

High Frequency Ceramic Solutions

2.4GHz Mini Antenna, SMT

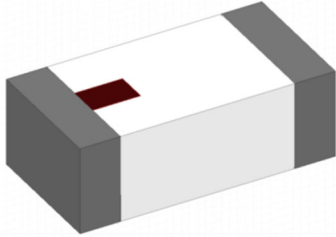
P/N 2450AT18B100

Detail Specification: 11/5/2018

Page 1 of 5

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

General Specifications

Part Number	2450AT18B100		
Frequency (MHz)	2400 - 2500		
Avg. Rad Efficiency*	76%		
Peak Gain (dBi typ.)	0.5		
Average Gain (dBi typ.)	-0.5		
Return Loss (dB)	9.5 min.	Storage Temperature	-45 to +125°C
Impedance	50 Ω	Operating Temperature	-45 to +125°C
Input Power	2 Watts max. (CW)	Recommended Storage Conditions of unused product on T&R and period.	+5 to +35°C Humidity 45~75%RH 18 months max.
		Reel Quantity	3000pcs

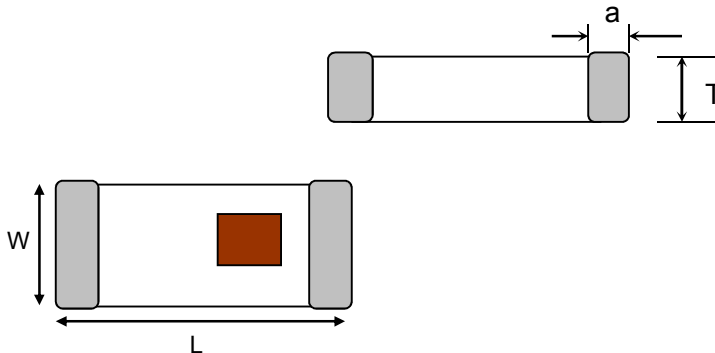
*Efficiency based on Johanson's standard evaluation board

Part Number Explanation

P/N Suffix	Packing Style	Bulk (loose)	Suffix = S	e.g. 2450AT18B100S
		T & R	Suffix = E	e.g. 2450AT18B100E
		100% Tin	Suffix = E or S	e.g. 2450AT18B100(E or S)
	Evaluation Board	2450AT18B100-EB1SMA (see page 2&3 for details)		

Mechanical Dimensions

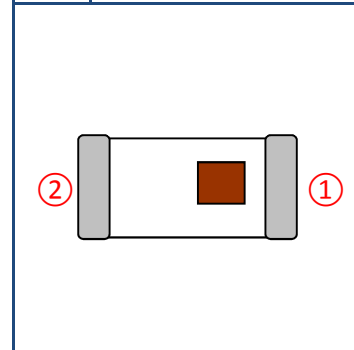
	In	mm
L	0.126 ± 0.008	3.20 ± 0.2
W	0.063 ± 0.008	1.60 ± 0.2
T	0.051 +.004/-.008	1.30 +0.1/-0.2
a	0.020 ± 0.008	0.50 ± 0.2



Want the layout file? Request it at: <https://www.johansontechnology.com/ask-a-question>

