

"High Frequency Ceramic Solutions"

P/N 0915AT43A0026

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General Specifications	
Model	Model 1000
Manufacturer	Manufacturer X
Material	Material Y
Weight	Weight Z
Dimensions	Dimensions A, B, C
Color	Color D
Finish	Finish E
Usage	Usage F
Warranty	Warranty G
Price	Price H
Availability	Availability I
Lead Time	Lead Time J
Shipping	Shipping K
Installation	Installation L
Maintenance	Maintenance M
Support	Support N
Documentation	Documentation O
Compliance	Compliance P
Performance	Performance Q
Reliability	Reliability R
Efficiency	Efficiency S
Flexibility	Flexibility T
Scalability	Scalability U
Interoperability	Interoperability V
Security	Security W
Accessibility	Accessibility X
Customization	Customization Y
Integration	Integration Z
Upgradeability	Upgradeability AA
Expandability	Expandability AB
Modularity	Modularity AC
Portability	Portability AD
Reconfigurability	Reconfigurability AE
Adaptability	Adaptability AF
Resilience	Resilience AG
Robustness	Robustness AH
Stability	Stability AI
Consistency	Consistency AJ
Accuracy	Accuracy AK
Precision	Precision AL
Resolution	Resolution AM
Detail	Detail AN
Clarity	Clarity AO
Transparency	Transparency AP
Openness	Openness AQ
Accountability	Accountability AR
Responsibility	Responsibility AS
Integrity	Integrity AT
Honesty	Honesty AU
Trustworthiness	Trustworthiness AV
Credibility	Credibility AW
Reliability	Reliability AX
Consistency	Consistency AY
Accuracy	Accuracy AZ
Precision	Precision BA
Resolution	Resolution BB
Detail	Detail BC
Clarity	Clarity BD
Transparency	Transparency BE
Openness	Openness BF
Accountability	Accountability BG
Responsibility	Responsibility BH
Integrity	Integrity BI
Honesty	Honesty BJ
Trustworthiness	Trustworthiness BK
Credibility	Credibility BL
Reliability	Reliability BM
Consistency	Consistency BN
Accuracy	Accuracy BO
Precision	Precision BP
Resolution	Resolution BQ
Detail	Detail BR
Clarity	Clarity BS
Transparency	Transparency BT
Openness	Openness BU
Accountability	Accountability BV
Responsibility	Responsibility BW
Integrity	Integrity BX
Honesty	Honesty BY
Trustworthiness	Trustworthiness BZ
Credibility	Credibility CA
Reliability	Reliability CB
Consistency	Consistency CC
Accuracy	Accuracy CD
Precision	Precision CE
Resolution	Resolution CF
Detail	Detail CG
Clarity	Clarity CH
Transparency	Transparency CI
Openness	Openness CJ
Accountability	Accountability CK
Responsibility	Responsibility CL
Integrity	Integrity CM
Honesty	Honesty CN
Trustworthiness	Trustworthiness CO
Credibility	Credibility CP
Reliability	Reliability CQ
Consistency	Consistency CR
Accuracy	Accuracy CS
Precision	Precision CT
Resolution	Resolution CU
Detail	Detail CV
Clarity	Clarity CW
Transparency	Transparency CX
Openness	Openness CY
Accountability	Accountability CZ
Responsibility	Responsibility DA
Integrity	Integrity DB
Honesty	Honesty DC
Trustworthiness	Trustworthiness DD
Credibility	Credibility DE
Reliability	Reliability DF
Consistency	Consistency DG
Accuracy	Accuracy DH
Precision	Precision DI
Resolution	Resolution DJ
Detail	Detail DK
Clarity	Clarity DL
Transparency	Transparency DM
Openness	Openness DN
Accountability	Accountability DO
Responsibility	Responsibility DP
Integrity	Integrity DQ
Honesty	Honesty DR
Trustworthiness	Trustworthiness DS
Credibility	Credibility DT
Reliability	Reliability DU
Consistency	Consistency DV
Accuracy	Accuracy DW
Precision	Precision DX
Resolution	Resolution DY
Detail	Detail DZ
Clarity	Clarity EA
Transparency	Transparency EB
Openness	Openness EC
Accountability	Accountability ED
Responsibility	Responsibility EE
Integrity	Integrity EF
Honesty	Honesty EG
Trustworthiness	Trustworthiness EH
Credibility	Credibility EI
Reliability	Reliability EJ
Consistency	Consistency EK
Accuracy	Accuracy EL
Precision	Precision EM
Resolution	Resolution EN
Detail	Detail EO
Clarity	Clarity EP
Transparency	Transparency EQ
Openness	Openness ER
Accountability	Accountability ES
Responsibility	Responsibility ET
Integrity	Integrity EU
Honesty	Honesty EV
Trustworthiness	Trustworthiness EW
Credibility	Credibility EX
Reliability	Reliability EY
Consistency	Consistency EZ
Accuracy	Accuracy FA
Precision	Precision FB
Resolution	Resolution FC
Detail	Detail FD
Clarity	Clarity FE
Transparency	Transparency FF
Openness	Openness FG
Accountability	Accountability FH
Responsibility	Responsibility FI
Integrity	Integrity FJ
Honesty	Honesty FK
Trustworthiness	Trustworthiness FL
Credibility	Credibility FM
Reliability	Reliability FN

