

WRB8326 antenna test report for DVT

Agenda

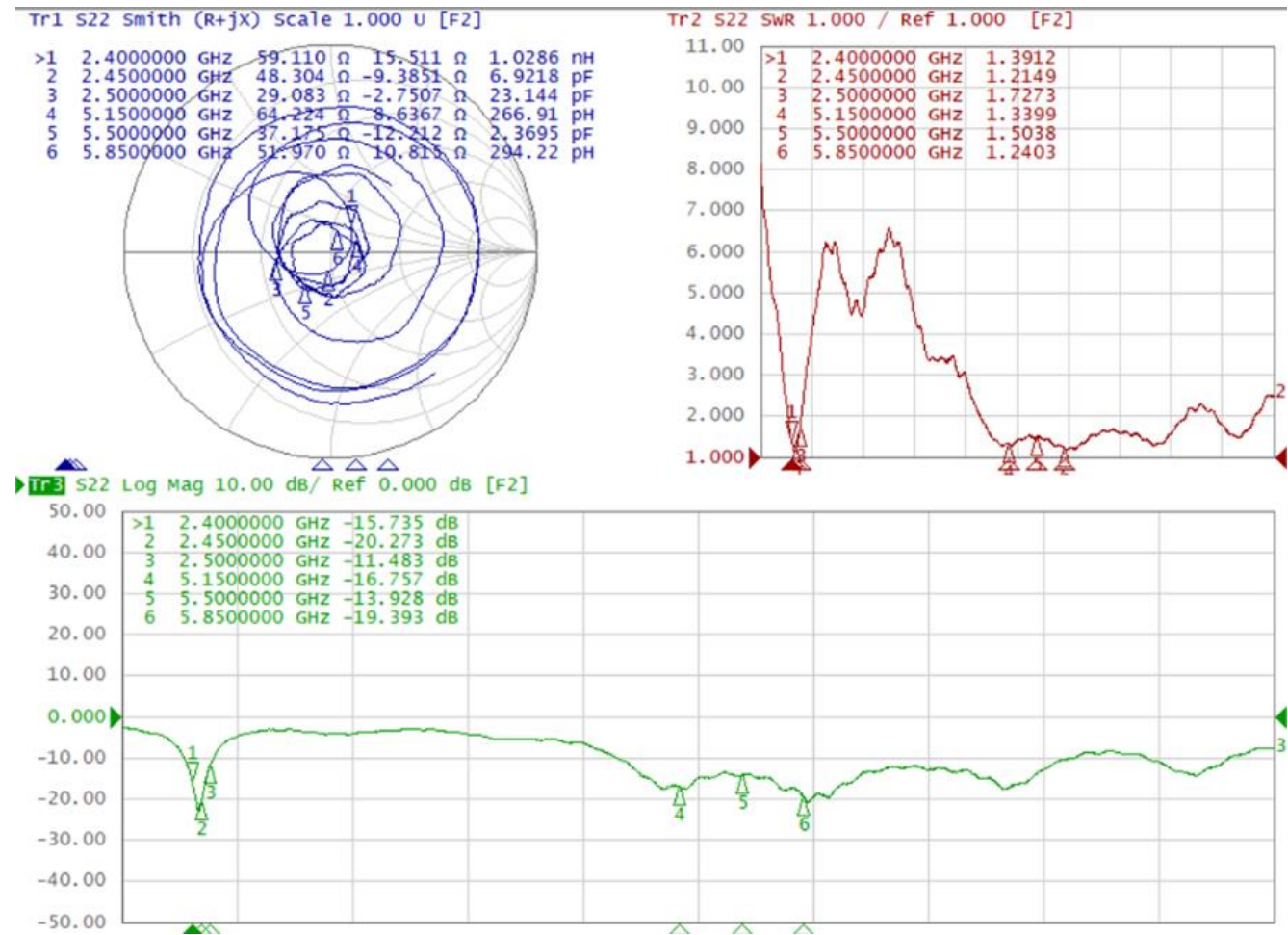
- Soundvision control antenna info.
 - Antenna specification
 - Antenna manufacture name
WHA YU TECHNOLOGY CO., LTD
 - Antenna manufacture address
No. 326, Sec. 2, Gongdao 5th Rd., Fenggong Vil., East Dist.,
Hsinchu City 30070, Taiwan (R.O.C.)
 - S Parameter
 - 2D Radiation pattern
 - Efficiency & Peak gain table

Antenna Specification

Antenna Number	Brand Name	Model Name	Ant. Type	Connector	Support	Max Peak Gain	QNTENNA Gain To Cable Loss	Cable Loss
Antenna 1 (DB1)	LITEON	20301-002000A000	PIFA	I-Pex	2.4G	3.71 dBi	Gain to Cable Loss	
					5G	4.73 dBi		
Antenna 2 (DB2)	LITEON	20301-002020A000	PIFA	I-Pex	2.4G	2.6 dBi	Gain to Cable Loss	
					5G	4.1 dBi		
Antenna 3 (6G1)	LITEON	20301-002030A000	Monopole	I-Pex	6G	3.19 dBi	Gain to Cable Loss	
Antenna 4 (6G2)	LITEON	20301-002040A000	Monopole	I-Pex	6G	3.7 dBi	Gain to Cable Loss	
Antenna 5 (BLE)	LITEON	20301-002010A000	Dipole	I-Pex	BT	4.67 dBi	Gain to Cable Loss	
Antenna 5 (Zigbee/Thread)	LITEON	20301-002010A000	Dipole	I-Pex	Zigbee/Thread	4.67 dBi	Gain to Cable Loss	

