

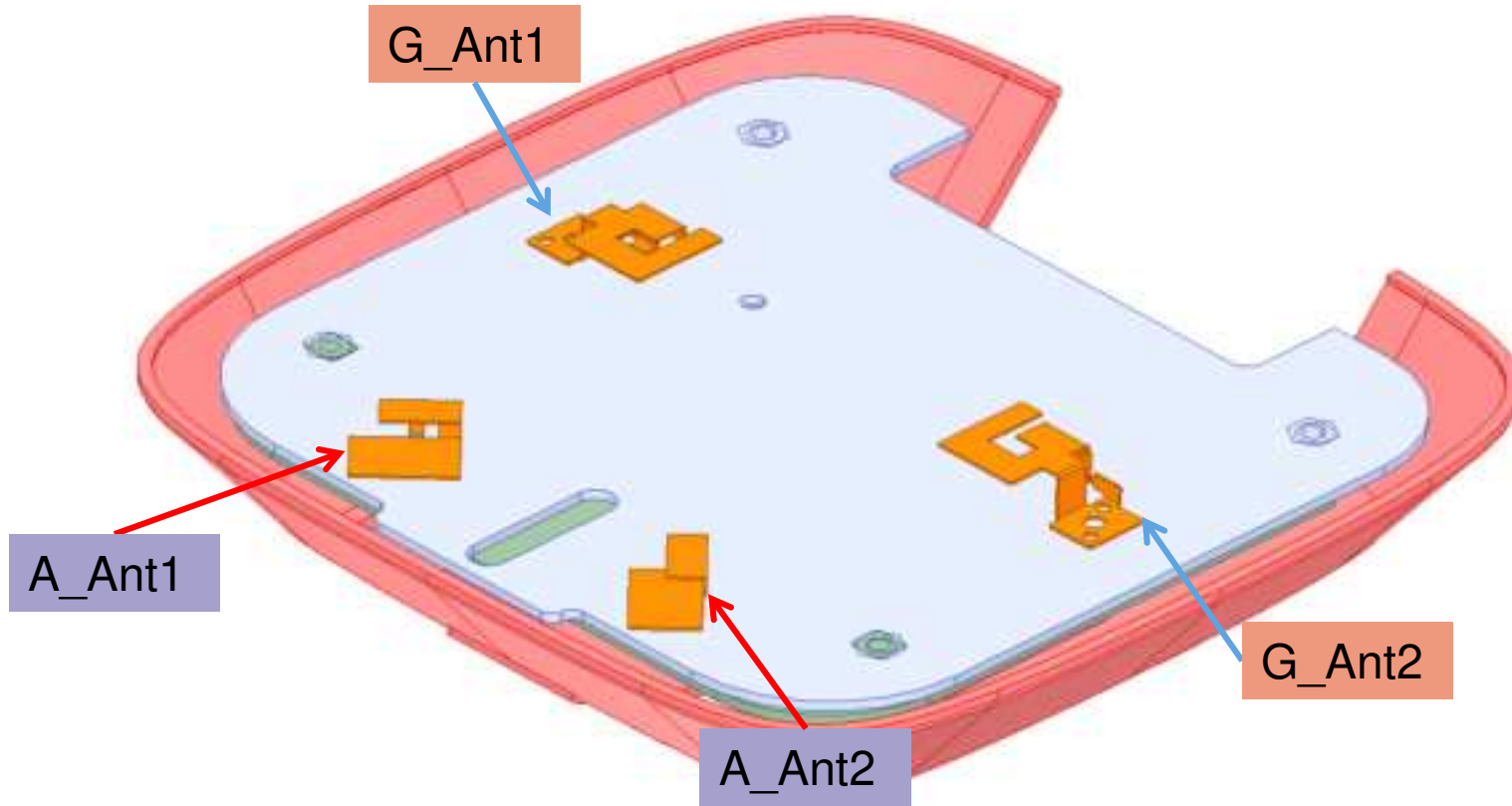
Cambium XV2-21X Antenna Test Report Vt00b

