

"High Frequency Ceramic Solutions"

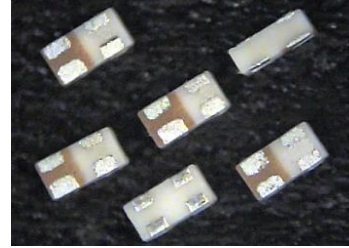
5.1 to 5.9 GHz, micro antenna optimized for PCB edge mount. Great for WiFi P/N 5500AT07A0900 and V2V (Vehicle to Vehicle communications)

Detail Specification: 10/30/2014

Page 1 of 4

General Specifications

Part Number	5500AT07A0900*			
Frequency (MHz)	5150 ~ 5850	5350 ~ 5900		
Peak Gain (dBi typ.)	0.0 (YZ-Total)	1.0 (YZ-Total)		
Average Gain (dBi typ.)	-3.0 (YZ-Total)	-1.5 (YZ-Total)		
Return Loss	6.0 dB max.	3.0 dB max.		
Power Capacity	2W max. (CW)			
Operating Temperature	-40 ~ +85 °C		Unused product (on T&R)	+5 ~ +35 °C, Humidity
Storage Temperature	-40 ~ +85 °C		recommended storage conditions	45~75%RH
Q'ty/Reel (pcs)	10,000 pcs		Storage Period	18 months max.



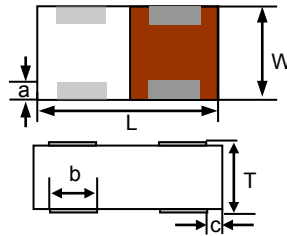
*AEC-Q200 qualifiable component.

Part Number Explanation

P/N Suffix	Packaging Style	Bulk (loose)	Suffix = S	Eg. 5500AT07A0900S
		T & R (_{10000pcs})	Suffix = T	Eg. 5500AT07A0900T
	Termination	100% Tin	Suffix = None	Eg. 5500AT07A0900(T or S)
	Evaluation Board	5500AT07A0900-EB1SMA (pre-tuned 50ohms with female SMA connector)		

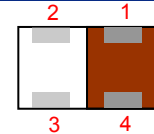
Mechanical Dimensions

	In	mm
L	0.039 ± 0.004	1.00 ± 0.10
W	0.020 ± 0.004	0.50 ± 0.10
T	0.014 Max.	0.37 Max.
a	0.006 +.004/-0.006	0.15 +0.1/-0.05
b	0.010 +.004/-0.006	0.25 +0.1/-0.05
c	0.003 +.004/-0.006	0.08 +0.1/-0.05

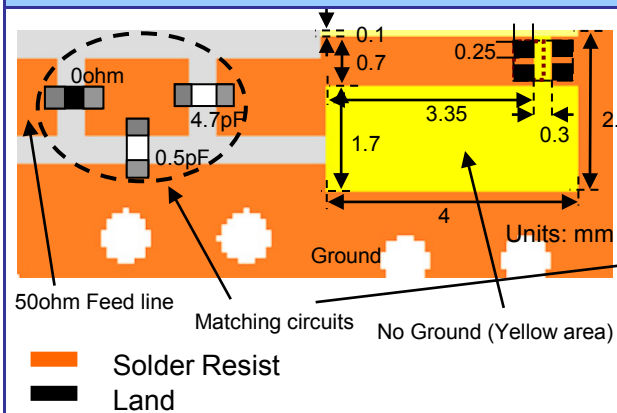


Terminal Configuration

No.	Function	No.	Function
1	Feed	3	GND
2	GND	4	Feed



Recommended PCB Pattern



•Attention: Matching circuits and component values will be different on the client's design, depending on PCB layout, geometry, etc. It is recommended that the designer leave available slots for a "pi" (or shunt-series-shunt) network. The antenna matching network values you see here are used when antenna is mounted on Johanson's evaluation board.

