Stars Navigation Technologies Ltd
星航國際科技股份有限公司 www.starsnav.com

Combine " GPS/GSM Cell Antenna "

Covert Antenna with EMF Jammer RF Protection up to 10 watt

The Pistola Combine GPS/ GSM/ Cellular, antenna is the only innovating integrated antenna system with multi- protection circuit built- in, quality design, small size and over-all performance design for military grade GPS. In a harsh environment GPS receiver circuits and ordinary GPS antenna has no defense from jamming or high narrow-band noise signal that the active Low-noise-Amplifier (LNA) and the sensitive host GPS receiver front-end received from normal operation. The Pistola design GPS antenna will sense this danger level of high power RF CW source exceeding over 1watt and isolate the EMF to near ground until the danger has pass in nanosecond time, this will enable continuous lock and with un-interrupted operation of the GPS receiver. The Pistola is a low profile combine antenna system for the next generation multi-purpose mobile antenna products for Telemetry, Fleet Management, Navigation's and AVL applications. This small print size of the antenna design does not reflect over-all performance, since the antenna itself needs no ground plane aid to deliver the cellular frequency and L1 band small signal carrier that originates from the 24 orbiting USA satellites located thousands of miles over-head. The active GPS antenna is also design as a standard power input voltages range from +2.5Vdc to +12Vdc with reverse polarity shutdown, over-current sense shutdown and an EMC power line suppression. The most important over-all design concept of the Pistola GPS active antenna is the complete protections of the host sensitive GPS receiver made from any manufacturer that it serve and can also be destroy or de-grade using an improper design antenna.

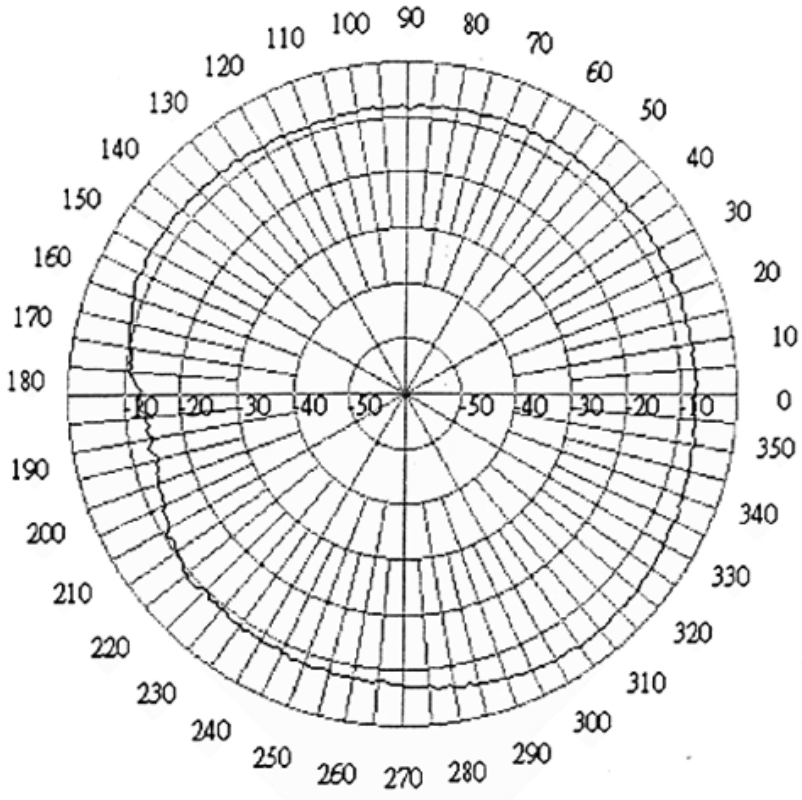
Pistola Antenna Specifications

General		2 Stages active LNA
		Dual Filters, (HPF & LPF(lump element))
		RF protection (10watt), nano-second Spark-Gap
	Architecture Design	Dielectric Patch antenna
		Low Noise Low drop-out, Linear Regulator
		GPS receiver short circuit protect
		Low Loss RG/174 Coax cable
		Aluminum Base/ PC+ Radome Plastic
Performance	Receiving Frequency	L1 Band(1575MHz)
	Output Impedance	50 ohms
	Polarization's	Right Hand Circular (RHC)
	Bandwidth	10dB Mhz @ -3dB point
	VSWR	1.5 Typical @ 1575MHz
	Elev. Angle Coverage	5~90 degree
	Az. Bearing Coverage	360 degree
	Filterin	Dual(BPF <10 Mhz B/W, LPF @1576 MHz Stop-band @ 1585MHz)
	Over-all Gain	28dB (typical including 4dB cable loss & Filters)
	Over-all NF	<1.8dB @fo, 2dB max.
	LNA Characteristic	K=>1 Un-conditionally Stable
	RF Insertions loss	0.1dB, leakage power 100mW /1 watt input
	Power Consumption	5 to 11mA (max)
	Power Input Sensor	Reverse Polarity Short Circuit shutdown
	Over-Current Sensor	Thermal Over-current shutdown >+150degreeC
Physical	Dimensions	1 5/8" x 2 1/8" x 3/8"
	Mount	Suction or Adhesive
	Radome Color	Black
	Coax Connector	BNC, SMA, SMB, MCX, MMCX, GT-5..etc
	Coax Cable	RG-174U double shielded 3m, Low Loss 0.7dB/m
Environmental	Operating emperature	-30 to + 85 degreeC
	Storage	-40 to + 90 degreeC

Electrical	Power Input	+2.5Vdc to +12Vdc input, AutoSwitch
Cellular/GSM Antenna		
Architecture Design	PCB patch passive	
perating Frequency	800~1990mhz for iDEN/DCS/PCS/CDPD/Data-Tac/Amps	
Gain	3dBi typical	
VSWR	<1.5;1	

Pistola Dual Band /ANTENNA RADIATION PATTERN TEST

H-PLANE-1800



H-PLANE-900