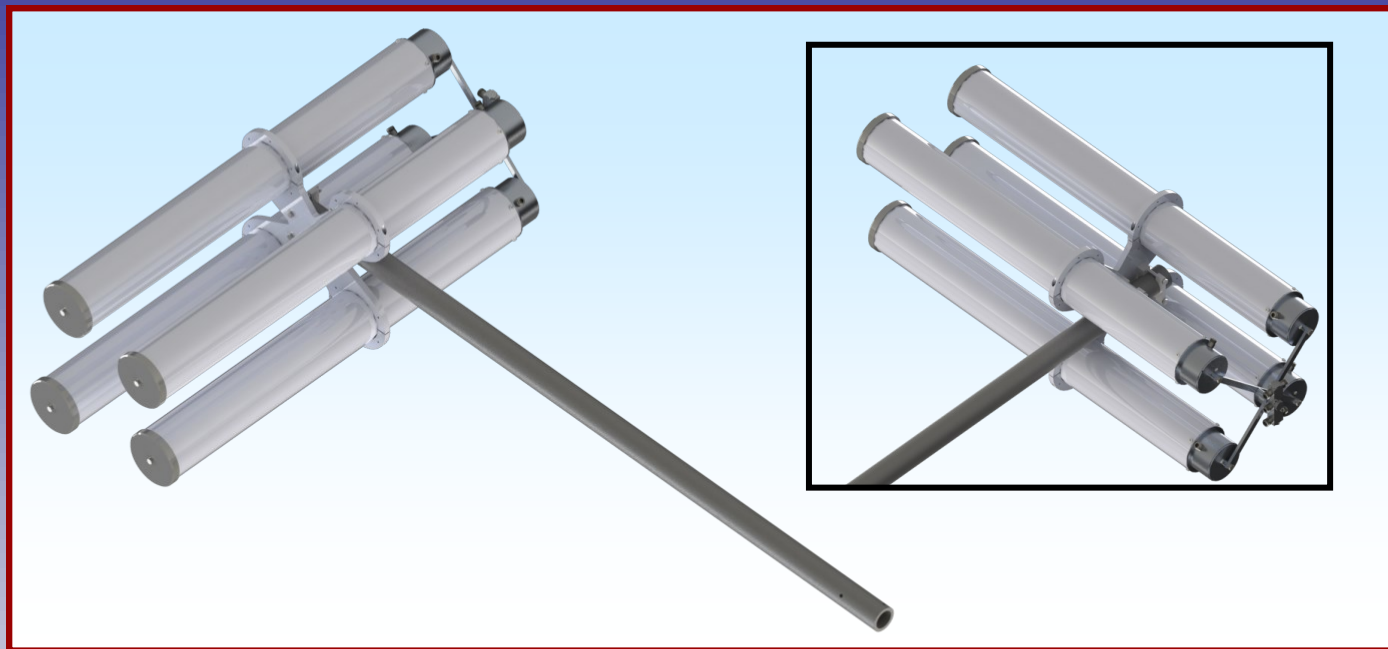




M2 Antenna Systems, Inc.

Model No: FG2227-21X4CP



SPECIFICATIONS:

Model FG2227-21X4CP
 Frequency Range 2210 To 2245 MHz
 Usable Range 2200-2255 MHz
 System*Gain 20 dBic
 Front to back 25 dB Typical
 Beam width E=13° H=13°
 Feed type Horn
 Feed Impedance 50 Ohms Unbalanced
 VSWR 1.2:1 Typical

Input Connector "N" Female
 System Polarity RHC
 Power Handling 500 Watts
 Boom Length / Dia 39"
 Stacking Distance 12.5"
 Mast Size 1-1/4" to 2"
 Wind area / Survival 4 Sq. Ft. / 100MPH
 Weight / Ship Wt. 16 Lbs. / 20 Lbs.

***Subtract 2.14 from dBi for dBd**

FEATURES:

The **FG2227-21** is a high gain, Wave Guide Fed Yagi. Computer optimized for use in the 2210-2245 MHz band. Mechanically optimized computer calculations are held by CNC cut rod elements. The low-loss Radome strengthens the antenna as well as providing protection against inclement weather and snow build up on the element structure. The standard assembly configuration is RHCP, Changing to LHCP is easily achieved by altering the connector position. Contact M2 for complete instructions.

