

"High Frequency Ceramic Solutions"

2.45 GHz SMD Antenna, EIA 1210, Detuning resilient, Edge Mount

P/N 2450AT18D0100

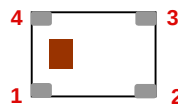
Detail Specification: 3/10/2014

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General Specifications

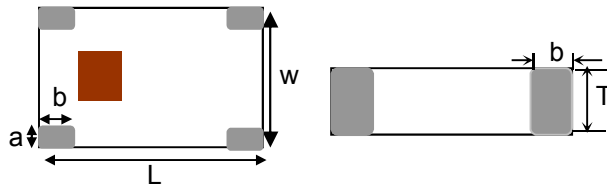
Part Number	2450AT18D0100	Input/Output Power	2W max. (CW)
Frequency (MHz)	2400 - 2500	Impedance	50 Ω
Peak Gain	1.5 dBi typ. (XZ-total)	Reel Quantity	3,000
Average Gain	-1.0 dBi typ. (XZ-total)	Recommended Storage Conditions	+5 ~ +35 °C, Humidity 45~75%RH, 18 mos. Max
Return Loss	10.0 dB min.		
Operating Temperature	-40 to +85°C		

No	Terminal Function	
1	Feeding Point	3 GND
2	GND	4 GND



Mechanical Specifications

	In	mm
L	0.126 $\pm$ 0.008	3.20 $\pm$ 0.20
W	0.063 $\pm$ 0.008	1.60 $\pm$ 0.20
T	0.047 $\pm$ 0.008	1.20 $\pm$ 0.20
a	0.012 $\pm$.004/-0.008	0.30 $\pm$ 0.1/-0.2
b	0.020 $\pm$ 0.008	0.50 $\pm$ 0.20



Mounting Considerations

Mount these devices with red mark facing up.

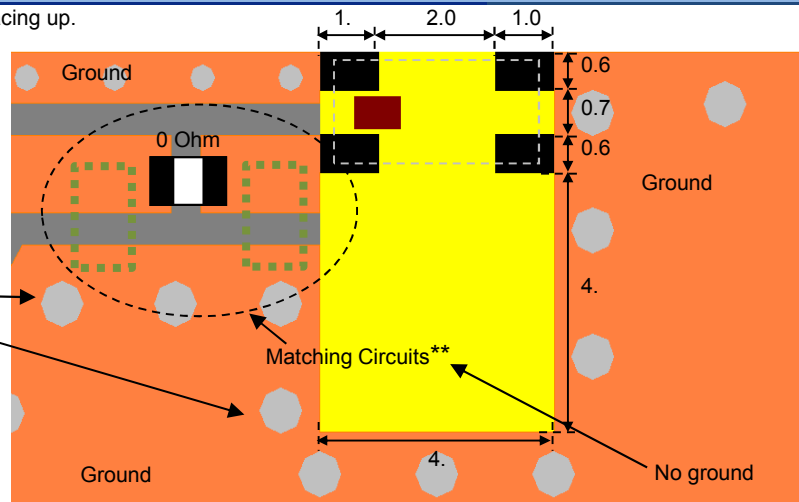
Solder Resist

Land

50 Ω Trace

GND Vias

Want the layout file of this antenna?
Send us a message at:
www.johansontechnology.com/component/techquestion



**It is recommended that the designer leave available slots for a "pi" (or shunt-series-shunt) network. The antenna matching network values above are used when antenna is mounted on Johanson's evaluation board. The matching values on client's PCB will be different. Go to:

<http://johansontechnology.com/tuning> and see how to obtain the new values.

