

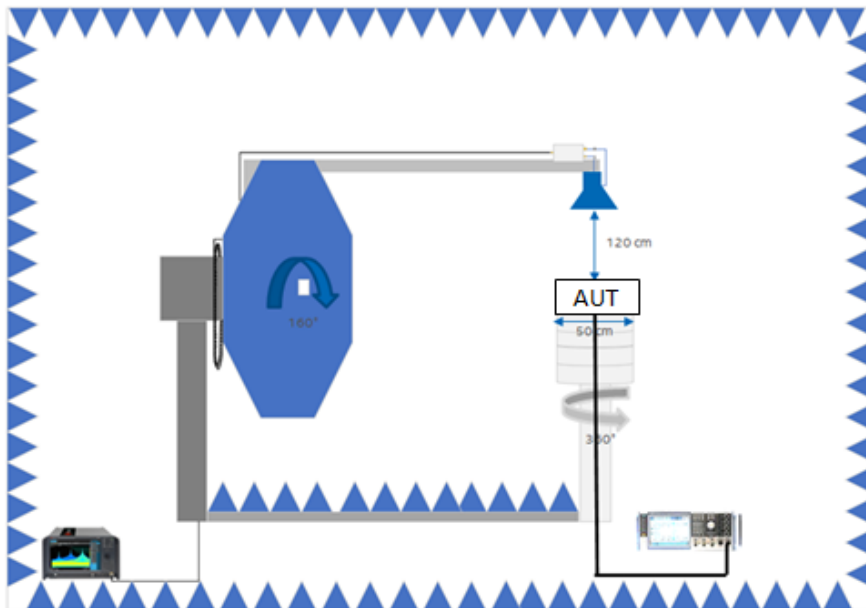
WiFi-6E Reference Antenna Datasheet

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	Positioner	NCD	173167577	Maturo
143-000	Spectrum analyser	UXA N9040B	US57212210	Keysight
130-000	Signal generator	SMB 100A	178217	Rohde & Schwarz

3. Antenna Specification

The herein test results were performed by:

Test case measurement	Test Personnel	Date
Antenna Gain measurement	G. Gerbaud	03/26/2021

3.1. Antenna information

Manufacturer	Type	Antenna Part number	Band	Peak Gain (dBi)	Target Peak Gain (dBi)
Intel WRF Lab	PIFA	WRF-BR-PIFA-V3.2	6.2GHz 5925-6425MHz	4.83	5
			6.5GHz 6425-6525MHz	4.30	
			6.6GHz 6525-6875MHz	5.37	
			7GHz 6875-7125MHz	5.59	

