BARRETT

HF Radio Communications

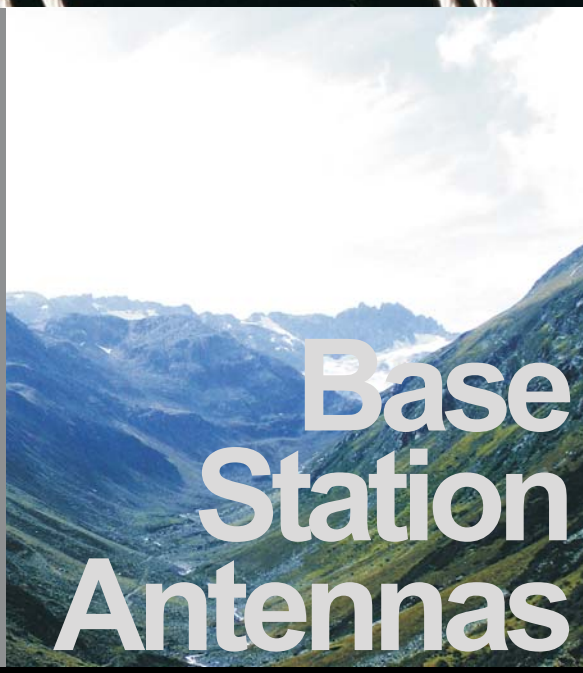
Base Station Antennas

Barrett Communications provide reliable, solidly constructed broadband, as well as single frequency, base station antennas for a variety of uses and in many different configurations to compliment our range of HF transceivers and ensure the success of your base station.

We manufacture our antennas to exacting standards using high quality stainless steel and glass reinforced composites. Our base station antennas are lightweight and corrosion resistant, but are able to withstand wind speeds in excess of 200 km/h. The full range of wire antennas are supplied complete with an inverted "V" mounting harness, 30 metres of coaxial cable and high quality waterproof connectors. Our base station antenna range includes:

- **Multi-wire broadband dipoles**
- **Single-wire broadband dipoles**
- **Single-wire single frequency dipoles**
- **Rotatable log periodics**
- **Deltas**
- **Rhombics**
- **Conical monopoles**

Additionally antenna systems can also be designed and manufactured to suit specific customer requirements.



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BCB900ANT/9

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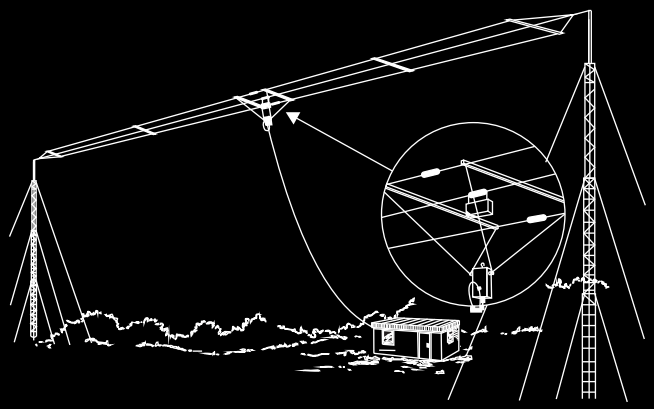
912 Series broadband dipoles

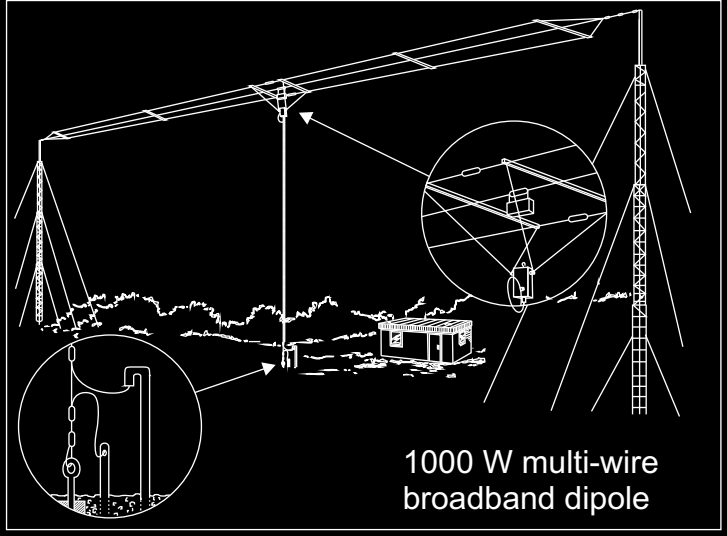
The Barrett 912 series of broadband base station antennas are designed for use in either an inverted "V" configuration using a single mast, or a standard dipole configuration between two masts.