• Need help laying out the antenna, want us to review the design (free!), require the Gerber files for this EVB, or would like us to obtain the new tuning values of your PCB (fee may apply)? Go to: www.johansontechnology.com/component/techquestion

• More antenna support info at: www.johansontechnology.com/ipcantennaservices

Johanson Technology, Inc. reserves the right to make design changes without notice.

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Ver 1.0

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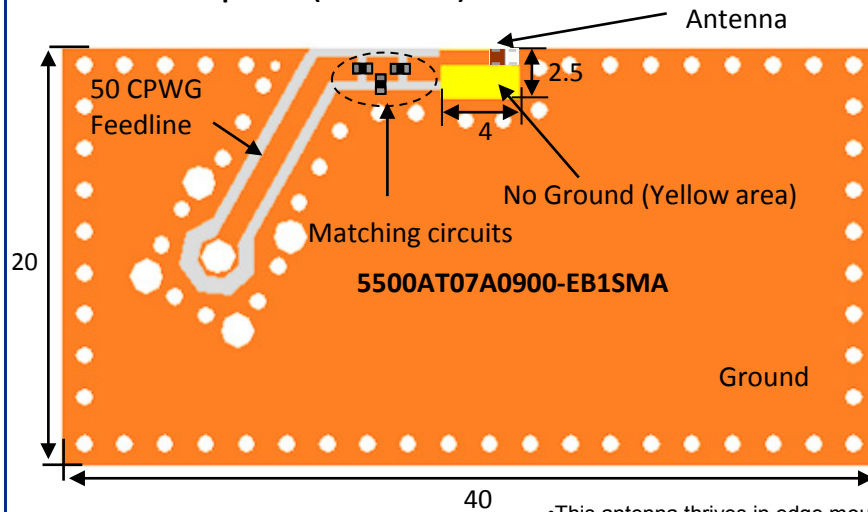
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Page 2 of 4

Johanson Evaluation Board Dimension and Characteristics of the antenna design

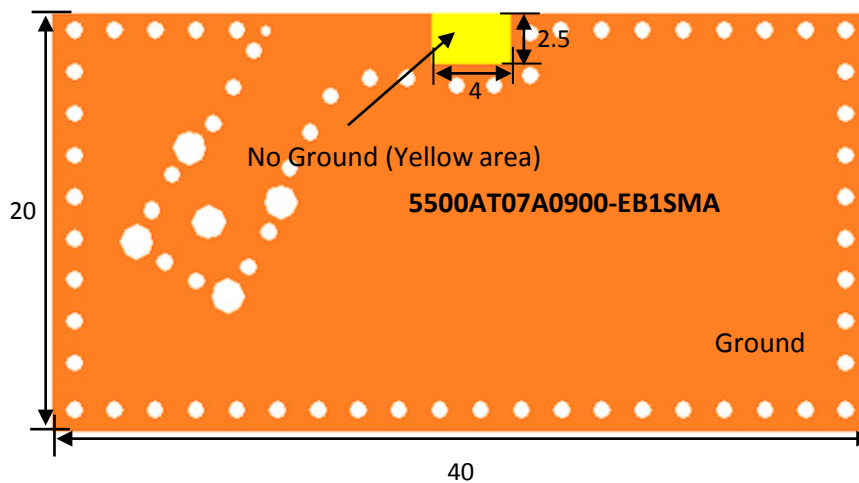
Test Board-Top View (Unit in mm)



EVB Orderable p/n:
5500AT07A0900-EB1SMA

•This antenna thrives in edge mount, middle of the PCB placements. It may also be placed at corners, the operation won't be at its full potential though. We have corner-specific 5GHz antennas here: www.johansontechnology.com/antennas

Test Board-Bottom View (Units in mm)



