



Iridium/Inmarsat/L1/L2 GPS/Glonass/L-Band (1-2 GHz) **Helix Antenna**  
**P/N: 18x2.5H1215R-P-XS-1**  
**2.5" Diameter x 18" Tall, Front/Back Mount Configuration, *for Space Applications***  
**with SMA, TNC, N, or BNC Connector Options**



ISO 9001:2008/FAA Approved Facility

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

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4x1.061 [26.94]  
 4x0.201 [5.11] Thru. for 10-32 Screws  
 4x1.061 [26.94]  
 #3.500 [88.90]  
 #2.500 [63.50]

**SPECIFICATIONS**

FREQUENCY (MHz):	L5 GPS E5, E5a, E5b, Galileo L5 IRNSS	L2 GPS B2 Compass	L2 GLONASS E6 Galileo B3 Compass	Omnistar / L-Band L6 Galileo B1 Compass	L1 GPS E1, E2 Galileo L1 IRNSS	L1 GLONASS
	1176.45 ± 12.0 MHz 1164.45 - 1219.14 MHz 1176.45 ± 15.0 MHz	1227.60 ± 12.0 MHz 1207.14 ± 10.0 MHz	1262.50 ± 7.5 MHz 1266.75 - 1290.75 MHz 1268.52 ± 10.0 MHz	1542.50 ± 14.0 MHz 1542.50 ± 5.0 MHz 1561.098 ± 10.0 MHz	1575.42 ± 15.0 MHz 1575.42 ± 17.0 MHz 1575.42 ± 12.0 MHz	1609.0 ± 7.0 MHz
GAIN (dBic) in FS	+ 11.5 dBic					
AXIAL RATIO (dB)	1 to 2					
RADIATION PATTERN:	HEMISPHERICAL					
POLARIZATION:	RHCP					
VSWR:	< 1.7 : 1					
POWER HANDLING:	200 watts					

**ELECTRICAL:**

**MECHANICAL:**

SIZE: TOP DIA = 2.50 in [ 63.50mm], BASE DIA = 3.50 in [ 88.90mm]  
 HEIGHT = 18 in. [457 mm]  
 WEIGHT: 16.2 oz. (460 +/-10) grams  
 FINISH: SKYDROLRESISTANTPOLYURETHANENAMEL BASE IRIDITE PER MIL-C-5541F TYPE II CLASS 1A  
 COLOR: GLOSS WHITE #17925PER FED-STD-595B LUSTERLESSGRAY #36320 PER FED-STD-595B OLIVE DRAB GREEN#34031 PER FED-STD-595B LUSTERLESSBLACK#37038 PER FED-STD-595B  
 MATERIAL: 6061-T6 ALUMINUMALLOY BASE COMPOSITE RADOME, IMPACT, ABRASION, UV, SOLVENT, AND SKYDROLRESISTANCE, FIRE RETARDANT  
 CONNECTOR: SMA-Female (OPTION: TNC, TNC-Bulkhead, N, N-Bulkhead, BNC)

**ENVIRONMENTAL:**

TEMPERATURE: -166°F TO +248°F [-110°C TO +120°C]  
 ALTITUDE: 70,000ft.  
 VIBRATION: > 30 G's

**FEDERAL & MILITARY SPECIFICATIONS**

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

QUANTITY REQD	DESCRIPTION	PART NO	FINISH	REV
4	MOUNTING SCREW: (10-32 Pan Head Phillips, 1/2")	MS51958-63	-	5
4	MOUNTING SCREW: (10-32 Pan Head Phillips, 1/4")	MS51958-59	-	4
1				3
1				2
1				1

**UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE ANGLES**

FRACTIONS	DECIMALS	ANGLES
± 1/64	± .015	± 1°
	± .005	

TOLERANCE 51M PER ANSI Y14.5

REWORK ALL SURFACES  
 REWORK INTERNAL EDGES .005 TO .015  
 REWORK ALL SURFACES PER MIL-8-8879  
 51'S ON A COMB OF .25/.005  
 MACHINED SURFACES

DO NOT SCALE DRAWING

**ANTCOM CORP.** TORRANCE, CALIFORNIA

HIGH GAIN  
 GPS/GLONASS/IRIDIUM/  
 INMARSAT HELIX ANTENNA

REV: 1  
 DATE: 3CVE1  
 DRAWN BY: S. HUYNH  
 DEC-07-09

P/N: 18x2.5H1215R-P-XS-1

SCALE 1/1 SHEET 1 OF 1

REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED

7 6 5 4 3 2 1

18.000 [457.20]  
 .300 [7.62]  
 .357 [9.07]  
 5x10-32 Threaded  
 #0.225H Deep  
 2x2.487 [63.25]  
 SMA-Female Connector

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NMO Connector Option is Now Available for Some Antennas