Limited Web Version

"High Frequency Ceramic Solutions"

802.11 Dual Band 2.45/5 GHz Mini Chip Antenna. WiFi, WLAN, IoT **P/N 2450AD14A5500**

Detail Specification: 11/6/2018

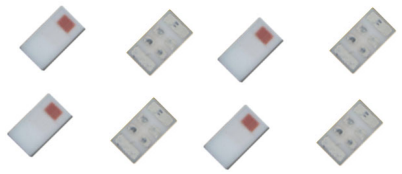
This is the Web version of this datasheet, for the full datasheet, please contact us at: https://www.johansontechnology.com/ask-a-question

General Specifications

Part Number	2450AD14A5500	
Frequency (MHz)	2400 - 2480	5150 - 5850
Ave. Rad Efficiency	60%	80%
Peak Gain (dBi typ.)	1.0 dBi typ. (XZ-Total)	4.0 dBi typ. (XZ-Total)
Average Gain (dBi typ.)	-3.5 dBi typ. (XZ-Total)	-2.5 dBi typ. (XZ-Total)
Return Loss (dB)	6 min.	6 min.
Impedance	50 Ω	
Input Power	2 Watts max. (CW)	

Let us help you with the antenna design, optimization, and tuning!

https://www.johansontechnology.com/ipc-antenna-services



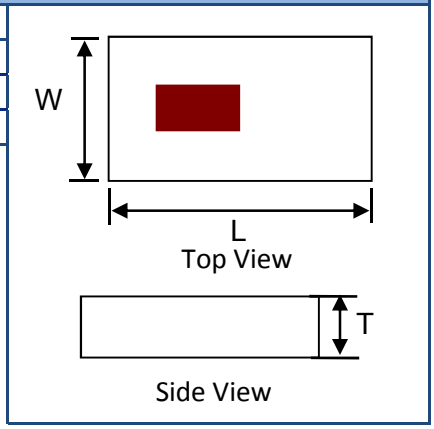
Storage Period	18 months max.
Storage Temperature	-40 to +85°C
Operating Temperature	-40 to +85°C
Reel Quantity	4000pcs

Part Number Explanation

P/N Suffix	**Packing Style**	Bulk (loose)	Suffix = S	e.g. 2450AD14A5500S
		T & R	Suffix = T	e.g. 2450AD14A5500T
		100% Tin	Suffix = T or S	e.g. 2450AD14A5500(T or S)
	Evaluation Board	2450AD14A5500-EB1SMA & 2450AD14A5500-EB2SMA		

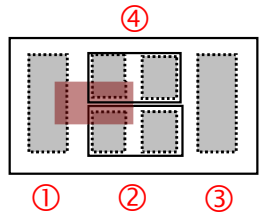
Mechanical Dimensions

	In	mm
L	0.063 ± 0.004	1.60 ± 0.10
W	0.031 ± 0.004	0.80 ± 0.10
T	0.016 max.	0.40 max.



Terminal Configuration

No.	Function
1	GND
2	FEED
3	NC
4	NC



Top View looking "through" the component

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As a bonus, you'll be assigned an RF Engineer to assist you in the design for free!

