

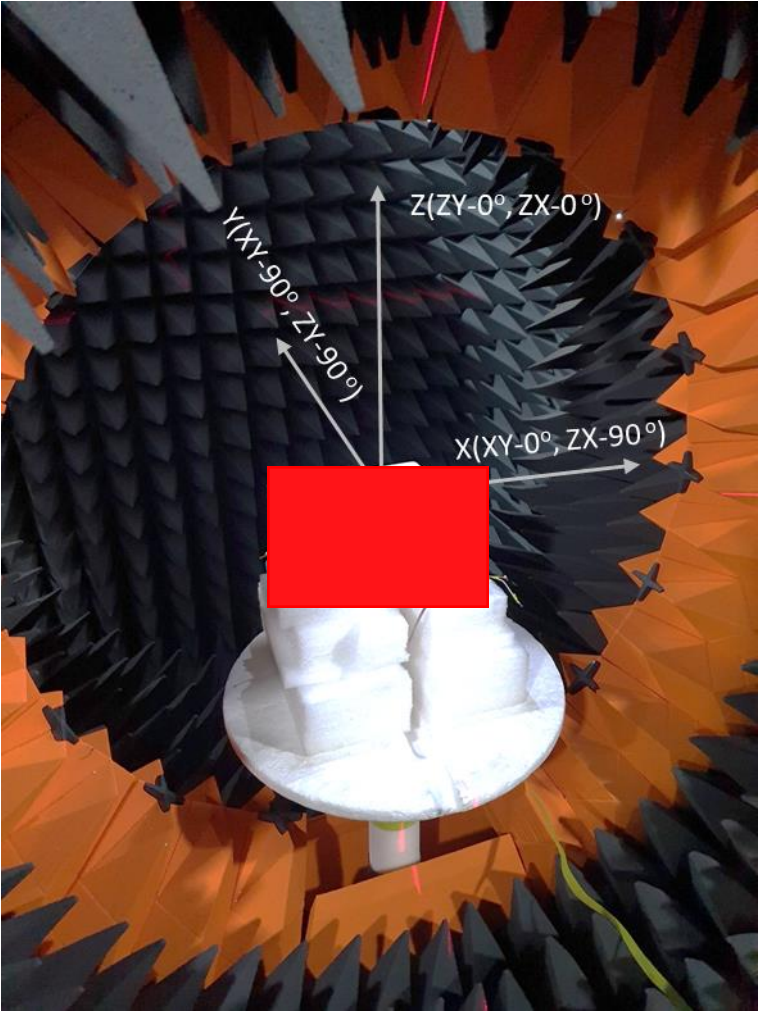
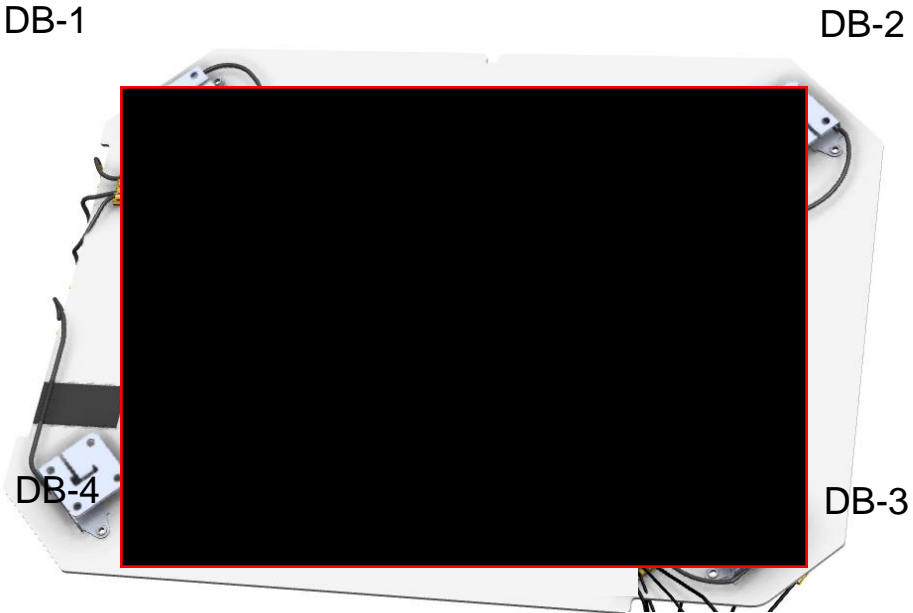
Grand-Tek Technology Co., Ltd.
8F, No.233-2, Bao-Ciao Rd.,Sin-
Dian Dist., New Taipei
City23145, Taiwan, R.O.C.

EW-7889WAX Antenna DB*4 (2.4G / 5GHz) Updated Test Report

1. Antenna Picture	p.2
2. Antenna Specification	p.3
3. Antenna VSWR	p.4
4. Antenna Isolation	p.5
5. Antenna Gain Table / Pattern / 3D Pattern	p.6~p.13
ANT1 DB	p.6~7
ANT2 DB	p.8~9
ANT3 DB	p.10~11
ANT4 DB	p.12~13

EW-7889WAX Antenna DB*4 (2.4 / 5GHz)

Antenna type : PIFA



Antenna Spec

DB*4 (2.4 / 5GHz)