In the inverted “V” configuration the 912 provides a more omni directional radiation pattern. All broadband antennas in the series are designed to provide optimum performance over a wide HF spectrum, without the need for antenna tuners.

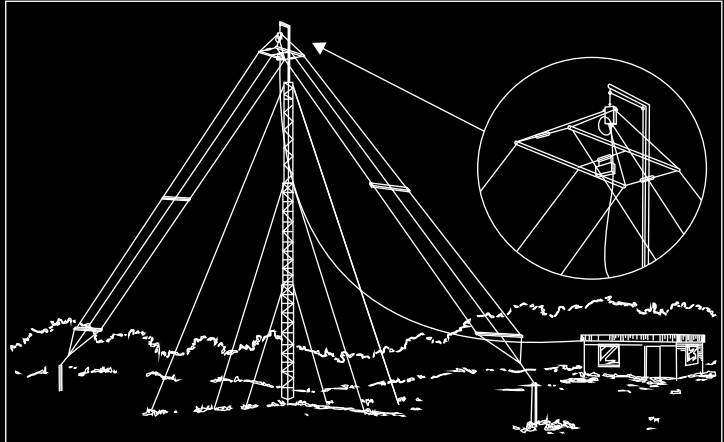
Using high quality stainless steel and glass reinforced composites the 912 series of broadband antennas are lightweight and corrosion resistant, but are able to withstand wind speeds in excess of 200 km/h. The antennas are supplied complete with an inverted "V" mounting harness, 30 metres of coaxial cable and high quality waterproof connectors.