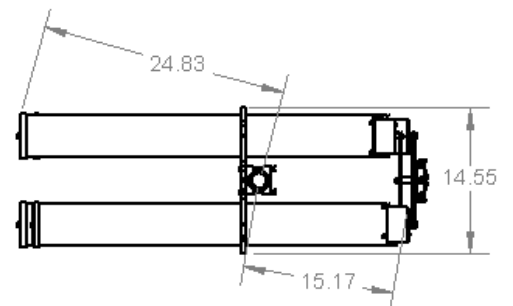
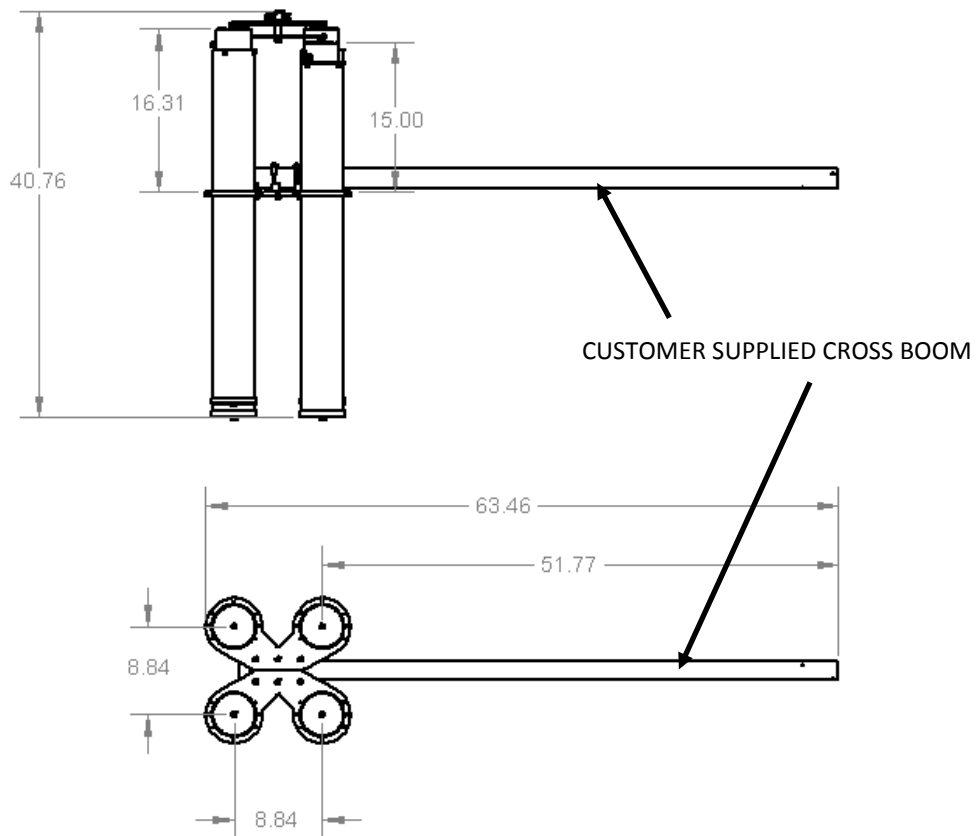
M2 Antenna Systems, Inc. 4402 N. Selland Ave. Fresno, CA 93722

