

Application of AT5020 Series Multilayer Chip Antenna

Features

- ❖ Monolithic SMD with small, low-profile and light-weight type.
- ❖ Wide bandwidth

Applications

- ❖ Bluetooth/Wireless LAN/Home RF
- ❖ ISM band 2.4GHz applications

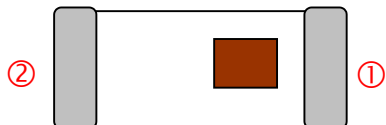


Part Number

AT **5020** - **B** **2R8** **HAA** **□**
 ① ② ③ ④ ⑤ ⑥

① Type	AT : Antenna	② Dimensions (L x W)	5.0x 2.0 mm
③ Material Code	B	④ Frequency Range	2R8=2800MHz
⑤ Specification Code	HAA	⑥ Packaging	T: Tape & Reel B: Bulk

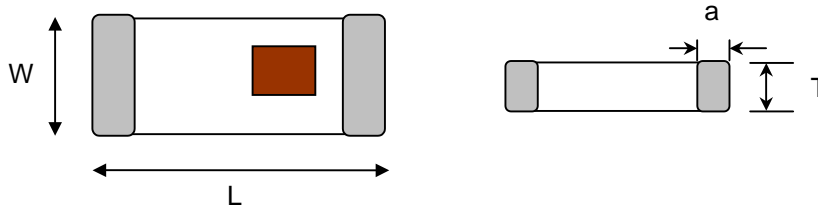
Terminal Configuration



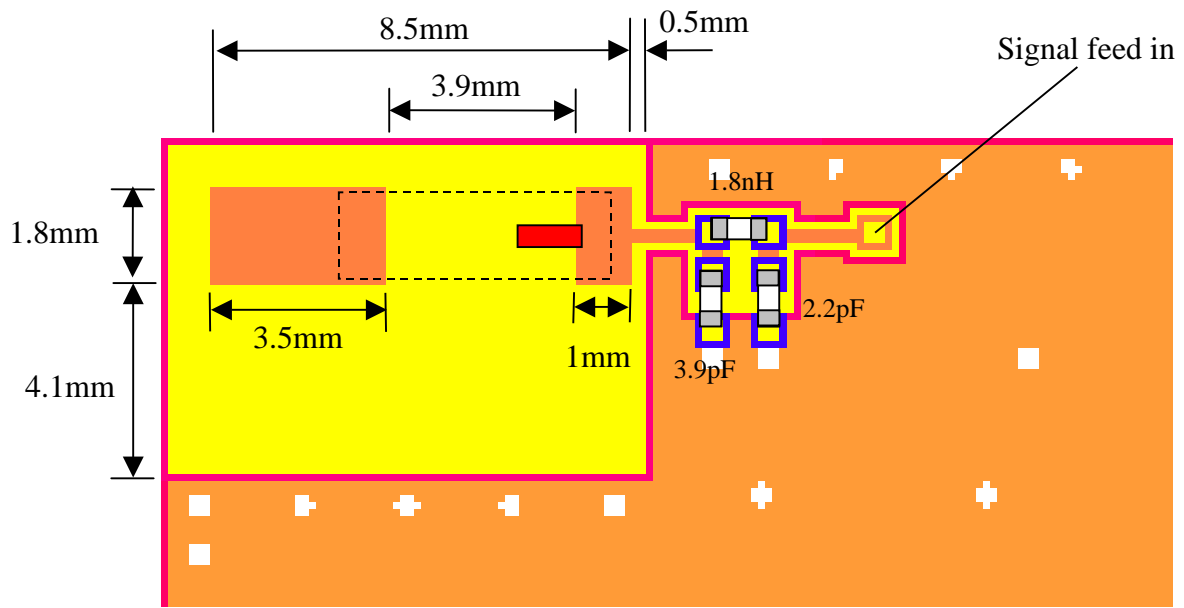
No.	Terminal Name	No.	Terminal Name
①	Feeding Point	②	NC

