



JOINSOON ELECTRONICS
MFG. CO., LTD

承認書

APPROVAL SHEET

Vendor Name	建舜電子制造股份有限公司		
承認序號(APPROVAL SHEET NO.)	APP-H180018		
Model Description	2.4&5GHz Dipole Antenna RSMA		
CUSTOMER P/N	1750009046-01		
JEM P/N	1510-0237-0041		
檔案號碼 (FILE NO.)	IAHA201806001	JEM Rev	A
Reported By	Andy	Checked By	Jane
Approved By	Jess	發行日期 (RELEASED DATE)	2020/3/27
Address: 19F., No.79, Sec.1, Sintai 5th Rd., Sijhih Dist. New Taipei City 221, Taiwan			

Testing Parameter

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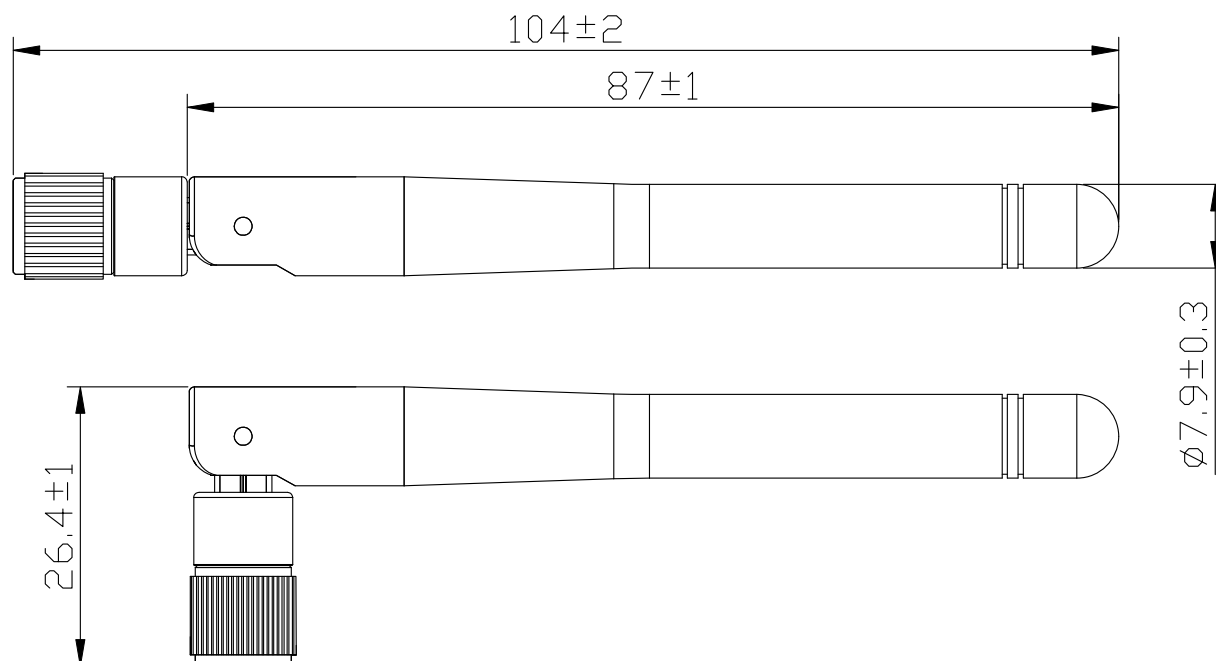
C-DWG

REV.	ECN NO.	LOCATIONS	DESCRIPTION	DATE	DESIGN
A			THE FIRST EDITION	10.15.2015	Andy

Specification:

产品性能参数:

1. 存储温度范围: $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$
2. 存储湿度: 10%~95% RH.
3. 频率: 2.40~2.50GHz 5.15~5.85GHz
4. 回波损耗: -10Db Max
5. 产品保存期限: 1年
6. ROHS: 符合ROHS
7. 接头扭力150~500gf.cm
8. POM外壳正转大于3kg, 反转大于2kg.



A3		DESCRIPTION:			
JPM 建昇電子		Dipole 2.4/5 GHz Antenna R-SMA			
DATE	06-07-2018	PART NO	1510-0237-0041	REV	01
DWN		FILE NO	IAH201806001	UNIT	MM
CHK		SCALE	NA	SHEET	1/1
APP		TOLERANCES	0.X:±0.60 0.XX:±0.30 ∠:±1°		

The products accord with directive and edition revised of RoHS (2011/65/EU).

CT0808A

产 品 规 格 书

Product specification

物料编码: _____

Material code:

产品名称: 同轴线缆

Product name: coaxial cable

产品型号: RG178/P-SC

Product model: RG178/P-SC

规 格: 7/0.102SC

Specifications: 7/0.102SC

版本号 version number	修订日期 Revision date	修订内容 revised contents	修订人 Revised	发行日期 date of issue
A	2009.10.06	新 增 new increase	向明松	2009.10.10
B	2015.03.19	修订规格书格式 revised Specification Format	杨道东	2015.03.20
C				
D				
E				
F				
制 作 Preparation		审 核 auditor	批 准 approver	

1. 产品描述

product description

- 1.1 本产品是 Teflon 绝缘系列柔软同轴电缆线, 适用于微波设备、无线通信设备系统和设备。

This product is soft Teflon insulation series coaxial cable. Is suitable for the microwave equipment, wireless communication systems and equipment.