Tel: (559) 432-8873 Fax: (559) 432-3059 Web: www.m2inc.com

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4/10/2019
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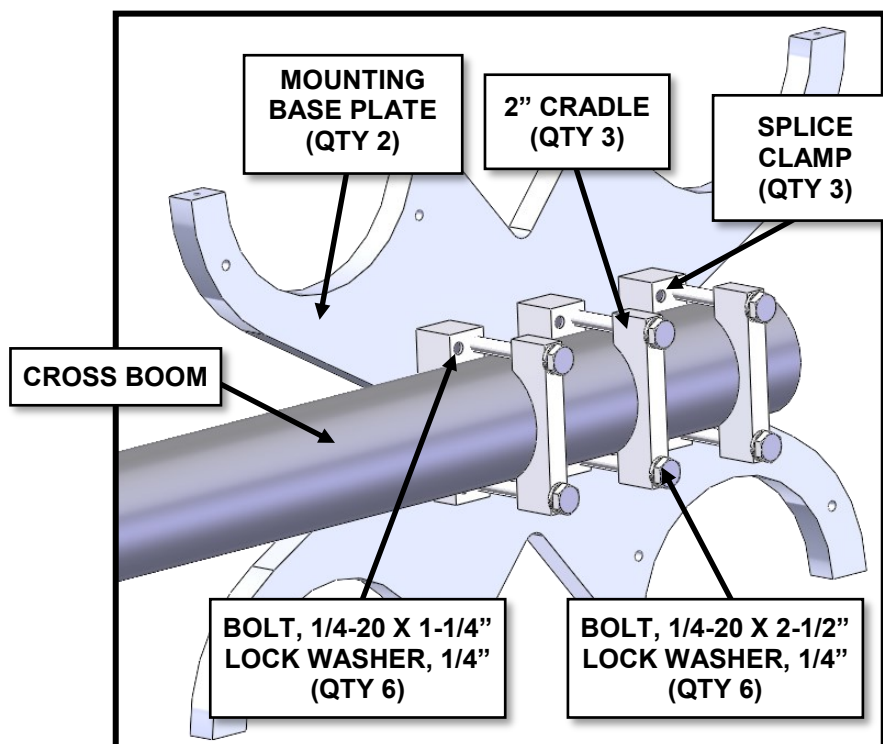
FG2227-21X4CP OVERALL DIMENSIONS



FG2227-21X4CP ASSEMBLY INSTRUCTIONS

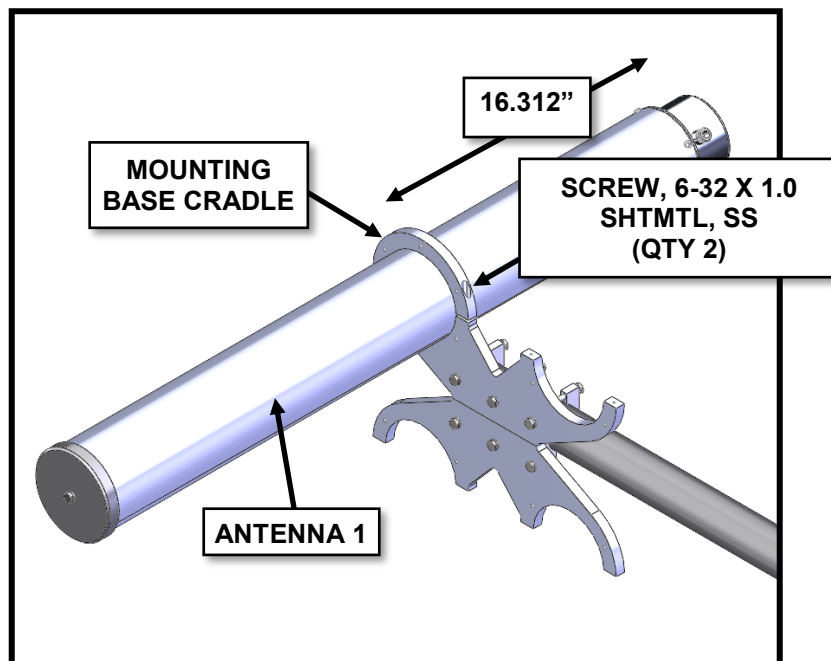
STEP 1:

Install MOUNTING BASE PLATE to CROSS BOOM. Tighten all hardware.

