



IØJXX di Donzello Rosanna

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39JXX70 Yagi

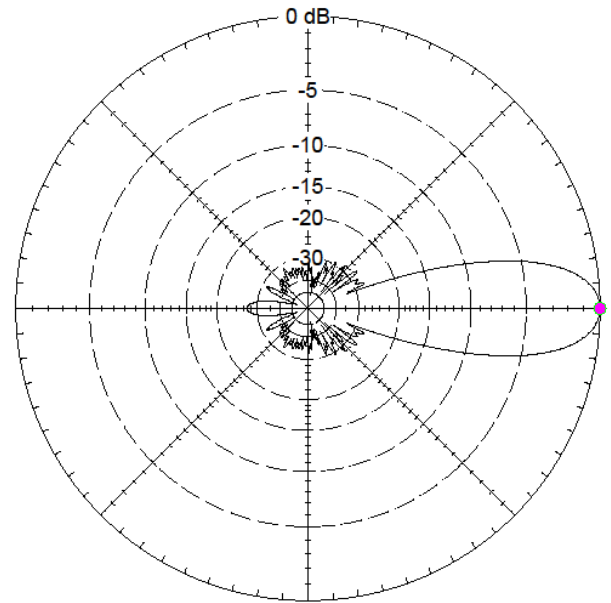
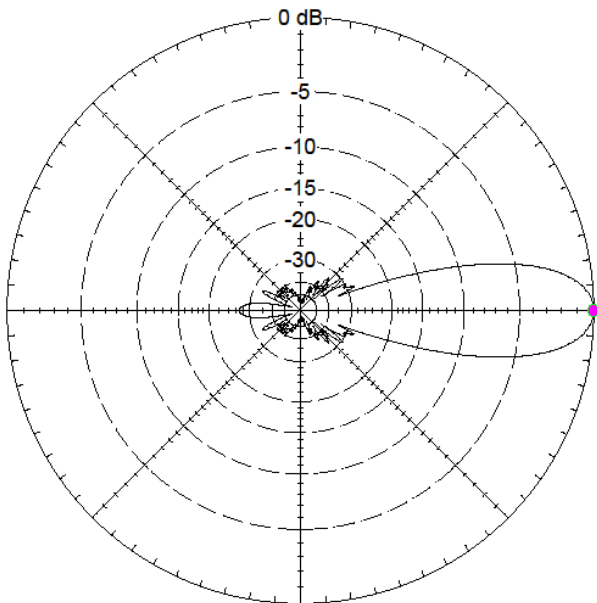
Item		Q.ty	Item		Q.ty
Stainless steel nut M4		12	Stainless steel bolt M4x35		3
Stainless steel nut M6		10	Stainless steel bolt M4x40		4
Lock washer 4 mm Ø		13	Stainless steel bolt M4x45		4
Lock washer 6 mm Ø		10	Stainless steel Eyescrew M4		2
Flat washer 6 mm Ø		10	Plate PIA40JXX		1
Nylon nut M8		38	Stainless steel Turnbuckle		2
Section boom A 25 mm Ø	142 cm.	1	U_Bolt 50	www.i0jxx.com	1
Section boom A - B 30 mm Ø	140 cm.	1	Dipole with T-match		1
Section boom B - C 35 mm Ø	142 cm.	1	Horizontal element 1÷39		38
Section boom C - D 40 mm Ø	142 cm.	1	Dacron rope front	400 cm.	1
Section boom D - E 35 mm Ø	142 cm.	1	Dacron rope back	320 cm.	1
Section boom E - F 30 mm Ø	142 cm.	1	Inbuss key 2.5 mm.		1
Section boom F 25 mm Ø	137 cm.	1			

Total Field

EZNEC+

Total Field

EZNEC+



Dipole in free space

432 MHz

Dipole in free space

432 MHz

Azimuth Plot
 Elevation Angle 0,0 deg.
 Outer Ring 20,18 dBi
 3D Max Gain 20,18 dBi
 Slice Max Gain 20,18 dBi @ Az Angle = 0,0 deg.
 Front/Back 26,98 dB
 Beamwidth 20,0 deg.; -3dB @ 350,0, 10,0 deg.
 Sidelobe Gain -6,8 dBi @ Az Angle = 180,0 deg.
 Front/Sidelobe 26,98 dB

