

Antenna

YE0038BA Datasheet

Antenna Services

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About the Document

Revision History

Version	Date	Author	Note
-	2022-06-24	Ezail TAN/ Jason LONG	Creation of the document
1.0	2022-06-24	Ezail TAN/ Jason LONG	First official release
1.1	2022-09-27	Ezail TAN/ Jason LONG	1. Updated working temperature. (Chapter 3) 2. Updated test environment picture. (Chapter 4)
1.2	2022-12-28	Aria CHU	Deleted the IP rating (Chapter 3).

Contents

About the Document.....	3
Contents.....	4
1 Product Description.....	5
2 Product Features	5
3 Product Specifications	6
4 Overall Performance.....	7
4.1. Test Environment	7
4.2. VSWR.....	8
4.3. Efficiency	9
4.4. Gain.....	10
4.5. Radiation Pattern	11
5 Product Size	17

1 Product Description

Quectel Wi-Fi antenna covers 2.4 GHz, 5 GHz, and up to 7 GHz bands, fully satisfying customers' requirements for Wi-Fi 5, Wi-Fi 6, and Wi-Fi 6E. There are various antenna types, including built-in FPC antenna, ceramic patch antenna, and other external antennas of different shapes or sizes. The antenna performance meets the customers' demands for efficiency, gain, and radiation and ensures the superior experience of the customers' products in use.

2 Product Features

- Wi-Fi 2.4 & 5.8 GHz
- High efficiency
- Excellent performance



3 Product Specifications

Passive Electrical Specifications

Frequency Range	2400–2500 MHz; 5150–5850 MHz
Input Impedance	50 Ω
VSWR	≤ 2.0
Gain	≤ 3.6 dBi
Polarization Type	Linear

Mechanical Specifications

Antenna Size (mm)	$\Phi 13 \times 195$
Casing	TPEE
Connector Type	SMA (Male pin with internal thread)
Working Temperature	-40 °C to +85 °C
Radome Color	Black
Mounting Type	Screw
Weight	Typ. 18 g