Antenna return loss – DB1

Frequency bands	2400~2500MHz;5150-5850MHz.
Return loss spec.	-10 dB

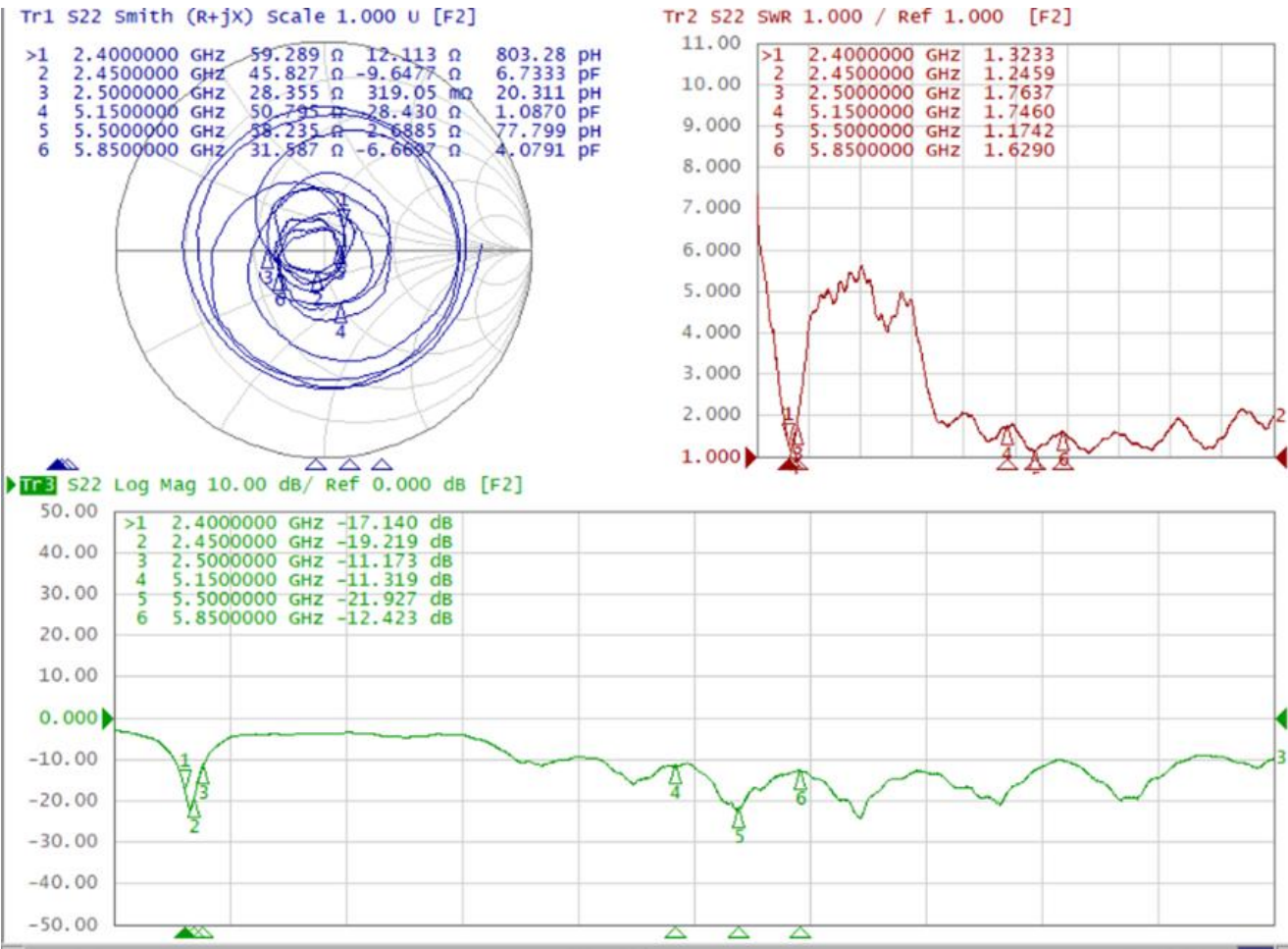


Antenna return loss – DB2

Frequency bands

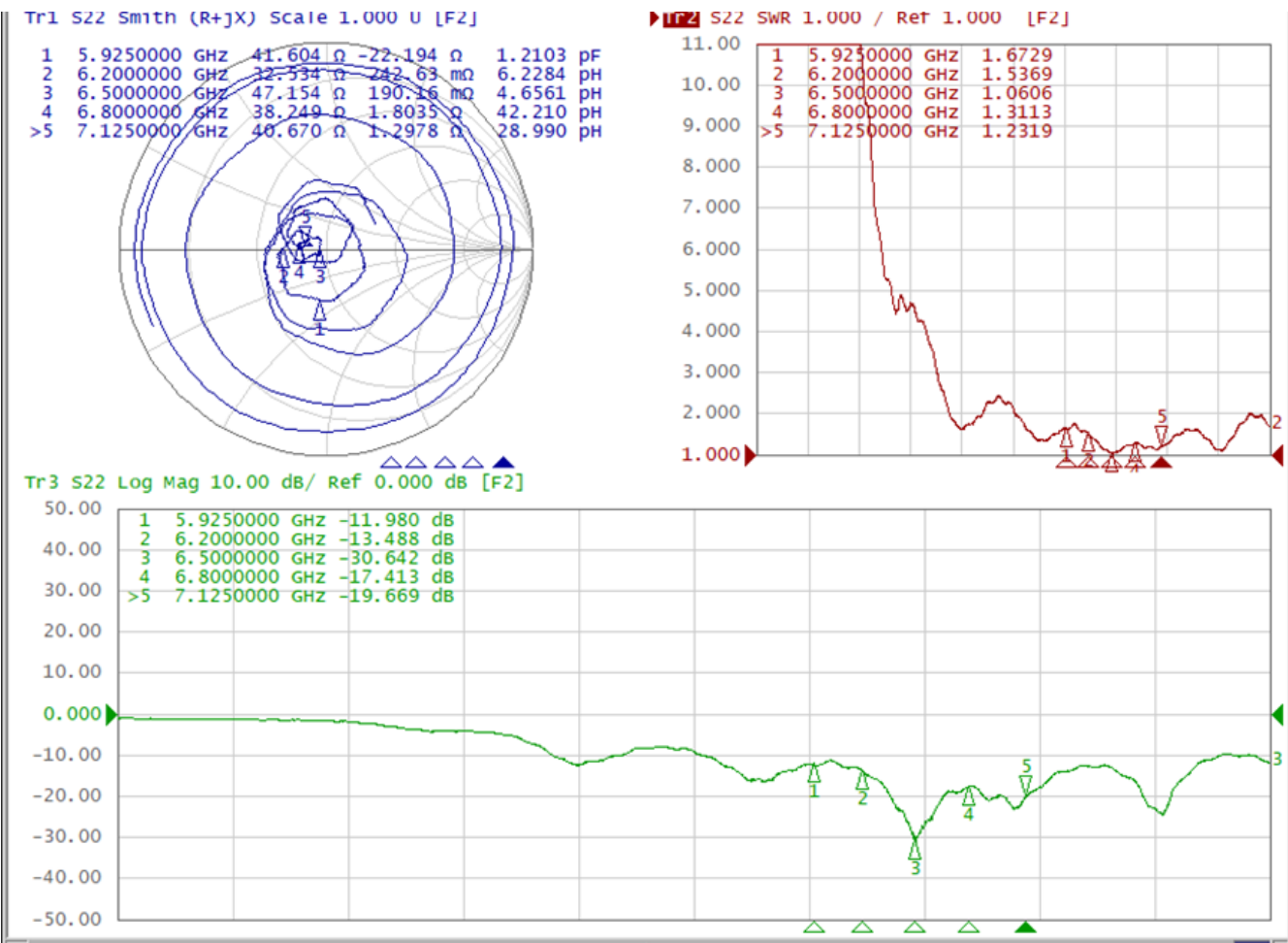
Return loss spec.

