

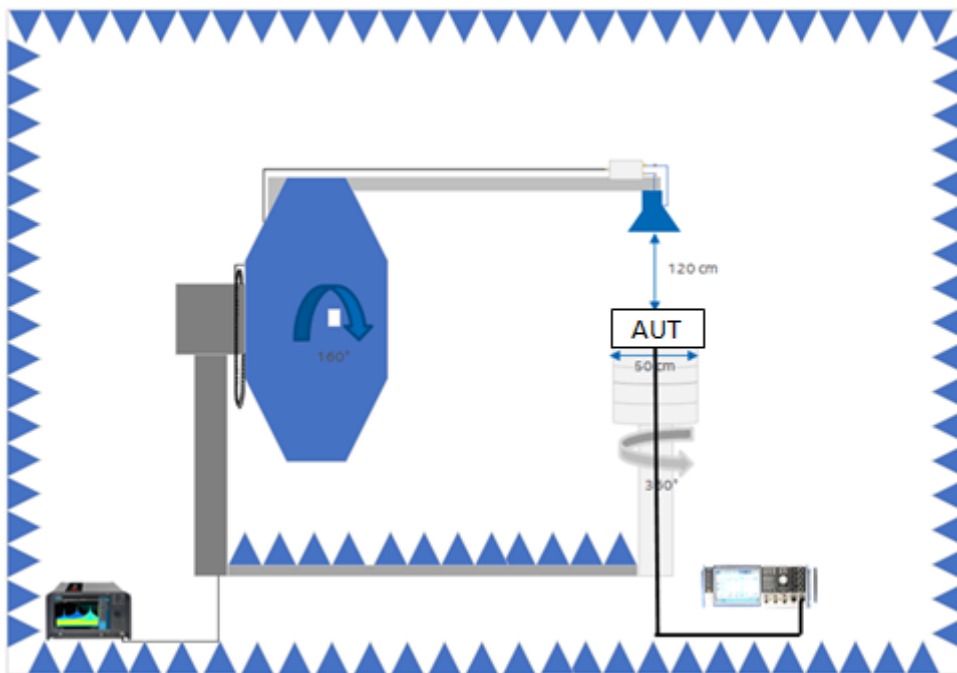
WiFi-6G Reference Antenna Datasheet

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-6G	6.2GHz 5925-6425MHz	7.88	8
			6.5GHz 6425-6525MHz	8.1	
			6.6GHz 6525-6875MHz	7.75	
			7GHz 6875-7125MHz	8.08	

3.2. Antenna Peak Gain Table

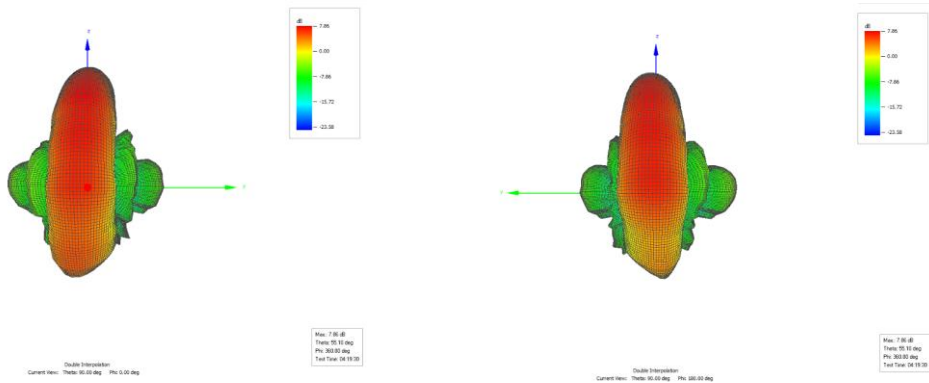
Frequency (MHz)	Peak Gain		
	Horizontal (Theta)	Vertical (Phi)	Total
	(dBi)	(dBi)	(dBi)
5925	6.9	0.82	7.86
6000	7.15	-0.22	7.88
6425	7.12	1.15	8.1
6875	6.65	1.26	7.75
7125	6.98	1.6	8.08
7200	6.26	1.62	7.54

