



JPN SONY TV FY26 RCU Premium TONY Antenna Measurement T1/P2_2025925

Universal Electronic Inc.

REDEFINING **CONTROL**

Antenna info

REDEFINING CONTROL

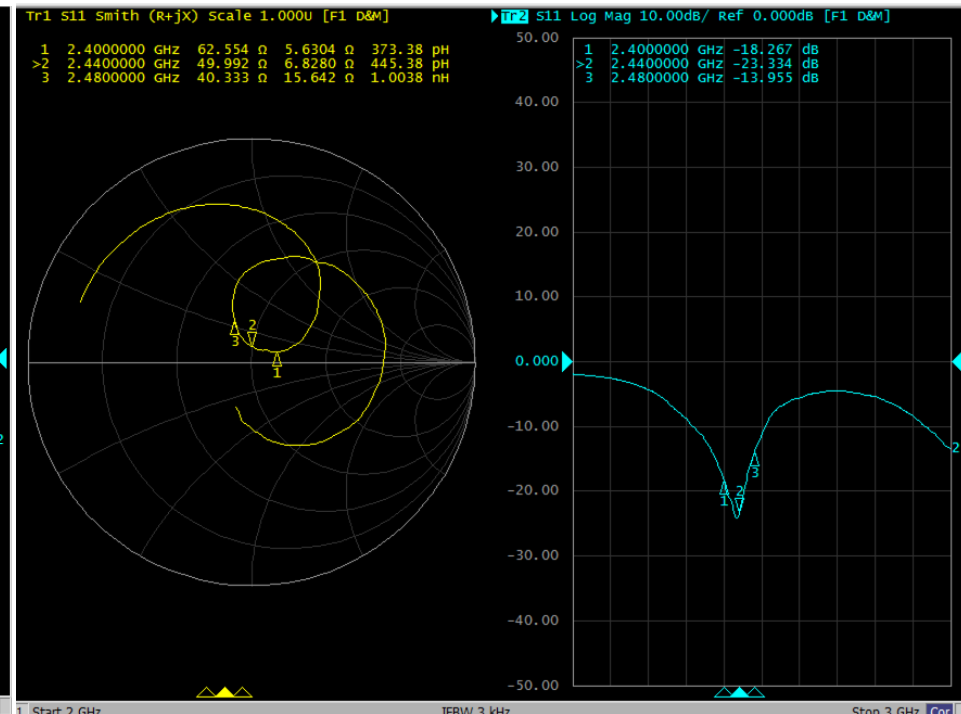
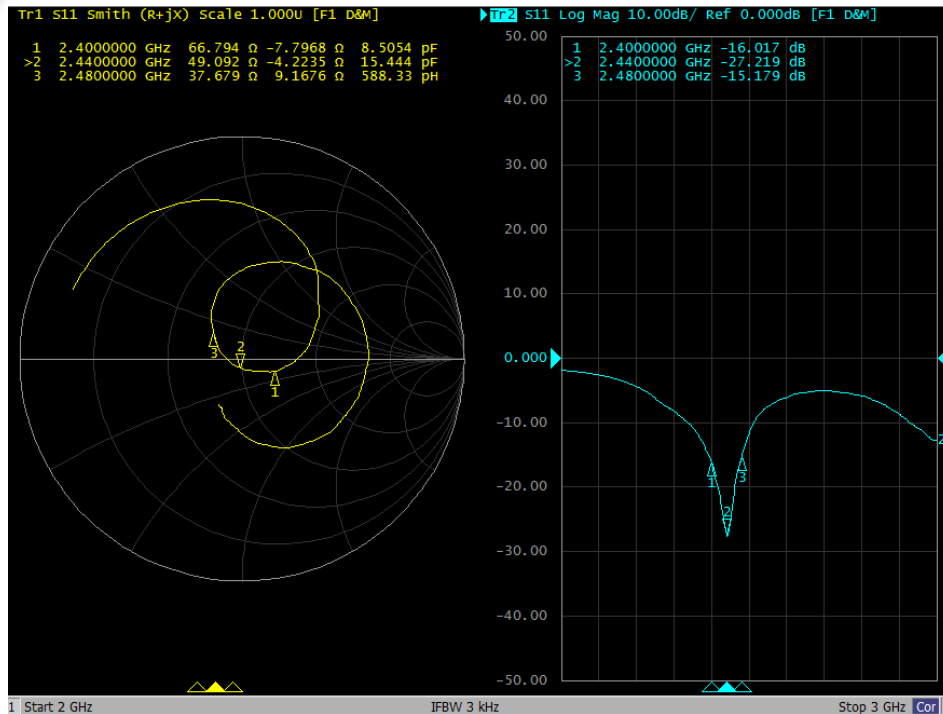
- Antenna Model:
 - Integrated PCB trace antenna (no discrete part)
- Antenna Manufacturer:
 - Universal Electronics Inc.
 - Address: 201 E. SANDPOINTE AVE 8TH FLOOR SANTA ANA 92702 CA USA
- Antenna Type:
 - PCB trace antenna (integrated on board)

