FPC Antenna

BTFA Series

Prepared: Chris Chai		Approved: Adam Chen	
Checked: Feidi Pei		Customer:	
Version	Changed Reason	Changed by	Date
01	Original version	Chris	20191008

Address (India): H-601, Officer City2, Rajnagar Extension, Ghaziabad

Address (TW): 2F., NO 3, Gongye 4th RD., Hukou Shiang Hsinchu County 303-51, Taiwan

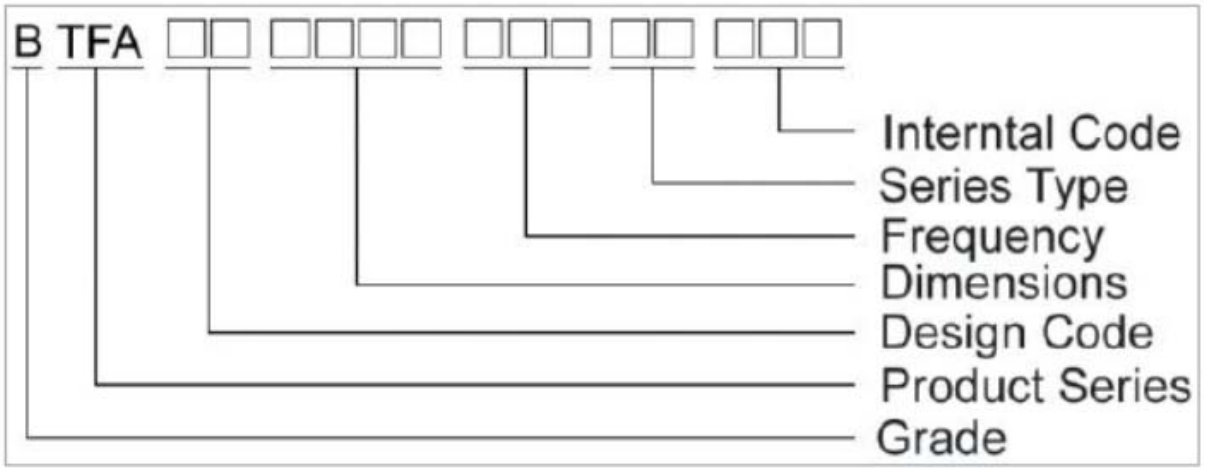
Features

- Small size low-profile, low cost and lightweight type
- Wide bandwidth and Omni-directional
- Supported with Dip-type, SMD, and Co-axial cable connecting
- Customized

Applications

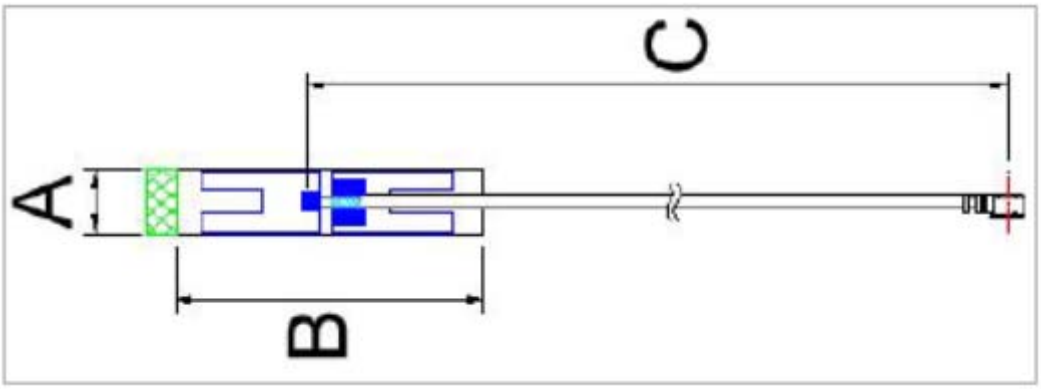
- Bluetooth, Wireless Router, Set Top Box and Home digital
- ISM band, Lora, Sigfox, LTE, NB-IOT, GPS, WIFI and Car use.