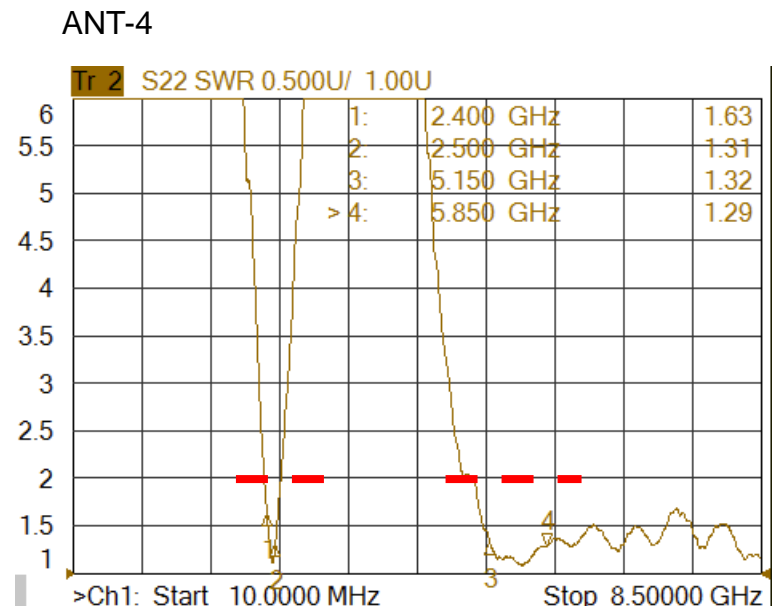
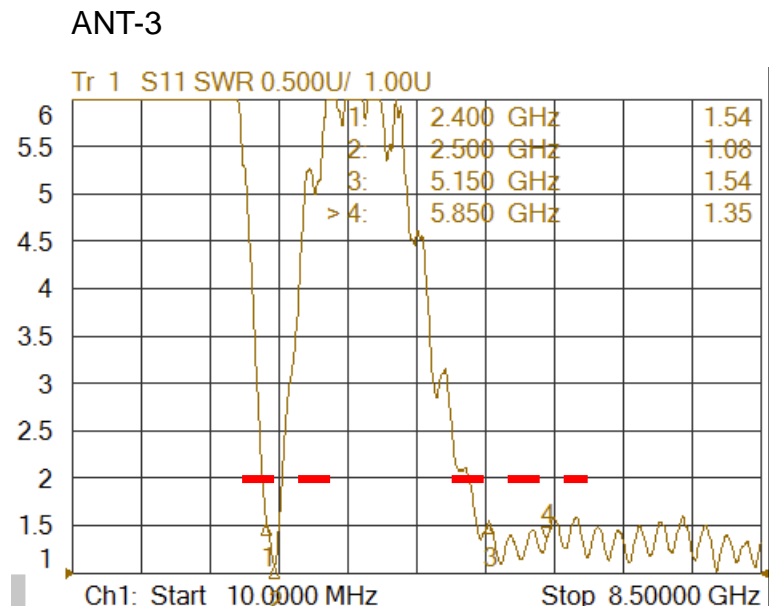
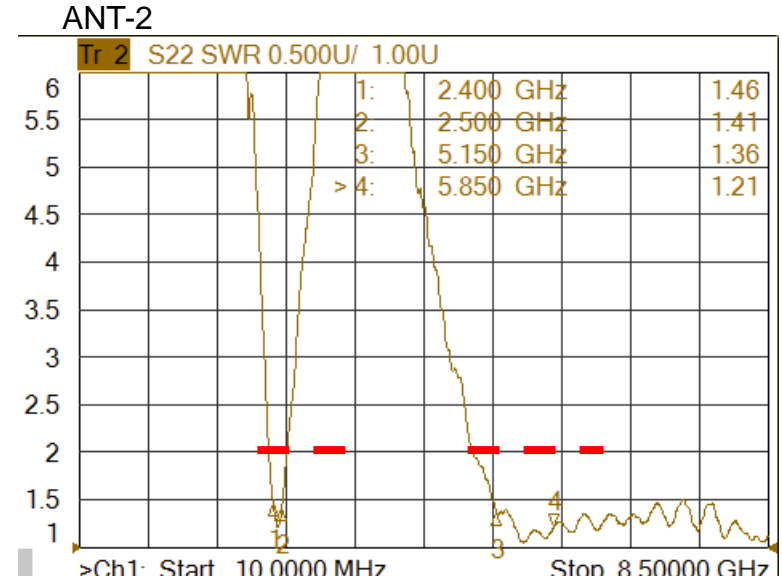
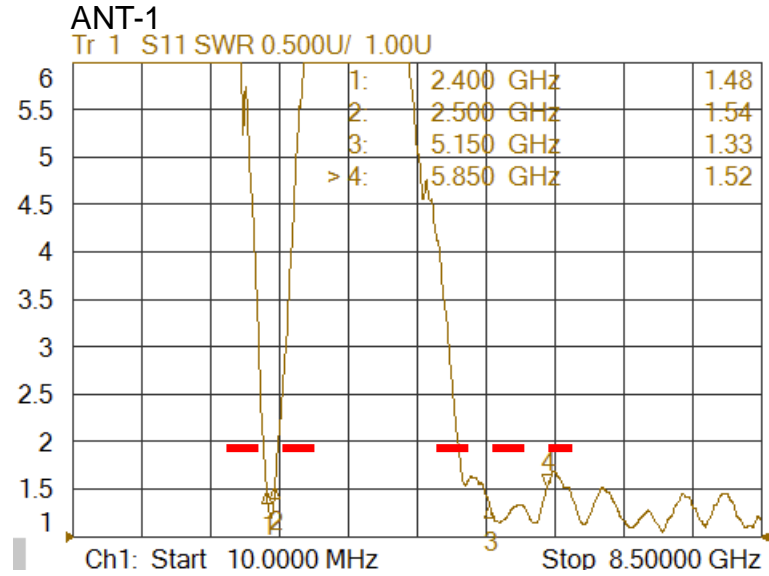
Antenna type : PIFA

