SWB001LD1

PN: SW20065EB56



Features:

- Antenna for 698~960MHz 1710~2690MHz
- Maintains high performance on device
- High gain
- Impedance 50 Ohm

Applications:

- Application of 4G & 3G & 2G equipment
- Security Terminals
- Smart Cities
- Network Devices

Sunnyway Technology

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1. Electrical Specifications

Standards	4G&3G&2G		
Frequency range(MHz)	698~960	1710~2170	2300~2690
Peak Gain (dBi)	-2.0~4.0	4.2~6.2	4.5~6.5
Average Gain (dB)	-4.7~-1.6	-4.2~-2.2	-3.0~-1.7
VSWR	<4.0	<3.0	<3.5
Return Loss	<-4.5	<-5.0	<-5.0
Efficiency (%)	33~69	38~60	50~68
Polarization mode	Linear	Linear	Linear
Radiation pattern	Omni-Directional	Omni-Directional	Omni-Directional
Output impedance (Ω)	50	50	50
Max. Input Power(W)	25	25	25

Note: Tested with 100cm cable length - RG174 on 30x30cm ground plane

2. Mechanical and Environmental Specification

Mounting Type	Adhesive & Screw
Connector Type	RG174
Antenna size(mm)	81.0 (φ) x 24.9 (H) x 1000 (Line length)
Material	ABS
Cable length(mm)	1000 (can be customized)
Operating Temperature (˚C)	- 40 ˚C ~ + 85 ˚C
Storage Temperature(˚C)	- 40 ˚C ~ + 85 ˚C

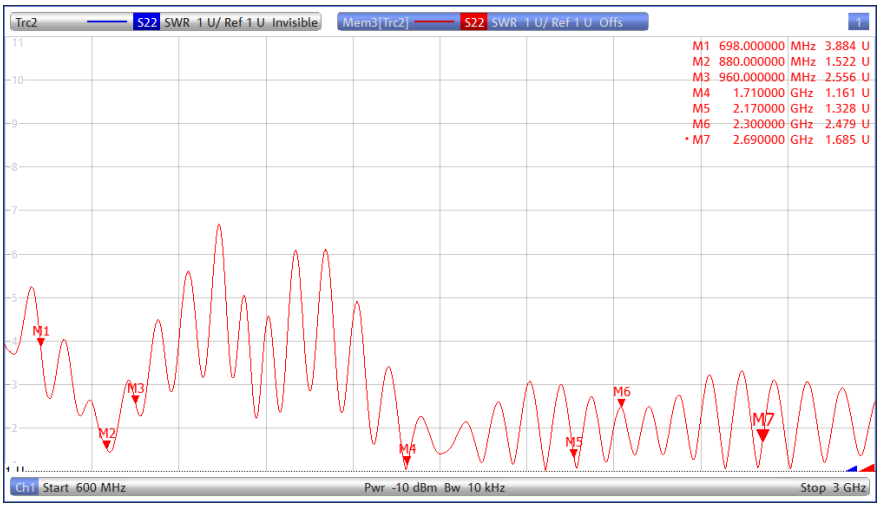
3. Antenna parameters

3.1 General Data

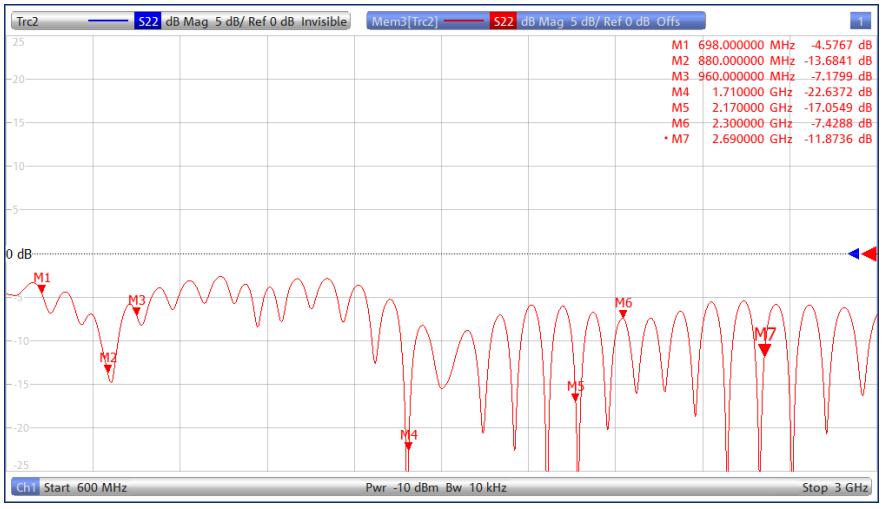
Tested with 100cm cable length - RG174 on 30x30cm ground plane