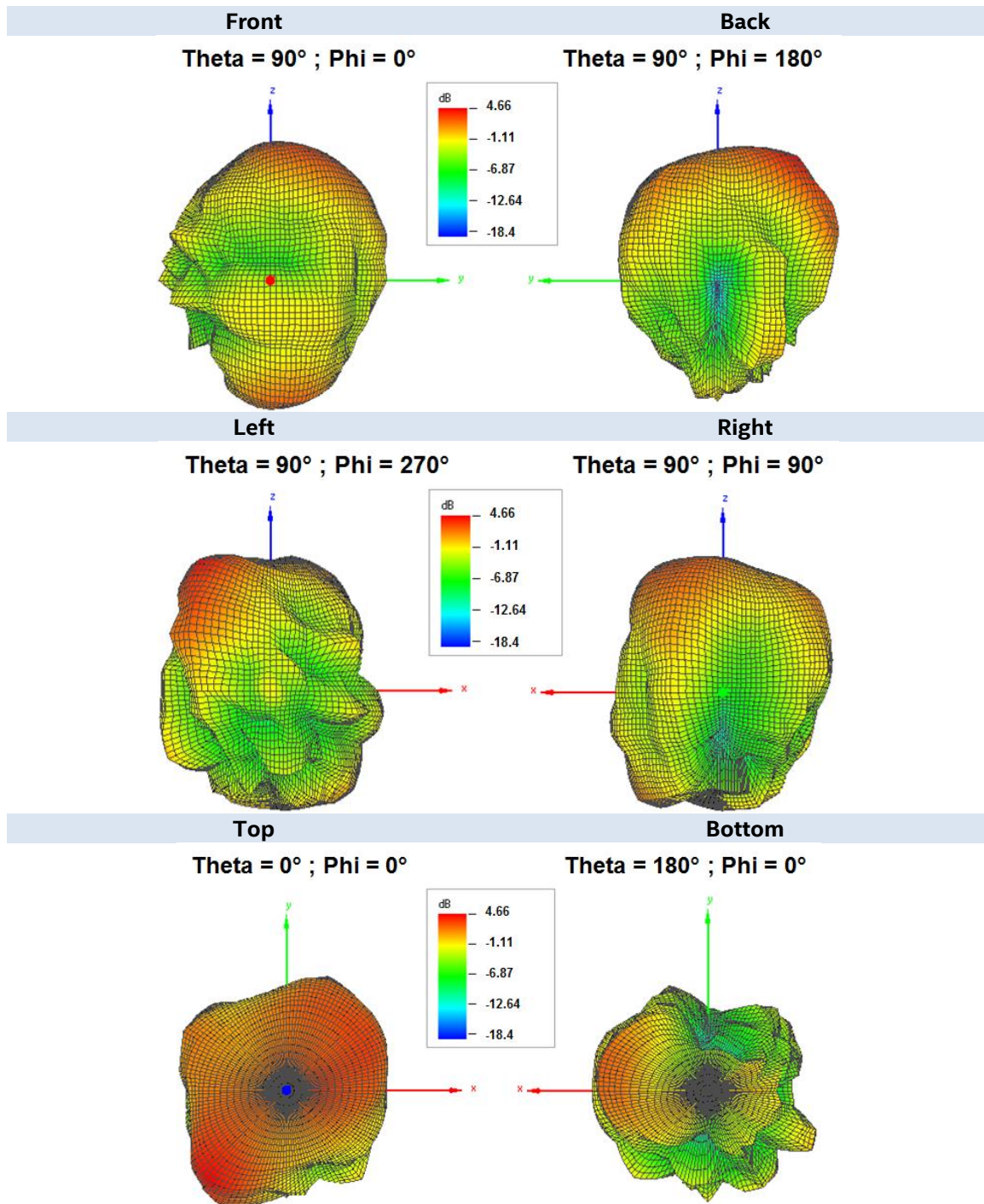
3.2. Antenna Peak Gain Table

Frequency (MHz)	Peak Gain		
	Horizontal (Theta)	Vertical (Phi)	Total
	(dBi)	(dBi)	(dBi)
5925	3.32	2.90	4.66
6250	3.45	2.58	4.83
6425	3.95	2.97	4.30
6525	3.46	2.71	4.11
6875	5.29	3.98	5.37
7125	3.84	4.21	5.59