125/500 W multi-wire broadband dipole

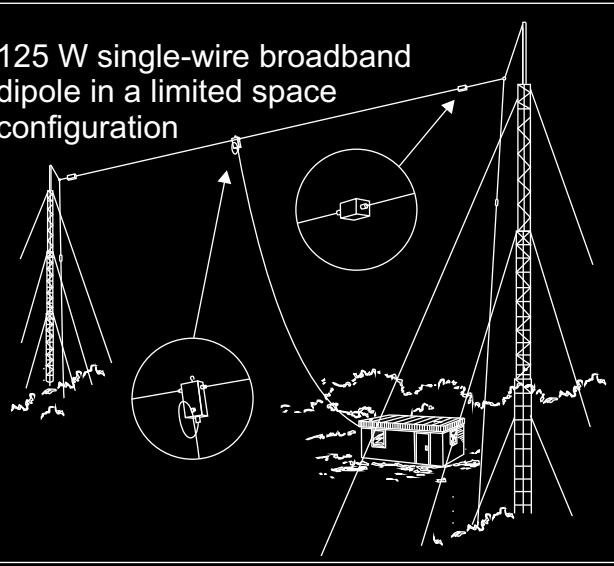


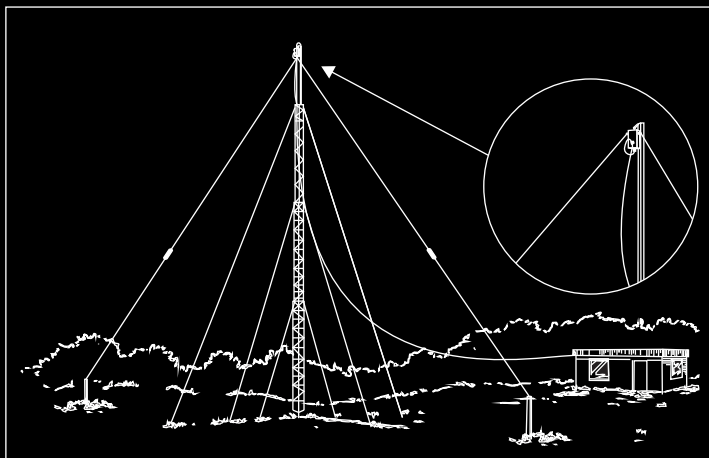
1000 W multi-wire broadband dipole



125/500 W multi-wire broadband dipole in an inverted "V" configuration

125 W single-wire broadband dipole in a limited space configuration





125 W single-wire broadband dipole in an inverted "V" configuration

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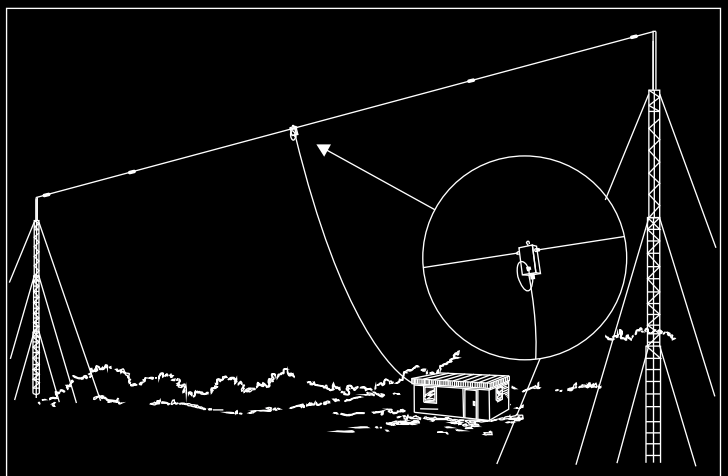


125 W standard single-wire broadband dipole

General Specifications

Frequency range	2 to 30 MHz
VSWR	Less than 2.5:1
Impedance	50 ohm
Max wind speed	207 km/h

BC91200 125 W multi-wire broadband dipole

Length insulator to insulator	28 metres
Width	1.3 metres
Power handling	125 W CW, 250 W PEP
Packed weight	6 kg
Packed dimensions	1.4 m x 150 mm x 100 mm

BC91202 500 W multi-wire broadband dipole

Length insulator to insulator	28 metres
Width	1.3 metres
Power handling	500 W CW, 1250 W PEP
Packed weight	13 kg
Packed dimensions	1.4 m x 300 mm x 150 mm

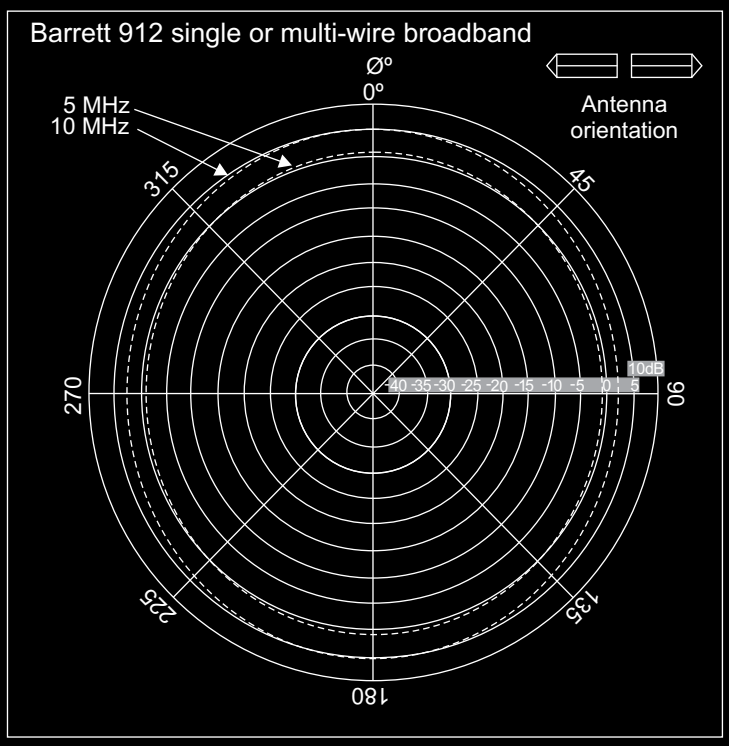
BC91203 1000 W multi-wire broadband dipole

