

# External / In-building 5G/4G Stick Monopole Antenna

W1696/W1697/W1696-M - 617 to 3800 MHz (Several 5G FR1 bands)



## Applications:

- Ⓜ Small form factor monopole
- Ⓜ 4G LTE/LTE-A, 5G NR
- Ⓜ LTE CAT1M
- Ⓜ NBIoT
- Ⓜ CBRS US B48
- Ⓜ Gateways, Set Top boxes
- Ⓜ Telemetry, High speed data
- Ⓜ IoT and M2M solutions

Electrical Specifications @ 25°C - Operating Temperature -30°C to +85°C<sup>1</sup>

Frequency Bands: 617-960/1710-2690/3400-3800 MHz

| Antenna <sup>2</sup> Type | Nominal Impedance | Return Loss | Radiation Pattern | Polarization | Power Withstanding |
|---------------------------|-------------------|-------------|-------------------|--------------|--------------------|
| Monopole                  | 50Ω               | per below   | Omni              | Linear       | 5W                 |
| Frequency                 | 617-960 MHz       |             | 1710-2690 MHz     |              | 3400-3800 MHz      |
| Return Loss               | <-5 dB            |             | <-5 dB            |              | <-4 dB             |
| Peak Gain                 | >-0.5 dBi         |             | >1 dBi            |              | >0 dBi             |
| Efficiency                | 40%               |             | 45%               |              | 30%                |

## Mechanical Specifications

Orderable PN: W1696, W1696-M, W1697

| Part Number | Size (Length * Dia) | Color | Weight  | Connector Type | Ingress Protection |
|-------------|---------------------|-------|---------|----------------|--------------------|
| W1696       | 49.6 * 10           | Black | 7.5grms | SMA Male       | IP42               |
| W1697       | 49.6 * 10           | Black | 7.5grms | RP - SMA Male  | IP42               |
| W1696-M     | 50 * 12             | Black | 7.8grms | SMA Male       | IP65               |

### Notes:

1. Storage Temperature: -30°C to 85°C
2. Measured on 305mm (12") S0 ground plane
3. LTP600/71DMN comes in black for white add the suffix W and PN becomes LT600/71DMNW
4. 15.9mm (0.625") hole required

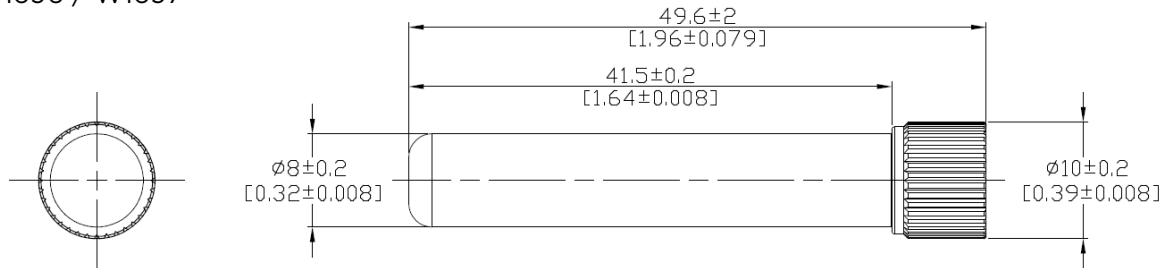
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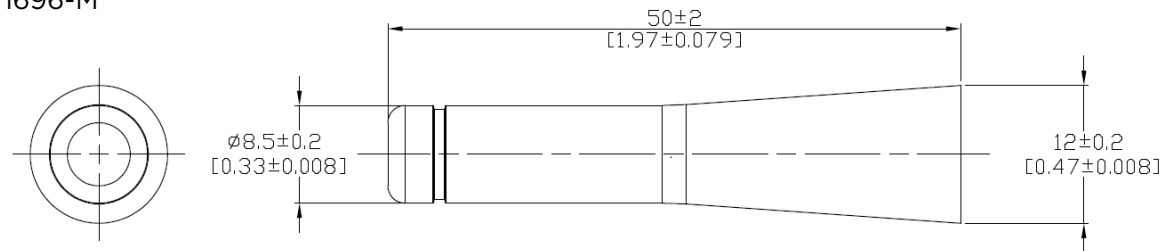
## Mechanical

