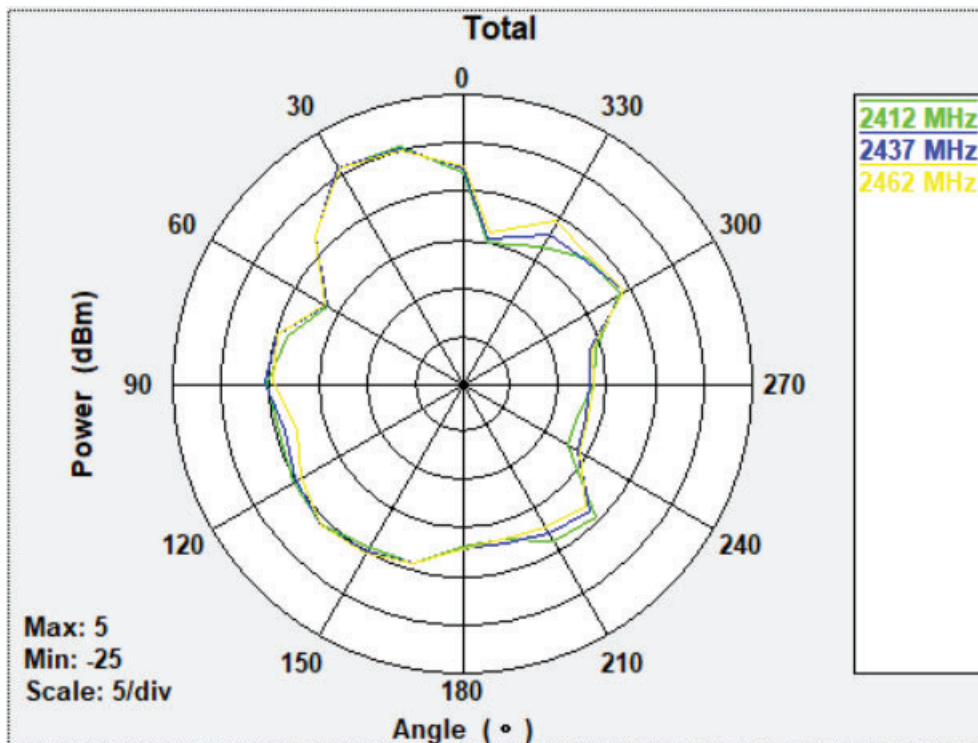


Antenna Specification

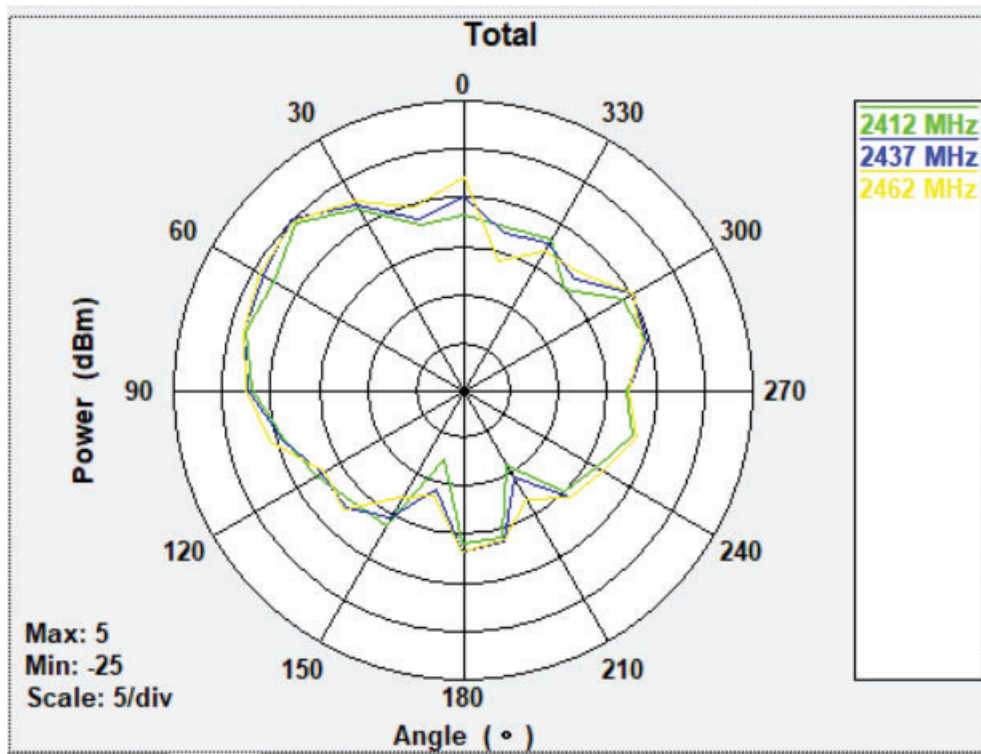
Product Name	Display Assy-Meter & AV
Supplier	Melco
Display Type P/N	28090 HS00A
Antenna Manufacture	NISSEI ELECTRIC
Address	Hanamaki Plant 201, Motodate, Hanamaki, Iwate, 025-0061 Japan
Antenna P/N	ANT2420-161CW/U-AB
Antenna Type	Metal Plate Antenna
WLAN cable	LVDS+WiFi (short)
Specification Version	V.4

