

2J4700BGF-TH19

Cellular and GNSS Screw Mount

Key Features

Cable 1: Cellular

- 824-960 MHz
- 1710-2170 MHz

Cable 2: GPS/GLONASS/QZSS/Galileo

- 1575-1610 MHz

Screw Mount

Low Profile

Ground Plane Independent

Customizable Cable and Connector

Dimensions $\varnothing 52 \times 17.5$ mm

Certificates: IP69K



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



1. Antenna and electrical specifications

Cable 1

Parameters	Cellular Antenna	
Standards	2G and 3G	
Band (MHz)	850/900	1700/1800/1900/2100
Frequency (MHz)	824-960	1710-2170
Return Loss (dB)	~-10.4	~-12.5
VSWR	~1.9:1	~1.7:1
Efficiency (%)	~20.6	~20.5
Peak Gain (dBi)	~-0.3	~-2.0
Average Gain (dB)	~-7.1	~-7.0
Impedance (Ohm)	50	
Polarisation	Linear	
Radiation Pattern	Omni-Directional	
Max. Input Power (W)	100	
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	GNSS Ceramic Active Antenna	
Standards	GPS/QZSS/Galileo	GLONASS
Band (MHz)	1575	1602
Frequency (Mhz)	1575.42	1598-1606
Patch Size (mm)	25 x 25 x 4	
Return Loss (dB)	<=-15.0 dB	
VSWR	<=1.4:1 dB	
Impedance (Ohms)	50	
Radiation Pattern	Hemispherical	
Polarization	RHCP	
Active Gain (dB)	28dB @ 2.7V	
Noise Figure (dB)	1.8 @ 2.7V	
Voltage Range (V)	1.5 - 3.6	
Current Consumption (mA)	9 @ 2.7V	
Saw Filter Type	Pre-Filter	
Out of Band Rejection (dB)	~43	
ESD Protection (kV)	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 Ground Plane of 30x30 cm

