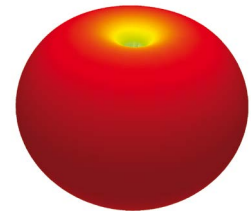


# Electric Sleeve Dipoles



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  $\pm 0.1$  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
- Minimum use of dielectric material
- Precision machined
- High-reliability connector

### Delivered documents

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

## Product configuration

### Equipment

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

### Related services

- Calibration and maintenance
- Customization

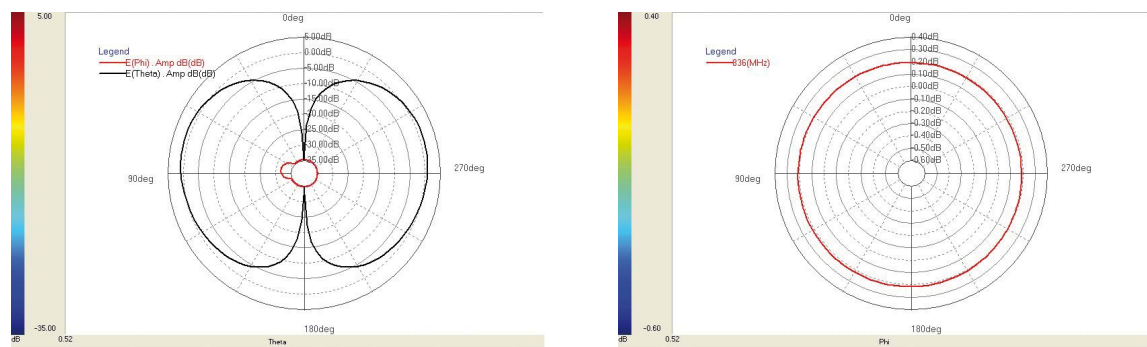


The MVG electric sleeve dipoles are widely used by the Telecom industry for CTIA Quiet Zone Accuracy Tests as per the OTA Test Plan and CWG Test Plan (Wi-Fi) and for site validation within ISO17025 accreditation (3GPP Technical Report 25.914)

## Electrical characteristics

Type of antenna	Sleeve dipole
Frequency range	0.38 – 5.9 GHz
Gain variation over azimuth	$< \pm 0.1$ dB
Peak gain	1.8 dB
Efficiency	90%
VSWR (at center frequency)	$< 1.2$
Return loss (at center frequency)	$< -20$ dB
Cross polar discrimination	$> 30$ dB
Impedance	50 Ohms
Frequency bandwidth (ret. loss $< -15$ dB)	10%