3. 2D Antenna Pattern

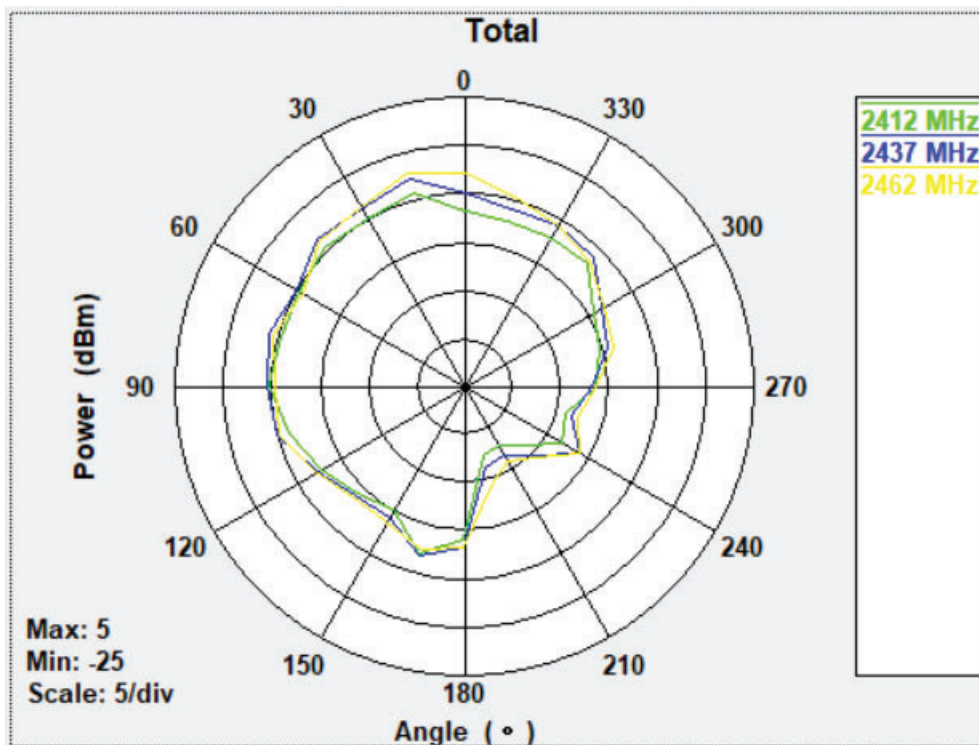
(1) X-Y : 2412MHz, 2437MHz, 2462MHz



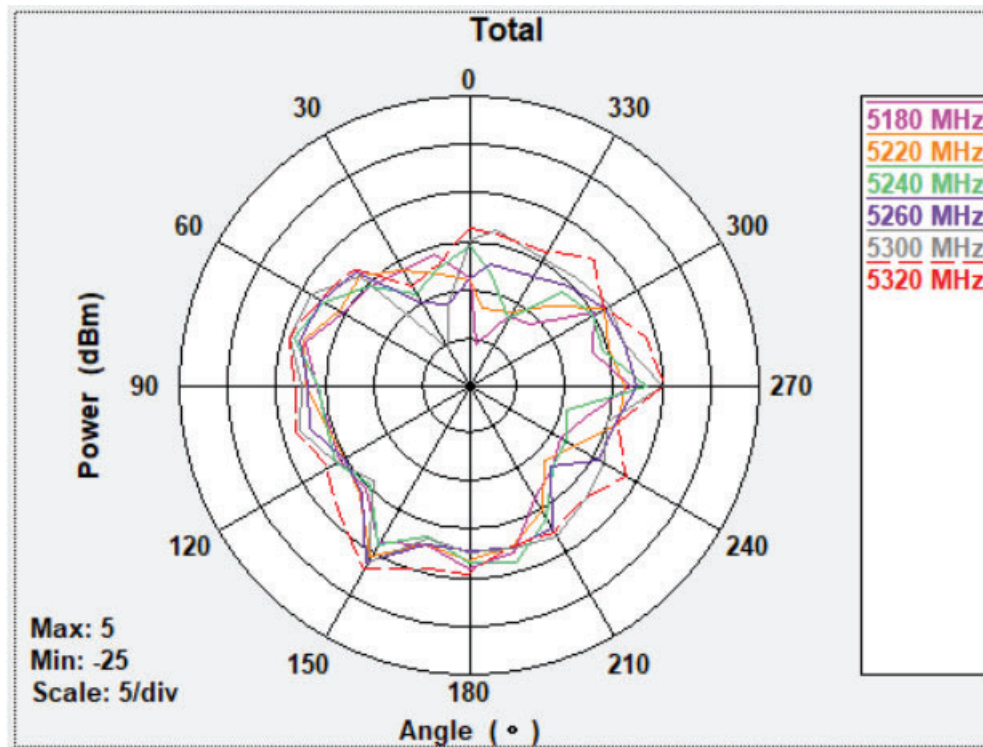
(2) X-Z : 2412MHz, 2437MHz, 2462MHz



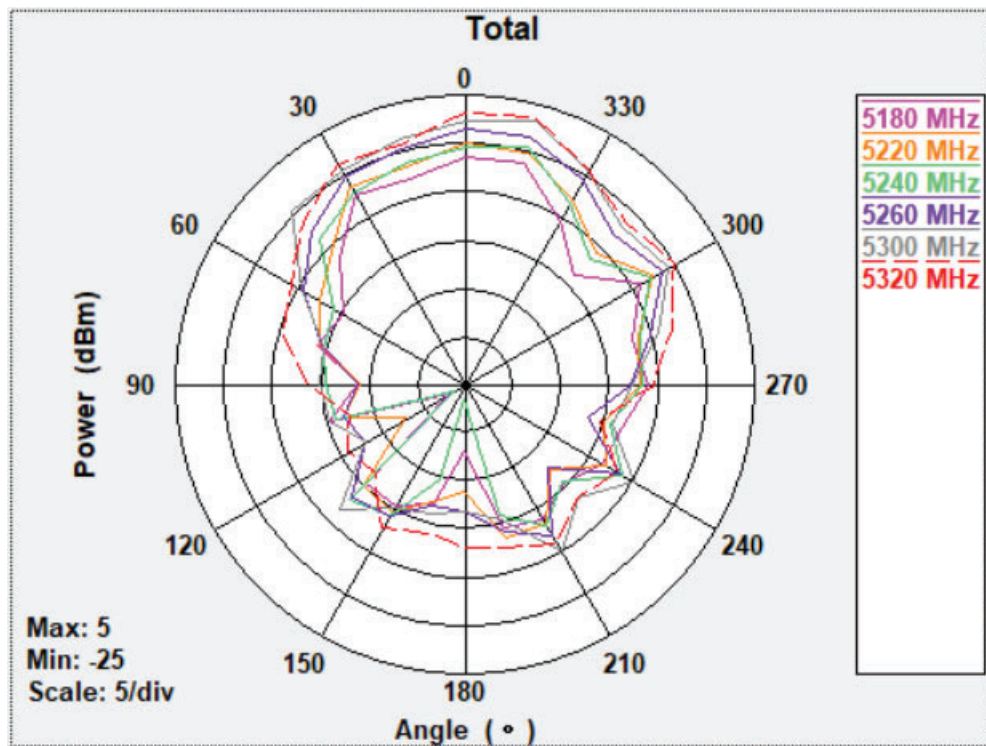
(3) Y-Z : 2412MHz, 2437MHz, 2462MHz



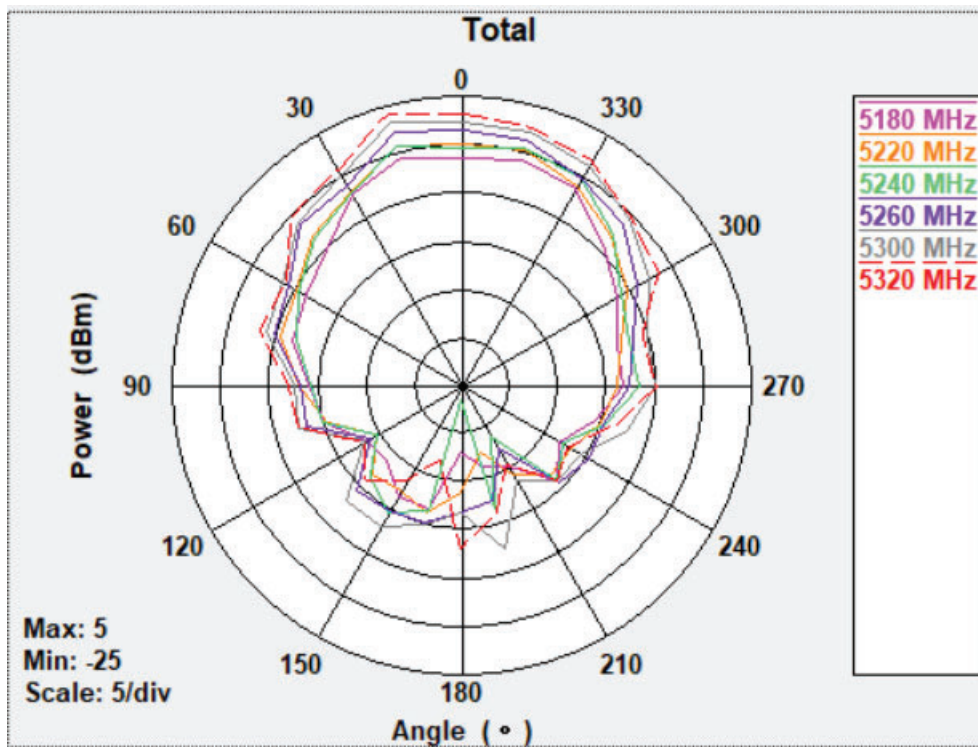
(4) X-Y : 5180MHz, 5220MHz, 5240MHz, 5260MHz, 5300MHz, 5320MHz