200 cm of RG174 Cable

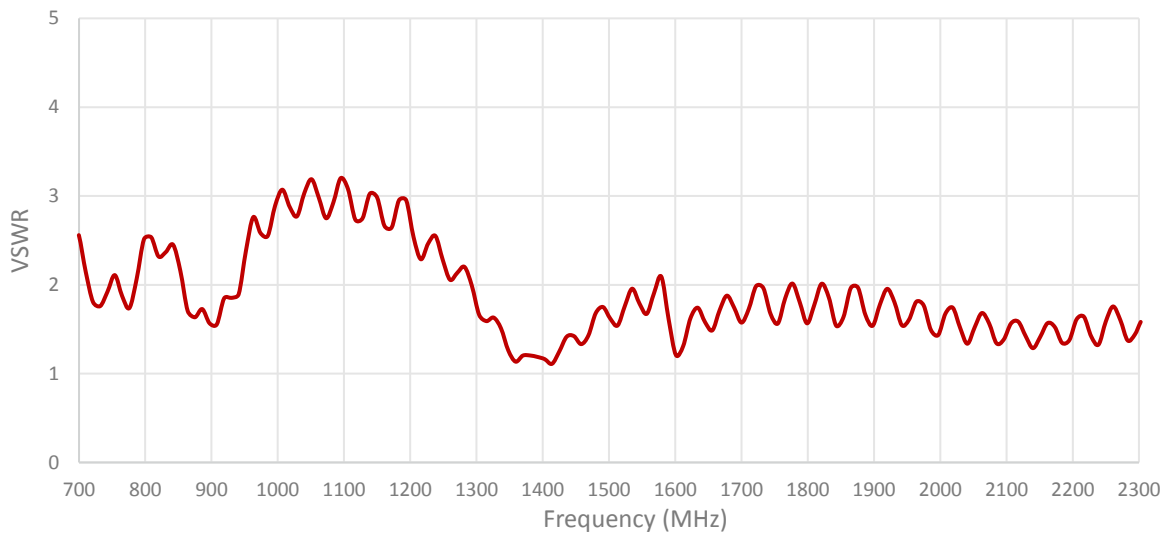
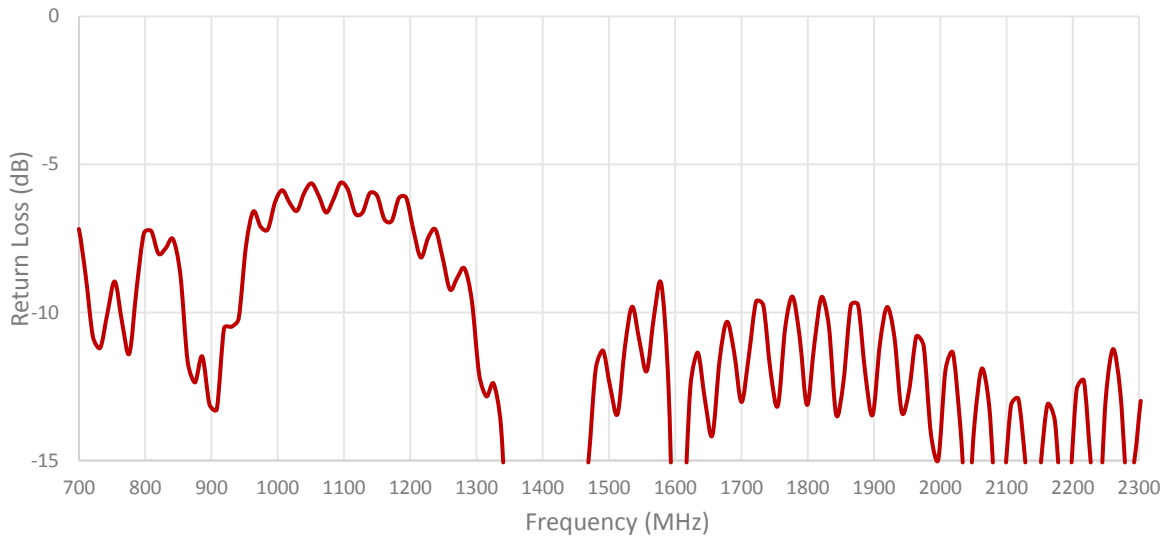
Measured in Certified CTIA 3D Anechoic Chamber

