

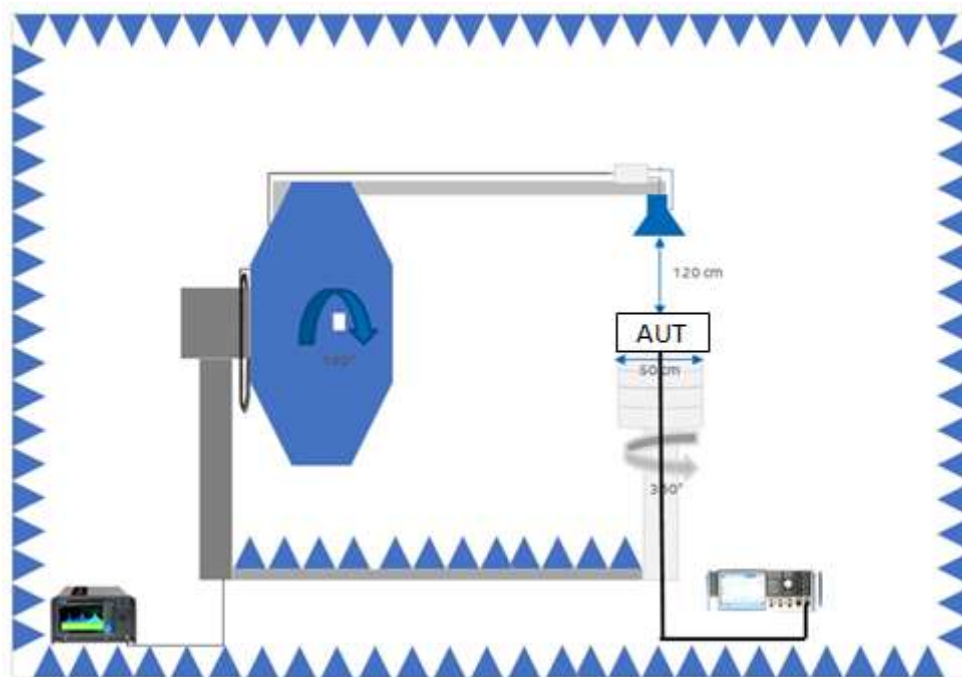
WiFi-5G Reference Antenna Datasheet

1. Measurement Method and System

3D spherical measurement using distributed axis system

2. Test Setup & Equipment List

2.1. Test Setup



2.2. Equipment List

ID#	Device	Type/Model	Serial #	Manufacturer
009-000	Spherical full anechoic chamber	WPTC	P28765-00651-001-PRB	Rohde & Schwarz
009-001	Measurement software (v11.30)	AMS32	100084	Rohde & Schwarz
152-000	Cross-polarized vivaldi antenna	TC-TA85CP	101018	Rohde & Schwarz
345-000	Switch unit + LNA	TC-ELAMP-D	1533.6350.02	Rohde & Schwarz
335-000	Positionner	NCD	173167577	Maturo
143-000	Spectrum analyser	UXA N9040B	US57212210	Keysight
130-000	Signal generator	SMB 100A	178217	Rohde & Schwarz

3. Antenna Specification

3.1. Antenna information

Manufacturer	Type	Antenna Part number	Band	Peak Gain (dBi)	Target Peak Gain (dBi)
Intel WRF Lab	PIFA	WRF-8dBi-PIFA-5G	5.2GHz 5.150–5.250MHz	8	8
			5.4GHz 5250–5470MHz	8.07	
			5.6GHz 5470–5725MHz	8.19	
			5.8GHz 5725–5925MHz	8.39	