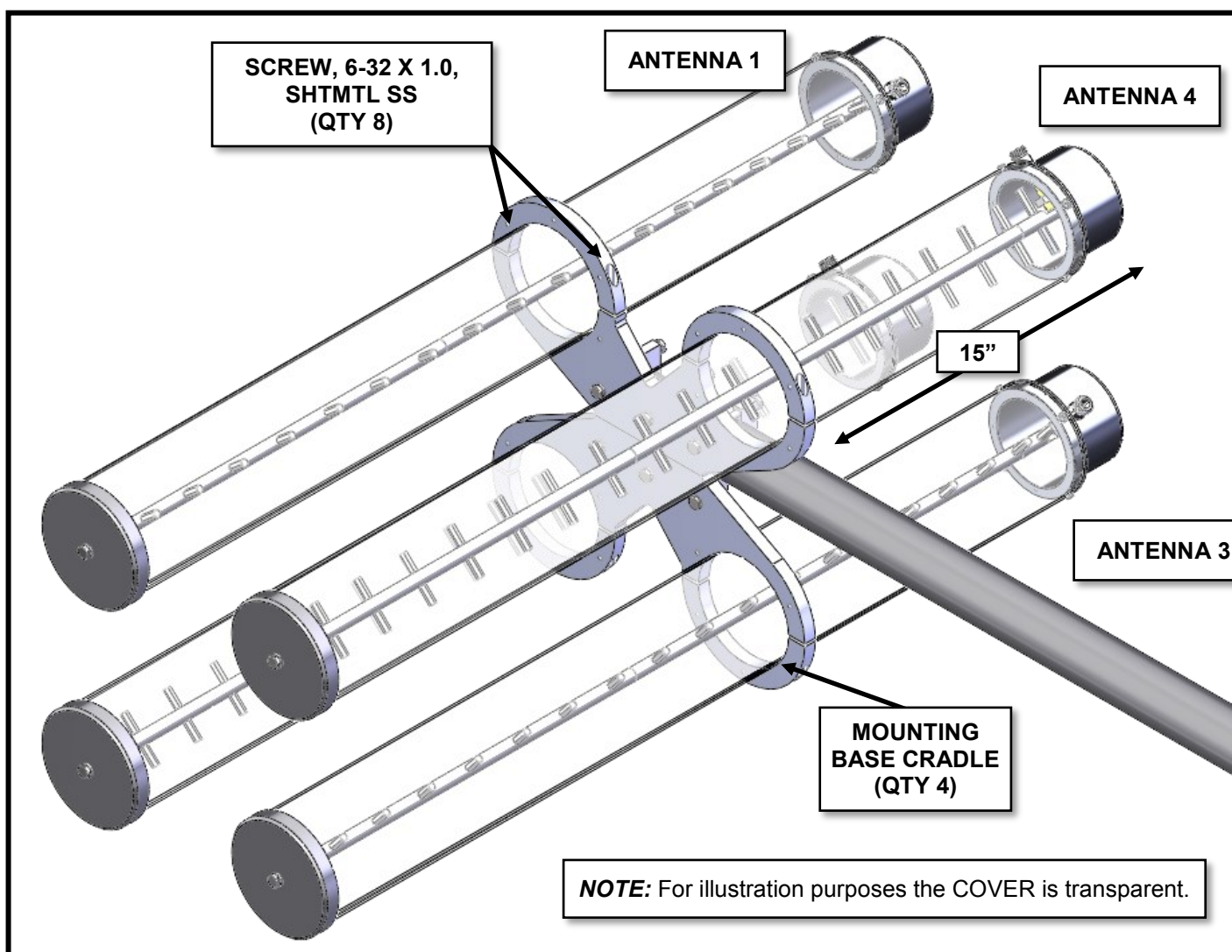


STEP 2:

Install the ANTENNA to the MOUNTING BASE CRADLE. Make sure to mount the ANTENNA at its balance point listed in graphic to reduce stress on elevation positioner motor. Leave hardware loose to orient for circular polarity.



