



FAA Approved Facility

# Active L1 GPS + L1 GLONASS + OmniStar/TerraStar Antenna

## P/N: G3Ant-2A196MNS-4 (2G16AF-196MNS-4)

### 2.6" Diameter, Flat Strong Magnetic (20lbs) Mount Configuration

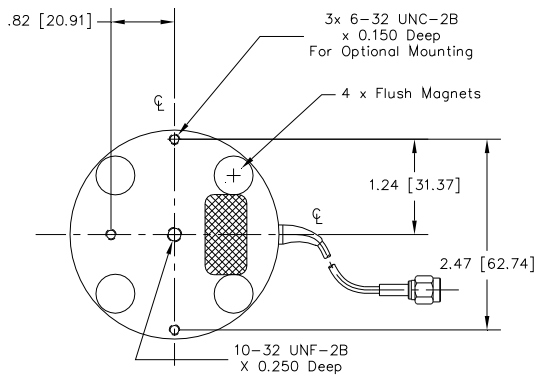
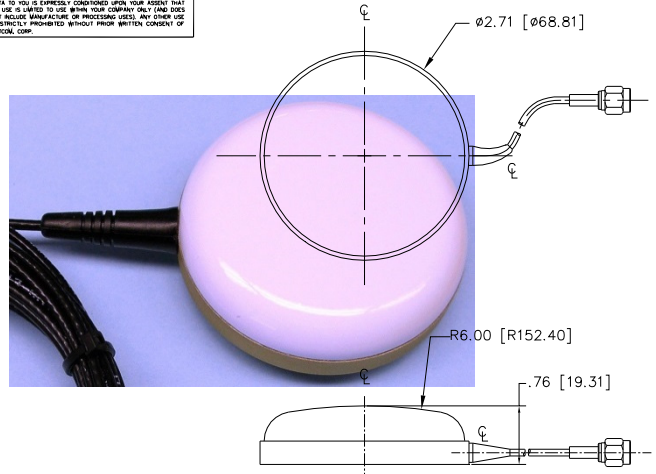
Antenna Mounts: <http://www.antcom.com/documents/catalogs/PeripheralAntennaProducts2.pdf>



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“-HF” for High Iridium/Inmarsat/Thuraya-Rejection Front End Filter Option: **-22dB@1616MHz, -34dB@1625-1660MHz**  
“-HFO” for Additional Omnistar Rejection: **-27dB@1545MHz**

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### SPECIFICATIONS

#### ELECTRICAL:

ZONE	REV	DESCRIPTION	REVISIONS	
			DATE	APPROVED
		L-BAND SPECS ADDED	02-02-12	S.H

	OmniSTAR / L-BAND (1542.5 ±14) MHz	L1 GPS (1575.42 ±15) MHz	L1 GLONASS (1609 ±7) MHz
FREQUENCY:			
RADIATION PATTERN:	HEMISPHERICAL		
POLARIZATION:	RHCP	RHCP	RHCP
VSWR:	< 1.5:1	< 1.5:1	< 1.5:1
IMPEDANCE:	50 ohms	50 ohms	50 ohms
ANTENNA GAIN (dBic):	Free Space	Free Space	Free Space
@ 90 ° (ZENITH):	+1.9	+5	> 3.3
@ 10 ° Elevation:	-5.0	-1.2	> -3.2
@ 20 ° Elevation:	-3.9	+0.3	> -1.6
@ 30 ° Elevation:	-2.6	+1.8	> -0.2
@ 60 - 90 ° Elevation:	> +0.8	> 4.8	> 2.5
BEAM WIDTH (3dB):	105 Deg.	106 Deg.	106 Deg.
AXIAL RATIO:	1 dB	1 dB	1 dB
LIGHTNING PROTECTION:	DC GROUNDING		
LNA GAIN:	33 dB		
LNA NOISE FIGURE:	3.0 dB		
LNA P1dB Out:	+13 dBm		
LNA DC POWER:	(2.5 to 24)Vdc @ (30 to 40)mA		
POWER HANDLING:	1 Watt CW		

#### MECHANICAL:

SIZE: DIAMETER: 2.71 in. [68.81 mm]  
HEIGHT: 0.76 in. [19.42mm]

WEIGHT: 6.5 oz. [184 g]

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

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

CONNECTOR: 196in CABLE SMA MALE  
(OPTIONAL: TNC, N, MCX, or MMCX)

#### 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:

FAA TSO-C144, DO-160D, D0-228, 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:	CONNECTOR:	QUANTITY	RECD	DESCRIPTION	PART NO	MATERIAL	FINISH	TEMP
1: 2" SO	1215: L1/L2	A: WITH LNA	S: SMA; RS: R-SMA; P: PINS	1		ADHESIVE GASKET	12345G-3M-2G	-	-	3
1.9: 1.9" SO	15: L1 ONLY	AL: WITH LNA/LIMITER	M: MCX; MM: MMCX	1						2
2: 2.6" DIA	16: L1 GPS/L1 GLONASS/Omnistar	AF: ACTIVE (LNA WITH FILTER)	N: NB; N: N-Bulkhead	1						1
3: 3.5" DIA		P: WITHOUT LNA	T: TNC; TB: TNC-Bulkhead	-2	-1					
4: MINI ARINC										

## P/N: 2G16AF-196MNS-4

2. ADHESIVE GASKET IS SUPPLIED BY ANTCOM CORPORATION

1. DIMENSIONS IN BRACKETS ARE IN MILLIMETERS [mm]

NOTES: UNLESS OTHERWISE SPECIFIED:

CABLE LENGTH:	MAGNET OPTION:	COLOR:
X: NO CABLE	N: NO MAGNET	-1: GLOSS WHITE #17925 PER FED-STD-595B
#: CABLE LENGTH (IN)	MN: FLUSH MAGNET	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
	M: Big Non-Flush Mag	-3: OLIVE DRAB GREEN #34031 PER FED-STD-595B
		-4: LUSTERLESS BLACK #37038 PER FED-STD-595B

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS TOLERANCES ARE: DECIMALS ANGLES ± 1/64 ± .010 ± .010 ± 1.5°

TOLEANCE SHW PER ANSI Y14.5 REMOVE ALL BURRS BREAK EXTERNAL EDGES .005 TO .010 BREAK INTERNAL EDGES .005 TO .010 DATE ON A COMMON 8 27 0608 MACHINED SURFACES

DO NOT SCALE DRAWING

**ANTCOM CORP.** TORRANCE, CALIFORNIA

ACTIVE L1 GPS/L1 GLONASS OmniStar ANTENNA

APPROVED: S. HUYNH Nov-30-11

DRAWING NO: **3C16AF-196MNS-4**

SCALE: 1/1

SHEET 1 OF 1

NMO Connector Option is Now Available for Some Antennas