



ISO 9001:2008/FAA Approved Facility

# Active L1/L2 GPS & Dual Iridium Antenna

P/N: 5G1216RR-AP-XSTT-1

(5.04"x2.2"x0.9"), Flat, Top Mount, Bottom Connector Configuration

Antenna Mounts: <http://www.antcom.com/documents/catalogs/PeripheralAntennaProducts2.pdf>



ANTCOM CORPORATION . 367 Van Ness Way, Suite 602 . Torrance, CA 90501, USA . Tel: (310) 782-1076 . Fax: (310) 782-1086 . E-mail: [antennas@antcom.com](mailto:antennas@antcom.com) . <http://www.antcom.com>

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4x $\phi$ .201 [ $\phi$ 5.11] for  $\nabla$   $\phi$ .385 [ $\phi$ 9.78] X 100° 10-32 MOUNTING SCREWS

2.214 [56.24]

1.600 [40.64]

5.040 [128.02]

4.237 [107.63]

2x.828 [21.04]

.900 [22.86]

2x.300 [7.61]

.148 [3.77]

0-RING (2-038)

GPS: SMA Female (Blue) (+2.5 to +24) Volts DC

IRIDIUM: TNC Female (Red) Channel 2

IRIDIUM: TNC Female (Red) Channel 1

GPS: SMA Female (Blue) (+2.5 to +24) Volts DC

### SPECIFICATIONS

**ELECTRICAL:**

	IRIDIUM		L1 OR L1/L2 GPS			
FREQUENCY:	(1610.0 - 1626.5) MHz		L1: (1575.42 ±13)   L2: (1227.60 ±13) MHz			
RADIATION PATTERN:	HEMISPHERICAL		HEMISPHERICAL			
POLARIZATION:	RHCP		RHCP			
VSWR:	< 1.5:1		< 1.5:1			
GAIN (dB):	4 ft G.P.	Free Space	F.S.	4 ft G.P.	F.S.	4 ft G.P.
@ 90° (Zenith):	+1.9	+2.0	+4.6	+2.9	+1.8	+5.3
@ 10° Elevation:	-4.0	-5.5	-2.5	-1.8	-4.2	-2.3
@ 20° Elevation:	-1.5	-3.5	-1.1	+0.7	-2.9	+0.4
@ 30° Elevation:	-0.6	-2.0	+0.5	+1.7	-2.0	+2.3
@ 60° to 90° Elevation:	>+0.3	>-0.3	> 3.6	> 2.1	> 0.9	> 3.2
BEAM WIDTH (3dB):	129°	98°-106°	103°	146°	108°	74°
AXIAL RATIO @ Zenith:	2 dB		2 dB			
POWER HANDLING:	30 W		1 Watt			
LIGHTNING PROTECTION:	DC GROUNDING		DC GROUNDING			
FILTER (REJ. @1616 MHz):			> 60 dB			
LNA GAIN:	N/A		(33.0+/-1.0) dB			
LNA P 1dB Out:	N/A		+16 dBm			
LNA NOISE FIGURE:	N/A		2.8 dB (Filter loss is Included)			
VOLTAGE/CURRENT:	N/A		(+2.8 TO +28) Volts DC / (30 TO 50) mA			

**MECHANICAL:**

SIZE: WIDTH: 2.214 in. [56.24 mm], LENGTH: 5.040 in [128.02 mm], HEIGHT: 0.900in. [22.86 mm]

WEIGHT: 10.4 oz. (295g)

FINISH: SKYDROL RESISTANT POLYURETHANE ENAMEL BASE IRIDITE PER MIL-C-5541F

MATERIAL: 6061-T6 ALUMINUM ALLOY BASE COMPOSITE RADOME, IMPACT, ABRASION, UV, SOLVENT, SKYDROL RESISTANCE, AND FIRE RETARDANT

CONNECTOR: GPS: SMA FEMALE; IRIDIUM: TNC FEMALE (OPTION: SMA, TNC Bulkhead, N, N Bulkhead, MCX, MMCX, or Cable)

**ENVIRONMENTAL:**

TEMPERATURE: -67 °F TO +185 °F [-55 °C TO +85 °C]

ALTITUDE: 70,000 ft.