Product Identification

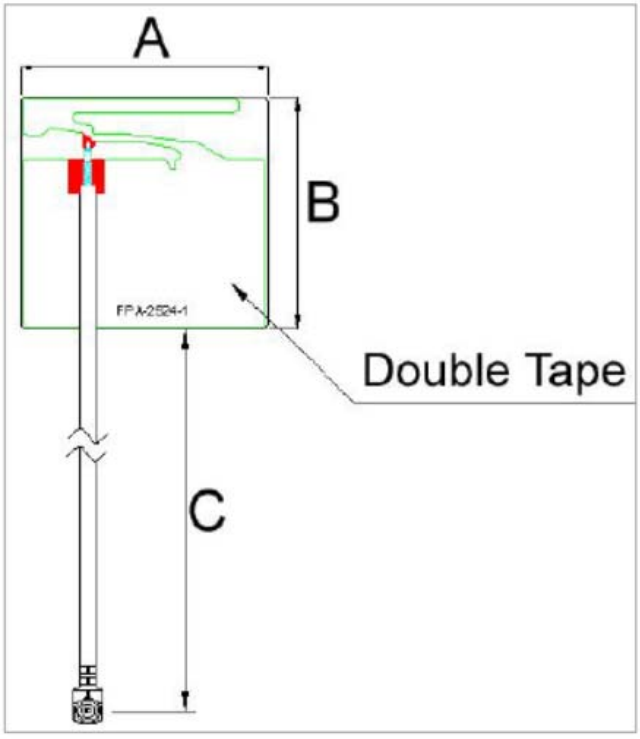


Shape and Dimensions

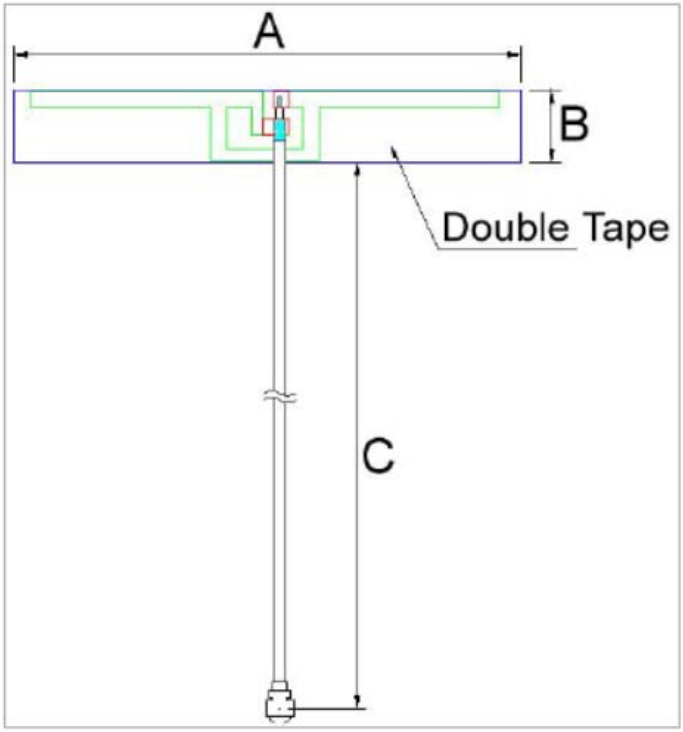
- Config1



- Config2



- Config3



Dimensions in mm

TYPE	FIG	A	B	C
BTFA0024055G0C1A13	1	5.10	24.25	100±5
BTFA00252425GC1A01	2	25.3	23.6	120±5
BTFA0046062G4C1A03	3	46.5	6.65	150±5

Electrical Characteristics

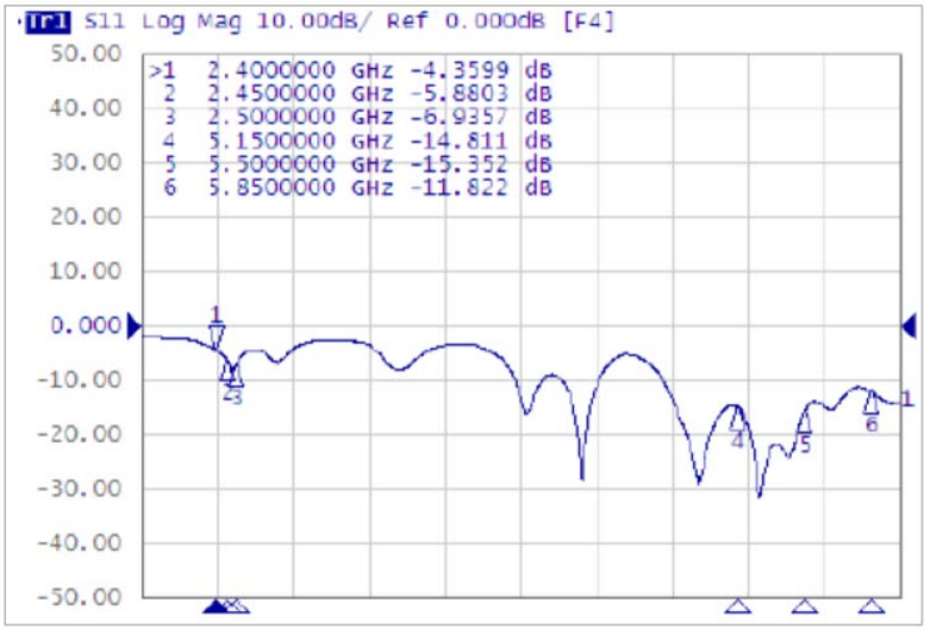
TYPE	Frequency GHz	Impedance (Ω)	ReturnLoss dB(Max)	VSWR Max	Radiation	Peak Gain (dBi)	Polarization
BTFA0024055G0C1A13	5.15~5.85	50	-10	2	Omni	4.9	Vertical
BTFA00252425GC1A01	2.4~2.5; 5.15~5.85	50	-10	2	Omni	3.37 2.85	Vertical
BTFA0046062G4C1A03	2.4~2.5	50	-10	2	Omni	3.87	Vertical

Physical Properties

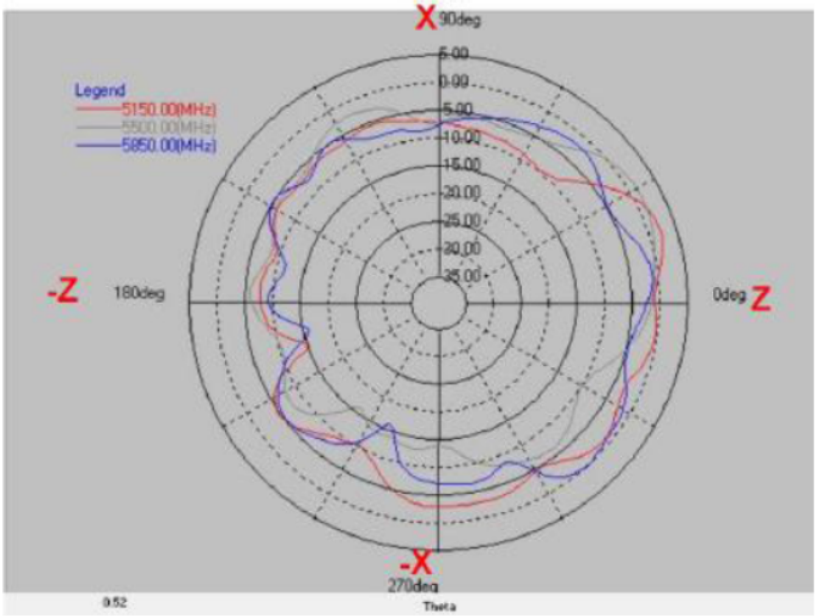
TYPE	Antenna Material	Cable	Color	Connector	Double Tape
BTFA0024055G0C1A13	FPC	RF-113	Black	IPEX Compatible	3M 467
BTFA00252425GC1A01	FPC	RF-113	Black	TNOV	G9000
BTFA0046062G4C1A03	FPC	RF-113	Black	TNOV	G9000

