

**GENERAL DYNAMICS**  
SATCOM Technologies

**4096-406**  
**Revision D**

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**Assembly Manual**

# **KU-BAND FEED INSTALLATION OMT INTERFACE**

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## KU-BAND FEED INSTALLATION OMT INTERFACE

D	Add Conover Address	4/22/16	RAH
C	Revised Address	1/22/02	CLT
B	Ku-band feed Parts list Item 6 was 4080-060	080797	PGW
A	Revised P/N of item 7	03/24/95	R Frye
-	Original Release	01/04/95	R Frye
<b>Rev.</b>	Description	Date	Approved

## GENERAL INFORMATION

This manual describes the steps required to attach a ku-band feed horn and OMT to a General Dynamics 1.2m, 1.8M or 2.4M antenna system. Follow the steps outlined in the antenna system installation manual up to the completion of the feed support assembly and then use the steps outlined below to attach the feed horn.

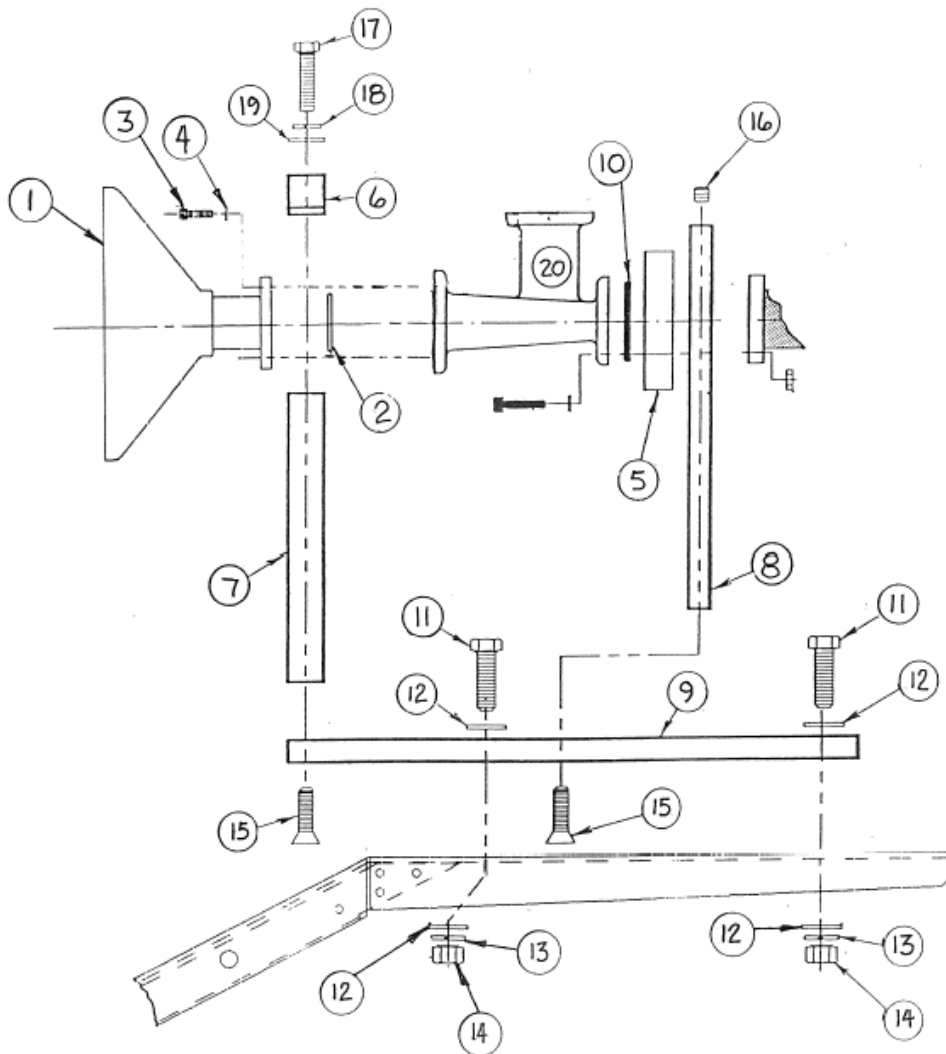
## FEED ASSEMBLY

Refer to the parts list table and figure 1.

