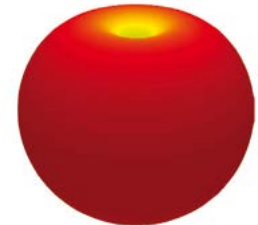


Magnetic Dipoles



Typical 3D radiation pattern



SOLUTION FOR

- Gain/Efficiency reference for low gain antennas
- Chamber reflectivity evaluation: directivity, cross polarization and radiation pattern
- CTIA/3GPP low gain antenna measurement

Main features

Technical performance

- Low loss and high efficiency
- Azimuth pattern symmetry is within ± 0.1 dB variation as specified by the CTIA for ripple testing according to the OTA Test Plan

Design

- End-fed sleeve dipole technology, minimizing cable and feed point interaction
- Innovative choke design further reduces cable interaction by attenuating the natural return currents from the dipole
- Azimuth pattern symmetry thanks to entirely symmetrical design

Surface treatment

- Surtec 650 according to MIL-C 5541E class 3
- Polyurethane paint

Repeatability

- Stiff and robust mechanical design
- Precision machined
- High-reliability connector

Delivered documents

- Typical performance data (TYMEDA™)
- Measured return loss data

Product configuration

Equipment

- High precision coaxial connector
- Customizable magnetic dipoles kit for OTA/WiFi testing of mobile devices

Related services

- Calibration and maintenance
- Customization

■ Included □ Optional

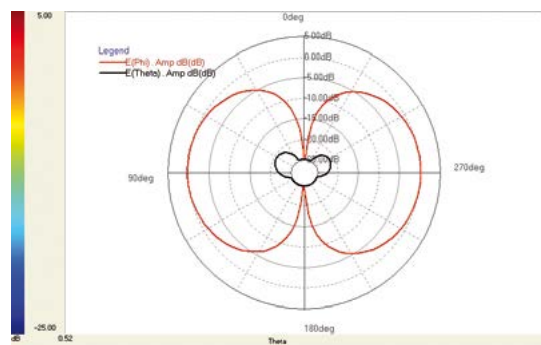


The MVG magnetic dipoles are widely used by the Telecom industry for CTIA Quiet Zone Accuracy Tests as per the OTA Test Plan and CWG Test Plan (Wi-Fi) and for site validation within ISO17025 accreditation (3GPP Technical Report 25.914)

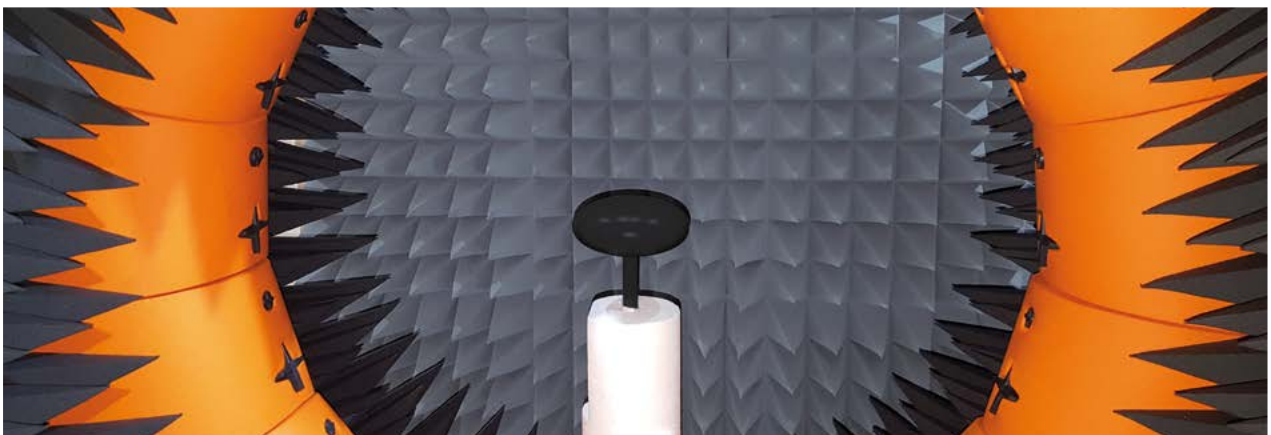
Electrical characteristics

Type of antenna	Magnetic dipole
Available frequencies	0.652 - 5.637 GHz
Gain variation over azimuth	± 0.1 dB
Peak gain	1.6 dBi
Efficiency	88%
VSWR (at center frequency)	< 1.9
Return loss (at center frequency)	< -10 dB
Cross polar discrimination	> 20 dB
Impedance	50 Ohms
Frequency bandwidth (ret. loss < -10 dB)	5%

MD typical elevation and azimuth radiation pattern



The magnetic dipole, or loop antenna, is complementary to the electrical dipole, with a similar radiation pattern but in orthogonal polarization.



