

# "High Frequency Ceramic Solutions"

7GHz Mini UWB Antenna, AEC-Q200 Qualified

P/N 7000AT18A1600E-AEC

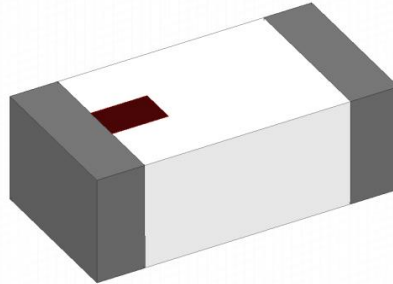
Detail Specification: 3/16/2018

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

## General Specifications

Part Number	7000AT18A1600E-AEC		
Frequency (GHz)	6.2 - 7.8		
Avg. Rad Efficiency	84%		
Peak Gain (dBi)	3.8		
Average Gain (dBi)	-1.3		
Return Loss (dB)	10 min.	Storage Period	18 months max.
Impedance	50 $\Omega$	Storage Temperature	-40 to +105°C
Input Power	2 Watts max. (CW)	Operating Temperature	-40 to +105°C
		Reel Quantity	3,000

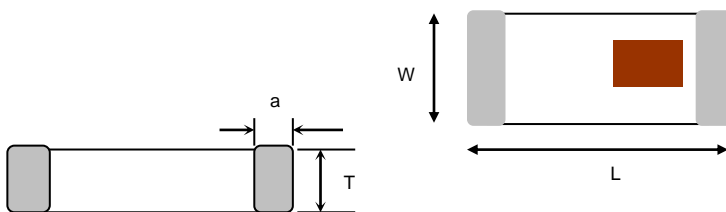


## Part Number Explanation

P/N Suffix	Packing Style	Bulk (loose)	Suffix = S	e.g. 7000AT18A1600S-AEC
		T & R	Suffix = E	e.g. 7000AT18A1600E-AEC
		100% Tin	Suffix = E or S	e.g. 7000AT18A1600(E or S)-AEC
	Evaluation Board	7000AT18A1600-EB1SMA (see page 2&3 for details)		

## Mechanical Dimensions

	In	mm
L	0.126 $\pm$ 0.008	3.20 $\pm$ 0.2
W	0.063 $\pm$ 0.008	1.60 $\pm$ 0.2
T	0.051 + 0.004 / -0.008	1.30 +0.1 / -0.2
a	0.020 $\pm$ 0.012	0.50 $\pm$ 0.3



Want the layout file? Request it at: [www.johansontechnology.com/ask-a-question](http://www.johansontechnology.com/ask-a-question)

## Terminal Configuration

No.	Function
1	FEED
2	NC



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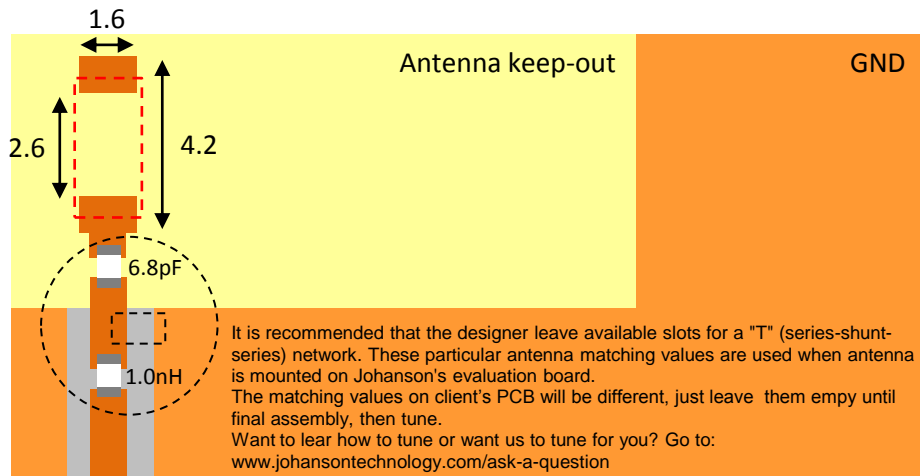
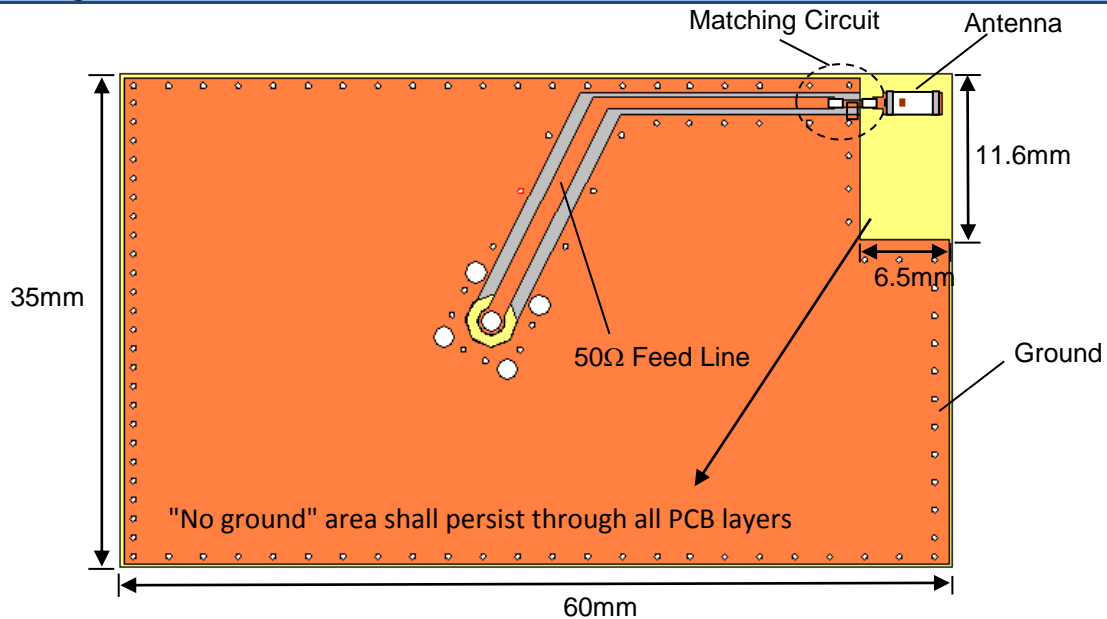
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## Mounting Considerations 1: Evaluation Board