Length insulator to insulator	28 metres
Width	1.3 metres
Power handling	1000 W CW, 2500 W PEP
Packed weight	20 kg
Packed dimensions	1.4 m x 300 mm x 150 mm

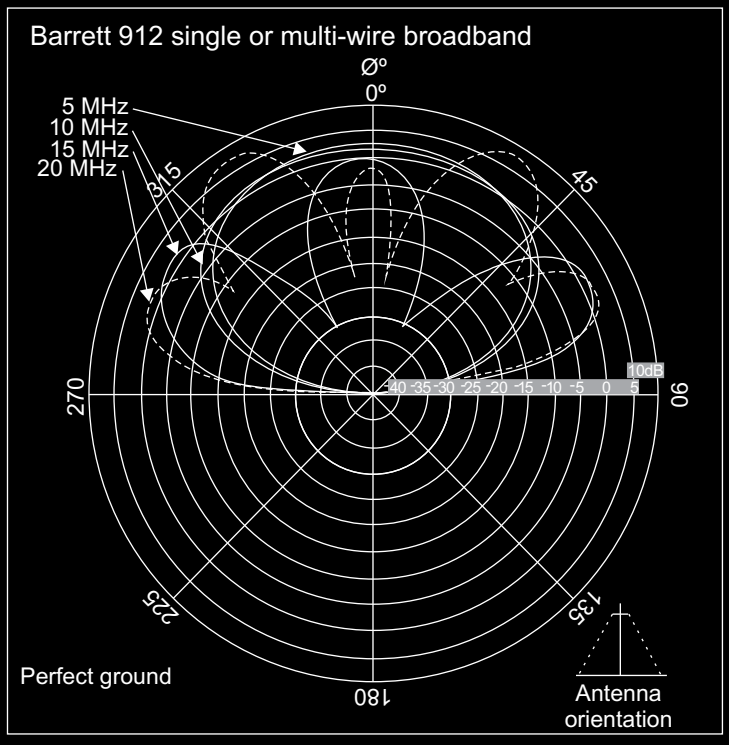
BC91201 125 W single-wire broadband dipole

Length insulator to insulator	48 metres
Width	n/a
Power handling	125 W CW, 250 W PEP
Packed weight	2 kg
Packed dimensions	250 mm x 300 mm x 75 mm

Typical azimuth pattern



Typical elevation radiation pattern



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915 Single-wire dipoles

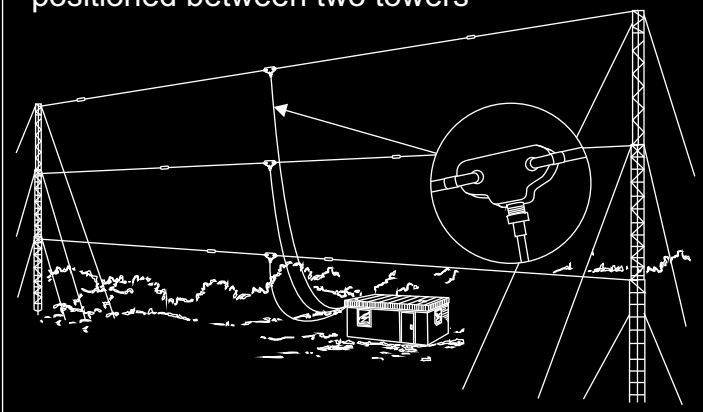
Single-wire dipole antennas, spot-tuned to the required operating frequency, are the most efficient antennas for use in HF base stations. They are simple to install and have a relatively narrow bandwidth and requires only minimal maintenance.

