



Bluetooth Antenna
specification&Test report

Yichip Microelectronics

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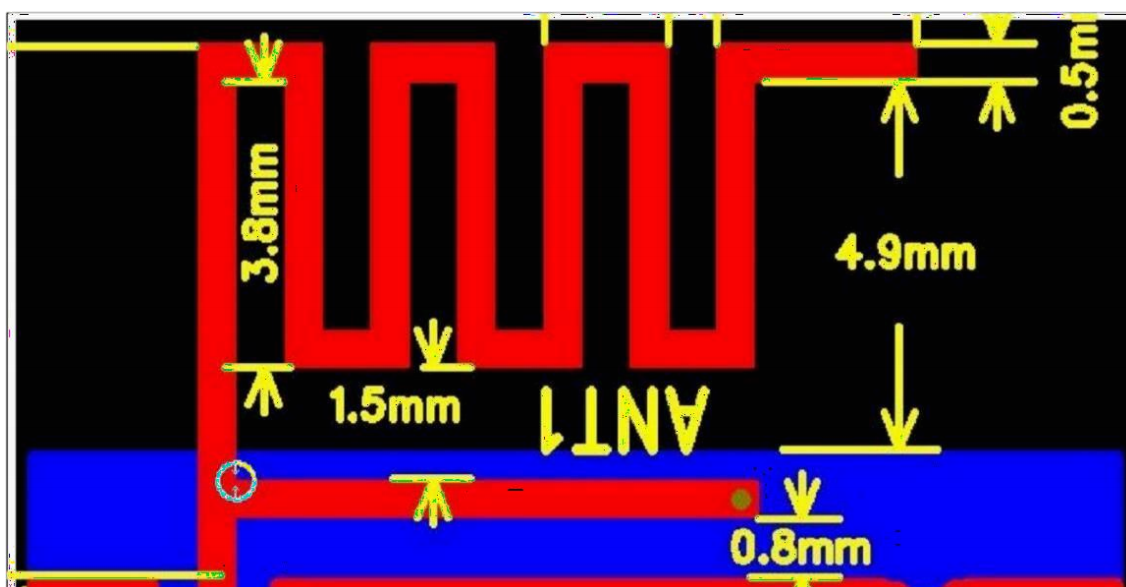
Test Ccompany	TA Technology (Shanghai) Co., Ltd.
Test Address	Building 1, No. 400, Fangchun Road, China (Shanghai) Pilot Free Trade Zone
Test Date	2020/7/24
Test Instrument	Keysight E5071B

