

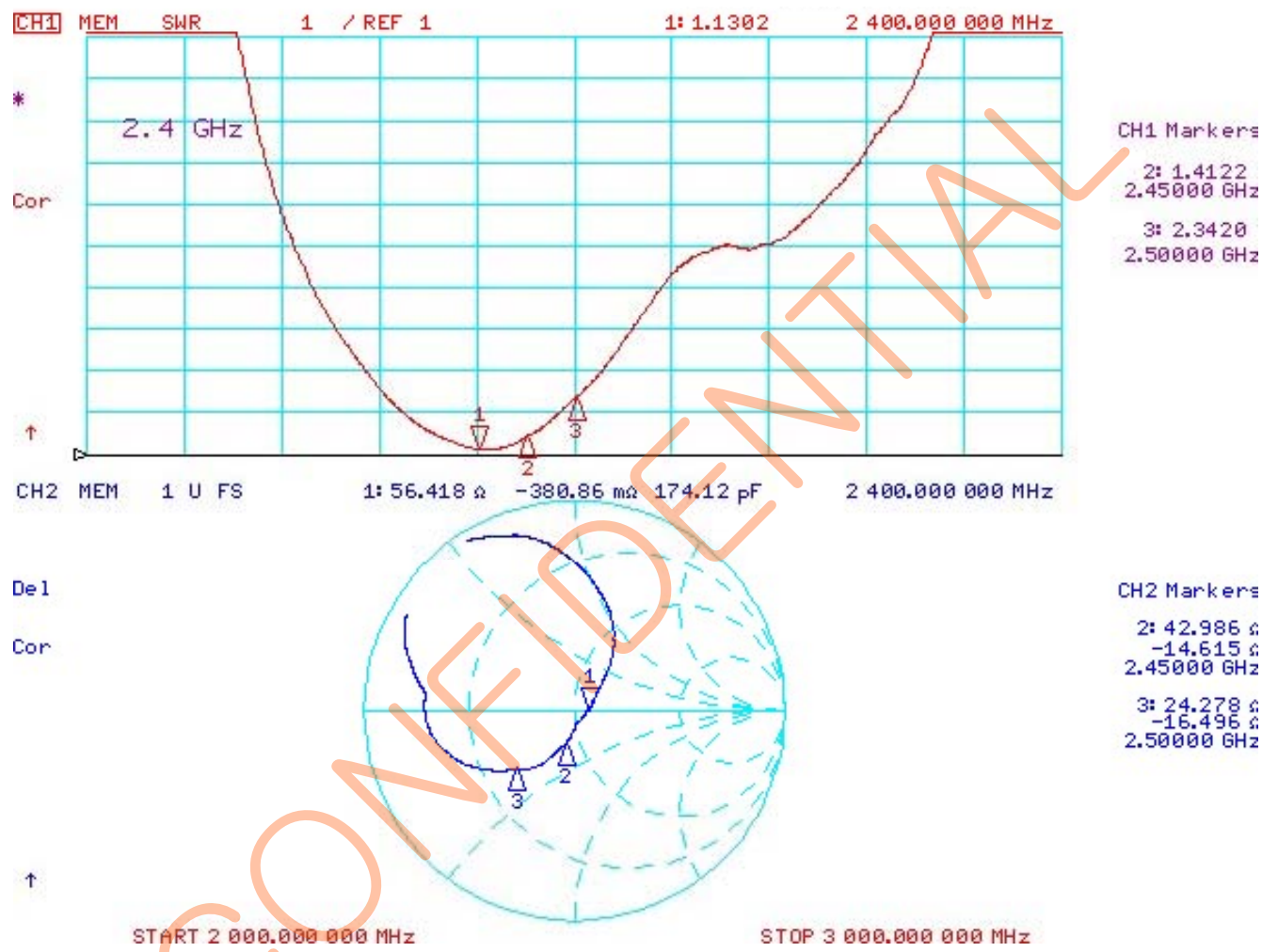
3. Electrical Specifications

3-1.

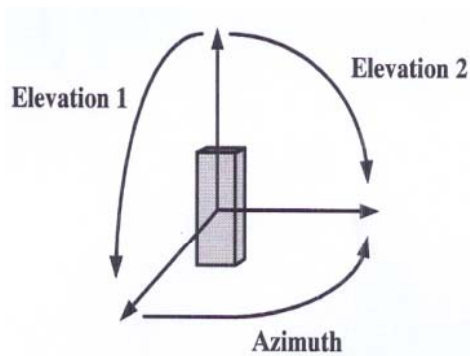
- * All item are measured in room temperature (24~25 'C).
- * All item are measured at customer set condition.

