



yagi antenna

EA270ZB9

Artikel Nr: 17750.D4-5

EAxxZB EA Antenna series are antennas designed by well-known Martin Steyer, DK7ZB.

Martin has improved on the designs of DL6WU and DJ9BV that won many competitions in their original forms. EA Antennas has agreed to revise and produce some of these models. It is expected that these antennas will be in high demand and will be offered at a very reasonable price without sacrificing EA Antenna quality.

EAxxZB have the following characteristics:

- Optimal gain and front to back ratio, taking into account the stacking distances and boom length.
- Single 50 ohm coaxial feed
- Wide bandwidth to fully cover the particular bands.
- The radiation pattern is fairly wide and covers wide angles.
- These antennas can be used for either FM (in vertical polarization) or SSB/CW in horizontal polarization.

This is explained because at EA Antenna:

- Parts are produced using CNC machines for very accurate dimensions.
- We take care of every piece of aluminum, deburring tubings smoothly, inside and outside. All this completed by hand to get a final product of great quality.
- All hardware we use is stainless steel.
- The aluminum used is 6061/6063 and 6082 T6, the best alloys for manufacturing antennas and resistant to the weather elements.
- We include detailed assembly manuals and for some models even have videos on our site.
- We are not satisfied until our clients have their antennas mounted and working.

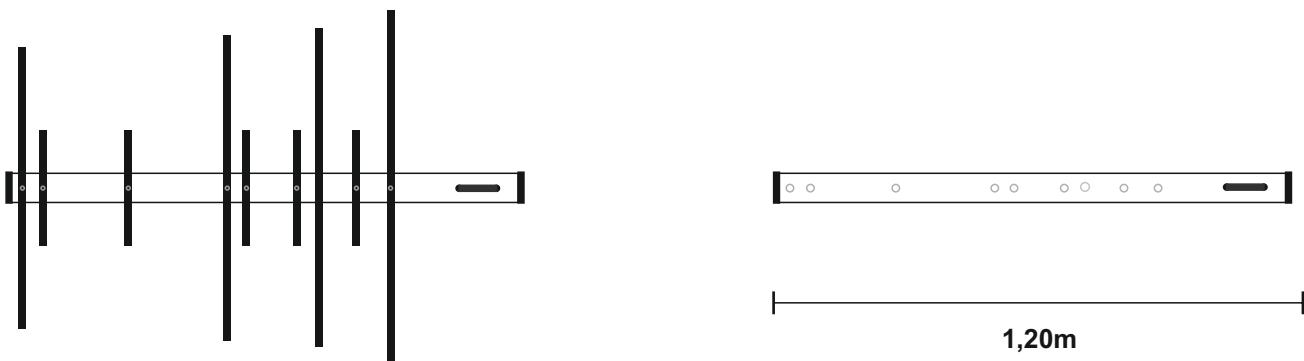
Specifications of model EA270ZB9

- Square Boom of 20x 2 mm.
- 8mm diameter elements with driven element diameter of 12mm.
- Stainless steel M8 U-bolts for attaching to the mast (up to 50mm dia ~2 in.)

Characteristics of the EA270ZB9

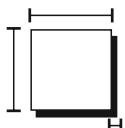
This antenna provides excellent performance on the two bands with a boom length of 1.5m only.
It is small and light enough that a light-duty or a TV antenna rotator is usable.

Assembly is simple and quick !

