Specification

Part No.	:	**GSA.8830.A.201111**
Product Name	:	Thin Heat-Shrink Wrapped Cellular I-Bar Adhesive Type External Antenna
Feature	:	850/900/1800/1900/2100 MHz bands 2m RG174 cable with SMA(M) connector 90mm*20.8mm*4.6mm Low profile With heat shrink to protect antenna **RoHS & REACH Compliant**

Adhesive Mount

1. Introduction

The GSA.8830 Penta-band I-Bar antenna is flexible and robust. Its slim-line design encased in waterproof heat-shrink material allows for covert and convenient installation in automotive vehicles. Omni-directional gain across all bands ensures constant reception and transmission.

With its unique dipole design, the GSA.8830 has exceptional industry performance characteristics considering its very low profile at 4.6mm and has a compact size 90mm*20.8mm. It's suitable for customers that appreciate highest performance at a lower price.

This antenna is designed and tuned to be mounted on glass or plastic (not on metal). Cable lengths and connectors are fully customizable. Contact your regional Taoglas customer support team for more information.

2. Specification Table

ELECTRICAL					
	GSM 850	GSM 900	DCS	PCS	WCDMA I
Frequency (MHz)	824~896	880~960	1710~1880	1850~1990	1920~2170
Peak Gain (dBi)*	-0.23	0.77	0.67	0.98	0.73
Average Gain (dBi)*	-4.66	-5.39	-3.93	-3.43	-3.42
Efficiency (%)*	34.55	28.94	40.57	45.53	45.52
Return Loss (dB)*	< -8	< -9	< -10	< -10	< -10
Polarization	Linear				
Impedance	50 Ω				

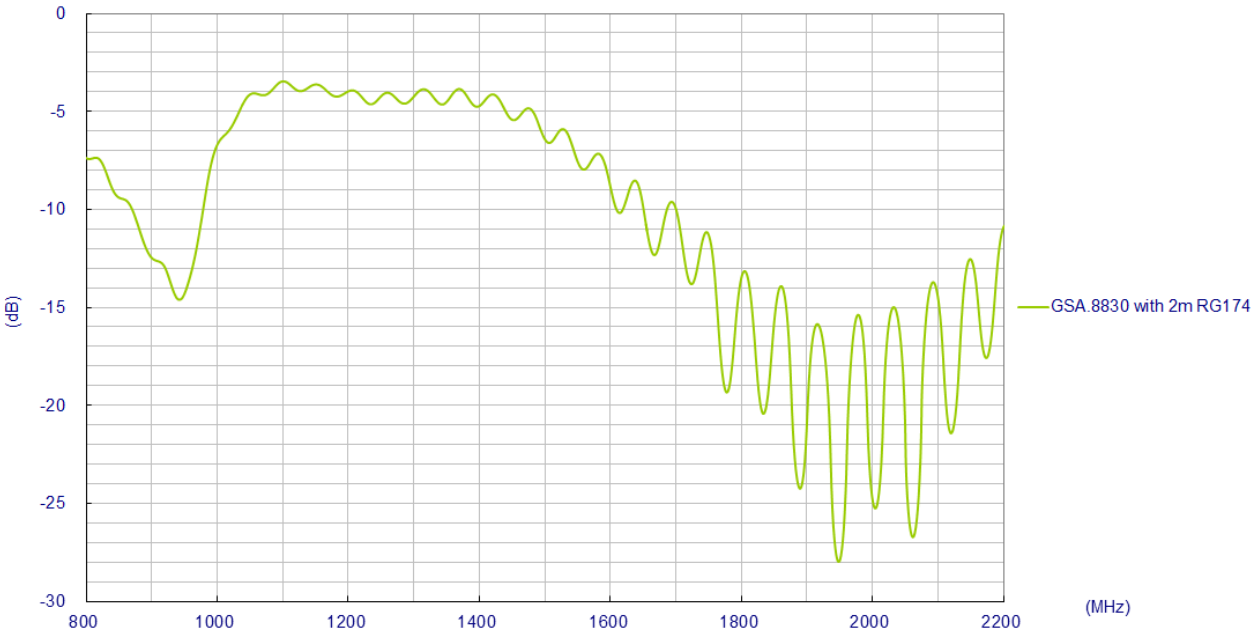
MECHANICAL	
Antenna Dimensions	90mm x 20.8mm x 4.6mm
Material	FR4
Cable type	RG174 Coaxial Cable
Cable length	2m
Connector type	SMA(M)
Adhesive	3M 467
IP rating	IP67(Internal PCB)