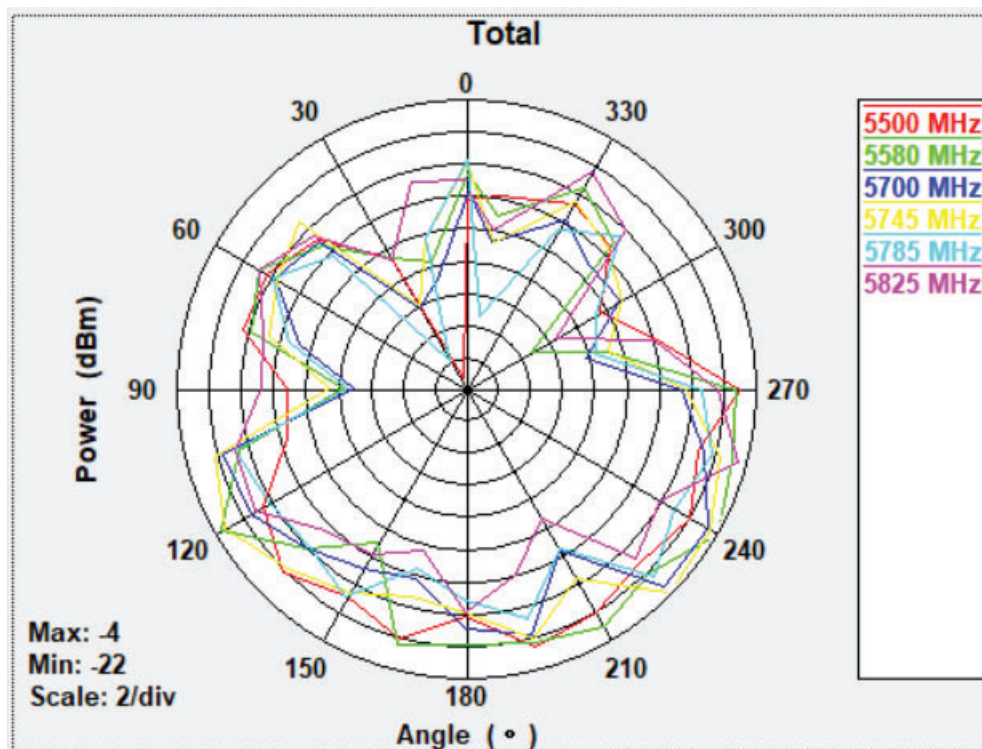
(5) X-Z : 5180MHz, 5220MHz, 5240MHz, 5260MHz, 5300MHz,5320MHz



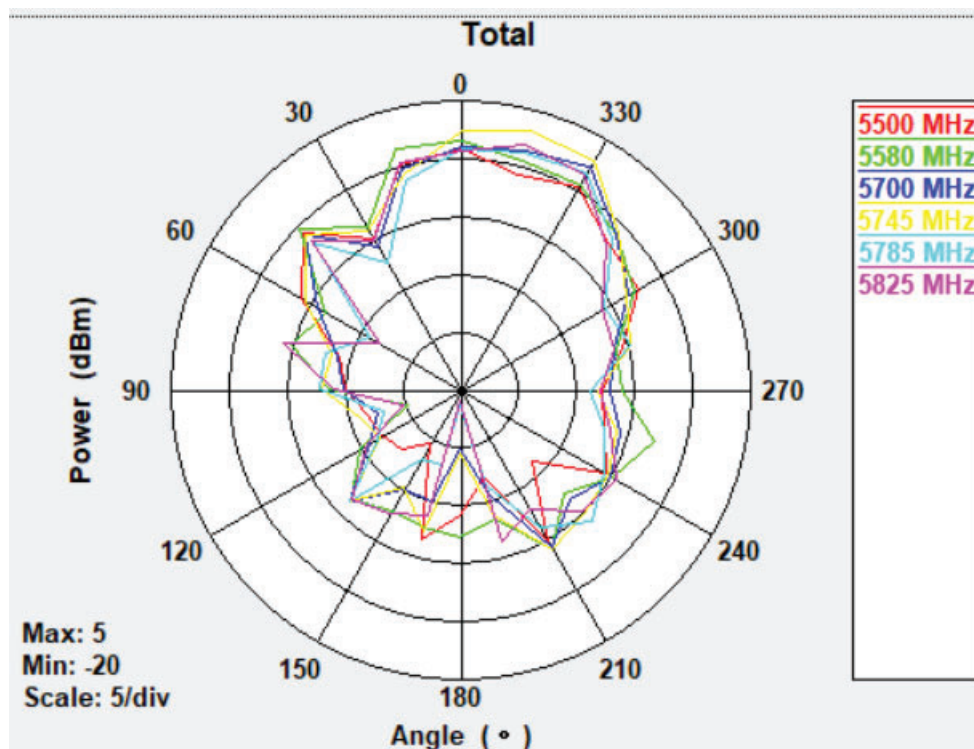
(6) Y-Z : 5180MHz, 5220MHz, 5240MHz, 5260MHz, 5300MHz,5320MHz



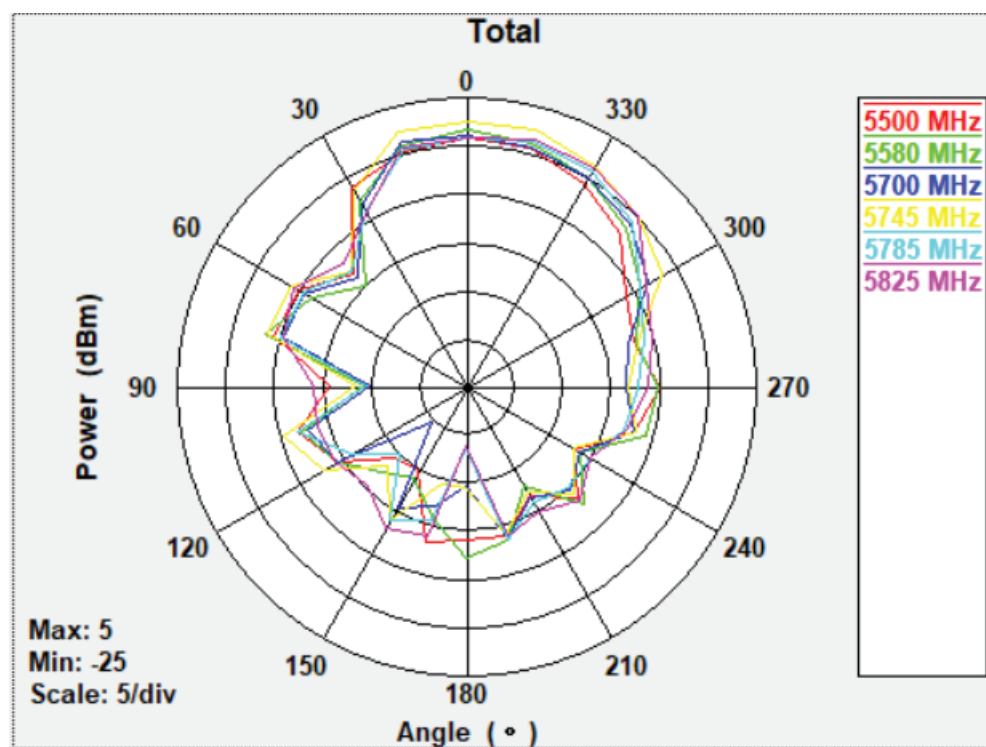
(7) X-Y : 5500MHz, 5580MHz, 5700MHz, 5745MHz, 5785MHz, 5825MHz



