WY 300-4N v2

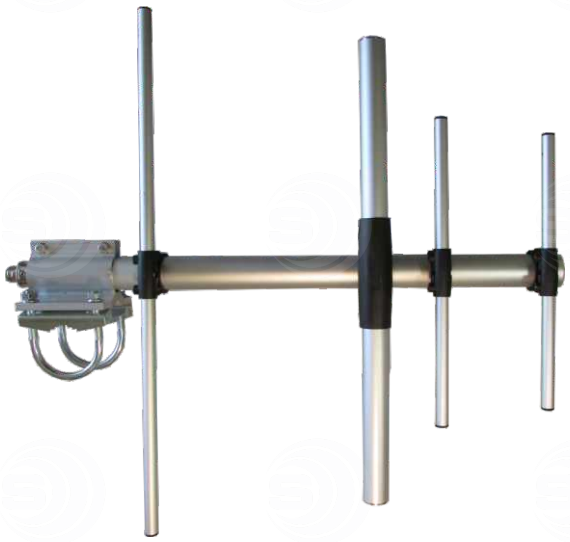
UHF Base Station 4 Elements Yagi Antenna 300-500 MHz

MAIN FEATURES

- Directional Wideband Yagi antenna
- Developped to provide a highly symmetrical radiation pattern in E/H-plane
- Computer-designed for high gain and excellent front-to-back ratio
- Anodized aluminium and stainless steel hardware
- Fully designed & Manufactured in Italy

UP GRADED FEATURES

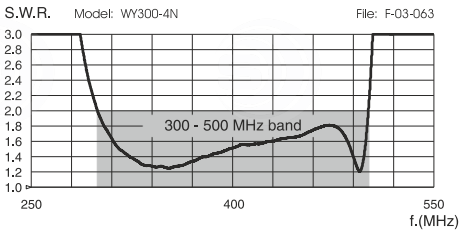
- Fully sealed, IP67 waterproof
- New internal design to maximize Power handling



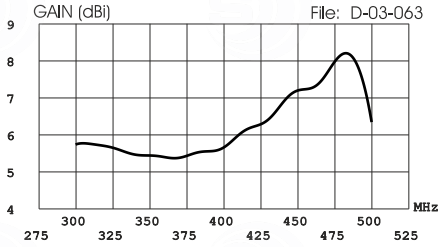
Electrical Data	WY 300-4N
Type	4 elements Yagi
Frequency Range @ SWR ≤ 2	300 - 500 MHz
Impedance	50 Ω
Radiation (H-plane) beamwidth @ -3 dB	150° @400MHz - HCM code = 037KA00
Radiation (E-plane) beamwidth @ -3 dB	68° @400MHz - HCM code = 034EA30
Front to back ratio	≥ 9 dB
Polarization	Linear Vertical or Horizontal
Max Gain	5.85 dBd - 8 dBi
Max Power (CW) @ 30°C	160 Watts
Grounding Protection	All metal parts are DC-grounded, the inner conductor shows a DC short
Connector	N-female with rubber protection cap

Mechanical Data	
Materials	Anodized 6063-T5 Aluminium, EPDM rubber, thermoplastic UV stabilized, Chromed Brass
Wind Load @ 150 km/h	60 N
Wind Resistance	180 Km/h; 112 mi/h
Wind Surface	0.048 m^2; 0.51 ft^2
Dimensions W x H (approx.)	600 x 480 mm; 2 x 1.57 ft
Turning radius (approx.)	470 mm; 1.54 ft
Weight (approx.)	1300 gr; 2.87 lb
Ingress Protection	IP 67
Operating temperature	-40° C to +60° C
Mounting Mast	∅ 35 - 60 mm; ∅ 1.4 - 2.4 in
Boom / Dipole / Element Diameter	∅ 32 mm; 1.3 in / ∅ 24 mm; 0.95 in / ∅ 12 mm; 0.5 in

