

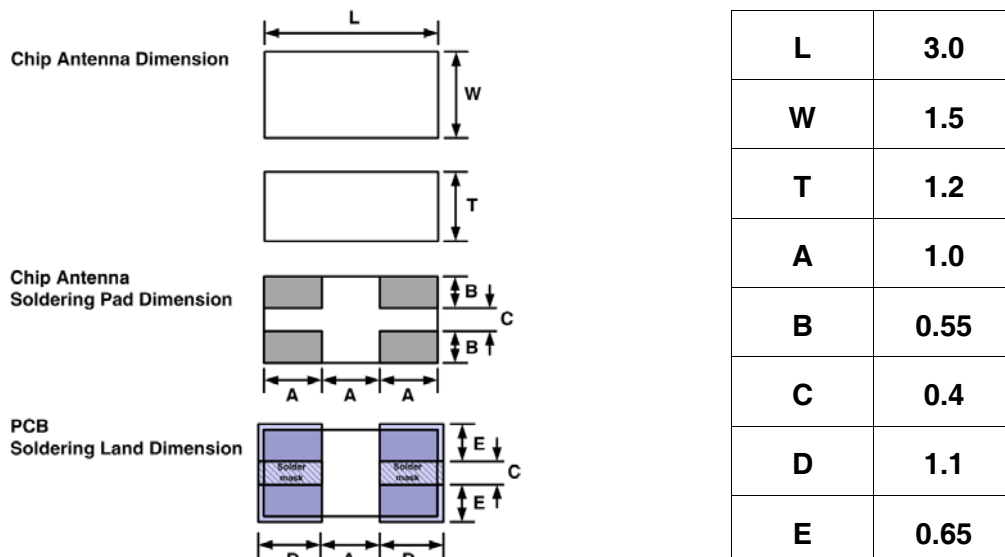
Dielectric Chip Antenna



■ P/N : **ODBTPT3015**

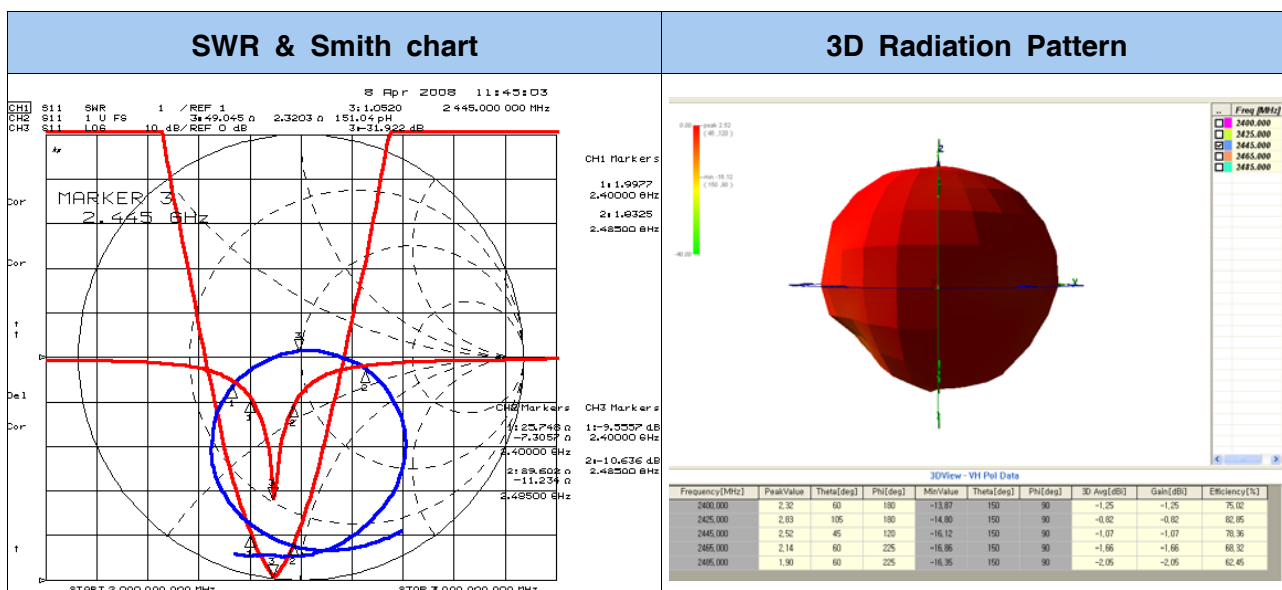
This specification covers the dielectric chip antenna ODBTPT3015 used in Bluetooth

