



Active L1L2GPS + Passive (RHCP Inmarsat + Iridium) Antenna,
 Active L1L2GPS + Passive (RHCP Inmarsat + Iridium + LHCP Thuraya) Antenna,
 Active L1L2GPS + Passive (RHCP Inmarsat/Iridium + LHCP Thuraya + GSM) Antenna,
 Active L1L2GPS + Passive (RHCP Inmarsat/Iridium + LHCP Thuraya + Wi-Fi) Antenna,
 Other Frequencies, Connectors, Colors and Conformal FRPA Mounting Adapter Options are Available



FAA Approved Facility

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

P/N: 4NF-L1L2RxTxINIR-APP-XT3-1-FRPA
 P/N: 4NF-L1L2RxTxINIRT-APPP-XT4-1-FRPA
 P/N: 4NF-L1L2RxTxINTGSM-APPP-XT4-1-FRPA
 P/N: 4NF-L1L2RxTxINTWiFi-APPP-XT4-1-FRPA

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4.220 [107.19]
R.780 [R19.81]
4.220 [107.19]
2.686 [68.22] (FRPA MOUNTING FOOT PRINT)

.836 [21.24]
TNC FEMALE CONNECTOR (OPTION: SMA, N, BNC, F, MCX, or MMCX)

4x .021 [05.11] THRU ON 1.343 RAD. (FRPA MOUNTING FOOT PRINT)
 ϕ 1.500 [38.10] CLEARANCE
 .650 [16.51] SQ.

SPECIFICATIONS

	REVISIONS									
	ZONE	REV	DESCRIPTION	DATE	APPROVED					
ELECTRICAL:	L1 GPS		L2 GPS		Rx Inmarsat OmniStar, L6 Galileo B1 Compass (RHCP) Rx-Thuraya (LHCP)		IRIDIUM L1 GLONASS (RHCP) Tx-Globalstar (LHCP)		Tx-Inmarsat (RHCP) Tx-Thuraya (LHCP)	
FREQUENCY:	(1575.42 ±12) MHz		(1227.60 ±12) MHz		(1542.5 ± 17.5) MHz		(1616 -1626) MHz		(1642.5 ± 17.5) MHz	
RADIATION PATTERN:	RHCP		RHCP		HEMISPHERICAL		RHCP or LHCP		RHCP or LHCP	
POLARIZATION:	RHCP		RHCP		RHCP or LHCP		RHCP or LHCP		RHCP or LHCP	
VSWR:	< 2.0:1									
IMPEDANCE:	50 ohms									
ANTENNA GAIN (dBic):	Free Space	4 ft G.P.	Free Space	4 ft G.P.	Free Space	4 ft G.P.	Free Space	4 ft G.P.	Free Space	4 ft G.P.
@ 90 ° (ZENITH):	+ 4.5	+ 2.4	+ 2.5	+ 2.5	+ 2.5	+ 1.6	+ 3.0	- 0.5	+ 3.4	+ 0.5
@ 10 ° Elevation:	- 1.5	- 1.7	- 4.3	- 2.8	- 4.7	- 2.4	- 4.5	- 4.0	- 3.8	- 3.3
@ 20 ° Elevation:	0.0	+ 0.9	- 3.0	+ 0.5	- 3.8	+ 0.7	- 3.3	- 1.2	- 2.7	- 0.6
@ 30 ° Elevation:	+ 1.1	+ 2.0	- 1.5	+ 2.4	- 2.1	+ 2.3	- 1.5	- 0.3	- 1.0	- 0.1
@ 60 - 90 ° Elevation:	> 3.0	> 2.5	> 1.7	> 3.6	> + 1.0	> + 2.1	> + 1.8	> - 1.3	> + 2.2	> - 1.5
BEAM WIDTH (3dB):	112 Deg.	145 Deg.	104 Deg.	80 Deg.	90 Deg.	140 Deg.	85 Deg.	140 Deg.	87 Deg.	130 Deg.
AXIAL RATIO:	2 dB									
LIGHTNING PROTECTION:	DC GROUNDING									
LNA (For GPS/Rx Option Only):	33 dB Gain									
LNA NOISE FIGURE:	3.0 dB									
LNA P1dB Out:	+13 dBm									
LNA DC POWER:	2.5V/20mA, 3V/29mA, 3.3V/35mA, (2.5-24)V/<50mA									
REJECTION @ (-50/+50) MHz:	-40 dB / -40 dB									
@ (-100/+100) MHz:	< -65 dB									
POWER HANDLING:	100 Watts CW (WITHOUT LNA) , 1 Watt CW (WITH LNA)									

MECHANICAL:

SIZE: WIDTH: 4.220 in. [105.56 mm] SQ.
 HEIGHT: 0.836 in. [21.24 mm]

WEIGHT: 10.4 oz. (295g)

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

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

CONNECTOR: TNC FEMALE (OPTION: SMA, N, BNC, F, 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:

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	DESCRIPTION	PARTS LIST	FINISH	REV. NO.
4	SCREW, MOUNTING (10-32, 1.5" L)	93085A837	-	1
-1				2

CONFIGURATION:	FREQ. BAND:	LNA:	GPS/Inmarsat/Thuraya Connector:	COLOR:
1: 2" SQ. (FLAT)	Rx: I/IR/INIR; Rx: Tx Inmarsat & Rx/Tx I/IR/IN	A: WITH LNA	S: SMA	1: GLOSS WHITE #17925 PER FED-STD-595B
1.9: 1.9" SQ. (FLAT)	L1L2RxTxINIR; L1L2 GPS & Rx/Tx Inmarsat/I/IR/IN	P: WITHOUT LNA	M: MCX; MM; MMCX	-2: LUSTERLESS GRAY #36320 PER FED-STD-595B
2: 2.6" DIA. (FLAT)	L1L2RxTxINIR; L1L2 GPS & Inmarsat	A2: WITH 20dB LNA	N: N; NB: N-Bulkhead	-3: CAMO GREEN #34094 PER FED-STD-595B
3: 3.5" DIA. (FLAT)	L1RxTx1; L1 GPS & Rx/Tx Thuraya		T: TNC; TB: TNC-Bulkhead	-4: LUSTERLESS BLACK #37038 PER FED-STD-595B
4: MINI ARINC (FLAT)	L1L2RxTx1; L1L2 GPS & Rx/Tx Thuraya		B: BNC FEMALE	-5: DESERT TAN #33446 PER FED-STD-595B
5: (HELIX ROD)				
5B: (HELIX BLADE)				
3D: (HELIX HANDHELD)				

P/N: 4NF-L1L2RxTxINIR-APPP-XT4-1-FRPA