Specification

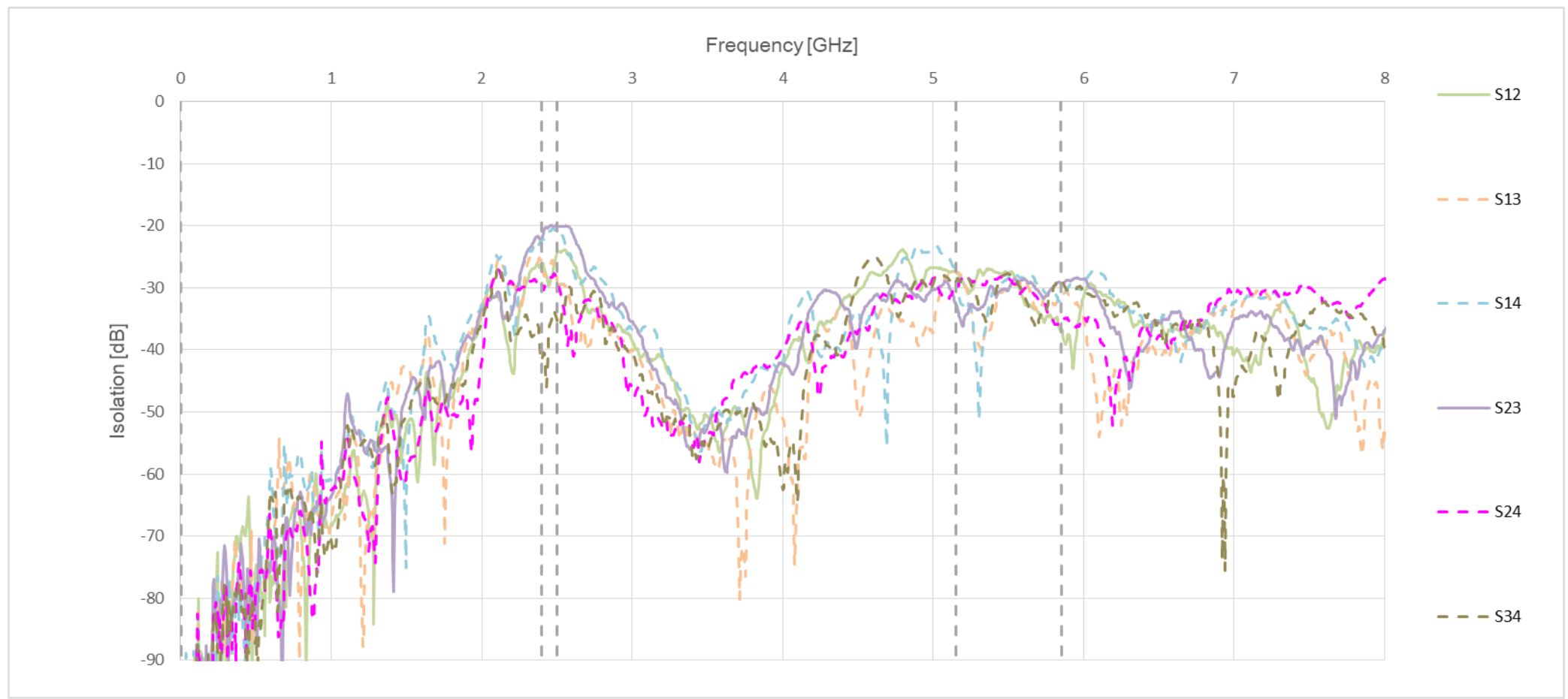
Item	ANT-1		ANT-2		ANT-3		ANT-4					
Frequency	2.4GHz	5GHz	2.4GHz	5GHz	2.4GHz	5GHz	2.4GHz	5GHz				
Efficiency	62~65%	64~72%	61~67%	60~65%	60~64%	60~61%	64~69%	64~69%				
Peak Gain	4.3~5.1 dBi	5.1~ 6.2 dBi	3.7~5.4 dBi	3.8~ 4.8 dBi	3.8~5.1 dBi	4.1~ 4.7 dBi	3.3~4.7 dBi	4.5~5.7 dBi				
VSWR	2.0 max.:1											
Connector	MHF Plug For 1.13 CBL. Gold Plate											
Cable	OD1.13 CBL.											
CBL. Color	GRAY											
Impedance	50 Ohms											

VSWR < 2.0 max.:1

DB*4



Isolation DB & DB
ANT1 vs 2~4
2.4GHz < -20 dB
5GHz < -26 dB



EW-7889WAX Antenna DB*4 (2.4G / 5GHz)

GAIN TABLE / PATTERN

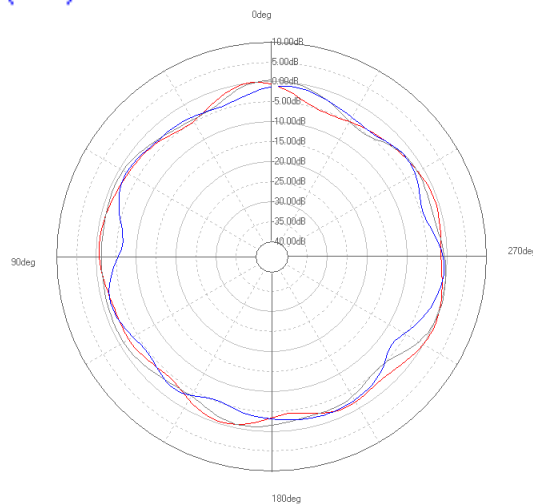
ANT1 - 2.4 / 5GHz

Frequency (MHz)	3D			Avg. Gain			Peak Gain		
	Efficiency	Avg. Gain	Peak Gain	XY-plane	YZ-plane	YZ-plane	XY-plane	YZ-plane	ZX-plane
2400	62%	-1.5	4.6	-2.0	-1.2	-0.8	0.5	3.3	4.0
2450	65%	-1.2	4.3	-1.9	-0.8	-0.6	0.3	3.7	4.0
2500	63%	-1.3	5.1	-3.1	-0.8	-1.3	-0.6	4.5	2.6
5150	69%	-1.6	5.3	-1.4	-2.0	-1.9	3.4	4.1	3.3
5350	72%	-1.4	5.7	-1.7	-2.3	-0.8	3.1	3.2	4.6
5500	64%	-2.0	6.0	-2.6	-3.7	-1.5	1.5	2.4	4.5
5675	66%	-1.8	6.2	-2.1	-2.3	-1.4	2.9	2.9	4.8
5850	64%	-1.9	5.1	-2.5	-2.6	-1.1	3.0	3.5	4.0

