



Product Name: HB45DF External Antenna

Part Number: H2MA803F104100

Features:

- Stable and reliable in performances
- Low temperature coefficient of frequency
- RoHS & REACH Compliant

Applications:

- Navigation systems or position tracking systems
- Car Navigation
- Security Surveillance

External Antenna

MODEL: HB45DF

Version: A

I. Patch antenna Specifications:

Items	Specifications		
Navigation	L1 Band		L5 Band
Center Frequency (MHz)	1575.42	1602	1176.45
Return loss (dB)	<-10 Typ.	<-10 Typ.	<-10 Typ.
Efficiency (%)	45 Typ.	46 Typ.	31 Typ.
Average Gain (dB)	-3.3 Typ.	-3.3 Typ.	-5.0 Typ.
Peak Gain (dBi)	2.2 Typ.	2.0 Typ.	0.2 Typ.
Polarization	RHCP		
Impedance (Ω)	50		

II. Low noise amplifier Specifications:

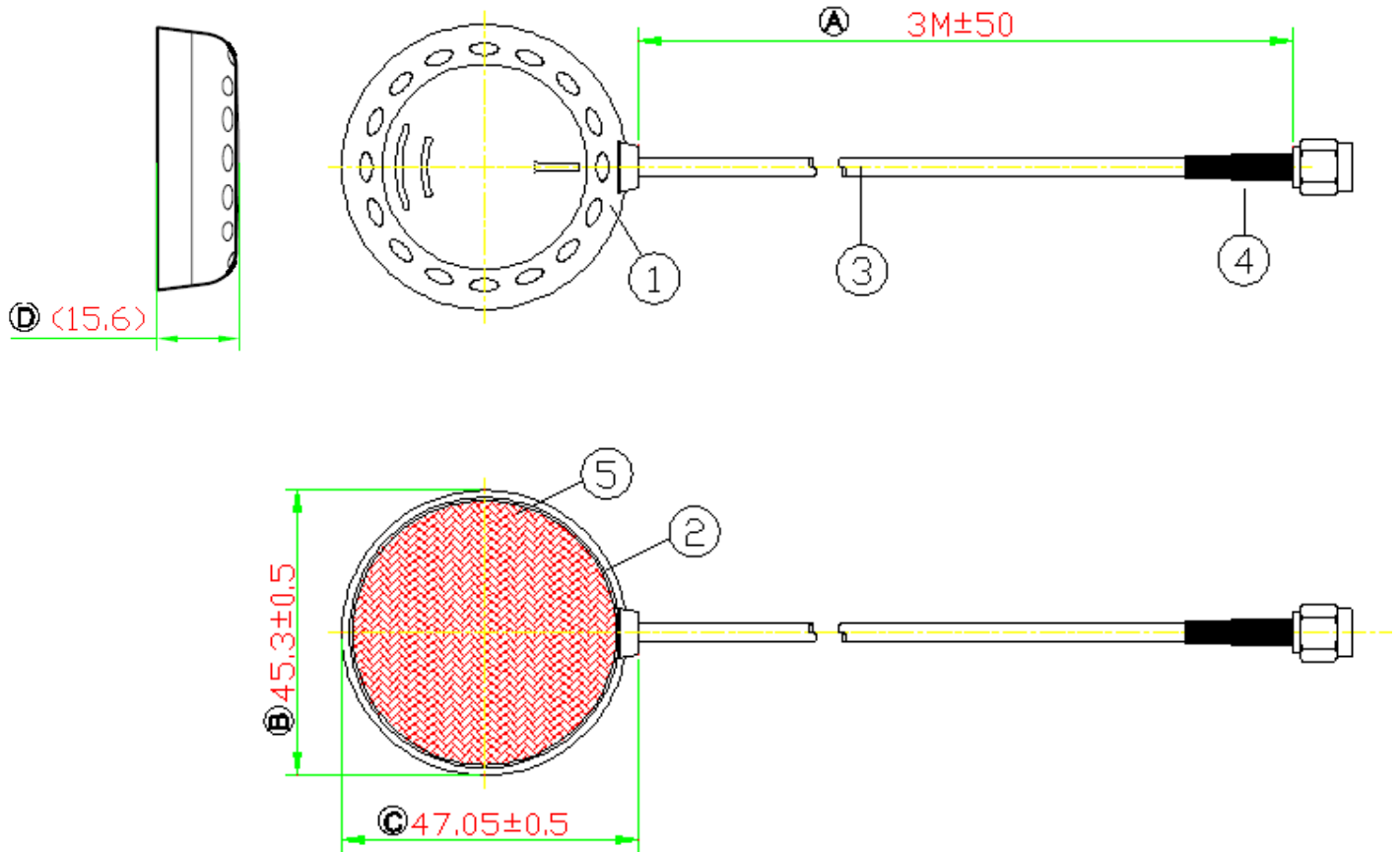
Items	Specifications		
Navigation	L1 Band		L5 Band
Center Frequency (MHz)	1575.42	1602	1176.45
Gain (dB)	28 \pm 3 Typ.	28 \pm 3 Typ.	28 \pm 3 Typ.
Noise Figure (dB)	3.0 Typ.	3.0 Typ.	3.0 Typ.
Input Voltage (V)	DC = 3.0 \pm 0.3		
Current (mA)	12.5 Typ. (at DC 3V)		
Impedance (Ω)	50		

