

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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Description: 698-960/1710-3800MHz Stick Antenna with RA SMA connector

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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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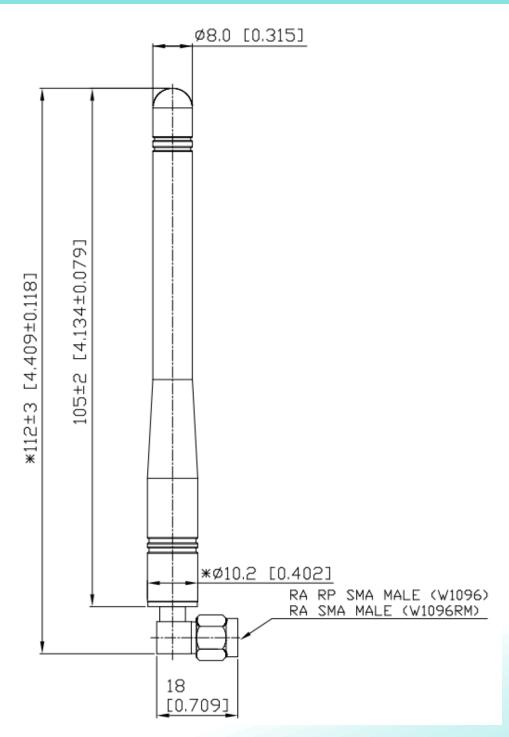


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MECHANICAL DRAWING



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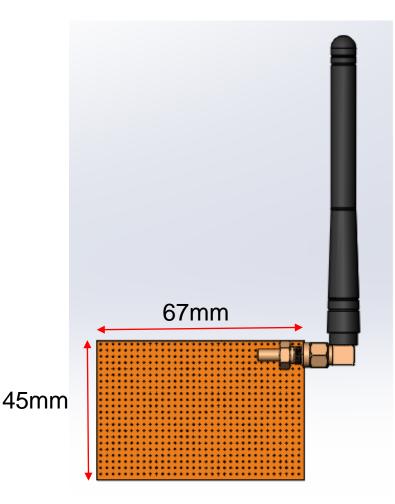
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TEST SETUP

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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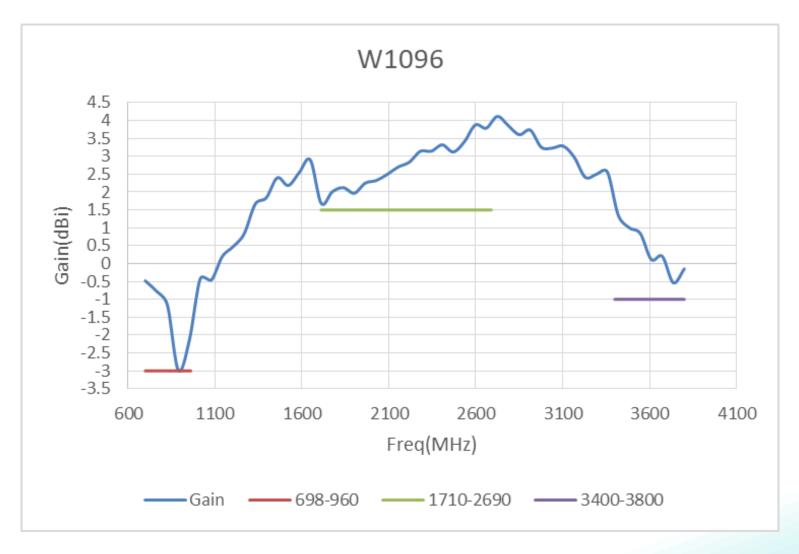
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Maximum peak Gain

Peak gain curve:



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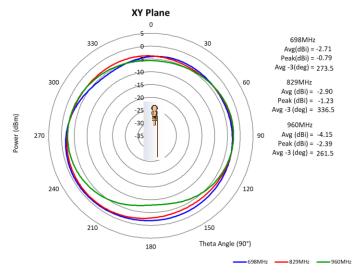
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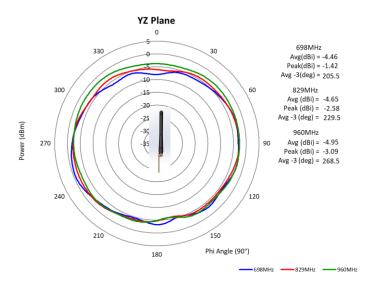
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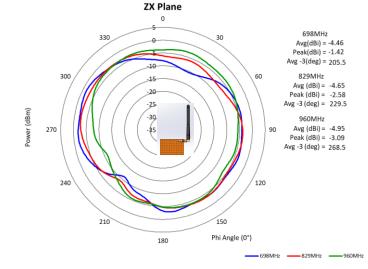
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CHARTS

Curves at 698, 829 and 960MHz :







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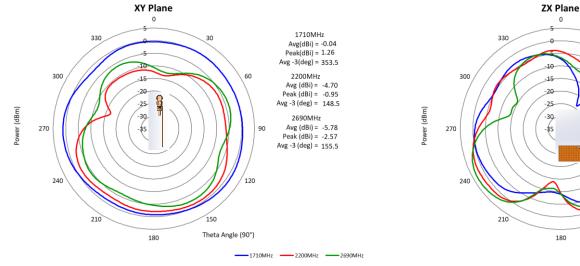
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CHARTS

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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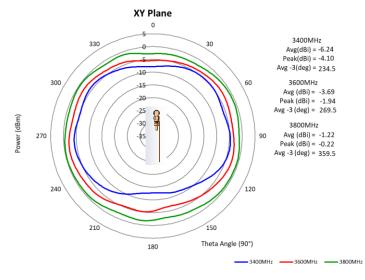
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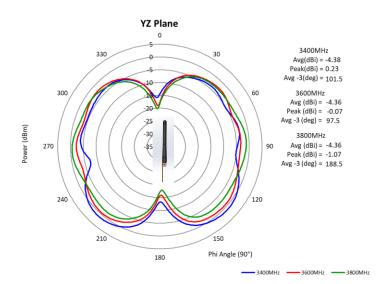
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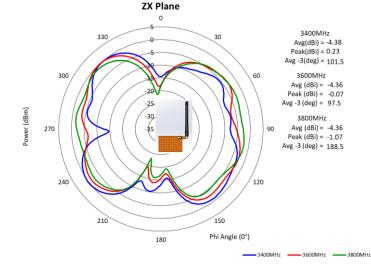
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CHARTS

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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