

"High Frequency Ceramic Solutions"

2.45 GHz SMD Antenna, EIA 1210, Detuning resilient, Edge Mount Design

P/N 2450AT18D0100

Detail Specification: 9/17/2015

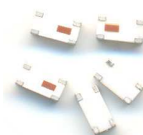
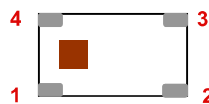
Page 1 of 6

This antenna is optimal for edge middle mounting; rectangular and circular PCB shape applications, go to pages 2-4 for more info.

General Specifications

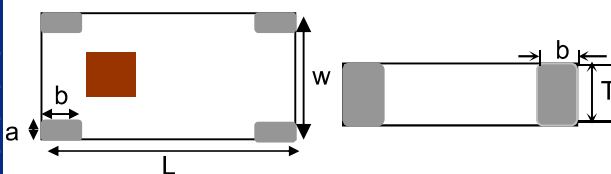
Part Number	2450AT18D0100	Input/Output Power	2W max. (CW)
Frequency (MHz)	2400 - 2500	Impedance	50 Ω
Peak Gain	1.5 dBi typ. (XZ-total)	Reel Quantity	3,000
Average Gain	-1.0 dBi typ. (XZ-total)	Storage Temp	-40 to +85°C
Return Loss	10.0 dB min.	Total Radiation Efficiency ¹	72%
Operating Temperature	-40 to +125°C	¹ Efficiency measured on 2450AT18D0100-EB1SMA 40x20mm EVB on page 2	

No	Terminal Function	
1	Feeding Point	3 GND
2	GND	4 GND



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	0.047 \pm 0.008	1.20 \pm 0.20
a	0.012 \pm .004/-0.008	0.30 \pm 0.1/-0.2
b	0.020 \pm 0.008	0.50 \pm 0.20



Need help designing the antenna in? Use our antenna design services! www.johansontechnology.com/ipcantennaservices

² Free layout reviews and if you need us to tune and characterize our antenna on your design (anechoic chamber) we can do that too (lab fee may apply for the latter).

Mounting Considerations 1: Standard Rectangular Layout

Mount these devices with the red square mark facing up. Otherwise, the antenna will not operate as intended.

Solder Resist

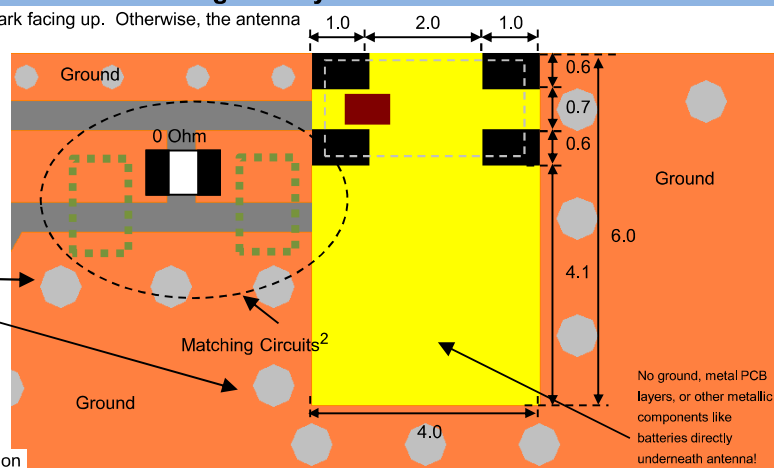
Land

50 Ω Trace (Grounded CPWG type is preferred)

GND Vias

Want the layout file of this? Send us a message at:

www.johansontechnology.com/ask-a-question



²It is recommended that the designer leave available slots for a "pi" (or shunt-series-shunt) network, even if all slots won't be used, this will prepare the PCB for the final mass production values of the matching circuit. 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: <http://johansontechnology.com/tuning> and see how to obtain the new values yourself if you have a network analyzer.

JOHANSON TECHNOLOGY

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