### W1696/W1697/W1696-M

#### W1696 / W1697



#### W1696-M



#### Packaging Info:

1pcs antenna per PE bag  
24pcs PE bags per tray  
14pcs trays per package box(2 pcs empty tray)  
288pcs antenna per package  
Package box: 460mm\*235mm\*140mm

**Dimensions:**  $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified,  
all tolerances are  $\pm \frac{.010}{0.25}$

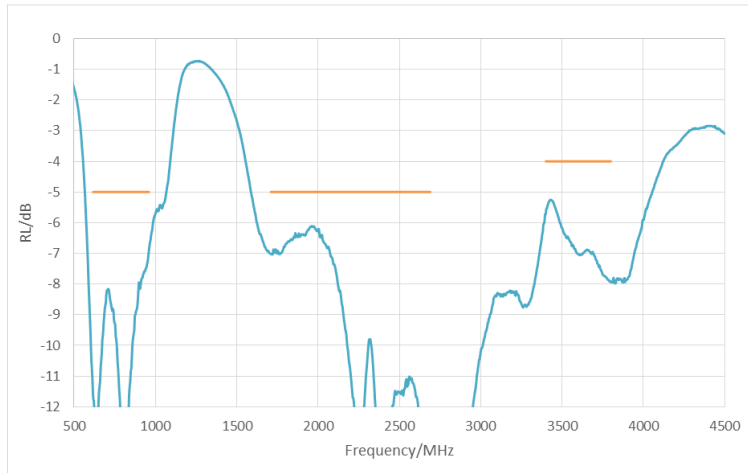
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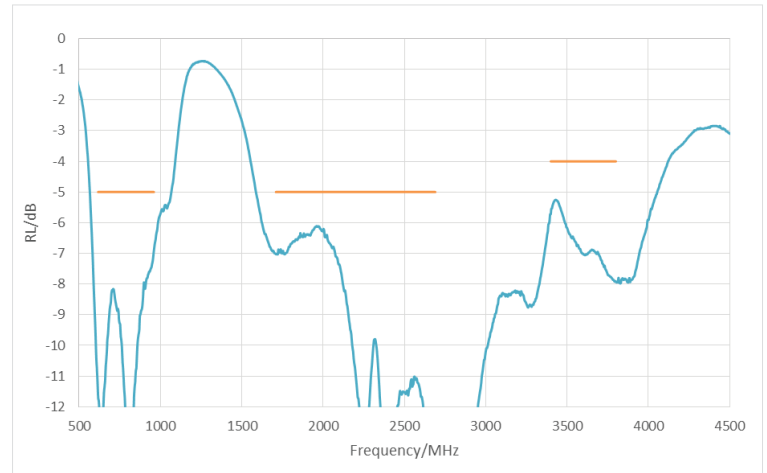
## Charts