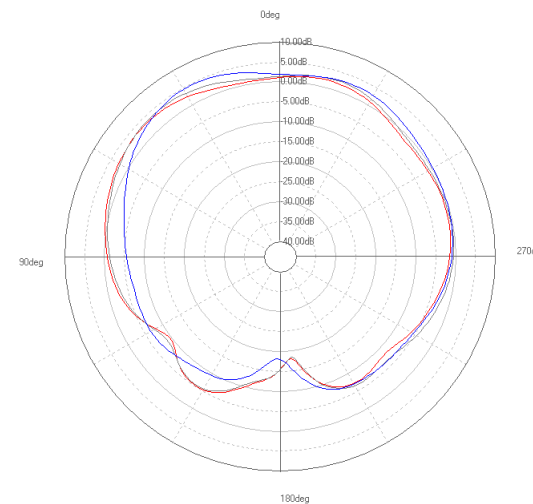
Legend

- 2400(MHz)
- 2450(MHz)
- 2500(MHz)

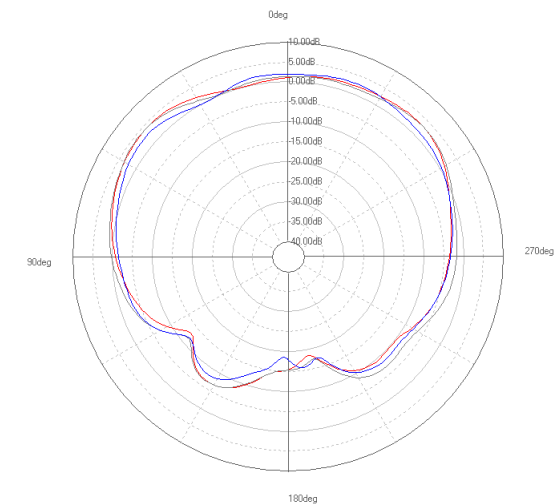
XY-plane



ZY-plane



ZX-plane



EW-7889WAX Antenna DB*4 (2.4G / 5GHz)



GAIN TABLE / PATTERN

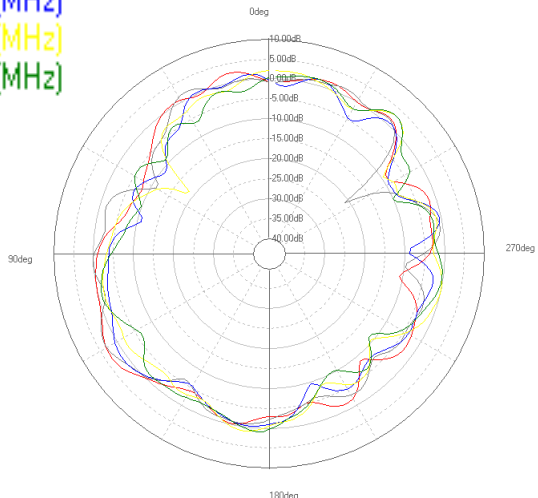
ANT1 - 2.4 / 5GHz

Frequency (MHz)	3D			Avg. Gain			Peak Gain		
	Efficiency	Avg. Gain	Peak Gain	XY-plane	YZ-plane	YZ-plane	XY-plane	YZ-plane	ZX-plane
2400	62%	-1.5	4.6	-2.0	-1.2	-0.8	0.5	3.3	4.0
2450	65%	-1.2	4.3	-1.9	-0.8	-0.6	0.3	3.7	4.0
2500	63%	-1.3	5.1	-3.1	-0.8	-1.3	-0.6	4.5	2.6
5150	69%	-1.6	5.3	-1.4	-2.0	-1.9	3.4	4.1	3.3
5350	72%	-1.4	5.7	-1.7	-2.3	-0.8	3.1	3.2	4.6
5500	64%	-2.0	6.0	-2.6	-3.7	-1.5	1.5	2.4	4.5
5675	66%	-1.8	6.2	-2.1	-2.3	-1.4	2.9	2.9	4.8
5850	64%	-1.9	5.1	-2.5	-2.6	-1.1	3.0	3.5	4.0

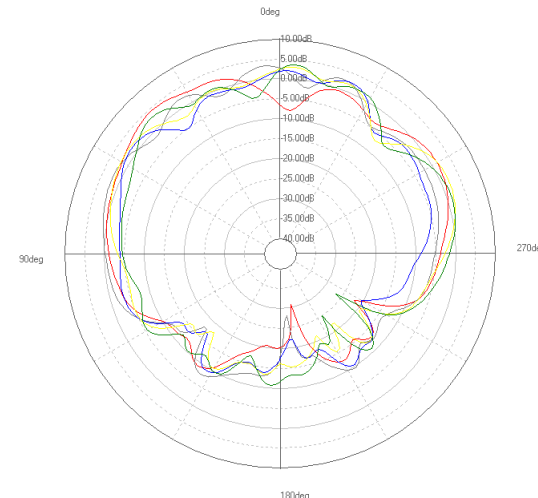
Legend

- 5150.00(MHz)
- 5325.00(MHz)
- 5500.00(MHz)
- 5675.00(MHz)
- 5850.00(MHz)

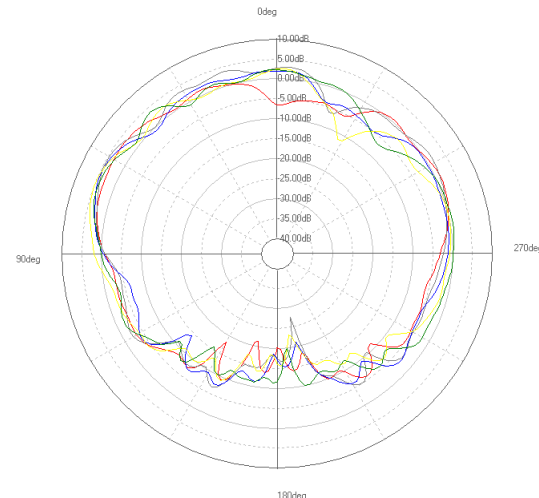
XY-plane



ZY-plane



ZX-plane



EW-7889WAX Antenna DB*4 (2.4G / 5GHz)