Environmental Conditions	
Operation Temperature ($^{\circ}$ C)	-40 ~ +85
Storage Temperature ($^{\circ}$ C)	-5 ~ +40
Relative Humidity	10 ~ 70 %

© Unictron Technologies Corp. All specifications subject to change without notice.

III. Antenna Dimensions (unit: mm):

© Unictron
All specific



NOTE:

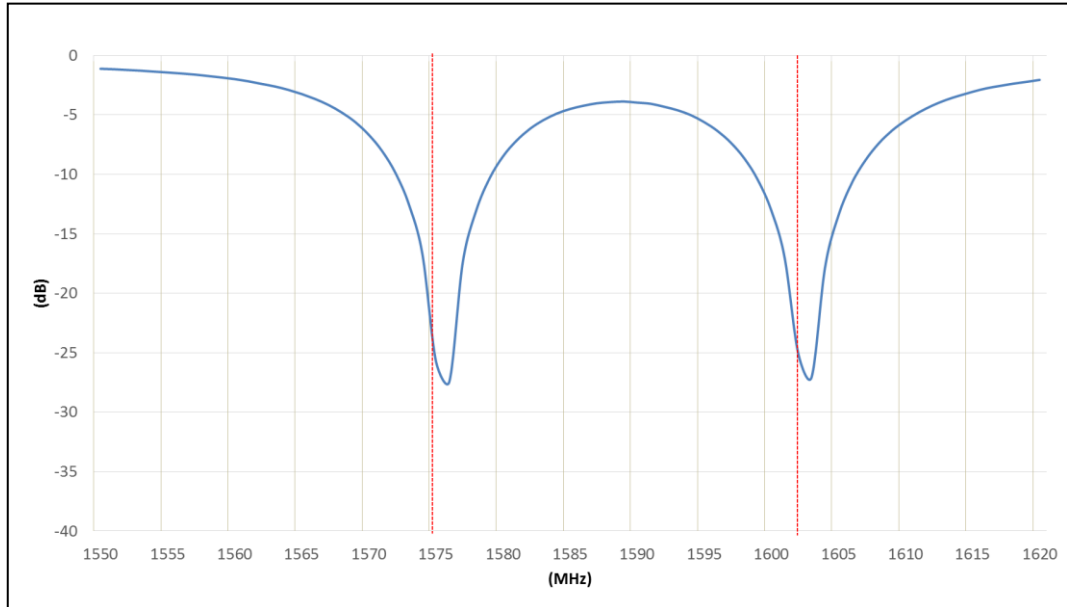
1. All materials are RoHS2.0 compliant.
2. "A~D" Critical Dimensions.
3. "()" Reference Dimensions.

