

TESTING REPORT

Customer Name: Deone (Shanghai) Communication & Technology Co., Ltd

Product Name: 2.4GHz BLE Module

Module Name: NDB1793S

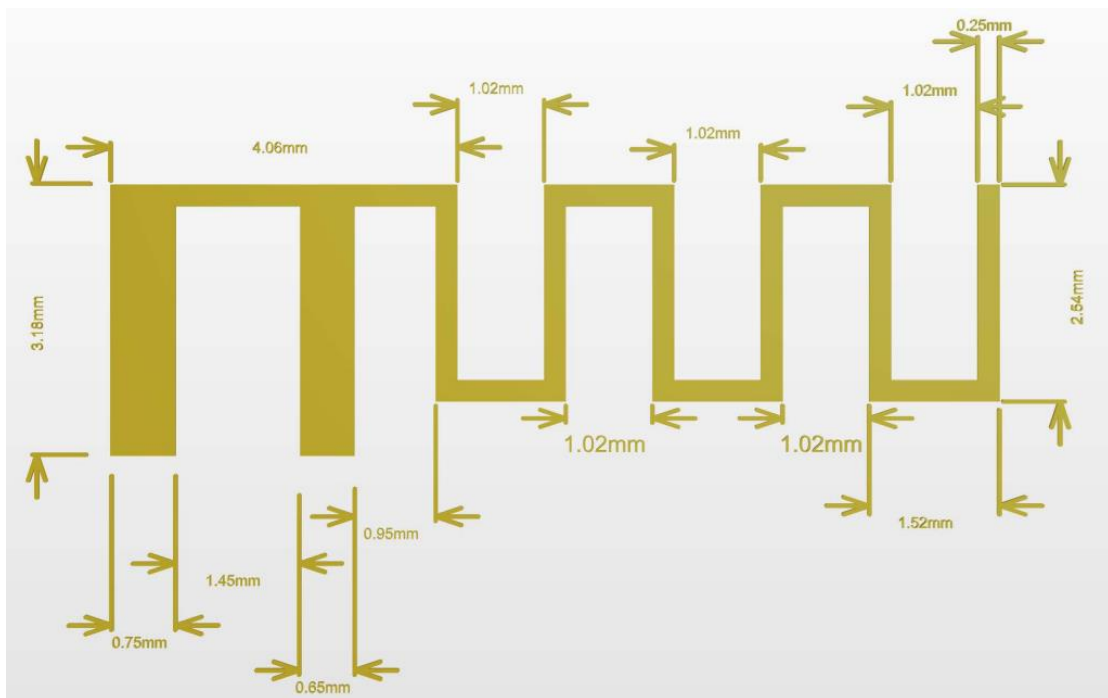
1.1 Testing Location

Company: TA Technology (Shanghai) Co., Ltd.
Address: No.145, Jintang Rd, Tangzhen Industry Park, Pudong Shanghai, China
City: Shanghai
Post code: 201201
Country: P. R. China
Contact: Xu Kai
Telephone: +86-021-50791141/2/3
Fax: +86-021-50791141/2/3-8000
Website: <http://www.ta-shanghai.com>
E-mail: xukai@ta-shanghai.com

