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With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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"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

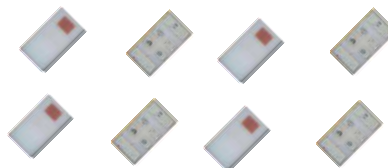
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General Specifications

| | | |
|--------------------------------|--------------------------|--------------------------|
| 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!

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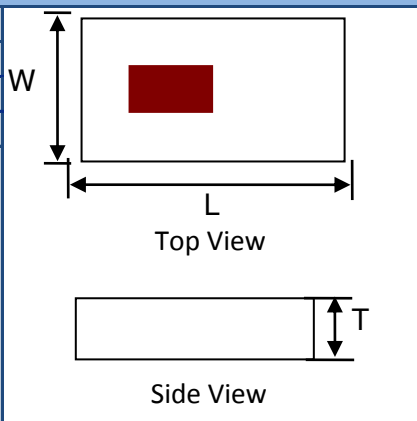
| | |
|------------------------------|----------------|
| Storage Period | 18 months max. |
| Storage Temperature | -40 to +85°C |
| Operating Temperature | -40 to +85°C |
| Reel Quantity | 4000 |

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 |
|----------|---------------|-------------|
| 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

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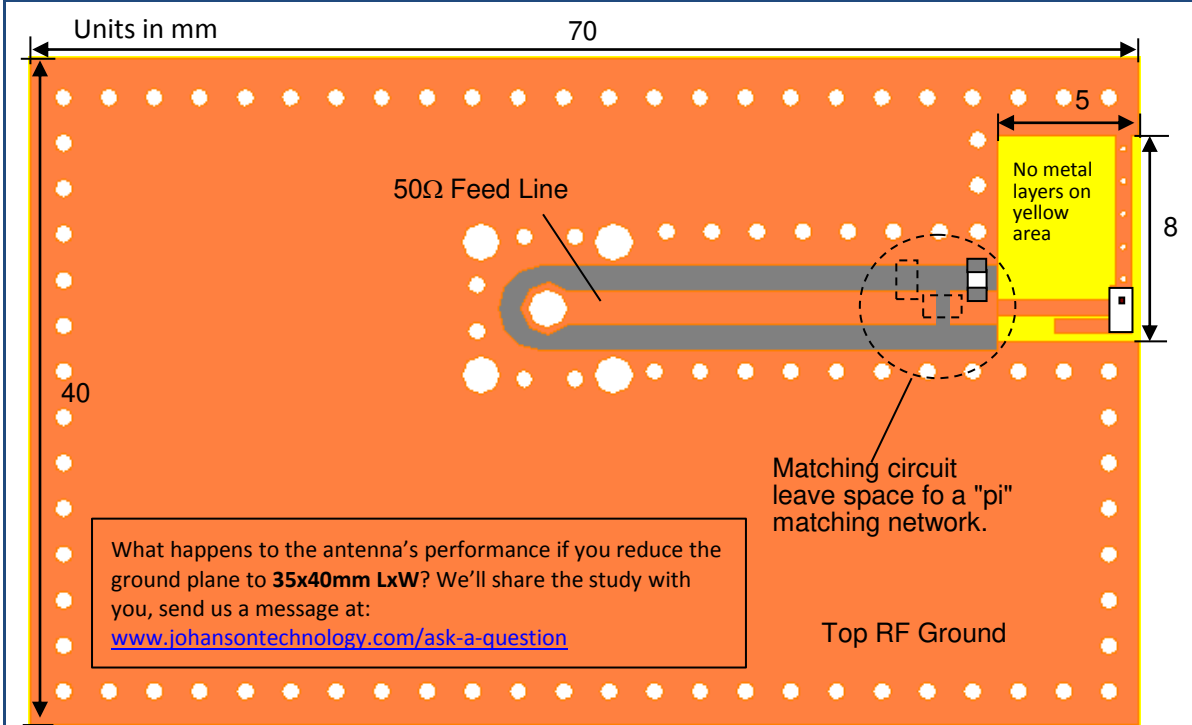
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Mounting Considerations 1: Evaluation Board, 65x70mm (Scenario 1 Terminal Configuration)