4. Antenna Radiation Patterns 5925 - 7200 MHz

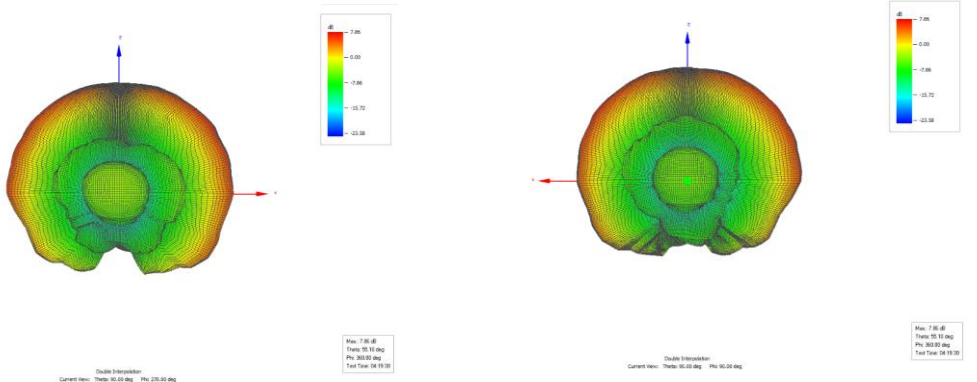
4.1. Pattern @5925MHz

Frequency (MHz)	Peak Gain		
	Horizontal (Theta) (dBi)	Vertical (Phi) (dBi)	Total (dBi)
5925	6.9	0.82	7.86

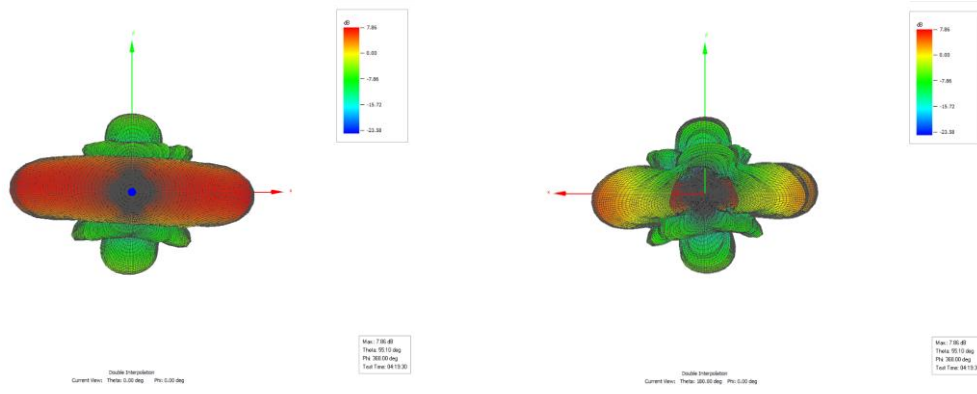
Front Back



Left Right



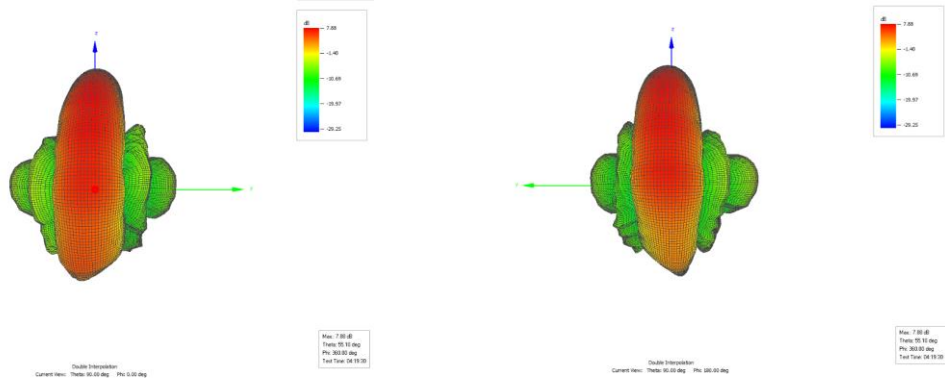
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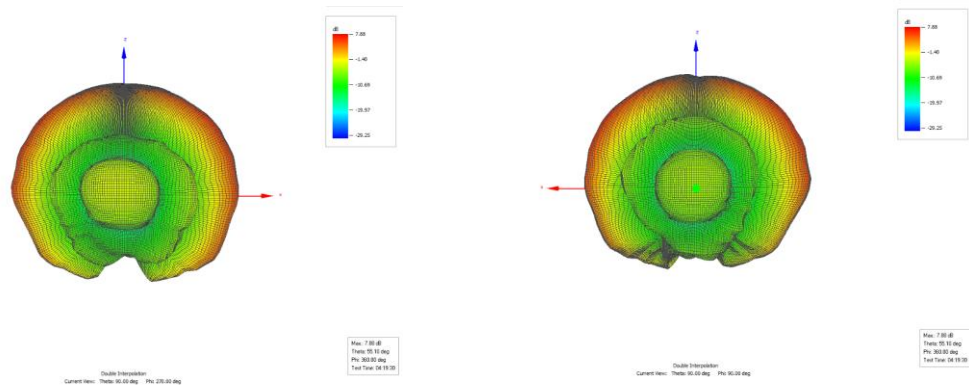
4.2. Pattern @6000MHz

