

# INTRODUCTION

## 1. GENERAL DESCRIPTION

Model No
MT-300(our part NO. UF-007A)

Below is a table summarizing the antenna design specification.

### 1.1 Electrical Properties

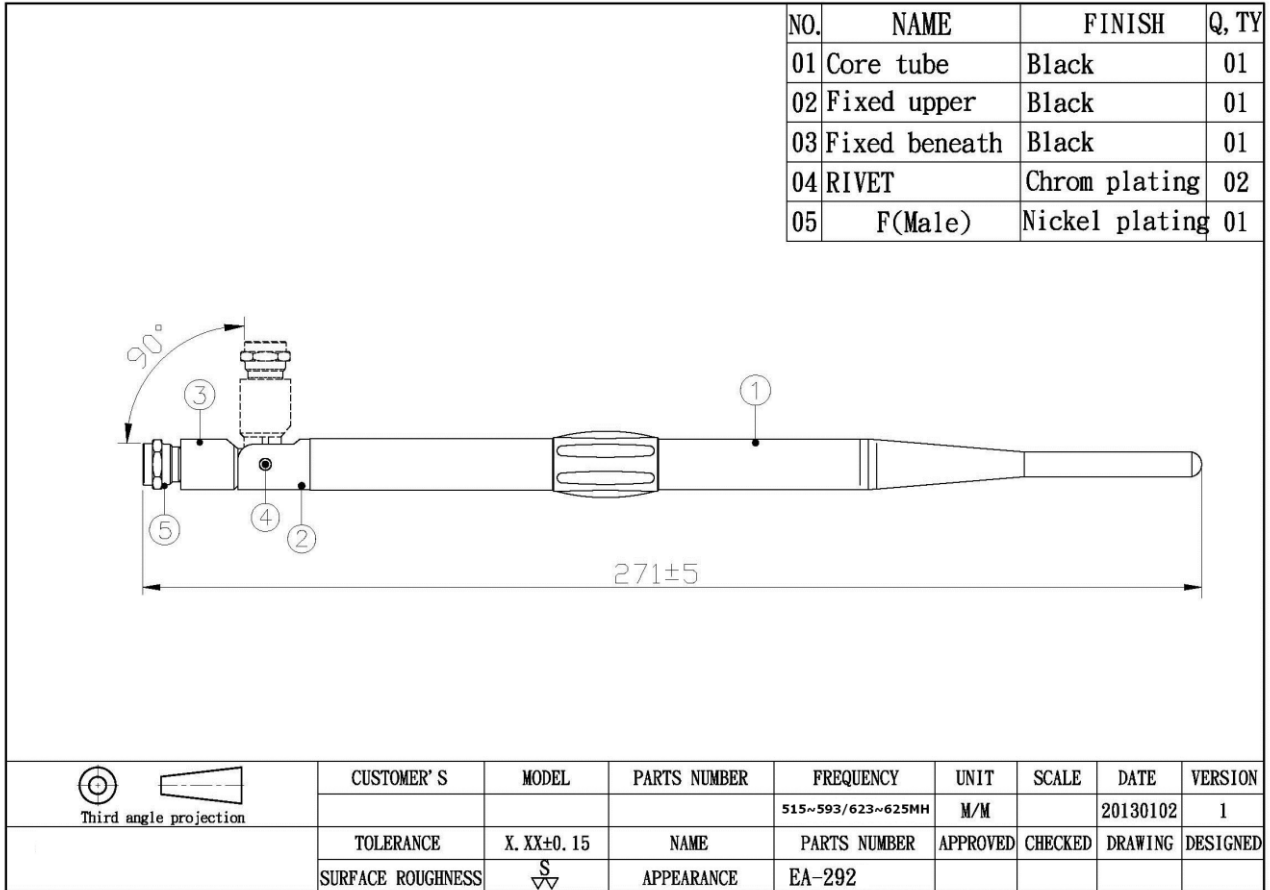
Parameter	Description
Frequency Band	515~593/623~625MHz
Nominal impedance	75ohm
Polarization	Vertical
GAIN	Refer to attachment
V.S.W.R	2.0 : 1
Note:Gain includes the cable loss	

