SPECIFICATION
Iridium Certified

Part No.	:	**IP.1621.25.4.A.02**
Product Name	:	**4mm thick Iridium Patch Antenna, 1621MHz**
Features	:	25.1mm*25.1mm*4mm ROHS Compliant

:

1. Introduction

This miniaturized ceramic Iridium patch antenna is based on smart ***XtremeGain™*** technology. It is mounted via pin and double-sided adhesive and has been selected as optimal solution for the customer device environment. Iridium certifies the IP.1621.25.4.A.02 for commercial use in connection with the Iridium Communications systems.

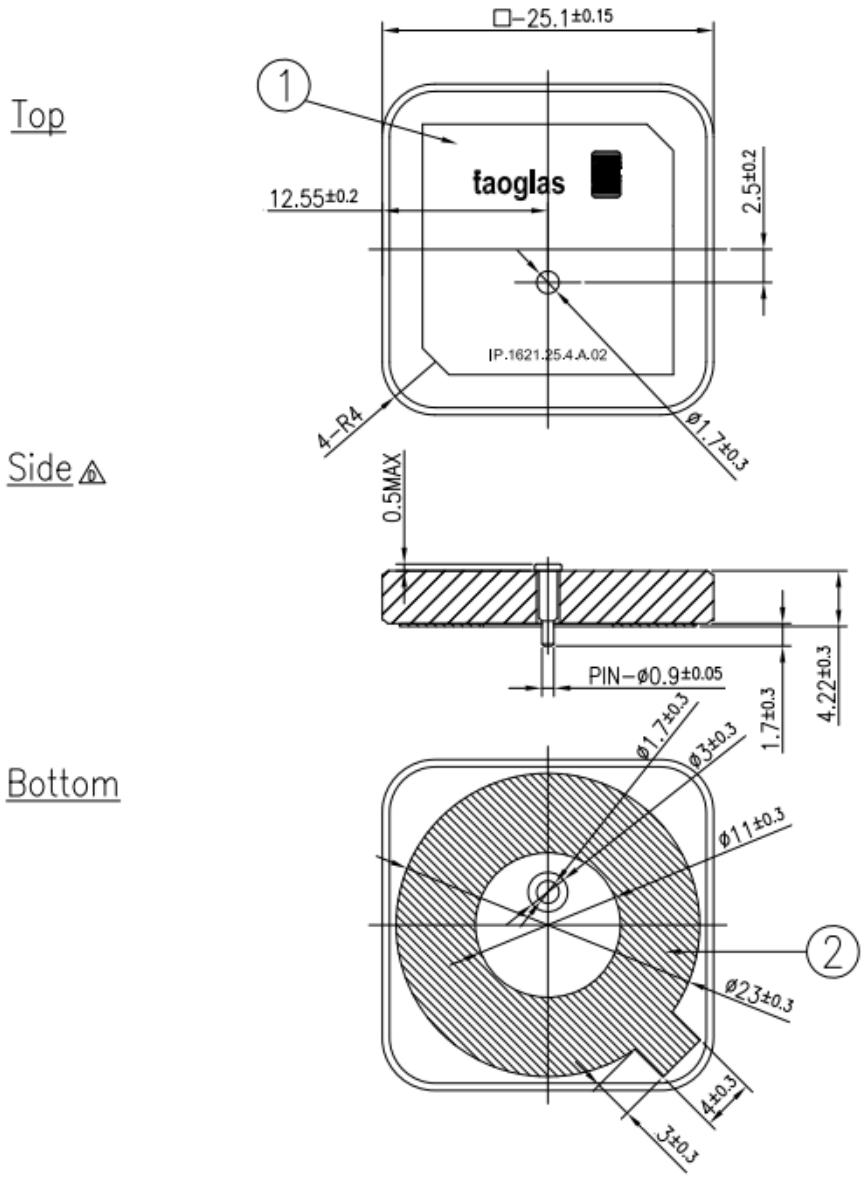
2. Key Antenna Performance Indicators

Original Patch Specification tested on 50*50mm ground plane

No	Parameter	Specification	Notes
1	Range of Receiving Frequency	1616~1626.5Mhz	
2	Center Frequency	1621MHz ±3MHz	with 50*50mm GND Plane
3	Bandwidth	16MHz	Return Loss ≤-10dB
4	VSWR	1.5 max	Center Frequency
5	Gain at Zenith	+2.0dBi typ.	Center Frequency
6	Gain at 10° Elevation	--	Center Frequency
7	Axial Ratio	3 dB Max	Center Frequency
8	Polarization	RHCP	
9	Impedance	50Ω	
10	Frequency Temp Coefficient (Tf)	0±20ppm/°C	-40°C to +85°C
11	Operating Temperature	-40°C to +85°C	
12	Antenna Weight	10g	

