



# UHF + L1L2 GPS + Iridium Antenna

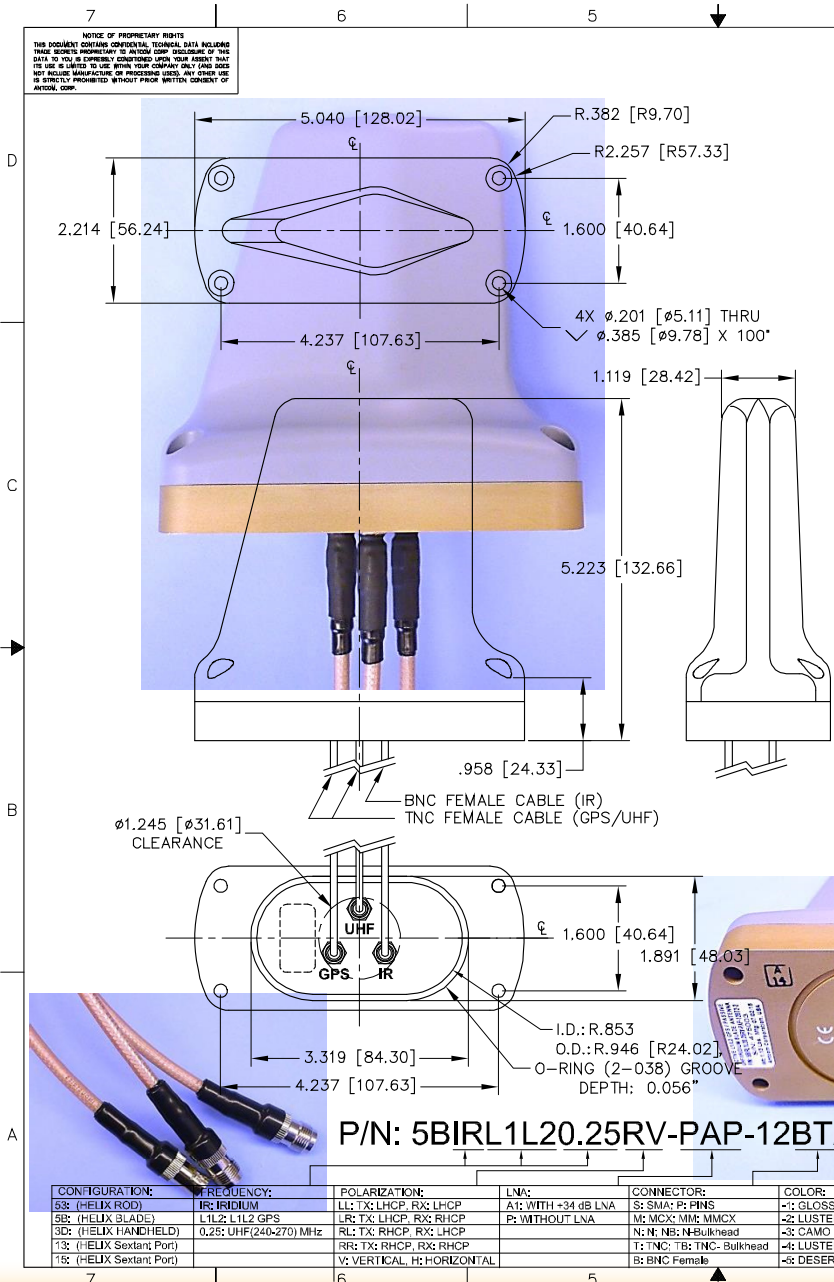
P/N: 5BIRL1L20.25RV-PAP-12BT2-2 (Lusterless Grey, with 12in RG-400 Cables)