DVT Report



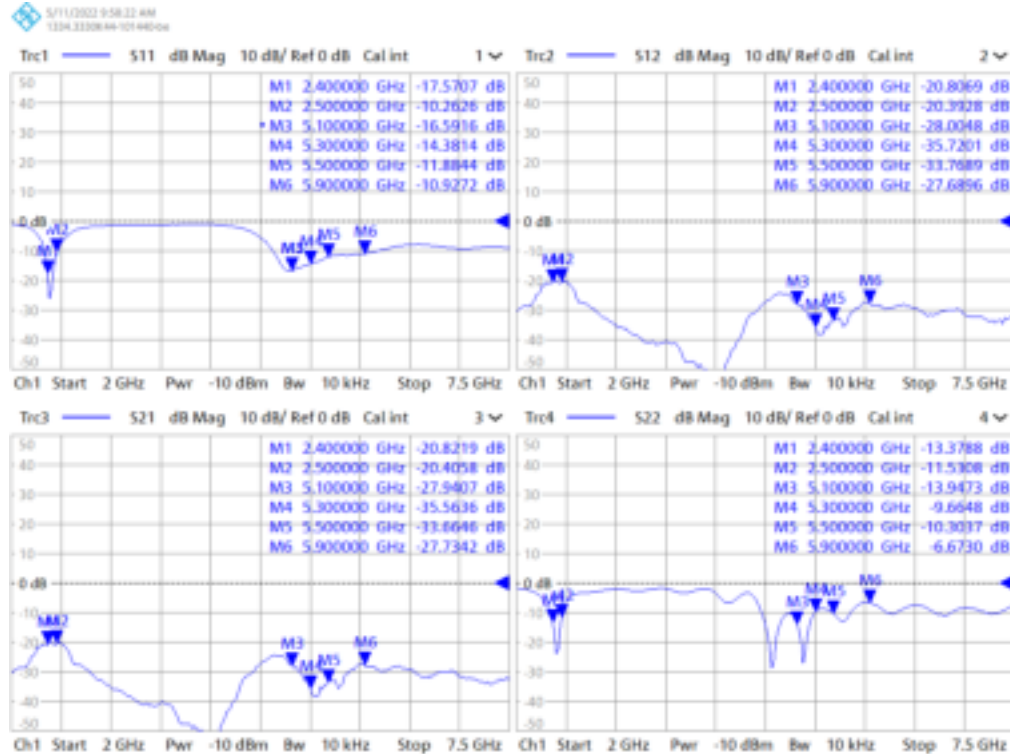
Antenna Team
August 8, 2022

Antenna Set Definition



G Band Antenna Return Loss & Isolation

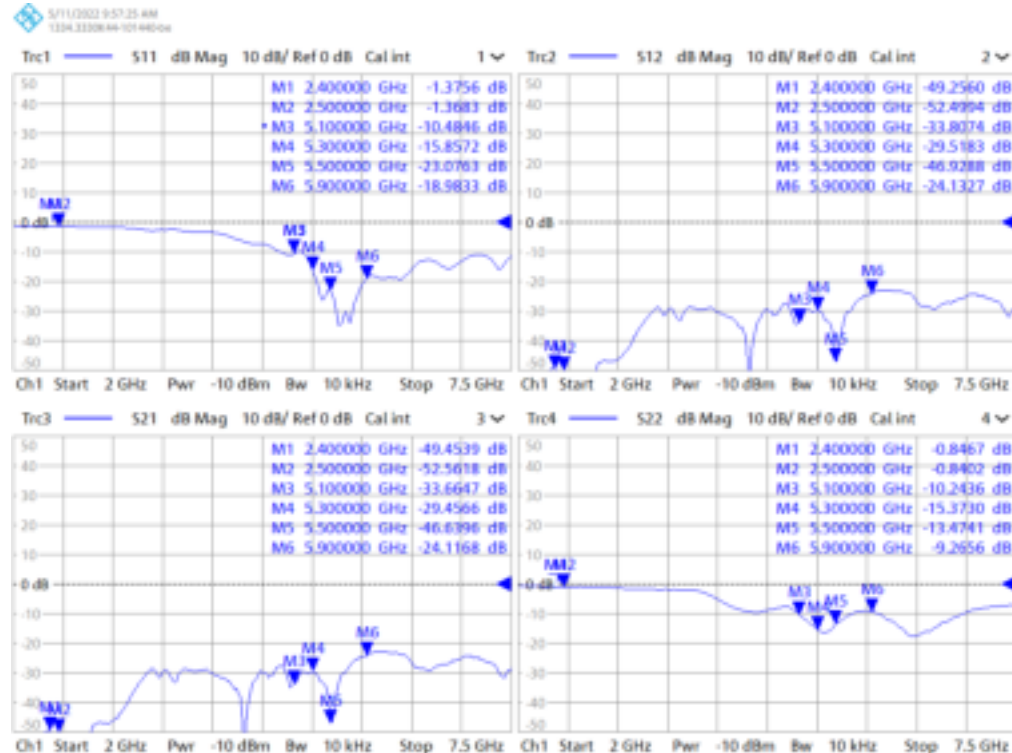
G_Ant2



G_Ant1

