"High Frequency Ceramic Solutions"

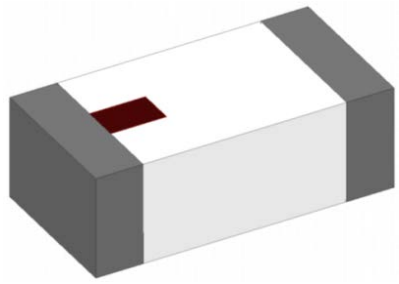
2.4GHz Mini Antenna, SMT **P/N 2450AT18A100**

Detail Specification: 7/9/2018

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

General Specifications

Part Number	2450AT18A100
Frequency (MHz)	2400 - 2500
Avg. Rad Efficiency*	76%
Peak Gain (dBi typ.)	0.5
Average Gain (dBi typ.)	-0.5
Return Loss (dB)	9.5 min.
Impedance	50 Ω
Input Power	2 Watts max. (CW)



Storage Period	18 months max.
Storage Temperature	-40 to +125°C
Operating Temperature	-40 to +125°C
Reel Quantity	3000

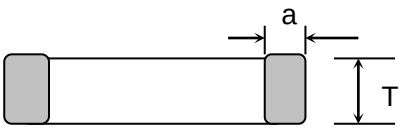
*Efficiency based on Johanson's standard evaluation board

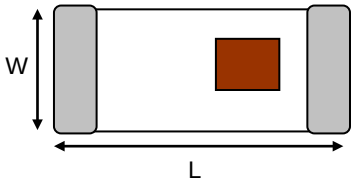
Part Number Explanation

P/N Suffix	**Packing Style**	Bulk (loose)	Suffix = S	e.g. 2450AT18A100S
		T & R	Suffix = E	e.g. 2450AT18A100E
		100% Tin	Suffix = E or S	e.g. 2450AT18A100(E or S)
	Evaluation Board	2450AT18A100-EBSMA (see page 2&3 for details)		

Mechanical Dimensions

	In	mm
L	0.126 ± 0.008	3.20 ± 0.2
W	0.063 ± 0.008	1.60 ± 0.2
T	0.051 +.004/-.008	1.30 +0.1/-0.2
a	0.020 ± 0.012	0.50 ± 0.3

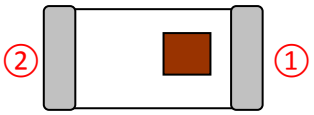




Want the layout file? Request it at: www.johansontechnology.com/ask-a-question

Terminal Configuration

No.	Function
1	FEED
2	NC



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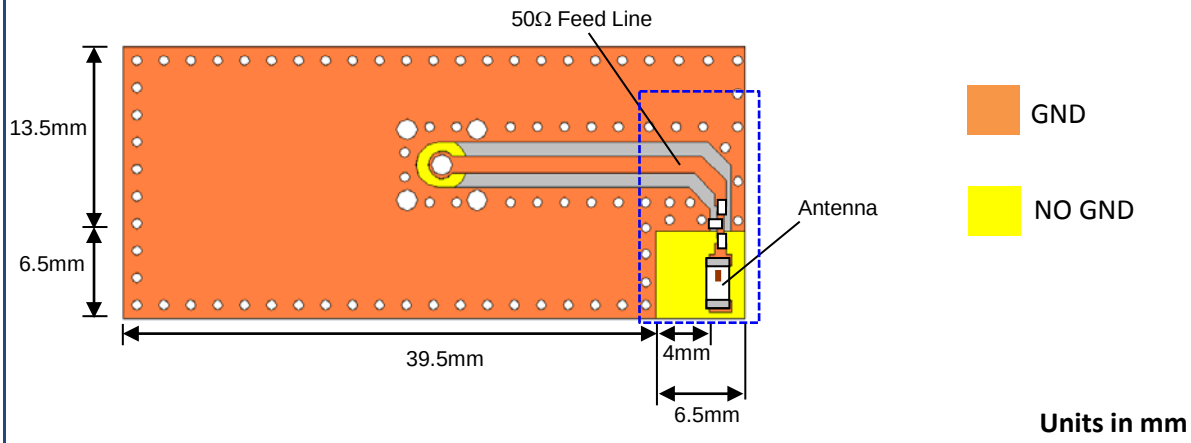
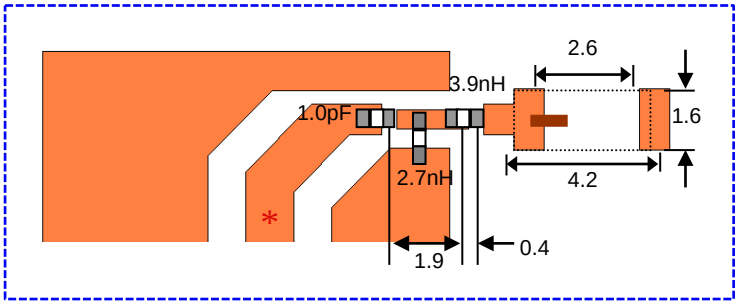
Mounting Considerations 1: Evaluation Board





JTI P/N for Matching Circuit: Cap
(1.0pF): 500R07S1R0BV4T
Inductor (2.7nH): L-07C2N7SV6T
Inductor (3.9nH): L-07C3N9SV6T

To order a pre-tuned 50Ω EVB with a female SMA connector click here: www.johansontechnology.com/request-a-sample
Reference p/n: 2450AT18A100-EBSMA

