

Antenna Information

The Antenna for the Readiband uses a commercial off the shelf ceramic chip antenna. The part number for this device is a Johanson Technology 2450AT18A100 chip. The Readiband's antenna is in compliance with FCC requirement 15.203. Since the antenna is soldered directly to the printed circuit board it is permanently attached and because of its sealed casing the antenna is not user accessible.

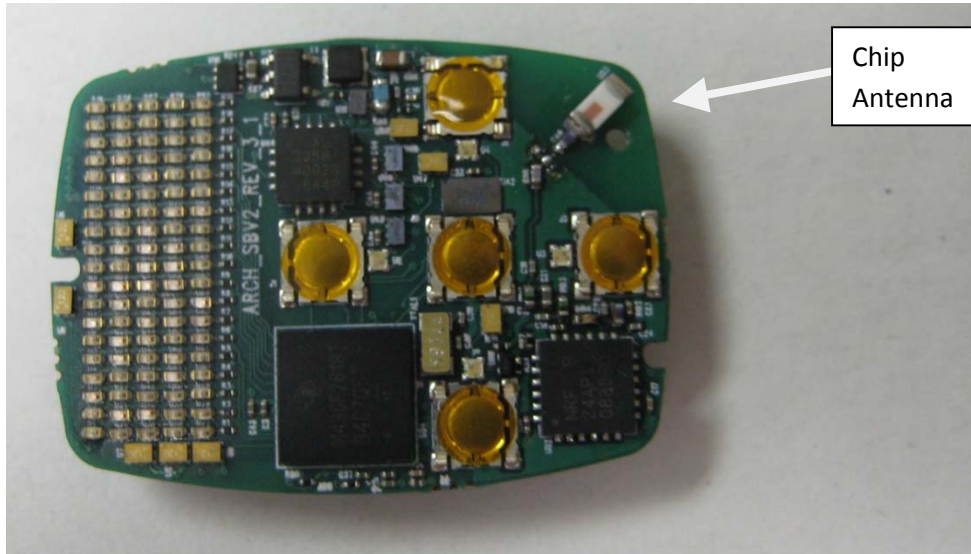


Figure 1: Readiband PCB showing location of the Chip antenna

"High Frequency Ceramic Solutions"

2.45 GHz Antenna

P/N 2450AT18A100

Detail Specification: 09/03/03

Page 1 of 3

General Specifications

| | |
|-----------------|----------------------|
| Part Number | 2450AT18A100 |
| Frequency Range | 2400 - 2500 Mhz |
| Peak Gain | 0.5 dBi typ. (XZ-V) |
| Average Gain | -0.5 dBi typ. (XZ-V) |
| Return Loss | 9.5 dB min. |

| | |
|-----------------------|--------------|
| Input Power | 500mW max. |
| Impedance | 50 Ω |
| Operating Temperature | -40 to +85°C |
| Reel Quantity | 3,000 |

| No. | Function | Terminal Configuration |
|-----|---------------|------------------------|
| 1 | Feeding Point | |
| 2 | NC | |

Mechanical Dimensions

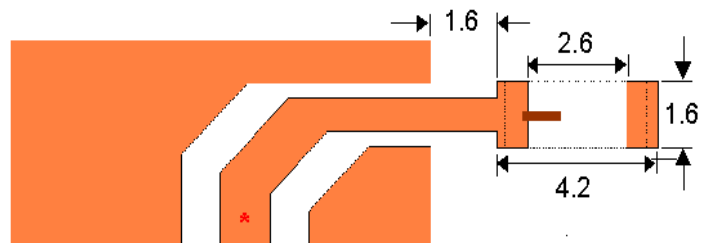
| | In | mm |
|---|-------------------|----------------|
| L | 0.126 ± 0.008 | 3.20 ± 0.20 |
| W | 0.063 ± 0.008 | 1.60 ± 0.20 |
| T | 0.051 +.004/-.008 | 1.30 +0.1/-0.2 |
| a | 0.020 ± 0.012 | 0.50 ± 0.30 |

Mounting Considerations

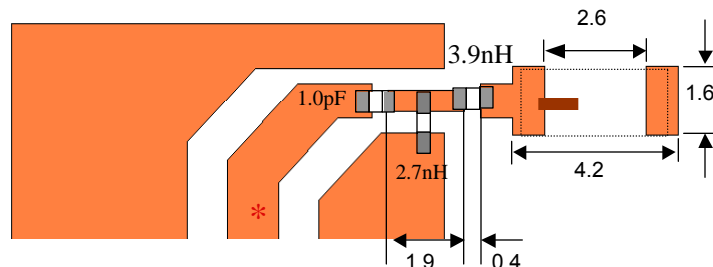
Mount these devices with brown mark facing up. Units: mm