Frequency (MHz)	Peak Gain		
	Horizontal (Theta) (dBi)	Vertical (Phi) (dBi)	Total (dBi)
6000	7.15	-0.22	7.88

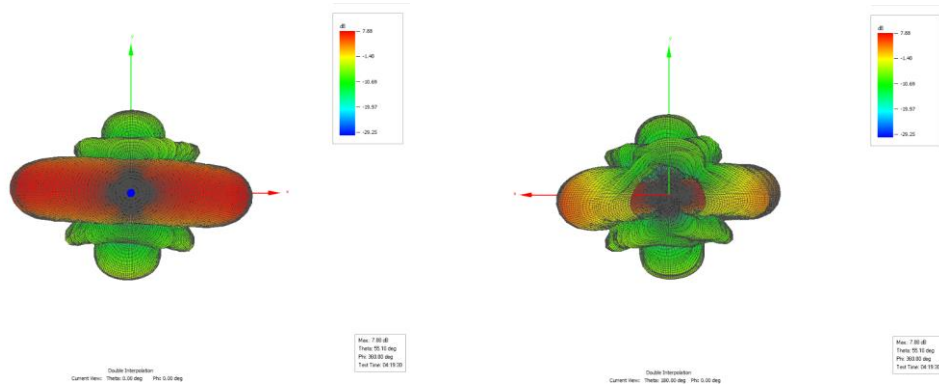
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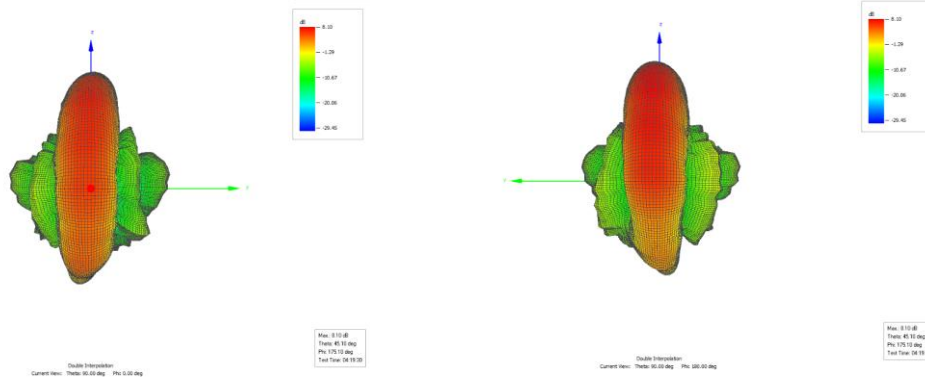
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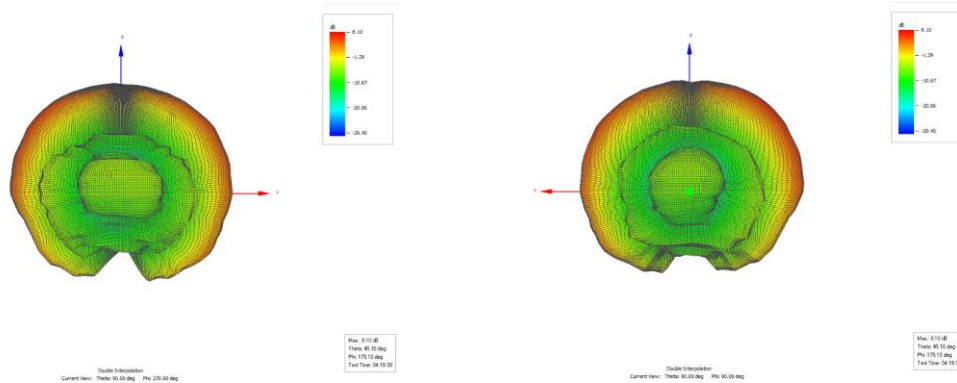
4.3. Pattern @6425MHz