Cursor Az 0,0 deg.
 Gain 20,18 dBi
 0,0 dBmax
 0,0 dBmax3D

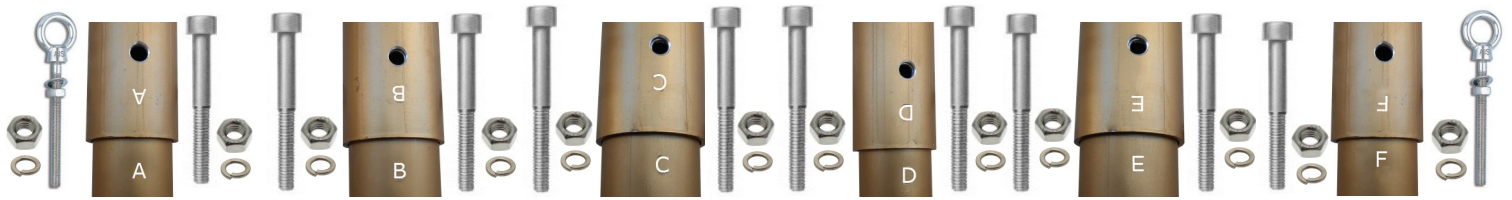
Elevation Plot
 Azimuth Angle 0,0 deg.
 Outer Ring 20,18 dBi

3D Max Gain 20,18 dBi
 Slice Max Gain 20,18 dBi @ Elev Angle = 0,0 deg.
 Front/Back 26,98 dB
 Beamwidth 20,4 deg.; -3dB @ 349,8, 10,2 deg.
 Sidelobe Gain -6,58 dBi @ Elev Angle = 37,0 deg.
 Front/Sidelobe 26,76 dB

Cursor Elev 0,0 deg.
 Gain 20,18 dBi
 0,0 dBmax
 0,0 dBmax3D

IØJXX may vary them without any warning

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Combine the boom respecting the letters placed at the ends of each section
Insert the Eyescrew M4x35 mm washer and nut into the junction points **A - A** and **F - F** then insert the screws M4x40 mm washer and nut, junction points **B - B** and **E - E**, insert the screws M4x45 mm washer and nut, junction points **C - C** and **D - D**



Combinez le boom sur les lettres placées aux extrémités de chaque section
Insérez les vis M4x35 mm rondelle et un écrou dans les points de jonction **A - A** et **F - F** puis, insérez les vis M4x40 mm rondelle et un écrou, les points de jonction **B - B** et **E - E**, insérez les vis M4x45 mm rondelle et un écrou, les points de jonction **C - C** et **D - D**



Kombinieren Sie den Boom und achten Sie dabei auf die Buchstaben am Ende jeder Sektion.

Fügen Sie die Schrauben M4x35 mm Unterlegscheibe und Mutter in die Verbindungsstellen **A - A** und **F - F**, und die Schrauben M4x40 mm Unterlegscheibe und Mutter in den Knotenpunkte **B - B** und **E - E**, und die Schrauben M4x45 mm Unterlegscheibe und Mutter in den Knotenpunkte **C - C** und **D - D**



Unire il boom rispettando le lettere poste alle estremità di ogni sezione
Inserire le viti ad occhio da M4x35 mm rondella e dado, nei punti **A - A** e **F - F**, le viti M4x40 mm rondella e dado per **B - B** e **E - E**, le viti M4x45 mm rondella e dado per **C - C** e **D - D**



Attach the mounting plate between boom and mast **PIA40JXX** between elements **19 - 20**



