

High Frequency Ceramic Solutions

5.4 GHz Wideband Antenna

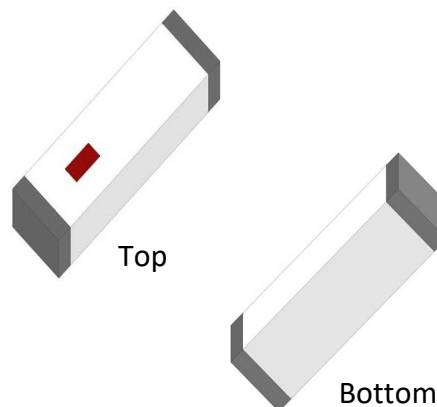
P/N 5400AT18A1000

Detail Specification: 8/4/2021

Page 1 of 5

General Specifications

Part Number	5400AT18A1000
Frequency (MHz)	5150 - 5875
Peak Gain (dBi typ.)	2.0 (XZ-V)
Average Gain (dBi typ.)	-2.5 (XZ-V)
Return Loss (dB)	9.5 min.
Impedance (Ω)	50
Power Capacity (W)	3 max. (CW)
Reel Quantity (pcs./reel)	3,000
Operating Temp	-40 to +85°C
Recommended Storage Conditions and Period for unused Product on T&R	+5°C to +35°C Humidity 45 to 75% RH 18 months max.

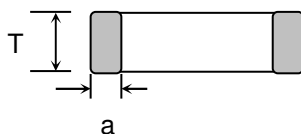
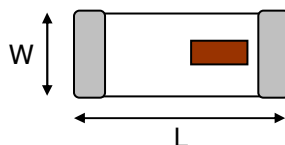


Part Number Explanation

P/N Suffix	Packing Style	Bulk (loose pcs.)	Suffix = S	e.g.. 5400AT18A1000S
		T & R	Suffix = E	e.g.. 5400AT18A1000E
	Evaluation Board	5400AT18A1000-EB1SMA (comes with 1 female SMA connector)		

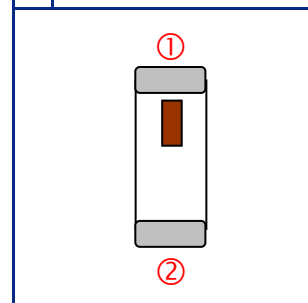
Mechanical Specifications

	In	mm
L	0.126 $\pm$ 0.008	3.20 $\pm$ 0.20
W	0.063 $\pm$ 0.008	1.60 $\pm$ 0.20
T	0.051 $\pm$ 0.004/-0.008	1.30 $\pm$ 0.1/-0.2
a	0.020 $\pm$ 0.012	0.50 $\pm$ 0.30



Terminal Configuration

No.	Function
1	Feed
2	NC



Johanson Technology, Inc. reserves the right to make design changes without notice.

All sales are subject to Johanson Technology, Inc. terms and conditions.



<https://www.johansontechnology.com>

4001 Calle Tecate • Camarillo, CA 93012 • TEL 805.389.1166 FAX 805.389.1821

Ver. 3.0

2021 Johanson Technology, Inc. All Rights Reserved

High Frequency Ceramic Solutions

5.4 GHz Wideband Antenna

P/N 5400AT18A1000

Detail Specification: 8/4/2021

Page 2 of 5

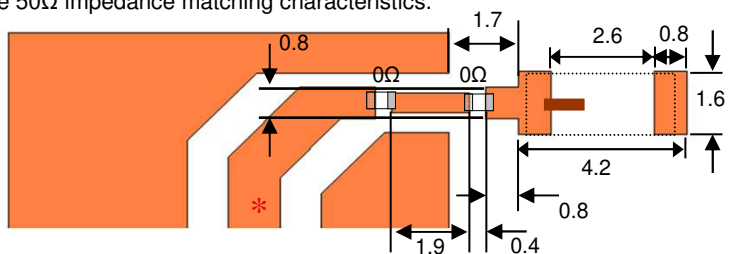
Mounting Considerations

Mount these devices with brown mark facing up.

