Jaybeam Limited

Amateur Radio Antennas

CONTENTS

INTRODUCTION

Jaybeam Limited (A member of the Jones Stroud Group of Companies) continues to produce the world famous amateur antennas formerly manufactured by J. Beam Engineering Limited. Over a quarter of a century of experience in the telecommunications field is now backed by excellent research, development and production facilities at a new factory in Northampton, U.K.

DESIGN LEADERSHIP

Recent advances in antenna design such as the use of inverse baluns, slant and circular polarisation that have been applied to telecommunications antennas are now applied to our amateur range. As part of a continued expansion programme there are several additions to the range of amateur antennas now available; however to simplify production and marketing and also to conform with telecommunication standards it has been decided to withdraw the 75 ohm models. Many antennas in the range will still be suitable for use on both 75 ohm and 50 ohm systems; and these are indicated on the relevant pages in the catalogue. However, a matching transformer is available for use on 75 ohm systems where necessary. The recommendations of the International Electrotechnical Commission (I.E.C. 138 and 138A) and the I.E.E.E. (Revision of 48 I.R.E.252 Jan. 1965) have been taken into account where technical details are quoted. Both these professional bodies stipulate stringent conditions on the measurement of the electrical and mechanical characteristics of antennas.

STACKING AND BAYING

Where additional gain is required, stacking or baying two identical antennas at a spacing greater than one wavelength offers a further 3dB gain. The construction of an array of four gives 6dB gain above the single antenna. Stacking and baying distances are not critical for forward gain but the size and position of side lobes in the radiation pattern are affected. A compromise between maximum gain and minimum sidelobe levels is usually found at a spacing of 1.5 wavelengths.

CHOICE OF POLARISATION

All amateur antennas may be mounted for horizontal or vertical polarisation if care is taken to support the booms correctly, and to avoid interference by nearby structures.

With the growing interest in long distance communications a range of crossed yagis is offered. By phasing cross yagis correctly, it is possible to obtain circular polarisation and make a great reduction in the fluctuation of signal levels caused by polarisation twisting owing to tropospheric conditions.

MATCHING

In order to transfer power from the transmitter to antenna or from antenna to receiver it is essential that impedances are matched. For example a 50 ohm antenna should be used with 50 ohm coaxial cable and 50 ohm equipment. If a 75 ohm antenna is used with 50 ohm cable then a poor V.S.W.R. will result. When the receiver or transmitter is not matched to the rest of the system, the V.S.W.R. will appear dependent on cable length. For telecommunication antennas a limit of 1.5:1 for V.S.W.R. is generally accepted as this results in a loss of radiated or received power of only 0.18 dB; whereas a V.S.W.R. of 2:1 results in a loss of 0.5 dB. The V.S.W.R. of amateur antennas should be less than 1.5:1 but variations in siting and mounting can affect this. I some cases it can deteriorate to 2.5:1 which

represents a loss of 0.88 dB or 18.5% power. For values greater than 2.5:1 there must be some serious fault in the antenna or cable.

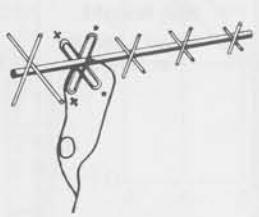
When two or more antennas are connected together a mismatch will result. For example, two 50 ohm antennas connected in parallel will result in an impedance of 25 ohms. It is essential therefore to use a matching device such as the PMH harness in which use is made of the impedance transformation offered by an odd multiple of quarter wavelengths of cable. In the PMH/2M for example two 50 ohms antennas are transformed through lengths of 75 ohm cable to give approximately 100 ohms at each side of a "T" junction and the two 100 ohms in parallel give 50 ohms. The downlead in the harness is a quarter wavelength of 50 ohm cable which presents 50 ohms at the plug. The same harness could be used to couple two 75 ohm antennas because in this case two 75 ohm impedances appear in parallel at the "T" junction i.e. 37.5 ohms. This is then transformed via the quarter wavelength of 50 ohm cable to give 75 ohms at the plug.

CIRCULAR POLARISATION

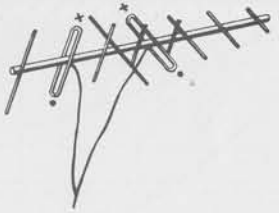
Propogation of linear polarisation over 50 km can result in Q.S.B. Whilst the degree of Q.S.B. is nearly the same for vertical and horizontal polarisation over normal ground the exact time of the fade is rarely the same. Sometimes linear polarisation can be twisted as it propogates through urban and densely wooded areas, so the angle of polarisation is often unknown. The use of circularly polarised antennas ensures that any plane of linear polarisation can be received and results in a reduction in the amount and level of Q.S.B.

Circular polarisation is a special case of elliptical polarisation in which the electric field vector rotates steadily, with constant magnitude as it progresses in the direction of propogation. The helix is used widely as an antenna for circular polarisation; but with care two linearly polarised antennas can be phased to perform the same function. The sense of the helix and the phasing of linear antennas determine the sense of circular polarisation. A right handed helix will radiate a signal with a progressive phase lag clockwise in the direction of propagation when viewed from behind. To achieve the same polarisation from a pair of linear antennas incorporating baluns needs great care, otherwise slant or elliptical polarisation will result. There are two methods employed in the amateur range. The most common on 2 metres is by the use of two yagi arrays almost coincident; but at right angles on a common boom. One yagi array is connected to a coaxial cable one quarter wavelength longer than the cable to the other array, as in the PMH/2C in which matching is also incorporated. The other method incorporates a quarter wavelength stagger of the elements in each plane in which case a normal two way matching harness can be used. The second method is used for satellite band antennas and for the 70 cm band in which a patented configuration of elements is in use.

144–146 MHz

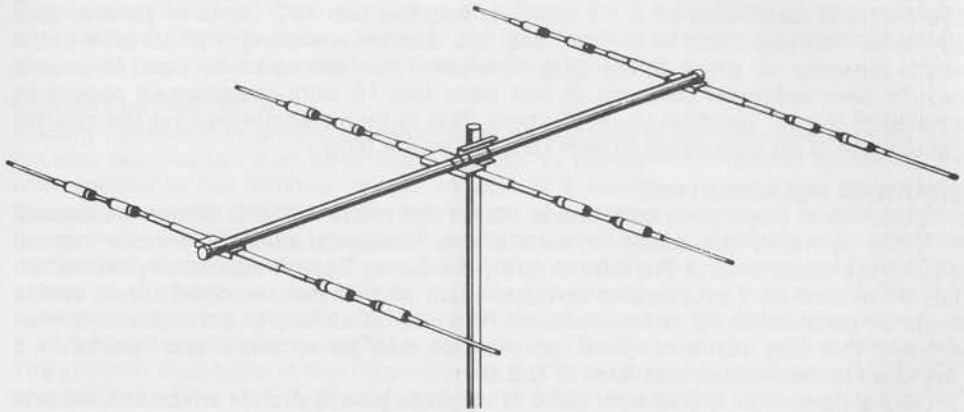


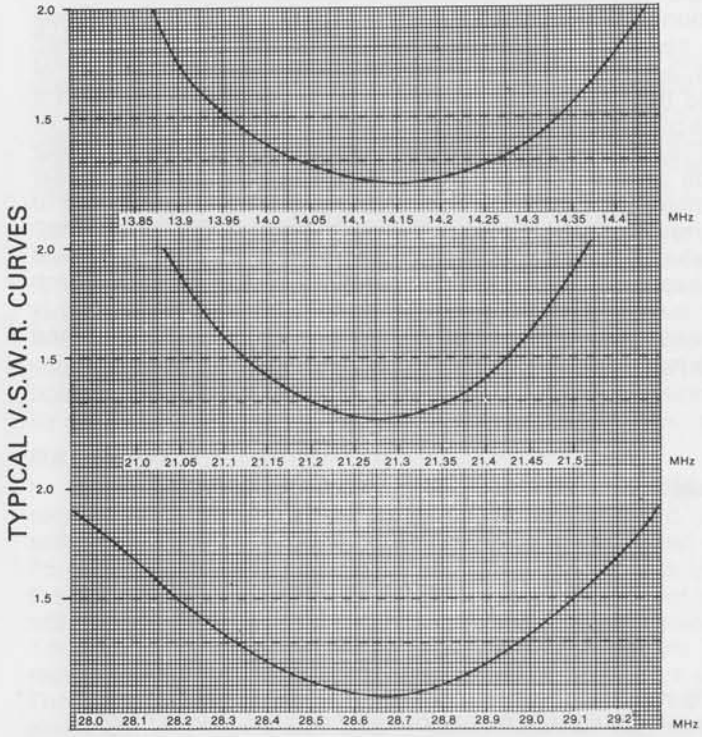
134–138 MHz and 430–440 MHz



. — directly fed side of dipole
x — side fed via balun shown for right hand or clockwise circular polarisation

TB3





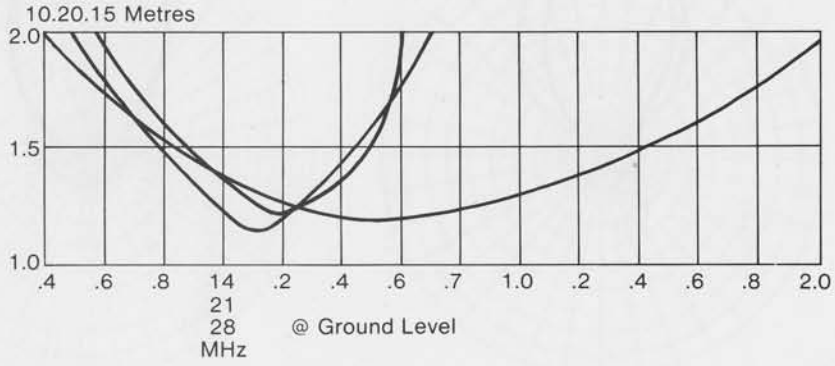
TB3

Input Impedance	50 ohms
Gain	8 db peak
Front to Back Ratio	25 dB
Maximum Input Power	2 Kw PEP
VSWR at Resonance	<1.5:1
Boom Length	420 cm
Boom Diameter	51 mm
Turning Circle	902 cm
Mast Diameter	47–51 mm
Net Weight	17.3 kg
Wind Loading at 130 kph	52 kgf

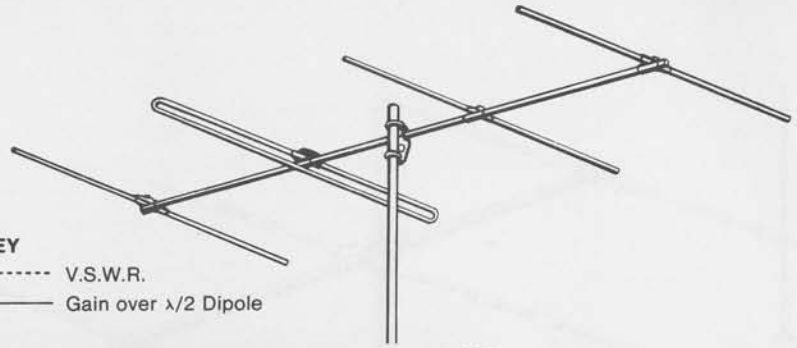
VR3

VR3

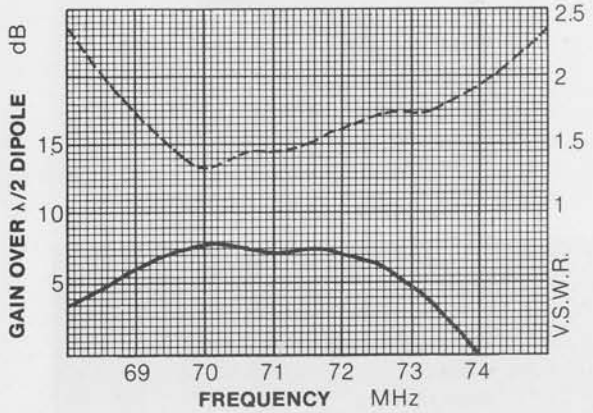
Input Impedance	50 ohms
Frequency Range	10, 15, 20 metres
VSWR at Resonance	<1.5:1
Maximum Power	2 Kw PEP
Static Protection	DC Short Circuit
Termination	UHF socket
Height	410 cm max
Wind Loading at 130 kph	7.5 kgf
Mast Clamp Diameter	Up to 51 mm (max)
Net weight	2.7 kg



4Y/4M



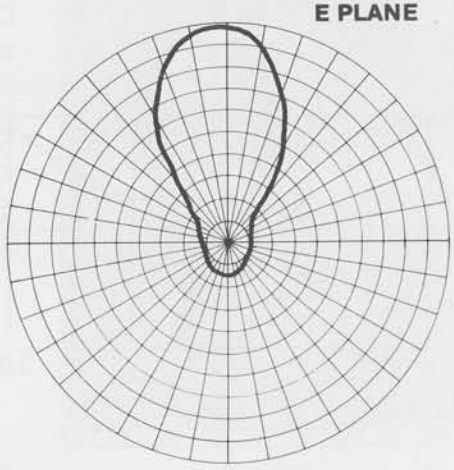
KEY
-------- V.S.W.R.
——— Gain over λ/2 Dipole



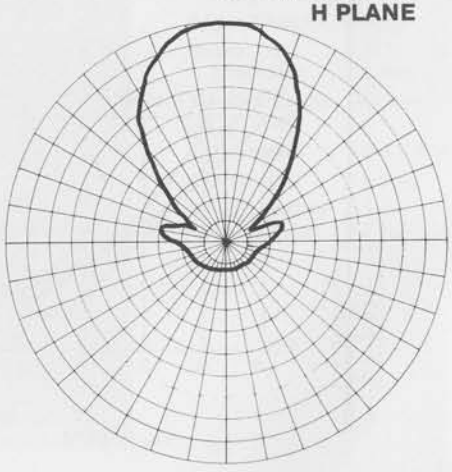
4Y/4M

Gain	: 7 dBd
Horizontal Beamwidth	: 58°
Power Rating	: 1 Kw Peak
Weight	: 4.1 Kg
Wind Load 160 Km/h	: 25 kgf
Length	: 2.3 metres
Design Impedance	: Suitable for 50 ohms or 75 ohms