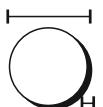




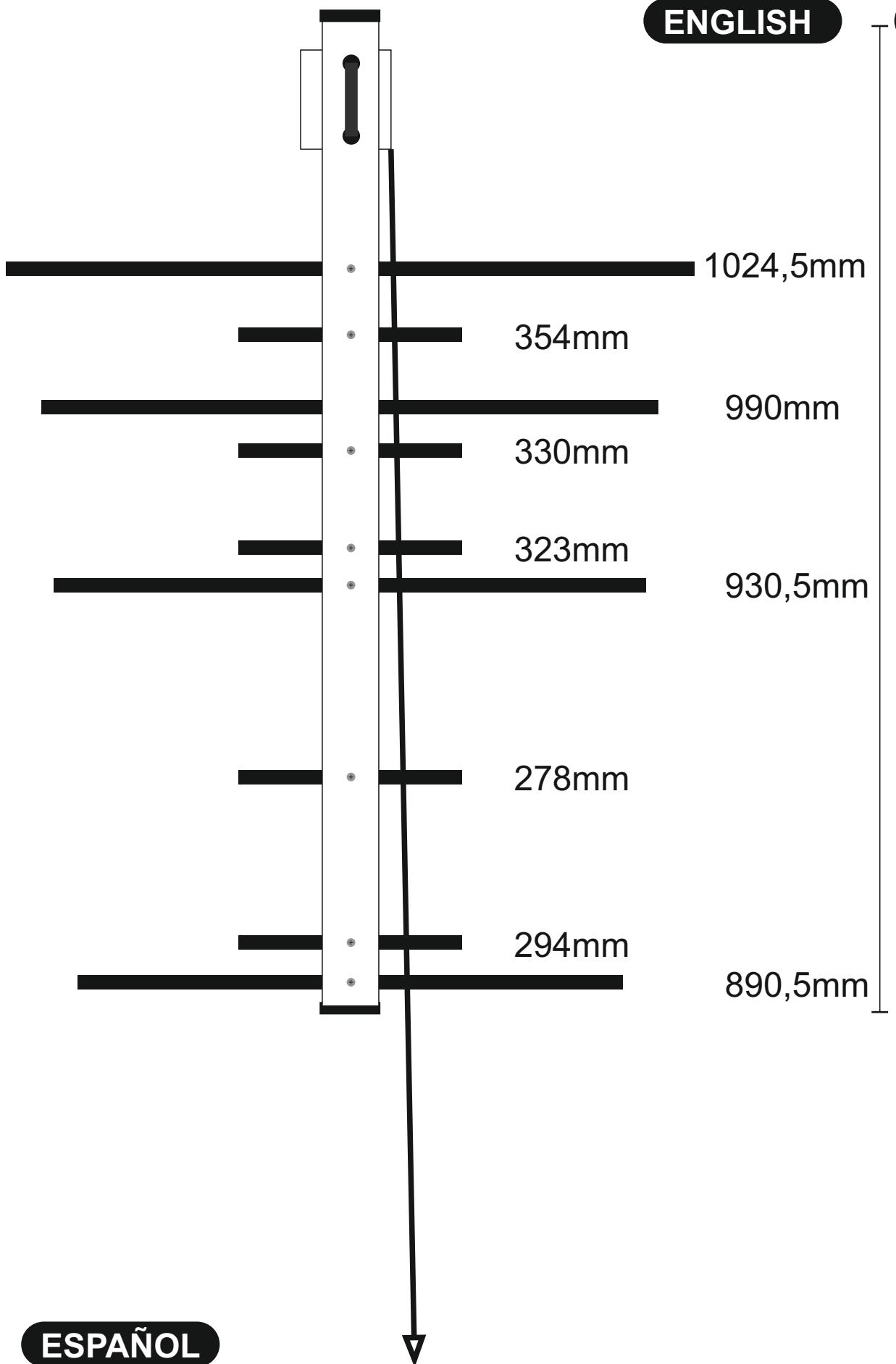
	SPECIFICATIONS	EAntenna	EA270ZB9
	Elements:	4	5
14,0.....21,0 MHz.	Frequency Range:	144~146 MHz.	432~440 MHz.
	Gain:	9,35 dBi	10,7 dBi
	F/B:	11,7 dB	9,7 dB
	SWR:	1,0:1~1,4:1	1,0:1~1,5:1
Ω	Impedance	50 Ohms	50 Ohms
	Max. Power:	500 W.	500 W.
	Boom Length:	1,20m	47,24"
	Wind Survival	$\geq 200\text{kmh}$ / \geq	$\geq 125\text{mph}$
	Weight:	1,25 Kg.	2,76 Pounds