Applications

※Bluetooth Home RF

※ISM band 2.4GHz applications

1. Dimensions



2. Specifications

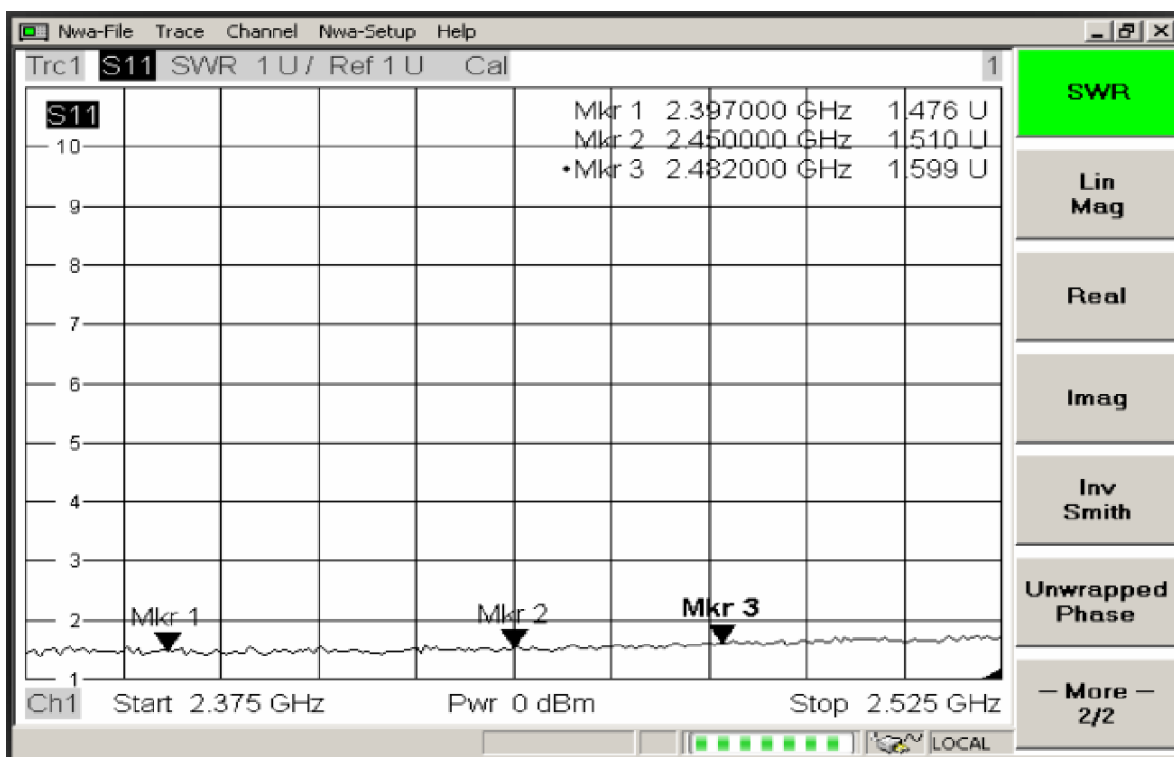
number	Item	Specifications
1	Working Central Frequency	2441 MHz
2	Band Width	(2402-2480) MHz
3	Gain	0dBi
4	VSWR	≤ 2.0

