

RFCCOM

ShenZhenShi BeiGuangLianHe Technology Co. Ltd.

Profile Series DA28-TB135I

RFCCOM Embedded Antenna

Preliminary Engineering Data Sheet



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Revision history

[illegible]

Contents

1、Descriptions	3
2、Features	3
3、Applications	3
4、Electrical Specifications	4
5、Dimensions	4
6、Radiation Patterns	5
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 DA28-TB135I Embedded Antenna is defined by the following features:

- IEEE 802.11 b/g/n standards
- 2.42 dBi peak gain at 2.4 GHz
- 3.05 dBi peak gain at 2.45 GHz
- 3.26 dBi peak gain at 2.5 GHz
- Cable route and Case mount
- Easy integration

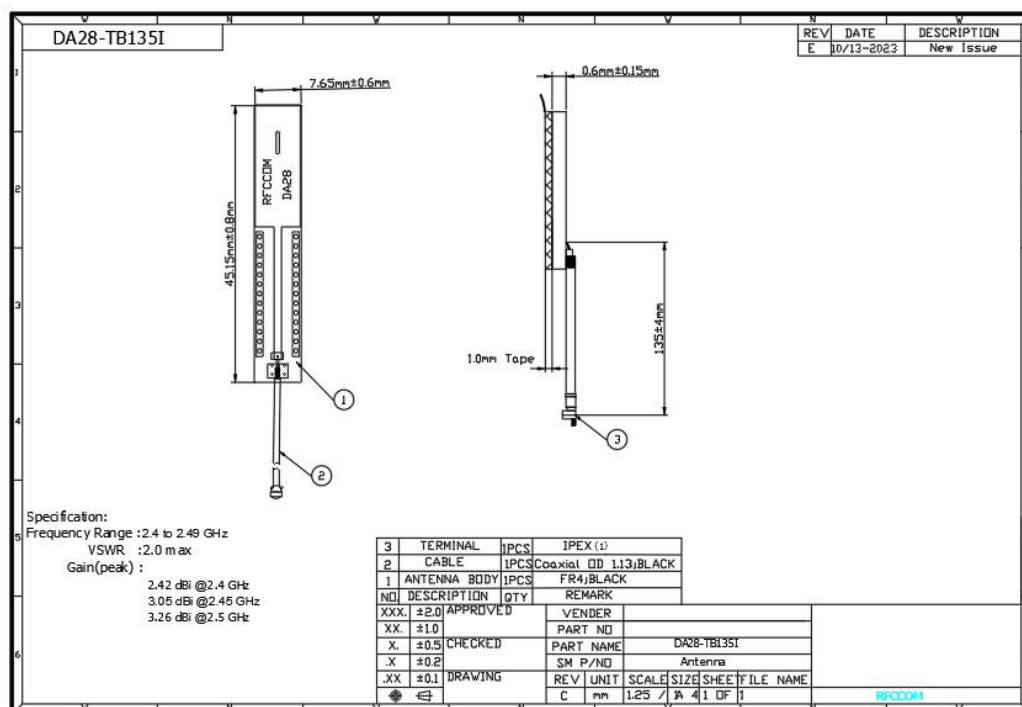
3、Applications

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

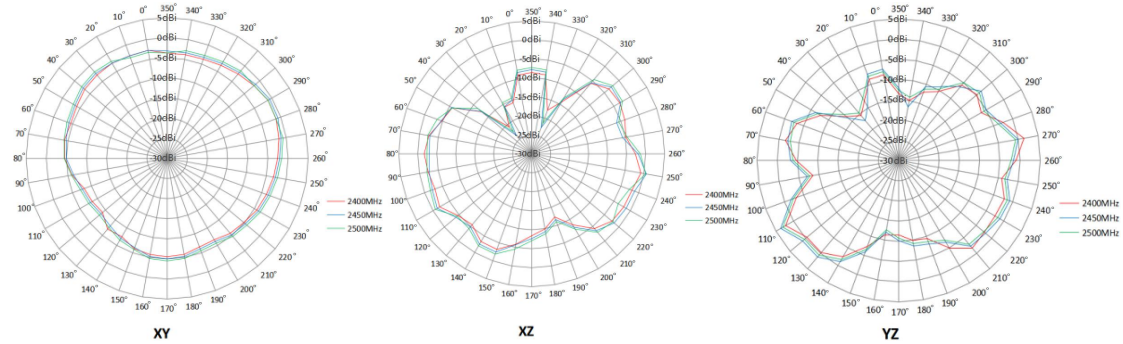
4、Electrical Specifications

Standard	IEEE 802.11n and 802.11 b/g
Frequency range	2.4 to 2.49GHz
Peak gain	2.42 dBi peak gain at 2.4 GHz 3.05 dBi peak gain at 2.45 GHz 3.26 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



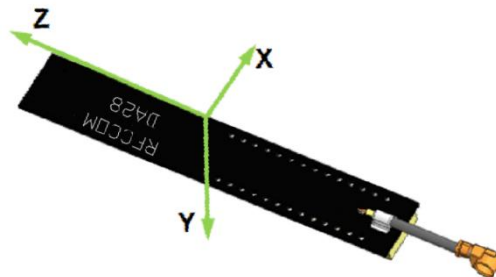
6、Radiation Patterns



XY	Frequency (GHz)	Max	Min	Avg
		Peak gain (dBi)		
	2.4	-1.07	-9.06	-4.5
	2.45	-0.57	-8.56	-4.18
	2.5	-0.82	-8.06	-3.84

XZ	Frequency (GHz)	Max	Min	Avg
		Peak gain (dBi)		
	2.4	-0.88	-20.87	-6.79
	2.45	0.67	-23.17	-6.55
	2.5	0.55	-22.54	-6.16

YZ	Frequency (GHz)	Max	Min	Avg
		Peak gain (dBi)		
	2.4	2.42	-15.53	-6.27
	2.45	3.05	-14.73	-5.95
	2.5	3.26	-17.13	-5.72



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

