



FAA Approved Facility

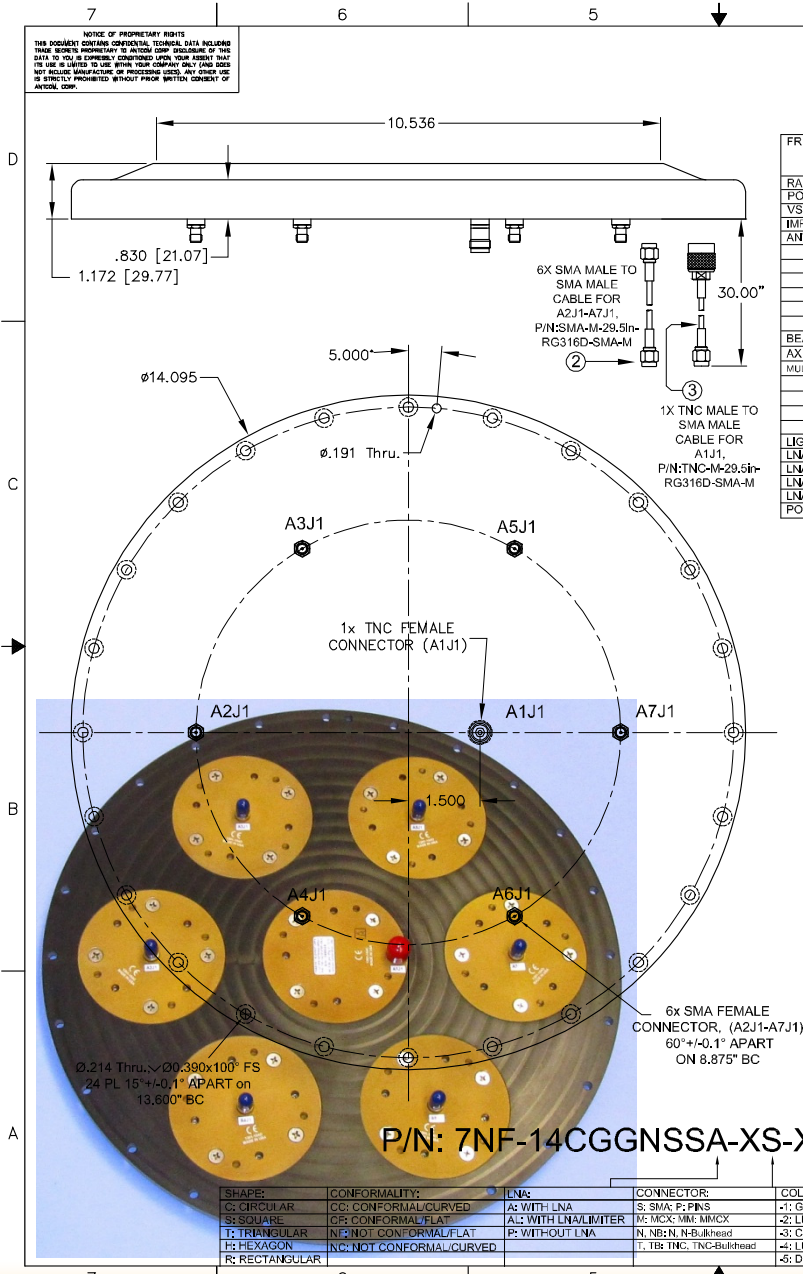
7-Element CRPA GNSS Antenna Array (14.09" Dia. X 1.172" High), GAS1 Foot Print P/N: 7NF-14CGGNSSA-XS-X

“-PL-” or “-AL-” for Limiter Options for High Power Pulse Protection



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Wide Band GNSS Option Is Available



