"High Frequency Ceramic Solutions"

433 MHz Antenna **P/N 0433AT62A0020**

Detail Specification: 2/18/2013

General Specifications

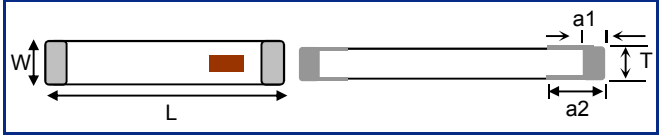
Part Number	0433AT62A0020	**Operating Temperature**	-40 to +85°C
Frequency (MHz)	423 - 443	**Recommended Storage Conditions**	+5 ~ +35 °C, Humidity 45~75%RH, 12 mos. max
Peak Gain (XZ-total)	-4.0 dBi typ.		
Average Gain (XZ-total)	-4.0 dBi typ.	**Power Capacity**	2W max. (CW)
Return Loss	8.5 dB min.	**Reel Quanity**	500
Impedance	50 Ω		

Part Number Explanation

P/N Suffix	**Packing Style**	Bulk	Suffix = S	eg. 0433AT62A0020S
		T & R	Suffix = T	eg. 0433AT62A0020T
		100% Tin	Suffix = None	eg. 0433AT62A0020(T or S)
	Termination style	Tin / Lead	Suffix = /Pb	eg. 0433AT62A0020(T or S)/Pb

Mechanical Dimensions

	In	mm
L	0.984 ± 0.008	25.00 ± 0.20
W	0.197 ± 0.008	5.00 ± 0.20
T	0.047 ± 0.004	1.20 ± 0.10
a	0.020 ± 0.008	0.50 ± 0.20
a2	0.039 ± 0.008	1.00 ± 0.20



Terminal Configuration

No.	Function
1	Feeding Point
2	NC



Mounting Considerations

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

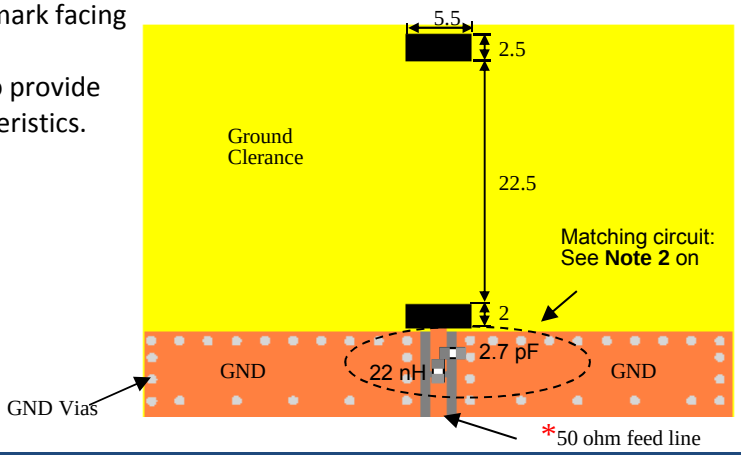
* Line width should be designed to provide 50 Ω impedance matching characteristics.

With Matching Circuit

Solder Resist

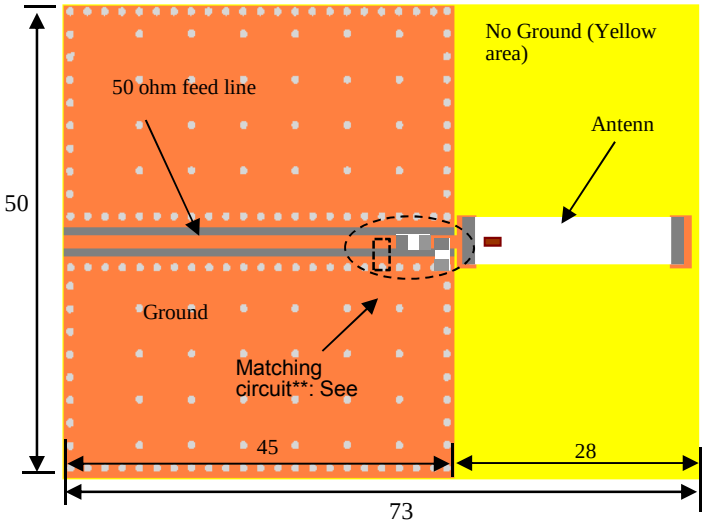
Land

(Matching circuit and component values will be different, depending on PCB layout)



