

Big Boss Antenna Test Report

MAR. 9, 2023

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SERCOMM

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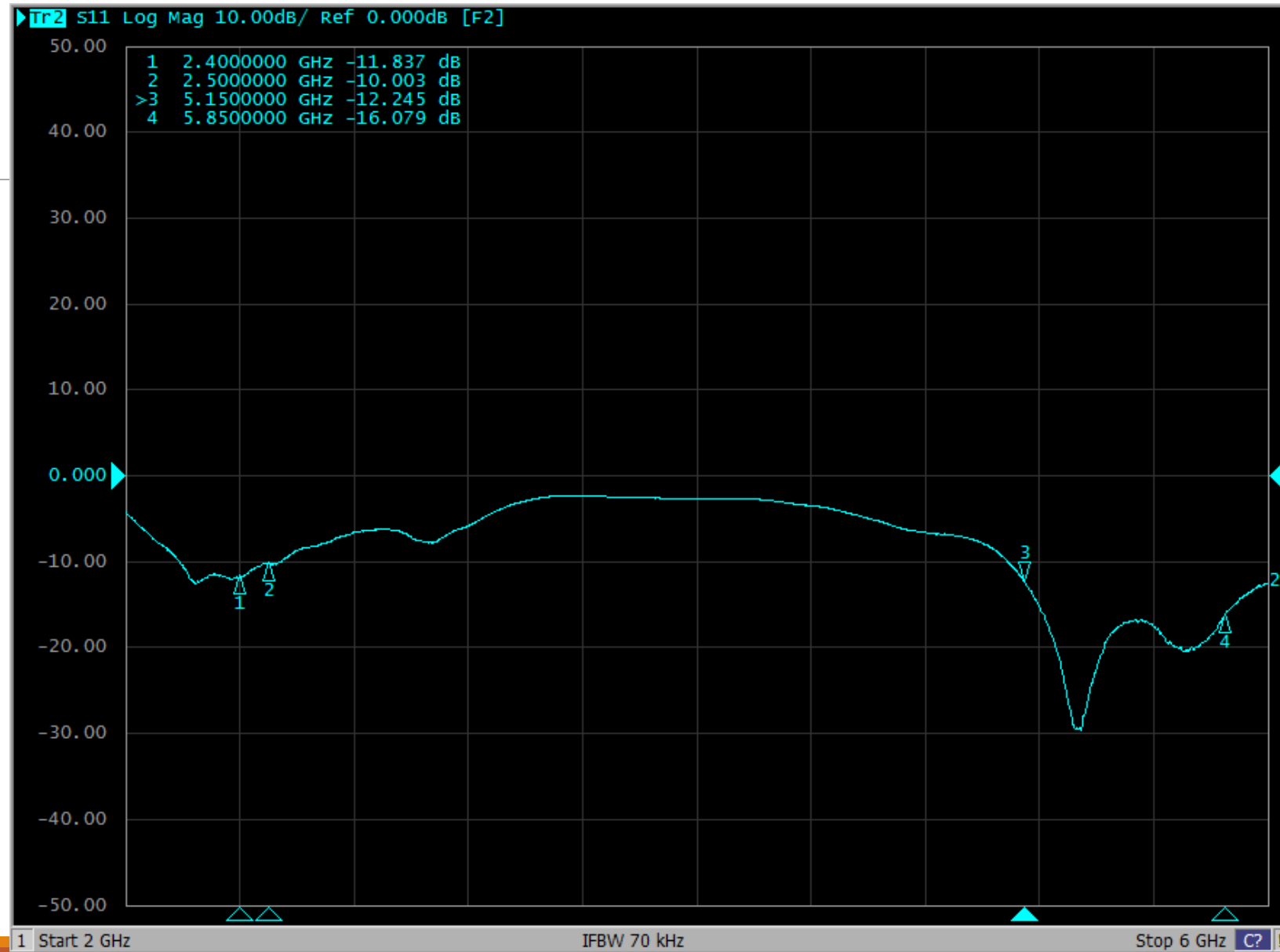
Outline

- Antenna Structure & Placement
 - Return Loss
-
- Radiation Pattern
 - Peak Gain & Efficiency