GAIN TABLE / PATTERN

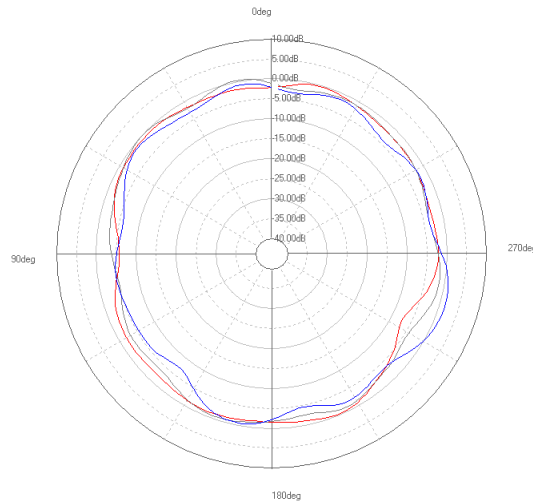
ANT2 - 2.4 / 5GHz

Frequency (MHz)	3D			Avg. Gain			Peak Gain		
	Efficiency	Avg. Gain	Peak Gain	XY-plane	YZ-plane	YZ-plane	XY-plane	YZ-plane	ZX-plane
2400	66%	-1.8	3.7	-2.1	-2.1	-2.8	-0.4	2.9	1.1
2450	67%	-1.7	4.5	-2.0	-2.1	-2.1	0.3	2.3	1.9
2500	61%	-2.2	5.4	-2.5	-2.7	-2.8	1.4	1.8	1.3
5150	60%	-2.2	4.8	-2.1	-3.0	-1.3	1.5	1.6	4.3
5350	65%	-1.8	3.9	-1.9	-2.4	-1.9	0.9	2.6	2.8
5500	61%	-2.2	4.1	-2.1	-2.3	-2.2	1.2	3.0	2.2
5675	62%	-2.1	4.2	-2.5	-1.8	-1.7	0.4	3.8	3.3
5850	61%	-2.2	3.8	-2.4	-1.9	-2.4	0.4	2.3	2.6

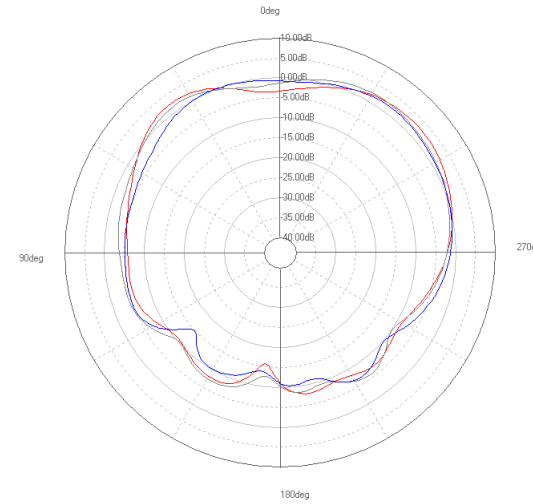
Legend

- 2400(MHz)
- 2450(MHz)
- 2500(MHz)

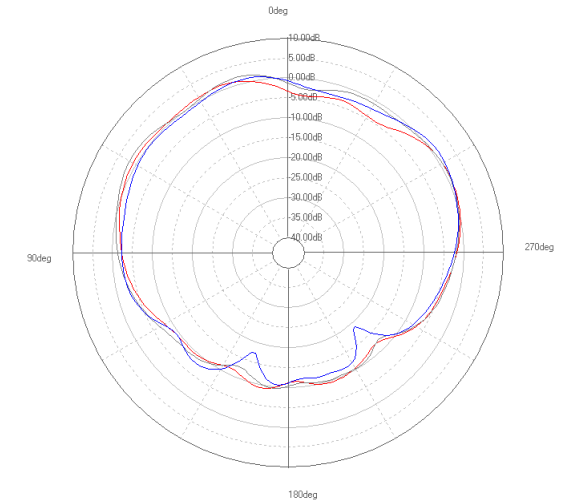
XY-plane



ZY-plane



ZX-plane



EW-7889WAX Antenna DB*4 (2.4G / 5GHz)

GAIN TABLE / PATTERN

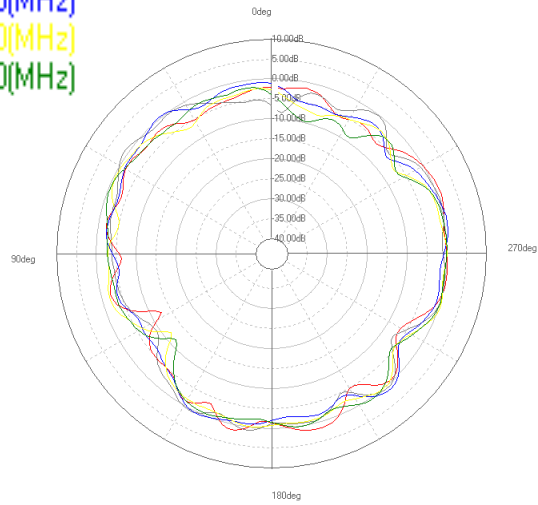
ANT2 - 2.4 / 5GHz

Frequency (MHz)	3D			Avg. Gain			Peak Gain		
	Efficiency	Avg. Gain	Peak Gain	XY-plane	YZ-plane	YZ-plane	XY-plane	YZ-plane	ZX-plane
2400	66%	-1.8	3.7	-2.1	-2.1	-2.8	-0.4	2.9	1.1
2450	67%	-1.7	4.5	-2.0	-2.1	-2.1	0.3	2.3	1.9
2500	61%	-2.2	5.4	-2.5	-2.7	-2.8	1.4	1.8	1.3
5150	60%	-2.2	4.8	-2.1	-3.0	-1.3	1.5	1.6	4.3
5350	65%	-1.8	3.9	-1.9	-2.4	-1.9	0.9	2.6	2.8
5500	61%	-2.2	4.1	-2.1	-2.3	-2.2	1.2	3.0	2.2
5675	62%	-2.1	4.2	-2.5	-1.8	-1.7	0.4	3.8	3.3
5850	61%	-2.2	3.8	-2.4	-1.9	-2.4	0.4	2.3	2.6

