

MAN1216A45G

GNSS Antenna

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GNSS Antenna

For L1/L5

MAN1216A45G

L5: 45x45x6 mm L1: 35x35x4 mm

All Use For RF & Microwave

Shenzhen Megsine technology co., ltd www.megsine.com sales@megsine.com may contain us for future information
Feb. 03, 2024

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GNSS Antenna

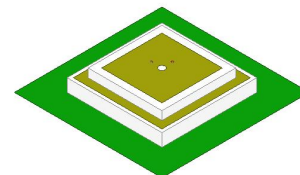
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Applications

1. Satellite communication
2. Navigation and position
3. For L1, L5

Features

1. Compact size
2. RHCP radiation
3. Reflow process compatible
4. RoHS compliance (Pb-Free)



Description

The MAN1216A45G is designed for GNSS Antenna. We provide comprehensive antenna design support such as simulation, testing and manufacturing for custom antenna solutions to meet your specific application needs.

Electrical Specification

Table 1. MAN1216A45G Electrical Specification

Item	Low Fre	Type	High Fre	Unit
Frequency Range	1164-1189		1559-1605	MHz
Efficiency	42-58		56-70	%
Zenith Gain	3.06		4.20	dBi
AR	<2.5		<2	dB
Polarization	RHCP		RHCP	
Nominal Impedance	50		50	Ω

- Ta: +25 $\pm$ 5°C

Mechanical Specification

Table 2. MAN1216A45G Mechanical Specification

Item	Low Fre	Type	High Fre	Unit
Antenna Size	45*45*6		35*35*4	Mm
Ground Plane	70*70		70*70	
Temperature	-40		+85	°C
Operating temperature	-40		+85	°C

