



FAA Approved Facility

2-Port Passive L1-GPS & Inmarsat/Iridium (RHCP) Antenna: P/N: 5GL1INIRP-XS2-1-NR

2-Port Passive L1-GPS & Thuraya (LHCP) Antenna: P/N: 5GL1TP-XS2-1-NR

Other Frequencies, Color and Connector Options are Available

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



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5.040 [128.02]  
R.375 [R9.53]  
R.382 [R9.70]  
2.214 [56.24]  
R.710 [R18.03]  
1.500 [38.10] SQ.  
1.900 [48.26] SQ.  
.300 [7.62]  
.100 [2.54]  
2X .889 [22.58]  
4X  $\phi$ .201 [ $\phi$ 5.11] THRU  
1.600 [40.64]  
4.237 [107.63]

SMA CABLE (OPTION: TNC, N, MCX, or MMCX)

L1 GPS IN/IR

**SPECIFICATIONS**

FREQUENCY (MHz):	REVISIONS				
	ZONE	REV	DESCRIPTION	DATE	APPROVED
L1 GPS					
Rx/Tx INMARSAT/GLONASS/IRIDIUM or THURAYA					
ANTENNA GAIN (dBic):					
@ 90° (ZENITH):	+5.4	+3.1	+3.4	+4.3	
@ 10° Elevation:	-1.3	-3.7	-3.1	-2.2	
@ 20° Elevation:	+0.4	-2.0	-1.1	-0.6	
@ 30° Elevation:	+1.8	-1.3	0.0	+0.8	
@ 60 - 90° Elevation:	> 4.5	> 2.0	>+2.6	>+3.5	
BEAM WIDTH (3dB):	109 Deg.	106 Deg.	106 Deg.	106 Deg.	
RADIATION PATTERN:	HEMISPHERICAL				
POLARIZATION:	RHCP	RHCP (INMARSAT/IRIDIUM); LHCP (THURAYA)			
VSWR:	2:1				
IMPEDANCE:	50 ohms				
AXIAL RATIO:	2 dB				
LIGHTNING PROTECTION:	DC GROUNDING				
POWER HANDLING:	100 Watts CW (WITHOUT LNA)				

**ELECTRICAL:**

	L1 GPS	Rx/Tx INMARSAT/GLONASS/IRIDIUM or THURAYA	
FREQUENCY (MHz):	(1575.42 ±12)	(1542.50 ±17.5) (1642.50 ±17.5) (1616-1626)	
ANTENNA GAIN (dBic):			
@ 90° (ZENITH):	+5.4	+3.1 +3.4 +4.3	
@ 10° Elevation:	-1.3	-3.7 -3.1 -2.2	
@ 20° Elevation:	+0.4	-2.0 -1.1 -0.6	
@ 30° Elevation:	+1.8	-1.3 0.0 +0.8	
@ 60 - 90° Elevation:	> 4.5	> 2.0 >+2.6 >+3.5	
BEAM WIDTH (3dB):	109 Deg.	106 Deg. 106 Deg. 106 Deg.	
RADIATION PATTERN:	HEMISPHERICAL		
POLARIZATION:	RHCP	RHCP (INMARSAT/IRIDIUM); LHCP (THURAYA)	
VSWR:	2:1		
IMPEDANCE:	50 ohms		
AXIAL RATIO:	2 dB		
LIGHTNING PROTECTION:	DC GROUNDING		
POWER HANDLING:	100 Watts CW (WITHOUT LNA)		

**MECHANICAL:**

SIZE: WIDTH: 2.214 in [56.24 mm], LENGTH: 5.040 in [128.02 mm]  
HEIGHT: 0.300 in [7.62 mm]

WEIGHT: 3.00 oz. (85 g)

FINISH: SKYDROL RESISTANT POLYURETHANE ENAMEL  
BASE HARD BLACK ANODIZE PER MIL-A-8625F, TYPE III, CLASS 2

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

CONNECTOR: SMA CABLE (OPTION: TNC, N, MCX, or MMCX)

**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:**

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	RECORD	DESCRIPTION	PART NO	MATERIAL	FINISH	REV	NO
4		MOUNTING SCREWS: 10-32, 3/4"	587-075	-	-	-	1

CONFIGURATION	FREQ. BAND:	LNAs	CONNECTORS	COLOR:
1: 2" SQ. (FLAT)	1215: L1/L2	A: WITH LNA	S: SMA; P: PINS	*1: GLOSS WHITE #17925 PER FED-STD-595B
1.5: 1.8" SQ. (FLAT)	15: L1 ONLY	AL: WITH LNA/LIMITER	M: MCX; MM: MMCX	*2: LUSTERLESS GRAY #36320 PER FED-STD-595B
2: 2.8" DIA. (FLAT)	L1/L1NIR; L1/L2/INMARSAT	P: WITHOUT LNA	N: N; NB: N-Bulkhead	*3: CAMO GREEN #34094 PER FED-STD-595B
3: 3.5" DIA. (FLAT)	GLONASS/IRIDIUM		T: TNC; TB: TNC-Bulkhead	*4: LUSTERLESS BLACK #37038 PER FED-STD-595B
4: MINI ARINC (FLAT)	L1NIR; L1/INMARSAT			*5: DESERT TAN #33448 PER FED-STD-595B
5: 5" x 2.2" (FLAT)	GLONASS/IRIDIUM			

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES  
FRACTIONS: DECIMALS: ANGLES  
± 1/64 .002 .005 ± 1°  
TOLERANCE SHIP PER AMS 1145  
REMOVE ALL BURRS  
BREAK EXTERNAL EDGES .005 TO .010  
FILERS R .005 TO R .030  
SCREW THREADS PER MIL-C-8879  
DIMS ON A COMMON 1/2" DIA  
MACHINED SURFACES 1/2"

DO NOT SCALE DRAWING

ANTCOM CORP. TORRANCE CALIFORNIA  
L1 GPS/INMARSAT/GLONASS/IRIDIUM ANTENNA  
D3CVE1 5GL1INIRP-XS2-1-NR  
SCALE 1/1 SHEET 1 OF 1

P/N: 5GL1INIRP-XS2-1-NR

NOTES: UNLESS OTHERWISE SPECIFIED:

NMO Connector Option is Now Available for Some Antennas