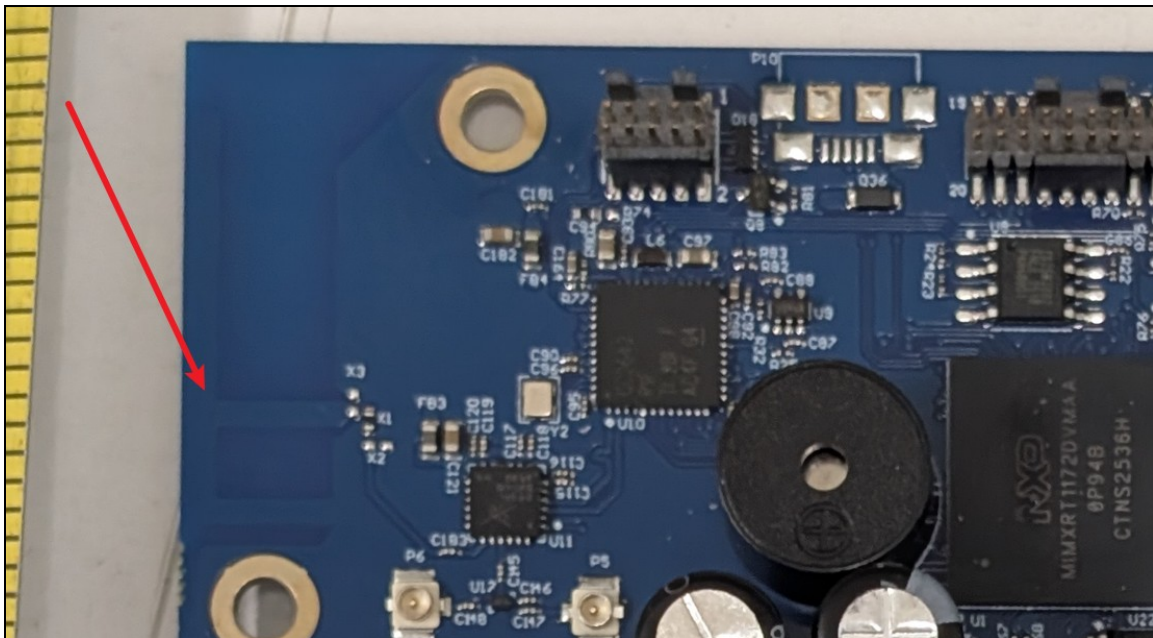




Antenna Information

Manufacturer	HID Global Corporation
Antenna Type	PCB Trace antenna
Antenna Model	N/A
Antenna Part Number	N/A
Antenna Frequency Range	2402~2480 MHz
Antenna Input Power Limitation	N/A
Antenna Peak Gain	1.6 dBi Max
Antenna Dimension (LxHxW)	See photo blow

Antenna Photo



Antenna Top View



Antenna Pattern/Gain Measurement data/Table (if applicable):

