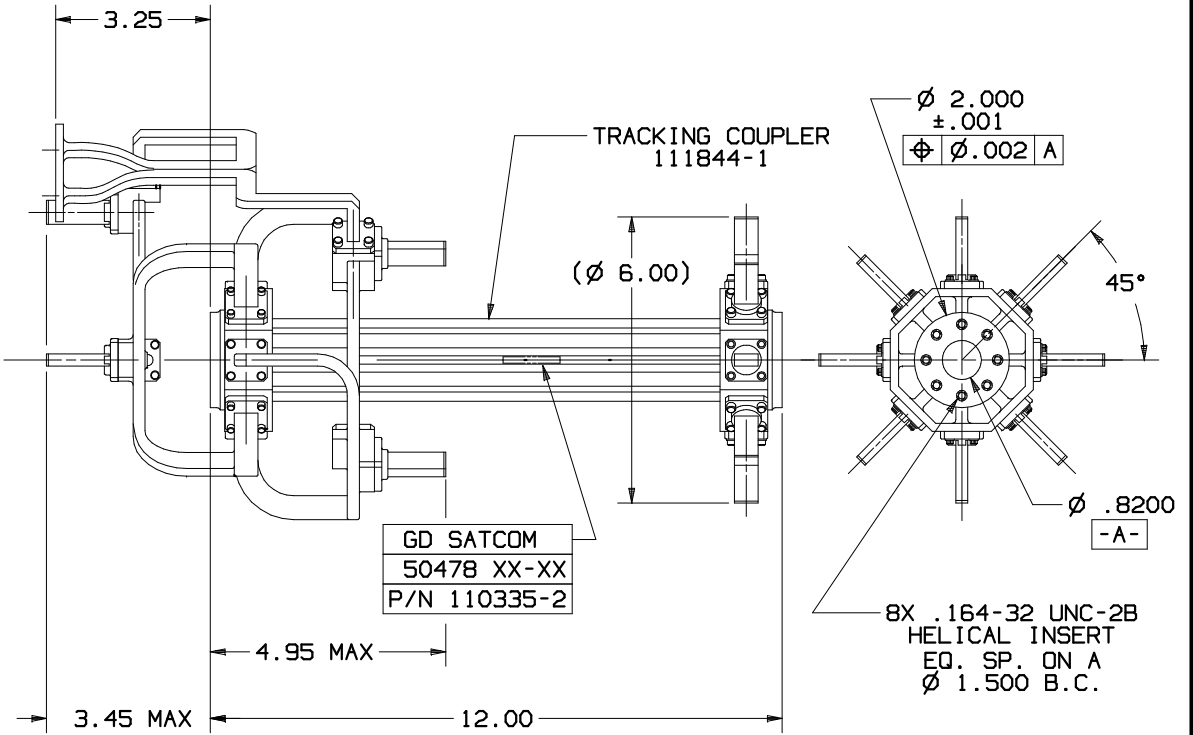
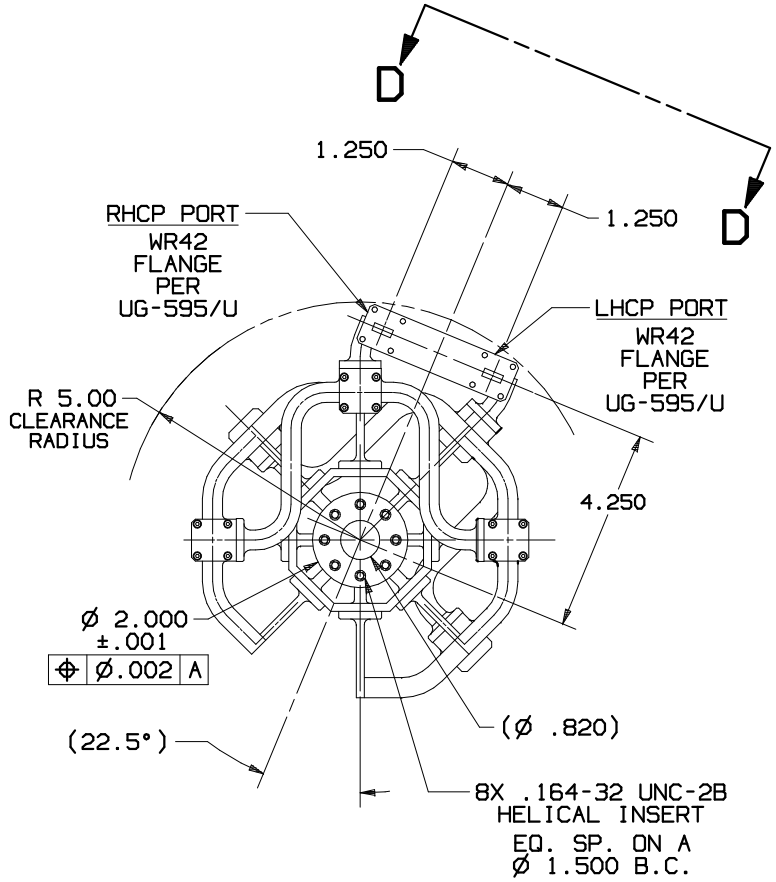


REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
E	SEE ECN No 3086	09-30-10	H.S.



NOTES: UNLESS OTHERWISE SPECIFIED.

UNLESS OTHERWISE SPECIFIED INTERPRET DIMENSIONING & TOLERANCING PER ANSI Y14.5M-1982. DIMENSIONS ARE IN INCHES. DIMENSIONS SHOWN IN ( ) ARE FOR REFERENCE ONLY. TOLERANCES ARE: SURFACE- TOLERANCES- .XX $\pm .01$ .XXX $\pm .002$ .XXXX ANGLES $\pm 0^{\circ}30'$ MATERIAL:	APPROVALS DRAWN: L. TOVALIN CHECKED: H. SPIELEDER ENGRG: MFG: QA:	DATE 07-09-98 01-06-99	GENERAL DYNAMICS PROPRIETARY <b>GENERAL DYNAMICS</b> SATCOM Technologies 3111 Fujita St., Torrance, CA 90505, (310) 539-6704		
	EAR CONTROLLED: Export or re-export subject to 15 CFR 700-799.		<b>20/30 GHz TE<sup>21</sup> MONOPULSE          TRACKING COUPLER</b>		
	SIZE C SCALE: 1:2		FSCM No. <b>50478</b>	DWG No. <b>110335-2</b>	REV <b>E</b>
			SHEET 1		