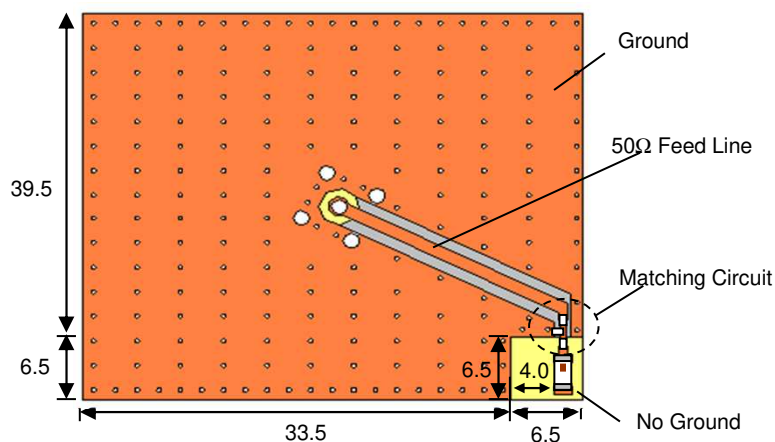
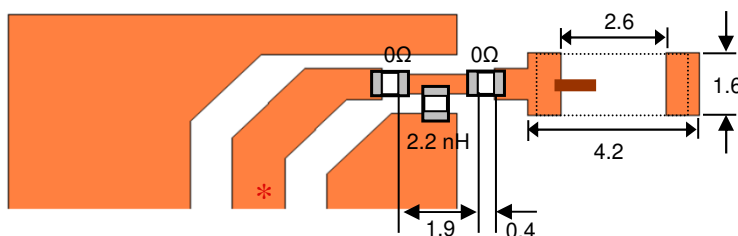
*Line width should be designed to provide 50Ω impedance matching characteristics.

Units: mm

a) Without Matching Circuits



b) With Matching Circuits



Orderable pre-tuned 50Ω EVB with a female SMA connector reference p/n: 5400AT18A1000-EB1SMA

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

Johanson Technology, Inc. reserves the right to make design changes without notice.

All sales are subject to Johanson Technology, Inc. terms and conditions.