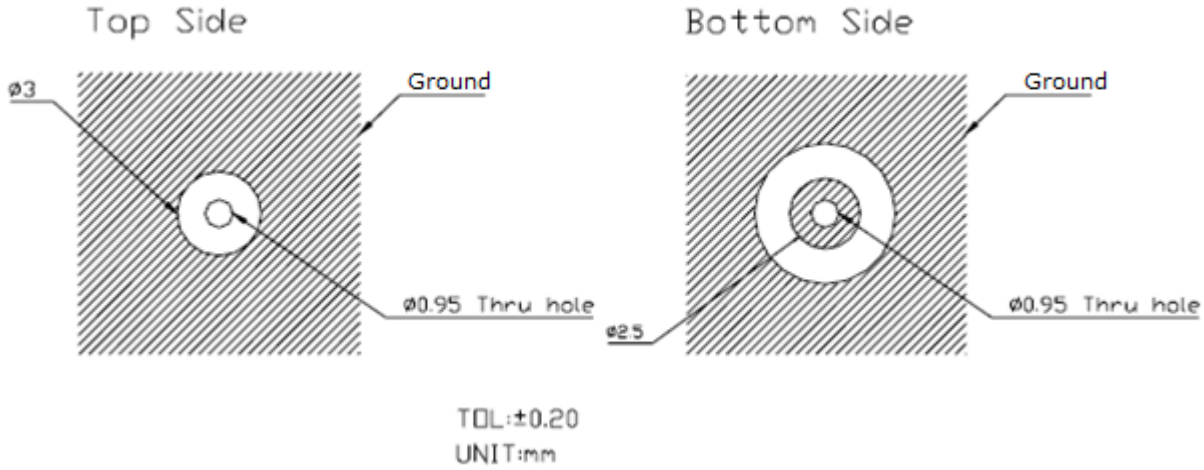
3. Mechanical Drawing

3.1 Shape and Dimension



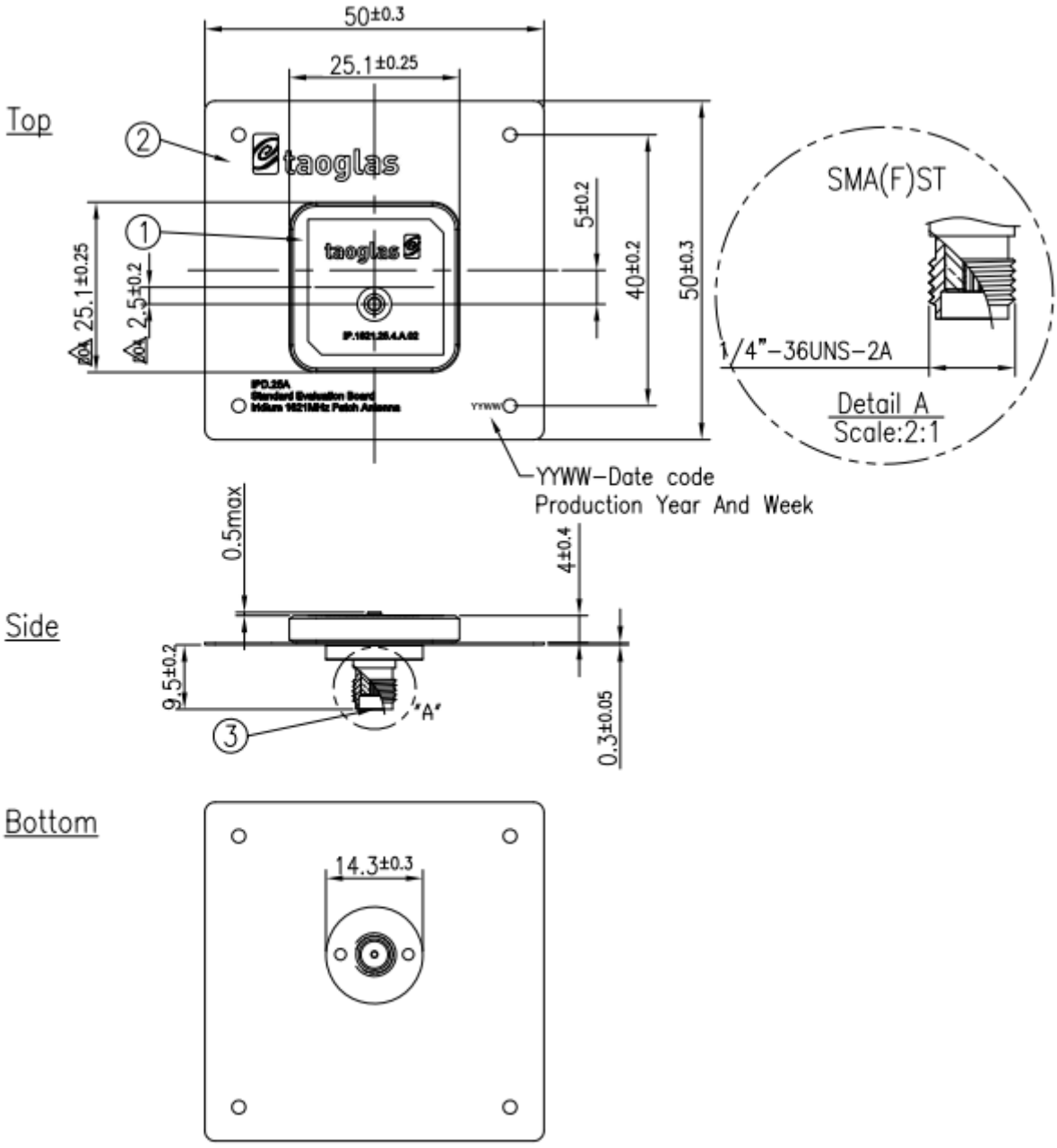
	Name	P/N	Material	Finish	QTY
1	IP.25A Iridium Patch(25.1x25.1x4mm)	001514C000007A	Ceramic	Clear	1
2	Double sided Adhesive	001013C180007A	NITTO 5015	White Liner	1