Item	Name	Material	Color	Q'ty
1	Plastic Top Cover	ABS+PC	Black	1
2	Plastic Under Cover	ABS+PC	Black	1
3	Cable RG174 Φ 2.7mm	PVC	Black	1
4	Heat Shrinkable Tube	PE	Black	1
5	Adhesive	-	Black	1

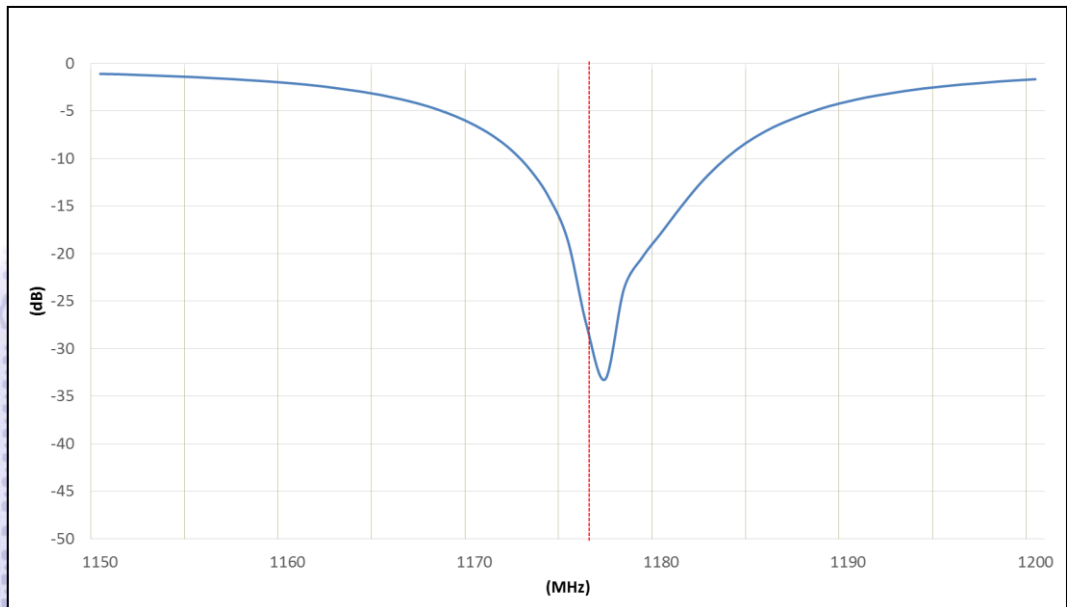
IV. Properties:

a) Return loss (dB)

L1 Band (1575.42 MHz & 1602MHz)

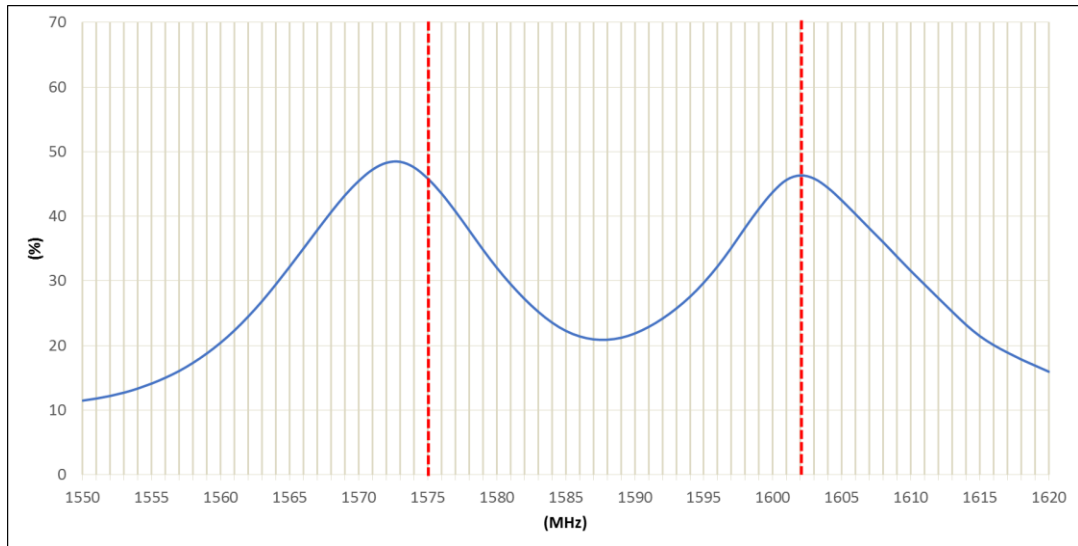


L5 Band (1176.45 MHz)