W1696/W1697/W1696-M

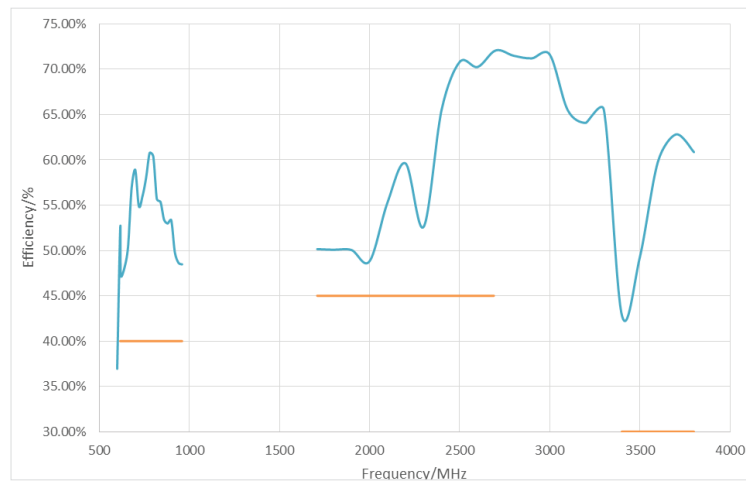
Return Loss vs Frequency



Peak Gain vs Frequency



Radiation Efficiency vs Frequency

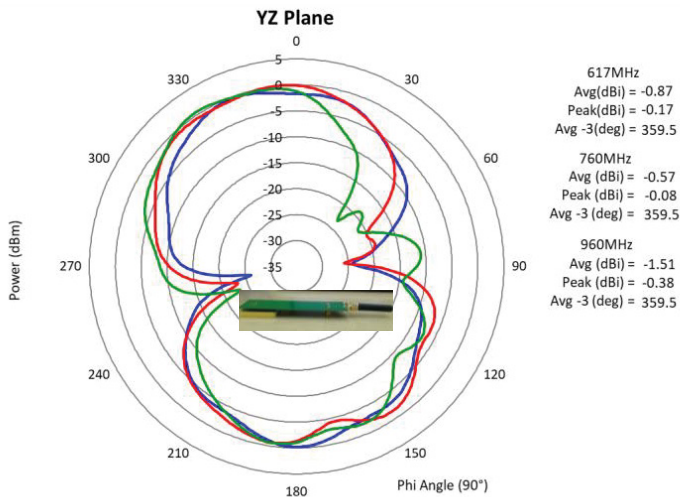
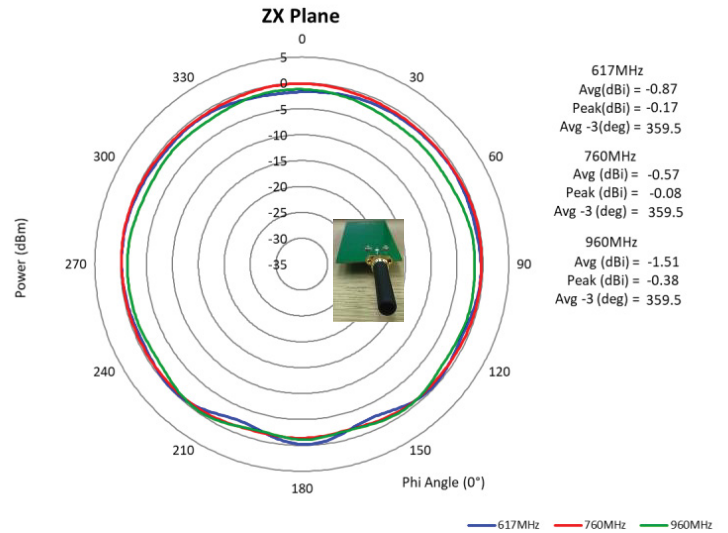
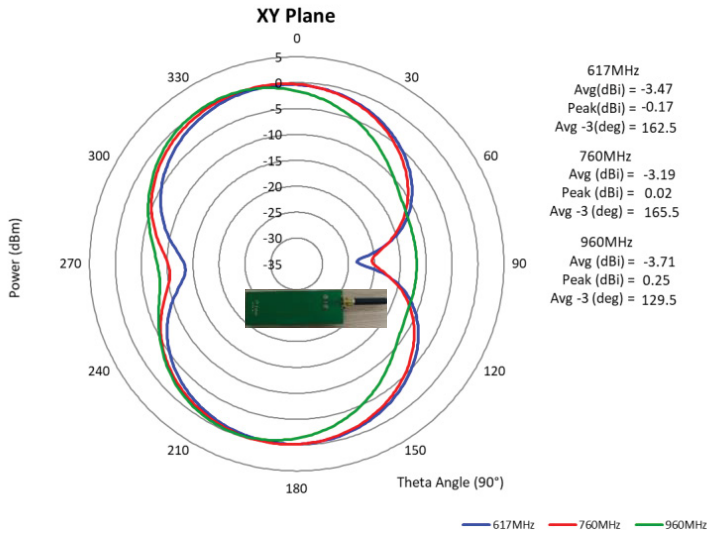


