



Specification For Approval

Antenna Type	PF – ANT
Model Name	WPM-2400T – ANT
Part No	

SAE HAN ANTENNA CO.,LTD

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1. Specification

1.1. General Specification

General specification	
Model name	WPM – 2400T
Antenna type	1/4 Wavelength PF Antenna

1.2. Electrical Specification

Electrical specification	
Center Frequency	2438MHz
Frequency Range	2400MHz – 2500MHz
V.S.W.R	Less Than 2.0
Gain(dBi)	2.05dBi (Max)
Radiation pattern	Omni-directional
Polarization	Vertical
Impedance	50 Ω Normal $\pm$ 20

1.3. Mechanical Specification

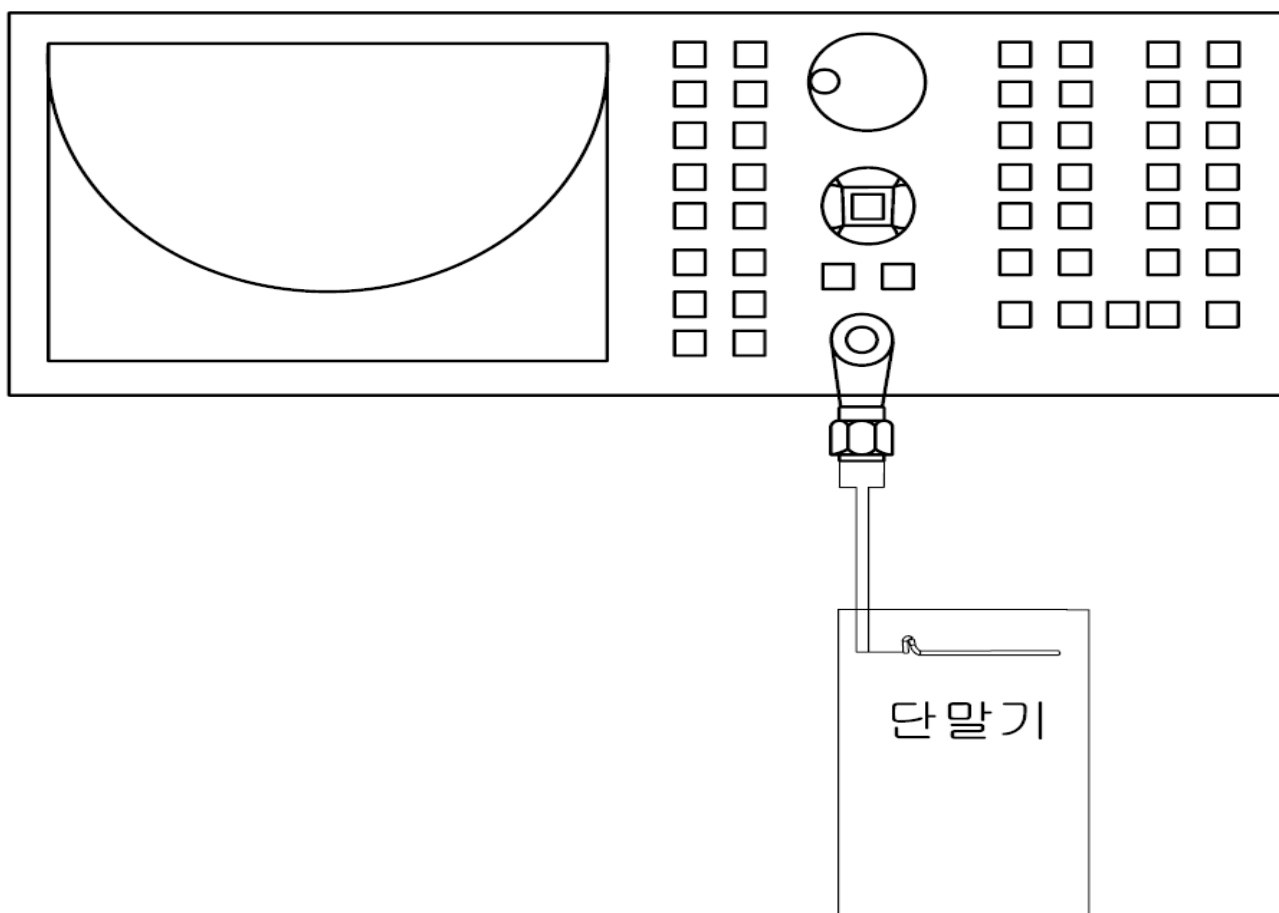
Mechanical specification	
Connector Type	Soldering
Cover Material	Drawing reference
Color	Silver
Temperature Range	-45℃ ~ +85℃
Weight	1g $\pm$ 0.2g
Dimension	Drawing reference

