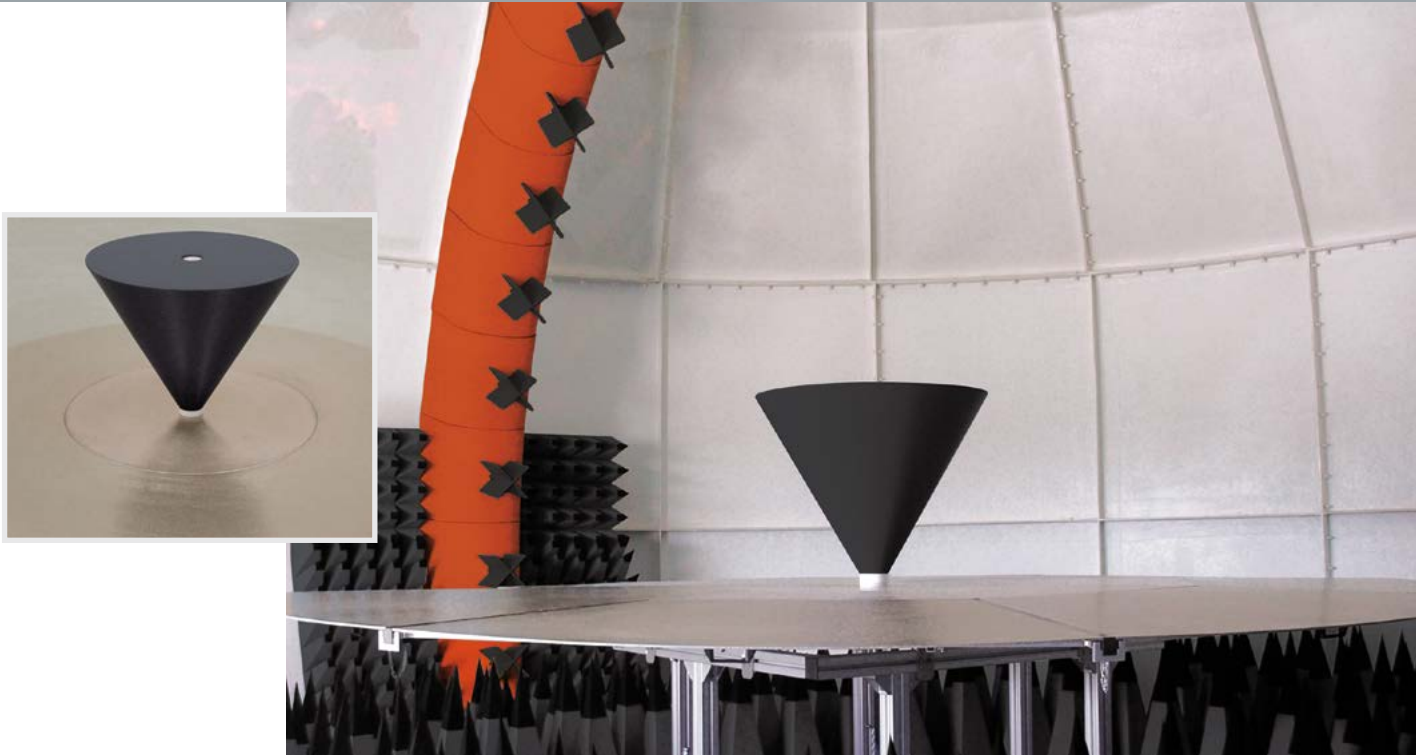


# Monocones



## SOLUTION FOR

- Wideband gain reference
- Particularly suitable for automotive test ranges

## Main features

### Technical performance

- Low loss and high efficiency
- Azimuth pattern symmetry
- Wide bandwidth

### Design

- Precision circular flange to mate with MVG ground planes
- Axially 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 circular ground plane