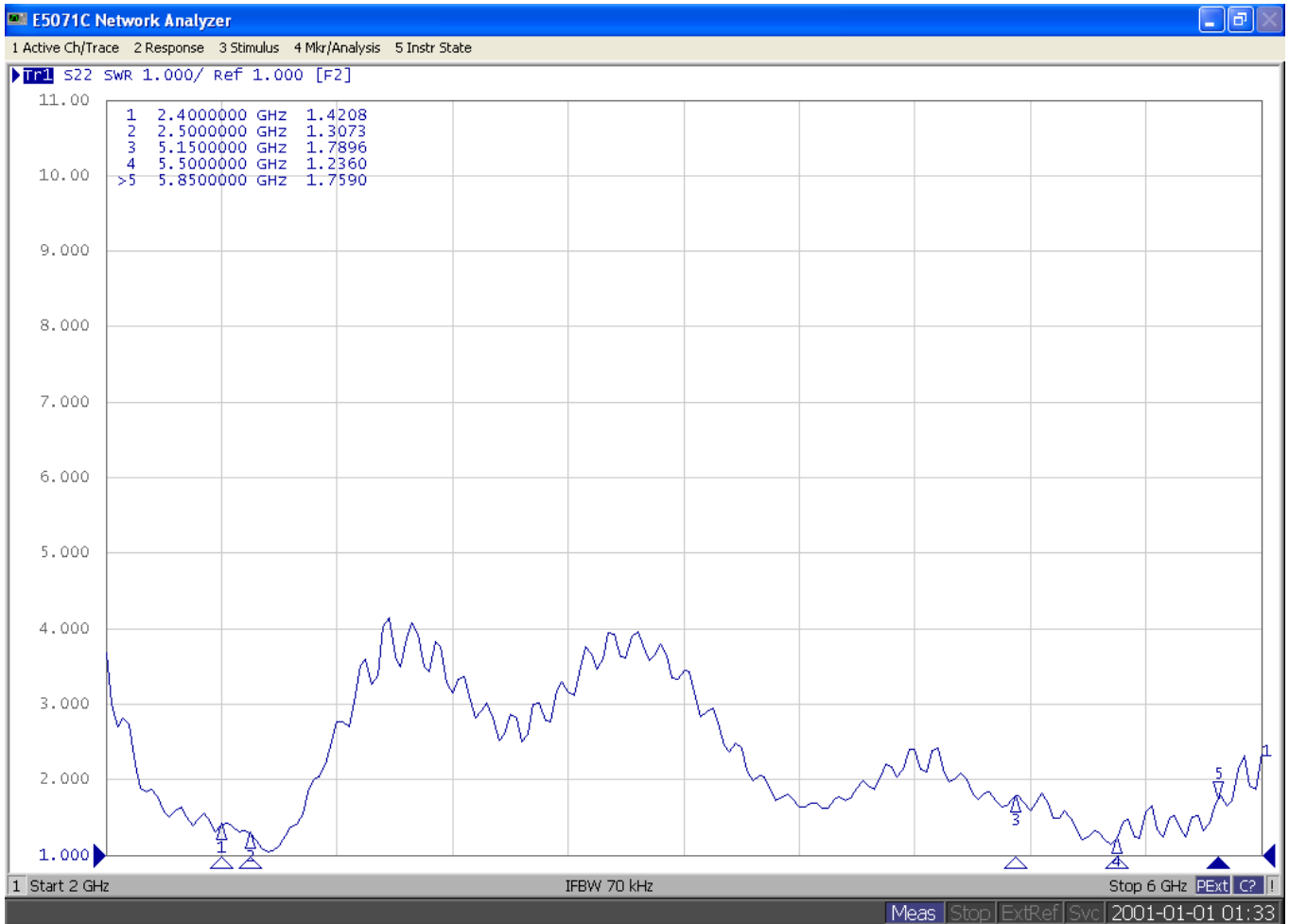
4 Overall Performance

4.1. Test Environment

- KEYSIGHT ENA Network Analyzer E5063A 100 kHz – 8.5 GHz
- RayZone® 2800 Chamber 5G (FR1) SISO/MIMO, 600 MHz – 8.5 GHz

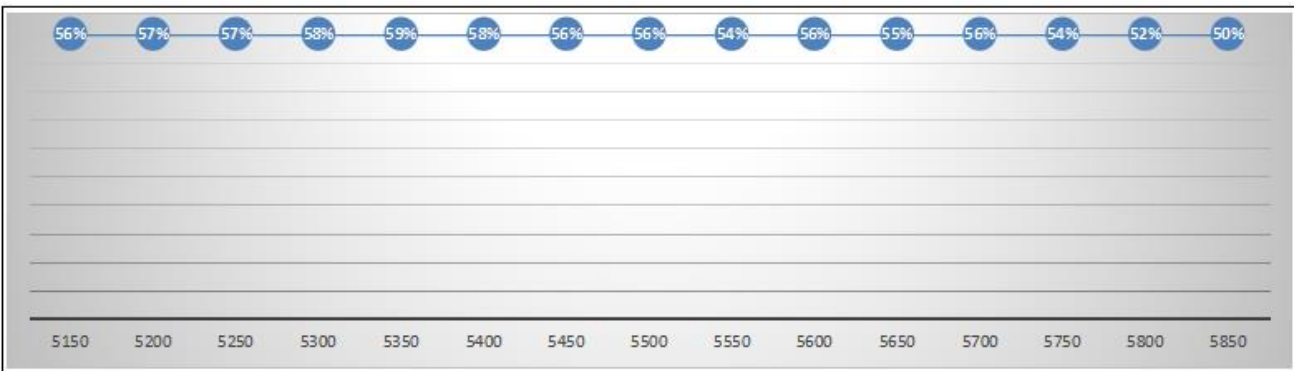
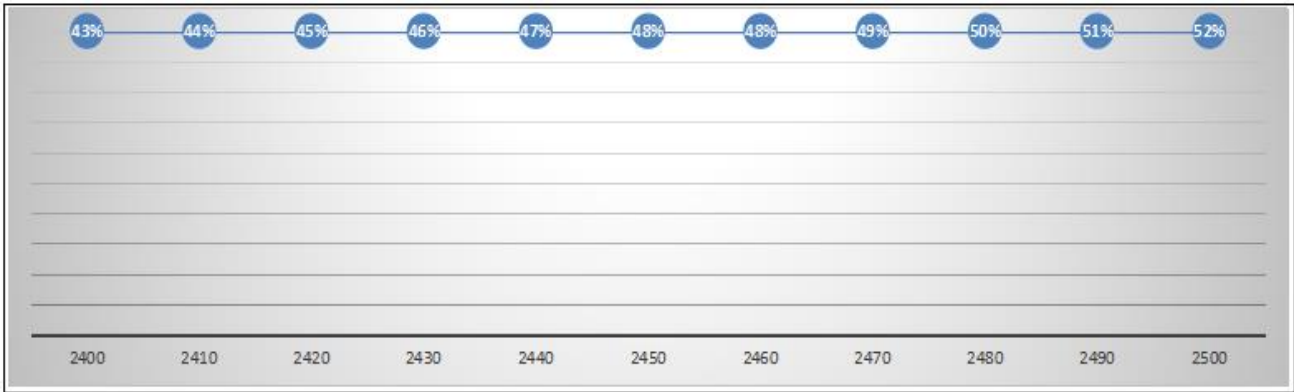