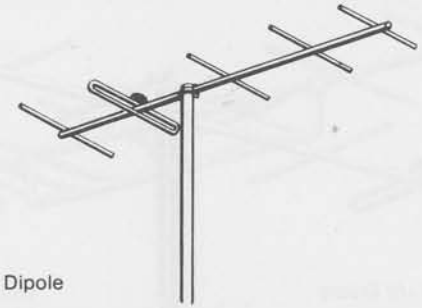
POLAR DIAGRAM E PLANE



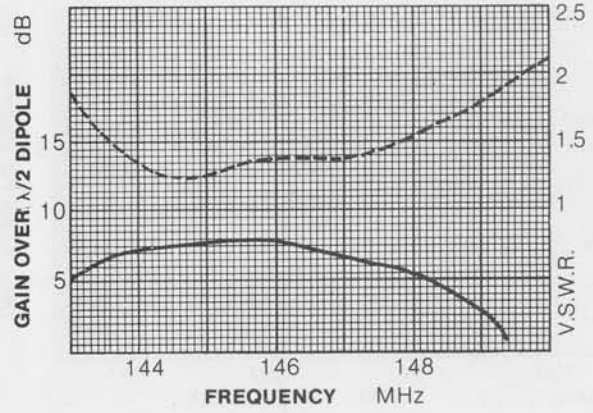
POLAR DIAGRAM H PLANE



5Y/2M



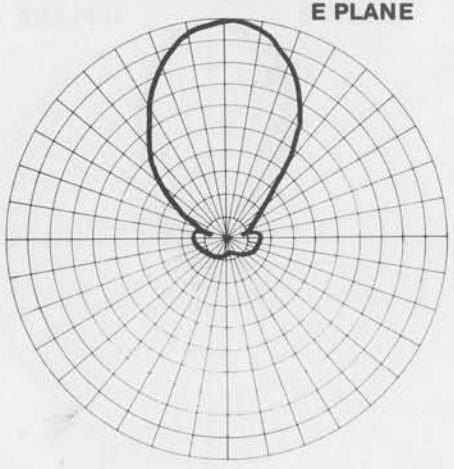
KEY
-------- V.S.W.R.
——— Gain over λ/2 Dipole



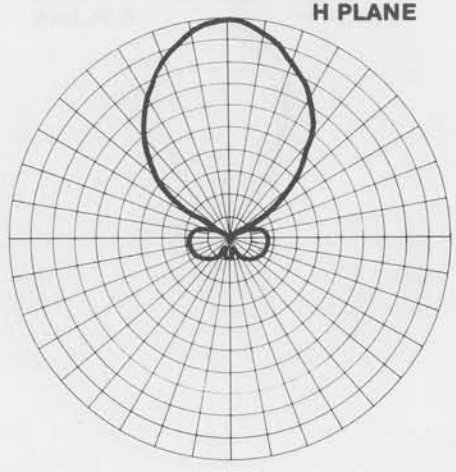
5Y/2M

Gain	: 7.8 dBd
Horizontal Beamwidth	: 58°
Power Rating	: 1 Kw Peak
Weight	: 1.8 Kg
Wind Load at 160 Km/h	: 14 kgf
Length	: 1.6 metres
Design Impedance	: 50 ohms

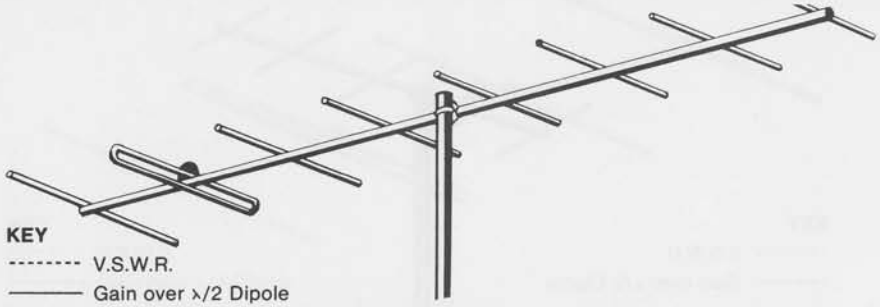
POLAR DIAGRAM E PLANE



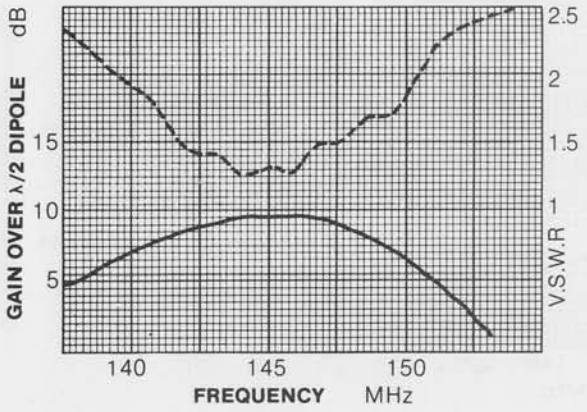
POLAR DIAGRAM H PLANE



8Y/2M



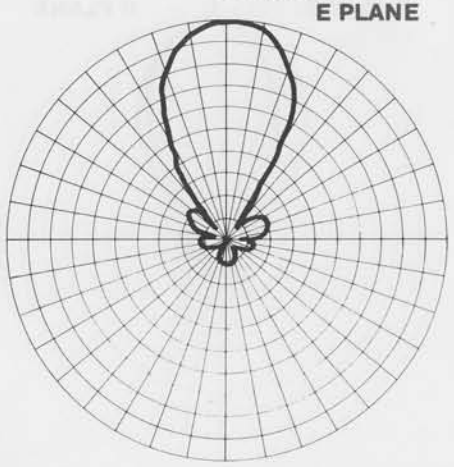
KEY
-------- V.S.W.R.
——— Gain over λ/2 Dipole



8Y/2M

Gain	: 9.5 dBd
Horizontal Beamwidth	: 47°
Power Rating	: 1 Kw
Weight	: 3.8 Kg
Wind Load at 160 Km/h	: 24 kgf
Length	: 2.8 metres
Design Impedance	: 50 ohms

POLAR DIAGRAM E PLANE



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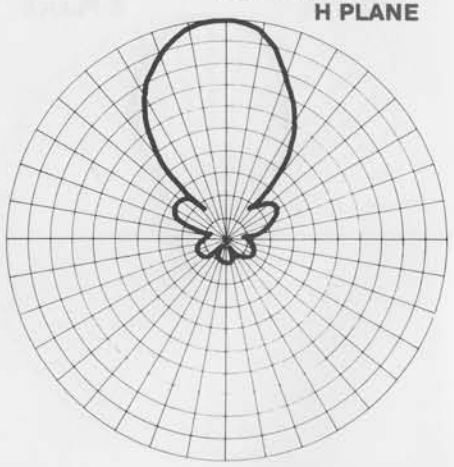
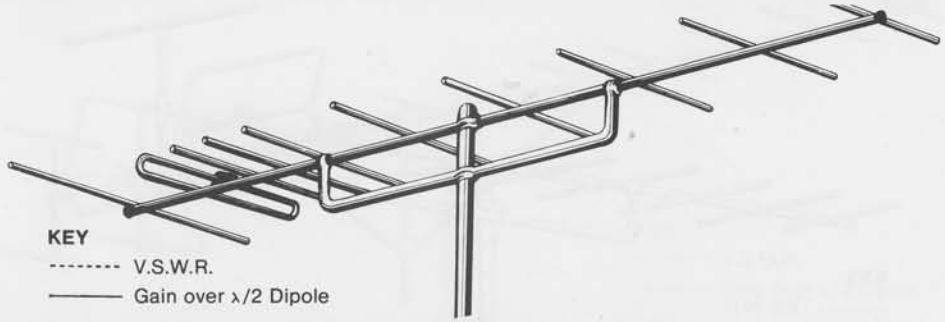
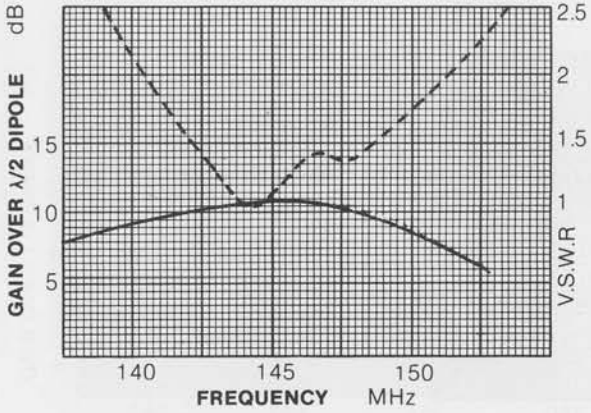


10Y/2M



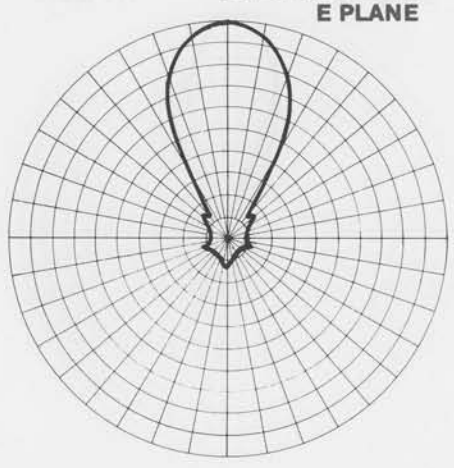
KEY
-------- V.S.W.R.
——— Gain over λ/2 Dipole



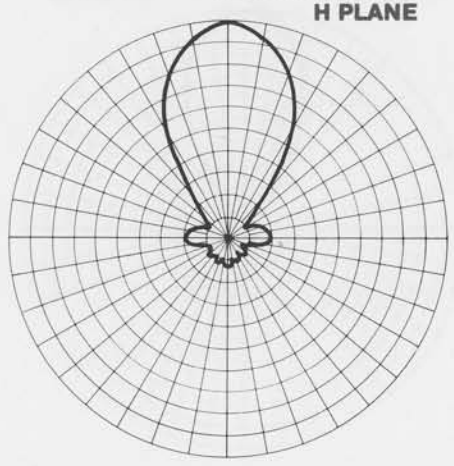
10Y/2M

Gain	: 11.0 dBd
Horizontal Beamwidth	: 37°
Power Rating	: 1 Kw Peak
Weight	: 4.5 Kg
Wind Load at 160 Km/h	: 30 kgf
Length	: 4.4 metres
Design Impedance	: Suitable for 50 ohms or 75 ohms

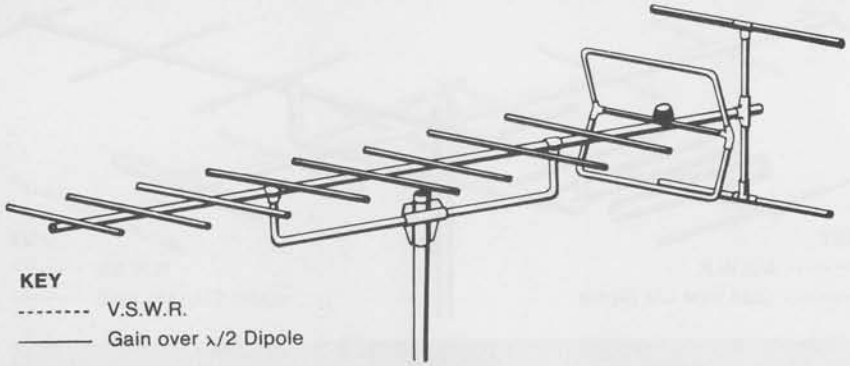
POLAR DIAGRAM E PLANE



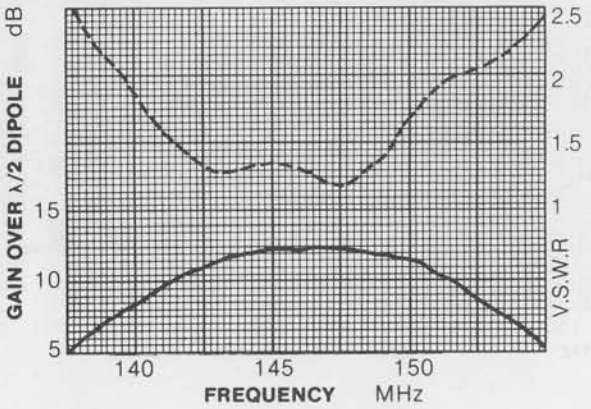
POLAR DIAGRAM H PLANE



PBM10/2M



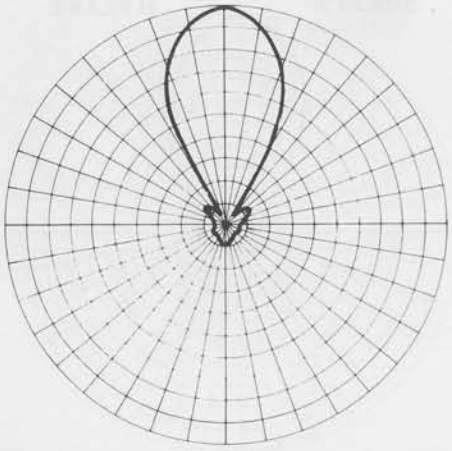
KEY
-------- V.S.W.R.
——— Gain over λ/2 Dipole



PBM10/2M

Gain	: 11.7 dBd
Horizontal Beamwidth	: 37°
Power Rating	: 1 Kw Peak
Weight	: 5.2 Kg
Wind Load at 160 Km/h	: 33 kgf
Length	: 3.93 metres
Design Impedance	: 50 ohms