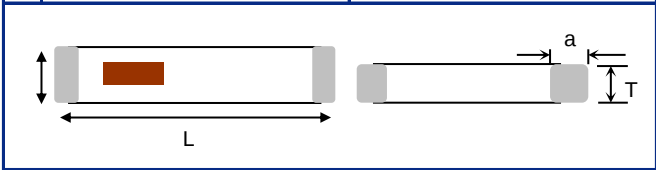
Part Number	0915AT43A0026	Input Power	2W max. (CW)
Frequency (MHz)	902 - 928 Mhz	Operating Temperature	-40 to +85°C
Peak Gain (XZ-total)	-1.0 dBi typ.	Recommended Storage	+5 to +35°C,
Average Gain (XZ-total)	-4.0 dBi typ.	Conditions	Humidity 45~75%RH
Return Loss	8.5 dB min.	Reel Quantity	1,000

Part Number Explanation

P/N Suffix	Packing Style	Bulk (loose)	Suffix = S	eg. 0915AT43A0026S
		T & R	Suffix = E	eg. 0915AT43A0026E
		100% Tin	Suffix = E or S	eg. 0915AT43A0026(E or S)
	Evaluation Board	0915AT43A0026-EB1SMA		

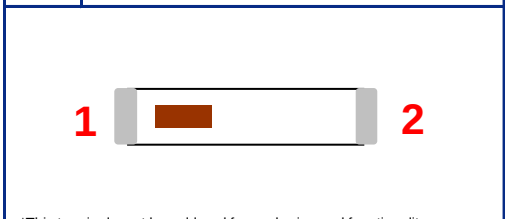
Mechanical Dimensions

	In	mm
L	0.276 ± 0.008	7.00 ± 0.20
W	0.079 ± 0.008	2.00 ± 0.20
T	0.031 ± +.004/- .008	0.80 ± +0.1/-0.2
a	0.020 ± 0.012	0.50 ± 0.30



Terminal Configuration

No.	Function
1	Feeding Point
2	NC*



*This terminal must be soldered for anchoring and functionality purposes

Mounting Considerations I

Mount these devices with maroon mark facing up. *Line width should be designed to provide 50 Ω impedance matching characteristics.

Matching circuit**:
See **Note 2** on next page!

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

All units in: mm

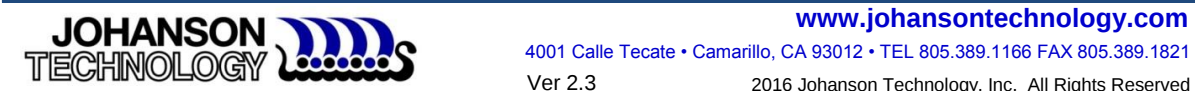
5.1

JTI P/N for Matching Circuit:**

Inductor (4.7nH):L-07C4N7SV6T

Inductor (10nH): L-07C10NJV6T

Cap (0.5pF): 500R07S0R5BV4T ****matching circuit and component values will depend on PCB layout, thickness, material, etc.**



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"High Frequency Ceramic Solutions"