FRE (MHz)	698	880	960	1710	2170	2300	2690
VSWR	3.8	1.5	2.5	1.1	1.3	2.4	1.6
Return Loss	-4.5	-13.6	-7.1	-22.6	-17.0	-7.4	-11.8
Eff (%)	33.6	55.5	51.3	60.0	43.5	55.0	66.1
Average	-4.7	-2.5	-2.9	-2.2	-3.6	-2.6	-1.8

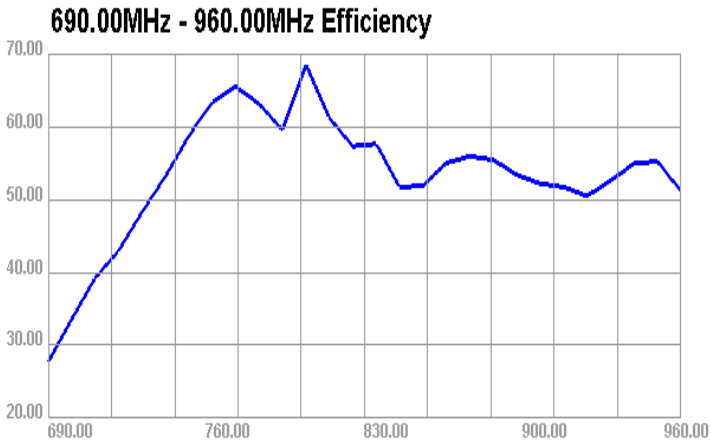
3.2 VSWR

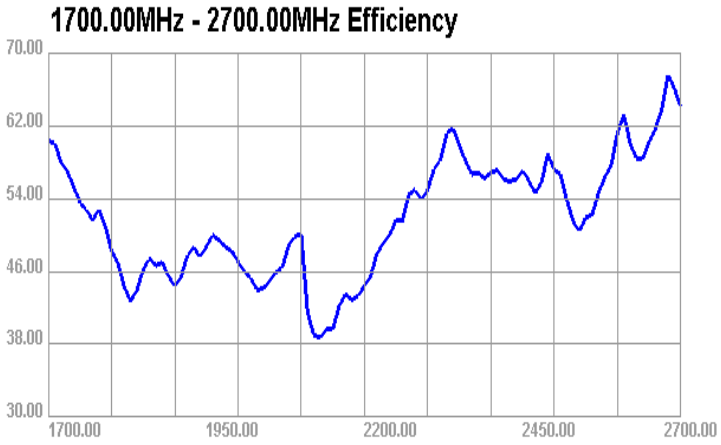


3.3 Return Loss

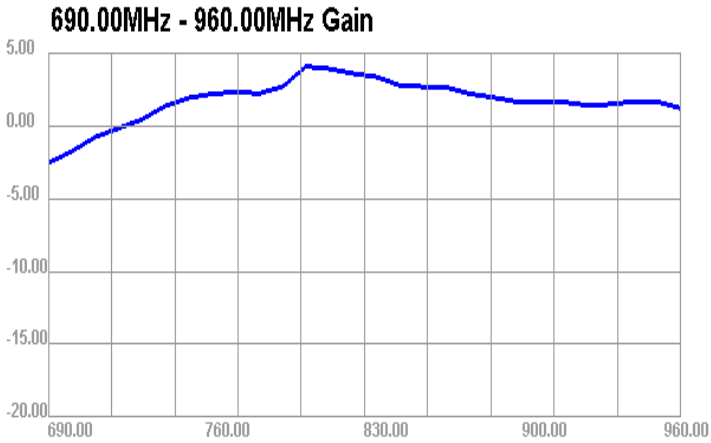


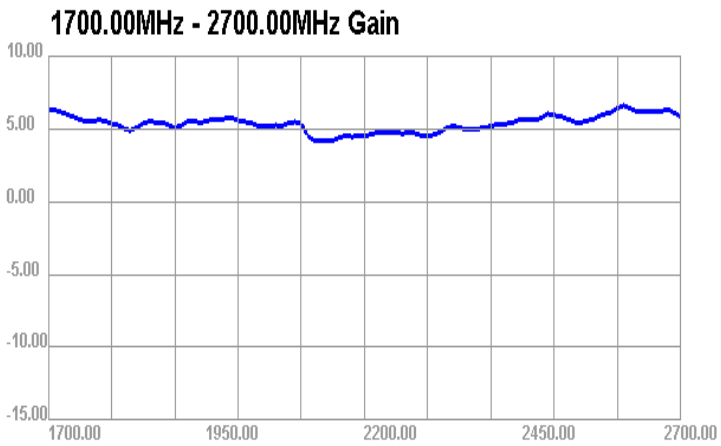
3.4 Efficiency



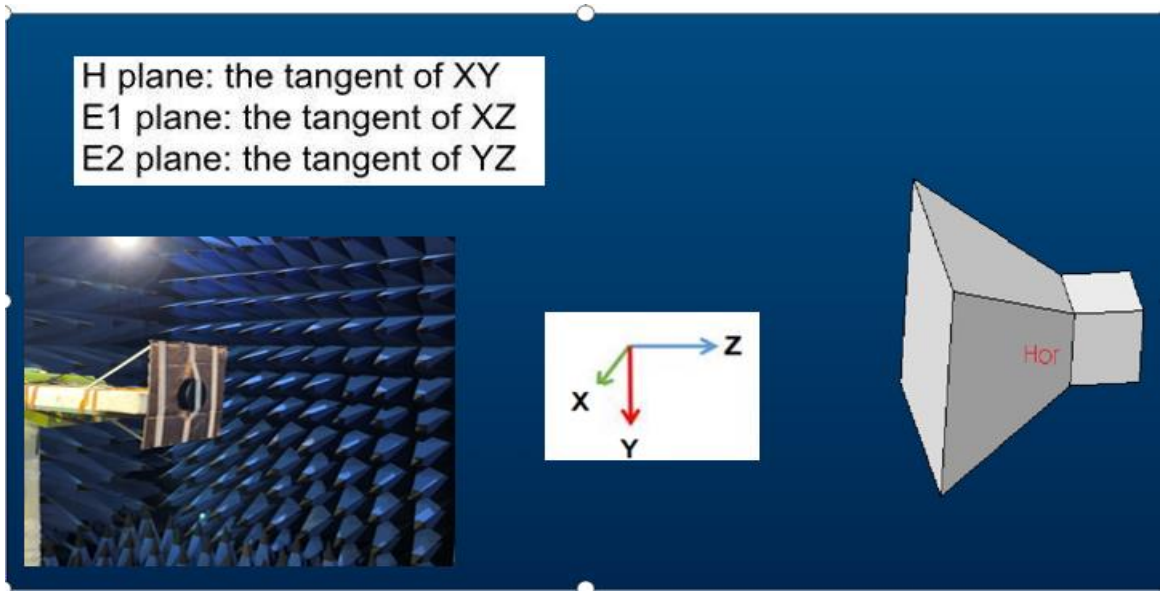


3.5 Gain