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Mounting Considerations - Johanson EVB dimesions



units in mm

EVB Johanson p/n:
0433AT62A0020-EB1SMA

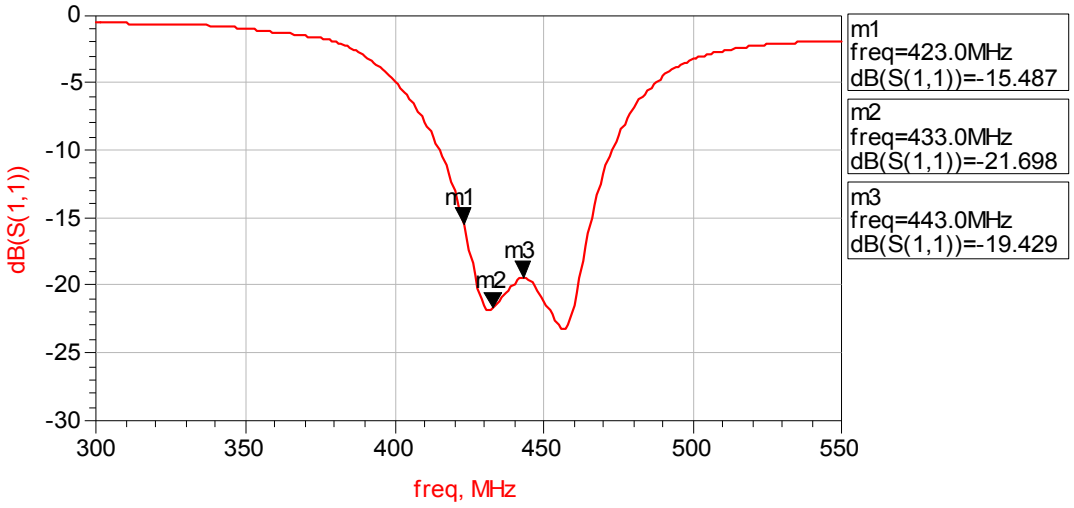
****Note 2:** It is recommended that the designer leave available slots for a "pi" (shunt-series-shunt) network. The antenna matching network values above and radiation patterns on page 4 are used when antenna is mounted on Johanson's evaluation board. The matching values on clinet's PCB will be different. 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

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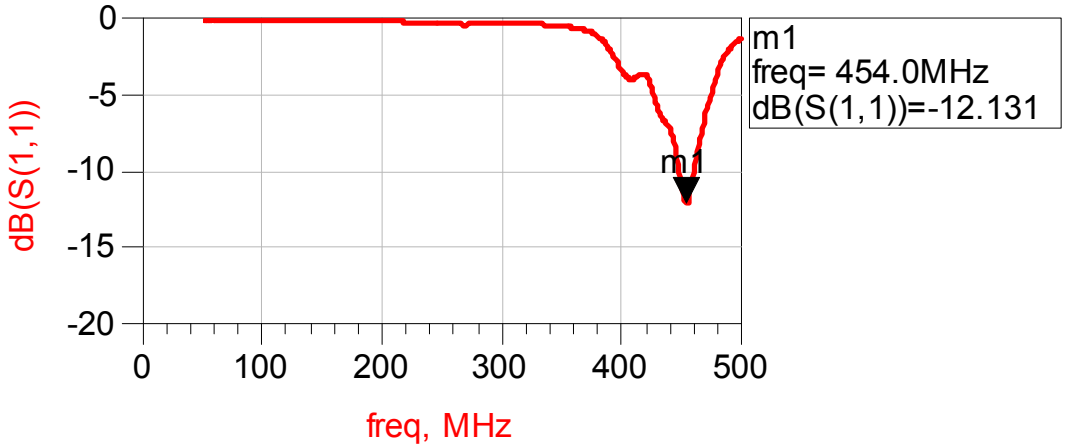
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Mounting Considerations

Return Loss with matching network (page 1/2) on EVB. Radiation Patterns with matching netw at 433MHz on page 4



Return Loss without matching network (0Ω resistor in series on EVB).