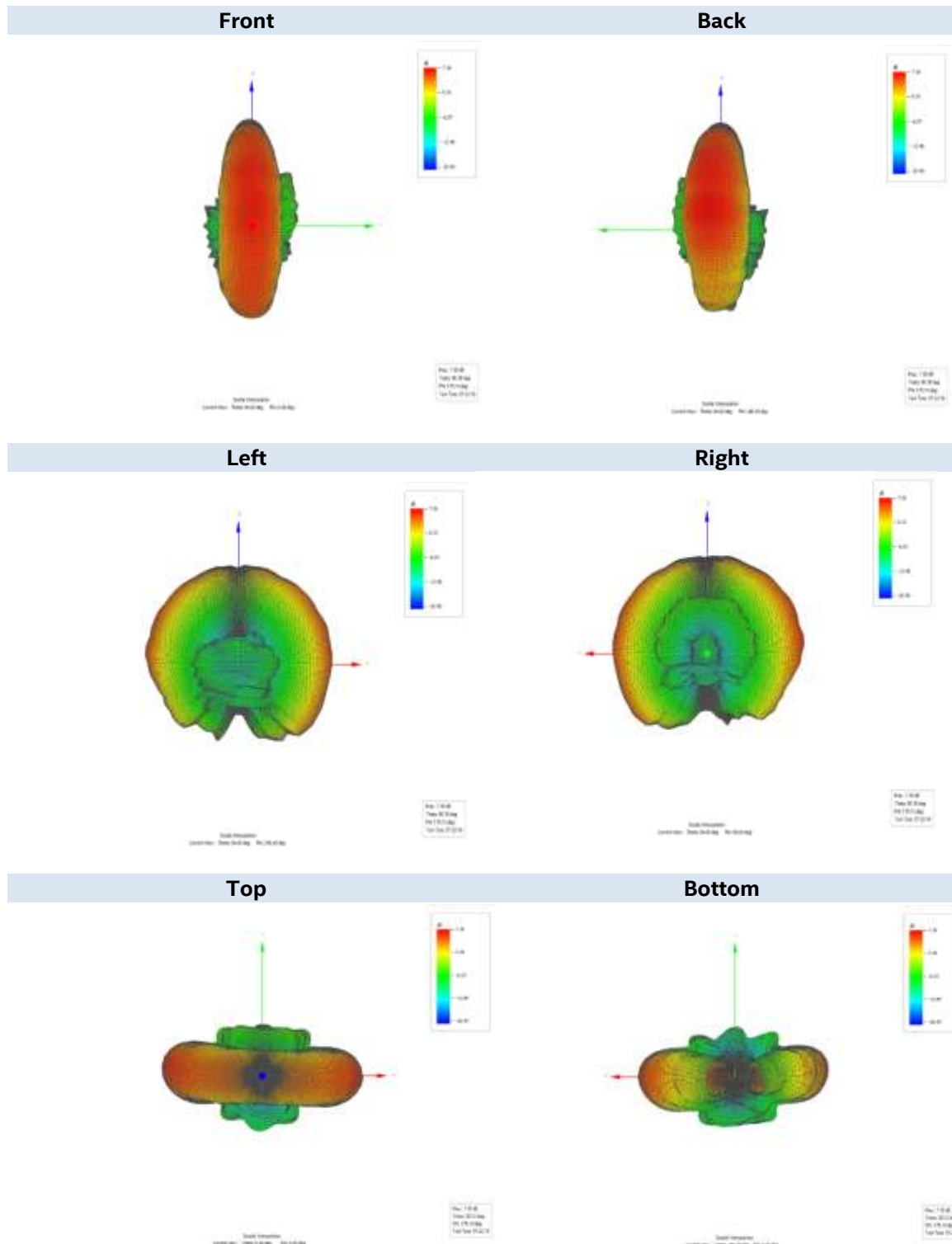
3.2. Antenna Peak Gain Table

Frequency (MHz)	Peak Gain		
	Horizontal (Theta)	Vertical (Phi)	Total
	(dBi)	(dBi)	(dBi)
5150	5.26	2.93	7.26
5175	5.87	3.89	8
5350	4.7	5.4	8.07
5470	4.88	5.46	8.19
5725	5.32	5.43	8.39