1.2 Testing Environment

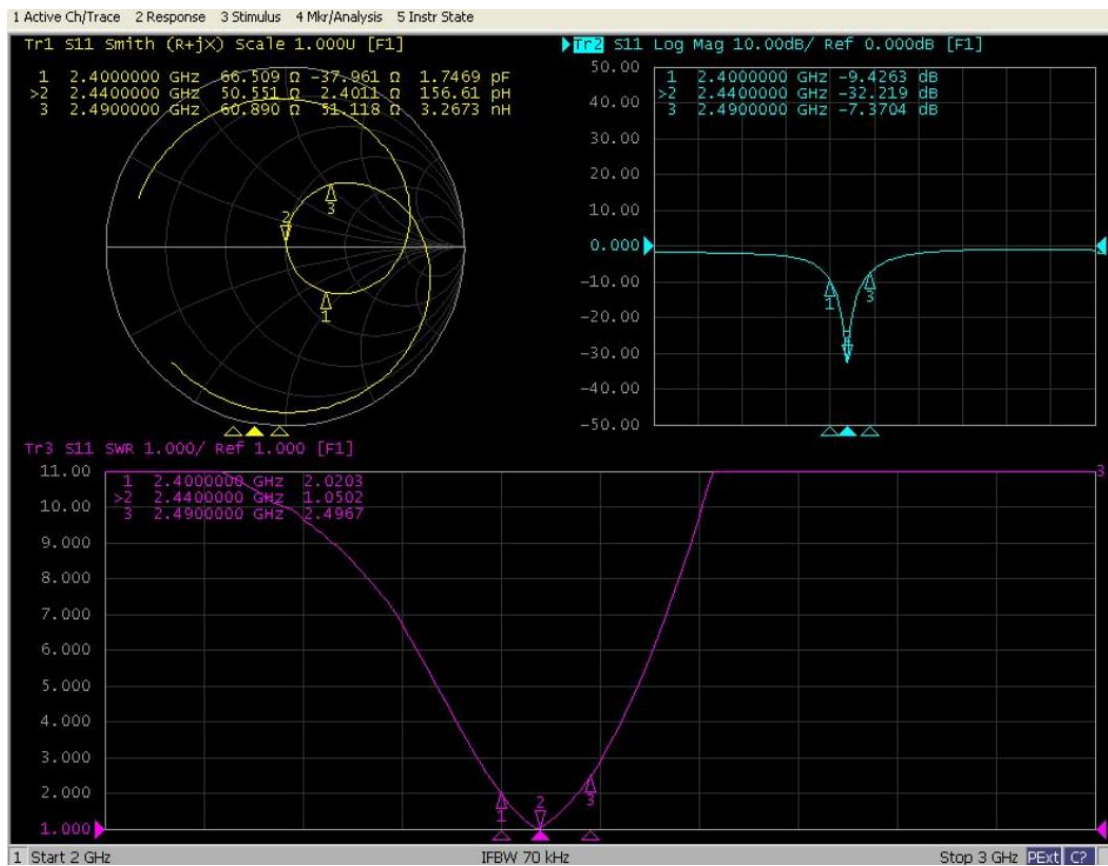
Temperature	25.5°C
Humidity	62%RH
Pressure	100.32kPa

1.3 Antenna Dimensions



1.4 Test Data

1.41 S11 parameters



1.42 VSWR Data

Frequency/MHz	2400	2450	2500
VSWR	2.0203	1.0502	2.4967

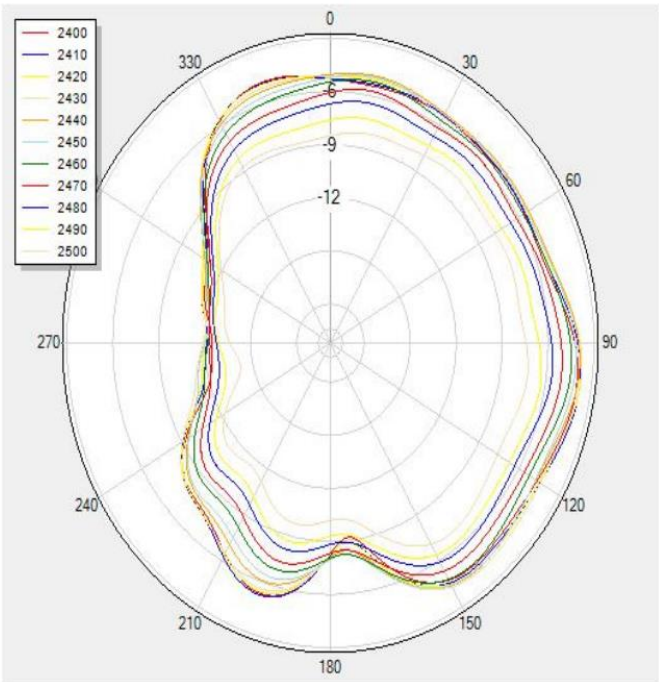
1.43 Typical free space efficiency and gain

