

*RFCCOM*

*ShenZhenShi BeiGuangLianHe Technology Co. Ltd.*

**Profile Series**  
**DA28-TB135I**

**RFCCOM Embedded Antenna**

**Preliminary Engineering Data Sheet**



0755-2377 5370

电话



[sales@rfccom.com](mailto:sales@rfccom.com)

邮箱



Building C, Tianhui Building, Fukang Community,  
Longhua Street, Longhua District, Shenzhen

地址

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## 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 DA28-TB135I Embedded Antenna is defined by the following features:

- IEEE 802.11 b/g/n standards
- 2.02 dBi peak gain at 2.4 GHz
- 2.15 dBi peak gain at 2.45 GHz
- 2.36 dBi peak gain at 2.5 GHz
- Cable route and Case mount
- Easy integration

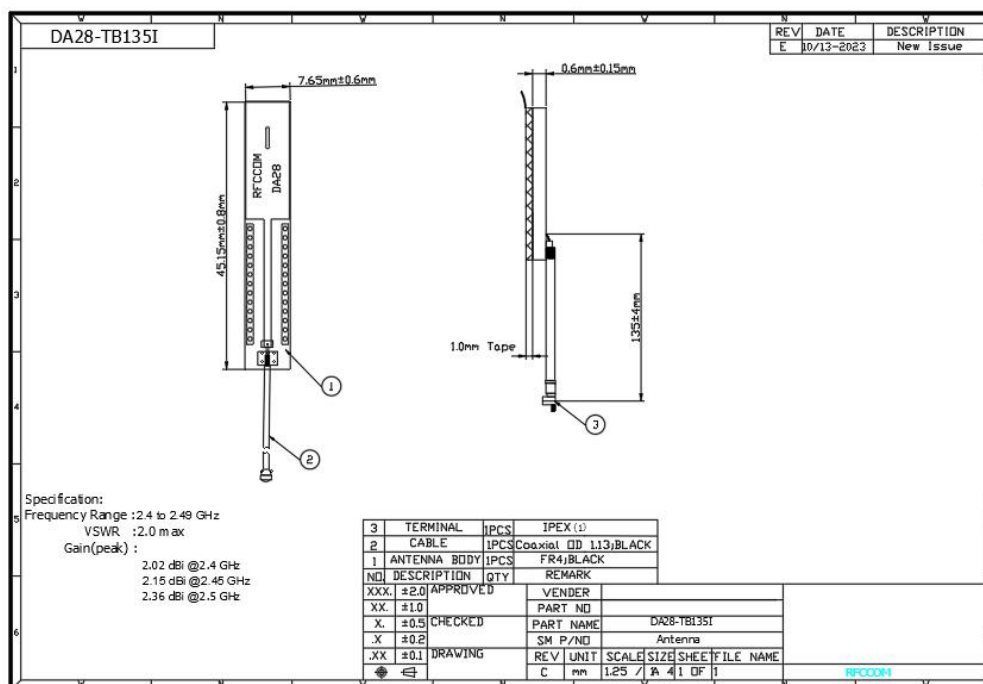
## 3、 Applications

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

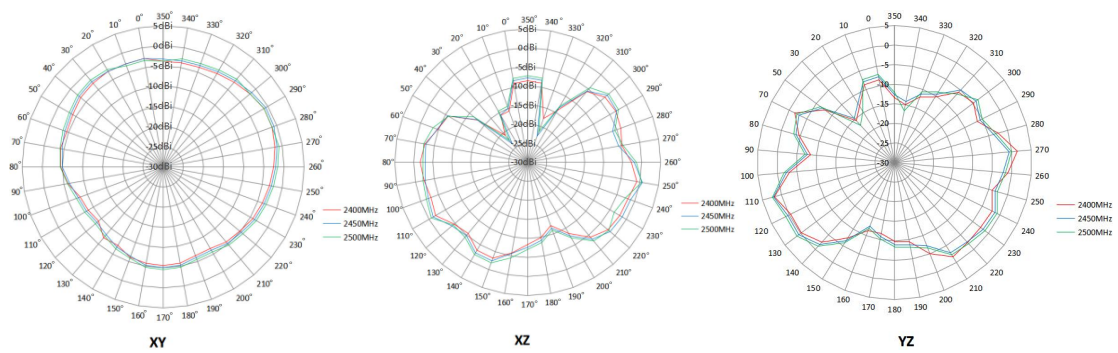
## 4、Electrical Specifications

Standard	IEEE 802.11n and 802.11 b/g
Frequency range	2.4 to 2.49GHz
