

2J4701BGF-TH19

GPS/GLONASS Screw Mount

Key Features

GPS/GLONASS/QZSS/Galileo

- 1575-1606 MHz

Screw Mount

Ground Plane Independent

Pre-Filter

Customizable Cable and Connector

Dimensions Ø 52 × 17.5 mm

Certificates: IP67, IP69



Note: 19mm Thread is Default Option. See Drawing for other Thread Options available.



1. Antenna and electrical specifications

Passive Parameters	GPS/GLONASS Antenna	
	GPS/QZSS/Galileo	GLONASS
Standards		
Bands (MHz)	1575	1602
Frequency (MHz)	1575.42	1598-1606
Return Loss (dB)	≤ -20	≤ -15
VSWR	$\leq 1.2:1$ dB	≤ 1.4 dB
Efficiency (%)	~65	~68
Peak Gain (dBiC)	~3.6	~3.9
Average Gain (dB)	~1.8	~1.6
Impedance (Ohm)	50	
Radiation Pattern	Hemispherical	

Active Parameters	GPS/GLONASS Antenna	
	GPS/QZSS/Galileo	GLONASS
Standard		
Band (MHz)	1575	1602
Frequency (MHz)	1575.42	1598-1606
Patch Size (mm)	25 x 25 x 4	
Return Loss (dB)	≤ -15 dB	
VSWR	$\leq 1.4:1$ dB	
Impedance	50	
Radiation Pattern	Hemispherical	
Polarization	RHCP	
Saw Filter	pre-filter	
Active Gain (dB)	28 @ 2.7 V	
Noise Figure (dB)	1.8 @ 2.7V	
Voltage (V)	1.5 – 3.6	
Current (mA)	9 @ 2.7V	
Out of Band Rejection (dB)	~43	
ESD Protection	6	
Connector Type	SMA-Male Standard (Other Connectors Available)	
Cable Length	300 cm Standard (Any Cable Length Available)	
Cable Type	RG174 Standard (Other Cables Available)	

Antenna Measurement Conditions:

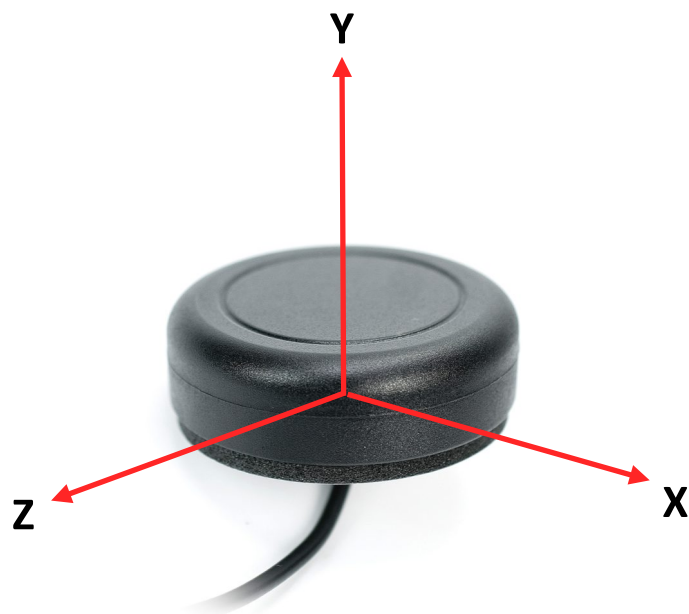
Mounted on 30 x 30 x 0.25 cm ABS Plate

200 cm of Cable RG174

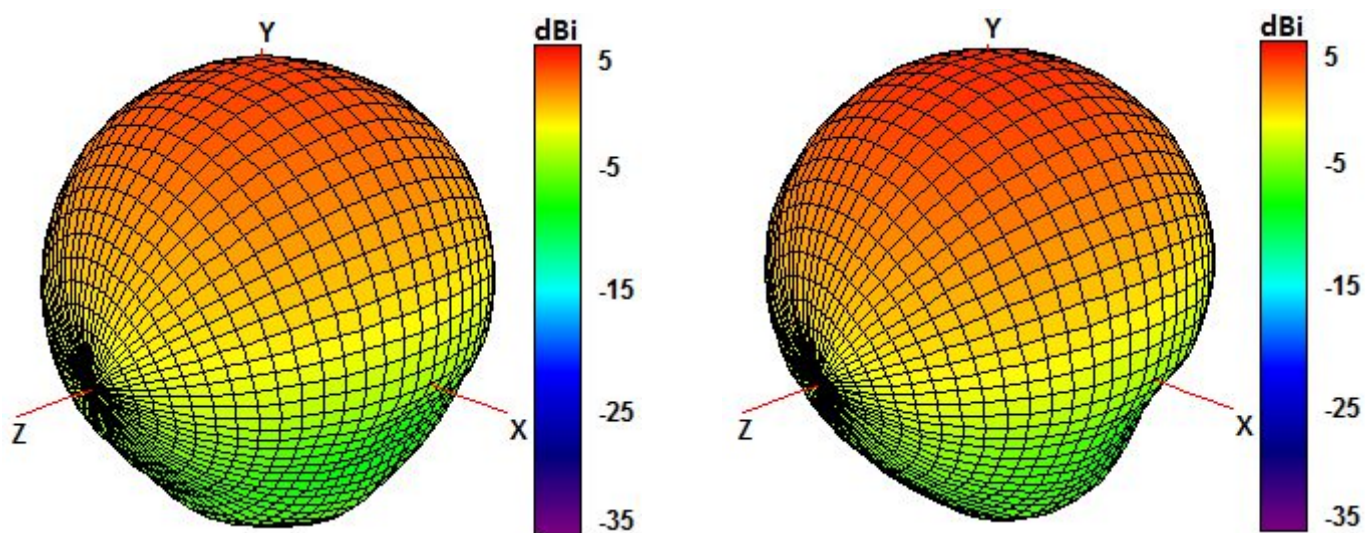
Measured in Certified CTIA 3D Anechoic Chamber

