

High Frequency Ceramic Solutions

868MHz Antenna

P/N 0868AT43A0020

Detail Specification: 10/8/2014

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General Specifications

Part Number	0868AT43A0020
Frequency Range	858 - 878 Mhz
Peak Gain	-1.0 dBi typ. (XZ-total)
Average Gain	-4.0 dBi typ. (XZ-total)
Return Loss	9.5 dB min.

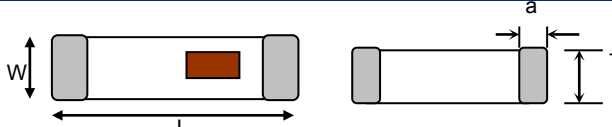
Input Power	3W max. (CW)
Impedance	50 Ω
Operating Temperature	-40 to +85°C
Reel Quantity	1,000
MSL	1

Part Number Explanation

P/N Suffix	Packing Style	Bulk	Suffix = S	eg. 0868AT43A0020S
		T & R	Suffix = E	eg. 0868AT43A0020E
	Termination style	100% Tin	Suffix = None	eg. 0868AT43A0020 (E or S)
		Tin / Lead	Please Consult Factory	

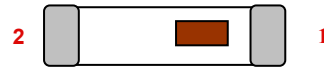
Mechanical Dimensions

	In	mm
L	0.276 \pm 0.008	7.00 \pm 0.20
W	0.079 \pm 0.008	2.00 \pm 0.20
T	0.031 + .004/-0.008	0.80 + 0.1/-0.2
a	0.020 \pm 0.012	0.50 \pm 0.30



Terminal Configuration

No.	Function
1	Feeding Point
2	NC



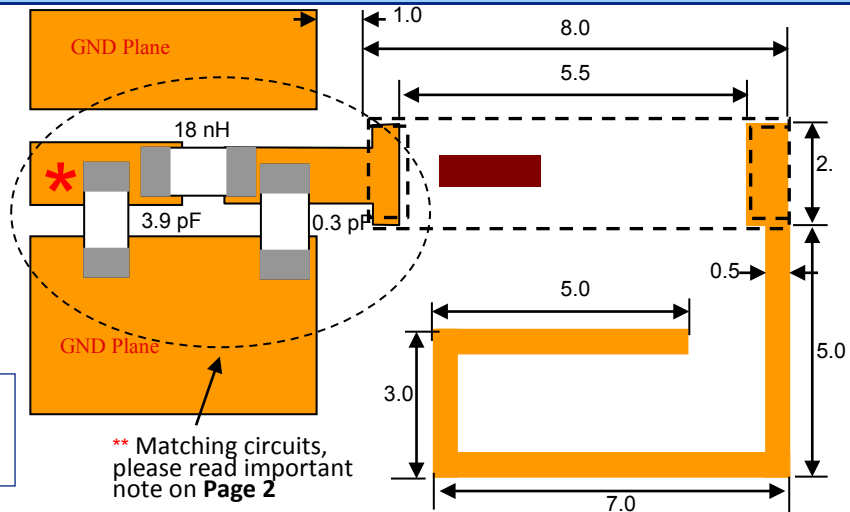
Mounting Considerations

Mount these devices with brown mark facing up. Units: mm

* Line width should be designed to provide 50 Ω impedance matching characteristics.

With Matching Circuit

JTI P/Na for Matching Circuit: **
 Cap (0.3pF): 500R07S0R3BV4T
 Cap (3.9pF): 500R07S3R9BV4T
 Inductor (18nH): L-07C18NJV6T



** Matching circuits, please read important note on Page 2

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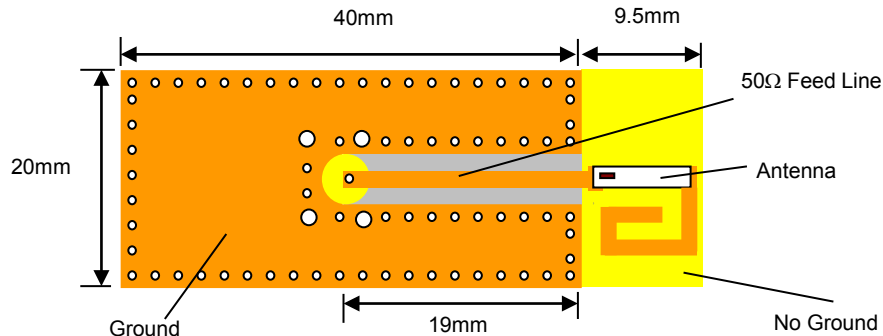
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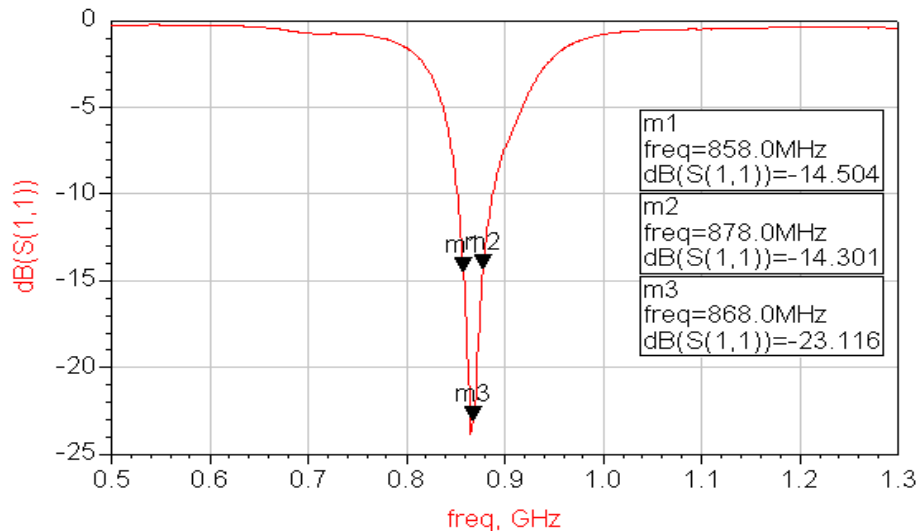
Mounting Considerations

