Revision

1.0.0

RADIOTRONIX™
life without wires

# ANT-915-06A
# DATASHEET

RADIOTRONIX, INC.

# ANT-915-06A DATASHEET


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# Document Control

| | SIGNED | DATE |
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| **CREATED BY** | TJE | 6/14/2007 |
| **ENGINEERING REVIEW** | | |
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# Revised History

| REVISION | SIGNED | DATE | DESCRIPTION |
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| 1.0.0 | TJE | 6/14/2007 | Document created |
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Chapter 1

# 1. Description

The ANT-915-06A is a ½ wave long range dipole antenna with a straight reverse polarity SMA connector. It covers a frequency range from 900-930 MHz. These antennas are designed to meet FCC certification approval for all our modular products, including our family of Wi.232 radio modules.

## 1.1. Features

- 900 – 930 MHz
- ½ Wave Dipole
- Straight RPSMA Antenna connector
- RoHS Compliant
- Designed for long range performance

## 1.2. Applications

- Supports all 50 Ohm Antenna Requirements
- Supports all Wi.232™ Embedded Radios for FCC Certification
- Specially matched to Wi.232FHSS-250-R™ and Wi.232FHSS-250-FCC-R™ long range embedded modules

Chapter 2

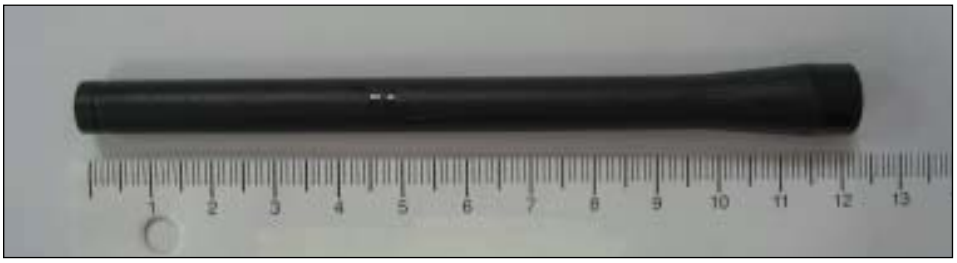
# 2. Mechanical Specifications

## 2.1. Chart

| PARAMETERS | DESCRIPTION |
|---|---|
| Type | High Gain Dipole |
| Polarity of Connector | Reversed Polarity |
| Connector Type (Type, Angle, Plug) | SMA 180° (Plug) |
| Antenna Type | High Gain Dipole |
| Max. Dimension of Antenna | 10.8 x 120.4 mm ± 2 |
| Color of Surface | Black |
| Operation Temperature Range | -40 to +85 degrees C |
| Storage Temperature Range | -40 to +85 degrees C |

Table 1, Mechanical Specifications Chart

## 2.2. Picture



Chapter 3

# 3. Electrical Specifications

## 3.1. Chart

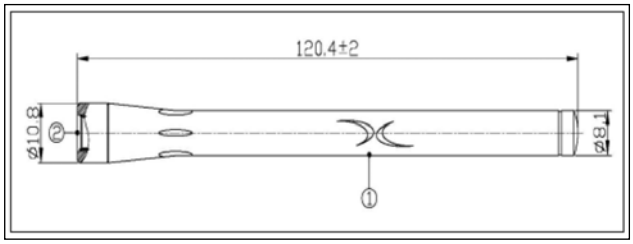
| PARAMETERS | DESCRIPTION |
|---|---|
| ‘Center Frequency | 915 MHZ |
| Bandwidth | 30 MHz |
| Nominal Impedance | 50 Ohms |
| B.S.A.R. (Bare Site Axial Radio) | N/A |
| Polarization | Linear |
| Wave Length | ½ Wave Length |
| V.S.W.R. | ≤ 2:1 |
| Radiation Pattern | Omni-directional Pattern |
| Antenna Peak Gain (including cable loss) | 2 dBi |

Table 2, Electrical Specifications Chart

Note A: The gain data shall include Radiation Pattern Data for both E&H plane.