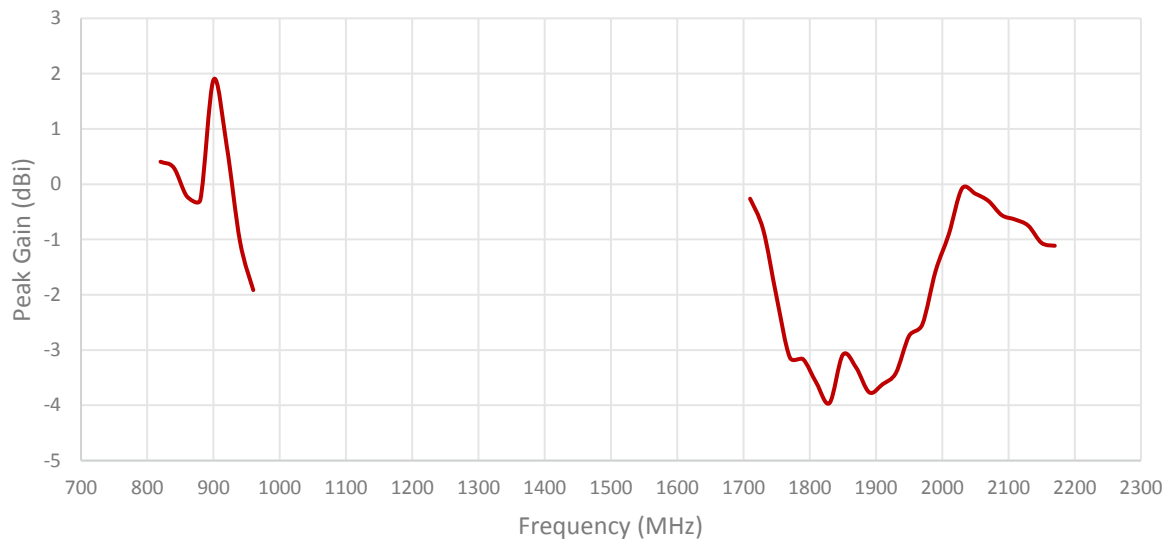
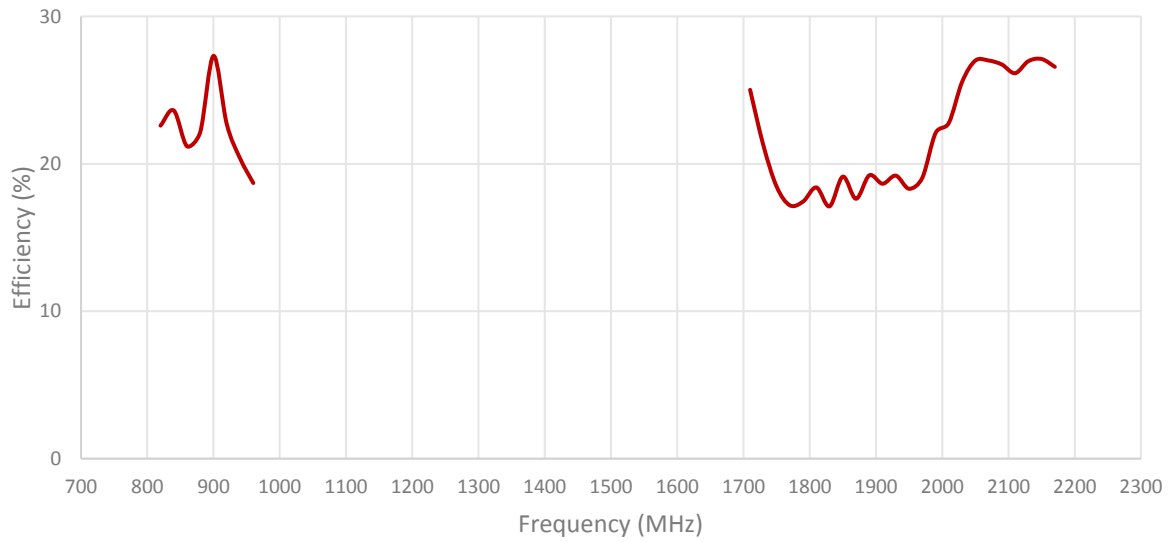
2. Mechanical and environmental specifications

