

# "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

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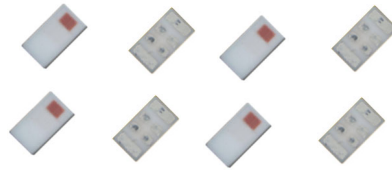
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## General Specifications

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

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

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



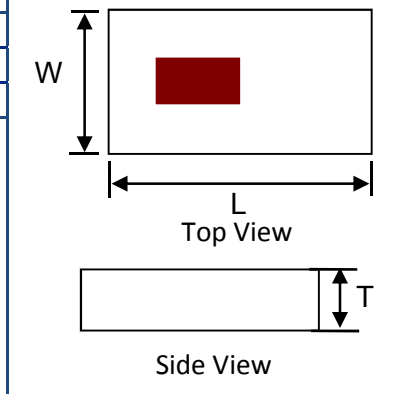
<b>Storage Period</b>	18 months max.
<b>Storage Temperature</b>	-40 to +85°C
<b>Operating Temperature</b>	-40 to +85°C
<b>Reel Quantity</b>	4000pcs

## 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)
<b>Evaluation Board</b>		2450AD14A5500-EB1SMA & 2450AD14A5500-EB2SMA		

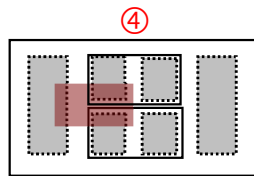
## Mechanical Dimensions

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



## Terminal Configuration

No.	Function
1	GND
2	FEED
3	NC
4	NC



Top View looking "through" the component

If you'd like the complete datasheet which includes detailed gain performance, layout guidelines, application notes, small WiFi application layout, send us as message at:

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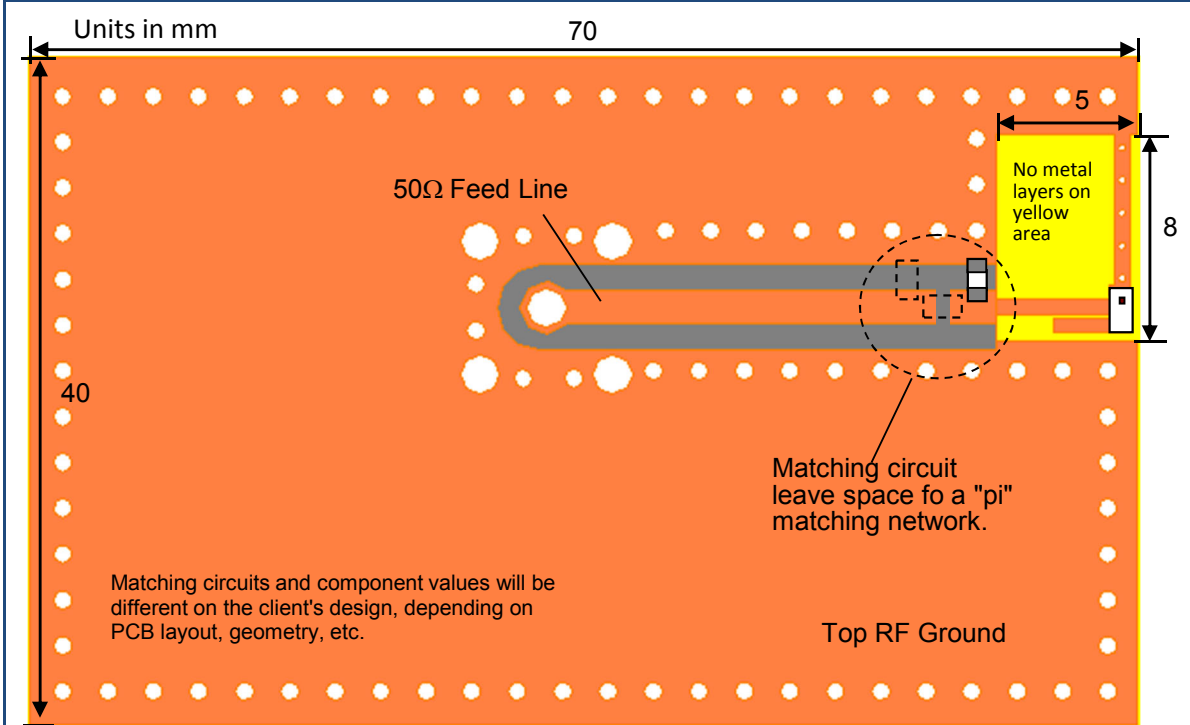
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## Mounting Considerations 1: Evaluation Board, 65x70mm (Scenario 1 Terminal Configuration)