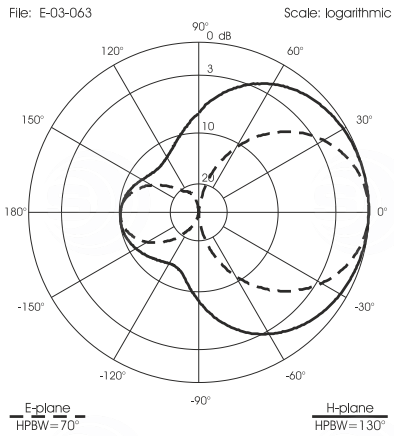
TYPICAL S.W.R. RESPONSE



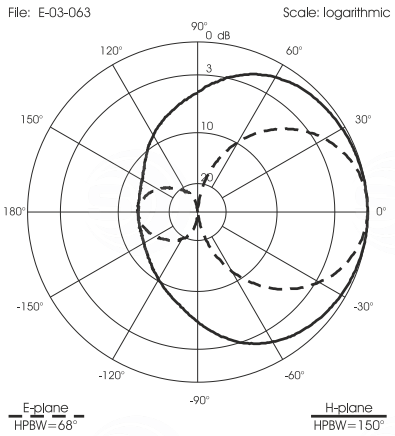
TYPICAL GAIN DIAGRAM vs FREQUENCY



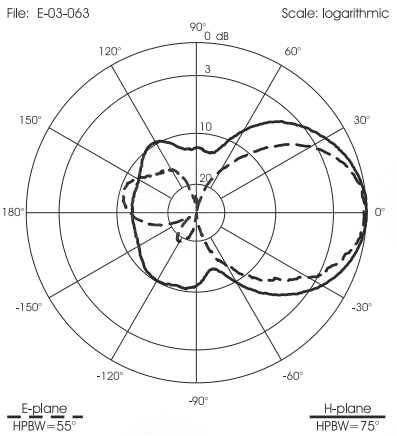
TYPICAL RADIATION PATTERN at 300 MHz



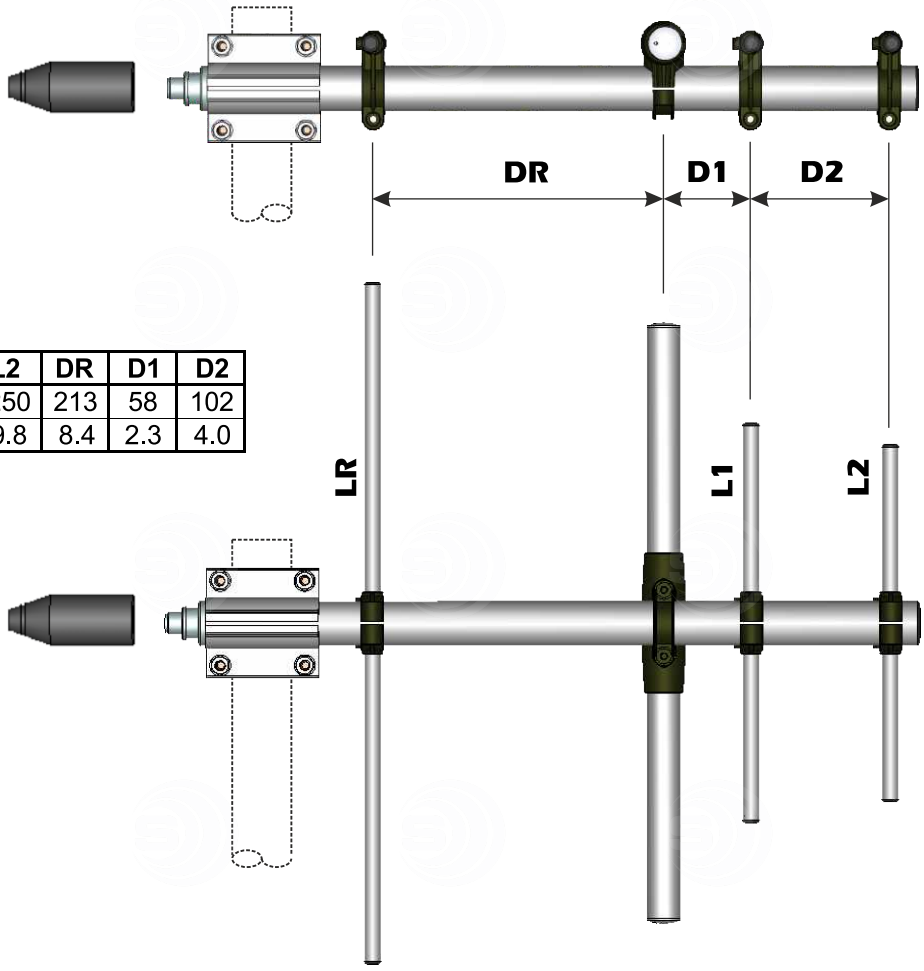
TYPICAL RADIATION PATTERN at 400 MHz



TYPICAL RADIATION PATTERN at 500 MHz



Correct mounting for horizontal polarization



		LR	L1	L2	DR	D1	D2
WY 300-4N	(mm)	480	280	250	213	58	102
	(in)	18.9	11	9.8	8.4	2.3	4.0

Correct mounting for vertical polarization

Fig.1

Element Mounting

1) By means of a meter measure the aluminium elements **A** and position them in the plastic support **B** of the boom according to **fig.1**.
2) Place the reference marker of the aluminium element **A** in the centre of the plastic support **B** (see **fig. 3**) and lock the screws **C** by the supplied key **D** (**fig. 4**). When the screws touch the aluminium tubes you can finally lock them turning for 1.5 turns.
Warning: do not exceed 1.5 turns. The plastic support threads could be damaged.
3) Insert the plastic caps **E** on the aluminium elements **A** (see **fig. 4**)

Part list	
Q.ty	*Description*
1	**A**) Aluminum tubes
2	**C**) M5x6 Hexagon socket set screw
1	**D**) 2.5mm Hexagonal key
2	**E**) Plastic cap