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## Free Space Radiation Pattern

617MHz - 960MHz

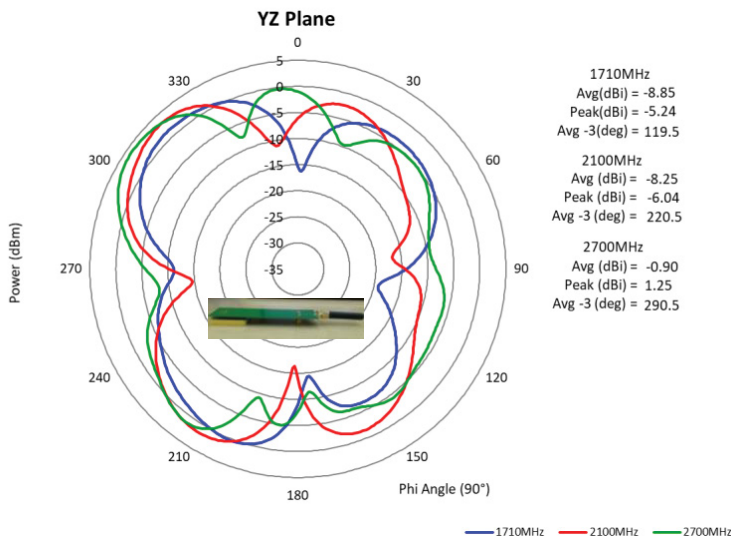
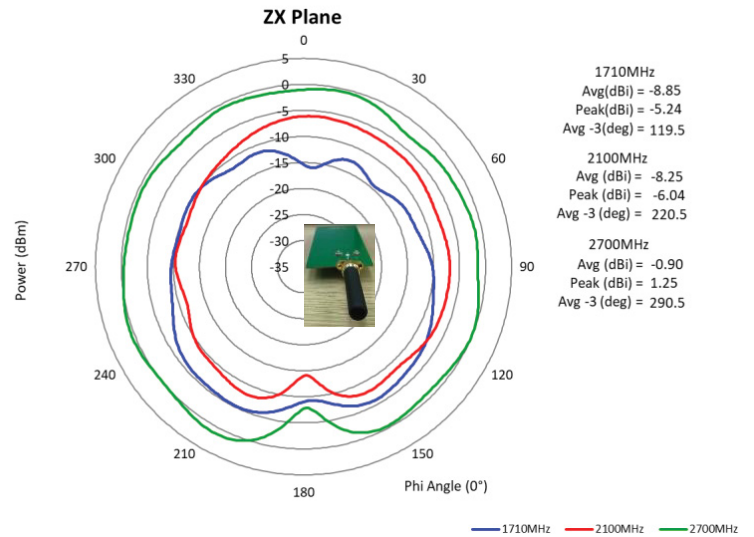
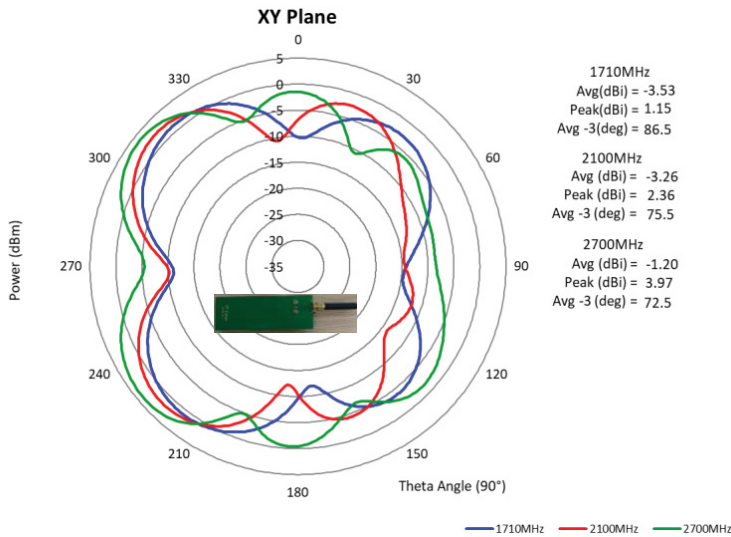