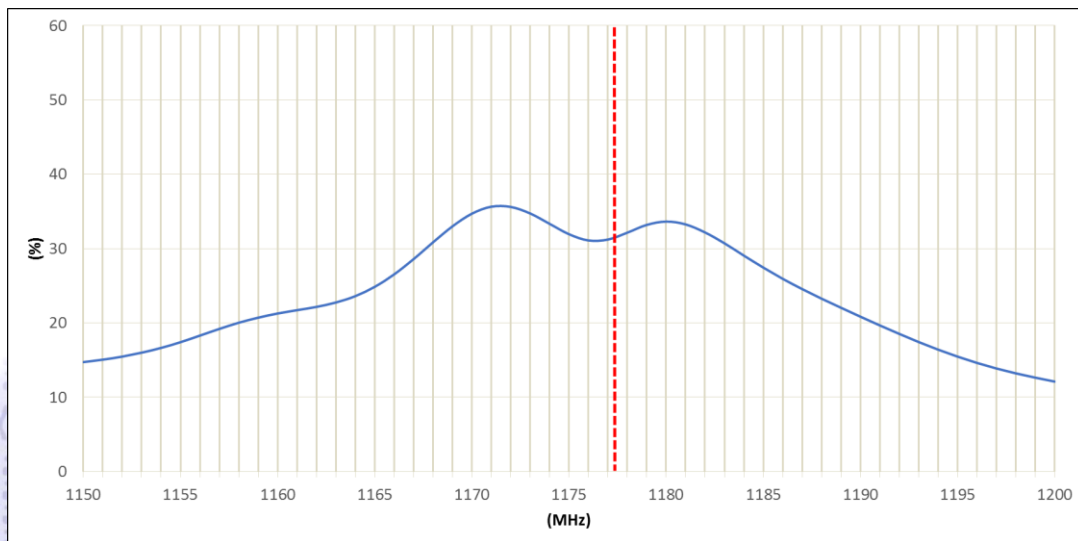


b) Efficiency (%)

L1 Band (1575.42 MHz & 1602MHz)



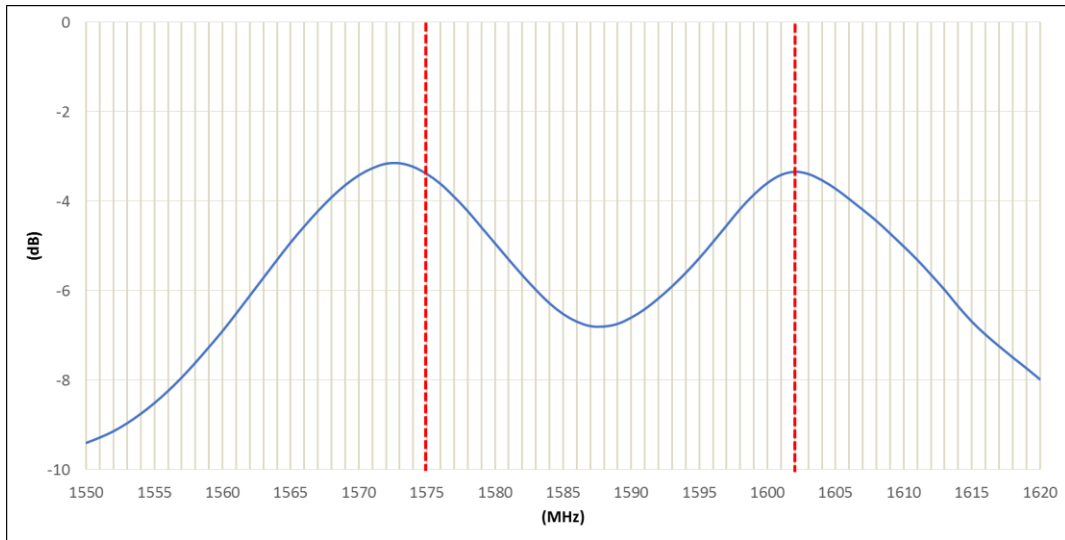
L5 Band (1176.45 MHz)



© Unictron Technologies Corp.
All specifications subject to change without notice.