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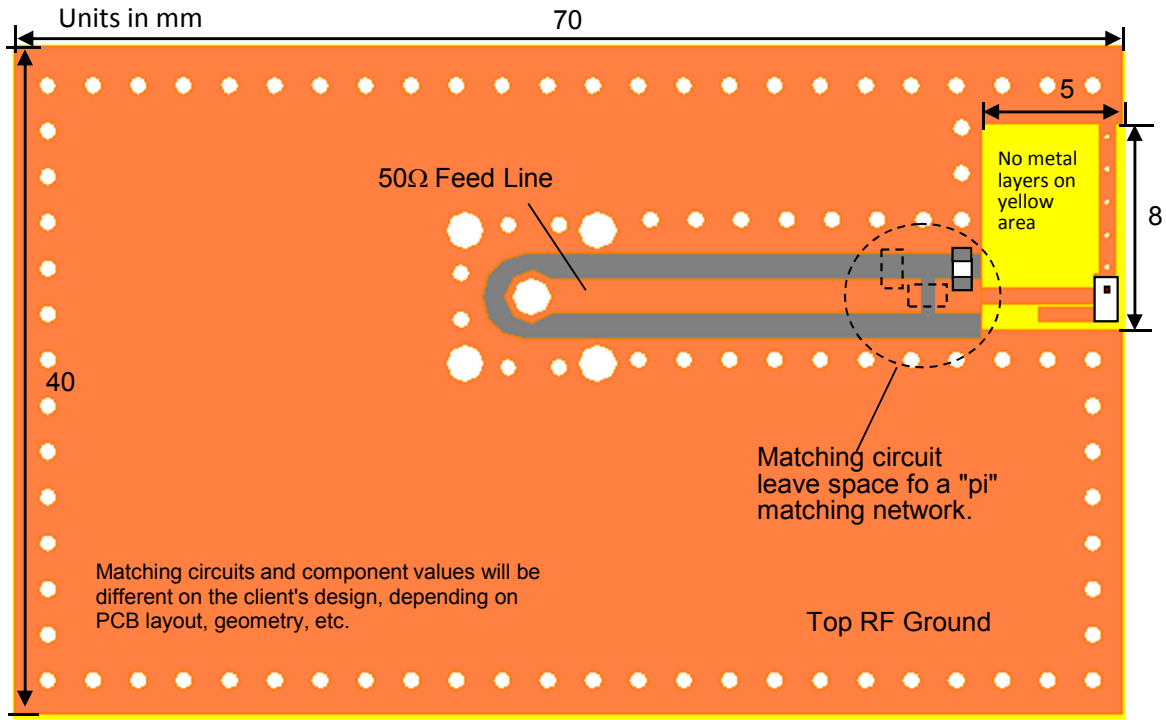
Mounting Considerations 1: Evaluation Board, 65x70mm (Scenario 1 Terminal Configuration)



To order the ABOVE pre-tuned 50Ω EVB with a female SMA connector click here: https://www.johansontechnology.com/request-a-sample

Would you like the layout file of the above? Have antenna tuning issues?
Please contact us if you have any questions regarding the implementation of this antenna in your PCB's layout. We'll be happy to guide you to maximize the antenna's performance.

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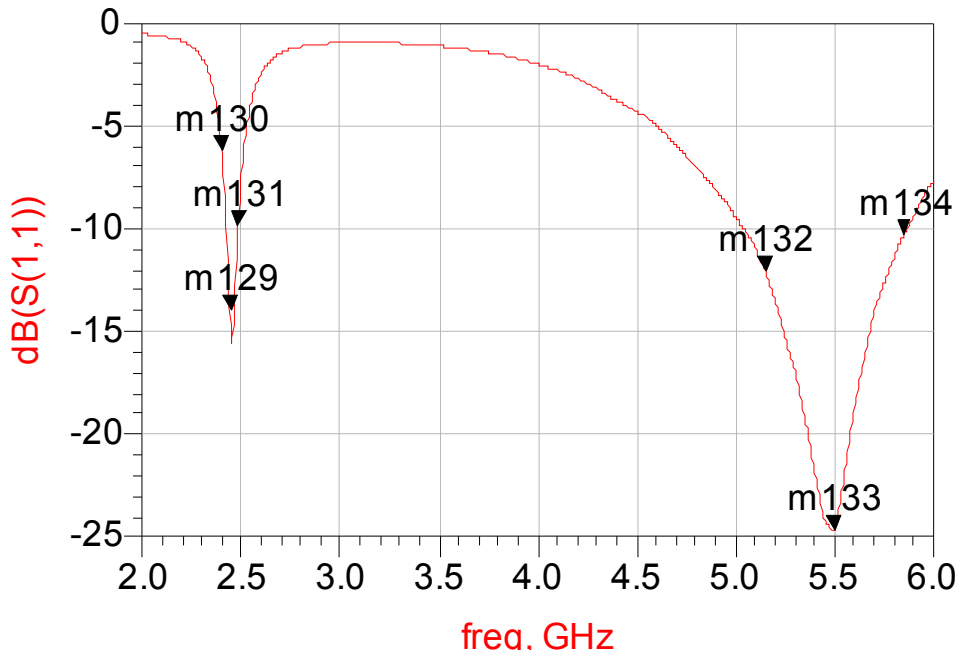
Mounting Considerations 2: Typical Electrical Performance (T=25°C)



