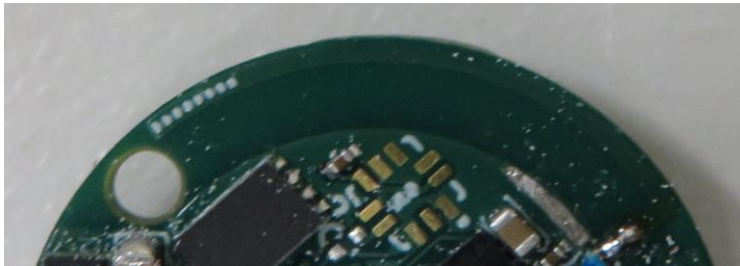


GameProofer Nano Bluetooth antenna



Results are measured at
anechoic chamber in
R&D laboratory.



ELECTRICAL SPECIFICATION

Frequency Range
2400 – 2485 MHz

Antenna Efficiency
> -13.5 dB

Peak Gain
-7.92 dBi @ 2599.50 MHz

Feed Impedance
50 Ω

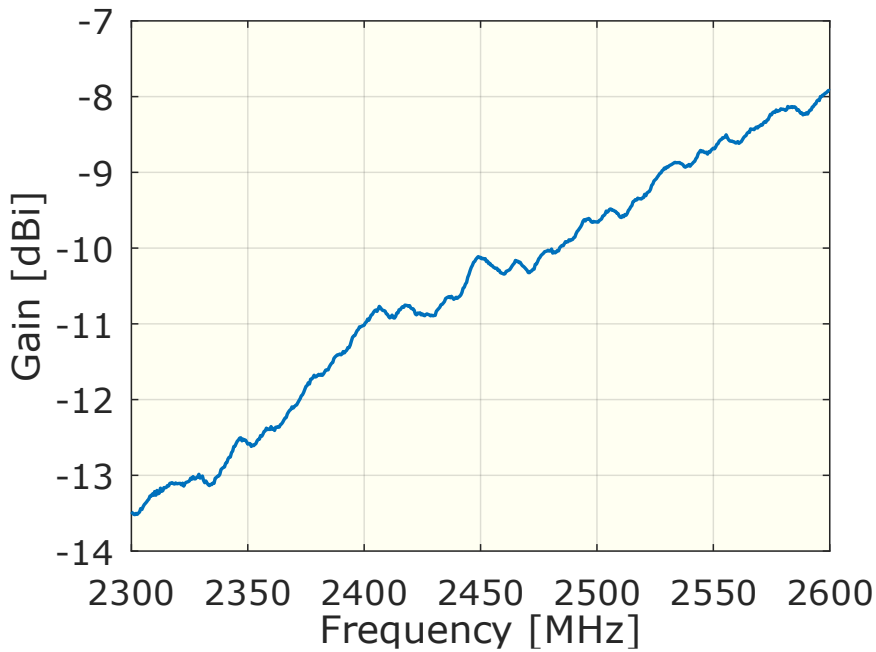
MANUFACTURER:
GameProofer Oy

ILA Monopole

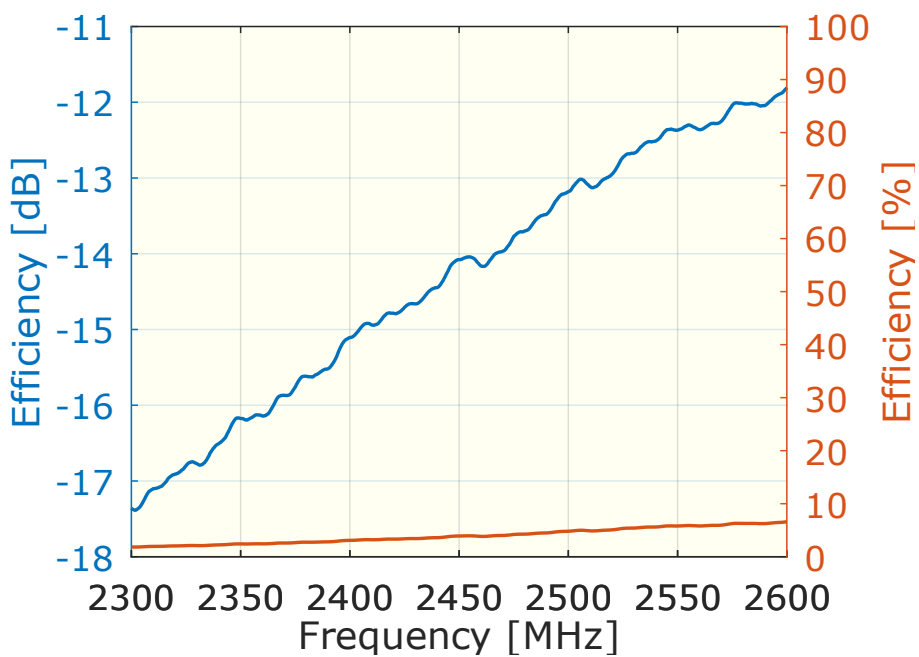