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

a) Without Matching Circuits



b) With Matching Circuits



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

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

"High Frequency Ceramic Solutions"

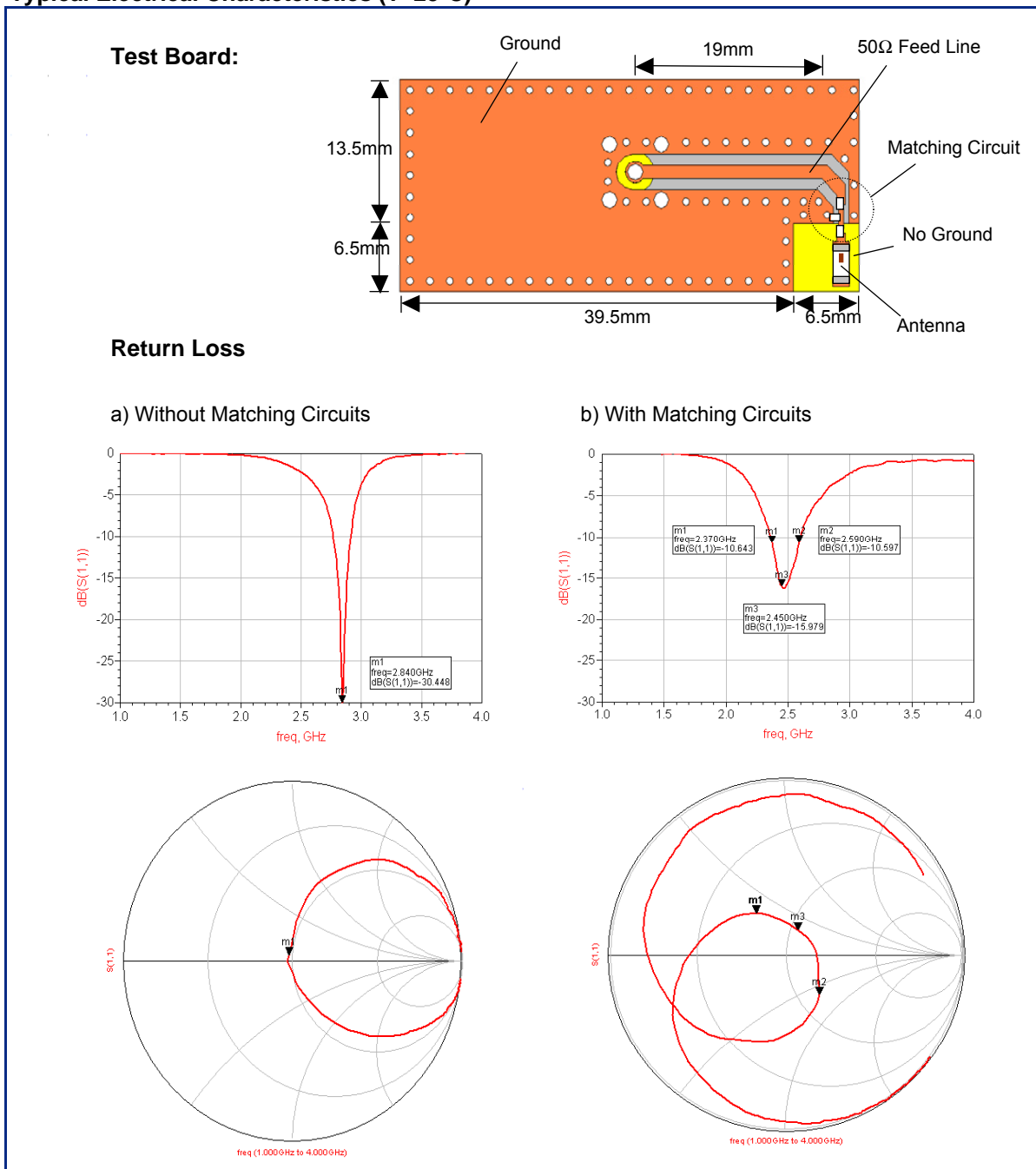
2.45 GHz Antenna

P/N 2450AT18A100

Detail Specification: 09/03/03

Page 2 of 3

Typical Electrical Characteristics (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.

