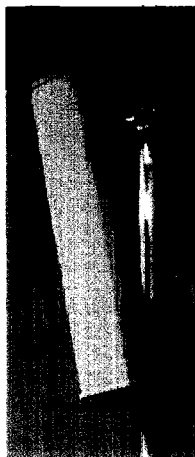


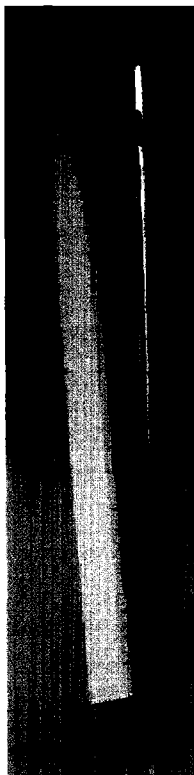


Now available in 1, 2, 3, 4, 5 and 6 foot lengths, Decibel's extensive line of panel antennas brings unbeatable features and quality to your PCS and DCS 1800 applications. Check out the high gains and the excellent front-to-back ratio of >25 dB. Two frequency ranges are offered, 1710-1880 and 1850-1990 MHz.

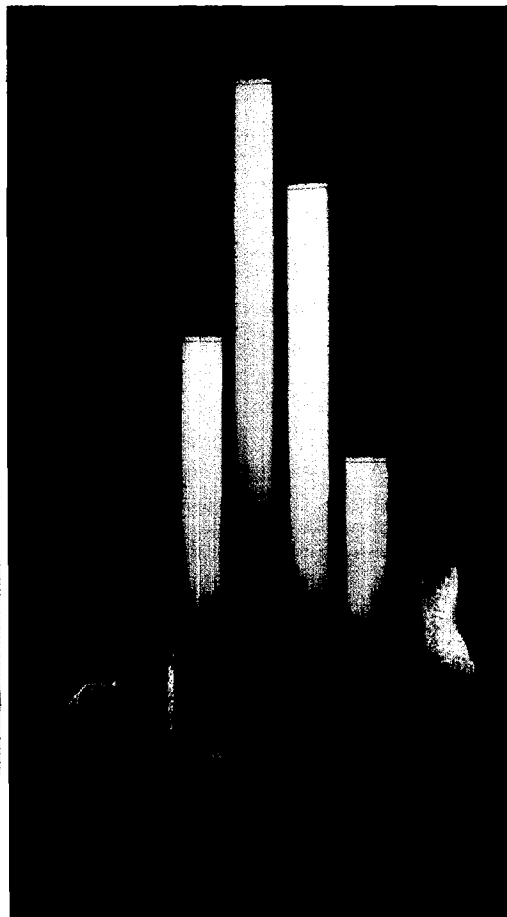
- **Null Fill** - First lower null is <18 dB down from maximum to improve close-in coverage.
- **Reduced Interference** - Upper side lobe suppression on higher gain models reduces co-channel interference.
- **Beamtilt** - Optional electrical downtilt from 2° to 12° is available on selected models; mechanical downtilt is also available via optional DB5095 or DB5098 brackets.
- **Sturdy Construction** - Reflectors are made of passivated aluminum, radiators of brass, radomes of tough UV resistant PVC, and mounting hardware of galvanized steel.
- **Trouble Free** - Every antenna is tested for return loss compliance and the absence of intermodulation generators. Antenna designs have passed Nordic Spec or the IEC 68-2 series of environmental tests, including cold soak, heat soak, salt mist, mechanical vibrations and temperature shock.
- **Lightning Resistant** - All metal parts are grounded.
- **Mounts** - Clamps are included for up to 4" (101.6 mm) OD pipe mounting.
- **Terminations** - 7/16 DIN or N-Female is available as follows: E or N on the bottom, A or B on the back, R or S on the top. (See nomenclature, next page.)
- **Timely Delivery** - Decibel's dedicated and highly mechanized PCS panel manufacturing line can handle the most demanding "build out" schedule.