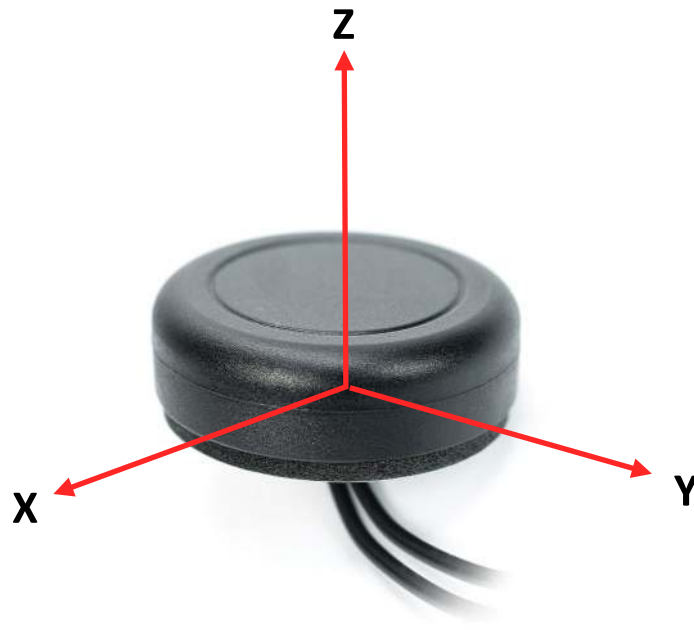
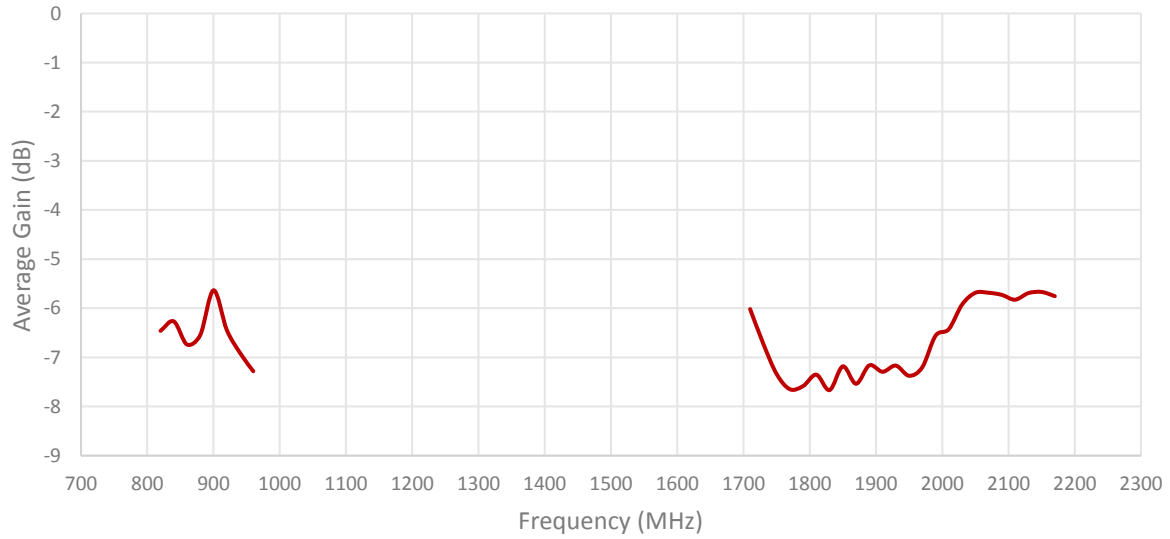
Specifications	2J4700BGF-TH19
Mounting Type	Screw Mount
Dimensions (mm)	Ø 52 × 17.5
Max. Tighten Torque (Nm)	4 Nm
Radome Type	ABS
Radome Color	Black
Antenna Base	ABS
Operating Temperature (C)	-40 to +85
Storage Temperature (C)	-40 to +85
Certificates	IP69K
Substance Compliance	RoHS