POLAR DIAGRAM E PLANE



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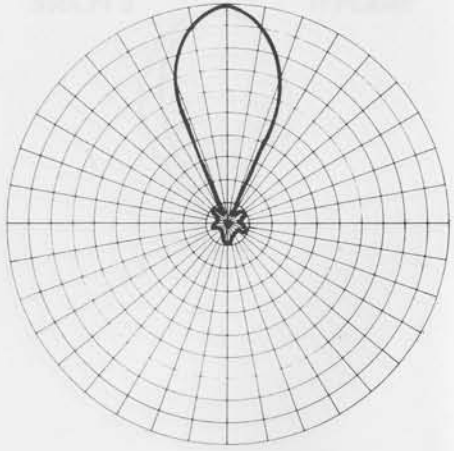
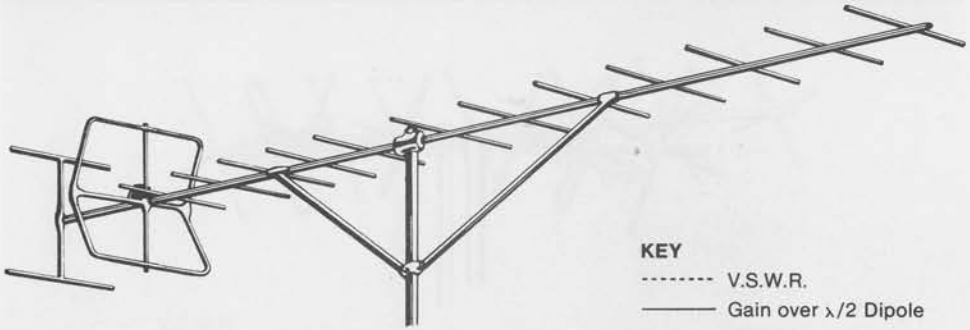
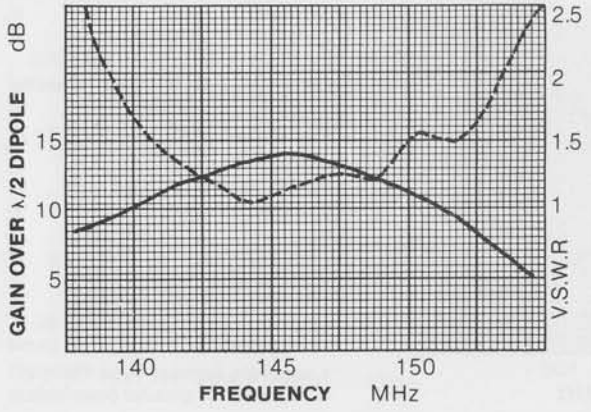


PBM14/2M



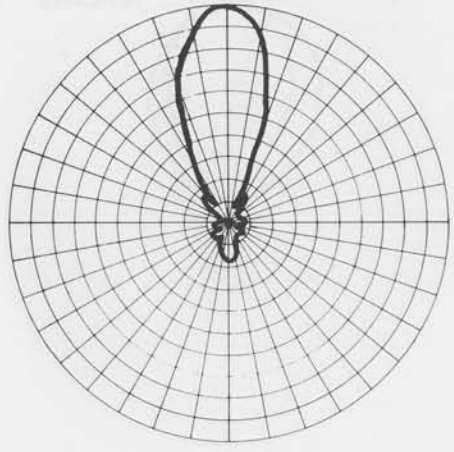
KEY
-------- V.S.W.R.
——— Gain over λ/2 Dipole



PBM14/2M

Gain	: 13.7 dBd
Horizontal Beamwidth	: 29°
Power Rating	: 1 Kw Peak
Weight	: 6.5 Kg
Wind Load at 160 Km/h	: 41 kgf
Length	: 5.95 metres
Design Impedance	:Suitable for 50 ohms or 75 ohms

POLAR DIAGRAM E PLANE



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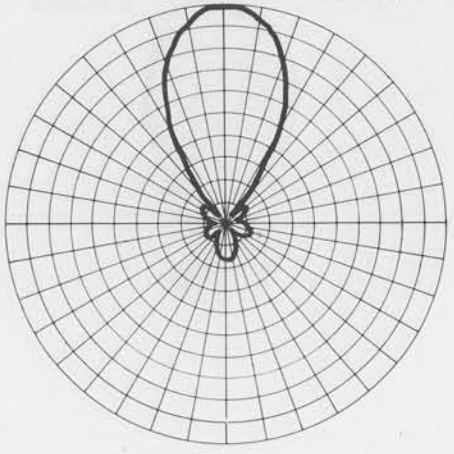
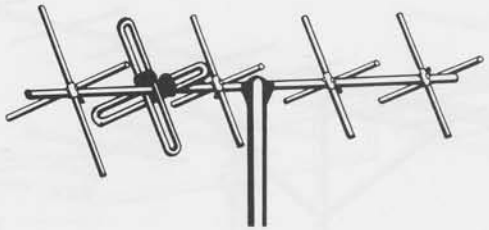


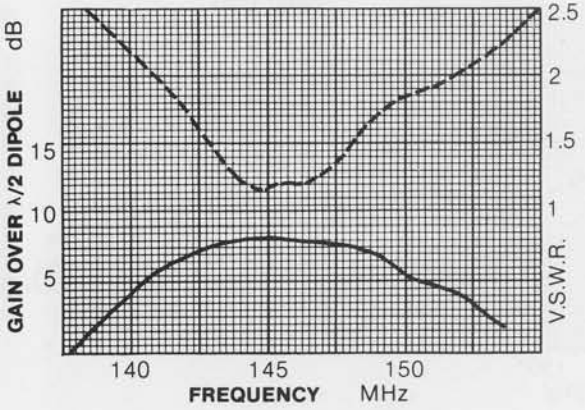
5XY/2M



KEY

-------- V.S.W.R.

——— Gain over λ/2 Dipole



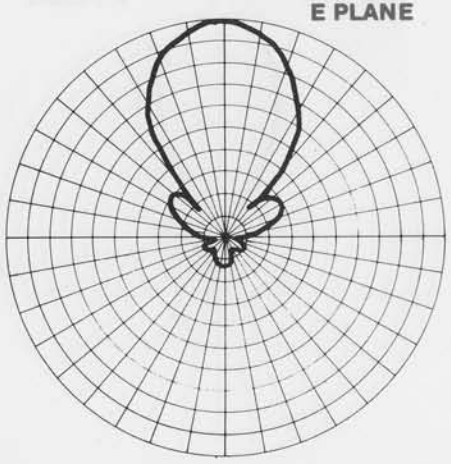
5XY//2M

(Also available for 134–138 MHz)

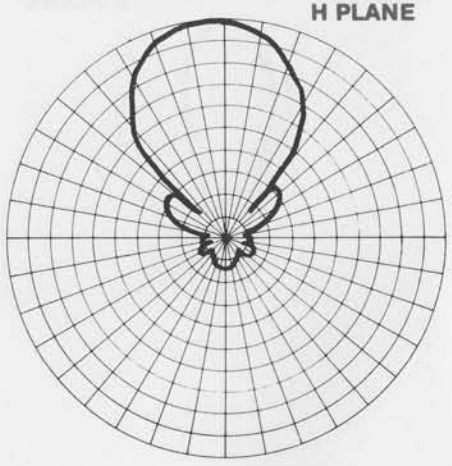
Gain	: 7.8 dBd in each plane
Horizontal Beamwidth	: 58°
Power Rating	: 1 Kw Peak
Weight	2.8 Kg
Wind Load at 160 Km/h	: 19 kgf
Length	: 1.7 metres
Design Impedance	: Suitable for 50 ohms or 75 ohms

A separate harness Type PMH/2C is required for circular polarisation

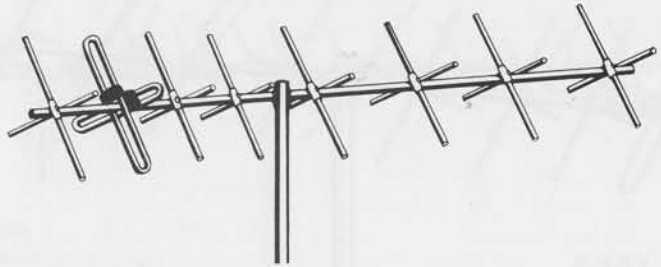
POLAR DIAGRAM E PLANE



POLAR DIAGRAM H PLANE



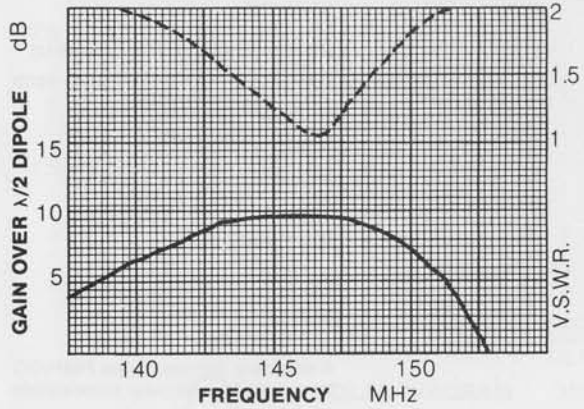
8XY/2M



KEY

-------- V.S.W.R.

——— Gain over λ/2 Dipole



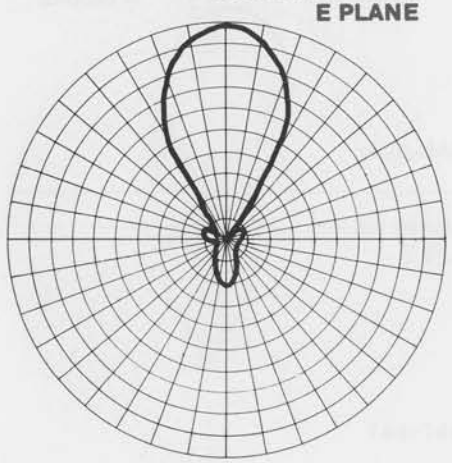
8XY/2M

(Also available for 134–138 MHz)

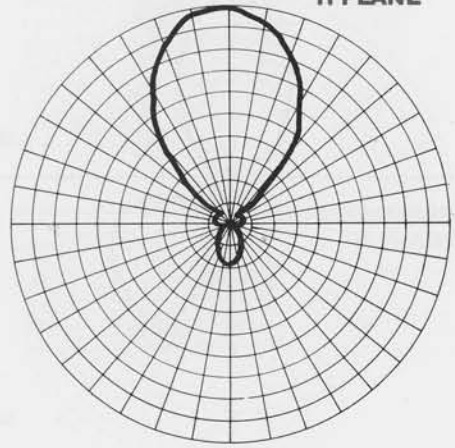
Gain	: 9.5 dBd in each plane
Horizontal Beamwidth	: 47°
Power Rating	: 1 Kw Peak
Weight	: 4.7 Kg
Wind Load at 160 Km/h	: 29 kgf
Length	: 2.8 metres
Design Impedance	: 50 ohms

A separate harness Type PMH/2C is required for circular polarisation

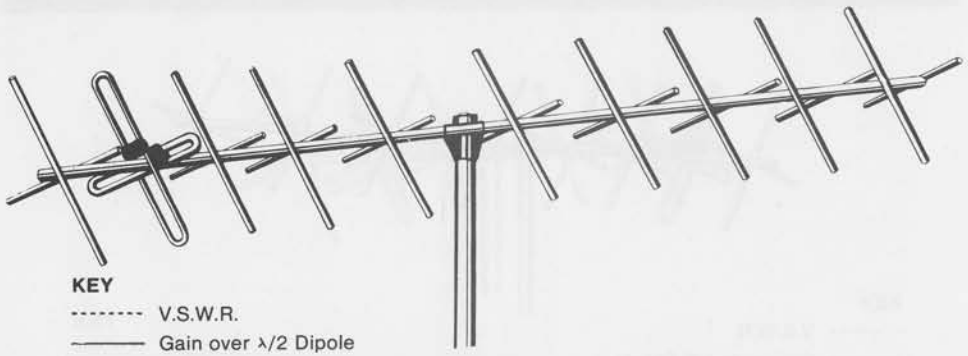
POLAR DIAGRAM E PLANE



POLAR DIAGRAM H PLANE



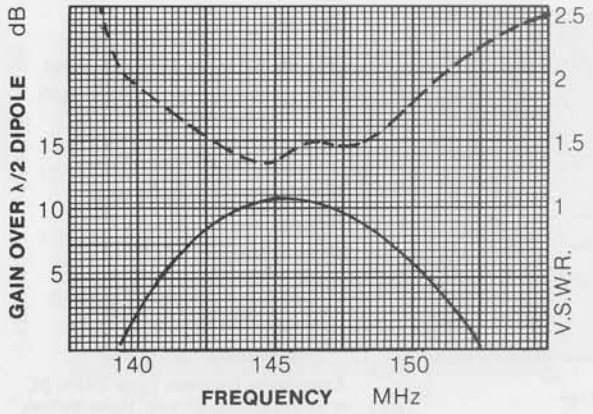
10XY/2M



KEY

-------- V.S.W.R.

——— Gain over λ/2 Dipole



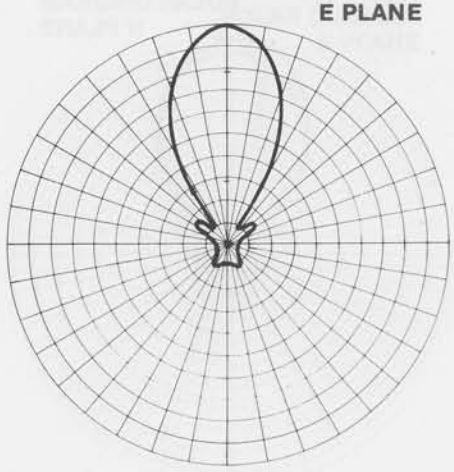
10XY/2M

(Also available for 134–138 MHz)

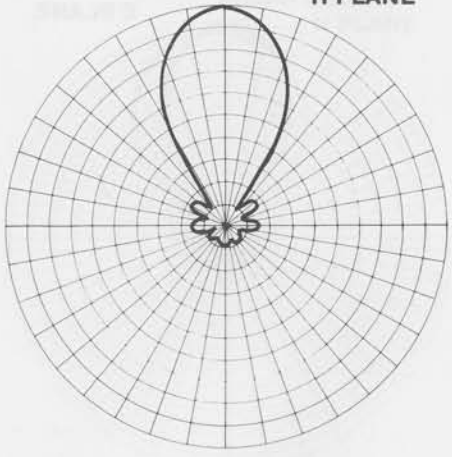
Gain	: 10.8 dBd in each plane
Horizontal Beamwidth	: 42°
Power Rating	: 1 Kw Peak
Weight	: 5.9 Kg
Wind Load at 160 Km/h	: 36 kgf
Length	: 3.6 metres
Design Impedance	: 50 ohms