产品特征：极好的柔软性，低驻波比，良好的屏蔽性能，精确的相位匹配。

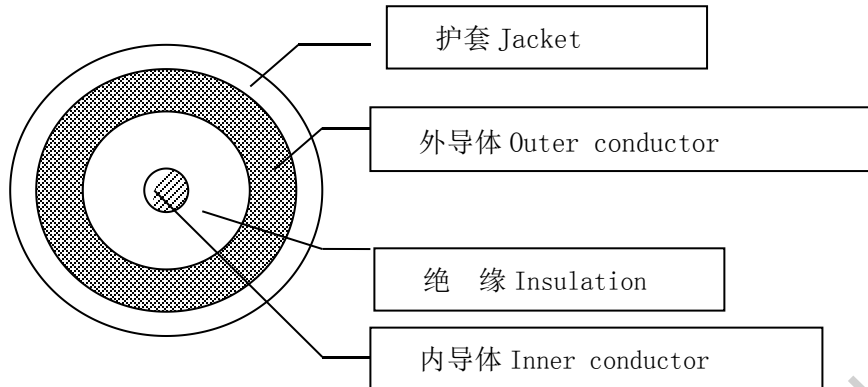
Product features: Excellent flexi-ability, good V.S.W.R, good shielding performance.

2. 电缆详细资料及结构图:

Cable with data and structure diagram:

2.1 结构图:

1structure diagram



2.2 电缆规格:

Specification of cable:

项 目 Item		单位 NO	材质及尺寸 Materials and size
内导体 Inner conductor	材 质 Material	/	镀银铜线 Silver plated copper wire
	构成 Composition	mm	7/0.102±0.02
	外 径 OD	mm	Φ0.30
绝 缘 Insulation	材 质 Material	/	Teflon FEP(200 度 聚全氟乙烯-丙烯树脂) Teflon FEP(200 degrees of fluorinated ethylene propylene resin)
	厚度 Thickness	mm	0.275
	外 径 OD	mm	Φ0.85±0.05
	颜色 Color	/	透明色 transparent color
外导体 Outer conductor	材 质 Material	/	镀锡铜线 Tin plated copper wire
	形 式 Form	/	编 织 Weave
	密度 Density	%	92%(18 目(Mesh); 48 编(Coding 3*16/0.10))
	外 径 OD	mm	Φ1.25±0.05
护 套 Jacket	材 质 Material	/	Teflon FEP(200 度聚全氟乙烯-丙烯树脂) Teflon FEP(200 degrees of fluorinated ethylene propylene resin)
	厚度 Thickness	mm	0.275
	外 径 OD	mm	Φ1.80±0.05

	护套颜色 color of sheath	/	透明色或棕透明色(也可按客户要求加工) ransparent color or brown transparent color (Can also be processed according to customer requirements)
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3. 电缆特性

The cable properties

3.1 电气性能

Electrical properties

测试项目 test project	标准要求 Standard value		备注 Note
额定温度/电压 Rated temperature / voltage	-55℃~+200℃ / 30V		/
绝缘电阻 Insulation resistance	3000MΩ.Km		电阻测试仪 Resistance tester
导体电阻 Conductor resistance	345 Ω /Km 20℃		/
耐 压 Pressure	2KV		耐压测试仪 Withstand voltage tester
绝 缘 Insulation	未老化前 Unaged	抗拉强度 Tensile Strength	2500 PSI MIN. (1.76Kg/mm ²)
		延伸率 Elongation	200% MIN
	老化后 Aged	抗拉强度 Tensile Strength	2500 PSI*75% (168HRS*232℃)
		延伸率 Elongation	200% MIN*75% (168HRS*232℃)
护 套 Jacket	未老化前 Unaged	抗拉强度 Tensile Strength	2500 PSI MIN. (1.76Kg/mm ²)
		延伸率 Elongation	200% MIN
	老化后 Aged	抗拉强度 Tensile Strength	2500 PSI*75% (168HRS*232℃)
		延伸率 Elongation	200% MIN*75% (168HRS*232℃)
特性阻抗 characteristic impedance	50±2Ω		网析分析仪、TRK 测试仪 Analysis of network analyzer The TRK tester
电容 Capacitance	95.8 PF/M		数字电容仪 Digital capacitance meter
传输速率 Velocity	69. 5%		网析分析仪 Analysis of network analyzer
传输延迟 Propagation Delay	4. 8ns/m		/
屏蔽率减 Shielding	100dB		/

attenuation		
弯曲半径 Bending radius	<9mm	/
阻燃性 (UL) Flame retardant	passed	VW-1 提供材料报告 VW-1 provides material report
屏蔽衰减 (dB/m) Attenuation(dB/m)	测试频率 test frequency	衰减 Attenuation
	0.1GHz	0.46
	0.4GHz	0.95
	1GHz	1.48
	2GHz	2.65
	3GHz	3.28
	4GHz	3.54
	5GHz	4.30
	6GHz	4.80
驻波比 VSWR	0.3—3GHz	≤1.30
	3—6GHz	≤1.35

海平面 20℃测试
Sea level to 20 DEG C test

4. 包装要求

Packaging requirements

4.1 包装长度: 500 米

Package length: 500 meters

包装方式: 轴,

The way of packing: Volume

最短线长度: ≥50 米

The stub length: ≥50 meters

4.2 包装标识: 标准或按客户要求.

Packaging and labeling: standard or according to customer requirements.

我司产品执行 UL-1979 标准, 暂不提供 UL 标准认证号, 可提供 SGS、MSDM 报告。

Our products are the implementation of UL-1979 standard, does not provide UL certification standards, can provide SGS, MSDM report.

此规格书只适用于常规线材, 若客户所需线材为特殊规格的, 请以线材承认书为准。

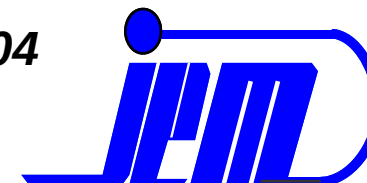
This specification is only for conventional wire, if the customer needed to wire for special specification, please refer to our wire admitted that book.

