

# LTE 4G/5G & Wi-Fi 6E Whip Antenna



**AETC1302X**

Request Samples



Check Inventory



135.5 x 21.3 mm  
**RoHS Compliant**  
MSL = N/A

## Features

- Low Profile
- Supports 617 MHz to 7150MHz
- VSWR:  $\leq 1.67$
- Peak Gain: 5 dBi
- Efficiency: up to 80%
- SMA or RP-SMA connector

## Applications

- Internet of Things (IoT) devices
- Bluetooth® / ZigBee® / Single-band WiFi/WLAN
- 2.4GHz Audio Applications
- Bluetooth AoA/AoD applications
- Smart Home and Smart Building

## Product Image



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## Part Number Builder

AETC1302X□ - □ □

| Color / UV Coating |       |                       |
|--------------------|-------|-----------------------|
| Code               | Color | UV Protective Coating |
| S<br>(Standard)    | Black | No                    |

| Cable length in 'mm' |                |
|----------------------|----------------|
| Code                 | Description    |
| S<br>(Standard)      | Not Applicable |

| Connector Type  |                |
|-----------------|----------------|
| Code            | Connector Type |
| S<br>(Standard) | SMA(M)         |
| A               | RP-SMA(M)      |

## Example Configurations:

| Part Number   | Color / UV Protective Coating | Cable length   | Connector Type       |
|---------------|-------------------------------|----------------|----------------------|
| AETC1302XS-SS | Black / No                    | Not Applicable | SMA(M)<br>(Standard) |
| AETC1302XS-SA | Black / No                    | Not Applicable | RP-SMA(M)            |

## Note:

- For the standard part number (AETC1302XS-SS), please refer to the packaging at the end of the document.
- For custom configurations (AETC1302X□-□□), MOQs, pricing and packaging changes may apply.



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## Electrical Specification

| Parameter                   |                     | Specification    |     |          | Unit |                     |
|-----------------------------|---------------------|------------------|-----|----------|------|---------------------|
|                             |                     | Min              | Typ | Max      |      |                     |
| Operating Frequency         |                     | 617              |     | 960      | MHz  |                     |
|                             |                     | 1710             |     | 2690     |      |                     |
|                             |                     | 1452             |     | 1575.412 |      |                     |
|                             |                     | 3300             |     | 4200     |      |                     |
|                             |                     | 4400             |     | 5000     |      |                     |
|                             |                     | 5150             |     | 7150     |      |                     |
| VSWR                        |                     | 617              | 3.0 | 960      |      | 617 – 960 MHz       |
|                             |                     | 1710             | 3.0 | 2690     |      | 1710 – 2690 MHz     |
|                             |                     | 1452             | 2.5 | 1575.412 |      | 1452 – 1575.412 MHz |
|                             |                     | 3300             | 2.5 | 4200     |      | 3300 – 4200 MHz     |
|                             |                     | 4400             | 2.5 | 5000     |      | 4400 – 5000 MHz     |
|                             |                     | 5150             | 3.0 | 7150     |      | 5110 – 7150 MHz     |
| Gain                        | (617-960 MHz)       |                  | 1   |          | dBi  |                     |
|                             | (1452-1575.412 MHz) |                  | 2   |          |      |                     |
|                             | (1710-2690 MHz)     |                  | 2   |          |      |                     |
|                             | (3300-4200 MHz)     |                  | 2   |          |      |                     |
|                             | (4400-5000 MHz)     |                  | 2   |          |      |                     |
|                             | (5150-7150 MHz)     |                  | 2   |          |      |                     |
| Impedance                   |                     |                  | 50  |          | Ω    |                     |
| Polarization                |                     | Vertical         |     |          |      |                     |
| Radiation Pattern (Azimuth) |                     | Omni-directional |     |          |      |                     |

## Mechanical Specification

| Parameter    | Specification   |
|--------------|-----------------|
| Dimensions   | 135.5 x 21.3 mm |
| Material     | PC/PBT          |
| Antenna Type | Whip            |
| RF Connector | SMA             |

## Environmental Specification

| Parameter             | Specification  |
|-----------------------|----------------|
| Operating Temperature | -20°C to +65°C |
| Storage Temperature   | -30°C to +70°C |
| ROHS Complaint        | Yes            |
| MSL                   | N/A            |



