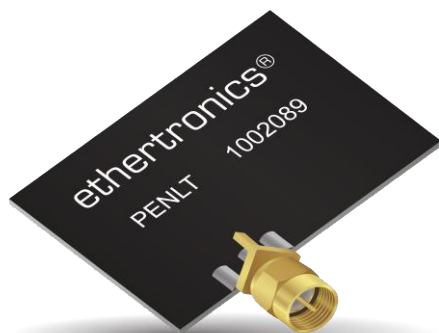


Part No. 1002089

LTE PCB Antenna with SMA Connector

700 / 750 / 850 / 900 / 1800 / 1900 / 2100 / 2700 MHz

Supports: Broadband LTE (OCTA-BAND), LTE CAT-M, NB-IoT, SigFox, LoRa, Cellular LPWA, RPMA, Firstnet



LTE PCB Antenna with SMA connector

Low Band : 698-960 MHz
 High Band: 1710-2700 MHz

KEY BENEFITS

Reduced Costs and Time-to-Market

Standard antenna eliminates design fees and cycle time associated with a custom solution; getting products to market faster. **Greater**

Flexibility with Unique Form Factors

KYOCERA AVX technology helps you deliver more advanced ergonomic designs without adverse impact on product performance.

Reliability

Comply with latest RoHS requirements

APPLICATIONS

- Medical applications
- Home automation
- Smart metering
- M2M, Industrial devices
- IoT
- Firstnet
- Automotive
- Healthcare
- Point of Sale
- Tracking
- NB-IoT
- Sigfox
- LoRa
- Cellular LPWA
- RPMA
- LTE CAT-M

Stays in Tune

KYOCERA AVX LTE antennas use patented IMD technology in a trace configuration to provide high performance. IMD antennas requires a smaller design keep-out area, carry lower program development risk which yields a quicker time-to-market, without sacrificing RF performance.

IMD antenna technology provides superior RF field containment, resulting in less interaction with surrounding components. KYOCERA AVX IMD antennas resist detuning; providing a robust radio link regardless of the usage position.

Electrical Specifications

Typical characteristics in housing using a 135 x 200 mm ground plane

| Frequency | 698-960 MHz | 1710-2700 MHz |
|----------------------|--------------------|---------------|
| Efficiency | > 50 % | > 50% |
| VSWR | < 3.0:1 | < 3.0:1 |
| Peak Gain | 5.1 dBi | 4.9 dBi |
| Polarization | Linear | |
| Power Handling | 2 Watts CW | |
| Feed Point Impedance | 50 ohms unbalanced | |