5	Antenna type	PCB antenna
6	Azimuth Beam width	Omni - directional
7	Impedance	50 Ω
8	Modulation mode	GFSK

3. simulation parameter

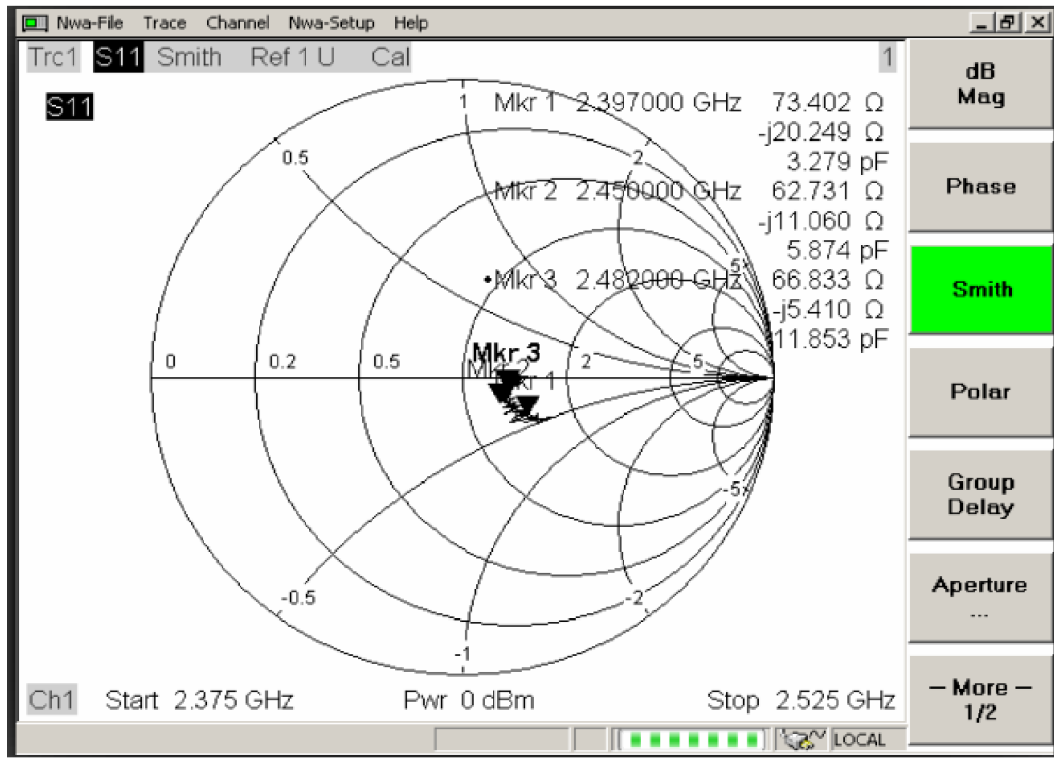
① VSWR