Peak gain	2.02 dBi peak gain at 2.4 GHz 2.15 dBi peak gain at 2.45 GHz 2.36 dBi peak gain at 2.5 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	45.15 x 7.65 x 0.6mm (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



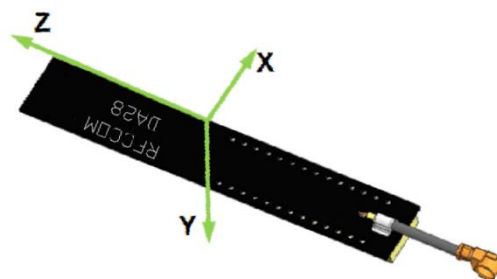
## 6、Radiation Patterns



XY	Frequency (GHz)	Max	Min	Avg
		Peak gain (dBi)		
	2.4	-1.57	-9.56	-5
	2.45	-1.07	-9.06	-4.68
	2.5	-1.32	-8.56	-4.34

XZ	Frequency (GHz)	Max	Min	Avg
		Peak gain (dBi)		
	2.4	-1.38	-21.37	-7.29
	2.45	0.17	-23.67	-7.05
	2.5	0.05	-23.04	-6.66

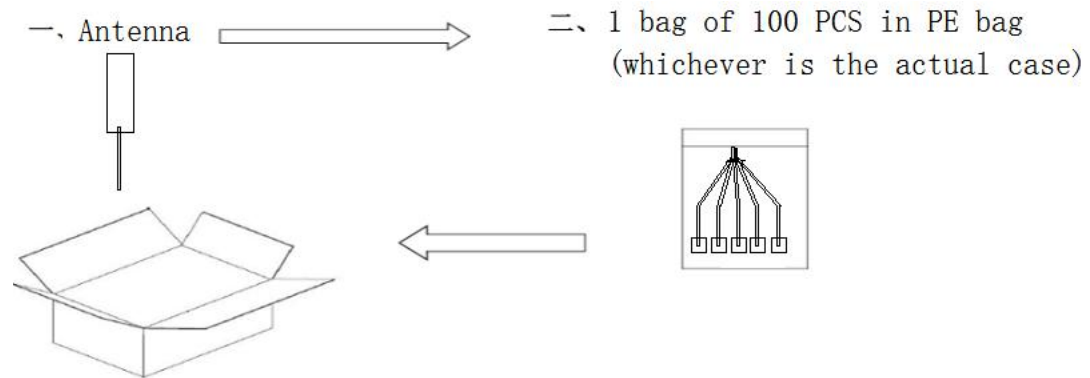
YZ	Frequency (GHz)	Max	Min	Avg
		Peak gain (dBi)		
	2.4	2.02	-16.03	-6.77
	2.45	2.15	-15.23	-6.45
	2.5	2.36	-17.63	-6.22



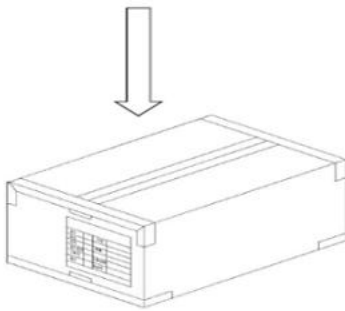
## 7、Cable Datasheet

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



三、One case of 100pcs of finished products  
(subject to actual packaging)



四、Seal the box, paste the production label