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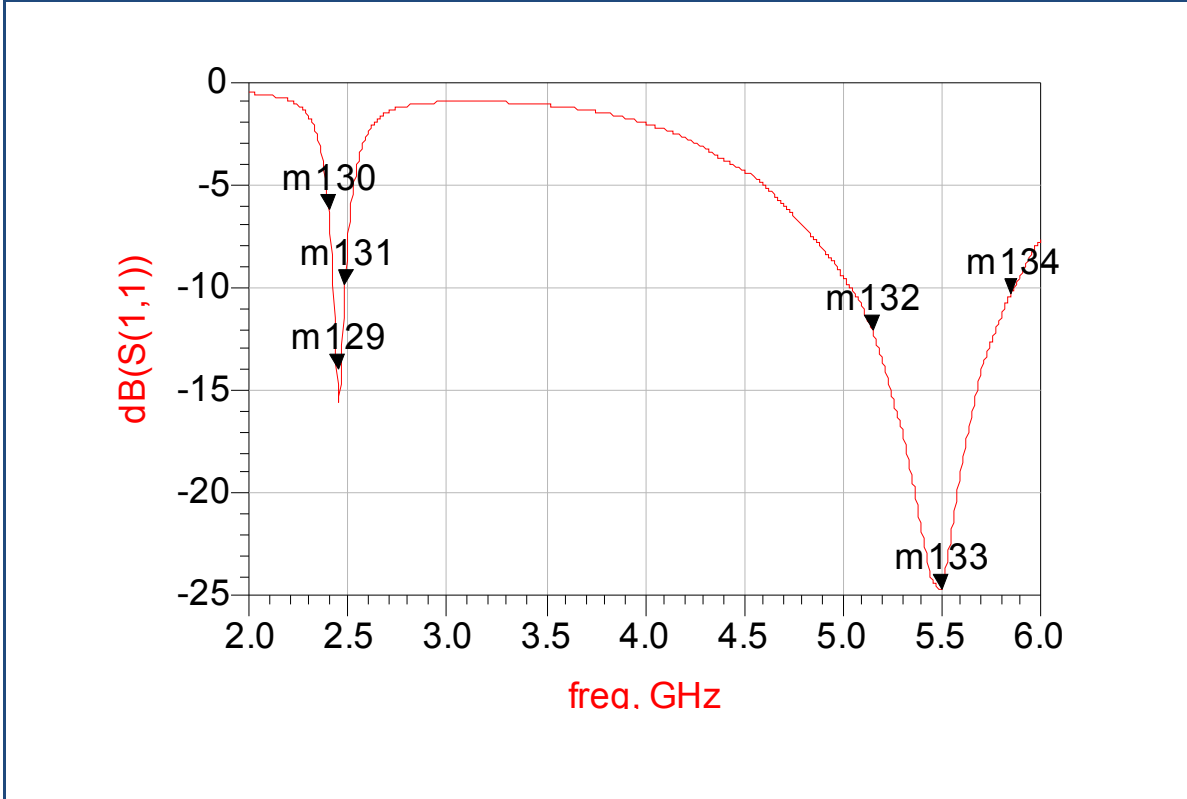
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## Mounting Considerations 2: Typical Electrical Performance (T=25°C)



