

Section 5

CELLULAR MOBILE PHONE ANTENNAS

Updated 18 February 2011

Yagi Y800 Series NEXT G or GSM Directional Mast Mount Base Station Antennas

Frequency
820 – 960 MHz

Bandwidth
NEXT G or GSM



For directional high gain reception of a cellular mobile phone network, these Yagi mast mount antennas offer an effective solution.

Constructed from either aluminium or stainless steel, the Yagi Y800 Series consists of 6, 9 and 15 element models varying from 11.1 dBi up to 16.1 dBi forward gain.

All models have a short 250 mm RG59 cable tail terminated with an N-Female connector rated for up to 50 watts input power.

- For the **NEXT G** network, order models **Y806A**, **Y809A** or **Y815A**.
- For the **GSM** network, select either **Y806C**, **Y809C** or **Y815C**.

Add the letter **SS** to the order code for stainless steel models.

A mast mounting clamp, feeder cable, connectors and other accessories are all available separately to complete the Yagi antenna installation. For the 15 element Y815 model, a single strut kit is recommended to properly support the long boom.



Yagi model Y809A mounted vertical for NEXT G cellular mobile phone network reception

SPECIFICATIONS	Y806	Y809	Y815
Construction	Aluminium, or add letters SS to the code for Stainless Steel		
For NEXT G network coverage	Y806A 820 to 880 MHz	Y809A 820 to 880 MHz	Y815A 820 to 880 MHz
For GSM network coverage	Y806C 900 to 960 MHz	Y809C 900 to 960 MHz	Y815C 900 to 960 MHz
Bandwidth	Full Band	Full Band	Full Band
Return Loss, VSWR	-15 dB, <1.5:1	-15 dB, <1.5:1	-15 dB, <1.5:1
Tuning	Factory	Factory	Factory
Number Of Elements	6	9	15
Nominal Gain	11.1 dBi (=9 dBd)	13.6 dBi (=11.5 dBd)	16.1 dBi (=14 dBd)
Polarisation	Mount the Yagi Vertical for mobile phone network reception		
Maximum Input Power	50 Watts	50 Watts	50 Watts
Impedance	50 Ohms	50 Ohms	50 Ohms
E-Plane at 3 dB	46°	34°	28°
H-Plane at 3 dB	51°	42°	30°
Front-to-Back Ratio	17.8 dB	15 dB	15 dB
Cable Tail	All models have a 250 mm RG59 cable tail		
Connector	All models are terminated with an N-Female connector		
Boom Length	0.6 metre	0.97 metre	1.85 metres
Longest Element	210 mm	210 mm	210 mm
Weight in Aluminium	0.5 kg	0.7 kg	1.0 kg
Weight in Stainless Steel	1.2 kg	1.5 kg	2.6 kg
Projected Area	0.035 m ²	0.054 m ²	0.075 m ²
Wind Load at 160 kph	4.5 kg	6.5 kg	9.5 kg
Strut Kit Recommended	Not required	Not required	YS1-48
Mast Mounting Clamp Recommended	A48 x 1 for Aluminium model Yagi S48 x 1 for Stainless Steel model Yagi		



The **A48** and **S48** clamps will mount a 25 mm square boom Yagi at right-angles to a round mast between 30 mm and 50 mm in diameter.

Order a clamp separately.