ENVIRONMENTAL	
Operation Temperature	-40°C ~ +85°C
Storage Temperature	-40°C ~ +85°C

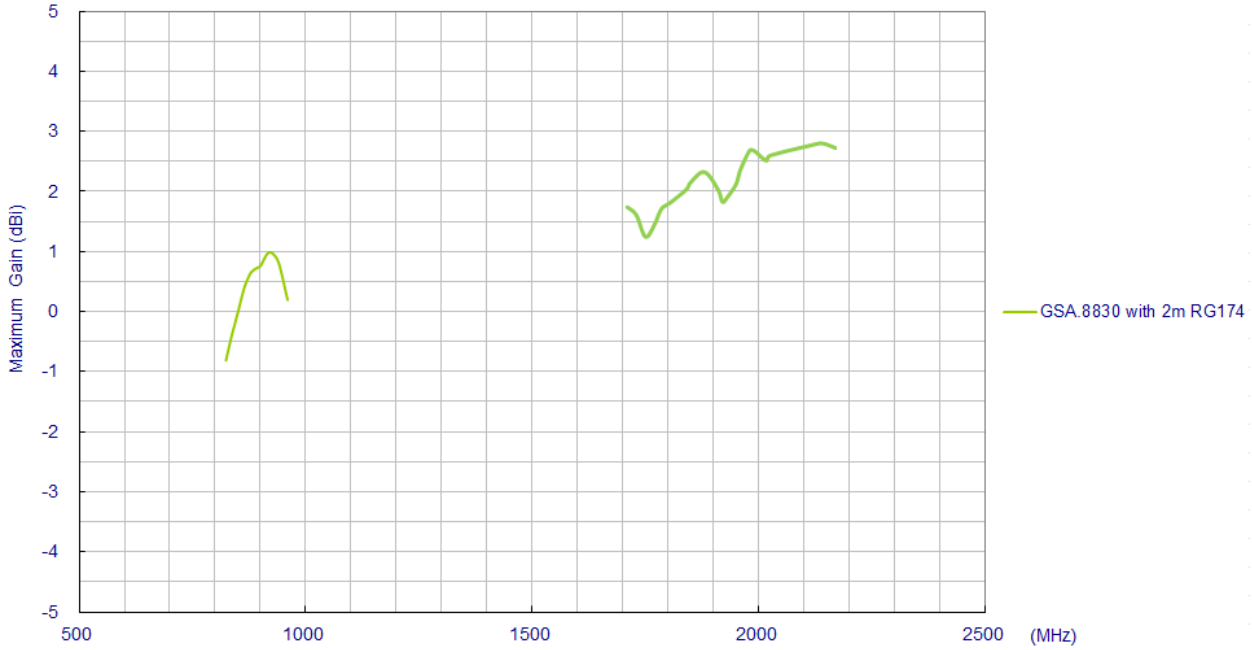
* Antenna is tested at the connector, to include 2 meter cable loss, adhered on a 2mm thickness ABS material base substrate.

