



PHANTOM®

Multi-Band Antennas 806-960 MHz/1575.42 MHz/1710-2170MHz/2400-2500MHz

Laird's unique patented Phantom® 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® 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® 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 SPECIFICATION	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						
Polarization	Vertical						
Nominal Impedance (Ohms)	50						
Input Power (W)	100						

MECHANICAL SPECIFICATION	
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 SPECIFICATION

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

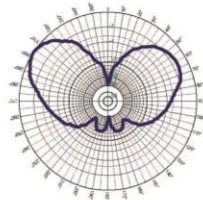
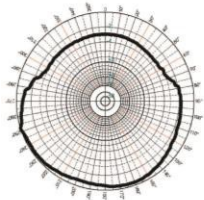
CONFIGURATION

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

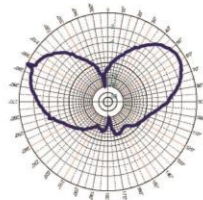
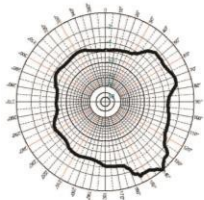
ANTENNA PATTERNS

Azimuthal (X, Y or E-Plane)

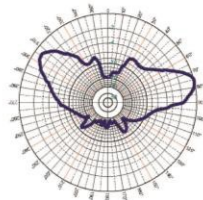
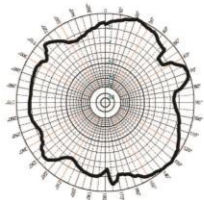
Elevation (Y, Z or H-Plane)



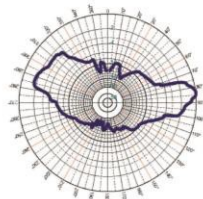
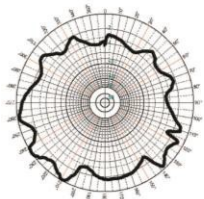
AMPS / GSM900
880-960 MHz
Test Freq = 920 MHz
Peak Gain: 5.8 dBi



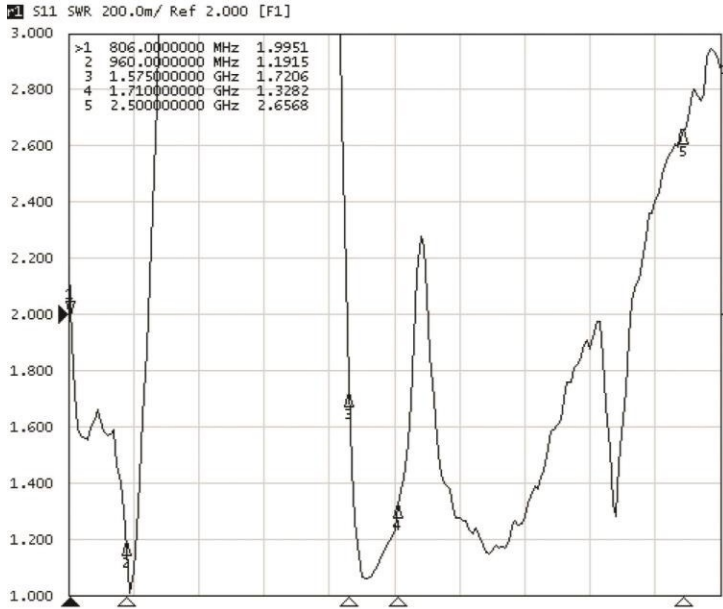
GSM1800
1710-1880 MHz
Test Freq = 1795 MHz
Peak Gain: 4.2 dBi



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

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TE TECHNICAL SUPPORT CENTER

USA:	+1 (800) 522-6752
Canada:	+1 (905) 475-6222
Mexico:	+52 (0) 55-1106-0800
Latin/S. America:	+54 (0) 11-4733-2200
Germany:	+49 (0) 6251-133-1999
UK:	+44 (0) 800-267666
France:	+33 (0) 1-3420-8686
Netherlands:	+31 (0) 73-6246-999
China:	+86 (0) 400-820-6015

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