Black Optimized Yagi Antennas

PCTEL's BMOY yagis have been optimized using a genetic algorithm to achieve superior performance over the entire 800/900 MHz and UHF frequency bands. These antennas feature solid 3/8" elements attached to a seamless aluminum boom with 360° welds, and are finished with a black polyester powder coating. Each antenna has a type N termination located at the end of the boom, with a fully sealed driven element for complete protection against humidity, acid rain, or salt spray. A solid aluminum mounting bracket allows for either vertical or horizontal polarization. The BMOY's sturdy construction and advanced engineering design provides outstanding durability and superior performance in all weather conditions.

Features

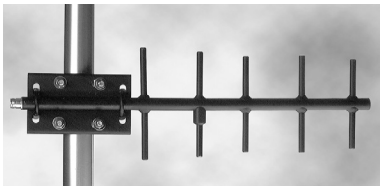
- Broadband performance covering all 800/900 MHz frequencies and no tuning required. Provides optimal performance, minimizes inventory requirements, and reduces installation time.
- 360° welds at element and boom interface provide complete protection of the antenna's internal mechanism against moisture.
- Solid aluminum mounting clamps with stainless steel hardware. Ensures a robust installation and allows the antenna to be mounted for horizontal or vertical polarization.
- End-fed type N connector. Makes connector accessible for easier installations and protects the electrical connection from moisture and other extreme weather influences.
- Fully enclosed low loss feed system. No exposed gamma match to corrode or deteriorate.
- Black polyester powder-coated finish. Provides an added layer of protection, maximizing performance and durability under the toughest weather conditions.
- No tuning required. Allows faster, more reliable installations (UHF models).

Technical Data

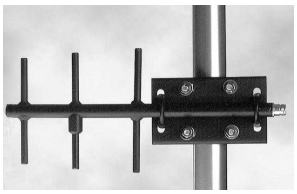
Maximum Power: 150 watts
Nominal Impedance: 50 ohms
Radiator Material: 3/8" solid 6061-T6 aluminum
ESD Protection: DC grounded
Wind Survival: 200 mph with no ice. It will survive up to 110 mph with 0.5" radial ice build-up.
Termination: N female
Maximum Mounting Pipe Diameter: 1.9" OD (with MYK17 factory supplied mount) 2.68" OD (with MYK14 optional heavy duty mount)
Mounting Method: MYK17 mast mount bracket (included)



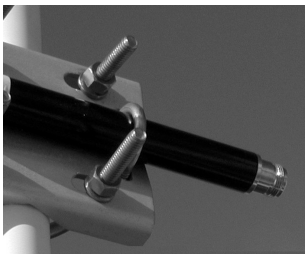
The BMOY UHF models are available in 3 element and 5 element versions. Each version includes models covering 406-440 MHz, 430-460 MHz, and 440-480 MHz. The line also includes a 5 element model covering 470-512 MHz.



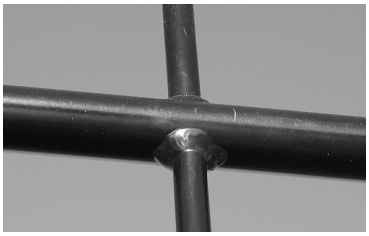
BMOY8905



BMOY8903



End fed connector facilitates installation



360° welded elements and black powder coating provide maximum durability

MAXRAD Yagi - BMOY Series

RF/Electrical Specifications

Model	Frequency Range	Gain	Bandwidth @ 1.5:1 VSWR	Horizontal Beamwidth @ ½ Power	Vertical Beamwidth @ ½ Power	Front-to-Back Ratio
BMOY4065	406-440 MHz	9.0 dBd	34 MHz	52°	45°	> 15 dB
BMOY4063	406-440 MHz	6.5 dBd	34 MHz	71°	62°	> 15 dB
BMOY4405	440-480 MHz	9.0 dBd	40 MHz	52°	45°	> 15 dB
BMOY4403	440-480 MHz	6.5 dBd	40 MHz	71°	62°	> 15 dB
BMOY4705	470-512 MHz	9.0 dBd	42 MHz	52°	45°	> 15 dB
BMOY8905	890-960 MHz	9.0 dBd	70 MHz	52°	45°	15 dB
BMOY8903	890-960 MHz	6.4 dBd	70 MHz	100°	54°	20 dB

Mechanical Specifications

Model	Weight (Mass)	Elements	Bending Moment @ 125 mph Wind	Lateral Thrust @ 125 mph Wind	Equivalent Flat Plate Area	Boom Length	Boom Diameter
BMOY4065	2 lbs (0.91 kg)	5	32.4 ft-lbs	24.2 lbs	.31 sq ft	34”	.75”
BMOY4063	1.2 lbs (0.54 kg)	3	12.7 ft-lbs	14.8 lbs	.19 sq ft	22”	.75”
BMOY4405	2 lbs (0.91 kg)	5	32.4 ft-lbs	24.2 lbs	.31 sq ft	34”	.75”
BMOY4403	1.2 lbs (0.54 kg)	3	12.7 ft-lbs	14.8 lbs	.19 sq ft	22”	.75”
BMOY4705	2 lbs (0.91 kg)	5	32.4 ft-lbs	24.2 lbs	.31 sq ft	34”	.75”
BMOY8905	0.9 lbs (0.41 kg)	5	9.5 ft-lbs	12.6 lbs	.16 sq ft	20.5”	.75”
BMOY8903	0.7 lbs (0.32 kg)	3	3.9 ft-lbs	7.9 lbs	.10 sq ft	14”	.75”