



FAA Approved Facility

**(2.20 ± .015) GHz S-Band Telemetry (TM) Antenna, P/N: 1.4CG22P-R-XS-X-5.75R-871C**

For High Speed Vehicle

1.40in. Dia., 5.75in Conformal Radius without Flange Configuration, 871 °C

2 of This Antenna (Top/Bottom) Can be Used with 2-Way Power Divider (P/N: 2G1215S-XS2-2) for Wrap Around Coverage

Other Conformal Radius, Frequencies, Connector, Color, Cable Length and Mounting Options are Available

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



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Top View Dimensions:  $\phi 1.402$  [35.62], CERAMIC RADOME, 316H STAINLESS STEEL HOUSING.

Side View Dimensions: R5.750 [R146.05], .473 [12.01], .120 [3.05], .367 [9.32], SMA FEMALE CONNECTOR.

Front View Dimensions: 4X 4-40 UNC .12 DEEP ON .601 RAD, .849 [21.58], .295 [7.50].

**SPECIFICATIONS**

ELECTRICAL:	
FREQUENCY:	S-BAND (2.200 ± .015) GHz
RADIATION PATTERN:	HEMISPHERICAL (360° in Azimuth/ >120° in EI)
POLARIZATION:	RHCP
VSWR:	2:1
IMPEDANCE:	50 ohms
ANTENNA GAIN (dBic):	Free Space 3 in G.P.
@ 90 ° (ZENITH):	+ 1.8
@ 10 ° Elevation:	- 5.3
@ 20 ° Elevation:	- 3.2
@ 30 ° Elevation:	- 1.5
@ 60 - 90 ° Elevation:	> 0.5
BEAM WIDTH (3dB):	100 Deg. 120 Deg.
AXIAL RATIO:	2.5 dB
LIGHTNING PROTECTION:	Yes
RF CENTER PIN DC BLOCK	Yes
L1 GPS (1575MHz) REJECTION:	30 dB
POWER HANDLING:	100 Watt

  

**MECHANICAL:**

SIZE: 1.402 in [35.62 mm] DIAMETER  
HEIGHT = 0.473in. [12.01 mm]

WEIGHT: <3.0 oz. (85 g)

FINISH: SKYDROL RESISTANT POLYURETHANE ENAMEL  
BASE IRIDITE PER MIL-C-5441F  
COATING PER MIL-PRF-85582E AND MIL-PRF-85285E

MATERIAL: 316H STAINLESS STEEL HOUSING  
CERAMIC RADOME, ABRASION, UV, SOLVENT, SKYDROL RESISTANCE AND FIRE RETARDANT

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

**ENVIRONMENTAL:**

TEMPERATURE: -70 °F TO +1600 °F [-57 °C TO +871 °C]

ALTITUDE: 100,000 ft.

SHOCK/VIBRATION: 100 G's

LEAKAGE: HERMETICALLY SEAL

**FEDERAL & MILITARY SPECIFICATIONS:**

**DESIGN TO:** FAA TSO-C144, DO-160D (ENV/EMI), DO-228 (ENV/EMI), MIL-C-5541F, MIL-PRF-39012 (CONN), MIL-STD-810G (ENV/EMI), MIL-HDBK-5400 (ELEC) MIL-STD-464C (ELEC MAG), MIL-STD-130N-1 (ID), MIL-STD-889B (METAL) RCC-319-14 (TERMINATION), RCC-324-01(SAFETY), MIL-STD-1472 MIL-E-5400, MIL-I-45208A, SAE J1455, AND NAS411-1 (HAZ)

**ACCEPTANCE TEST PROCEDURE:** ATP-GPS-L1L2-100

FREQ. BAND:	LNA:	POLARIZATION:	CONFORMAL RADIUS:
1215: L1/L2	A2: WITH 20 dB LNA	R: RHCP	5.75; 5.75in
15: L1 ONLY	A4: WITH 40 dB LNA	L: LHCP	
22: (2.20 ± .015) GHz	P: WITHOUT LNA	V: VERTICAL	

QTY	DESCRIPTION	PART NO	SPECIFICATION	MATERIAL	FINISH	UNIT
1	ADHESIVE GASKET	123450-3M-1.20	-	-	-	2
-2	-1					1

**P/N: 1.4CG22P-R-XS-X-5.75R-871C**

SIZE:	CONNECTOR:	COLOR:
1: 2" SQ.	S: SMA; P: PINS	-1: GLOSS WHITE #17925 PER FED-STD-595B
1.9: 1.9" SQ.	M: MCX; MM: MMCX	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
2: 2.6" DIA.	SMP: SMP; SSMCR: SSMC-R	-3: CAMO GREEN #34094 PER FED-STD-595B
3: 3.5" DIA.	T, TB: TNC, TNC-Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
		-5: DESERT TAN #33446 PER FED-STD-595B

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	FRACIONS	TOLERANCES	ANGLES
	DECIMALS	± .015	± 1°
	± 1/64	± .004, .005	

NOTES: UNLESS OTHERWISE SPECIFIED:

**ANTCOM CORP.** TORRANCE, CALIFORNIA

S-Band Telemetry Antenna

REV: D 3CVE1  
SCALE: 1/1  
SHEET 1 OF 1