Mkr1: 2397MHz 1.47 Mkr2: 2450MHz 1.51 Mkr3: 2482 MHz 1.59



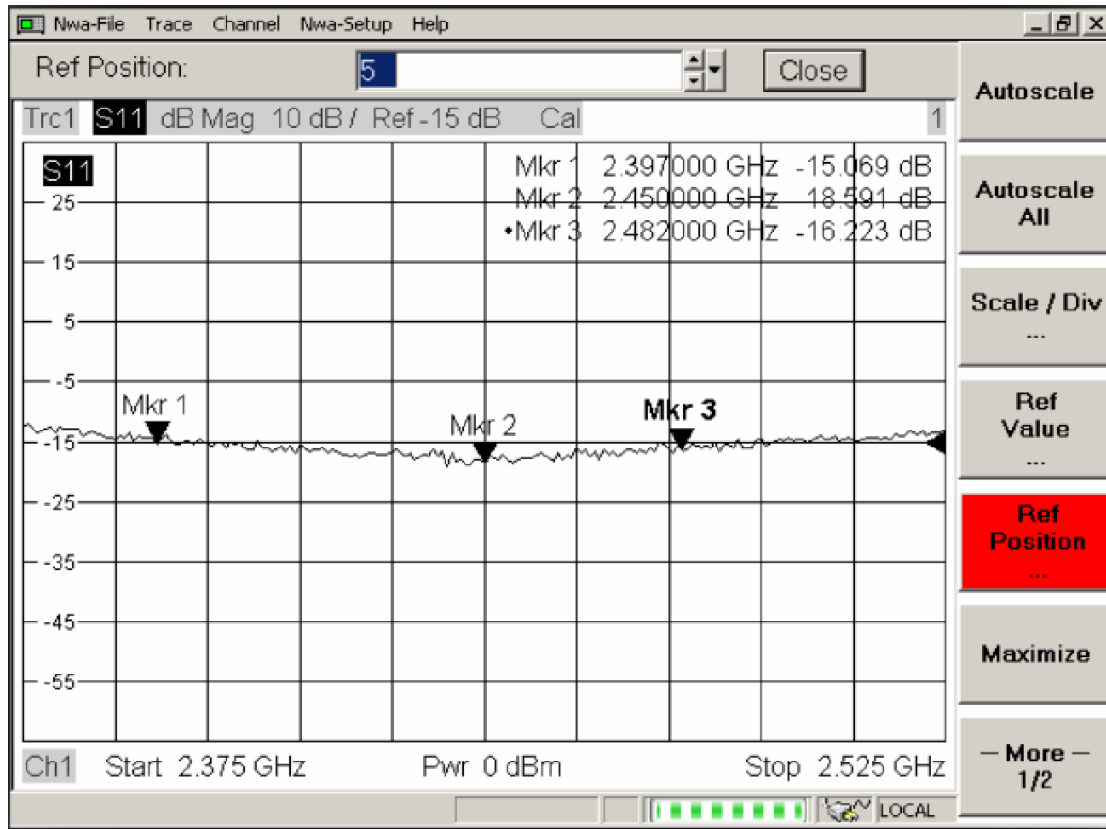
② Smith Char

Mkr1: 2397MHz 73.4 Mkr2: 2450MHz 62. Mkr3: 2482MHz 66.8



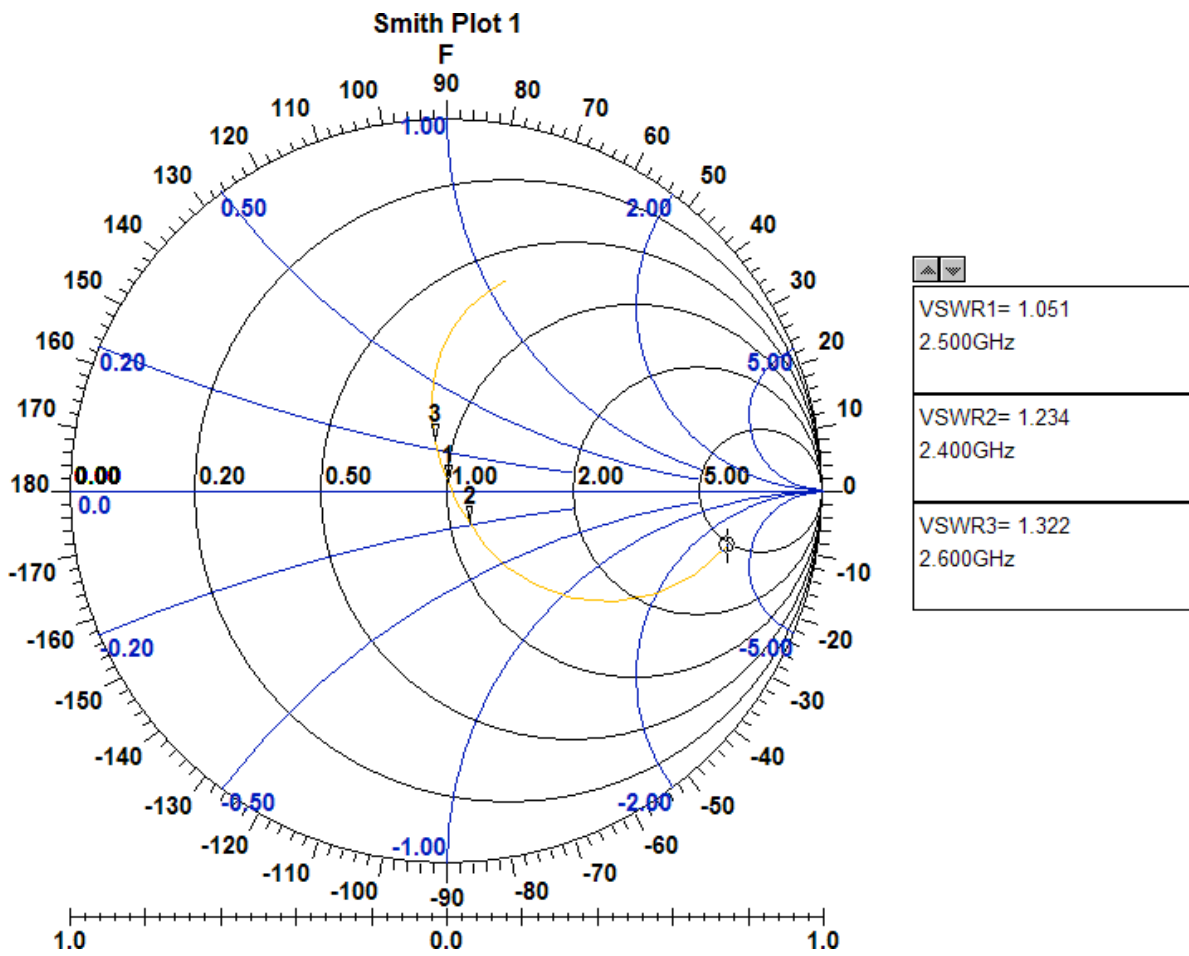
