



WHA YU INDUSTRIAL CO., LTD.(HEAD OFFICE)
DONGGUAN AEON TECH CO.,LTD.(CHINA)
SUZHOU AEON TECH CO.,LTD.(CHINA)
AEON TECH (SHANGHAI) CO.,LTD(CHINA)
DONGGUAN PARNER TECH CO.,LTD.(CHINA)

SPECIFICATION FOR APPROVAL

CUSTOMER: 優必閣

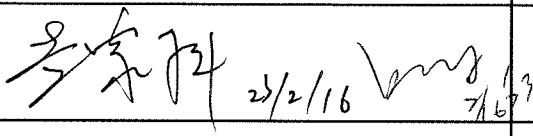
PART NAME: Outdoor Omni Antenna Assembly

PART NO.: M701-3C333075

REVISION:

W. Y. P/NO.: C1991-690054-A(SRF2023215)

REV.: X1

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
APPROVED BY :		
DATE :		

WHA YU GROUP

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RF Omni Antenna Assembly

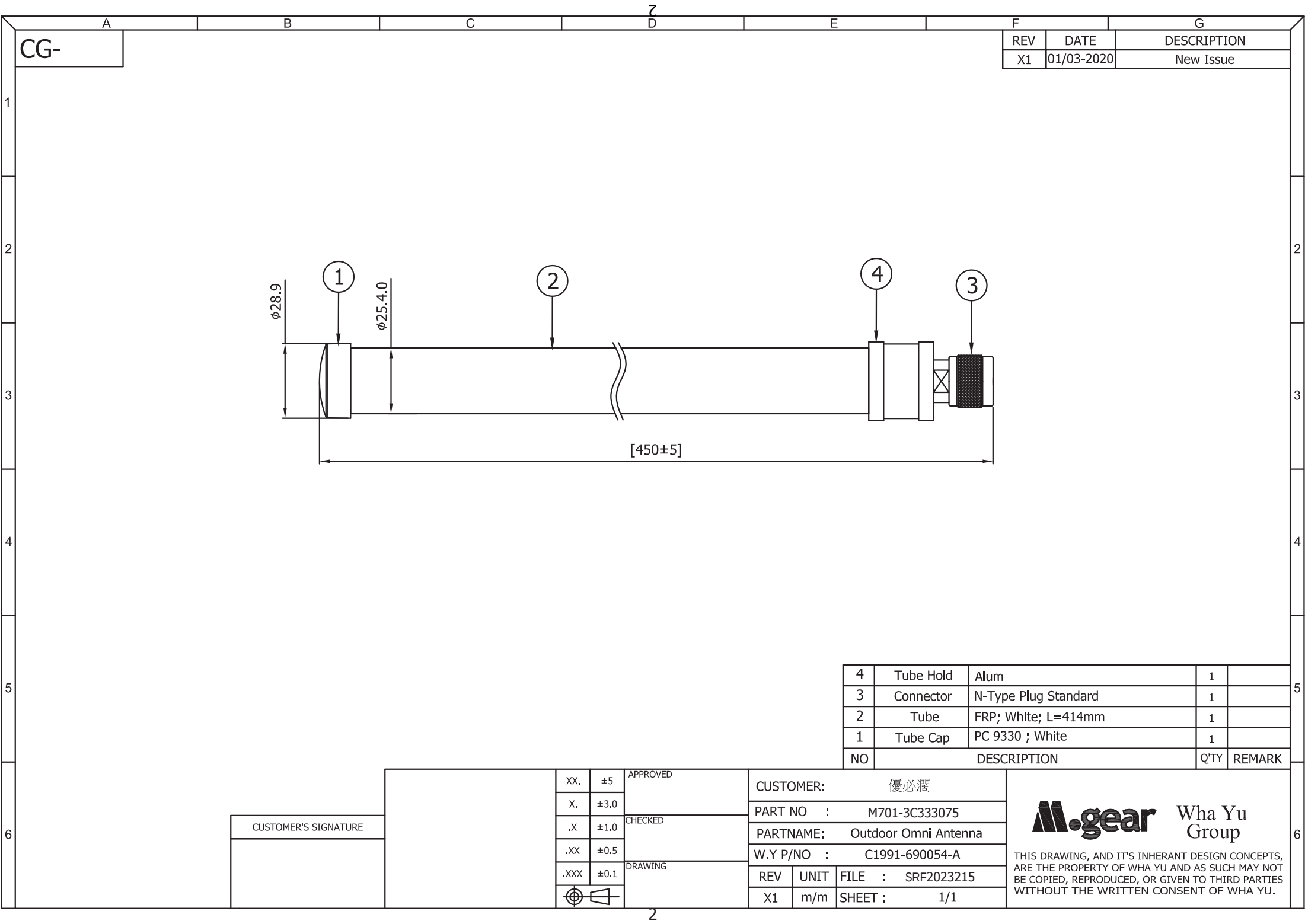
Specification

1. Electrical Properties (With Radome)

- 1.1 Frequency Range..... 0.70~0.96 GHz
- 1.2 Impedance 50Ω Nominal
- 1.3 VSWR 3 : 1 Max.
- 1.4 Return Loss..... -6 dB Max.
- 1.5 Radiation Omni-directional
- 1.6 Peak Gain..... 3dBi@0.70~0.96GHz
- 1.7 Polarization..... Linear(Vertical or Horizontal)
- 1.8 Cable..... RG-178 Coaxial Cable; Brown
- 1.9 Connector..... N Stright Plug