■ **MECHANICAL DIMENSION** (unit : mm, tolerance : ± 0.1)



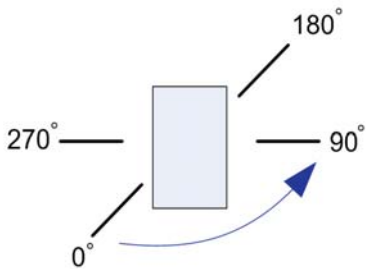
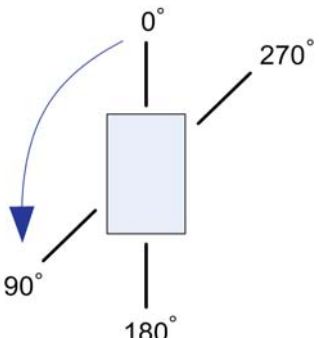
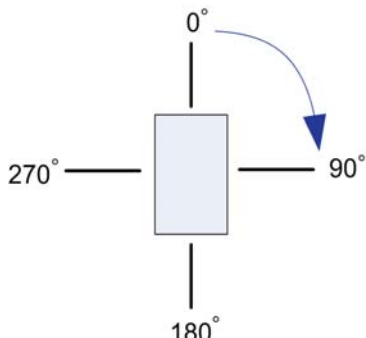
■ **ELECTRICAL CHARACTERISTICS**

ITEM		SPEC				
Frequency Range		2400 ~ 2485 MHz				
VSWR		3:1 Max				
Polarization		Linear				
Frequency [MHz]		2400	2425	2445	2465	2485
Gain [dBi]	Peak	2.32	2.83	2.52	2.14	1.90
	Average	-1.25	-0.82	-1.07	-1.66	-2.05
Efficiency [%]		75.02	82.85	78.36	68.32	62.45



ELECTRICAL CHARACTERISTICS (2D)

