

RFCCOM

ShenZhenShi BeiGuangLianHe Technology Co. Ltd.

Profile Series
53GS_L-TB80I

RFCCOM Embedded Antenna

Preliminary Engineering Data Sheet

***CREATE
VALUE FOR
CUSTOMERS***



0755-2377 5370



sales@rfccom.com



Building 2, Guole Science Park, No. 1, Lirong
Road, Dalang Street, Longhua District, Shenzhen



[illegible]



Contents

1、Descriptions	3
2、Features	3
3、Applications	3
4、Electrical Specifications	4
5、Dimensions	4
6、Radiation Patterns	4
7、Cable Datasheet	6
8、Packaging	7





1、Descriptions

This embedded antenna is designed for 2.4GHz Band. Both of wireless Lan IEEE 802.11b/g/n ,Bluetooth and Zigbee .This Antenna provides a high efficiency and a good performance.

2、Features

The 53GS_L-TB80I Embedded Antenna is defined by the following features:

- ④ IEEE 802.11 b/g/n standards
- ④ 2.3 dBi peak gain at 2.4 GHz
- ④ 2.2 dBi peak gain at 2.45 GHz
- ④ 2.15 dBi peak gain at 2.48 GHz
- ④ Cable route and Case mount
- ④ Easy integration

3、Applications

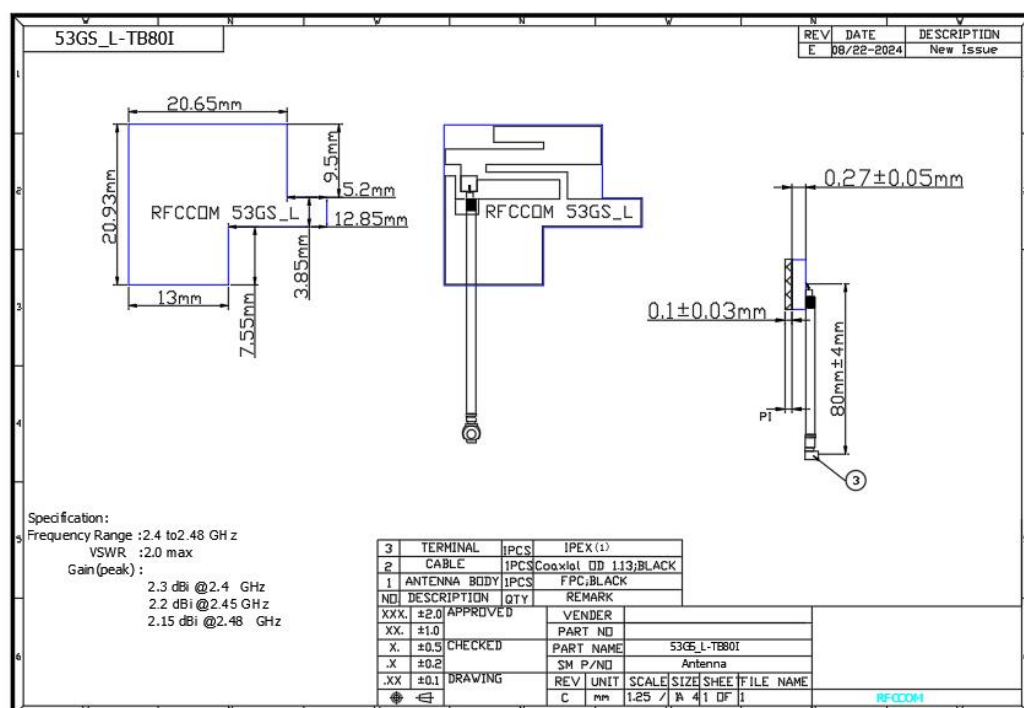
- ④ Wireless LAN
- ④ ISM band 2.4GHz wireless applications
- ④ Bluetooth
- ④ Zigbee