Return Loss S11

- BTFA0024055G0C1A13

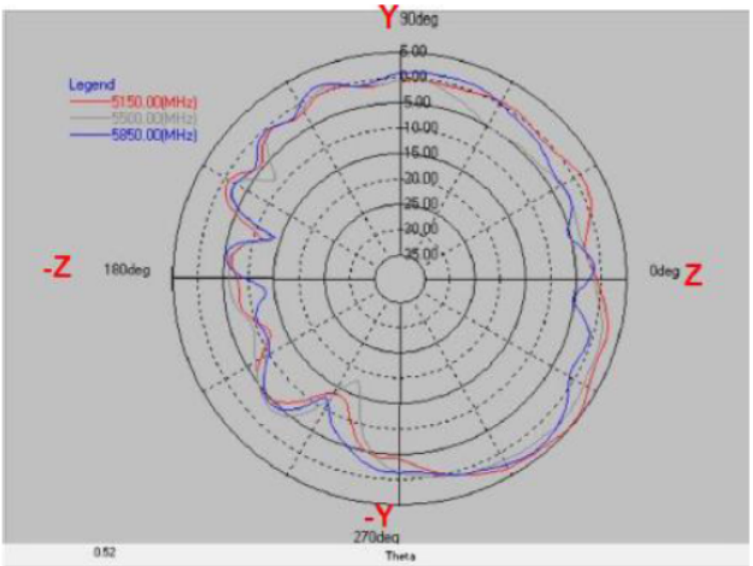


Frequency(MHz) : 5150~5850. Pattern Field : Z-X plane



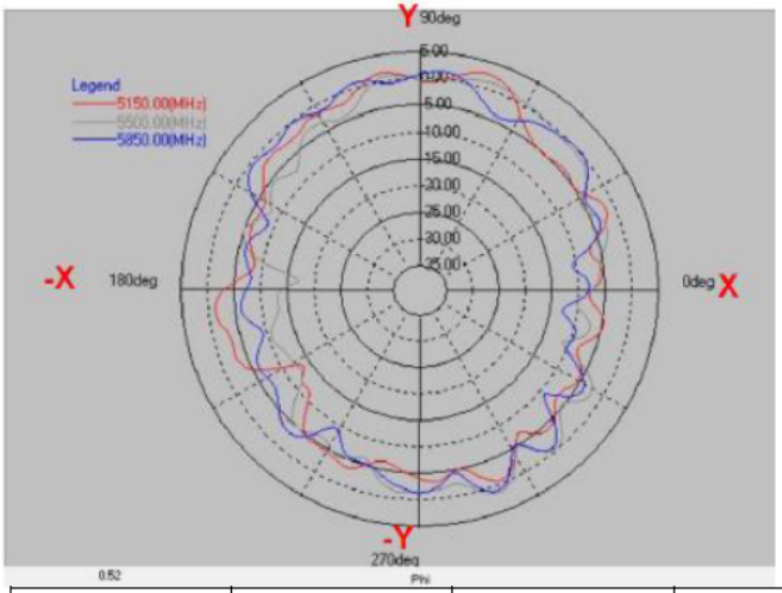
Layer	Max value	Min value	Average
5150(MHz)	2.25 dB	-15.19 dB	-4.15 dB
5500(MHz)	1.46 dB	-16.30 dB	-4.92 dB
5850(MHz)	-0.08 dB	-16.44 dB	-5.02 dB

Frequency(MHz) : 5150~5850. Pattern Field : Z-Y plane



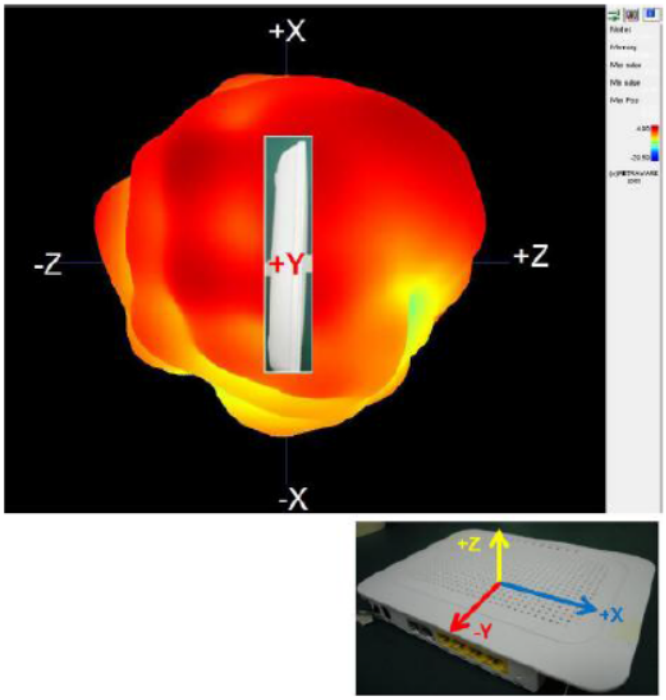
Layer	Max value	Min value	Average
5150(MHz)	4.87 dB	-14.03 dB	-0.64 dB
5500(MHz)	2.90 dB	-18.09 dB	-1.78 dB
5850(MHz)	3.56 dB	-13.87 dB	-1.49 dB