### 1.2 Mechanical Properties

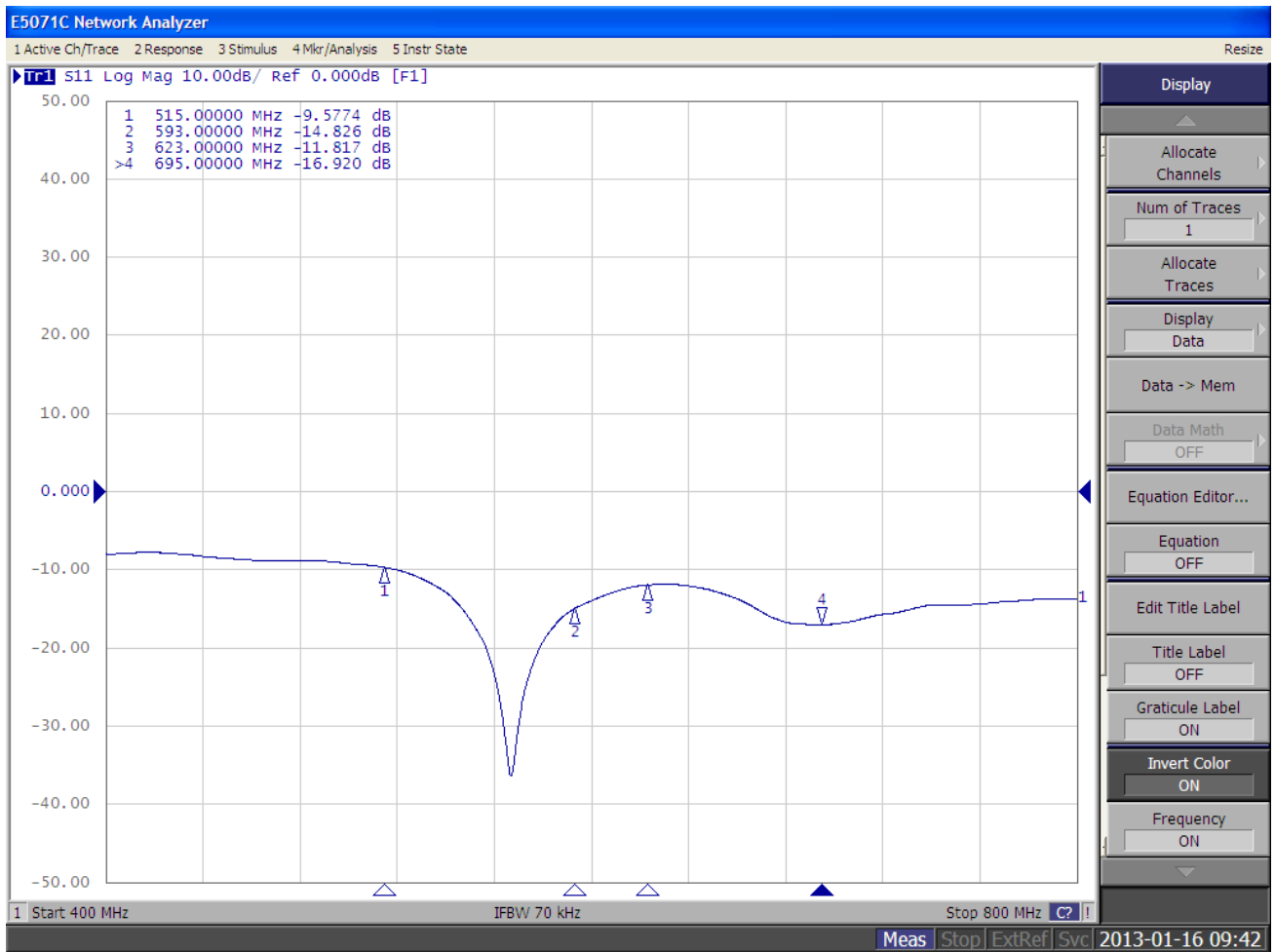
Parameter	Description
Antenna Type	External Antenna
Antenna Cover	TPE
Touch Type	Screw Type
Connector Type	F 180° (Male)
Antenna Dimensions	271mm ±5
Antenna Color	Black
Operating Temperature Range	-20°C~+55°C
Storage Temperature Range	-30°C~+55°C

