



**DUO8-8686**

*Directing our energies for you.*

Dual Band Dipole



86 Deg. Azimuth Beams  
8 & 7 Deg. Elevation Beams  
16.1 & 15.8 dBi Gain

PCS & Cellular in One Package  
Independent Control of Electrical Beam Downtilt  
High Power Handling Capability  
Anti-Corrosion Design for Superb IM Performance  
Optional Internal Dual Band Combiner



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# DUO8-8686

## Electrical Specifications

## Cellular

## PCS

Frequency Range	824-896 MHz	1850-1990 MHz
Gain	16.1 dBi	15.8 dBi
Electrical Downtilt Options	0, 2, 4 or 6 Degrees	0, 2, 4 or 6 Degrees
VSWR	1.40:1 Maximum	1.35:1 Maximum
VSWR (with -i option)	1.50:1 Maximum	1.50:1 Maximum
Front-to-Back at Horizon	> 27 dB	> 30 dB
Upper Side Lobe Suppression	< -21dB	< -18 dB
Elevation Beam (3-dB Points)	8 Degrees	7 Degrees
Azimuth Beam (3-dB Points)	86 Degrees	86 Degrees
Polarization	Vertical	Vertical
Impedance	50 Ohms	50 Ohms
Power Input Rating	500 CW	250 CW
Intermodulation	typ. -150 dBc (2x20W)	typ. -150 dBc (2x20W)
Port to Port isolation	>30 dB	>30 dB

## Mechanical Specifications

Input Connectors (female)	Two Back Mounted 7/16 DIN (Silver Finish)
Antenna Dimensions (LxWxD)	96.4 x 14.0 x 9.0 Inches
*Antenna Weight	46 lbs
Bracket Weight	18.2 lbs
Lightning Protection	Direct Ground
RF Distribution	Cellular: Silver Plated Brass PCS: Printed Microstrip Substrate
Radome	Ultra High-Strength Luran
Weatherability	UV Stabilized, ASTM D1925
Radome Water Absorption	ASTM D570, 0.45%
Environmental	MIL-STD-810E
Wind Survival	150 mph
Front Wind Load at 100 mph	248 lbs
Front Flat Plate Equivalent	5.08 sq-ft. (c=2)
Mounting Brackets	Fits 2.5 to 3 Inch Schedule 40 Pipe
Mechanical Downtilt Range	0-6 Degrees in 1 Degree Increments
Clamps/Bolts	Hot Dip Galvanized Steel/Stainless Steel

## Ordering Information

### Model

DUO8-8686-xy

DUO8-8686-xyi

### Options

x=Electrical Downtilt at 800 MHz in Degrees (0, 2, 4 or 6)

y=Electrical Downtilt at 1900 MHz in Degrees (0, 2, 4 or 6)

i = Dual Band Combiner included as an internal device

\*Antenna Weight may vary slightly with options such as back or bottom connector and integrated diplexers.