<https://www.johansontechnology.com>

4001 Calle Tecate • Camarillo, CA 93012 • TEL 805.389.1166 FAX 805.389.1821

Ver. 3.0

2021 Johanson Technology, Inc. All Rights Reserved

High Frequency Ceramic Solutions

5.4 GHz Wideband Antenna

P/N 5400AT18A1000

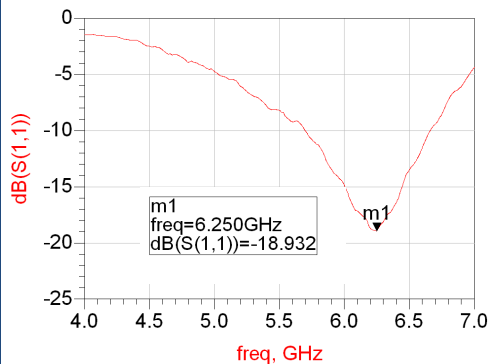
Detail Specification: 8/4/2021

Page 3 of 5

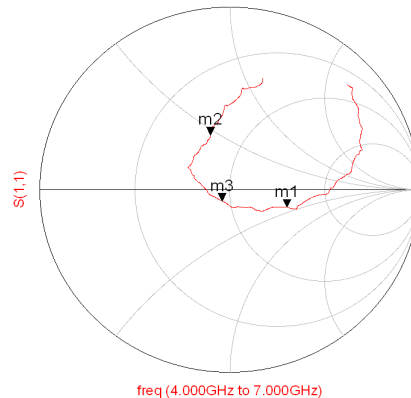
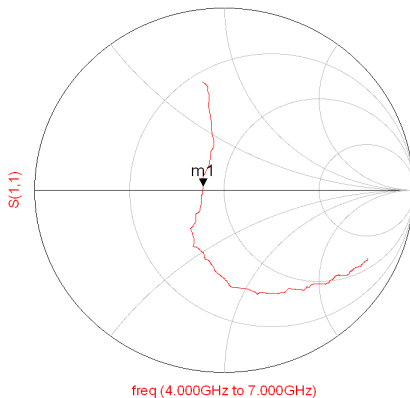
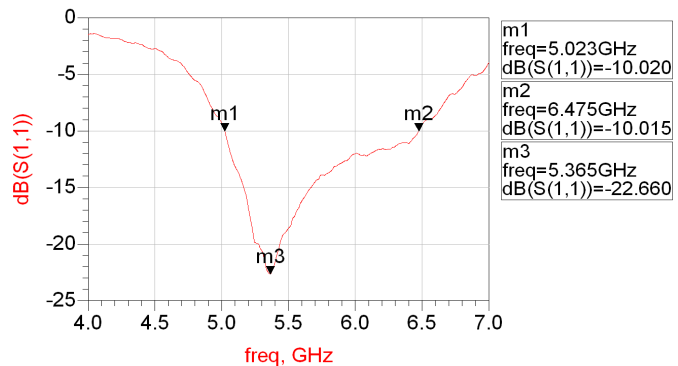
Typical Electrical Characteristics (T=25 °C)

Return Loss

a) Without Matching Circuits



b) With Matching Circuits



Need help designing the antenna in? Use our antenna design services! <https://www.johansontechnology.com/ipc-antenna-services>
2 Free layout reviews and if you need us to tune and characterize the antenna on your design (anechoic chamber) we can do that too (lab fee may apply for the latter).

Johanson Technology, Inc. reserves the right to make design changes without notice.
All sales are subject to Johanson Technology, Inc. terms and conditions.