To order teh ABOVE pre-tuned 50Ω EVB with a female SMA connector click here: 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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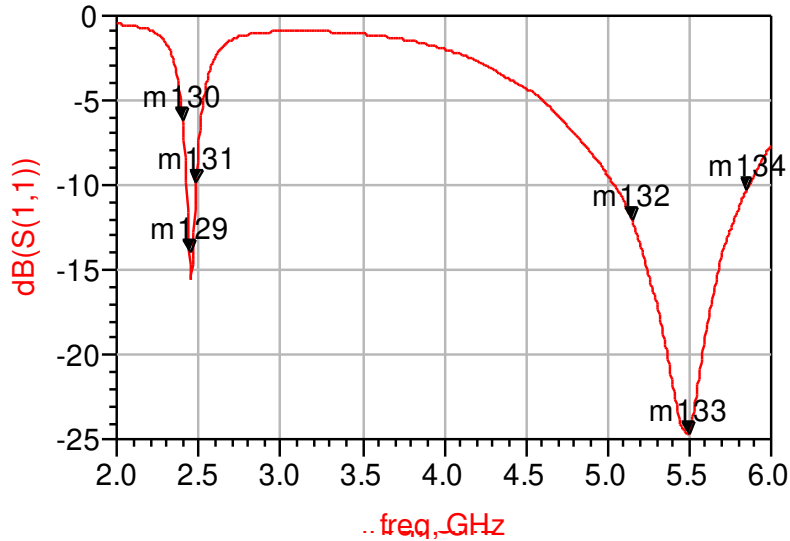
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Mounting Considerations 2: Typical Electrical Performance (T=25°C)



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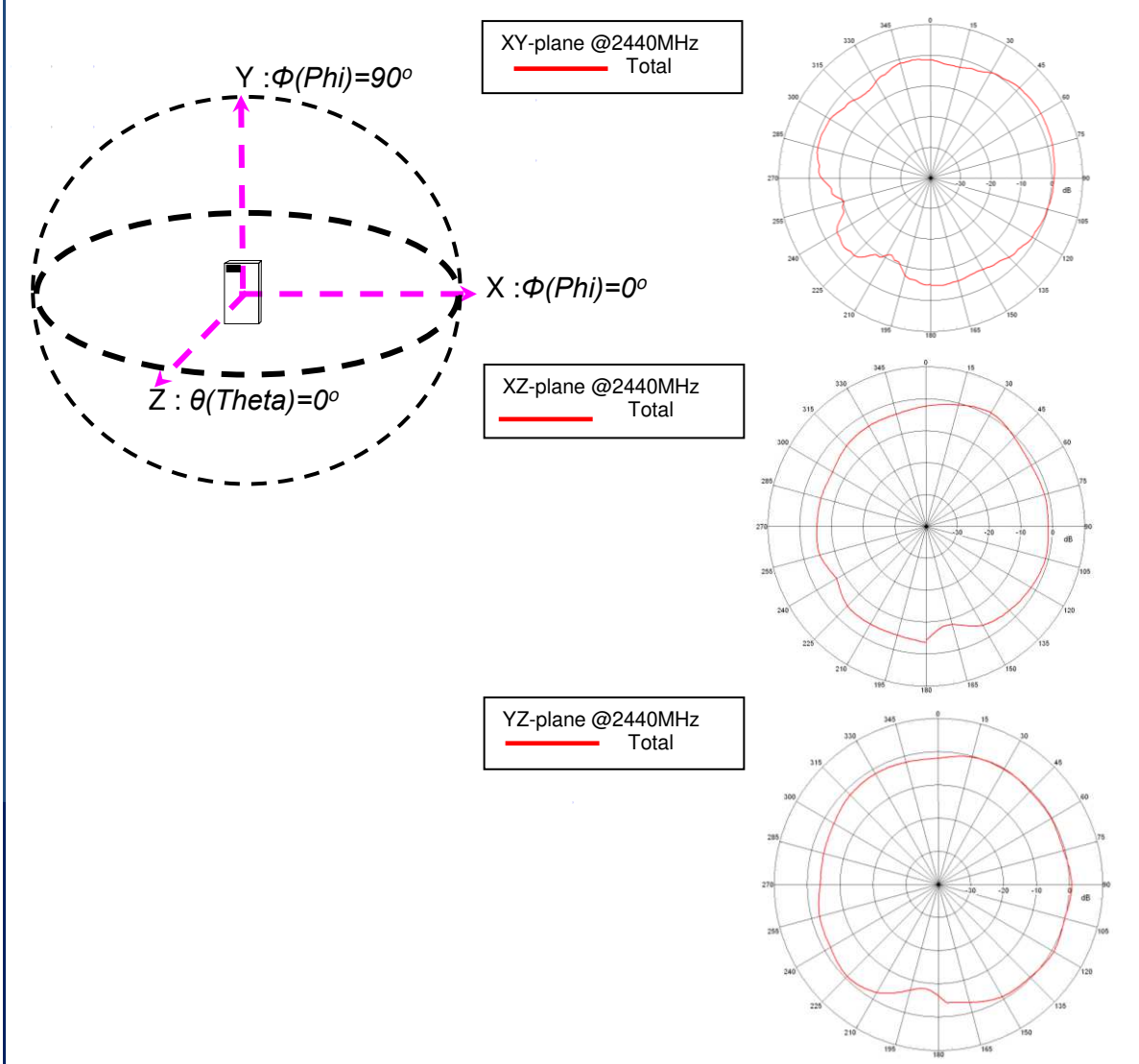
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Typical EM Radiation Performance @ 2.44GHz (T=25°C)