2. V.S.W.R Test

① Network Analyzer Spec

Equipment	Model	Specification
Network Analyzer	HP8753ES	· Freq. Range : 300KHz ~ 6GHz
Calibration Kit	HP85032B	· DC ~ 6GHz (SMA-Type)

② Network Analyzer test method



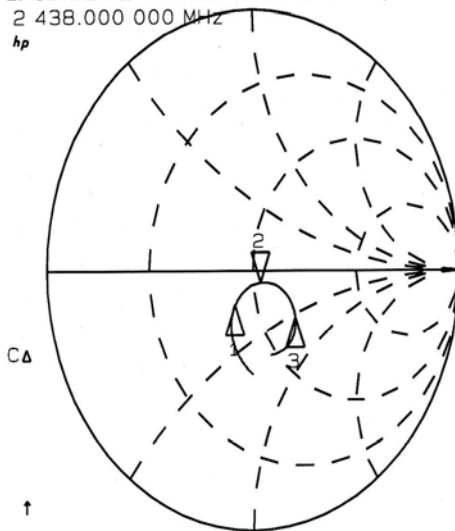
2.1 V.S.W.R

DATA

9 Mar 2010 16:18:44

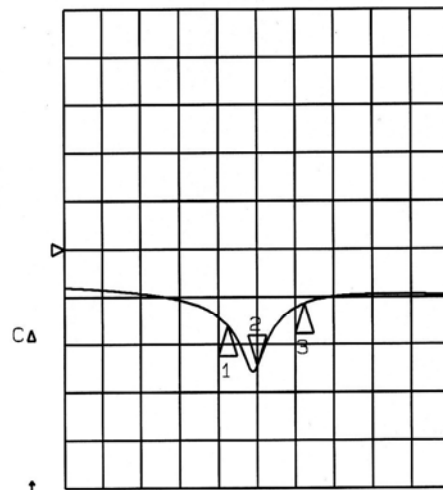
CH1 S11 1 U FS
2: 53.824 Ω -4.8945 Ω 13.338 pF
2 438.000 000 MHz

