

Biconical Antennas



Main features

Technical performance



- Low return loss
- Linear gain with frequency
- EMC and EMI testing
- Radio link testing

Design

- Easy handling and storage
- Fully dismountable elements

Product configuration



Equipment

-  Balun, connected to the RF N connector
-  Tripod

Services

-  Maintenance
-  Calibration

Delivered documents

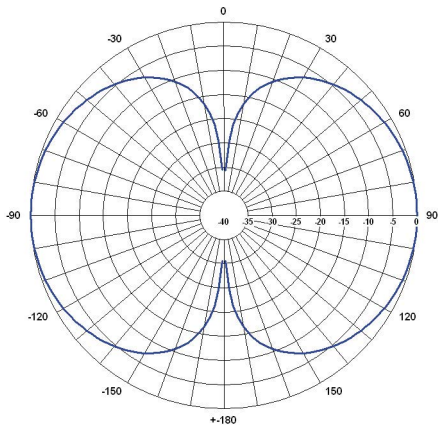
-  Measured return loss
-  Typical performance data (TYMEDA™)

 Included  Optional

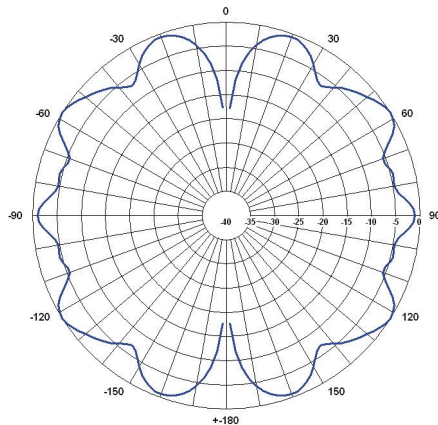
Electrical characteristics

Part number	SBW20	SBW30	SBW100
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 0 dBi between 70 and 3000 MHz	From -15 to 0 dBi between 30 and 70 MHz 0 dBi between 70 and 1000 MHz	1 dBi (Typical) -
VSWR	From 80:1 to 4:1 between 20 MHz to 70 MHz 4:1 between 70 and 3000 MHz	From 30:1 to 4:1 between 30 to 70 MHz 4:1 between 70 and 1000 MHz	< 4:1
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

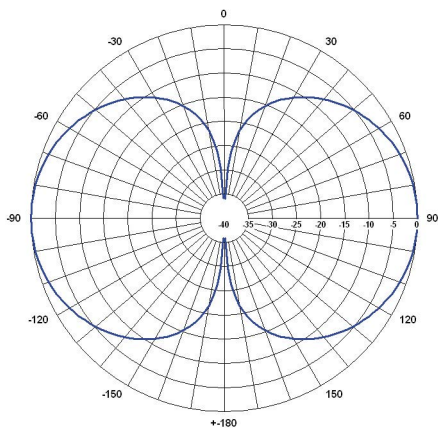
SBW100 Typical radiation pattern at 100 MHz



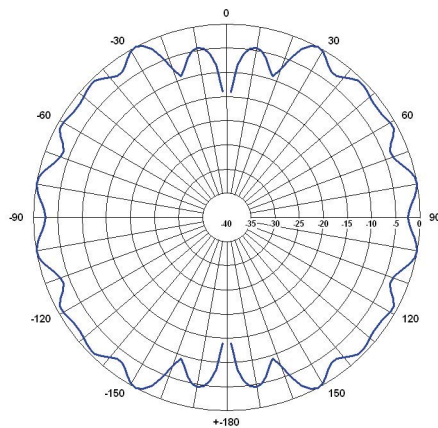
SBW100 Typical radiation pattern at 1 GHz



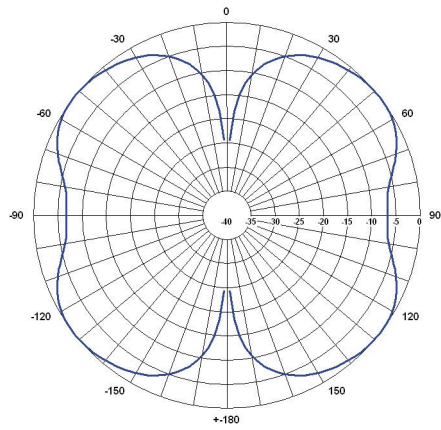
SBW100 Typical radiation pattern at 200 MHz



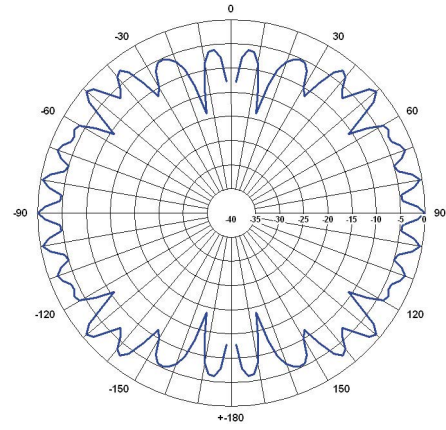
SBW100 Typical radiation pattern at 2 GHz



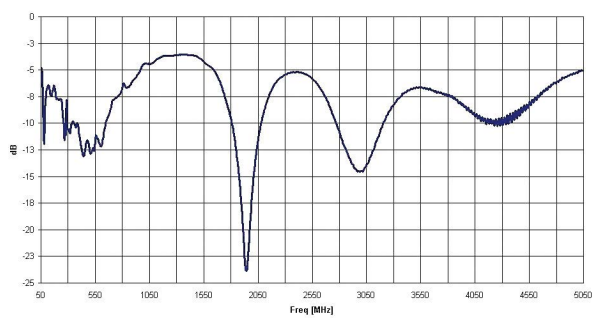
SBW100 Typical radiation pattern at 450 MHz



SBW100 Typical radiation pattern at 3 GHz



SBW100 Measured return loss vs frequency



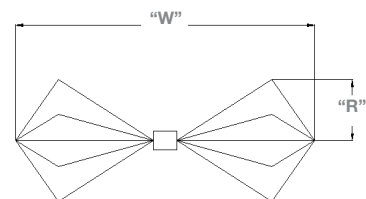
Mechanical characteristics

Part number	SBW20	SBW30	SBW100
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

SBW100 connector and supporting box



Mechanical drawing



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www.mvg-world.com
salesteam@mvg-world.com