

High Frequency Ceramic Solutions

3.6 GHz Internal Chip Antenna, SMD 5G, n78 IoT Applications, and Related Frequency Operations

P/N 3600AT43A0400

Detail Specification: 6/13/2019

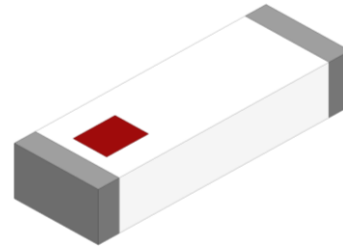
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Let us help you with the antenna design, optimization, and tuning!

<https://www.johansontechnology.com/ask-a-question>

General Specifications

Part Number	3600AT43A0400		
Frequency (GHz)	3.4 - 3.8		
Peak Gain (dBi)	1.6 typ.		
Average Gain (dBi)	-1.8 typ.		
Radiated Efficiency ¹	61%		
Return Loss (dB)	9.5 min.	Reel Size	2,000 pcs/reel
Impedance (Ω)	50	Recommended Storage Conditions and Period for unused T&R Product	+5 to +35°C Humidity 45 - 75% RH 18 months max.
Input Power (W)	2 max. (CW)		
Operating Temperature	-40 to +85°C		



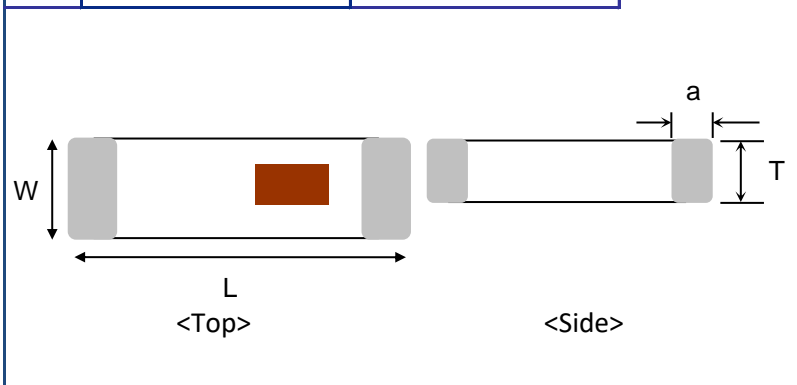
¹Efficiency measured on Johanson's evaluation board PN 3600AT43A0400-EB1SMA

Part Number Explanation

P/N Suffix	Packing Style	Bulk (loose)	Suffix = S	e.g. 3600AT43A0400S
		T&R	Suffix = E	e.g. 3600AT43A0400E
		100% Tin	Suffix = E or S	e.g. 3600AT43A0400(S or E)
	Evaluation Board	3600AT43A0400-EB1SMA		

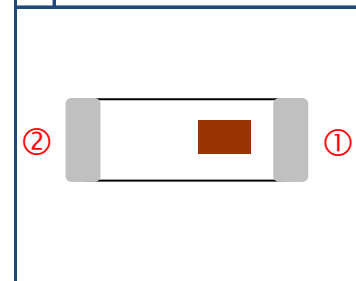
Mechanical Dimensions

	In	mm
L	0.236 ± 0.008	6.00 ± 0.2
W	0.079 ± 0.008	2.00 ± 0.2
T	0.047 +0.004 / -0.008	1.20 +0.1 / -0.2
a	0.020 ± 0.012	0.50 ± 0.3