3. Antenna parameters

Table 1: Cellular

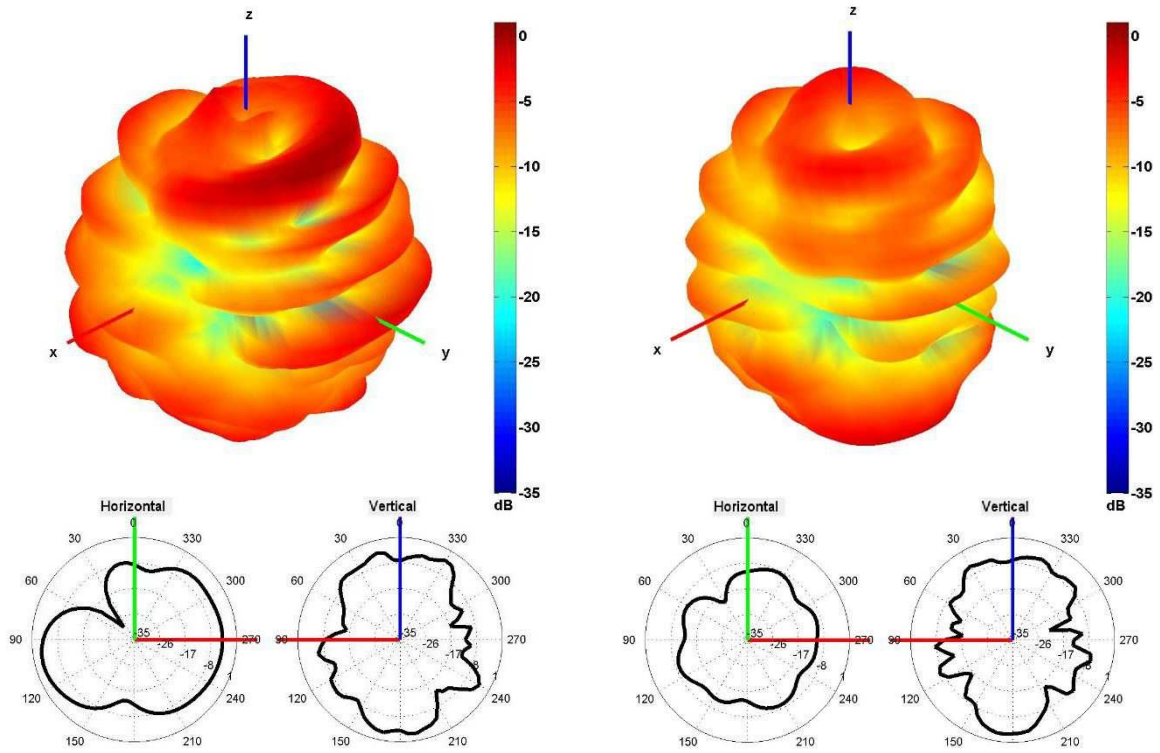




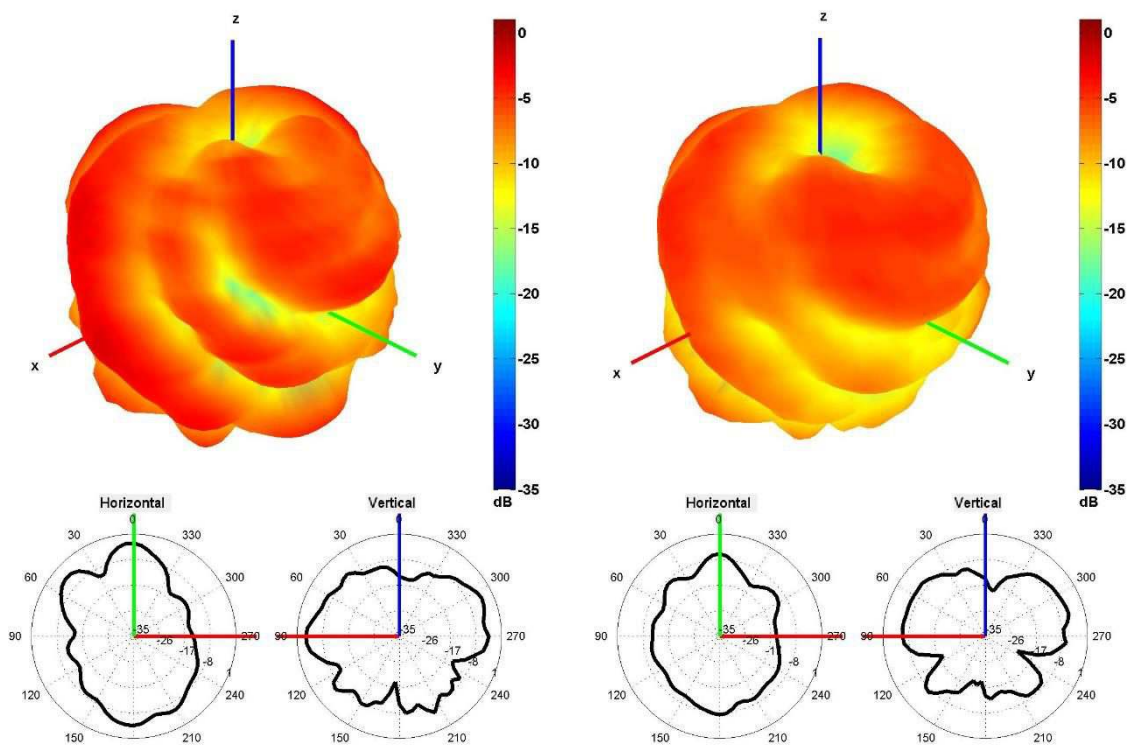


Radiation pattern reference

Table 1: Cellular

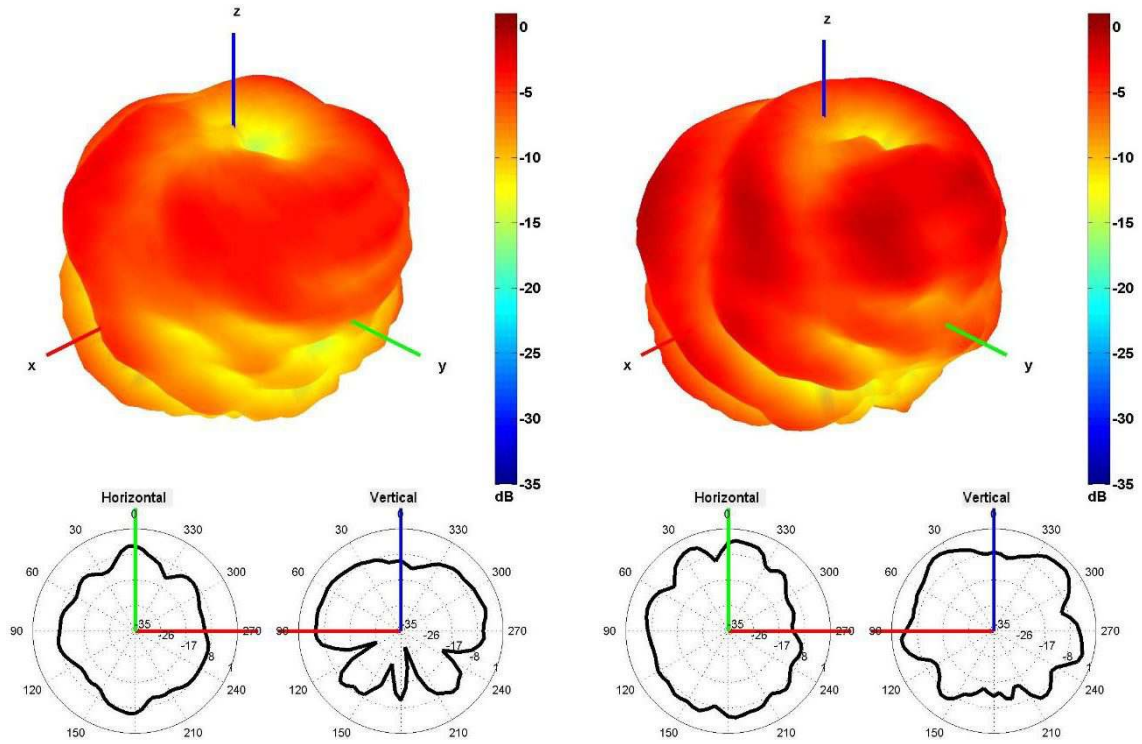