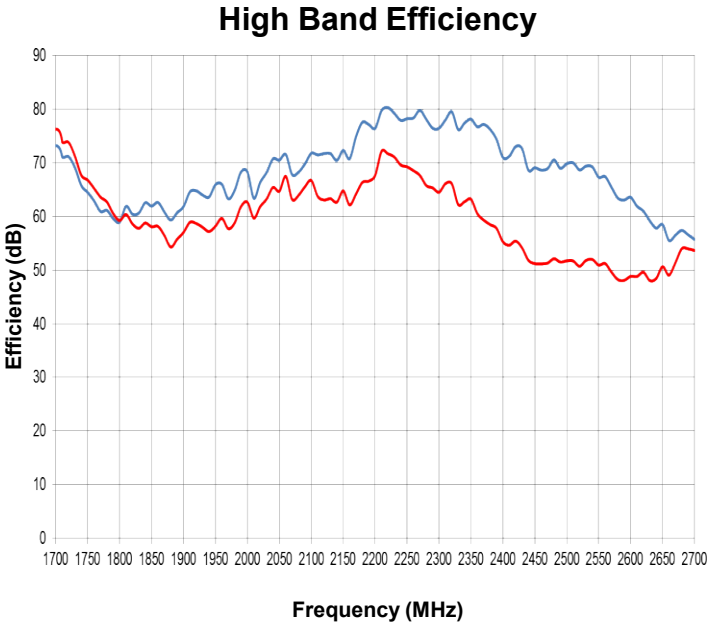
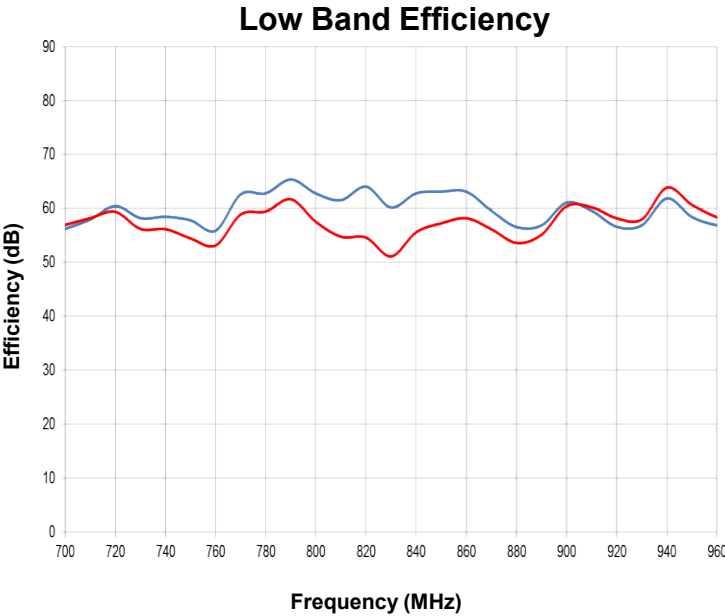
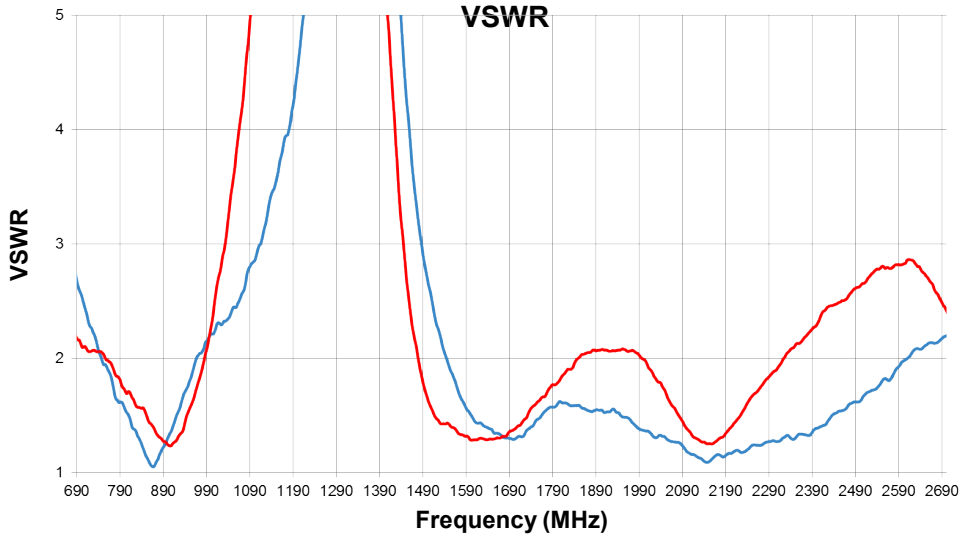
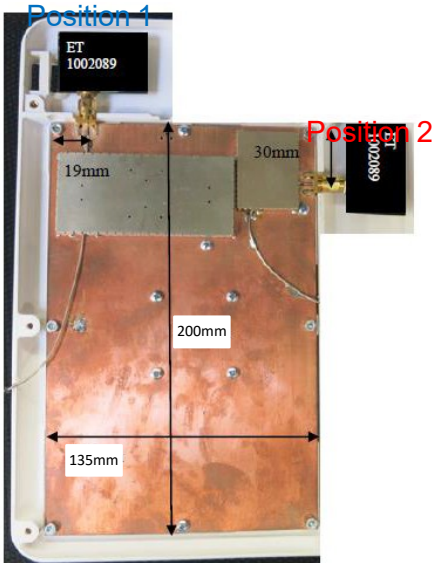
Mechanical Specifications & Ordering Part Number