2. Mechanical and environmental specifications

Specifications	2J4701BGF-TH19
Mounting Type	Screw Mount
Dimensions (mm)	Ø 52 × 17.5
Rec. Tighten Torque (Nm)	5 Nm
Random Type	ASA
Random Color	Black
Antenna Base	ASA
Operating Temperature (C)	-40 to +85
Storage Temperature (C)	-40 to +85
Certificates	IP67, IP69
Substance Compliance	RoHS



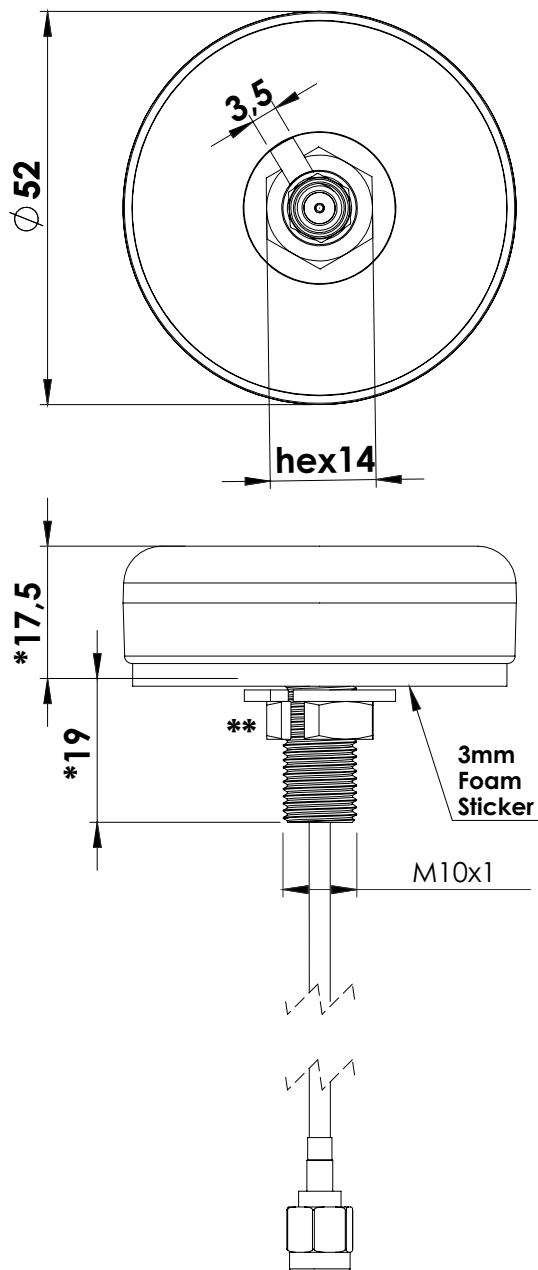
Radiation pattern reference



1575 MHz and 1600 MHz Radiation pattern

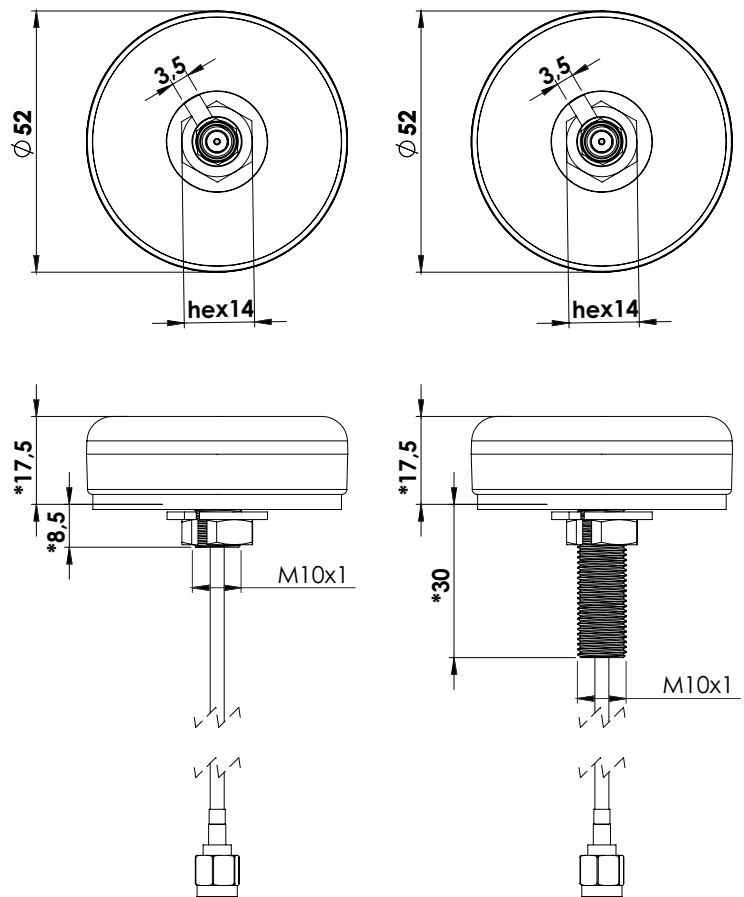
4. Antenna drawings

Default Thread Option



2J4701BGF-TH19
19 mm Thread
Default Option

Other Thread Options available



2J4701BGF-TH8,5
8,5 mm Thread

2J4701BGF-TH30
30 mm Thread

***Dimensions after mounting**
****Rec. Torque= 5 Nm**

5. Antenna Images