JOINSOON ELECTRONICS MFG.CO,LTO

2. 4&5GHz Dipole Antenna RSMA

2018/12/04

□□□□□□□□E□EC□R□□C□□MFG□C□□□□



APPROVAL SHEET

客戶名稱：研華

承認序號 (APPROVAL SHEET NO.) :

品名規格 (DESCRIPTION) : 2.4&5GHz Dipole Antenna RSMA

檔案號碼 (FILE NO.) : IAH201806001

版次 (REV) : A

料號 (PART NO.) : 1510-0237-0041

工程師 (ENGINEER) : Adam

品保確認 (QC. CHK.) : Jane

工程確認 (ENG. CHK.) : Jess

發行日期 (RELEASED DATE) : 2018/12/04

生產廠區名稱：蘇州建合精密電子有限公司

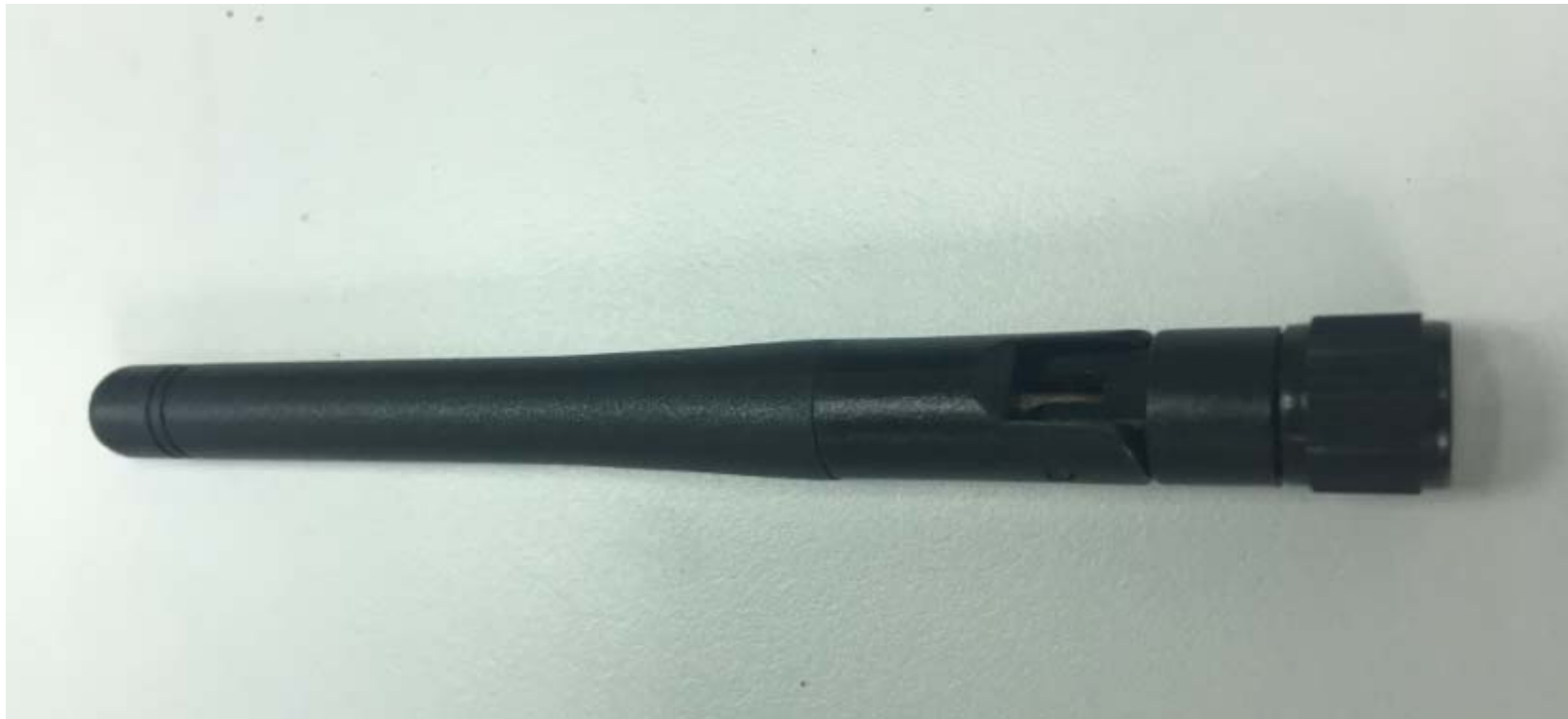
地址：蘇州市相城區渭塘鎮通成路118號



Index

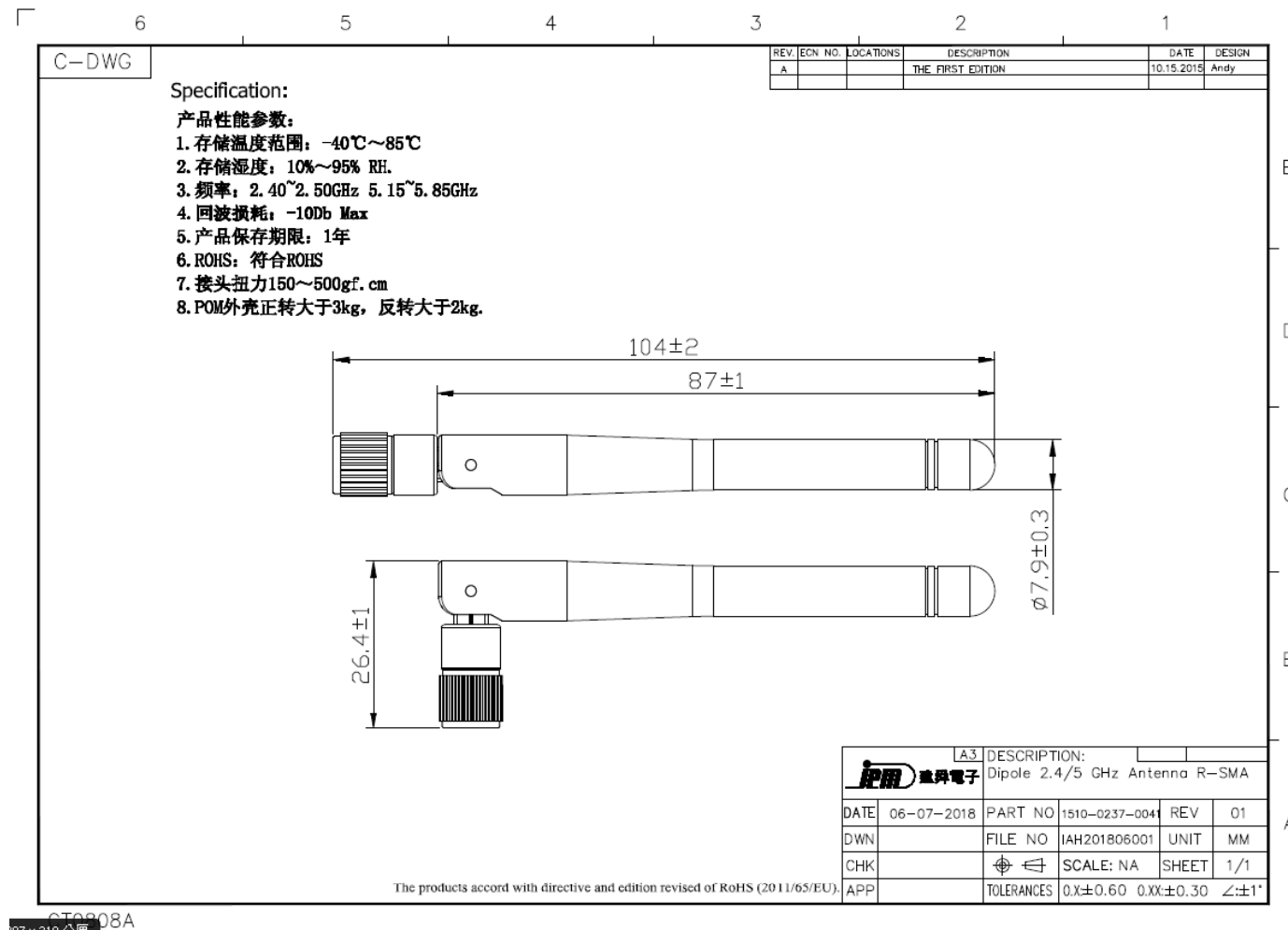
1. Index	P.3
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[2. Antenna Photo]



□□□□□□EEC□R□□C□MFG□C□□□□

3.Antenna Drawing



4. Antenna Related Data

Electrical Characteristic

- 4.1 Frequency Range : WiFi Dipole Antenna
2400/2500MHz&5150~5850MHz**
- 4.2 Impedance : 50Ω**
- 4.3 V.S.W.R : ≤ 2**
- 4.4 Peak Gain : ≥ 3**
- 4.5 Polarization : Linear**

Material & Mechanical Characteristic

- 4.6 Connector : RSMA**
- 4.7 Material of Radiator : Cu**
- 4.8 Material of Plastic : TPEE,PBT**
- 4.9 Cable : RG-178**

Environmental

- 4.10 Operation Temp. : -40°C ~ +65°C**
- 4.11 Storage Temp. : -40°C ~ +85°C**

[5. Test Result 3D]

