

## **INTRODUCTION**

### **1. GENERAL DESCRIPTION**

<b>AIR WAVE P/N</b>
EA-179E

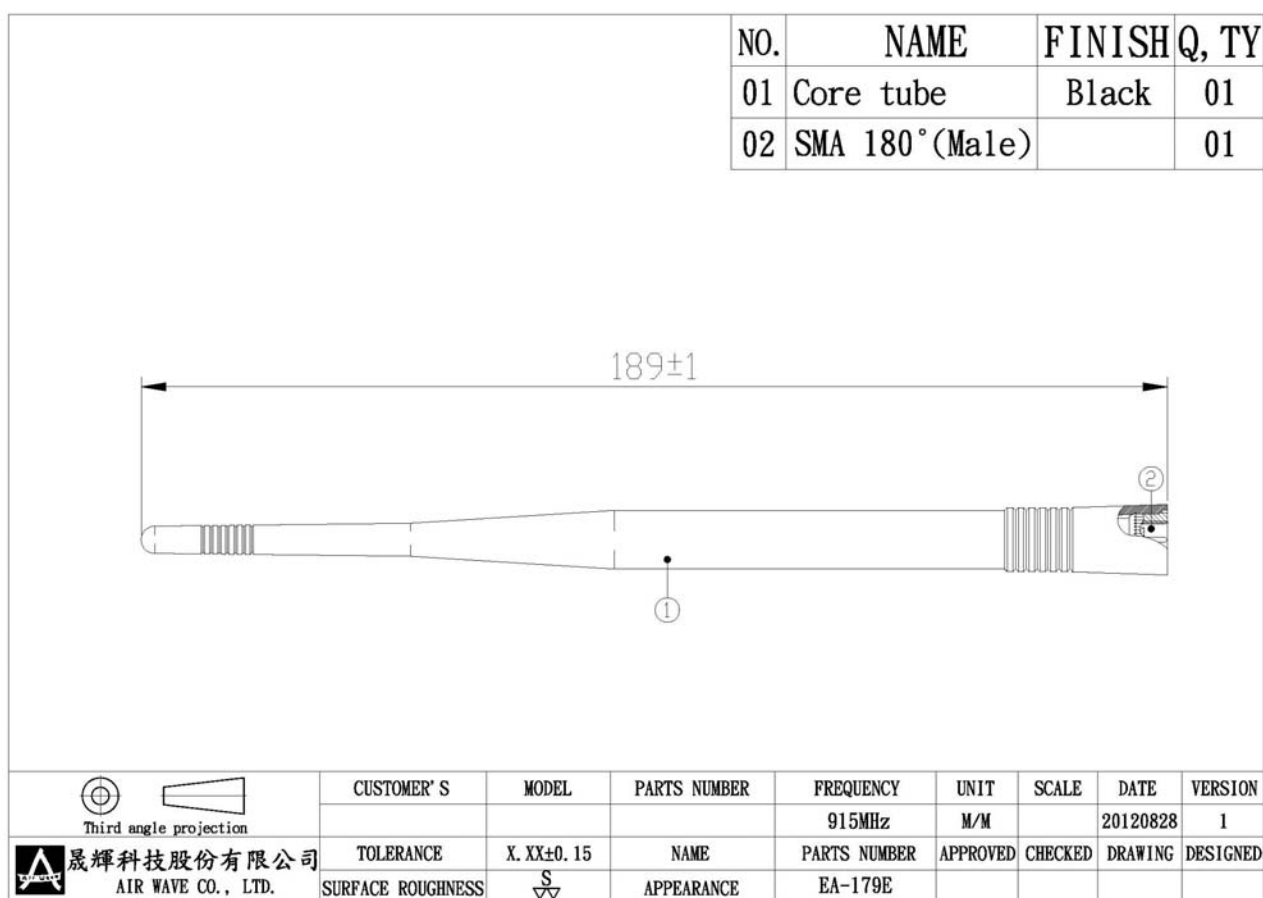
#### **1.1 Electrical Properties**

<b>Parameter</b>	<b>Description</b>
Frequency Band	915MHz
Nominal Impedance	50 ohm
Polarization	Vertical
V.S.W.R	2.0 : 1