4.2. VSWR



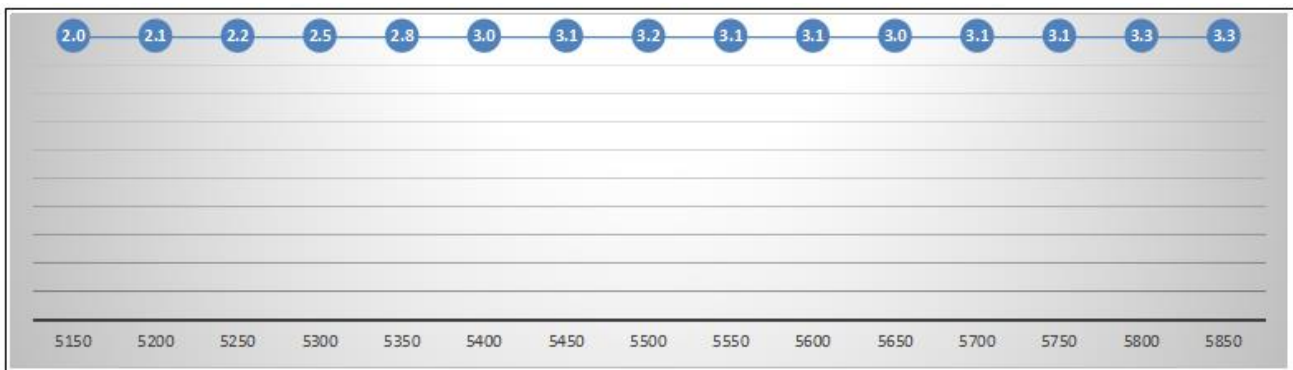
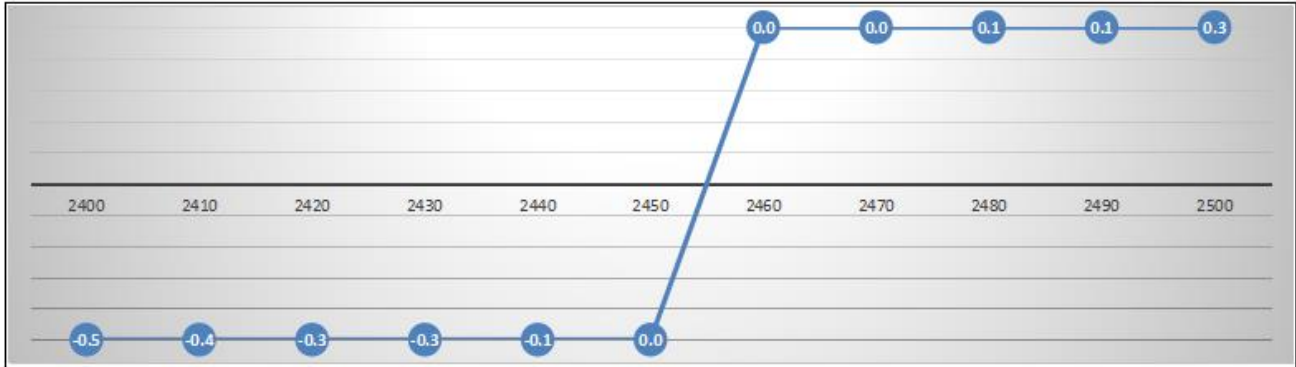
Frequency (MHz)	2400	2500	5150	5500	5850
VSWR	1.42	1.30	1.78	1.23	1.75