2400~2500MHz;5150-5850MHz.
-10 dB



Antenna return loss – 6G1

Frequency bands	5925-71255MHz.
Return loss spec.	-10 dB

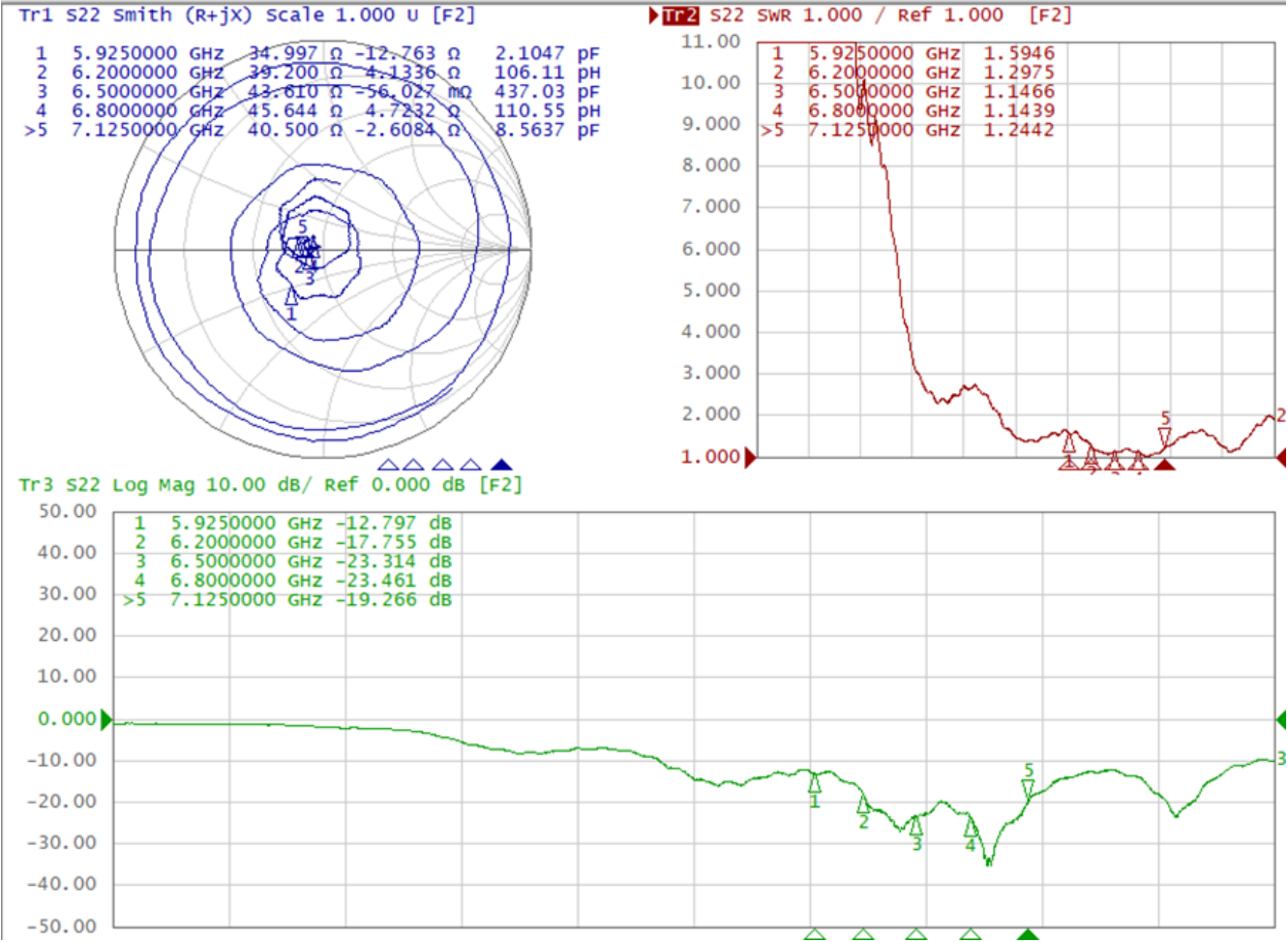


Antenna return loss – 6G2

Frequency bands

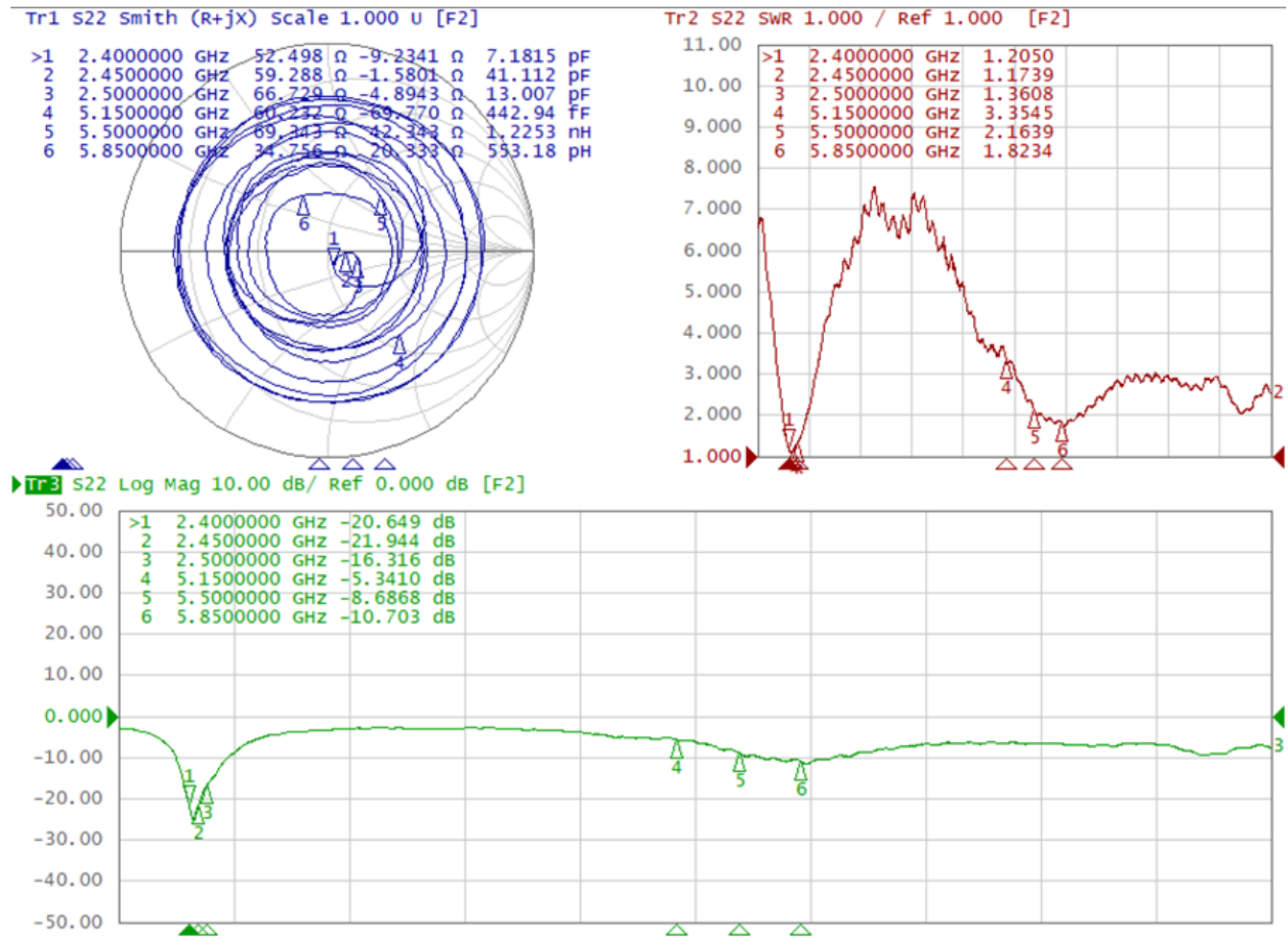
Return loss spec.