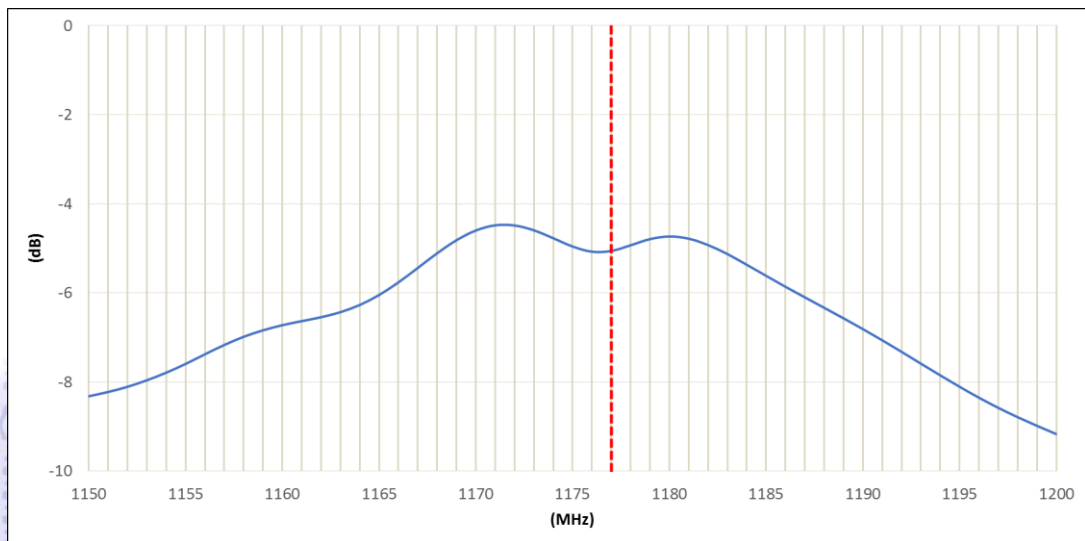
c) Average Gain (dB)

L1 Band (1575.42 MHz & 1602MHz)



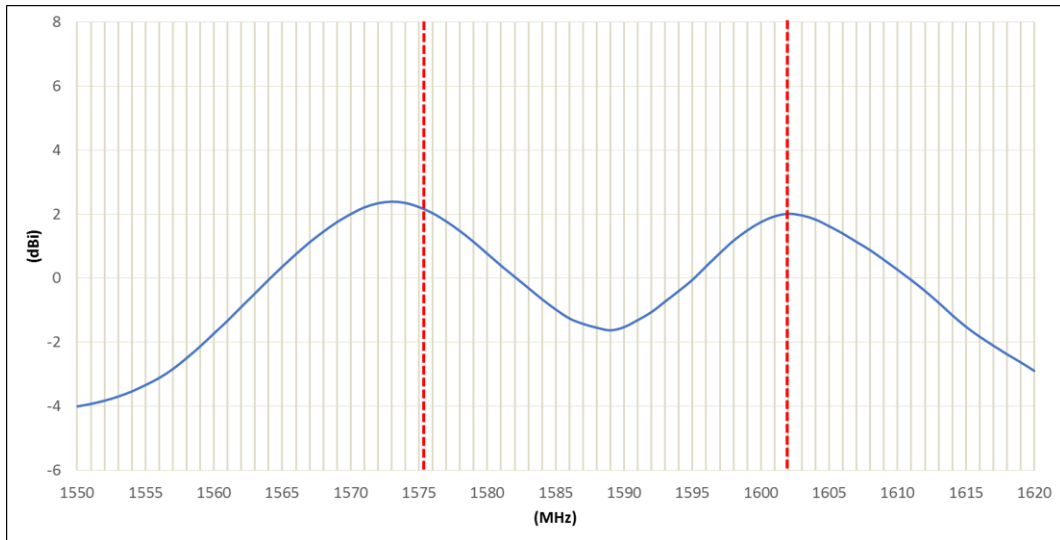
© Unictron Technologies Corp.
All specifications subject to change without notice.