Terminal Configuration

No.	Function
1	FEED
2	NC



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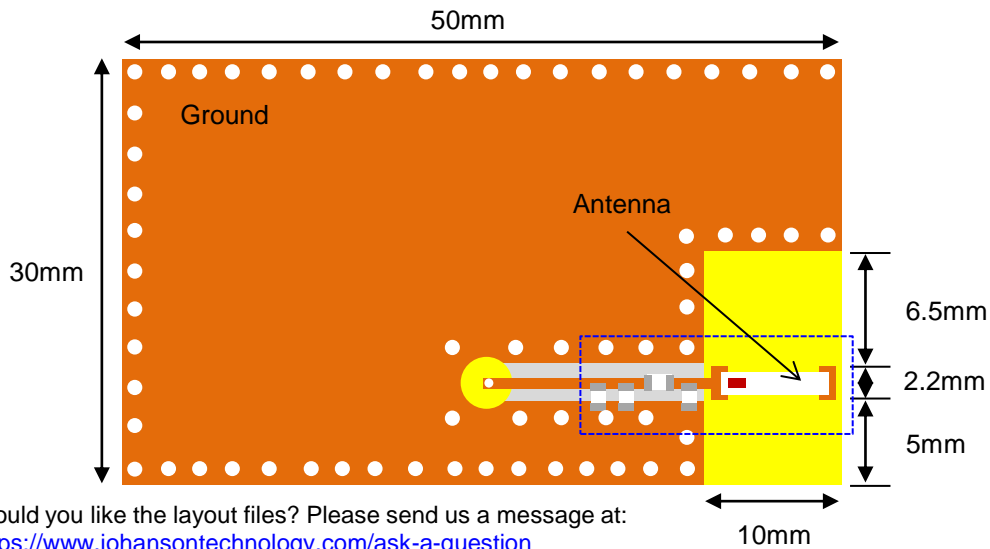
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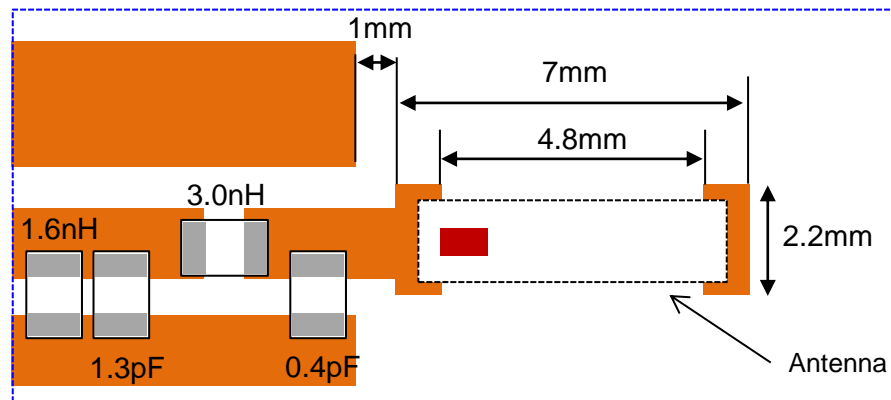
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Mounting Considerations 1: Evaluation Board (Standard Layout)



Would you like the layout files? Please send us a message at:
<https://www.johansontechnology.com/ask-a-question>



Matching circuit values above only apply to our EVB. However,
please follow this *topology* (shunt-shunt-series-shunt) and perform
tuning to obtain the new values on your PCB

To order a pre-tuned 50Ω EVB with a female SMA connector click here:

<https://www.johansontechnology.com/request-a-sample>

Reference p/n: 3600AT43A0400-EB1SMA

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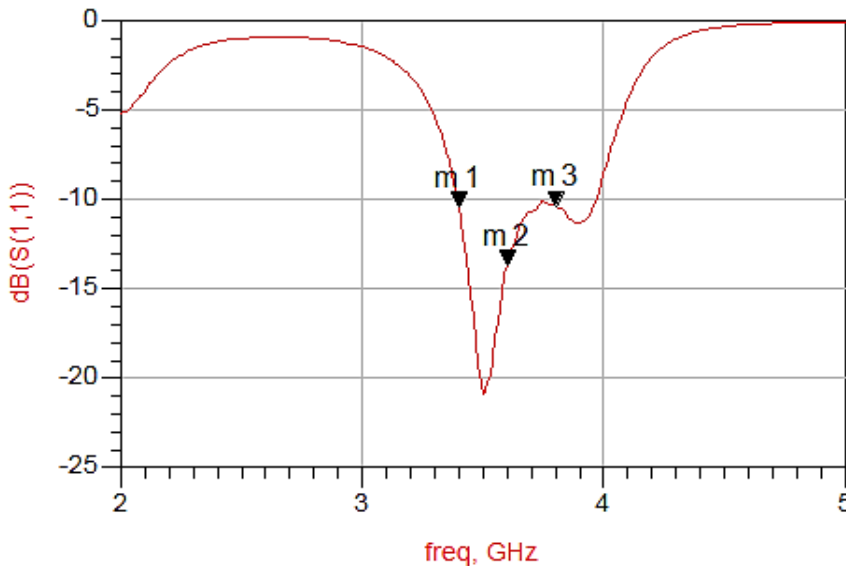
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Mounting Considerations 1: Typical Electrical Performance @25°C

Measured Return Loss



m 1
freq=3.400GHz
dB(S(1,1))=-10.389

m 2
freq=3.600GHz
dB(S(1,1))=-13.646

m 3
freq=3.800GHz
dB(S(1,1))=-10.369

Would you like the antenna layout? Have antenna tuning issues?
Please contact us if you have any questions regarding the implementation of this antenna in your PCB's layout. We'll be happy to guide you to maximize the antenna's performance.