A separate harness Type PMH/2C is required for circular polarisation

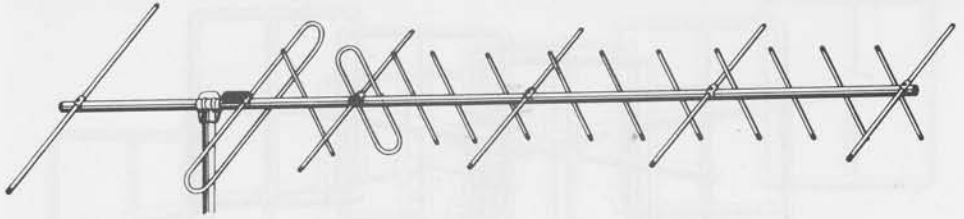
POLAR DIAGRAM E PLANE



POLAR DIAGRAM H PLANE



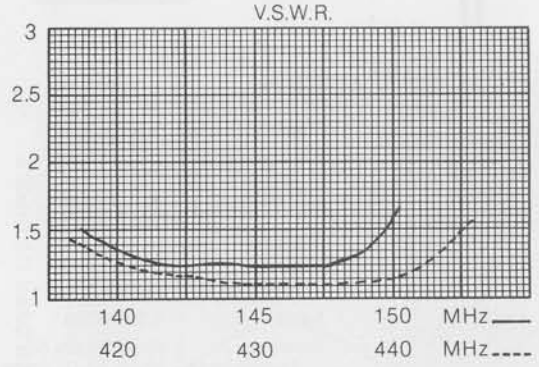
X6/2M/X12/70cm



KEY

- - - - - 70cm

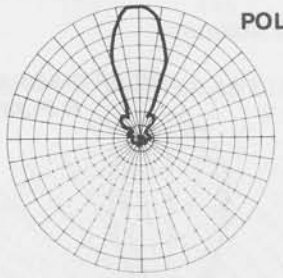
——— 2m



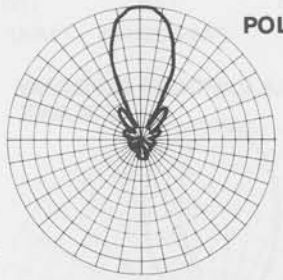
X6/2M/X12/70cm

Gain	: 2m : 8.5 dBd 70cm : 12.0 dBd
Horizontal Beamwidth	: 144-146 MHz:56° 430-440 MHz:30°
Power rating	: 1 kw peak
Weight	: 2.7 kgs
Wind loading at 160 km/h	: 21 kgf
Length	: 2.2 metres
Design Impedance	: 50 ohms

POLAR DIAGRAM E PLANE

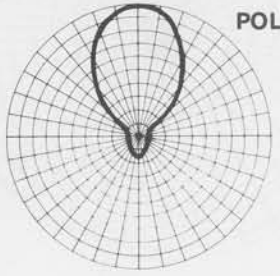


POLAR DIAGRAM H PLANE

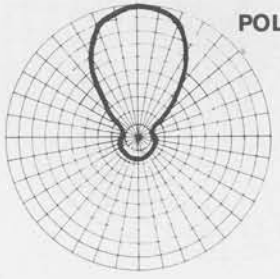


430–440 MHz

POLAR DIAGRAM E PLANE

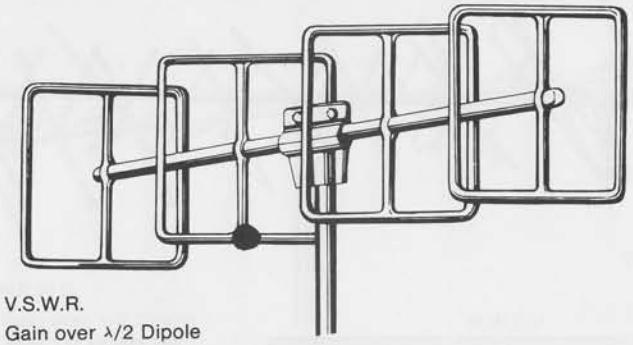


POLAR DIAGRAM H PLANE

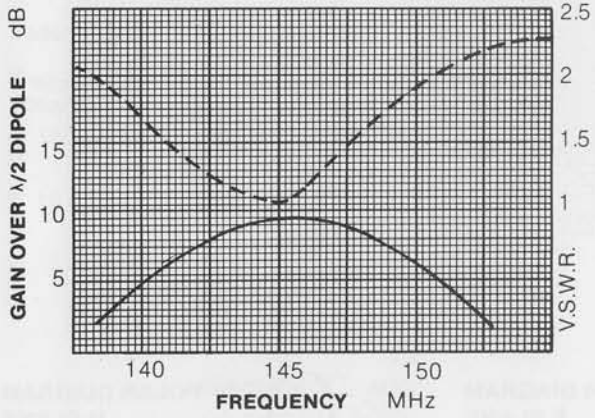


144–146 MHz

Q4/2M



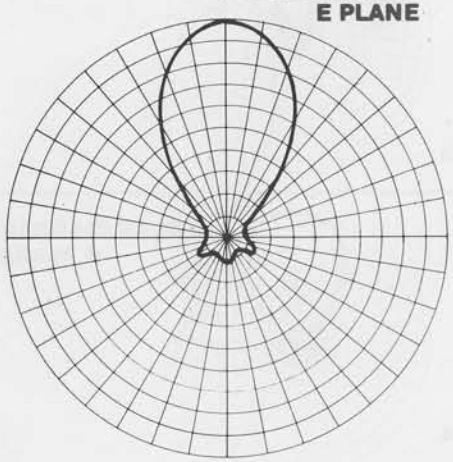
KEY
-------- V.S.W.R.
——— Gain over λ/2 Dipole



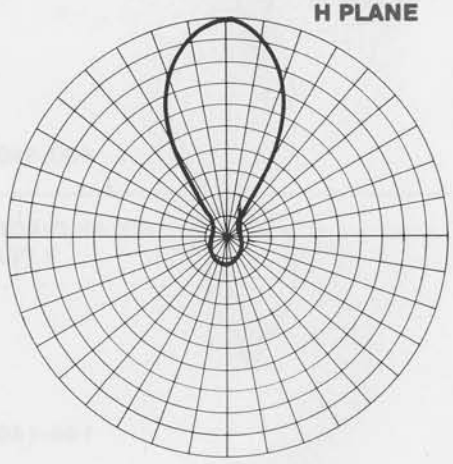
Q4/2M

Gain	: 9.5 dBd
Horizontal Beamwidth	: 48°
Power Rating	: 1 Kw Peak
Weight	: 2.7 Kg
Wind Load at 160 Km/h	: 22 kgf
Length	: 1.5 metres
Design Impedance	: Suitable for 50 ohms or 75 ohms

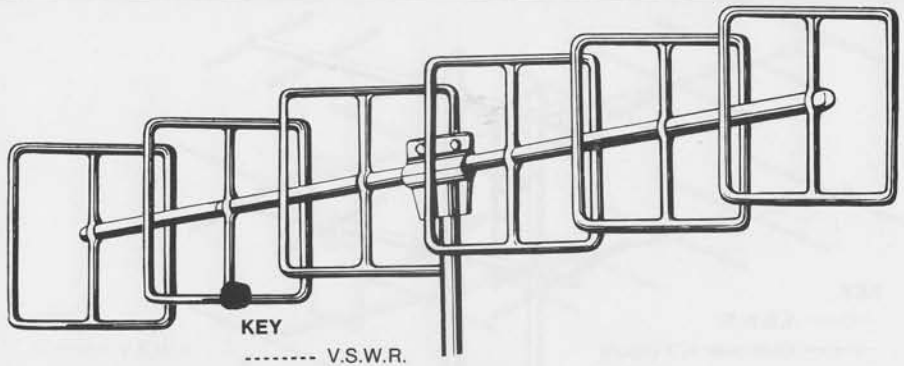
POLAR DIAGRAM E PLANE



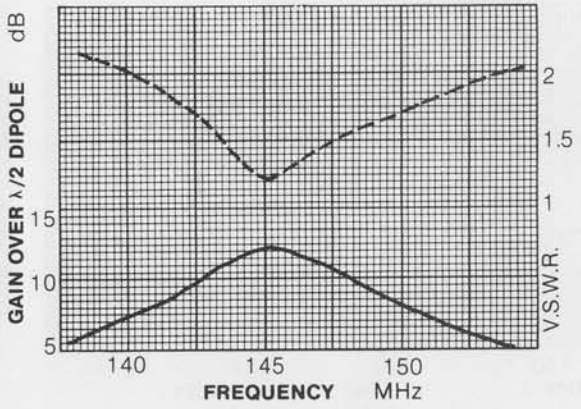
POLAR DIAGRAM H PLANE



Q6/2M



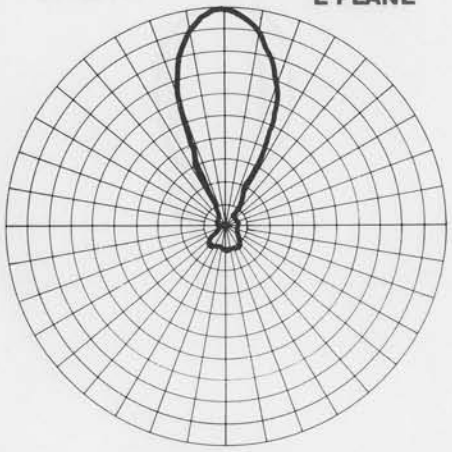
KEY
-------- V.S.W.R.
——— Gain over λ/2 Dipole



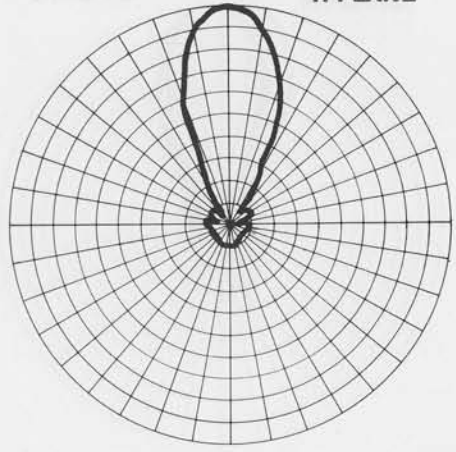
Q6/2M

Gain	: 12 dBd
Horizontal Beamwidth	: 36°
Power Rating	: 1 Kw Peak
Weight	: 3.5 Kg
Wind Load at 160 Km/h	: 33 kgf
Length	: 2.5 metres
Design Impedance	: Suitable for 50 ohms or 75 ohms

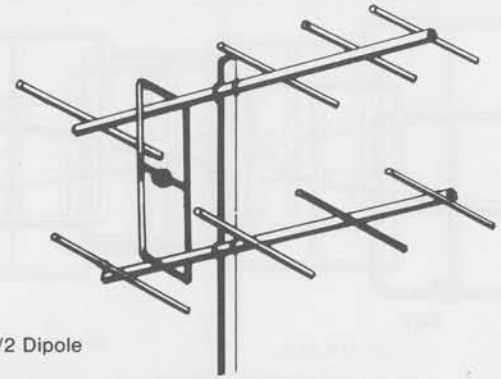
POLAR DIAGRAM E PLANE



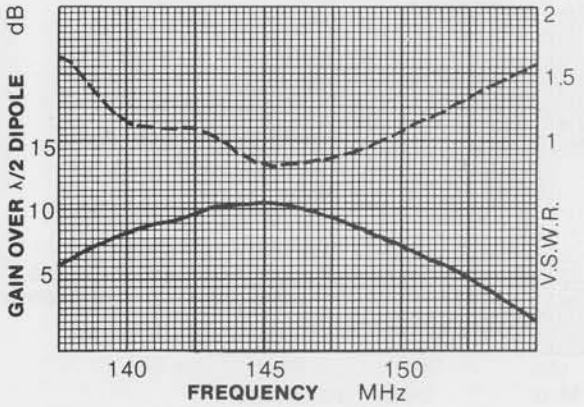
POLAR DIAGRAM H PLANE



D5/2M



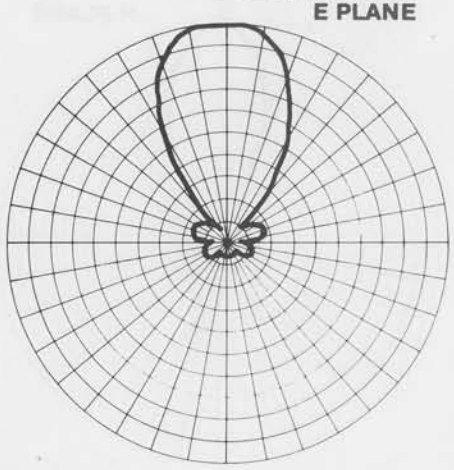
KEY
-------- V.S.W.R.
——— Gain over λ/2 Dipole



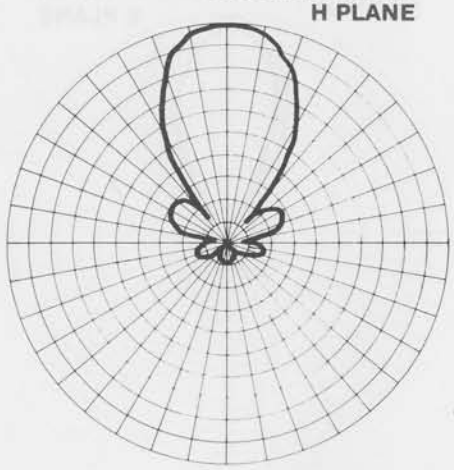
D5/2M

Gain	: 10.6 dBd
Horizontal Beamwidth	: 52°
Power Rating	: 1 Kw Peak
Weight	: 3.2 Kg
Wind Load at 160 Km/h	: 28 kgf
Length	: 1.6 metres
Design Impedance	: 50 ohms

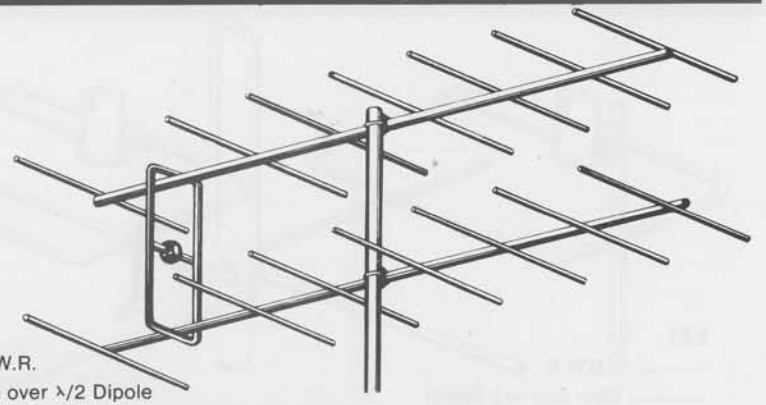
POLAR DIAGRAM E PLANE



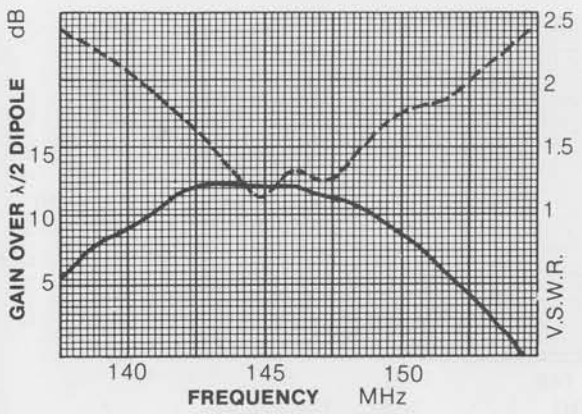
POLAR DIAGRAM H PLANE



D8/2M



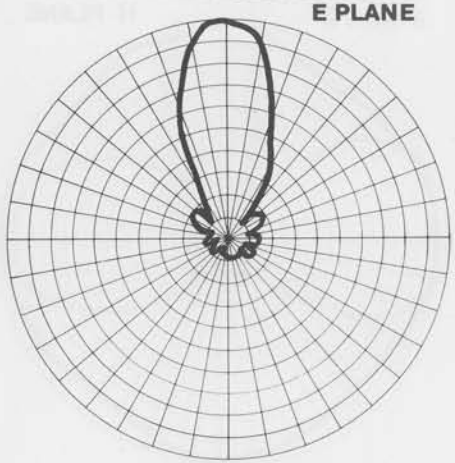
KEY
-------- V.S.W.R.
——— Gain over λ/2 Dipole