4. Antenna Radiation Patterns 5925 - 7125 MHz

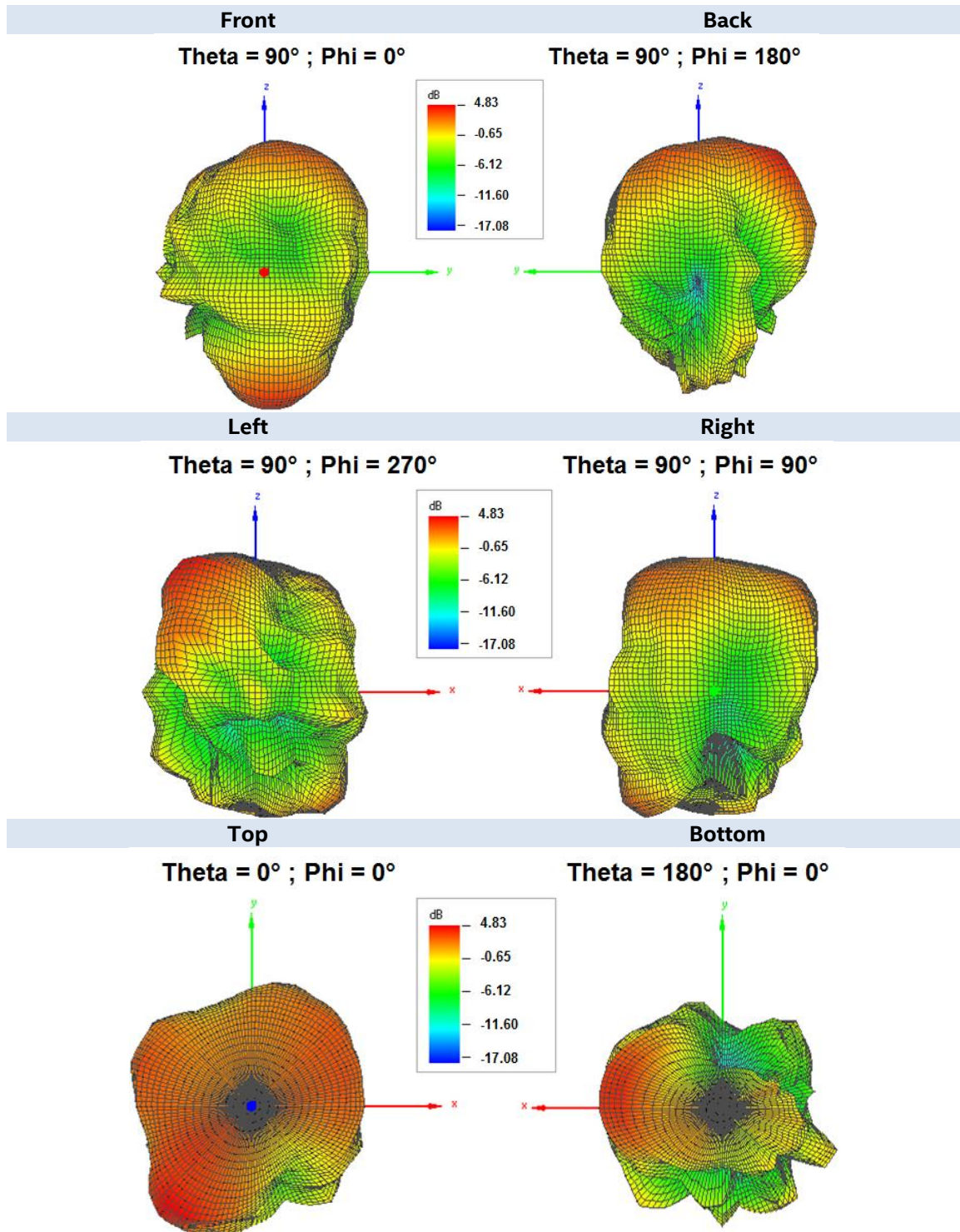
4.1. Pattern @5925MHz

Frequency (MHz)	Peak Gain		
	Horizontal (Theta)	Vertical (Phi)	Total
	(dBi)	(dBi)	(dBi)
6000	3.32	2.90	4.66