9 8 7 6 5 4 3 2 1

F

E

D

C

B

A

F

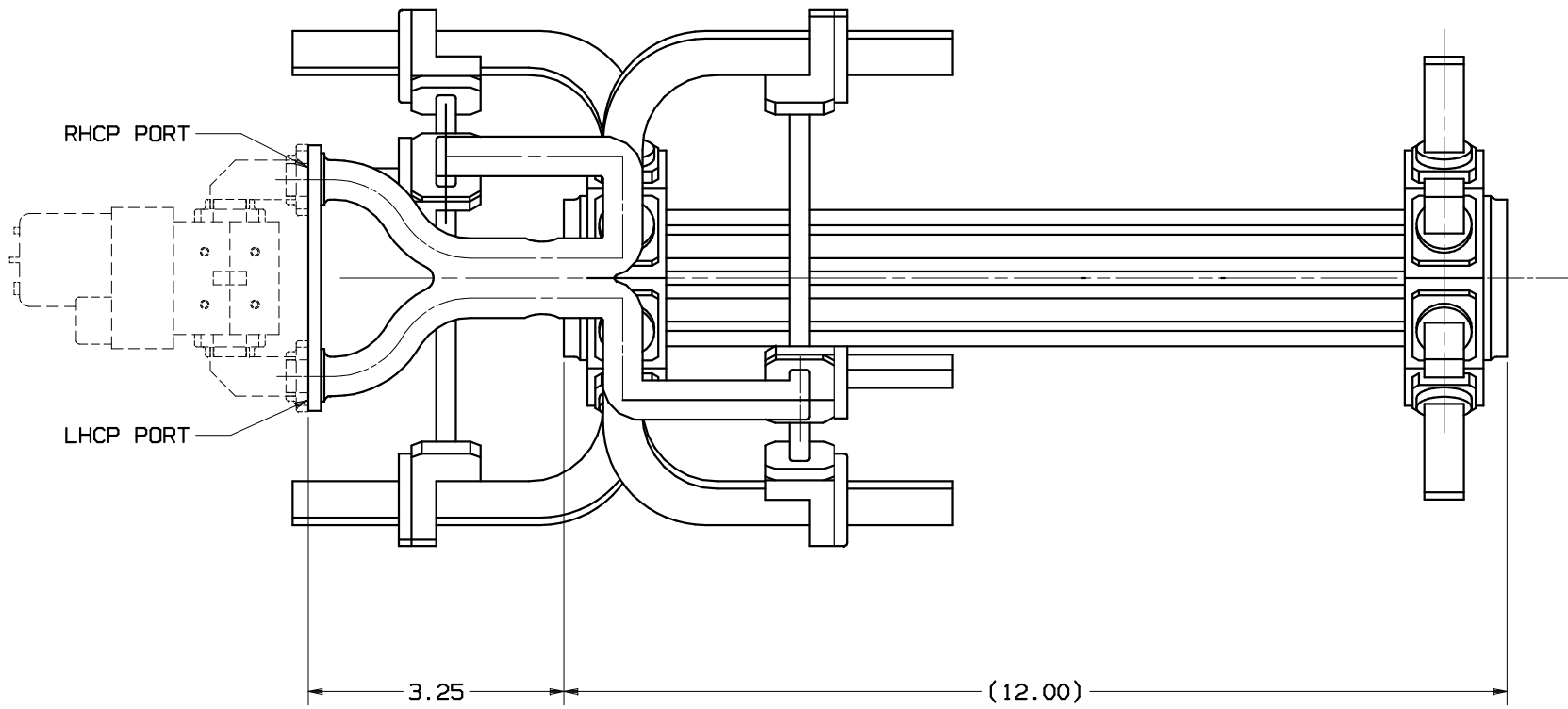
E

D

C

B

A



SECTION D-D

SIZE	FSCM No.	DWG No.	REV
C	50478	110335-2	E
SCALE:	7:8	SHEET	2

9 8 7 6 5 4 3 2 1

# SPECIFICATIONS

## MONOPULSE ASSY

### FREQUENCY

TRACKING (DIFFERENCE) CHANNEL: 17.7 - 21.2 GHz  
 DOWNLINK (SUM) CHANNEL: 17.7 - 21.2 GHz  
 UPLINK (SUM) CHANNEL: 27.5 - 31.0 GHz

### VSWR

TRACKING CHANNEL: 1.6:1 MAX  
 THROUGH LINE: 1.06:1 MAX

### INSERTION LOSS

THROUGH LINE: 17.7 - 21.2 GHz: 0.2 dB MAX  
 27.5 - 31.0 GHz: 0.15 dB MAX

### COUPLING

TE<sub>11</sub> MODE TO TRACK CHANNEL: 35 dB MIN  
 TE<sub>21</sub> MODE TO TRACK CHANNEL: 5 dB ± 2 dB