915 MHz ISM Antenna for small form factor applications

P/N 0915AT43A0026

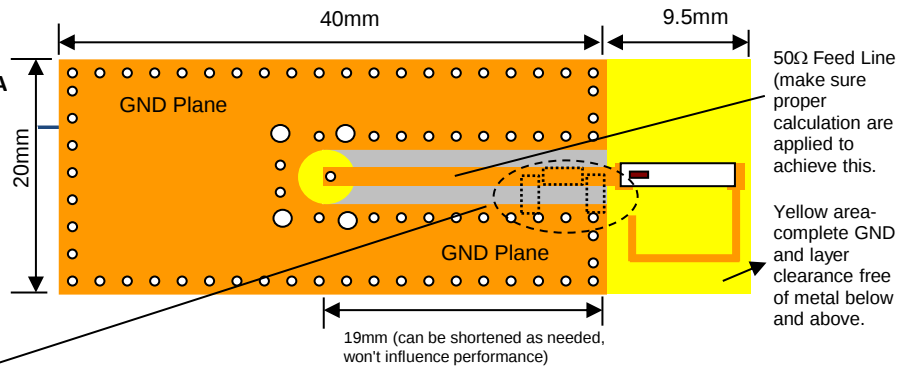
Detail Specification: 9/7/2016

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Recommended Application ISM

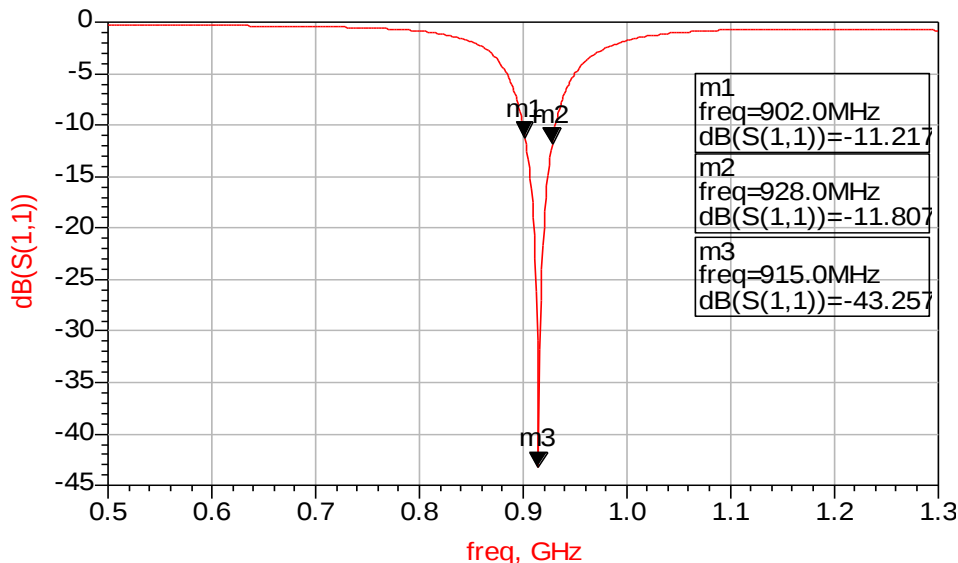
Mounting Considerations II

Johanson Test Board
(orderable) p/n:
0915AT43A0026-EB1SMA



****Note 2:** 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: www.johansontechnology.com/tuning and see how to obtain the new values. If you need further help, such as needing the layout file of the above, contact our RF Applications Eng. Team at: www.johansontechnology.com/ask-a-question

Return Loss (with matching)



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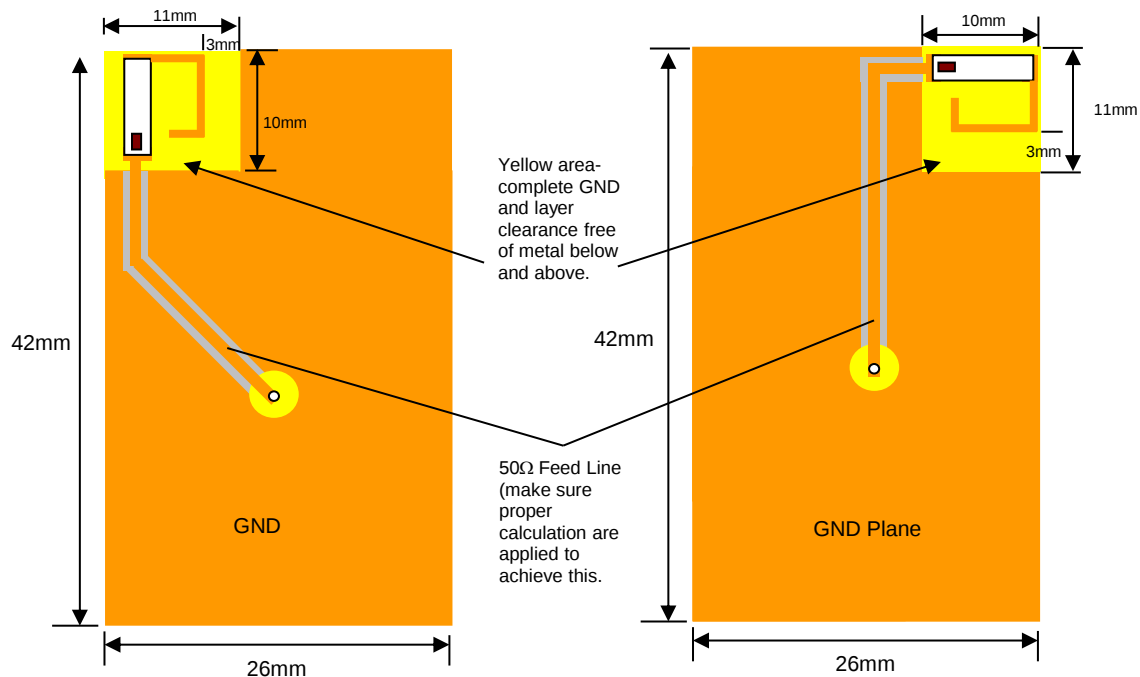
Detail Specification: 9/7/2016

