

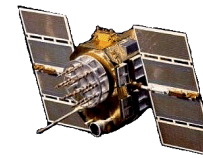


ISO 9001:2008/FAA Approved Facility

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

# DAGR's Remote Antenna 1 (RA-1)

## Active L1/L2 GPS Antenna, 4G1215A-XMNS-3 Rev A (P/N: 3DM-RA-1-1200V Rev A) (3.4" x 2.2") Side Connector, Mini Arinc Configurations



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### SPECIFICATIONS

#### ELECTRICAL:

		REVISIONS					
ZONE	REV	DESCRIPTION	DATE	APPROVED			
FREQUENCY:		L1: (1575.42 ±15) MHz			L2: (1227.60 ±15) MHz		
RADIATION PATTERN:		HEMISPHERICAL					
POLARIZATION:		RHCP			RHCP		
VSWR:		< 2.0:1			< 2.0:1		
IMPEDANCE:		50 ohms			50 ohms		
ANTENNA GAIN (dBic):		Free Space	3 in G.P.	4 ft G.P.	Free Space	3 in G.P.	4 ft G.P.
@ 90° (ZENITH):		+5.0	+4.7	+3.1	+0.7	+3.3	+4.5
@ 10° Elevation:		-2.1	-1.8	-1.9	-5.8	-3.8	-3.5
@ 20° Elevation:		-0.6	-0.3	+0.6	-4.3	-2.0	-0.8
@ 30° Elevation:		+0.9	+1.4	+1.7	-3.4	-0.5	+1.4
@ 60 - 90° Elevation:		> 4.0	> 3.9	> 2.4	> -0.9	> 2.7	> 2.2
BEAM WIDTH (3dB):		103 Deg.	114 Deg.	143 Deg.	94 Deg.	106 Deg.	74 Deg.
AXIAL RATIO:		2 dB			2 dB		
LIGHTNING PROTECTION:		DC GROUNDING					
LNA GAIN:		33 dB			35 dB		
LNA NOISE FIGURE:		3.0 dB			3.0 dB		
LNA P1dB Out:		+13 dBm			+13 dBm		
LNA DC POWER:		(2.5 to 24)Vdc @ (30 to 50)mA					
REJECTION @ (-50/+50) MHz		-41 dB / -59 dB			-40 dB / -40 dB		
@ (-100/+100) MHz		< -65 dB			< -65 dB		
POWER HANDLING:		1 Watt CW					

#### MECHANICAL:

**SIZE:** WIDTH: 2.20 in. [55.88 mm], LENGTH 3.40 in. [86.36 mm], HEIGHT: 0.91 in. [23.18 mm]  
**WEIGHT:** 7.49 oz. (212.4 g)  
**FINISH:** SKYDROL RESISTANT POLYURETHANE ENAMEL BASE IRIDITE PER MIL-C-5541  
**MATERIAL:** 6061-T6 ALUMINUM ALLOY BASE COMPOSITE RADOME, IMPACT, ABRASION, UV, SOLVENT, SKYDROL RESISTANCE, AND FIRE RETARDANT  
**CONNECTOR:** SMA FEMALE

**ENVIRONMENTAL:**  
**TEMPERATURE:** OPERATING: -67 °F TO +185 °F [-55 °C TO +85 °C]  
 STORAGE: -71 °F TO +185 °F [-57 °C TO +85 °C]  
**ALTITUDE:** 70,000 ft.  
**VIBRATION:** > 30 G's  
**LEAKAGE:** HERMETICALLY SEALED

#### FEDERAL & MILITARY SPECIFICATIONS:

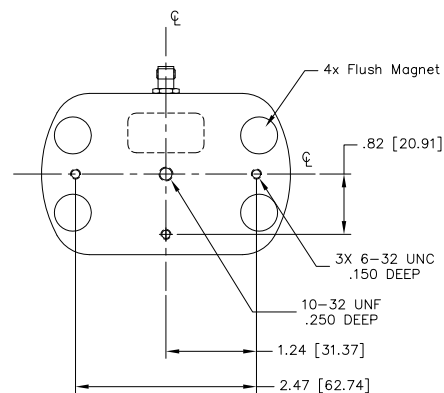
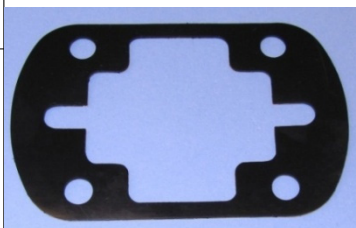
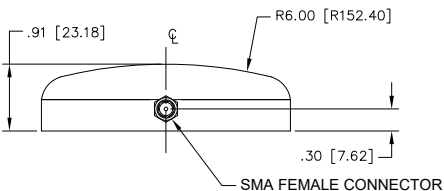
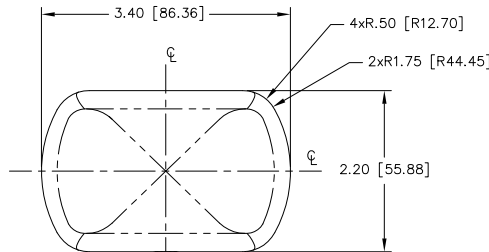
**DESIGN TO:** FAA TSO-C144, DO-160D, DO-228, MIL-C-5541, MIL-E-5400, MIL-I-45208A, MIL-STD-810, AND SAE J1455

#### ACCEPTANCE TEST PROCEDURE:

1	ADHESIVE GASKET	Magnet-Cover - 4G (Item 541-4G)			1
QUANTITY REQD	DESCRIPTION	PART NO.	MATERIAL	FINISH	ITEM NO.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		3D Marketing CALIFORNIA	
FRACTIONS: ± 1/64	TOLERANCES ARE: DECIMALS ± .005	ANGLES: ± 1°	
TOLERANCE SURF PER ANS Y14.5	REMOVE ALL BURRS	BREAK INTERNAL EDGES .005 TO .015	FILETS R .005 TO R .030
SCREEN TWO-SIDES FOR MIL-STD-883C D1'S ON A COMMON E SURF	MACHINED SURFACES	DO NOT SCALE DRAWING	
ORIGINALLY DRAWN: S. HUYNH Jun-06-01	ORIGINALLY DESIGNED: S. HUYNH Jun-06-01	UPDATE DRAWN: PHIL TRAN June-08-12	APPROVED: S. HUYNH June-08-12
DWG FILE NO:	SCALE: 1/1	SHEET: 1 OF 1	REV: A



2. ADHESIVE GASKET 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