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## 2. Appearance



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

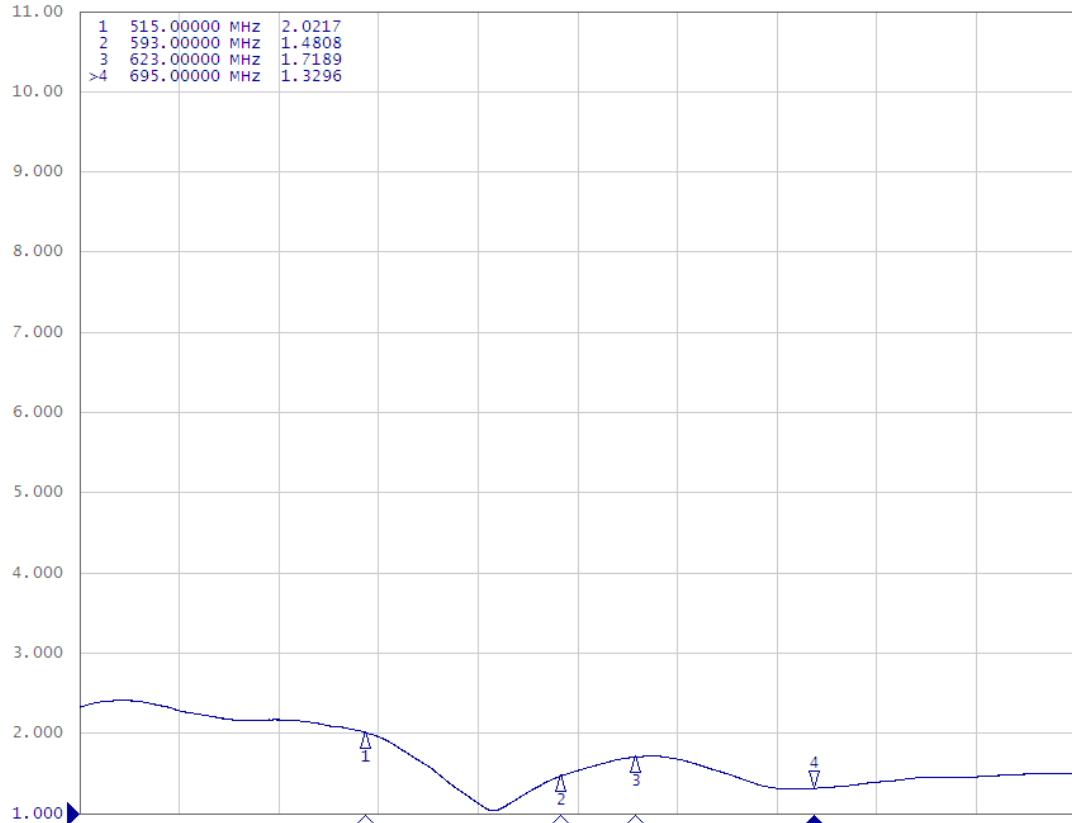


E5071C Network Analyzer

1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State

Resize

Tr1 S11 SWR 1.000/ Ref 1.000 [F1]