3. Antenna Characteristics

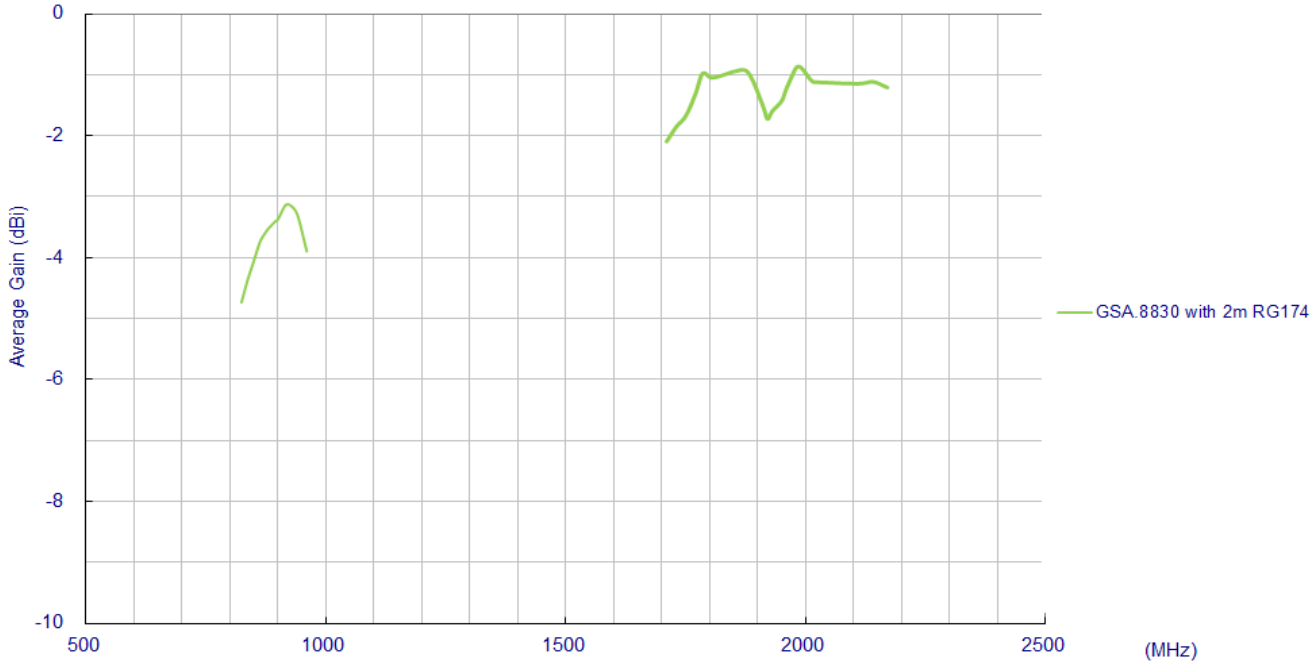
3.1. Return Loss



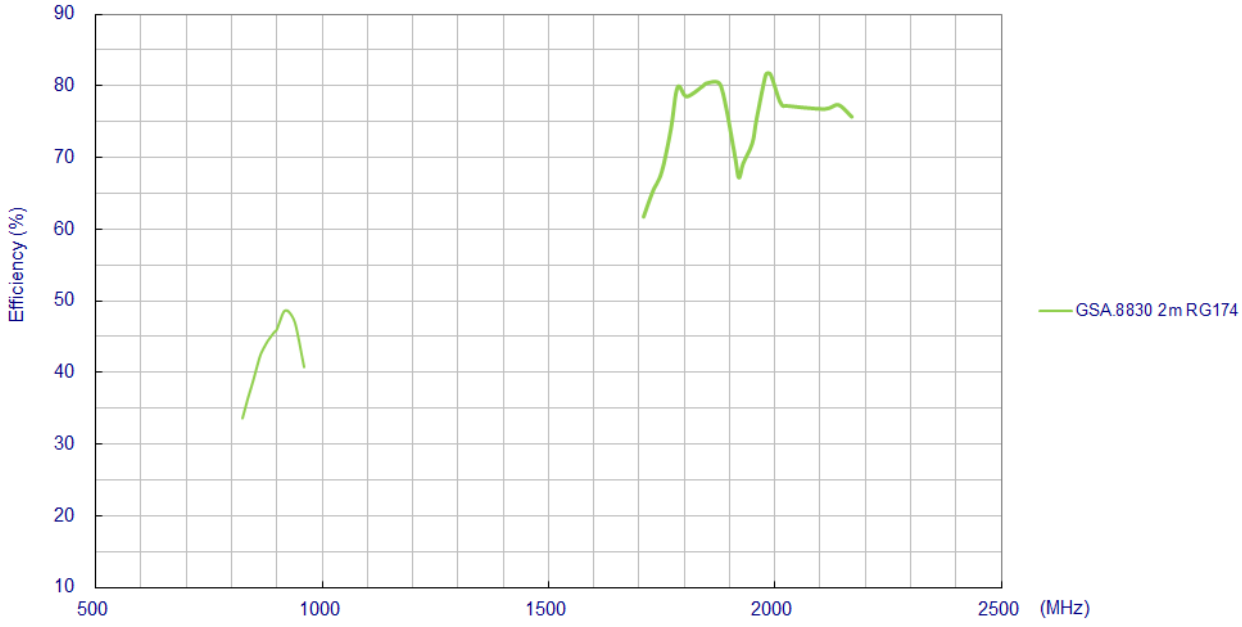
3.2. Peak Gain



3.3. Average Gain

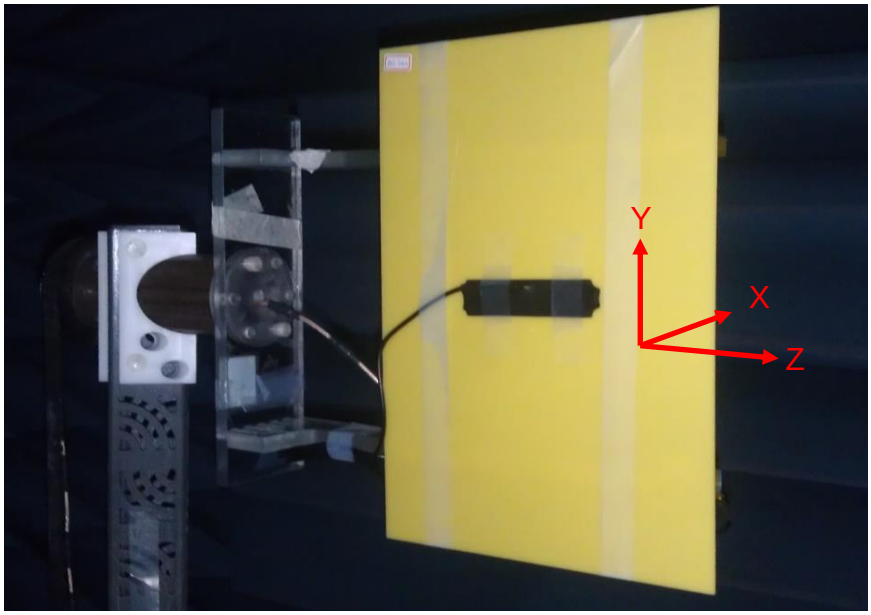