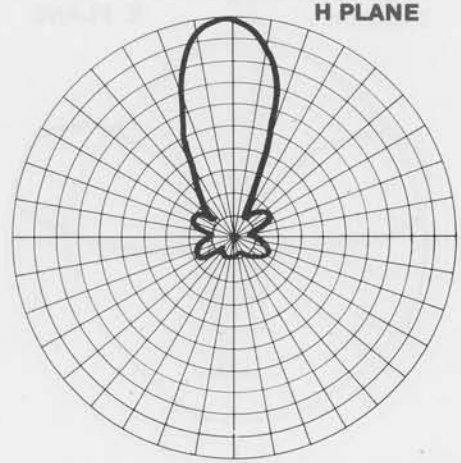
D8/2M

Gain	: 12.3 dBd
Horizontal Beamwidth	: 45°
Power Rating	: 1 Kw Peak
Weight	: 4.1 Kg
Wind Load at 160 km/h	: 41 kgf
Length	: 2.8 metres
Design Impedance	: 50 ohms

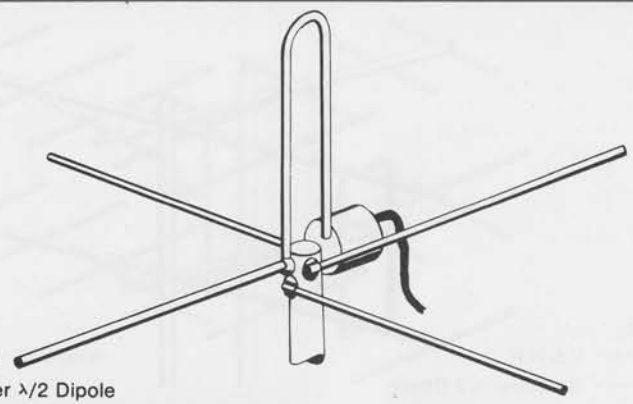
POLAR DIAGRAM E PLANE



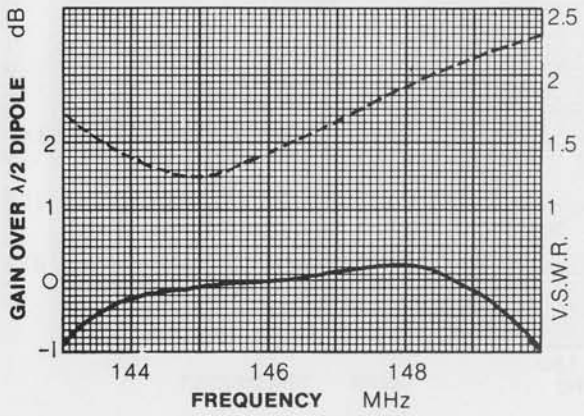
POLAR DIAGRAM H PLANE



UGP/2M



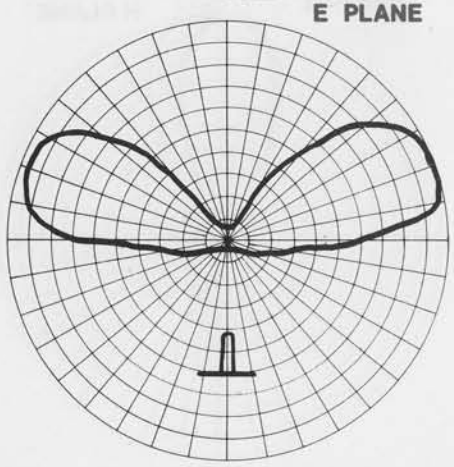
KEY
-------- V.S.W.R.
——— Gain over λ/2 Dipole



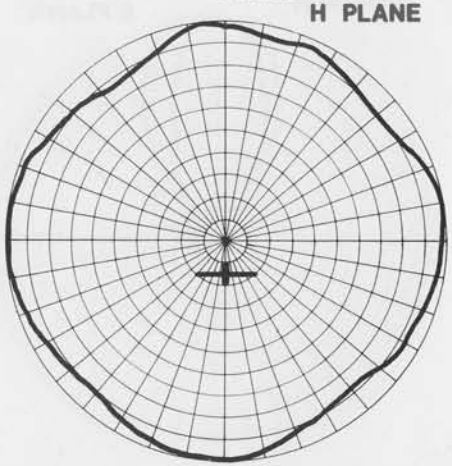
UGP/2M

Gain	:	0 dBd
Power Rating	:	1 Kw Peak
Weight	:	1 Kg
Wind Load at 160 Km/h	:	5 kgf
Design Impedance	:	Suitable for 50 ohms or 75 ohms

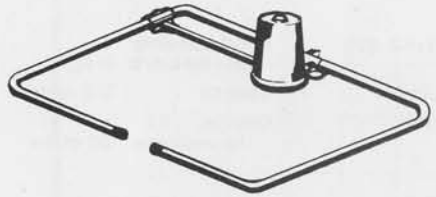
POLAR DIAGRAM E PLANE

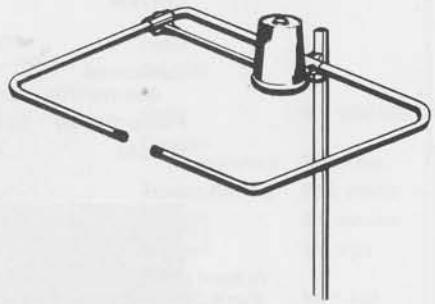


POLAR DIAGRAM H PLANE

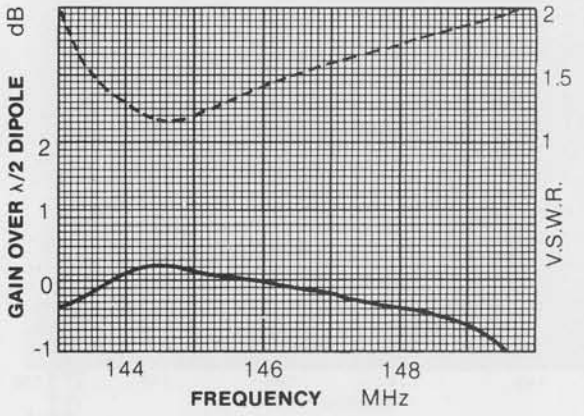


HO/2M HM/2M





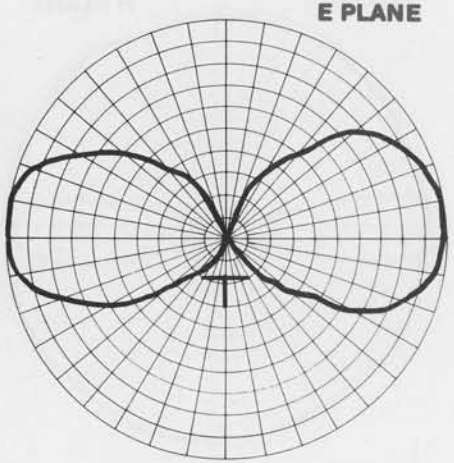
KEY
-------- V.S.W.R.
——— Gain over λ/2 Dipole



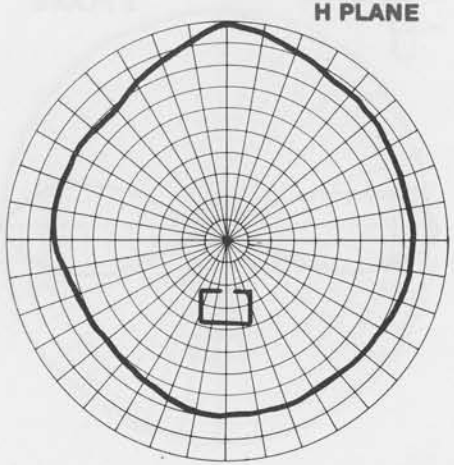
HO/2M–HM/2M

Gain	:	0 dBd
Power Rating	:	1 Kw Peak
Weight	:	0.5 Kg
Wind Load at 160 Km/h	:	4 kgf
Design Impedance	:	Suitable for 50 ohms or 75 ohms

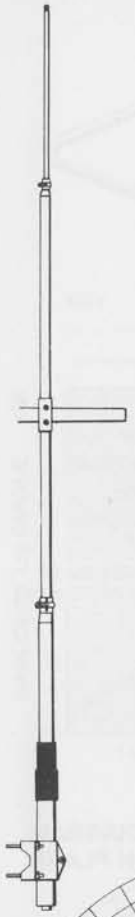
POLAR DIAGRAM E PLANE



POLAR DIAGRAM H PLANE

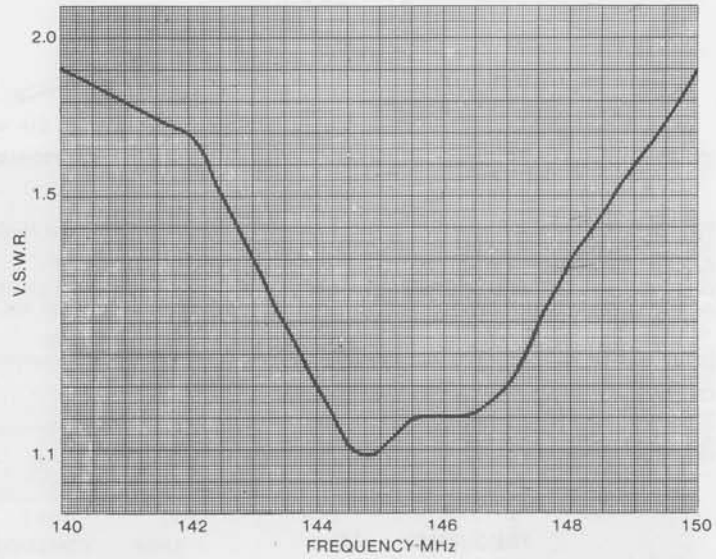


LR1/2M

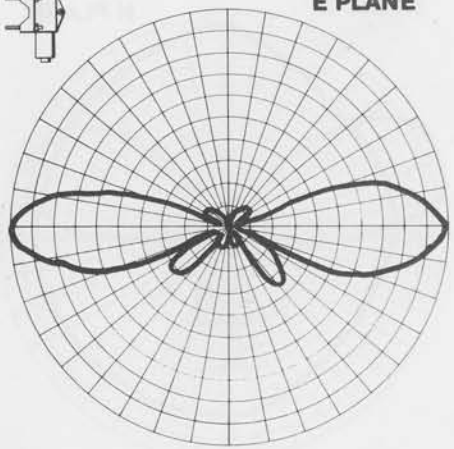


LR1/2M

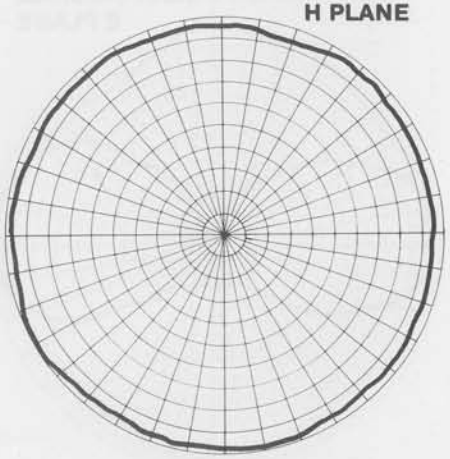
Gain	: 4.3 dBd (6.5 dBi)	**Wind Loading at 160 km/h**	: 8 kgf
Horizontal Beamwidth	: 25° Typical	**Length**	: 3.0 metres
Power Rating	: 250 watts	**Design Impedance**	: 50 ohms
Weight	: 1.5 kg		



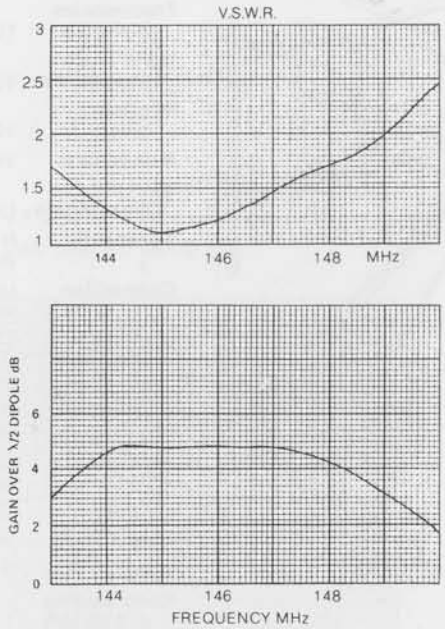
POLAR DIAGRAM E PLANE



POLAR DIAGRAM H PLANE



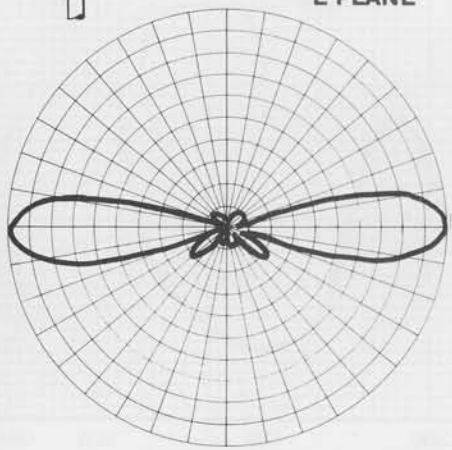
C5/2M



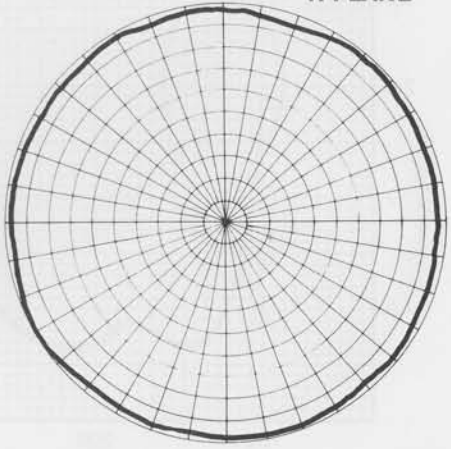
C5/2M

Gain	: 4.8 dBd (70 dBi)
Design Impedance	: 50 ohms
Power Rating	: 250 Watts
Length	: 4.0 metres
Weight	: 3.2 Kgs
Wind load at 160 Km/h	: 10.1 kgf
Polarisation	: Vertical
Frequency	: 144–148 MHz
Vertical Beamwidth	: 24°
Termination	: 50 ohm 'N' Type Socket
Shroud	: Glass-fibre
Mounting	: 2 Type JBL29/2 Steel Clamps
V.S.W.R.	: >1.5:1