3.2 Layout



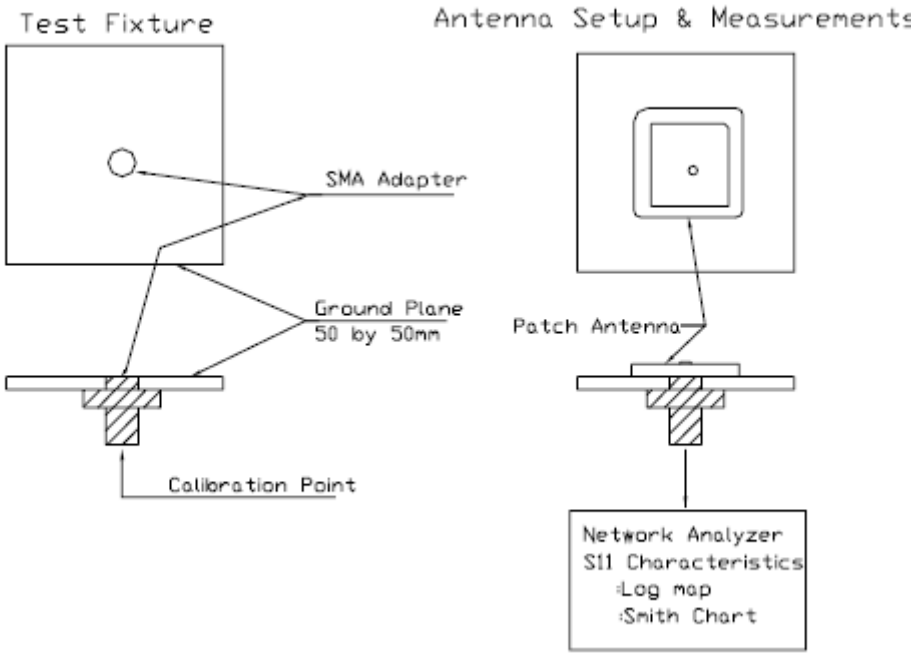
3.3 Mark

3.4 Evaluation Board (IPD.25A)

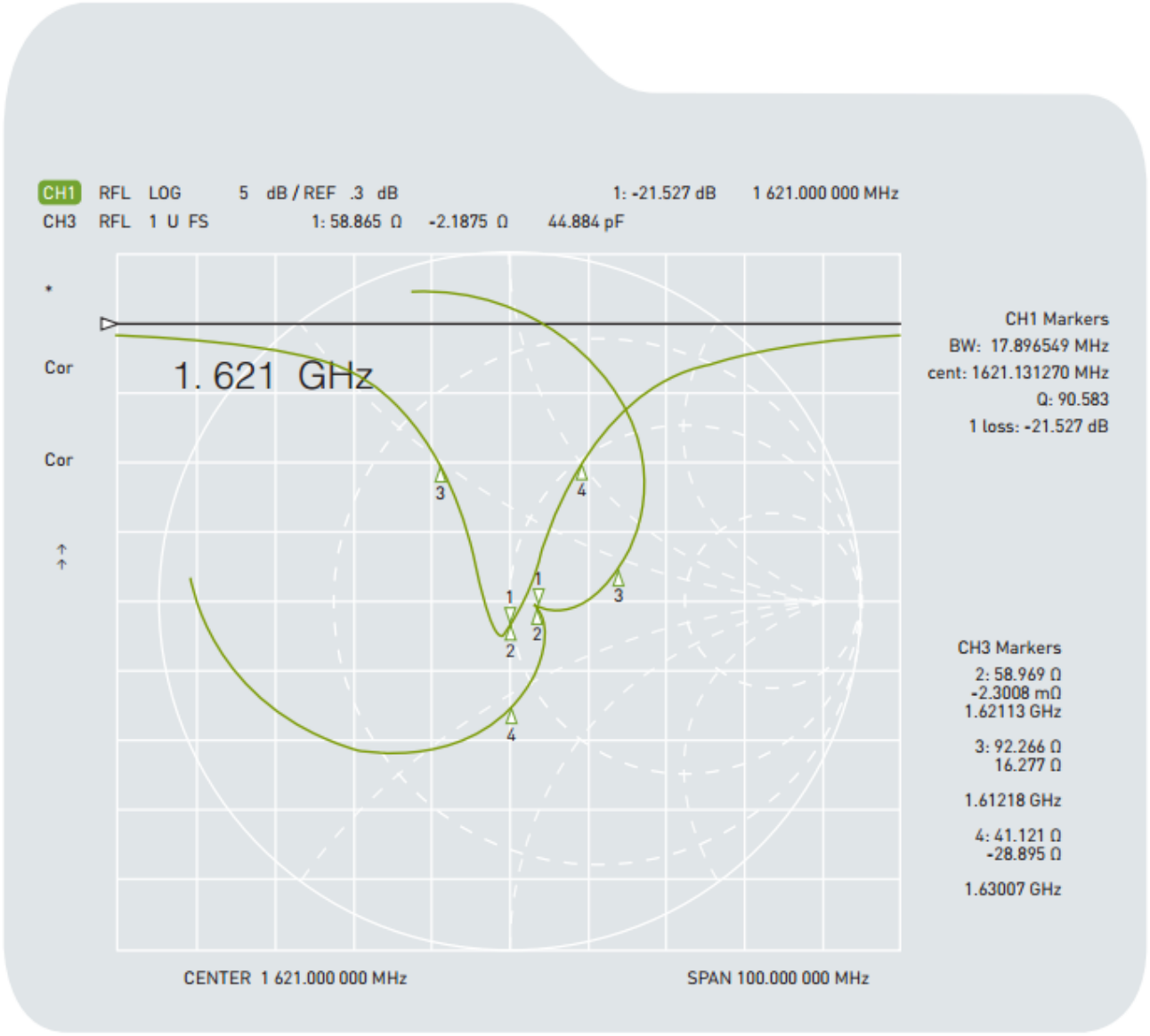


	Name	P/N	Material	Finish	QTY
1	IP.25A Iridium Patch(25.1x25.1x4mm)	001514C000007A	Ceramic	Clear	1
2	Ground-Plane(50x50x0.3mm)	000514C000007A	Brass	Silver	1
3	SMA(F) ST	200413L000007A	Brass	Au Plated	1