### Related services

- Calibration and maintenance
- Customization

■ Included    □ Optional

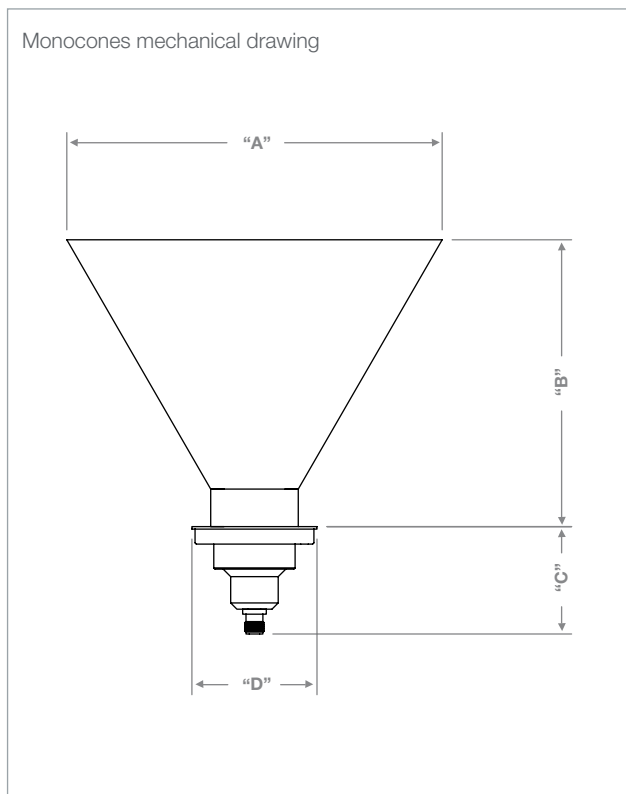
## Electrical characteristics

Part number	SMC70	SMC220	SMC700	SMC2200
Type of antenna	Monocone	Monocone	Monocone	Monocone
Frequency range	70 – 220 MHz	220 – 700 MHz	700 – 2200 MHz	2200 – 6000 MHz
Gain variation over azimuth	<± 0.1 dB	<± 0.1 dB	<± 0.1 dB	<± 0.1 dB
Efficiency	> 80%	> 80%	> 80%	> 80%
VSWR	< 1.9	< 1.9	< 1.9	< 1.9
Return loss	< -10 dB	< -10 dB	< -10 dB	< -10 dB
Impedance	50 Ohms	50 Ohms	50 Ohms	50 Ohms

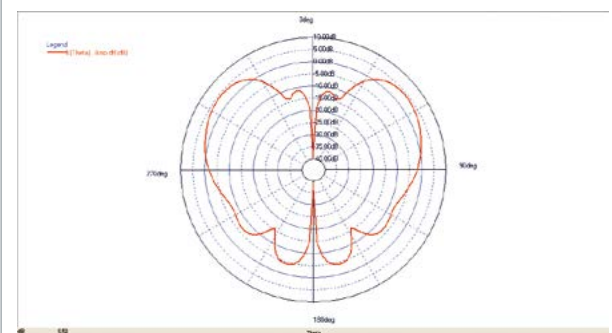
## Mechanical characteristics

Part number	Frequency range	Dimensions [mm]				Weight (approx.) [Kg]	RF connector	Recommended ground plane
		A	B	C	D			
SMC70	70 – 220 MHz	795	638	106	100	9	N-type Female <sup>(1)</sup>	GP400
SMC220	220 – 700 MHz	300	229	86	100	2.5	N-type Female <sup>(1)</sup>	GP400 [220 – 400 MHz] GP100 [400 – 700 MHz]
SMC700	700 – 2200 MHz	79.5	64	34	100	0.3	N-type Female <sup>(1)</sup>	GP100
SMC2200	2200 – 6000 MHz	30	23	34	100	0.25	N-type Female <sup>(1)</sup>	GP100