Boom Size: 20x20x2mm



Element Diameter: Passive 8x1mm - Driven: 12x1mm

ENGLISH**ESPAÑOL****ESPAÑOL**

El BOOM trae 2 agujeros en cada cara, para el abarcon (A-0136) y Mordaza (23035.50) para poder poner la antena en polarización horizontal o vertical.

ENGLISH

The BOOM comes with 2 holes on each side, for the U-bolt (A-0136) and the saddle (23035.50) to be able to put the antenna in horizontal or vertical polarization.

ESPAÑOL

El BOOM cuadrado tiene 4 caras, para identificar por que parte del boom ensamblaremos la antena.

Cara A; en esta cara del boom se instruyen los tornillos DIN 7991 M4x20 para la sujeción de los elementos.

Cara B; la cara opuesta a la A es donde se introduce la tuerca DIN 934 M4 y aprieta con una llave del número 7.

Cara C y D; en estos agujeros van introducidos los elementos.

El montaje de las EAxxZB de EAntenna es tan facil como introducir cada elemento en su correspondiente agujero en el boom (Cara C y D), y con el el tornillo DIN 7991 M4x20 roscar sobre el mismo elemento (CARA A). Para reforzar el elemento al boom, se añade una tuerca M4 DIN 934 que con una llave de vaso o tubo del número 7 se aprieta facilmente (CARA B)

ENGLISH

The square BOOM has 4 sides, to identify by which part of the boom we will assemble the antenna.

Side A; On this side of the boom the screws DIN 7991 M4x20 are inserted for fastening the elements.

Side B; the side opposite to the A is where the nut DIN 934 M4 is installed.

Side C and D; in these holes the elements are inserted.

The assembly of the EAxxZB of EAntenna is as easy as inserting each element in its corresponding hole in the boom (**SIDE C and D**), and with a screw DIN 7991 M4x20 thread on the same element (**SIDE A**). In addition, an M4 nut is added, which ensures that the element does not get loose. (**SIDE B**)