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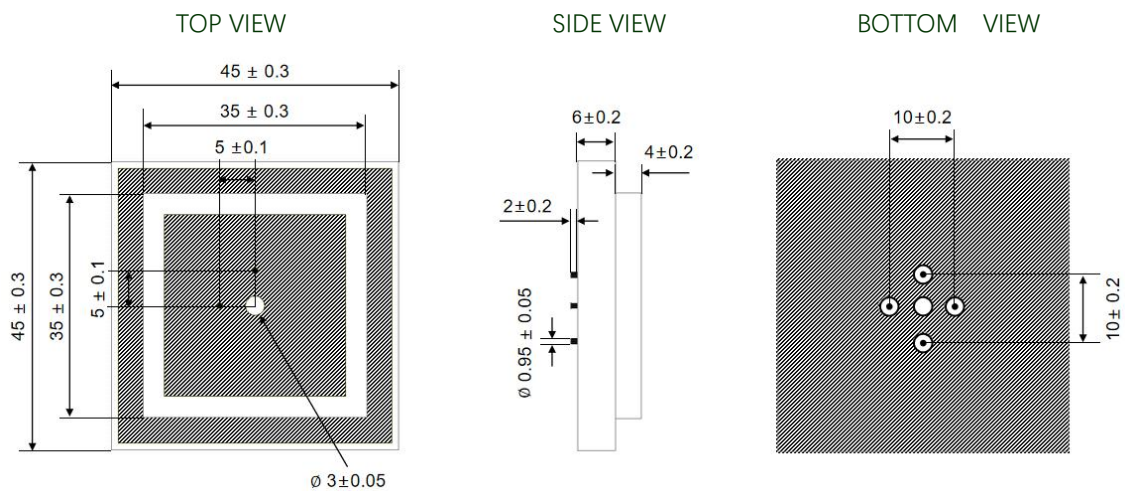
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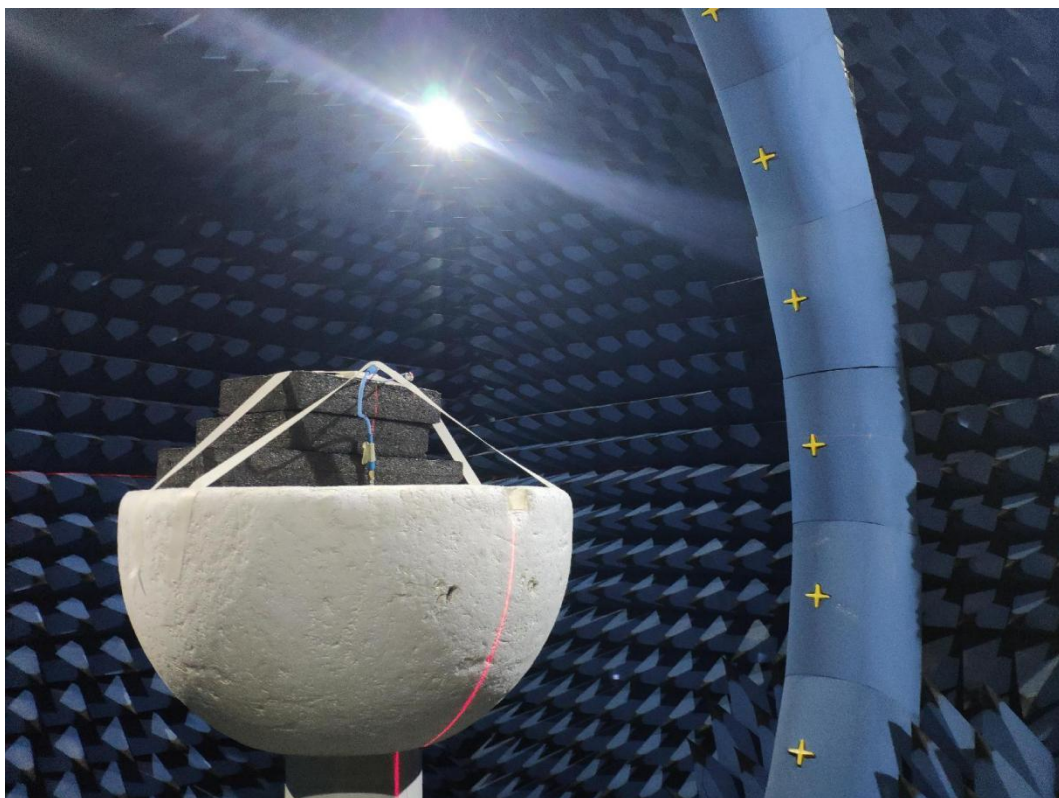
Outline Drawing

Figure 1. MAN1216A45G View (Unit: mm)



Radiation Pattern & Efficiency & Peak Gain

Figure 2. The Gain pattern is measured in FAR-field chamber



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Table 3. MAN1216A45G Zenith Gain&Axial Ratio

Item (MHz)	Zenith Gain (dBi)	AR (dB)	Item (MHz)	Zenith Gain (dBi)	AR (dB)
1164	1.57	2.16	1559	3.59	0.91
1165	1.77	2.09	1561	3.78	0.99
1166	1.97	2.03	1563	3.93	1.08
1167	2.15	1.96	1565	3.86	1.15
1168	2.26	1.91	1567	3.95	1.23
1169	2.40	1.85	1569	4.05	1.30
1170	2.53	1.78	1571	4.09	1.36
1171	2.66	1.72	1573	4.07	1.42
1172	2.77	1.65	1575	4.09	1.49
1173	2.87	1.60	1577	4.12	1.55
1174	2.94	1.57	1579	4.11	1.60
1175	3.00	1.54	1581	4.08	1.63
1176	3.04	1.52	1583	4.09	1.64
1177	3.06	1.50	1585	4.20	1.61
1178	3.06	1.55	1587	4.11	1.90
1179	3.02	1.56	1589	4.10	1.82
1180	2.96	1.59	1591	4.07	1.68
1181	2.88	1.64	1593	4.04	1.51
1182	2.79	1.71	1595	4.10	1.27
1183	2.68	1.77	1597	4.05	1.04
1184	2.57	1.85	1599	3.96	0.82
1185	2.44	1.93	1601	3.89	0.66
1186	2.27	2.01	1603	3.84	0.60
1187	2.08	2.10	1605	3.84	0.67
1188	1.91	2.30			
1189	1.70	2.40			

*Antenna performance will also change in different environments, it is recommended to consult the relevant technical personnel before use to confirm the layout to ensure good performance.