Frequency(MHz) : 5150~5850. Pattern Field : X-Y plane

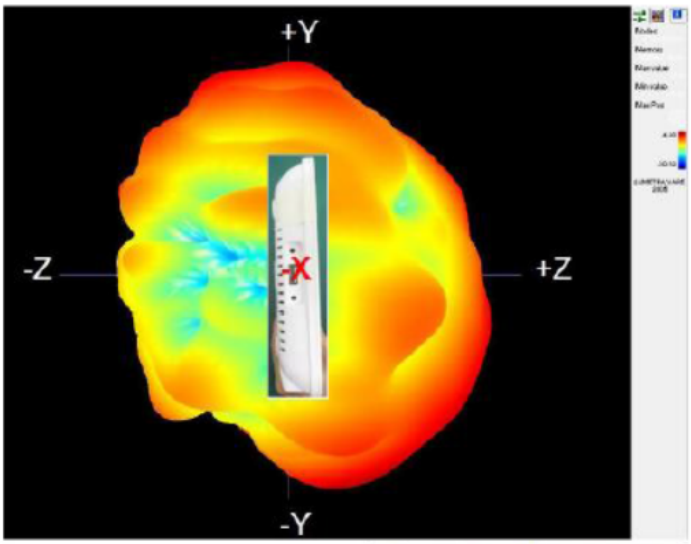


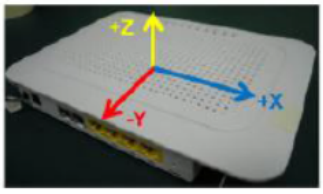
Layer	Max value	Min value	Average
5150(MHz)	2.51 dB	-13.78 dB	-3.22 dB
5500(MHz)	1.30 dB	-17.05 dB	-3.21 dB
5850(MHz)	1.30 dB	-12.85 dB	-3.06 dB

Frequency(MHz) : 5150. Pattern Field : Z-X plane

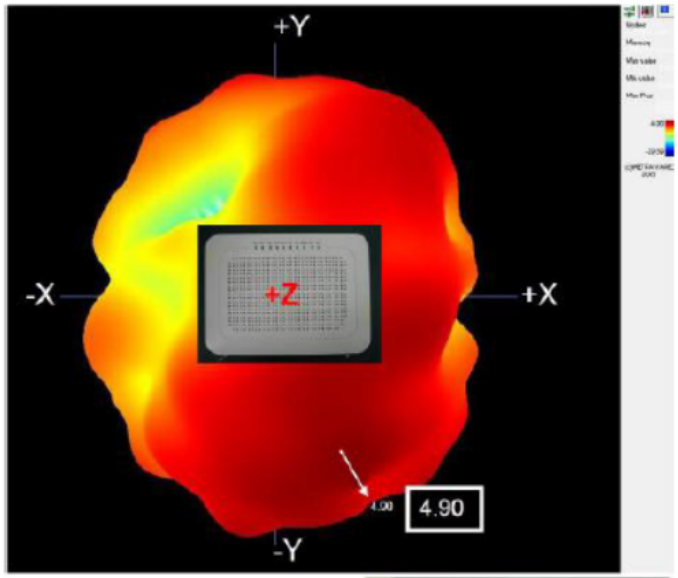


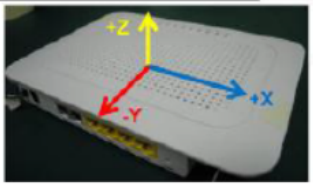
Frequency(MHz) : 5150. Pattern Field : Z-Y plane