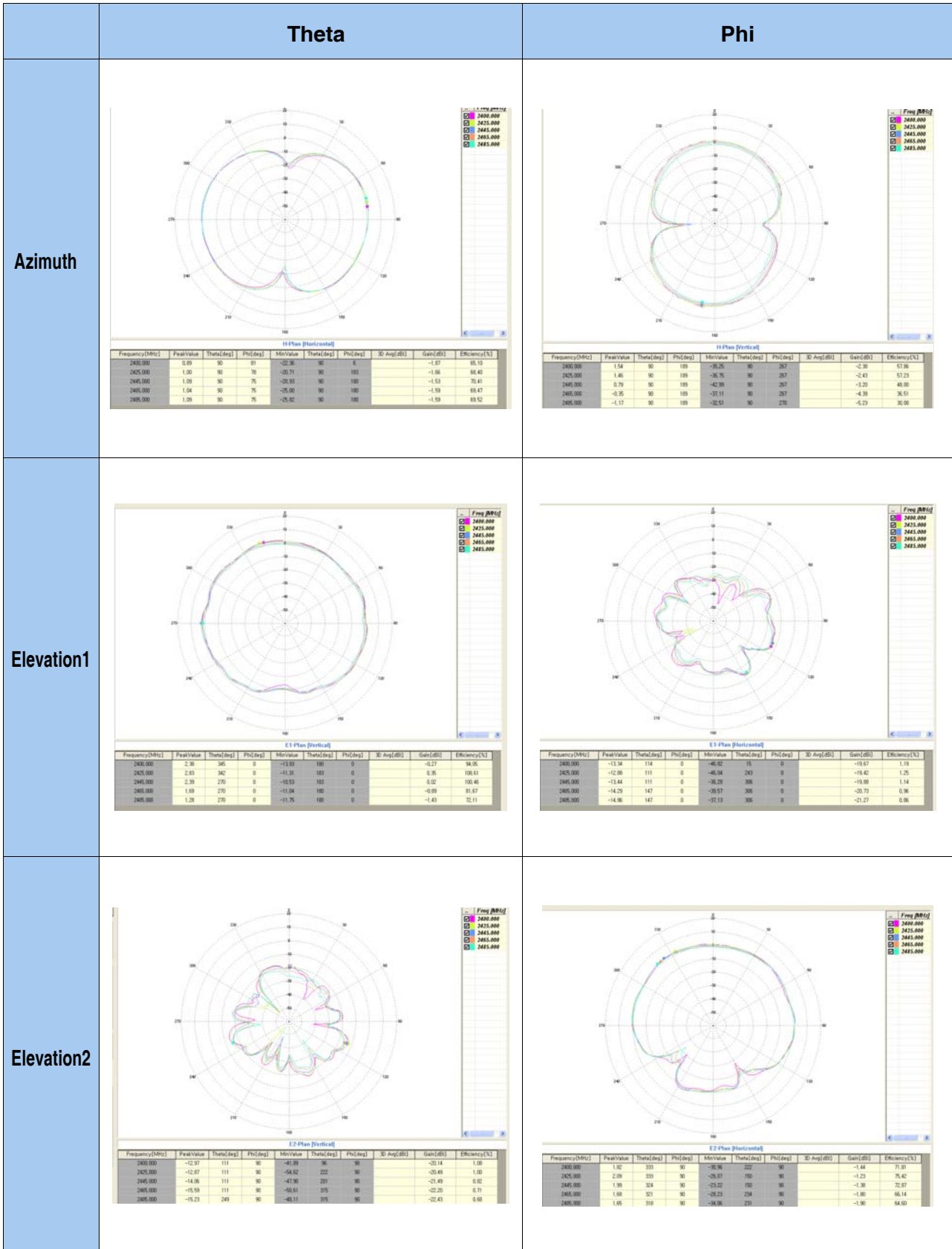
2D Measurement				
Gain	Azimuth	Theta	Peak	1.09
			Average	-1.53
		Phi	Peak	1.54
			Average	-2.38
	Elevation 1	Theta	Peak	2.83
			Average	0.35
		Phi	Peak	-12.88
			Average	-19.42
	Elevation 2	Theta	Peak	-12.97
			Average	-20.14
		Phi	Peak	2.09
			Average	-1.23

Azimuth Plane	Elevation1 Plane	Elevation2 Plane
		
Theta	Vertical field of measured plane	
Phi	Horizontal field of measured plane	

Dielectric Chip Antenna



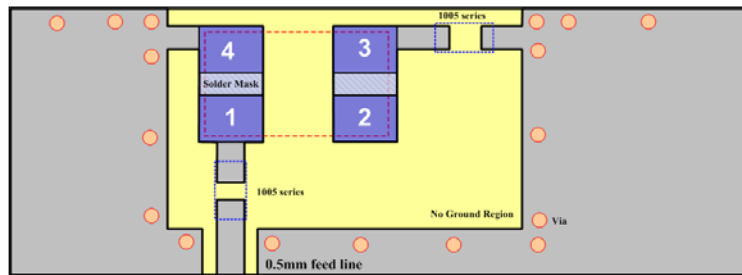
2D RADIATION PATTERN



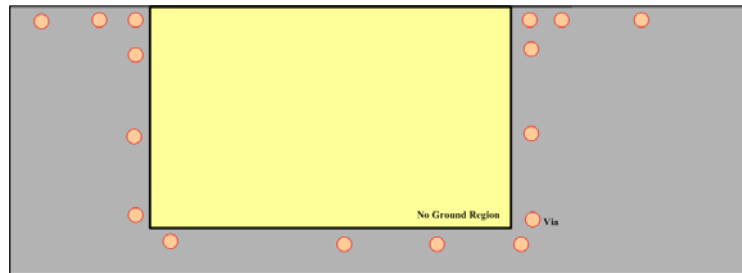
Dielectric Chip Antenna



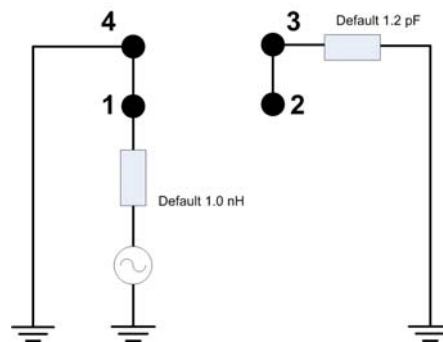
■ FEEDING METHOD (unit : mm, tolerance : ± 0.05)



