

SPA Series

Vertically Polarised Panel Antenna

380-430 MHz



65 & 90° Sectors
Two Sub Bands
Electrical and Mechanical Downtilt
UV Resistant Radome

The SPA series of base station panel antennas is designed for Digital PMR applications. consist of a broad band dipole array mounted on a passivated aluminium reflector and covered with a UV resistant ABS radome. The design is optimised for maximum performance within the height and width dimensions. Two models are available for 65 or 90 degree sectors. The radiating elements consist of plated copper on microwave substrate which ensures good intermodulation performance and upper sidelobe suppression.

The antennas are DC grounded for lightning and static protection. Options available include 10° electrical downtilt and mechanical downtilt mounting hardware.

ELECTRICAL SPECIFICATIONS	SPA41065T0	SPA41065T10	SPA41090T0	SPA41090T10
Frequency Range	380-430 MHz	380-430 MHz	380-430 MHz	380-430 MHz
Bandwidth	50 MHz	50 MHz	50 MHz	50 MHz
Gain	9.4 dBd	9.4dBd	8.1dBd	8.1dBd
VSWR	1.5:1 Typical	1.5:1 Typical	1.5:1 Typical	1.5:1 Typical
Polarisation	Vertical	Vertical	Vertical	Vertical
Cross Polar Discrimination	>20dB	>20dB	>20dB	>20dB
Front to Back Ratio	19dB	19dB	19dB	19dB
Intermodulation IM3 (2 x 20W carrier)	<-140 dBc	<-140 dBc	<-140 dBc	<-140 dBc
-3dB Horizontal Beamwidth	65°	65°	90°	90°
-3dB Vertical Beamwidth	36°	36°	35°	35°
Fixed Electrical Downtilt	0°	10°	0°	10°
Continuous Power Rating	250 W	250 W	250 W	250 W
Impedance	50 Ω	50 Ω	50 Ω	50 Ω
Lightning Protection	DC Ground	DC Ground	DC Ground	DC Ground
MECHANICAL SPECIFICATIONS				
Connector(s)	7/16 DIN	7/16 DIN	7/16 DIN	7/16 DIN
Dimensions (LxWxD)mm	1050mm x 400mm x 170mm	1050mm x 400mm x 170mm	1050mm x 400mm x 170mm	1050mm x 400mm x 170mm
Weight	8 kg	8 kg	8 kg	8 kg
Lateral Thrust at Rated Wind	Front 993N/101 kg Rear 1192N/122 kg Side 439N/45 kg			
Rated Wind Velocity	200km/hr			
Mounting: Order Separately	Tilt Clamp Kit 9640897 Mechanical downtilt (0-15° adjustable). Mounts to round pole (38-115mm) Fixed Clamp Kit 9640898 Mounts to round pole (38-115mm)			
MATERIALS				
Radiating Elements	Copper on Glass-reinforced substrate			
Radome	UV Resistant ABS			
Reflector	Aluminium Alloy			

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Typical Radiation Patterns