SD typical elevation and azimuth radiation pattern



Sleeve dipoles kit for OTA/WiFi testing of mobile devices



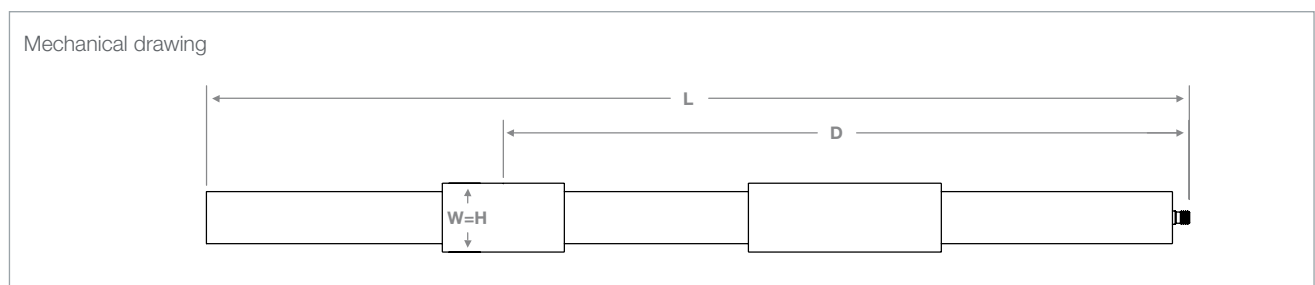
## Mechanical characteristics

Part number	Frequency range	Dimensions [mm]			Weight (approx.) [g]	RF connector
		H=W	L	D		
SD390	380 – 410 MHz	33	555	378.8	700	3.5 mm Female <sup>(2)</sup>
SD433	410 – 450 MHz	33	511.9	344.3	600	3.5 mm Female <sup>(2)</sup>
SD450	435 – 470 MHz	33	480.3	326.3	600	3.5 mm Female <sup>(2)</sup>
SD473	450 – 500 MHz	33	468	321.3	600	3.5 mm Female <sup>(2)</sup>
SD530	500 – 560 MHz	33	392	260.7	500	3.5 mm Female <sup>(2)</sup>
SD590	560 – 625 MHz	33	351.4	232.6	450	3.5 mm Female <sup>(2)</sup>
SD665	625 – 700 MHz	33	314.8	207.8	400	3.5 mm Female <sup>(2)</sup>
SD740 <sup>(1)</sup>	690 – 800 MHz	33	280.4	185.1	400	3.5 mm Female <sup>(2)</sup>
SD836 <sup>(1)</sup>	810 – 875 MHz	19	274.9	186.2	150	3.5 mm Female <sup>(2)</sup>
SD850	820 – 890 MHz	19	274	185.9	150	3.5 mm Female <sup>(2)</sup>
SD880	850 – 920 MHz	19	258	172.9	150	3.5 mm Female <sup>(2)</sup>
SD900	865 – 930 MHz	19	253.4	170.2	150	3.5 mm Female <sup>(2)</sup>
SD945	910 – 980 MHz	19	241.7	161.5	150	3.5 mm Female <sup>(2)</sup>
SD1230	1165 – 1295 MHz	15	188.5	123.2	75	3.5 mm Female <sup>(3)</sup>
SD1450	1390 – 1540 MHz	15	165.9	109.0	75	3.5 mm Female <sup>(3)</sup>
SD1575 <sup>(1)</sup>	1500 – 1630 MHz	15	158.4	105.2	75	3.5 mm Female <sup>(3)</sup>
SD1730 <sup>(1)</sup>	1640 – 1830 MHz	15	142.5	93.2	75	3.5 mm Female <sup>(3)</sup>
SD1800	1710 – 1930 MHz	15	141.2	93.2	75	3.5 mm Female <sup>(3)</sup>
SD1900 <sup>(1)</sup>	1810 – 2030 MHz	15	139.5	93.2	75	3.5 mm Female <sup>(3)</sup>
SD2050	1910 – 2170 MHz	15	137.7	93.2	75	3.5 mm Female <sup>(3)</sup>
SD2140 <sup>(1)</sup>	1990 – 2330 MHz	15	136.5	93.2	75	3.5 mm Female <sup>(3)</sup>
SD2450 <sup>(1)</sup>	2330 – 2650 MHz	15	132.1	93.2	75	3.5 mm Female <sup>(3)</sup>
SD2600	2380 – 2950 MHz	15	131.2	93.2	60	3.5 mm Female <sup>(3)</sup>
SD3150-A	3000 – 3300 MHz	14	184	156	90	3.5 mm Female <sup>(2)</sup>
SD3600-A	3450 – 3800 MHz	14	180.3	156	90	3.5 mm Female <sup>(2)</sup>
SD4000-A	3800 – 4200 MHz	14	179.8	156	90	3.5 mm Female <sup>(2)</sup>
SD5150-A	4900 – 5400 MHz	14	178.3	156	90	3.5 mm Female <sup>(2)</sup>
SD5650-A <sup>(1)</sup>	5400 – 5900 MHz	14	176.4	156	90	3.5 mm Female <sup>(2)</sup>

(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) Huber+Suhner type 31 PC35-50-0-1/199UE





**Contact your local sales representative for more information**

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