Return Loss and Smith Chart

REDEFINING CONTROL

#1_L5=2.4PF, C41=1.8NH, C28=DNF

#2_L5=2.4PF, C41=1.8NH, C28=DNF

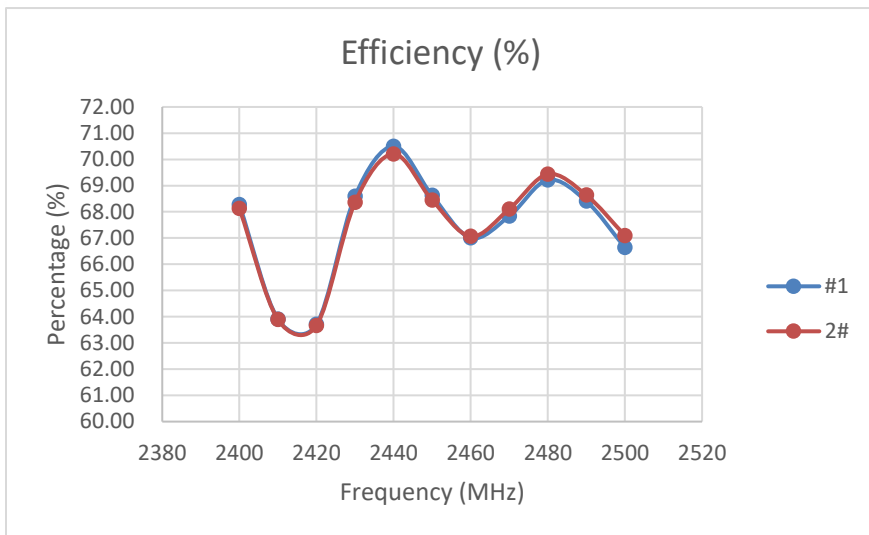


Frequency (MHz)	S11 (dB)		
	2400	2440	2480
# 1	-16.017	-27.219	-15.179

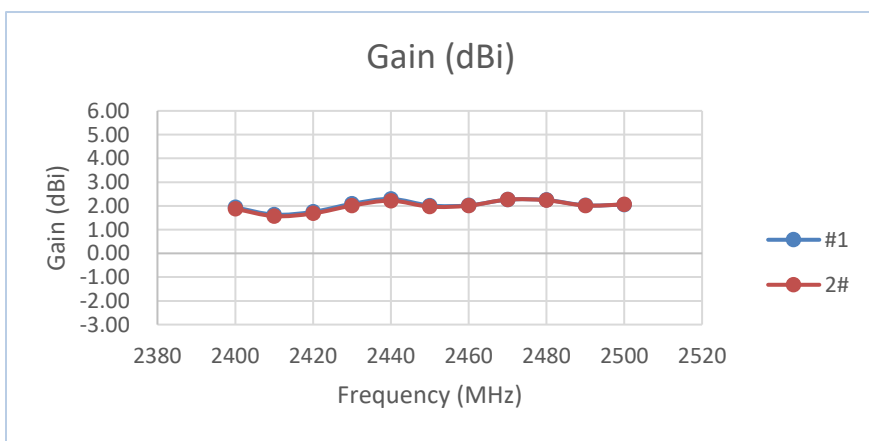
Frequency (MHz)	S11 (dB)		
	2400	2440	2480
# 2	-18.267	-23.334	-13.955

Efficiency and Gain table

REDEFINING CONTROL



	#1	#2
Frequency (MHz)	Efficiency (%)	Efficiency (%)
2400	68%	68%
2410	64%	64%
2420	64%	64%
2430	69%	68%
2440	70%	70%
2450	69%	68%
2460	67%	67%
2470	68%	68%
2480	69%	69%
2490	68%	69%
2500	67%	67%