< Top View >

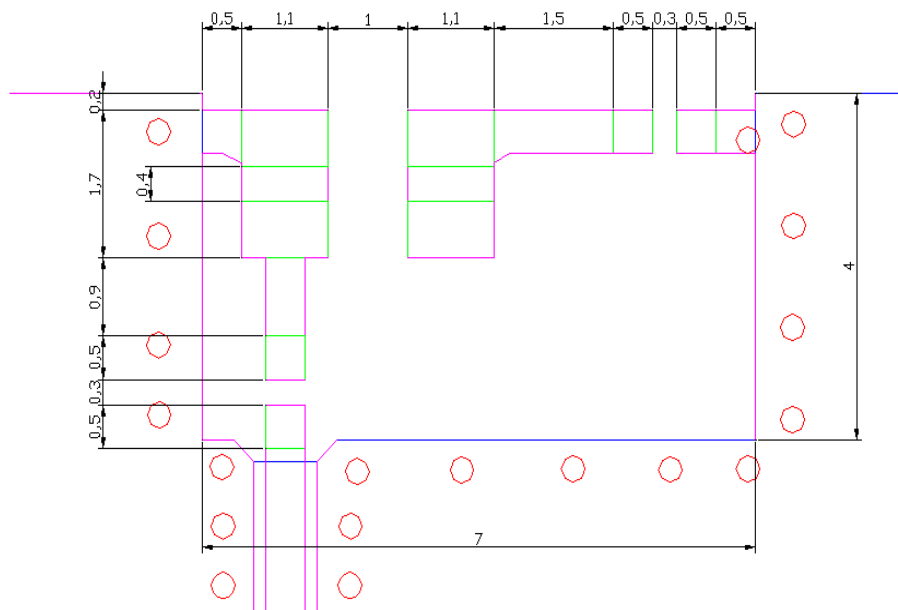


< Bottom View >



< Default Condition Equivalent Circuit >

■ AutoCAD Drawing of Reference PCB Design



APPROVAL SHEET

CUSTOMER: 아젠텍

TYPE	DIELECTRIC PATCH ANTENNA
PART NO.	KSA-SP938MS25P15
SPEC NO.	R&D1-PA-1210A
DATE	August 27, 2012

DESIGN	CHECK	APPROVAL



SANGSHIN ELECOM CO., LTD.

HEAD OFFICE & FACTORY

614-1 WOLHARI SUHMYON YUNKIKUN CHOONGNAM

THE REPUBLIC OF KOREA

TEL : (041) 865-9000

FAX : (041) 865-9229

아젠텍	SPECIFICATION	SPEC NO.: R&D1-PA-1210A
SANGSHIN ELECOM	DIELECTRIC PATCH ANTENNA	DATE : 2012-08-27

아젠텍 귀중	승인번호	ISSUE
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사 양 승 인 원(Approval Sheet)

품 명(UNIT NAME)	DIELECTRIC PATCH ANTENNA
도 번(MODEL NO.)	KSA-SP938MS25P15
품목번호(ITEM NO.)	
제조회사	(주)쌍신전자통신

조건부승인
1.
2.
3.