2-Foot Panel



5-Foot Panel



1-Foot to 6-Foot PCS Panel Antennas

PCS/DCS 1800
Antennas

Ordering Information - See table for model numbers and specifications to meet your requirements. Add -KL to model numbers for 1710-1880 MHz or -M for 1850-1990 MHz.

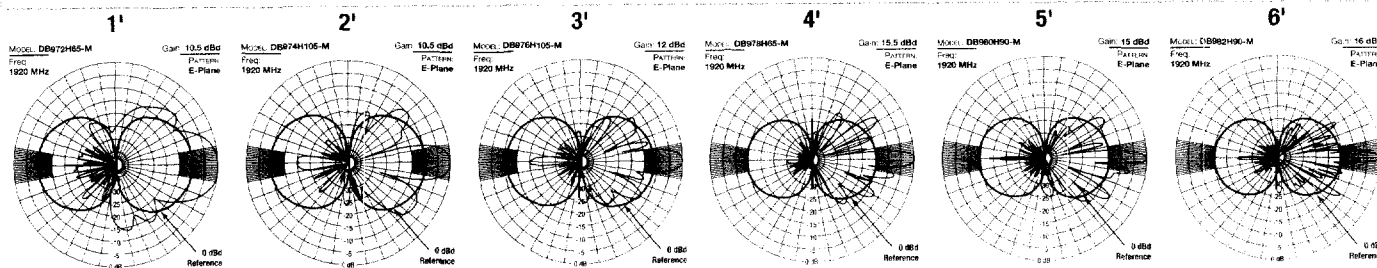
Continued

Electrical Data	
Frequency Range - MHz	KL = 1710-1880, M = 1850-1990
Gain - dBd/dBi	See table
VSWR	1.4 to 1 or better
Beamwidth (3 dB from maximum)	
Horizontal	See table
Vertical	See table
Polarization	Vertical
Front-to-back ratio - dB	>25
Maximum power input - watts	250
Lightning protection	All metal parts grounded
Termination	N-Female or 7/16 DIN

Mechanical Data	
Dimensions (HxWxD) - in. (mm)	See table
Max wind speed - mph (kph)	165 (266)
Wind area - ft ² (m ²)	See table
Wind load (at 100 mph/161 kph) - lbf (N) kp	See table
Radome	UV resistant gray PVC
Reflector screen	Passivated aluminum
Radiators	Brass
Mounting hardware	Aluminum or galvanized steel
Weight	See table
Shipping weight	See table

Testing Specifications (Nordic Spec or IEC 68-2 Series)	
Cold Soak	16 hours at -40°C
Heat Soak	16 hours at +70°C
Salt Mist	96 hours in a 5% salt environment at 35°C
Temperature Shock	10 cycles of 30 minutes each at -40°C and +70°C
Rain Test	Driving rain for 30 minutes to each of 4 faces at 65° angle
Humidity	Ten 24 hour cycles with extremes of 25° to 40°C with 90% humidity
Vibration	20 cycles of 10 to 150 Hz on each of three axes. Dwell tested at resonance frequency for 1.5 hours on each axis.