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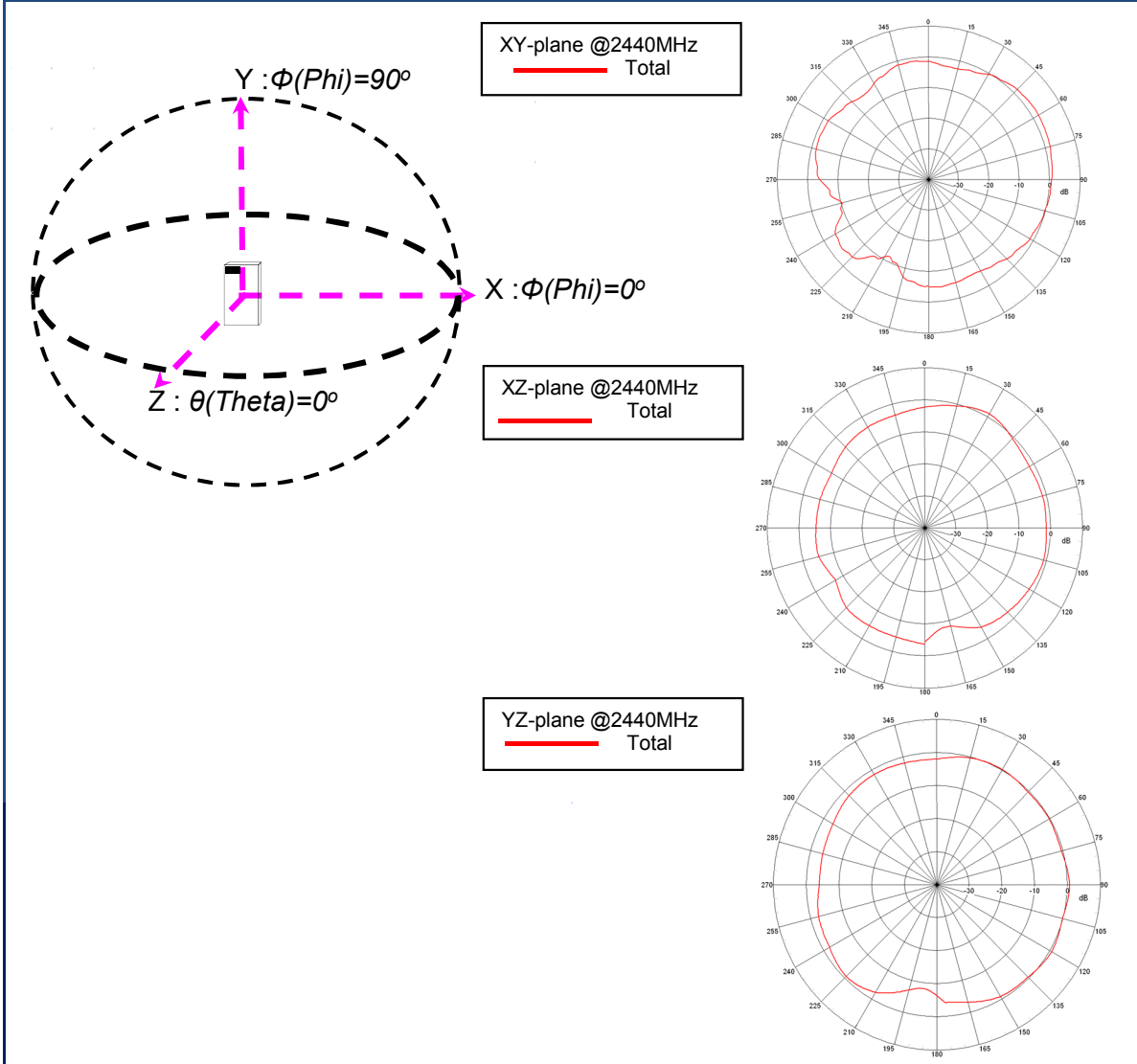
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## Typical EM Radiation Performance @ 2.44GHz (T=25°C)