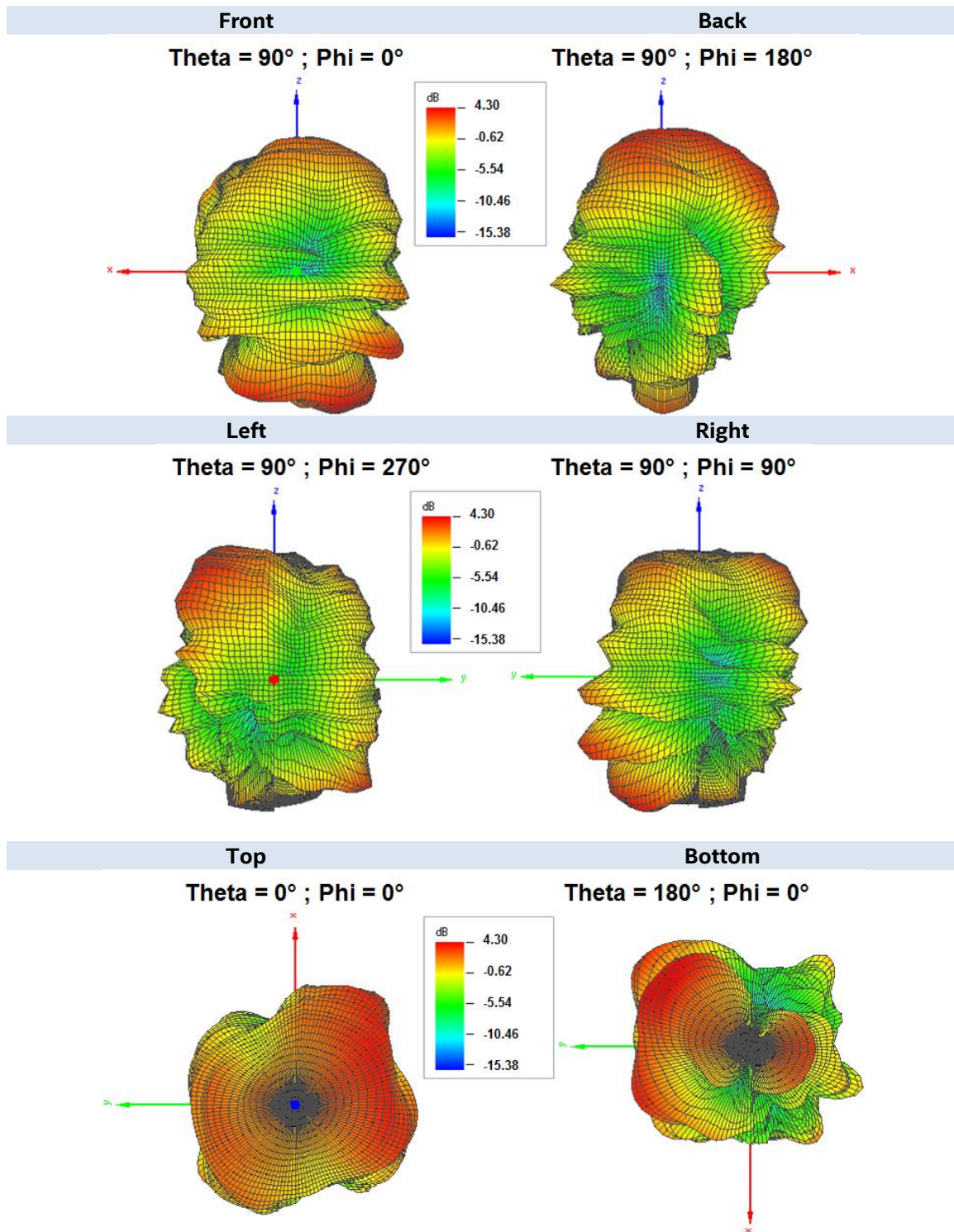
4.2. Pattern @6250MHz

Frequency (MHz)	Peak Gain		
	Horizontal (Theta)	Vertical (Phi)	Total
	(dBi)	(dBi)	(dBi)
6250	3.45	2.58	4.83