TR3 2.4GHz Internal Antenna Radiation

Swept Frequency Scan

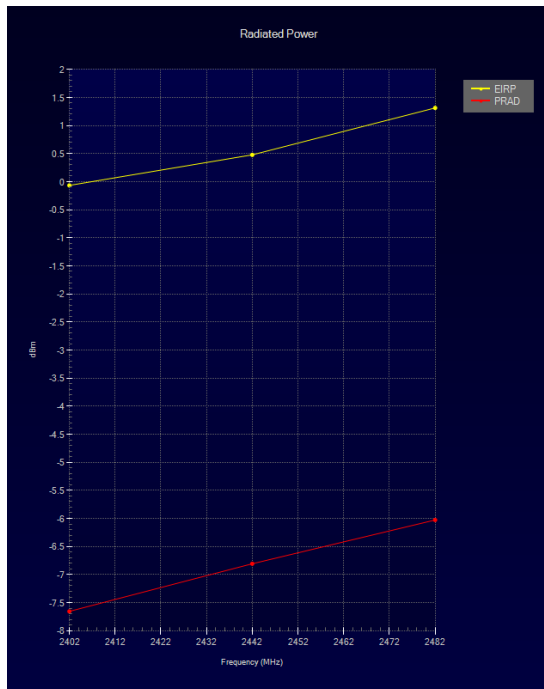


Figure 1 : Radiated Power Chart

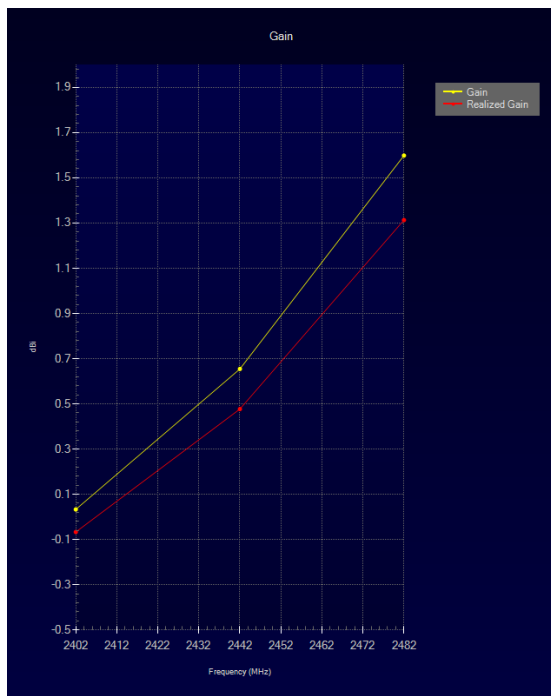


Figure 2 : Gain Chart

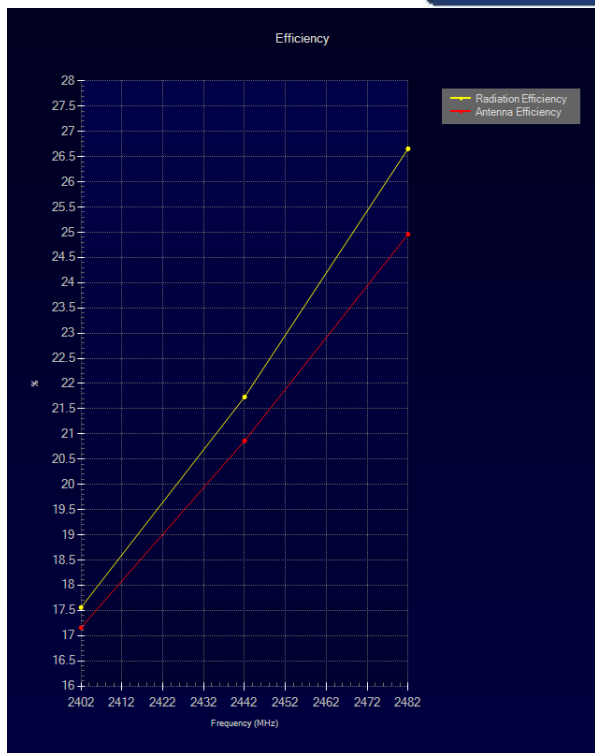


Figure 3 : Efficiency Chart

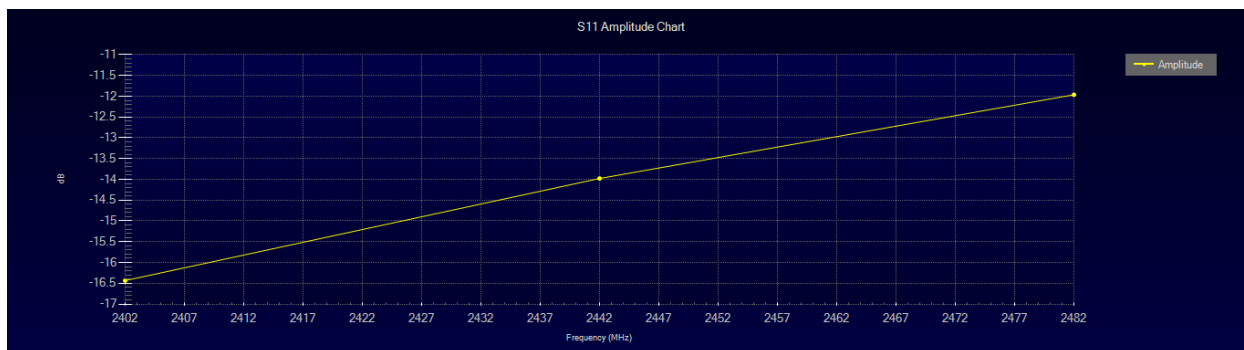


Figure 4 : VNA Amplitude



Frequency (MHz)	Antenna Efficiency (%)	Radiation Efficiency (%)	Gain (dBi)	Realized Gain (dBi)	PRAD (dBm)	EIRP (dBm)
2482.00	24.96	26.66	1.60	1.31	-6.03	1.31

