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"-HF" for High Iridium/Inmarsat/Thuraya-Rejection Front End Filter Option: -22dB@1616MHz, -34dB@(1625-1660)MHz  
 "-HFO" for Additional OmniStar/TerraStar Rejection: -27dB@1545MHz

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4X  $\phi 0.201$  [ $\phi 5.11$ ] Thru.  
 $\phi 0.385$  [ $\phi 9.78$ ] X 100"  
✓ for 10-32 MOUNTING SCREWS

Removable Survey Mount  
THD 0.625-11UNC-2B  
0.7" Deep

1-1/16 [26.92]  
For High/Constant Vibration Applications,  
Please Tighten The Antenna to  
~700 in-lbs of Torque with  
Thread Locker to Avoid Wear.

**P/N: G5Ant-53AT1**

SIZE:	LNA:	CABLE'S LENGTH:	CONNECTOR:	COLOR:
1: 2" SQ.	42 ARINC 743	A: WITH LNA	S: SMA; SMB; SMBR; B: BNC	-1: GLOSS WHITE #17925 PER FED-STD-595B
1.5x1.5" SQ.	33 3.5" DIA. ON 5" GROUND PLANE	X: NO CABLE	N: MCX; MFR; MMCX; MMR; MMCX-R	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
2: 2.6" DIA.	72 7" DIA. CHOKER RING		N: N; N-B; N-Bulkhead	-3: CAMO GREEN #34094 PER FED-STD-595B
3: 3.5" DIA.	5: Bare on 5in (126mm) Dia, Ground Plane		T: TNC; TB: TNC-Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
4: MIN ARINC	X,X: Bare on X,Xin Dia, Ground Plane		SMC, SSMC, SSMB, SSM	-5: DESERT TAN #33446 PER FED-STD-595B

### SPECIFICATIONS

**ELECTRICAL:**

FREQUENCY:	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 MHz 1164.45 - 1219.14 MHz 1176.45 ± 15 MHz	1227.80 ± 12 MHz 1207.14 ± 10 MHz	1252.50 ± 7.5 MHz 1266.75 - 1290.75 MHz 1268.52 ± 10 MHz	1542.50 ± 14.0 MHz 1542.50 ± 5.0 MHz 1561.098 ± 10 MHz	1575.42 ± 15.0 MHz 1575.42 ± 17.0 MHz 1575.42 ± 12.0 MHz	1609 ± 7.0 MHz

**RADIATION PATTERN:** HEMISPHERICAL

POLARIZATION:	RHCP	RHCP	RHCP	RHCP	RHCP	RHCP
VSWR:	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1
IMPEDANCE:	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms
ANTENNA GAIN (dBi):						
@ 90° (ZENITH):	- 5	+ 2.8	+ 1.1	+ 0.7	+ 3.9	+ 1.3
@ 10° Elevation:	- 11	- 3.1	- 5.0	- 6.0	- 3.1	- 5.2
@ 20° Elevation:	- 10	- 2.0	- 4.1	- 5.2	- 2.1	- 4.0
@ 30° Elevation:	- 9	- 1.1	- 3.0	- 3.0	- 0.0	- 2.0
@ 60 - 90° Elevation:	> - 6.5	> 1.8	> 0.8	> -0.7	> + 3.0	> + 0.5
BEAM WIDTH (3dB):	102 Deg.	100 Deg.	97 Deg.	90 Deg.	95 Deg.	96 Deg.
AXIAL RATIO:	1.0 dB	1.5 dB	1 dB	1.5 dB	1.5 dB	3 dB

**LIGHTNING PROTECTION:** DC GROUNDING

LNA GAIN:	35 dB	35 dB	35 dB	33 dB	33 dB	33 dB
LNA NOISE FIGURE:	3.0 dB	3.0 dB	3.0 dB	3.0 dB	3.0 dB	3.0 dB
LNA P1dB Out:	+13 dBm	+13 dBm	+13 dBm	+13 dBm	+13 dBm	+13 dBm
LNA DC POWER:	2.5V/20mA, 3V/29mA, 3.3V/35mA, (2.5-24)V/<50mA					
POWER HANDLING:	1 Watt CW, Optional: 10 Watts 1 Microsec Pulse (-AL)					

**MECHANICAL:**

SIZE: DIAMETER: 3.50 in. [88.90 mm]  
HEIGHT: 0.86 in. [21.89 mm] - (Optional for Passive)

WEIGHT: 14.5 oz. (411 g)

FINISH: SKYDROL RESISTANT POLYURETHANE ENAMEL  
BASE IRIDITE PER MIL-C-5541F CLASS 1A

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

CONNECTOR: TNC FEMALE CONNECTOR  
(OPTION: SMA, BNC, TNC Bulkhead, N,  
N Bulkhead, MCX, MMCX)

**ENVIRONMENTAL:**

TEMPERATURE: -67 °F TO +185 °F [-55 °C TO +85 °C]  
70,000 ft.

VIBRATION: > 30 G's  
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

QTY	DESCRIPTION	PARTS LIST	PART NO	FINISH	REV
4	MOUNTING SCREWS: 10-32, 3/4"		MS24693C274	-	5
1	5" DIA. GROUND PLANE		12G1215P001-B6	-	3
1	SURVEY ANTENNA MOUNT		MTR-3 Rev A	-	2

UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN INCHES  
FRACTIONS SHALL BE IN 16ths  
± 1/64  
DECIMALS SHALL BE TO ± .015  
± .005  
± .002  
± .001  
TOLERANCE SURF PER ANSI Y14.5  
REMOVE ALL BURRS  
BREAK CHAMFER EDGES .005 TO .015  
FILLET R .005 TO .015  
SLOPE .005 TO .015  
DIA'S ON A COMMON & .0005  
MACHINED SURFACES  
DO NOT SCALE DRAWING

ORIGINALLY DRAWN: S. HUYNH NOV-11-11  
ORIGINALLY DESIGNED: S. HUYNH NOV-11-11  
UPDATED: S. HUYNH May-20-15  
UPDATE DRAWN: P. TRAN May-20-15  
APPROVED: S. HUYNH May-20-15

**ANTCOM CORP.** TORRANCE, CALIFORNIA  
SURVEY MOUNT  
L1L2Glonass/L1L2GPS/OmniStar  
G5 ANTENNA

REV: 1  
SCALE: 1/1  
SHEET: 1 OF 1