아젠텍 승 인	전자 (ELECTRONIC)	구 분	담 당	검 토	승 인
		소속/성명			
		서 명			
	기구 (MECHANIC)	구 분	담 당	검 토	승 인
		소속/성명			
		서 명			
공급업체 승인		구 분	담 당	검 토	승 인
		소속/성명	연구1팀	연구1팀	연구소
		서 명	JS KIM		

[illegible]

아젠텍	SPECIFICATION	SPEC NO.: R&D1-PA-1210A
SANGSHIN ELECOM	DIELECTRIC PATCH ANTENNA	DATE : 2012-08-27

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아젠텍	SPECIFICATION	SPEC NO. : R&D1-PA-1210A
SANGSHIN ELECOM	DIELECTRIC PATCH ANTENNA	DATE : 2012-08-27

1. 제품 규격서

1.1 제품의 도번

SP 938M S25 P15
① ② ③ ④

- ① Special
- ② Center frequency
- ③ Size
- ④ Feeding Location 1.5mm

1.2 전기적 특성

Item	Specifications
Antenna Center Frequency (= Fc)	938 ± 2 MHz
RFID Operating Frequency	917.3 ~ 923.3 MHz
Bandwidth in 10 dB	3 MHz min.
Return Loss @ Fc	15~20 dB
Impedance	50 Ω
Gain [V-H SUM]	- 0.501 dBi peak
Polarization	R.H.C.P
Test Ground	Square 70 X 70 mm

1.3 환경적 특성

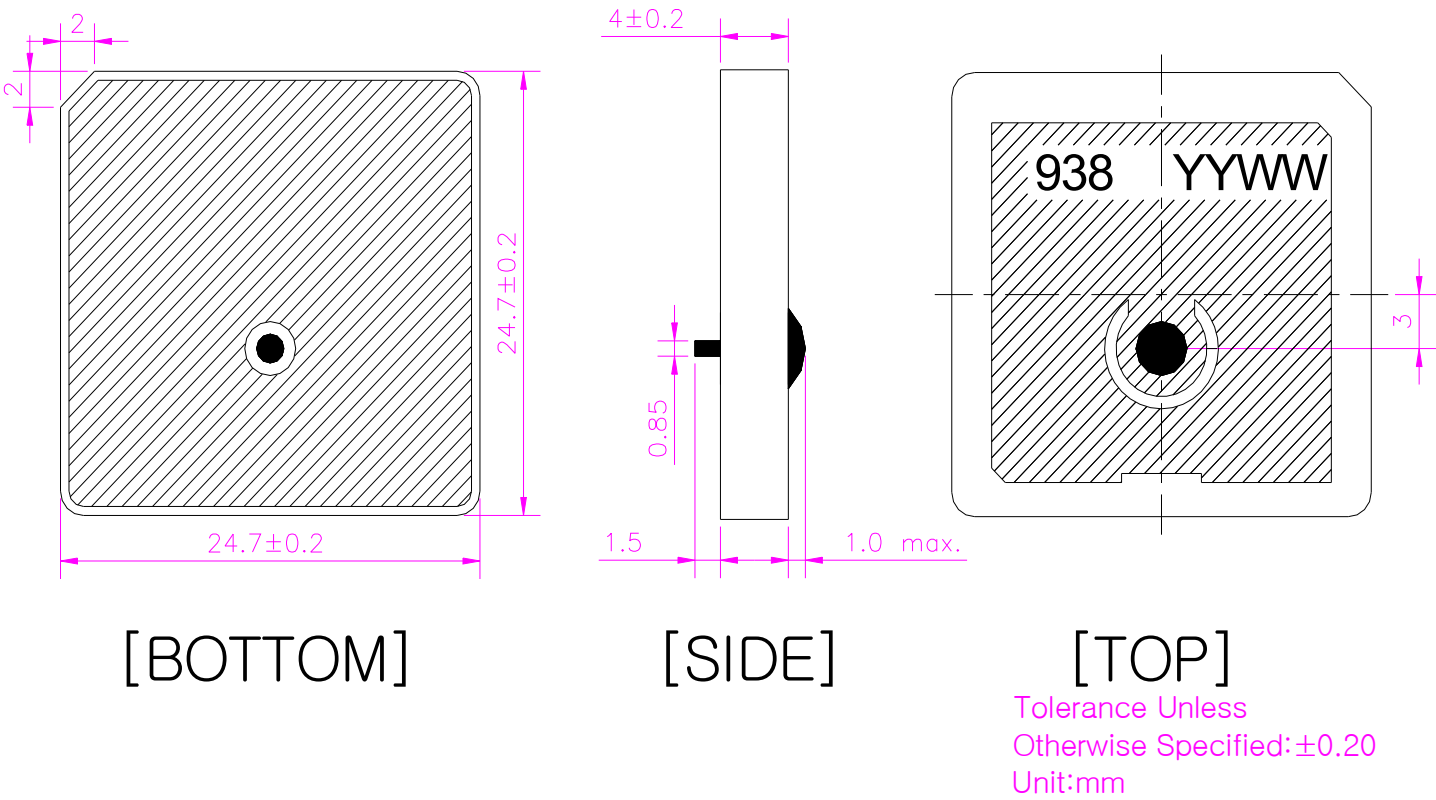
- 1) 동작 온도 범위: -30℃ ~ 85℃
- 2) 저장 온도 범위: -30℃ ~ 85℃