3.5 Test Fixture Antenna Setup and Measurements

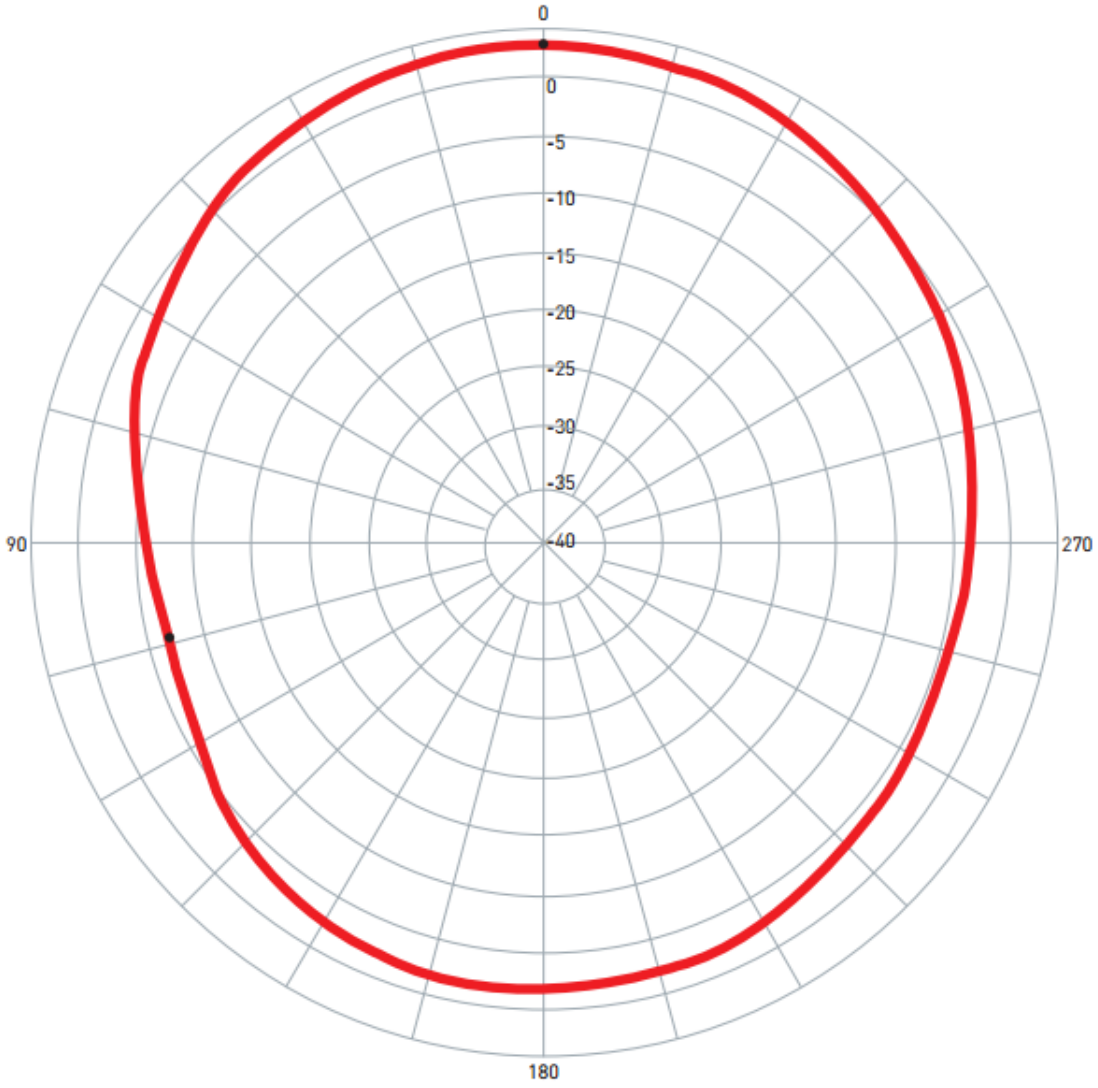


4. Performance testing and results



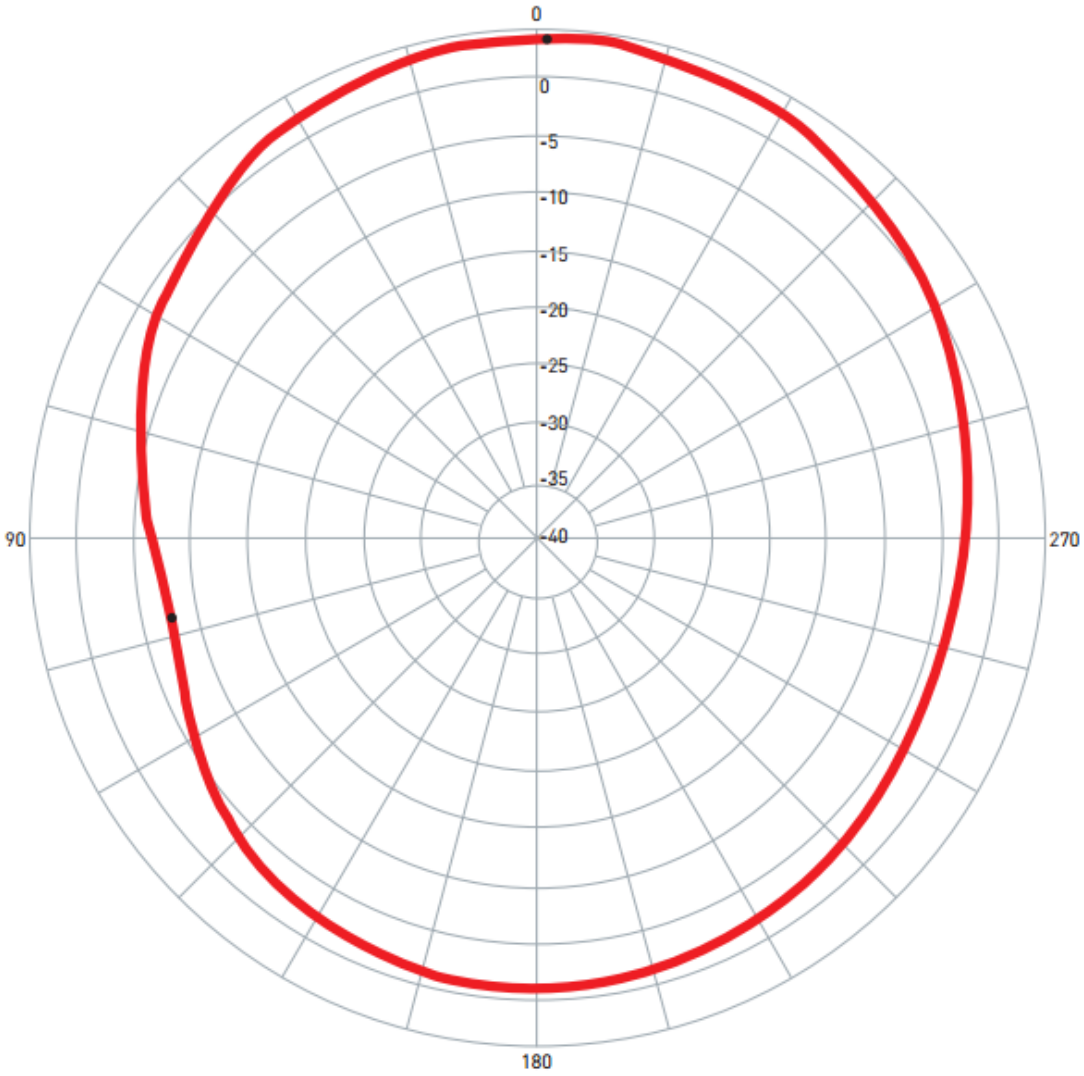
4.1 Antenna Gain Chart

4.1.1 XZ Plane