L5 Band (1176.45 MHz)

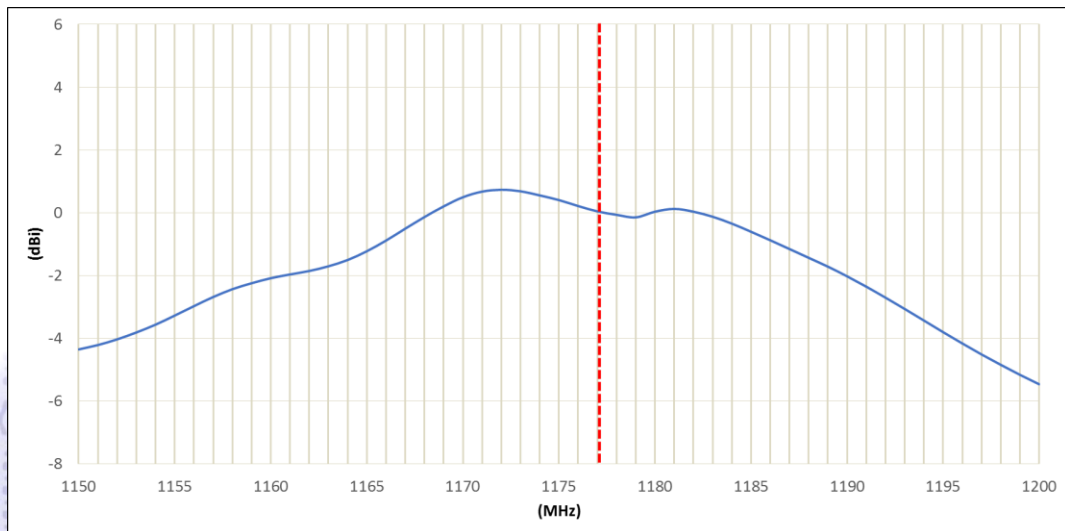


d) Peak Gain (dBi)

L1 Band (1575.42 MHz & 1602MHz)



L5 Band (1176.45 MHz)



© Unictron Technologies Corp.
All specifications subject to change without notice.

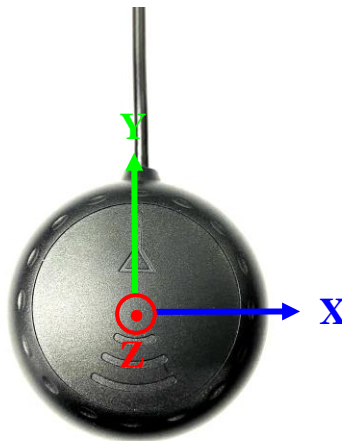
V. Antenna Radiation Pattern Measurement:

The antenna radiation patterns are measured in Unictron's 3D Anechoic Chamber. The measurement setup is as show below.

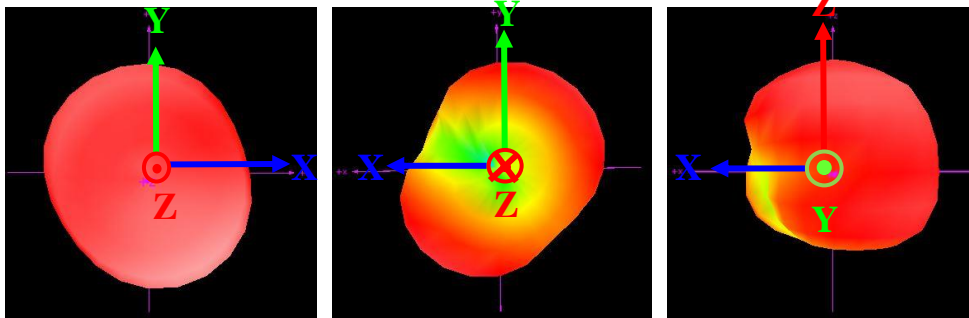


© Unictron Technologies Corp.
All specifications subject to change without notice.