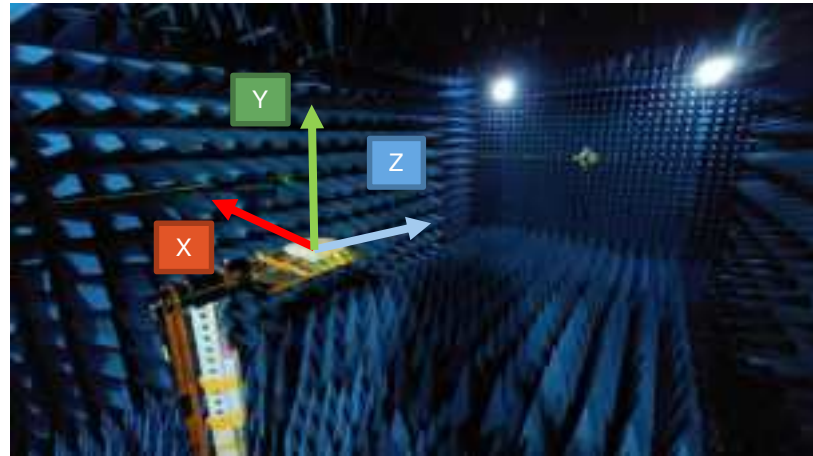
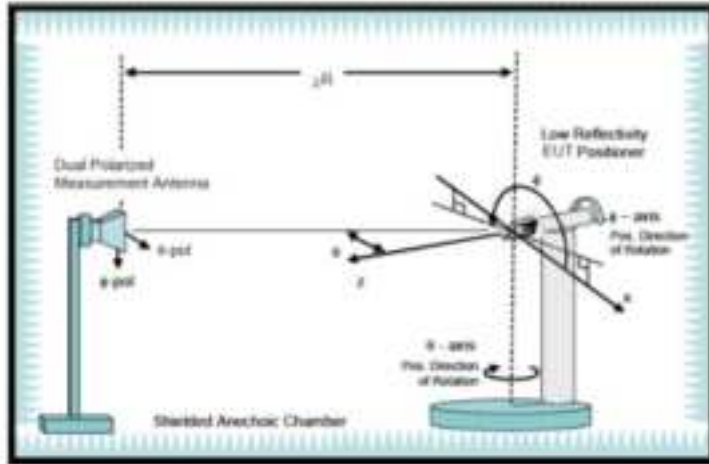
A Band Antenna Return Loss & Isolation

A_Ant2

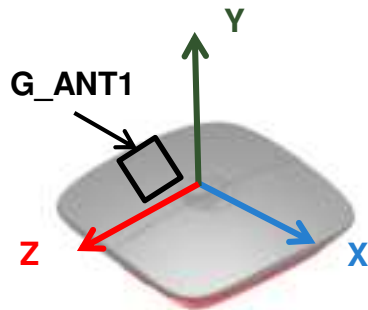
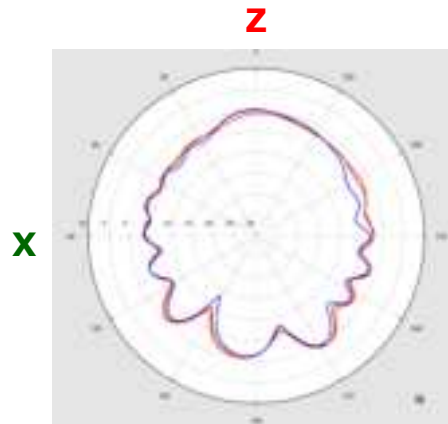