Test Board used orderable p/n: 0868AT43A0020-EB1SMA (comes with SMA connector)



Note: 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, contact our RF Applications Eng Team at: <http://www.johansontechnology.com/en/ask-a-technical-question.html>

Return Loss (with matching)



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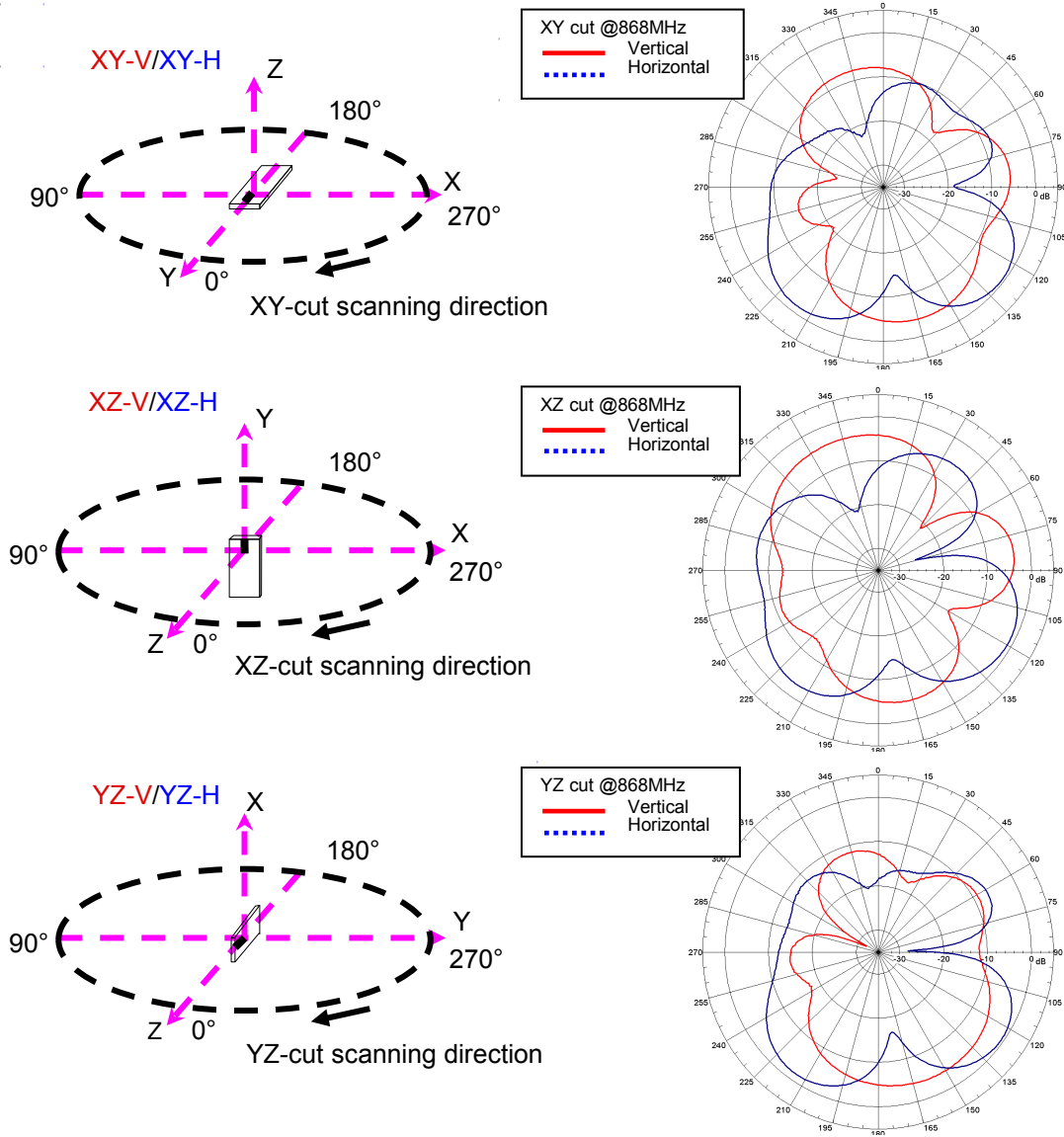
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Typical Radiation Patterns



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