4.3. Efficiency



Frequency (MHz)	2400	2500	5150	5500	5850
Efficiency (%)	43	52	56	56	50

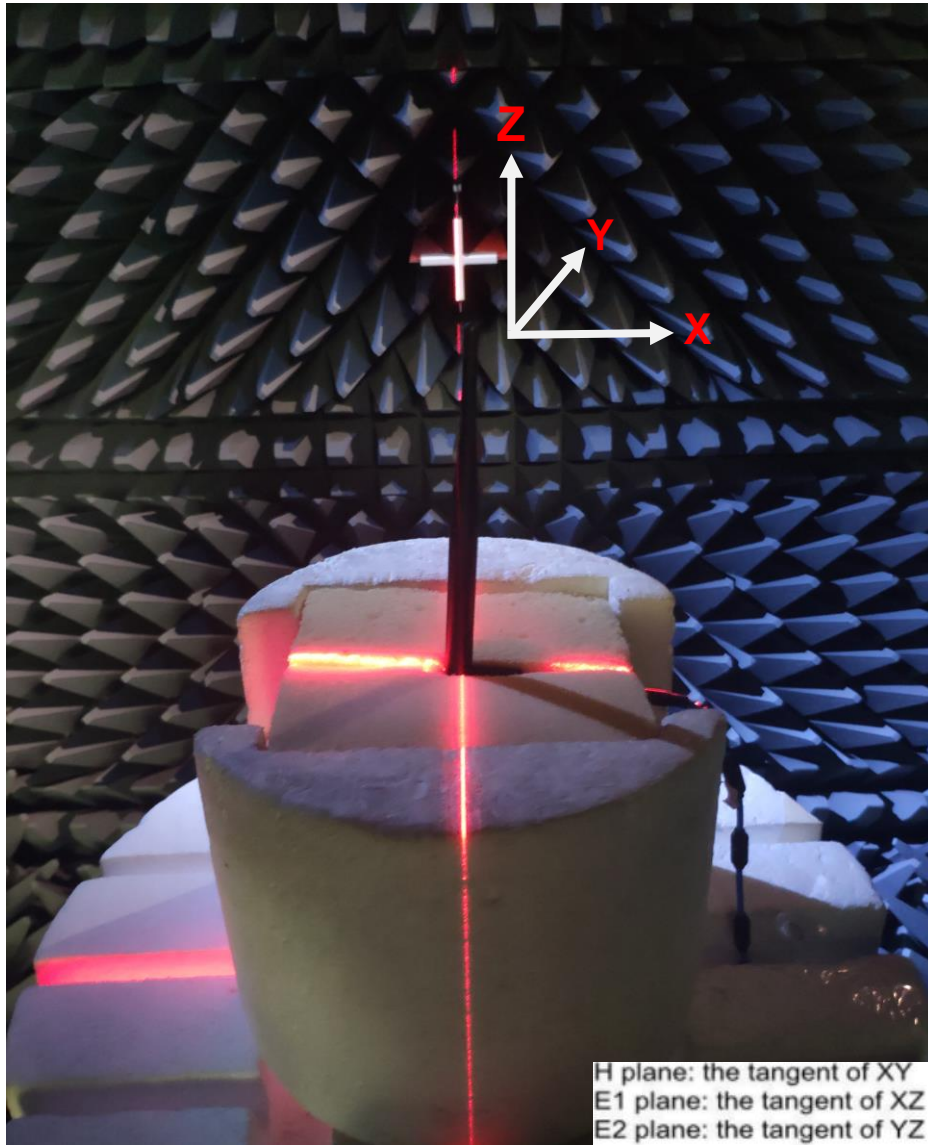
4.4. Gain



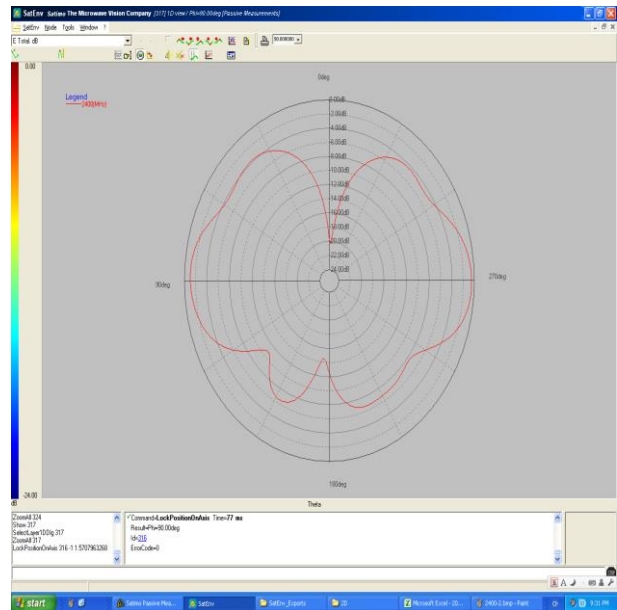
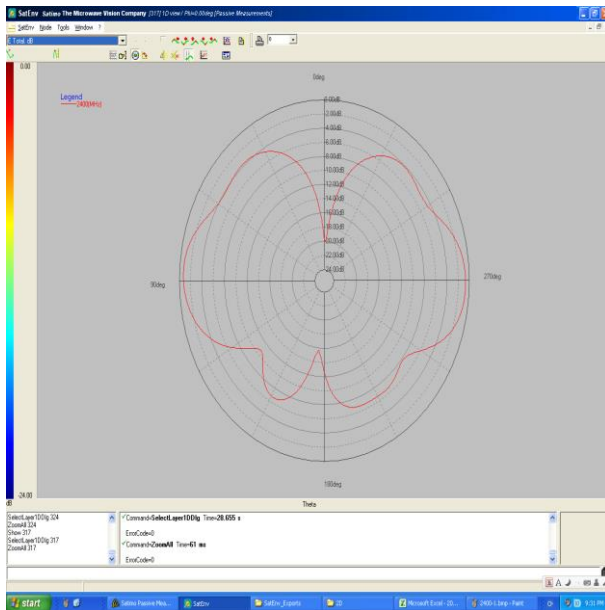
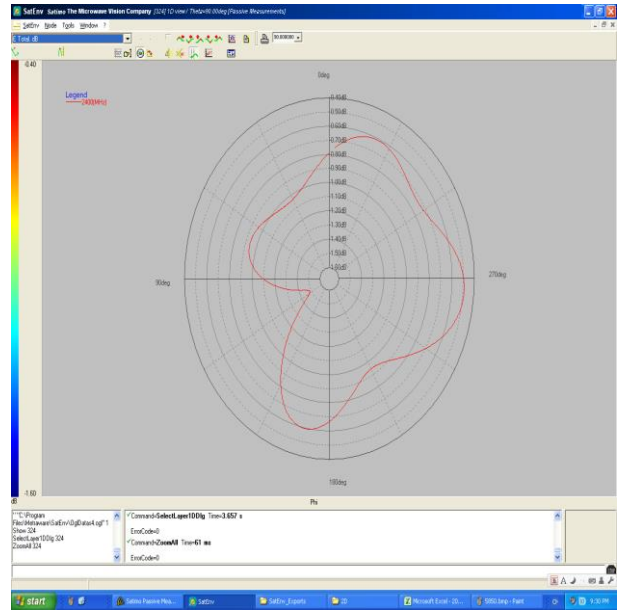
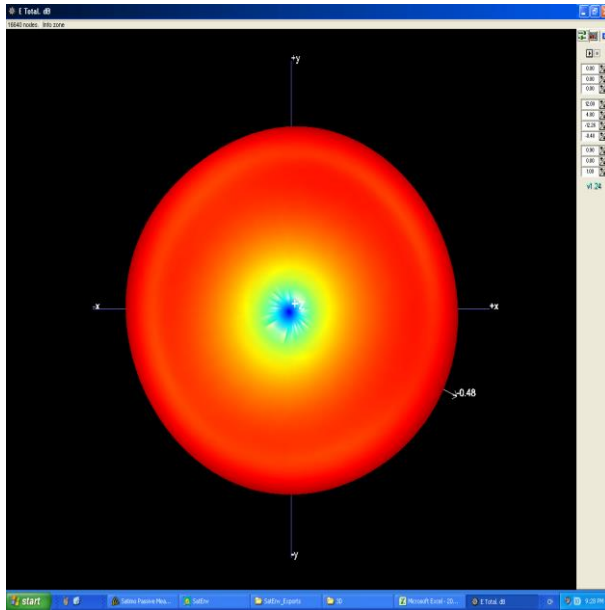
Frequency (MHz)	2400	2500	5150	5500	5850
Gain (dBi)	-0.5	0.3	2.0	3.2	3.3

