

GENERAL DYNAMICS

SATCOM Technologies

4096-233
Revision E
June 14, 2016

ASSEMBLY MANUAL

Feed Horn / OMT Mounting Instructions

General Dynamics SATCOM Technologies
1700 Cable Drive NE
Conover NC 28613 USA
Phone 770-689-2040
www.gdsatcom.com

Feed Horn / OMT Mounting Instructions

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| | | | |
| E | Add Conover Address | 6/14/16 | RAH |
| D | Revised Company Name, Logo, and Part Tables | 7/28/09 | RAH |
| C | Revise Text | 2/18/05 | CLT |
| B | Revise Address and Logo | 8/28/03 | RAH |
| A | Updated parts list | 11/15/96 | PGW |
| - | ORIGINAL RELEASE | 10/16/91 | R Frye |
| REV. | DESCRIPTION | DATE | APPROVED |

The following instructions cover the installation of a Rx/Tx Feed Horn and OMT on a General Dynamics Offset Antenna.

FEED ASSEMBLY

Reference Figure 1 on page 3 and the Parts List on page 2.

1. Attach the feed horn (item 1) to the OMT (item 2) using the hardware and o-ring provided. **TIGHTEN SECURELY.**
2. Attach the Feed Horn Support Plate (item 5) and the OMT Support Plate (item 6) to the Feed Mounting Plate (item 7), with four (4) 1/4-20 x .75" countersunk head screws. **TIGHTEN SECURELY.**
3. Attach the feed mounting bracket assembly from step #2 to the Feed Support using the 5/16" hardware provided. **TIGHTEN SECURELY.**
4. Place the neck of the feed horn in the cradle in the feed horn support plate and secure with Top Feed Support Bracket (item 4) and two (2) 1/4-20 x 1.00" bolts, flat washers and lock washers. **DO NOT TIGHTEN.** Refer to Figure #1 on page 3 for the correct location (1.50") of the feed horn.
5. **Attach O-ring to the WR75 Adapter (item 3) using the supplied silicone grease.** Insert the WR75 Adapter into the hole in the OMT Support Plate, attach OMT, WR75 Adapter and Flex Waveguide to the thru port (transmit) of the OMT using the hardware and o-rings provided. **TIGHTEN SECURELY.**
6. Attach a 90 degree waveguide bend and filter (if required) and the LNB to the side port (receive) of the OMT.
7. After setting polarization, the two (2) 1/4-20 bolts from step #4 should be tightened and the 1/4-20 set screw (item 14), should be installed and tightened in the OMT support plate.

| ITEM | PART # | DESCRIPTION | QTY. |
|------|----------|---------------------------------|------|
| 1 | 0183-265 | FEED HORN | 1 |
| 2 | 0183-336 | Ku-BAND OMT - 10.95-12.20 Rx | 1 |
| | or | | |
| | 0183-335 | Ku-BAND OMT - 12.20-12.75 Rx | 1 |
| 3 | 4080-050 | WR75 ADAPTER | 1 |
| 4 | 4080-060 | TOP FEED SUPPORT BRACKET | 1 |
| 5 | 0156-575 | FEED HORN SUPPORT PLATE | 1 |
| 6 | 0156-571 | OMT SUPPORT PLATE | 1 |
| 7 | 0156-570 | FEED MOUNTING PLATE | 1 |
| 8 | 0198-121 | 1.176 I.D. x .070 O-RING | 3 |
| 9 | 8031-012 | 5/16-18 x 1.50" BOLT | 3 |
| 10 | 8201-041 | 5/16" FLAT WASHER | 6 |
| 11 | 8202-041 | 5/16" LOCK WASHER | 3 |
| 12 | 8101-009 | 5/16-18 HEX NUT | 3 |
| 13 | 8322-004 | 1/4-20 x .75" C/SINK HEAD SCREW | 4 |
| 14 | 8307-006 | 1/4-20 x .25" SET SCREW | 1 |
| 15 | 8023-008 | 1/4-20 x 1.00" BOLT | 2 |
| 16 | 8202-031 | 1/4" LOCK WASHER | 2 |
| 17 | 8201-036 | 1/4" FLAT WASHER | 2 |
| 18 | 8300-019 | #6-32 x 1.25" SCREW | 10 |
| 19 | 8200-010 | #6 INTERNAL LOCK WASHER | 14 |
| 20 | 8112-001 | #6-32 HEX NUT | 14 |
| 21 | 8300-014 | #6-32 x 1.00" SCREW | 4 |
| 22 | 0198-120 | FEED HORN O-RING | 1 |
| 23 | 8300-002 | #6-32 x 0.50" SCREW | 4 |