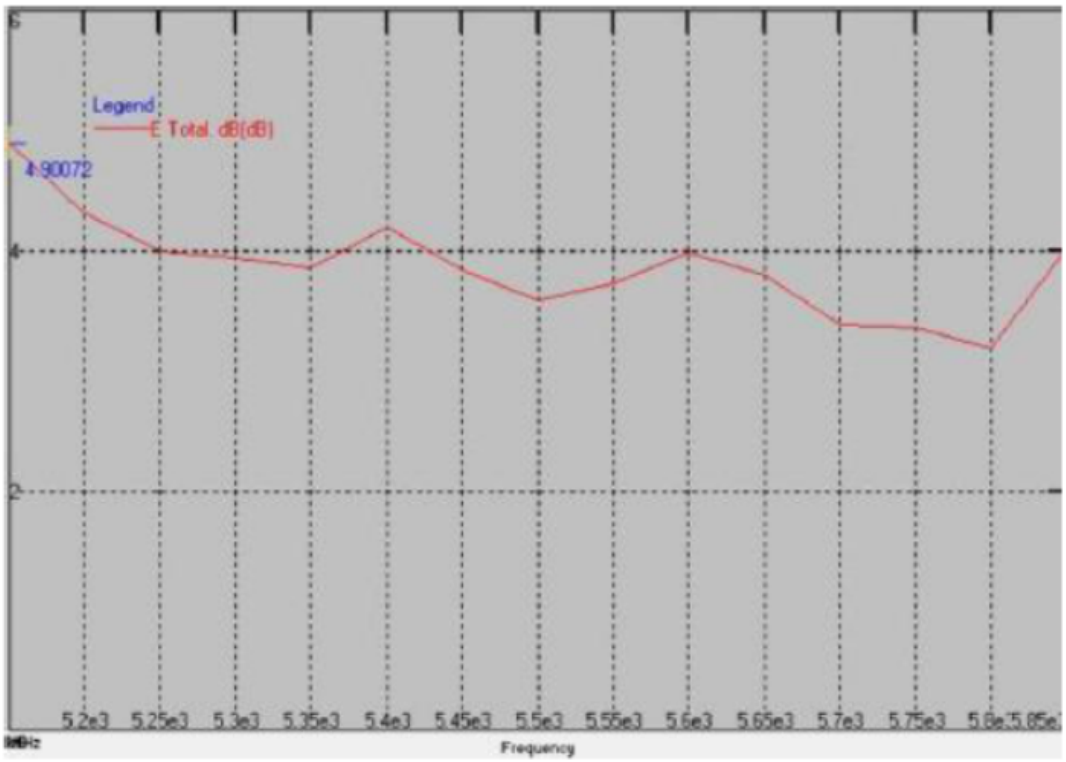


Frequency(MHz) : 5150. Pattern Field : X-Y plane



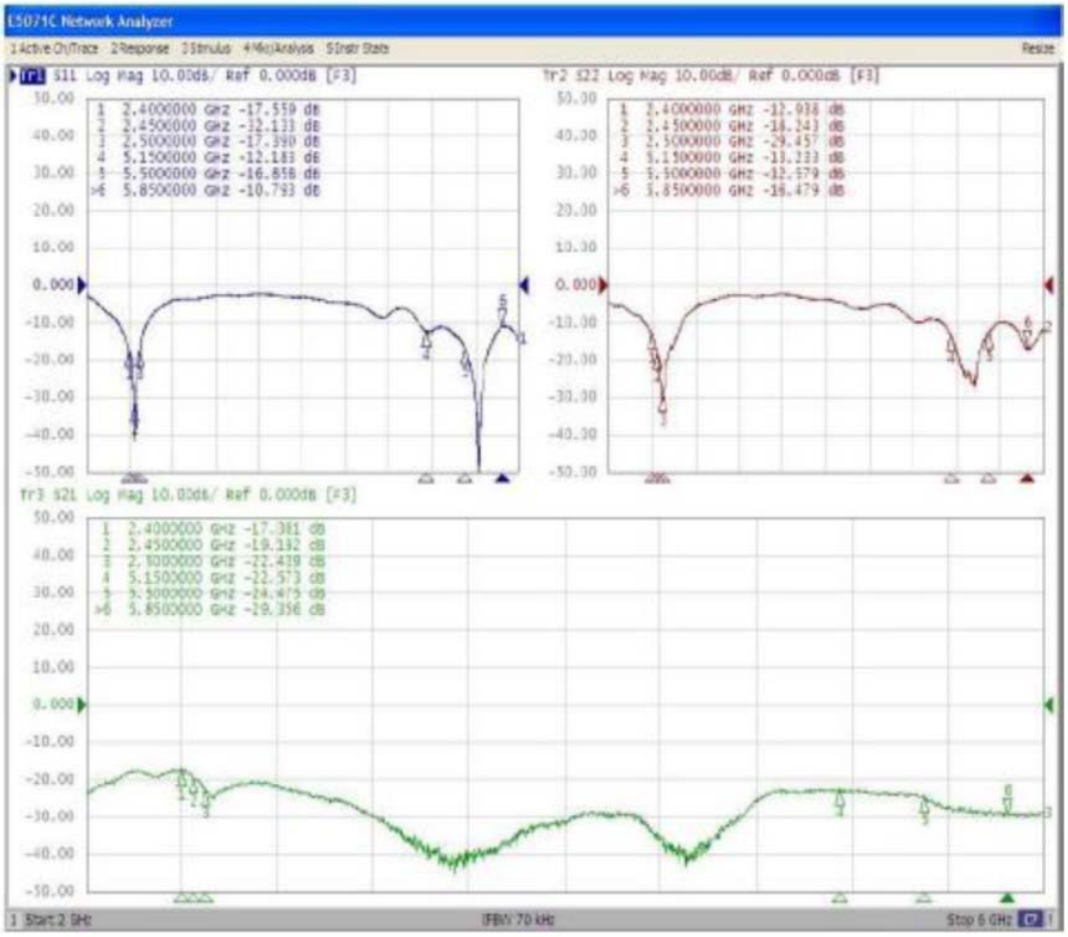


Peak Gain

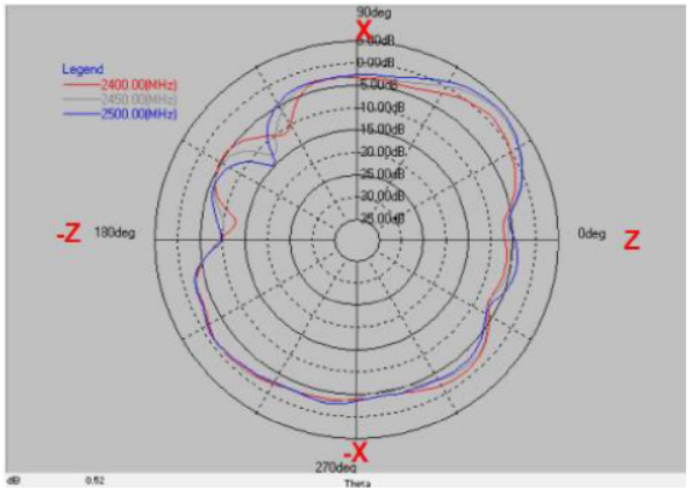


Peak Gain：Max 2.90 dBi

- BTFA00252425GC1A01

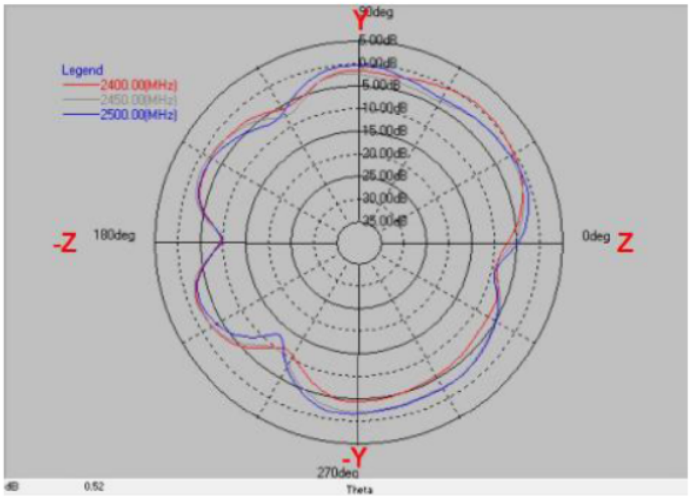


Frequency(MHz) : 2400~2500. X-Z Plane



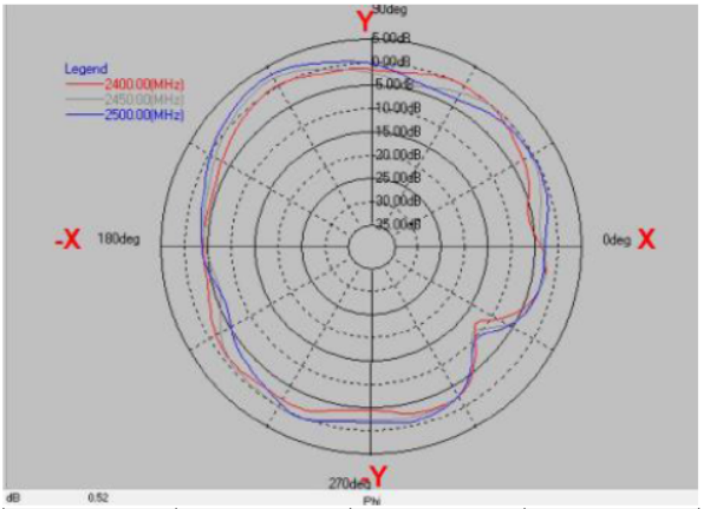
Layer	Max value	Min value	Average
2400(MHz)	0.91 dB	-12.85 dB	-3.42 dB
2450(MHz)	2.89 dB	-13.34 dB	-2.76 dB
