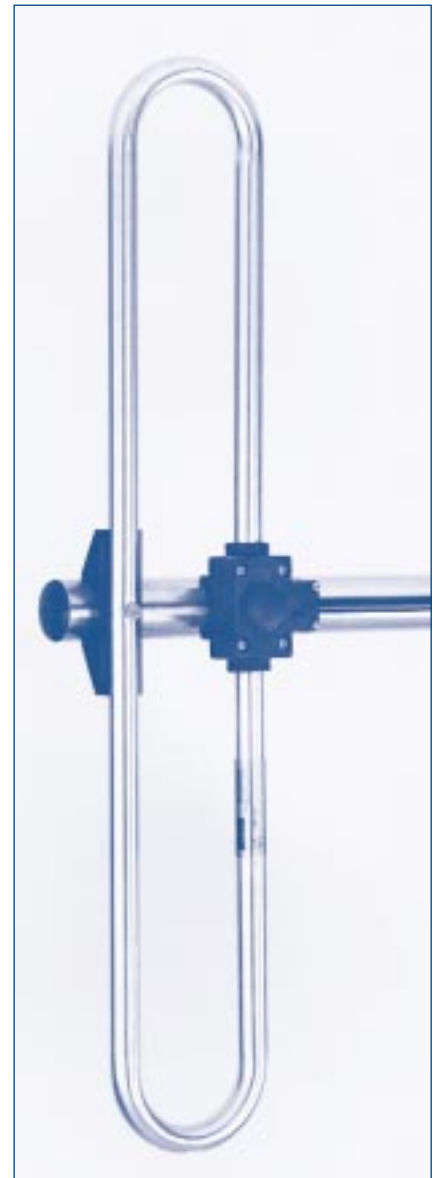


Wide Bandwidth
Fully Sealed Integral Balun
Mechanically Robust
Gain Assemblies Available
Easy Mounting

Type SDH is a robust folded dipole of exceptional bandwidth suitable for mounting on the side of a mast or tower. Electrical connections are fully sealed. The integral balun minimises interaction between antennas on the same mast and prevents distortion of the polar diagram by feeder radiation. Two or four SDH dipoles can be stacked vertically and fed in phase to give all-round gain of 3dB or 6dB respectively. (Refer to Base Station Antennas Application Notes). Due to the wide bandwidth characteristic of this antenna it is possible to use one antenna for both transmitting and receiving without introducing any loss. The received signal response of type SDH is flat to more than 20% of the centre frequency.



ELECTRICAL SPECIFICATIONS	
Frequency Range:	58-520 MHz
Bandwidth:	Refer to Model Table
Gain (Rel. 1/2 dipole):	0dBd
VSWR:	1.5:1
Polarisation:	Vertical
Power Rating:	58-350 MHz: 400 watts; 350-520 MHz: 250 watts
E-Plane Beamwidth (-3dB):	±40° (typical)
H-Plane Beamwidth (-3dB):	Refer to Base Station Antennas Application Notes.
Impedance:	50 ohms
Lightning Protection:	DC ground
Feeder Tail:	58-350 MHz 3m URM67 coaxial cable; 350-520 MHz 1m URM67 coaxial cable
Termination:	Type N male
OTHER TERMINATIONS AVAILABLE	

MECHANICAL SPECIFICATIONS	
Dipole Length:	Refer to Model table
Boom Length:	1100mm
Boom Diameter:	38mm O.D.
Dipole Diameter:	19mm O.D.
Weight:	Refer to Model Table
Rated Wind Velocity:	193km/h
Horizontal Thrust at Rated Wind:	Refer to Model Table
Mounting:	Order separately. Mounts to a 29-51mm O.D. pipe using cross-over clamp 9367243 or heavy duty cross-over clamp 9637875. For frequencies below 140 MHz heavy duty clamp 9637875 is recommended. Mounts to a pipe with 76mm O.D. using heavy duty cross-over clamp 9638068.