"High Frequency Ceramic Solutions"

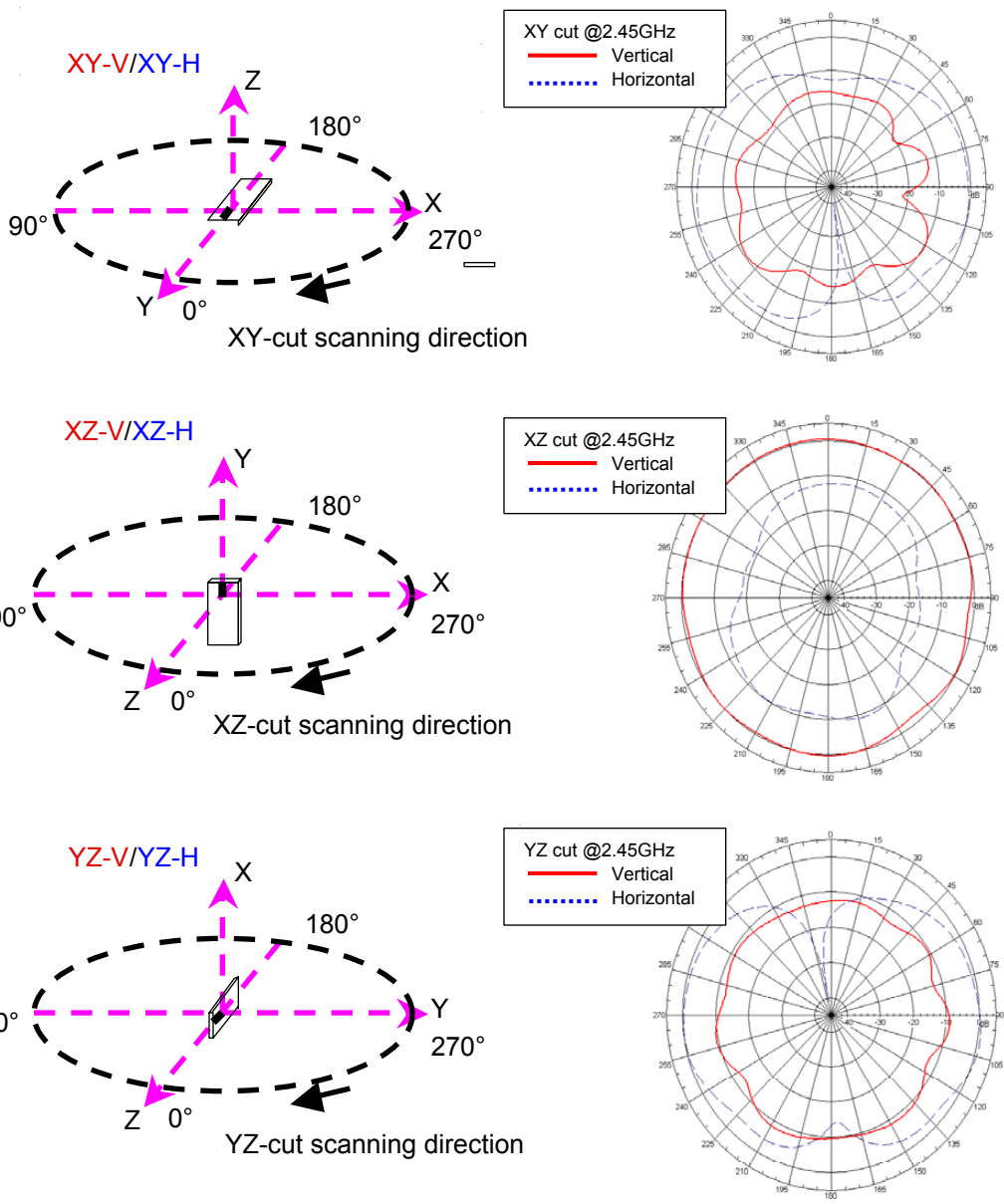
2.45 GHz Antenna

P/N 2450AT18A100

Detail Specification: 09/03/03

Page 3 of 3

Typical Radiation Patterns



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



www.johansontechnology.com

931 Via Alondra • Camarillo, CA 93012 • TEL 805.389.1166 FAX 805.389.1821

2003 Johanson Technology, Inc. All Rights Reserved