850 and 940 MHz Radiation pattern



1750 and 1850 MHz Radiation pattern

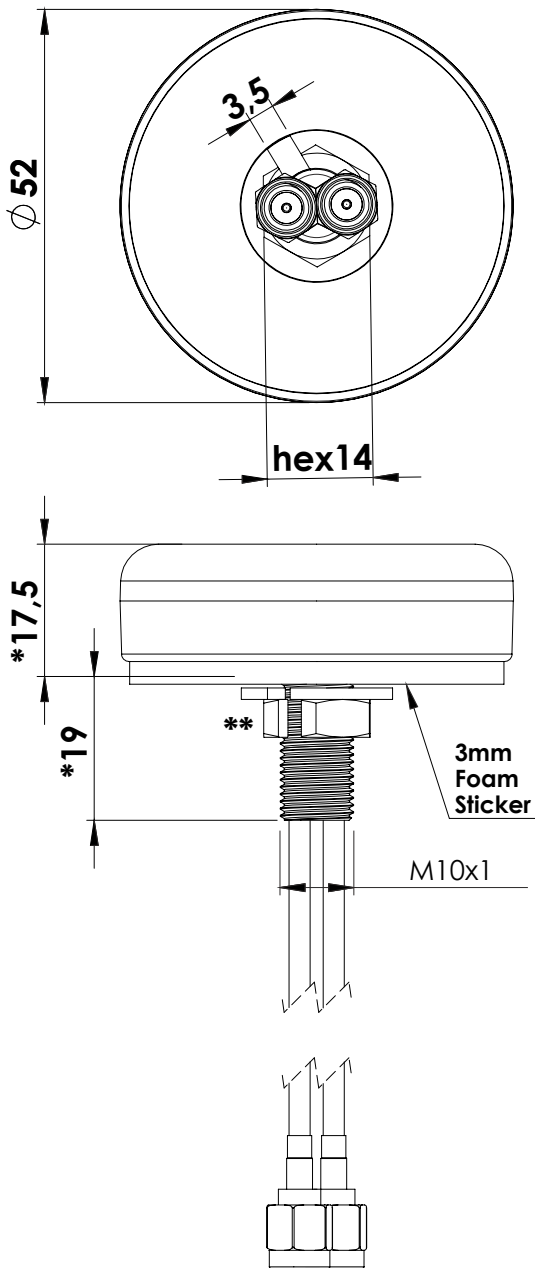
Cable 1: Cellular



1950 and 2100 MHz Radiation pattern

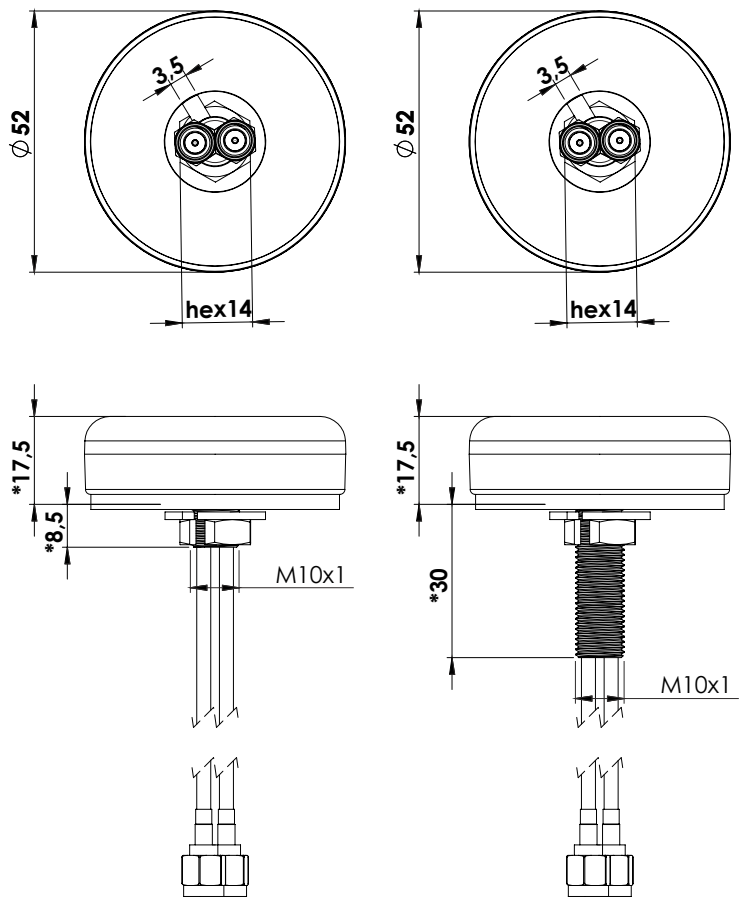
4. Antenna drawings

Default Thread Option



2J4700BGF-TH19
19 mm Thread
Default Option

Other Thread Options available



2J4700BGF-TH8,5
8,5 mm Thread

2J4700BGF-TH30
30 mm Thread

***Dimensions after mounting**
****Max. Torque= 4 Nm**

5. Antenna Images