MATERIALS

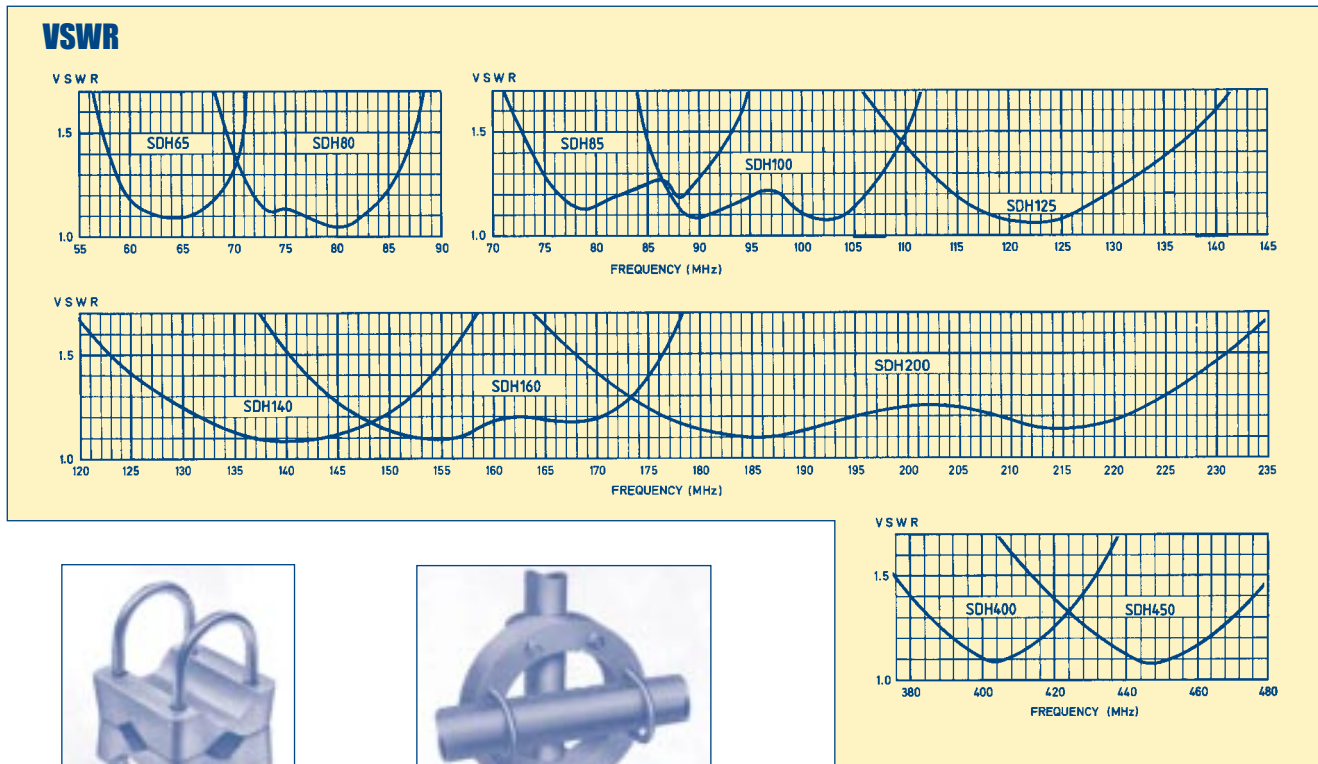
Boom: 38 mm O.D. 10swg. Polished seamless extruded aluminium
Dipole: 19 mm O.D. 16swg. Polished seamless extruded aluminium
Dipole Box: UV stabilised injection moulded polypropylene
Fasteners: Stainless steel nuts & bolts
Clamps: Aluminium casting, stainless steel nuts and U-bolts

COMMONLY USED VERSIONS (OTHER FREQUENCY BANDS AVAILABLE)

FREQUENCY BAND	MODEL	DIPOLE LENGTH		BOOM LENGTH	WEIGHT (less boom*)		WIND LOADING at 193km/h (120mph) antenna only		MINIMUM SPACING from 2in. (51mm) mast		DISTANCE between centres of stacked dipoles	
		mm	(in.)		kg	(lb)	kg	(lb)	mm	(in.)	m	(ft)
58-71MHz	SDH 65	2160	(85)	1.1m	2.7	(6)	15.8	(35)	864	(34)	3.4	(11)
69-85MHz	SDH 80	1780	(70)	1.1m	2.5	(5.5)	12.4	(27.5)	710	(28)	2.8	(9)
74-91MHz	SDH 85	1651	(65)	1.1m	2.4	(5.3)	12	(26)	660	(26)	2.6	(8.5)
80-100MHz	SDH 90	1530	(60)	1.1m	2.3	(5)	11.5	(25)	630	(25)	2.5	(8.2)
88-110MHz	SDH 100	1420	(56)	1.1m	2.2	(5)	10.8	(24)	558	(22)	2.4	(8)
109-138MHz	SDH 125	1120	(44)	1.1m	2	(4.5)	8.1	(18)	457	(18)	1.8	(6)
124-156MHz	SDH 140	965	(38)	1.1m	1.9	(4.25)	7.7	(17)	402	(16)	1.7	(5.6)
140-176MHz	SDH 160	838	(33)	1.1m	1.8	(4)	6.3	(14)	365	(14)	1.4	(4.6)
160-200MHz	SDH 180	760	(30)	1.1m	1.8	(4)	5.1	(11)	330	(13)	1.25	(4.1)
176-224MHz	SDH 200	675	(27)	1.1m	1.7	(3.75)	5.1	(11.2)	300	(12)	1.1	(3.6)
205-256MHz	SDH 230	570	(22)	1.1m	1.6	(3.5)	4.9	(11)	273	(11)	.95	(3.1)
242-302MHz	SDH 270	475	(19)	1.1m	1.0	(2.2)	4.4	(10)	248	(10)	0.8	(2.6)
288-359MHz	SDH 320	395	(16)	1.1m	0.5	(1.1)	4.0	(9)	225	(9)	0.7	(2.3)
345-390MHz	SDH 365	372	(15)	.45m	0.4	(0.88)	3.7	(8)	180	(7)	0.6	(2)
380-430MHz	SDH 400	337	(13.3)	.45m	0.37	(0.81)	3.5	(7.8)	152	(6)	0.54	(1.8)
420-480MHz	SDH 450	305	(12)	.45m	0.33	(0.73)	3.2	(7)	133	(5.25)	0.49	(1.6)
460-520MHz	SDH 490	275	(11)	.45m	0.3	(0.66)	3.1	(7)	118	(5)	0.45	(1.5)

* Boom: 0.45kg per m length (0.3lb per ft.)

N.B. To order antennas with 2 metre boom lengths specify type no/2MB e.g. SDH160/2MB



Pt. No. 9637423
Cross-over/Parallel Clamp
for connecting booms of
29-51mm diameter to
29-51 O.D. tubular masts



Pt. No. 9637875
Heavy Duty Cross-over Clamp
for connecting booms of 29-51mm at
right angles to 29-51 O.D. tubular masts.
For connecting up to 76mm O.D. tubular
masts specify Pt. No. 9638068