

NEW

PCS1900 Panel Antennas

PCS1900 60°/65° Panel Antennas are the high performance solution to cell coverage, especially where overshoot interference is a challenge.

Based on new, printed circuit technology, the performance of PCS 1900 Panel antennas enhance revenues in modern PCS applications by decreasing interference, decreasing call drop-outs, and allowing for easy upgrades.

Meet your future system requirements more economically. By installing high performance Andrew antennas during initial system deployment, you will not have to upgrade your antennas to counter the added interference as traffic increases and cell sizes are reduced.

PCS1900 Panel Antennas are designed with an aesthetically pleasing appearance, low weight, and low wind loading. With a broadband frequency range of 1850-1990 MHz, they are well suited for transmit or receive applications in networks designed for 60/65 horizontal beamwidth sector coverage.

Andrew Panel Antennas are also available for other frequency bands and beamwidths. Please contact your Andrew Representative for additional information.

Key Performance Advantages of Andrew PCS1900 Panel Antennas include:

High Performance Options:

- Extensive null-fill
- Reduced VSWR
- Upper side-lobe suppression

Electrical downtilt option:

- More accurate antenna footprint. Decreased co-channel and multipath interference
- Improved network quality

Superior main-lobe/side difference:

- Better carrier signal to interference ratio (C/I)
- Reduces number of call drop-outs

Low mutual coupling:

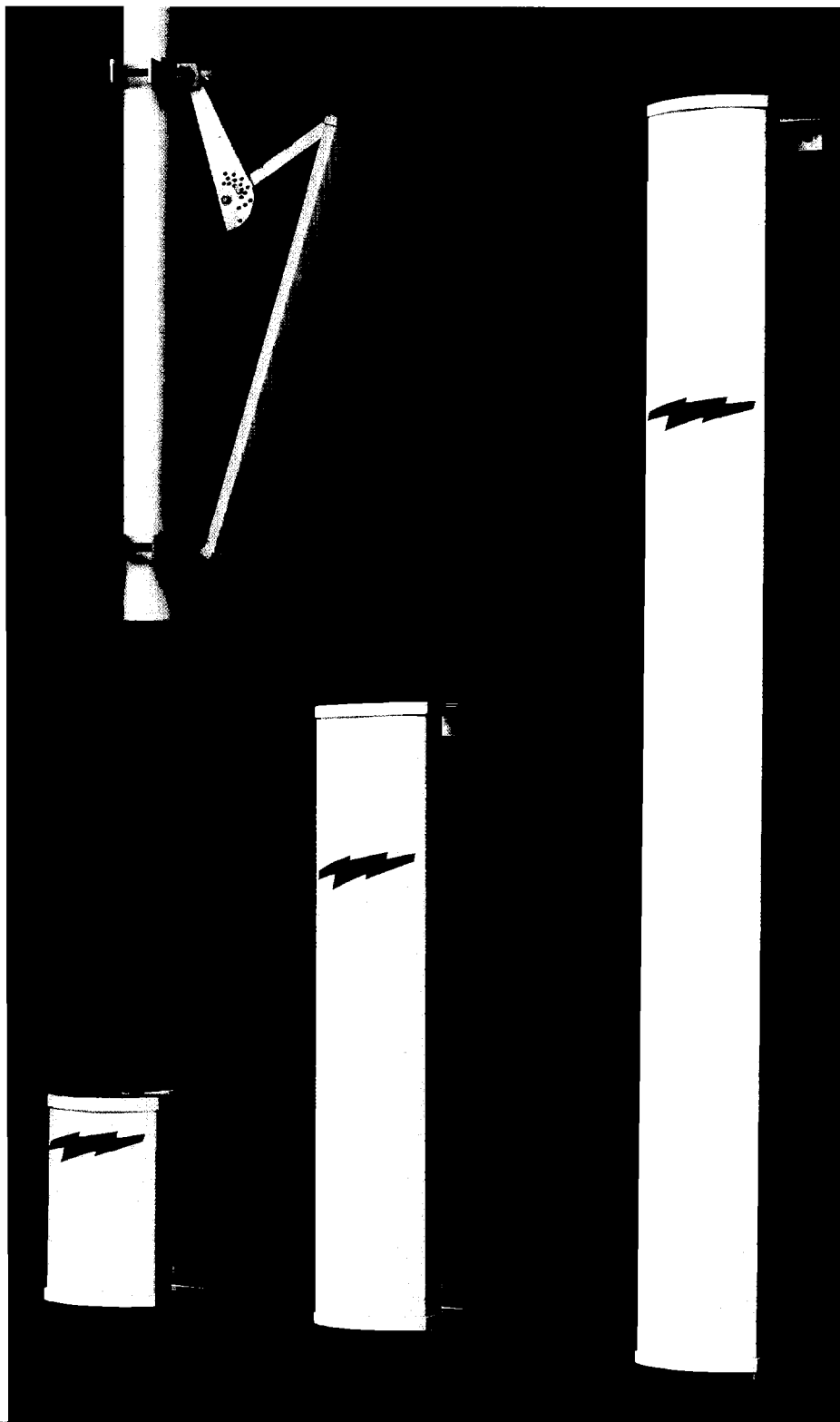
- Mount in close proximity to each other to form compact transmit/receive arrays