2500(MHz)	3.37 dB	-14.94 dB	-2.46 dB

Frequency(MHz) : 2400~2500. Y-Z Plane



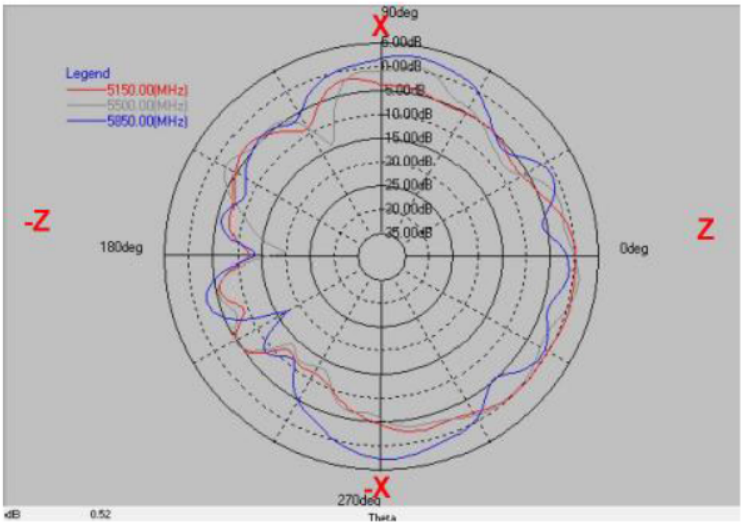
Layer	Max value	Min value	Average
2400(MHz)	0.42 dB	-11.32 dB	-3.63 dB
2450(MHz)	-1.19 dB	-10.21 dB	-3.66 dB
2500(MHz)	-0.46 dB	-12.89 dB	-3.34 dB

Frequency(MHz) : 2400~2500. X-Y Plane



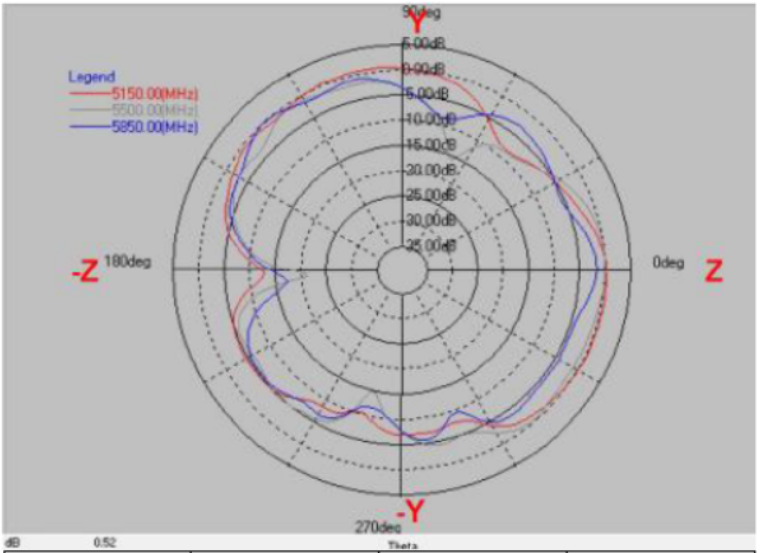
Layer	Max value	Min value	Average
2400(MHz)	0.10 dB	-12.12 dB	-2.49 dB
2450(MHz)	1.92 dB	-11.26 dB	-1.82 dB
2500(MHz)	2.81 dB	-9.85 dB	-1.50 dB

