

# "High Frequency Ceramic Solutions"

**802.11 Dual Band 2.45/5 GHz Mini Chip Antenna. WiFi, Wireless LAN, I P/N 2450AD14A5500**

Detail Specification: 10/26/2017

Page 1 of 6

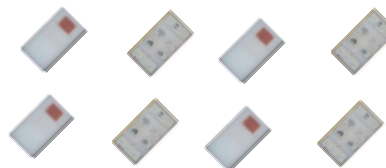
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## General Specifications

<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!

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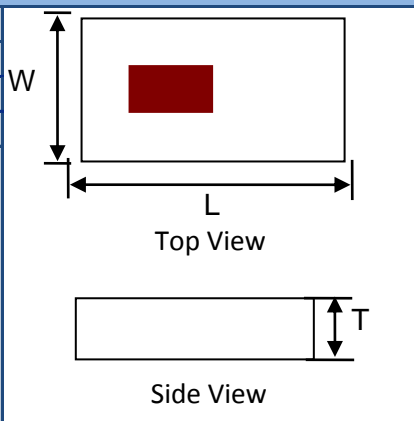
<b>Storage Period</b>	18 months max.
<b>Storage Temperature</b>	-40 to +85°C
<b>Operating Temperature</b>	-40 to +85°C
<b>Reel Quantity</b>	4000

## 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
<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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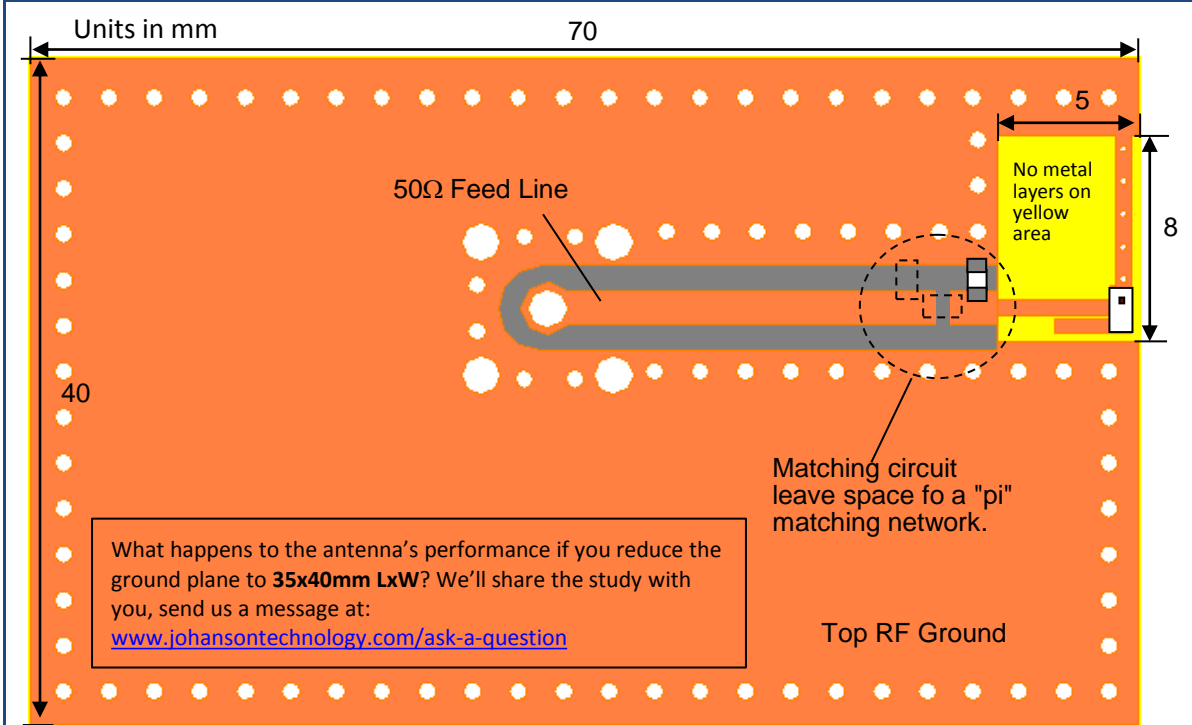
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Detail Specification: 10/26/2017

Page 2 of 7

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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: [www.johansontechnology.com/request-a-sample](http://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.