Antenna Structure

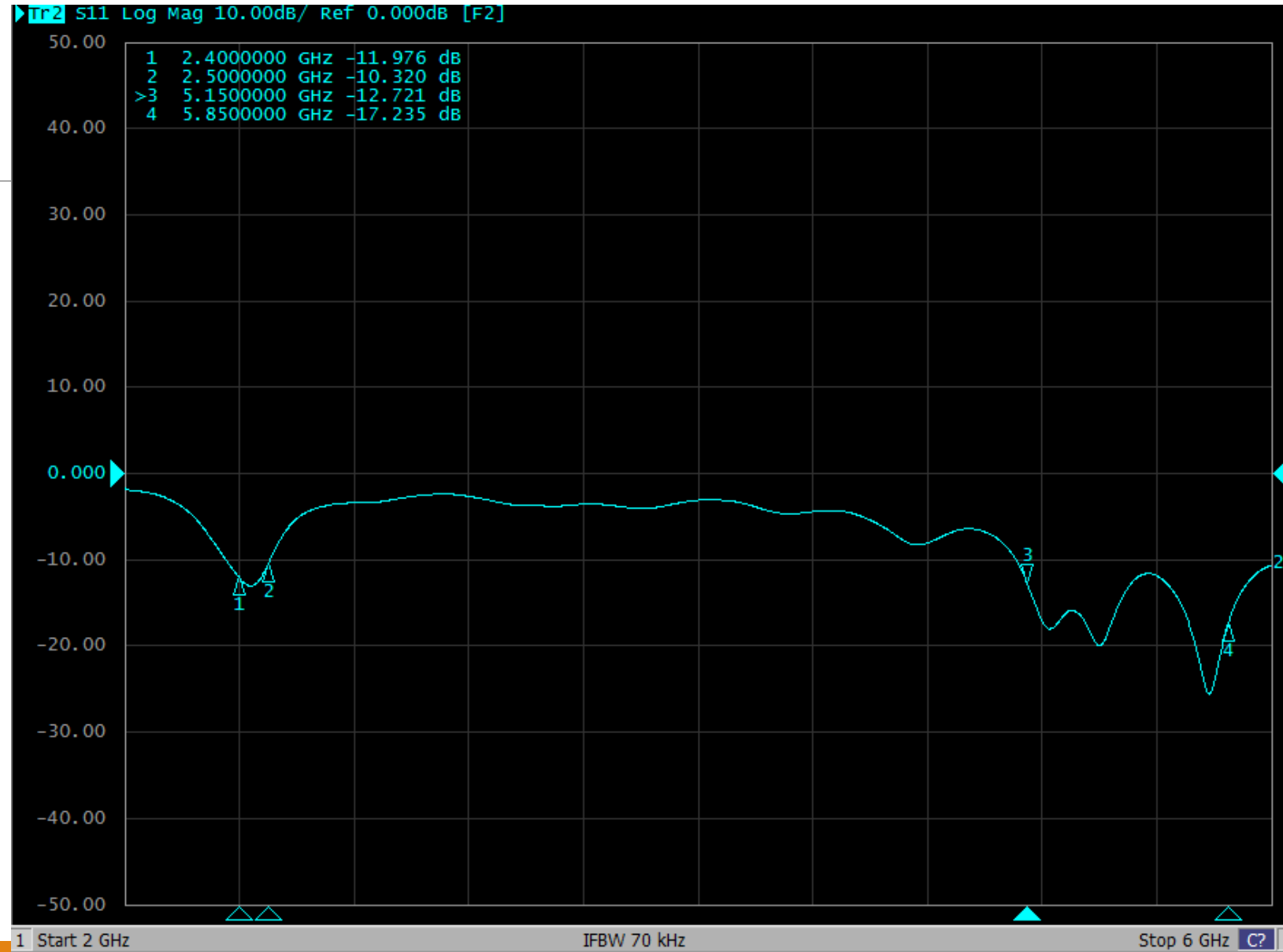
Ant No.	Function	Operating Band	Type	Material	Feeding	Dimension
Ant 1	WiFi Dual Band	2400MHz ~ 2500MHz 5150MHz ~ 5850MHz	PIFA	FPCB	Cable	31.2mm * 30.5mm * 0.23mm
Ant 2	WiFi Dual Band	2400MHz ~ 2500MHz 5150MHz ~ 5850MHz	PIFA	FPCB	Cable	38.0mm * 22.8mm * 0.23mm