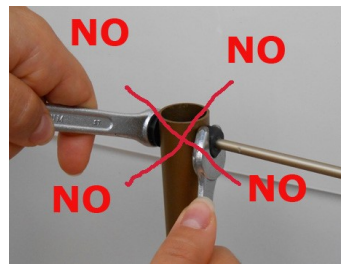
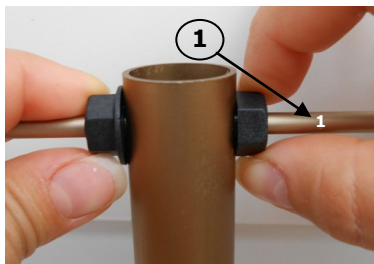
Fixez la plaque de montage entre la flèche et le mât **PIA40JXX** entre les éléments **19 - 20**



Montieren Sie die Montageplatte zwischen Ausleger und Mast **PIA40JXX** zwischen den Elementen **19 - 20**



Montare la piastra di fissaggio tra boom e mast **PIA40JXX** tra gli elementi **19 - 20**



Insert elements as shown in the figure, hand tighten the nut M8 Nylon (**do not use keys as the material used has a self - locking function**)



Fügen Sie die Elemente hinein wie in der Abbildung dargestellt, schrauben Sie die Mutter M8 Nylon mit den Händen zusammen (**benutzen Sie keine Schlüssel, da das verwendete Material eine Selbstverriegelung hat**)



Insertion d'éléments comme indiqué sur la figure, serrez à la main l'écrou M8 nylon (**ne pas utiliser les touches que le matériau utilisé a une auto - verrouillage**)



Inserire gli elementi come riportato in figura, stringere a mano il dado in Nylon da M8 (**non utilizzare chiavi in quanto il materiale impiegato ha effetto auto - bloccante**)



Match the dipole with M4x35 mm and washer as shown in photo



Verbinden Sie die Dipole mit der M4x35 mm Schraube und der Unterlegscheibe wie das Foto zeigt



Installez les dipôle avec M4x35 mm et la rondelle comme indiqué sur la photo



Montare il dipolo con vite M4x35 mm e rondella come indicato in foto

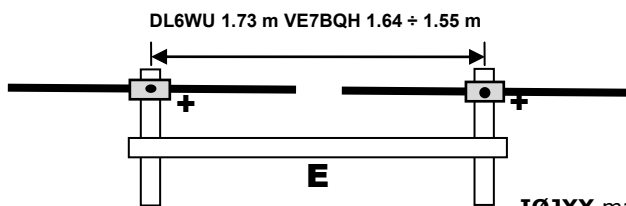
Stacking

In order to obtain the best results in coupling the antennas, we warmly recommend an adequate antenna stacking calculation which would allow the best forward gain together with low side lobes. The stacking distance may be calculated with the following formula from Güenter Hoch DL6WU

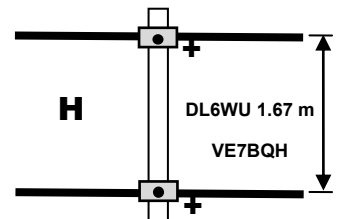
On the basis of further studies conducted by Lionel VE7BQH over the antenna stacking argument, a reduction of 5÷10% may be introduced on stacking distances without noticing significant overall worsening of the characteristics. Do respect the driven element supplying symmetry to allow anti-phase coupling

$$\text{Plane E} = 20.0^\circ = \frac{693.96}{2 * \sin(20.2 / 2)} = \frac{693.96}{0.3473} \cong \mathbf{2.00 \text{ m}} \text{ (with VE7BQH from 1.9 m to 1.8 m)}$$

$$\text{Plane H} = 20.4^\circ = \frac{693.96}{2 * \sin(20.4 / 2)} = \frac{693.96}{0.3542} \cong \mathbf{1.96 \text{ m}} \text{ (with VE7BQH from 1.86 m to 1.76 m)}$$