③Return Loss

Mkr1: 2397MHz -15 Mkr2: 2450MHz -18 Mkr3: 2482 MHz -16



④Smith Char

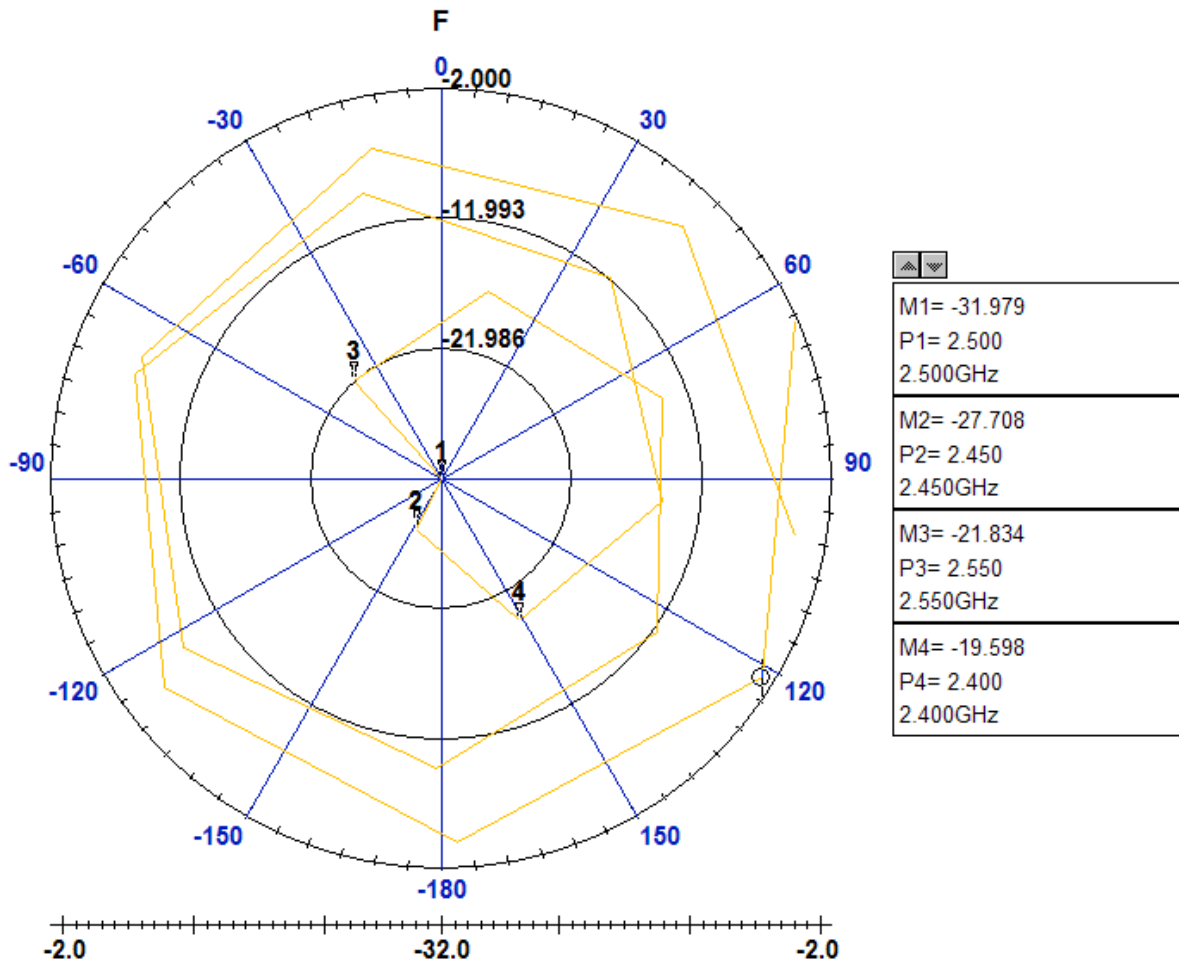
Mkr1: 2400MHz 1.234 Mkr2: 2500MHz 1.051 Mkr3: 2600MHz 1.322