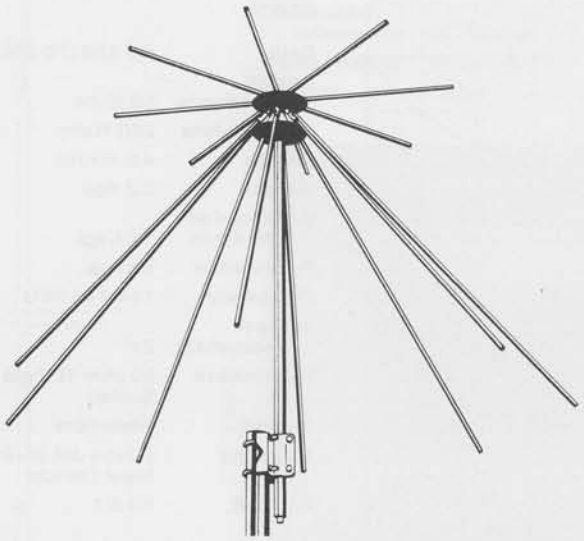
POLAR DIAGRAM E PLANE



POLAR DIAGRAM H PLANE

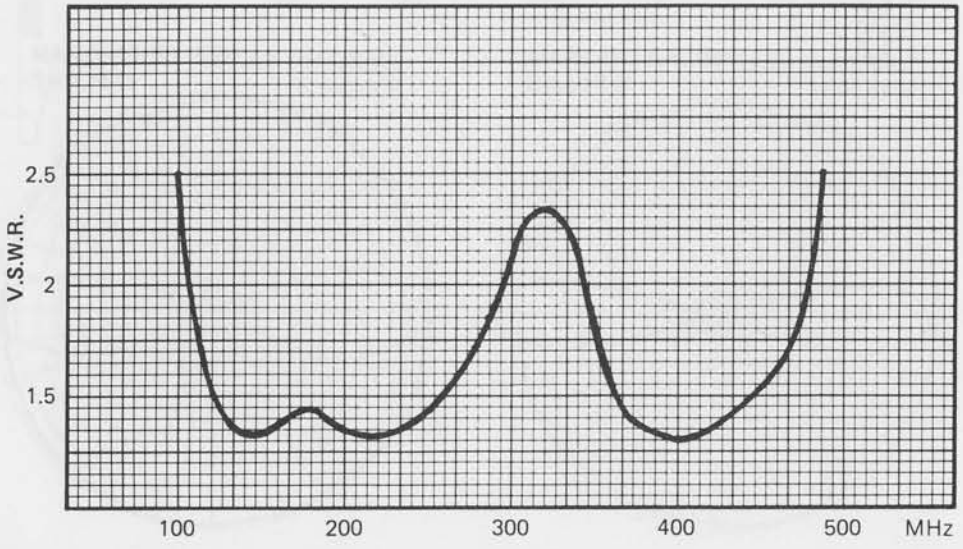


DC1/WB

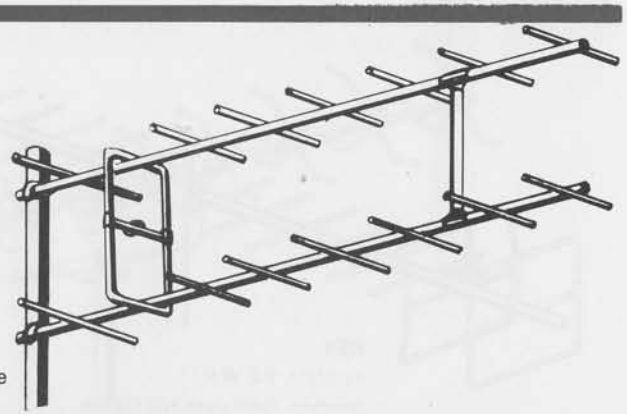


DC1/WB

Frequencies available	: 100–470 MHz
Input impedance	: 50 ohms nominal
Maximum power	: 250 watts
Polarisation	: Vertical
Gain over ½ wave dipole	: Unity
Beamwidth	: H plane omni directional
Connection	: UHF series socket
Mounting bracket	: Clamp to fit masts up to 2" (50.8mm) in diameter
Elements	: 9.5mm x 7mm A1 welded tube
Support	: 25.4 x 3.17mm alloy tubing
Insulator	: Polypropylene
Nuts & Bolts	: Plated mild steel
Weight	: 3 kg approx.
Wind loading at 160 kph	: 1.7 kgf approx.



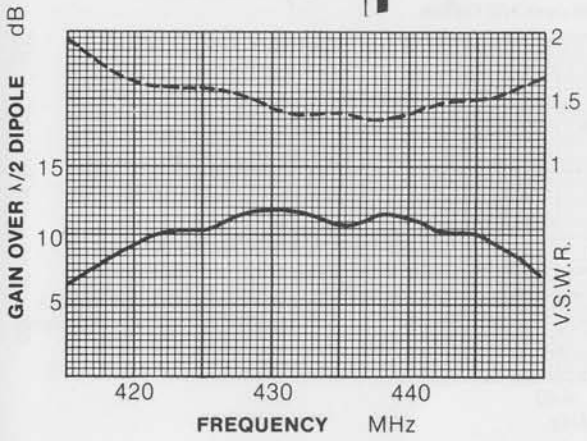
D8/70cm



KEY

-------- V.S.W.R.

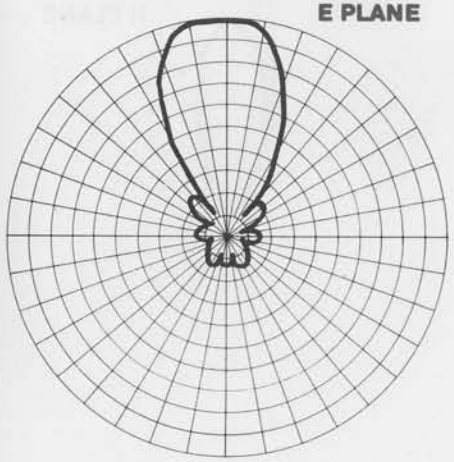
——— Gain over λ/2 Dipole



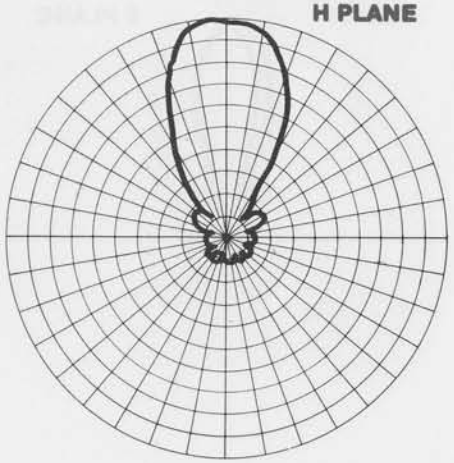
D8/70cm

Gain	: 12.3 dBd
Horizontal Beamwidth	: 45°
Power Rating	: 1 Kw
Weight	: 2.5 Kg
Wind load at 160 Km/h	: 10 kgf
Length	: 1.1 metre
Design Impedance	: 50 ohms

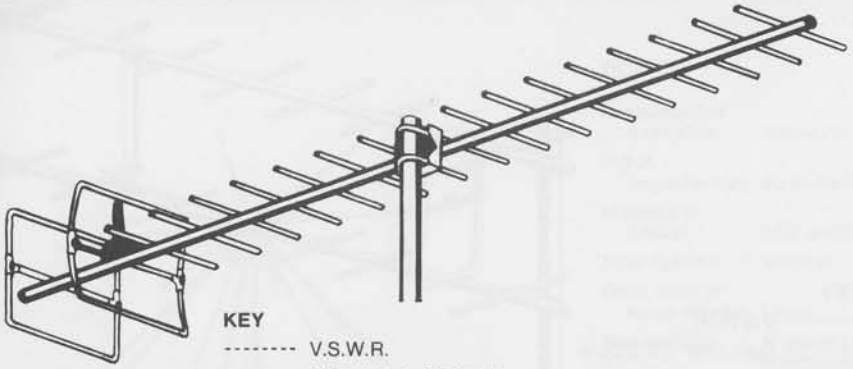
POLAR DIAGRAM E PLANE

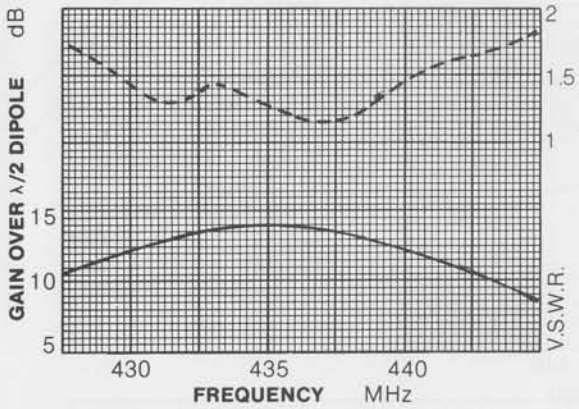


POLAR DIAGRAM H PLANE



PBM18/70cm

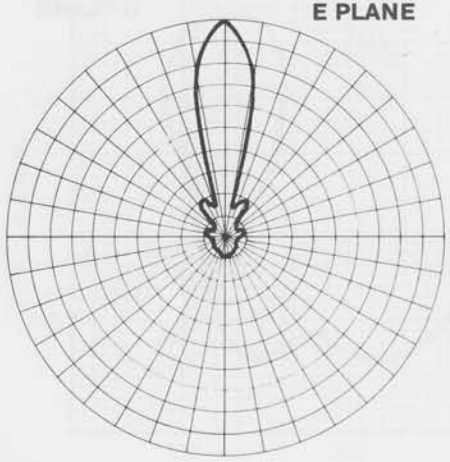




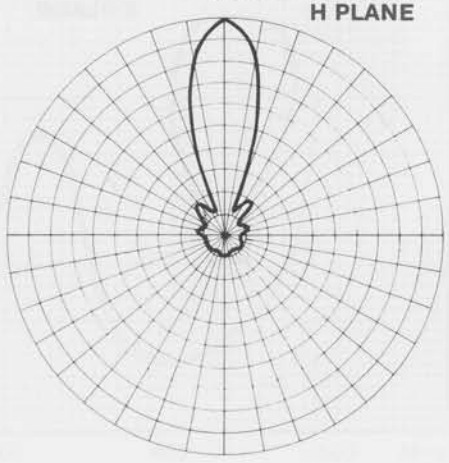
PBM18/70cm

Gain	: 14.0 dBd
Horizontal Beamwidth	: 28°
Power Rating	: 1 Kw Peak
Weight	: 3.4 Kg
Wind load at 160 Km/h	: 18 kgf
Length	: 2.8 metres
Design Impedance	: Suitable for 50 ohms or 75 ohms

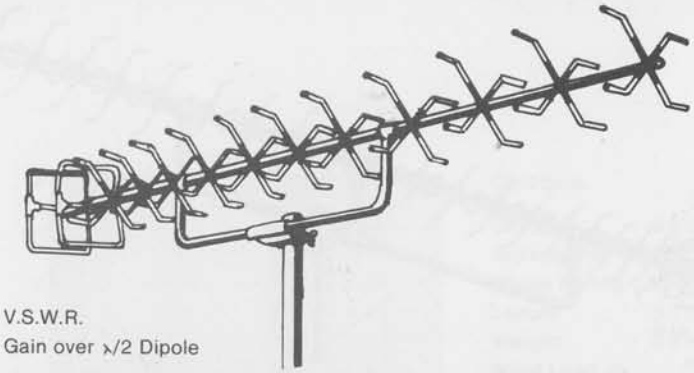
POLAR DIAGRAM E PLANE

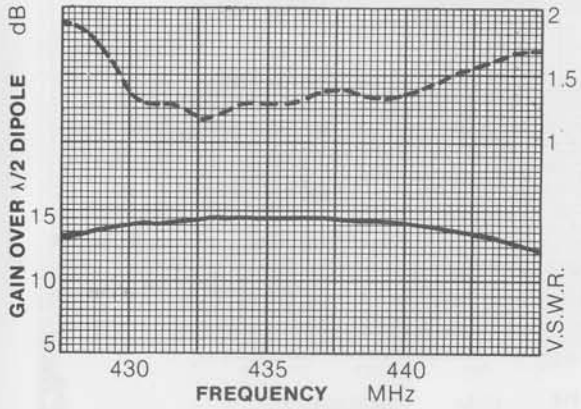


POLAR DIAGRAM H PLANE



MBM48/70cm

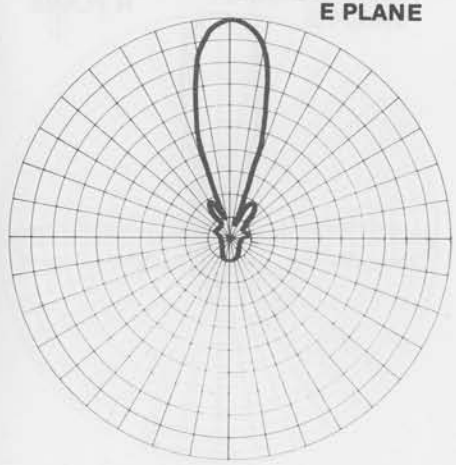




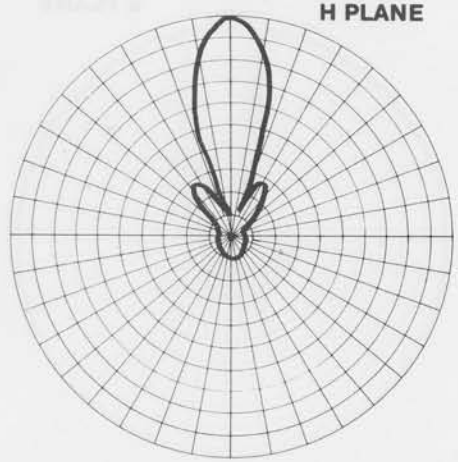
MBM48/70cm

Gain	: 14.5 dBd
Horizontal Beamwidth	: 28°
Power Rating	: 1 Kw Peak
Weight	: 2.7 Kg
Wind Load at 160 Km/h	: 17 kgf
Length	: 1.83 metres
Design Impedance	: 50 ohms

