

## Radiated emissions test facilities

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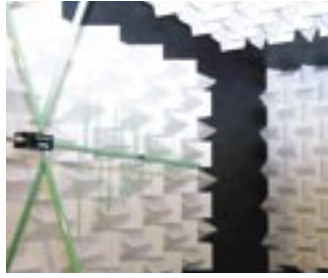
Roke Manor Research has an extensive range of facilities for over-the-air testing of radiated RF performance. These facilities are available for antenna evaluation and EMC (Electro-Magnetic Compatibility) assessment of electronic assemblies. The facilities cover the frequency range from 30MHz to 80GHz,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



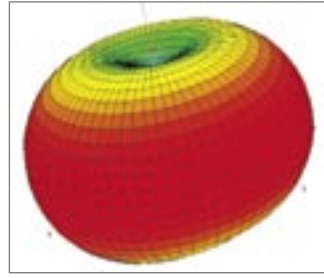
**Datasheet**



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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