3.4. Efficiency



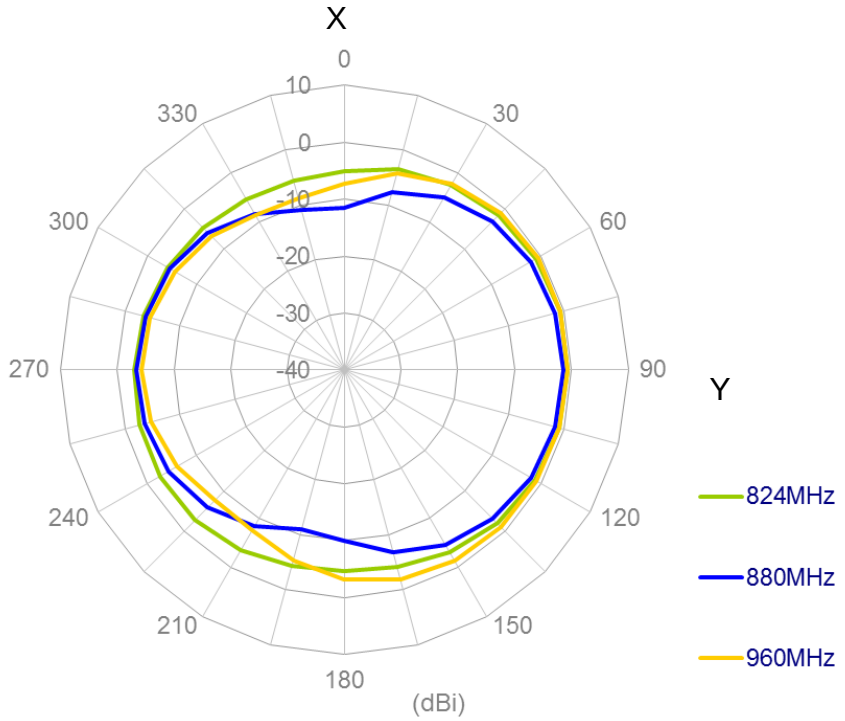
4. Antenna Radiation Patterns

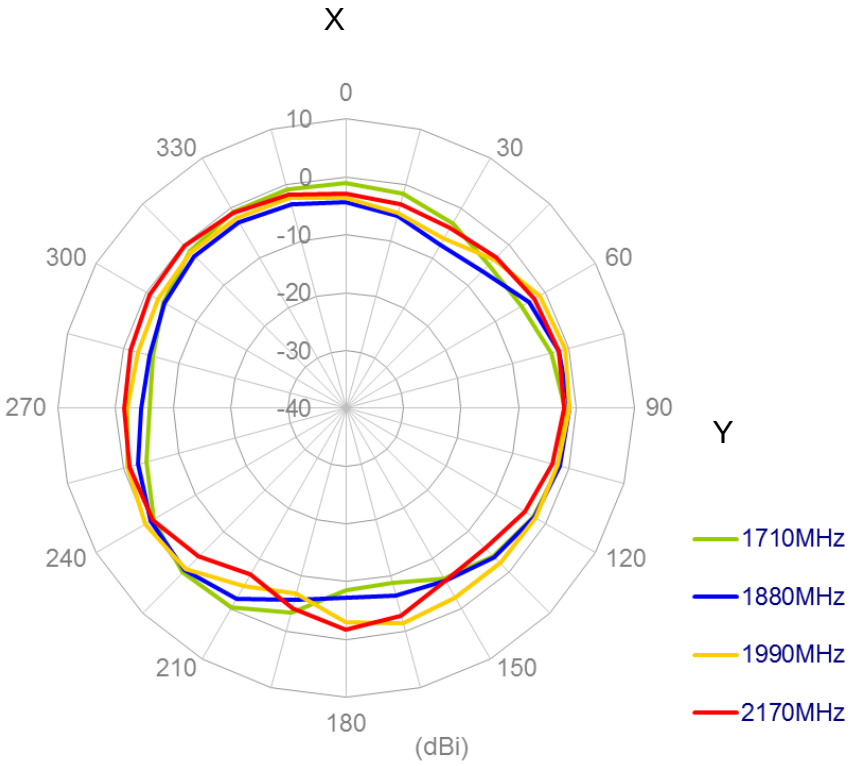
Antenna setup in 3D Anechoic chamber



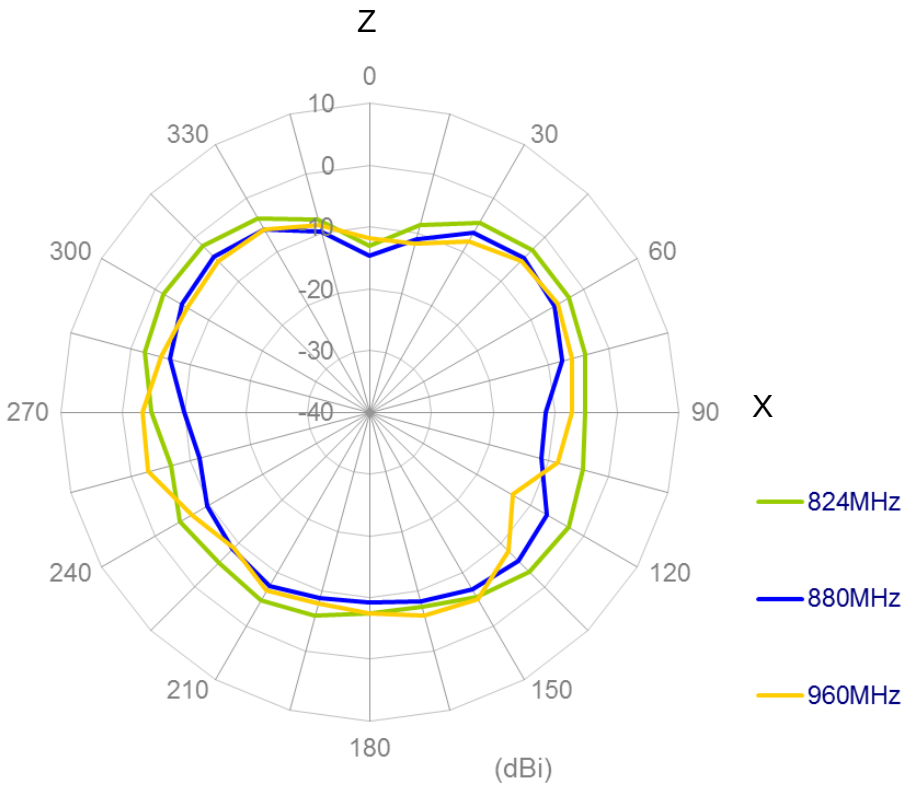