When several frequencies are required at a base station, several dipoles can be stacked one above the other between two towers. An antenna switch box BC91600 can be used to switch to the required dipole depending on the channel.

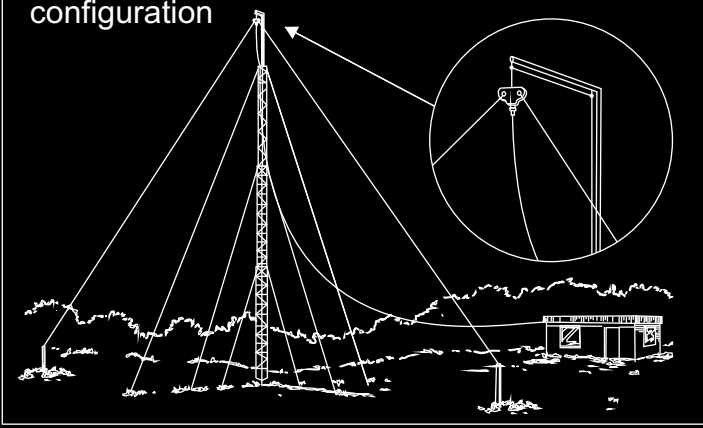
General Specifications

Frequency range	500 KHz to 30 MHz
VSWR	Less than 1.5:1
Impedance	50 ohm
Construction	Stainless steel radiators

Several single frequency wire dipoles positioned between two towers



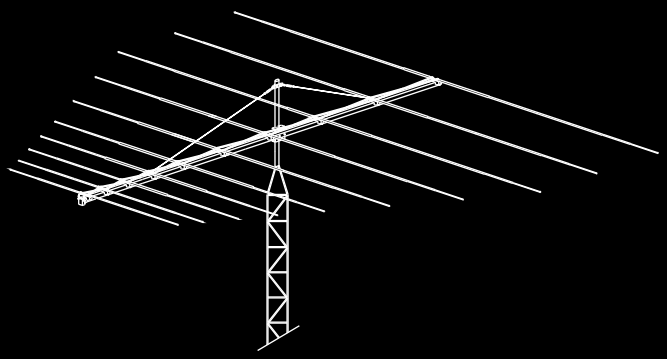
Single frequency wire dipole in an inverted "V" configuration



818 Log periodic antennas

Steerable antenna with high directional gain suitable for long distance communications. Broadband input from either 13 to 30 MHz or 10 to 30 MHz. 918 Log periodic antennas come complete with rotator and thrust bearing. Optional feeder coaxial or rotator control cable is available to length separately.

10 Element 918 Log periodic antenna



General Specifications

Barrett 918 Log periodic antenna 8 element - 13 to 30 MHz

Frequency range	10 to 30 MHz continuous
Typical gain	6-7 dBi 10 to 30 MHz
Front to back ratio	Typical 15-20 dB 10 to 30 MHz
Beamwidth	60°
Feed impedance	50 ohms unbalanced
VSWR	Less than 2.5:1
Input connector	UHF type socket standard
Power handling	1 kW PEP
Boom length	6.0 m
Max. element length	11.55 m
Turning radius	6.48 m
Wind survival	120 km/h
Packed size	1.8 m x 0.2 m x 0.2 m
Weight	20 kg

Barrett 918 Log periodic antenna 10 element - 10 to 30 MHz

Frequency range	10 to 30 MHz continuous
Typical gain	6-7 dBi 10 to 30 MHz
Front to back ratio	Typical 15-20 dB 10 to 30 MHz
Beamwidth	60°
Feed impedance	50 ohms unbalanced
VSWR	Less than 2.5:1
Input connector	UHF type socket standard
Power handling	1 kW PEP
Boom length	8.0 m
Max. element length	11.55 m
Turning radius	7.27 m
Wind survival	120 km/h
Packed size	1.8 m x 0.4 m x 0.2 m
Weight	40 kg

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ISO 9001 BUREAU VERITAS Certification No 149438

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