Frequency (MHz)	Peak Gain		
	Horizontal (Theta)	Vertical (Phi)	Total
	(dBi)	(dBi)	(dBi)
6425	7.12	1.15	8.1

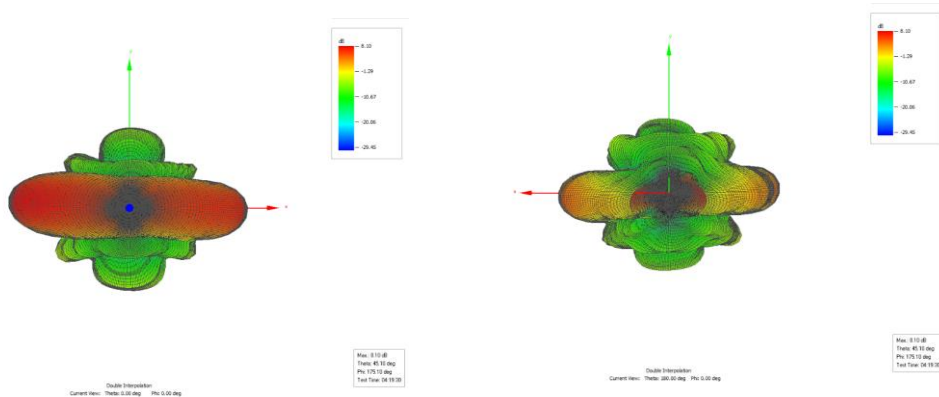
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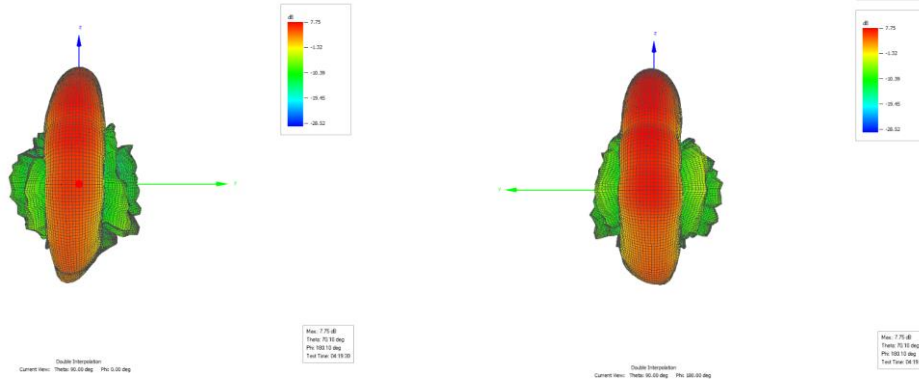
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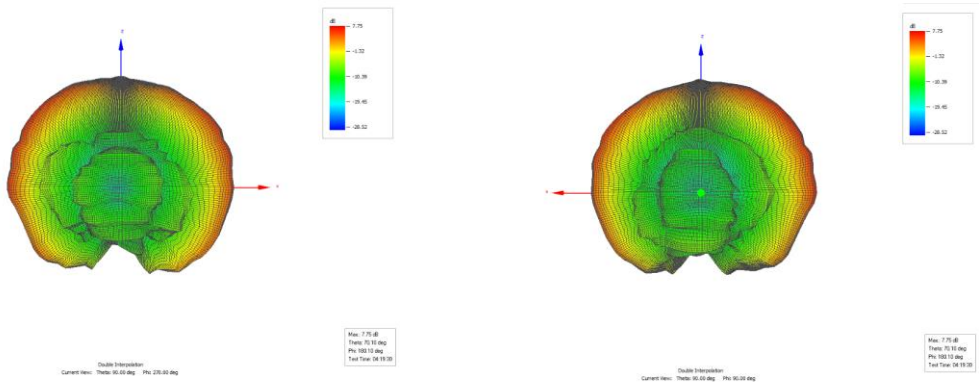
4.4. Pattern @6875MHz

Frequency (MHz)	Peak Gain		
	Horizontal (Theta)	Vertical (Phi)	Total
	(dBi)	(dBi)	(dBi)
6875	6.65	1.26	7.75