- Step 1: Attach the feed horn (item #1) to the OMT's common port (item #20) with #6-32 hardware (item #3 & 4) as shown in figure 1. Tighten completely. Note: Coat o-ring with the silicone grease provided before assembly.
- Step 2: Attach the front support plate (item #7) and the back support plate (item #8) to the feed mounting plate (item #9) with four [4] 1/4-20 x .75" countersunk head screws (item #15). **Tighten Securely.**
- Step 3: Attach the feed mounting bracket assembly from Step #2 to the feed support using the 5/16" hardware provided (item #11, 12, 13, 14). **Tighten Securely.**
- Step 4: Place the neck of the feed horn in the cradle in the front support plate and secure with top feed support bracket (item 6) and two [2] 1/2-20 x 1.00" bolts, flat washers and lock washers (item #17, 18, 19). **Do not tighten.**
- Step 5: Insert the WR75 adapter (item #5) into the hole in the back support plate, attach OMT, WR75 adapter and flex waveguide or LNB using the hardware and o-rings provided. **Tighten Securely.**
- Step 6: After setting polarization, the two 1/4-20 bolts from step #4 should be tightened and the 1/4-20 set screw (item #16, should be installed and tightened.

The antenna assembly is now complete and ready for alignment. Refer to the antenna system installation manual for alignment guidelines.

<b>KU-BAND FEED PARTS LISTS</b>			
<b>ITEM NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY</b>
1	0183-478	Feed Horn	1
2	0198-120	O-Ring	1
3	8300-002	#6-32 x .50" SH Screw	6
4	8300-010	#6 Lock washers	6
5	4080-050	WR75 Adapter	1
6	0211-400	Top Feed Support Bracket	1
7	0156-575	Front Support Bracket	1
8	0156-571	Back Support Bracket	1
9	0156-111	Feed Mounting Plate	1
10	0198-121	1.176 ID x .070 O-Ring	1
11	8031-008	5/16-18 x 1.00" Bolt	2
12	8201-041	5/16" Flat washer	4
13	8202-041	5/16" lock washer	2
14	8101-009	5/16-18 hex nut	2
15	8322-044	1/4-20 x .75" C'sk head screw	4
16	8307-006	1/4-20 x .25" Set screw	1
17	8023-008	1/4-20 x .100" Bolt	2
18	8202-031	1/4" Lock washer	2
19	8201-036	1/4" Flat washer	2
20	4080-259	Ku-band OMT	1



## GENERAL DYNAMICS SATCOM TECHNOLOGIES

Box Contents of 0800-1431

1.8M, .8 F/D Antenna Feed Support System w/OMT Interface

Qty	P/N	Description
2	0176-249	feed rod, 1.8M Ku band, .8 F/D
1	0181-646	assembly, feed support, 1.8M,.8 F/D, 3.74" interface
2	0200-321	kit, hardware, 1.2M / 1.8M, .8 F/D feed support
2	8038-006	bolt, CRG, 5/16" - 18 x .75" zinc w/ ultraguard
3	8031-008	bolt, HHCS, 5/16" - 18 x 1.00" zinc w/ ultraguard
1	8031-026	bolt, HHCS, 5/16" - 18 x 3.25", zinc w/ ultraguard
10	8201-041	flatwasher, 5/16", zinc w/ ultraguard
6	8202-041	lockwasher, 5/16", zinc w/ ultraguard
6	8101-009	nut, HEX, 5/16" - 18, zinc w/ ultraguard
1	0200-322	kit, feed / OMT mounting, .8F/D
1	0156-111	plate, feed / OMT mounting, .8F/D
1	0156-575	plate, feed support
1	0156-571	plate, OMT support, 3.74" interface
1	4080-050	casting, waveguide spacer
1	4080-259	casting, Ku band OMT broadband, side-port Rx
1	0200-007	kit, hardware, WR75 flange
3	0198-121	O ring, 1.176" I.D. x .07"
1	0268-003	allen wrench, 7/64", short arm
3	0432-036	grease, silicon #3 pill
14	8112-001	nut, hex, #6-32, stainless steel
14	8200-010	lockwasher, #6, internal tooth, stainless steel
4	8300-002	screw, SH, #6-32 x .5", stainless steel
4	8300-014	screw, SH, #6-32 x 1.0", stainless steel
10	8300-019	screw, SH, #6-32 x 1.25", stainless steel
1	0200-815	kit, hardware, radio mounting
1	0211-400	casting, feed mounting bracket, top
2	8023-008	bolt, HHCS, 1/4" - 20 x 1.0", type 304, stainless steel
3	8031-008	bolt, HHCS, 5/16" - 18 x 1.0", zinc w/ ultraguard
3	8101-009	nut, Hex, 5/16" - 18, zinc w/ ultraguard
2	8201-036	flatwasher, 1/4", stainless steel
6	8201-041	flatwasher, 5/16", zinc w/ ultraguard
2	8202-031	lockwasher, 1/4", stainless steel
3	8202-041	lockwasher, 5/16", zinc w/ ultraguard
2	8307-006	screw, set, 1/4" - 20 x .25", stainless steel
6	8322-004	screw, 1/4" - 20 x .75", CSK head, stainless steel
1	4096-406	instructions, feed mounting, OMT interface, .8F/D

(Some ODU installations may not require all of the hardware supplied and listed above.)