Dimensions and Recommended PC Board Pattern

Unit : mm



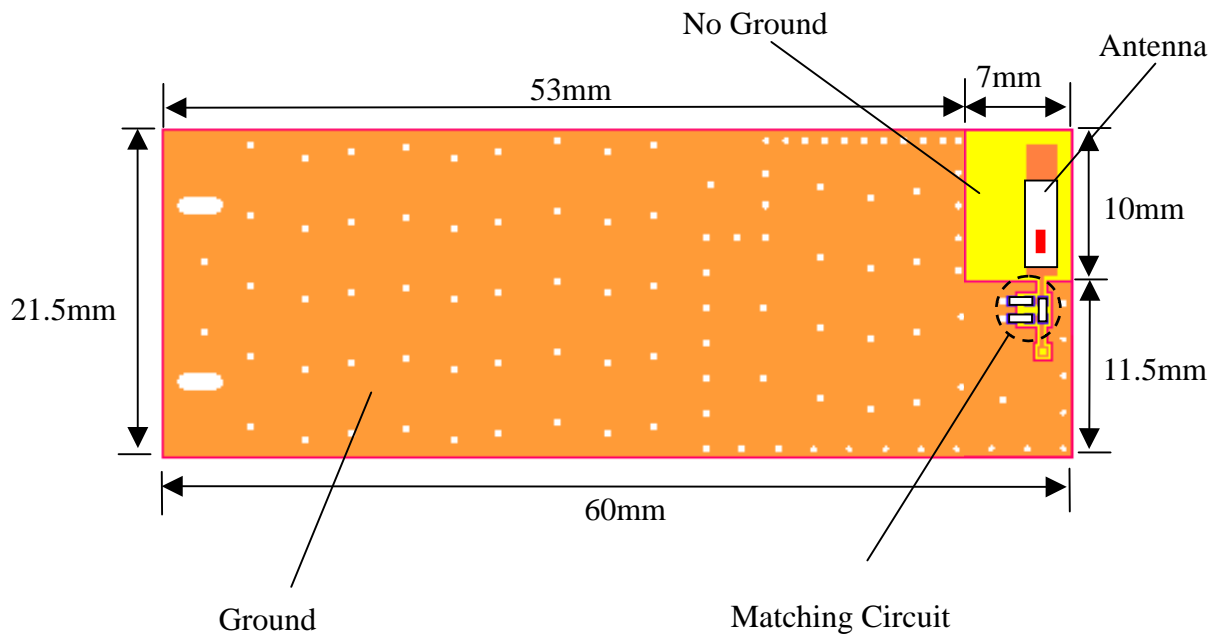
	L	W	T	a
Dimensions	5.0±0.2	2.0±0.2	1.0±0.2	0.5±0.3