No.	Items	Typical Data
1	Frequency (MHz)	2400 ~2500
2	VSWR	2.5 : 1
3	Total Gain (Peak) [dBi]	0
4	Impedance	50 ohm
5	Polarization	Linear

3-2. VSWR (S₁₁) of USER SET condition



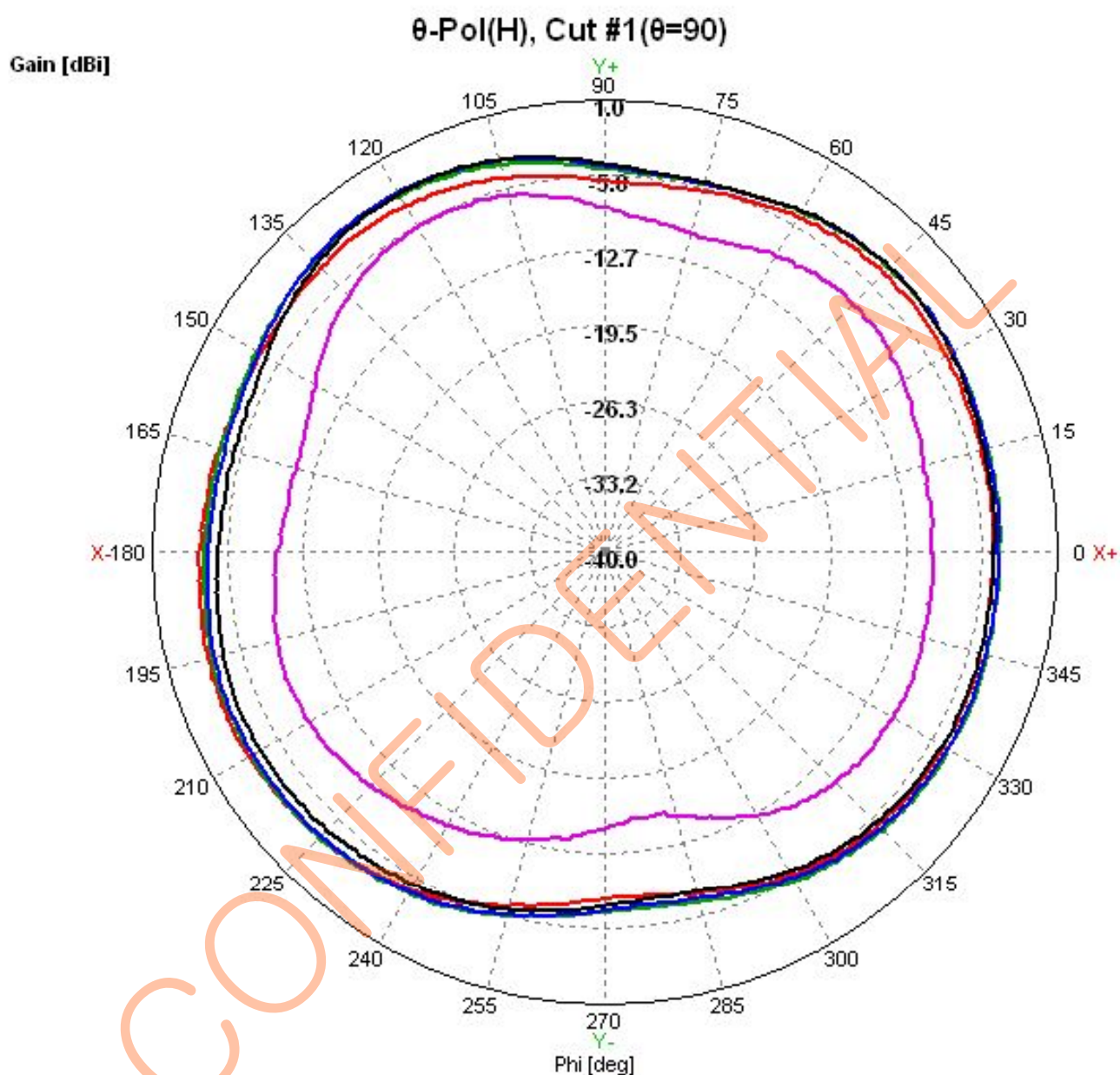
3-3. Radiation Patterns