Terminal Configuration

No.	Function
1	FEED
2	NC



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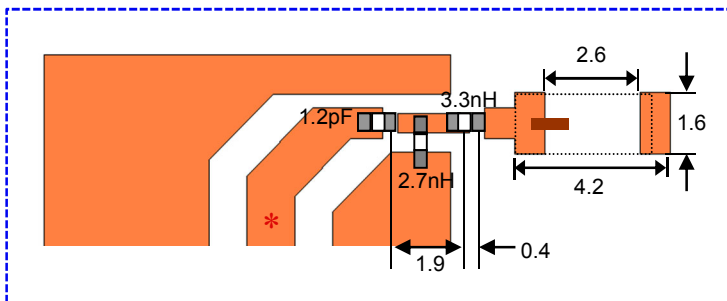
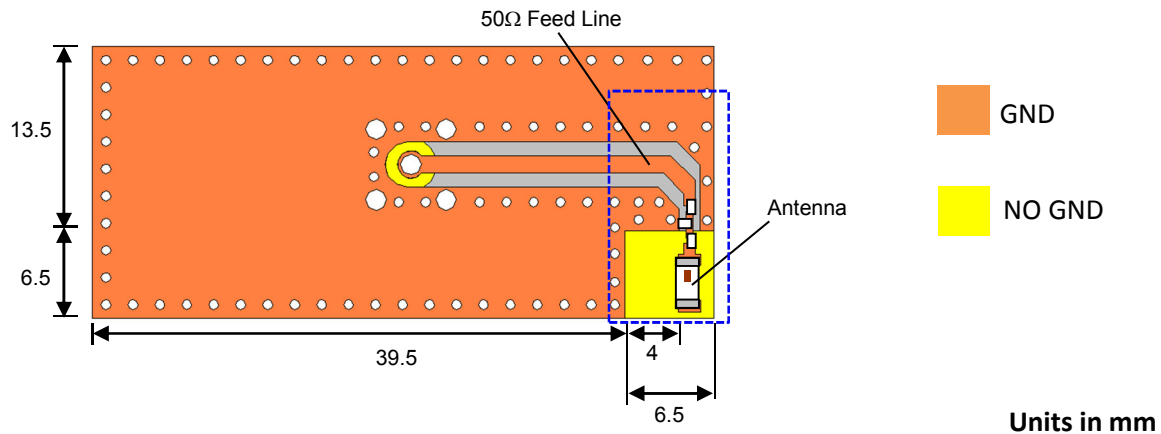
2.4GHz Mini Antenna, SMT

Detail Specification: 11/5/2018

P/N 2450AT18B100

Page 2 of 5

Mounting Considerations 1: Evaluation Board



JTI P/N for Matching Circuit:
Capacitor (1.2pF): 500R07S1R2BV4T
Inductor (2.7nH): L-07C2N7SV6T
Inductor (3.3nH): L-07C3N3SV6T

*Line width should be designed to provide 50Ω impedance

To order a pre-tuned 50Ω EVB with a female SMA connector click here: <https://www.johansontechnology.com/request-a-sample>
Reference p/n: 2450AT18B100-EB1SMA

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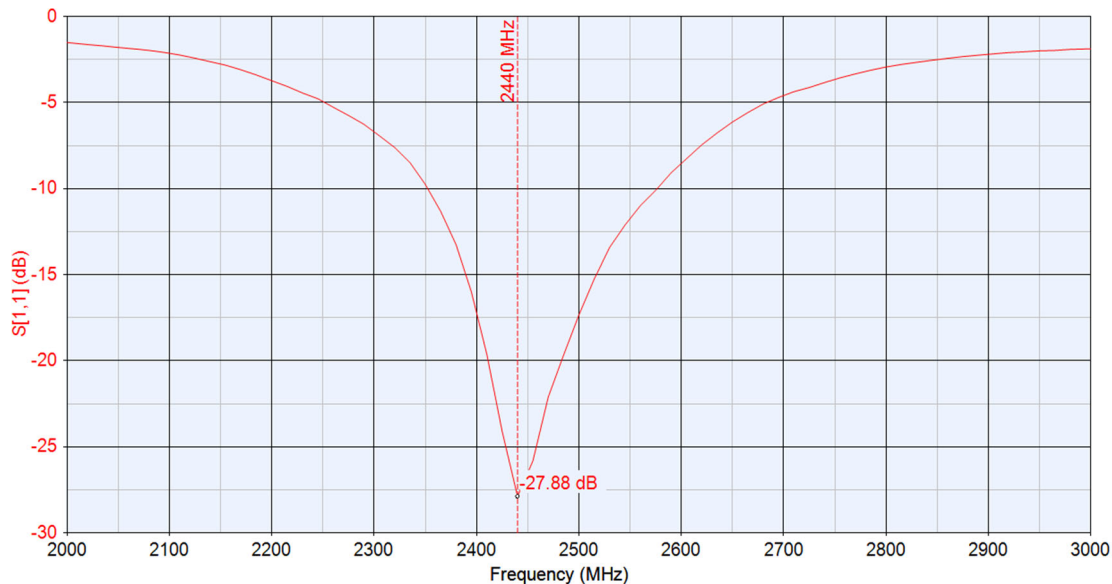
2.4GHz Mini Antenna, SMT