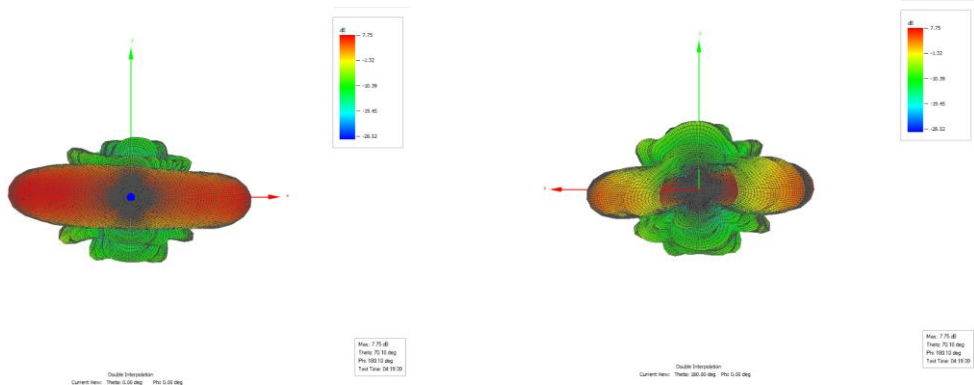
Front Back



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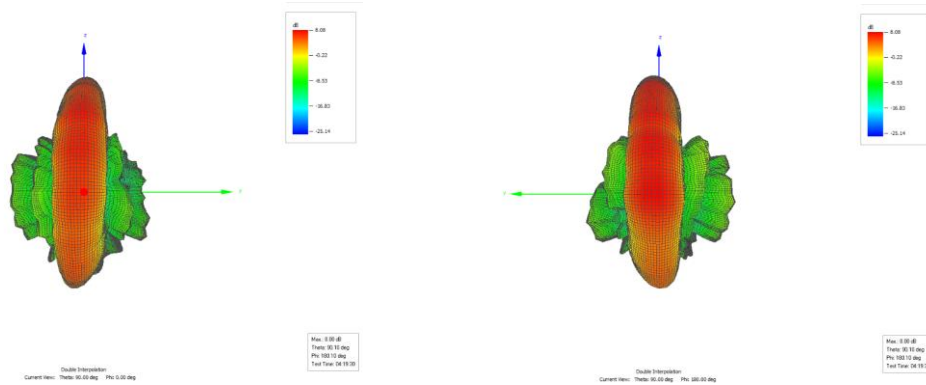
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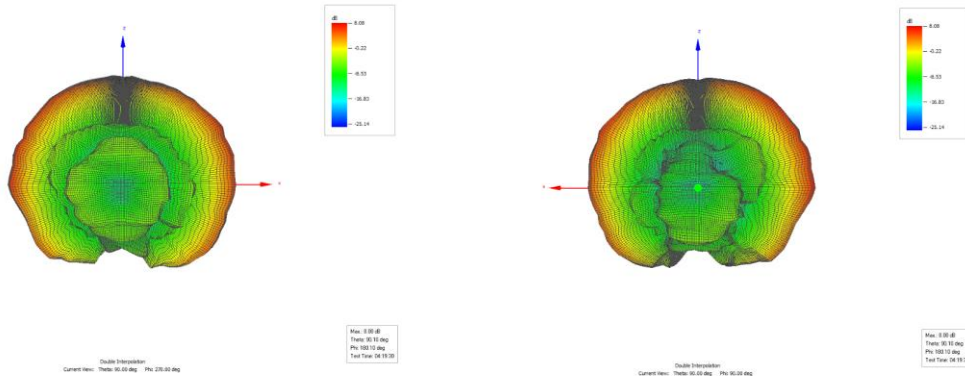
4.5. Pattern @7125MHz

Frequency (MHz)	Peak Gain		
	Horizontal (Theta)	Vertical (Phi)	Total
	(dBi)	(dBi)	(dBi)
7125	6.98	1.6	8.08