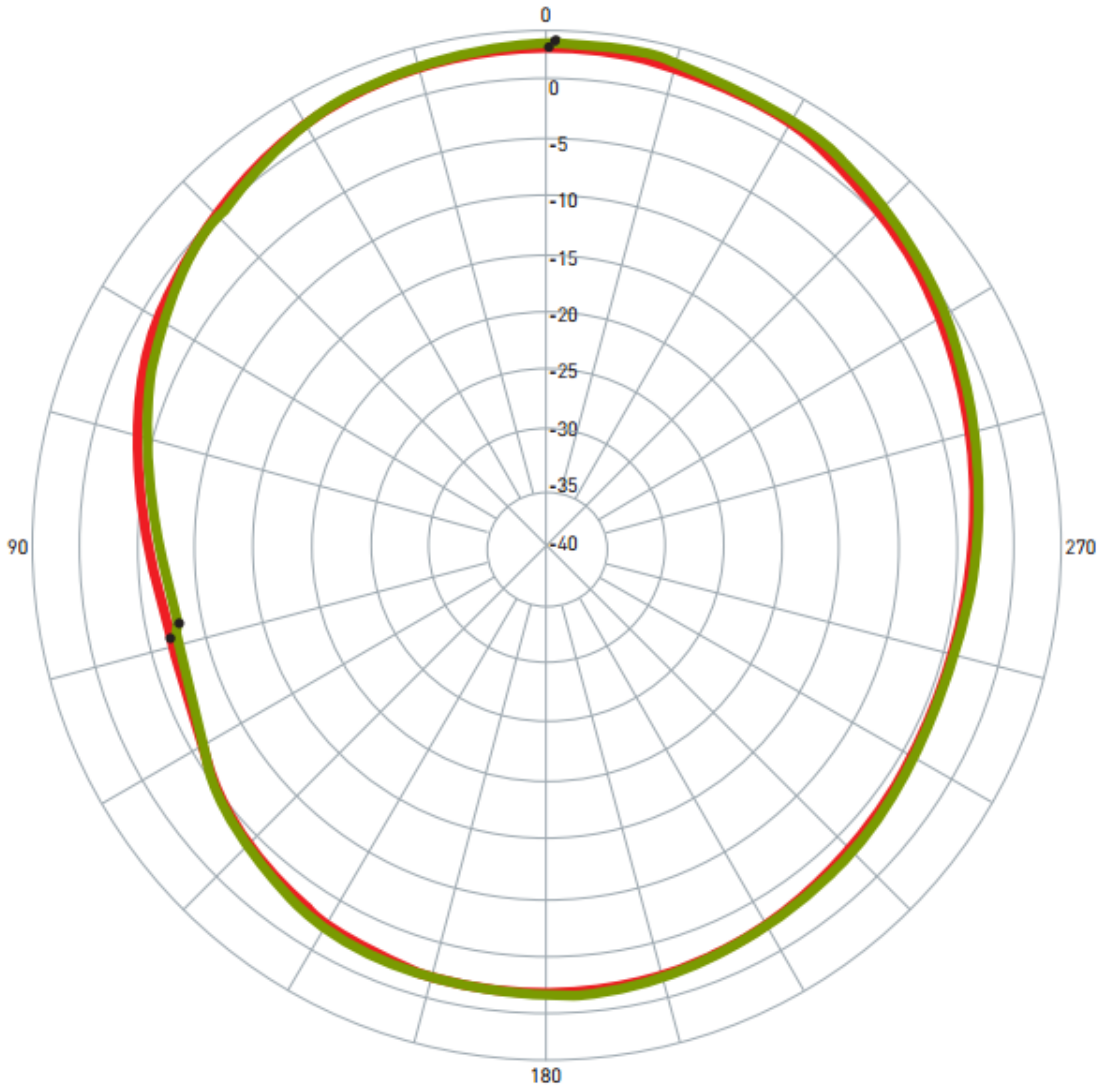
Pattern	Model No.	Test Mode	Freq (MHz)	Max Gain(dBi)	Min Gain(dBi)	Avg. Gain(dBi)	Source Polar.
1	IP.1621.25.4.A.02	XZ	1621.00	2.72 / 0.00	-6.84 / 104.00	-1.05	V+H