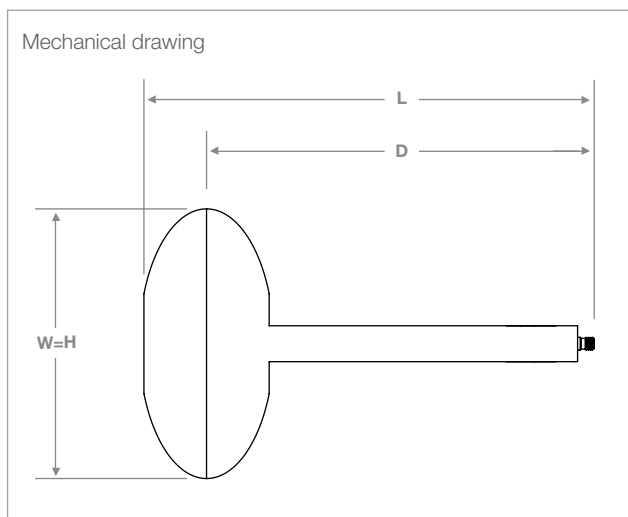
Mechanical characteristics

Part number	Frequency range	Dimensions [mm]			Weight (approx.) [g]	RF connector
		H=W	L	D		
MD665	652 – 678 MHz	135	247.4	207.8	400	3.5 mm Female ⁽²⁾
MD720 ⁽¹⁾	715 – 735 MHz	135	224.7	185.1	400	3.5 mm Female ⁽²⁾
MD760	760 – 775 MHz	135	224.7	193.4	400	3.5 mm Female ⁽²⁾
MD836 ⁽¹⁾	824 – 860 MHz	135	225.4	185.8	400	3.5 mm Female ⁽²⁾
MD880	870 – 900 MHz	135	225.4	185.8	400	3.5 mm Female ⁽²⁾
MD900	880 – 920 MHz	135	225.4	185.8	400	3.5 mm Female ⁽²⁾
MD945	925 – 965 MHz	135	225.4	185.8	400	3.5 mm Female ⁽²⁾
MD1230	1205 – 1255 MHz	135	164.1	124.5	350	3.5 mm Female ⁽²⁾
MD1480	1452 – 1511 MHz	65	129.3	106	200	3.5 mm Female ⁽²⁾
MD1575 ⁽¹⁾	1545 – 1605 MHz	65	129.3	106	200	3.5 mm Female ⁽²⁾
MD1730 ⁽¹⁾	1695 – 1755 MHz	65	117.9	94.6	200	3.5 mm Female ⁽²⁾
MD1800	1765 – 1830 MHz	65	117.9	94.6	200	3.5 mm Female ⁽²⁾
MD1840	1810 – 1875 MHz	65	117.9	94.6	200	3.5 mm Female ⁽²⁾
MD1880 ⁽¹⁾	1850 – 1910 MHz	65	117.9	94.6	200	3.5 mm Female ⁽²⁾
MD1960	1935 – 1995 MHz	65	117.9	94.6	200	3.5 mm Female ⁽²⁾
MD2050	2010 – 2085 MHz	65	117.9	94.6	200	3.5 mm Female ⁽²⁾
MD2140 ⁽¹⁾	2110 – 2170 MHz	65	117.9	94.6	200	3.5 mm Female ⁽²⁾
MD2350	2300 – 2400 MHz	65	117.9	94.6	200	3.5 mm Female ⁽²⁾
MD2450 ⁽¹⁾	2400 – 2483 MHz	65	117.9	94.6	200	3.5 mm Female ⁽²⁾
MD2600	2565 – 2670 MHz	65	117.9	94.6	200	3.5 mm Female ⁽²⁾
MD2800	2730 – 2870 MHz	65	117.9	94.6	200	3.5 mm Female ⁽²⁾
MD3600	3530 – 3670 MHz	65	182.8	157.3	250	3.5 mm Female ⁽²⁾
MD5500 ⁽¹⁾⁽³⁾	5475 – 5555 MHz	65	179.8	156.5	250	3.5 mm Female ⁽²⁾

(1) Selected models for Quiet Zone Accuracy Test as per CTIA Test Plan for Wireless Device Over-the-Air Performance and CTIA/WiFi Alliance Test Plan for RF Performance Evaluation of Wi-Fi Mobile Converged Devices

(2) Huber+Suhner type 23 PC35-50-0-51/199UE

(3) Frequency bandwidth (ret. loss <-10 dB): 1%





Contact your local sales representative for more information

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