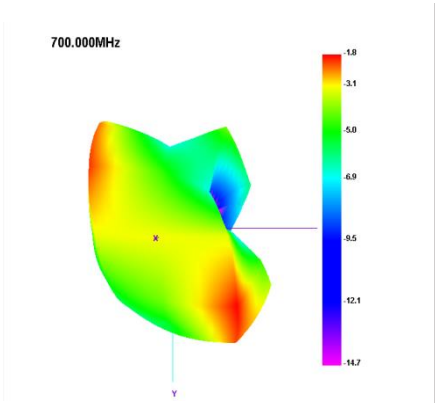


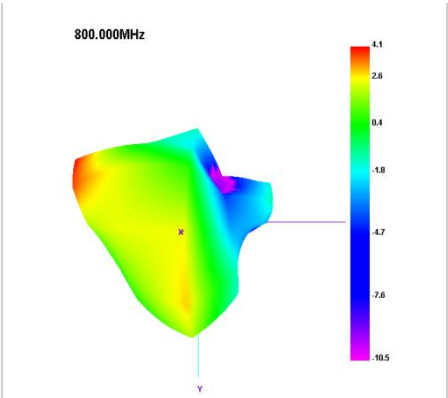


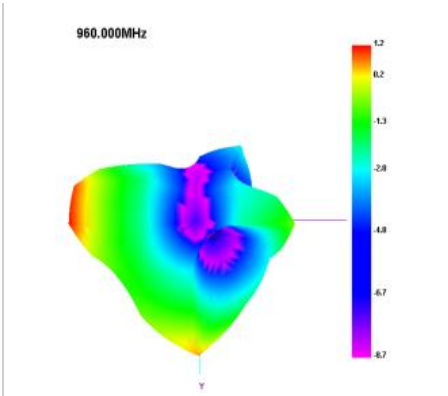
3.6 Directional pattern

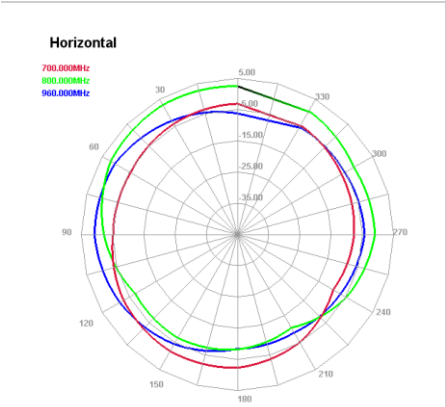


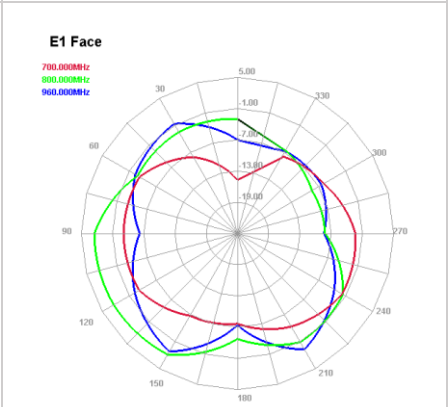
On 30x30cm Ground Plane

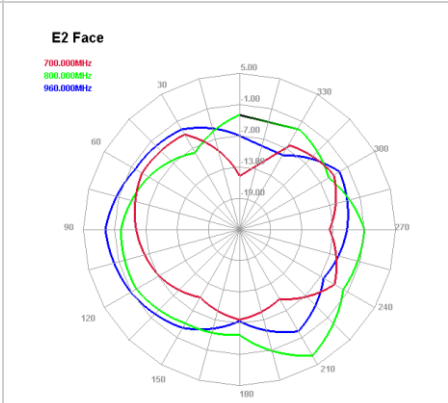

700.000MHz

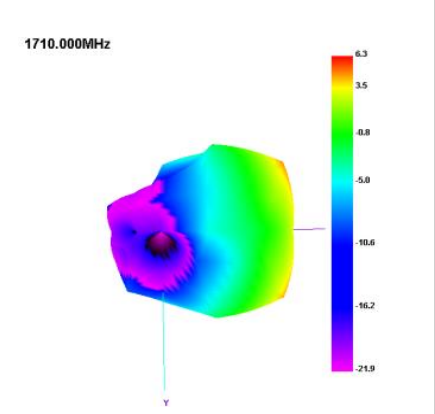

800.000MHz

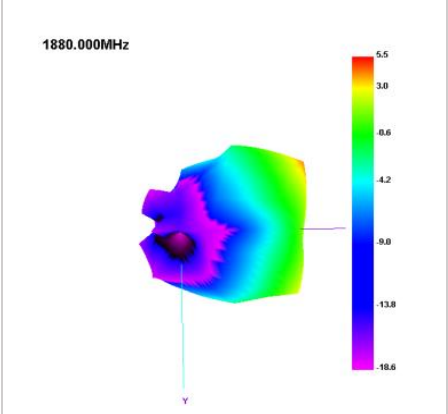

960.000MHz

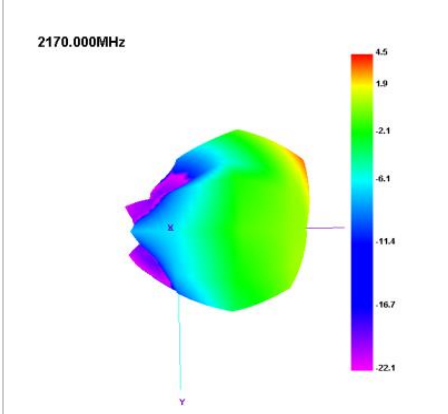

Horizontal
700.000MHz