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Recommended Application ISM

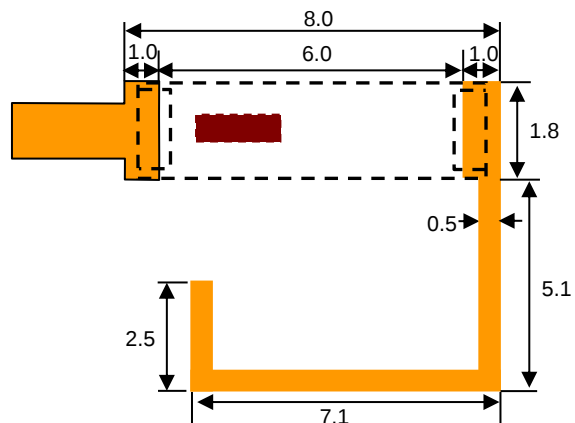
Mounting Considerations III

We have conducted internal studies to show that the following corner placements provide antenna efficiency results with minimal detrimental effects.



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: www.johansontechnology.com/tuning and see how to obtain the new values. If you need further help, such as needing the layout file of the above, contact our RF Applications Eng. Team at:

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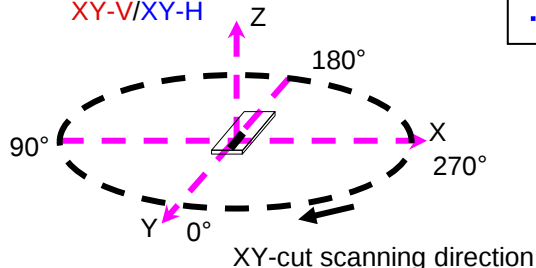
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Recommended Application ISM

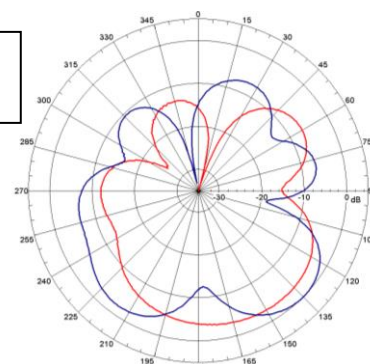
Typical Radiation Performance @ 25° C using 0915AT43A0026-EB1SMA

Typical Radiation Patterns

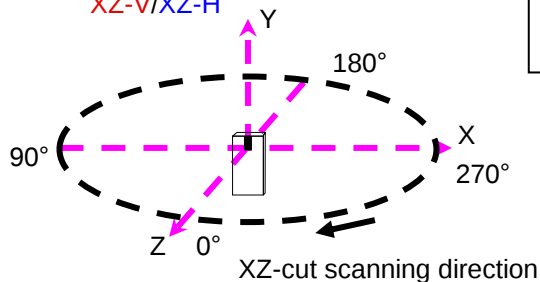
XY-V/XY-H



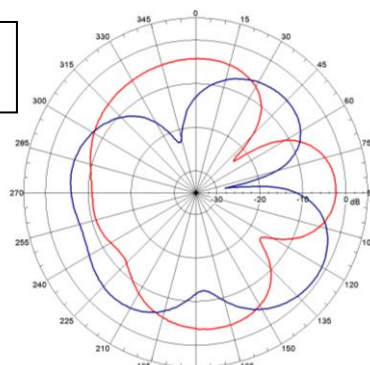
XY cut @915MHz
 — Vertical
 Horizontal



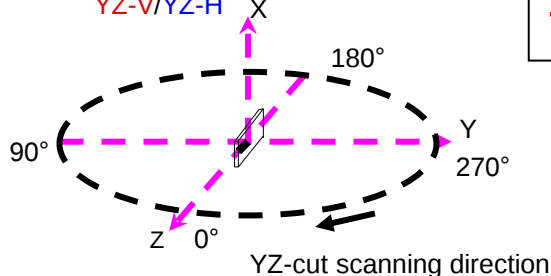
XZ-V/XZ-H



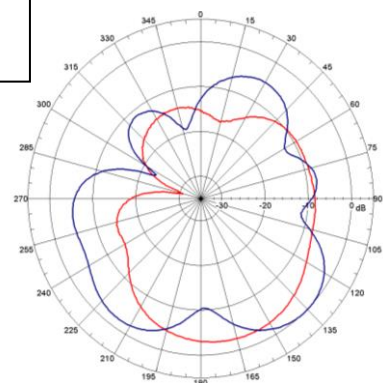
XZ cut @915MHz
 — Vertical
 Horizontal



YZ-V/YZ-H



YZ cut @915MHz
 — Vertical
 Horizontal



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Soldering Information

www.johansontechnology.com/typical-soldering-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/ipc-antenna-services

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