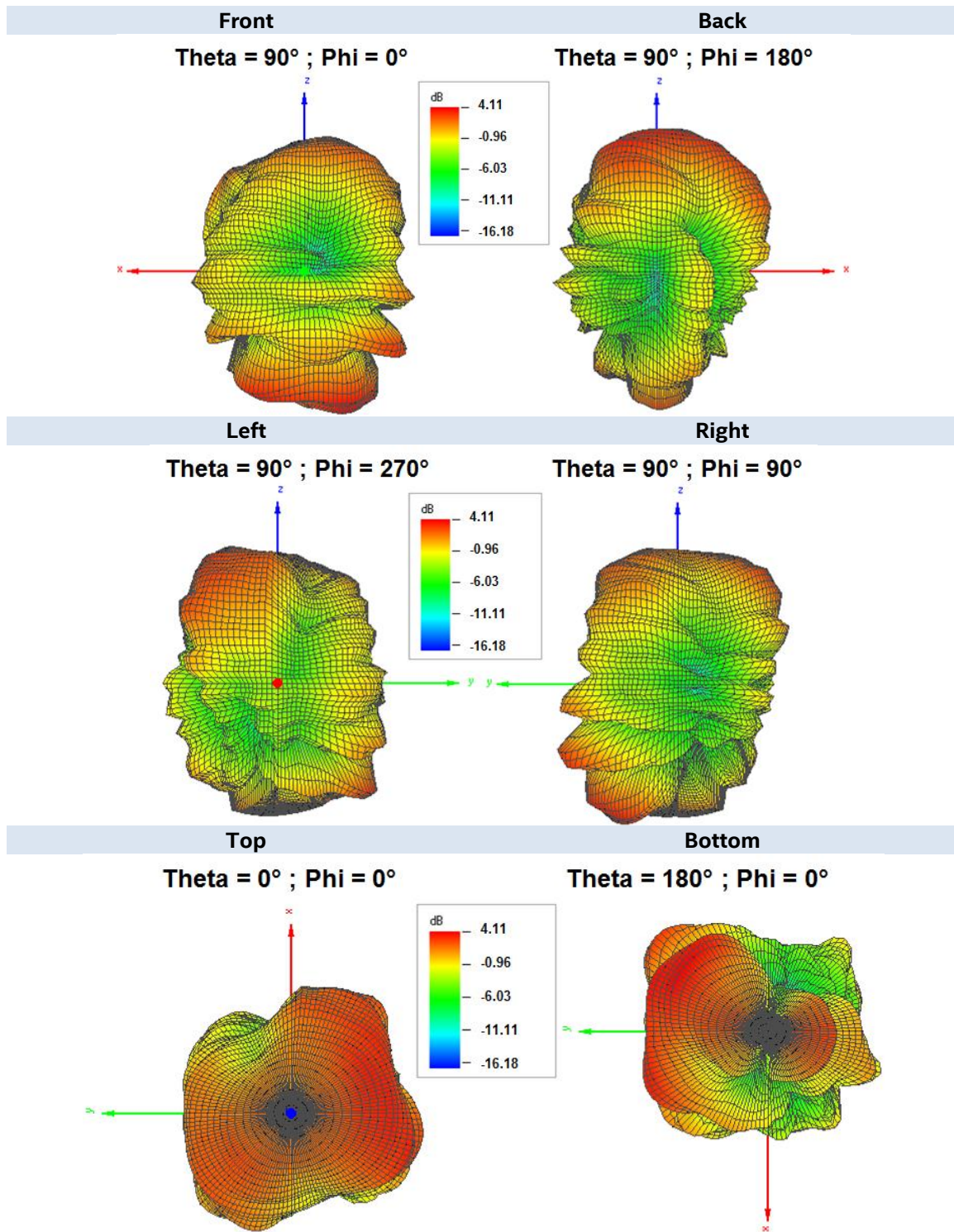
4.3. Pattern @6425MHz

Frequency (MHz)	Peak Gain		
	Horizontal (Theta)	Vertical (Phi)	Total
	(dBi)	(dBi)	(dBi)
7125	3.95	2.97	4.30