5925-71255MHz.
-10 dB

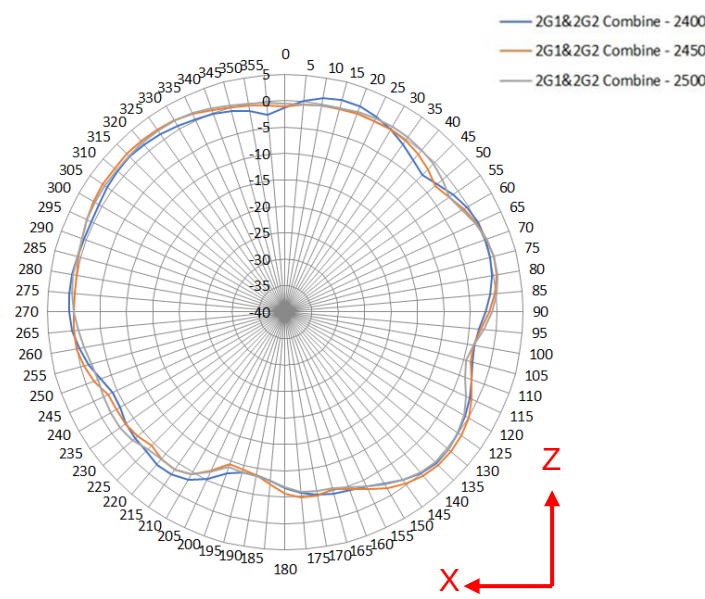


Antenna return loss – BLE / Zingee / Thread

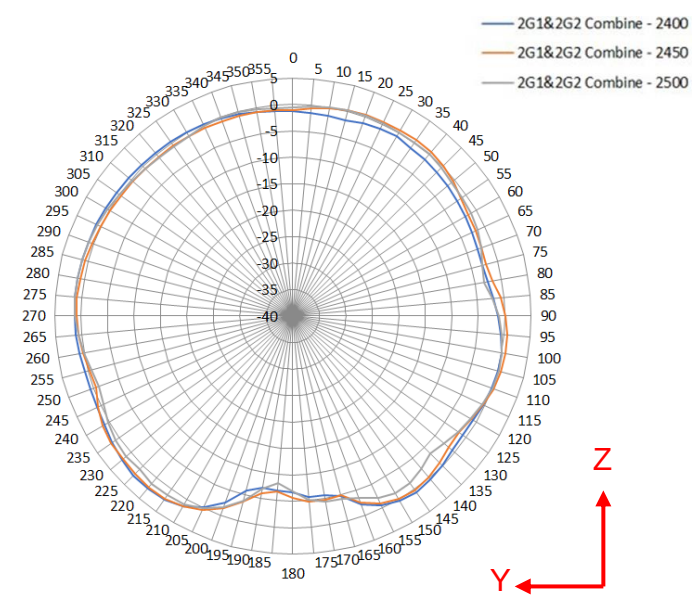
Frequency bands	2400~2500MHz
Return loss spec.	-10 dB