Frequency(MHz) : 5150~5850. X-Z Plane



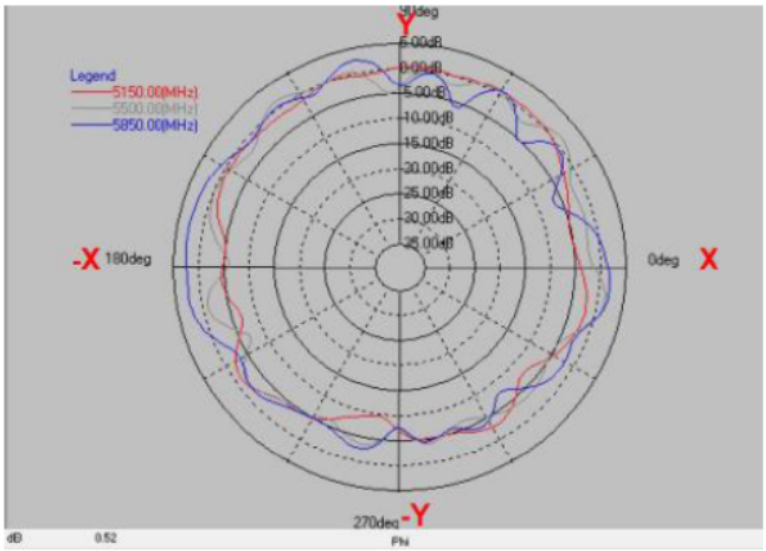
Layer	Max value	Min value	Average
5150(MHz)	0.54 dB	-12.50 dB	-3.69 dB
5500(MHz)	1.28 dB	-20.11 dB	-3.52 dB
5850(MHz)	2.60 dB	-17.20 dB	-1.90 dB

Frequency(MHz) : 5150~5850. Y-Z Plane



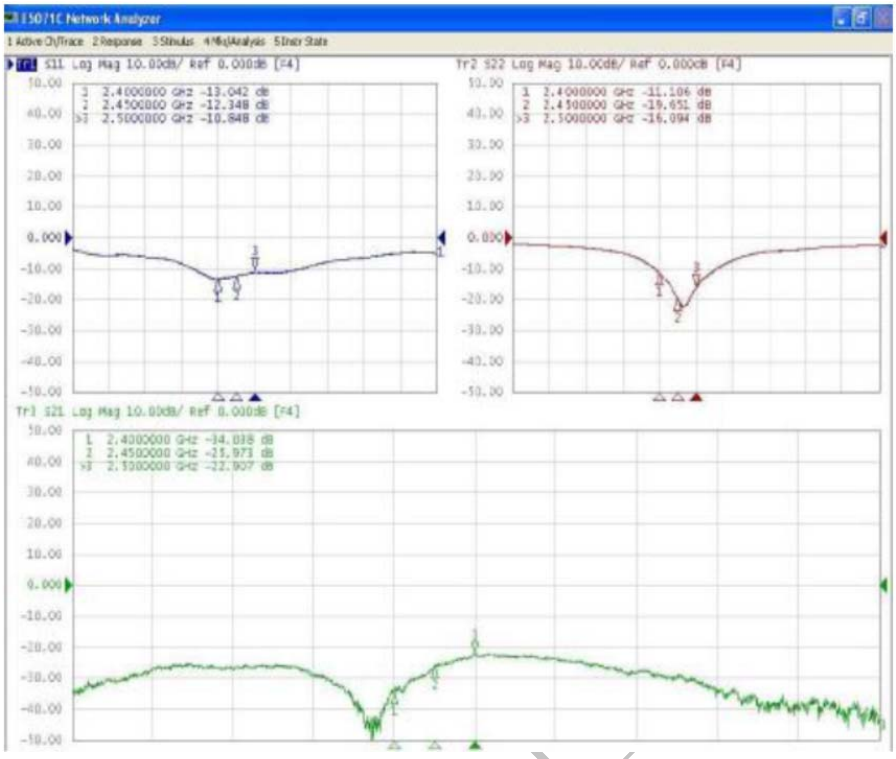
Layer	Max value	Min value	Average
5150(MHz)	0.45 dB	-12.88 dB	-2.70 dB
5500(MHz)	0.18 dB	-21.21 dB	-3.68 dB
5850(MHz)	-0.12 dB	-17.40 dB	-4.46 dB