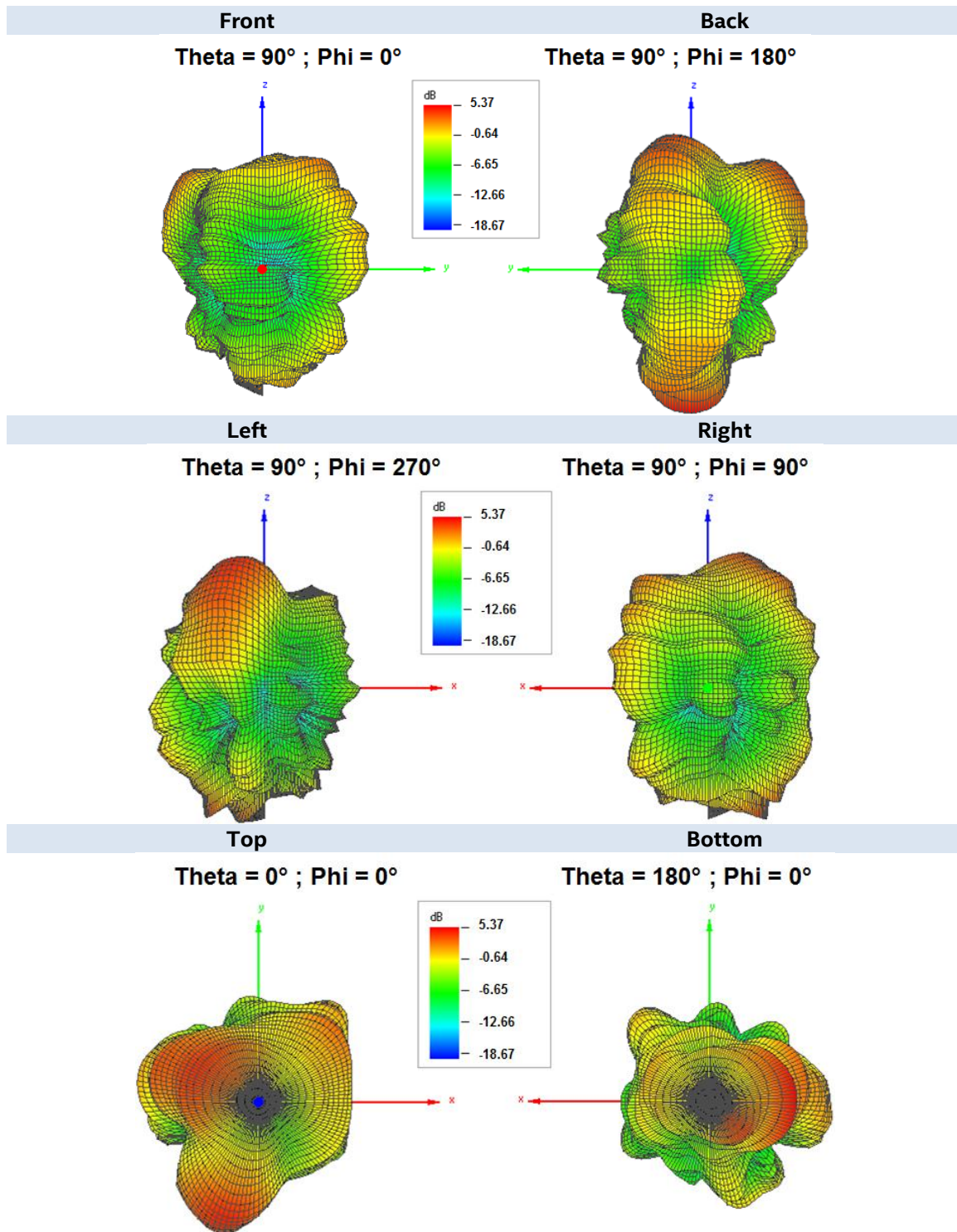
4.4. Pattern @6525MHz

Frequency (MHz)	Peak Gain		
	Horizontal (Theta)	Vertical (Phi)	Total
	(dBi)	(dBi)	(dBi)
7125	3.46	2.71	4.11