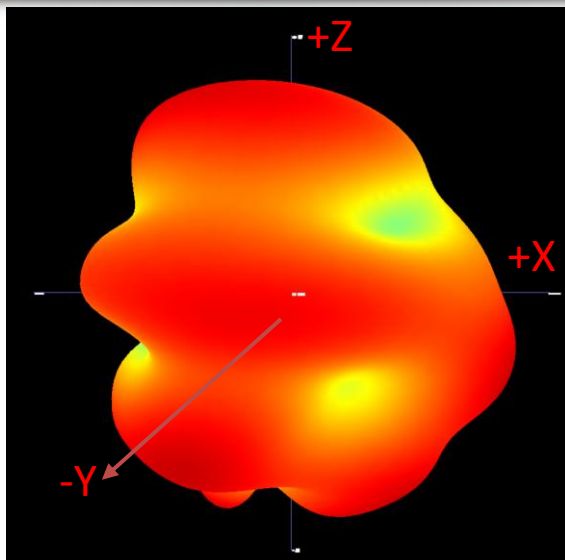


	#1	#2
Frequency (MHz)	Gain (dBi)	Gain (dBi)
2400	1.94	1.88
2410	1.63	1.57
2420	1.75	1.68
2430	2.09	2.01
2440	2.29	2.22
2450	2.02	1.97
2460	2.02	2.01
2470	2.26	2.26
2480	2.25	2.24
2490	2.02	2.02
2500	2.05	2.06

Radiation Pattern - Unit 1

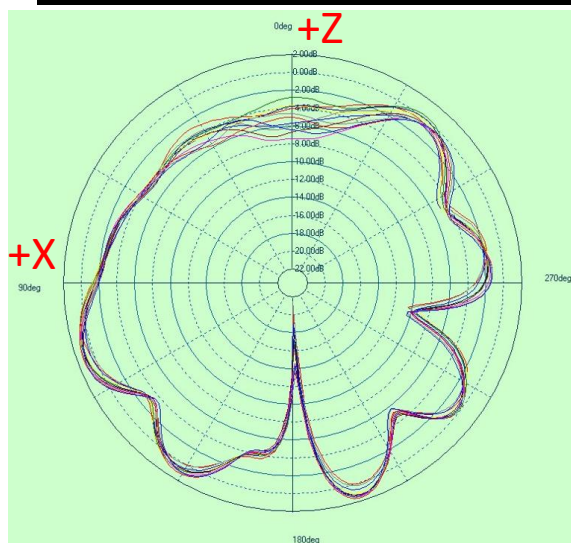
REDEFINING CONTROL

Unit 1_2.440 GHz

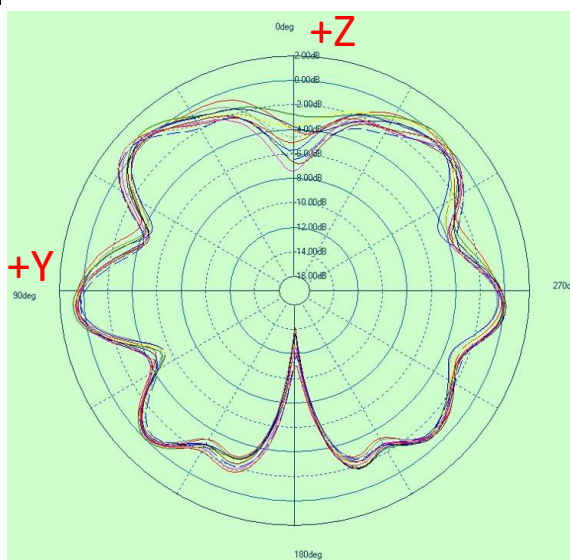


Legend

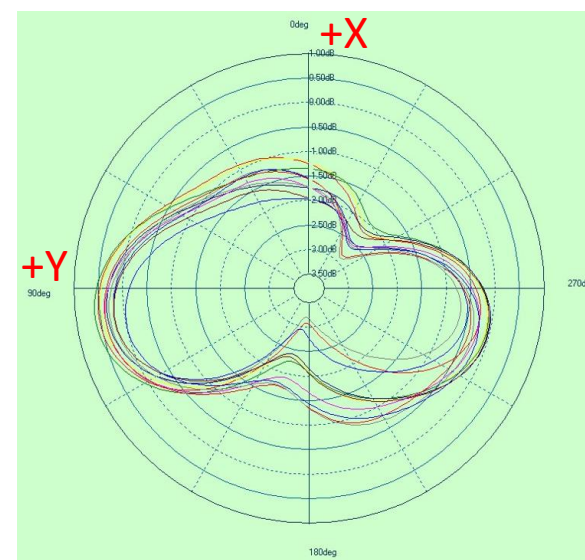
2400.00(MHz)
2410.00(MHz)
2420.00(MHz)
2430.00(MHz)
2440.00(MHz)
2450.00(MHz)
2460.00(MHz)
2470.00(MHz)
2480.00(MHz)
2490.00(MHz)
2500.00(MHz)