VIBRATION: > 30 G's

LEAKAGE: HERMETICALLY SEALED

**FEDERAL & MILITARY SPECIFICATIONS:**

**DESIGN TO:** FAA TSO-C144, DO-160D, DO-228, MIL-C-5541, MIL-E-5400, MIL-I-45208A, MIL-STD-810, AND SAE J1455

**ACCEPTANCE TEST PROCEDURE:** ATP-GPS-L1L2-100

QUANTITY REQD	DESCRIPTION	PARTS LIST	PART NO	FINISH	ITEM NO
4	MOUNTING SCREWS: 10-32, 100° Flat Head, 1"		J507C1032R16		2
1	0-RING		2-038-N756-75	-	1

CONFIGURATION:	FREQ. BAND:	GPS LNA:	CABLE'S LENGTH:	GPS/IRIDIUM Connector:	COLOR:
1: 2" SQ. (FLAT)	L1TxT1NIR: L1 GPS & Tx Thuraya (LHCP) & Inmarsat/Iridium (RHCP)	A: WITH LNA	X: NO CABLE	S: SMA	1: GLOSS WHITE #17925 PER FED-STD-595B
1.9: 1.9" SQ. (FLAT)	L1L2TxT1NIR: L1/L2 GPS & Tx Thuraya (LHCP) & Inmarsat/Iridium (RHCP)	P: WITHOUT LNA	M: WITH MAG. MOUNT	M: MCX; MM: MMCX	2: LUSTERLESS GRAY #36320 PER FED-STD-595B
2: 2.6" DIA. (FLAT)	L1L2TxT1NIR: L1/L2 GPS & Tx Thuraya (LHCP) & Inmarsat/Iridium (RHCP)	A2: WITH 20dB LNA	R: RIGHT ANGLE CON.	N: N; NB: N-Bulkhead	3: OLIVE DRAB GREEN #34031 PER FED-STD-595B
3: 3.5" DIA. (FLAT)	L1L2RxTxT1NIR: L1/L2 GPS & RxTx Thuraya (LHCP) & Inmarsat/Iridium (RHCP)			T: TNC; TB: TNC-Bulkhead	4: LUSTERLESS BLACK #37038 PER FED-STD-595B
4: MINI ARINC (FLAT)				B: BNC FEMALE	
53: (HELIX ROD)					
5B: (HELIX BLADE)					
3D: (HELIX HANDHELD)					

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMAL ANGLES TOLERANCE  $\pm$  1/64 .005 .005  $\pm$  1°

TOLERANCE  $\pm$  .010 PER ANSI Y14.5 REMOVE ALL BURRS BREAK EXTERNAL EDGES .005 TO .015 FILE TO .005 TO .010 ON SCREW HEADS PER MIL-S-8879 DR'S ON A COMB. & 27.005 MACHINED SURFACES (2)

DO NOT SCALE DRAWING

NOTES: UNLESS OTHERWISE SPECIFIED:  
1. DIMENSIONS IN BRACKETS ARE IN MILLIMETERS (mm)  
2. ALL SCREWS ARE SUPPLIED BY ANTCOM CORPORATION

**ANTCOM CORP.** TORRANCE, CALIFORNIA

Combined Avionics  
L1/L2 GPS & DUAL IRIDIUM  
ANTENNA

REV: 1  
DATE: 6/5/2014  
DRAWN BY: P. TRAN  
CHECKED BY: S. HUYNH  
APPROVED BY: S. HUYNH

ANT PART: 3C144  
ANT PART: 3C144  
ANT PART: 3C144

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SCALE 1/1

SHEET 1 OF 1

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NMO Connector Option is Now Available for Some Antennas