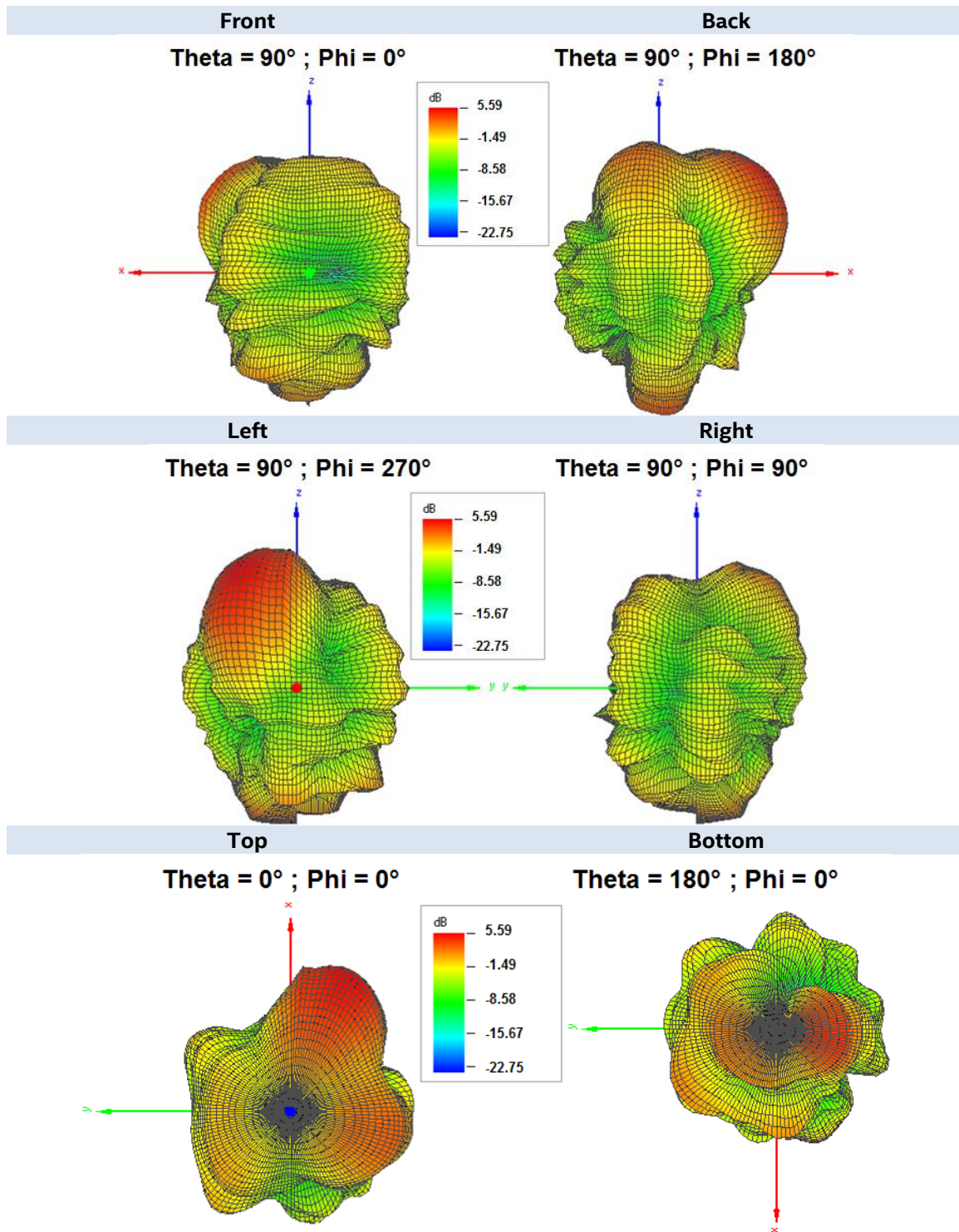
4.5. Pattern @6875MHz

Frequency (MHz)	Peak Gain		
	Horizontal (Theta)	Vertical (Phi)	Total
	(dBi)	(dBi)	(dBi)
7125	5.29	3.98	5.37