Contact our applications engineers at:

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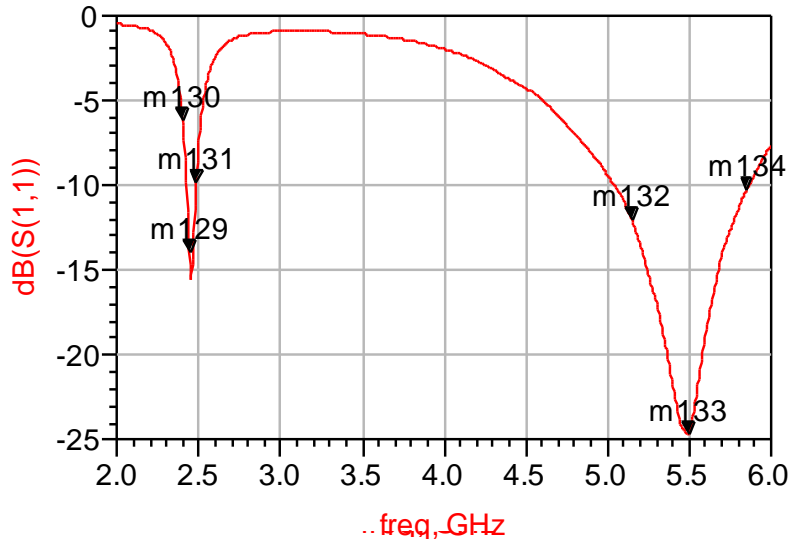
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Detail Specification: 10/26/2017

Page 3 of 6

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



m130 freq=2.400GHz dB(S(1,1))=-6.202	m129 freq=2.442GHz dB(S(1,1))=-14.010	m131 freq=2.484GHz dB(S(1,1))=-9.880
m132 freq=5.150GHz dB(S(1,1))=-12.066	m133 freq=5.500GHz dB(S(1,1))=-24.657	m134 freq=5.850GHz dB(S(1,1))=-10.323

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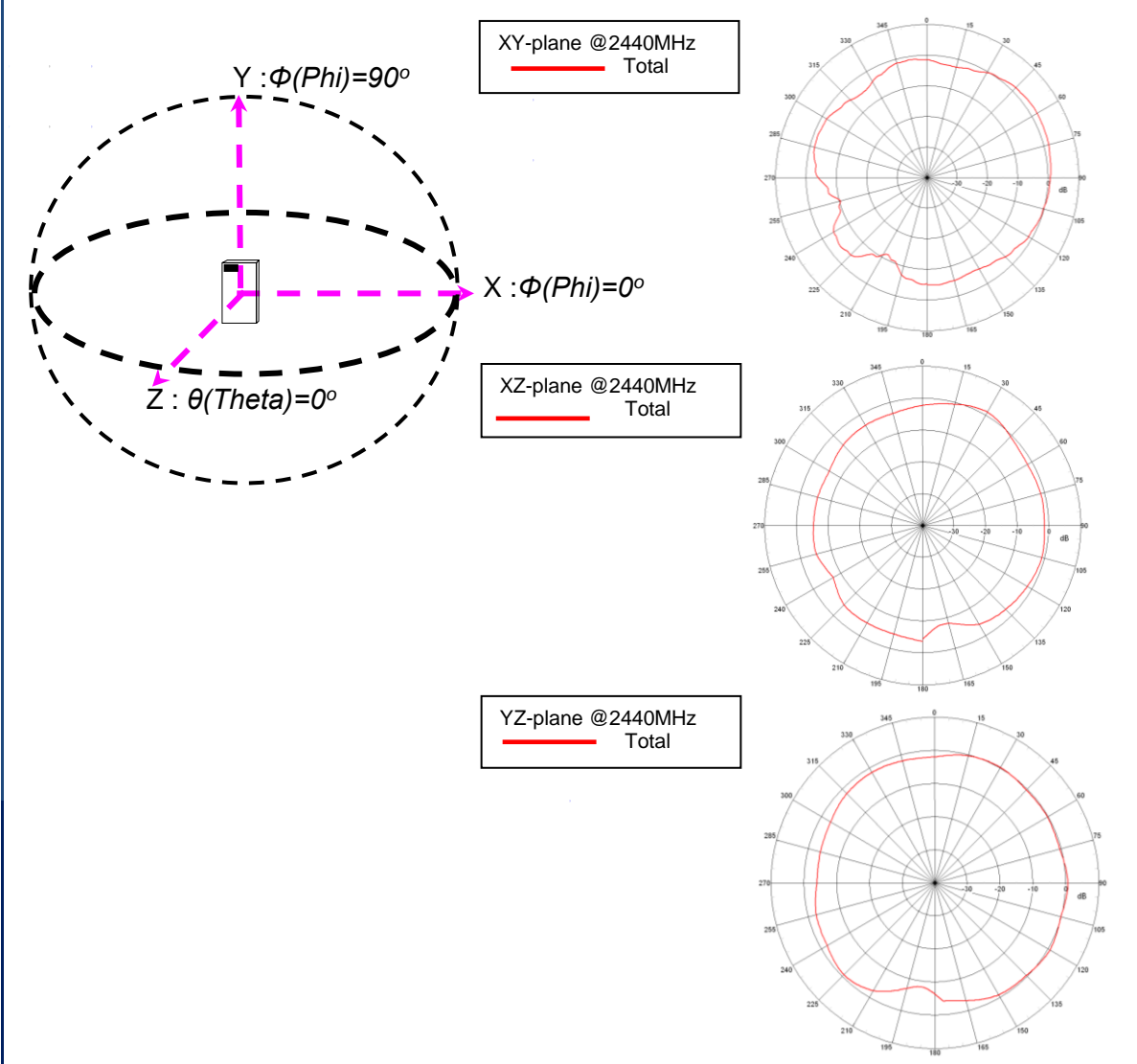
## 802.11 Dual Band 2.45/5 GHz Mini Chip Antenna. WiFi, Wireless LAN, IoT P/N 2450AD14A5500