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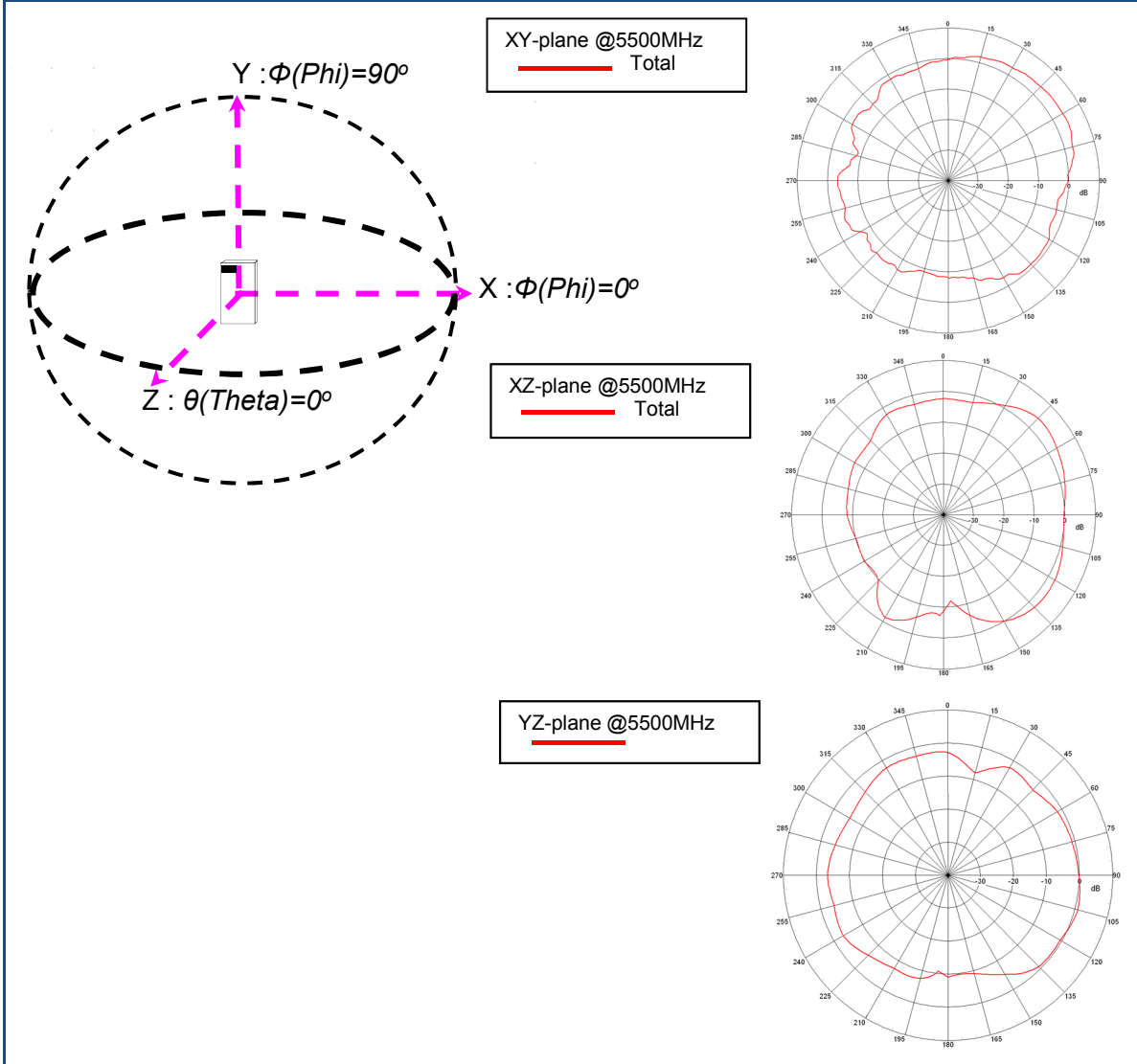
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## Typical EM Radiation Performance @ 5.50 GHz (T=25°C)



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## Antenna tuning, optimization, and validation services:

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

## For more antennas and to download measured S-parameters, go to:

<https://www.johansontechnology.com/antennas>

## For more information about our diplexers:

<https://www.johansontechnology.com/diplexers>

## Soldering Information

<https://www.johansontechnology.com/ipcsoldering-profile>

## MSL Info

<https://www.johansontechnology.com/msl-rating>

## Packaging information

<https://www.johansontechnology.com/tape-reel-packaging>

## For layout review contact our Applications Team at:

<https://www.johansontechnology.com/ask-a-question>

## RoHS Compliance

<https://www.johansontechnology.com/rohs-compliance>

Need help designing the antenna in? Use our antenna design services!

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

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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