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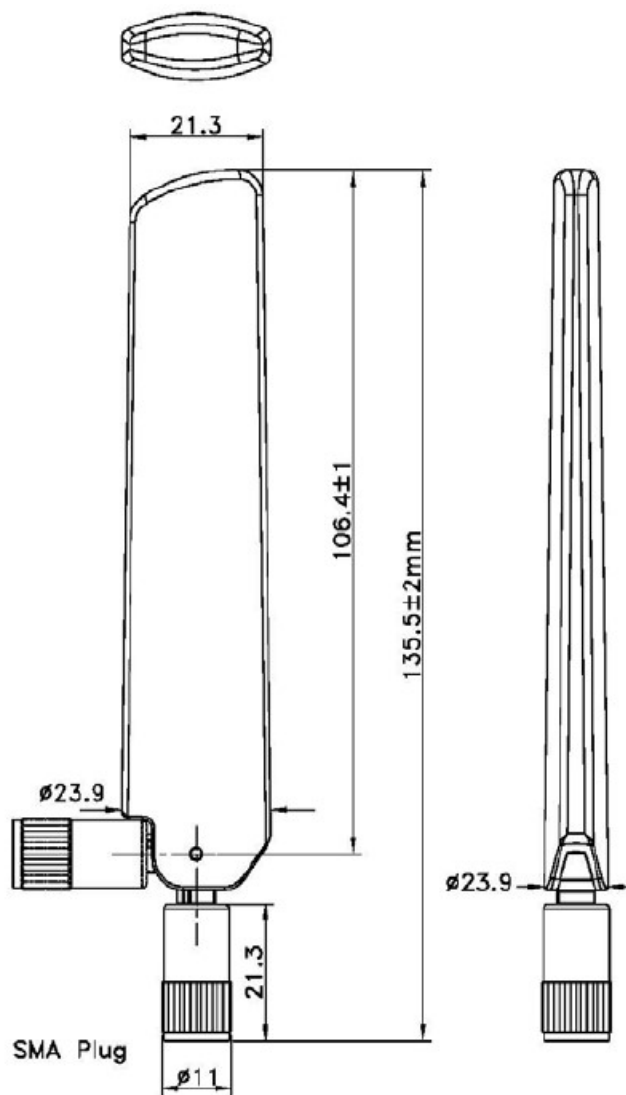


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## Product Dimension



Unit : mm

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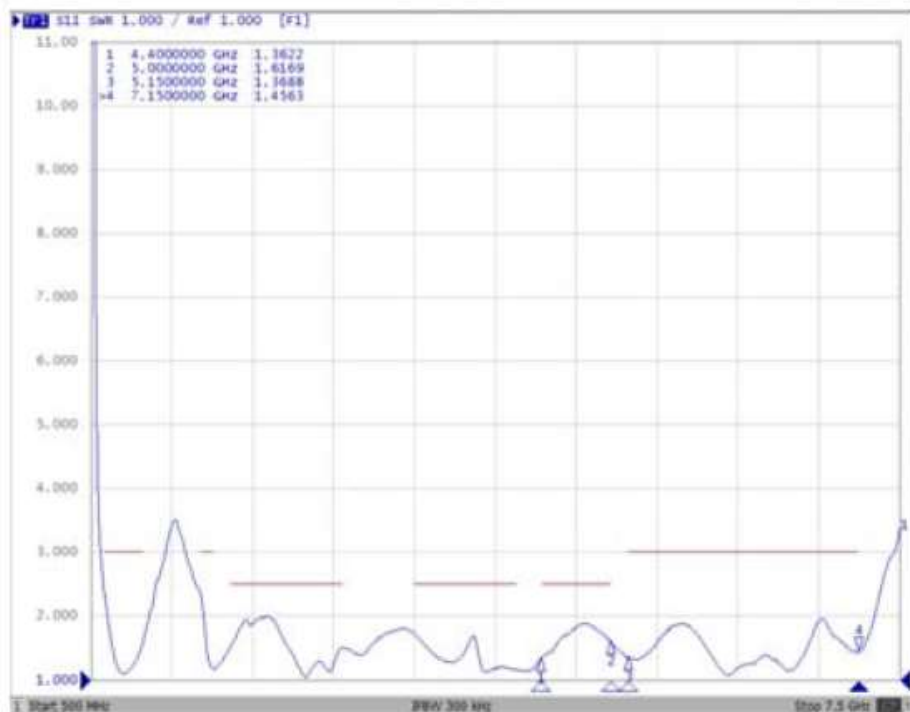
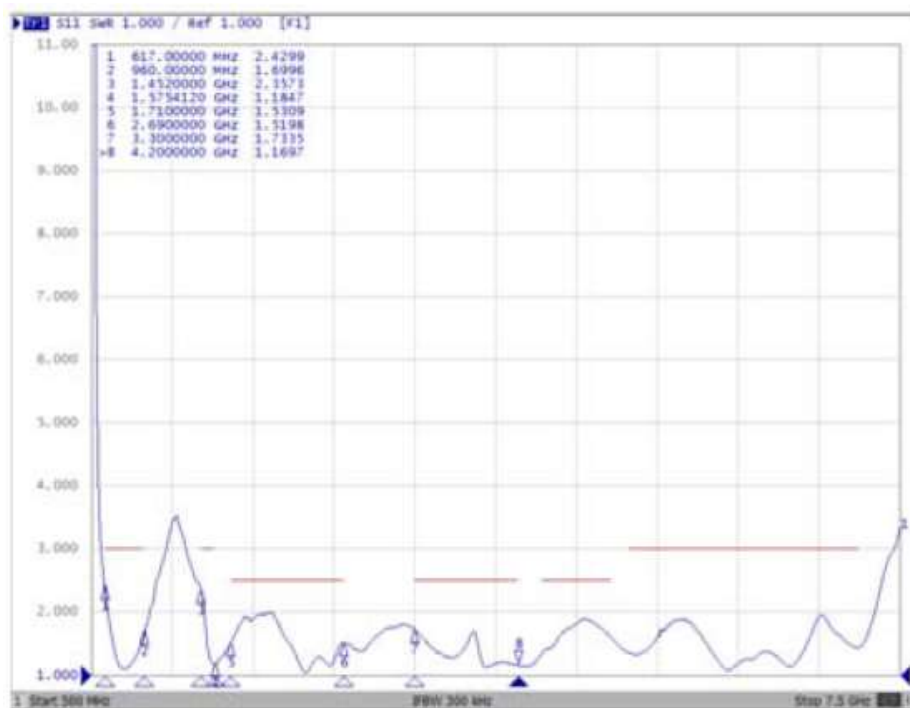