800.000MHz
960.000MHz

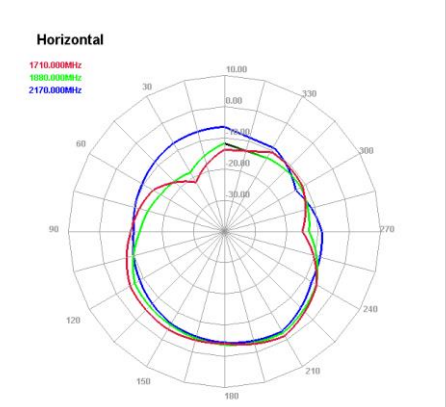

E1 Face
700.000MHz
800.000MHz
960.000MHz

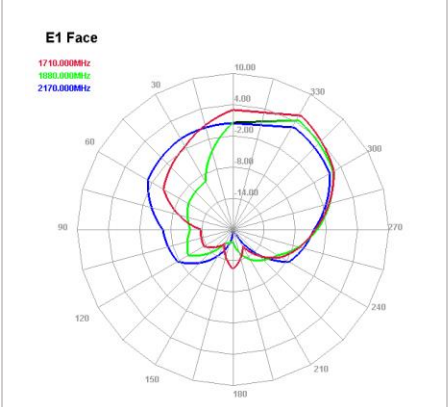

E2 Face
700.000MHz
800.000MHz
960.000MHz

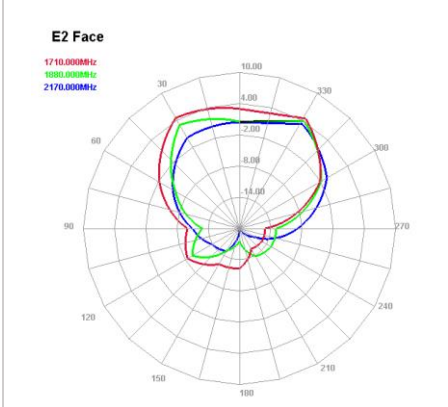

1710.000MHz

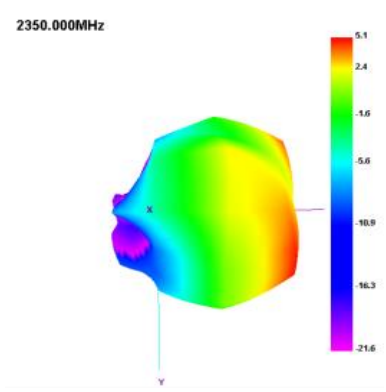

1880.000MHz

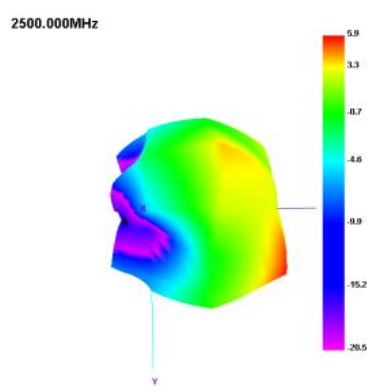

2170.000MHz

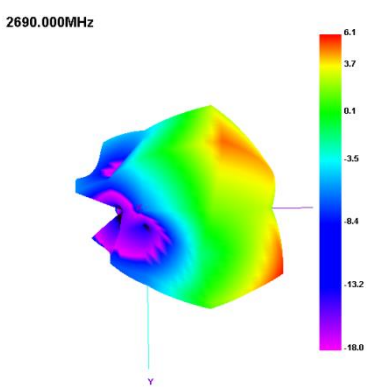

Horizontal
1710.000MHz
1880.000MHz
2170.000MHz

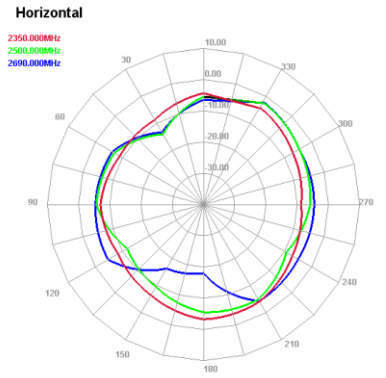