Approved by Matti Lahdenperä

GAIN & EFFICIENCY

Realized Gain

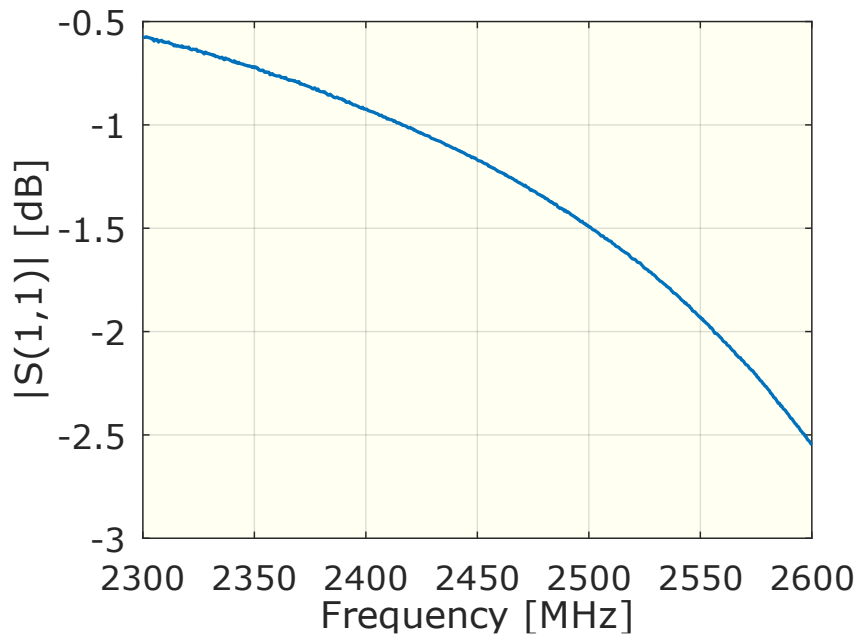


Efficiency

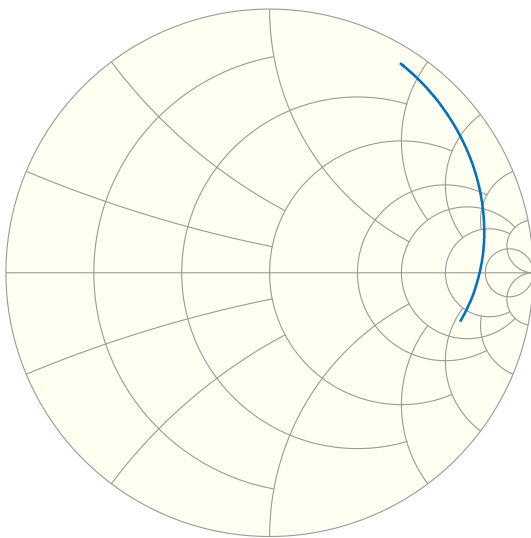


IMPEDANCE

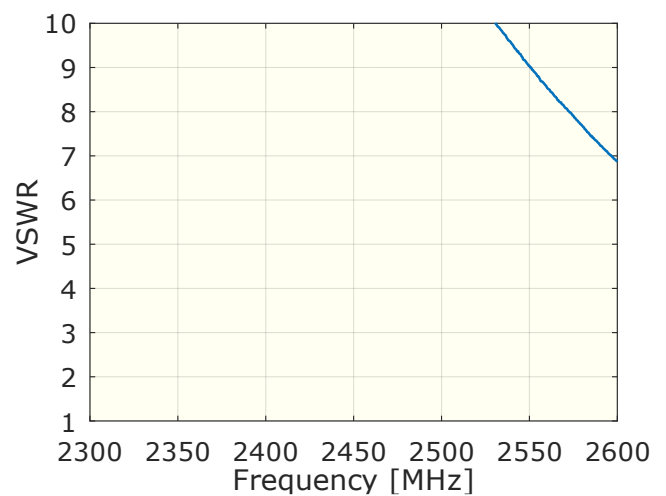
dB $|S_{11}|$



Smith Chart



VSWR



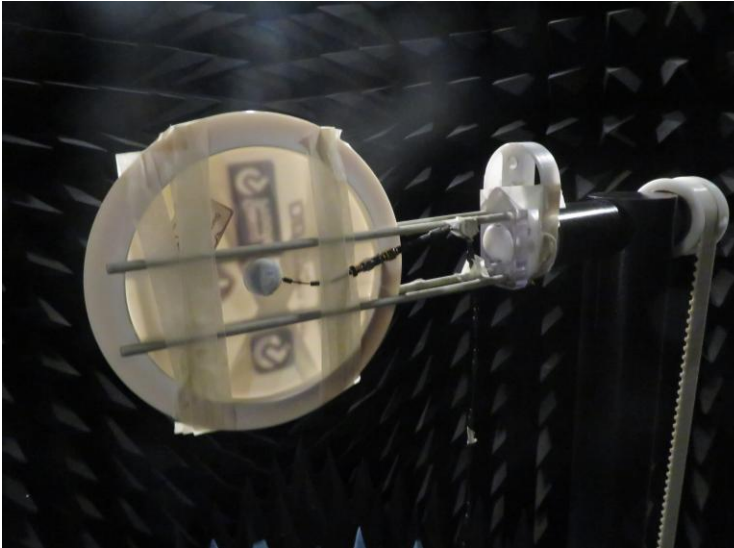
BLUETOOTH GAINS

BLE Channel	Frequency	Max Gain
0	2404 MHz	-10.85 dBi
1	2406 MHz	-10.81 dBi
2	2408 MHz	-10.82 dBi
3	2410 MHz	-10.87 dBi
4	2412 MHz	-10.88 dBi
5	2414 MHz	-10.86 dBi
6	2416 MHz	-10.79 dBi
7	2418 MHz	-10.76 dBi
8	2420 MHz	-10.79 dBi
9	2422 MHz	-10.87 dBi
10	2424 MHz	-10.85 dBi
11	2426 MHz	-10.89 dBi
12	2428 MHz	-10.88 dBi
13	2430 MHz	-10.89 dBi
14	2432 MHz	-10.80 dBi
15	2434 MHz	-10.73 dBi
16	2436 MHz	-10.65 dBi
17	2438 MHz	-10.66 dBi
18	2440 MHz	-10.66 dBi
19	2442 MHz	-10.59 dBi