| Ordering Part Number | 1002089 |
|------------------------------|----------------------------|
| Dimensions (mm) | 45.0 x 43.8 x 8.0 |
| Weight (grams) | 5.6 |
| Antenna Assembly on the PCBA | Using SMA (Male) connector |

1002089 PCB LTE/Cellular performances
 KYOCERA AVX produces a wide variety of standard and custom antennas to meet user needs.

VSWR and Efficiency Plots

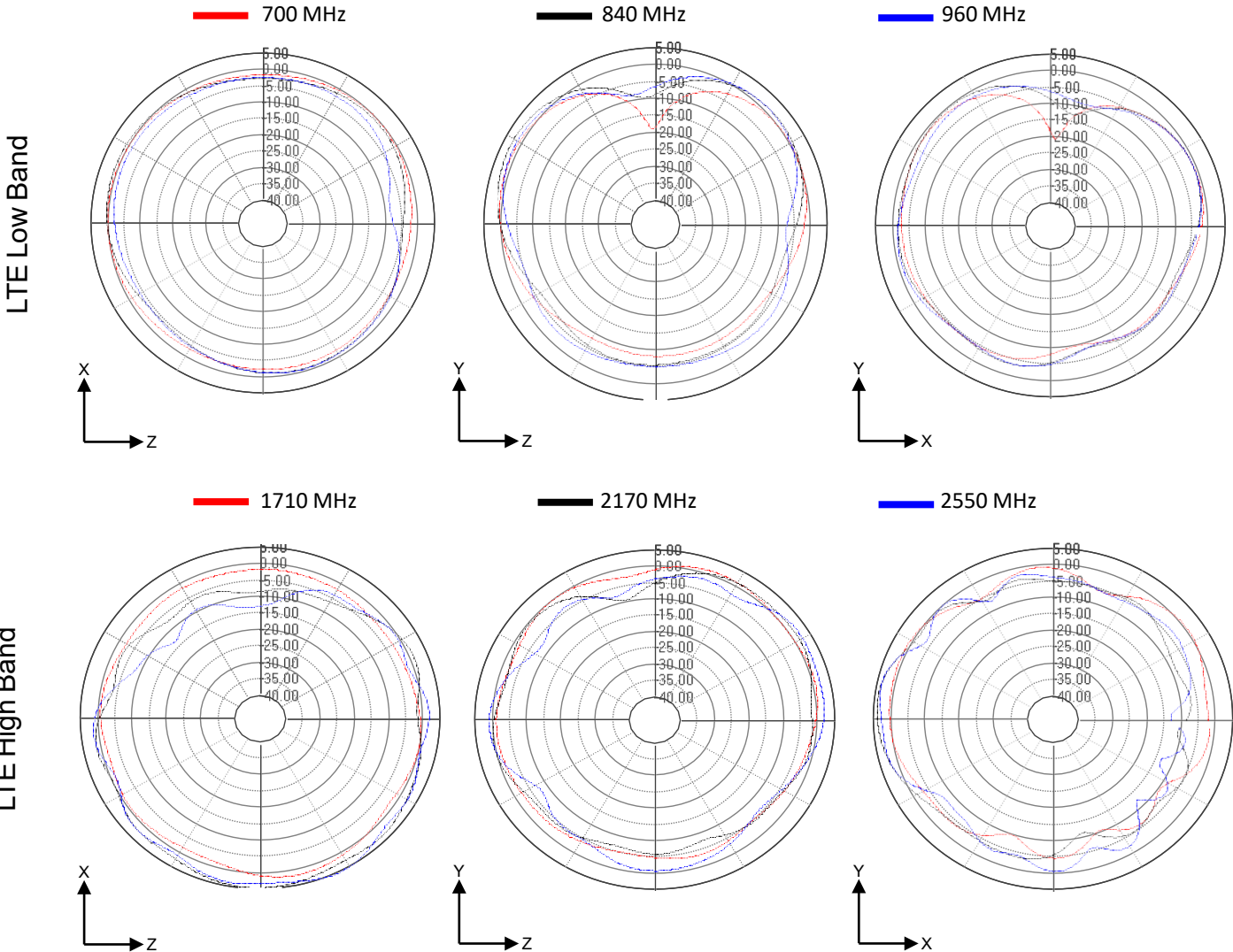
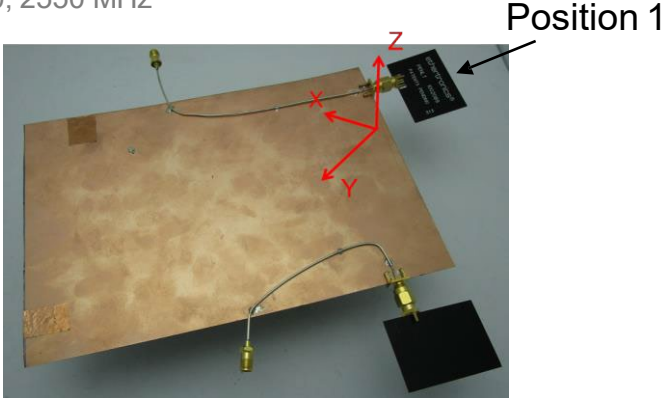
Typical performances on 135 x 200 mm PCB