4.5. Radiation Pattern

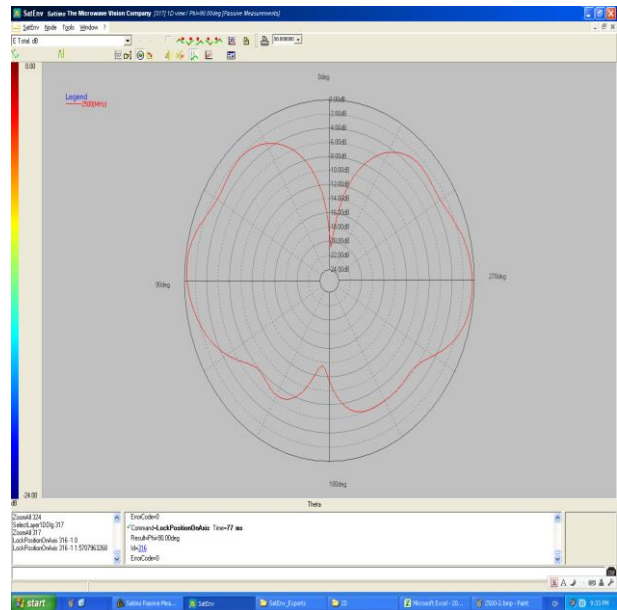
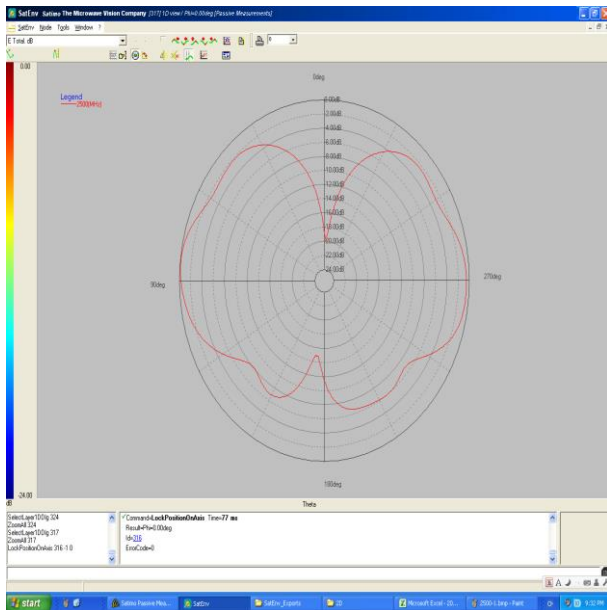
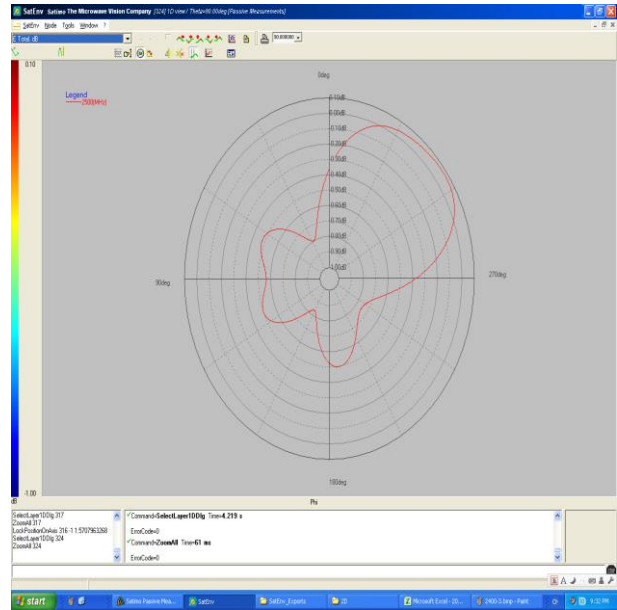
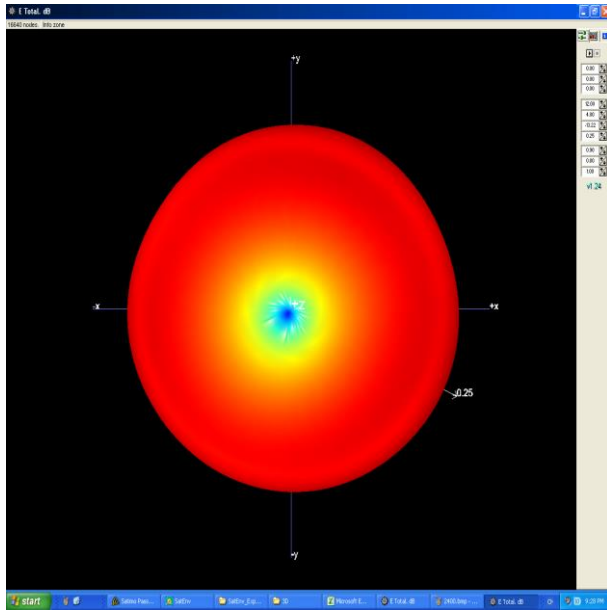