1.4 물리적 특성

Characteristics	Specifications	Conditions
Electrode	Silver	
Terminal Pin	Brass with silver coating	
Electrode Plating Adhesion (Peel Strength)	4 kg	10mm square at the corner

아젠텍	SPECIFICATION	SPEC NO. : R&D1-PA-1210A
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2. 외관 및 구조



* YYWW : 주차

아젠텍	SPECIFICATION	SPEC NO.: R&D1-PA-1210A
SANGSHIN ELECOM	DIELECTRIC PATCH ANTENNA	DATE : 2012-08-27

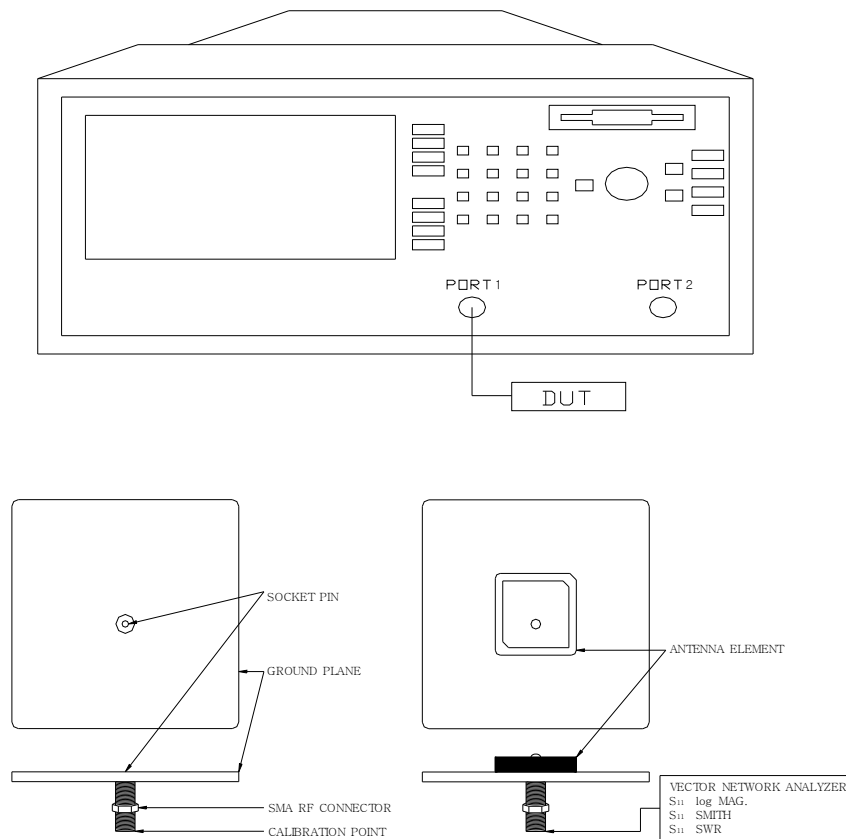
3. 시험절차서

3.1 시험 장비

3.1.1 장비명

NETWORK ANALYZER (HP 8753E, HP 8753ES 등..)

3.1.2 장비구성도



3.2 시험 방법

3.2.1 측정 장비 Setting

- 1) Network Analyzer에 Cable[N-TYPE(Male)Connector-SMA(Male)Connector]을 연결한다.
- 2) Network Analyzer의 각 Port와 Cable의 N-type(Male)Connector를 연결한다.
- 3) Span 50MHz, Center 938MHz, Number of point 201로 설정하고
1 PORT Full Calibration 을 수행한다.
- 4) Cable의 SMA(Male)Connector와 JIG를 연결한다.