If you need further help and would like us to do the tuning and characterization, go to:

www.johansontechnology.com/ipcantennaservices
(nominal lab fee may apply)



www.johansontechnology.com

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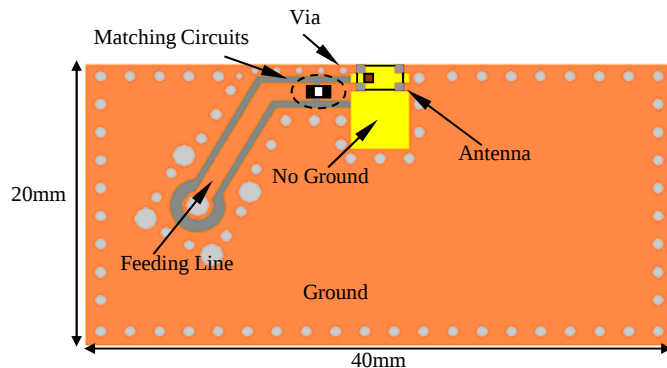
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Mounting Considerations



Orderable EVB p/n (comes with 1 female SMA connector mounted on the opposite side):

2450AT18D0100-EB1SMA

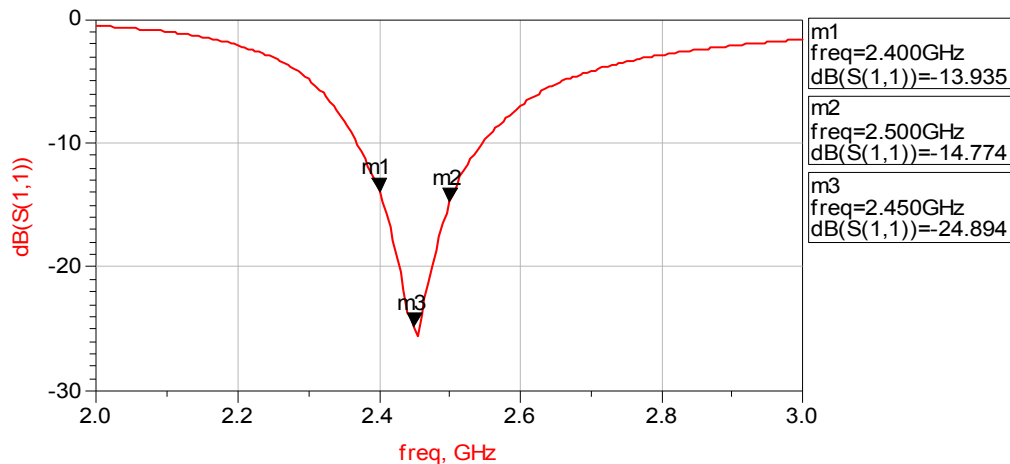
We offer 2 free layout reviews as well as antenna tuning and characterization services (lab fee may apply). Go to: www.johansontechnology.com/ipcantennaservices for more info

Want the layout file of the above? Send us a message at: www.johansontechnology.com/component/techquestion

To order a pre-tuned 50Ω EVB with a female SMA connector Click here: www.johansontechnology.com/component/samplerequest

Reference p/n: 2450AT18D0100-EB1SMA

Typical Electrical Performance (T=25°C)



Johanson Technology, Inc. reserves the right to make design changes without notice. Please confirm the specifications and delivery conditions when placing your order. All sales are subject to Johanson Technology, Inc. terms and conditions.



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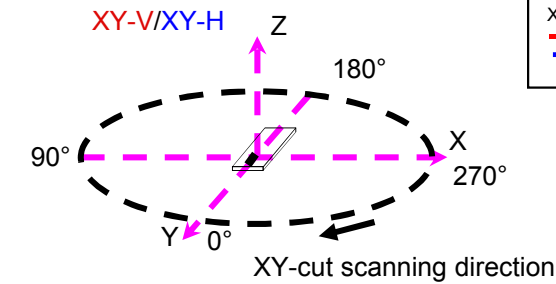
P/N 2450AT18D0100