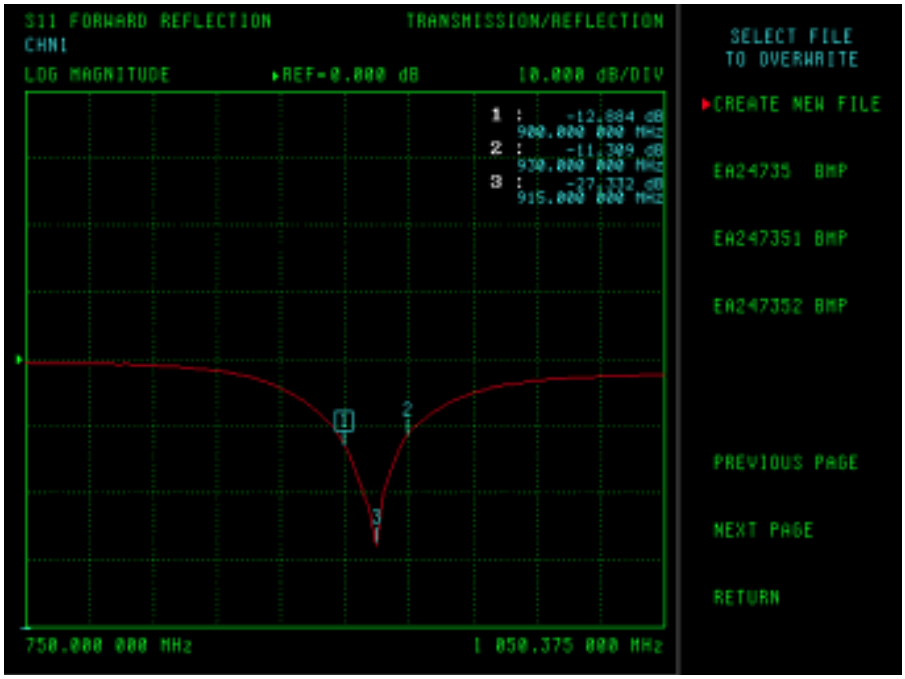
Chapter 4

# 4. Engineering Drawing

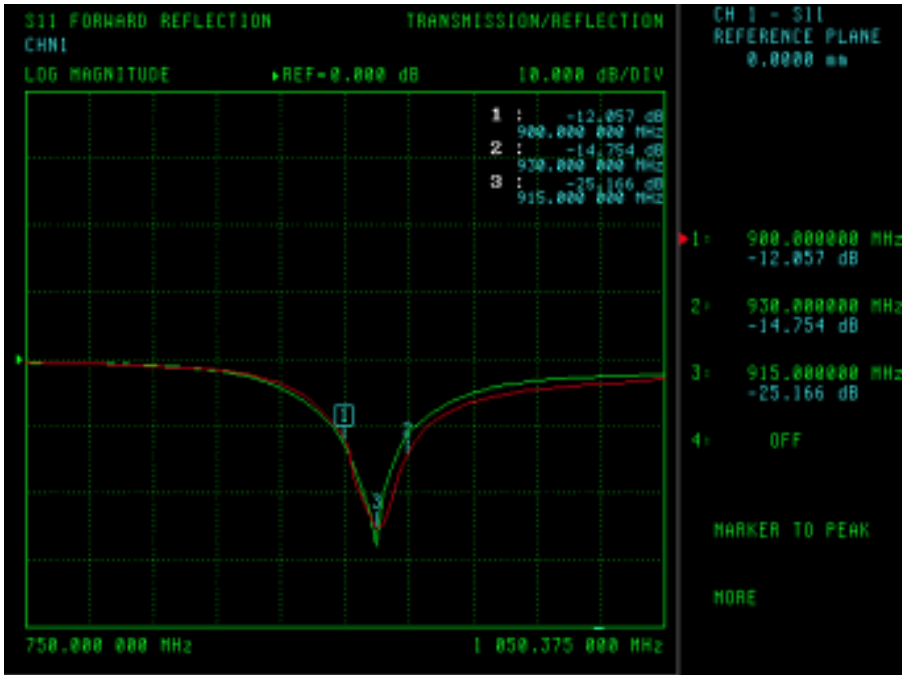



## 4.1. Frequency Graphs

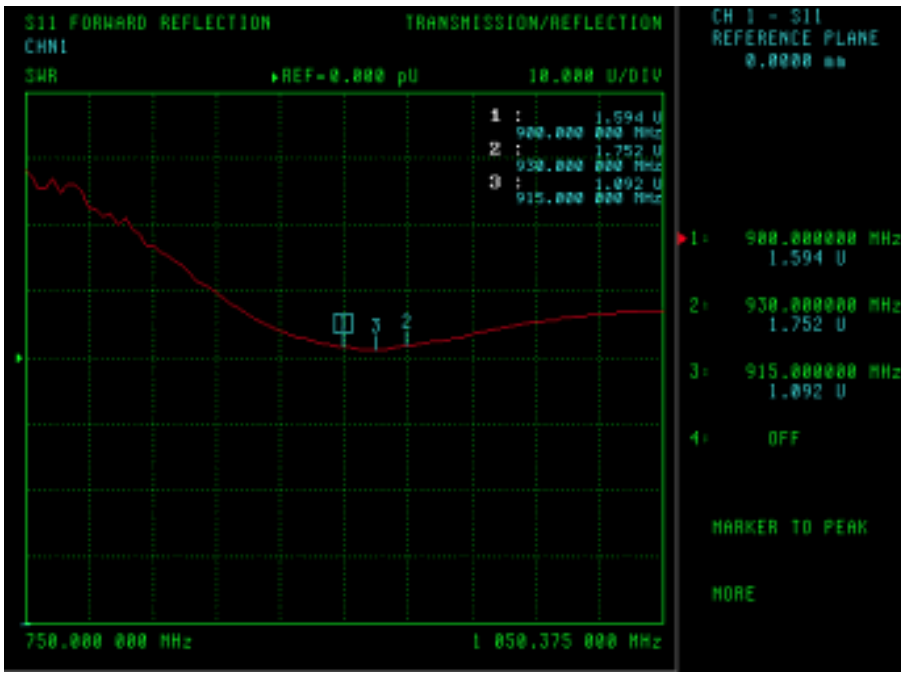
