

Technical Information

Rev.6
E.& O.E.

- APREL UniPhantom™ is a patented concept, which incorporates three dosimetric (SAR) measurement methodologies and applications.
- Design of the phantom enables the user to execute, head measurements, body measurements, and dipole validation measurements reducing the tissue volume needed for analysis.
- The Uni Phantom provides the user with the ability to provide a more comprehensive and conservative analysis of the device under test.
- The dimensions critical to the assessment of SAR used on the Uni Phantom are in line with all the harmonized global standards.
- The validation option provides repeatable and accurate dipole measurements, from 800 MHz, up into the GHz range.
- The construction of the phantom provides an overall thickness of 2mm which excludes the removable ear, critical for head measurements.
- Used in conjunction with the APREL Phantom stand and Universal Device Positioner this phantom provides the user with a more accurate platform for repeatability, and conservative return on measured SAR values.
- Developed primarily as a product development tool the UniPhantom can be used for compliance testing.



Features

- Frequency range:
- Head 300 MHz – 6 GHz (Equivalent to IEEE P.1528 SAM Phantom)
- Body 800 MHz – 6 GHz
- Dipole validation 800 MHz – 6 GHz
- Compatible with all commercially available SAR measurement systems
- Dimensions harmonized with global standards
- Conforming to SSI/DRB Standard's
- Conforms to IEEE P.1528
- Allows repeatable dipole positioning with grid positioning system
- Non-intrusive for RF

Specifications

- | | |
|--------------------------|--------------------------------------|
| • Frequency range | 300 MHz – 6 GHz |
| • Operating t^0 range | +10°C to +40°C |
| • Resistance to solvents | Diethylene Glycol Butyl Ether (DGBE) |
| • Material | Vivac |
| • Validation Area | Length 220mm, Width 100mm |
| • Head Area | Length 170mm, Width 80mm |
| • Pinna | 4mm Loss less Removable Piece |
| • Surface Thickness | 2 mm |
| • Fill Line | 150 mm |
| • Support Surface | Length 290mm, Breadth 290mm |

Applications

- SAR Dosimetry Testing
- Development Studies
- Near-Field Studies
- Antenna design
- Compliance Testing
- Quality Assurance
- Probe Calibration
- System Validation



Dipole and Universal Phantom Stand

Member of the Spectrum Sciences Institute RF Dosimetry Research Board

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