



**UHF & GPS & Satellite Communication Antennas**  
**P/N: 5BG-300-400-1516-P-XTT-2: 300-400 MHz Plus GPS/Iridium/Inmarsat Antenna**  
**P/N: 5BG-300-400-L1RxT-A-XTT-2: 300-400 MHz Plus Active GPS /Active Rx Thuraya Antenna**  
**Other UHF and Satellite Communication Bands are Available**



FAA Approved  
TSO Antennas

ISO 9001:2008/FAA Approved Facility Antenna Mounts/Adapters: <http://www.antcom.com/documents/catalogs/PeripheralAntennaProducts2.pdf>

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5.040 [128.02]  
R.382 [R9.70]  
R2.257 [R57.33]  
2.214 [56.24]  
1.600 [40.64]  
4.237 [107.63]  
4xø.201 [ø5.11] Thru.  
ø.385 [ø9.78] x 100"

1.12 [28.42]  
5.163 [131.14]  
.898 [22.81]  
2.200 [55.88]

.937 [23.80]  
.937 [23.80]  
.143 [3.63]  
1.600 [40.64]  
1.891 [48.03]  
3.319 [84.30]  
4.237 [107.63]  
I.D.: R.853  
O.D.: R.946

1.43 [3.63]  
1.43 [3.63]  
1.600 [40.64]  
1.891 [48.03]  
3.319 [84.30]  
4.237 [107.63]  
I.D.: R.853  
O.D.: R.946  
O-Ring (2-038) Cr. Groove  
DEPTH: 0.052"

**SPECIFICATIONS**

**ELECTRICAL:**

FREQUENCY (MHz):	UHF (300-400) (See Other Frequencies Below)	(GPS / IRIDIUM / INMARSAT) or (GPS / THURAYA) GPS: (1575 ± 17) Rx Inmarsat/Thuraya: (1542.5 ± 17.5) Iridium: (1609 - 1626) Tx Inmarsat/Thuraya: (1642.5 ± 17.5)	L2 OPTION: (1227.60 ± 15) MHz
RADIATION PATTERN:	OMNIDIRECTIONAL	HEMISPHERICAL	
POLARIZATION:	VERTICAL	RHCP	RHCP
VSWR:	< 2:1	< 2:1	< 2:1
IMPEDANCE:	50 ohms	50 ohms	50 ohms
ANTENNA GAIN (dBi):	> 1.5 dB	Free Space 16 in G.P., 4 ft G.P. + 4.7 + 0.4 + 3.5 + 3.3 + 1.5 + 4.9 - 1.8 - 3.2 - 2.0 - 3.8 - 4.0 - 3.6 @ 10° Elevation: - 0.3 - 1.0 + 0.8 - 2.0 - 2.0 - 0.1 @ 20° Elevation: + 1.4 + 0.9 + 1.8 + 2.8 - 0.5 0.0 - 1.8 @ 30° Elevation: > 3.9 +3.4/+0.4 > 2.8 > 2.7 +2.4/+1.5 > 3.0	Free Space 16 in G.P., 4 ft G.P. + 4.7 + 0.4 + 3.5 + 3.3 + 1.5 + 4.9 - 1.8 - 3.2 - 2.0 - 3.8 - 4.0 - 3.6 @ 10° Elevation: - 0.3 - 1.0 + 0.8 - 2.0 - 2.0 - 0.1 @ 20° Elevation: + 1.4 + 0.9 + 1.8 + 2.8 - 0.5 0.0 - 1.8 @ 30° Elevation: > 3.9 +3.4/+0.4 > 2.8 > 2.7 +2.4/+1.5 > 3.0
BEAM WIDTH (3dB):	OMNIDIRECTIONAL	114 Deg. 118 Deg. 139 Deg.	106 Deg. 111 Deg. 75 Deg.
LIGHTNING PROTECTION:		DC GROUNDING	

**LNA OPTION (for GPS and Rx only):**

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:	2.5V/20mA, 3V/29mA, 3.3V/35mA, (2.5-24V)/<50mA	
REJECTION @ (-50/+50) MHz	-41 dB / -59 dB	-40 dB / -40 dB
@ (-100/+100) MHz	< -65 dB	< -65 dB
POWER HANDLING:	200 watts	1 Watt CW, 2000 Peak 1 Microsec Pulse (-AL)