Return Loss – Ant 1



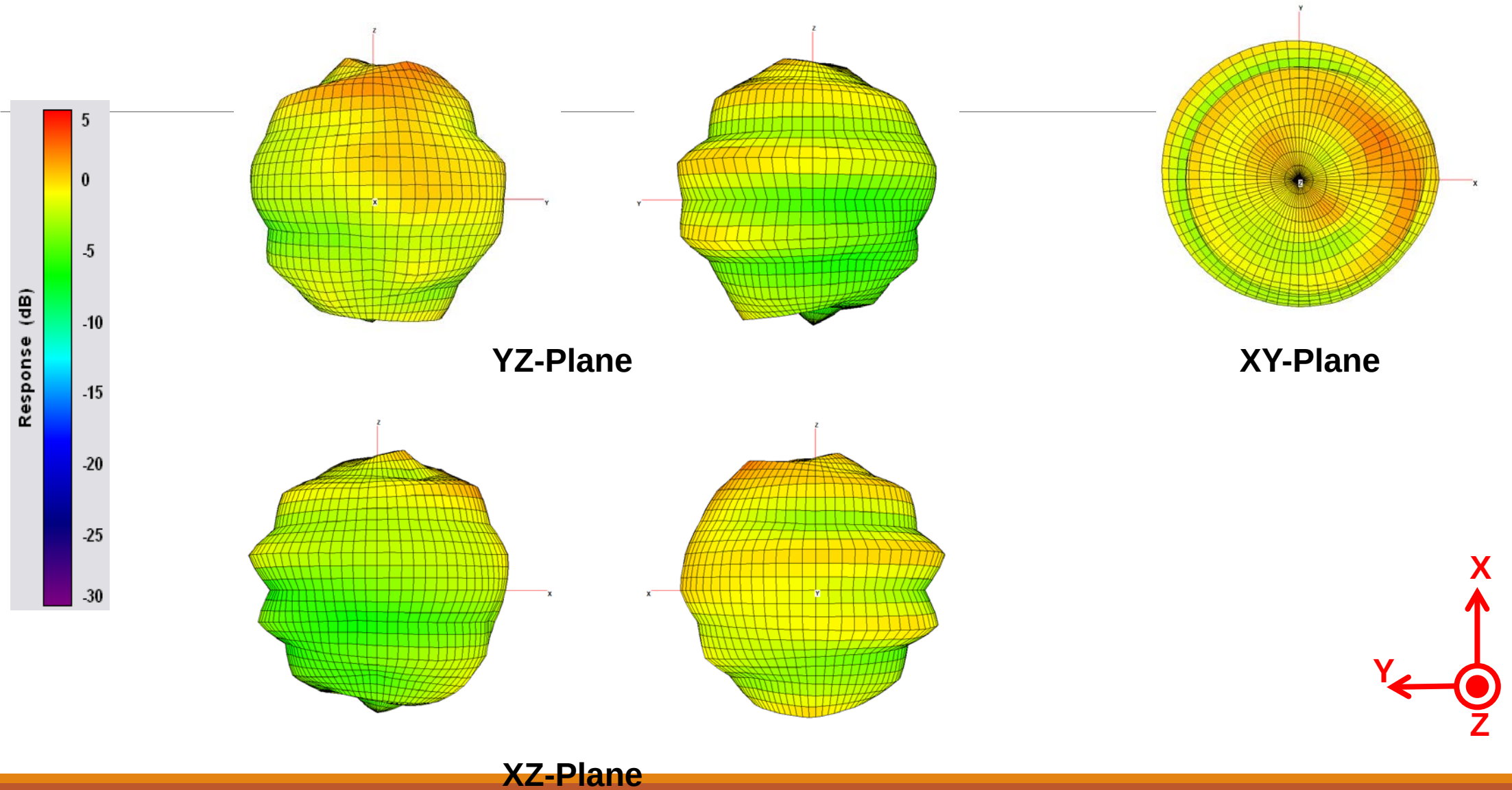
Spec : $RL \geq 10\text{dB}$

Return Loss – Ant 2

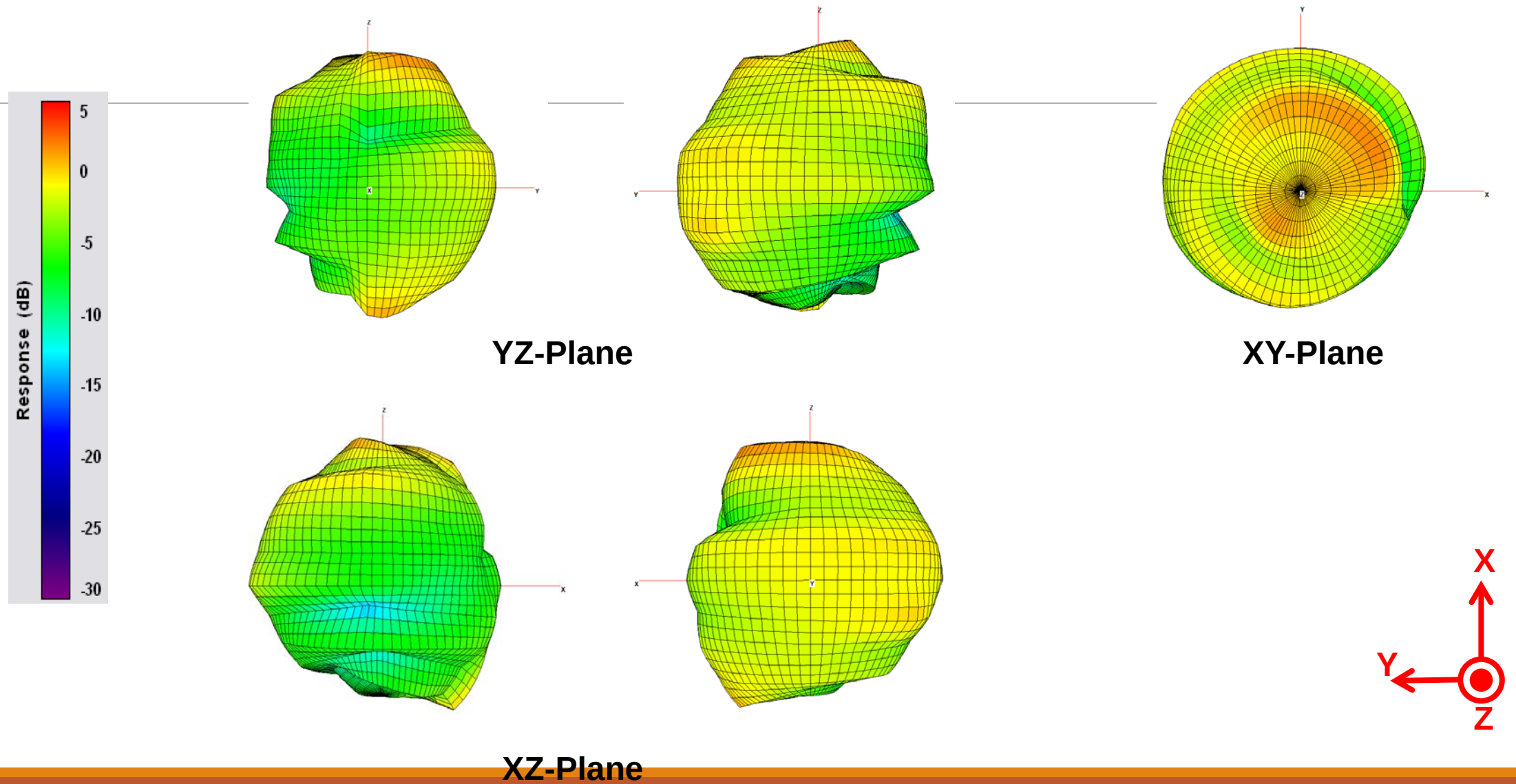


Spec : $RL \geq 10\text{dB}$