Detail Specification: 3/10/2014

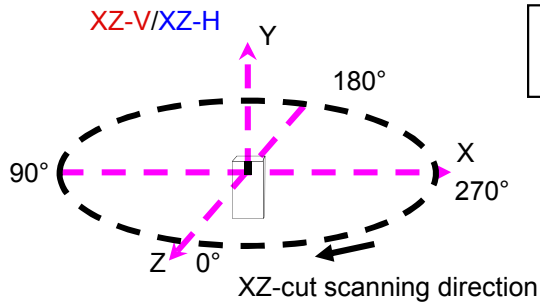
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Typical EM Radiation Performance (T=25°C)

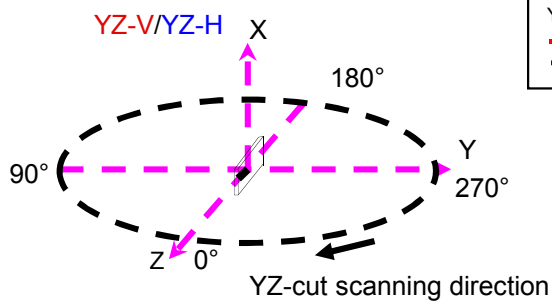
Typical Radiation Patterns



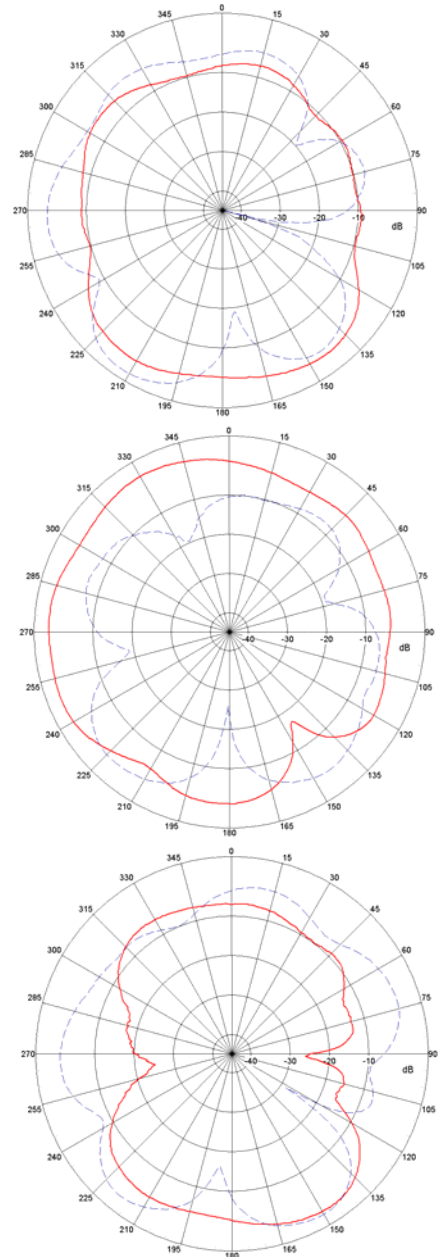
XY cut @2.45GHz
 — Vertical
 Horizontal



XZ cut @2.45GHz
 — Vertical
 Horizontal



YZ cut @2.45GHz
 — Vertical
 Horizontal



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Part Number Explanation

P/N Suffix	Packing Style	Bulk	Suffix = S	eg.2450AT18D0100S
		T & R	Suffix = E	eg. 2450AT18D0100E
	EVB p/n	2450AT18D0100-EB1SMA		

More SMD Chip Antennas at:

www.johansontechnology.com/antennas

Packaging information

www.johansontechnology.com/ipcpackaging.html

Soldering Information

www.johansontechnology.com/ipcsoldering-profile

Antenna layout and tuning techniques (How to obtain the new antenna matching values)

www.johansontechnology.com/tuning

Antenna layout review, tuning, and characterization services

www.johansontechnology.com/ipcantennaservices

RoHS Compliance

www.johansontechnology.com/technical-notes/rohs-compliance.html

MSL Info

www.johansontechnology.com/technical-notes/msl-rating.html

P/N Explanation and Breakdown

www.johansontechnology.com/ipc-pn-explained

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