Radiation Patterns

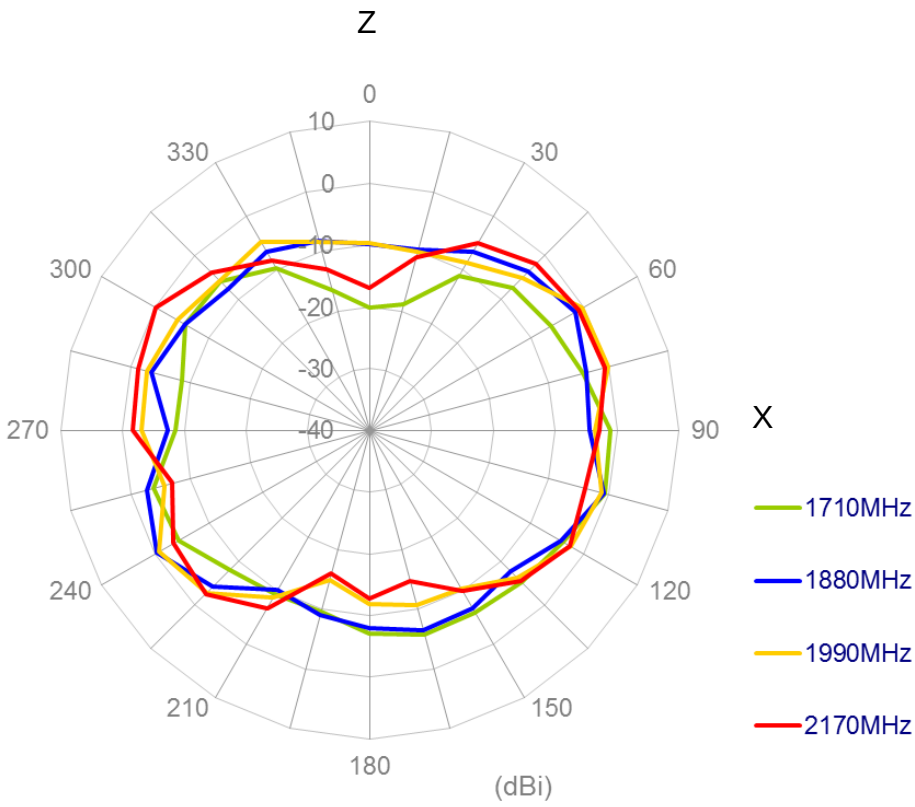
XY plane



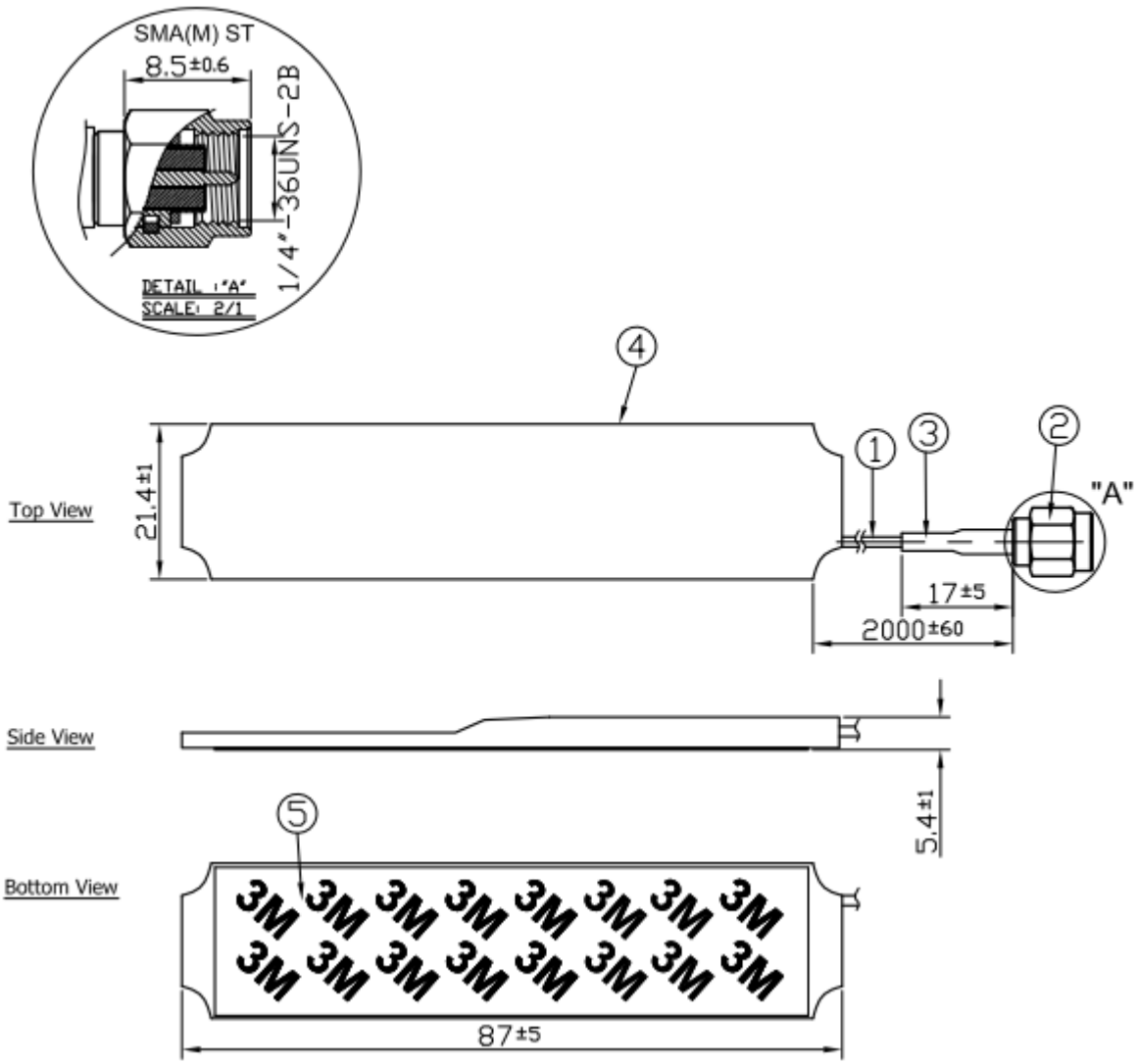


XZ plane


Z
0
10
0
-10
-20
-30
-40
30
60
90
120
150
180
210
240
270
300
330
X
824MHz
880MHz
960MHz
(dBi)


Z
0
10
0
-10
-20
-30
-40
30
60
90
120
150
180
210
240
270
300
330
X
1710MHz
1880MHz
1990MHz
2170MHz
(dBi)

5. Drawing



	Name	P/N	Material	Finish	QTY
1	RG174 Coaxial Cable	301313A000002A	FEP	Black	1
2	SMA(M) ST	200212G000002A	Brass	Gold	1
3	Heat Shrink Tube	001312E000002A	PE	Black	1
4	Heat Shrink Tube	001312K000002A	PE	Black	1
5	3M Adhesive	001012K000039A	3M 9448	N/A	1