

Omnidirectional - Centre Fed Dipole Antennas

Click product to view datasheet

Code	Description	Frequency band (MHz)							Gain (dBd)	Page
		27	68	100	200	300	400	500		
S.1	Centre-fed folded dipole antenna								2	85
S.1H	Heavy duty centre-fed folded dipole								2	86
410 Series	Glassfibre centre-fed dipole antenna								2	87

See also-

[Glassfibre end-fed / colinear antennas](#) Page 63

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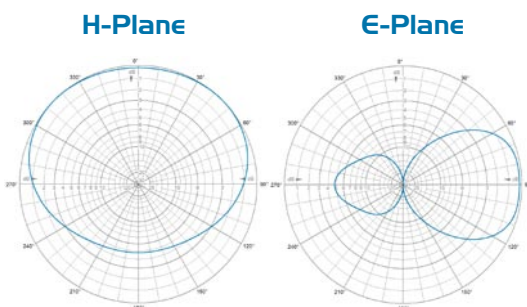
The S.1 series are of a rugged and reliable construction. The one piece folded dipole incorporates a d.c. short to minimise static interference. The balun assembly is completely encapsulated in epoxy resin, totally preventing moisture ingress, and has been tested to BS5490:IP67. These antennas can be arranged in a variety of arrays in combination with MH power splitters to produce a wide range of radiation patterns. They are supplied as standard with 3m. of RG213 cable terminated with an 'N' type socket. Heavy duty and stainless steel options are available.

Electrical & mechanical specifications



Frequency range	68-700 MHz
Input impedance	50Ω
Bandwidth	± 10% of centre frequency
VSWR	<1.5:1
Front to back ratio	4 dB
Maximum input power	150 Watts
Polarisation	Vertical
Forward gain	2 dBd
3dB Beamwidth	E Plane 85¼ H Plane 200¼ (Gain & RPE assumes mount on conductive pole)
Standard connection	3m Length of RG 213 c/w 'N' type socket.
Elements	VHF 19.0mm dia.x 1.6mm wall aluminium alloy grade 6063T6 UHF 12.7mm dia. x 1.6mm wall aluminium alloy grade 6063T6
Support boom	31.7mm dia. x 2.6 mm wall aluminium alloy grade 6082T6
Fasteners	Stainless steel grade A2-70
Saddle clamps	Diecast zinc alloy
Insulator	Epoxy resin encapsulant
Lightning protection	Direct grounded
Mounting brackets	COP Series (not supplied)
Typical weight	VHF 2.8 kg UHF 1.9 kg
Typical length	VHF 1.33 m UHF 1 m
Typical wind loading @ 45m/s	VHF 148 N UHF 54 N

Free space radiation patterns



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Mounting accessories



271 Series
Cast aluminium cross clamp 30-60mm



COP54
Galvanised steel cross clamp 32/50mm



UA Series
Cast aluminium cross clamp 25-115mm

Standard stock models

Stock code	Frequency
S.I-78	70-86MHz
S.I-H27	117-137MHz
S.I-H65	155-175MHz
S.I-H84	176-192MHz
S.I-200	192-208MHz
S.I-405	380-430MHz
S.I-380-470	380-470MHz
S.I-445	420-470MHz



This product is RoHS compliant

The S.1H Series are designed for use in extreme environments, or for multi channel applications. The one piece folded dipole assembly incorporates a d.c. short and is completely encapsulated in epoxy resin, totally preventing moisture ingress. A sleeve is welded to the dipole to increase strength, and improve VSWR. These antennas can be arranged in a variety of arrays to produce a wide range of radiation patterns. They are supplied as standard with 3m of RG213 cable terminated with an 'N' type socket.