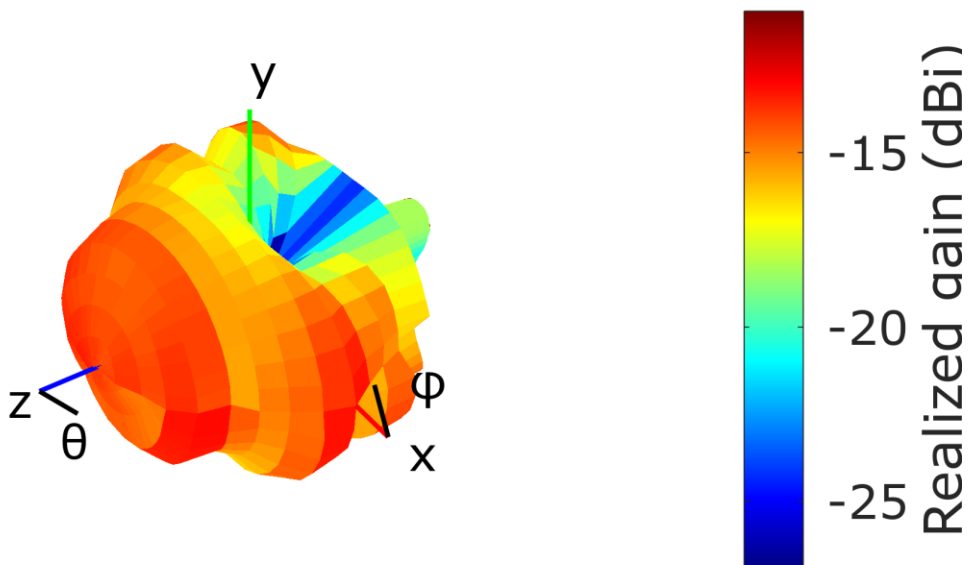
BLUETOOTH GAINS

BLE Channel	Frequency	Max Gain
20	2444 MHz	-10.45 dBi
21	2446 MHz	-10.26 dBi
22	2448 MHz	-10.15 dBi
23	2450 MHz	-10.12 dBi
24	2452 MHz	-10.14 dBi
25	2454 MHz	-10.20 dBi
26	2456 MHz	-10.26 dBi
27	2458 MHz	-10.29 dBi
28	2460 MHz	-10.34 dBi
29	2462 MHz	-10.29 dBi
30	2464 MHz	-10.22 dBi
31	2466 MHz	-10.17 dBi
32	2468 MHz	-10.23 dBi
33	2470 MHz	-10.29 dBi
34	2472 MHz	-10.30 dBi
35	2474 MHz	-10.21 dBi
36	2476 MHz	-10.10 dBi
37	2402 MHz	-10.95 dBi
38	2426 MHz	-10.89 dBi
39	2480 MHz	-10.04 dBi

