

# L1/L2 GPS/Glonass/L-Band/Galileo Antenna

## P/N: EC3GO12161-ANT

### 3.5" Diameter, Front/back Mount Configuration

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

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**SIZE:**  
1: 2" SQ.  
1.5: 1.5" SQ.  
2: 2.5" DIA.  
3: 3.5" DIA.  
4: MINI ARINC

**FREQ. BAND:**  
GO1216: L1/L2 GPS/GNSS/L-Band  
GO1215: L1/L2 GPS/L-Band  
GO16: L1 GPS/GNSS/L-Band  
GO1215: L1/L2  
GO1116: L1/L2/L3/L5/L6 GPS/GNSS/Galileo

**LNA:**  
A: 33 dB Gain  
A4: 40 dB Gain  
A2: 20 dB Gain  
P: WITHOUT LNA

**CABLE'S LENGTH:**  
X: NO CABLE  
M: M/MG, N: NO MAG.  
P: CABLE LENGTH (IN)  
R: RIGHT ANGLE CON.

**CONNECTOR:**  
S: SMA; P: PINS  
M: MCX; MM: MMCX  
N: N; N1: N1 Bulkhead  
T: T; TNC: TNC-Bulkhead

**REVISIONS**

ZONE	REV	DESCRIPTION	DATE	APPROVED
A		REVISED DIAMETER	01/22/16	S.H.

**ELECTRICAL:**

FREQUENCY (MHz):	L2/L5 GPS/ L2/L3 Glonass/ E5A/E5B/E5C Galileo (1146-1301)	L2 GPS (1227.60 ±12)	Rx L-Band/ L6 Galileo (1525 - 1560)	L1 GPS/ L1/E1/E2 Galileo (1555 - 1595)	L1 Glonass (1602 - 1626)
ANTENNA GAIN (dBic):	+3.3	+4.9	+3.1	+5.5	+4.5
@ 90° (ZENITH):					
@ 10° Elevation:	-3.8	-3.6	-3.7	-1.2	-1.4
@ 20° Elevation:	-2.0	-0.1	-2.0	+0.3	+1.4
@ 30° Elevation:	-0.5	-1.8	-1.3	+1.8	+2.2
@ 60-90° Elevation:	> 2.7	> 3.0	> 2.0	> 4.8	> 3.8
BEAM WIDTH (3dB):	106 Deg.	75 Deg.	106 Deg.	106 Deg.	130 Deg.
RADIATION PATTERN:	HEMISPHERICAL				
POLARIZATION:	RHCP				
VSWR:	< 1.5:1				
IMPEDANCE:	50 ohms				
AXIAL RATIO:	3 dB				
LIGHTNING PROTECTION:	DC GROUNDING				

**LNA OPTION:**

LNA GAIN:	40 dB (-A4), 20 dB (-A2), 35 dB (-A-)
LNA NOISE FIGURE:	2.0 dB
LNA P1dB Out:	+13 dBm
LNA DC POWER:	(2.5-24)Volts @ < 39 mA
POWER HANDLING:	200 Watts CW (WITHOUT LNA) , 1 Watt CW (WITH LNA)

**MECHANICAL:**

SIZE: DIAMETER: 3.53 in. [ 89.66 mm]  
HEIGHT: 0.812 in. [20.62 mm]

WEIGHT: 8.8 oz. (249 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: SMA FEMALE  
(OPTION: TNC, 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 SEAL

**FEDERAL & MILITARY SPECIFICATIONS:**

DESIGN TO: 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

**QUANTITY REQD**

QTY	DESCRIPTION	PART NO	REV
1	O-Ring or Gasket	2-031/N756-75 or 3G15P1001-3G	4
4	MOUNTING SCREWS: 10-32, 3/4"	J507C1032R12, or 93085A831	3
A/R	WASHER, CUSTOM C'SINK	3G15P1001-70	2
1	GASKET	3G15P1001-3G	1
-2	-1		

**PARTS LIST**

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DECIMAL ANGLES ± 1/64	ORIGINALLY DRAWN	ORIGINALLY DESIGNED	UPDATED	APPROVED
TOLERANCE B/W PER AS9145	S. Huynh	S. Huynh	S. Huynh	S. Huynh
BEFORE ALL SURF. BEAM EXTERNAL EXCES. JOG TO .010 DILES P. 005 TO 8.000	Jan-05-29	Jan-05-29	Sept-26-13	Sept-26-13
SCREW THREADS FOR MIL-S-8879 DITS ON A DIMENSION & 27.000			P. Tran	
MACHINED SURFACES: 1/32"			Sept-26-13	
DO NOT SCALE DRAWING				

**ANTCOM CORP.** TORRANCE, CALIFORNIA

Active L1/L2 GPS, Glonass/L-Band/Galileo Antenna

DATE: 01/22/16  
DRAWN BY: S. Huynh  
PART NO: EC3GO12161-ANT  
SCALE: 1/1  
SHEET 1 OF 1

**Specifications**

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