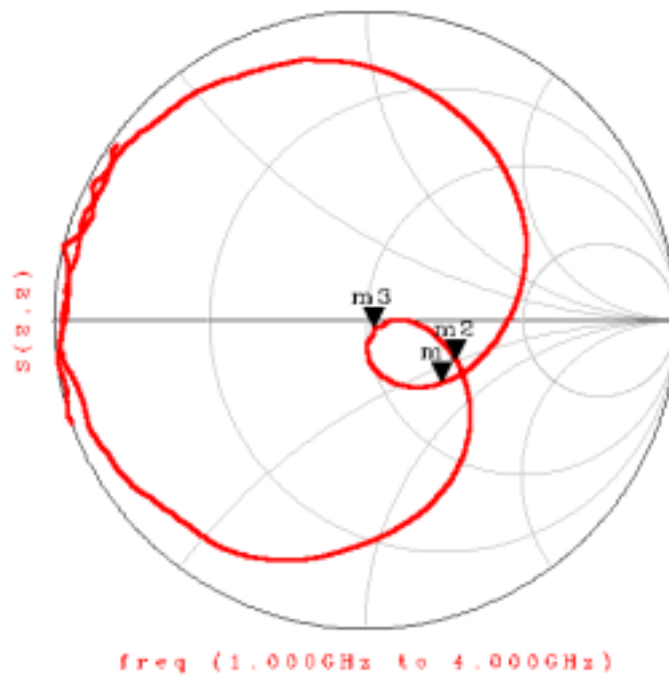
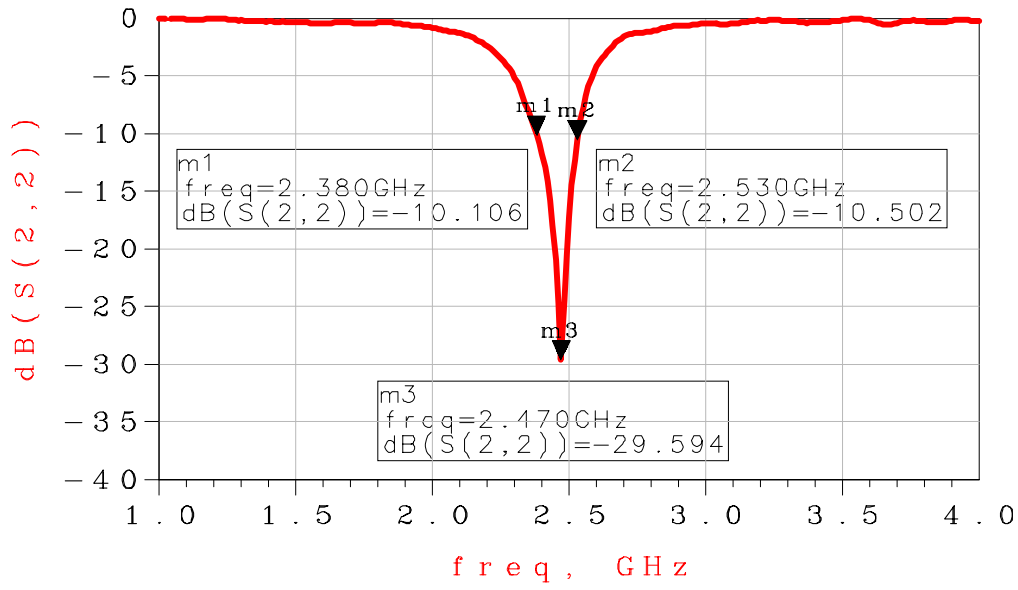
*Line width should be designed to match 50Ω characteristic impedance, depending on PCB material and thickness.

Typical Electrical Characteristics (T=25°C)