2. Physical Properties :

- 2.1 Operating Temp. -30°C ~ +75°C
- 2.2 Storage Temp. -40°C ~ +85°C



CG-

F		G
REV	DATE	DESCRIPTION
X1	01/03-2020	New Issue

4	Tube Hold	Alum	1	
3	Connector	N-Type Plug Standard	1	
2	Tube	FRP; White; L=414mm	1	
1	Tube Cap	PC 9330 ; White	1	
NO	DESCRIPTION		Q'TY	REMARK

CUSTOMER'S SIGNATURE	XX.	±5	APPROVED	CUSTOMER: 優必潤		
	X.	±3.0		PART NO : M701-3C333075		
	.X	±1.0	CHECKED	PARTNAME: Outdoor Omni Antenna		
	.XX	±0.5		W.Y P/NO : C1991-690054-A		
	.XXX	±0.1	DRAWING	REV	UNIT	FILE : SRF2023215
				X1	m/m	SHEET : 1/1

 Wha Yu Group

THIS DRAWING, AND IT'S INHERANT DESIGN CONCEPTS, ARE THE PROPERTY OF WHA YU AND AS SUCH MAY NOT BE COPIED, REPRODUCED, OR GIVEN TO THIRD PARTIES WITHOUT THE WRITTEN CONSENT OF WHA YU.

Antenna Testing Report

700MHz-960 MHz

NE3-19168

Document Number:

Version: 4.0

Released Date: 2023/02/10

Prepared By: BOBO

Reviewed By: J.H.



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- Revised History
- Conclusion & Comments
- Specification
- Antenna Placement & Solution
- VSWR Results
- Test Setup for Radiation Pattern Measurement
- 2D Radiation Pattern Results
- Results Summary (peak gain, efficiency)

Revision History

Released Date	Version	Record
2019/12/31	1.0	Antenna Testing Report
2022/12/05	2.0	Optimized antenna performance.
2022/12/30	3.0	add test frequency.
2023/02/10	4.0	add test frequency.(926.3MHz) The customer provided antenna .

Summary & Comments

Antenna Performance Summary

- use dipole structure

Specification

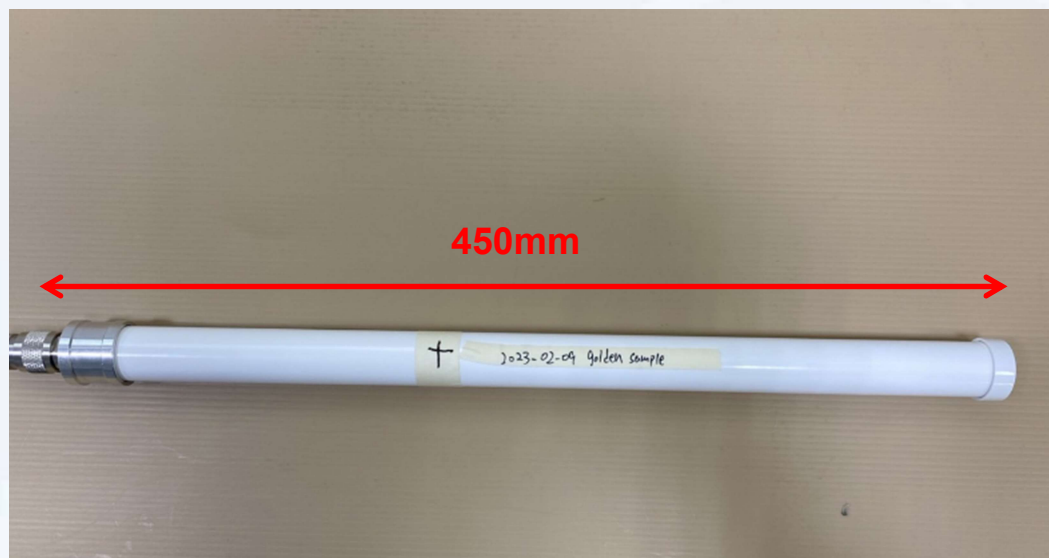
Requirements of Antenna Design

Number of ANT	Frequency Band	Remark
1	700~960 (MHz)	