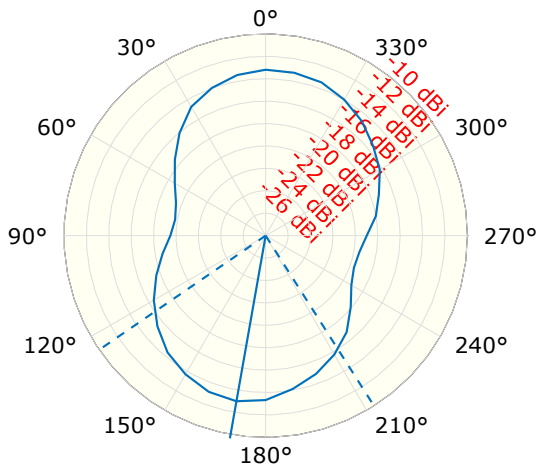
2402 MHZ 3D



$G_{\max} = -10.95$ dBi at $\theta = 140.0^\circ$ $\phi = 240.0^\circ$



2402 MHZ PATTERN CUTS

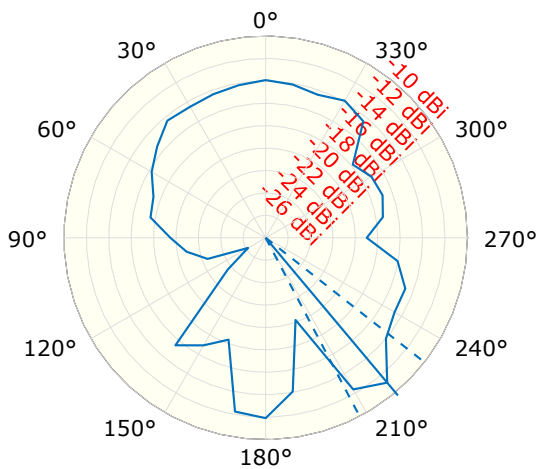


XY-Cut

3.0 dB BW: 88.0°

124.4°—212.5°

Max Gain: -13.00 dBi at 170.0°

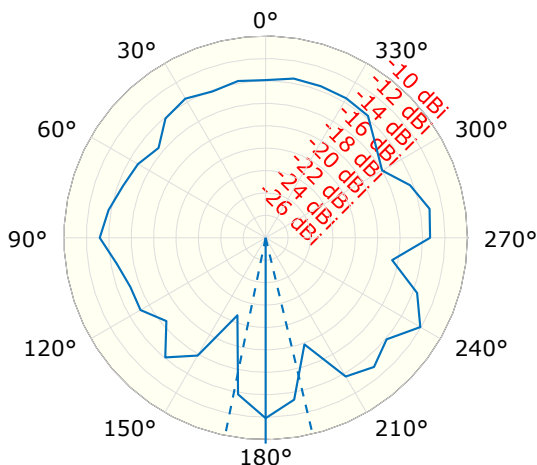


ZY-Cut

3.0 dB BW: 24.2°

207.8°—231.9°

Max Gain: -11.13 dBi at 220.0°



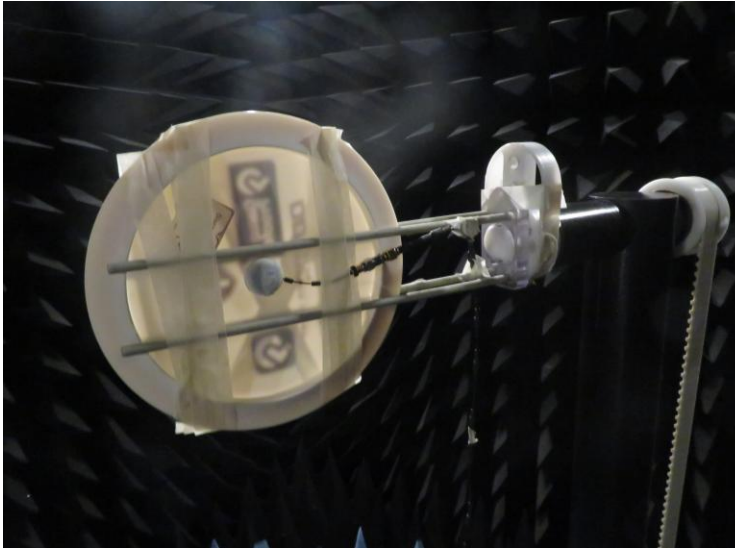
ZX-Cut

3.0 dB BW: 25.1°