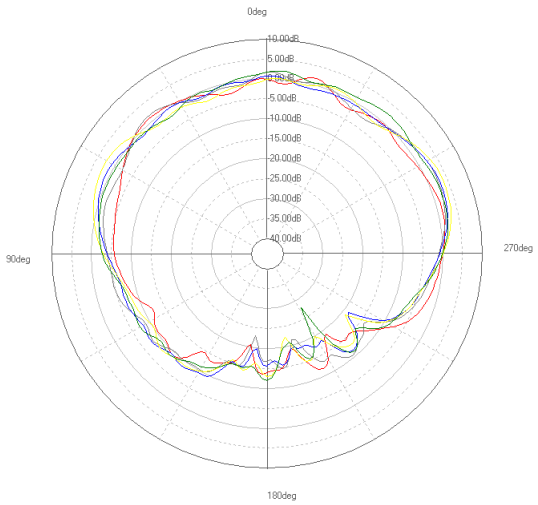
Legend

- 5150.00(MHz)
- 5325.00(MHz)
- 5500.00(MHz)
- 5675.00(MHz)
- 5850.00(MHz)

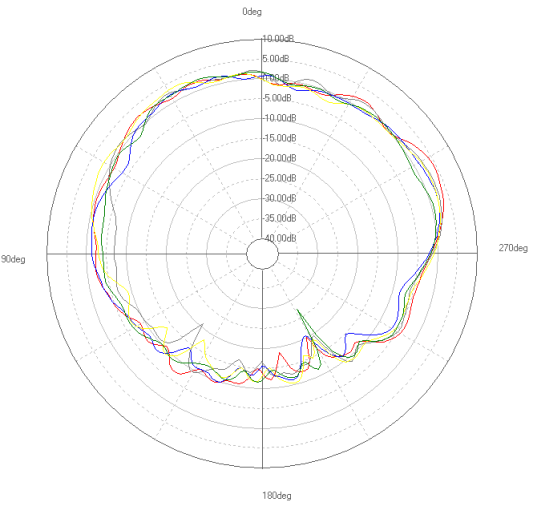
XY-plane



ZY-plane



ZX-plane



EW-7889WAX Antenna DB*4 (2.4G / 5GHz)

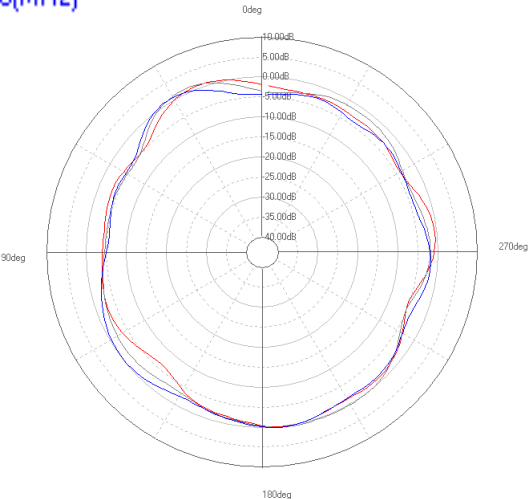
GAIN TABLE / PATTERN

ANT3 - 2.4 / 5GHz

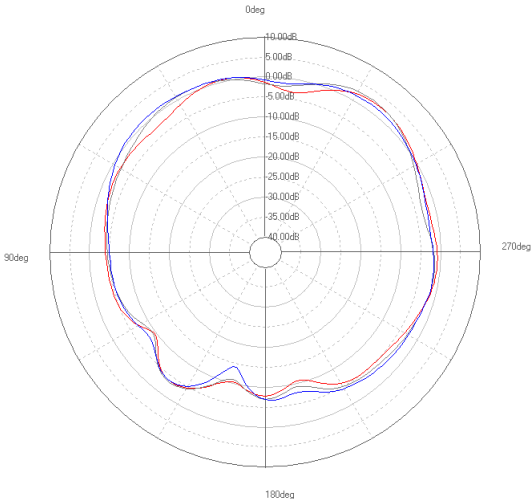
Frequency (MHz)	3D			Avg. Gain			Peak Gain		
	Efficiency	Avg. Gain	Peak Gain	XY-plane	YZ-plane	YZ-plane	XY-plane	YZ-plane	ZX-plane
2400	60%	-2.2	5.1	-2.3	-2.4	-1.5	0.7	2.4	4.5
2450	66%	-1.8	4.9	-2.0	-2.2	-1.9	1.1	2.7	4.4
2500	64%	-1.9	3.8	-2.2	-2.0	-2.1	0.7	1.5	3.6
5150	60%	-2.3	4.6	-2.0	-2.4	-3.4	2.3	3.8	2.7
5350	61%	-2.2	4.7	-1.8	-3.5	-1.9	2.9	2.1	4.1
5500	60%	-2.5	4.5	-2.3	-3.4	-2.6	2.2	2.6	3.1
5675	62%	-2.5	4.3	-2.8	-2.4	-2.2	1.9	2.7	3.2
5850	61%	-2.5	4.1	-2.7	-2.0	-2.3	1.6	3.3	1.9

Legend
— 2400(MHz)
— 2450(MHz)
— 2500(MHz)

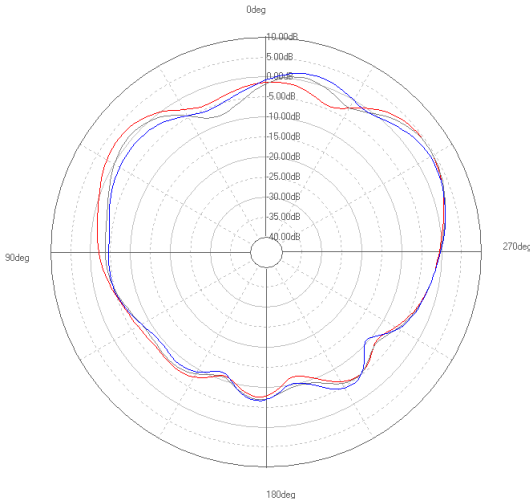
XY-plane



ZY-plane



ZX-plane



EW-7889WAX Antenna DB*4 (2.4G / 5GHz)