E1 Face
1710.000MHz
1880.000MHz
2170.000MHz

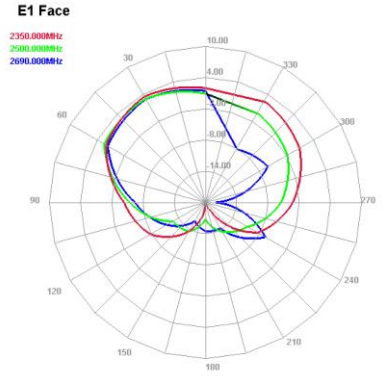

E2 Face
1710.000MHz
1880.000MHz
2170.000MHz

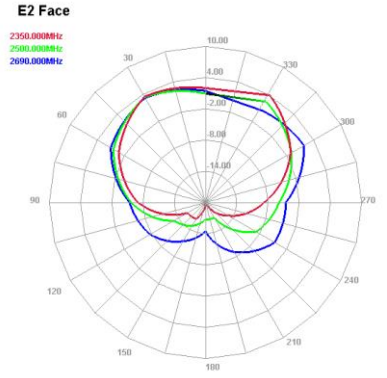

2350.000MHz
5.1
2.4
-1.6
-5.6
-10.9
-16.3
-21.6
X
Y


2500.000MHz
5.9
3.3
-0.7
-4.6
-9.9
-15.2
-20.5
X
Y

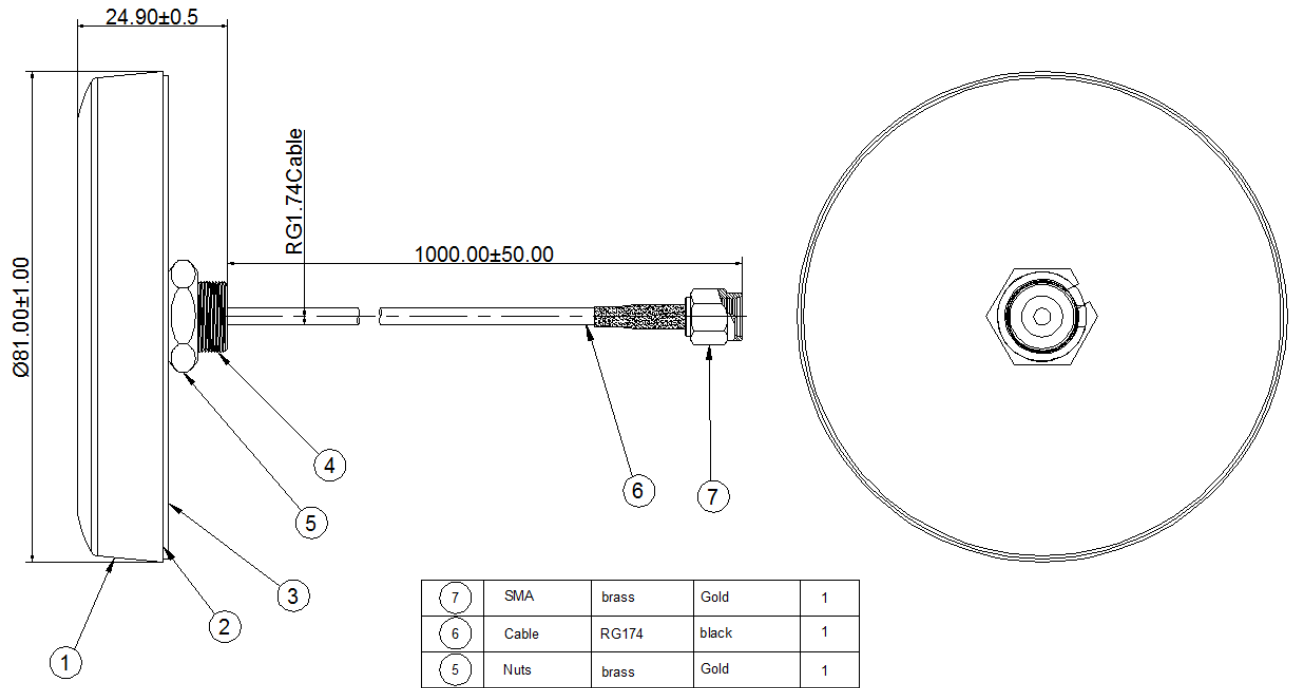

2690.000MHz
6.1
3.7
0.1
-3.5
-8.4
-13.2
-18.0
X
Y


Horizontal
2350.000MHz
2500.000MHz
2690.000MHz
10.00
0.00
-10.00
-20.00
-30.00
30
330
60
300
90
270
120
240
150
210
180


E1 Face
2350.000MHz
2500.000MHz
2690.000MHz
10.00
4.00
-2.00
-8.00
-14.00
30
330
60
300
90
270
120
240
150
210
180


E2 Face
2350.000MHz
2500.000MHz
2690.000MHz
10.00
4.00
-2.00
-8.00
-14.00
30
330
60
300
90
270
120
240
150
210
180

4.Antenna Drawing



Series	Component name	Material	Color	Quantity
7	SMA	brass	Gold	1
6	Cable	RG174	black	1
5	Nuts	brass	Gold	1
4	Screw	brass	Gold	1
3	Back Glue	Adhesive	natural colour	1
2	Lower Shell	ABS	black	1
1	Upper Shell	ABS	black	1