Phi=0°



Phi=90°

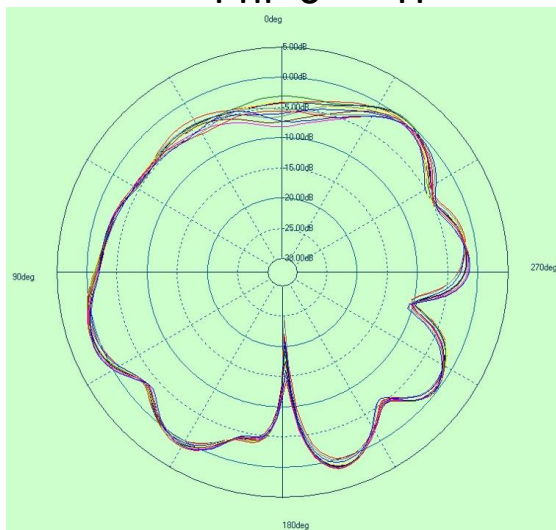


Theta=90°

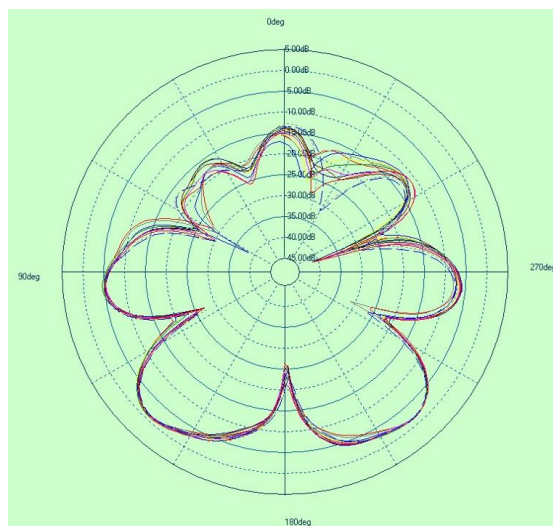
Radiation Pattern - Unit 1

REDEFINING CONTROL

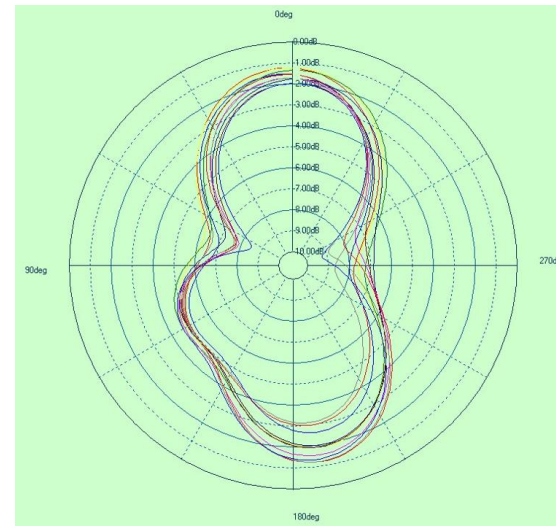
$\Phi=0^\circ$ - H



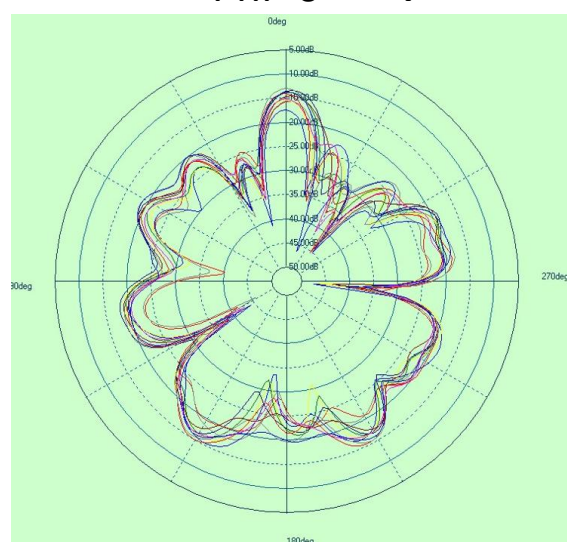
$\Phi=90^\circ$ - H