Frequency/MHz	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Peak Gain/dBi	-0.11	0.12	0.18	0.2	0.17	0.03	-0.1	-0.56	-1.04	-1.68	-2.38
Efficiency/%	42.75	44.59	45.53	46.28	45.41	44.78	42.22	38.68	34.64	31.12	26.95

1.44 Typical free space radiation pattern

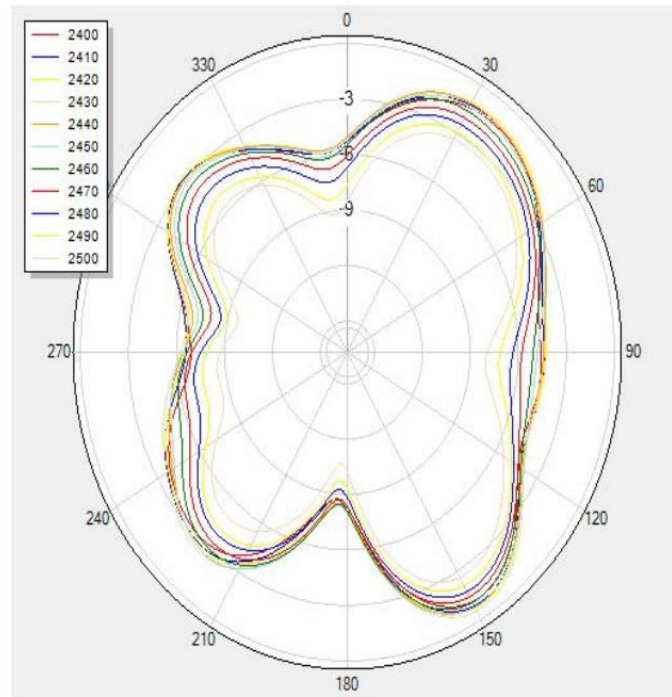
(1) X-Z Plane:

V Phi=0



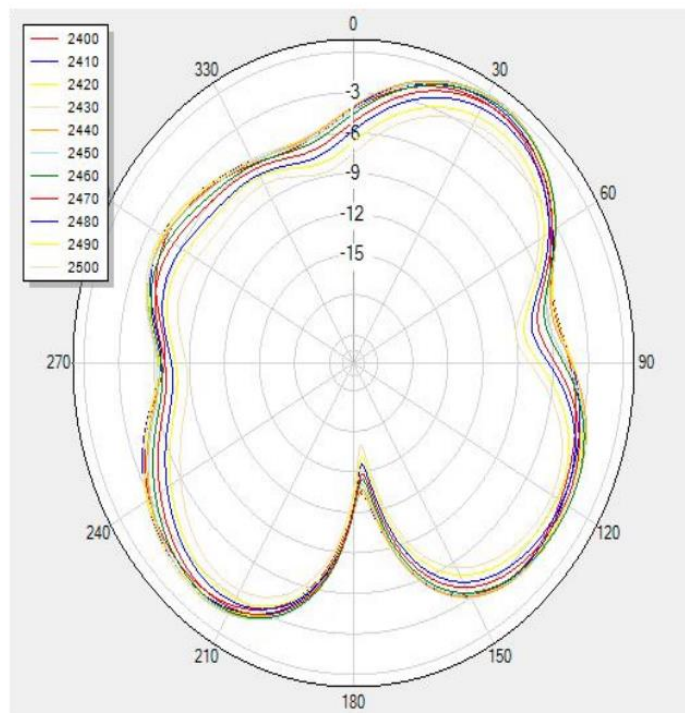
(2) Y-Z Plane:

V $\Phi=90$



(3) X-Y Plane:

H $\Theta=90$



(4) Typical Free Space 3D Radiation Pattern at 2.45GHz:

