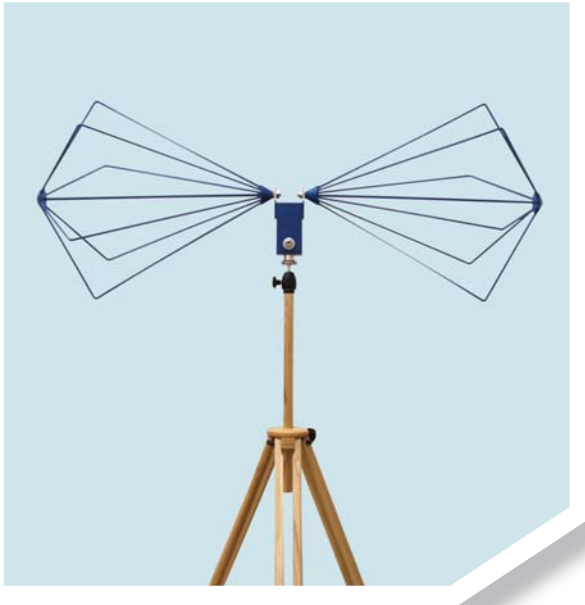


BICONICAL Antennas



EMC & EMI APPLICATIONS

➤ Main use:

- EMC and EMI testing
- Radio link testing

➤ Delivered documents:

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

➤ Included equipment:

- Balun, connected to the RF N connector

➤ Optional equipment:

- Tripod

➤ Related services:

- Maintenance
- Calibration
- Customization

1 TECHNICAL PERFORMANCE

- Low return loss
- Linear gain with frequency

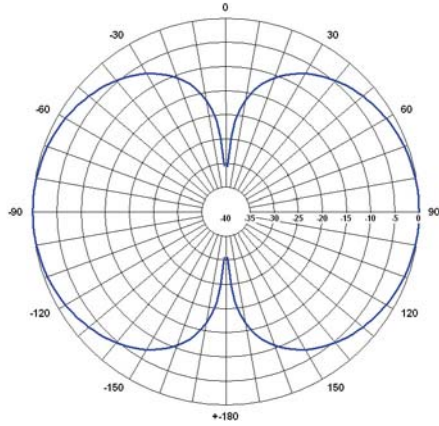
2 DESIGN

- Easy handling and storage
- Fully dismountable elements

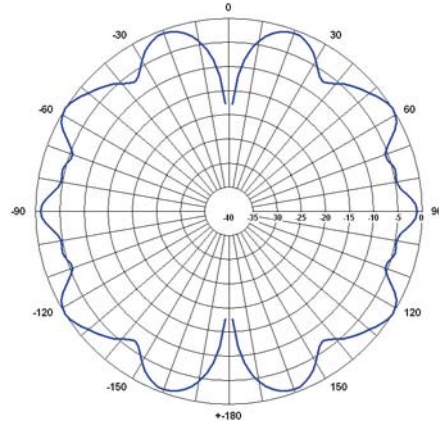
Electrical characteristics

Part number	SBW 20	SBW 30	SBW 100
Type of antenna	Biconic	Biconic	Biconic
Frequency range	0.02 – 3 GHz	0.03 – 1 GHz	0.1 – 3 GHz
Average gain	From -20 to 0 dBi between 20 and 70 MHz	From -15 to 0 dBi between 30 and 70 MHz	1 dBi (Typical)
	0 dBi between 70 and 3000 MHz	0 dBi between 70 and 1000 MHz	-
VSWR	From 80:1 to 4:1 between 20 MHz to 70 MHz	From 30:1 to 4:1 between 30 to 70 MHz	< 4:1
	4:1 between 70 and 3000 MHz	4:1 between 70 and 1000 MHz	
Polarization	Vertical or horizontal	Vertical or horizontal	Vertical or horizontal
Impedance	50 Ohms	50 Ohms	50 Ohms
Power	100 W	50 W	50 W
Bandwidth	Omnidirectional in V pol.	Omnidirectional in V pol.	Omnidirectional in V pol.
Antenna factor	From 20 to 5 dB1/m between 20 and 70 MHz, Increasing with frequency between 70 and 3000 MHz	From 15 to 5 dB1/m between 30 and 70 MHz, Increasing with frequency between 70 and 1000 MHz	From 10 dB1/m at 100 MHz, increasing with frequency up to 3000 MHz