FG2227-21X4CP ASSEMBLY INSTRUCTIONS

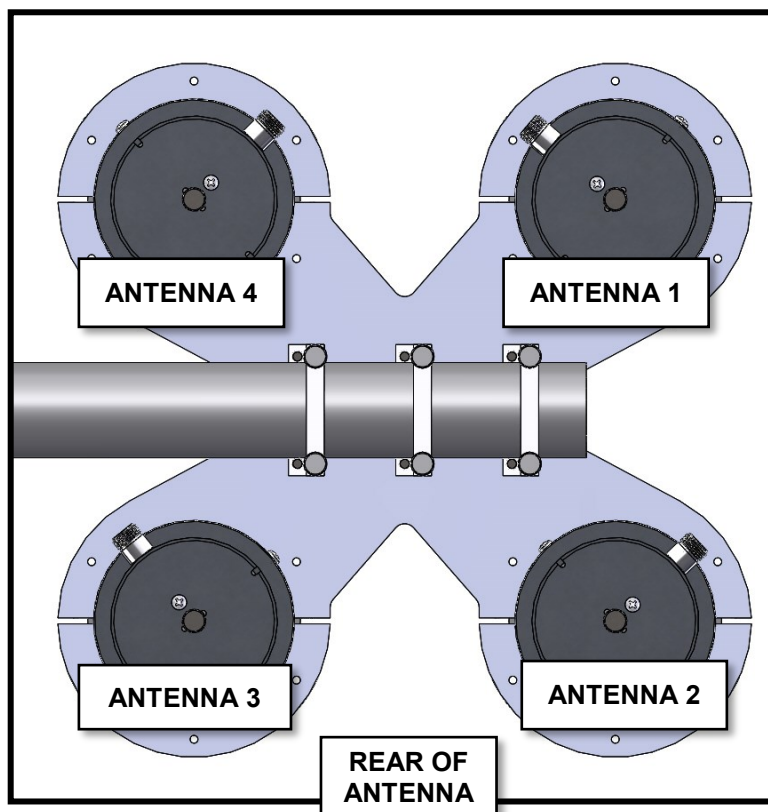


STEP 3:

Install ANTENNAS 3 onto MOUNTING BASE PLATE. For proper circular polarity of the system, ANTENNA 3 needs to be oriented the same direction as ANTENNA 1. Use the FEED CONNECTORS as reference for ELEMENT orientation. See graphic. Leave hardware loose.

STEP 4:

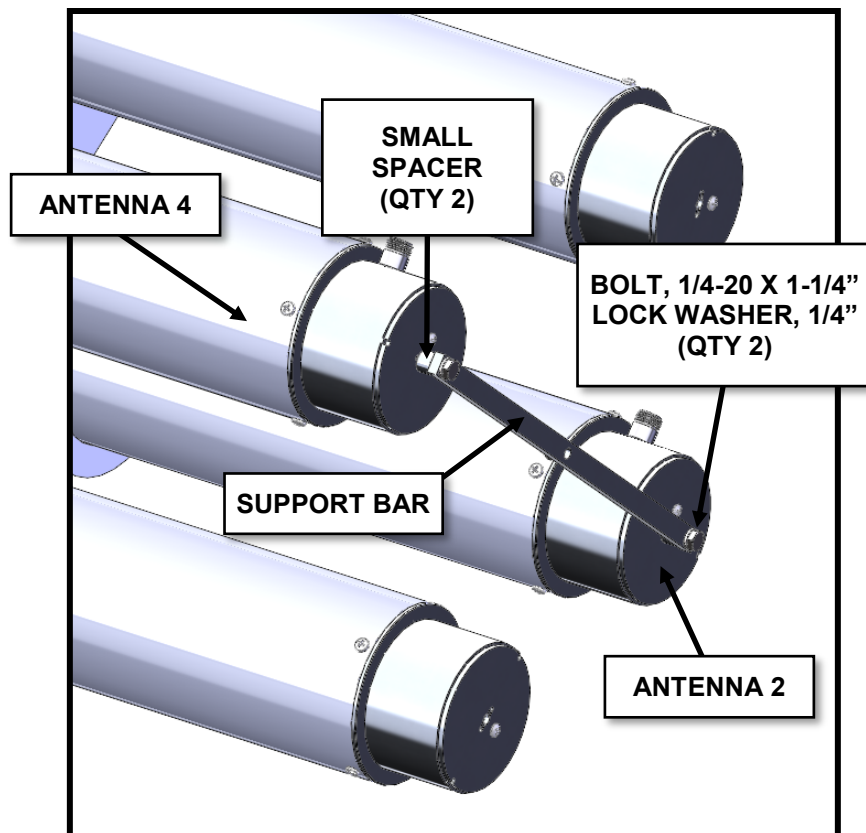
Install the two remaining ANTENNAS (2 and 4). They need to be oriented in the same direction as each other, but perpendicular to the first two ANTENNAS (1 and 3) installed. Continue leaving hardware loose.



