



Patent No. US7488902

LAIRD'S NEW FULL-SPECTRUM MULTI-BAND ANTENNA

The WPD136M6C-001 multi-band mobile antenna Patent No. US7488902 is a commercial, heavy-duty vehicular antenna. It has an omnidirectional pattern and is vertically polarized with a 50Ω match. It also has excellent quality & RF performance, and is specifically designed as a full spectrum public safety voice & data communications antenna.

FEATURES

- Frequency range: 136-174/380-520/760-870 MHz
- VSWR (at cable end) < 2.0:1 (typical), < 2.7:1 (at band edges, max)
- Unity gain
- Omnidirectional, vertically polarized
- Power: 100 W (max, PTT = 30 minutes)
- Dimensions: 2.5" Round Base, 20" tall
- Radome material: high impact PC/ABS
- Textured finish
- IP66 rated
- Heavy-duty, chrome plated, spring loaded ferrule, 17-7 ph stainless steel tempered antenna whips, spring-loaded gold plated contact, and stainless steel antenna rod spring
- NMO Style Mount

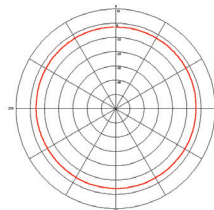
BENEFITS

- High-performance, broad-banded, multi-band coverage
- Heavy-duty design
- Injection molded housing and base
- No base radiators (all enclosed coils)
- Solid brass chrome plated ferrules with dual set screw lock

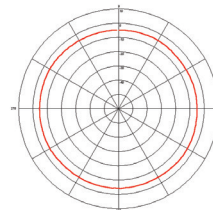
MARKETS OR APPLICATIONS

- General analog & digital voice/ data communications
- VHF (high), UHF, 700/800
- Tetra PMR & P25 Public Safety
- Transportation, Utilities, Government, Military, PAMR, Commercial & Industry, Oil & Gas

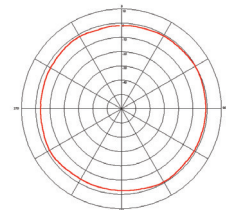
ANTENNA PATTERNS



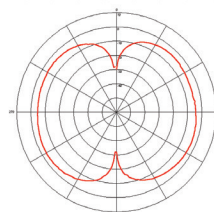
Azimuth Cut, Phi = 0°
156 MHz



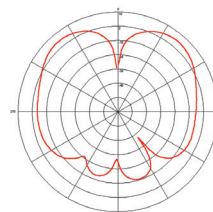
Azimuth Cut, Phi = 0°
440 MHz



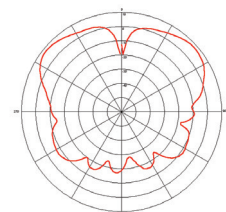
Azimuth Cut, Phi = 0°
815 MHz



Elevation Cut, Phi = 90°
156 MHz



Elevation Cut, Phi = 90°
440 MHz



Elevation Cut, Phi = 90°
815 MHz

SPECIFICATIONS

PARAMETER	WPD136M6C-001
Pattern	Omnidirectional
Maximum Power	100 W
Nominal Impedance	50 ohm
Polarization	Vertical
VSWR	≤ 2.5:1
Termination	NMO

ANTENNA ELECTRICAL SPECIFICATIONS

FREQUENCY BAND (MHz)	Frequency Range (MHz), (Test Frequency)	PEAK GAIN (dBi), Azimuth Cut, Phi = 0°	PEAK GAIN (dBi), Elevation Cut, Phi = 90°	ELEVATION BEAMWIDTH AT HALF-POWER	AZIMUTH BEAMWIDTH AT HALF-POWER
136-174 MHz	136, 156, 174	-0.7	0.2	90°	360°
380-520 MHz	380, 440, 520	-3.7	4.8	40°	360°
760-870 MHz	760, 815, 870	3.1	8.1	60°	360°

VHF BAND: 136-174 MHZ

PEAK GAIN (DBI)	AZIMUTH PATTERN	ELEVATION PATTERN
136 MHz	-2.4	0.2
146 MHz	-2.7	-1.8
156 MHz	-0.7	-3.1
174 MHz	-3.5	-4.1

UHF BAND: 380-520 MHZ

PEAK GAIN (DBI)	AZIMUTH PATTERN	ELEVATION PATTERN
380 MHz	-11.3	6.1
400 MHz	-7	7.7
440 MHz	-4.1	4.8
460 MHz	-3.7	3
500 MHz	-5.5	3.3
520 MHz	-6.6	3.5

UHF BAND: 760-870 MHZ

PEAK GAIN (DBI)	AZIMUTH PATTERN	ELEVATION PATTERN
760 MHz	3.1	3.1
815 MHz	-0.2	7.9
870 MHz	-8.8	8.1

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