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Figure 3. MAN1216A45G Zenith Gain

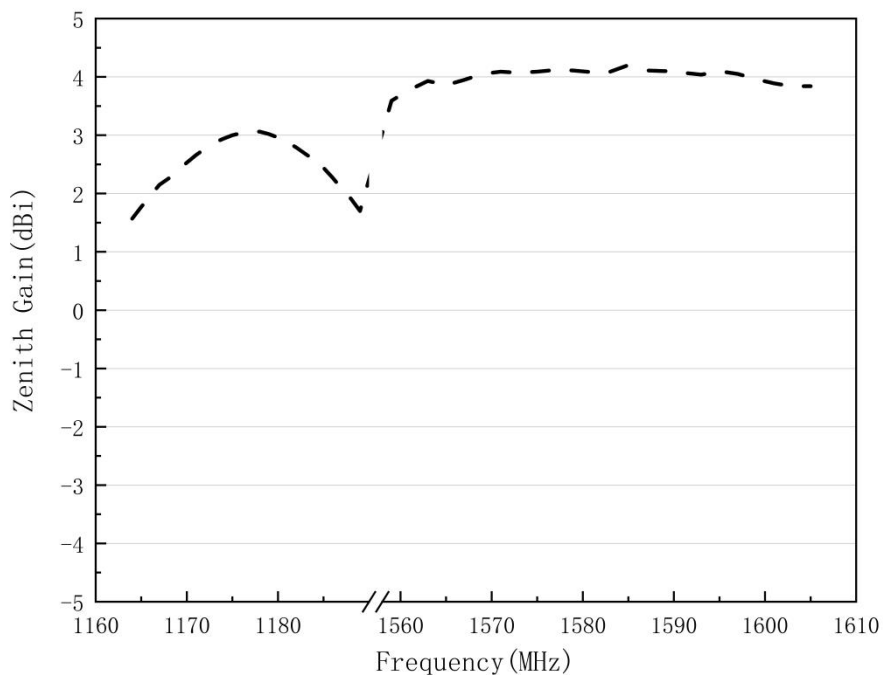
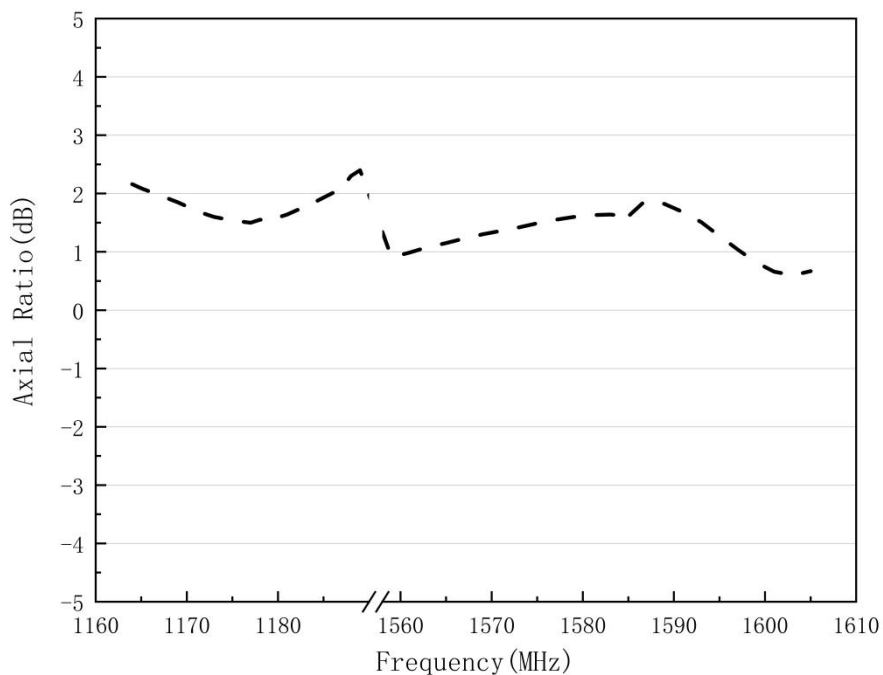