4. Antenna Radiation Patterns 5150 - 5925 MHz

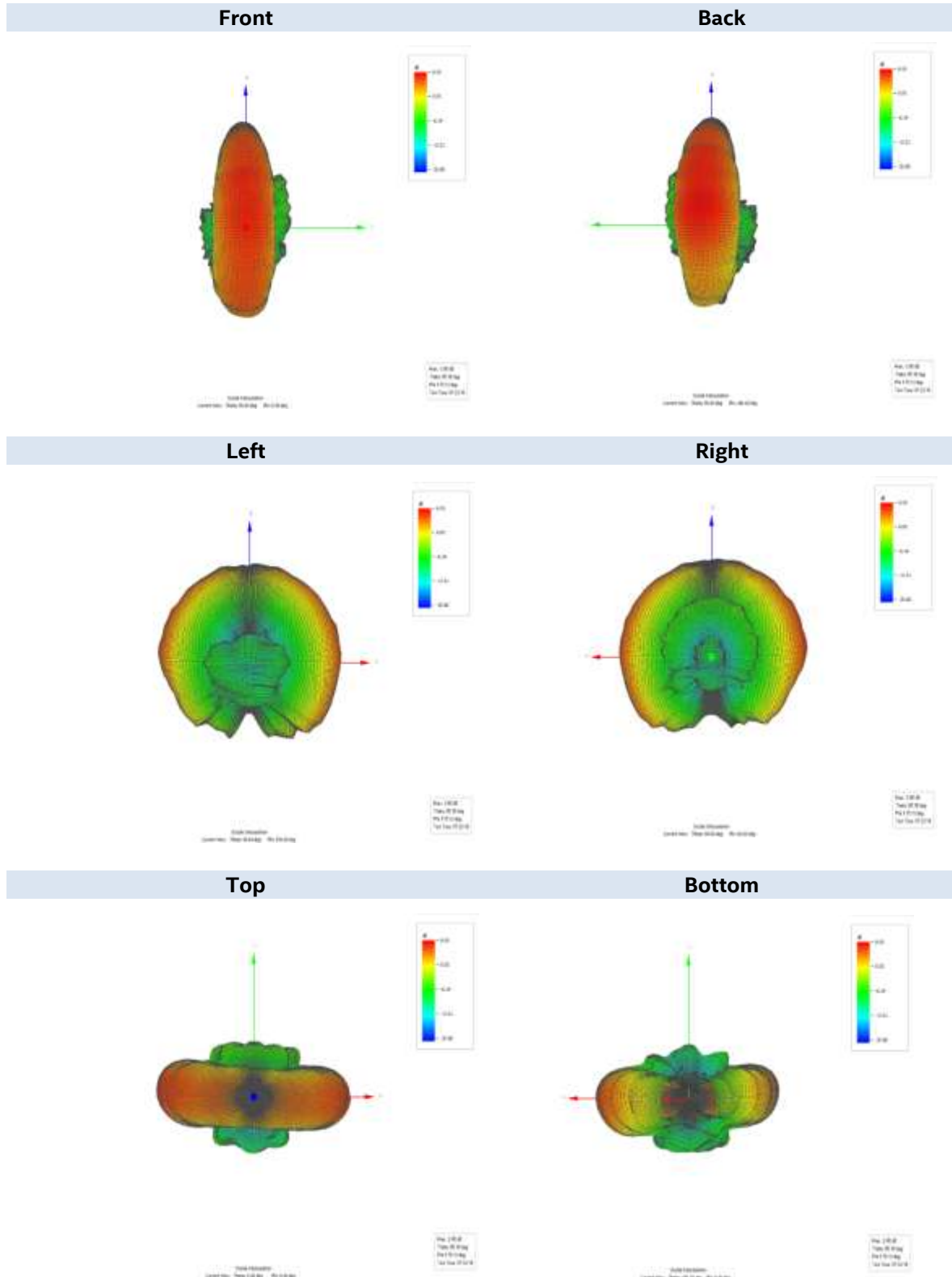
4.1. Pattern @5150MHz

Frequency (MHz)	Peak Gain		
	Horizontal (Theta)	Vertical (Phi)	Total
	(dBi)	(dBi)	(dBi)
5150	5.26	2.93	7.26