Requirements of Measurement

Test Item	Specification	Remark
VSWR	<3	
Peak gain	> 3 dBi	
Efficiency	> 60%	

Antenna Placement & Solution

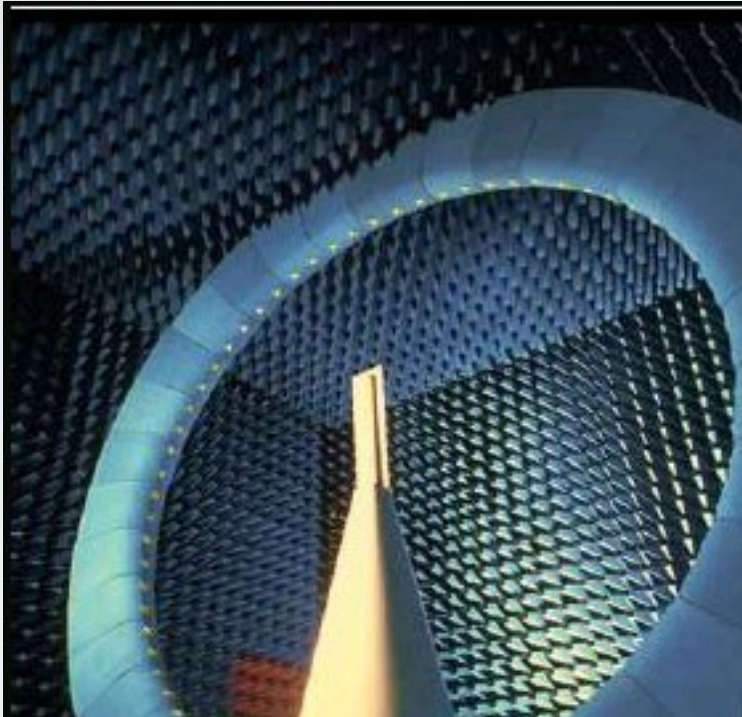


Size	Cable Length (mm)	Cable Type
450mm	35	RG178

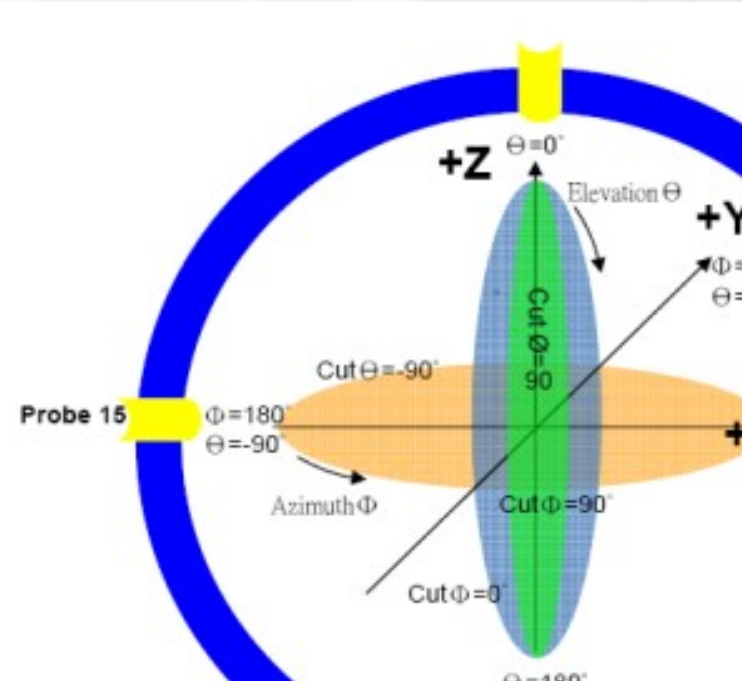
VSWR Results



Test Setup for Radiation Pattern Measurement

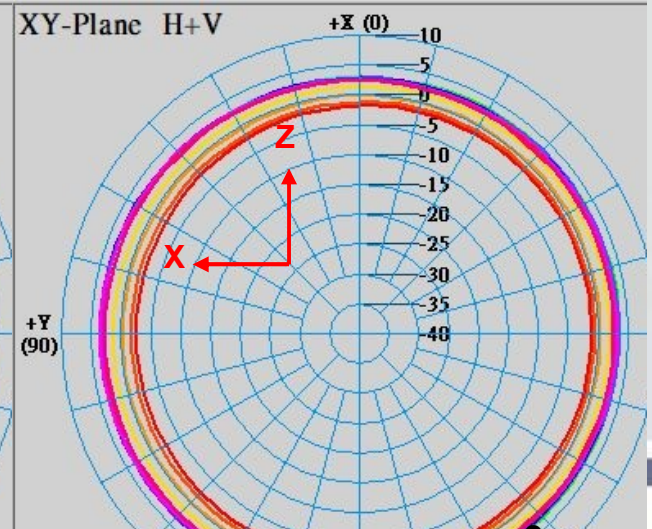
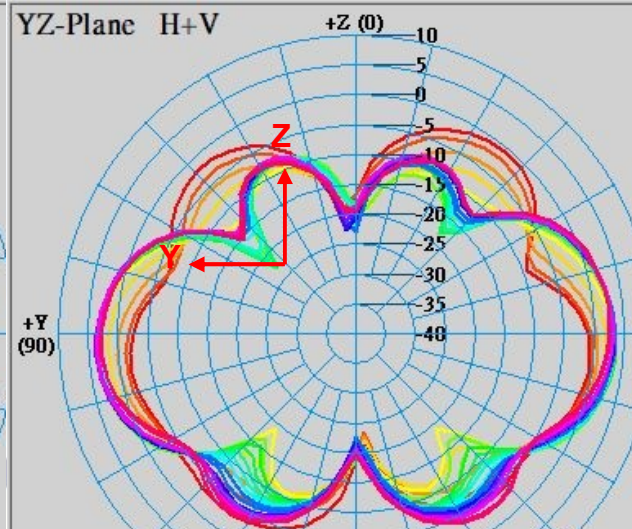
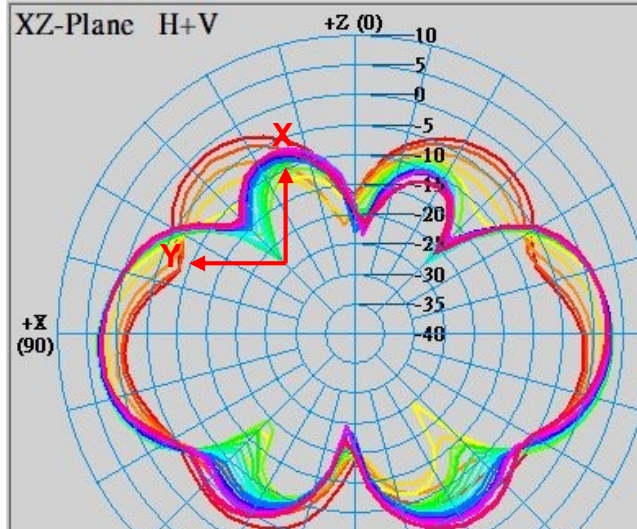
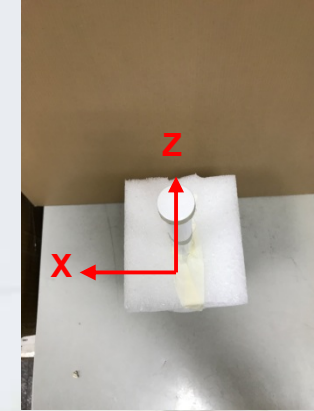
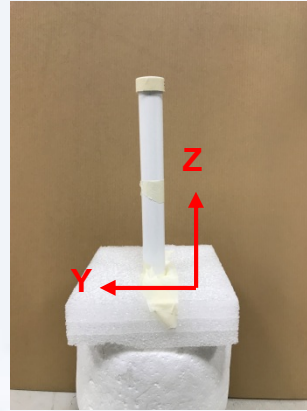
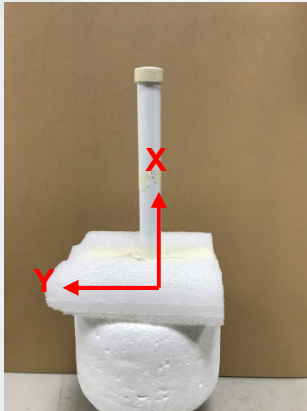


Chamber	Brand	Model	Location
SATIMO	SATIMO	SG-64	Taiwan HsinChu



	θ	ϕ
Total angle	175°	360°
How many angle scan one point	5°	5°
Total scan point	36	73

2D Radiation Pattern Results



Results Summary

Peak Gain

Peak Gain



Peak Gain (dBi)	
Frequency (MHz)	Ant.1
700	-0.92
725	-1.51
750	0.52
775	1.88
800	2.52
825	3.87
839	3.76
840	3.46
850	3.56
860	3.66
870	3.54
880	3.64
890	3.25
900	3.61
910	3.41
915	3.18
920	2.70
926.3	2.65
930	2.59
950	2.59
960	2.50

Results Summary

Efficiency

Efficiency



Efficiency (%)	
Frequency (MHz)	Ant.1
700	44.58
725	35.58
750	48.31
775	57.18
800	62.06
825	69.62
839	71.29
840	69.39
850	71.07
860	69.71
870	71.32
880	70.89
890	67.77
900	69.20
910	63.01
915	61.41
920	57.24
926.3	57.16
930	58.06
950	56.99
960	54.41