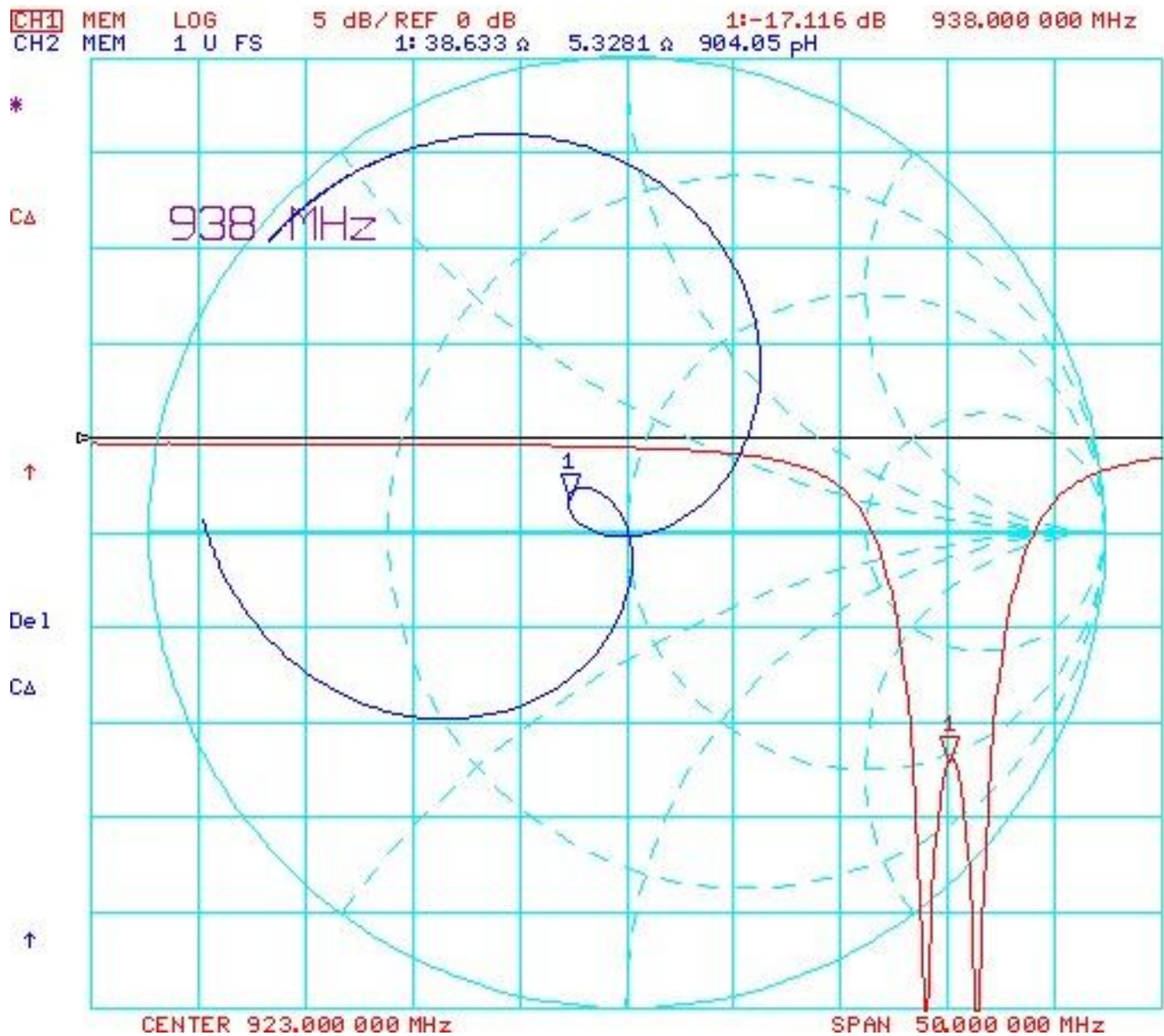
3.2.2 전기적 특성 측정.

CH1 : S11 전기적 특성이 항목 1.2를 만족하는지 확인한다.