GAIN TABLE / PATTERN

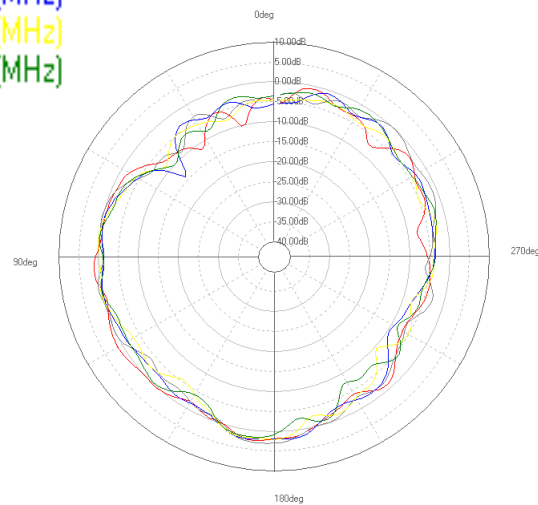
ANT3 - 2.4 / 5GHz

Frequency (MHz)	3D			Avg. Gain			Peak Gain		
	Efficiency	Avg. Gain	Peak Gain	XY-plane	YZ-plane	YZ-plane	XY-plane	YZ-plane	ZX-plane
2400	60%	-2.2	5.1	-2.3	-2.4	-1.5	0.7	2.4	4.5
2450	66%	-1.8	4.9	-2.0	-2.2	-1.9	1.1	2.7	4.4
2500	64%	-1.9	3.8	-2.2	-2.0	-2.1	0.7	1.5	3.6
5150	60%	-2.3	4.6	-2.0	-2.4	-3.4	2.3	3.8	2.7
5350	61%	-2.2	4.7	-1.8	-3.5	-1.9	2.9	2.1	4.1
5500	60%	-2.5	4.5	-2.3	-3.4	-2.6	2.2	2.6	3.1
5675	62%	-2.5	4.3	-2.8	-2.4	-2.2	1.9	2.7	3.2
5850	61%	-2.5	4.1	-2.7	-2.0	-2.3	1.6	3.3	1.9

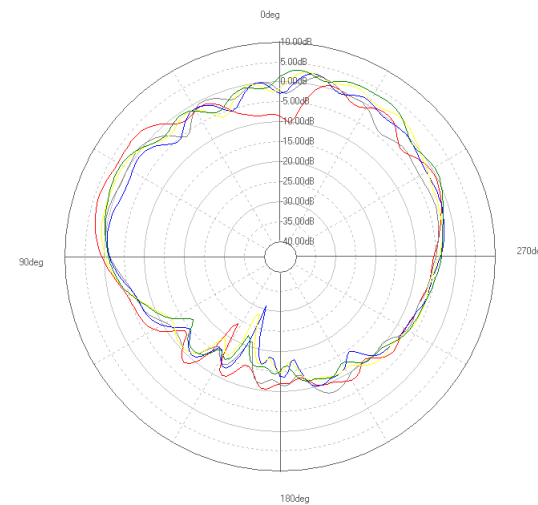
Legend

- 5150.00(MHz)
- 5325.00(MHz)
- 5500.00(MHz)
- 5675.00(MHz)
- 5850.00(MHz)

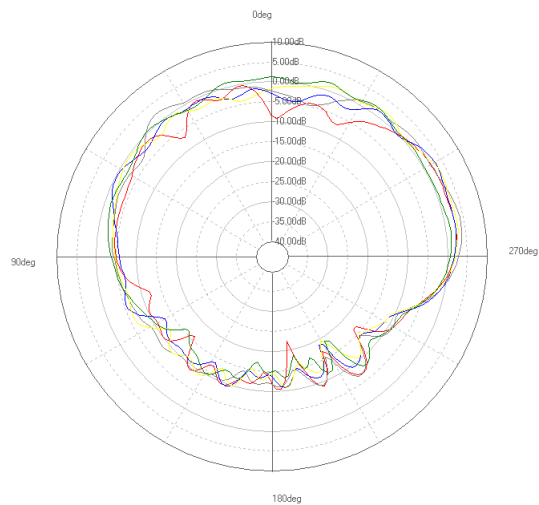
XY-plane



ZY-plane



ZX-plane



EW-7889WAX Antenna DB*4 (2.4G / 5GHz)

