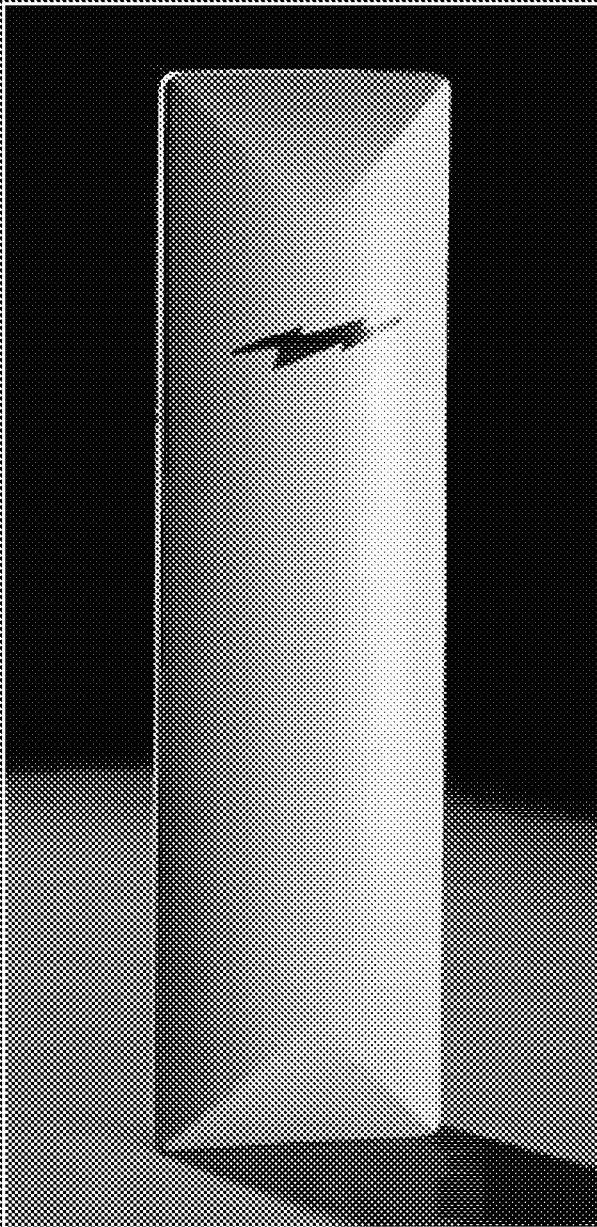




## Base Station Antennas



# Cellular Panel Antennas

*High performance solution  
where interference is a  
challenge.*

Based on a new, efficient design, the performance of Andrew Cellular Panel Antennas enhance revenues in modern cellular applications by decreasing call drop-outs, decreasing interference and allowing for easy upgrades. They will also help you to meet future system requirements more economically. By installing high performance Andrew antennas during initial system deployment you will not have to upgrade your antennas as cell sizes are reduced to accommodate increased traffic.

Andrew Cellular Panel Antennas are the technical solution with an aesthetically pleasing appearance. Designed for low wind loading, they are intended for base station applications where high traffic or geography creates a need to reduce co-channel and multipath interference. With a broadband frequency range of 820 to 960 MHz, they are well suited for GSM, AMPS or TACS networks where a 60 degree beamwidth is used in the cell site design.

### **Key Performance Advantages of Andrew Cellular Panel Antennas include:**

#### ***Electrical downtilt option:***

- *Improves network quality with a more accurate footprint, decreasing co-channel and multipath interference*

#### ***Superior main-lobe/side difference:***

- *With an increased carrier signal to interference signal ratio (C/I), improves network efficiency by reducing the number of call drop-outs*

#### ***Broad bandwidth:***

- *Allows use of the same antenna when a system changes from analog to digital and covers GSM, AMPS and TACS bands (820 - 960 MHz)*

#### ***Rugged, low profile radome:***

- *Imparts low visual impact, delivers long-life in direct sun exposure and induces low wind load on the supporting structure*

#### ***Antenna color options:***

- *Match the surrounding environment with custom color matching or choose one of our four standard colors*





## Base Station Antennas

# Cellular Panel Antennas Characteristics

## Cellular Product Range

Model Number	Nominal Gain dBd (dBi)	Downtilt degrees	EI Beamwidth		Mid-Band Gain	Weight lb (kg)	Length in (mm)	Width in (mm)	Depth in (mm)
			820-890 MHz degrees	890-960 MHz degrees	890 MHz dBd (dBi)				
H13C060-890VC-Ayz	13 (15)	0	<16.9	<15.6	13.3 (15.5)	24.2 (11)	55.7 (1415)	15.6 (395)	3.9 (100)
H13C060-890VC-Gyz	13 (15)	6	<16.9	<15.6	13.3 (15.5)	24.2 (11)	55.7 (1415)	15.6 (395)	3.9 (100)
H13C060-890VC-Nyz	13 (15)	12	<16.9	<15.6	13.3 (15.5)	24.2 (11)	55.7 (1415)	15.6 (395)	3.9 (100)
H16C060-890VC-Ayz	16 (18)	0	<9.2	<8.7	15.6 (17.8)	48.4 (22)	92.9 (2360)	15.6 (395)	3.9 (100)
H16C060-890VC-Dyz	16 (18)	3	<9.2	<8.7	15.6 (17.8)	48.4 (22)	92.9 (2360)	15.6 (395)	3.9 (100)
H16C060-890VC-Gyz	16 (18)	6	<9.2	<8.7	15.6 (17.8)	48.4 (22)	92.9 (2360)	15.6 (395)	3.9 (100)
H16C060-890VC-Kyz	16 (18)	9	<9.2	<8.7	15.6 (17.8)	48.4 (22)	92.9 (2360)	15.6 (395)	3.9 (100)

### Model Numbering System

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

H13C060 - 890VC - ANG  
 ①            ②            ③  
 H13C060 - 890VC - ANG

- ① standard or high performance pattern: S or H  
nominal gain (dBd): 13 or 16  
application: Cellular  
azimuth 3dB beamwidth: 60°
- ② midband frequency (MHZ): 890  
polarization: V = vertical  
product revision code: A, B, C etc.
- ③ electrical downtilt (degrees): A, D, G etc. A = 0, D = 3 etc.  
connector: N (N female) or D (7-16 DIN female)  
color: G = light gray

### Environmental Characteristics

**Survival Wind Speed:** 55 m/s (198 km/h) 124 mph  
**Temperature:** -30°C to 55°C  
**Humidity:** Up to 100%  
**Lightning Protection:** DC ground

### Electrical Characteristics

**Frequency Range:** 820 - 960 MHz  
**Impedance:** 50 ohms  
**Return Loss (VSWR):** 820 - 890 MHz >14.0 dB (>1.50)  
 890 - 925 MHz >17.7 dB (>1.30)  
 925 - 960 MHz >20.8 dB (>1.20)  
**Polarization:** Vertical  
**Azimuth Beamwidths:** 3 dB at 60°  
**Front-to-Back Ratio:** >25 dB  
**Elevation Upper Sidelobes:** <20 dB  
**Power:** Continuous >250 W  
 Peak >4 kW

### Mechanical Characteristics

#### Wind load at 55 m/s (198 km/h) 124 mph (22% turbulence):

Front = 461 N (102 lbf) per meter of antenna height  
 Side = 89 N (20 lbf) per meter of antenna height