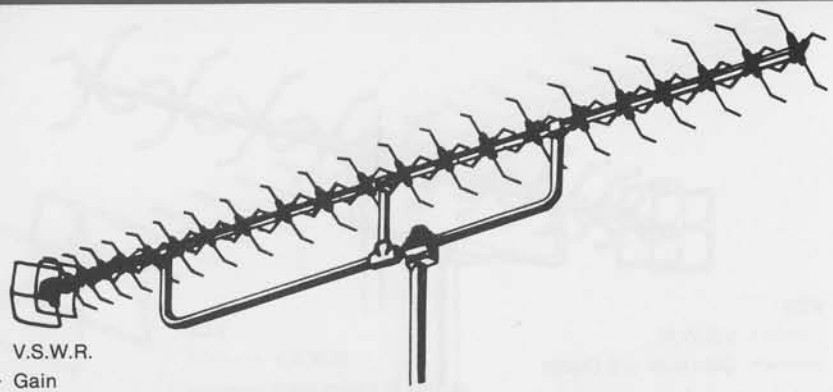
POLAR DIAGRAM E PLANE



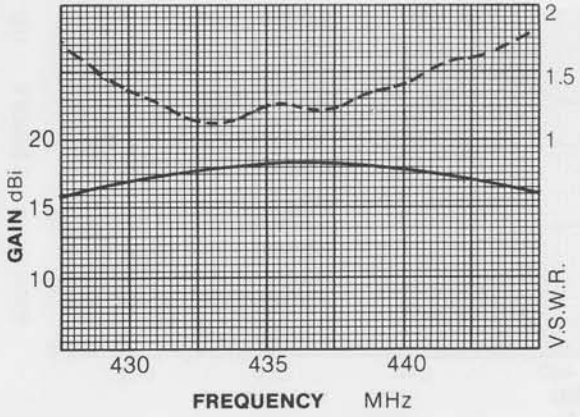
POLAR DIAGRAM H PLANE



MBM88/70cm



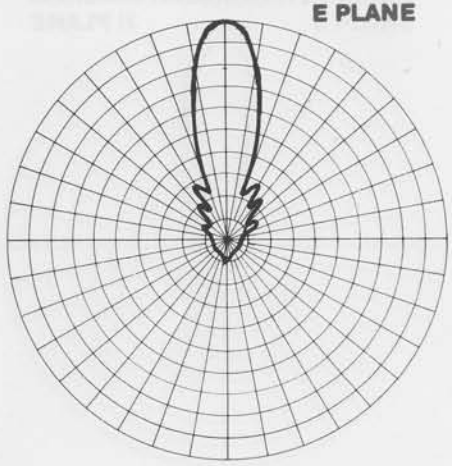
KEY
-------- V.S.W.R.
——— Gain



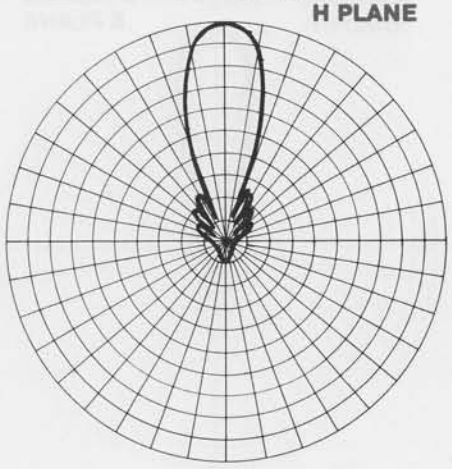
MBM88/70cm

Gain	: 18.5 dBi
Horizontal Beamwidth	: 23°
Power Rating	: 1 Kw Peak
Weight	: 4.7 Kg
Wind Load at 160 Km/h	: 32 kgf
Length	: 3.98 metres
Design Impedance	: 50 ohms

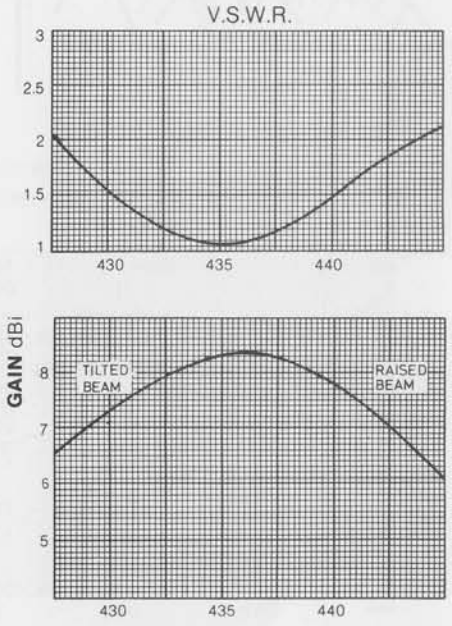
POLAR DIAGRAM E PLANE



POLAR DIAGRAM H PLANE



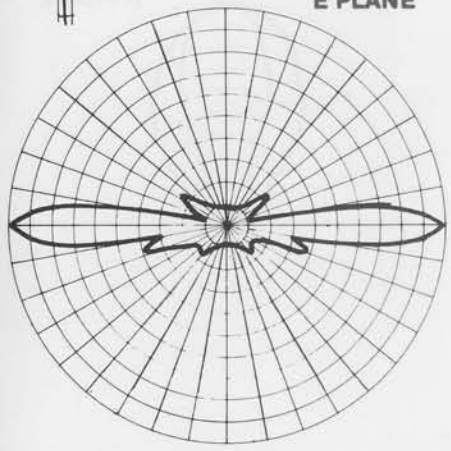
C8/70cm



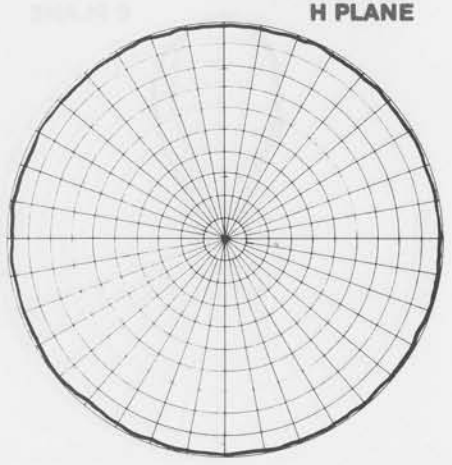
C8/70cm

Gain	: 8.2 dBi
Impedance	: 50 ohms
Power Rating	: 250 Watts
Length	: 3.2 metres
Weight	: 3.5 Kgs
Wind Load at 160 Km/h	: 10.0 kgf
Polarisation	: Vertical
Frequency	: 430–440 MHz
Vertical Beamwidth	: 12°
Termination	: 50 ohm 'N' Type Socket
Shroud	: Glass-fibre
Mounting	: 2 Type JBL29/2 Steel Clamps
V.S.W.R.	: >1.5:1

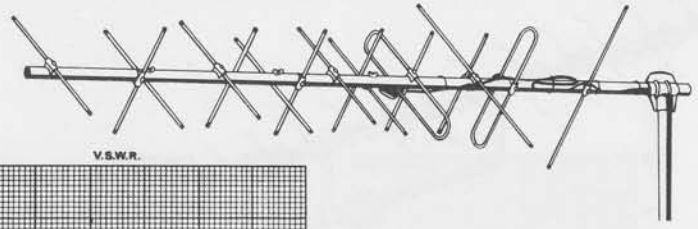
POLAR DIAGRAM E PLANE

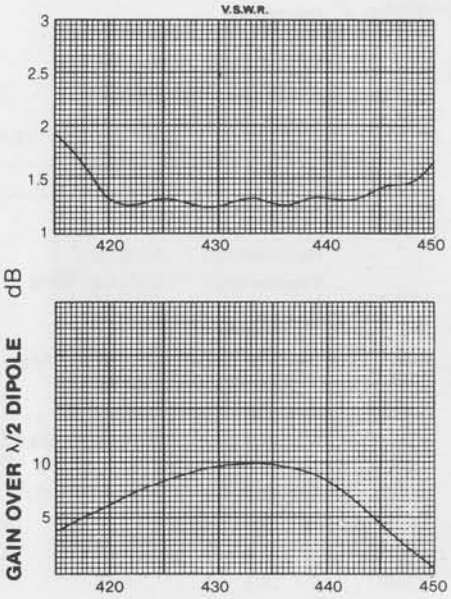


POLAR DIAGRAM H PLANE



8XY/70cm

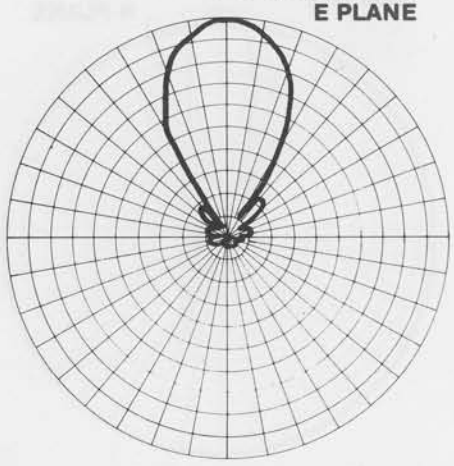




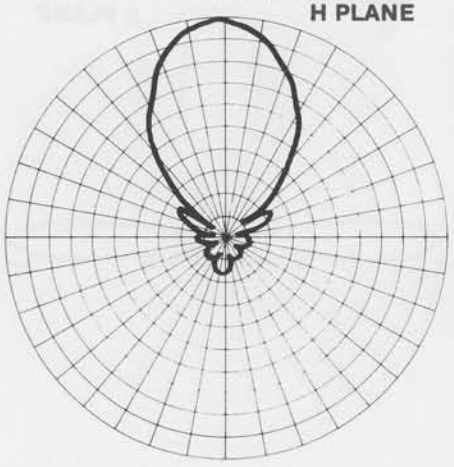
8XY/70cm

Gain	:	10 dBd in each plane
Horizontal Beamwidth	:	47°
Power Rating	:	(1 Kw peak in each plane)
	:	(110 watts peak via harness)
Weight	:	2.9 Kg
Wind Load at 160 Km/h	:	18 kgf
Length	:	1.505 metres
Design Impedance	:	50 ohms

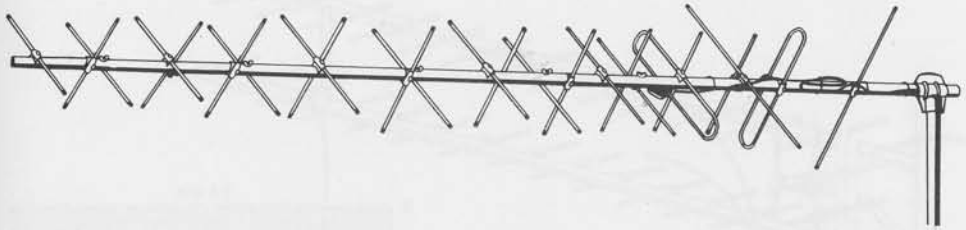
POLAR DIAGRAM E PLANE



POLAR DIAGRAM H PLANE



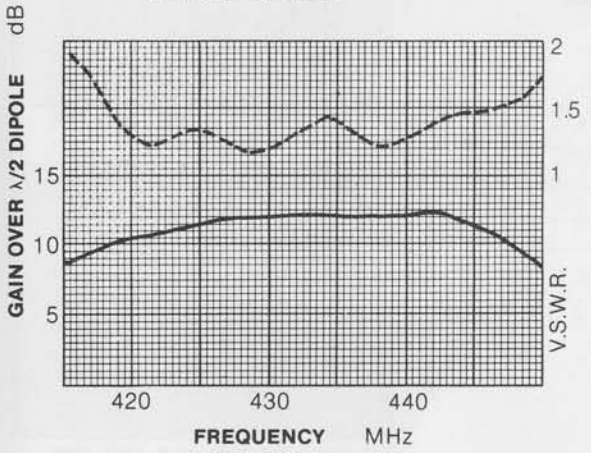
12XY/70cm



KEY

-------- V.S.W.R.