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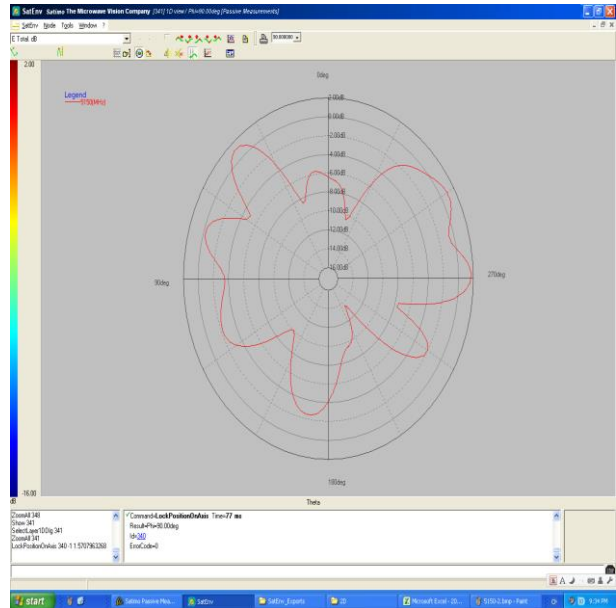
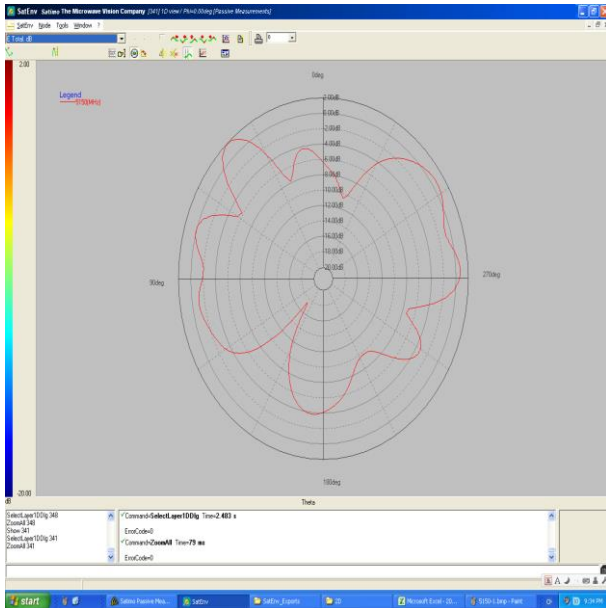
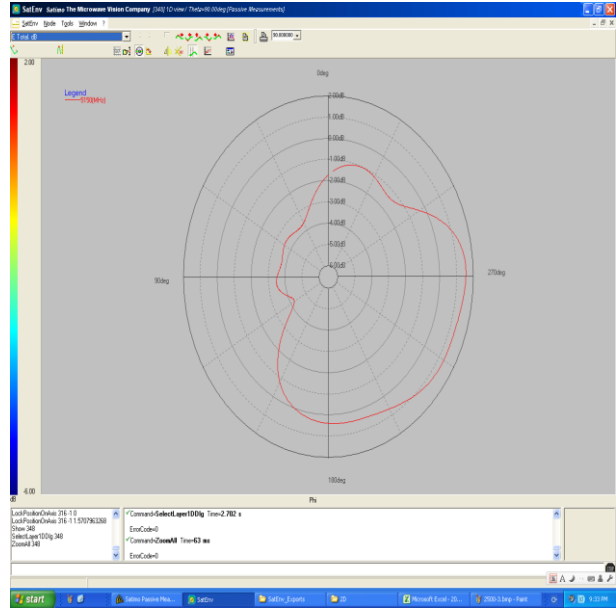
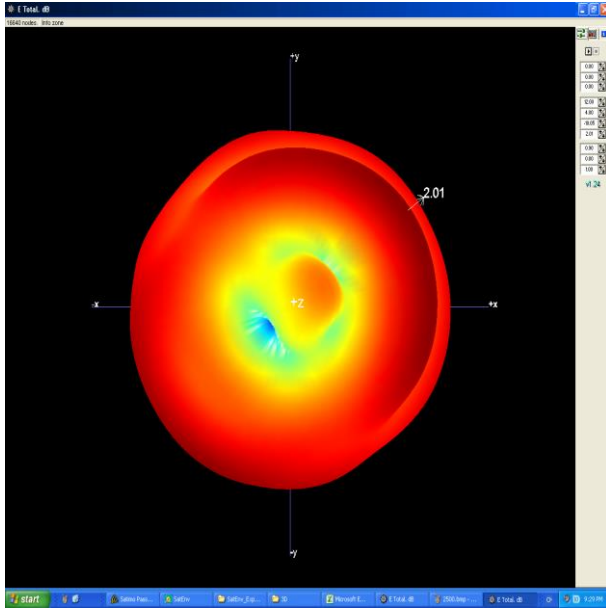
2400 MHz