A_Ant1

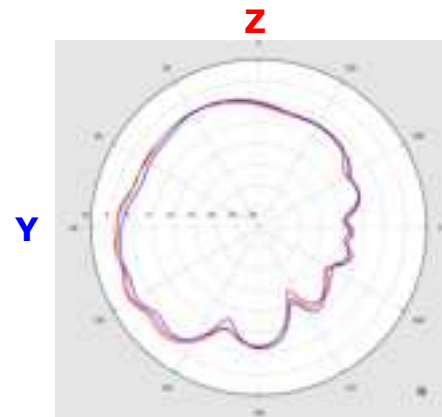
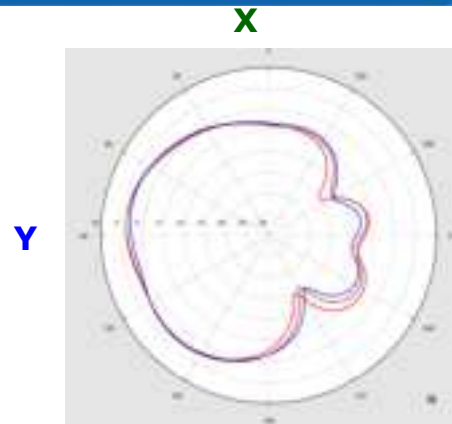
Antenna Coordinate System Definition