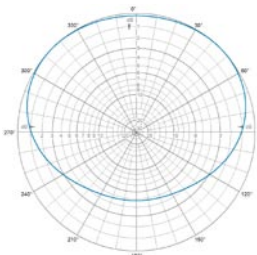
Electrical & mechanical specifications



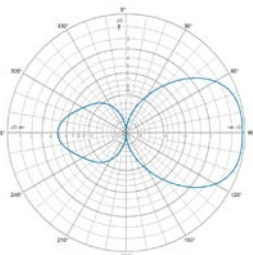
Frequency range	68-176 MHz
Input impedance	50Ω
Bandwidth	± 10% of centre frequency
VSWR	<1.5:1
Front to back ratio	4 dB
Maximum input power	500 Watts
Polarisation	Vertical
Forward gain	2 dBd
3dB Beamwidth	E Plane 85¼ H Plane 200¼ (Gain & RPE assumes mount on conductive pole)
Standard connection	3m Length of RG 213 c/w 'N' type socket.
Elements	19.0mm dia.x 1.6mm wall aluminium alloy grade 6063T6
Dipole sleeve (welded)	31.7mm dia. x 2.6mm wall aluminium alloy grade 6063T6
Support boom	48.4mm dia. x 4.5 mm wall aluminium alloy grade 6082T6
Fasteners	Stainless steel grade A2-70
Saddle clamps	Machined aluminium alloy
Insulator	Epoxy resin encapsulant
Lightning protection	Direct grounded
Mounting brackets	271 Series (not supplied)
Typical weight	5.3 kg
Typical length	1.5 m
Typical wind loading @ 45m/s	202 N

Free space radiation patterns

H-Plane



E-Plane



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Mounting accessories



271 Series
Cast aluminium cross clamp 30-60mm



UA Series
Cast aluminium cross clamp 25-115mm

Standard stock models

Stock code	Frequency
S.IH-78	68-88MHz
S.IH-98	88-108MHz
S.IH-I27	117-137MHz
S.IH-I65	155-175MHz



This product is RoHS compliant

The 410 Series are full half wave dipoles, with the feed point encapsulated in epoxy resin. The radiators are manufactured from copper wire encased in glass fibre. Two part radiators are available below 50MHz for ease of transportation. The radiators are adjustable on site to produce best performance. The 410 is supplied with an aluminium boom, and lends itself to producing multi-dipole arrays for various radiation patterns. Both mast and wall brackets are available for the 410.

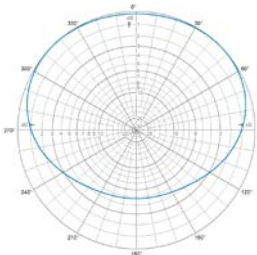
Electrical & mechanical specifications



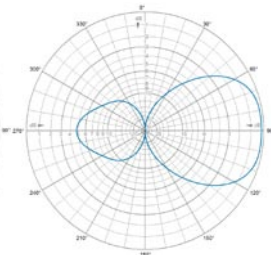
Frequency range	26-470 MHz	
Input impedance	50Ω	
Bandwidth	± 4% of centre frequency	
VSWR	<2.0:1	
Front to back ratio	4 dB	
Maximum input power	250 Watts	
Polarisation	Vertical	
Forward gain	2 dBd	
3dB Beamwidth	E Plane 80¼ H Plane 200¼	
	(Gain & RPE assumes mount on conductive pole)	
Connection	410.0*.03.00 UHF socket 410.0*.05.00 N socket	
Radiators	Extruded glassfibre rod encased copper wire	
	410.05.0*.00 8mm / 5mm (two part radiator)	
	410.07.0*.00 8mm	
Support boom	25 mm dia. x 2 mm wall square aluminium alloy grade 6082T6	
Fasteners	Stainless steel grade A2-70	
Centre mounting	Diecast aluminium alloy LM25	
Insulator	Epoxy resin encapsulant	
Typical weight	27 MHz 2 kg	160 MHz 1.2 kg
Typical length	27 MHz 4.8 m	160 MHz 0.9 m
Typical wind loading @ 45m/s	27 MHz 128 N	160 MHz 26 N

Free space radiation patterns

H-Plane



E-Plane



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Mounting accessories



2184
Extruded Aluminium
To suit up to 60mm tube



291.0200
Aluminium wall mount
bracket

Standard stock models

Stock code | Frequency

Manufactured to requirements



This product is RoHS compliant