4.1.2 YZ Plane



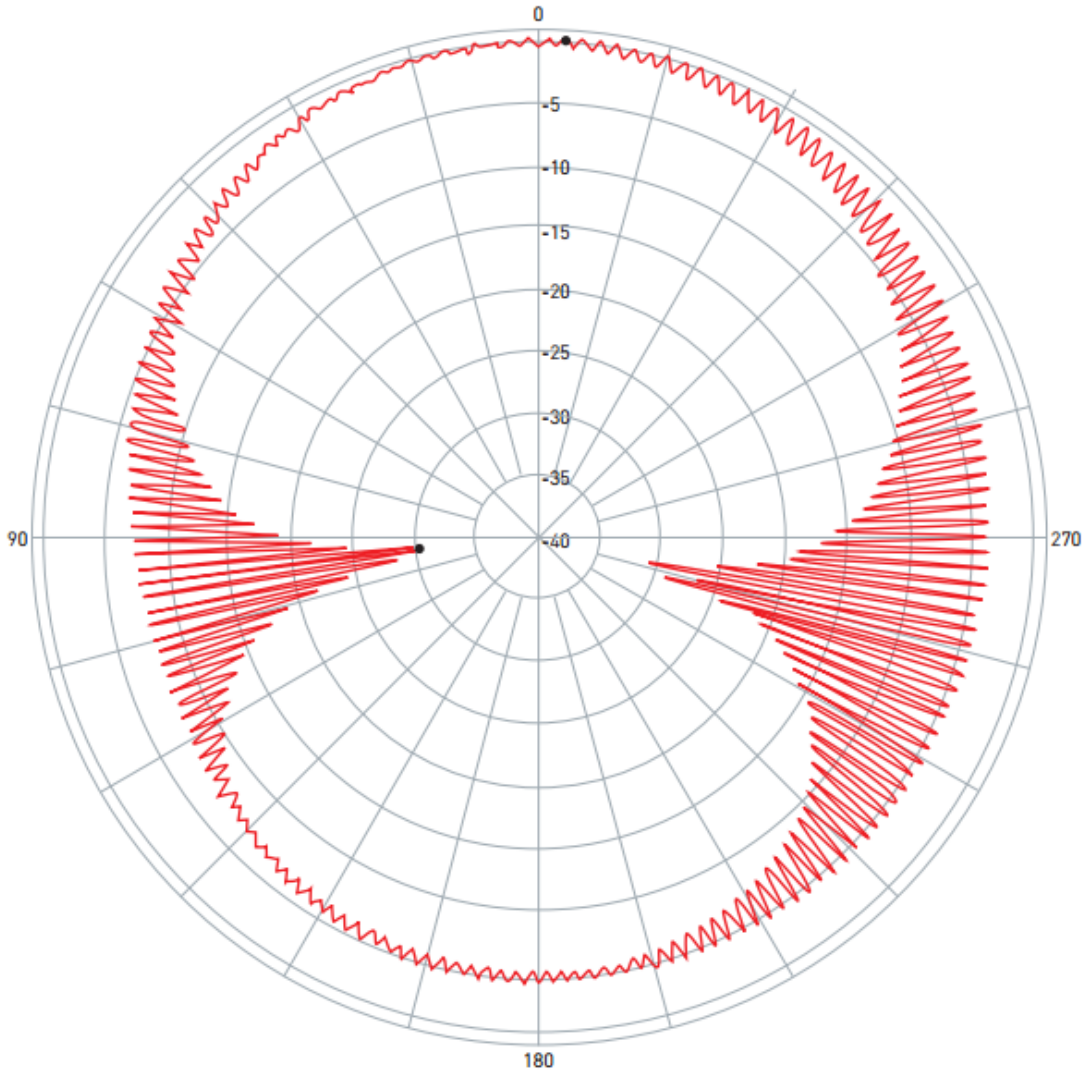
Pattern	Model No.	Test Mode	Freq (MHz)	Max Gain(dBi)	Min Gain(dBi)	Avg. Gain(dBi)	Source Polar.
1	IP.1621.25.4.A.02	YZ	1621.00	3.00 / 358.99	-7.57 / 101.85	-0.86	V+H

4.1.3 XZ +YZ Plane



Pattern	Model No.	Test Mode	Freq (MHz)	Max Gain(dBi)	Min Gain(dBi)	Avg. Gain(dBi)	Source Polar.