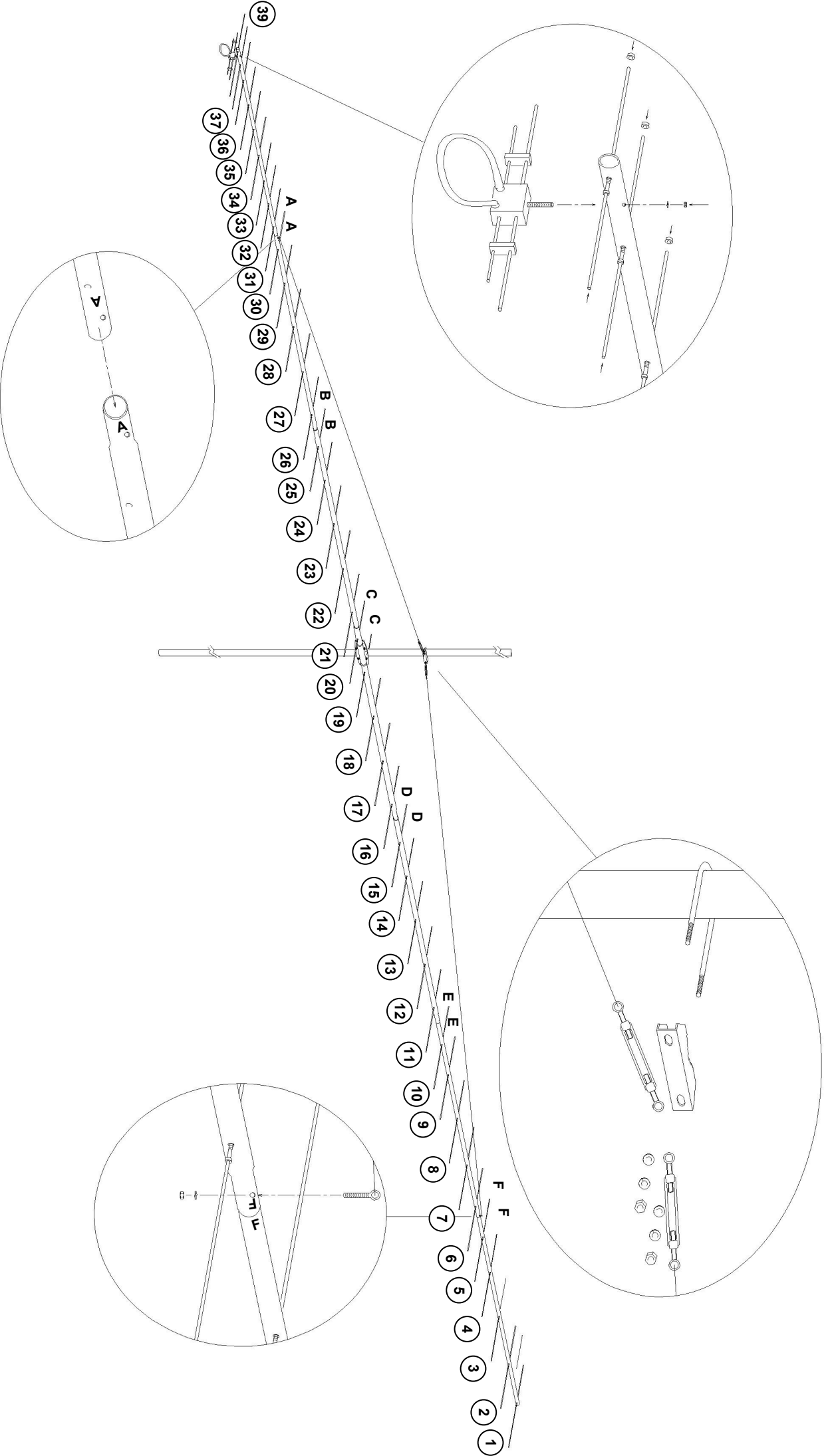


$$d = \frac{L}{2 * \sin(\Phi / 2)}$$



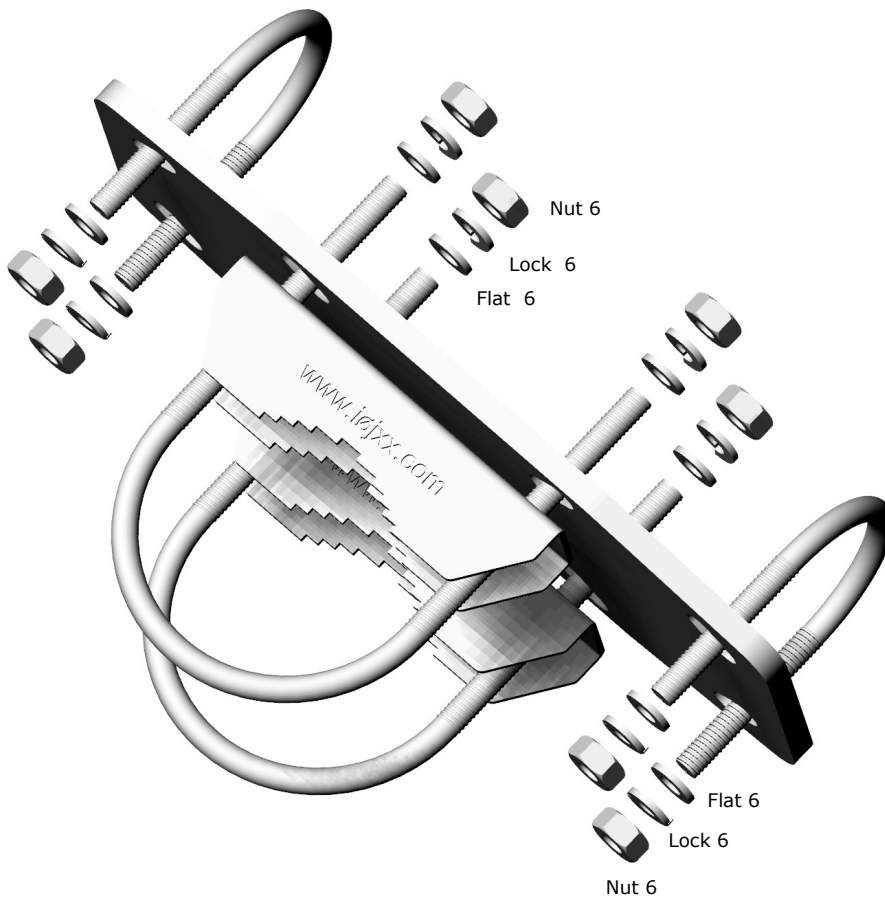
