



Black Optimized Yagi Antennas, No Tune

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

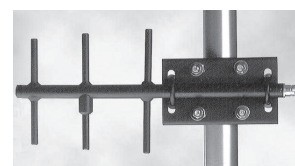
- Broadband performance covering all 800/900 MHz frequencies and no tuning required. Provides optimal performance, minimizes inventory requirements, and reduces installation time.
- 360° welds at element and boom interface provide complete protection of the antenna's internal mechanism against moisture.
- 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.
- DC grounded



BMOY4065



BMOY8905



BMOY8903



BWC1001 mount

STANDARD CONFIGURATION

Model	Cable	Connector	Elements	Mount
BMOY4065	Mating cable assembly sold separately (all models)	N Female	5	BWC1001 Clamp bracket for 1/2"-7/8" diameter yagis. Mounts to masts 1.25"-2.4" OD (included with all models)
BMOY4405		N Female	5	
BMOY4705		N Female	5	
BMOY8905		N Female	5	
BMOY8903		N Female	3	

ELECTRICAL SPECIFICATIONS - RF ANTENNA

Model	Frequency Range	Gain	Bandwidth @ 1.5:1 VSWR	Azimuth Half Power Beamwidth	Elevation Half Power Beamwidth	Front to Back Ratio	Maximum Power	Nominal Impedance
BMOY4065	406-440 MHz	9.0 dBd	34 MHz	52°	45°	> 15 dB	150 watts	50 ohms
BMOY4405	440-480 MHz	9.0 dBd	40 MHz	52°	45°	> 15 dB	150 watts	50 ohms
BMOY4705	470-512 MHz	9.0 dBd	42 MHz	52°	45°	> 15 dB	150 watts	50 ohms
BMOY8905	890-960 MHz	9.0 dBd	70 MHz	52°	45°	> 15 dB	150 watts	50 ohms
BMOY8903	890-960 MHz	6.4 dBd	70 MHz	100°	54°	> 20 dB	150 watts	50 ohms

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MECHANICAL SPECIFICATIONS

Model	Dimensions	Weight	Radiator Material
BMOY4065	Boom Length: 34", Boom Diameter: .75"	2 lbs (0.91 kg)	3/8" solid 6061-T6 aluminum
BMOY4405	Boom Length: 34", Boom Diameter: .75"	2 lbs (0.91 kg)	3/8" solid 6061-T6 aluminum
BMOY4705	Boom Length: 34", Boom Diameter: .75"	2 lbs (0.91 kg)	3/8" solid 6061-T6 aluminum
BMOY8905	Boom Length: 20.5", Boom Diameter: .75"	0.9 lbs (0.41 kg)	3/8" solid 6061-T6 aluminum
BMOY8903	Boom Length: 14", Boom Diameter: .75"	0.7 lbs (0.32 kg)	3/8" solid 6061-T6 aluminum

MECHANICAL SPECIFICATIONS

Model	Bending Moment @ 125 mph Wind	Lateral Thrust @ 125 mph Wind	Equivalent Flat Plate Area	Boom Length	Boom Diameter
BMOY4065	32.4 ft-lbs	24.2 lbs	.31 sq ft	34"	.75"
BMOY4405	32.4 ft-lbs	24.2 lbs	.31 sq ft	34"	.75"
BMOY4705	32.4 ft-lbs	24.2 lbs	.31 sq ft	34"	.75"
BMOY8905	9.5 ft-lbs	12.6 lbs	.16 sq ft	20.5"	.75"
BMOY8903	3.9 ft-lbs	7.9 lbs	.10 sq ft	14"	.75"

ENVIRONMENTAL SPECIFICATIONS

Model	Wind Load Rating	ESD Protection
BMOY4065	wind survival: 200 mph with no ice. It will survive up to 110 mph with 0.5" radial ice build-up.	DC grounded
BMOY4405	wind survival: 200 mph with no ice. It will survive up to 110 mph with 0.5" radial ice build-up.	DC grounded
BMOY4705	wind survival: 200 mph with no ice. It will survive up to 110 mph with 0.5" radial ice build-up.	DC grounded
BMOY8905	wind survival: 200 mph with no ice. It will survive up to 110 mph with 0.5" radial ice build-up.	DC grounded
BMOY8903	wind survival: 200 mph with no ice. It will survive up to 110 mph with 0.5" radial ice build-up.	DC grounded