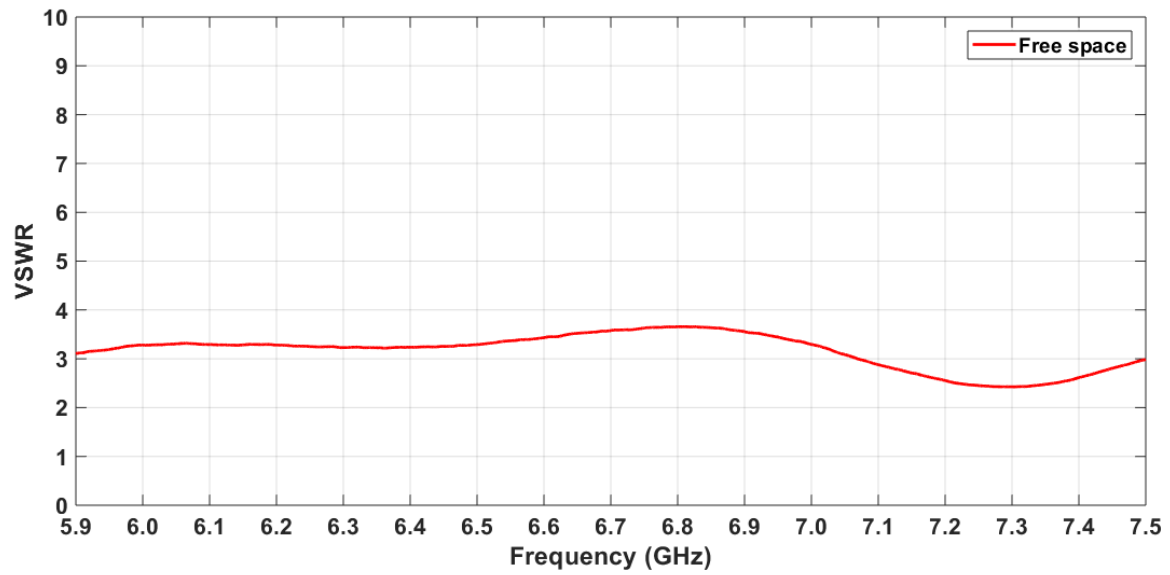


4.6. Pattern @7125MHz

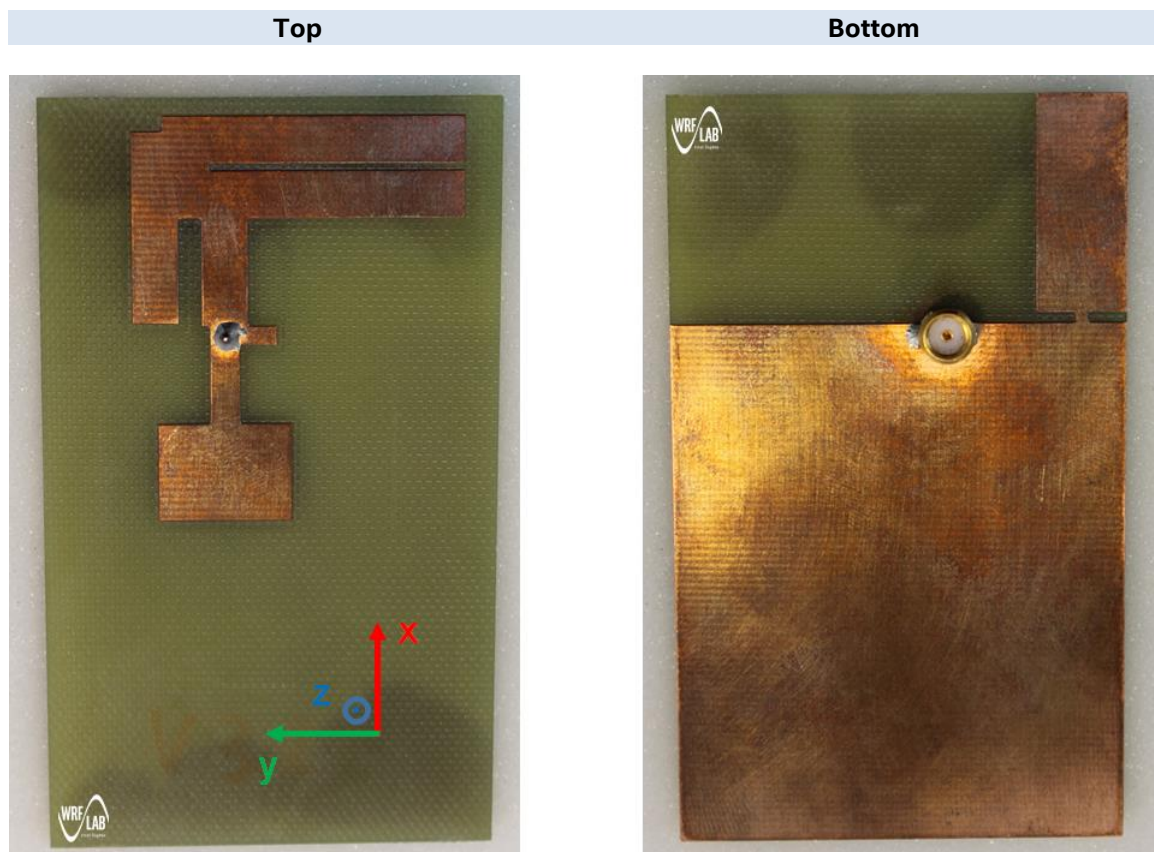
Frequency (MHz)	Peak Gain		
	Horizontal (Theta)	Vertical (Phi)	Total
	(dBi)	(dBi)	(dBi)
7125	3.84	4.21	5.59



5. VSWR Measurement



6. Antenna Photo



7. Measurement Setup Photo