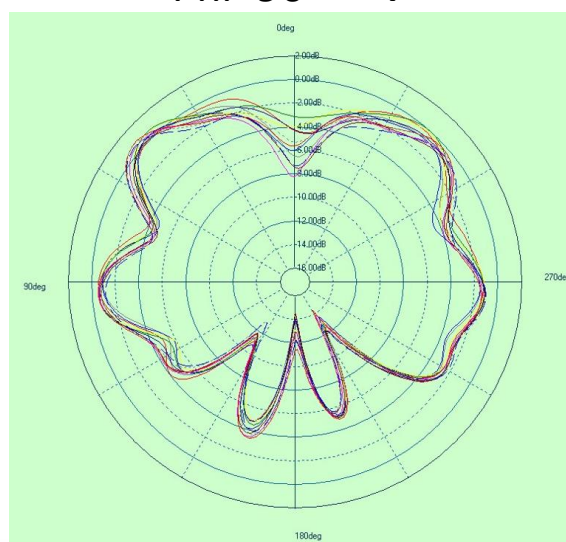
$\Theta=90^\circ$ - H



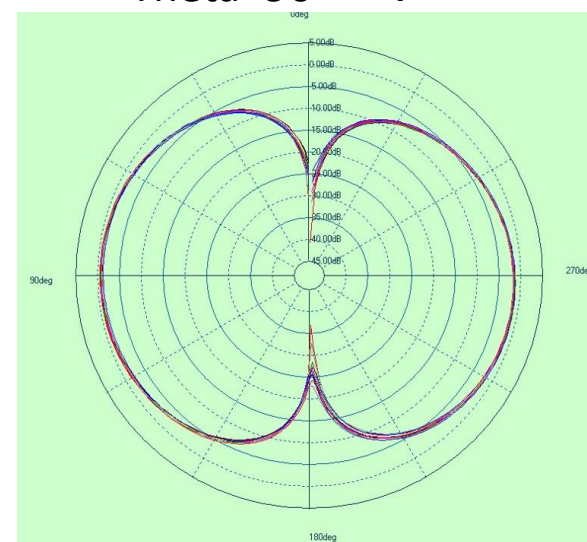
$\Phi=0^\circ$ - V



$\Phi=90^\circ$ - V



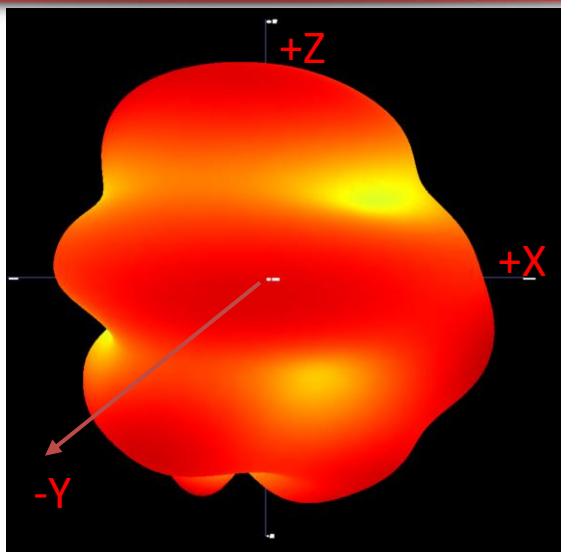
$\Theta=90^\circ$ - V



Radiation Pattern - Unit 2

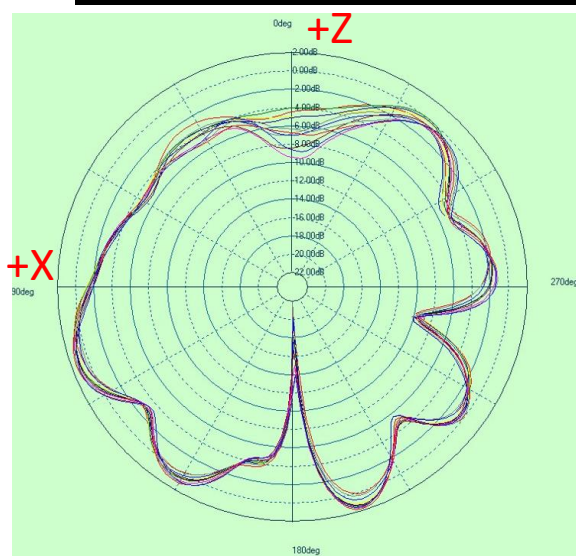