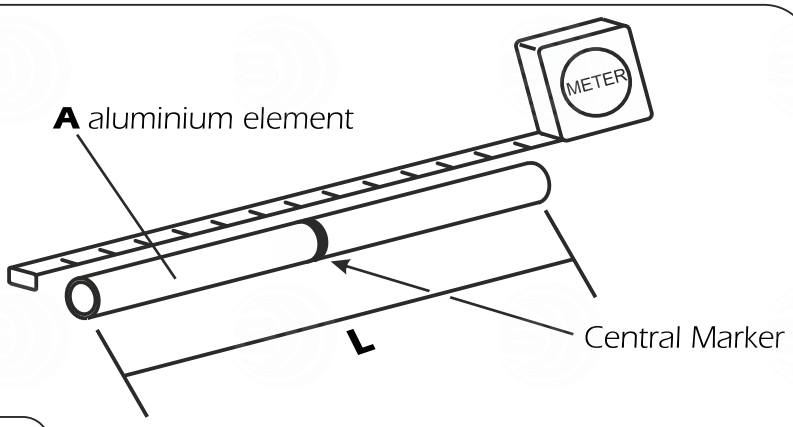


Fig.2

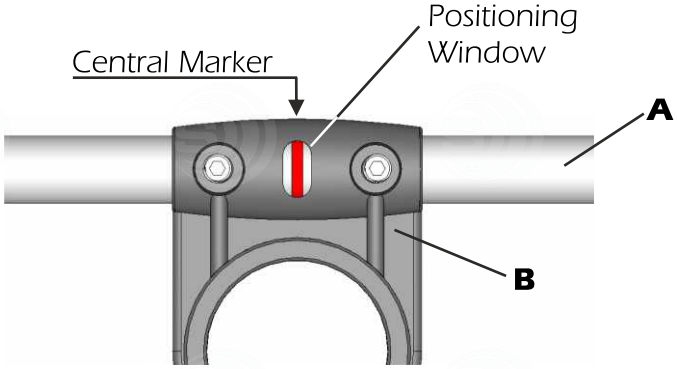


Fig.3

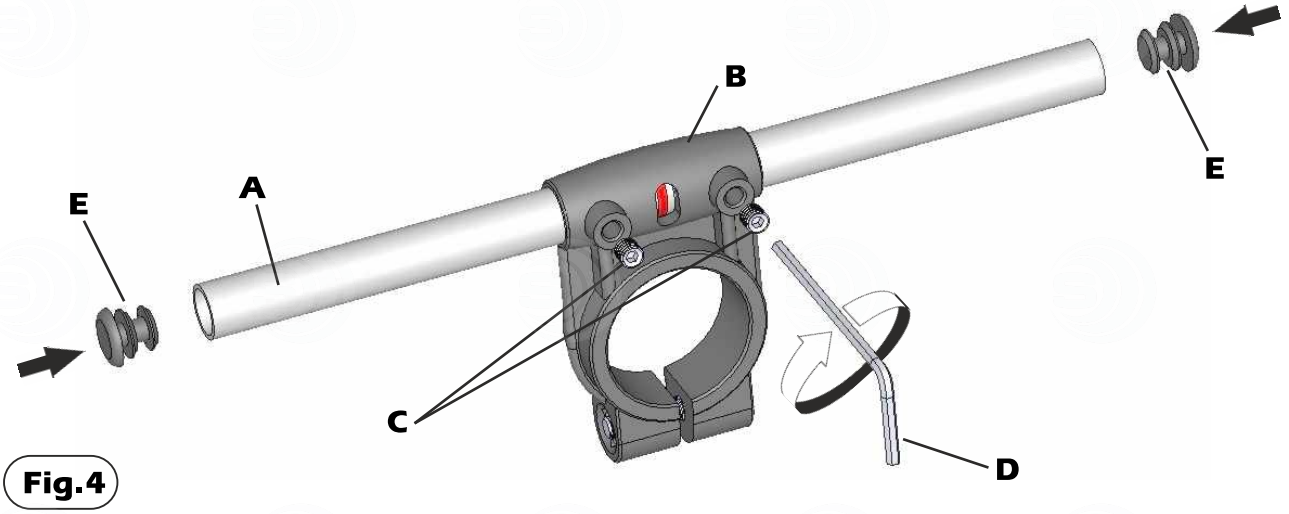


Fig.4

Dipole mounting

1) Place the O-ring gasket **F** on the dipole connector **G**. (See **Fig.5**)
2) Insert the antenna's dipole **H** in the dipole connector **G**
3) Fix the antenna's dipole **H** by using the palstic fixing clamp **I** and the screws **J**. Lock the screws to well fix the plastic parts to avoid any gap (see **Fig.6**)
Remark: the antenna's dipole must be aligned to the elements

Part list	
Q.ty	*Description*
1	**F**) O-ring gasket
1	**H**) Antenna's dipole
1	**I**) Plastic fixing clamp
2	**J**) Tapping Screws for plastic