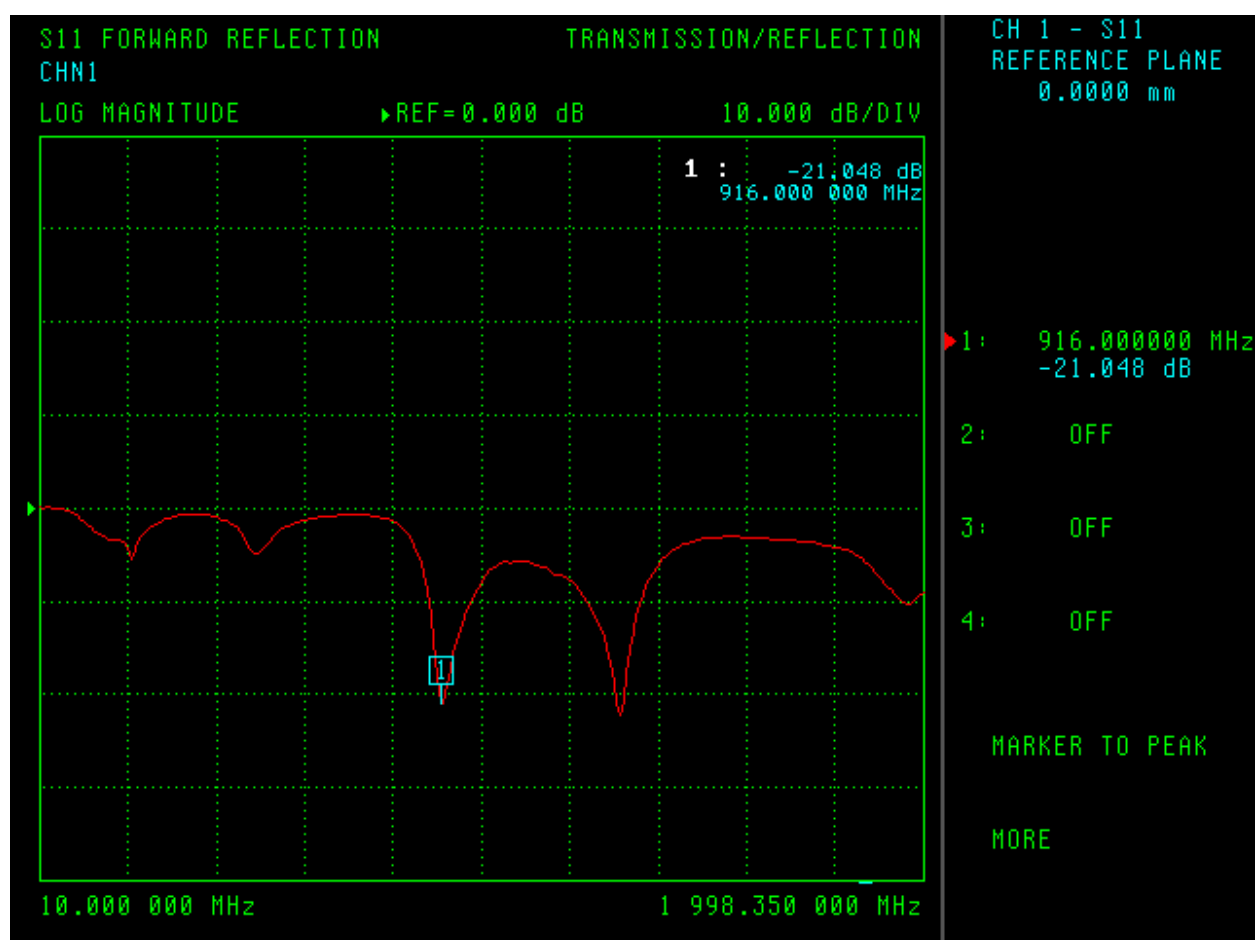
#### **1.2 Mechanical Properties**

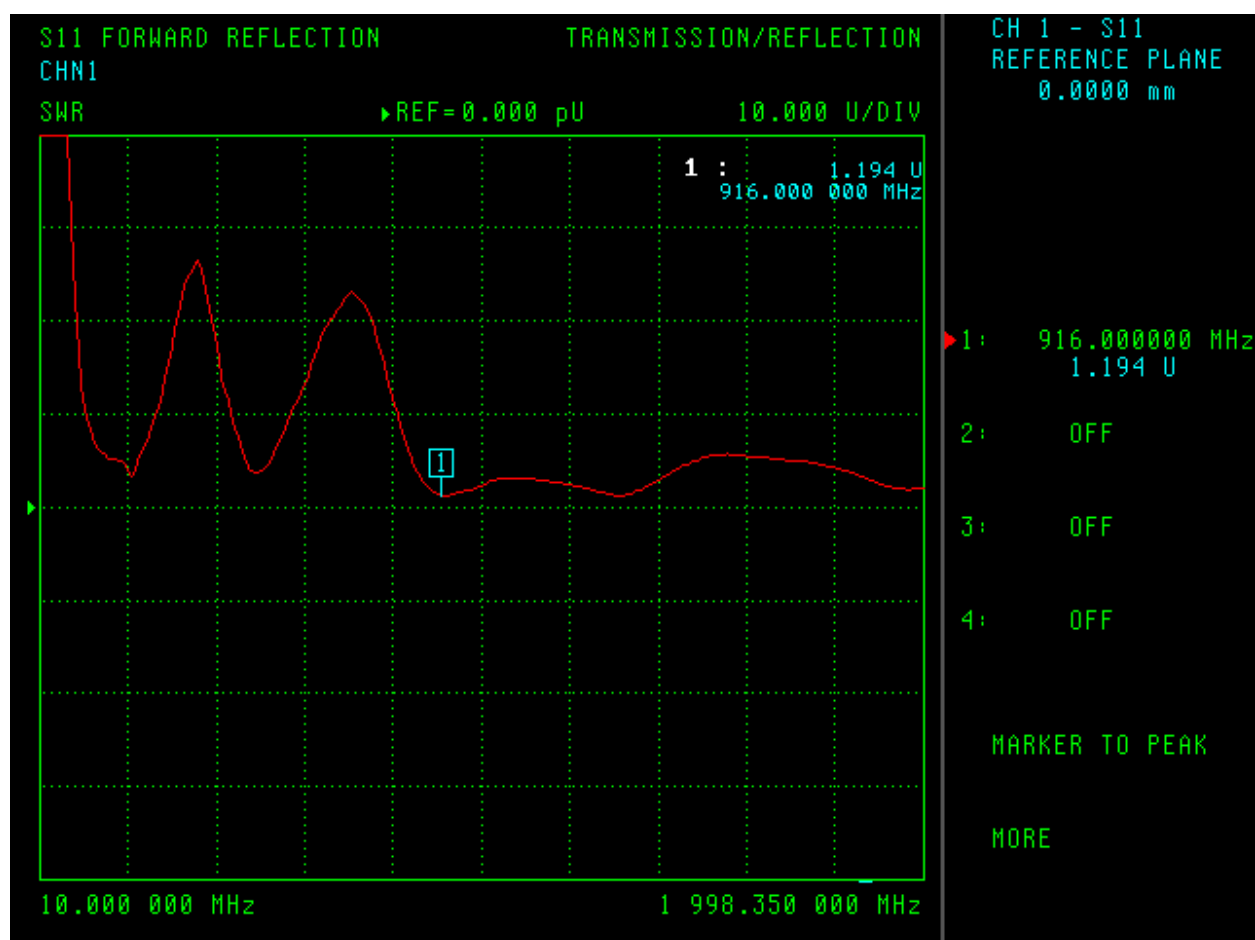
<b>Parameter</b>	<b>Description</b>
Antenna Type	External Antenna
Antenna Cover	TPR
Touch Type	Screw Type
Connector Type	SMA Connector (Male)
Antenna Dimensions	189mm ±1
Antenna Color	Black
Operating Temperature Range	-20°C~+60°C
Storage Temperature Range	-30°C~+70°C