3D Radiation Gain Pattern

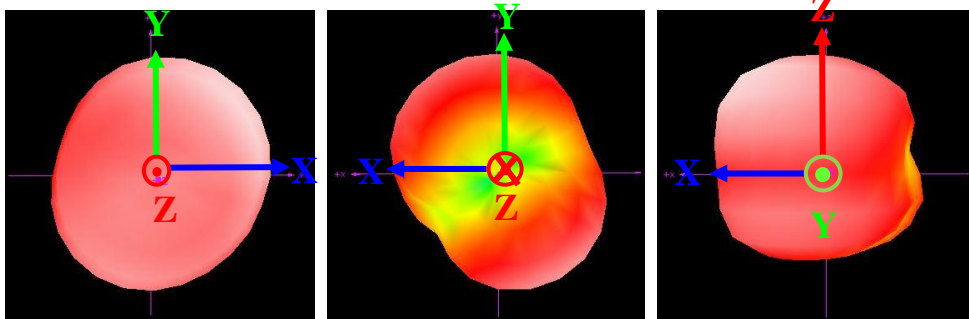


a) 1575.42 MHz (unit: dBi)

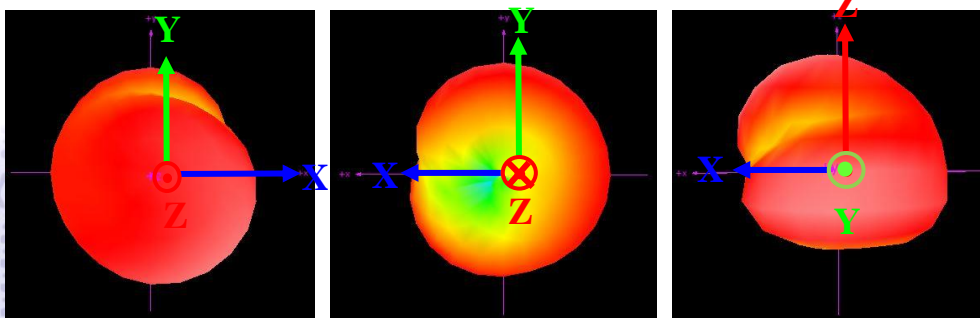


© Unictron Technologies Corp.
All specifications subject to change without notice.

b) 1602MHz (unit: dBi)






c) 1176.45 MHz (unit: dBi)



VI. Package

- a) Weight:
Unit Weight: 210 ± 25 (g)
- b) Quantity:
Each PE : 1 pcs
Each outer carton : 100 pcs

© Unictron Technologies Corp.
All specifications subject to change without notice.

Step	Pictures	Descriptions												
1		First, put one antenna into a PE bag (160x165 mm), PE bags are sealed by sealing machine .												
2		Put all the PE bags into the carton. Each carton should contain 100 pcs of antenna.												
3	 <table border="1" data-bbox="491 1765 737 1937"> <tr> <td>Unictron P/N :</td> <td>H2M3A023C20100</td> </tr> <tr> <td>Part No. :</td> <td>120300000230A</td> </tr> <tr> <td>PO No. :</td> <td>DSR1805074JA</td> </tr> <tr> <td>Q'TY :</td> <td>100 PCS</td> </tr> <tr> <td>D/C :</td> <td>1821</td> </tr> <tr> <td>DATE :</td> <td>2018.05.21</td> </tr> </table>	Unictron P/N :	H2M3A023C20100	Part No. :	120300000230A	PO No. :	DSR1805074JA	Q'TY :	100 PCS	D/C :	1821	DATE :	2018.05.21	After wrapping the carton, place the barcode label on the top right corner of the carton.
Unictron P/N :	H2M3A023C20100													
Part No. :	120300000230A													
PO No. :	DSR1805074JA													
Q'TY :	100 PCS													
D/C :	1821													
DATE :	2018.05.21													