### 4.1.1. Return Loss vs. Frequency: with square ground plane



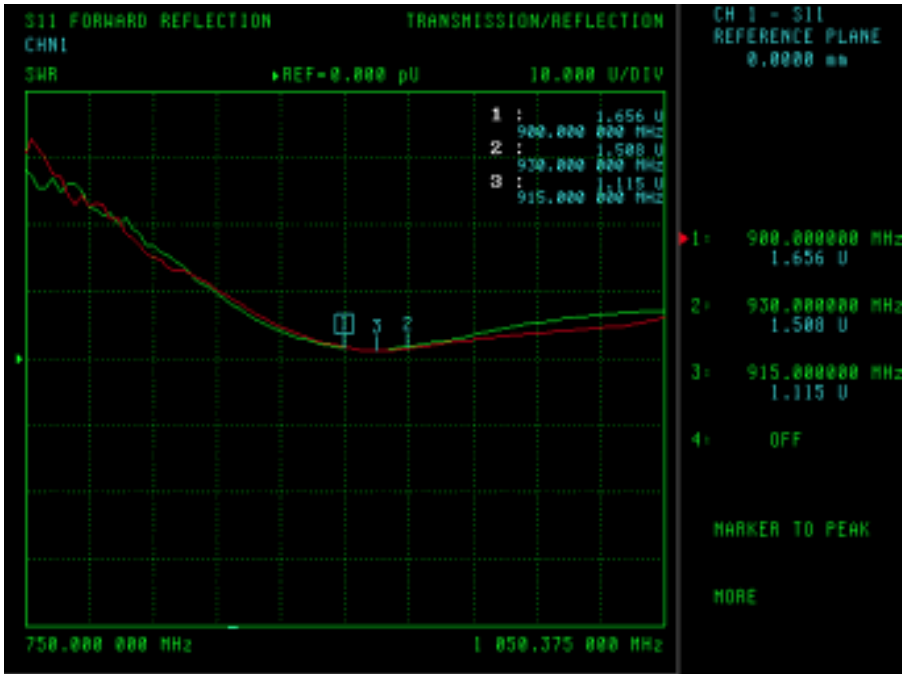
### 4.1.2. Return Loss vs. Frequency: without square ground plane