REDEFINING CONTROL

Unit 2_2.440 GHz

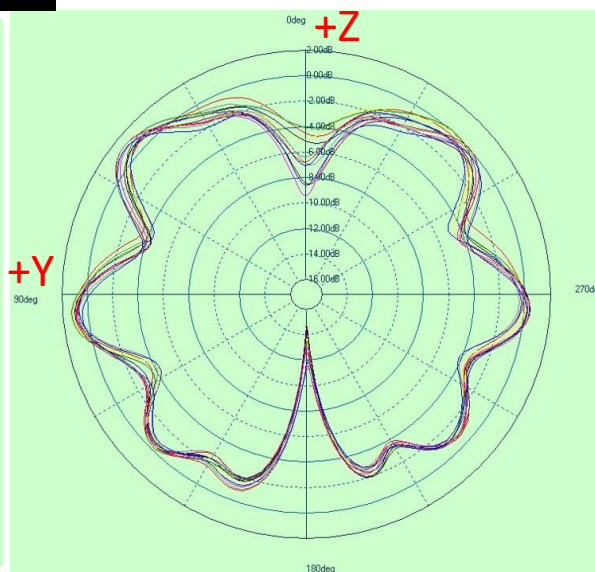


Legend

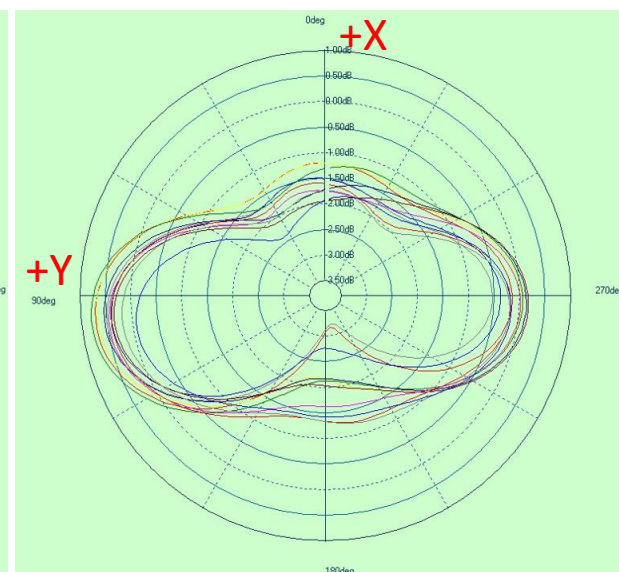
- 2400.00(MHz)
- 2410.00(MHz)
- 2420.00(MHz)
- 2430.00(MHz)
- 2440.00(MHz)
- 2450.00(MHz)
- 2460.00(MHz)
- 2470.00(MHz)
- 2480.00(MHz)
- 2490.00(MHz)
- 2500.00(MHz)