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## VSWR Measurement



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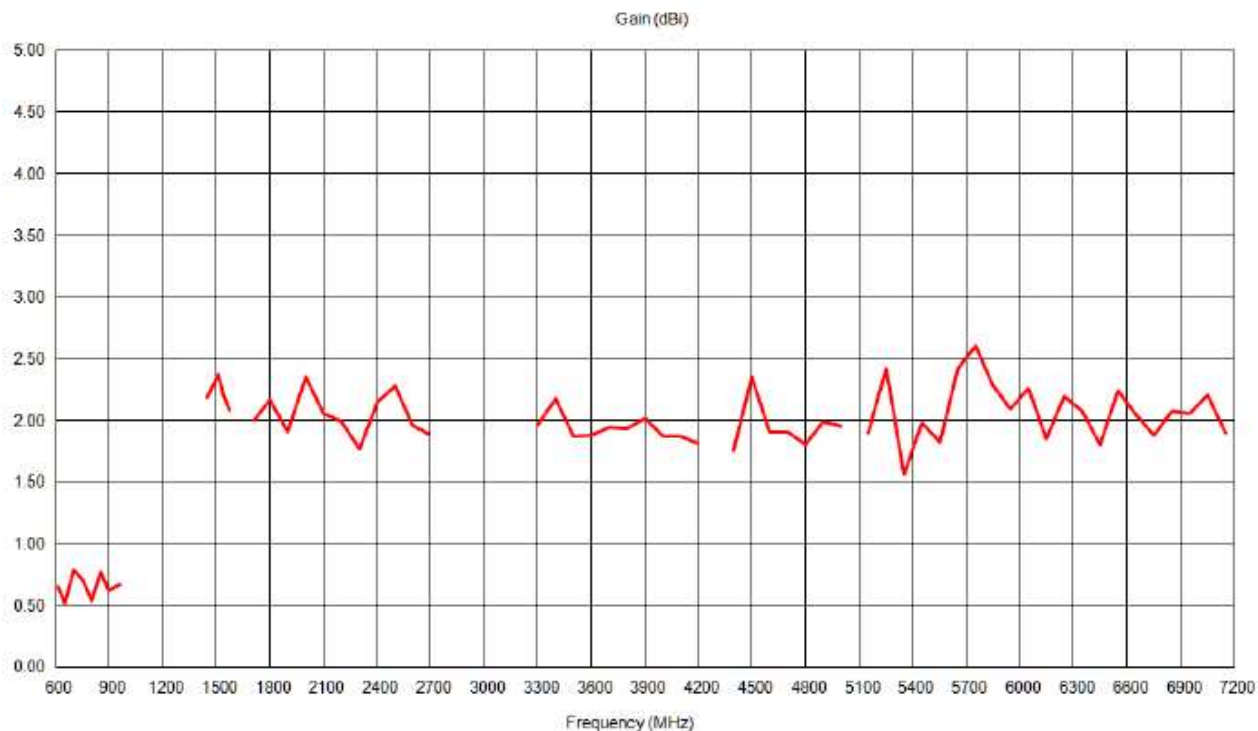


