

Series: Stick Antenna

**TECHNICAL DATA SHEET Description**: 698-960/1710-3800MHz Stick Antenna with RA SMA connector

#### PART NUMBER: W1096X

#### Features:

- 4G/5G Stick Antenna
- Performance across the LTE frequency bands
- 698-960/1710-2690/3400-3800 MHz
- · Up to 2 dBi Gain
- Right Angle SMA or RP SMA Male connector
- IP65

## **Applications:**

- 4G / 5G Radios
- Router, Hub or Access point
- Small Base Station
- Femto Cell
- SOHO

All dimensions are in mm / inches

#### Issue: 2033

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### This document covers all product variants of the following product family

Antennas	Connector
W1096	RA RP SMA Male
W1096RM	RA SMA Male

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### **ELECTRICAL SPECIFICATIONS**

Antenna Type	Monopole antenna
Frequency	698-960/1710-2690/3400-3800 MHz
Nominal Impedance	50 Ω
VSWR(Max)	3.5:1 / 2:1 / 4:1
Radiation Pattern	Omni
Gain 698-960MHz	>-3 dBi
Gain 1710-2690MHz	>1.5 dBi
Gain 3400-3800MHz	>-0.5 dBi
Efficiency 698-960MHz	>30 %
Efficiency 1710-2690MHz	>60 %
Efficiency 3400-3800MHz	>45 %
Polarization	Linear
Power Withstanding	3 W

### **MECHANICAL SPECIFICATIONS**

Overall Length		
Weight		
Antenna Color / Material		
Connector type		

112±3mm 13q Black

W1096: Right Angle RP SMA Male, Silver Ni plating W1096RM: Right Angle SMA Male, Silver Ni plating

#### **ENVIRONMENTAL SPECIFICATIONS**

**Operating Temperature** Storage Temperature **Ingress Protection RoHS** Compliant

-40 °C to +80 °C -40 °C to +80 °C **IP65** Yes

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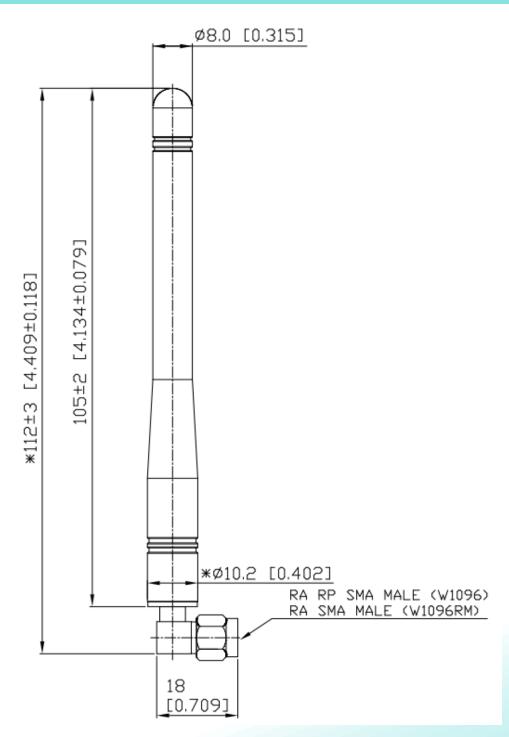


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### **MECHANICAL DRAWING**



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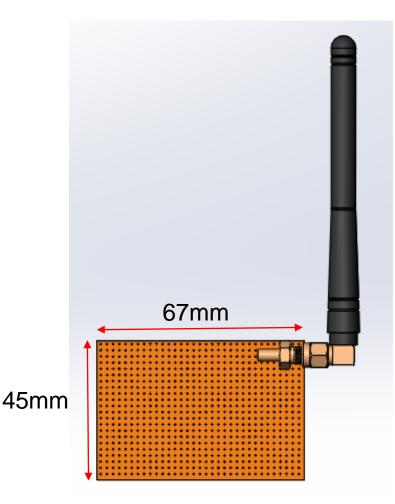
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### **TEST SETUP**

# ground plane



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**TEST SETUP** 

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# VSWR:



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### **Total radiated Efficiency**

# Efficiency curve:



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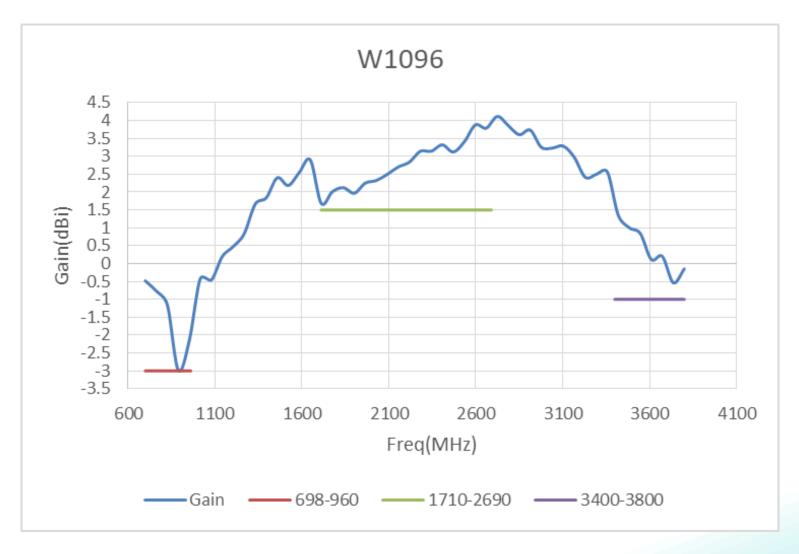
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### Maximum peak Gain