FG2227-21X4CP ASSEMBLY INSTRUCTIONS

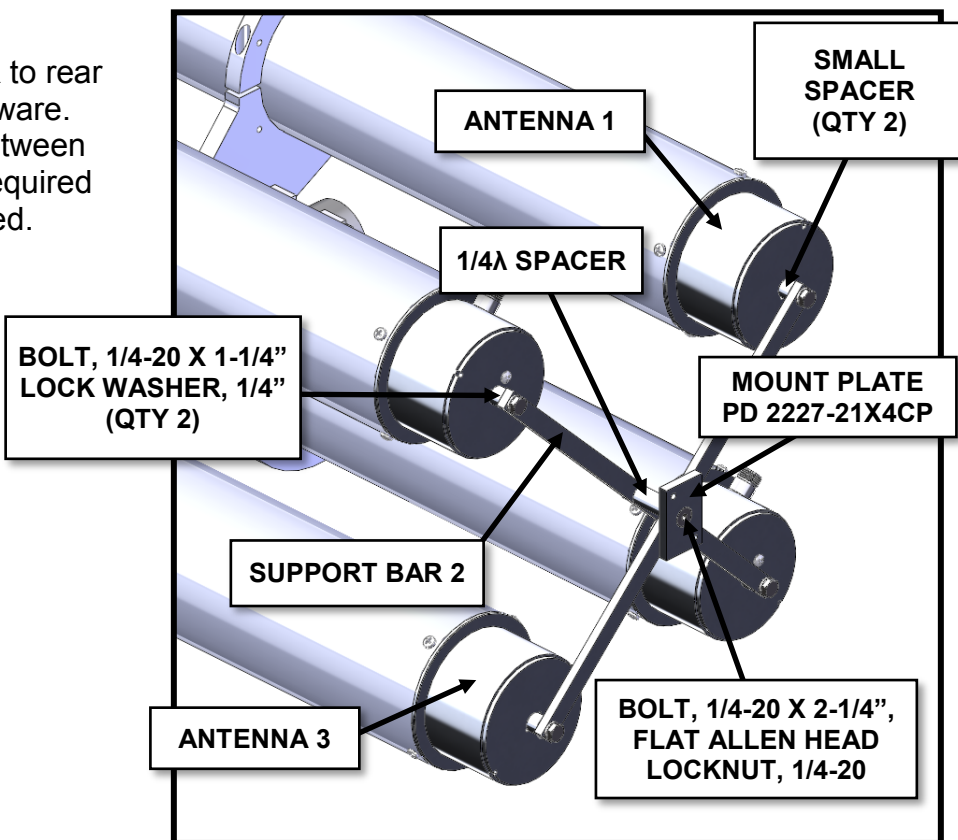
STEP 5:

Mount SUPPORT BAR to rear of ANTENNAS 2 and 4. Tighten hardware.



STEP 6:

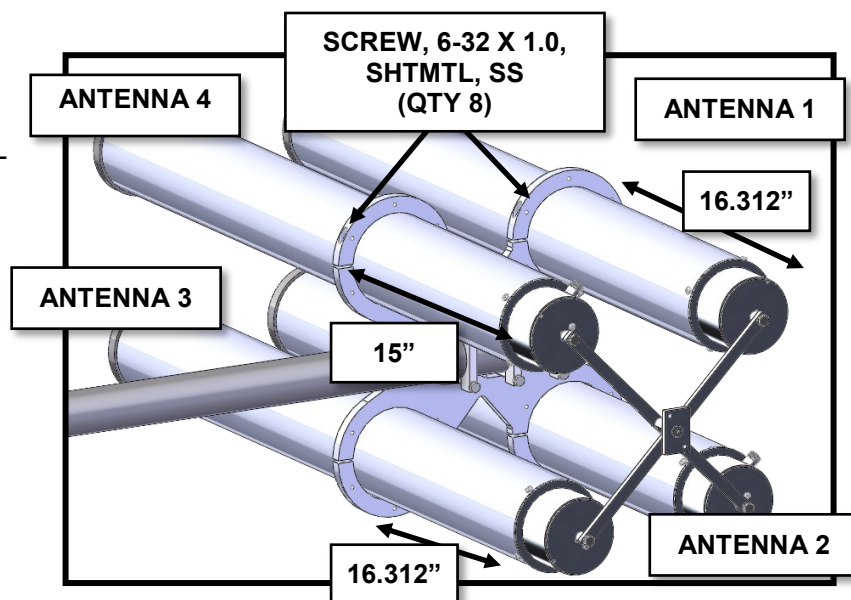
Mount the second SUPPORT BAR to rear of ANTENNAS 1 and 3. Tighten hardware. Make sure to install 1/4λ SPACER between SUPPORT BARS. The SPACER is required for the system to be circularly polarized.