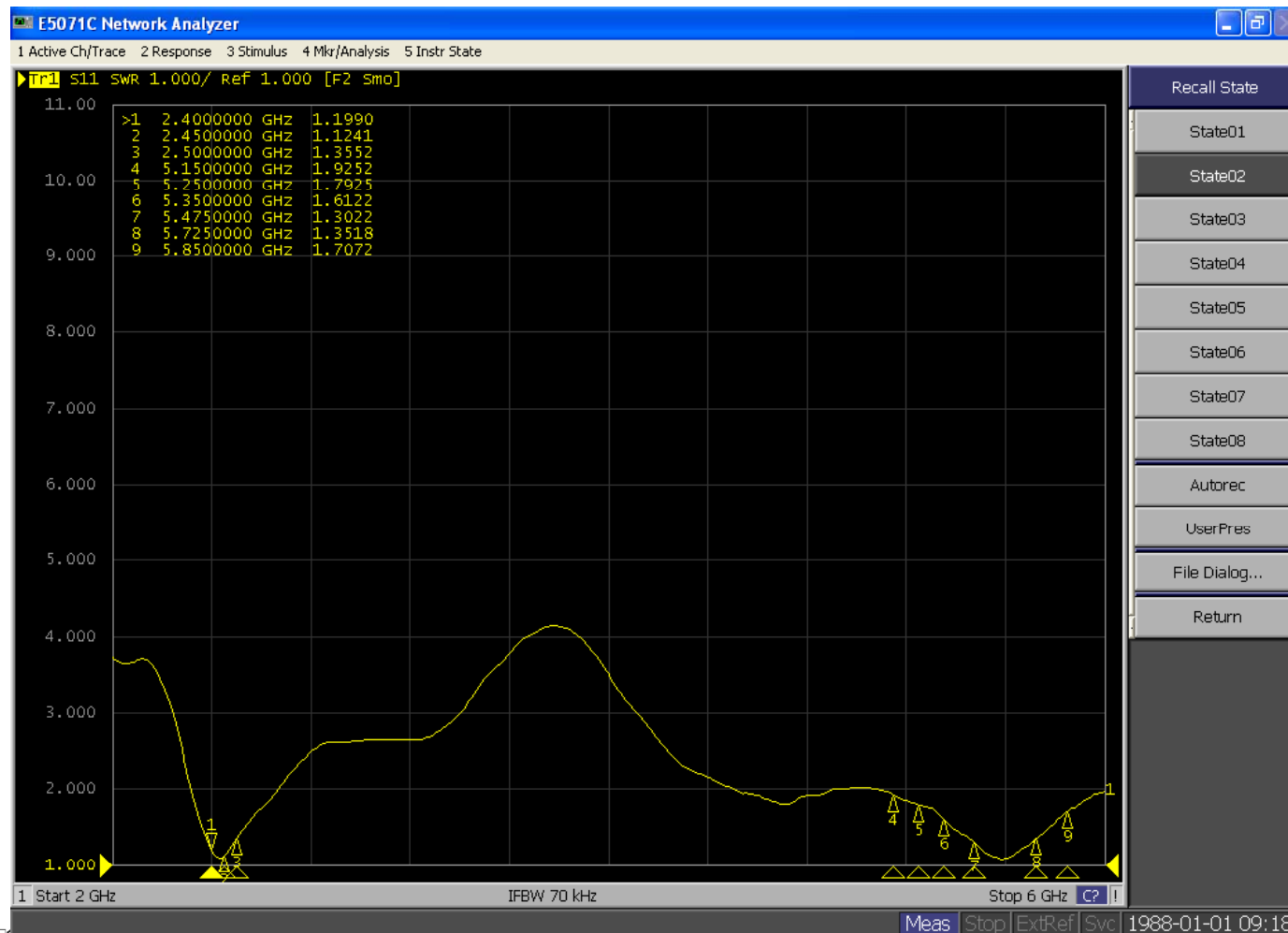
24G 5G

Fr□□□□□□□□MH□□	2400	2450	2500	5150	5250	5350	5470	5600	5725	5785	5850
A□□r□□□□G□□□□dB□	-1.21	-1.13	-1.62	-1.49	-1.74	-1.42	-1.42	-1.84	-1.75	-1.67	-2.15
□□□□G□□□□dB□	3.57	3.74	2.95	3.12	2.93	3.25	3.44	3.39	3.56	3.70	2.73
E□□□□□□□□□□□□	75.61	77.15	68.89	70.96	66.93	72.15	72.09	65.48	66.89	68.00	60.91

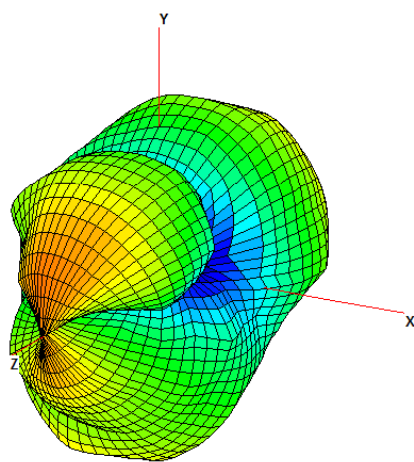
Test Result 2D

G	GdB									A _r GdB								
	X			X						X			X					
	H		H	H		H	H		H	H		H	H		H	H		H
2400	-5.54	1.31	1.38	-4.56	1.37	2.10	1.94	-3.60	3.55	-10.31	-3.12	-2.04	-11.57	-0.45	-0.08	-3.01	-9.33	-1.74
2450	-5.53	1.14	1.33	-4.23	1.78	2.39	2.26	-3.38	3.62	-10.30	-2.99	-1.92	-11.32	-0.18	0.20	-2.68	-9.35	-1.58
2500	-6.81	0.78	0.94	-4.75	1.32	2.04	1.46	-3.90	2.74	-11.60	-3.19	-2.32	-11.94	-0.52	-0.17	-3.48	-9.64	-2.33
5150	-1.12	1.00	1.46	-4.69	2.26	2.69	2.46	-4.29	2.80	-7.66	-4.07	-2.41	-10.09	-0.34	0.13	-3.28	-8.48	-1.99
5250	-1.63	1.20	1.34	-4.74	1.96	2.07	2.15	-4.70	2.37	-8.16	-4.26	-2.66	-10.76	-0.21	0.21	-3.43	-8.94	-2.20
5350	-1.15	1.14	1.48	-4.47	3.03	3.13	3.03	-4.01	3.13	-7.89	-4.07	-2.46	-10.77	0.52	0.88	-3.26	-8.74	-1.99
5470	-0.57	1.42	1.60	-6.01	3.11	3.22	3.11	-3.62	3.22	-7.16	-4.43	-2.42	-10.49	0.62	1.01	-3.17	-8.71	-1.93
5600	-0.69	0.58	1.02	-5.69	2.83	2.92	2.83	-3.96	2.92	-6.98	-5.18	-2.78	-10.67	0.26	0.68	-3.29	-9.24	-2.15
5725	-0.16	0.35	1.90	-3.79	3.45	3.51	3.45	-3.60	3.51	-6.38	-4.84	-2.31	-10.79	0.37	0.77	-3.03	-8.70	-1.82
5785	-0.10	0.46	2.15	-3.87	3.26	3.32	3.21	-3.43	3.25	-6.30	-4.61	-2.17	-10.97	0.31	0.71	-3.01	-8.37	-1.71
5850	-0.03	0.23	2.08	-4.82	2.45	2.53	2.20	-3.04	2.26	-6.38	-4.85	-2.39	-11.70	-0.46	-0.06	-3.70	-8.38	-2.24

