



FAA Approved Facility

(2.20 ± .015) GHz S-Band Telemetry (TM) Antenna, P/N: 2CG22P-R-XS-X-5.75R-871C

For High Speed Vehicle

2.00in. Dia., 5.75in Conformal Radius with 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>

ANTCOM CORPORATION . 367 Van Ness Way, Suite 602 . Torrance, CA 90501 . Tel: (310) 782-1076 . Fax: (310) 782-1086 . E-mail: antennas@antcom.com . <http://www.antcom.com>

NOTICE OF PROPRIETARY RIGHTS
THIS DOCUMENT CONTAINS CONFIDENTIAL TECHNICAL DATA INCLUDING TRADE SECRETS PROPRIETARY TO ANTCOM CORP. DISCLOSURE OF THE DATA TO YOU IS EXPRESSLY CONTINGENT UPON YOUR AGREEMENT THAT THE DATA IS LOANED TO YOU BY YOUR COMPANY ONLY. LOAN DOES NOT INCLUDE MANUFACTURE OR PROCESSING USED. ANY OTHER USE IS EXPRESSLY PROHIBITED WITHOUT PRIOR WRITTEN CONSENT OF ANTCOM CORP.

Top View Dimensions: 1.203 [30.56] diameter, 1.203 [30.56] spacing between screws, 4X Ø.129 [Ø3.28] THRU .225 X .82" ON .851 RAD. TO BOTTOM SURFACE FOR NO. 4 SCREWS.

Side View Dimensions: R5.810 [R147.57], R5.750 [R146.05], .05 X 45° CF, .413 [10.49], .473 [12.01], .120 [3.05], .367 [9.32], SMA FEMALE CONNECTOR.

Bottom View Dimensions: 4X 4-40 UNC .12 DEEP ON .601 RAD, Ø1.402 [Ø35.62], .849 [21.58], .295 [7.50], .849 [21.58].

SPECIFICATIONS

ELECTRICAL:	
FREQUENCY:	S-BAND (2.200 ± .015) GHz
RADIATION PATTERN:	HEMISPHERICAL (360° in Azimuth/ >120° in El)
POLARIZATION:	RHCP
VSWR:	2:1
IMPEDANCE:	50 ohms
ANTENNA GAIN (dBic):	Free Space 3 in G.P.
@ 90 ° (ZENITH):	+ 1.8 + 3.8
@ 10 ° Elevation:	- 5.3 - 4.3
@ 20 ° Elevation:	- 3.2 - 2.2
@ 30 ° Elevation:	- 1.5 - 0.7
@ 60 - 90 ° Elevation:	> 0.5 > 2.5
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: 2.00 in [50.80 mm] DIAMETER
HEIGHT = 0.473in. [12.01 mm]

WEIGHT: 3.4 oz. (96 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	

P/N: 2CG22P-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

NOTES: UNLESS OTHERWISE SPECIFIED:

QUANTITY REQD	DESCRIPTION	PART NO	SPECIFICATION	MATERIAL	FINISH	INS NO
1	ADHESIVE GASKET	123450-3M-1.20	-	-	-	2

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

FRACTIONS	TOLERANCES	ANGLES
± 1/64	± .005	± 1°

TOLERANCE 5VM PER ANSI Y14.5
REMOVE ALL BURRS
BREAK EXTERNAL EDGES .005 TO .010
FILLETS R .005 TO R .010
DIMS ON A COIL PER MIL-C-8879
MACHINED SURFACES 125

DO NOT SCALE DRAWING

DATE	BY	APP'D	REV
Jan-21-16	S. HUYNH		1
Jan-21-16	S. HUYNH		2
Mar-07-16	S. HUYNH		3
Mar-07-16	P. TRAN		4
Mar-07-16	S. HUYNH		5

ANTCOM CORP. TORRANCE, CALIFORNIA

S-Band Telemetry Antenna

REV: D 3CVE1

SCALE: 1/1

SHEET 1 OF 1