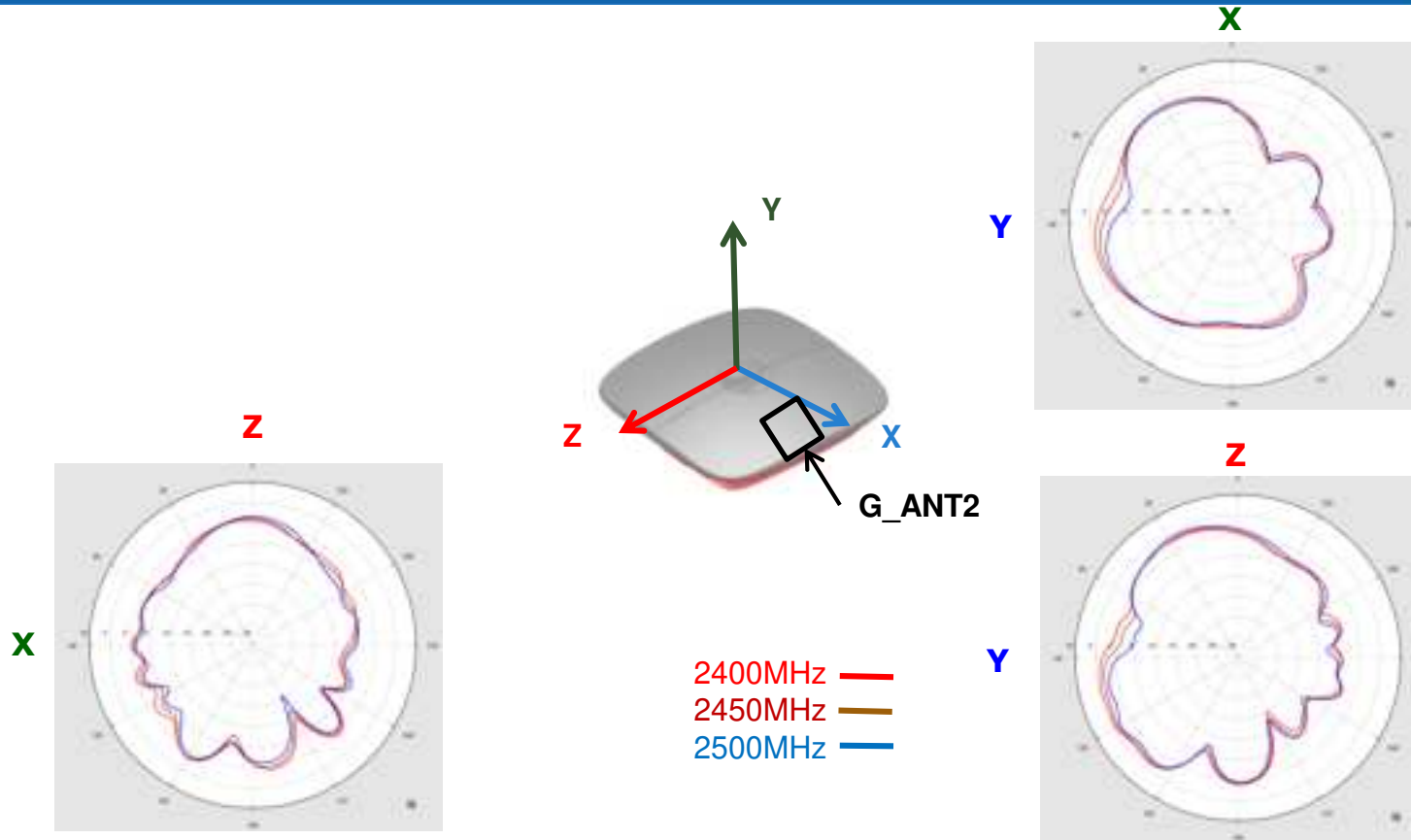
G_ANT1 Gain Total (dBi) Pattern



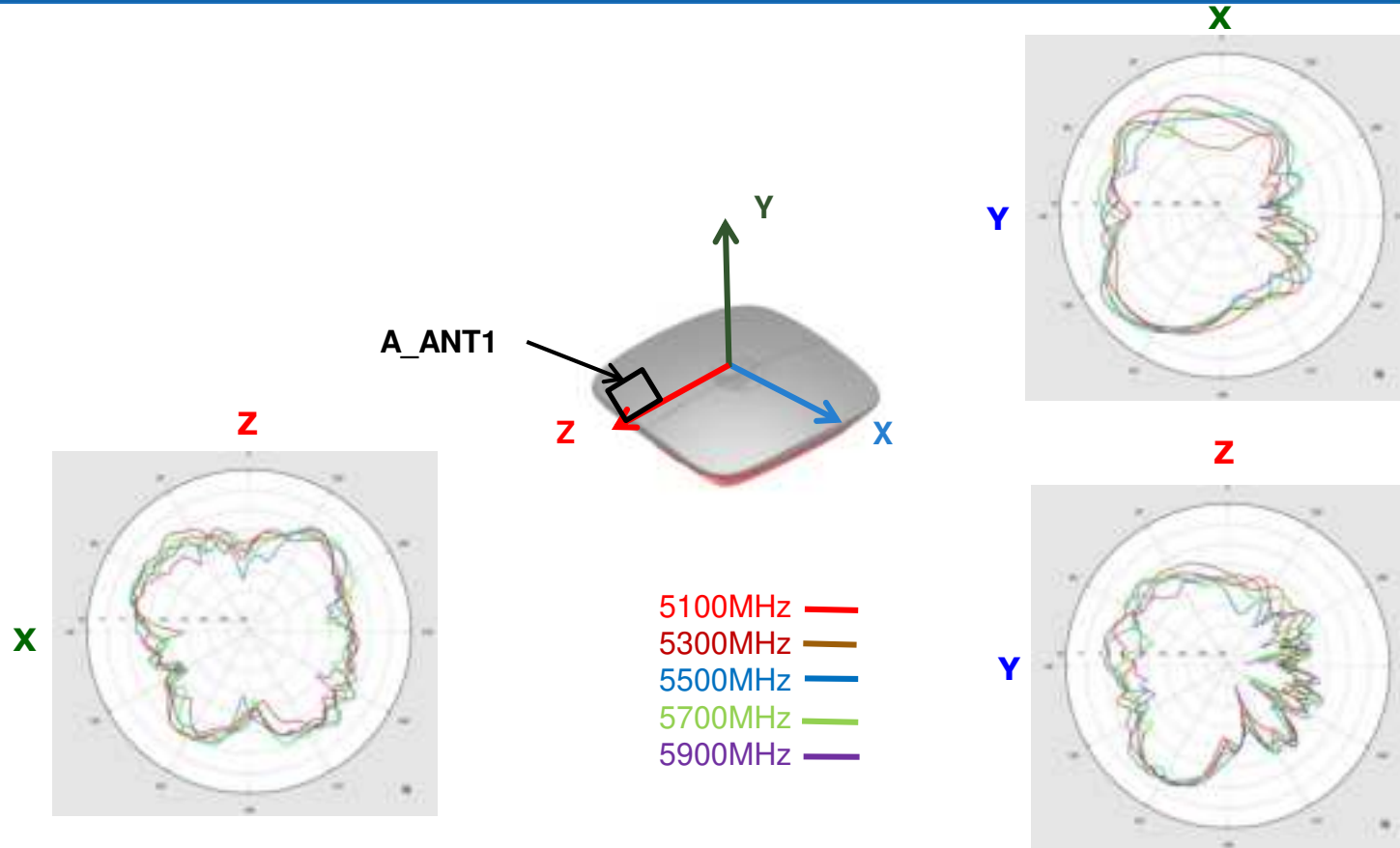
2400MHz —
2450MHz —
2500MHz —



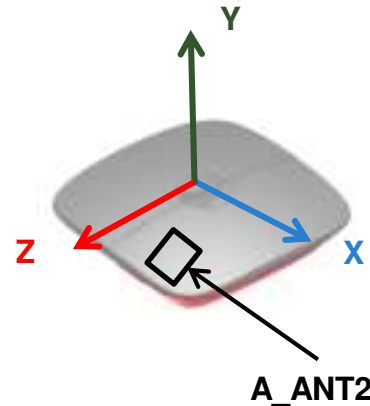
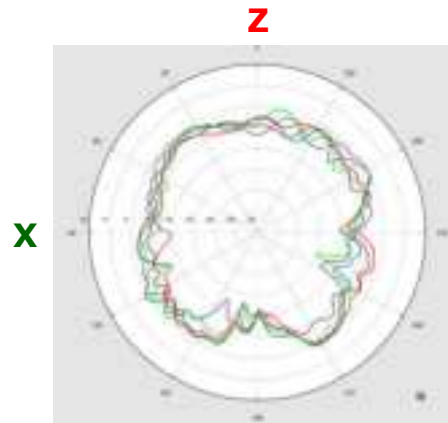
G_ANT2 Gain Total (dBi) Pattern



