



Antenna datasheet



Document	Datasheet
Type	PCB Trace Antenna
Application	2.4GHz
Model	HARN1006

DATASHEET

Sep , 2019

Contents

1. Applications	3
2. Features	3
3. Specifications	4
3.1 Electrical Specifications	4
3.2 Mechanical Specification	4
4. Matching Component	4
4.1 Ant Circuit.....	4
4.2 Matching value	4
5. Measurement Result	5
5.1 Typical Measurement Result (Smith Chart & Return Loss)	5
5.2 Typical Measurement Result (Gain).....	5
6 Revision History	6

1. Applications

Bluetooth

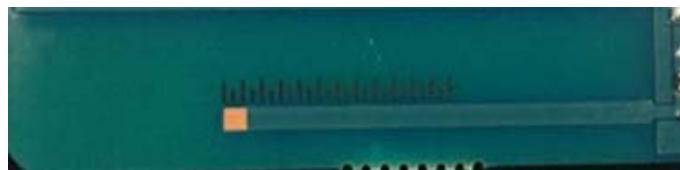
ZigBee

ISM 2.4GHz Wireless Devices

2. Features

Monopole type PCB trace antenna

Size (23.0 x 1.2mm)



3. Specifications

3.1 Electrical Specifications

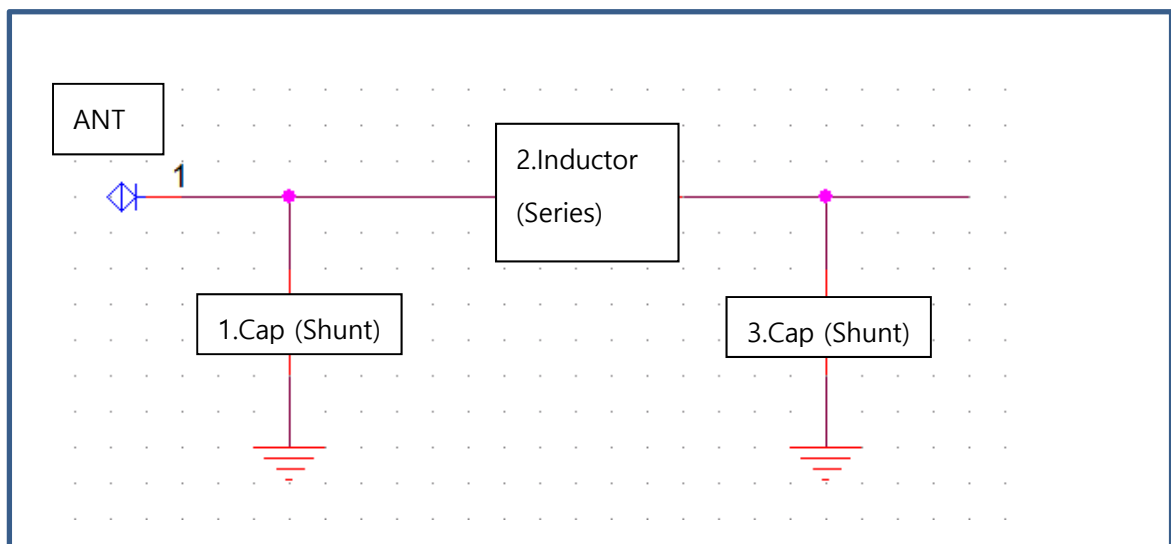
No	Item	Spec	Remark
1	Frequency Range[GHz]	2.4~2.485	
2	Peak Gain [dBi]	Typ -2.1	2.440 [GHz]
3	Total Avg. Gain [dBi]	Typ -11.1	2.440 [GHz]
4	Impedance [Ω]	Nominal 50	

3.2 Mechanical Specification

No	Item	Spec	Remark
1	Dimensions (L x W)	23.0 x 1.2 mm	
2	Operating temperature	- 40 ~ +85 °C	