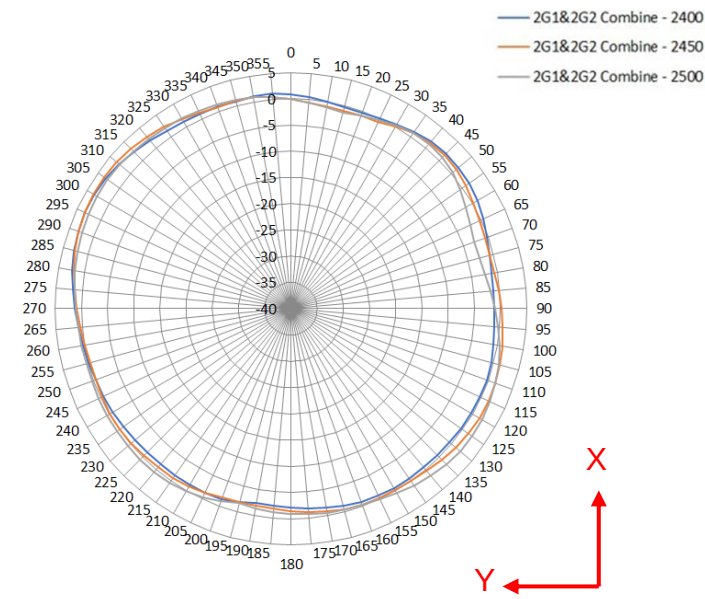
2D Radiation Pattern Combined -2G



Phi=0deg

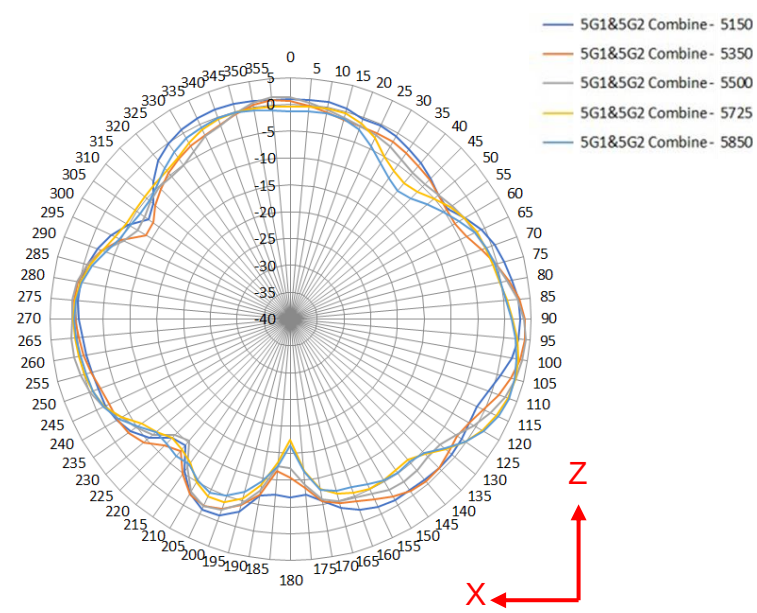


Phi=90deg

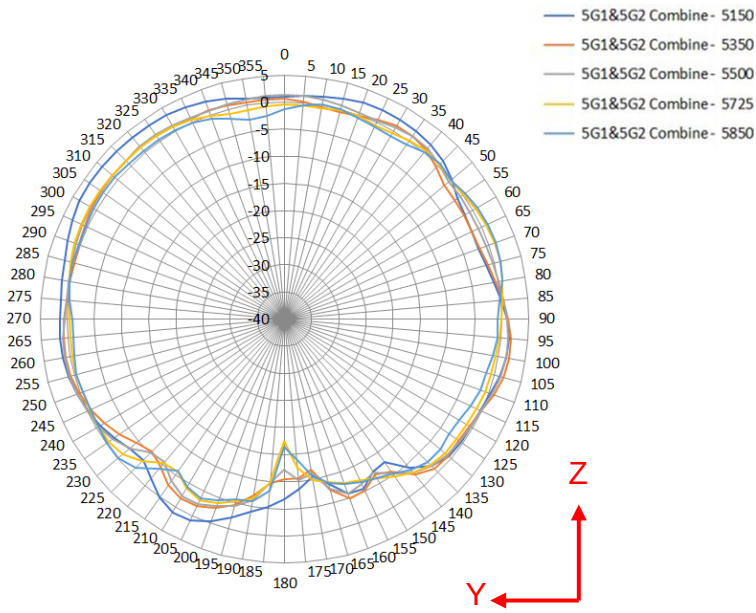


Theta=90deg

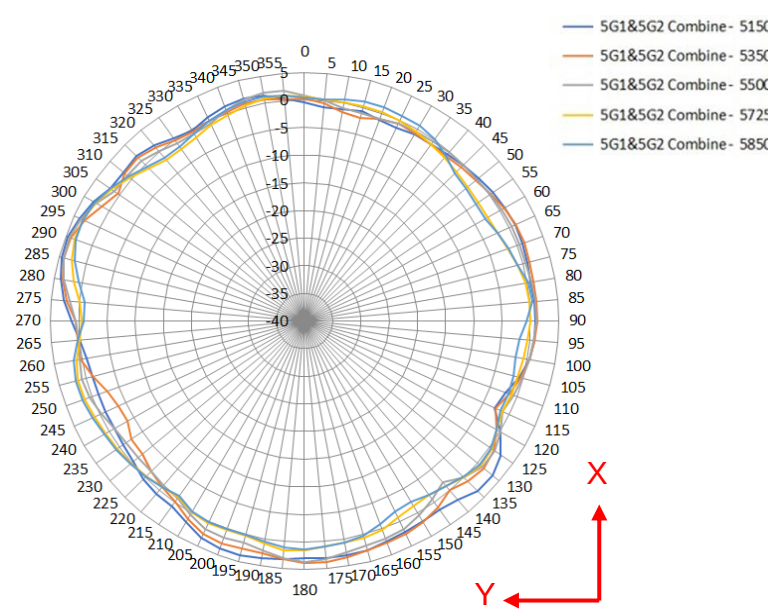
2D Radiation Pattern Combined -5G



Phi=0deg

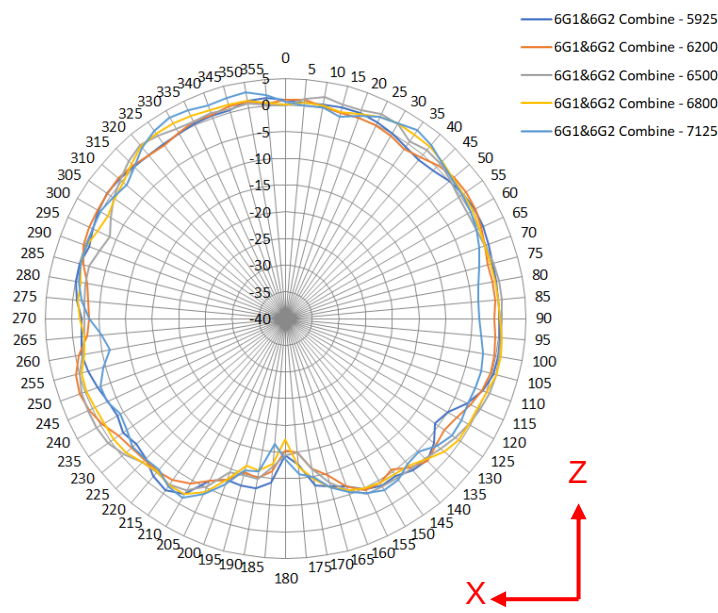


Phi=90deg

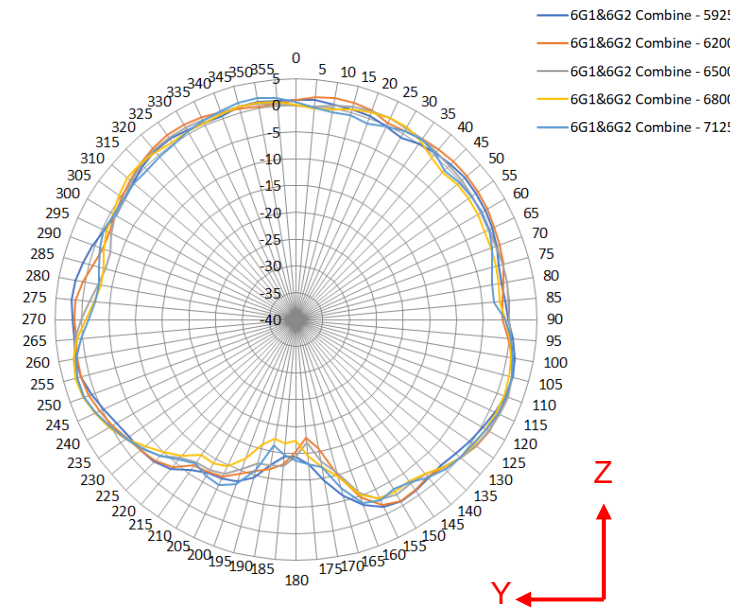


Theta=90deg

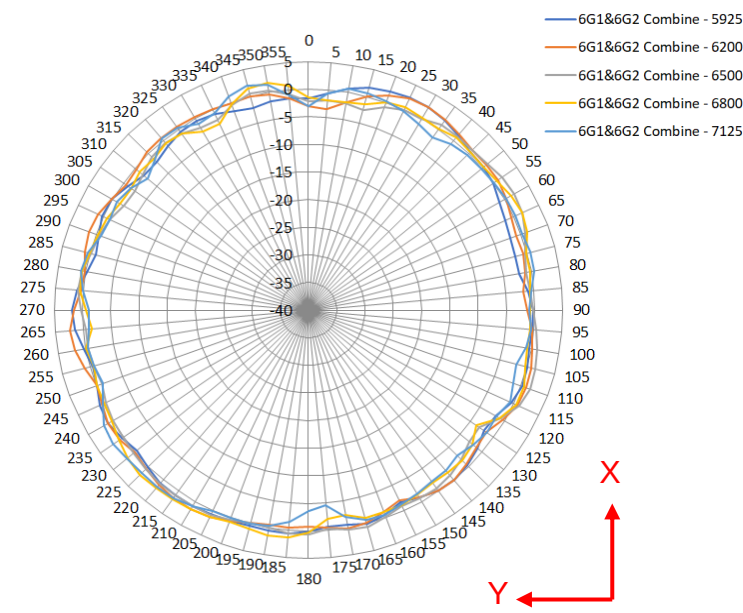
2D Radiation Pattern Combined -6G



Phi=0deg