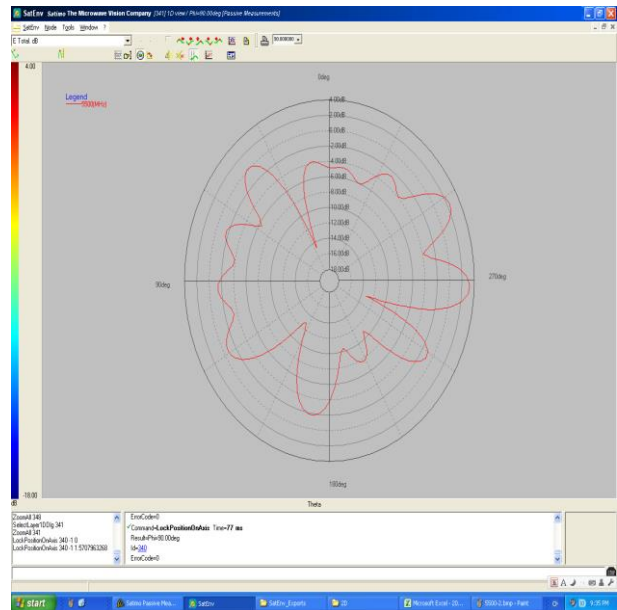
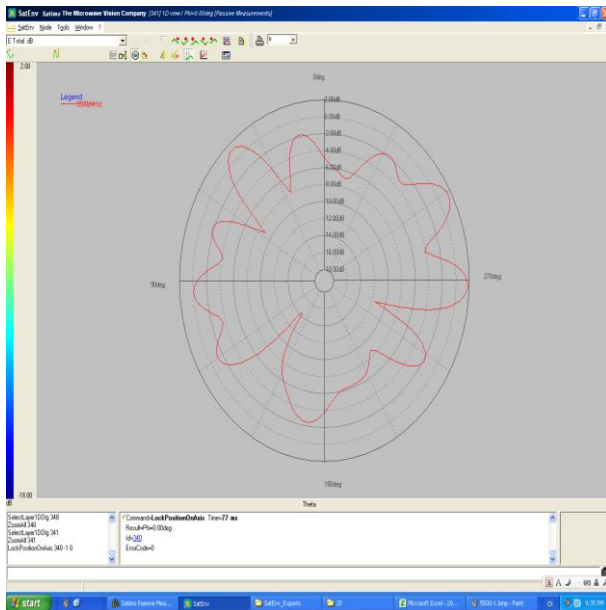
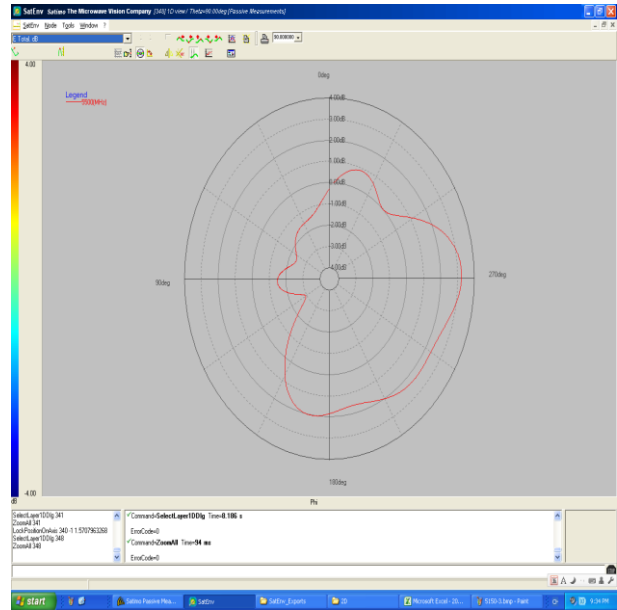
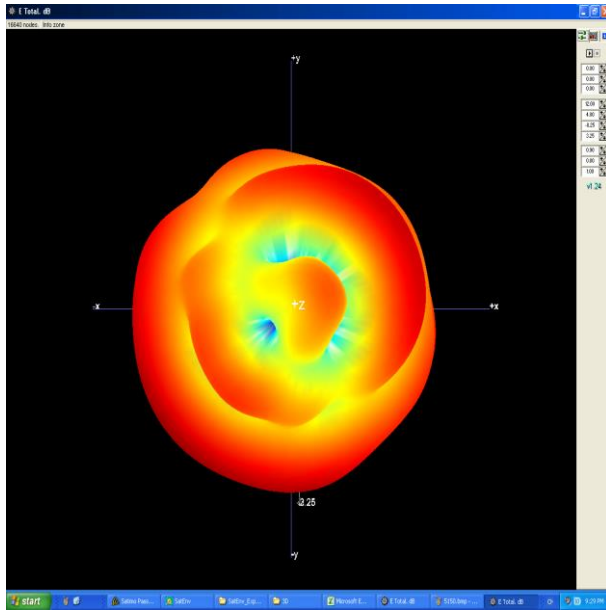
2500 MHz