Phi=0°



Phi=90°

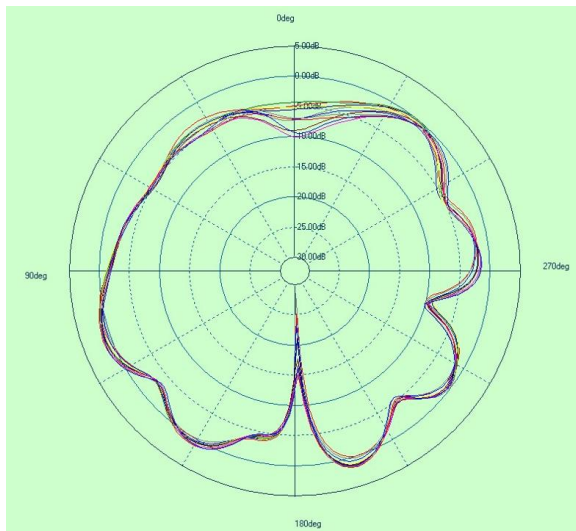


Theta=90°

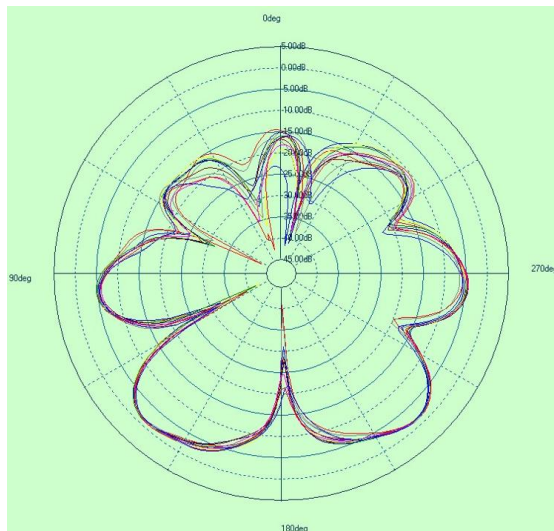
Radiation Pattern - Unit 2

REDEFINING CONTROL

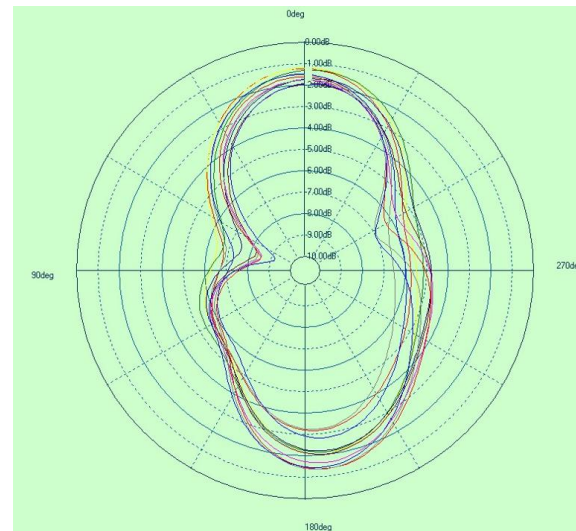
$\Phi = 0^\circ$ - H



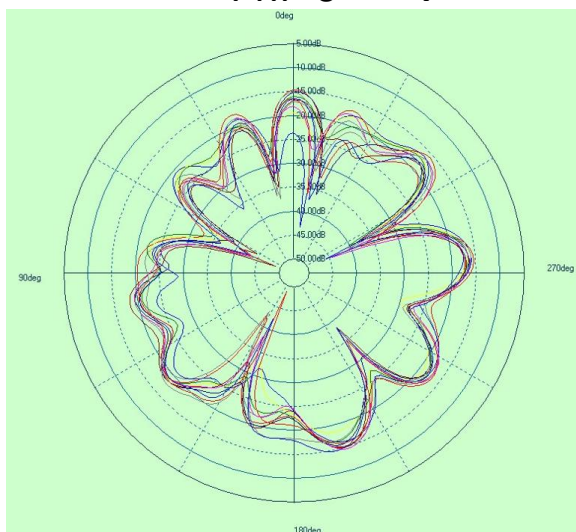
$\Phi = 90^\circ$ - H



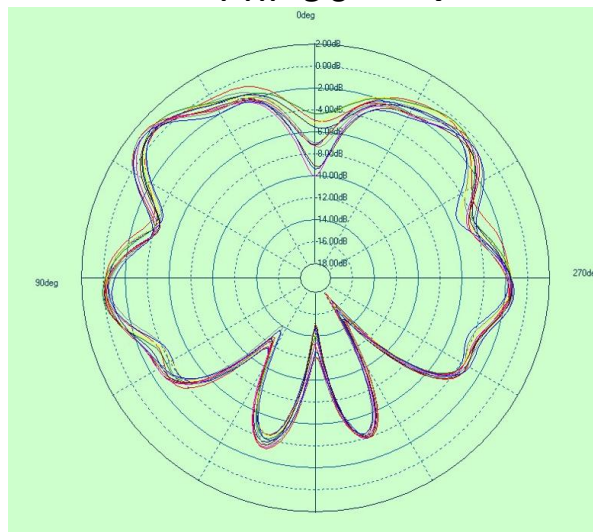
$\Theta = 90^\circ$ - H



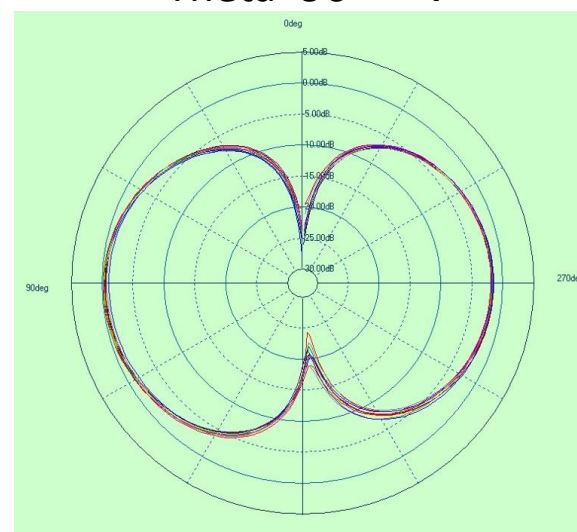
$\Phi = 0^\circ$ - V



$\Phi = 90^\circ$ - V



$\Theta = 90^\circ$ - V



Measured Gain Table

REDEFINING CONTROL

SONY FY26				Average Gain +/- 90 deg		Minimum gain +/- 45 deg	
TONY				(Averaged for 3 frequencies)		(Averaged every 10 deg, min value picked among all the values and all 3 frequencies)	
Coordinate System	Sony	UEI	H (phi)	V (theta)	H (phi)	V (theta)	
	XY	XZ	-22.3	-3.0	-34.0	-5.9	
	YZ	YZ	-1.7	-14.5	-5.5	-26.8	
	ZX	XY	-4.4	-4.2	-5.0	-8.0	

SONY FY26				Average Gain +/- 90 deg		Minimum gain +/- 45 deg	
TONY				(Averaged for 3 frequencies)		(Averaged every 10 deg, min value picked among all the values and all 3 frequencies)	
Coordinate System	Sony	UEI	H (phi)	V (theta)	H (phi)	V (theta)	
	XY	XZ	-20.9	-3.2	-28.6	-7.2	
	YZ	YZ	-1.7	-13.7	-7.0	-38.3	
	ZX	XY	-4.7	-3.6	-4.4	-6.3	

Measured Gain Table with left hand

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SONY FY26			Average Gain +/- 90 deg		Minimum gain +/- 45 deg	