CARA A



SIDE A

CARA B



SIDE B

CARA C-D



SIDE C-D

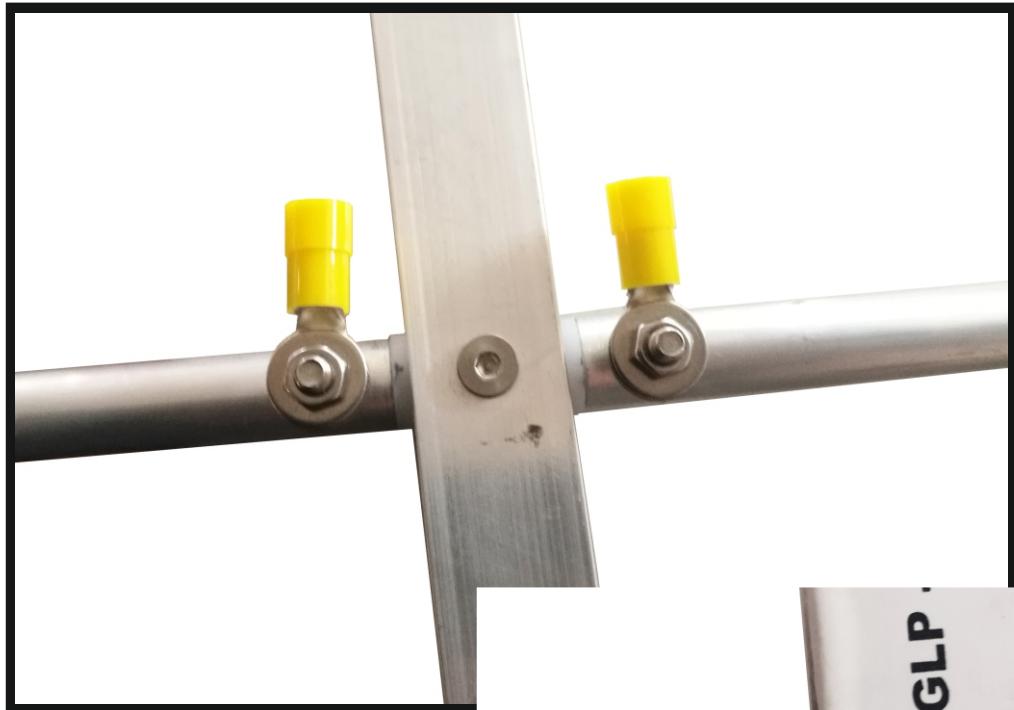
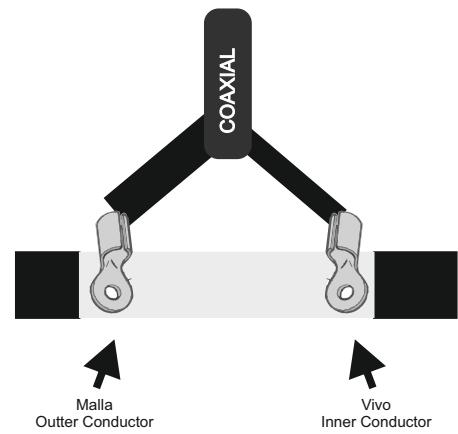
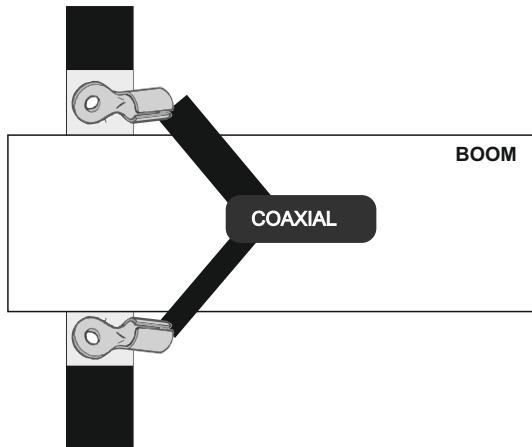


ESPAÑOL

El elemento de más grosor o DRIVEN viene pre-ensamblado, pero para su montaje en el BOOM debe de quitar una parte de la alimentación, para introducir la parte aislante del DRIVEN y esta mediante el agujero que trae, es donde debe de fijarse al boom como se explica anteriormente.

ENGLISH

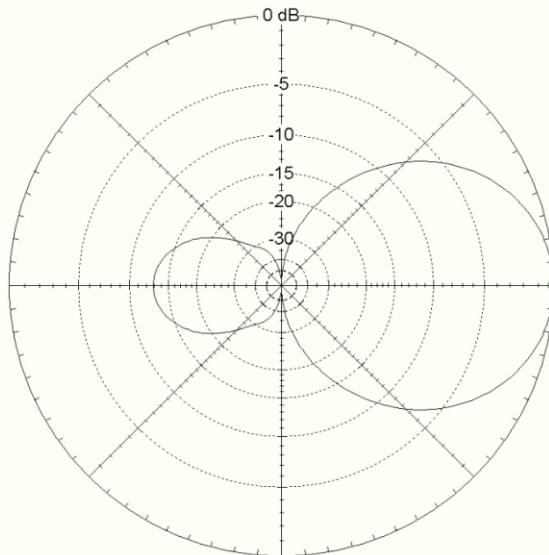
The DRIVEN ELEMENT comes pre-assembled, but for its assembly into the boom, one side has to be removed. Then, put the insulator into the large hole of the boom, fix with screws as explained above and re-install the side tube which was removed before.