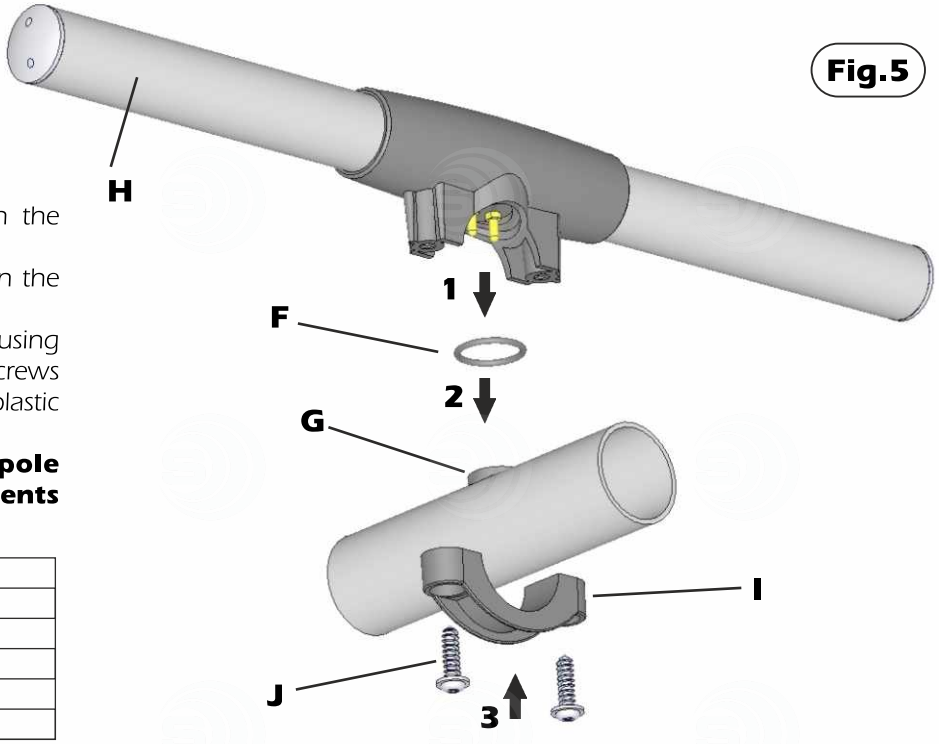


Fig.5

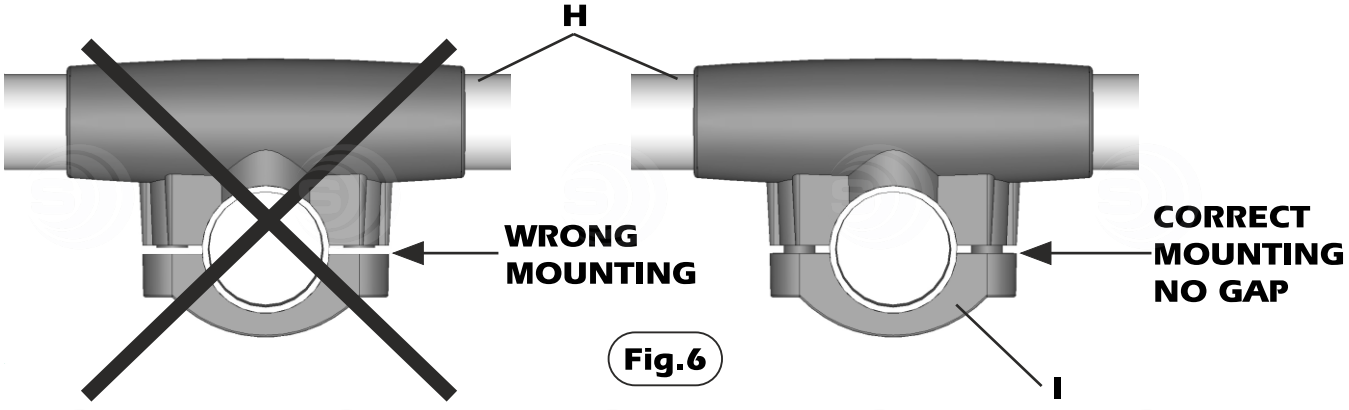
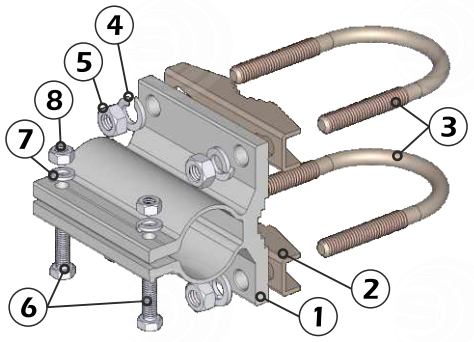
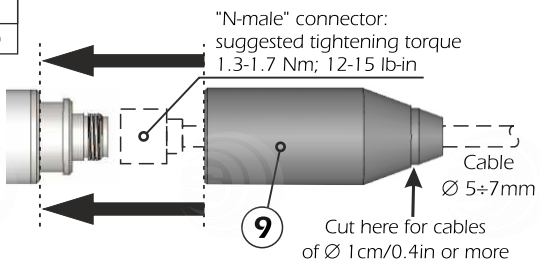