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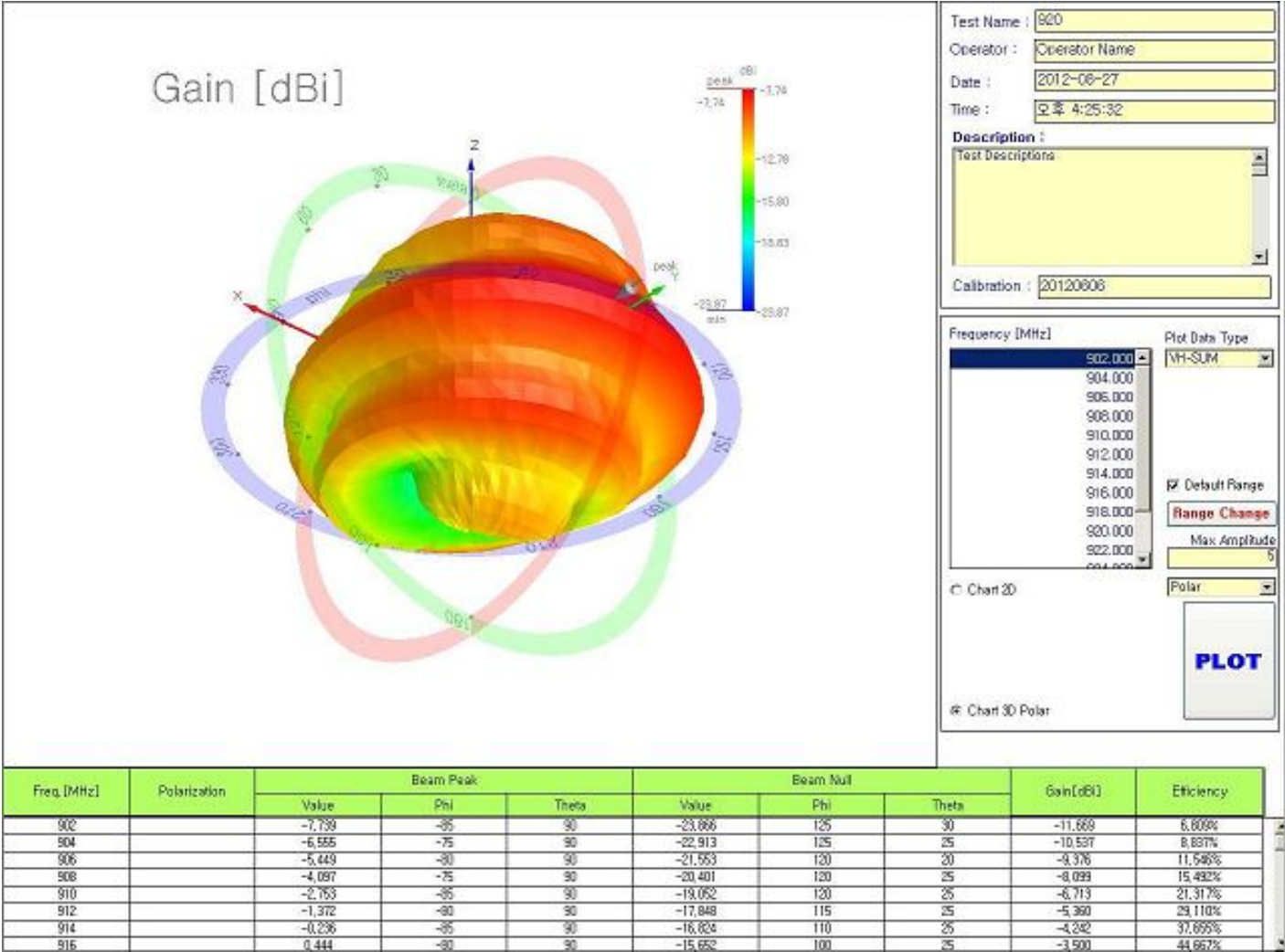
4. 특성 DATA

4.1 Return Loss & Smith Chart



아젠텍	SPECIFICATION	SPEC NO. : R&D1-PA-1210A
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4.2 Antenna Chamber Data [V-H SUM]



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