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## Free Space Radiation Pattern

1710MHz - 2690MHz

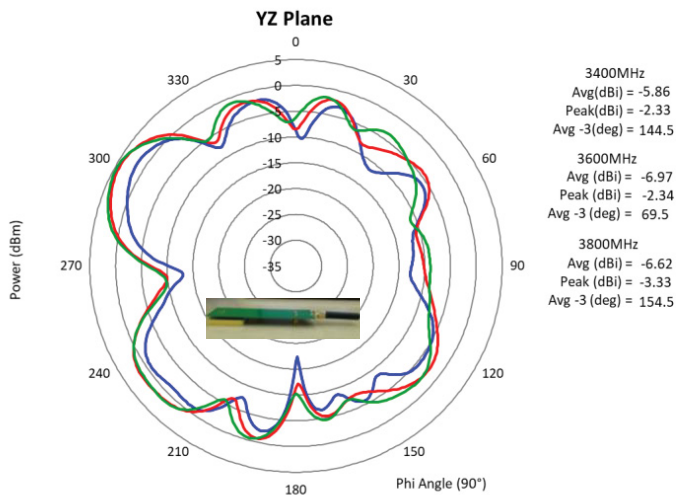
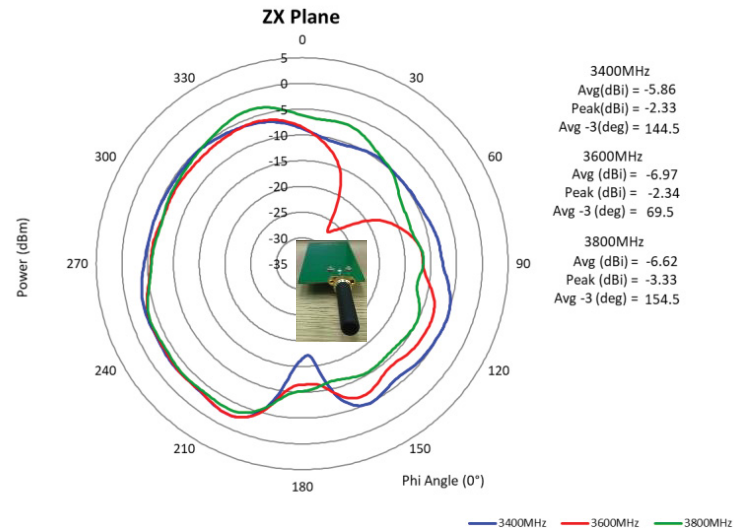
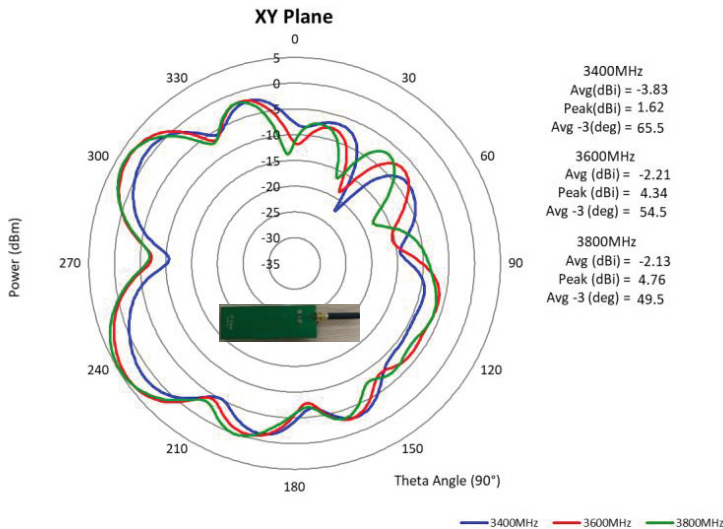


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## Free Space Radiation Pattern

3400MHz - 3800MHz



### For More Information:

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