CH3 LOG 10 dB/ REF 0 dB
S11 2: -24.468 dB 2 438.000 000 MHz



CH1 Markers

1: 40.762 Ω
-10.814 Ω
2.40000 GHz
3: 69.895 Ω
-26.836 Ω
2.50000 GHz



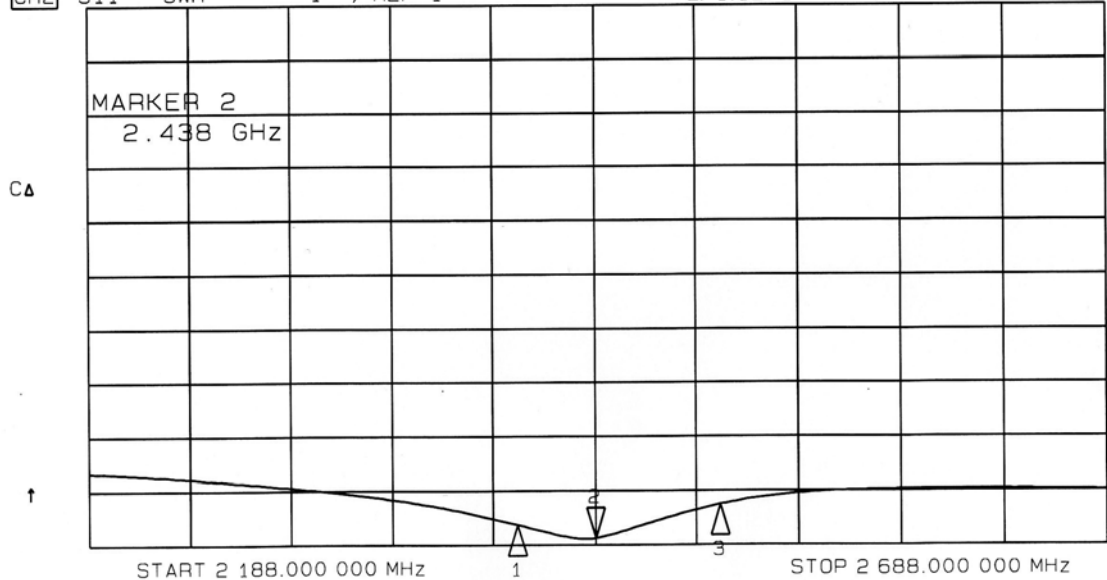
CH3 Markers

1: -16.161 dB
2.40000 GHz
3: -11.313 dB
2.50000 GHz

CENTR 2438.000 MHz SPAN 500.000 MHz

CENTR 2438.000 MHz SPAN 500.000 MHz

CH2 S11 SWR 1 / REF 1 2: 1.1271 2 438.000 000 MHz



CH2 Markers

1: 1.3686
2.40000 GHz
3: 1.7467
2.50000 GHz

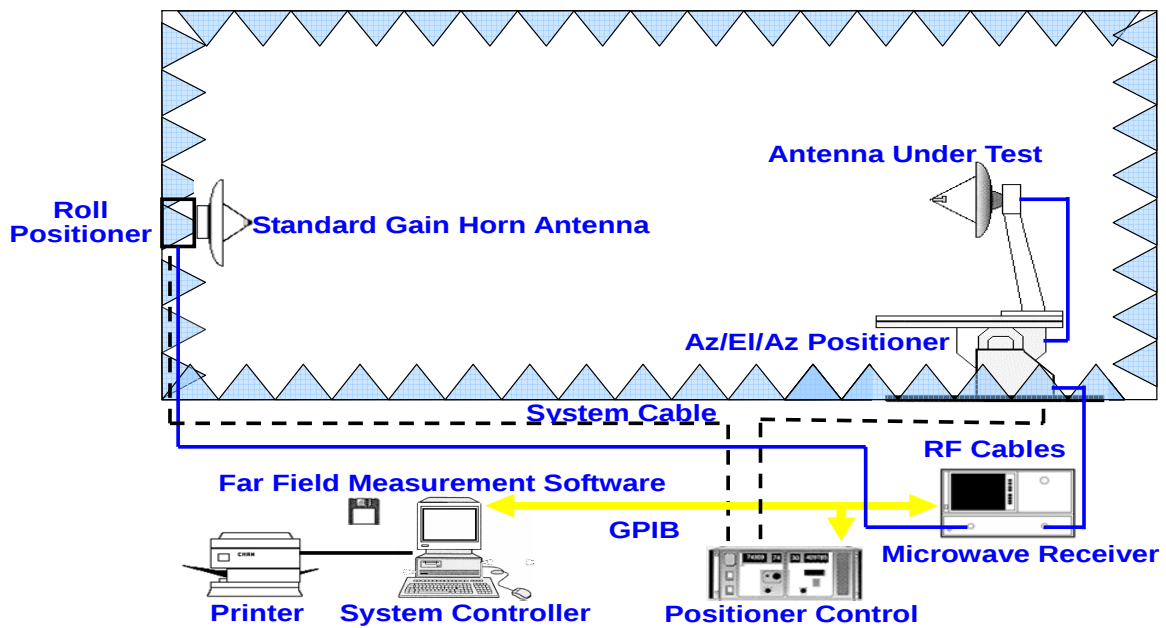
Frequency	V.S.W.R	비	고
2400 MHz	1.36		
2450MHz	1.27		
2500MHz	1.74		