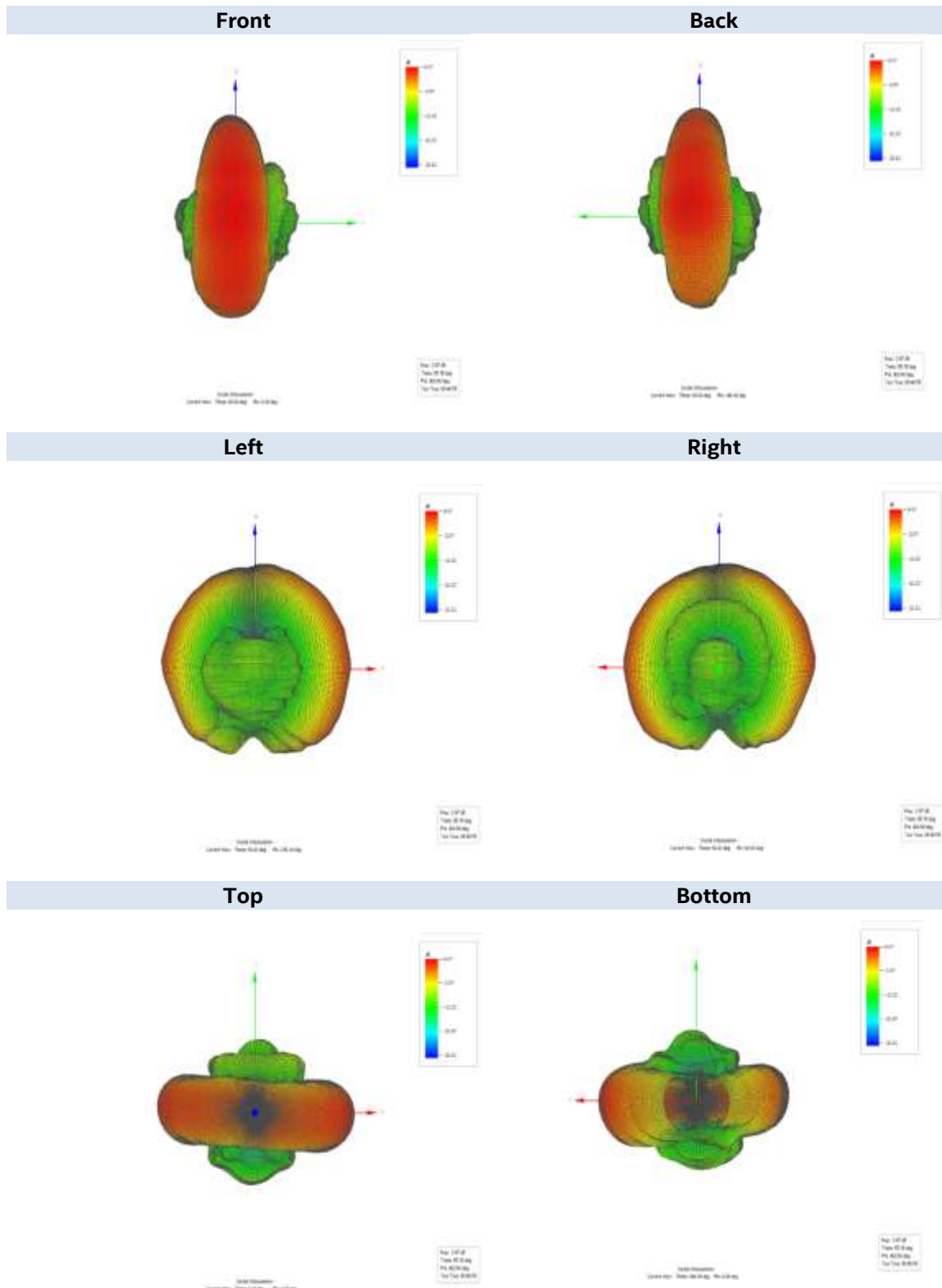
4.2. Pattern @5175MHz

Frequency (MHz)	Peak Gain		
	Horizontal (Theta)	Vertical (Phi)	Total
	(dBi)	(dBi)	(dBi)
5175	5.87	3.89	8