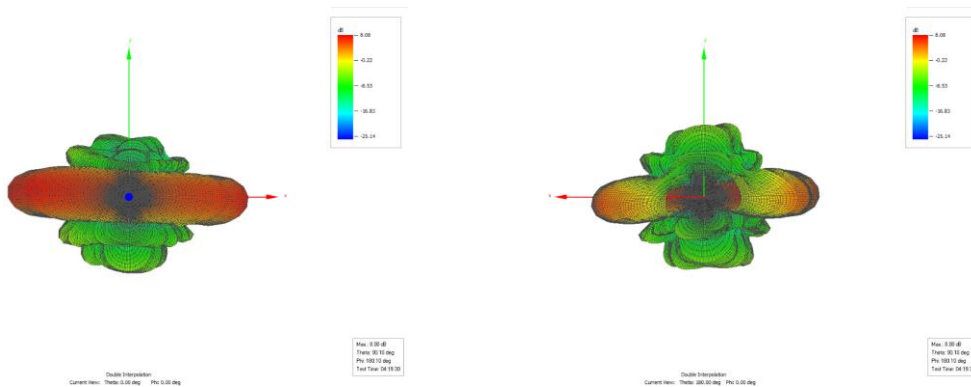
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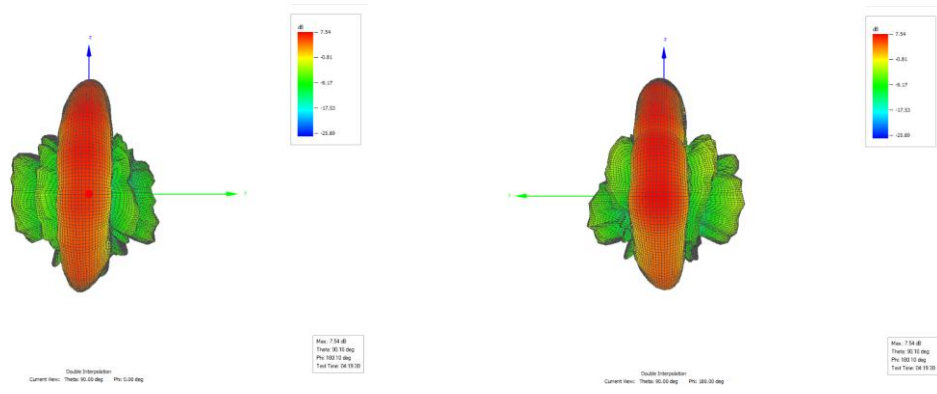
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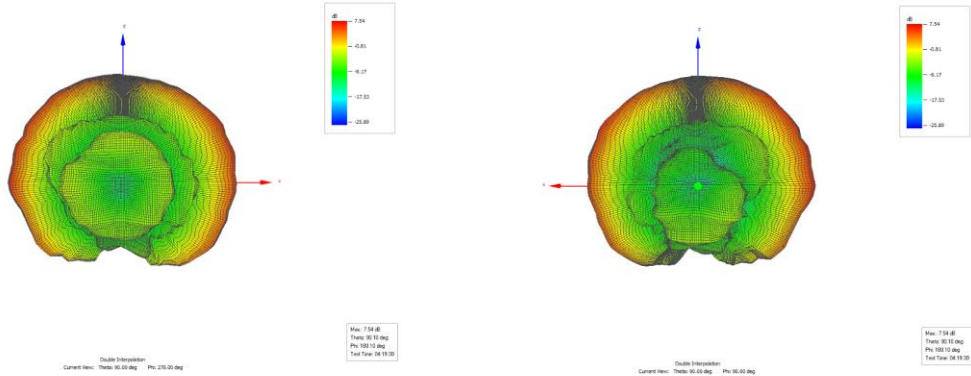
4.6. Pattern @7200MHz

Frequency (MHz)	Peak Gain		
	Horizontal (Theta)	Vertical (Phi)	Total
	(dBi)	(dBi)	(dBi)
7200	6.26	1.62	7.54

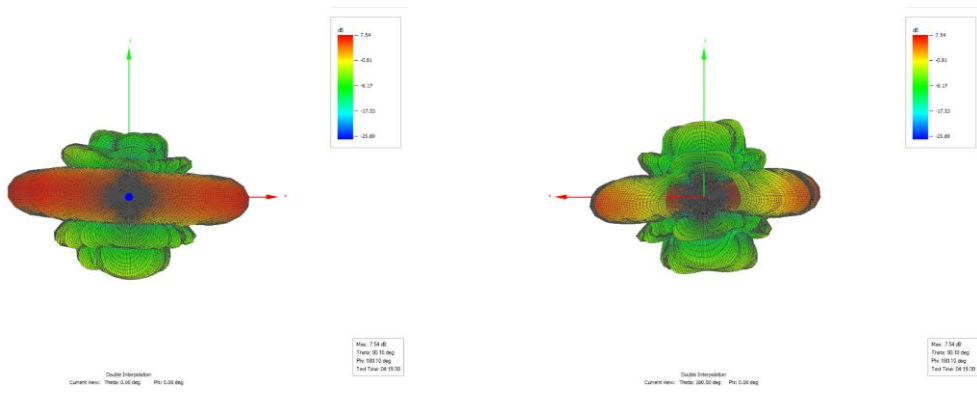
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5. VSWR