### 4.1.3. V.S.W.R. vs. Frequency: with square ground plane

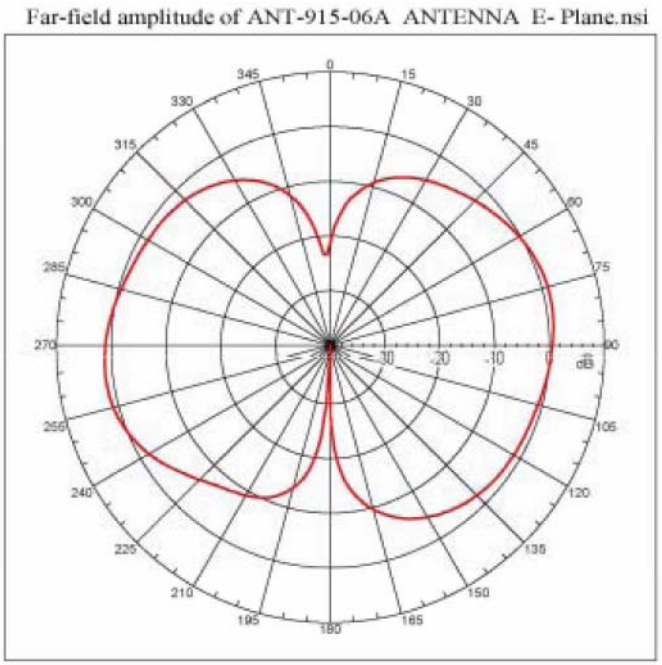


### 4.1.4. V.S.W.R. vs. Frequency: without square ground plane

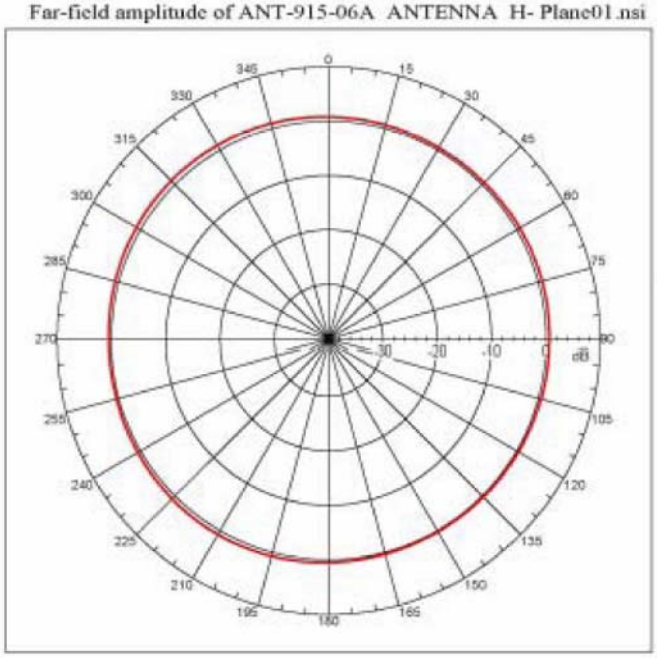



Green line with ground plane. Red line without ground plane.

### 4.1.5. Radiation Pattern (Elevation) with square ground plane



### 4.1.6. Radiation Pattern (Arithmetic) with square ground plane



Chapter 5

# 5. Manufacturing Notes

The testing ground plane and fixture are for reference only. The published data on VSWR, gain and radiation pattern are tested on this fixture and ground plane. The actual antenna performance on practical environment may be either better or worse than the published performance based on the custom ground plane. Radiotronix recognizes this test idealization and offers custom antenna tuning for practical cases should volume warrant. For more assistance, please contact Radiotronix at support@radiotronix.com.

Chapter 6

# 6. Ordering Information

| Product Part Number | Description |
|---|---|
| ANT-915-06A | 900 – 930 MHz RPSMA Antenna |

## 6.1. Contact Information

Corporate Headquarters:
905 Messenger Lane
Moore, Oklahoma 73160
405-794-7730
website: www.radiotronix.com
support: support@radiotronix.com

### 6.1.1. Technical Support

Radiotronix has built a solid technical support infrastructure so that you can get answers to your questions when you need them. Our primary technical support tools are the support forum and knowledge base found on our website. We are continuously updating these tools. To find the latest information about these technical support tools, please visit http://www.radiotronix.com/support. Our technical support engineers are available Mon-Fri between 9:00 am and 5:00 pm central standard time. The best way to reach a technical support engineer is to submit a Webcase. Webcase submissions can be made at http://www.radiotronix.com/support/webcase.asp. For customers that would prefer to talk directly to a support engineer, we do offer phone support free of charge.

### 6.1.2. Sales Support

Our sales department can be reached via e-mail at sales@radiotronix.com or by phone at 405-794-7730. Our sales department is available Mon-Fri between 8:30 am and 5:00 pm central standard time. Visit our web site at http://www.radiotronix.com/corpsales.asp for information on where to buy our products.