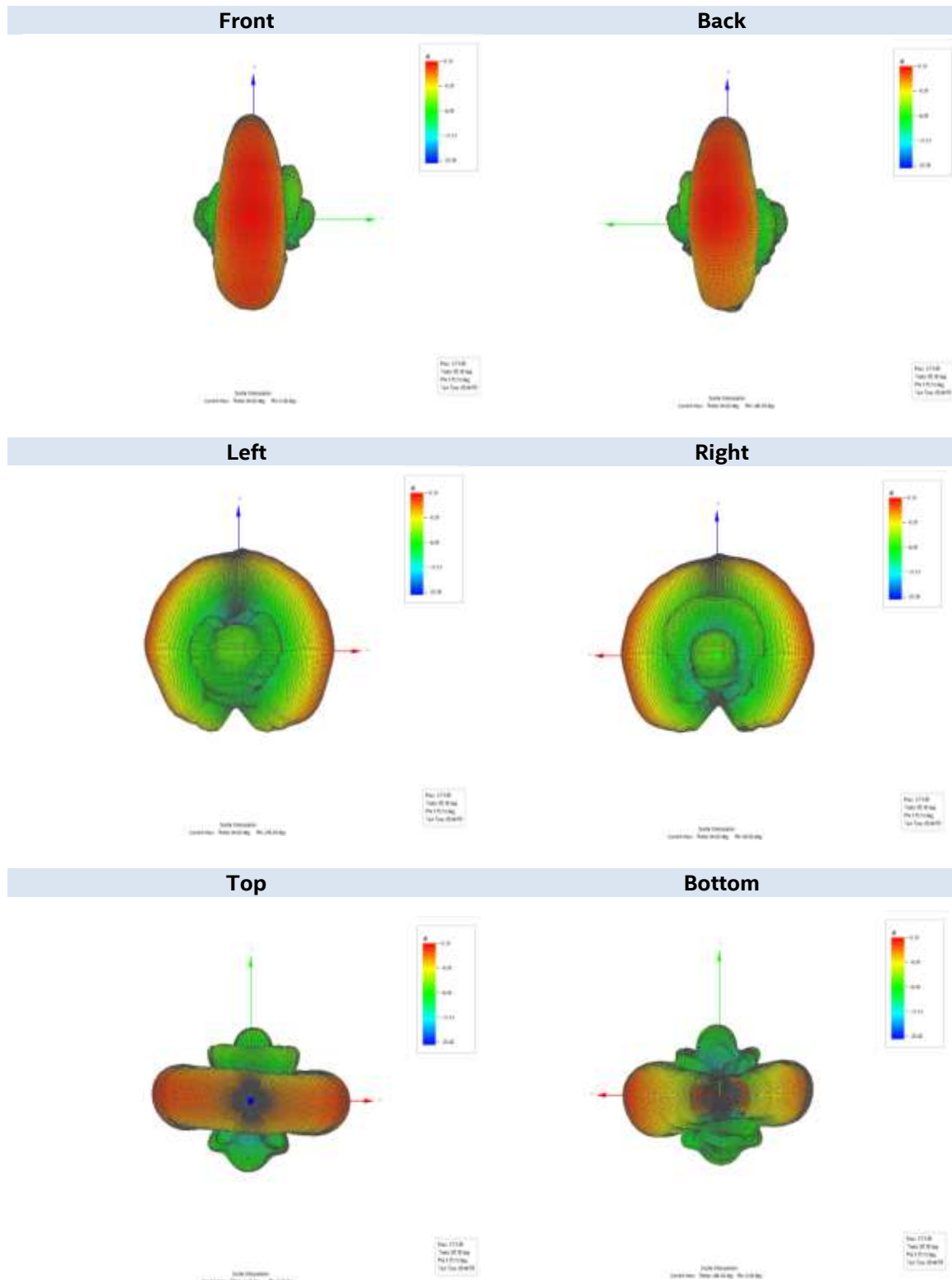
4.3. Pattern @5350MHz

Frequency (MHz)	Peak Gain		
	Horizontal (Theta)	Vertical (Phi)	Total
	(dBi)	(dBi)	(dBi)
5350	4.7	5.4	8.07



