

# S.M4

## Four element stacked dipole array

### DESCRIPTION

- The S.M4 are an array of four dipoles mounted on an aluminium mast.
- Each folded dipole balun assembly and harness junction is completely encapsulated in epoxy resin, totally preventing moisture ingress.
- The balun assembly has been tested to BS5490:IP67.
- The S.M4 offset array is used extensively in UHF and VHF Trunking systems.
- The dipoles can be easily oriented on site or before shipment to adjust between omnidirectional and directional patterns, and beam tilt is easily achieved via the parallel feed.
- The VHF antenna disassembles to reduce shipping costs, and the boom can be supplied in two parts if requested.



ELECTRIAL	
FREQUENCY RANGE	117 - 470 MHz
INPUT IMPEDANCE	50Ω
BANDWIDTH	± 5.5% of centre frequency
SWR	<1.5:1
FRONT TO BACK RATIO	7 dB
MAXIMUM INPUT POWER	250 Watts
POLARISATION	Vertical
FORWARD GAIN	Omni 5.7 dBd Offset 8.7 dBd
3 dB BEAMWIDTH	E Plane 21° H Plane 180° (Offset)
MECHANICAL	
STANDARD CONNECTION	3 m (118.11 in.) Length of RG 213 c/w 'N' type socket
ELEMENTS	12.7 mm dia. x 1.6 mm wall aluminium alloy grade 6063T6
SUPPORT BOOM UHF	UHF 38.1 mm dia. x 3.2 mm wall aluminium alloy grade 6082T6
SUPPORT BOOM VHF	VHF 63.5 mm dia. x 6.3 mm wall aluminium alloy grade 6082T6
FASTENERS	Stainless steel grade A2-70
DIPOLE CLAMPS	Cast aluminium alloy
DIPOLE ADJUSTMENT	M8 stainless steel screws
SADDLE CLAMPS	Diecast zinc alloy
INSULATOR	Epoxy resin encapsulant
LIGHTNING PROTECTION	Direct grounded VHF lightning finial
MOUNTING BRACKETS UHF	UHF fit inside scaffold pole
MOUNTING BRACKETS VHF	VHF to suit structure
TYPICAL WEIGHT (UHF)	UHF 6 kg (13.23 lb.)
TYPICAL WEIGHT (VHF)	VHF 26 kg (57.32 lb.)
TYPICAL LENGTH (UHF)	UHF 2.5 m (98.43 in.)
TYPICAL LENGTH (VHF)	VHF 6 m (236.22 in.)
TYPICAL WIND LOADING @ 162 km/h (UHF)	UHF 180N
TYPICAL WIND LOADING @ 162 km/h (VHF)	VHF 620N

### ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
S.M4-127-SB	117 - 137 MHz	123003120
S.M4-165-SB	155 - 175 MHz	123003121
S.M4-184-SB	176 - 192 MHz	123003122
S.M4-200-SB	192 - 208 MHz	123003123
S.M4-405	380 - 430 MHz	123003124
S.M4-445	420 - 470 MHz	123003125

SB = SPLIT BOOM

### MOUNTING ACCESSORIES TO BE ORDERED SEPARATELY

TYPE	PRODUCT NO.
UA66-22	123001005
2140.01.00.00	123001012
2141.01.00.00	123001013

MOUNTING ACCESSORIES



UA66-22

Very strong square cast alloy clamp, fits up to 50 mm diameter tubes as either a cross-over or parallel clamp. Supplied with two stainless steel 'U' bolts.



2140.01.00.00

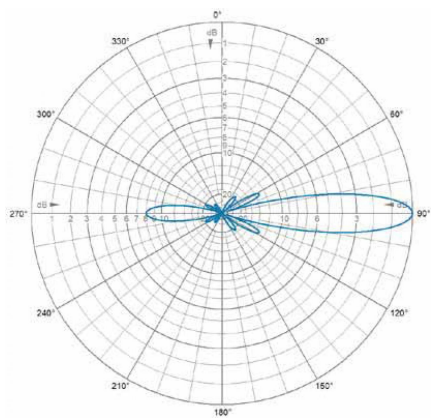
Parallel clamps, in galvanised steel with stainless steel fixings, fits from 25-60 mm diameter tubes.



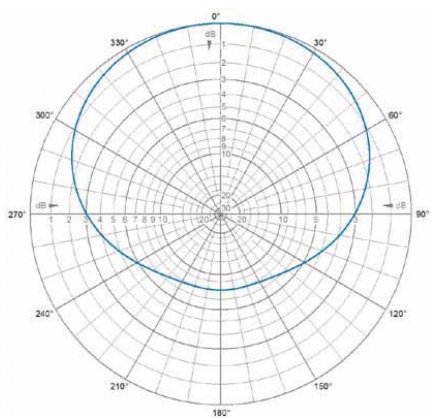
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Parallel clamps, in galvanised steel with stainless steel fixings, fits from 38-60 mm diameter tubes.

TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



PROCOM A/S reserve the right to amend specifications without prior notice.  
28/11/14