



Laird's unique patented Phantom<sup>®</sup> multi band cellular antenna operates simultaneously on seven bands and is a tough antenna for outdoor or indoor applications. The revolutionary design measures only 2.3 inches. The patented field Phantom<sup>®</sup> technology ensures uninterrupted voice and data transmissions in urban canyons and rural drop-off areas.

The industry standard NMO mounting socket mates with all Laird's magnetic, trunk lid, and hole mounts. A threaded permanent stud mount model is also available for vandal resistant mounting on brackets, panels, ceilings or any other kind of housing.

### FEATURES AND BENEFITS

- Operates simultaneously on seven frequency bands: AMPS, GSM, GPS, DCS, PCS, UMTS, and ISM
- Patented Phantom<sup>®</sup> technology ensures uninterrupted voice and data transmissions in urban canyons and rural drop off areas
- U.S. Patent Nos. 5,977,931 – 6,292,156; other patents pending

ELECTRICAL SPECIFICATIONS	AMPS	GSM	GPS	DCS	PCS	UMTS	ISM
Frequency Range MHz (MHz)	806-896	890-960	1575.42	1710-1880	1850-1990	1900-2170	2400-2500
Peak Gain (dBi)	5.9	5.8	5.1	4.2	4.2	4.4	3.0
VSWR* , Max	2:1						2:1
Polarization	Vertical						
Nominal Impedance (Ohms)	50						
Input Power (W)	100						

\*Antenna measured on a 0.61m x 0.61m (2 ft. x 2 ft.) ground plane

MECHANICAL SPECIFICATIONS	
Dimensions – width x height cm (in.)	3.66 x 5.84 (1.44 x 2.30) NMO, 3.66 x 8.00 (1.44 x 3.15) P-mount
Weight – kg (lbs.)	0.068 (0.15) NMO, 0.11 (0.25) P-mount
Radome Material	SABIC Lexan

ENVIRONMENTAL SPECIFICATIONS	
Operating Environment (Indoor or Outdoor)	Indoor and Outdoor
Operating Temperature – °C (°F)	-30 to +70°C (-22 to +158°F)
Storage Temperature – °C (°F)	-40 to +85°C (-40 to +185°F)
Material Substance Compliance	RoHS
Ingress Protection Rating	IP67

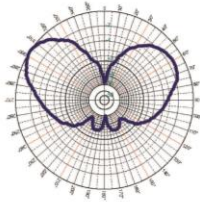
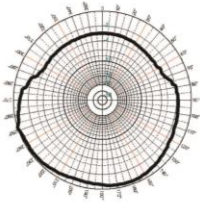
### CONFIGURATION

MODEL	DESCRIPTION	MOUNT	COLOR	HEIGHT	WEIGHT	CONNECTOR
TRAB806/17103	Multi-Band Phantom <sup>®</sup>	NMO	Black	5.84 cm (2.30 in.)	0.07 kg (0.15 lbs)	NMO
TRAB806/17103P	Multi-Band Phantom <sup>®</sup>	Permanent	Black	8.0 cm (3.15 in.)	0.11 kg (0.25 lbs)	N Female
TRA806/17103	Multi-Band Phantom <sup>®</sup>	NMO	White	5.84 cm (2.30 in.)	0.07 kg (0.15 lbs)	NMO
TRA806/17103P	Multi-Band Phantom <sup>®</sup>	Permanent	White	8.0 cm (3.15 in.)	0.11 kg (0.25 lbs)	N Female
TRADCA	Drop ceiling antenna adaptor for P-mount Phantom					
TRADCAGP	Drop ceiling antenna adaptor for P-mount Phantom with 6 in. x 6 in. x .016 in. ground plane					

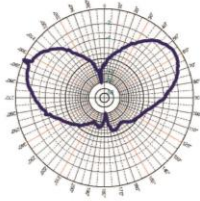
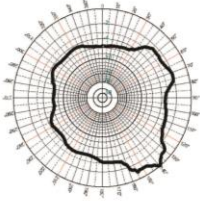
ANTENNA PATTERNS

Azimuthal (X, Y or E-Plane)

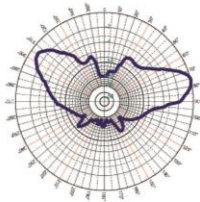
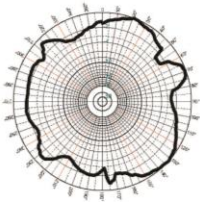
Elevation (Y, Z or H-Plane)



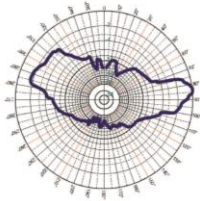
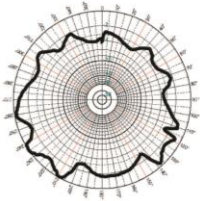
AMPS / GSM900  
880-960 MHz  
Test Freq = 920 MHz  
Peak Gain: 5.8 dBi



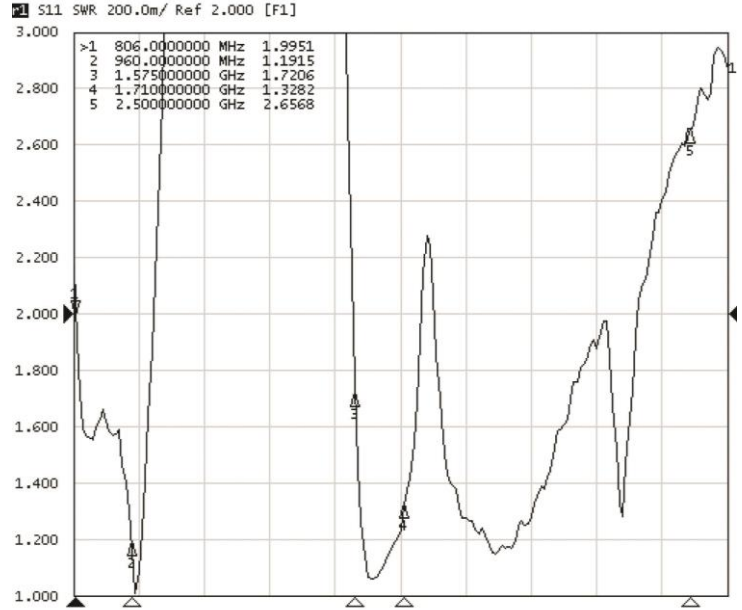
GSM1800  
1710-1880 MHz  
Test Freq = 1795 MHz  
Peak Gain: 4.2 dBi



UMTS  
1900-2170 MHz  
Test Freq = 2035 MHz  
Peak Gain: 4.4 dBi



ISM / BT / Wifi  
2400-2500 MHz  
Test Freq = 2450 MHz  
Peak Gain: 3.0 dBi



TRA(B)806/17103(P) Typical VSWR sweeps  
Cell / GSM900 Frequency Range 806-960 MHz (VSWR <2:1)  
Marker 1: 1.9951 to 1 @ 806 MHz  
Marker 2: 1.1915 to 1 @ 960 MHz

GPS Frequency 1575 MHz (VSWR <2:1)  
Marker 3: 1.7206 to 1 @ 1575 MHz

DCS / GSM1800 / UMTS / WiFi Frequency Range 1710-2500 MHz (VSWR <2:1)  
Marker 4: 1.3282 to 1 @ 1710 MHz  
Marker 5: 2.6568 to 1 @ 2500 MHz

6/30/2006



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