**MECHANICAL:**

SIZE: WIDTH 2.214 in. [56 mm], LENGTH 5.040 in. [128 mm], HEIGHT 5.163 in. [131 mm]  
 WEIGHT: 14.9 oz. (422g)  
 FINISH: SKYDROL RESISTANT POLYURETHANE ENAMEL BASE IRIDITE PER MIL-C-5541F  
 COLOR: LUSTERLESS GRAY #36320 PER FED-STD-595B GLOSS WHITE #17925 PER FED-STD-595B OLIVE DRAB GREEN #34031 PER FED-STD-595B LUSTERLESS BLACK #37038 PER FED-STD-595B  
 MATERIAL: 6061-T6 ALUMINUM ALLOY BASE COMPOSITE RADOME, IMPACT, ABRASION, UV, SOLVENT, SKYDROL RESISTANCE, AND FIRE RETARDANT  
 CONNECTOR: UHF: TNC-FEMALE ; GPS/IRIDIUM: TNC-FEMALE (OPTION: SMA, N, BNC)  
 MOUNTING: FLAT FIXED MOUNT; O-RING & 10-32 MOUNTING SCREWS ARE PROVIDED

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

**FEDERAL & MILITARY SPECIFICATIONS:**  
 FAA TSO-C144, DO-160D, D0-228, MIL-C-5541, MIL-STD-461E/F, SAE J1455 MIL-E-5400, MIL-I-45208A, MIL-STD-810, MIL-S-901D, MIL-STD-167-1A

QUANTITY	DESCRIPTION	PART NO.	FINISH	NOTE
4	10-32 SCREW, MOUNTING, 1.25in	MS24693-C278	-	2
1	O-RING	2-038-N756-75	-	1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES  
 FRACTIONS: DECIMALS: ANGLES  
 ± 1/64 ± .005 ± 1°  
 TOLERANCE SW PER ANG 1/4.5  
 REMOVE ALL BURRS  
 BREAK EXTERNAL EDGES .005 TO .016  
 FILE TO R .005 TO R .010  
 FILE TO R .005 TO R .010  
 DIA'S ON A COMMON ± .000  
 MACHINED SURFACES  
 DO NOT SCALE DRAWING

**ANTCOM CORP.** TORRANCE, CALIFORNIA  
 UHF/ GPS /COM  
**BLADE ANTENNA**

DATE: 30V1  
 DRAWN: S. HUYNH  
 CHECKED: Sep-23-11  
 ENGINEER: S. HUYNH  
 APPROVED: Sep-23-11  
 PART NO: 5BG-300-400-1516-P-XTT-2  
 SCALE: 1/1  
 SHEET 1 OF 1

**P/N: 5BG-300-400-1516-P-XTT-2**

SIZE:	START FREQ. (MHz)	STOP FREQ. (MHz)	Other Band	DC BLOCK/LIMITER:	GPS/RX only LNA:
1: 2" SQ	225, 300, 350, 370,	310, 350, 370, 400,	S: (2-3-2.5) GHz	DL WITH DC BLOCK & WITH LIMITER	AL: WITH +33 dB LNA
1.9: 1.9" SQ	400, 425, 450, 470,	410, 425, 450, 470,	C: (4-4-8-8) GHz	BLANK: WITHOUT DC BLOCK NOR LIMITER	P: WITHOUT LNA
2: 2.6" DIA.	500, 820, 990, 1300	500, 820, 990, 1400	L: (1.7-2.0) GHz		
3: 3.5" DIA.	1500, 1600, 1700	1550, 1650, 1750	Ku: (14-16) GHz		
4: MINI ARINC	1800, 1950, 2400	1850, 1950, 2500	1215: L1/L2 GPS 15: L1 GPS 1516: L1GPS/Iridium/Inmarsat 1216: L1/L2GPS/Iridium/Inmarsat		

SB: Blade, 53: Rod    XXX    YYY    LTRX: L1GPS/RX-Thuraya (Add one more Connector)

CABLE'S LENGTH: UHF/Other-Band CON.    COLOR:

X: NO CABLE    S: SMA; B: BNC; F: F    1: GLOSS WHITE #17925 PER FED-STD-595B  
 M: WITH BNC MOUNT    M: MICK; MM: MMX    2: LUSTERLESS GRAY #36320 PER FED-STD-595B  
 # : CABLE LENGTH (IN)    N: NIN; Butthead    3: OLIVE DRAB GREEN #34031 PER FED-STD-595B  
 R: RIGHT ANGLE CON.    T: TB; TNC; TNC-Bulkhead    4: LUSTERLESS BLACK #37038 PER FED-STD-595B

2. O-RING AND MOUNTING SCREWS ARE 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