

RESEARCH PAPER

# Over the Air (OTA) Performance Testing



# Introduction

## Pre-Compliance Over-the-Air (OTA) Performance Testing

An antenna's RF performance plays a major role in the quality of a device. Factors such as a human head or hand can greatly influence the transmitter's performance, while poor receiver performance can result in bad voice quality or dropped calls. Certain requirements are in place to ensure proper transmitter and receiver performance.

**anteno**va

## Wireless for the next generation

Antenova is a leading innovator in wireless technology solutions. With a passion for connectivity, we specialize in designing and manufacturing high-performance antennas and radio frequency (RF) modules for a wide range of applications. Our mission is to empower the Internet of Things (IoT), providing seamless and reliable connectivity for smart devices, wearables, and more. At Antenova, we combine cutting-edge engineering expertise with a commitment to customer success, delivering compact, efficient, and reliable wireless solutions that enable the next generation of connected devices. **Join us on the journey to make the world more connected, efficient, and smarter.**

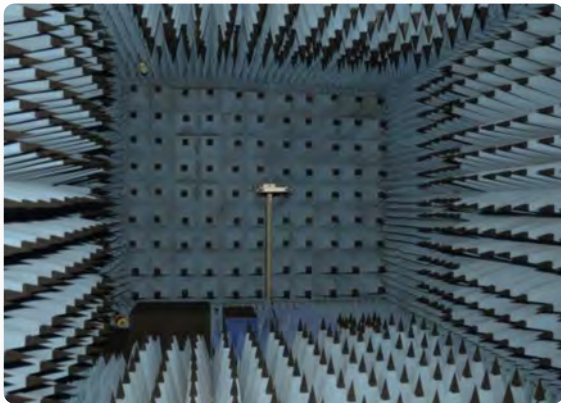
[Find out more](#)

## Over-the-Air (OTA)

Over-the-Air (OTA) testing is becoming increasingly important as it enables device manufacturers and network operators to move accurately predict the real-world performance of a mobile device. And, the use of anechoic chambers for the testing of OTA wireless device requirements such as those regulated by the CTIA, which includes, GSM, GPRS, EDGE, LTE/4G and UMTS technologies, has become common practice.

Antenova is able to provide OTA antenna performance test and measurement for wireless devices using state of the art equipment and facilities.

Customers benefit from a pre-screen of a customer device to ensure it will pass the network operator and PTCRB approvals.

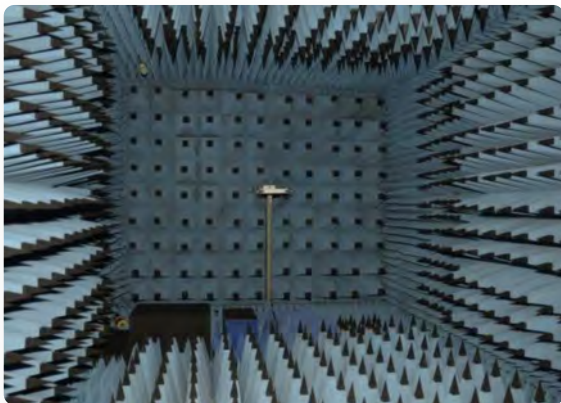


## TRP and TIS Measurements

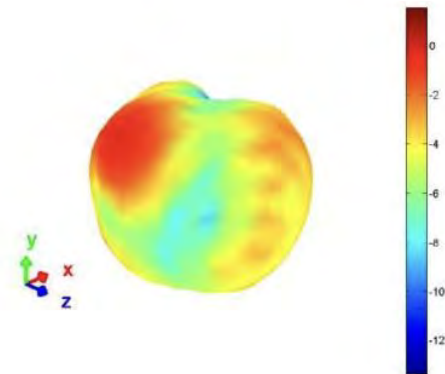
Antenova is capable of performing TRP and TIS measurements according to the specifications set in the “CTIA Test Plan” for Mobile Stations Over-the-Air Performance for GSM, LTE/4G and UMTS technologies, and we can provide a pre-screen of your device to ensure it will pass the network operator and PTCRB approvals. Although we are not an authorized CTIA test facility, our facility is CTIA certifiable and therefore can offer “Pre-Compliance” testing.

## Our Pre-Compliance OTA Antenna Performance Test Service for passive antenna measurements includes:

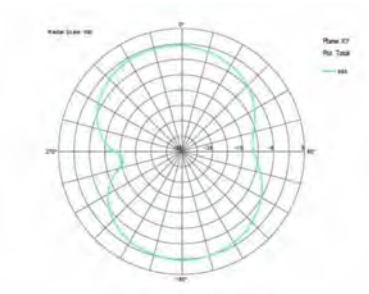
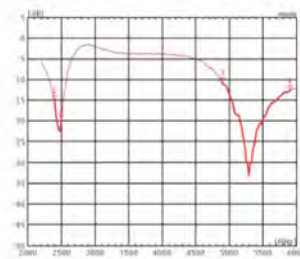
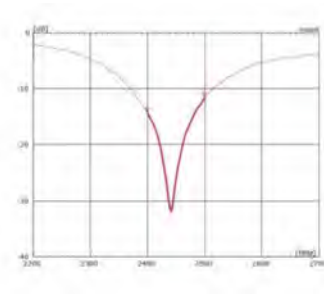
- Total Radiated Power (TRP) measurements in free space, SAM phantom head, and artificial hand
- Total Isotropic Sensitivity (TIS) measurements in free space, SAM phantom head, and artificial hand
- Active 2D and 3D antenna patterns
- Passive measurements from 450 MHz to 6GHz – 2D and 3D antenna patterns
- Full written report with plots



Anechoic Chamber



3D Radiation Pattern



Return loss, VSWR, match efficiency and complex impedance plots from a typical report

FIND OUT MORE ABOUT OUR TEST PROTOCOLS

# To request more information about Antenova's Pre-Compliance OTA Performance Testing

[Contact us](#)

antenova

Wireless connectivity  
without compromise.