2.2 Gain & Beam Pattern Test

① Chamber Spec

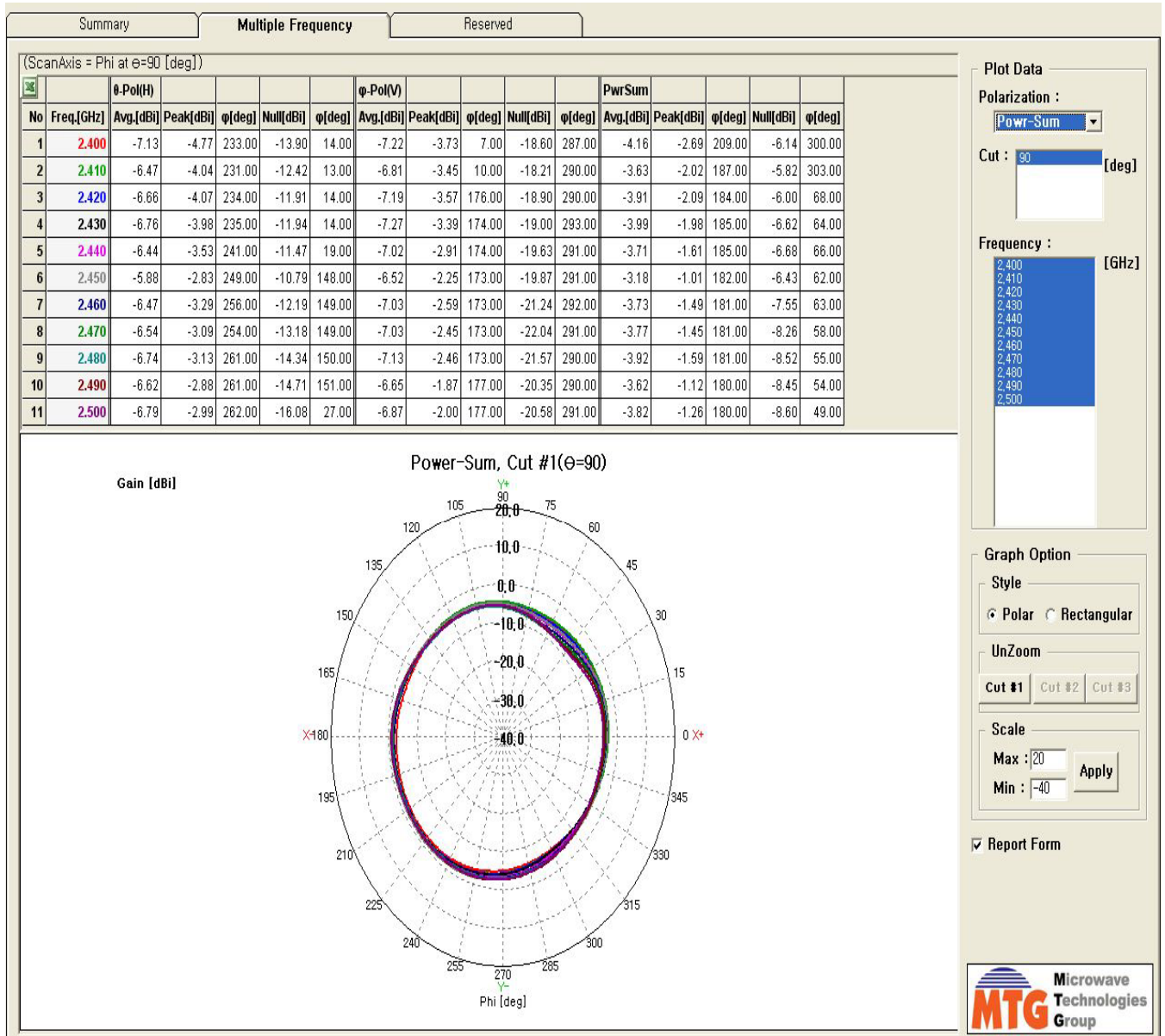
Section	Specification
Chamber Size	5(L)m X 5.5(W)m X 5(H)m
Frequency Range	800MHz – 60GHz (Far Field)
Quiet Zon	1m X 1 m @ 1GHz
Type	Rectangular
Antenna weight	< 50 kg

