

SMD Series

SIDE MOUNTED DIPOLE ANTENNA

400-520 MHz & 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**



Electrical Specifications

Model Number	SMD7-83-U	SMD4-67-U
Nominal Gain $dBd(dBi)$	0(2.1) but varies with mounting arrangements	
Frequency MHz	746 - 870	400 - 520
Tuned Bandwidth MHz	124	120
VSWR	<1.5 :1	
Nominal Impedance Ω	50	
Vertical Beamwidth°	Typically 86° at $\frac{1}{4} \lambda$ antenna - mast spacing	Typically 70° at $\frac{1}{4} \lambda$ antenna - mast spacing
Horizontal Beamwidth°	Typically 190° at $\frac{1}{4} \lambda$ antenna - mast spacing	Typically 220° at $\frac{1}{4} \lambda$ antenna - mast spacing
Input Power Watts	500	
Passive IM 3rd order (2x20W) dBc	-150	

Mechanical Specifications

Model Number	SMD7-83-U	SMD4-67-U
Construction & Configuration	All welded aluminum with RoHS compliant corrosion protection	
Length inches	6.5 high by 14.5 long (incl. boom)	11.5 high by 14.5 long (incl. boom)
Weight lbs	0.73	
Shipping Weight lbs	1.68	
Shipping Dimensions inches	H	8
	W	8
	L	16
Termination	N Female with short 9142 cable tail	
Mounting Area inches	4" x 1" diam. aluminum	
Projected area ft ²	No ice	0.22
	with ice	0.46
Wind Load (Thrust) @ 100mph lbs	4.3	5.4
Wind Gust Rating mph	>150	>150
Torque @ 100mph ft-lbs	1.9	3

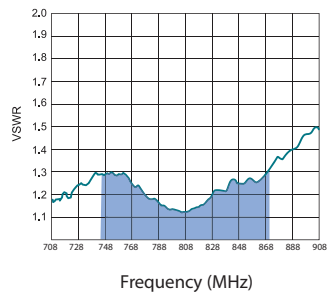
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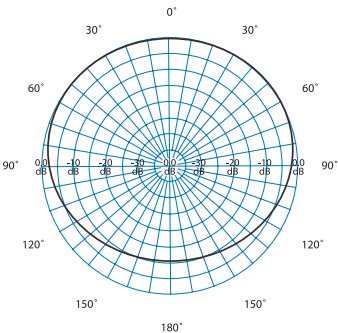
400-520 MHz & 746-870 MHz



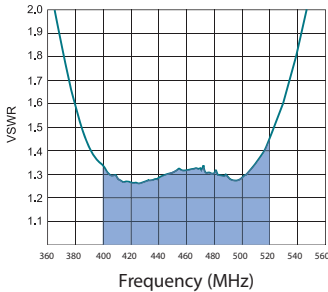
Typical VSWR response (SMD7-83)



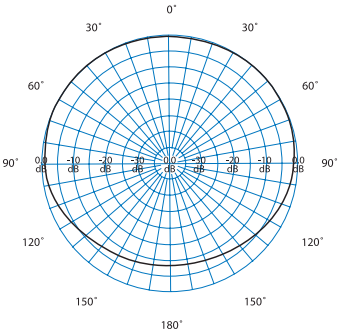
SMD7-83 - H Plane at 1/4 wave antenna to mast spacing



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