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 ± 12 MHz	1227.60 ± 12 MHz 1207.14 ± 10 MHz	1242 - 1252 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	1598 - 1609 MHz																																										
RADIATION PATTERN:	HEMISPHERICAL																																															
POLARIZATION:	RHCP																																															
VSWR:	< 2.0:1																																															
IMPEDANCE:	50 ohms																																															
ANTENNA GAIN (dB):	<table border="1"> <tr><td>@ 90° Above Horizon (Top):</td><td>+ 1.3</td><td>+ 1.4</td><td>+ 1.4</td><td>+ 4.9</td><td>+ 4.9</td><td>+ 5.0</td></tr> <tr><td>@ 15° Above Horizon:</td><td>- 4.5</td><td>- 3.8</td><td>- 3.9</td><td>- 3.9</td><td>- 3.3</td><td>- 3.1</td></tr> <tr><td>@ 20° Above Horizon:</td><td>- 3.5</td><td>- 2.9</td><td>- 3.0</td><td>- 3.1</td><td>- 2.5</td><td>- 2.3</td></tr> <tr><td>@ 25° Above Horizon:</td><td>- 2.5</td><td>- 2.0</td><td>- 2.1</td><td>- 2.3</td><td>- 1.6</td><td>- 1.5</td></tr> <tr><td>@ 30° Above Horizon:</td><td>- 2.2</td><td>- 1.7</td><td>- 1.8</td><td>- 1.5</td><td>- 0.8</td><td>- 0.7</td></tr> <tr><td>@ 70° Above Horizon:</td><td>- 0.2</td><td>+ 0.8</td><td>+ 0.9</td><td>+ 3.4</td><td>+ 4.2</td><td>+ 4.4</td></tr> </table>						@ 90° Above Horizon (Top):	+ 1.3	+ 1.4	+ 1.4	+ 4.9	+ 4.9	+ 5.0	@ 15° Above Horizon:	- 4.5	- 3.8	- 3.9	- 3.9	- 3.3	- 3.1	@ 20° Above Horizon:	- 3.5	- 2.9	- 3.0	- 3.1	- 2.5	- 2.3	@ 25° Above Horizon:	- 2.5	- 2.0	- 2.1	- 2.3	- 1.6	- 1.5	@ 30° Above Horizon:	- 2.2	- 1.7	- 1.8	- 1.5	- 0.8	- 0.7	@ 70° Above Horizon:	- 0.2	+ 0.8	+ 0.9	+ 3.4	+ 4.2	+ 4.4
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BEAM WIDTH (3dB):	124 Deg., 120 Deg., 120 Deg., 80 Deg., 80 Deg., 80 Deg.																																															
AXIAL RATIO:	1 dB, 1 dB, 1 dB, 1 dB, 1 dB, 1 dB																																															
MULTIPATH REJECTION (RHCP+RHCP):	<table border="1"> <tr><td>@ 90° Above Horizon (Top):</td><td>34 dB</td><td>32 dB</td><td>30 dB</td><td>26 dB</td><td>28 dB</td><td>29 dB</td></tr> <tr><td>@ 0° Above Horizon:</td><td>8 dB</td><td>7 dB</td><td>8 dB</td><td>18 dB</td><td>12 dB</td><td>11 dB</td></tr> <tr><td>@ 15° Above Horizon:</td><td>14 dB</td><td>15 dB</td><td>14 dB</td><td>16 dB</td><td>14 dB</td><td>12 dB</td></tr> <tr><td>@ 25° Above Horizon:</td><td>19 dB</td><td>19 dB</td><td>17 dB</td><td>17 dB</td><td>15 dB</td><td>15 dB</td></tr> </table>						@ 90° Above Horizon (Top):	34 dB	32 dB	30 dB	26 dB	28 dB	29 dB	@ 0° Above Horizon:	8 dB	7 dB	8 dB	18 dB	12 dB	11 dB	@ 15° Above Horizon:	14 dB	15 dB	14 dB	16 dB	14 dB	12 dB	@ 25° Above Horizon:	19 dB	19 dB	17 dB	17 dB	15 dB	15 dB														
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@ 15° Above Horizon:	14 dB	15 dB	14 dB	16 dB	14 dB	12 dB																																										
@ 25° Above Horizon:	19 dB	19 dB	17 dB	17 dB	15 dB	15 dB																																										
LIGHTNING PROTECTION:	DC GROUNDING																																															
LNA GAIN:	42 dB, 42 dB, 42 dB, 43 dB, 43 dB, 43 dB																																															
LNA NOISE FIGURE (With Filter):	2.6 dB, 2.6 dB, 2.6 dB, 2.9 dB, 2.9 dB, 2.9 dB																																															
LNA P1dB Out:	+10 dBm, +10 dBm, +10 dBm, +10 dBm, +10 dBm, +10 dBm																																															
LNA DC POWER:	(3.3-24V) < 50mA																																															
POWER HANDLING:	3 Watt CW (With Limiter)																																															

MECHANICAL:

SIZE: DIAMETER: 14.095"
HEIGHT: 1.172 in

WEIGHT: 6.1 Lbs. (2.77 Kg)

FINISH: SKYDROL RESISTANT POLYURETHANE ENAMEL
BASE IRIDITE PER MIL-C-5441

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

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

ENVIRONMENTAL:

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

ALTITUDE: 70,000 ft.

VIBRATION: > 30 G's

LEAKAGE: HERMETICALLY SEAL

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:

24	MOUNTING SCREWS: 10-32, 1.00"	MS24693C276, ITEM 579	2
	DESCRIPTION	PART NO	REV
QUANTITY REQD	PARTS LIST		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS AND DECIMALS ARE ANGLES ± 1/64 .001 .005 ± 1°			
TOLERANCE 5/16 PER ANSI Y14.5	ORIGINALLY DRAWN	S. HUYNH	Oct-16-03
REMOVE ALL SHARP EDGES EXTERNAL EDGES 0.00 TO .015 FILLET R .015 TO .030 2.0X R MAX PER MIL-S-8879 DAYS ON A CORNER 12,000	ORIGINALLY DESIGNED	S. HUYNH	Oct-16-03
MACHINED SURFACES 12.5	UPDATED	S. HUYNH	Mar-03-15
DO NOT SCALE DRAWING	UPDATE DRAWN	P. TRAN	Mar-03-15
	APPROVED	S. HUYNH	Mar-03-15
ANTCOM CORP. TORRANCE, CALIFORNIA		7 ELEMENT CRPA, GAS1 FOOT PRINT, GNSS ANTENNA ARRAY	
DRAWING NO: 3CVE1		PART NO: 7NF-14CGGNSSA-XS-X	
SCALE: 1/1"		SHEET 1 OF 1	

Antenna Mounts: http://www.antcom.com/documents/catalogs/PeripheralAntennaProducts2.pdf
Amplifiers/Power Divider/Combiner/Filters: http://www.antcom.com/documents/catalogs/PeripheralAntennaProducts1.pdf