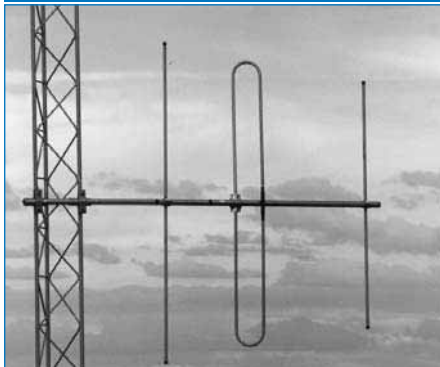


VHF Directional Yagi Antennas

70-250 MHz

YL Series
YH Series



YL03



The YL and YH Series yagi antennas are ideal in applications requiring directional gain. These yagis, with predictable beamwidths and consistently high front to back ratios are ideal for long or short haul links and other applications demanding specific radiation pattern control.

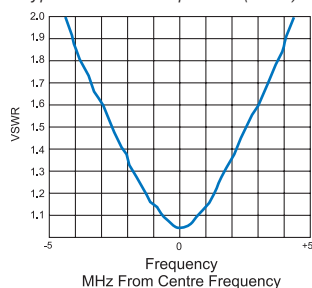
The boom and the elements are constructed from thick walled alodined aluminium tubing. The passive elements are of one-piece construction and clamped to the boom with a unique wrap around single bolt bracket. The radiating element is through mounted onto the boom. All fittings and fasteners are made from marine grade stainless steel and self locking nuts are used throughout the assembly to prevent loosening due to vibration.

All yagi antennas are directly DC grounded to provide lightning protection and reduced precipitation static noise. Termination is via an N-type female coaxial connector fitted to a short RG213 cable tail.

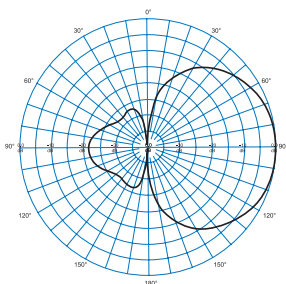
YL and YH yagis are supplied unassembled for ease of handling and are quickly assembled using only basic tools. Colour coding of elements and the boom section further simplify the assembly and installation.

- High performance - ideal in long or short haul applications
- Controlled Beamwidths - predictable beamwidths and consistently high front to back ratios
- Simplified Installation - colour coding and unique single bolt clamps simplify installation

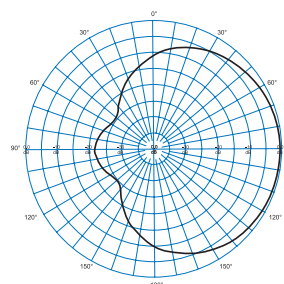
Typical VSWR response (YL03)



YL03 - E Plane



YL03 - H Plane

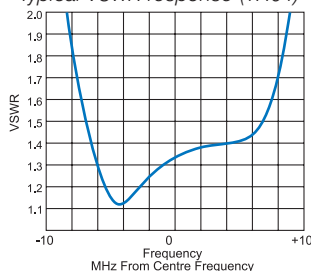


VHF Directional Yagi Antennas

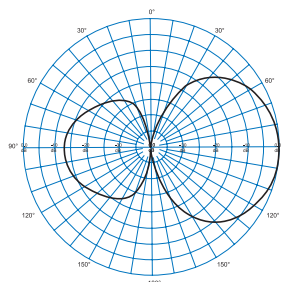
70-250 MHz

YL Series
YH Series

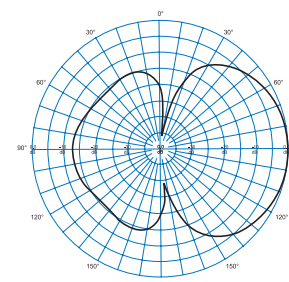
Typical VSWR response (YH04)



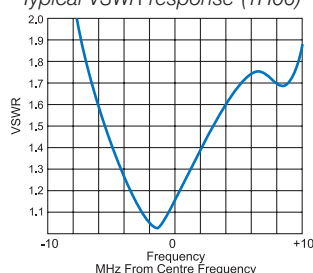
YH04 - E Plane



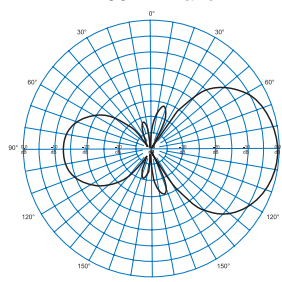
YH04 - H Plane



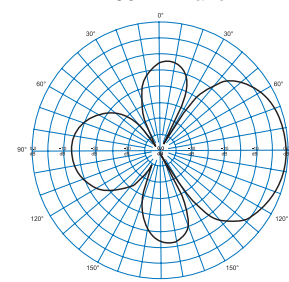
Typical VSWR response (YH06)



YH06 - E Plane



YH06 - H Plane



Electrical

Model Number	YL02	YL02D	YL03	YL04	YH02	YH02D	YH03	YH04	YH06	YH09
Nominal Gain <i>dBi</i> (<i>dBd</i>)	5 (3)	6 (4)	8 (6)	9 (7)	5 (3)	6 (4)	8 (6)	9 (7)	11 (9)	12 (10)
Frequency <i>MHz</i>	70 - 100				100 - 250					
Tuned Bandwidth <i>MHz</i>	6	3	5	4	12	6	9	8		
VSWR (Return Loss)	<1.5 :1 (14dB)									
Nominal Impedance Ω	50									
Vertical Beamwidth	70°	60°	60°	55°	80°	70°	60°	55°	52°	35°
Horizontal Beamwidth	140°	105°	75°	60°	140°	130°	75°	70°	50°	50°
Front / Back Ratio <i>dB</i>	10	up to 20 See note (1)	15	16	11	up to 20 See note (1)	Typically 15			
Input Power <i>W</i>	250									

Mechanical

Model Number		YL02	YL02D	YL03	YL04	YH02	YH02D	YH03	YH04	YH06	YH09
Construction		Thick walled aluminium boom and elements with alodined finish									
Length <i>m</i>		1.5	2.0	2.1	3.1	1.0	1.0	1.8	2.4	3.5	5.4
Weight <i>kg</i>		3.0	3.0	4.0	5.0	2.0	2.0	2.6	3.5	5.0	7.3
Termination		N female with RG213 cable tail									
Mounting Area		300mm x 40mm diam. alum.	400mm x 40mm diam. aluminium			100mm x 40mm diam. alum.	200mm x 40mm diam. alum.	400mm x 40mm diam. aluminium			
Suggested Clamps		UCR1		UCR2		UCR1		UCR2			
Projected Area <i>cm</i> ²	No ice	2186	2332	2878	3814	1456	1358	2141	2772	3870	5650
	With ice	4418	4584	5826	7790	3001	2735	4080	5368	7434	10698
Wind Load (Thrust) @ 160km/h <i>N</i>		259	276	341	452	173	161	254	329	459	670
Torque @160 km/h <i>Nm</i>		104	249	320	648	69	64	199	355	764	1748

(1) The front to back ratio of the YL02D and YH02D "deep null" yagis is dependent on mounting arrangements. Correctly mounted as per the supplied instructions, 18-20dB front to back ratio is achieved.