1	IP.1621.25.4.A.02	XZ	1621.00	2.72 / 1.00	-6.84 / 104	-1.05	V+H
2	IP.1621.25.4.A.02	YZ	1621.00	3.00 / 358.99	-7.57 / 101.85	-0.86	V+H

4.2 Axial Ratio



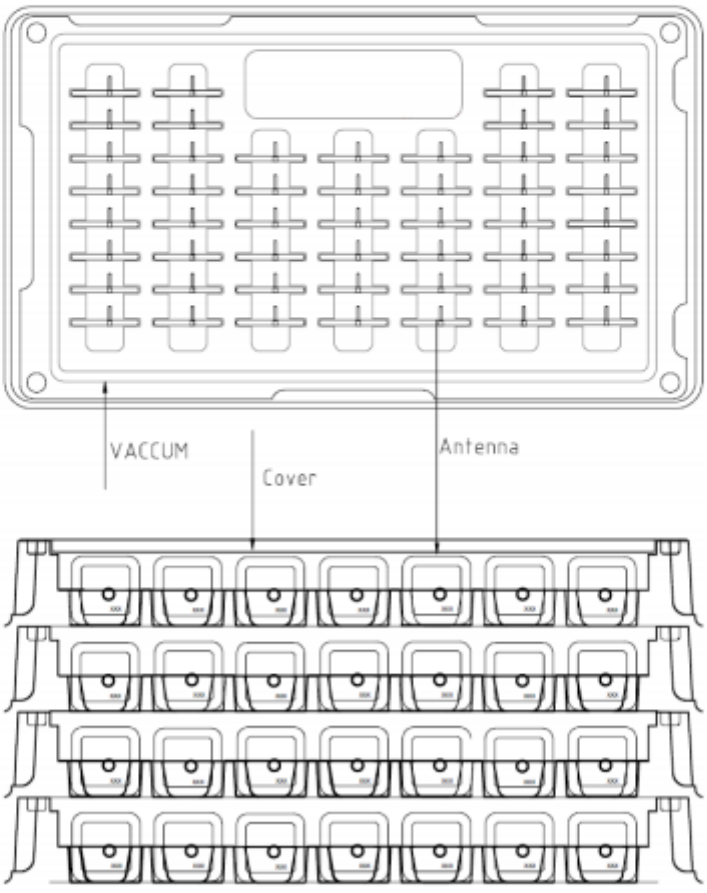
Pattern	Model No.	Test Mode	Freq (MHz)	Max Gain(dBi)	Min Gain(dBi)	Avg. Gain(dBi)	Source Polar.
1	IP.1621.25.4.A.02	Axial Ratio	1621.00	0.13 / 356.87	-30.61 / 95.76	-4.00	CP