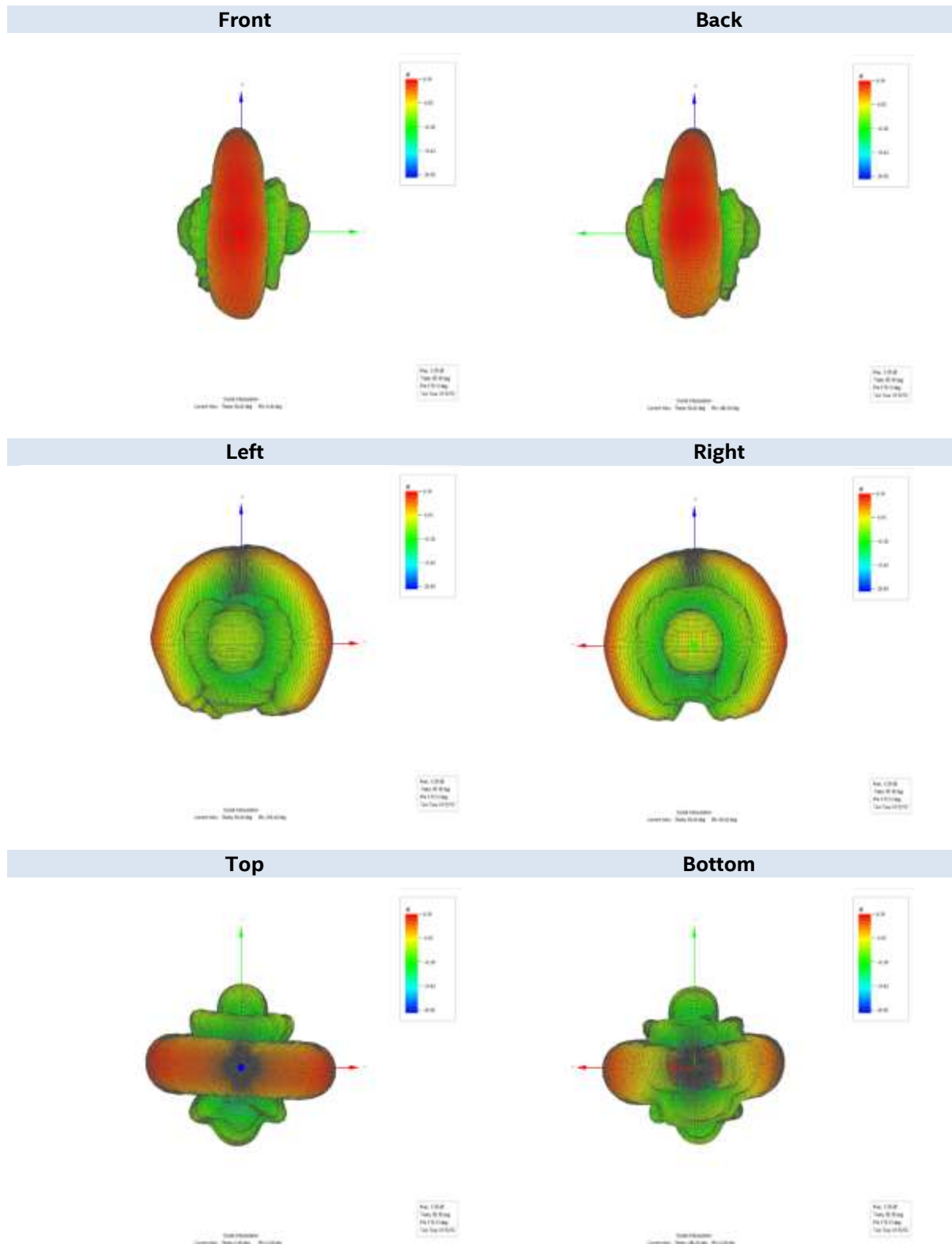
4.4. Pattern @5470MHz

Frequency (MHz)	Peak Gain		
	Horizontal (Theta)	Vertical (Phi)	Total
	(dBi)	(dBi)	(dBi)
5470	4.88	5.46	8.19



4.5. Pattern @5725MHz

Frequency (MHz)	Peak Gain		
	Horizontal (Theta)	Vertical (Phi)	Total
	(dBi)	(dBi)	(dBi)
5725	5.32	5.43	8.39



5. VSWR