Frequency(MHz) : 5150~5850. X-Y Plane

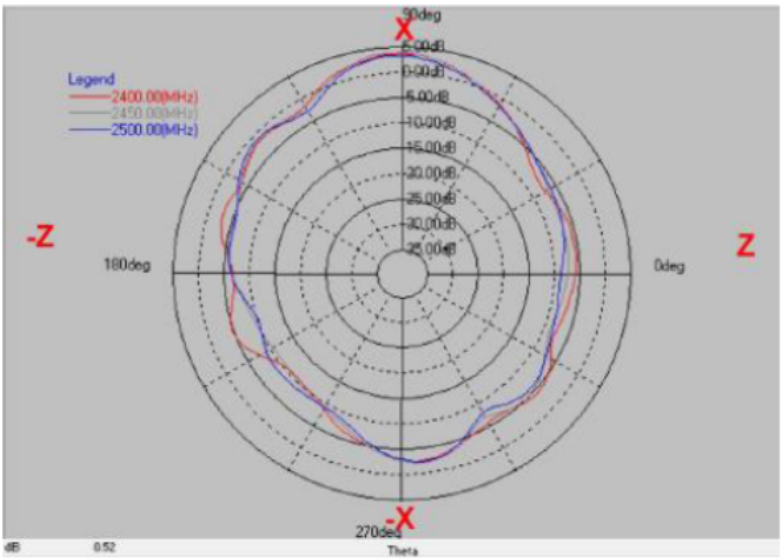


Layer	Max value	Min value	Average
5150(MHz)	0.59 dB	-9.84 dB	-2.47 dB
5500(MHz)	1.49 dB	-7.77 dB	-1.98 dB
5850(MHz)	2.85 dB	-8.05 dB	-0.94 dB

- BTFA0046062G4C1A03

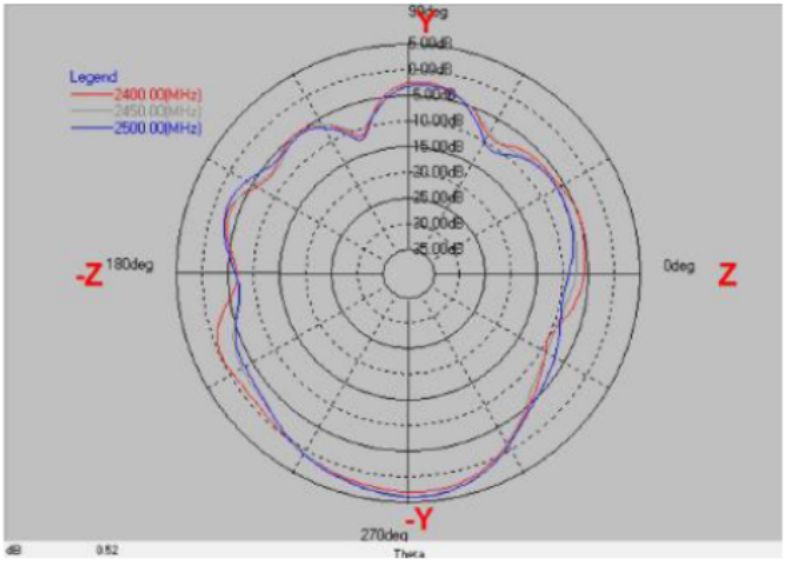


Frequency(MHz) : 2400~2500. Z- X Plane



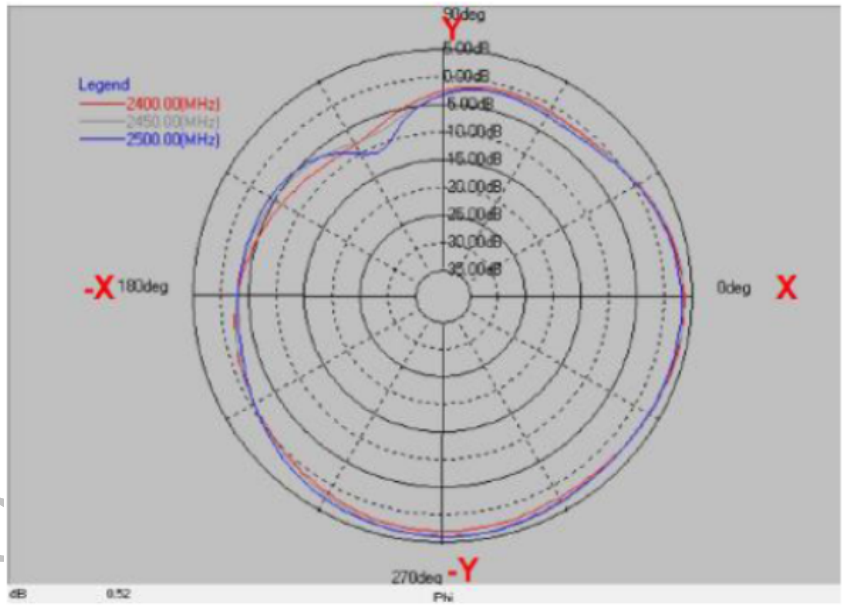
Layer	Max value	Min value	Average
2400(MHz)	3.48 dB	-10.84 dB	-2.85 dB
2450(MHz)	3.72 dB	-10.91 dB	-3.04 dB
2500(MHz)	3.12 dB	-10.28 dB	-3.40 dB

Frequency(MHz) : 2400~2500. Z- Y Plane



Layer	Max value	Min value	Average
2400(MHz)	2.89 dB	-11.62 dB	-2.50 dB
2450(MHz)	3.86 dB	-10.53 dB	-2.62 dB
2500(MHz)	3.76 dB	-12.27 dB	-2.56 dB

Frequency(MHz) : 2400~2500. X- Y Plane



Layer	Max value	Min value	Average
2400(MHz)	3.65 dB	-8.49 dB	0.50 dB
2450(MHz)	3.87 dB	-8.27 dB	0.87 dB
2500(MHz)	3.74 dB	-11.43 dB	0.72 dB