⑤ Return Loss

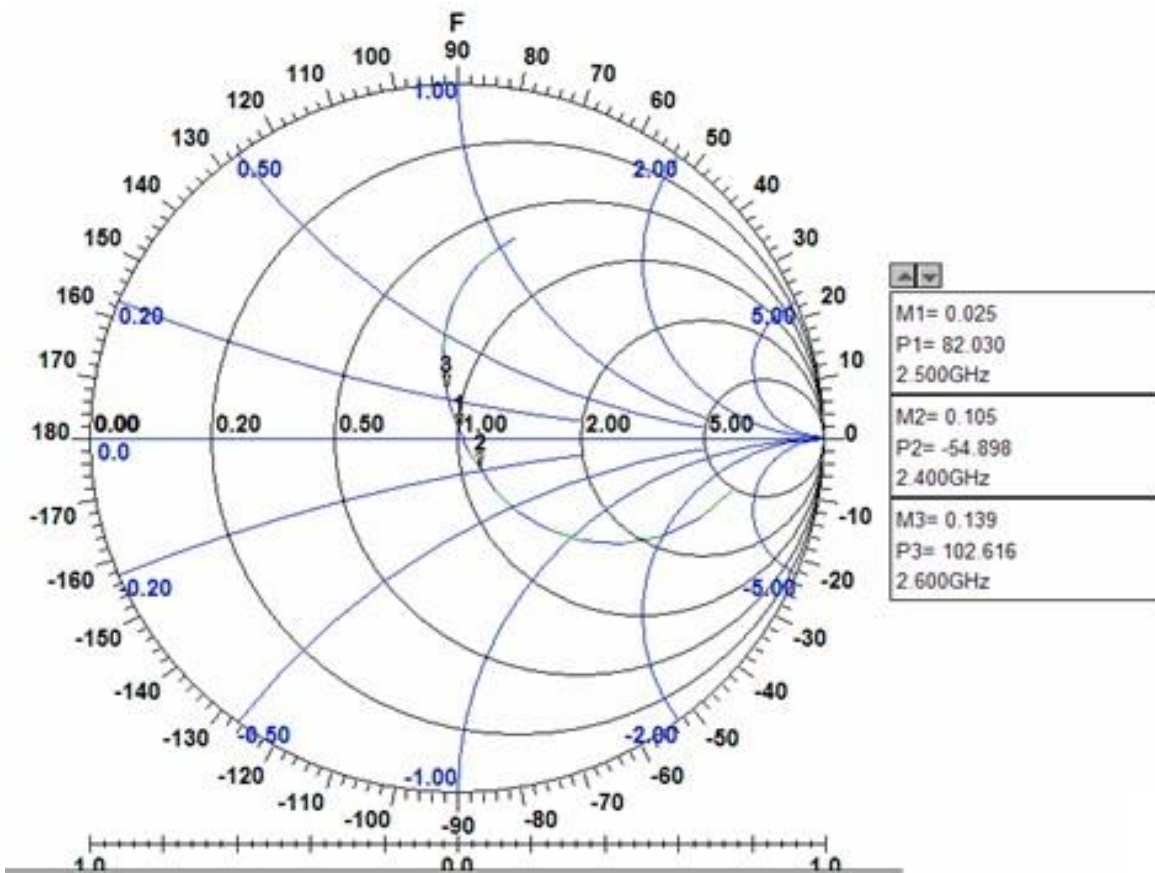
Mkr1: 2400MHz -19.5 Mkr2: 2450MHz -27.70 Mkr3: 2500MHz -31.97

