

INCH-POUND

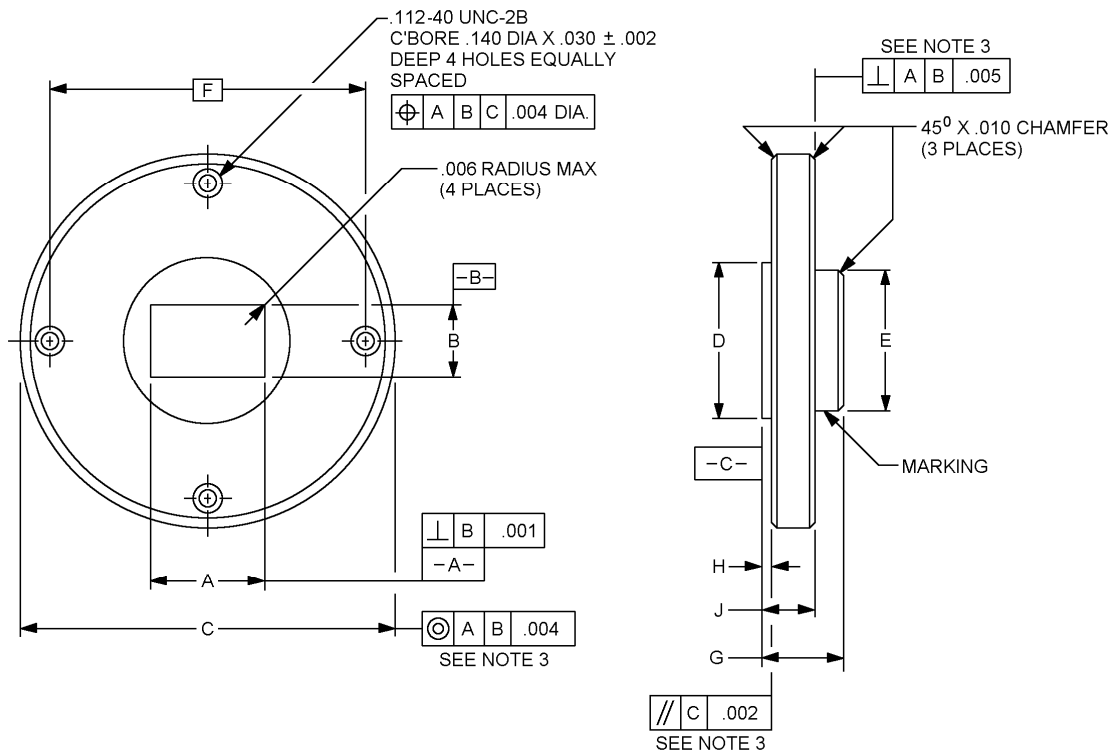
MIL-DTL-3922/67D  
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SUPERSEDING  
MIL-DTL-3922/67C  
22 June 2004

DETAIL SPECIFICATION SHEET

FLANGES, WAVEGUIDE (CONTACT)  
(ROUND, 4 HOLE) (MILLIMETER)

This specification is approved for use by all Departments  
and Agencies of the Department of Defense.

The requirements for acquiring the flanges described herein  
shall consist of this specification sheet and MIL-DTL-3922.



NOTES:

1. Dimensions are in inches.
2. Metric equivalents are for general information only (1 inch = 25.4 mm).
3. This requirement is not applicable to dash numbers 001, 002, or 003.
4. See table I for lettered dimensions.

FIGURE 1. Flange.

TABLE I. Flange dimensions.