FG2227-21X4CP ASSEMBLY INSTRUCTIONS

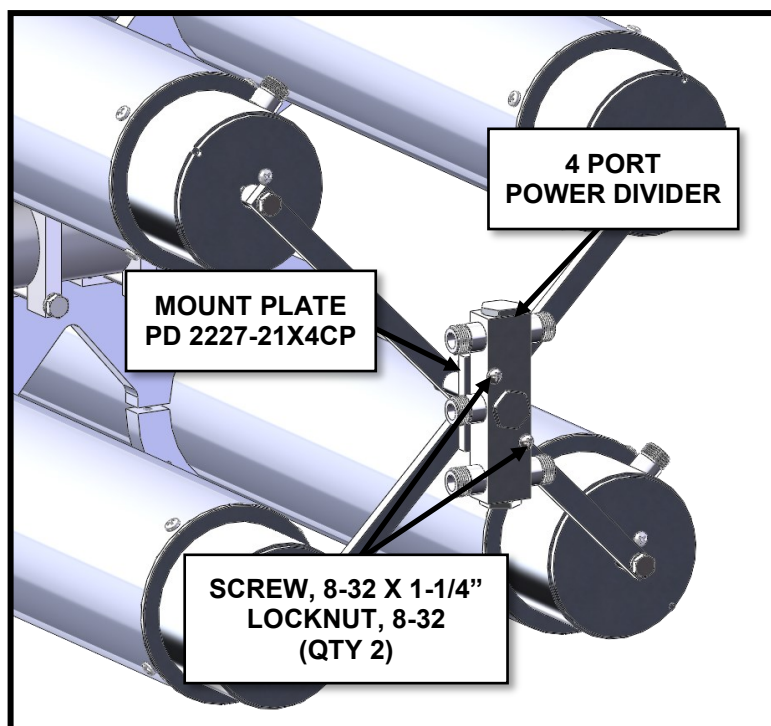
STEP 7:

Tighten all mounting hardware so the ANTENNAS are properly balanced and $1/4\lambda$ shifted.

