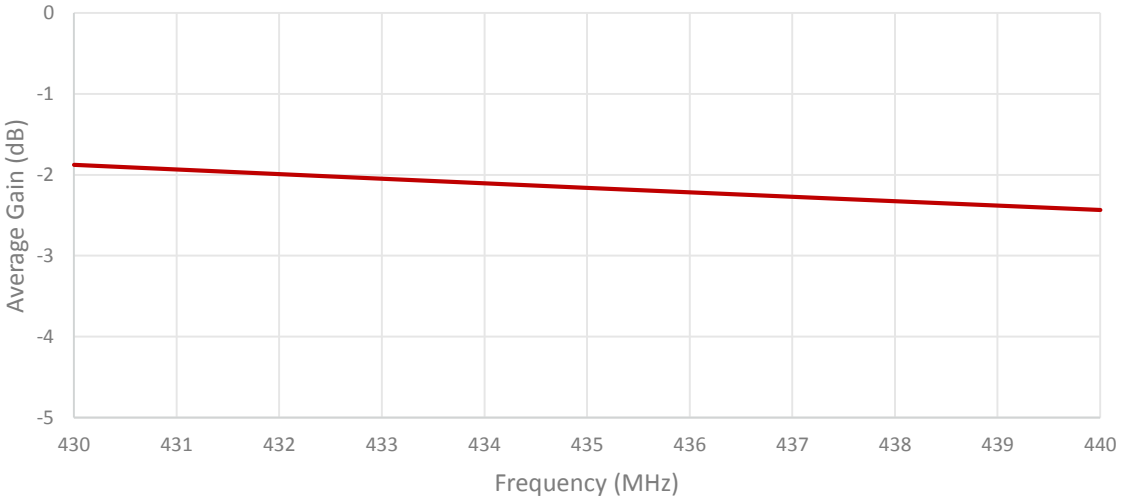
3. Antenna parameters

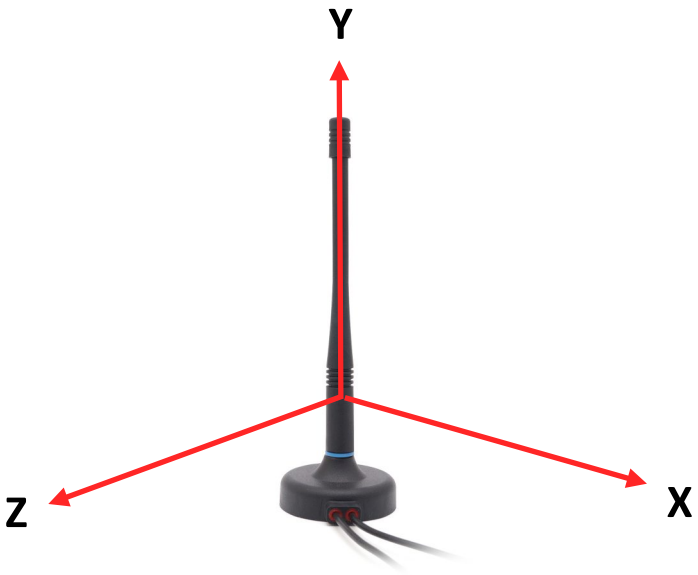




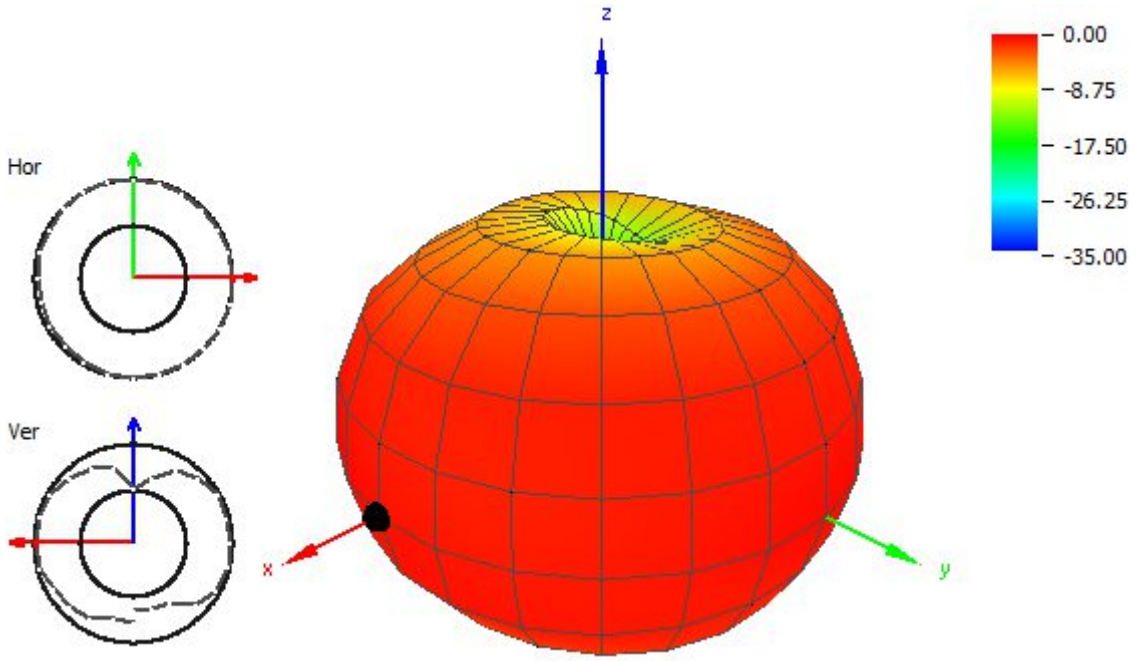

90
80
70
60
50
40
30
20
10
0
Efficiency (%)
430
431
432
433
434
435
436
437
438
439
440
Frequency (MHz)


2
1
0
-1
-2
Peak Gain (dBi)
430