Mkr4: 2450MHz -21.83



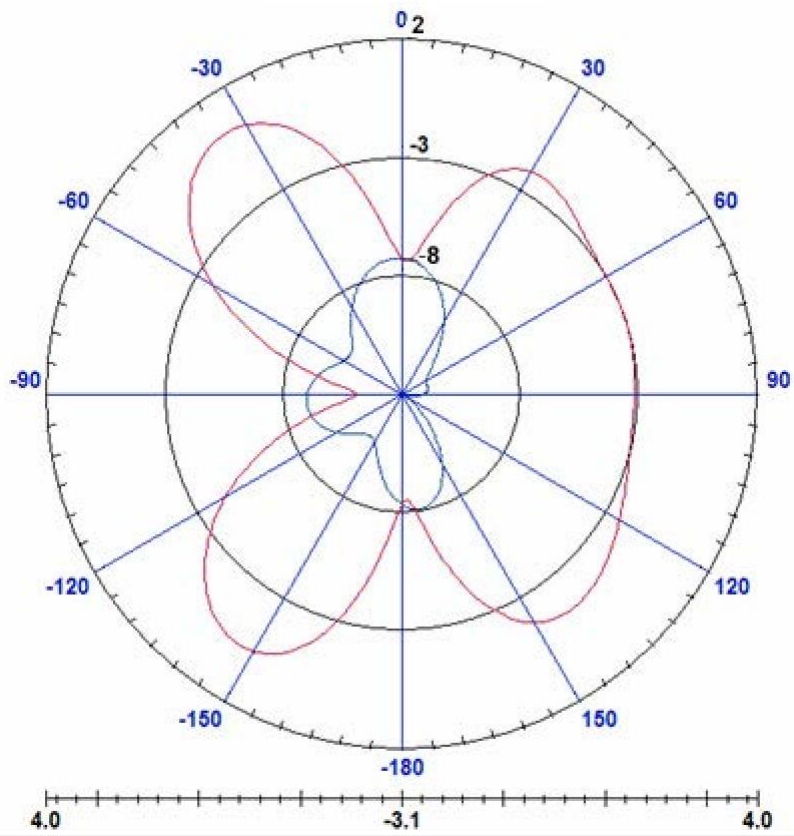
⑥Phase

Mkr1: 2400MHz -54.89 Mkr2: 2500MHz -82.03 Mkr3: 2600MHz -102.6

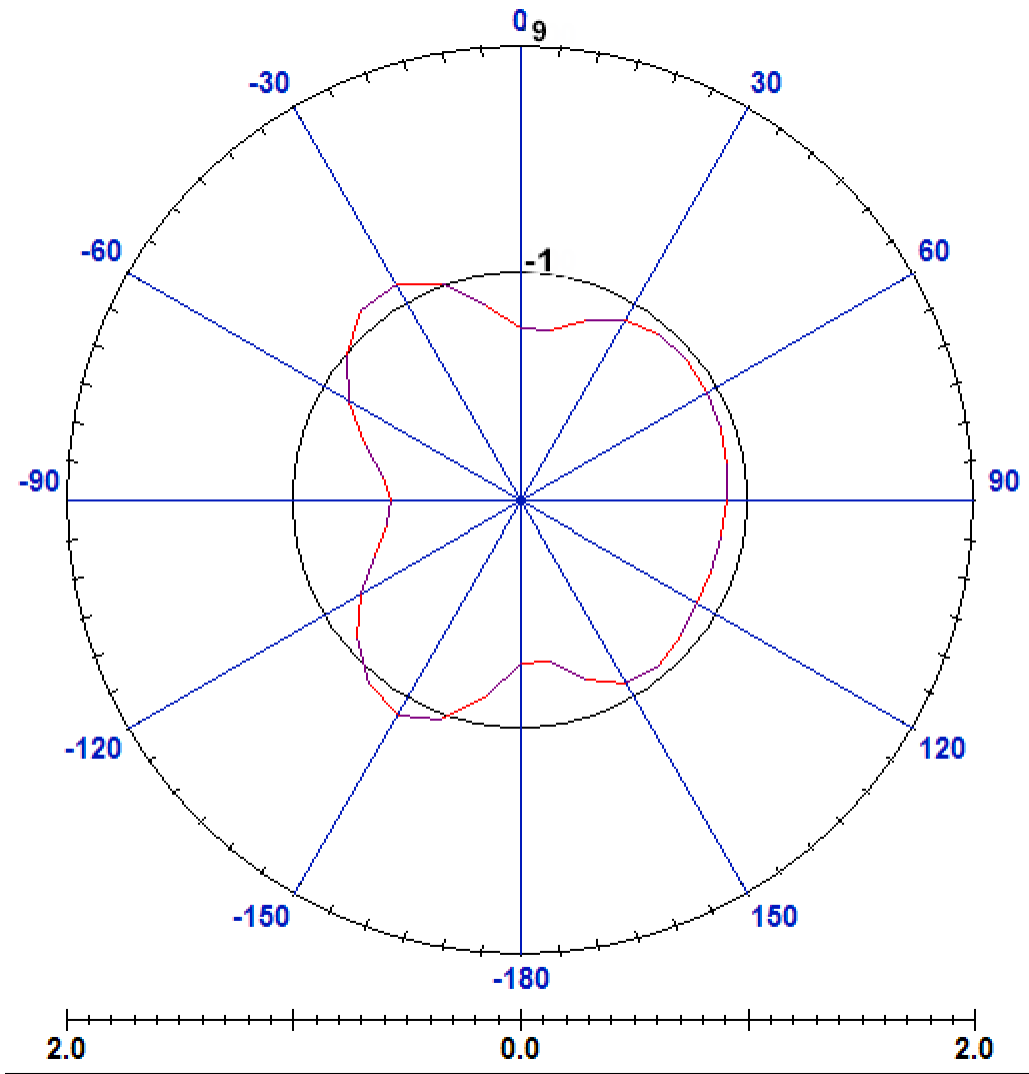


