

## Radiated emissions test facilities

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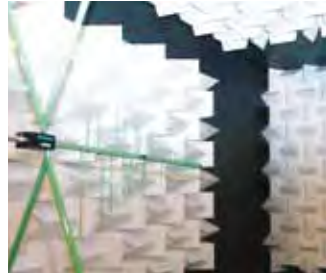
Roke Manor Research has an extensive range of facilities for over-the-air testing of radiated RF performance. These facilities are available for antenna evaluation and EMC (Electro-Magnetic Compatibility) assessment of electronic assemblies. The facilities cover the frequency range from 30MHz to 80GHz, providing support for customers' design and development needs.



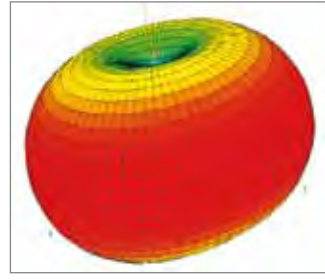
Datasheet



Inside our CTIA compliant anechoic chamber



EMC fully anechoic room (FAR)



3D plot of total radiated power from a mobile phone handset

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## Roke's Cellular Telecommunications and Internet Association (CTIA) compliant anechoic chamber

- Meets the stringent requirements of the CTIA certification programme. This is essential for testing products for the US market and increasingly in Europe
- Automated antenna performance testing
- Mobile handset and related devices - measurement of transmitted and received patterns
- Instrumentation includes multistandard base station emulator
- Multi-axis positioning system
- Phantom head available
- Frequency coverage 500MHz to 18GHz
- Internal size 7.3m x 3.7m x 3.7m
- Quiet zone 0.6m diameter. Larger antennas can be characterised depending on measurement

## EMC Fully Anechoic Room (FAR)

- Designed for EMC radiated emissions and immunity testing
  - Lined with ferrite tiles in addition to RF absorber
  - Turntable for device-under-test
  - Frequency coverage 30MHz to 18GHz
  - Internal size 7.2m x 3.3m x 3.3m
  - Working distance up to 3m
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## Tapered anechoic chamber

- Allows measurement of transmit/receive radiation patterns
- Low radar cross-section measurements
- Instrumentation to 40GHz
- Capable of operation to 80GHz
- Automated control software
- 7.5m tapered length
- Quiet zone 1m<sup>3</sup> (-30dB at 2GHz -42dB at 10GHz)

## Test antennas at Roke

- Precision dipoles from 736MHz to 2600MHz
- Standard gain horns covering 1.14GHz to 40GHz
- Wideband EMC antennas from 30MHz to 18GHz

## Other facilities

On the 24 acre (10 hectare) site at Roke there are several outdoor test facilities including a 25m telescopic mast for supporting antennas or test equipment. There is also a 3m x 2.5m screened room and a small Belling Lee screened enclosure for low-noise testing.

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