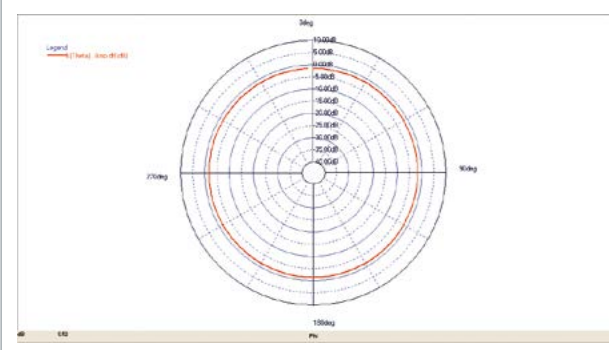
(1) Southwest 312-04SF



SMC700 typical elevation pattern at 700 MHz



SMC700 typical azimuth pattern at 700 MHz



## / Ground planes

### Main Features

- High surface flatness
- Well-defined electrical continuity between coupled parts
- Precise mechanical alignments
- Easy mounting procedure

### Equipment

#### GP100

- Lightweight aluminum sandwich panel
- Tripod with adjustable height (1.5 m – 2.1 m wrt ground)

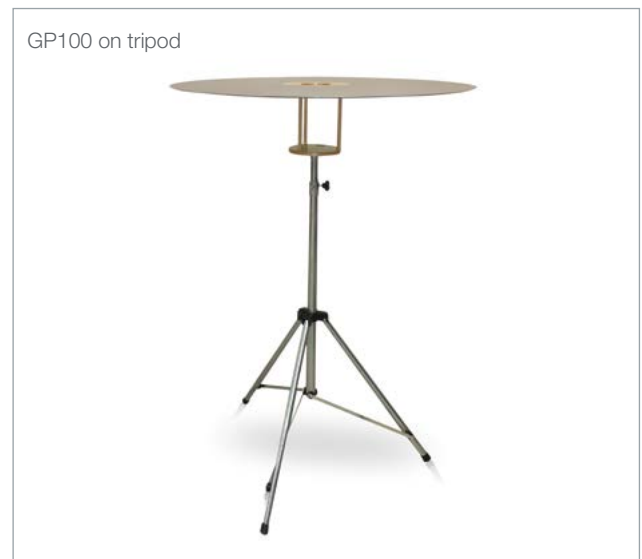
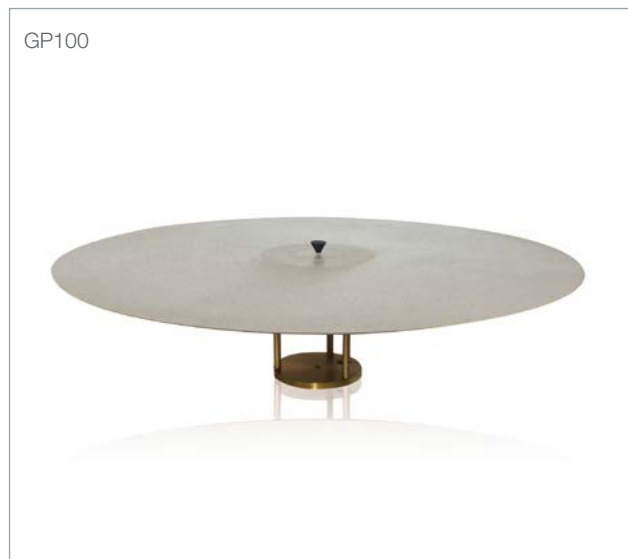
#### GP400

- Lightweight aluminum sandwich panel
- Stowable/deployable for fast installation and compact storage
- Integrated wheeled support structure

### Mechanical characteristics

Part number	GP40	GP60	GP100	GP400
Weight (approx)	100 g	200 g	2.5 Kg	220 Kg
Diameter	40 cm	60 cm	1 m	4 m
Material	Aluminum	Aluminum	Aluminum	Aluminum
Treatment	Surtec 650 <sup>(1)</sup>	Surtec 650 <sup>(1)</sup>	Surtec 650 <sup>(1)</sup>	Surtec 650 <sup>(1)</sup>

(1) According to MIL-C 5541E class 3





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

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