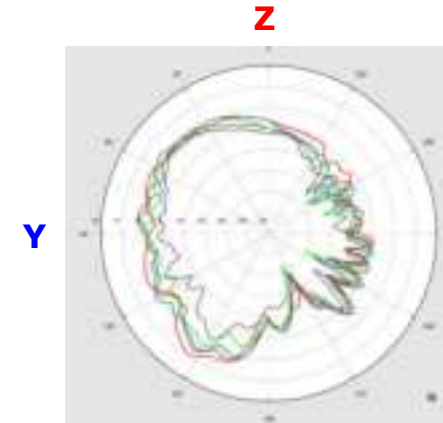
A_ANT1 Gain Total (dBi) Pattern



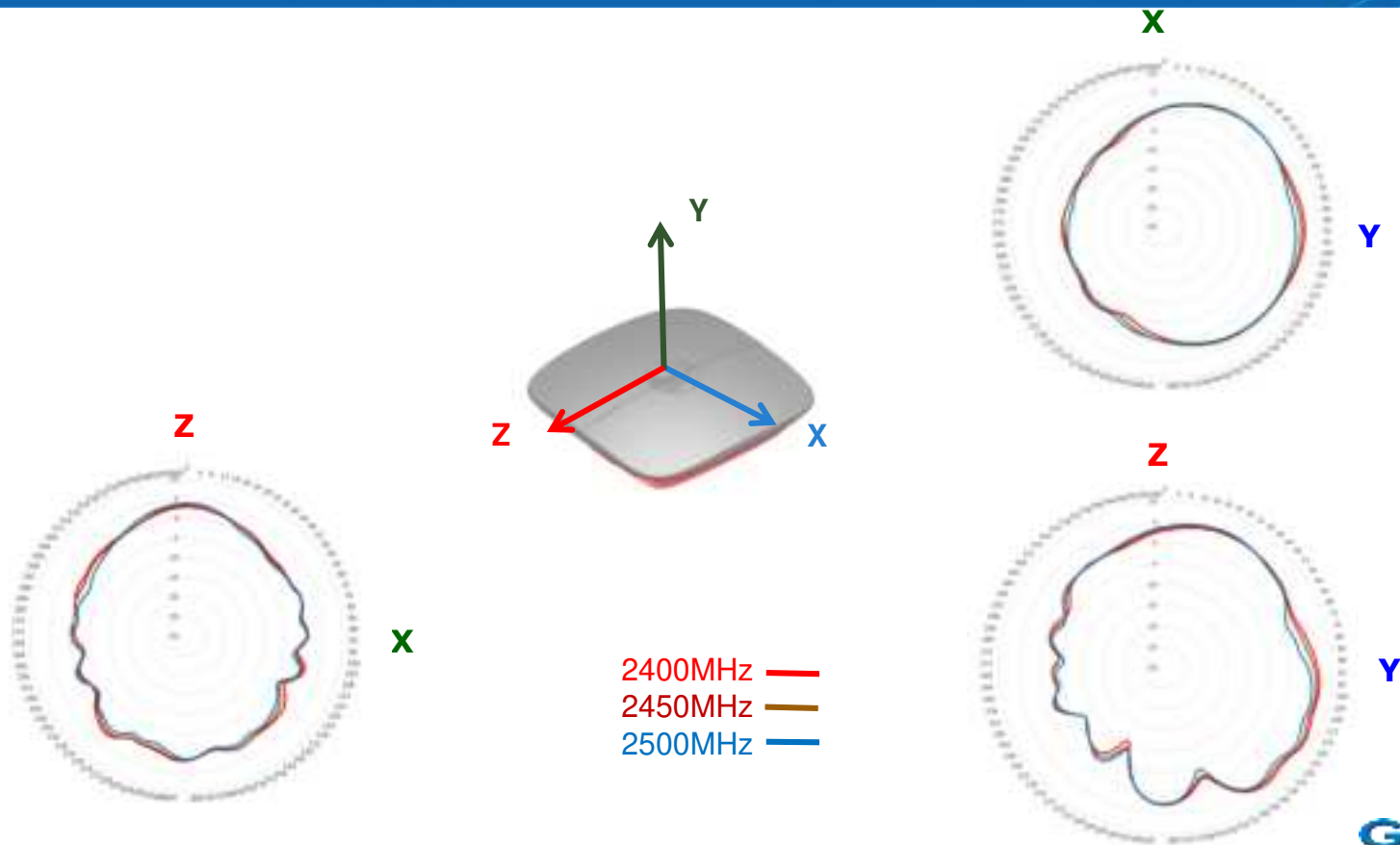
A_ANT2 Gain Total (dBi) Pattern



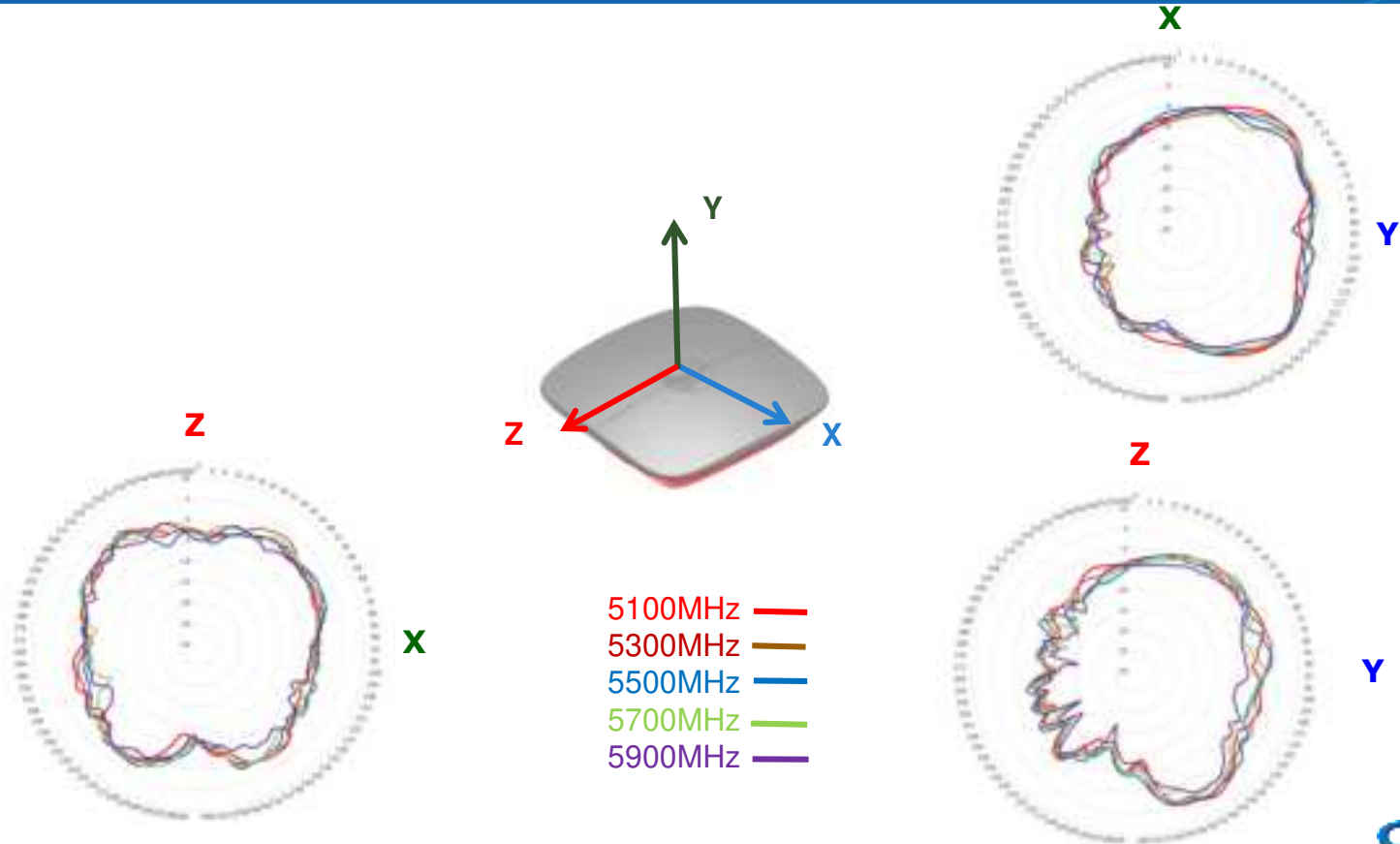
5100MHz —
5300MHz —
5500MHz —
5700MHz —
5900MHz —