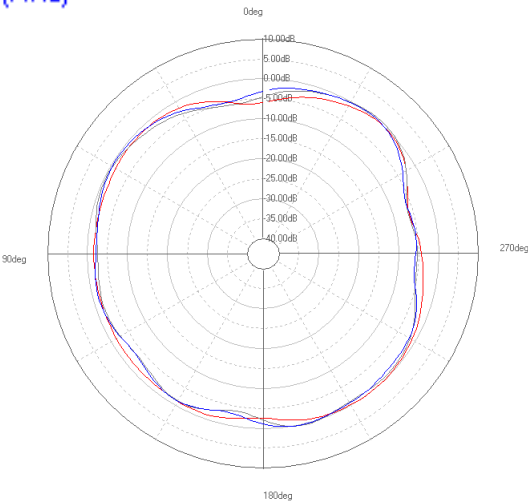
GAIN TABLE / PATTERN

ANT4 - 2.4 / 5GHz

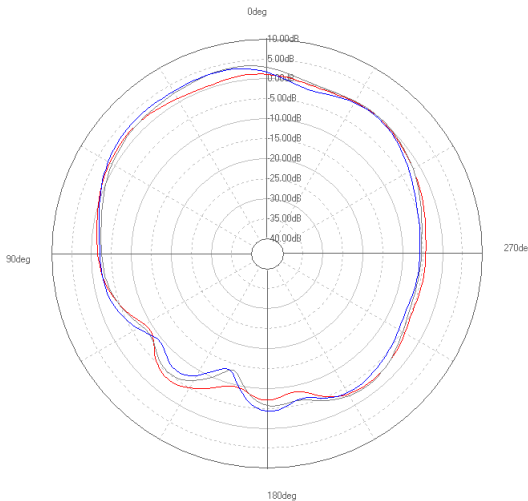
Frequency (MHz)	3D			Avg. Gain			Peak Gain		
	Efficiency	Avg. Gain	Peak Gain	XY-plane	YZ-plane	YZ-plane	XY-plane	YZ-plane	ZX-plane
2400	64%	-1.6	3.3	-1.9	-1.8	-1.9	0.0	2.0	3.3
2450	69%	-1.3	4.3	-2.0	-1.4	-1.5	0.5	3.4	3.3
2500	65%	-1.3	4.7	-1.9	-1.5	-1.4	0.2	3.2	3.3
5150	68%	-1.7	5.3	-1.3	-2.3	-1.9	3.0	4.2	2.7
5350	69%	-1.6	5.7	-1.5	-2.4	-1.2	2.4	3.6	3.6
5500	64%	-2.0	5.1	-2.2	-2.5	-2.0	2.1	3.4	3.0
5675	64%	-2.0	4.9	-2.6	-1.8	-1.4	1.7	4.4	3.4
5850	64%	-1.9	4.5	-2.3	-1.9	-1.6	0.7	3.2	4.2

Legend
— 2400(MHz)
— 2450(MHz)
— 2500(MHz)

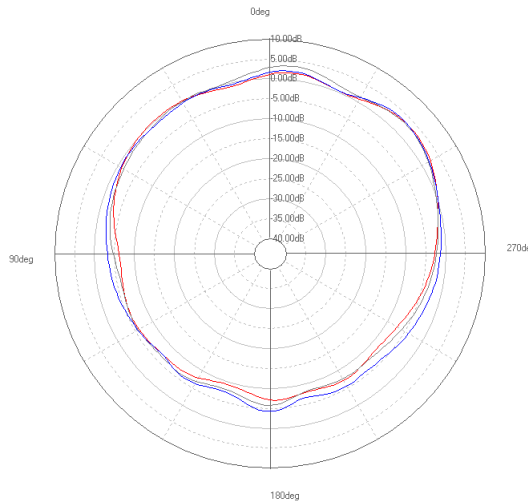
XY-plane



ZY-plane



ZX-plane



EW-7889WAX Antenna DB*4 (2.4G / 5GHz)

GAIN TABLE / PATTERN

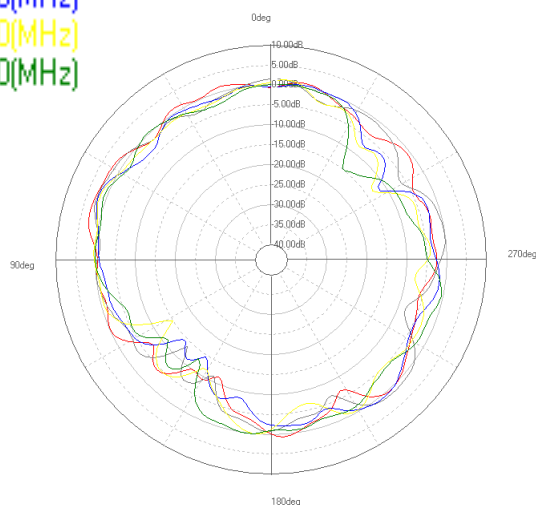
ANT4 - 2.4 / 5GHz

Frequency (MHz)	3D			Avg. Gain			Peak Gain		
	Efficiency	Avg. Gain	Peak Gain	XY-plane	YZ-plane	YZ-plane	XY-plane	YZ-plane	ZX-plane
2400	64%	-1.6	3.3	-1.9	-1.8	-1.9	0.0	2.0	3.3
2450	69%	-1.3	4.3	-2.0	-1.4	-1.5	0.5	3.4	3.3
2500	65%	-1.3	4.7	-1.9	-1.5	-1.4	0.2	3.2	3.3
5150	68%	-1.7	5.3	-1.3	-2.3	-1.9	3.0	4.2	2.7
5350	69%	-1.6	5.7	-1.5	-2.4	-1.2	2.4	3.6	3.6
5500	64%	-2.0	5.1	-2.2	-2.5	-2.0	2.1	3.4	3.0
5675	64%	-2.0	4.9	-2.6	-1.8	-1.4	1.7	4.4	3.4
5850	64%	-1.9	4.5	-2.3	-1.9	-1.6	0.7	3.2	4.2

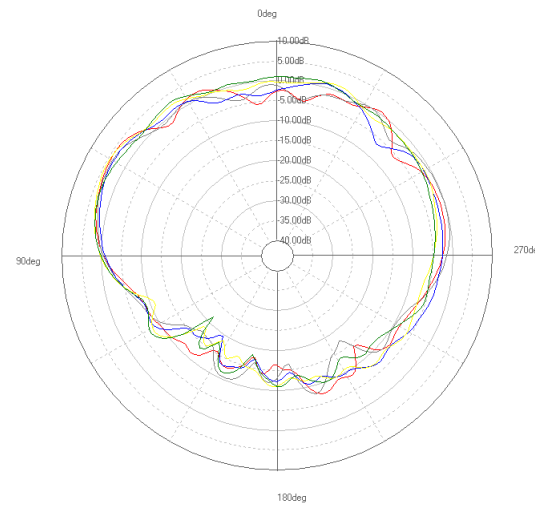
Legend

- 5150.00(MHz)
- 5325.00(MHz)
- 5500.00(MHz)
- 5675.00(MHz)
- 5850.00(MHz)

XY-plane



ZY-plane



ZX-plane