Mechanical Features:

- Low weight and low wind load for ease of installation
- Seamless radomes with closed-cell foam filling for long term reliability
- Slim profile for aesthetic acceptability

Mount Options:

- Vertical mount provides $\pm 45^\circ$ azimuth adjustment when wall mounted
- Tilt Mounts provide preset downtilt steps, for wall or pipe mounting



NEW 60/65

PCS1900 Product Range

Model Number	Az Beamwidth (degree)	Nominal Gain (dBd/dDi)	Downtilt** (degrees)	EI Beamwidth (degrees)	Weight (kg/lb)	Height (mm/in)	Width (mm/in)	Depth
PCS19SA-06309-0DG	63	9.1/11.3	0	39.0	0.8/1.7	250/9.8	160/6.3	55/2.2
PCS19SA-06312-0DG	63	11.5/13.7	0	20.5	1.3/2.9	490/1730	160/6.3	55/2.2
PCS19SA-06313-0DG	63	13.1/15.3	0	14.4	2.5/5.4	730/28.7	160/6.3	55/2.2
PCS19SA-06315-0DG	63	14.9/17.1	0	10.2	3.9/8.5	970/38.2	160/6.3	55/2.2
PCS19SA-06316-0DG	63	16.0/18.2	0	6.5	4.5/10.0	1450/57.1	160/6.3	55/2.2
HIGH PERFORMANCE MODELS								
PCS19HA-06516-0DG	65	15.2/17.4	0	6.5	4.5/10.0	1450/57.1	160/6.3	55/2.2

** Other electrical beamtilt models available

Model Numbering System

Three fields fully define each model and available options. For example:

PCS19SA - 06313 - xyz

① ② ③

PCS19SA - 06313 -0DG

- ① application and frequency band: 19 = 1900 MHz
standard or high performance pattern: S or H
product revision code: A, B, C etc.
- ② azimuth 3dB beamwidth: 063
nominal gain (dBd): 09, 12, 13, etc.
- ③ x = electrical downtilt (degrees): 0° to 9°, A (10°),
B (11°), etc.
y = connector: D (7-16 DIN) or N (N female).
z = color - G = light grey, other colors optional.

Electrical Characteristics

Frequency Range:	1850 - 1990 MHz	
Impedance:	50 ohms	
Return Loss (VSWR):	S Models	>15.5 (<1.4)
	H Models	>17.6 (<1.3)
Polarization:	Vertical	
Azimuth Beamwidths:	3 dB at 60°-65°	
Front-to-Back Ratio:	>25 dB	
Elevation Upper Sidelobes:	HP Models (H)	<18 dB
	Std. Models (S)	<15 dB
Power:	Continuous	>250 W
	Peak	>4 kW

Note: Antenna radiation patterns are available upon request.

Mechanical Characteristics

Wind load at 45 m/s (160 km/h) 100 mph (22% turbulence):

Front = 184N (41 lbf) per meter of antenna height

Side = 26N (6 lbf) per meter of antenna height

Mount Options:

Model No. 1 Description

- 600275** Vertical Mounting Kit, for wall mounting or pipe mounting. Mounts fit 33 to 115mm (1.5" to 4.5") O.D. pipes.
Azimuth Range: +/-45° (wall mounted)
Elevation Range: Fixed, Vertical
- 600225-1** Downtilt Bracket Kit, for wall mounting or pipe mounting. Mounts fit 33 to 115mm (1.5" to 4.5") O.D. pipes.
Azimuth Range: +/-45° (wall mounted)
Elevation Range:
730/27.8 Panels: 0°-32°, 17 position & 1° trim
1450/57.1 Panels: 0°-16°, 17 position & 0.5° trim
- 600225-2** Downtilt Bracket Kit, for wall mounting or pipe mounting. Mounts fit 33 to 115mm (1.5" to 4.5") O.D. pipes.
Azimuth Range: +/-45° (wall mounted)
Elevation Range:
250/9.8 Panels: 0°-76°, 20 position
490/19.2 Panels: 0°-38°, 20 position
970/38.2 Panels: 0°-19°, 20 position

Environmental Characteristics

Survival Wind Speed:	56 m/s (200 km/h) 125 mph
Temperature:	-30° to 55°C
Humidity:	Up to 100%
Lightning Protection:	DC ground



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