G_ANT Composite Gain Total (dBi) Pattern



A_ANT Composite Gain Total (dBi) Pattern



Antenna Efficiency & Peak Gain – G Band

WIFI G Band Antenna Efficiency (%)			
Frequency (MHz)	2400	2450	2500
G_ANT1 (Cable Loss : 0.6dB)	83.7	79.3	77.4
G_ANT2 (Cable Loss : 0.35dB)	80.1	77.4	66.4

WIFI G Band Antenna Peak Gain (dBi)			
Frequency (MHz)	2400	2450	2500
G_ANT1 (Cable Loss : 0.6dB)	5.65	5.17	4.3
G_ANT2 (Cable Loss : 0.35dB)	5	4.43	4.47

Noted: The antenna gain excludes the cable loss, Cable Loss is refer to D1.13 low loss cable datasheet, the attenuation at 2.4GHz is 3.2dB per meter.(including IPEX PLUG)

Antenna Efficiency & Peak Gain – A Band

WIFI A Band Antenna Efficiency (%)					
Frequency (MHz)	5100	5300	5500	5700	5900
A_ANT1(Cable Loss : 0.9 dB)	70	80.3	84	86	81
A_ANT2(Cable Loss : 0.4 dB)	81.5	86.5	82.4	79.4	60.7

WIFI A Band Antenna Peak Gain(dBi)					
Frequency (MHz)	5100	5300	5500	5700	5900
A_ANT1(Cable Loss : 0.9 dB)	6.32	7.2	6.57	7.76	7.79
A_ANT2(Cable Loss : 0.4 dB)	6.92	6.89	8.16	8.15	7.48

Noted: The antenna gain excludes the cable loss, Cable Loss is refer to D1.13 low loss cable datasheet, the attenuation at 5GHz is 4.5 dB per meter.(including IPEX PLUG)

Antenna Composite Average Gain @ ZX-Plan

WIFI G-Band Directional Gain	
Correlated	ZX-Plan
Average Gain@ 2.4GHz (dBi)	0.62
Average Gain@ 2.45GHz (dBi)	0.51
Average Gain@ 2.5GHz (dBi)	0.14

WIFI A-Band Directional Gain	
Correlated	ZX-Plan
Average Gain@ 5.1GHz (dBi)	-1.10
Average Gain@ 5.3GHz (dBi)	0.59
Average Gain@ 5.5GHz (dBi)	-0.79
Average Gain@ 5.7GHz (dBi)	-0.94
Average Gain@ 5.9GHz (dBi)	-1.46