Figure 4. MAN1216A45G Axial Ratio

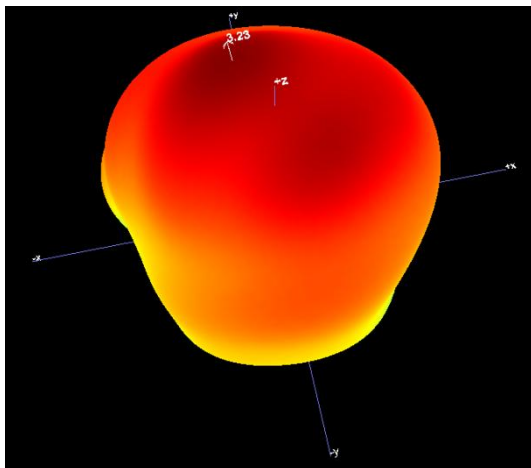


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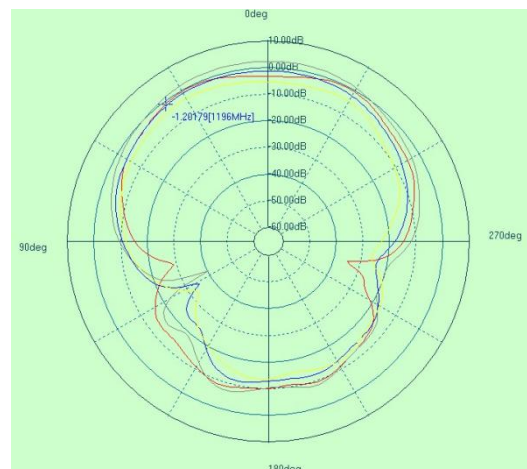
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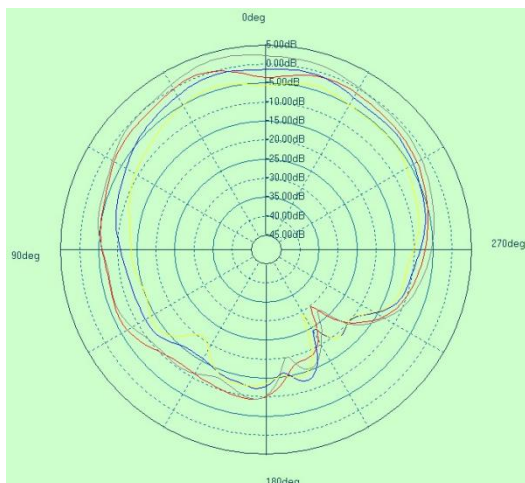
Figure 5. Radiation Pattern



