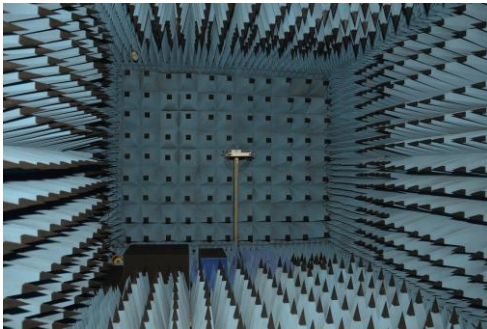


## Over the Air (OTA) Performance Testing

### 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.



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.

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

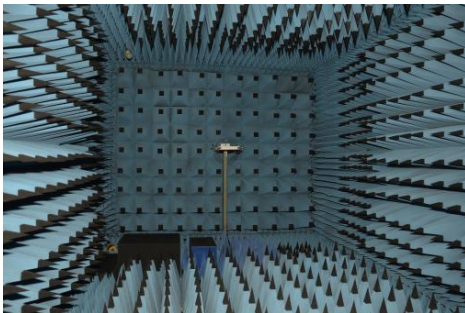
Customers benefit from a pre-screen of a customer device to ensure it will pass the network operator and PTCRB approvals.

### TRP and TIS Measurements

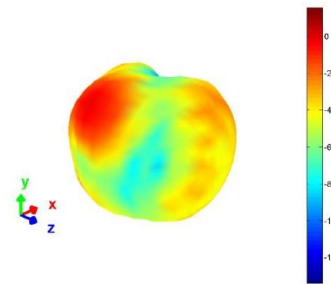
Antenna is capable of performing TRP and TIS measurements according to the specifications set in the "CTIA Test Plan" for Mobile Stations Over-the-Air Performance for GSM, LTE/4G and UMTS technologies, and we can provide a pre-screen of your device to ensure it will pass the network operator and PTCRB 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:

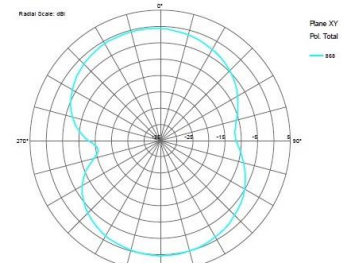
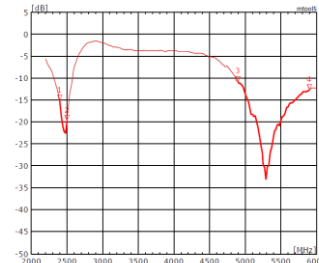
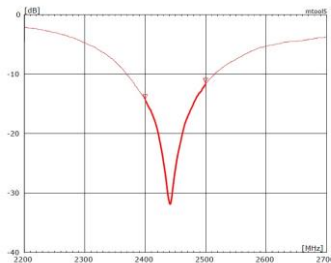
- Total Radiated Power (TRP) measurements in free space, SAM phantom head, and artificial hand
- Total Isotropic Sensitivity (TIS) measurements in free space, SAM phantom head, and artificial hand
- Active 2D and 3D antenna patterns
- Passive measurements from 450 MHz to 6GHz – 2D and 3D antenna patterns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



**Anechoic Chamber**



**3D Radiation Pattern**



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

Antenova has an ongoing programme of updating, upgrading and adding new test protocols, so please contact us if you do not see your protocol requirement. To request more information about Antenova's Pre-Compliance OTA Performance Testing, please contact us on +44 1223 810 600 or email [sales@antenova.com](mailto:sales@antenova.com).



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