4. Radiation Patterns

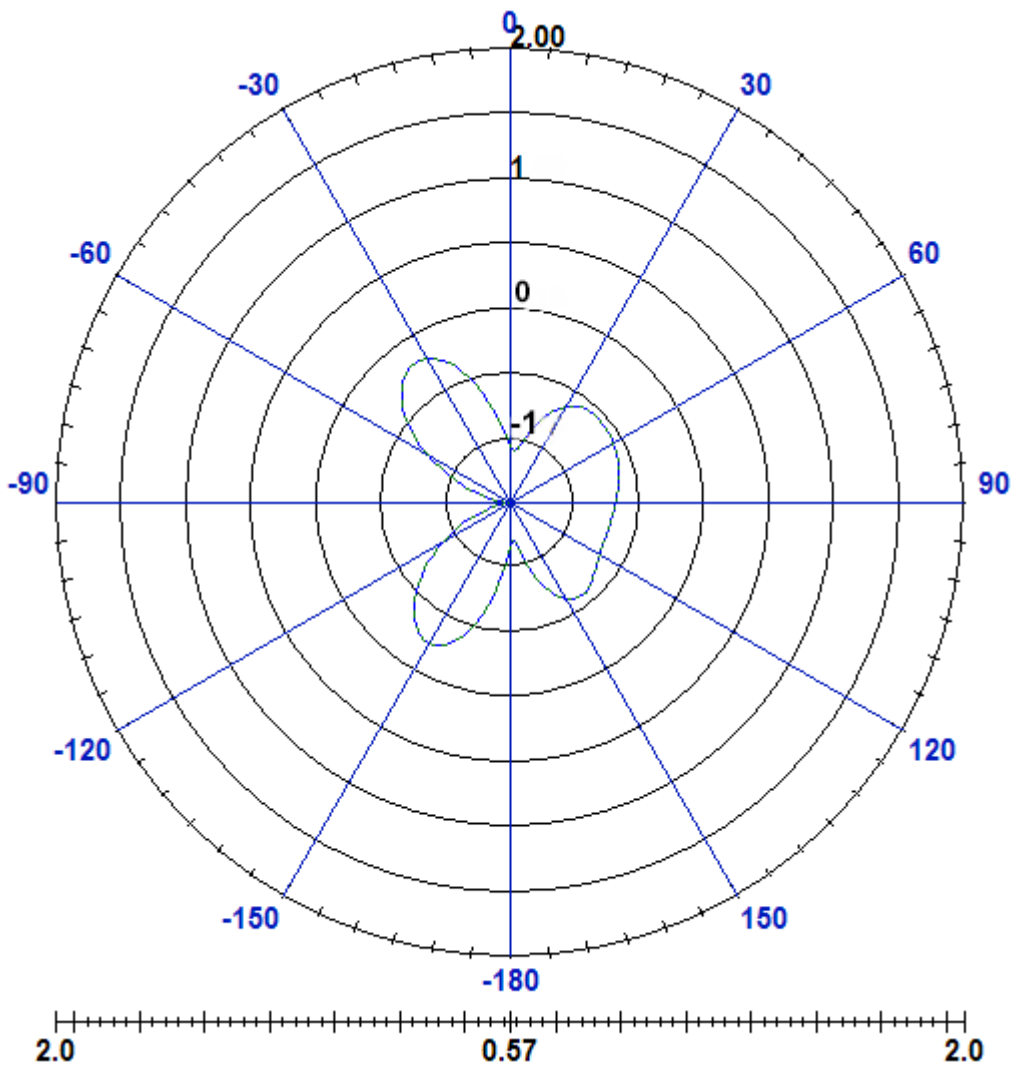
2450MHz XY-plane Max Gain 0dbi



2450MHz XZ—plane Max Gain -0.13dbi



2450MHz YZ-plane Max Gain -0.39dbi



3D Radiation pattern