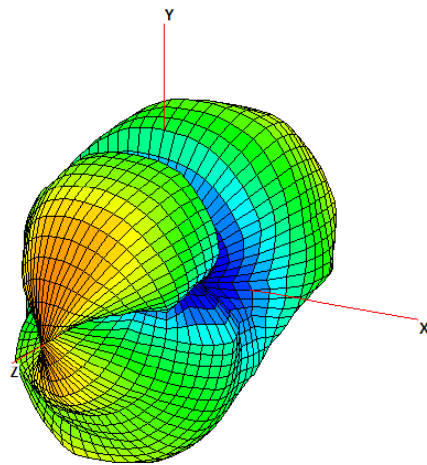
S11 VAWR -1



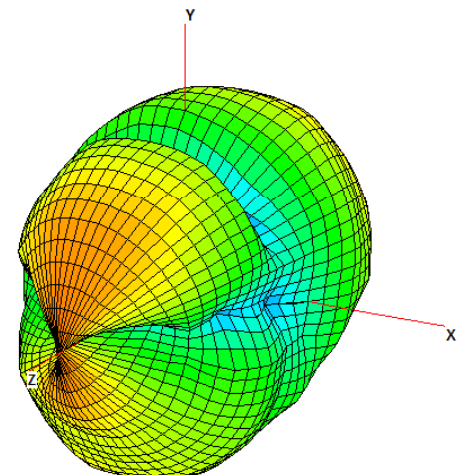
3D Pattern A



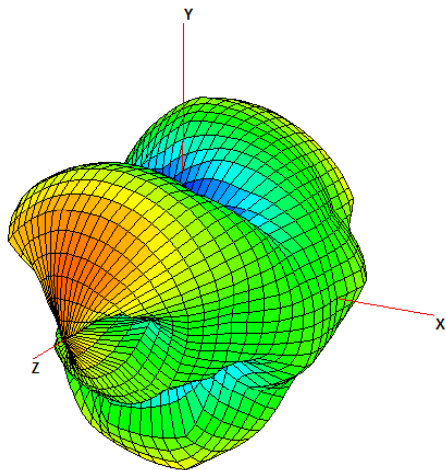
2400MH00



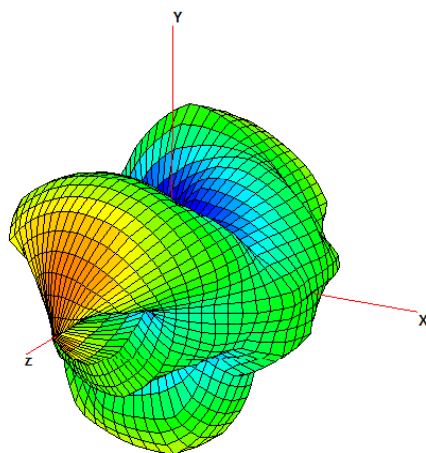
2450MH00



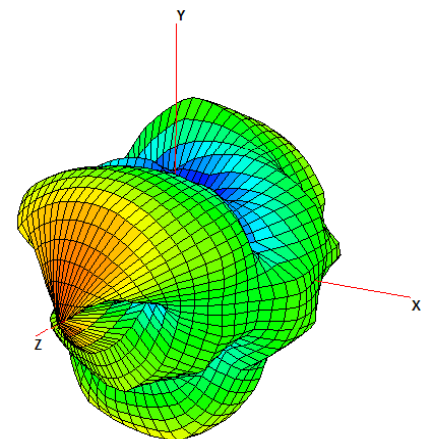
2500MH00



5150MH00



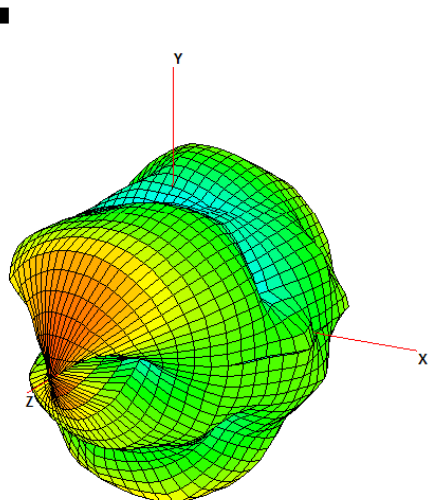
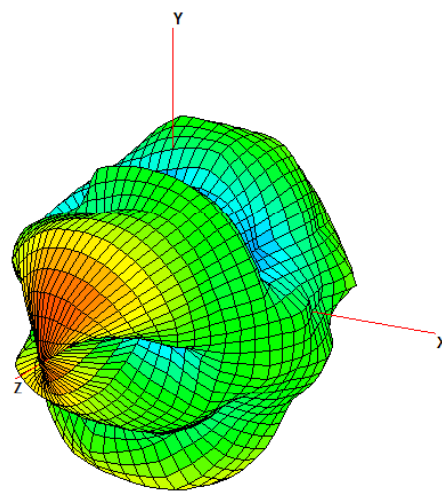
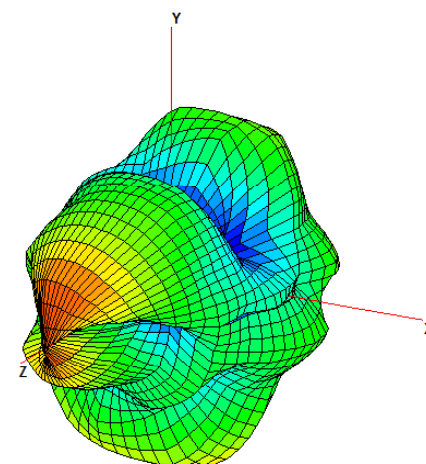
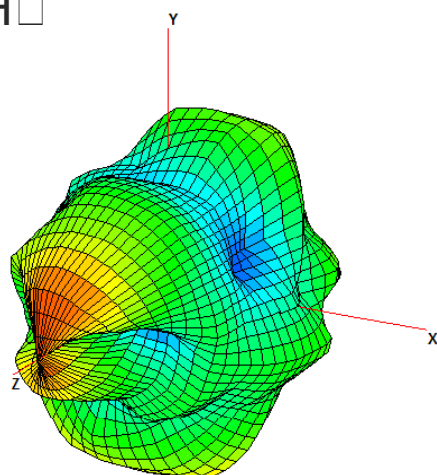
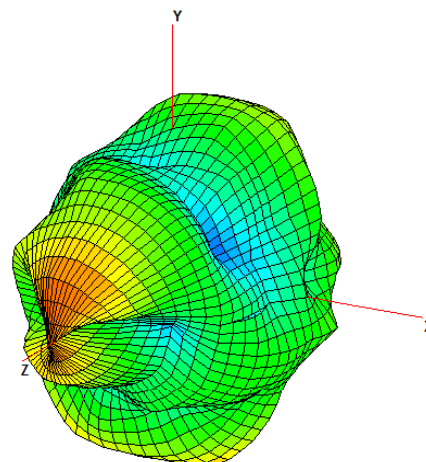
5250MH00