P/N 2450AT18B100

Detail Specification: 11/5/2018

Page 3 of 5

Mounting Considerations 1: Typical Electrical Performance (T=25°C)



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Please contact us if you have any questions regarding the
implementation of this antenna in your PCB's layout. We'll be happy to
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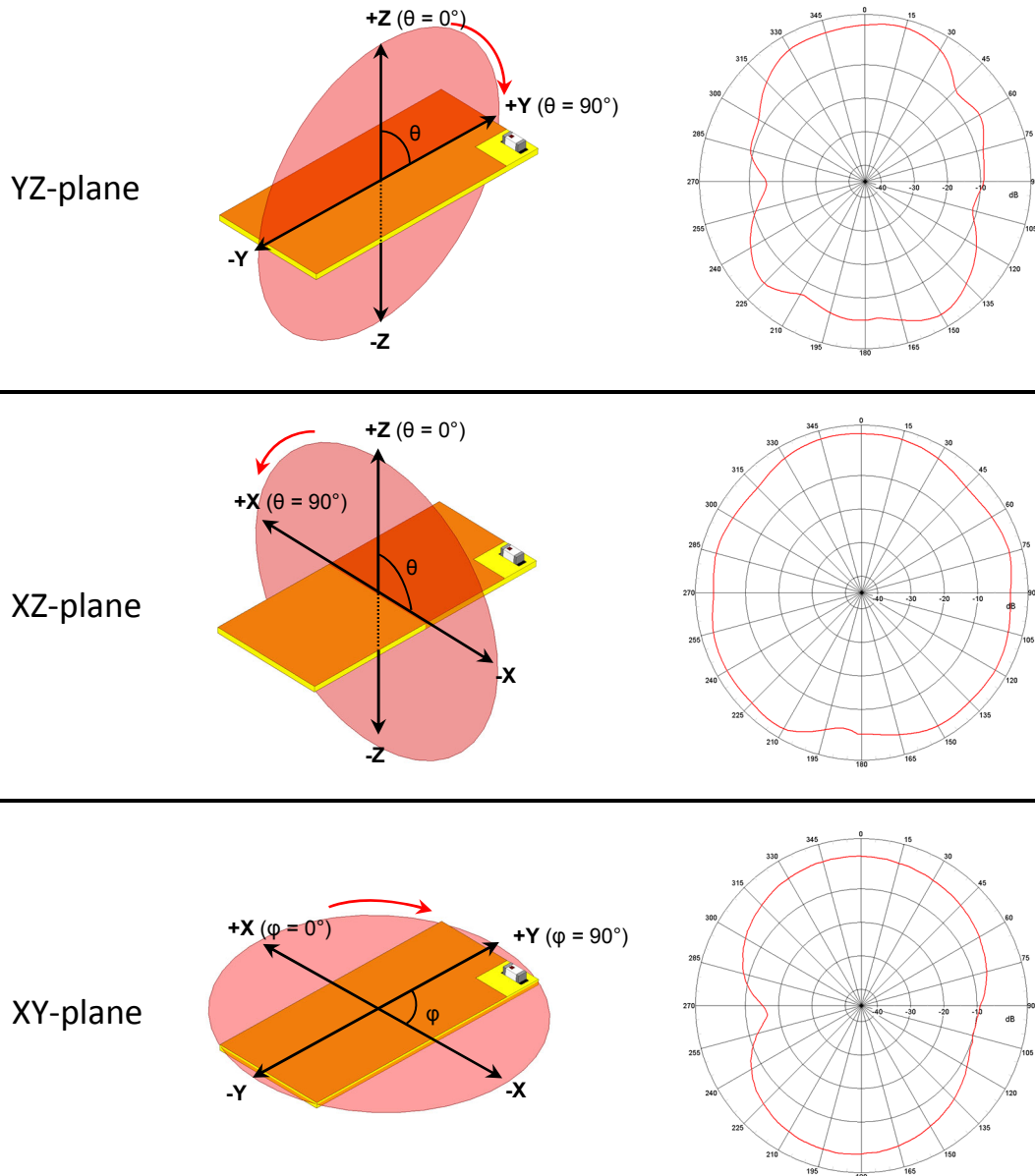
P/N 2450AT18B100