5.16" Tall Blade, Top Mount Configuration



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

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**SPECIFICATIONS**

ZONE	REVISIONS			
	REV	DESCRIPTION	DATE	APPROVED
-	-	-	-	-

**ELECTRICAL:**

	GPS (L1 or L1/L2, See P/N in Bottom Table)		IRIDIUM		UHF	
FREQUENCY:	L1: (1575.4 ±13)	L2: (1227.6 ±13) MHz	(1610.0 - 1626.5) MHz		(240-270) MHz	
RADIATION PATTERN:	HEMISPHERICAL		HEMISPHERICAL		VERTICAL	
POLARIZATION:	RHCP		RHCP		OMNI	
VSWR:	< 2:1		< 2:1		< 2.5:1	
GAIN (dB):	F.S.	4 ft G.P	F.S.	4 ft G.P	4 ft G.P.	
@ 90° (Zenith):	+ 4.6	+ 2.9	+ 1.8	+ 5.3	+4.9	
@ 10° Elevation:	- 2.5	- 1.8	- 4.2	- 2.3	-1.0	
@ 20° Elevation:	- 1.1	+ 0.7	- 2.9	+ 0.4	+1.5	
@ 30° Elevation:	+ 0.5	+ 1.7	- 2.0	+ 2.3	+2.4	
@ 60° to 90° Elevation:	> 3.6	> 2.1	> 0.9	> 3.2	>+3.3	
					+5.0	
					-2.5	
					-0.5	
					+1.0	
					+2.7	
					- 2 dBil	
BEAM WIDTH (3dB):	103 °	146 °	108 °	74 °	129 ° 98 °-106 °	OMNI
AXIAL RATIO @ Zenith:	2 dB		2 dB		N/A	
POWER HANDLING:	1 Watt		30 W		100 W	
LIGHTNING PROTECTION:	DC GROUNDING		DC GROUNDING		DC GROUNDING	
FILTER:	2.2-POL					
LNA GAIN:	(33.0+/-1.0) dB		N/A		N/A	
LNA P 1dB Out:	+16 dBm		N/A		N/A	
LNA NOISE FIGURE:	2.9 dB (Filter loss is Included)		N/A		N/A	
VOLTAGE/CURRENT:	(+2.8 TO +28) Volts DC / (30 TO 50) mA		N/A		N/A	

**MECHANICAL:**

SIZE: WIDTH: 2.21 in. [56.24 mm], LENGTH: 5.04 in. [128.0 mm], HEIGHT: 5.223 in. [132.66 mm]

WEIGHT: 14.9 oz. (422 g)

FINISH: SKYDROL RESISTANT POLYURETHANE ENAMEL BASE IRIDITE PER MIL-C-5541

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

CONNECTOR: BNC FEMALE CABLE - IR  
TNC FEMALE CABLE - GPS/UHF  
(OPTION: TNC Bulkhead, SMA, N, N Bulkhead, BNC)

**ENVIRONMENTAL:**

TEMPERATURE: -67 °F TO +185 °F [-55 °C TO +85 °C]

ALTITUDE: 70,000 ft.

VIBRATION: > 30 G's

WIND SPEED: > 135 Miles/hr

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

QTY	DESCRIPTION	PART NO	MATERIAL	FINISH	REV
4	SCREW, MOUNTING	MS24693-C286, ITEM 579GN	-	-	-
1	O-RING	MS28775-024, ITEM 552	-	-	1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES ± 1/64 .005 .005 ± .1°

TOLERANCE .5MM PER ANI 14.5

REWORK ALL SURFACES BEAM EXTERNAL EDGES .005 TO .015 SURF FINISH PER MIL-C-5541 SAE J1455 ON A GRADE # 27.000 MACHINED SURFACES

DO NOT SCALE DRAWING

ORIGINAL DRAWN: S. HUYNH Dec-17-14

ORIGINAL DESIGNED: S. HUYNH Dec-17-14

UPDATED: S. HUYNH June-21-15

UPDATE DRAWN: P. TRAN June-21-15

APPROVED: S. HUYNH June-21-15

**ANTCOM CORP.** TORRANCE, CALIFORNIA

L1L2 GPS  
IRIDIUM/UHF BLADE ANTENNA

SCALE 1/1

SHEET 1 OF 1

P/N: 5BIRL1L20.25RV-PAP-12BT2-2

CONFIGURATION:	FREQUENCY:	POLARIZATION:	LNA:	CONNECTOR:	COLOR:
5B: (HELIX ROD)	IR: IRIDIUM	LL: TX: LHCP, RX: LHCP	A1: WITH +34 dB LNA	S: SMA; P: PINS	-1: GLOSS WHITE #17925 PER FED-STD-595B
5B: (HELIX BLADE)	L1L2: L1L2 GPS	LR: TX: RHCP, RX: RHCP	P: WITHOUT LNA	M: MMC; MM: MMCX	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
3D: (HELIX HANDHELD)	0.25: UHF(240-270) MHz	RL: TX: RHCP, RX: LHCP		N: N; NB: N Bulkhead	-3: CAMO GREEN #34094 PER FED-STD-595B
13: (HELIX Sextant, Port)		RR: TX: RHCP, RX: RHCP		T: TNC; TB: TNC, Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
18: (HELIX Sextant, Port)		V: VERTICAL, H: HORIZONTAL		B: BNC Female	-5: DESERT TAN #33446 PER FED-STD-595B