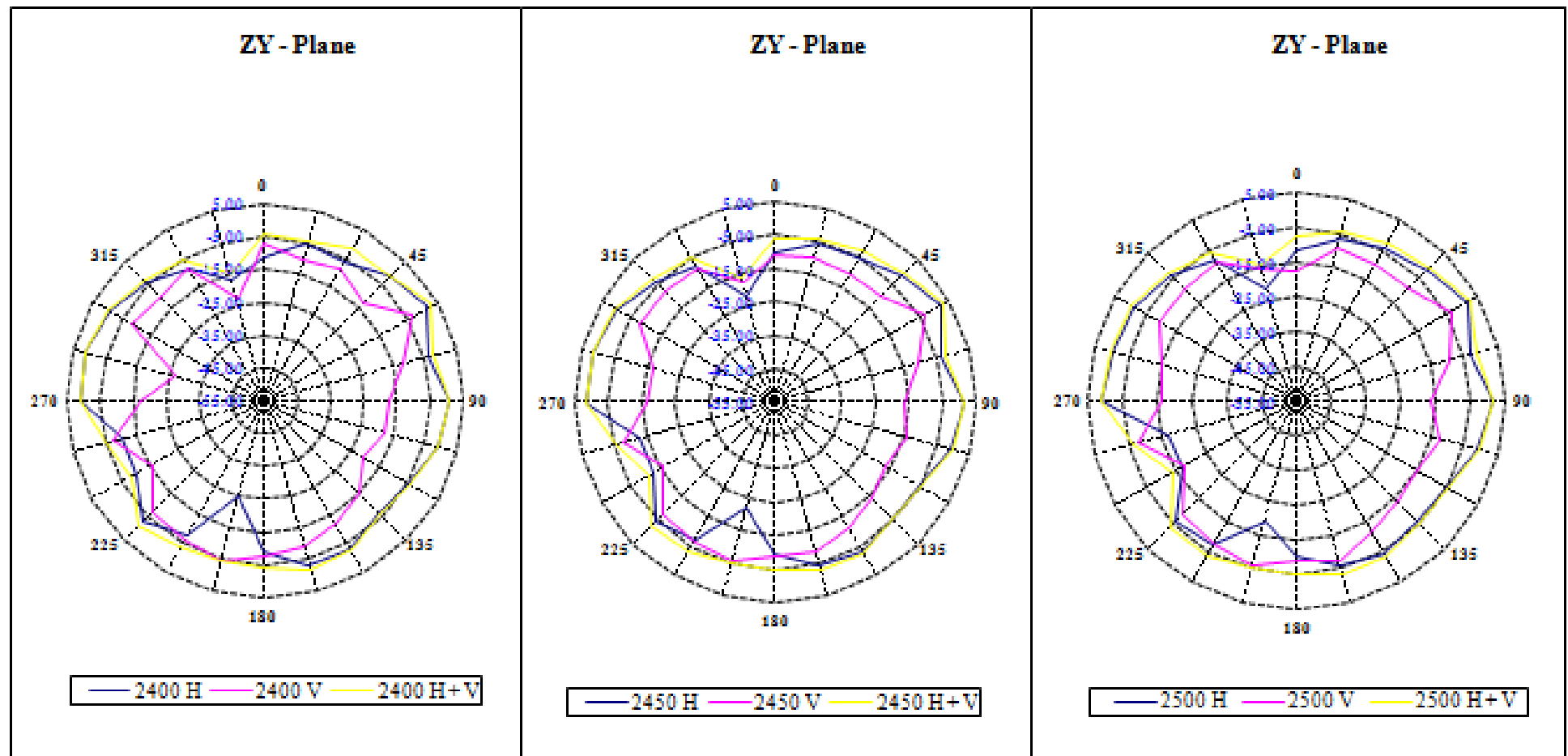
5350MH00

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54 ☐ ☐ ☐ MH ☐56 ☐ ☐ ☐ MH ☐5 ☐ 25 MH ☐ ☐5 ☐ 5 MH ☐5 ☐ 5 MH ☐ ☐

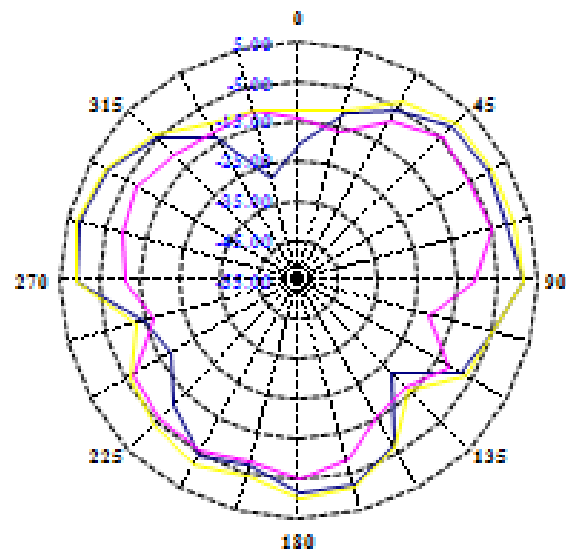
2D Pattern Antenna



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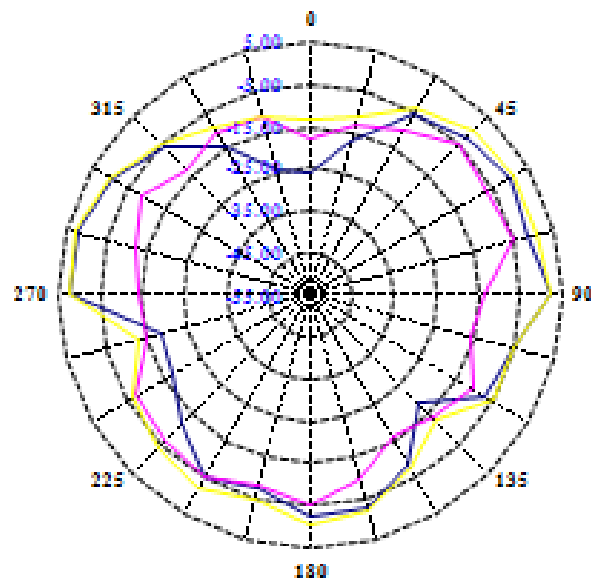
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ZY - Plane