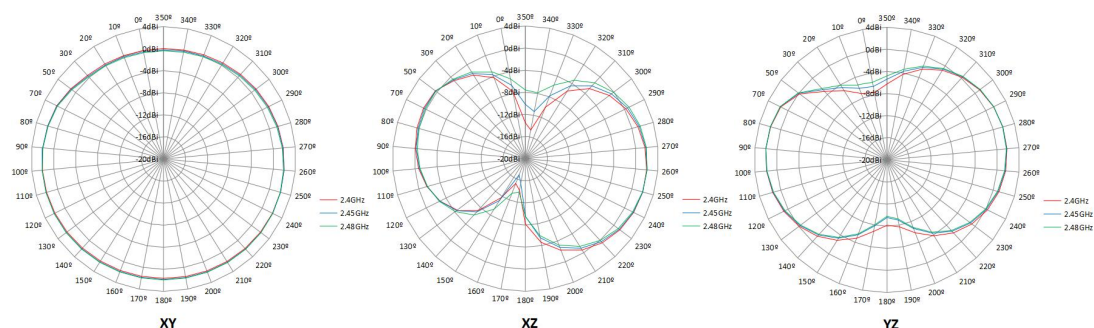
4、Electrical Specifications

Standard	IEEE 802.11n and 802.11 b/g
Frequency range	2.4 to 2.48GHz
Peak gain	2.3 dBi peak gain at 2.4 GHz 2.2 dBi peak gain at 2.45 GHz 2.15 dBi peak gain at 2.48 GHz
VSWR	2:1
Feed impedance	50 ohms
Power handling	30 dBm
Interface	50 ohms, 1.13 mm diameter, micro coax cable (available with optional U.FL-compatible cable connector and/or cable-mounted EMI ferrites)
Antenna dimensions	25.85 x 20.93 x 0.37mm (L x W x H)
Temperature range	Operating: -40° C to +75° C (-40° F to +167° F) Storage: -40° C to +85° C (-40° F to +185° F)
Humidity range	0% to 95% non-condensing

5、Dimensions



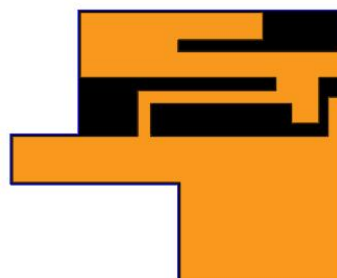
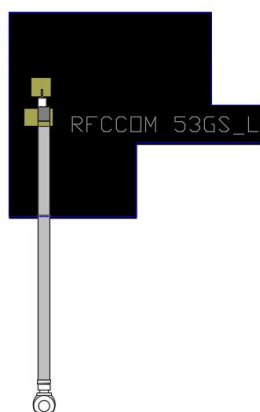
6、Radiation Patterns



XY	Frequency (GHz)	Max	Min	Avg
		Peak gain (dBi)		
	2.4	2.07	0.01	1.36
	2.45	2.17	-0.23	1.35
	2.48	2.14	-0.39	1.29

XZ	Frequency (GHz)	Max	Min	Avg
		Peak gain (dBi)		
	2.4	2.30	-15.18	-3.42
	2.45	2.20	-16.85	-3.20
	2.48	2.15	-13.86	-2.68

YZ	Frequency (GHz)	Max	Min	Avg
		Peak gain (dBi)		
	2.4	2.02	-8.17	-1.75
	2.45	2.04	-9.56	-1.80
	2.48	2.01	-9.79	-1.77



7、Cable Datasheet

Structure characteristics				
Structure	Item		Standard value	
①Inner conductor	Material		Tinned copper wire	
	Makeup:total / O.D. of every wire(mm)		7/0.08	
	(Intertwist)NOM.O.D. (mm)		0.24±0.02	
②Insulation	Material		FEP	
	Color		Clarity	
	NOM.O.D. (mm)		0.7±0.03	
③Outer conductor	Material		Tinned copper wire	
	Makeup:total / O.D. of every wire(mm)		4/0.05	
	NOM.O.D. (mm)		0.92±0.05	
	Coverage ratio(%)		90±5	
④Jacket	Material		FEP	
	Color		Black	
	NOM.O.D. (mm)		1.13±0.05	
Electrical characteristics				
Item	Standard value	Item	Frequency	Standard value Unit:dB/m
Capacitance (pF/m)	98	Attenuation	1GHz	≤2.2
Velocity (%)	70		2GHz	≤3.1
Impedance (Ω)	50±2		3GHz	≤3.8
Standing wave ratio	≤1.3@0~6GHz		4GHz	≤4.4
Max.operating voltage (V)	1000		5GHz	≤4.9
Max.operating frequency (GHz)	6		6GHz	≤5.4
Dependability				
Item		Unit	Standard value	
Min.bending radius static		mm	4	
Operating temperature		℃	-55~+150	



8、Packaging