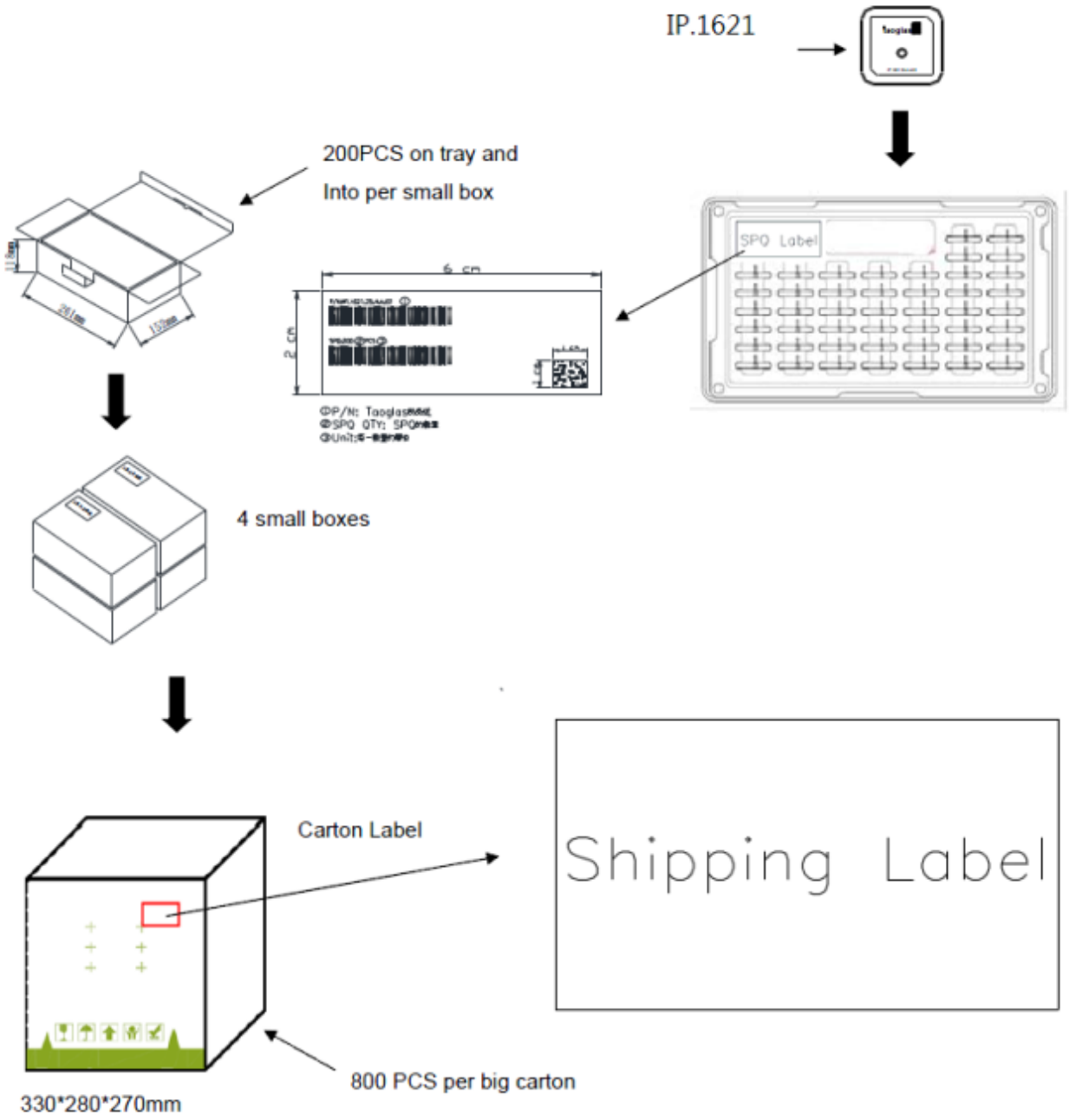
5. Packaging

Per Tray: 50 pieces

Per Carton (Inside Box) - 4 Trays = 200 pieces

Outer Carton (Outside Box) - 4 Cartons = 800 pieces





Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Taoglas:

IP.1621.25.4.A.02