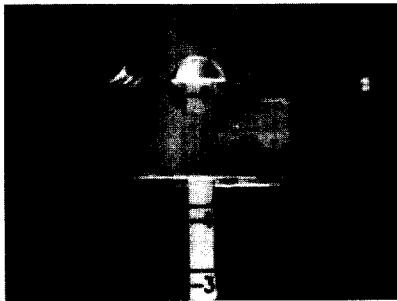




Adjustable screw for "VARI-TILT" Electrical Beamtilt

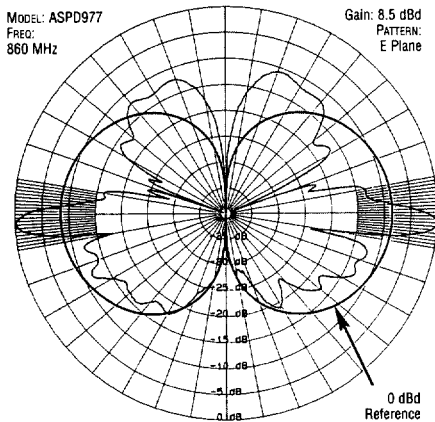


Easy to read Calibration Rod

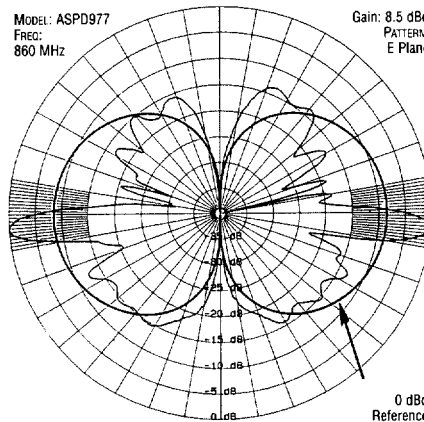
"VARI-TILT"™ Antennas utilize a unique design that provides an omnidirectional radiation pattern with a field adjustable variable electrical beamtilt (VEB) capability. This medium gain antenna allows you to custom tailor your coverage areas by utilizing field adjustable VEB that gives a total negative beamtilt range of 3 degrees to 8 degrees below the horizon. At maximum beamtilt, more energy is focused below the main beam for null-fill resulting in enhanced close-in coverage.

The beamtilt may be adjusted at the antenna even after installation, without removing the radome or the inconvenience of changing jumper cables and re-weatherproofing the connectors. The beamtilt is easily determined by viewing the calibration rod (which slides in and out of the antenna base) while adjusting the VEB with a hex tool (supplied). No special tools or test equipment required!

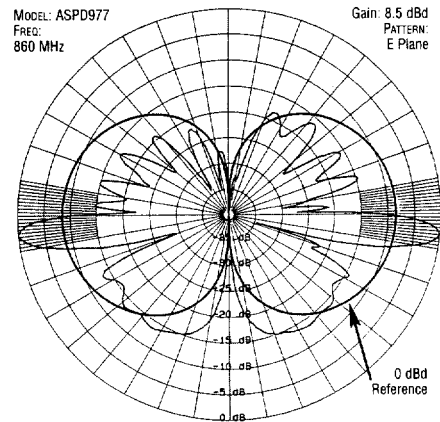
- **VEB** – allows fine tuning of cell site coverage by providing negative beamtilt adjustment capability from 3 degrees to 8 degrees before or after installing the antenna.
- **Simplicity** – VEB adjustment requires no additional hardware and does not require removal of the radome or possible loss of weatherproofing at jumper cable connectors.
- **Cellular** – one antenna covers applications requiring negative beamtilt patterns from 3 degrees to 8 degrees below the horizon.
- **Null Fill** – precisely adjust beamtilt in a matter of seconds, for optimum null fill.
- **Inverted Mounting** – model ASP-978 provides uptilt.
- **Offset Pattern** – model ASP-975, single reflector assembly included.
- **Trunked** – 0 to -5 degrees, model ASPA977V5.