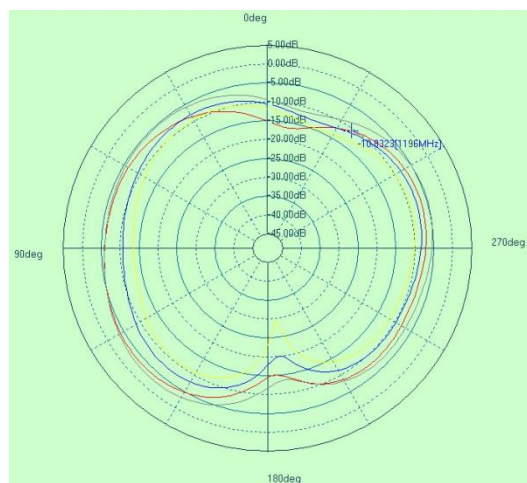
1176 MHz



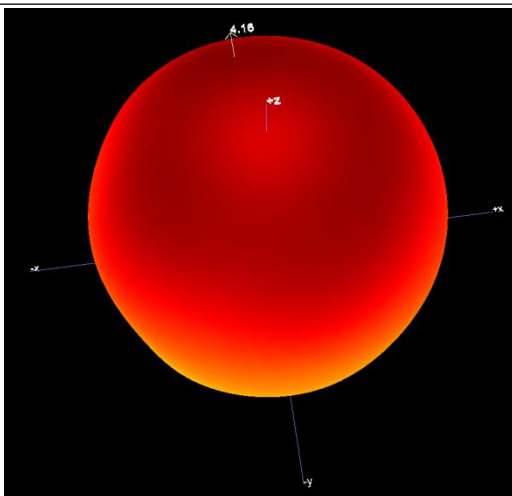
L Band XOZ Plane



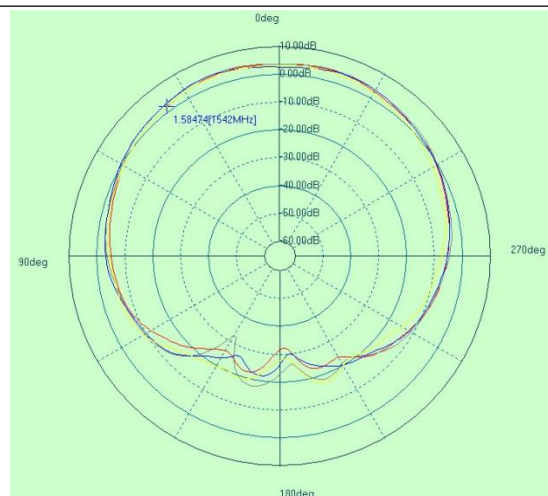
L Band YOZ Plane



L Band XOY Plane



1575 MHz



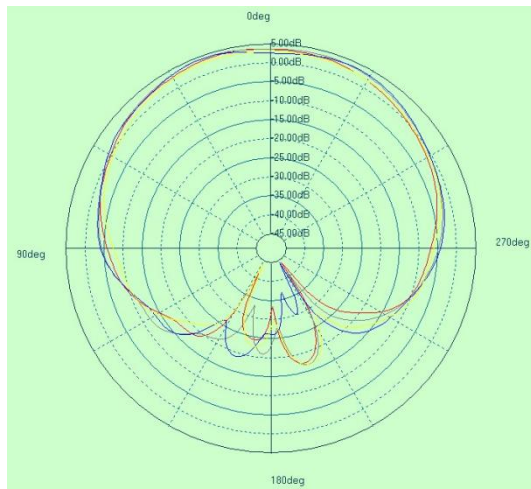
H Band XOZ Plane

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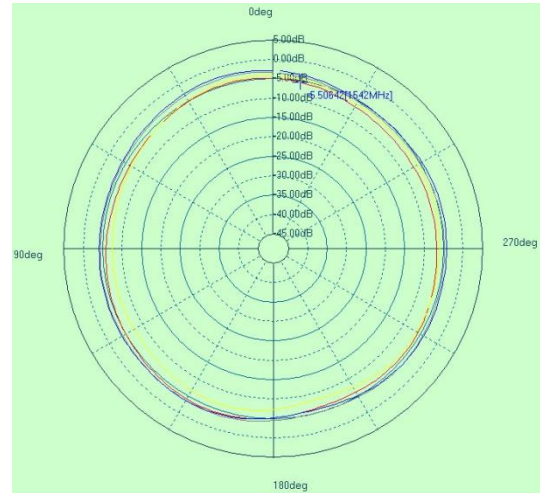
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H Band YOZ Plane



H Band XOY Plane

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Revision	Description	Date
Rev0	Preliminary	2024/8/30

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