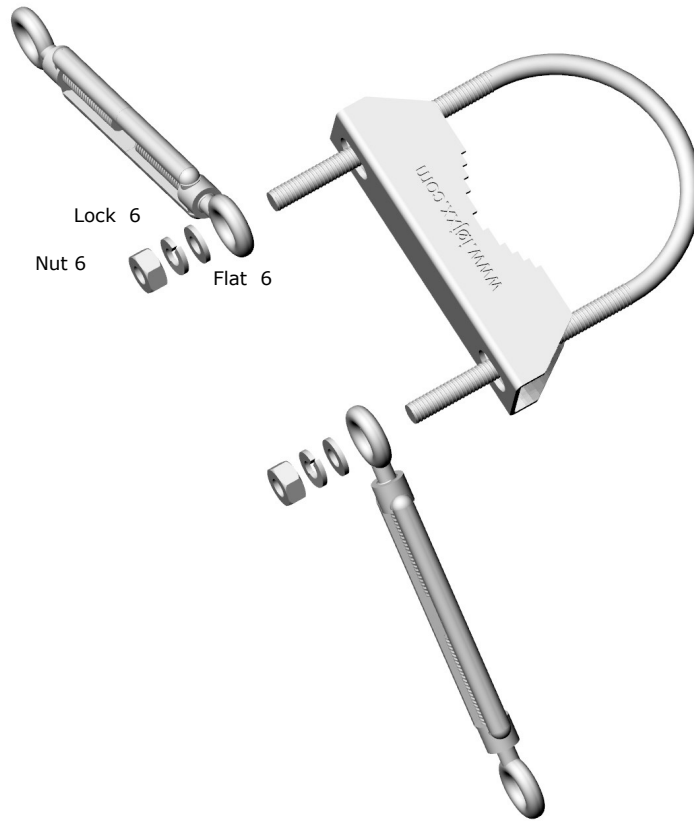
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