



ISO 9001:2008/FAA Approved Facility


# GPS/BD Antenna, P/N: 2B1515A-XS-1

## 2.6" Diameter, Bulkhead/Back Mount Configurations

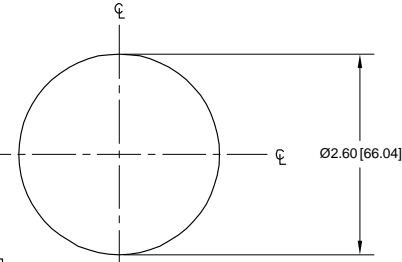


ANTCOM CORPORATION . 367 Van Ness Way, Suite 602 . Torrance, CA 90501 . Tel: (310) 782-1076 . Fax: (310) 782-1086 . E-mail: antennas@antcom.com . http://www.antcom.com

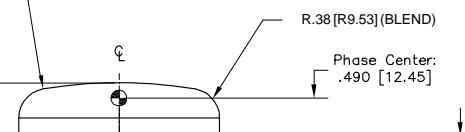
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Spherical R6.000 [R152.40]



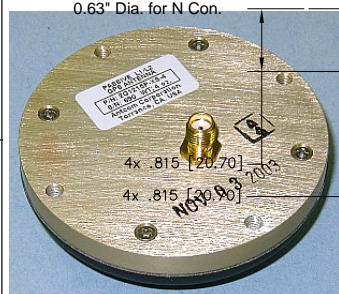
Ø2.60 [66.04]



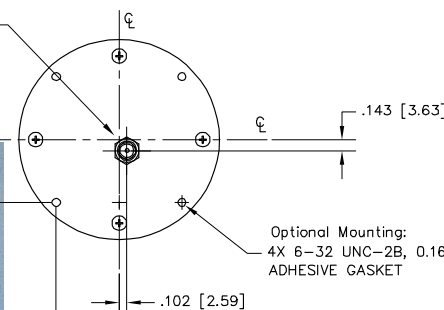
R.38 [R9.53] (BLEND)  
Phase Center: .490 [12.45]  
.690 [17.53]

0.25" [6.37] (MCX/MMCX), 0.46" [11.68] (SMA/R-SMA), 0.57" [14.53] (TNC), 0.83" [21.00] (TNC-BH), 0.72" [18.29] (N, N-BH)

SMA CONNECTOR  
(OPTION: TNC, TNC Bulkhead, N, N Bulkhead, MCX, MMCX, or Cable)  
Clearance Hole: 0.4" Dia. for SMA, MCX, & MMCX Con.  
0.52" Dia. for TNC Con.  
0.63" Dia. for N Con.



4x .815 [20.70]  
4x .815 [20.70]  
MAG 200



Optional Mounting:  
4X 6-32 UNC-2B, 0.160" Deep, & ADHESIVE GASKET  
.143 [3.63]  
.102 [2.59]

SIZE	FREQ. BAND	LNA
1: 2" SQ.	1215: L1/L2	A: WITH 33 dB LNA, A2: WITH 20 dB LNA, A4: WITH 40 dB LNA
1.9: 1.9" SQ.	15: L1 ONLY	
2: 2.5" DIA.	1515: BD/GPS	P: WITHOUT LNA
3: 3.5" DIA.	1215: B3/BD	
4: MINI ARINC	1225: B3/Rx/BD	

**P/N: 2G15A-XS-1**

CABLE LENGTH	FEMALE CONNECTOR	COLOR
M: MAG, N: NO MAG	S: SMA, P: PINS M: MCX, MM: MMCX N: NB, N: N-Bulkhead T: TNC, TNC-Bulkhead	-1: GLOSSWHITE #17925 PER FED-STD-595B -2: LUSTERLESS GRAY #36320 PER FED-STD-595B -3: OLIVER DRAB GREEN #34031 PER FED-STD-595B -4: LUSTERLESS BLACK #37038 PER FED-STD-595B

**SPECIFICATIONS**

ELECTRICAL:	
FREQUENCY:	L1: (1575.42 ± 5) MHz    BD: (1561.1 ± 6) MHz
RADIATION PATTERN:	HEMISPHERICAL
POLARIZATION:	RHCP
VSWR:	< 1.5:1
IMPEDANCE:	50 ohms
ANTENNA GAIN (dBic):	Free Space    4 ft G.P.    Free Space    4 ft G.P.
@ 90° (ZENITH):	+4.1    +2.5    +5.7    +2.5
@ 10° Elevation:	-3.5    -3.0    -1.8    -3.0
@ 20° Elevation:	-2.1    -0.2    -0.4    -0.2
@ 30° Elevation:	-0.8    +0.8    +0.9    +0.8
@ 60-90° Elevation:	> 2.5    > 1.8    > 4.1    > 1.8
BEAM WIDTH (3dB):	87 Deg.    139 Deg.    89 Deg.    139 Deg.
AXIAL RATIO:	2 dB    2 dB
LIGHTNING PROTECTION:	DC GROUNDING
LNA GAIN:	35
LNA NOISE FIGURE:	1.9 dB
LNA P1dB Out:	+13 dBm
LNA DC POWER:	(2.5-24) V / < 35 mA
POWER HANDLING:	1 Watt CW

**MECHANICAL:**

SIZE: DIAMETER: 2.60 in. [ 66.04 mm]  
HEIGHT: 0.690 in [ 17.53]

WEIGHT: 4.00 oz. [113 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, N, 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

REV	DESCRIPTION	DATE	APPROVED
1			
2			
3			
5			

QUANTITY REQD	DESCRIPTION	PART NO	MATERIAL	FINISH	REV

**UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES**  
FRACTIONS TO DECIMALS: ANGLES ± 1/64    DEC. ANGLES ± 1'  
TOLERANCE 5TH PER ANSI Y14.5  
REMOVE ALL BURRS  
BREAK EXTERNAL EDGES .006 TO .016  
REMOVE ALL SHARP EDGES PER MIL-C-8879  
DRY OFF & COAT WITH 27-000  
MACHINED SURFACES ✓  
DO NOT SCALE DRAWING

**ANTCOM CORP.** TORRANCE, CALIFORNIA  
2.6 in Dia. Flat ACTIVE GPS/BD ANTENNA  
D13CVE1 2B1515A-XS-1  
SCALE 1/1 SHEET 1 OF 1