431
432
433
434
435
436
437
438
439
440
Frequency (MHz)



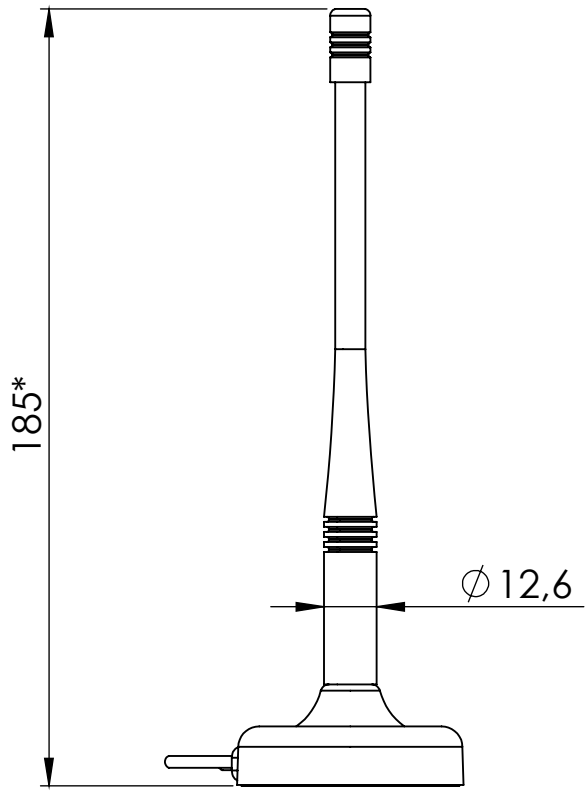


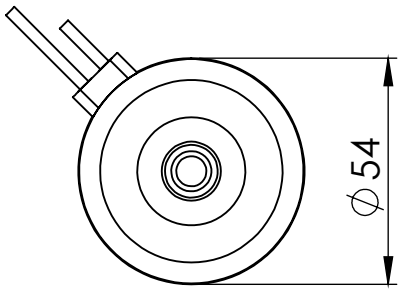
Radiation pattern reference



433 MHz Radiation pattern

4. Antenna drawings





* Length depends on frequency after mounting

5. Antenna Images