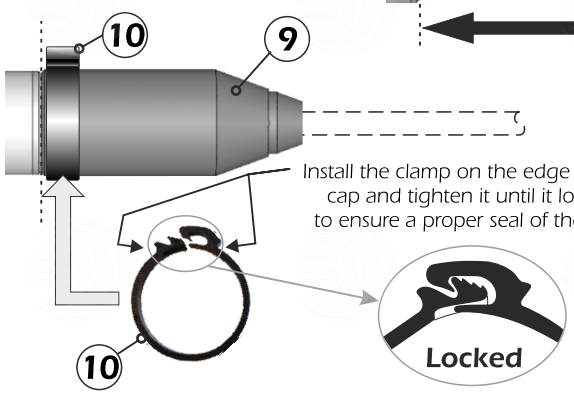
Fig.6

MOUNTING INSTRUCTIONS

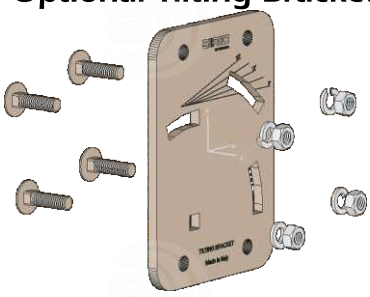
FT-6 Bracket Part list		
Pos	*Q.ty*	*Description*
1	1	Extruded aluminium bracket
2	2	Steel bracket
3	2	M8x216 U-bolt
4	4	M8 Grower washer
5	4	M8 Hexagonal nut
6	2	M6x20 Hexagonal head screw
7	2	M6 Grower washer
8	2	M6 Hexagonal nut
9	1	Connector Protection Cap
10	1	Plastic clamping band
Dimensions:		90x85x6 mm; 3.5x3.3x2.6 in
Weight:		550 gr, 1.2 lb
Re-order code: P/N 2519913.00		





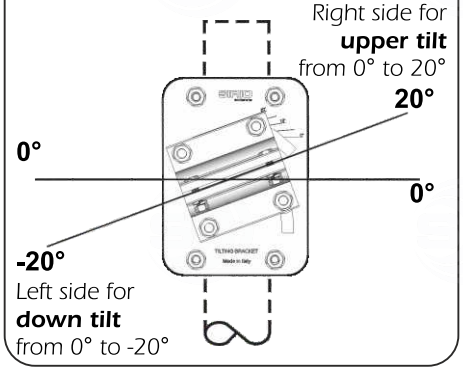


Optional Tilting Bracket

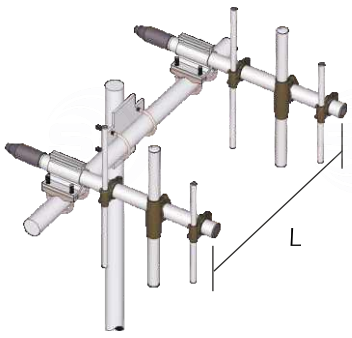


Order p/n: 2519803.00
Materials & Hardware: zinc plated steel
Dimensions: 115 x 155 x 6 mm.
Weight: 800 gr

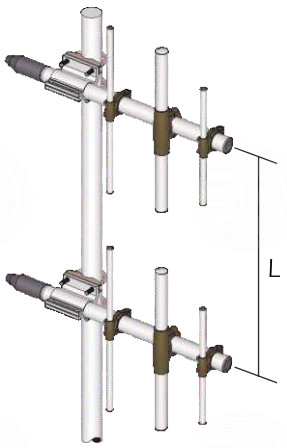
Part list	
Q.ty	*Description*
1	115x155x6 Tilting bracket
4	M8x25 Spheric head screw
4	M8 Grower washer
4	M8 Hexagonal nut



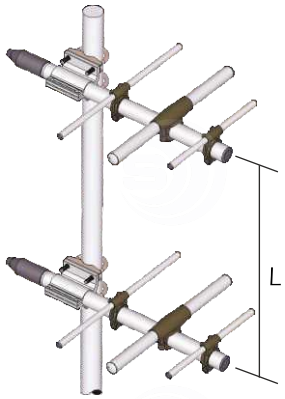
Stacking and Baying distance



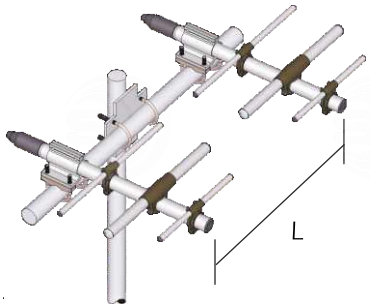
Vertical polarization
(Bayed)
L= 470 mm; 18.5 in



Vertical polarization
(Stacked)
L= 670 mm; 26.3 in



Horizontal polarization
(Stacked)
L= 470 mm; 18.5 in



Horizontal polarization
(Bayed)
L= 670 mm; 26.3 in

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