Theta	Vertical Field of measured plane
Phi	Horizontal Field of measured plane

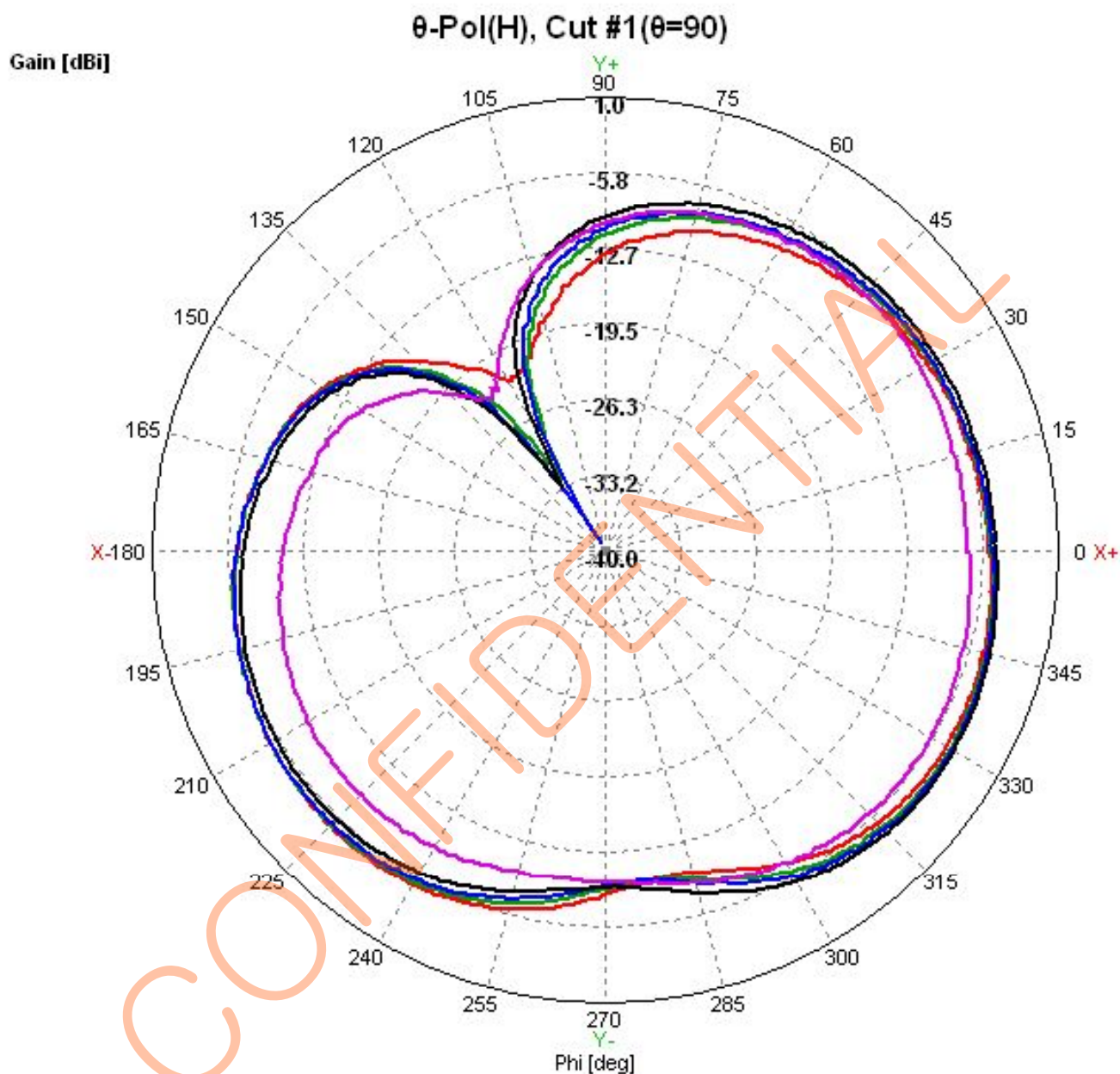
이득[dBi] (Co-Pola)	Azimuth	Phi	Peak	-0.76
			Avg	-3.19
	Elevation	Theta	Peak	-2.37
			Avg	-4.19

(Azimuth)