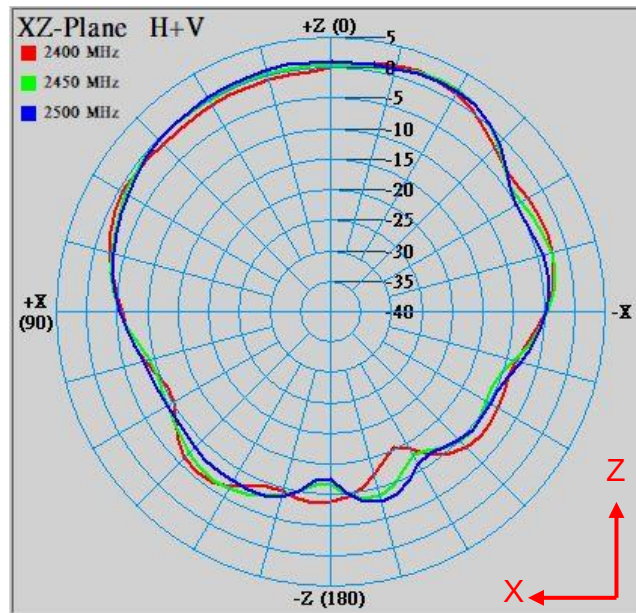


Phi=90deg

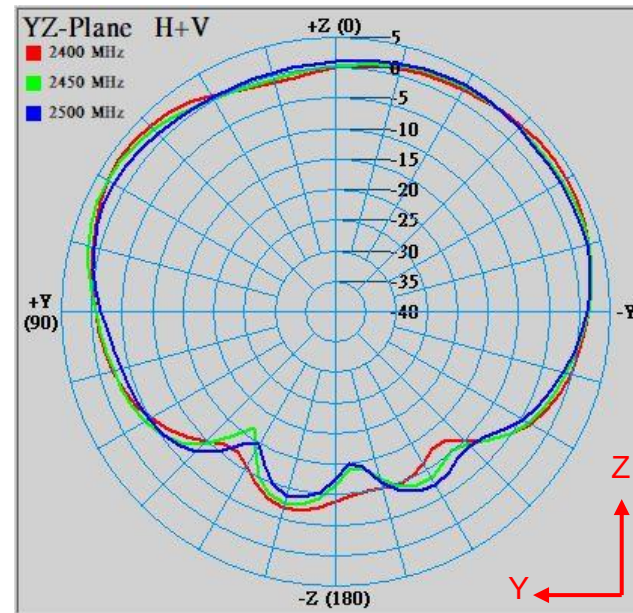


Theta=90deg

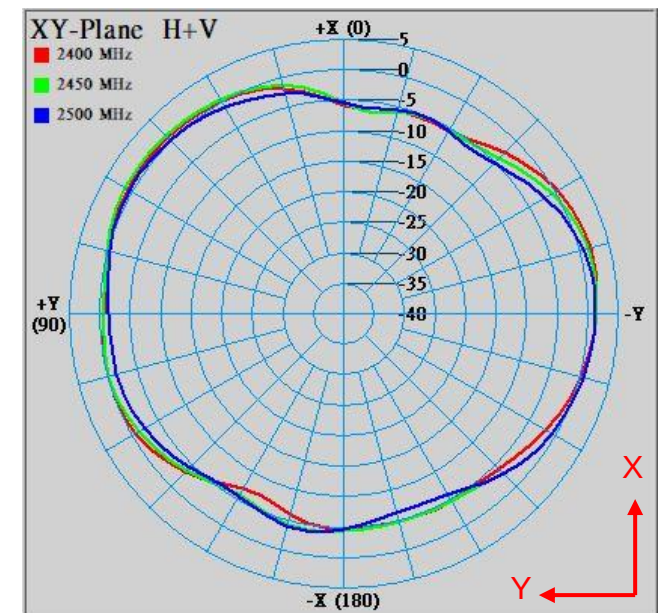
2D Radiation Pattern – BLE / Zigbee / Thread



Phi=0deg



Phi=90deg



Theta=90deg

Peak Gain Table

	ANT1_DB1		ANT2_DB2			ANT3_6G1		ANT4_6G2			ANT5_BLE (Zingee / Thread)	
Frequency (MHz)	Efficiency (%)	Peak Gain (dBi)	Efficiency (%)	Peak Gain (dBi)	Frequency (MHz)	Efficiency (%)	Peak Gain (dBi)	Efficiency (%)	Peak Gain (dBi)	Frequency (MHz)	Efficiency (%)	Peak Gain (dBi)
2400	73	3.42	68	1.83	5925	72	3.14	73	2.87	2400	75	4.67
2450	75	3.71	67	2.59	6200	68	2.60	70	2.83	2450	74	4.33
2500	72	2.81	68	2.60	6800	69	2.39	71	3.70	2500	71	3.62
5150	74	4.63	75	4.10	7125	70	3.19	68	3.61			
5350	71	4.27	74	4.04								
5725	76	4.73	73	4.08								
5850	75	4.36	71	3.45								

- **Antenna peak gain**

2.4 GHz > 1.8dBi ; 5GHz > 3.4dBi ; 6 GHz > 2.3 dBi ; BLE / Zigbee / Thread > 3.6dBi

THANK YOU

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