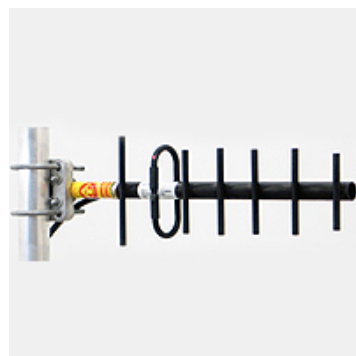


Antennas

FreeWave Technologies offers an assortment of directional and omnidirectional antennas. While there are many factors to consider in making an antenna decision, there are 3 inescapable truths:

1. Height is everything.
2. The radio will only perform as well as the antenna and cable connected to it.
3. Height is everything.

FreeWave spread spectrum radios using only a 3" long unity gain whip antenna have a line-of-sight range of about 20 miles. Using external antennas will improve their performance considerably. In general, Yagi antennas should be used for longer point-to-point links and omnis for shorter links or for repeater sites; however, these are simply guidelines. With proper placement, the type of antenna becomes secondary. As an example, we know of installations where Yagis are used for repeaters, with a 10 mile link coming into the back or side of the antenna.



FreeWave offers the following antennas. Please note: The omni-directional antennas may be used with either brackets or magnetic mounts.

Ordering Info:

Model	Range	Type	Dir.	Gain	Conn.	Dim.	Notes
EAN0900NR	900 MHz	Whip, 1/2 wave	No	2 dBi	N-type Male	8" Tall	
EAN0900RQ	900 MHz	Whip, 1/4 wave	No		Reverse SMA	3" Tall	
EAN0900SR	900 MHz	Whip, 1/2 wave	No	2 dBi	SMA	7" Tall	
EAN0900SQ	900 MHz	Whip, 1/4 wave	No		SMA	3" Tall	
EAN0900WB	900 MHz	High gain	No	5.15 dBi	NMO	12" Tall	Donut pattern, open Coil Includes brackets.
EAN0900WR	900 MHz	Whip	No		screw		Replacement for DGR-115
EAN0900YC	900 MHz	Yagi	Yes	12.15 dBi	N-type fem	24" Long	7-element; Wavelink; 50 °H / 45 °V Beamwidth. 125 MPH rated wind velocity.
EAN0905WB	900 MHz	High gain	No	5 dBi	NMO	33" Tall	Elevated feed antenna. No ground plane required. Includes brackets.
EAN0906YA	900 MHz	Yagi	Yes	8 dBi	N-type fem	15" Long	4-element; Mobile Mark; 100 °H / 60 °V Beamwidth. 100 MPH windload.

EAN0906WB	900 MHz	High Gain	No	8.15 dBi	N-type fem	65" Long	Fiberglass; Antenex; Includes brackets.
EAN0140YC	1.4 GHz	Yagi	Yes	10 dBi	N-type fem	19" Long	7 element; Wave link
EAN0147YC	1.4 GHz	Yagi	Yes	7 dBi	N-type fem	12" Long	3 element; Wave link
EAN2400NR	2.4 GHz	Whip, 1/2 wave	No	1 dBi	N-type Male	5" Tall	
EAN2405WC	2.4 GHz	Whip	No	5 dBi	NMO	4.5" Tall	Donut Pattern, no ground plane required
EAN2414CR	2.4 GHz	Corner reflector	Yes	14 dBi	N-type fem	7" Tall 5" Deep	44 °H / 35 °V Beamwidth

We also can provide omnidirectional antennas with a horizontal polarization. Horizontal polarization may be very useful when one of the radios in a link is co-located near a page or cell phone tower, by effectively lowering the overall noise floor by up to 20 dB. When using Yagi antennas, this is accomplished by turning both antennas in the link so their elements are horizontal. Out-of-band noise may also be reduced with the use of FreeWave band pass filters.

NOTE: Use of proper cable assembly is very important!

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