Detail Specification: 11/5/2018

Page 4 of 5

Mounting Considerations 1: Antenna Performance

Typical 2D radiation patterns @ 2.44GHz



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Page 5 of 5

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<https://www.johansontechnology.com/ipc-antenna-services>

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

<https://www.johansontechnology.com/antennas>

Soldering Information

<https://www.johansontechnology.com/ipcsoldering-profile>

MSL Info

<https://www.johansontechnology.com/msl-rating>

Packaging information

<https://www.johansontechnology.com/tape-reel-packaging>

For layout review contact our Applications Team at:

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

RoHS Compliance

<https://www.johansontechnology.com/rohs-compliance>

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

<https://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 our anechoic chamber) we can do that too. Small lab fee may apply.

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7GHz Mini UWB Antenna, AEC-Q200 Qualified

P/N 7000AT18A1600E-AEC

Detail Specification: 2/18/2020

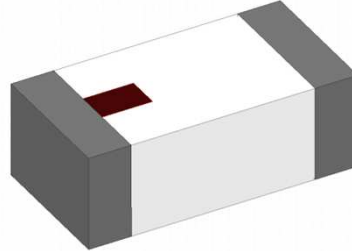
Page 1 of 5

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

<https://www.johansontechnology.com/ipc-antenna-services>

General Specifications

Part Number	7000AT18A1600E-AEC
Frequency (GHz)	6.2 - 8.24
Avg. Rad Efficiency	92%
Peak Gain (dBi)	2.0 typ.
Average Gain (dBi)	-0.5 typ.
Return Loss (dB)	9.5 min.
Impedance	50 Ω
Input Power	3 Watts max. (CW)



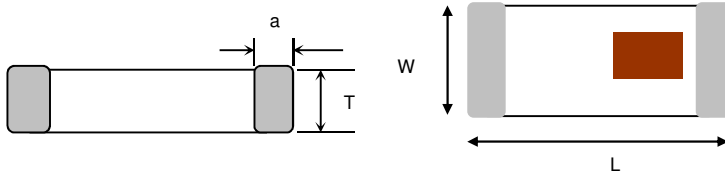
Recommended Storage Conditions and Period for unused T&R Product	+5 to +35°C Humidity 45 - 75% RH 18 months max.
Operating Temperature	-40 to +105°C
Reel Quantity	3,000