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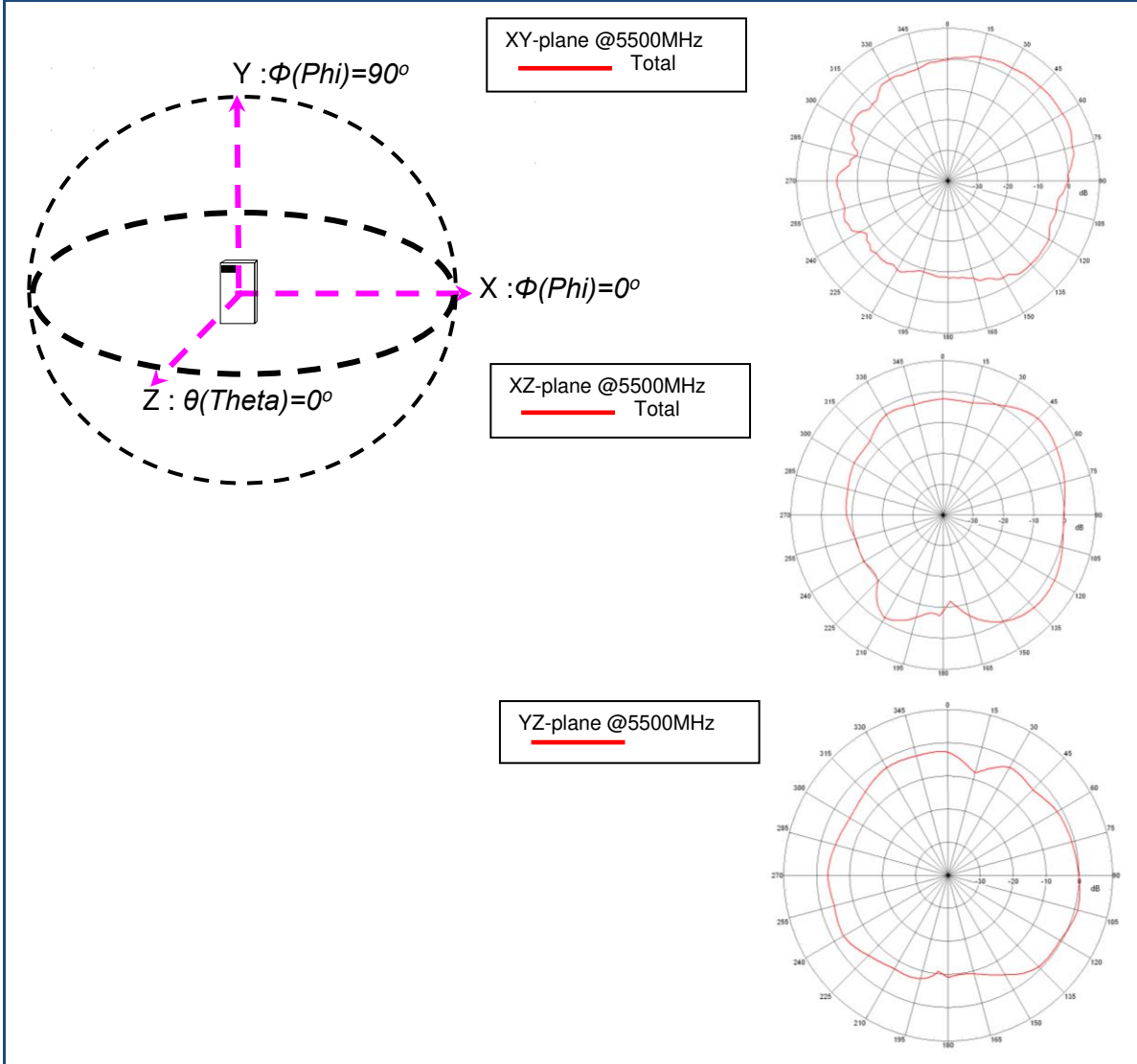
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Typical EM Radiation Performance @ 5.50 GHz (T=25°C)



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

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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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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