❖ Test Board

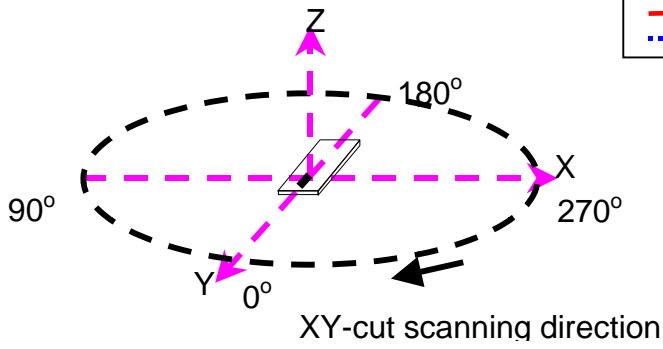


Return Loss

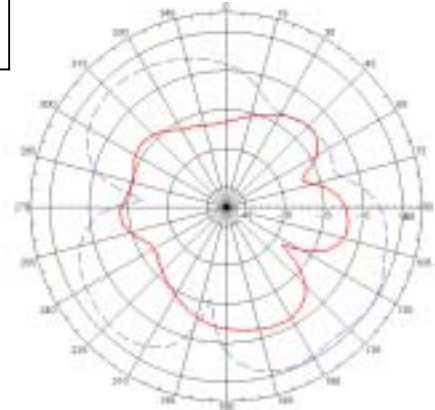


Radiation Patterns

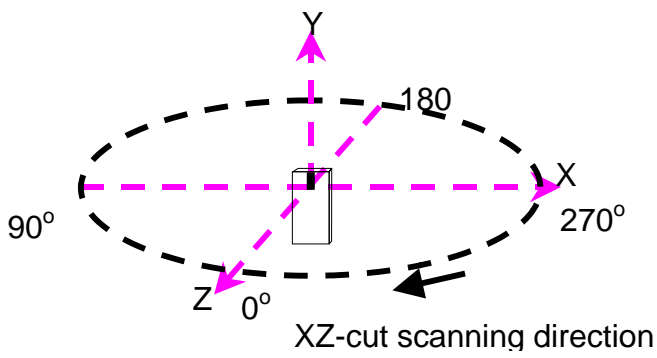
XY-V/XY-H



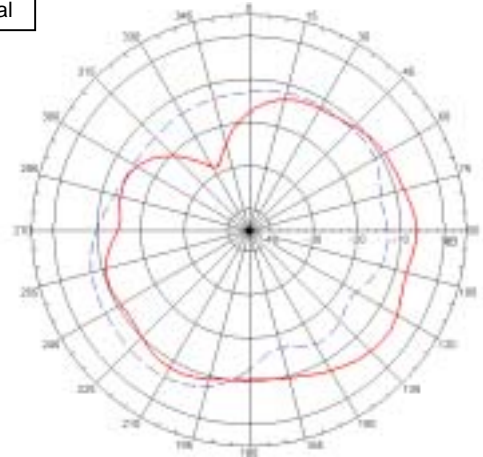
XY cut @2.45GHz
— Vertical
⋯ Horizontal



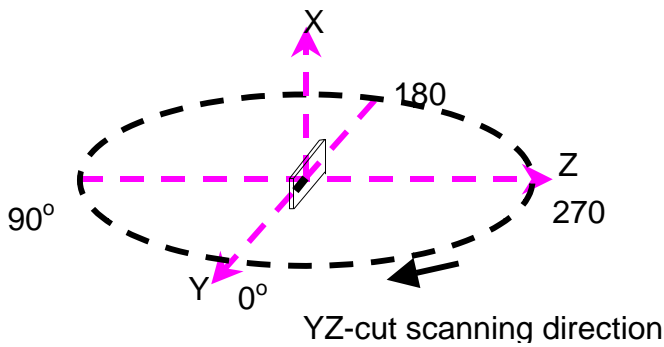
XZ-V/XZ-H



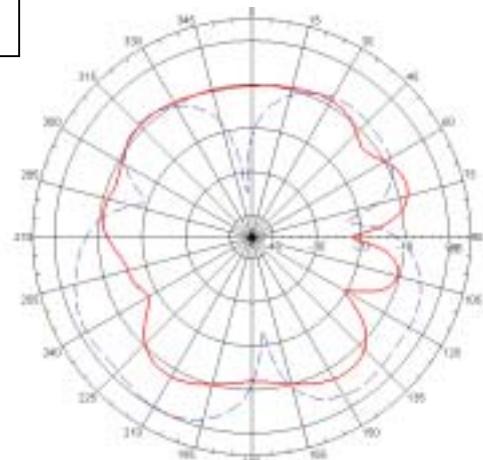
XZ cut @2.45GHz
— Vertical
⋯ Horizontal



YZ-V/YZ-H



YZ cut @2.45GHz
— Vertical
⋯ Horizontal



Maximum & Average Gain

(dBi)

	XY-V	XY-H	XZ-V	XZ-H	YZ-V	YZ-H
Maximum	-12.04	-0.3	-5.21	-5.84	-7.83	-0.21
Average	-17.22	-4.99	-10.01	-10.9	-10.51	-5.75

Advanced Ceramic X Corp.

16 Tzu Chiang Road, Hsinchu Industrial District Hsinchu Hsien 303, Taiwan

TEL:886-3-5987008 FAX:886-3-5987001

E-mail: acx@acxc.com.tw <http://www.acxc.com.tw>