Downtilt:
-3 deg
VARITILT omni



Downtilt:
-4 deg
VARITILT omni



Downtilt:
-6 deg
VARITILT omni

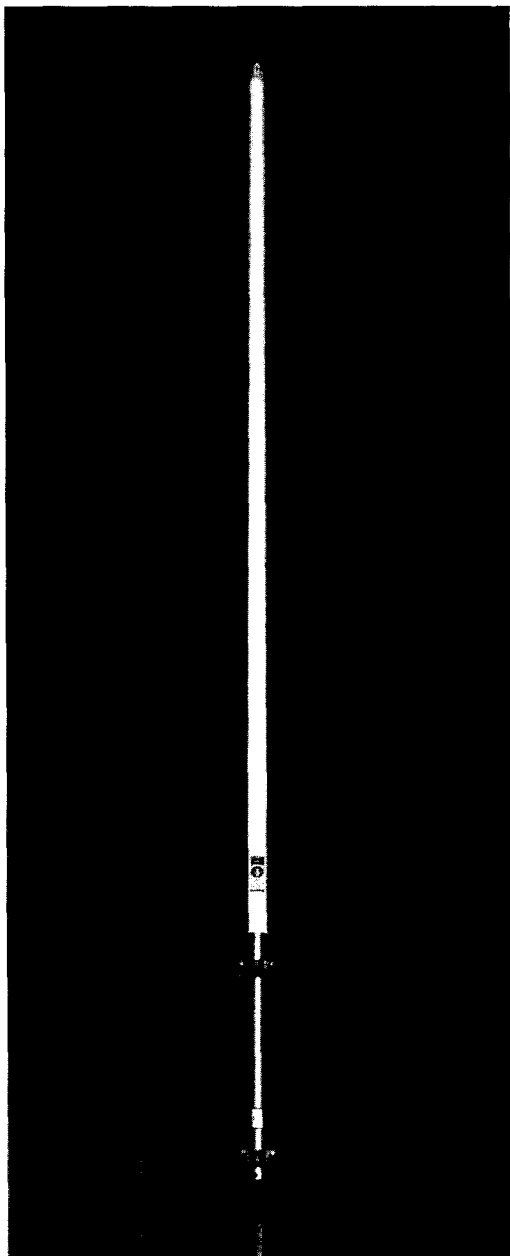


800 - 960 MHz

Vari-Tilt™ Omni Antenna

ASP-975, ASP-977, ASP-978, 8.5 to 10 dBd gain

Antennas
OMNI



Specifications

Electrical	ASP-977	ASPD975
Power	500 watts	500 watts
Gain	8.5 dBd (± .5 dB)	10 dBd
Frequency Range	806-869 MHz (ASPA977V5) 824-896 MHz (ASPD977) 872-960 MHz (ASPJ977) 872-960 MHz (ASPJ978)	824-894 MHz
VSWR	1.5:1	1.5:1
Impedance	50 ohms	50 ohms
Vertical Beamwidth	7 degrees	7 degrees
Horizontal Beamwidth	N/A	240 degrees
Front-to-Back Ratio	N/A	8 dB
Beamtilt	Variable -3 to -8 degrees; (ASPA977V5 for 0 to -5 degrees)	-3 to -8 degrees
Lightning Protection	Direct Ground	Direct Ground
Termination	.N female (no jumper cable supplied)	

Mechanical	ASP-977	ASPD975
Rated Wind Velocity*	165 mi/h (265 km/h)	138 mi/h (222 km/h)
Equivalent Flat Plate Area	1.75 ft² (0.16 m²)	3.5 ft² (.33 m²)
Lateral Thrust	70 lb (31.8 kg)	70 lb (31.8 kg)
Bending Moment		
@ 100 mph (161 kph)	422 ft-lb (58 km-m)	1,616 ft-lb (223.4 km-m)
Length	14.4 ft (4.38 m)	14.4 ft (4.38 m)
Weight (including clamps)	35 lbs (16 kg)	45 lbs (20.4 kg)
Support	2 3/8 inches (7.3 cm) diameter aluminum pipe 28 inches (71 cm) long	
Mounting	Two (2) ASPR616-type heavy-duty mast clamps furnished (Does not require special mounting hardware)	

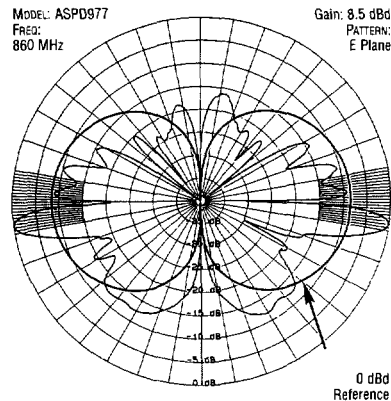
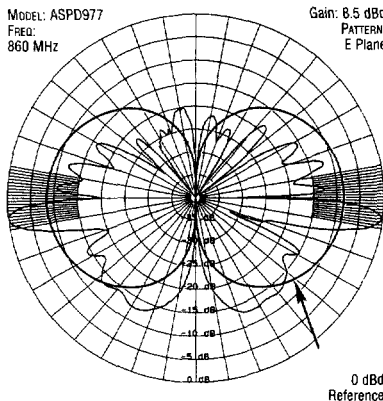
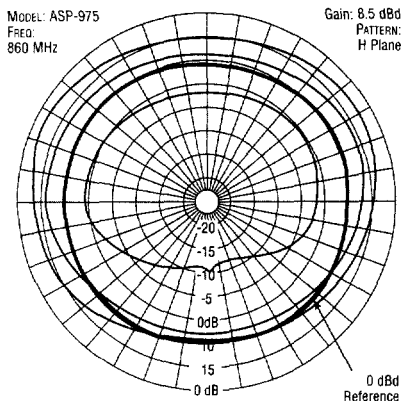
Shipping Information	ASP-977	ASPD975
Weight	.63 lb (28.6 kg)	73 lb (33 kg)
Dimensions	4 1/2 inches (11.4 cm) O.D. x 171 inches (345 cm)	

*Calculation of wind survivability does not include damage due to flying debris.
**See catalog sections for mounting brackets, coaxial cable, connectors and other materials required for complete installation. VAPOR-WRAP® connector sealant is included.

ASPD978

NOTE: For antenna inversion applications, use only ASPD978 for 824-896 MHz, ASPJ978 for 872-960 MHz.

ASP-977



Downtilt: -7 deg VARITILT omni

Downtilt: -8 deg VARITILT omni