UHF Side Mounted Dipole Antennas

360-600 MHz

SMD4 Series

The SMD4 series are a range of unity gain side mounted dipoles which can be used as a single antenna for short range applications or, if desired, phased together to provide high gain array coverage characteristics.

The SMD4-67 is of all welded aluminium construction. The feed point is protected by an ABS cap, with the internal PTFE based cable construction providing excellent intermodulation performance (-150dBc).

The stainless steel SMD41-67 is electrically identical to its aluminium counterpart and is recommended for corrosive environments.

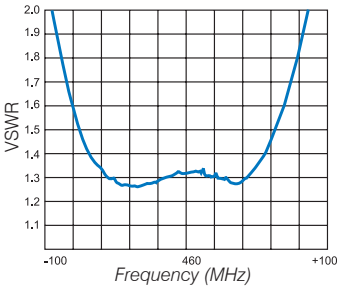
The SMD4 Series antennas are supplied with a boom for ¼ wave antenna to mast spacing.

Features:

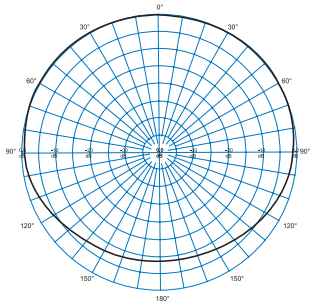
- Versatile - Antennas can be phased and manipulated to achieve a variety of horizontal radiation patterns and varying gains. An extensive range of phasing harnesses available.
- Lightweight - Easily mounted and installed with single clamps
- All welded, full folded dipole construction
- Varying boom lengths available to suit coverage requirements
- All welded, full folded dipole construction
- A range of suitable phasing harnesses available
- DC grounded for lightning protection and dissipation of static noise

NB: *The SMD4-99 is a specific frequency version of the SMD4. This antenna is designed only for use as a single dipole, not as a component of a phased dipole array as the antenna is custom made to user specified frequencies and is not specifically matched to a phasing harness. It can be ordered with a specified centre frequency anywhere in the band from 360 to 600 MHz with an operating bandwidth of approximately 20% of centre frequency.*

Typical VSWR Response (SMD4-67)



SMD4-67 - H Plane



Electrical

Model Number	SMD4-67	SMD41-67	SMD4-99	SMD41-99
Nominal Gain *dBi (dBd)*	Nominally 2 (Unity) but varies with mounting arrangements			
Frequency *MHz*	400 - 520		360 - 600	
Tuned Bandwidth	Entire band		20.0%	
VSWR (Return Loss)	<1.5 :1 (14dB)			
Nominal Impedance Ω	50			
Vertical Beamwidth°	Typically 70 at ¼ λ antenna - mast spacing			
Horizontal Beamwidth°	Typically 220 at ¼ λ antenna - mast spacing			
Input Power *W*	500			
Passive IM 3rd order *dBc*	-150	-140	-150	-140

Mechanical

Model Number		SMD4-67	SMD41-67	SMD4-99	SMD41-99
Construction		All welded aluminium with alodined finish	Stainless steel	All welded aluminium with alodined finish	Stainless steel
Length *m*		0.4	0.4	0.5	0.5
Weight *kg*		0.3	0.6	0.3	0.6
Termination		N female with short 9142 cable tail			
Mounting Area		100mm x 25mm diam. alodined aluminium			
Suggested Clamps		1 x UNV			
Projected Area *cm²*	No ice	200		213	
	With ice	423		480	
Wind Load (Thrust) @ 160km/h *N*		24		25	
Wind Gust Rating *km/h*		>240			
Torque @160 km/h *Nm*		3		5	