Detail Specification: 10/26/2017

Page 4 of 6

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



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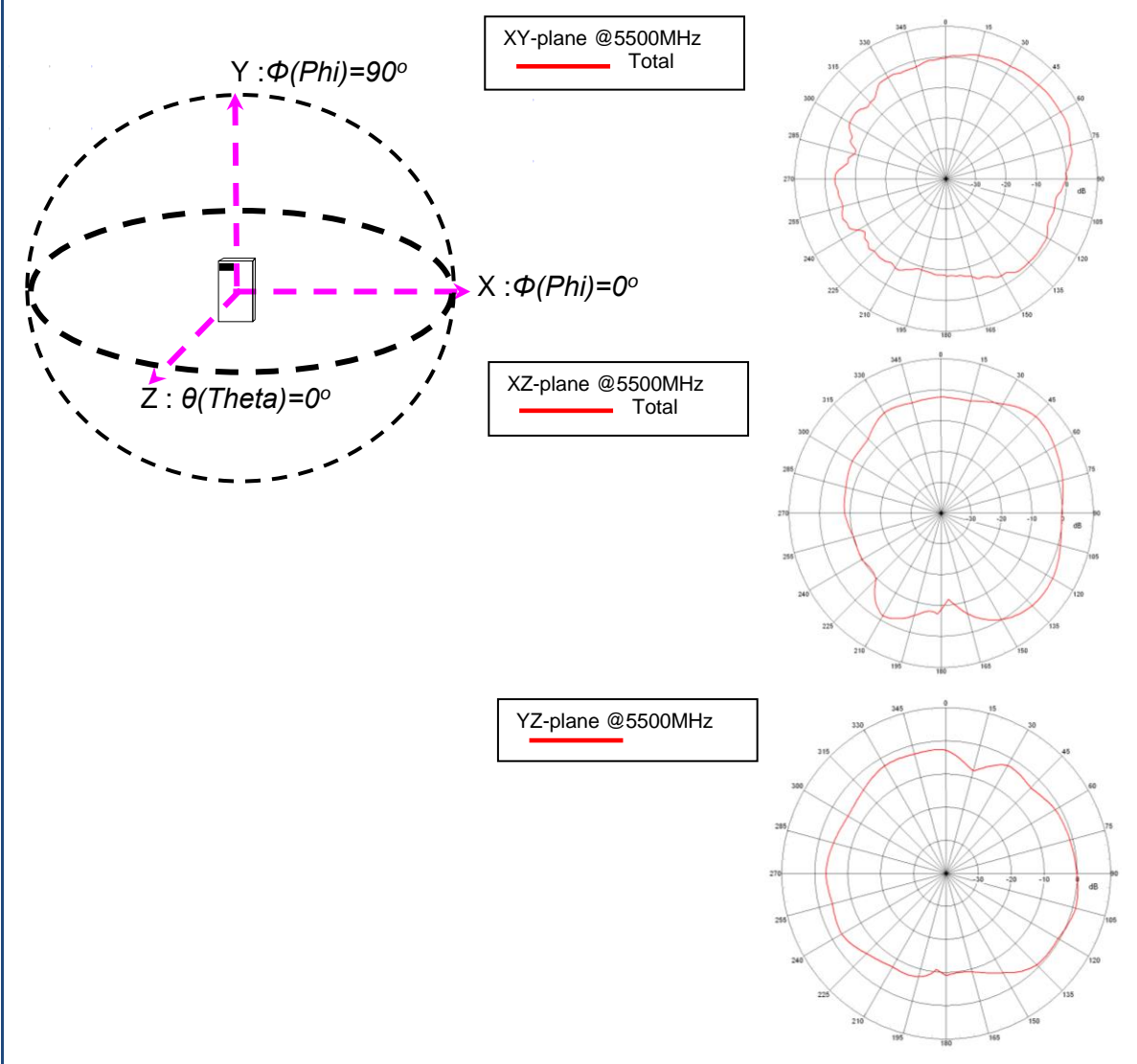
## 802.11 Dual Band 2.45/5 GHz Mini Chip Antenna. WiFi, Wireless LAN, IoT P/N 2450AD14A5500

Detail Specification: 10/26/2017

Page 5 of 6

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



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Page 6 of 6

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

[www.johansontechnology.com/antennas](http://www.johansontechnology.com/antennas)

### For more information about our diplexers:

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### Soldering Information

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### MSL Info

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### Packaging information

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### For layout review contact our Applications Team at:

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### RoHS Compliance

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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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