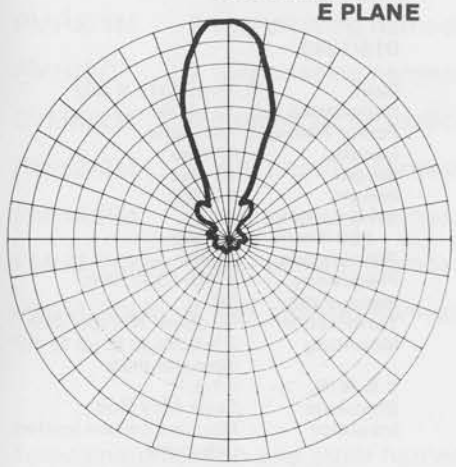
——— Gain over λ/2 Dipole



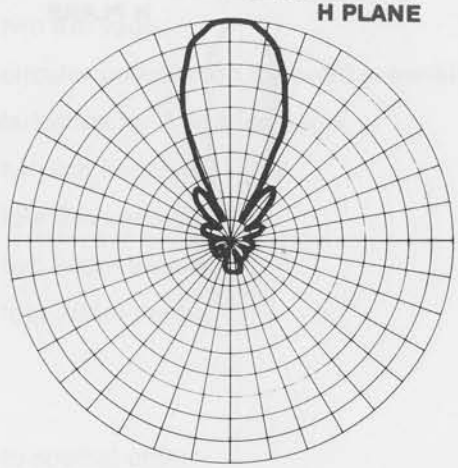
12XY/70cm

Gain	:	12.0 dBd in each plane
Horizontal Beamwidth	:	30°
Power Rating	:	(1 Kw Peak in each plane)
	:	(110 watts peak via harness)
Weight	:	3.6 Kg
Wind load at 160 Km/h	:	21 kgf
Length	:	2.6 metres
Design Impedance	:	50 ohms

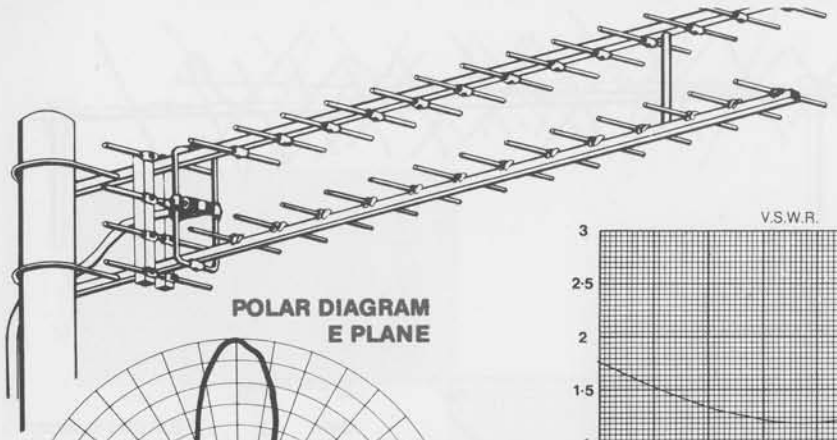
POLAR DIAGRAM E PLANE



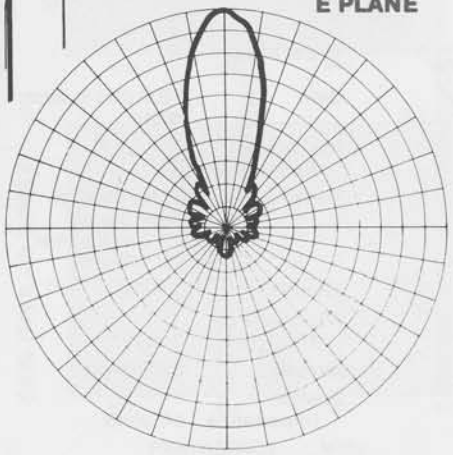
POLAR DIAGRAM H PLANE



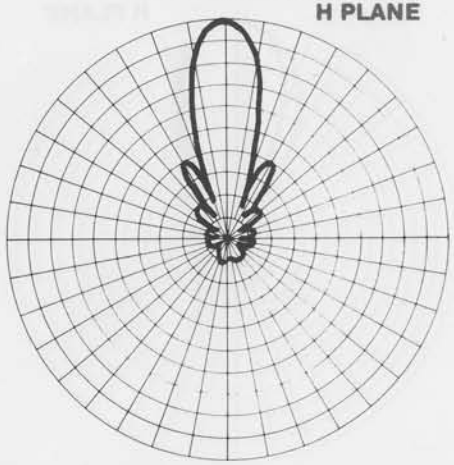
D15/1296

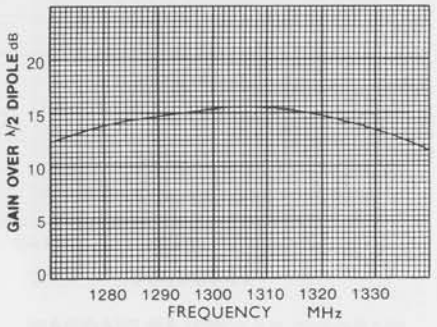


POLAR DIAGRAM
E PLANE



POLAR DIAGRAM
H PLANE





D15/1296

Gain	: .15 dBd (17.2 dBi)
Impedance	: 50 ohms
Power Rating	: 150 watts
Length	: 87 cms
Height	: 15 cms
Weight	: 1.2 Kgs
Wind Load at 160 Km/h	: 6.2 kgf
Polarisation	: Linear
Frequency	: 1280–1330 MHz
Beamwidth	: 28°
Termination	: 50 ohms 'N' Type Jack
Mounting	: 2 V-Bolts to fit up to a 2" diameter mast
V.S.W.R.	: <1.5:1
Elements	: Solid Alloy Rod
Insulator	: Moulded carbon loaded polythene

PHASING HARNESSES

Two-way harness

Four-way harness

PMH2/4M	2 way phasing harness for two 4m yagis
PMH/2C	2 way phasing harness for circular polarisation for two 2m aerials
SVMK/2M	Mounting kit for vertical polarisation for 2 slot-fed yagis
PMH2/2M	2 way phasing harness for two 2m aerials
PMH4/2M	4 way phasing harness for four 2m aerials
PMH2/70cm	2 way phasing harness for two 70cm aerials
PMH4/70cm	4 way phasing harness for four 70cm aerials

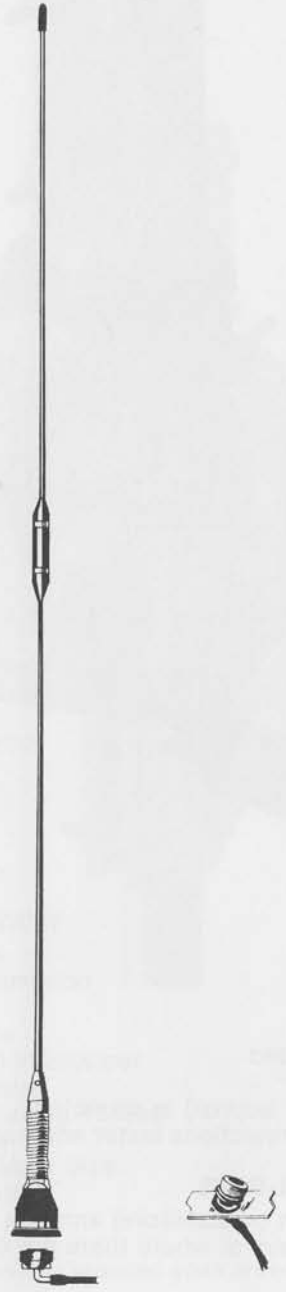
Telecommunication and other harnesses to special order

TAS

TAS

Antenna Type 5/8 λ mobile antenna	
Impedance	50 ohm
Frequency	140-175 MHz
Gain	3 dB
Polarisation	Vertical
V.S.W.R.	<1.3:1
Weight	275 gr
Mounting hole dia	24 mm

U5/H



U5/H

Antenna Type U5/H mobile	
Impedance	50 ohm
Frequency	430–470 MHz
Gain	5 dB
Polarisation	Vertical
V.S.W.R.	<1.3:1
Weight	450 grms
Mounting hole dia.	19 mm

9502/220

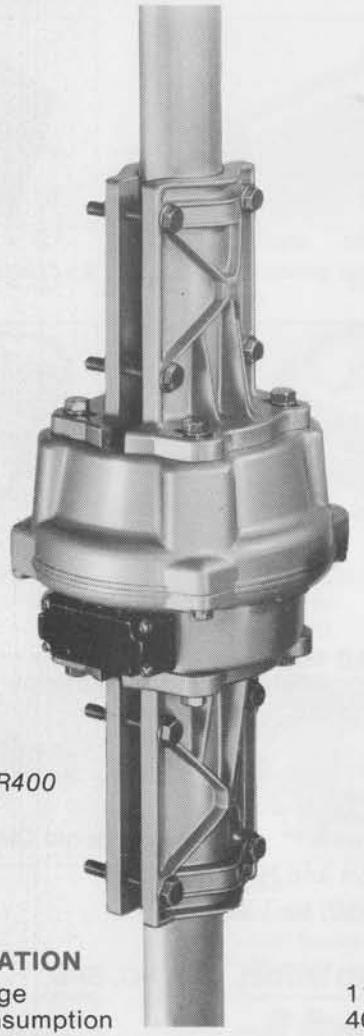
ROTATOR SPECIFICATION

Rotation Speed: 1 R.P.M.
Gear Ratio: 3200:1
Built-in Thrust Bearing
Permanent Lubrication
Preassembled Mounting Hardware included
220 Volts, 50 Cycles A.C.
Bracket for support mast up to 52 mm (2" approx) in diameter
Snap-open terminal door making wire connections faster and easier

ROTOR ALIGNMENT BEARING MODEL 9523

Provides added tough-weather protection by stabilizing antenna when installation requires giant fringe area arrays or where there are consistently heavy prevailing winds.

KR400



KR400

CONTROL UNIT

SPECIFICATION

Input voltage	115/230* Volts AC, 50/60 Hz
Power Consumption	40 VA
Motor	24 Volts, Split Phase 60 Hz
Rotation Time	Approx. 50 seconds
End-of-Rotation Stopper	Mechanical
Rotating Torque	400 Kg-cm (340 in-lbs)
Stationary Braking Torque	1500 Kg-cm (1300 in-lbs)
Vertical Load	200 Kg (440 lbs)
Permissible Mast Size	38–63 mm diameter (1½–2½")
Cable to be used	6 conductor cable
Weight	4.5 Kg (9.9 lbs)

**State which voltage required when ordering*

MASTS

Aluminium	A4	4′ 6″ x 1½″ straight	Steel	S6	6′ x 1″ straight
	A5	5′ x 1″ straight		S10	10′ x 1½″ straight
	A9	9′ x 1½″ straight		S12	12′ x 2″ straight
	A10	10′ x 2″ straight		S15	15′ x 2″ straight
	A12	12′ x 2″ straight			
	A14	14′ x 2″ straight			

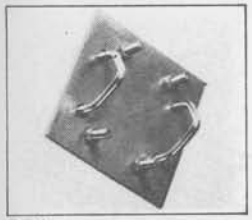
PORTABLE MAST
Suitable for amateur radio or television masts for caravans etc.

Height 16′
Weight 5 lbs (2.26 kg)
Supplied with 1″ x 1″ Mast to Boom Clamp
Three Guys and Pegs
Rotates 360° by Tiller Arm

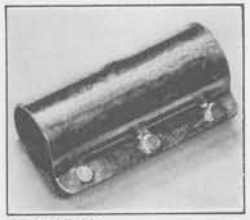
STANDARD MODEL CAT. NO. SPM

4′ extension for double arrays CAT No. PME

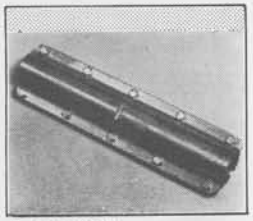
ACCESSORIES



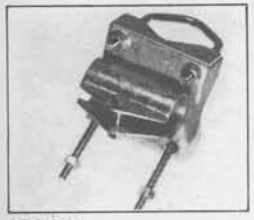
CP1
Crossover Plate 2″ x 2″.



JBL59/6
6″ Jointing sleeve for 2″ mast.

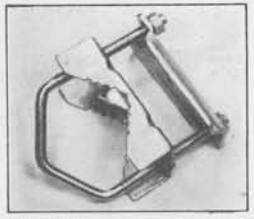


JBL59/15
15″ Jointing Sleeve for 2″ Masts only.

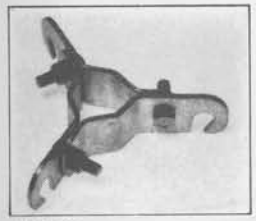


JBL29
Universal Clamp 1¼″ boom to 1″–2″ mast.

JBL30
Universal Clamp 1″ boom to 1″–2″ mast.



JBL53
Universal Clamp 1″ boom to 1″–2″ mast.

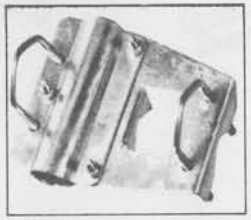


JBL58
Shock guy wire clamp non-rotating.

JBL63
Universal Clamp 1″–1¼″ boom to 1″–2″ mast.

JBL64
Diecast Clamp 1″ boom to 1″ mast.

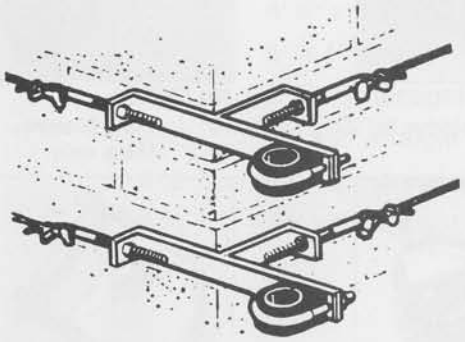
JBL65
Diecast Clamp 1″ boom 1″–2″ mast.



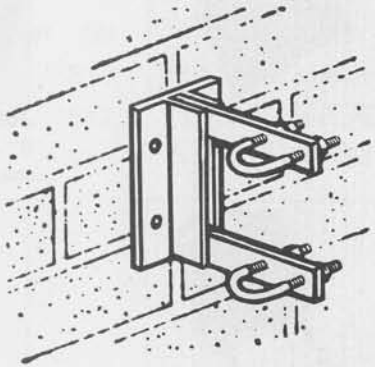
JBL73
Heavy duty Universal Clamp 1¼″ boom to 1″–2″ mast.

MBP
Mastbase plate for 2″ diameter mast.

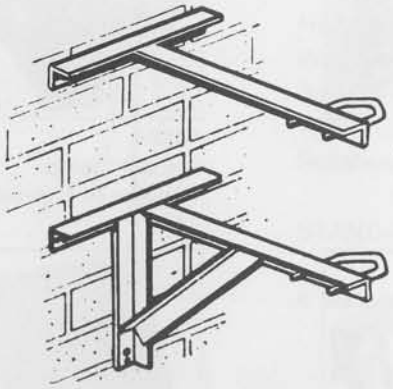
MOUNTING BRACKETS



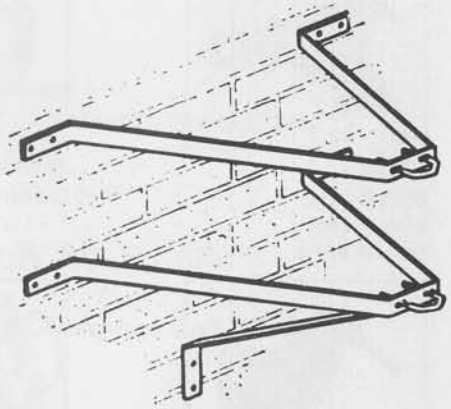
DL Double Lashing Kit



W6 6″ Wall Bracket



W21 21″ Stand-off Bracket



W24HD 24″ Stand-off Bracket
(Heavy Duty)

JAYBEAM LIMITED
A MEMBER OF THE JONES STROUD GROUP
NORTHAMPTON NN3 1QQ TEL (0604) 46611