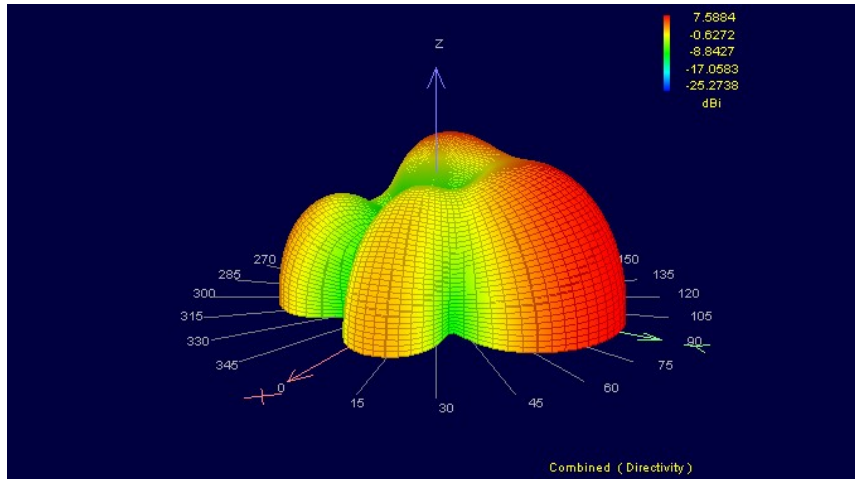


Figure 5 : 3D Far-Field Combined

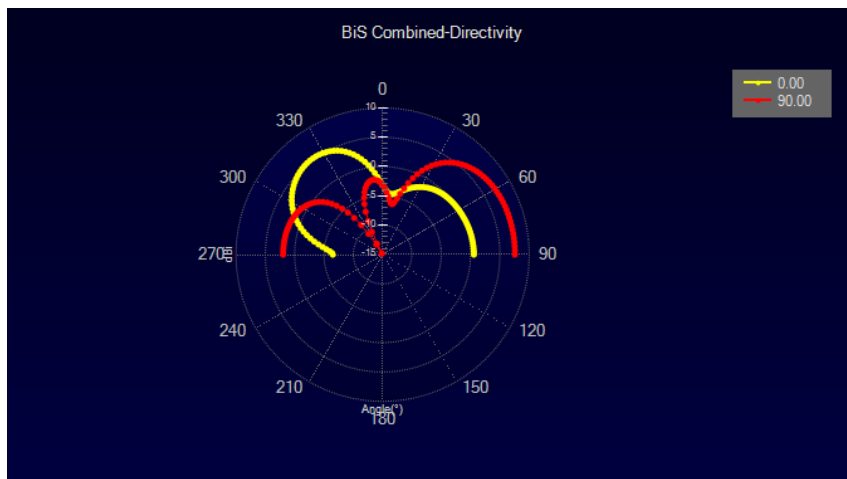


Figure 6 : Bisection Far-Field Combined



Frequency (MHz)	Antenna Efficiency (%)	Radiation Efficiency (%)	Gain (dBi)	Realized Gain (dBi)	PRAD (dBm)	EIRP (dBm)
2402.00	17.16	17.56	0.03	-0.07	-7.65	-0.07