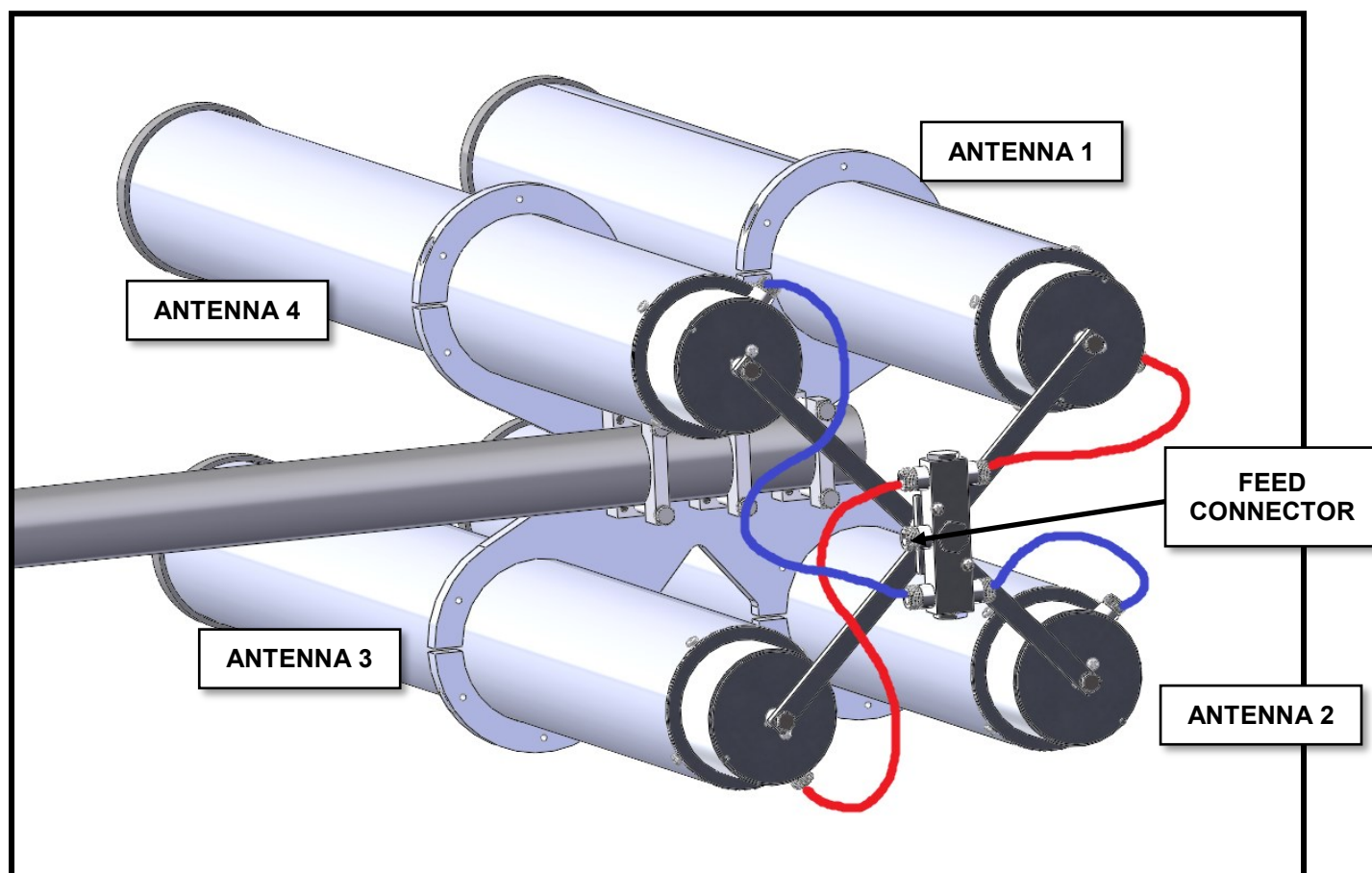


STEP 8:

Mount 4 PORT POWER DIVIDER onto MOUNTING PLATE. Tighten hardware.



FG2227-21X4CP ASSEMBLY INSTRUCTIONS



STEP 9:

Connect PHASING CABLES to the POWER DIVIDER. Connect the PHASING CABLES such that the ANTENNAS oriented in the same direction are on the same end of the POWER DIVIDER. PHASING CABLES for ANTENNA 1 and 3 should be directly across from each other. PHASING CABLES for ANTENNAS 2 and 4 should be directly across from each other.

FG2227-21X4CP PARTS & HARDWARE

<u>DESCRIPTION</u>	<u>QTY</u>
FG2227-21, ANTENNA ASSEMBLY, 2210 To 2245 MHz	4
FG22274PRTPD, 4 PORT POWER DIVIDER, 2227 MHz	1
MOUNTING BASE PLATE, DELRIN (M2A2030).....	2
MOUNTING BASE CRADLE, DELRIN (M2AHY2031)	4
SUPPORT BAR, ALUMINUM (M2AHY2032)	2
MOUNT PLATE PD 2227-21X4CP, ALUMINUM (M2AHY2033)	1
SPLICE CLAMP, ALUMINUM (M2AHY2036).....	3
2" CRADLE, ALUMINUM (M2AMC0151).....	3
SPACER, .500" OD X 1.062", ALUMINUM (M2ARS0083)	1
PHASING CABLE.....	4
ZIP TIES, 7"	8

HARDWARE

BOLT, 1/4-20 X 2-1/2", HEX TAP, SS	6
BOLT, 1/4-20 X 2-1/4", FLAT ALLEN HEAD, SS.....	1
BOLT, 1/4-20 X 1-1/4", HEX HD, SS	10
LOCKNUT, 1/4-20, SS.....	1
LOCK WASHER, 1/4", SS	16
SCREW, 6-32 X 1.0", PH SHTMTL, SS.....	8
SCREW, 8-32 X 1-1/4", PHILLIPS PAN HEAD, SS.....	2
LOCKNUT, 8-32, SS.....	2

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