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



Terminal Configuration

No.	Function
1	FEED
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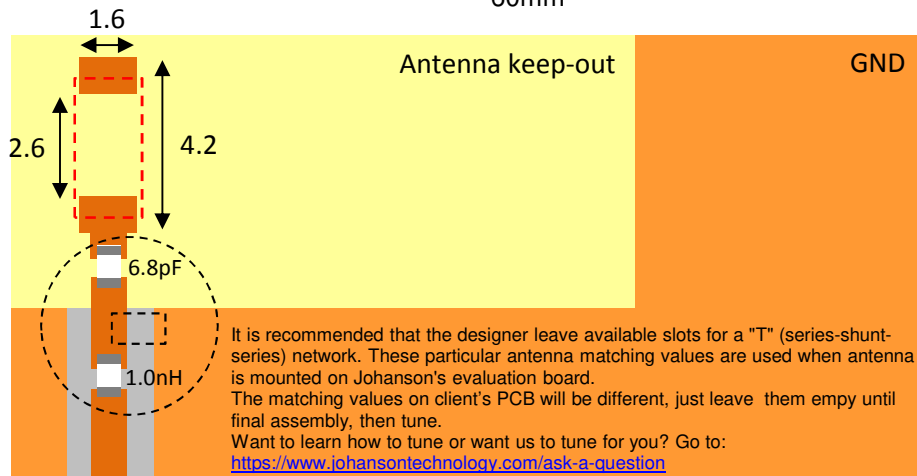
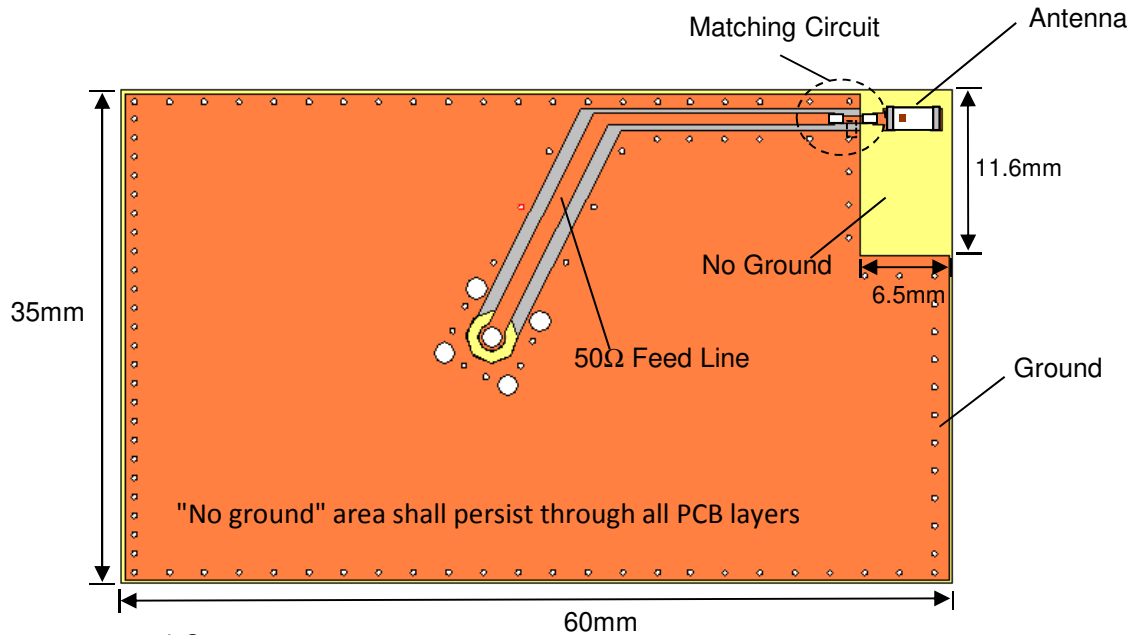
7GHz Mini UWB Antenna, AEC-Q200 Qualified

P/N 7000AT18A1600E-AEC

Detail Specification: 2/18/2020

Page 2 of 5

Mounting Considerations 1: Evaluation Board



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Reference p/n: 7000AT18A1600-EB1SMA

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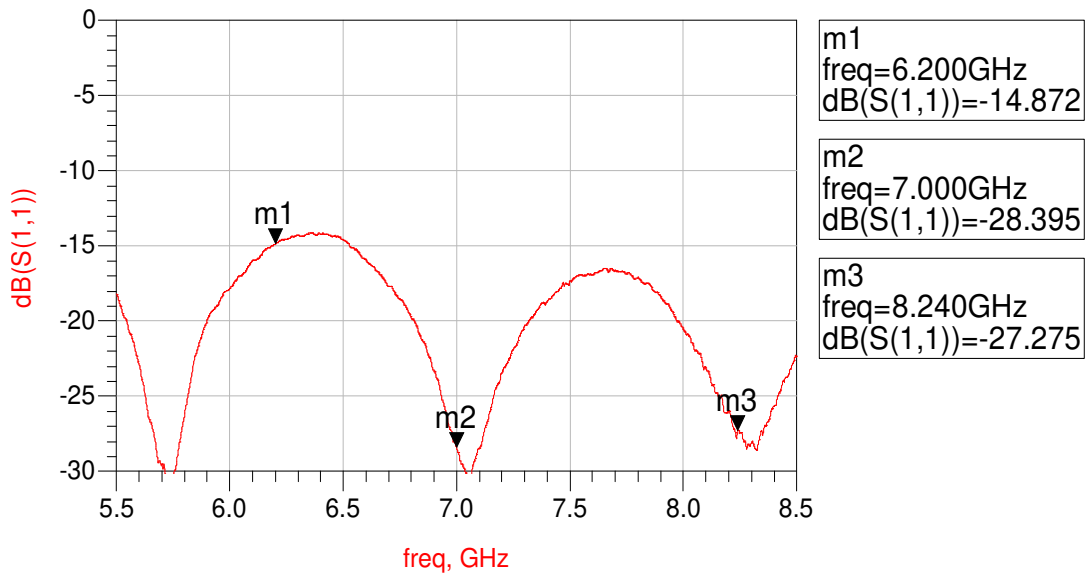
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Detail Specification: 2/18/2020