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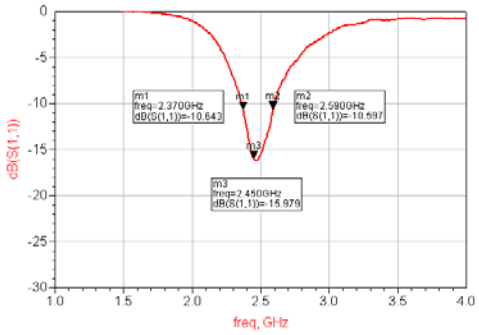
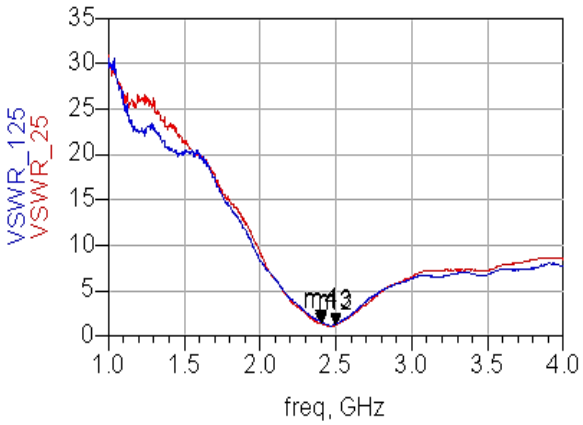
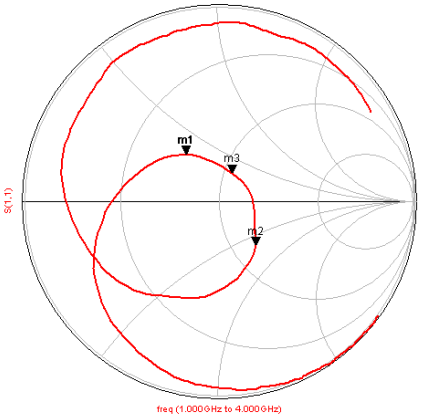
Mounting Considerations 1: Typical Electrical Performance (T=25°C)

Return Loss with matching circuit @ +25C



VSWR with matching circuit @ +25C and +125C





m1
freq=2.400GHz
VSWR_25=1.386

m2
freq=2.500GHz
VSWR_25=1.219

m4
freq=2.400GHz
VSWR_125=1.606

m3
freq=2.500GHz
VSWR_125=1.332

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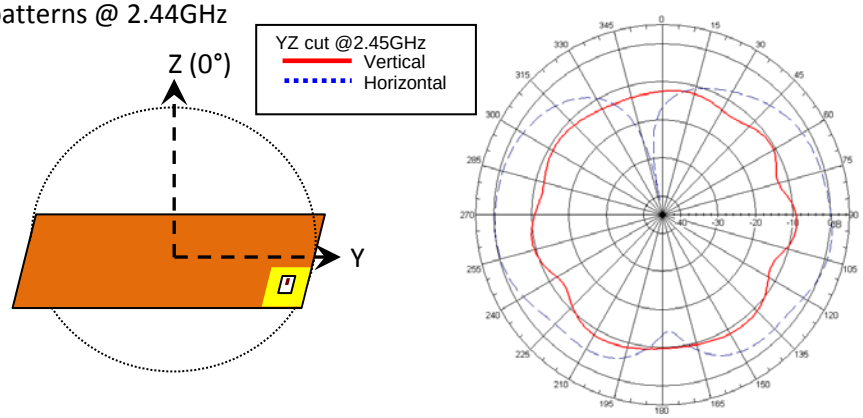
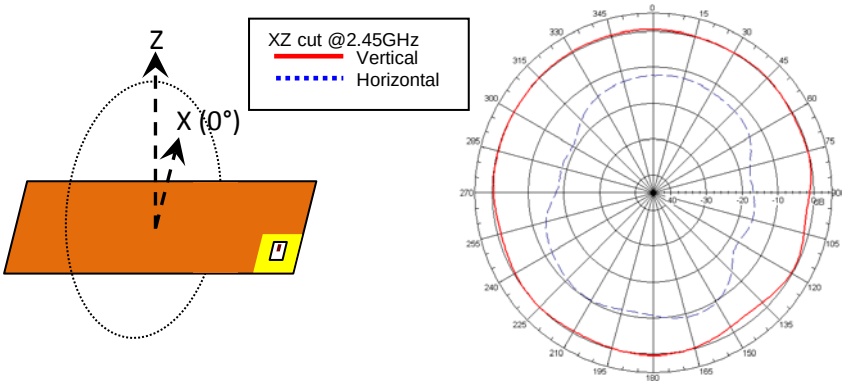
Mounting Considerations 1: Antenna Performance

Typical 2D radiation patterns @ 2.44GHz

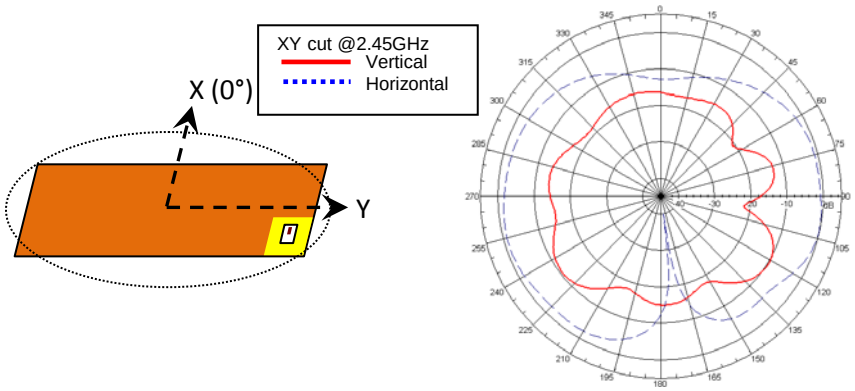
YZ-plane



XZ-plane



XY-plane



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