	θ -Pol(H)					ϕ -Pol(V)					PwrSum				
Freq.[GHz]	Avg.[dBi]	Peak[dBi]	ϕ [deg]	Null[dBi]	ϕ [deg]	Avg.[dBi]	Peak[dBi]	ϕ [deg]	Null[dBi]	ϕ [deg]	Avg.[dBi]	Peak[dBi]	ϕ [deg]	Null[dBi]	ϕ [deg]
2.400	-4.63	-2.65	206.00	-8.62	276.00	-8.66	-3.63	147.00	-17.53	290.00	-3.19	-0.76	147.00	-7.32	282.00
2.420	-4.16	-2.52	125.00	-7.51	278.00	-8.82	-3.30	149.00	-19.92	289.00	-2.88	-0.30	143.00	-6.89	283.00
2.430	-4.22	-2.30	121.00	-7.78	276.00	-8.85	-3.21	147.00	-21.82	288.00	-2.93	-0.28	140.00	-7.32	282.00
2.450	-4.65	-2.48	120.00	-8.34	278.00	-9.42	-3.58	149.00	-22.00	283.00	-3.40	-0.66	140.00	-8.06	282.00
2.500	-9.57	-5.95	115.00	-15.82	282.00	-12.50	-6.70	143.00	-26.45	276.00	-7.78	-4.25	138.00	-15.45	276.00

(Elevation)

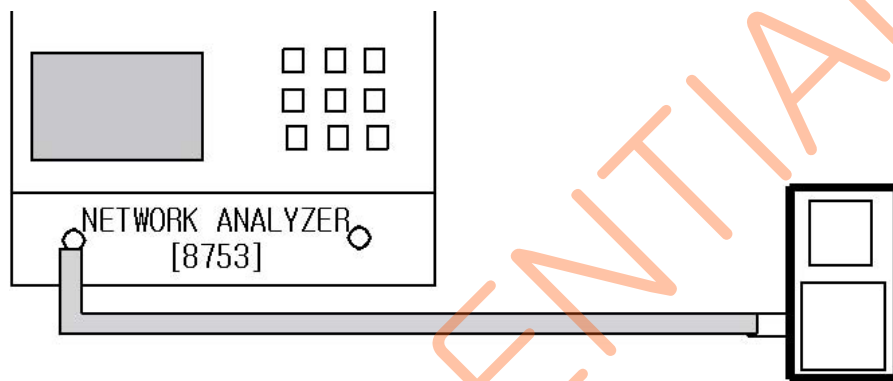


	θ -Pol(H)					ϕ -Pol(V)					PwrSum				
Freq.[GHz]	Avg.[dBi]	Peak[dBi]	ϕ [deg]	Null[dBi]	ϕ [deg]	Avg.[dBi]	Peak[dBi]	ϕ [deg]	Null[dBi]	ϕ [deg]	Avg.[dBi]	Peak[dBi]	ϕ [deg]	Null[dBi]	ϕ [deg]
2.400	-7.09	-4.35	337.00	-22.48	119.00	-7.31	-3.42	287.00	-15.21	223.00	-4.19	-2.37	301.00	-11.02	122.00
2.420	-6.87	-3.97	327.00	-32.43	121.00	-8.13	-4.01	284.00	-15.53	225.00	-4.45	-2.47	305.00	-11.15	119.00
2.430	-6.78	-3.76	329.00	-39.21	122.00	-8.27	-4.09	285.00	-15.62	225.00	-4.45	-2.35	305.00	-10.96	115.00
2.450	-6.68	-3.51	330.00	-33.05	124.00	-9.04	-4.83	282.00	-15.89	227.00	-4.69	-2.50	303.00	-10.47	115.00
2.500	-8.81	-5.96	328.00	-22.85	126.00	-11.70	-7.76	280.00	-20.94	200.00	-7.01	-5.02	297.00	-9.85	112.00

4. Measurements Method & Conditions

The measurement of antenna performance is measurement of gain, radiation pattern using ORBIT/FR apparatus in Anechoic chamber and measurement of VSWR using Network analyzer.

4-1. The measurement of Frequency and VSWR



[Measurement Method]

1. As seen the above, network analyzer is set up for S11 measurement.
2. The measurement frequency range is to set up from 2 GHz to 3 GHz.
3. Perform S11 one port full calibration.
4. Measure the VSWR of three points of Bluetooth frequency range such as 2.4 GHz, 2.45 GHz, and 2.5 GHz.

4-2. The measurement of Gain & Radiation Patterns

