

SMD Series



Side Mounted Dipole Antenna

400-520MHz & 746-870 MHz

The SMD series of side mount dipole antennas are an extremely broad bandwidth antenna recommended for local area coverage or short haul RF link applications.

The SMD series are all welded aluminum construction. The feed point is protected by an ABS cap, with the internal PTFE based cable construction providing excellent intermodulation performance (-150dBc).

The antenna is internally DC grounded for lightning protection and the reduction of precipitation static noise.

- Provides either directional or largely omnidirectional radiation pattern
- All welded aluminum construction with RoHS compliant corrosion protection
- Supplied complete with UNV clamp for mounting
- Full band coverage from a single antenna for local coverage or control station applications
- **Industry leading PIM ratings providing low IM and low noise characteristics for optimum performance**



SMD7-83-U

Electrical Specifications

Model Number	SMD7-83-U	SMD4-67-U
Nominal Gain <i>dBd</i>	Unity (but varies with mounting arrangements)	
Frequency <i>MHz</i>	746 - 870	400-520
Tuned Bandwidth <i>MHz</i>	Entire Band	
VSWR (Return Loss)	< 1.5:1 (14dB)	
Nominal Impedance Ω	50	
Vertical Beamwidth	Typically 86° at 1/4 λ antenna - mast spacing	Typically 70° at 1/4 λ antenna - mast spacing
Horizontal Beamwidth	Typically 190° at 1/4 λ antenna - mast spacing	Typically 220° at 1/4 λ antenna - mast spacing
Input Power (<i>Watts</i>)	500	
Passive IM 3rd order (<i>2x20W</i>) <i>dBc</i>	< -150	

Mechanical Specifications

Model Number	SMD7-83-U	SMD4-67-U
Construction & Configuration	All welded aluminum with RoHS compliant corrosion protection	
Dimensions <i>inches</i>	6.5 high by 14.5 long (incl. boom)	11.5 high by 14.5 long (incl. boom)
Weight <i>lbs</i>	0.73	
Shipping Weight <i>lbs</i>	1.68	
Shipping Dimensions <i>inches</i>	H	8
	W	8
	L	16
Termination	N Female with short 9142 cable tail	
Mounting Area	4" x 1" diam. aluminum	
Projected Area <i>ft²</i>	No ice	0.17
	With ice	0.36
Wind Load (Thrust) @ 100mph <i>lbs</i>	4.3	5.4
Wind Gust Rating <i>mph</i>	>150	>150
Torque @100mph <i>ft-lbs</i>	1.9	3

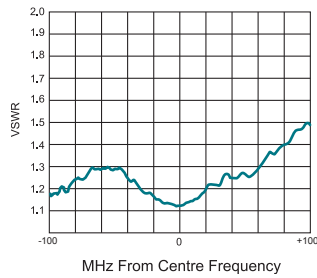
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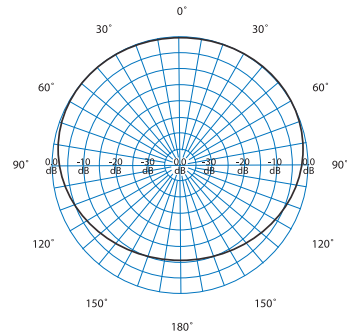
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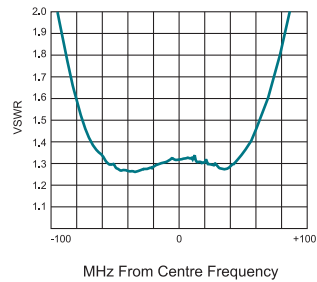
Typical VSWR response (SMD7-83)



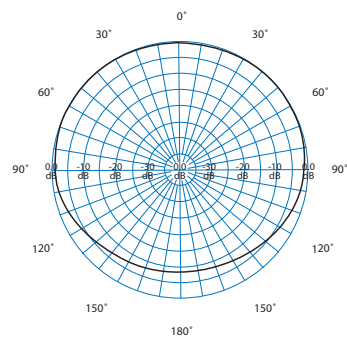
SMD7-83 - H Plane at 1/4 wave antenna to mast spacing



Typical VSWR response (SMD4-67)



SMD4-67 - H Plane at 1/4 wave antenna to mast spacing



Antenna Clamp - Supplied with these antennas



UNV CLAMP

Lightweight right angle galvanised clamp.

Clamp	UNV
Weight per clamp <i>lbs</i>	0.9
Body Finish	Galvanised
Fastener Finish	Galvanised
Min. boom size <i>inch</i>	0.8
Max boom size <i>inch</i>	2.0
Application	Mount small antennas in 90° arrangement