(8) X-Z : 5500MHz, 5580MHz, 5700MHz, 5745MHz, 5785MHz, 5825MHz

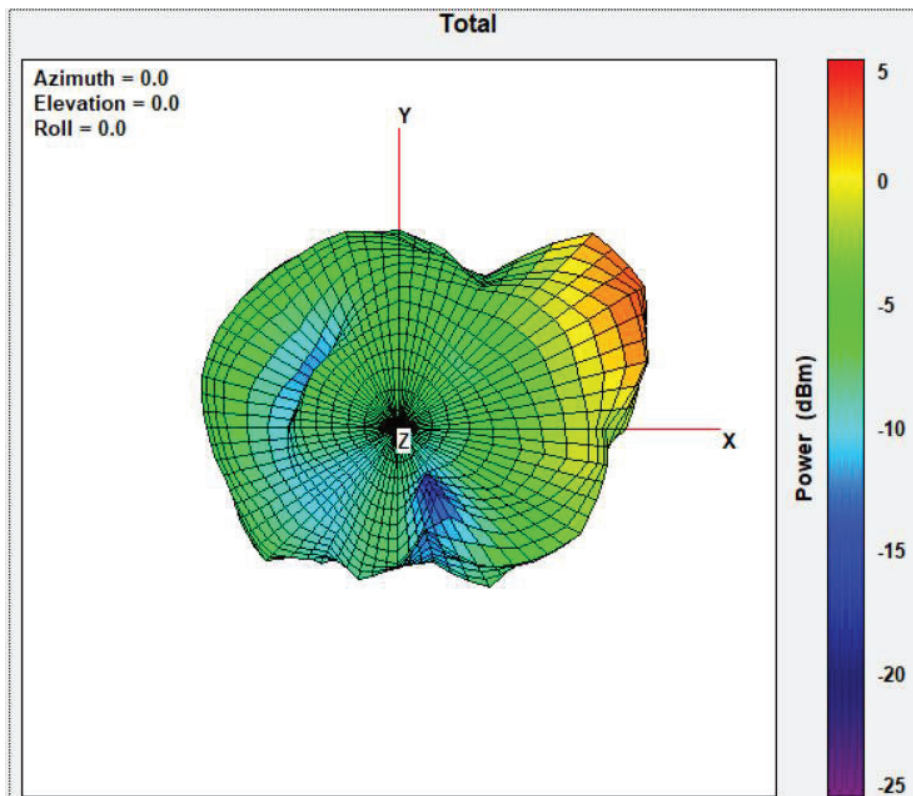


(9) Y-Z : 5500MHz, 5580MHz, 5700MHz, 5745MHz, 5785MHz, 5825MHz

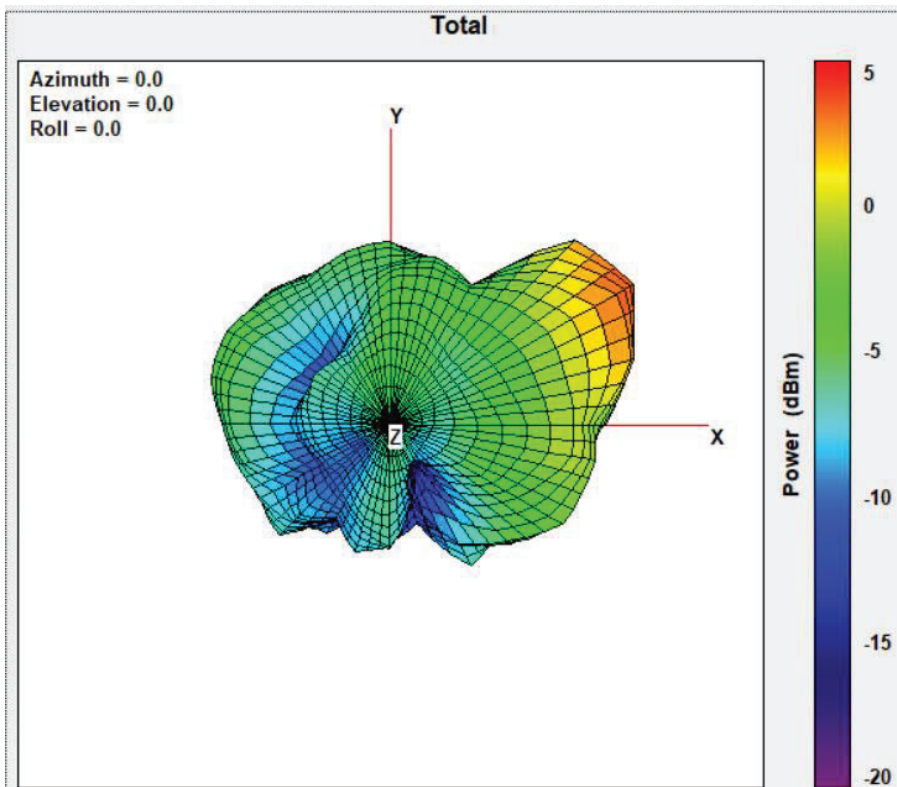


4. 3D Antenna Pattern

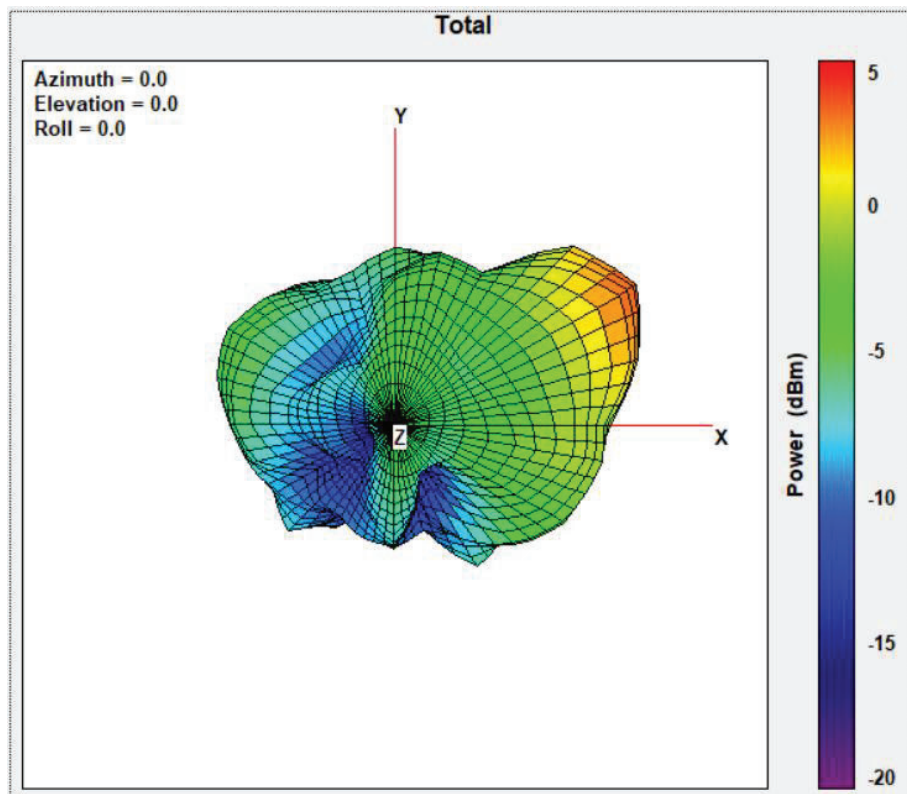
(1) 2412MHz



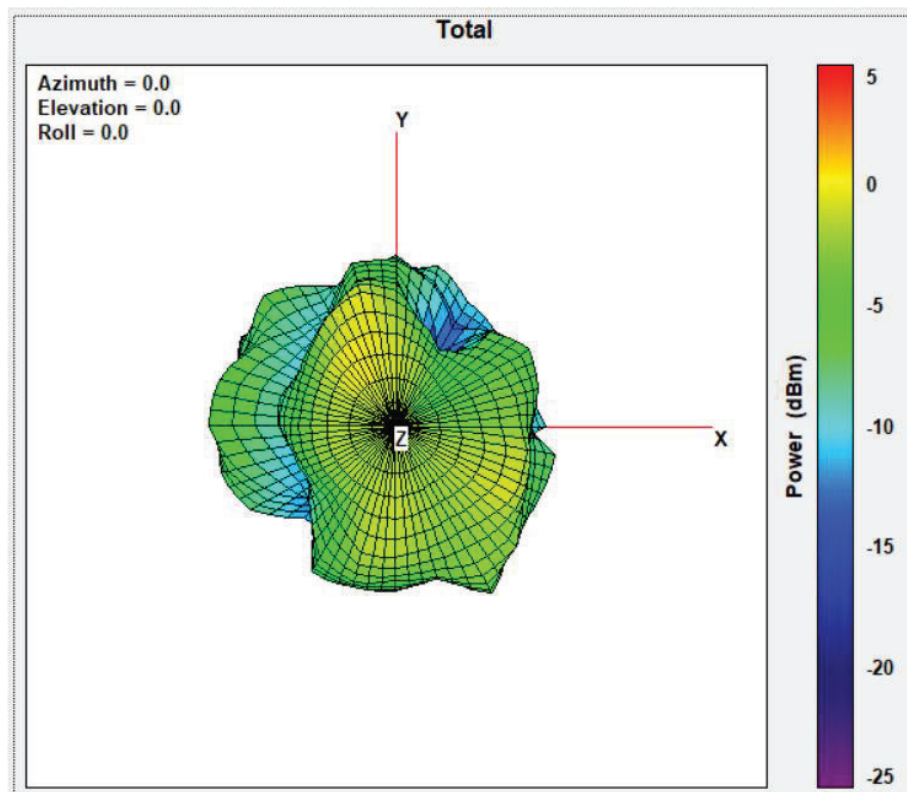