<https://www.johansontechnology.com>

4001 Calle Tecate • Camarillo, CA 93012 • TEL 805.389.1166 FAX 805.389.1821

Ver. 3.0

2021 Johanson Technology, Inc. All Rights Reserved

High Frequency Ceramic Solutions

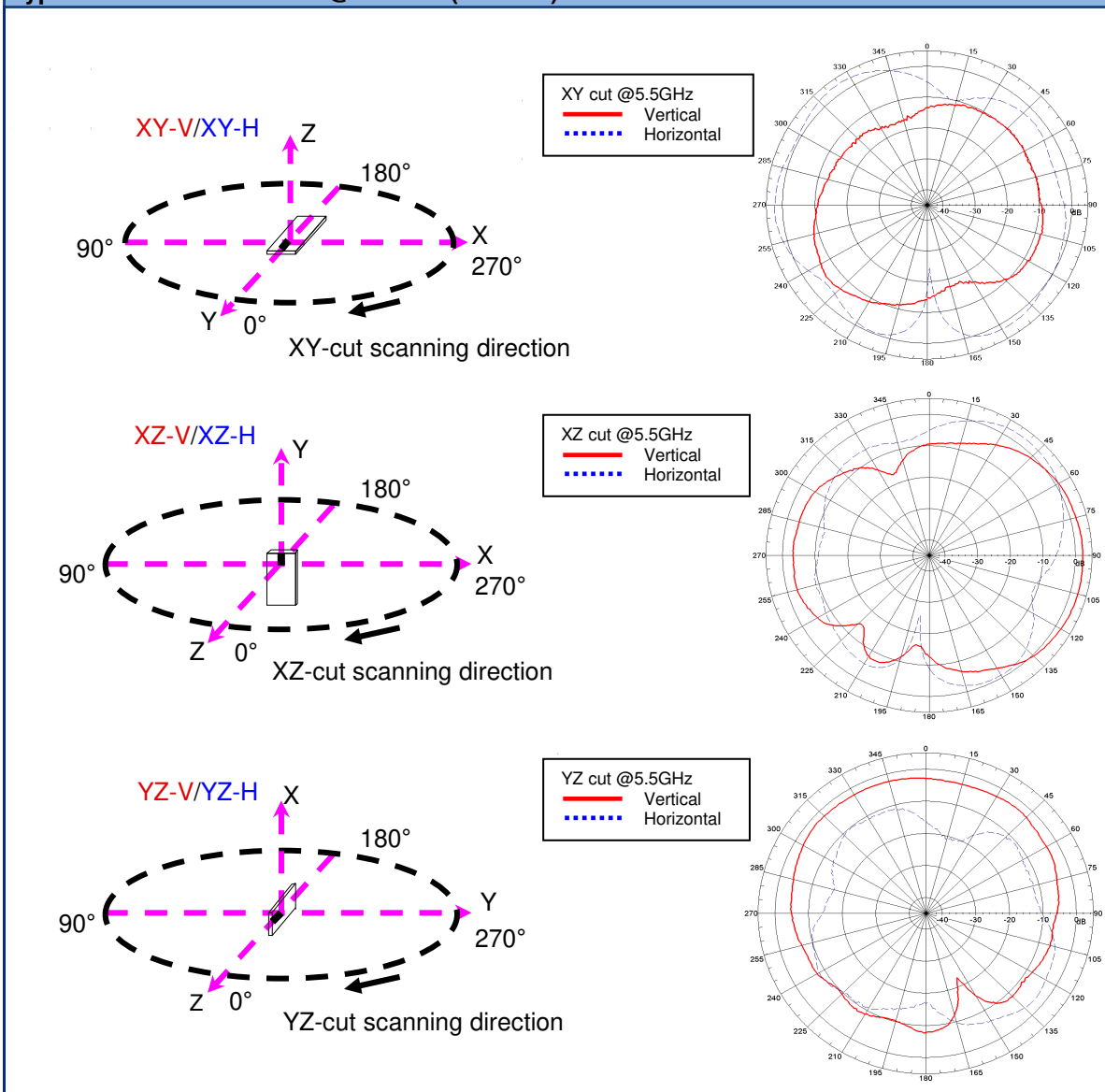
5.4 GHz Wideband Antenna

P/N 5400AT18A1000

Detail Specification: 8/4/2021

Page 4 of 5

Typical Radiation Patterns @ 5.5GHz (T=25 °C)



Johanson Technology, Inc. reserves the right to make design changes without notice.

All sales are subject to Johanson Technology, Inc. terms and conditions.



<https://www.johansontechnology.com>

4001 Calle Tecate • Camarillo, CA 93012 • TEL 805.389.1166 FAX 805.389.1821

Ver. 3.0

2021 Johanson Technology, Inc. All Rights Reserved

High Frequency Ceramic Solutions

5.4 GHz Wideband Antenna

P/N 5400AT18A1000

Detail Specification: 8/4/2021

Page 5 of 5

Antenna layout review, tuning, and characterization services

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

More SMD Chip Antennas at:

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

Soldering Information

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

Antenna layout and tuning techniques (How to obtain the new antenna matching values)

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

Packaging information

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

RoHS Compliance

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

MSL Info

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

P/N Explanation and Breakdown

<https://www.johansontechnology.com/ipc-pn-explained>

Johanson Technology, Inc. reserves the right to make design changes without notice.
All sales are subject to Johanson Technology, Inc. terms and conditions.



<https://www.johansontechnology.com>
4001 Calle Tecate • Camarillo, CA 93012 • TEL 805.389.1166 FAX 805.389.1821
Ver. 3.0 2021 Johanson Technology, Inc. All Rights Reserved

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Johanson:](#)

[5400AT18A1000E](#) [5400AT18A1000001E](#)