4. Matching Component

4.1 Ant Circuit.



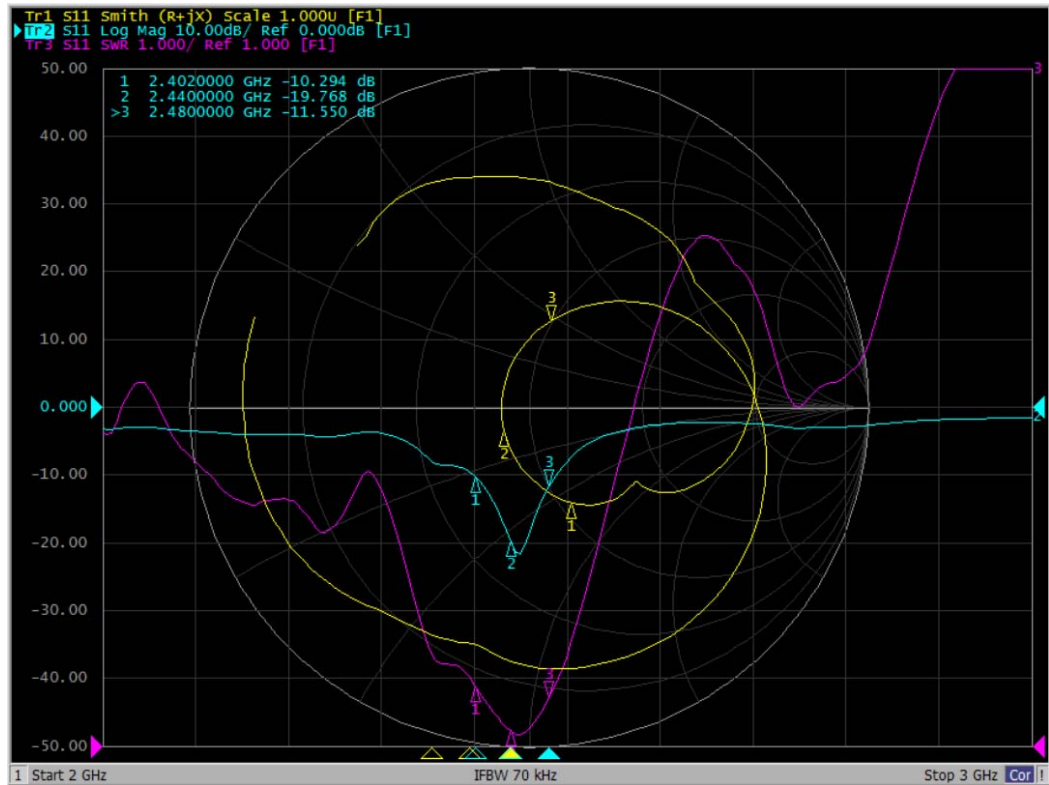
4.2 Matching value

1.Cap (Shunt)	0.75pF
2.Inductor (Series)	5.6nH
3.Cap (Shunt)	OPEN

5. Measurement Result

5.1 Typical Measurement Result (Smith Chart & Return Loss)

- Smith Chart : Yello line, Return Loss : Blue line

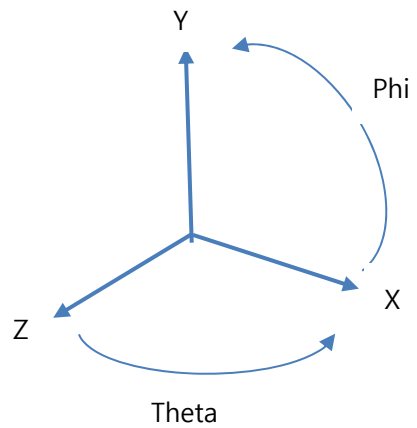
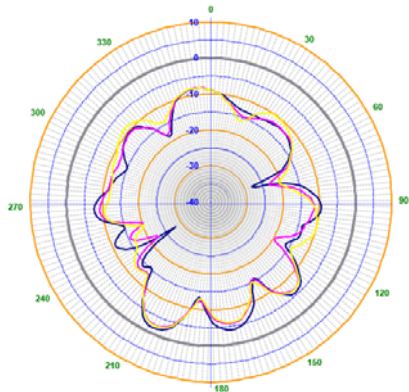
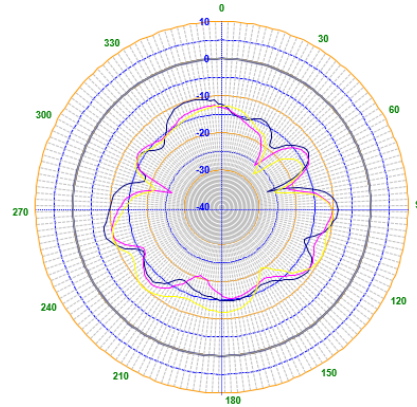
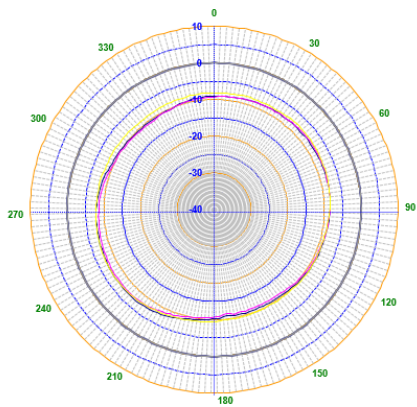


5.2 Typical Measurement Result (Gain)

Frequency [GHz]	Avg.[dBi]	Peak[dBi]
2.400	-10.0	-1.1
2.440	-11.1	-2.1
2.480	-10.7	-1.7

5.3 Typical Measurement Result (Radiation pattern, 2.44GHz)

	Peak Gain [dBi]	Avg. Gain [dBi]	Total Avg. Gain [dBi]
Phi 0	- 7.23	- 8.84	- 11.1
Phi 90	- 9.76	- 14.10	
Theta 90	- 2.42	- 10.10	



6 Revision History

Revision No	Date	Change	page
1	19.09.10	Initial revision	