(2) 2437MHz



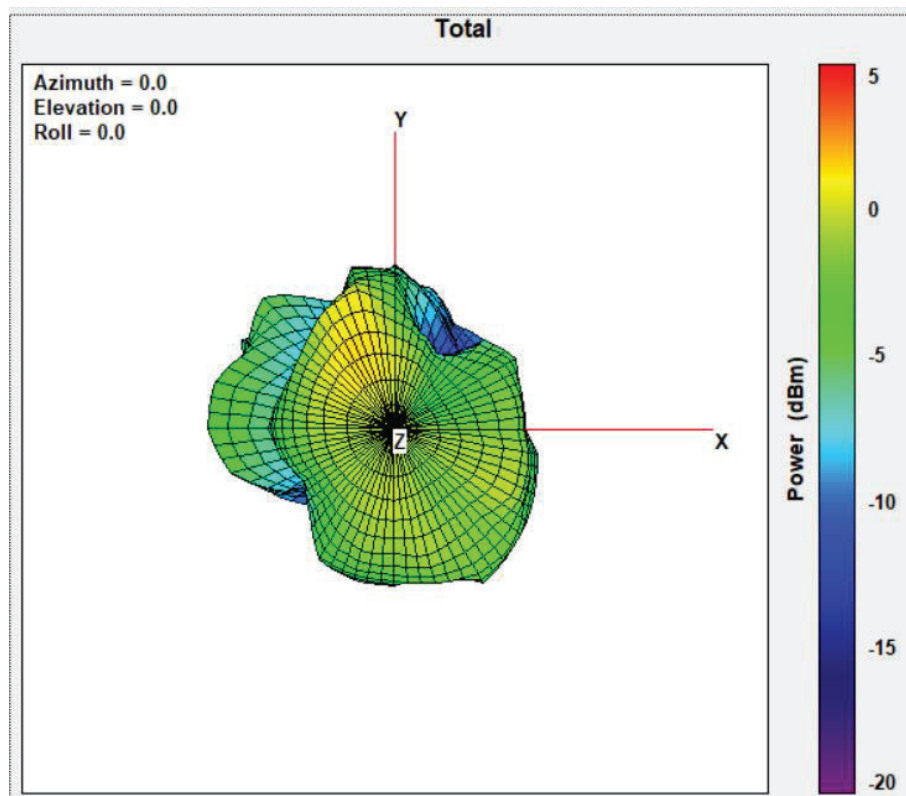
(3) 2462MHz



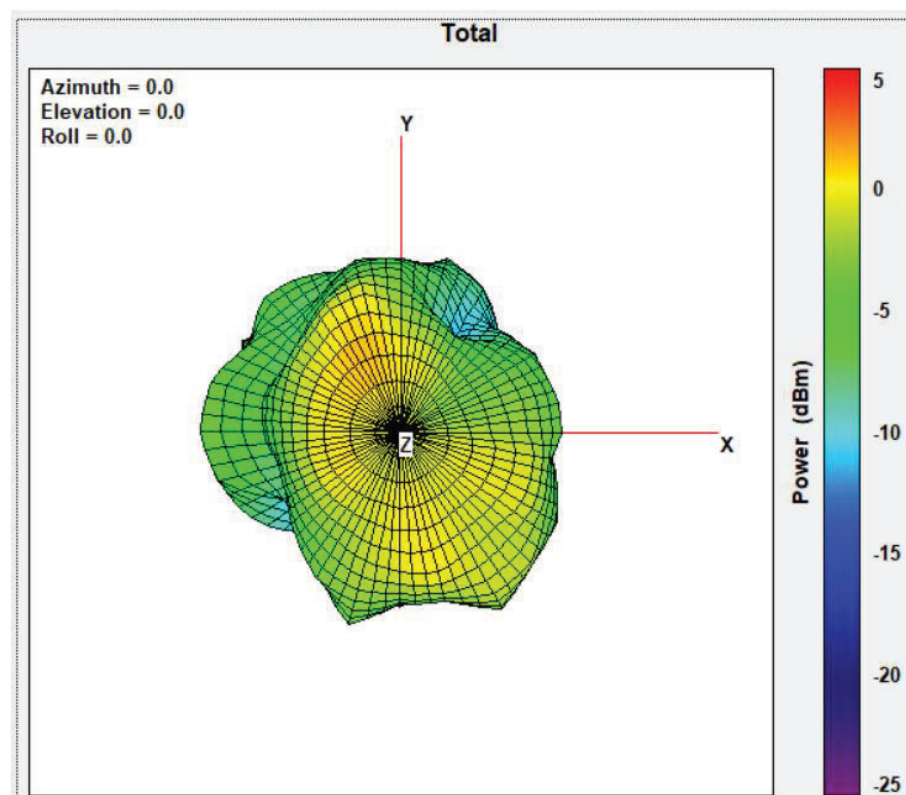
(4) 5180MHz



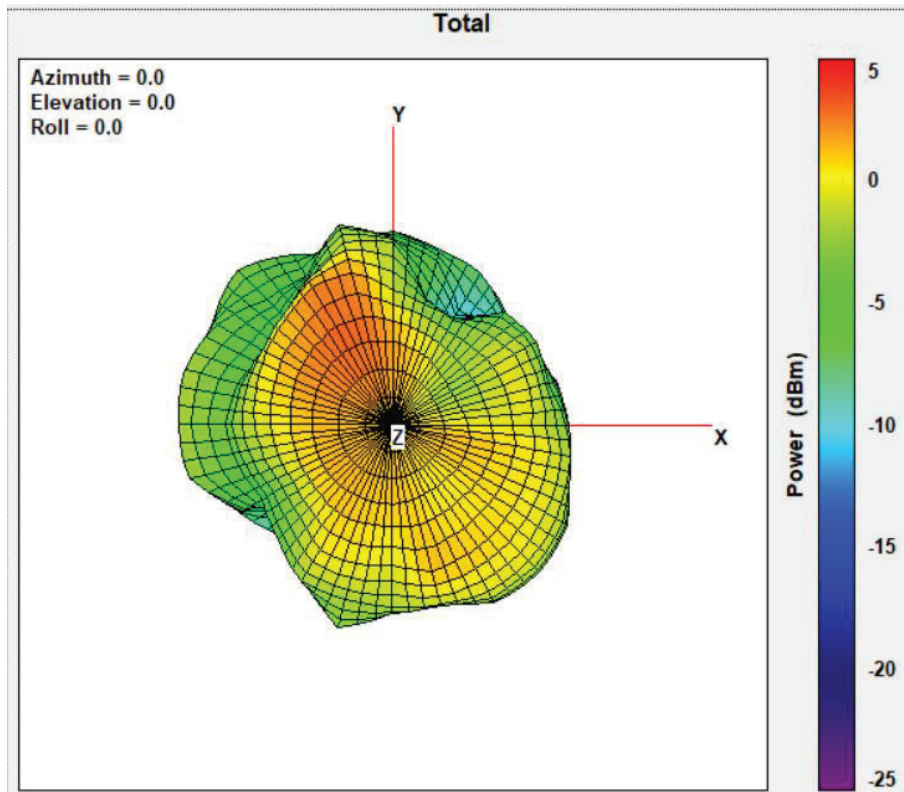
(5) 5220MHz



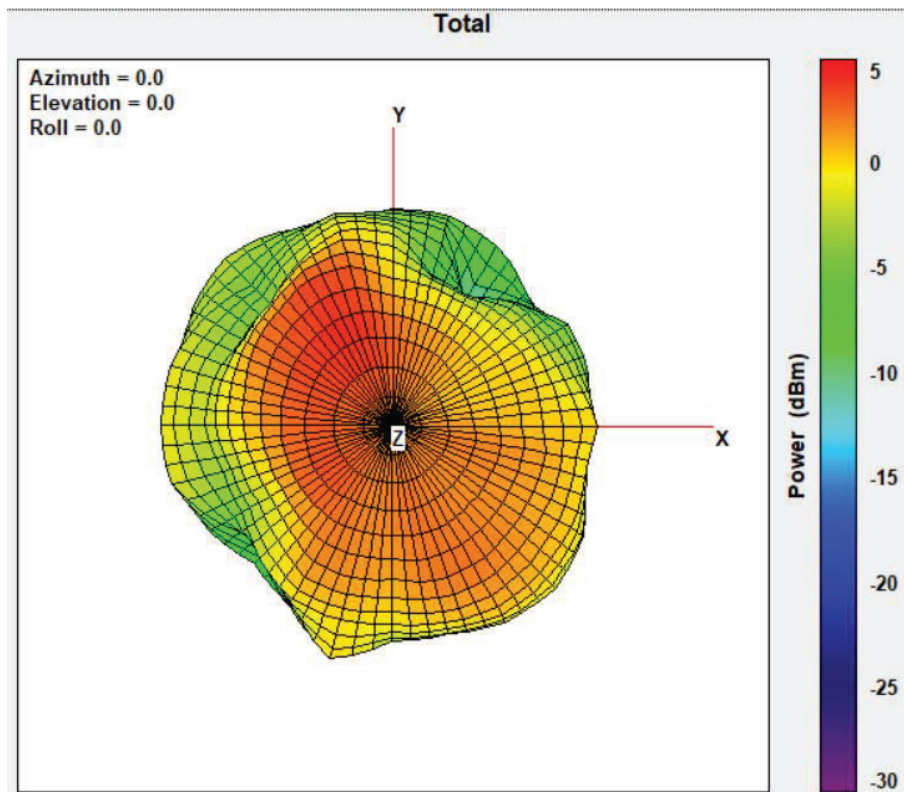
(6) 5240MHz



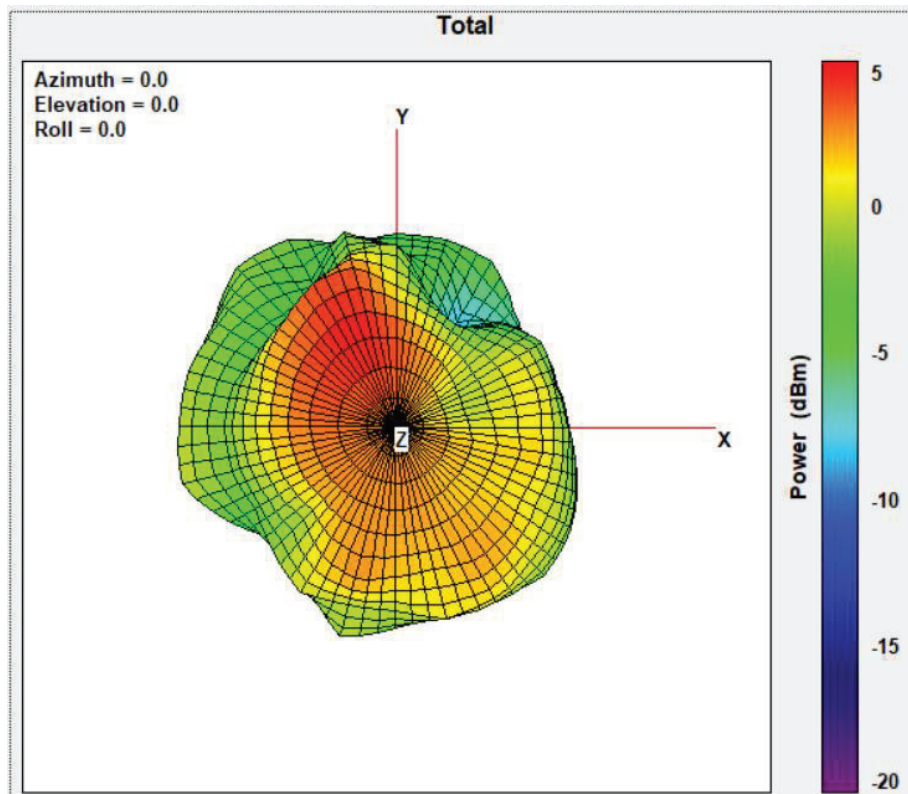
(7) 5260MHz



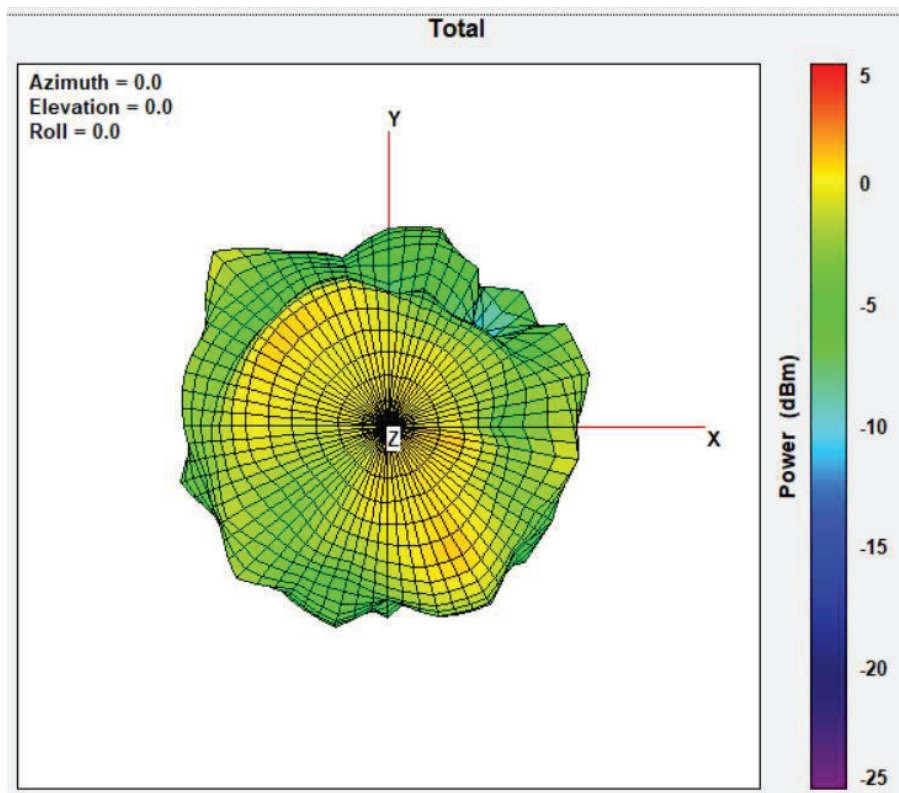