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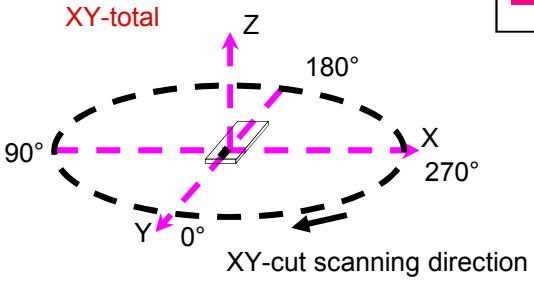
433 MHz Antenna **P/N 0433AT62A0020**

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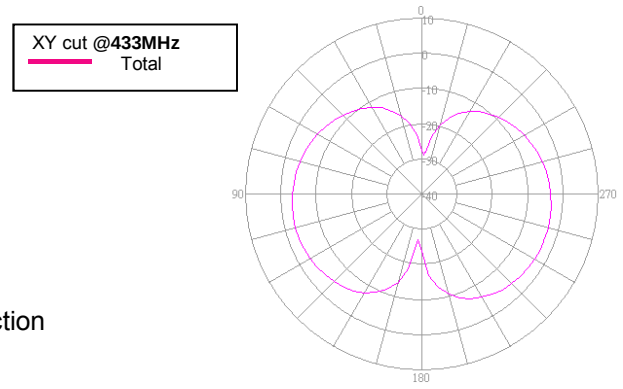
Typical Radiation Performance @ 25° C using 0433AT62A0020-EB1SMA

Radiation Patterns

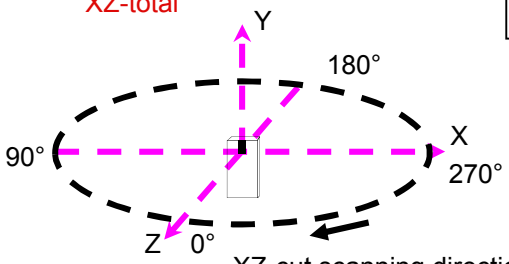
XY-total



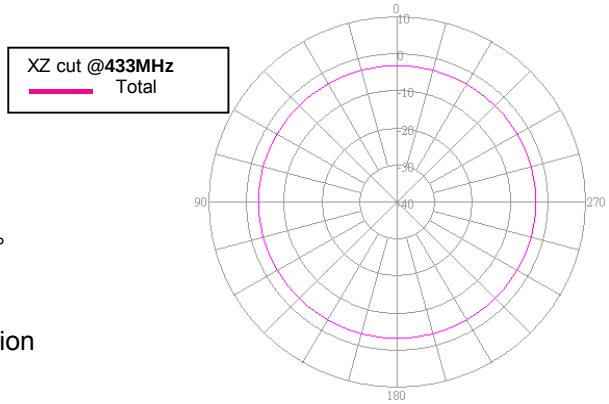
XY-cut scanning direction



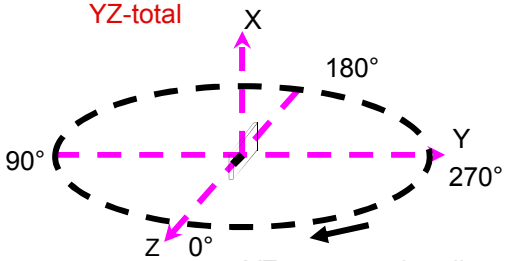
XZ-total



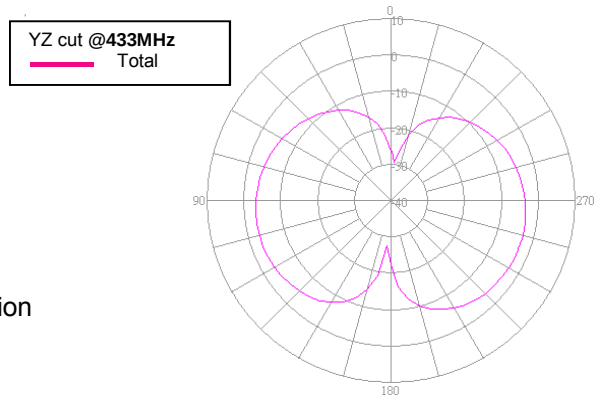
XZ-cut scanning direction



YZ-total



YZ-cut scanning direction



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