Contact our applications engineers at:

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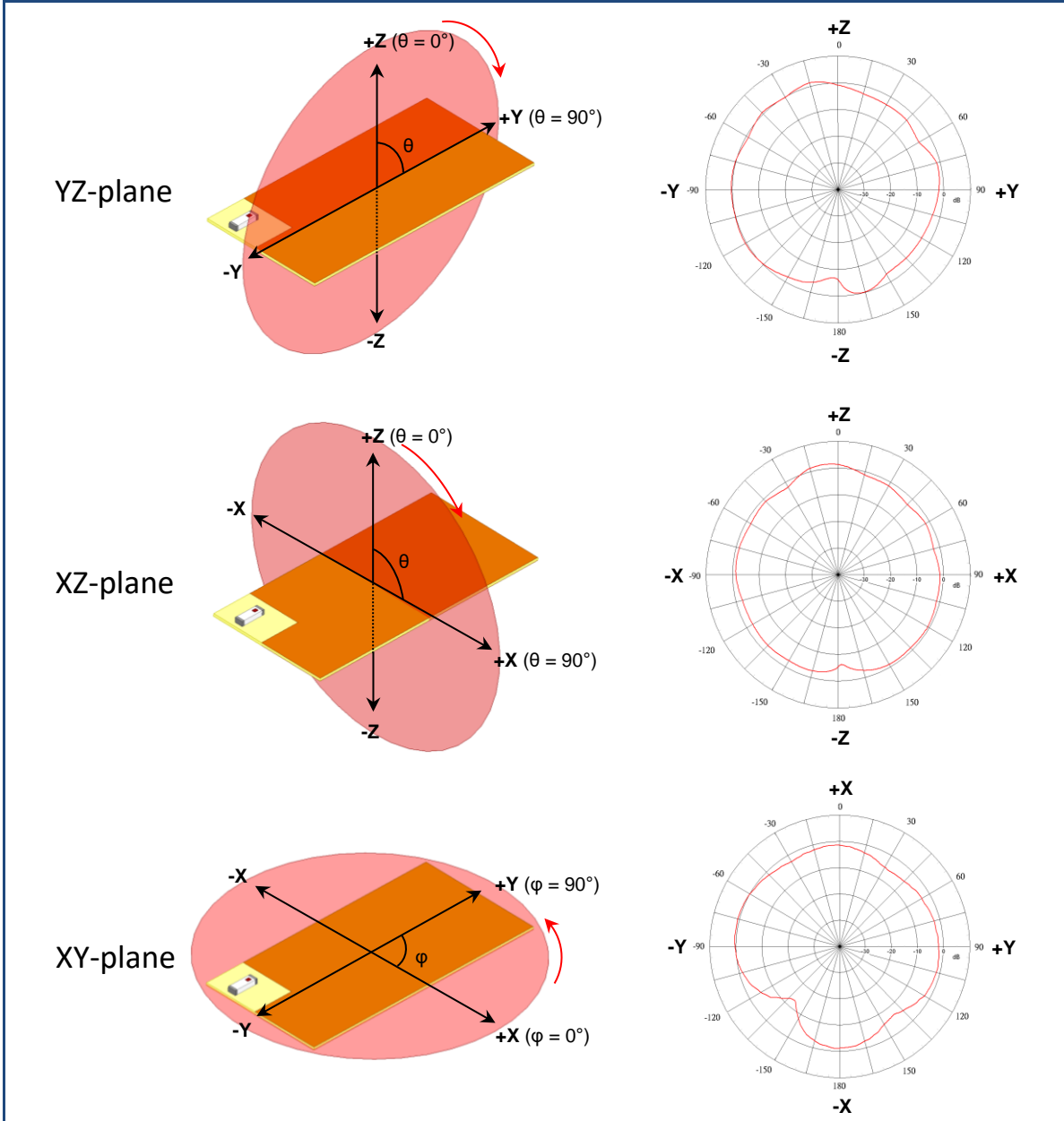
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Mounting Considerations 1: Typical 2D radiation patterns @ 3.6GHz



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