# Peak gain curve:



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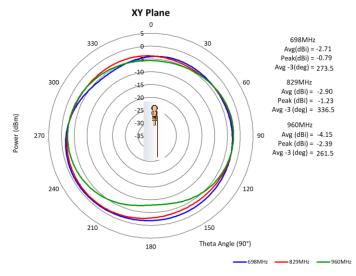
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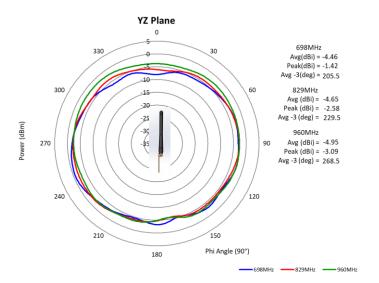
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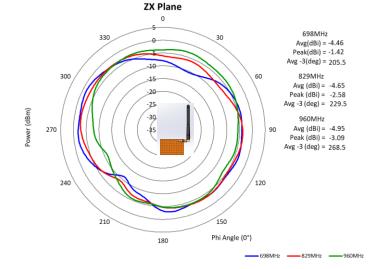
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#### CHARTS

# Curves at 698, 829 and 960MHz :







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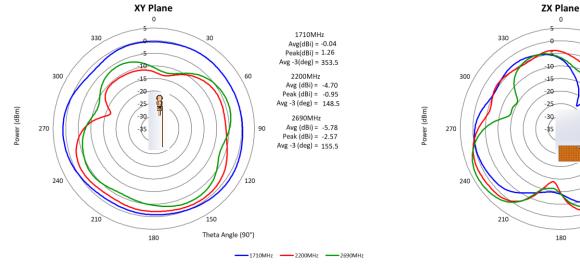
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#### CHARTS

# Curves at 1710, 2200 and 2690MHz:



YZ Plane 0 1710MHz 330 30 Avg(dBi) = -3.29 Peak(dBi) = 0.08Avg -3(deg) = 139.5 -10 300 2200MHz 60 -15 Avg (dBi) = -3.12 Peak (dBi) = 1.76 -20 -25 Avg -3 (deg) = 86.5 Power (dBm) -30 2690MHz Avg (dBi) = -2.56 Peak (dBi) = 3.38 270 -\$5 Avg -3 (deg) = 43.5 120 240 210 150 Phi Angle (90°) 180 1710MHz \_\_\_\_\_2200MHz \_\_\_\_ 2690MHz

#### 1710MHz Avg(dBi) = -3.29 Peak(dBi) = 0.08 Avg -3(deg) = 139.5 2200MHz Avg (dBi) = -3.12 Peak (dBi) = 1.76 Avg -3 (deg) = 86.5 2690MHz Avg (dBi) = -2.56 Peak (dBi) = 3.38 90 Avg -3 (deg) = 43.5 120 150 Phi Angle (0°) 180 1710MHz -2200MHz 2690MH

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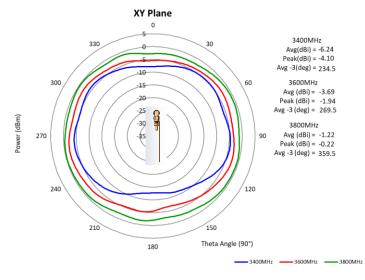
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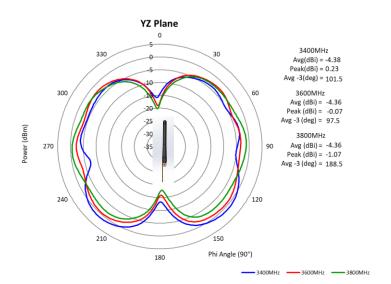
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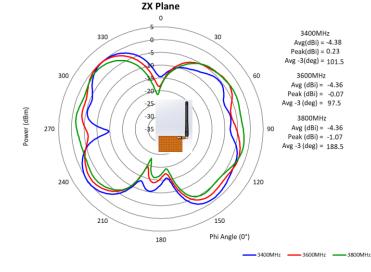
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#### CHARTS

# Curves at 3400,3600 and 3800MHz :







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### PACKAGING



20pcs ants each small bag

ltem	QTY
Each small bag	20pcs
Each big bag	400pcs(20pcs small bags)
Each box	2000pcs

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 YE572113 

 30RSMM
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 SPDA17RP918
 A09-F8NF-M
 A09-F5NF-M
 RGFRA1903041A1T
 W3593B0100
 W3921B0100

 SIMNA-868
 SIMNA-915
 SIMNA-433
 W1044
 W1049B090
 A75-001
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 EXB148BN
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 GD53-25
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 MA9-5N
 EXD420PL
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 MAF94300
 GPSMB301
 FG4403
 A0-AGSM-OM54
 5200232
 MIKROE-2349
 WCM.01.0111
 MIKROE-2393

 MIKROE-2352
 MIKROE-2352
 MIKROE-2352
 MIKROE-2349
 WCM.01.0111
 MIKROE-2393