TONY with left hand			(Averaged for 3 frequencies)		(Averaged every 10 deg, min value picked among all the values and all 3 frequencies)	
Coordinate System	Sony	UEI	H (phi)	V (theta)	H (phi)	V (theta)
Remote1	XY	XZ	-12.4	-3.2	-28.8	-5.0
	YZ	YZ	-2.4	-12.1	-4.2	-26.6
	ZX	XY	-9.1	-8.0	-9.1	-15.9

SONY FY26			Average Gain +/- 90 deg		Minimum gain +/- 45 deg	
TONY with left hand			(Averaged for 3 frequencies)		(Averaged every 10 deg, min value picked among all the values and all 3 frequencies)	
Coordinate System	Sony	UEI	H (phi)	V (theta)	H (phi)	V (theta)
Remote2	XY	XZ	-16.1	-2.9	-28.6	-5.4
	YZ	YZ	-1.7	-13.6	-3.7	-25.6
	ZX	XY	-7.9	-6.3	-8.5	-11.7

Measured Gain Table with right hand

REDEFINING CONTROL

SONY FY26				Average Gain +/- 90 deg		Minimum gain +/- 45 deg	
TONY with right hand				(Averaged for 3 frequencies)		(Averaged every 10 deg, min value picked among all the values and all 3 frequencies)	
Coordinate System	Sony	UEI	H (phi)	V (theta)	H (phi)	V (theta)	
Remote1	XY	XZ	-17.7	-2.8	-27.7	-5.2	
	YZ	YZ	-2.0	-11.9	-3.7	-29.5	
	ZX	XY	-8.2	-3.8	-10.6	-7.0	

SONY FY26				Average Gain +/- 90 deg		Minimum gain +/- 45 deg	
TONY with right hand				(Averaged for 3 frequencies)		(Averaged every 10 deg, min value picked among all the values and all 3 frequencies)	
Coordinate System	Sony	UEI	H (phi)	V (theta)	H (phi)	V (theta)	
	XY	XZ	-16.9	-2.9	-28.4	-5.3	
	YZ	YZ	-2.0	-10.9	-3.6	-30.0	
	ZX	XY	-9.3	-3.4	-9.0	-5.6	