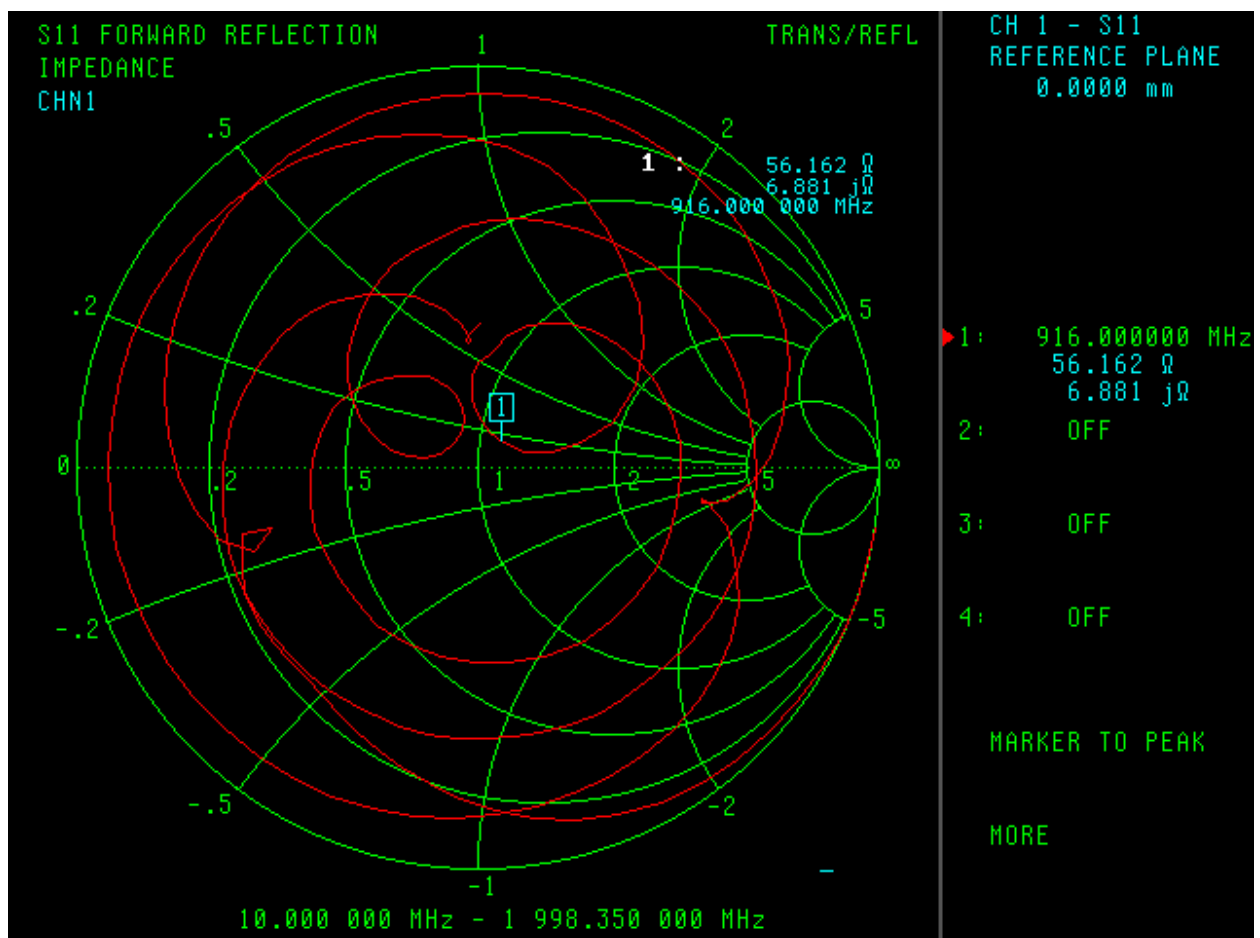
## 2. Appearance



### 3. Return Loss, V.S.W.R. and Smith Chart

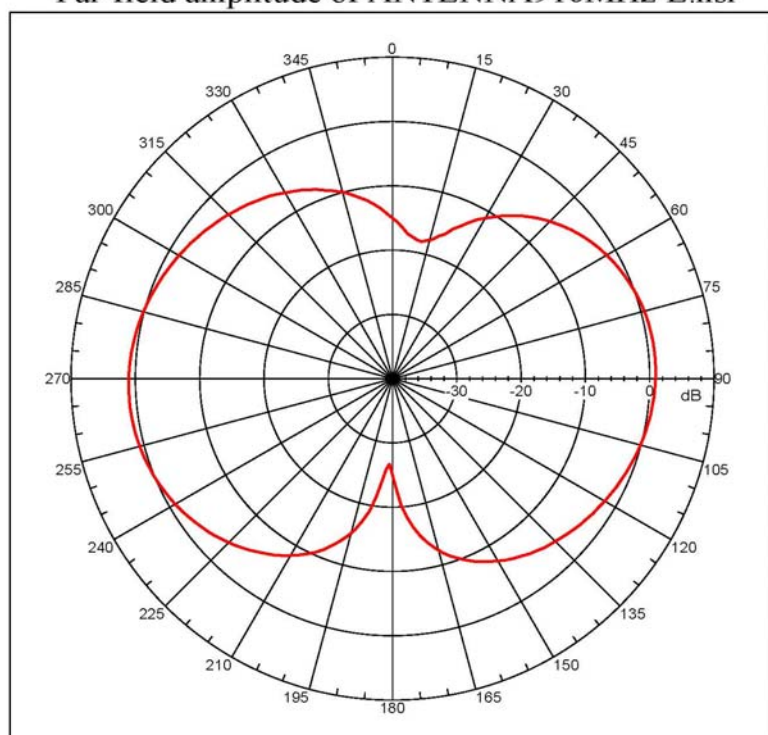






## 4. E-PLANE

Far-field amplitude of ANTENNA916MHz-E.nsi



Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg  
Gain = 1.05433 dB  
Max far-field (global) = -40.54251 dB, Max far-field (plot) =  
-40.54255 dB  
Normalization: Reference, Network offset = 0.000 dB  
Hpeak at: -92.000 deg, Vpeak at: 0.000 deg  
Plot centering: On