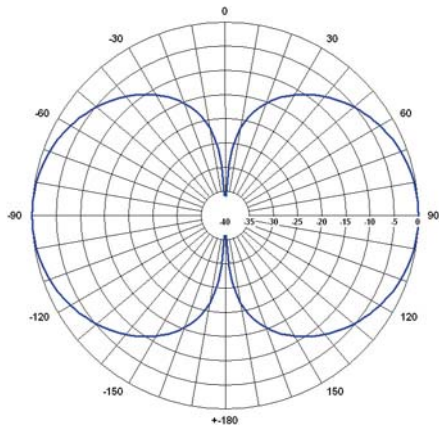
SBW 100 Typical radiation pattern at 100 MHz



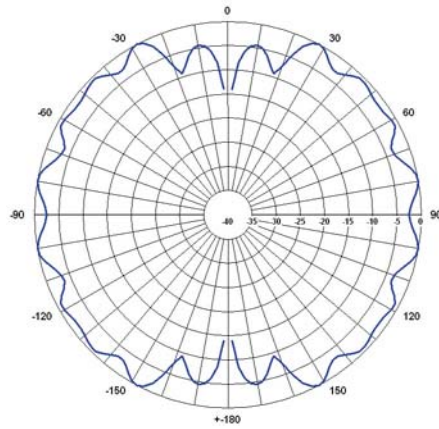
SBW 100 Typical radiation pattern at 1 GHz



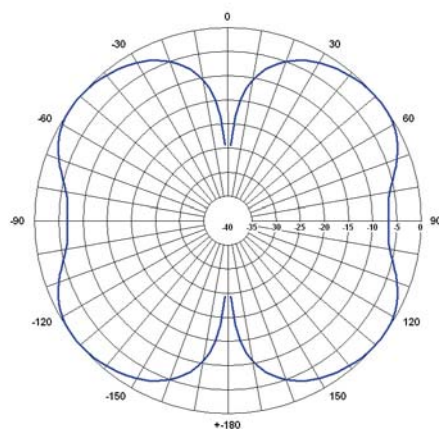
SBW 100 Typical radiation pattern at 200 MHz



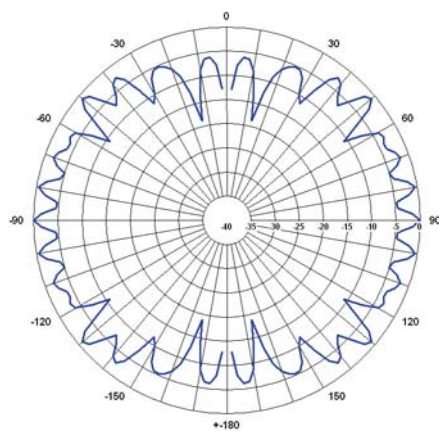
SBW 100 Typical radiation pattern at 2 GHz



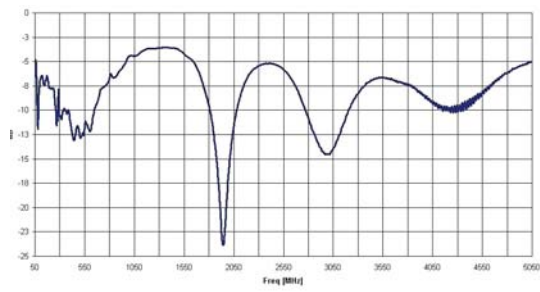
SBW 100 Typical radiation pattern at 450 MHz



SBW 100 Typical radiation pattern at 3 GHz



SBW 100 Measured return loss vs frequency



Mechanical characteristics

Part number	SBW 20	SBW 30	SBW 100
Dimensions in mm (width x radius)	1300 x 300	1300 x 300	1300 x 300
Weight (approx)	2 Kg	2 Kg	2 Kg
Connector	N Female	N Female	N Female
Material	Aluminum alloy and PVC	Aluminum alloy and PVC	Aluminum alloy and PVC
Wind rating	60 Km/h	60 Km/h	60 Km/h
Lightening protection	DC grounded	DC grounded	DC grounded

SBW 100 connector and supporting box



Mechanical drawing