② Chamber Test method



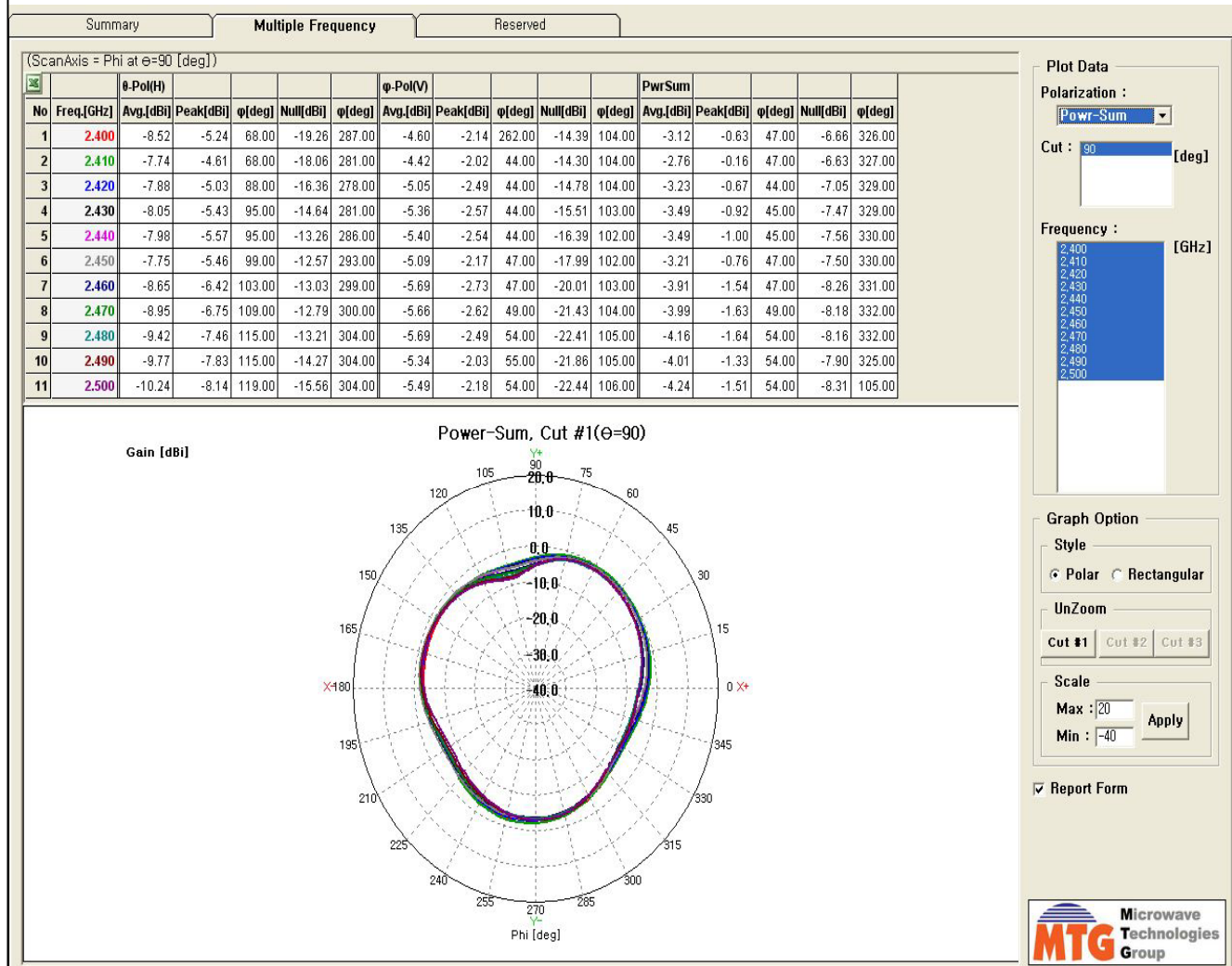
2.3. Gain & Beam Pattern

H-Plane



주 파 수	Gain(Max)	비 고
2400MHz	-2.69dBi	
2450MHz	-1.01dBi	
2500MHz	-1.28dBi	

E-Plane



Frequency	Gain(Max)	비고
2400MHz	-0.63dBi	
2450MHz	-0.76dBi	
2500MHz	-1.51dBi	