ANTENNA916MHz-E

NSI2000 V4.0.124, Filename: C:\Documents and Settings\NSI\Desktop\Y.  
H.T\ANTENNA916\E\ANTENNA916MHz-E.nsi  
Measurement date/time: 8/27/2012 2:08:20 PM, Filetype: NSI-97

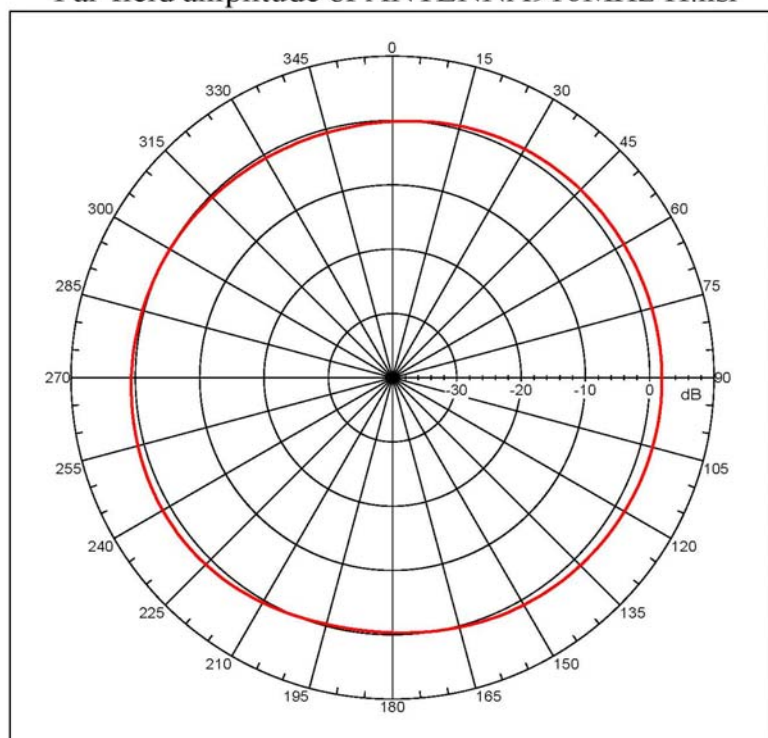
Far-field Cut Analysis:  
Avg value: -4.185 dB  
-3. dB beam width: 67.77 deg  
-6. dB beam width: 100.61 deg  
-10. dB beam width: 133.32 deg  
Left Sidelobe: Not Found  
Right Sidelobe: -0.11 dB at 87.486 deg

Far-field display setup  
Azimuth (deg)  
Span = 360.00001 deg, Center = 0.000 deg, #pts = 181  
Start = -180.00001 deg, Stop = 180.00001 deg, Delta = 2.000  
deg  
Elevation (deg)  
Center = 0.000 deg, #pts = 1

Selected beam(s) 1 of 1  
Beam Frequency Azimuth Elevation Pol  
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1 0.916 GHz Azimuth Elevation Single-pol

## 5. H-PLANE

Far-field amplitude of ANTENNA916MHz-H.nsi



Far-field amplitude, Principal: Linear, Tau = 0.000 deg  
Gain = 1.92469 dBi  
Max far-field (global) = -39.67215 dB, Max far-field (plot) =  
-39.67215 dB  
Normalization: Reference, Network offset = 0.000 dB  
Peak at: 96.000 deg, Vpeak at: 0.000 deg  
Plot centering: On

ANTENNA916MHz-H

NSI2000 V4.0.124, Filename: C:\Documents and Settings\NSI\Desktop\Y.  
H.T\ANTENNA916\ANTENNA916MHz-H.nsi  
Measurement date/time: 8/27/2012 2:03:42 PM, Filetype: NSI-97

Far-field Cut Analysis:  
Avg value: 0.709 dB  
-3. dB beam width: Not Found  
-6. dB beam width: Not Found  
-10. dB beam width: Not Found  
Left Sidelobe: -0.66 dB at -121.676 deg  
Right Sidelobe: Not Found

Far-field display setup  
Azimuth (deg)  
Span = 360.00001 deg, Center = 0.000 deg, #pts = 181  
Start = -180.00001 deg, Stop = 180.00001 deg, Delta = 2.000  
deg  
Elevation (deg)  
Center = 0.000 deg, #pts = 1

Selected beam(s) 1 of 1  
Beam Frequency Azimuth Elevation Pol  
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1 0.916 GHz Azimuth Elevation Single-pol