1002089 PCB LTE/Cellular performances
 KYOCERA AVX produces a wide variety of standard and custom antennas to meet user needs.

Antenna Radiation Patterns (Position 1)

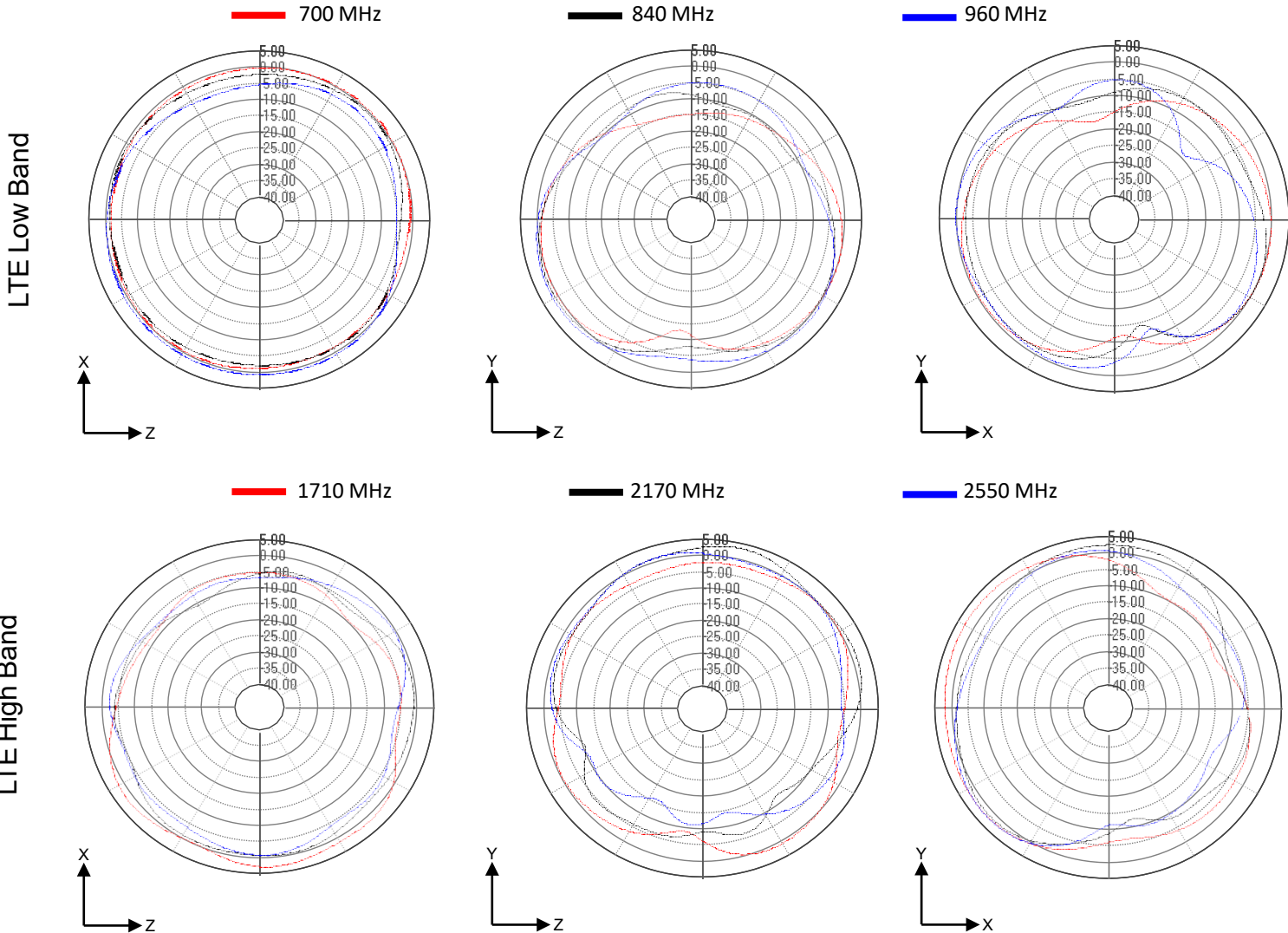
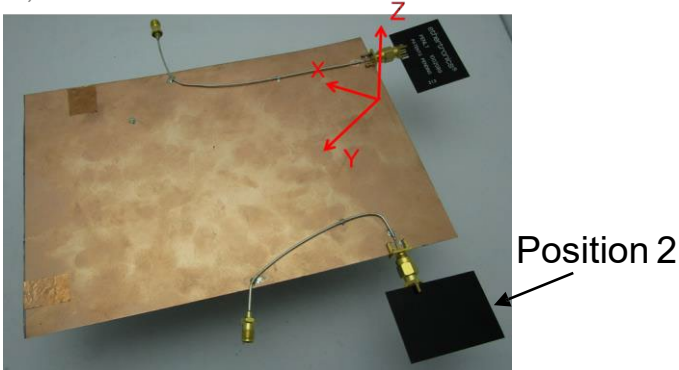
Typical performances measured on 135 x 200 mm PCB
 Measured @ 700, 840, 960, 1710, 2170, 2550 MHz



1002089 PCB LTE/Cellular performances
 KYOCERA AVX produces a wide variety of standard and custom antennas to meet user needs.

Antenna Radiation Patterns (Position 2)

Typical performances measured on 135 x 200 mm PCB
 Measured @ 700, 840, 960, 1710, 2170, 2550 MHz



1002089 PCB LTE/Cellular performances

KYOCERA AVX produces a wide variety of standard and custom antennas to meet user needs.

Mechanical Dimensions

Typical antenna dimensions (mm)

| Part Number | A (mm) | B (mm) | C (mm) | Connector |
|-------------|------------|------------|-----------|------------|
| 1002089 | 45.0 ± 0.3 | 43.8 ± 0.8 | 8.0 ± 0.3 | SMA (Male) |