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

[www.johansontechnology.com/request-a-sample](http://www.johansontechnology.com/request-a-sample)

Reference p/n: 7000AT18A1600-EB1SMA

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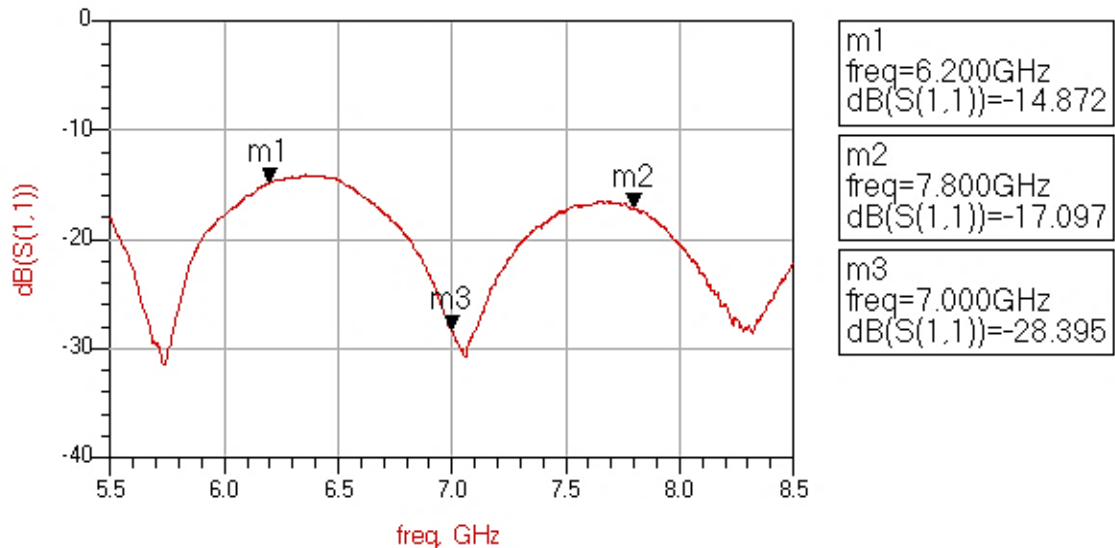
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## Mounting Considerations 1: Electrical Performance @25°C