PCS Antenna Vertical Patterns





Ordering Information				
Horizontal Aperture	65°	90°	105°	120°
Width & Depth	6" W x 2-3/4" D 152 mm x 70 mm	6" W x 2-3/4" D 152 mm x 70 mm	6" W x 2-3/4" D 152 mm x 70 mm	6" W x 2-3/4" D 152 mm x 70 mm
1-foot (305 mm)	DB972H65 10.5 dBd/12.6 dBi	DB972H90 9 dBd/11.1 dBi	DB972H105 8.5 dBd/10.6 dBi	DB972H120 8 dBd/10.1 dBi
2-foot (610 mm)	DB974H65 12.5 dBd/14.6 dBi	DB974H90 11 dBd/13.1 dBi	DB974H105 10.5 dBd/12.6 dBi	DB974H120 10 dBd/12.1 dBi
3-foot (914 mm)	DB976H65 14.5 dBd/16.1 dBi	DB976H90 12.5 dBd/14.6 dBi	DB976H105 12 dBd/14.1 dBi	DB976H120 11.5 dBd/13.6 dBi
4-foot (1219 mm)	DB978H65 15.5 dBd/17.6 dBi	DB978H90 14 dBd/16.1 dBi	DB978H105 13.5 dBd/15.6 dBi	DB978H120 13 dBd/15.1 dBi
5-foot (1524 mm)	DB980H65 16.5 dBd/18.6 dBi	DB980H90 15 dBd/17.1 dBi	DB980H105 14.5 dBd/16.6 dBi	DB980H120 14 dBd/16.1 dBi
6-foot (1829 mm)	DB982H65 17.5 dBd/19.6 dBi	DB982H90 16 dBd/18.1 dBi	N/A	N/A

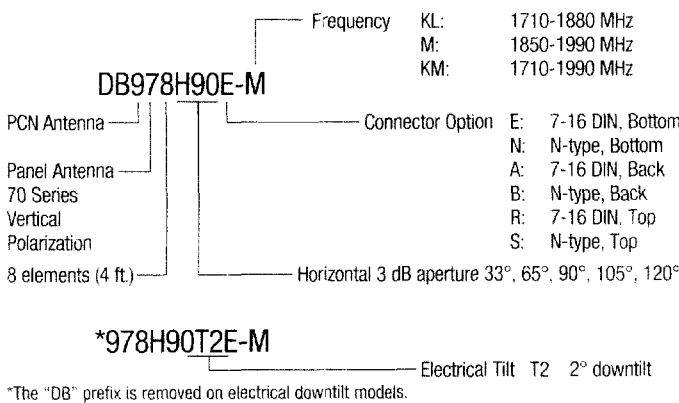
For 1710-1880 MHz add -KL to model number

For 1850-1990 MHz add -M to model number.

Note: For lengths exceeding one foot, upper lobe suppression and null-fill have reduced peak gain by 0.5 to 1.0 dB, relative to theoretical gain.

Ordering Information					
Panel	Vertical Aperture	Wind Area - ft ² /m ²	Wind Load (at 100 mph/161 kph) - lbf (N) kp	Weight - lbs. (kg) Excluding bracket	Shipping Weight - lbs. (kg) Excluding bracket
1-foot (305 mm)	30°	.5 (.046)	20 (88.96) 9	1.8 (0.8)	5 (2.3)
2-foot (610 mm)	14°	1 (.09)	40 (177.9) 17.9	3.5 (1.6)	5.5 (2.5)
3-foot (914 mm)	9°	1.5 (.14)	60 (266.8) 27.3	5 (2.3)	8 (3.6)
4-foot (1219 mm)	6.5°	2 (.19)	80 (355.8) 35.9	7.1 (3.3)	11 (5)
5-foot (1524 mm)	5.5°	2.5 (.24)	101.6 (451.9) 45.6	8.5 (4)	13.2 (6)
6-foot (1829 mm)	4°	3.05 (.28)	122 (543) 54.8	10 (4.5)	15 (6.8)

PCS Panel Antenna Nomenclature



Downtilt Availability

2 ft	3 ft	4 ft	5 ft	
-	-	2°	2°	Downtilt represent less than a 2 dB reduction on the horizon relative to the main lobe gain
6°	5°	3°	3°	Downtilt represent a 3 dB reduction on the horizon relative to the main lobe gain
9°	7°	5°	4°	Downtilt represent a 6 dB reduction on the horizon relative to the main lobe gain
12°	9°	7°	6°	Downtilt represent a 12 dB reduction on the horizon relative to the main lobe gain

Electrical downtilt available on selected models. (See chart above.)

Optional mechanical downtilt available on all models. Order Decibel DB5095 downtilt bracket for 1', 2' and 3' or DB5098 for 4', 5' and 6' models.

PCS Antenna Horizontal Patterns