EVB Orderable p/n:
5500AT07A0900-EB1SMA

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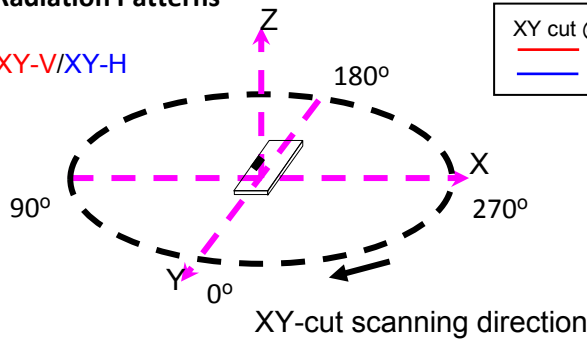
Detail Specification: 10/30/2014

Page 3 of 4

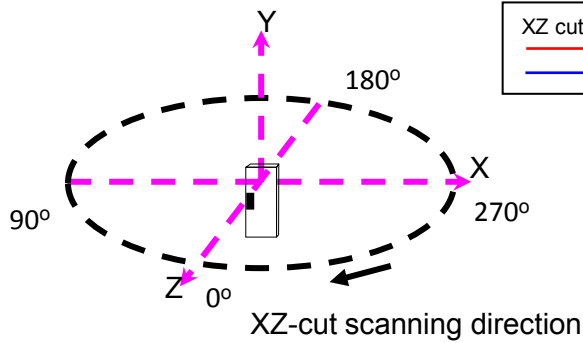
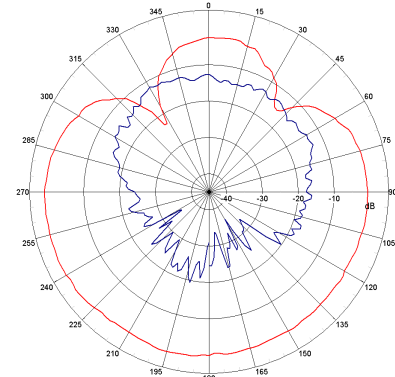
Typical Radiation Patterns @25°C

Radiation Patterns

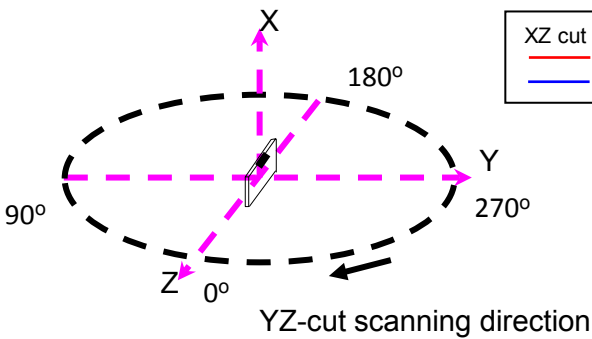
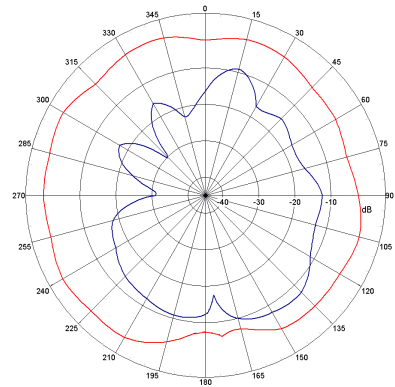
XY-V/XY-H



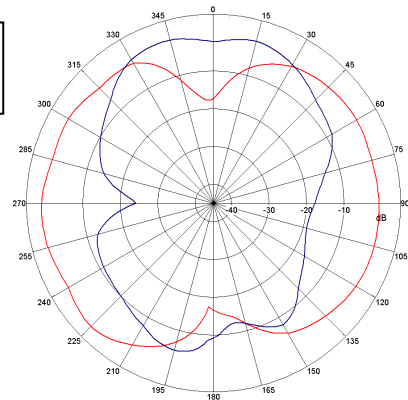
XY cut @5.5GHz
 — Vertical
 — Horizontal



XZ cut @5.5GHz
 — Vertical
 — Horizontal



XZ cut @5.5GHz
 — Vertical
 — Horizontal



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