Format

SWR

Log Mag

Phase

Group Delay

Smith

Polar

Lin Mag

SWR

Real

Imaginary

Expand

Phase

Positive

Phase

Return

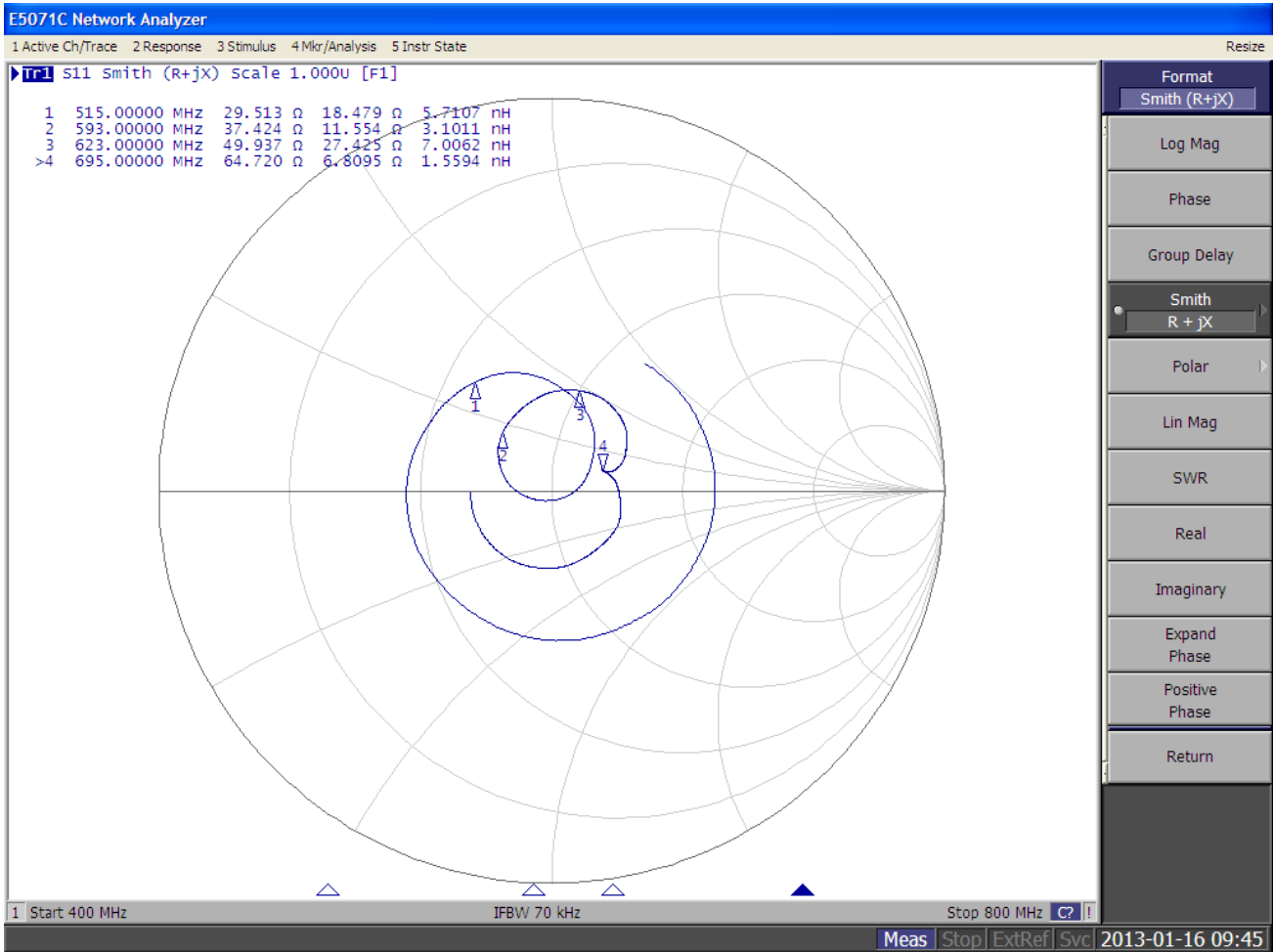
Start 400 MHz

IFBW 70 kHz

Stop 800 MHz

Meas Stop ExtRef Svc

2013-01-16 09:45



Test / Position	Gain /Free Space			
Frequency	515	593	623	695
Ant. Port Input Pwr. (dBm)	0	0	0	0
<b>Tot. Rad. Pwr. (dBm)</b>	<b>-8.77</b>	<b>-2.66</b>	<b>-2.87</b>	<b>-3.41</b>
<b>Peak EIRP (dBm)</b>	<b>-5.20</b>	<b>0.05</b>	<b>0.02</b>	<b>0.22</b>
Directivity (dBi)	3.57	2.70	2.90	3.63
Efficiency (dB)	-8.77	-2.66	-2.87	-3.41
Efficiency (%)	<b>13.28</b>	<b>54.26</b>	<b>51.61</b>	<b>45.64</b>
Gain (dBi)	-5.20	0.05	0.02	0.22
NHPRP $\pm\pi/4$ (dBm)	-10.80	-4.39	-4.46	-4.57
NHPRP $\pm\pi/6$ (dBm)	-12.61	-5.93	-5.85	-5.65
Boresight Phi (°)	165.00	15.00	0.00	345.00
Boresight Th. (°)	135.00	75.00	90.00	90.00
<b>Note</b>				
<b>Model</b>				
Test / Position	Gain /Free Space			
Frequency	515	593	623	695
Ant. Port Input Pwr. (dBm)	0	0	0	0
<b>Tot. Rad. Pwr. (dBm)</b>	<b>-8.77</b>	<b>-2.68</b>	<b>-2.90</b>	<b>-3.38</b>
<b>Peak EIRP (dBm)</b>	<b>-5.18</b>	<b>0.15</b>	<b>0.07</b>	<b>0.29</b>
Directivity (dBi)	3.59	2.83	2.97	3.67
Efficiency (dB)	-8.77	-2.68	-2.90	-3.38
Efficiency (%)	<b>13.29</b>	<b>53.94</b>	<b>51.29</b>	<b>45.95</b>
Gain (dBi)	-5.18	0.15	0.07	0.29
NHPRP $\pm\pi/4$ (dBm)	-10.79	-4.41	-4.47	-4.54
NHPRP $\pm\pi/6$ (dBm)	-12.60	-5.93	-5.85	-5.62
Boresight Phi (°)	75.00	285.00	270.00	240.00
Boresight Th. (°)	135.00	75.00	90.00	90.00

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