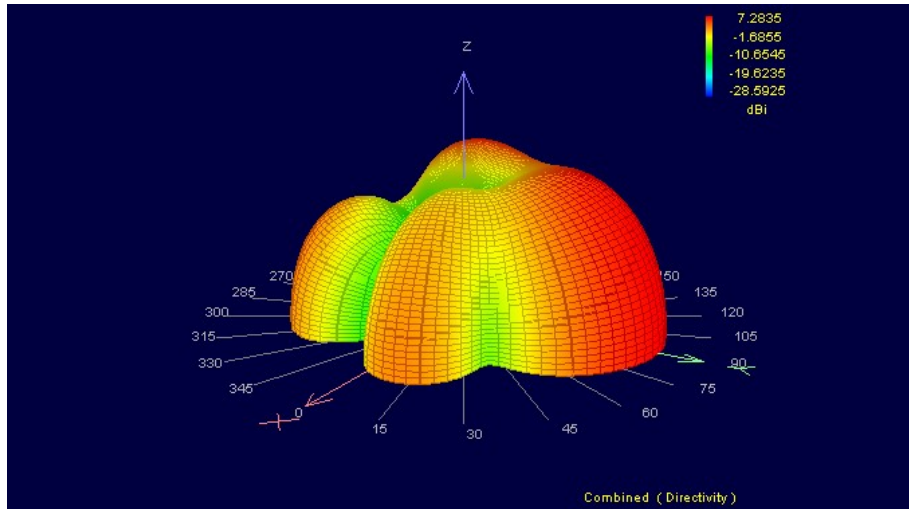


Figure 7 : 3D Far-Field Combined

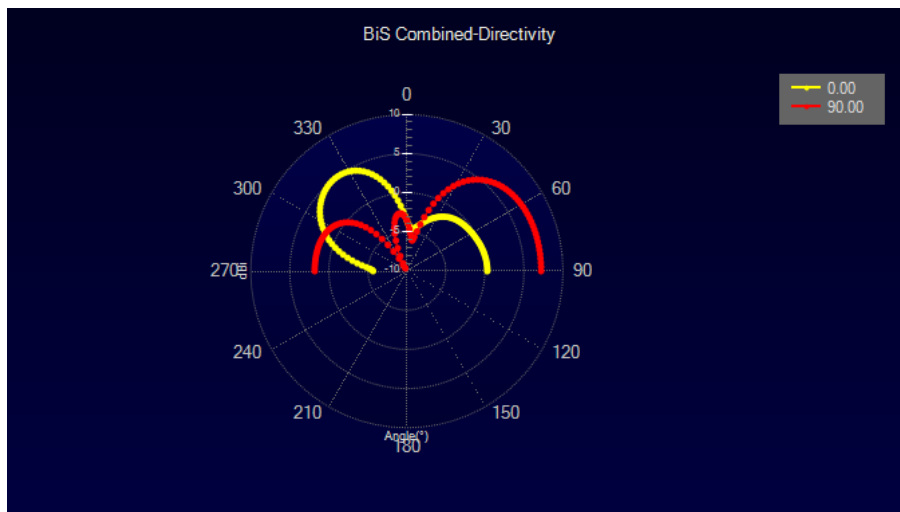


Figure 8 : Bisection Far-Field Combined



Frequency (MHz)	Antenna Efficiency (%)	Radiation Efficiency (%)	Gain (dBi)	Realized Gain (dBi)	PRAD (dBm)	EIRP (dBm)
2442.00	20.86	21.73	0.65	0.48	-6.81	0.48

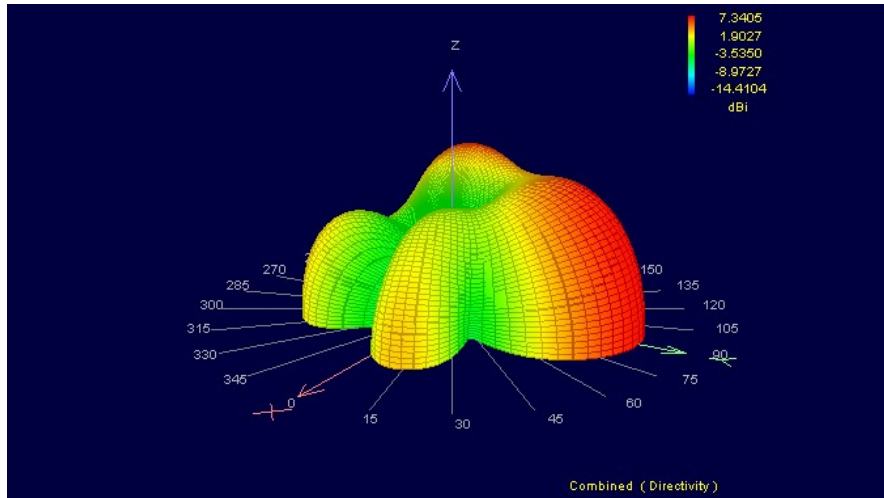


Figure 9 : 3D Far-Field Combined

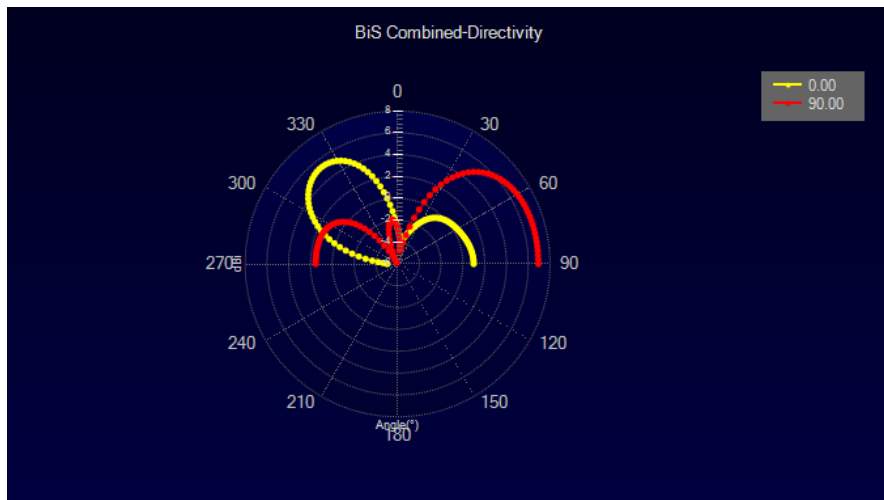


Figure 10 : Bisection Far-Field Combined



ANT		
Freq(MHz)	Efficiency (%)	Gian(dBi)
2400	38.96	1.05
2410	39.51	1.16
2420	43.39	1.23
2430	44.08	1.46
2440	44.22	1.50
2450	44.13	1.46
2460	43.85	1.38
2470	44.39	1.39
2480	43.68	1.31
2490	43.59	1.31
2500	43.01	1.37

Antenna Pattern/Measurement data