

800 MHz Stainless Steel Yagi Antennas

540-1000 MHz

YBS800 Series



YBS815

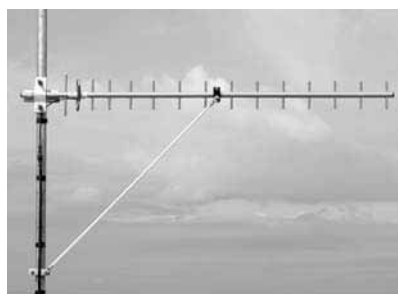
The stainless steel YBS800 series yagis are high gain antennas specifically designed to cater for extreme and corrosive environments. They provide an excellent solution for point to point applications in RF control, short or long haul link, point to multipoint and other applications requiring highly directional antennas.

Manufactured from all welded 316 grade stainless steel these antennas provide identical performance to the YB800 series yagis but are better suited for extreme climatic or corrosive applications. The feed element of each antenna is of full folded dipole construction, welded to the boom for maximum bandwidth and reliability.

The YBS800 series antennas are offered in 3, 6, 9 or 15 element form and are available ex stock in small quantities. They can be configured in stacks or bays for higher gain applications in either horizontally or vertically polarised systems. Application details on phasing and mounting yagi antennas are included in the technical notes at the back of this catalogue.

Yagi antennas rest at ground potential and provide excellent lightning protection and reduced precipitation static noise. Termination is via an N female connector fitted to a short 9302 Durathene cable tail. Durathene is a PTFE dielectric and polyethylene jacketed cable providing superior resistance to weathering and abrasion and is less susceptible to bird attack than standard PVC sheathed cables.

- Rugged construction 316 grade stainless steel for extreme conditions
- Broadband available in a number of models to cover trunking, cellular and ISM bands
- Narrow beamwidth and high front to back ratios
- Can be configured in stacks or bays for higher gain applications using PH and PHE series phasing harnesses
- Ideal for point to point or point to multipoint applications

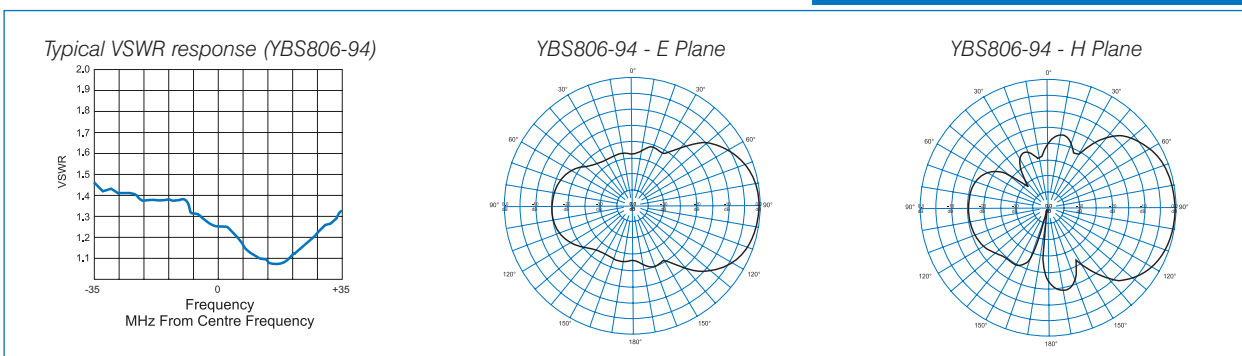


Bracing kit available
Part No. M-4528

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540-1000 MHz

YBS800



Electrical

Model Number	YBS803-82	YBS803-99	YBS806-81	YBS806-82	YBS806-94	YBS806-99
Nominal Gain <i>dBi</i> (<i>dBd</i>)	8 (6)		11 (9)			
Frequency <i>MHz</i>	850 - 930	540 - 1000	806 - 896	850 - 930	890 - 960	540 - 1000
Tuned Bandwidth	Full band	5%	Full band			5%
VSWR (Return Loss)	<1.5 :1 (14dB)					
Nominal Impedance Ω	50					
Vertical Beamwidth	64°	65°	49°	50°		
Horizontal Beamwidth	100°	103°	61°	62°		
Front / Back Ratio <i>dB</i>	14		22	20	15	17
Input Power <i>W</i>	100					
Passive IM 3rd order <i>dBc</i>	-150					