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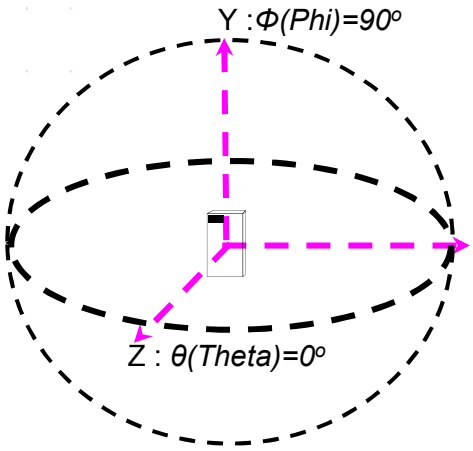
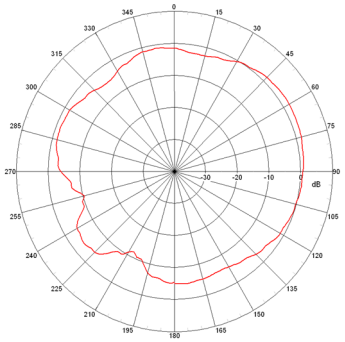
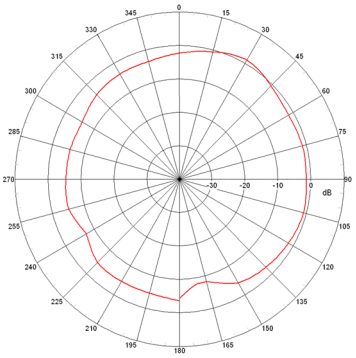
Typical EM Radiation Performance @ 2.44GHz (T=25°C)



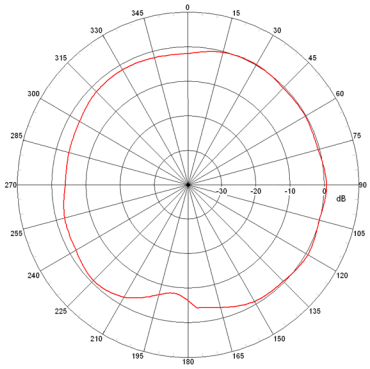
XY-plane @2440MHz
Total



XZ-plane @2440MHz
Total



YZ-plane @2440MHz
Total



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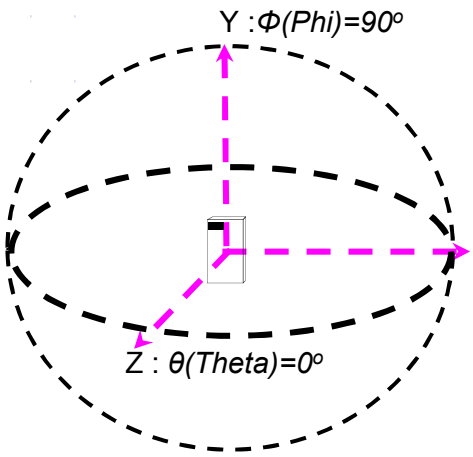
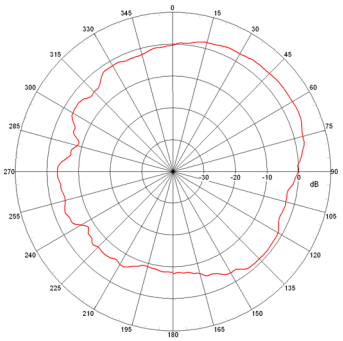
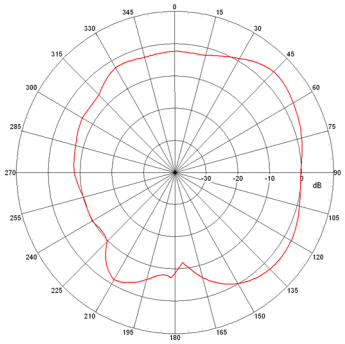
Typical EM Radiation Performance @ 5.50 GHz (T=25°C)



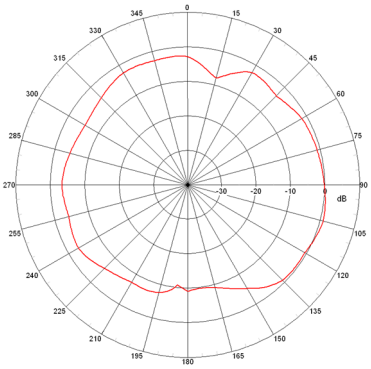
XY-plane @5500MHz
Total



XZ-plane @5500MHz
Total



YZ-plane @5500MHz



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2 Free layout reviews and if you need us to tune and characterize the antenna on your product (inside anechoic chamber) we can do that too. Small lab fee may apply for the latter.

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