Plots 145 MHz.

Total Field

EZNEC



145 MHz

Azimuth Plot
Elevation Angle 0,0 deg.
Outer Ring 7,1 dBrEF

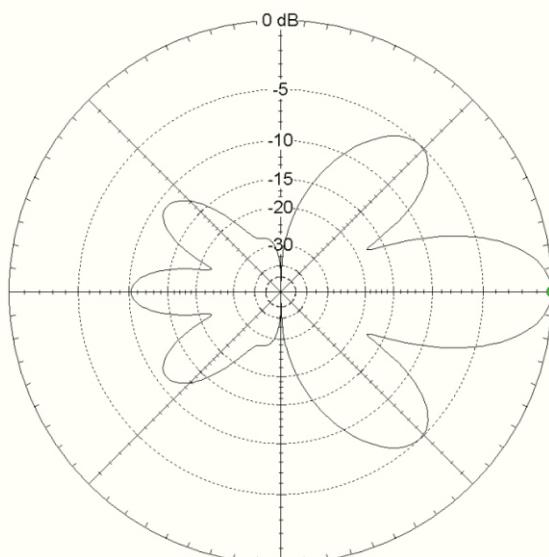
Slice Max Gain 7,1 dBrEF @ Az Angle = 0,0 deg.
Front/Back 12,93 dB
Beamwidth 58,6 deg., -3dB @ 330,7, 29,3 deg.
Sidelobe Gain -5,83 dBrEF @ Az Angle = 180,0 deg.
Front/Sidelobe 12,93 dB

Cursor Az 0,0 deg.
Gain 7,1 dBrEF
0,0 dBmax

Plots 432 MHz.

Total Field

EZNEC



432 MHz

Azimuth Plot
Elevation Angle 0,0 deg.
Outer Ring 8,62 dBrEF

Slice Max Gain 8,62 dBrEF @ Az Angle = 0,0 deg.
Front/Back 10,21 dB
Beamwidth 25,1 deg., -3dB @ 347,5, 12,5 deg.
Sidelobe Gain 1,77 dBrEF @ Az Angle = 46,0 deg.
Front/Sidelobe 5,05 dB

Cursor Az 0,0 deg.
Gain 8,62 dBrEF
0,0 dBmax

ENGLISH**ESPAÑOL****PACKING LIST
LISTA DE PIEZAS****BOLSA 1 - BAG #1**

PART # PIEZA N°	IMAGEN PART IMAGE	DESCRIPCION DESCRIPTION	MEDIDAS SIZES	CANTIDAD QUANTITY
23050.50		Mordaza 50mm 50mm Saddle	50mm	1
A-0136		Abarcon U-Bolt	M8, 50mm	1
S127-98		DIN 127 WASHER	M8	2
S934-98		DIN 934 NUT	M8	2
P1300002		Llave Allen 2,5	2,5mm	1
S934-94		DIN 934	M4	9
S7991-9420		Tornillo DIN 7991 DIN 7991 Screw	20x4mm	9

PACKING LIST
LISTA DE PIEZAS

PART # PIEZA N°	IMAGEN PART IMAGE	DESCRIPCION DESCRIPTION	MEDIDAS SIZES	CANTIDAD QUANTITY
EA270ZB9 A-A		BOOM	1183mm x 20mm	1
		Parte Central de DE1 Middle part of DE1	990,0mm x 12mm Ø	1
		REFLECTOR 2m	1024,0mm x 8mm Ø	1
		REFLECTOR 70cm	354,0mm x 8mm Ø	1
		D1 70cm	330,0mm x 8mm Ø	1
		D2 70cm	323,0mm x 8mm Ø	1
		D1 2m	930,5mm x 8mm Ø	1
		D3 70cm	278,0mm x 8mm Ø	1
		D4 70cm	294,0mm x 8mm Ø	1
		D3 2m	890,5mm x 8mm Ø	1