Mechanical

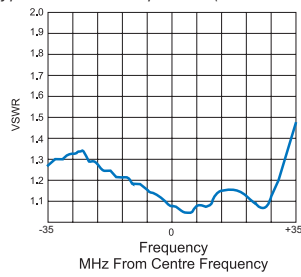
Model Number	YBS803-82	YBS803-99	YBS806-81	YBS806-82	YBS806-94	YBS806-99
Construction	All welded stainless steel with polished finish					
Length <i>m</i>	0.3	0.4	0.6		0.8	
Weight <i>kg</i>	0.3	0.5	0.7	0.7	0.7	1.0
Termination	N female with short 9302 cable tail					
Mounting Area	100mm of 25mm diam. stainless steel					
Suggested Clamps	1 x UNV					
Projected Area <i>cm</i> ²	No ice	95	164	228	236	364
	With ice	279	436	584	597	897
Wind Load (Thrust) @ 160km/h <i>N</i>	11	19	27	28	25	43
Wind Gust Rating <i>km/h</i>	>240					
Torque @160 km/h <i>Nm</i>	0.2	1	5	6	4	13

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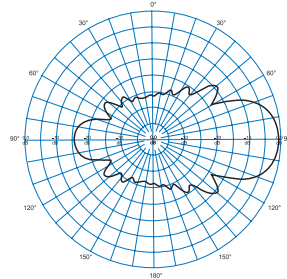
540-1000 MHz

YBS800

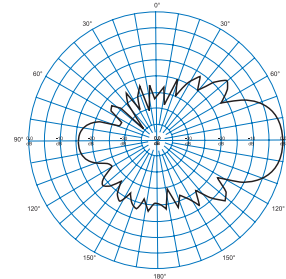
Typical VSWR response (YBS815-94)



YBS815-94 - E Plane



YBS815-94 - H Plane



Electrical

Model Number	YBS809-81	YBS809-82	YBS809-94	YBS809-99	YBS815-81	YBS815-82	YBS815-94	YBS815-99
Nominal Gain dBi (dBd)	12 (10)		13 (11)			15 (13)		
Frequency MHz	806 - 896	850 - 930	890 - 960	540 - 1000	806 - 896	850 - 930	890 - 960	540 - 1000
Tuned Bandwidth	Full band			5.0%	Full band			5.0%
VSWR (Return Loss)	<1.5 :1 (14dB)							
Nominal Impedance Ω	50							
Vertical Beamwidth	43°		41°	44°	36°	30°	31°	36°
Horizontal Beamwidth	49°	49°	48°	51°	39°	30°	32°	39°
Front / Back Ratio dB	16	18	15	16	20	18	17	17
Input Power W	100							
Passive IM 3rd order dBc	-150							

Mechanical

Model Number	YBS809-81	YBS809-82	YBS809-94	YBS809-99	YBS815-81	YBS815-82	YBS815-94	YBS815-99	
Construction	All welded stainless steel with polished finish								
Length m	0.9		1.0	1.4	1.6		2.6		
Weight kg	1.0			1.6	1.7	1.8	1.7	2.8	
Termination	N female with short 9302 cable tail								
Mounting Area	100mm of 25mm diam. stainless steel								
Suggested Clamps	1 x UCR1				1 x UCR1 + 1 x M-4528 bracing kit				
Projected Area cm ²	No ice	358	341	370	589	635	639	628	1067
	With ice	874	838	870	1390	1533	1543	1508	2626
Wind Load (Thrust) @ 160km/h N	42	40	44	70	75	76	74	127	
Wind Gust Rating km/h	240								
Torque @160 km/h Nm	15	13	16	40	53		52	152	