(8) 5300MHz



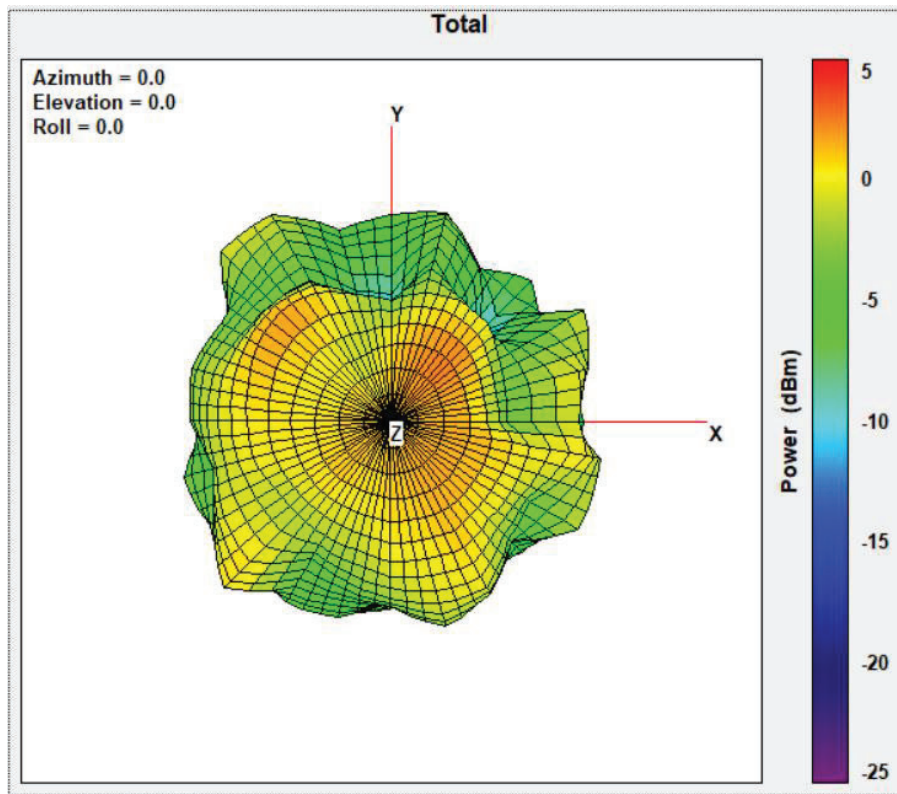
(9) 5320MHz



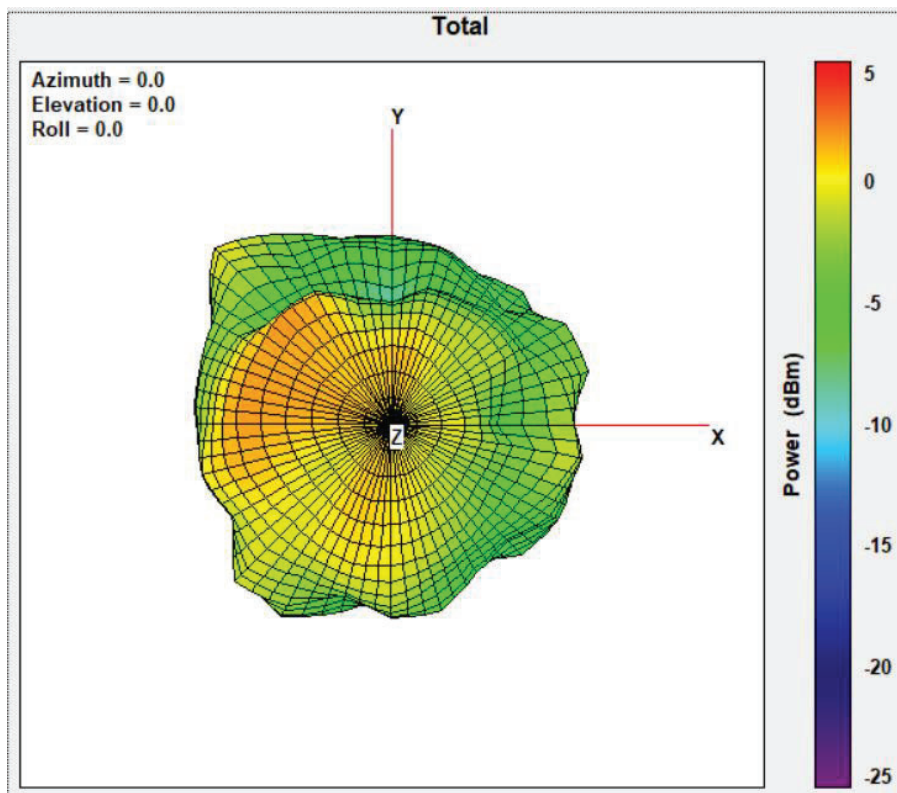
(10) 5500MHz



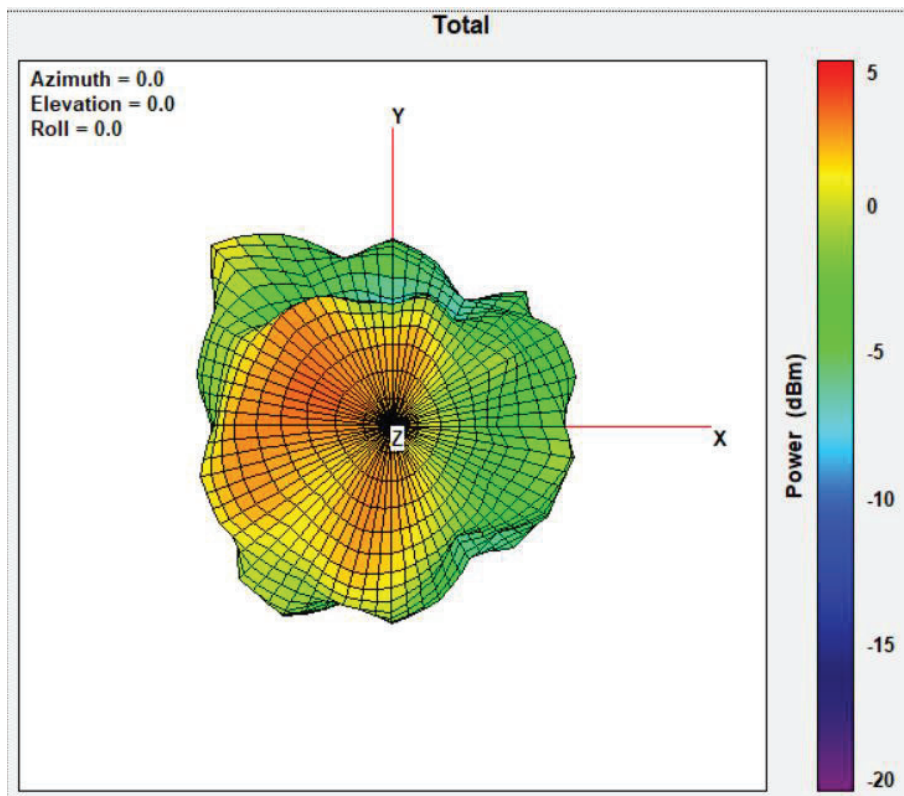
(11) 5580MHz



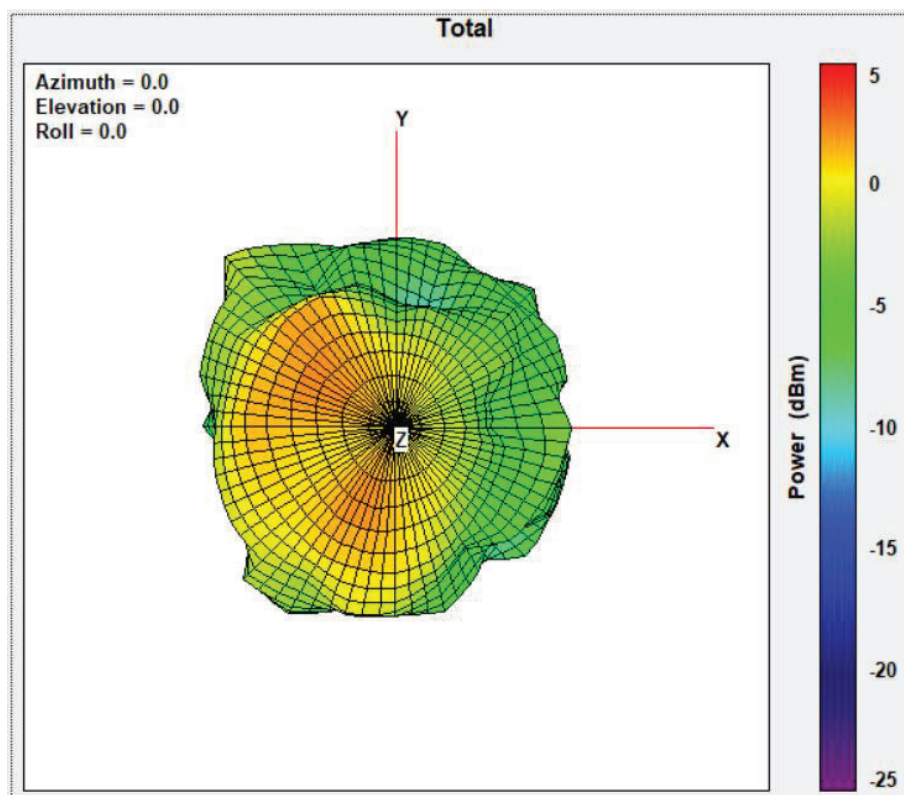
(12) 5700MHz



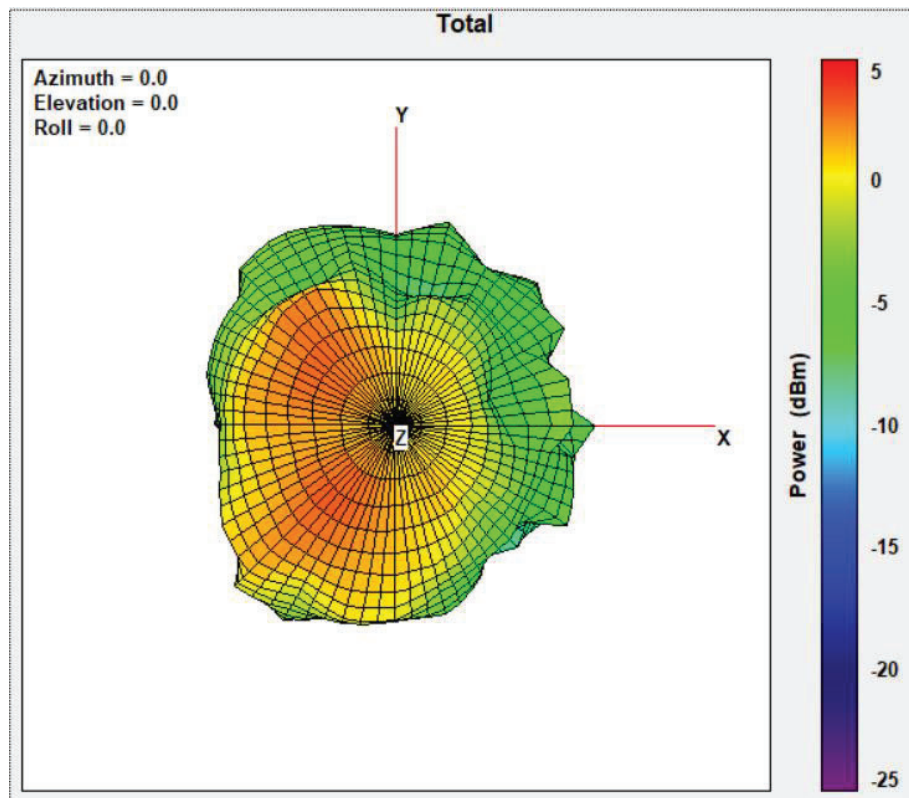
(13) 5745MHz



(14) 5785MHz



(15) 5825MHz



5. Test result

With WLAN Cable LVDS+WiFi (short)

(1) 2.4GHz band

Frequency (MHz)	2412	2437	2462
Cable loss (dB)	-1.1	-1.1	-1.1
Antenna Gain (dBi)	3.44	3.72	3.64
Peak Gain with cable loss (dBi)	2.34	2.62	2.54

(2) 5GHz band

Frequency (MHz)	5180	5220	5240	5260	5300	5320
Cable loss (dB)	-3.3	-2.67	-2.49	-2.45	-2.81	-3.14
Antenna Gain (dBi)	0.32	1.61	1.55	3.20	4.26	4.82
Peak Gain with cable loss (dBi)	-2.98	-1.06	-0.94	0.75	1.45	1.68

Frequency (MHz)	5500	5580	5700	5745	5785	5825
Cable loss (dB)	-3.73	-2.58	-3.78	-4.19	-4.25	-3.92
Antenna Gain (dBi)	1.18	2.68	2.23	3.50	2.49	3.41
Peak Gain with cable loss (dBi)	-2.55	0.1	-1.55	-0.69	-1.76	-0.51

*Peak Gain=cable loss + Antenna Gain