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## Gain and Efficiency



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|                 |       |       |       |       |       |       |       |       |       |       |       |          |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| Frequency (MHz) | 617   | 650   | 700   | 750   | 800   | 850   | 900   | 960   | 1452  | 1511  | 1545  | 1575.412 |
| Gain(dBi)       | 0.65  | 0.51  | 0.79  | 0.71  | 0.53  | 0.77  | 0.62  | 0.67  | 2.19  | 2.37  | 2.19  | 2.09     |
| Efficiency (%)  | 47.97 | 48.10 | 49.96 | 48.81 | 49.66 | 48.92 | 49.72 | 50.50 | 59.73 | 61.16 | 63.05 | 64.51    |

|                 |       |       |       |       |       |       |       |       |       |       |       |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Frequency (MHz) | 1710  | 1800  | 1900  | 2000  | 2100  | 2200  | 2300  | 2400  | 2500  | 2600  | 2690  |
| Gain(dBi)       | 2.00  | 2.17  | 1.90  | 2.35  | 2.06  | 1.99  | 1.76  | 2.15  | 2.28  | 1.96  | 1.89  |
| Efficiency (%)  | 62.22 | 62.72 | 62.33 | 58.18 | 62.37 | 60.12 | 61.97 | 59.67 | 60.01 | 62.17 | 61.56 |

|                 |       |       |       |       |       |       |       |       |       |       |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Frequency (MHz) | 3300  | 3400  | 3500  | 3600  | 3700  | 3800  | 3900  | 4000  | 4100  | 4200  |
| Gain(dBi)       | 1.96  | 2.18  | 1.87  | 1.87  | 1.94  | 1.93  | 2.02  | 1.87  | 1.86  | 1.81  |
| Efficiency (%)  | 60.47 | 64.73 | 60.31 | 60.36 | 62.71 | 60.33 | 61.80 | 60.86 | 62.94 | 62.04 |

|                 |       |       |       |       |       |       |       |
|-----------------|-------|-------|-------|-------|-------|-------|-------|
| Frequency (MHz) | 4400  | 4500  | 4600  | 4700  | 4800  | 4900  | 5000  |
| Gain(dBi)       | 1.76  | 2.35  | 1.91  | 1.91  | 1.8   | 1.99  | 1.95  |
| Efficiency (%)  | 58.96 | 60.24 | 61.42 | 61.26 | 58.85 | 61.49 | 55.72 |

|                 |       |       |       |       |       |       |       |       |       |       |       |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Frequency (MHz) | 5150  | 5250  | 5350  | 5450  | 5550  | 5650  | 5750  | 5850  | 5950  | 6050  | 6150  |
| Gain(dBi)       | 1.89  | 2.42  | 1.56  | 1.98  | 1.83  | 2.42  | 2.60  | 2.29  | 2.09  | 2.26  | 1.85  |
| Efficiency (%)  | 55.86 | 53.09 | 55.88 | 51.01 | 54.17 | 53.08 | 50.78 | 52.99 | 56.65 | 51.60 | 52.90 |

|                 |       |       |       |       |       |       |       |       |       |       |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Frequency (MHz) | 6250  | 6350  | 6450  | 6550  | 6650  | 6750  | 6850  | 6950  | 7050  | 7150  |
| Gain(dBi)       | 2.20  | 2.08  | 1.80  | 2.24  | 2.05  | 1.88  | 2.08  | 2.05  | 2.21  | 1.90  |
| Efficiency (%)  | 52.53 | 51.03 | 50.83 | 56.10 | 49.09 | 52.50 | 60.29 | 54.99 | 51.57 | 55.60 |



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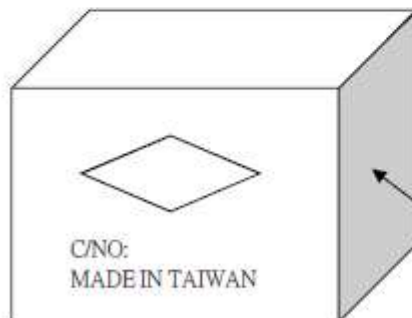
## Packaging Information



① 1pcs antenna / 1 PE bag



② 25pcs antenna / 1 PE bag



③ 400pcs antenna / 1 Carton

|            |     |
|------------|-----|
| MODEL No.: |     |
| Q'ty:      | PCS |
| N.W:       | PCS |
| G.W:       | PCS |

Packing q'ty is for reference only, adjust it based on production packing.

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