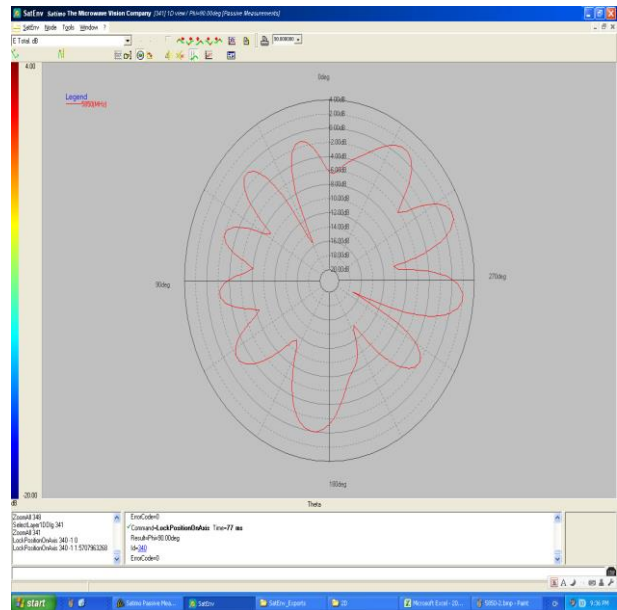
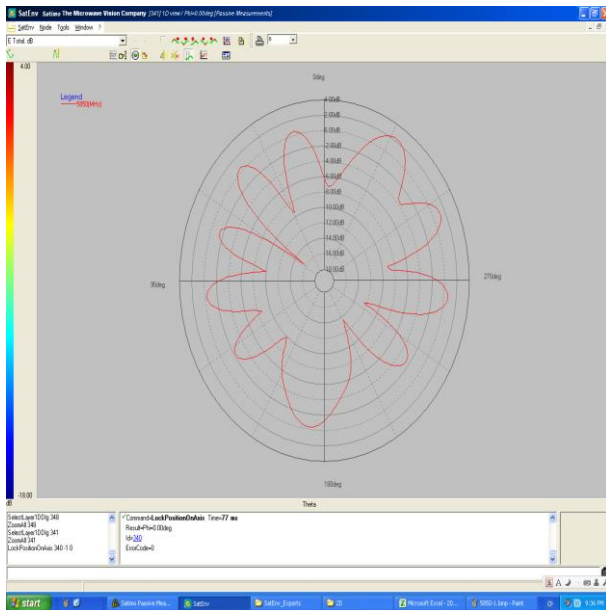
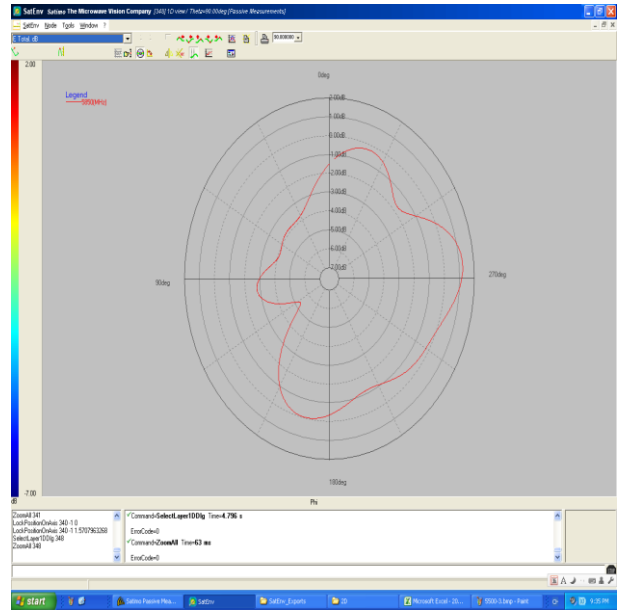
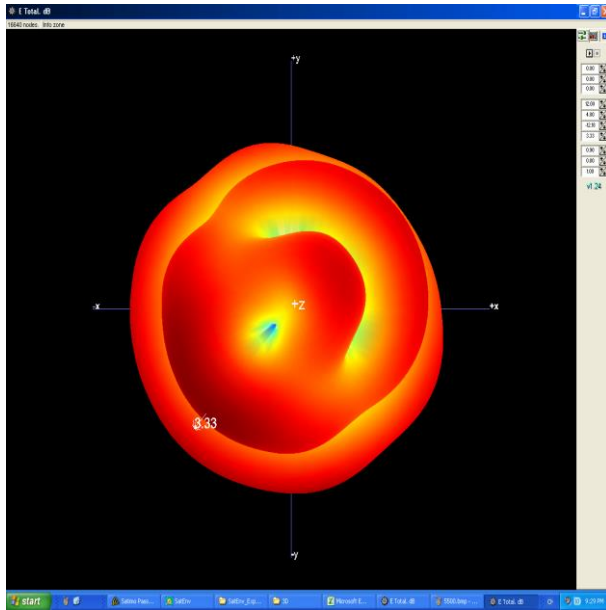
5150 MHz



5500 MHz



5850 MHz



5 Product Size

RoHS