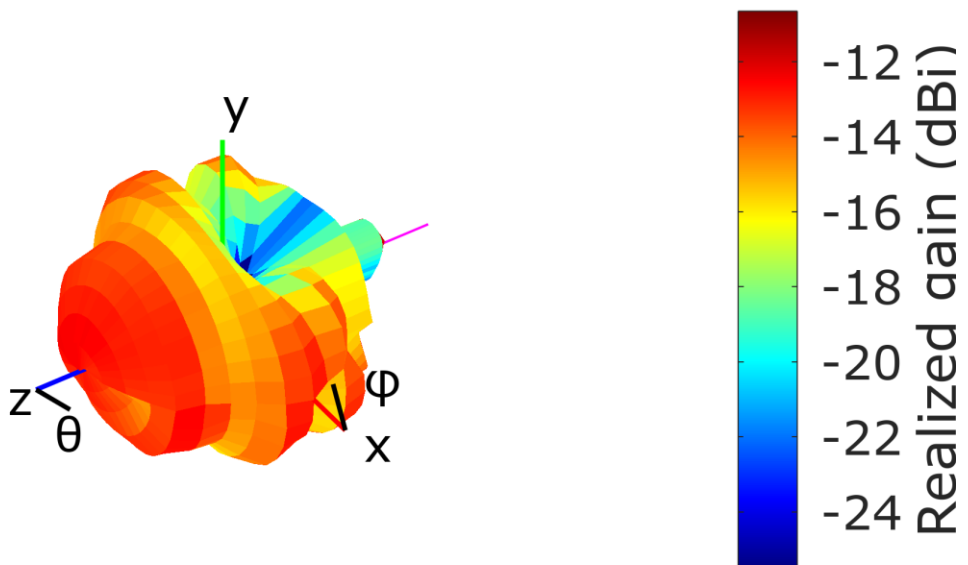
168.4°—193.5°

Max Gain: -11.91 dBi at 180.0°

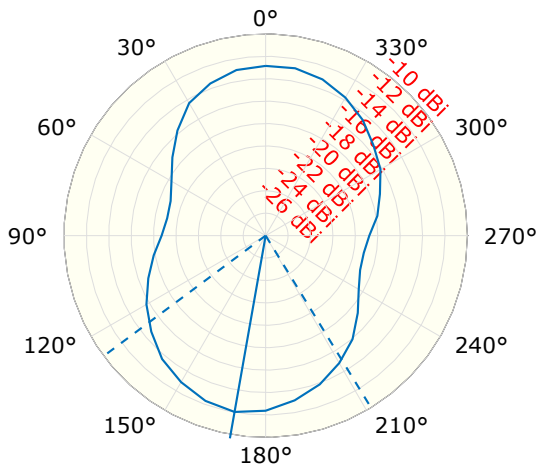
2440 MHZ 3D



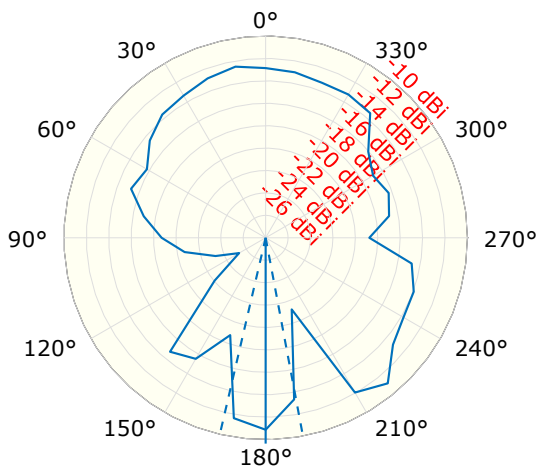
$G_{\max} = -10.66$ dBi at $\theta = 180.0^\circ$ $\phi = 60.0^\circ$



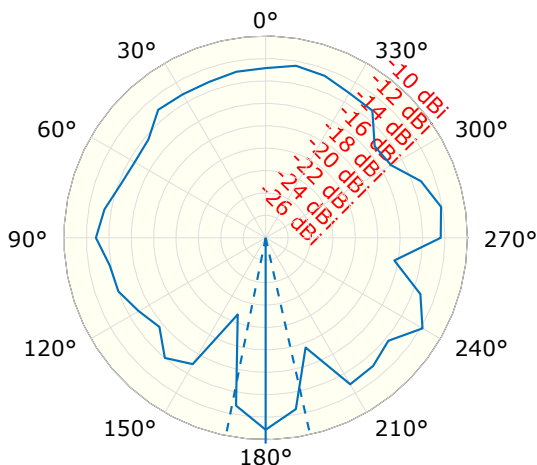
2440 MHZ PATTERN CUTS



XY-Cut
 3.0 dB BW: 84.9°
 126.6°—211.5°
 Max Gain: -12.03 dBi at 170.0°

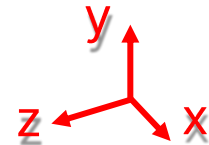
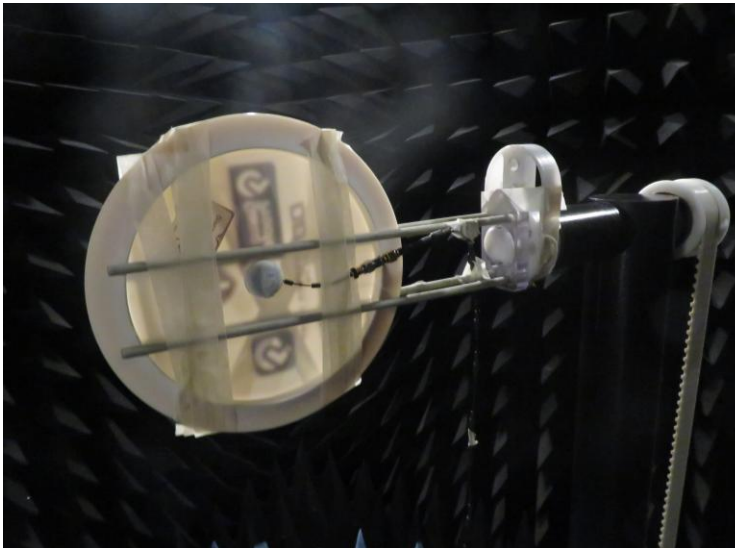