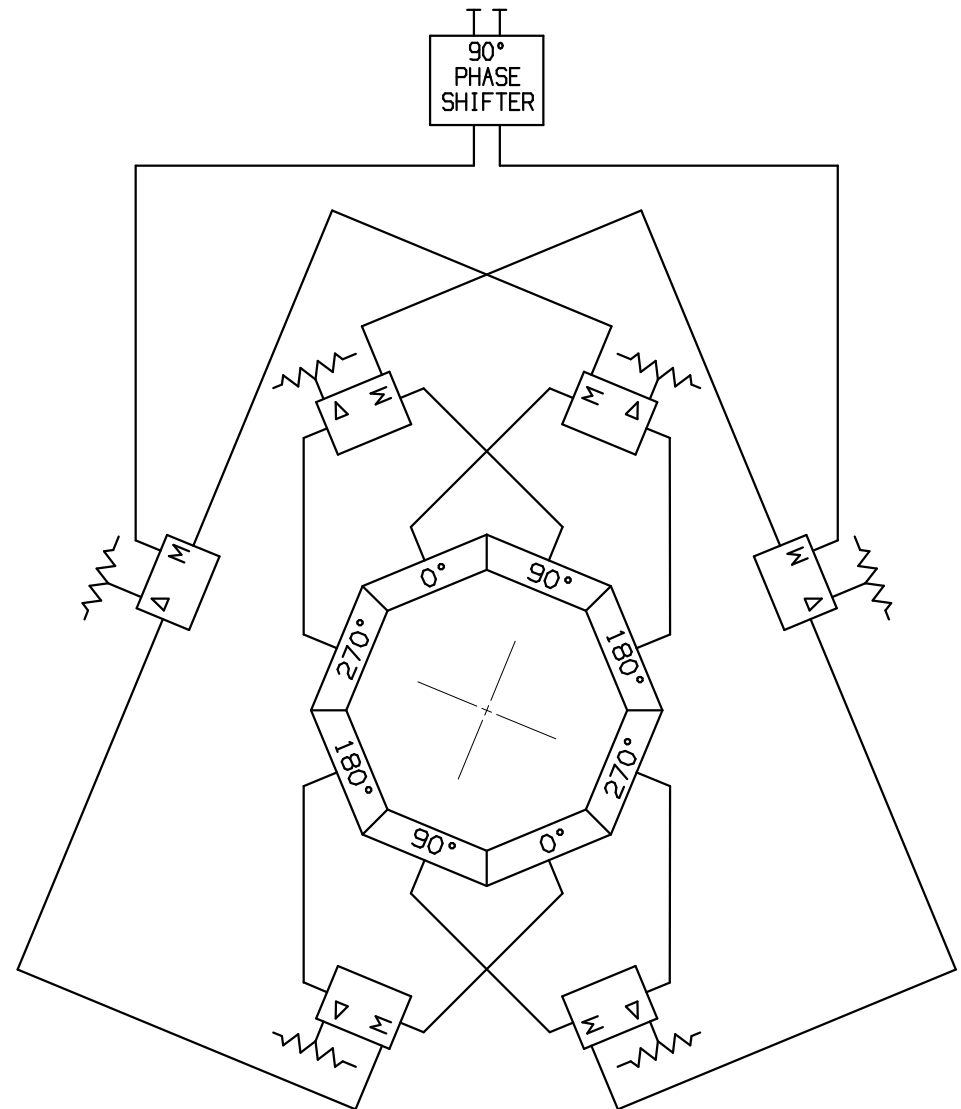
DIFFERENCE CHANNEL NULL DEPTH : 38 dB WITH RESPECT TO  
 SUM CHANNEL PEAK

NOTE: ABOVE SPECIFICATIONS ARE GUARANTED WHEN  
 COUPLER IS TESTED WITH A LABORATORY LOAD  
 OR A FEED HORN WITH A RETURN LOSS OF  
 26 dB OR BETTER.

PRESSURIZATION : SEALED TO 5 PSIG

### FINISH

INTERIOR: ELECTROFORMED COPPER  
 FLANGE FACES: CAD PLATED PER QQ-P-416  
 TYPE II, CLAS 2  
 EXTERIOR: BLACK PAINT, COLOR No. 37038 PER  
 FED-STD-595.



**BLOCK DIAGRAM**

SIZE	FSCM No.	DWG No.	REV
C	50478	110335-2	E
SCALE:	X:X	SHEET	3