Measured Return Loss



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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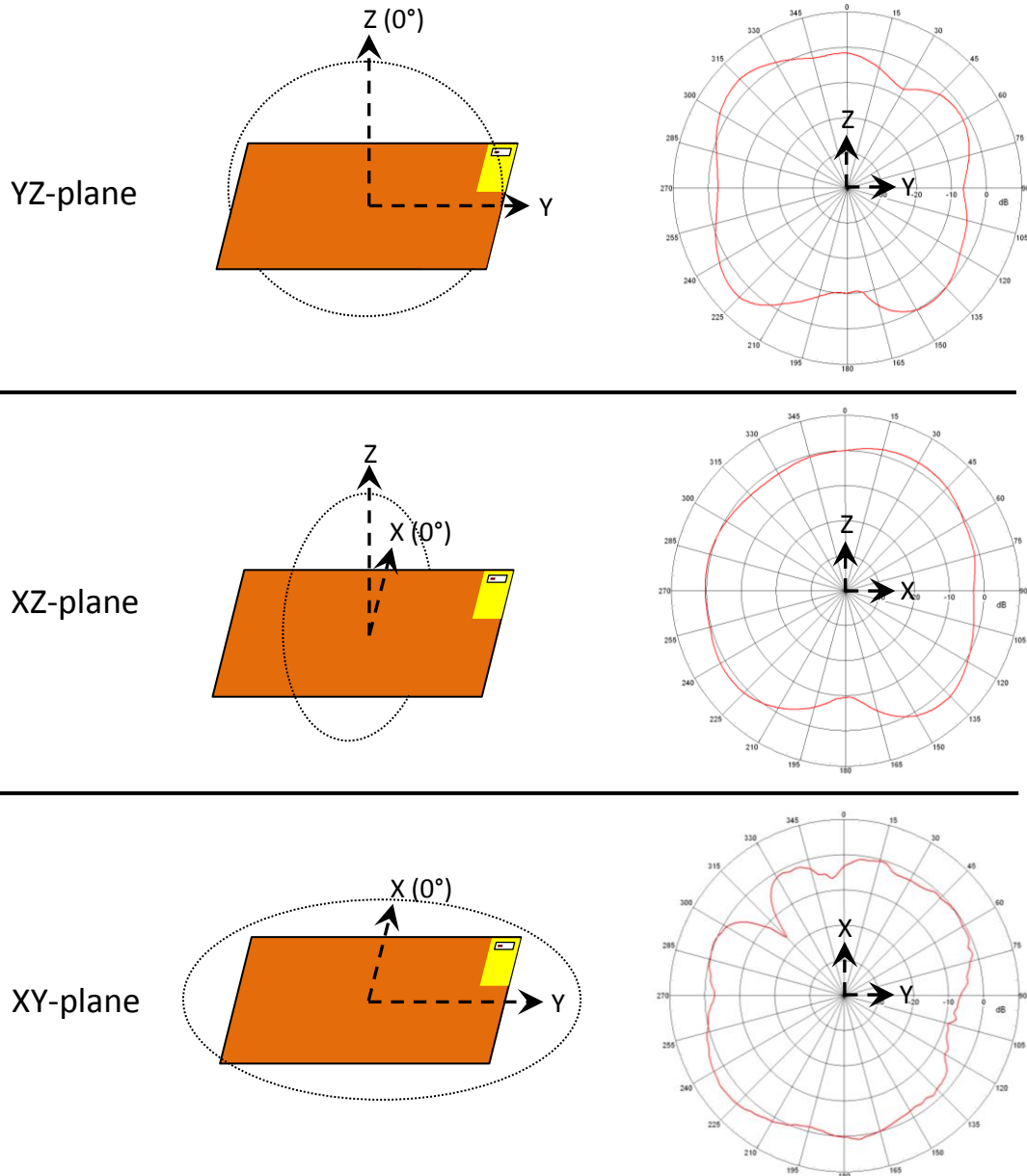
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## Mounting Considerations 1: Antenna Performance

Typical 2D radiation patterns @ 7.0GHz



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## Antenna tuning, optimization, and validation services:

[www.johansontechnology.com/ipc-antenna-services](http://www.johansontechnology.com/ipc-antenna-services)

## For more antennas and to download measured S-parameters, go to:

[www.johansontechnology.com/antennas](http://www.johansontechnology.com/antennas)

## Soldering Information

[www.johansontechnology.com/ipcsoldering-profile](http://www.johansontechnology.com/ipcsoldering-profile)

## MSL Info

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## Packaging information

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## For layout review contact our Applications Team at:

[www.johansontechnology.com/ask-a-question](http://www.johansontechnology.com/ask-a-question)

## RoHS Compliance

[www.johansontechnology.com/rohs-compliance](http://www.johansontechnology.com/rohs-compliance)

Need help designing the antenna in? Use our antenna design services!

[www.johansontechnology.com/ipc-antenna-services](http://www.johansontechnology.com/ipc-antenna-services)

We provide 2 free layout reviews and if you need us to tune and characterize the antenna on your product (inside anechoic chamber) we can do that too. Small lab fee may apply for the latter.

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