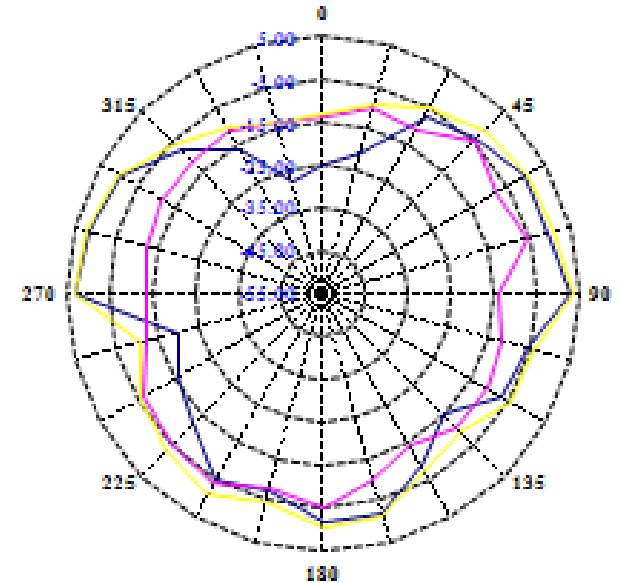
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ZY - Plane



— 5250 H — 5250 V — 5250 H+V

ZY - Plane

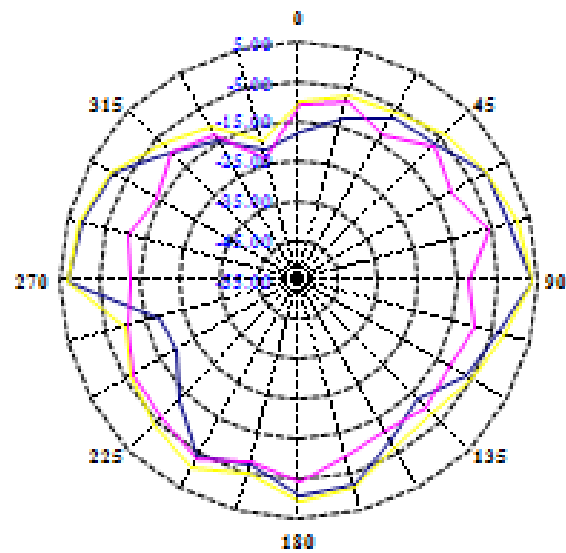


— 5350 H — 5350 V — 5350 H+V

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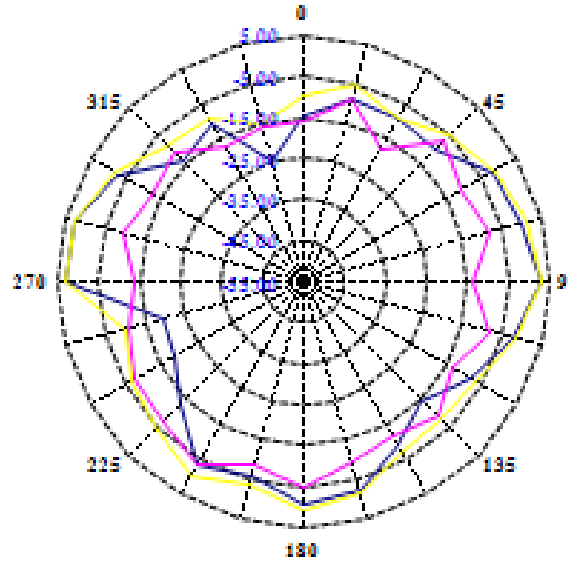
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ZY - Plane



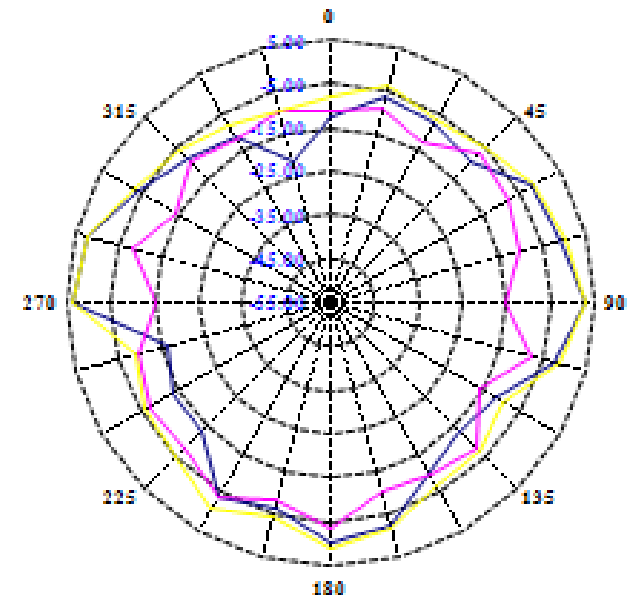
— 5470 H — 5470 V — 5470 H+V

ZY - Plane



— 5600 H — 5600 V — 5600 H+V

ZY - Plane



— 5725 H — 5725 V — 5725 H+V

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