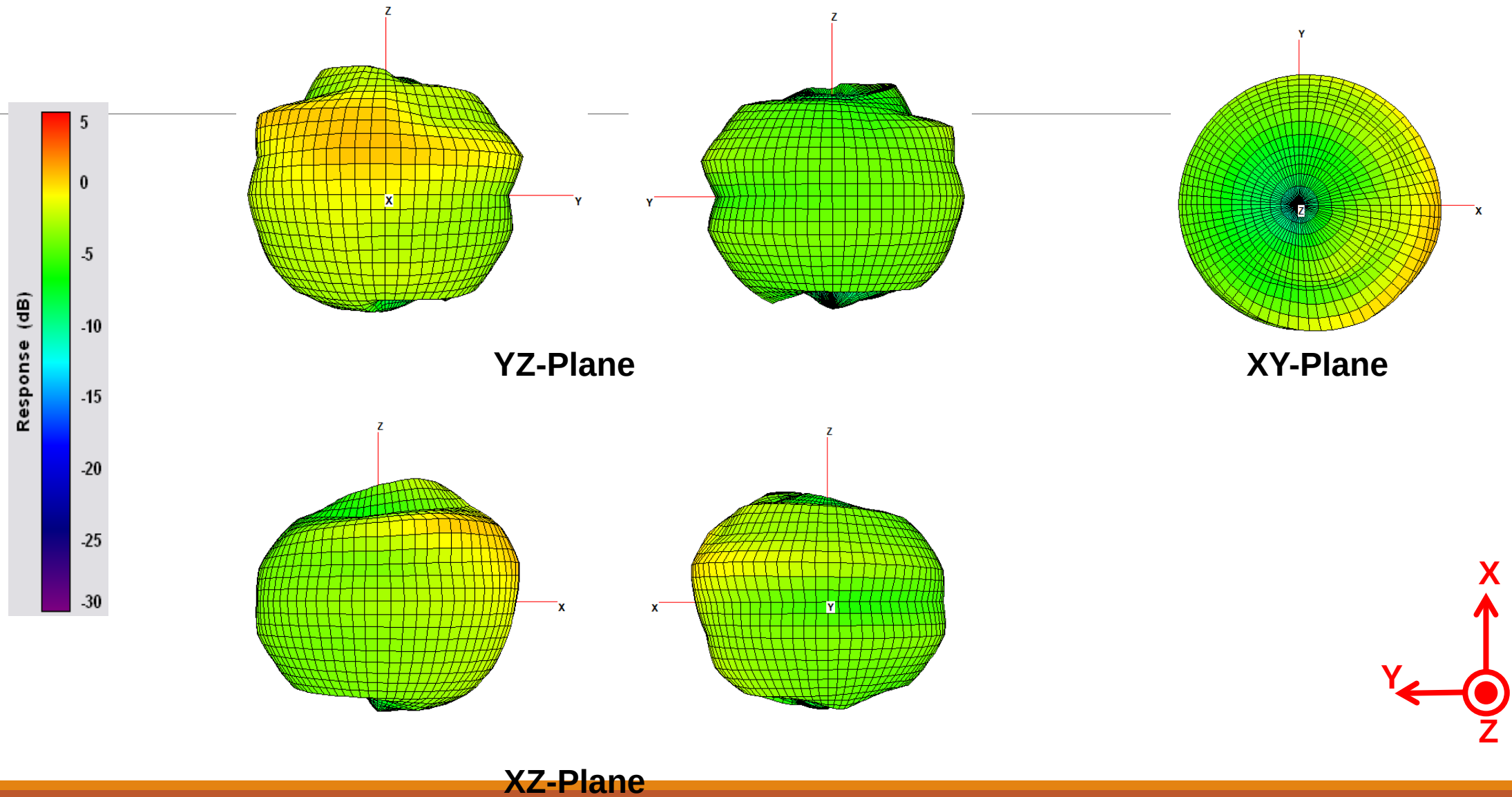
3D Radiation Pattern – Ant 1 @ 2.4G



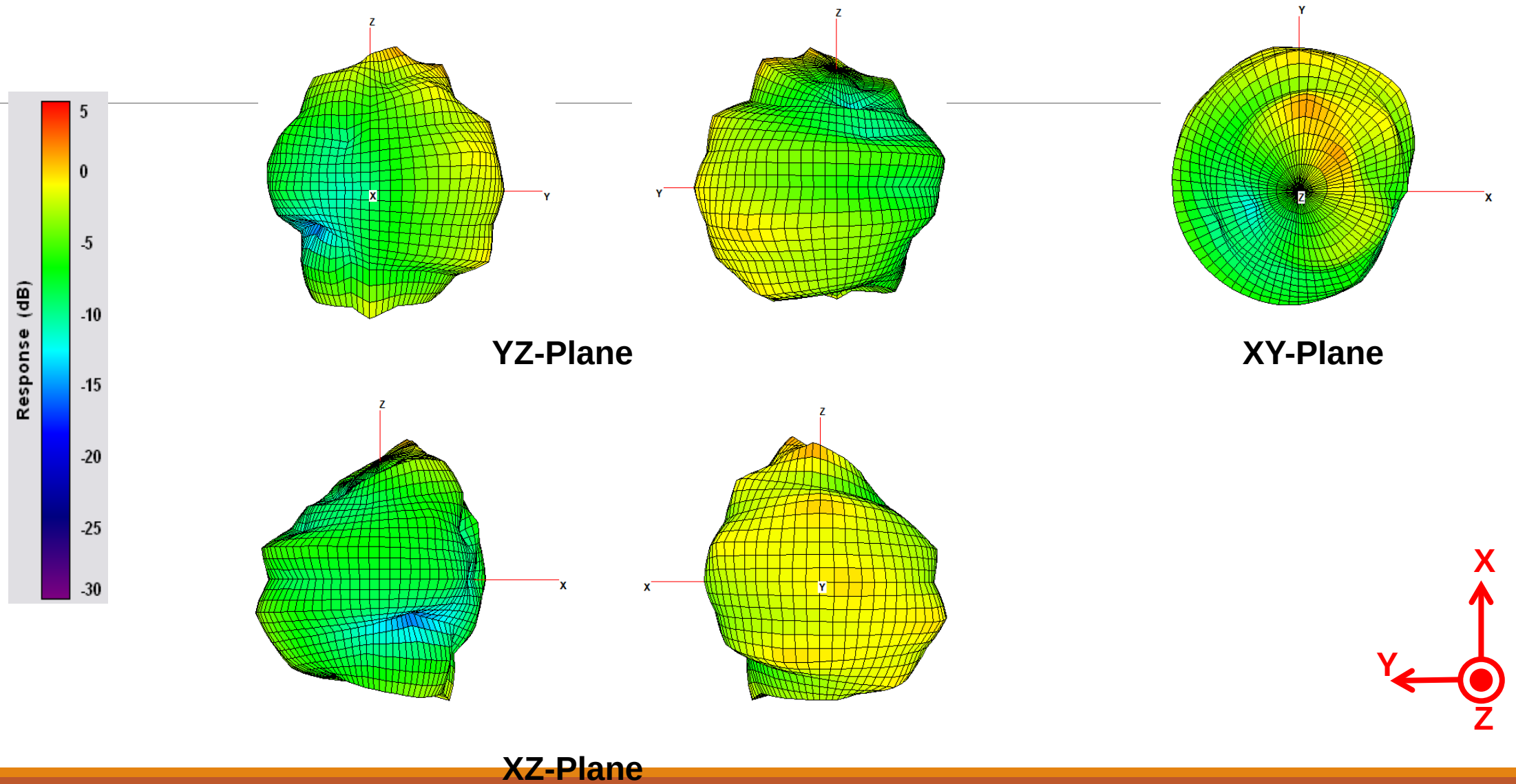
3D Radiation Pattern – Ant 1 @ 5.5G



3D Radiation Pattern – Ant 2 @ 2.4G



3D Radiation Pattern – Ant 2 @ 5.5G



Peak Gain & Efficiency

Ant 1 Performance		
Frequency (MHz)	Efficiency (%)	Peak Gain (dBi)
2400	54.1	3.82
2450	58.7	3.34
2500	56.4	3.13
5150	59.2	4.21
5500	60.1	4.51
5850	62.4	3.94

Ant 2 Performance		
Frequency (MHz)	Efficiency (%)	Peak Gain (dBi)
2400	51.7	1.98
2450	53.1	1.70
2500	51.5	1.81
5150	53.2	2.62
5500	52.1	2.11
5850	54.6	2.32

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