Page 3 of 5

Mounting Considerations 1: Electrical Performance @25°C

Measured Return Loss



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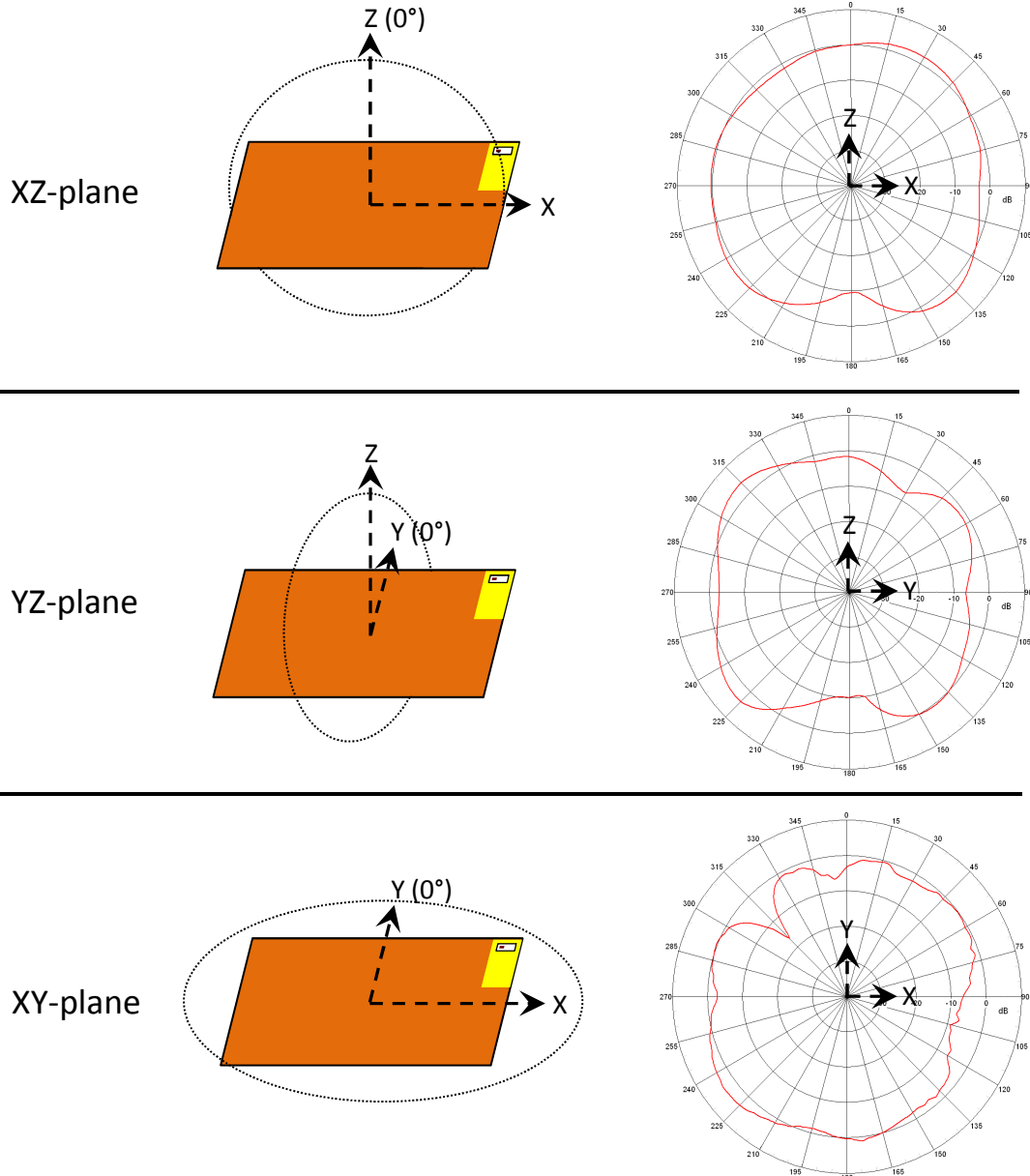
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Page 4 of 5

Mounting Considerations 1: Antenna Performance

Typical 2D radiation patterns @ 7.0GHz



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