ZY-Cut
 3.0 dB BW: 23.8°
 166.9°—190.7°
 Max Gain: -10.88 dBi at 180.0°

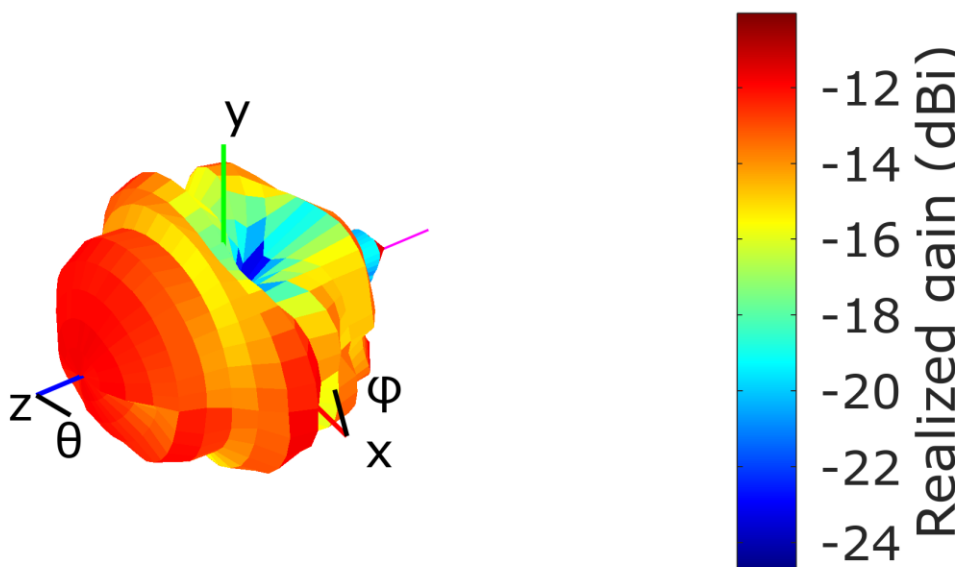


ZX-Cut
 3.0 dB BW: 24.1°
 168.6°—192.7°
 Max Gain: -10.88 dBi at 180.0°

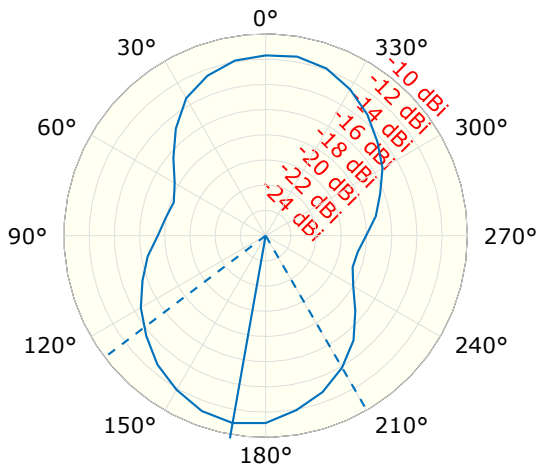
2480 MHZ 3D



$G_{\max} = -10.04$ dBi at $\theta = 180.0^\circ$ $\phi = 210.0^\circ$



2480 MHZ PATTERN CUTS

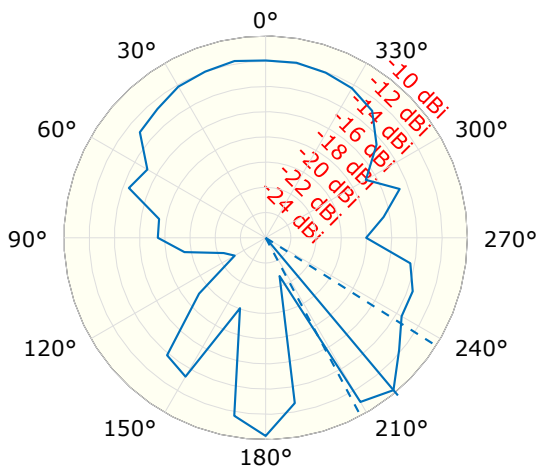


XY-Cut

3.0 dB BW: 83.0°

127.1°—210.1°

Max Gain: -10.91 dBi at 170.0°

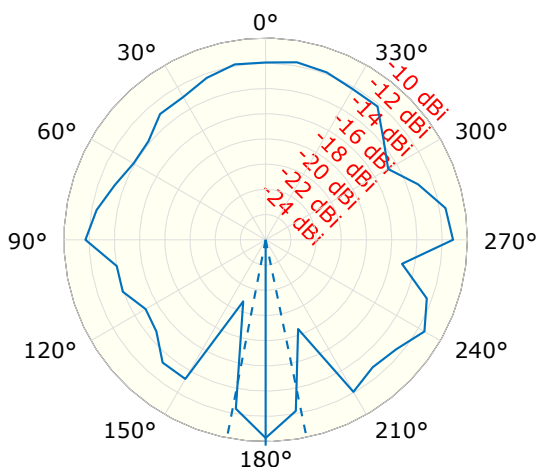


ZY-Cut

3.0 dB BW: 29.6°

208.1°—237.7°

Max Gain: -10.23 dBi at 220.0°



ZX-Cut

3.0 dB BW: 22.8°

168.9°—191.7°

Max Gain: -10.29 dBi at 180.0°