



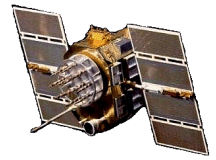
ISO 9001:2008/FAA Approved Facility

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

# Active L1/L2 GPS Antennas

P/N: 1.9G1215A-6UMCX-5-OSR-LW2.5 Rev B (UMCX Connector)

2.0" Square, Flat Mount Configurations



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## SPECIFICATIONS

**ELECTRICAL:**

	L1: (1575.42 ±12) MHz			L2: (1227.60 ±12) MHz		
FREQUENCY:						
RADIATION PATTERN:	HEMISPHERICAL			RHCP		
POLARIZATION:	RHCP			RHCP		
VSWR:	< 1.5:1			< 1.5:1		
IMPEDANCE:	50 ohms			50 ohms		
ANTENNA GAIN (dBi):	Free Space	3 in G.P.	4 ft G.P.	Free Space	3 in G.P.	4 ft G.P.
@ 90° (ZENITH):	+3.7	+4.7	+3.1	-1.7	+3.3	+4.5
@ 10° Elevation:	-2.9	-1.8	-1.9	-7.3	-3.8	-3.5
@ 20° Elevation:	-1.3	-0.3	+0.6	-6.2	-2.0	-0.8
@ 30° Elevation:	0.0	+1.4	+1.7	-5.2	-0.5	+1.4
@ 60-90° Elevation:	> 3.0	> 3.9	> 2.4	> -3.2	> 2.7	> 2.2
BEAM WIDTH (3dB):	108 Deg.	114 Deg.	143 Deg.	100 Deg.	106 Deg.	74 Deg.
AXIAL RATIO:	2 dB			2 dB		
LIGHTNING PROTECTION:	DC GROUNDING					
LNA GAIN:	33 dB (Option A), 20 dB (Option A2)					
LNA NOISE FIGURE:	3.0 dB (Option A), 2 dB (Option A2)					
LNA P1dB Out:	+13 dBm					
LNA DC POWER:	2.5V/20mA, 3V/29mA, 3.3V/35mA, (2.5-24)V/<50mA					
REJECTION @ (-50/+50) MHz:	-41 dB / -59 dB			-40 dB / -40 dB		
@ (-100/+100) MHz:	< -65 dB			< -65 dB		
POWER HANDLING:	1 Watt CW, Optional: 10 Watts 1 microsec Pulse (-AL-)					

**MECHANICAL:**

SIZE: LENGTH = 2.00 in. [50.80 mm], WIDTH = 2.00 in. [50.80 mm]  
HEIGHT = 0.533in. [13.54mm], 0.40 in. [10.16 mm] (without LNA)

WEIGHT: 2.5 oz. (70.9 g)

FINISH: SKYDROL RESISTANT POLYURETHANE ENAMEL  
BASE IRIDIUM PER MIL-C-5441

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

CONNECTOR: 6 IN. CABLE/ UMCX PLUG  
(OPTION: SMA, SSMA, SSMC, SMB, SSMB, ACMR, SMP, SSMP)

**ENVIRONMENTAL:**

TEMPERATURE: -67 °F TO +185 °F [-55 °C TO +85 °C]  
ALTITUDE: 70,000 ft.  
VIBRATION: > 30 G's  
LEAKAGE: HERMETICALLY SEAL

**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

SIZE:	FREQ. BAND:	LNA:	1	2	3
1: 2" SQ.	1215: L1/L2	A: WITH 33 dB Gain LNA			
1.8: 1.8" SQ.	19: L1 ONLY	AL: WITH 33 dB Gain LNA WITH LIMITER			
2: 2.8" DIA.		A2: WITH 20 dB Gain LNA WITHOUT REJECTION FILTERS			
3: 3.5" DIA.		AA: WITH 40 dB Gain LNA WITHOUT REJECTION FILTERS			
4: MINI ARINC		F: WITHOUT LNA			

P/N: 1.9G1215AL-6UMCX-5-OSR-LW2.5

CABLE LENGTH:	CONNECTOR:	COLOR:
X: NO CABLE	UMCX: UMCX	-1: GLOSS WHITE #17925 PER FED-STD-595B
M: MAG. N: NO MAG.	S: SMA; SMC; SMC; P: PINS	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
R: CABLE LENGTH (IN)	M: MCM; MM; MMCM	-3: CAMO GREEN #34094 PER FED-STD-595B
R: RIGHT ANGLE CON.	T, TB: TNC, N-TNC	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
		-5: DESERT TAN #33446 PER FED-STD-595B

QUANTITY REQD	DESCRIPTION	PART NO	SPECIFICATION	MATERIAL	FINISH	TEMP. REQ.
1	ADHESIVE GASKET	12345G-3M-1G				

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	ANTCOM CORP. TORRANCE CALIFORNIA
FRACTIONS: DECIMALS: ANGLES: ± 1/64 ± .005 ± 1°	ORIGINALLY DRAWN: S. HUYNH Feb-19-04
TOLERANCE: .010 PER ANSI Y14.5	ORIGINALLY DESIGNED: S. HUYNH Feb-19-04
REMOVE ALL BURRS	UPDATED: S. HUYNH Mar-13-13
BREAK EXTERNAL EDGES .005 TO .015	UPDATE DRAWN: P. TRAN Mar-13-13
FILED IN: 005 TO 9: 005	APPROVED: S. HUYNH Mar-13-13
SOEW: THREADED PER MIL-S-8879	
FINO ON A CONFORM: 2.0000	
MACHINED SURFACES: 25/	
DO NOT SCALE DRAWING	

2. ADHESIVE GASKET IS SUPPLIED BY ANTCOM CORPORATION

1. DIMENSIONS IN BRACKETS ARE IN MILLIMETERS [mm]

NOTES: UNLESS OTHERWISE SPECIFIED:

NMO Connector Option is Now Available for Some Antennas