PIN M3922/67-			PIN M3922/67-			Dimensions <sup>1/</sup>								
Dash no. <sup>2/</sup>	Used with		Dash no. <sup>3/</sup>	Used with		A	B	C	D	E	F	G	H	J9
	Waveguide	Mating flange		Waveguide	Mating flange	+ .002 (+ 0.05) - .000	+ .002 (+ 0.05) - .000	+ 0.00 - .002 (- 0.05)	± .005 (± 0.13)	± .005 (± 0.13)	BSC	± .005 (± 0.13)	± .005 (± 0.13)	
001	M85/3-010 (RG-97/U), 011, 012 (RG-272/U)	M3922/67- 001	---	---	---	.309 (7.85)	.197 (5.00)	1.125 (28.58)	.406 (10.31)	.406 (10.31)	.9375 (23.812)	.268 (6.81)	.042 (1.07)	.156 (3.96) ±.005 (0.13)
002	M85/3-017(RG-98/U), 018, 019 (RG-273/U)	M3922/67- 002	---	---	---	.233 (5.92)	.159 (4.04)	.750 (19.05)	.328 (8.33)	.328 (8.33)	.5625 (14.288)	.268 (6.81)	.030 (0.76)	.156 (3.96) ±.005 (0.13)
003	M85/3-020(RG-99/U), 021, 022 (RG-274/U)	M3922/67- 003	---	---	---	.207 (5.26)	.146 (3.71)	.750 (19.05)	.296 (7.52)	.296 (7.52)	.5625 (14.288)	.268 (6.81)	.030 (0.76)	.156 (3.96) ±.005 (0.13)
004	M85/1-100,102(RG- 53/U), 106 (RG-66/U)	M3922/67- 004	011	M85/1-103 (RG-121/U), 104	M3922/ 67-011	.502 (12.75)	.252 (6.40)	1.125 (28.58)	.625 (15.88)	.625 (15.88)	.9375 (23.812)	.250 (6.35)	.032 (0.81)	.160 (4.06) + .005 (.13) - .002 (.05)
005	M85/3-006(RG-96/U), 007, 008 (RG-271/U)	M3922/67- 005	012	M85/3-009	M3922/ 67-012	.362 (9.19)	.222 (5.64)	1.125 (28.58)	.500 (12.70)	.468 (11.89)	.9375 (23.812)	.250 (6.35)	.032 (0.81)	.160 (4.06) + .005 (.13) - .002 (.05)
006	M85/3-010(RG-97/U), 011, 012 (RG-272/U)	M3922/67- 006	013	M85/3-013	M3922/ 67-013	.306 (7.77)	.194 (4.93)	1.125 (28.58)	.500 (12.70)	.468 (11.89)	.9375 (23.812)	.250 (6.35)	.032 (0.81)	.160 (4.06) + .005 (.13) - .002 (.05)
007	M85/3-014, 015, 016 (RG-358/U)	M3922/67- 007	---	---	---	.270 (6.86)	.176 (4.47)	1.125 (28.58)	.500 (12.70)	.468 (11.89)	.9375 (23.812)	.250 (6.35)	.032 (0.81)	.160 (4.06) + .005 (.13) - .002 (.05)
008	M85/3-017 (RG-98/U), 018, 019 (RG-273/U)	M3922/67- 008	---	---	---	.230 (5.84)	.156 (3.96)	.750 (19.05)	.375 (9.53)	.312 (7.92)	.5625 (14.288)	.250 (6.35)	.032 (0.81)	.160 (4.06) + .005 (.13) - .002 (.05)
009	M85/3-020 (RG-99/U), 021, 022 (RG-274/U)	M3922/67- 009	---	---	---	.204 (5.18)	.143 (3.63)	.750 (19.05)	.375 (9.53)	.312 (7.92)	.5625 (14.288)	.250 (6.35)	.032 (0.81)	.160 (4.06) + .005 (.13) - .002 (.05)
010	M85/3-023, 024, 025 (RG-359/U)	M3922/67- 010	---	---	---	.182 (4.62)	.132 (3.35)	.750 (19.05)	.375 (9.53)	.312 (7.92)	.5625 (14.288)	.250 (6.35)	.032 (0.81)	.160 (4.06) + .005 (.13) - .002 (.05)

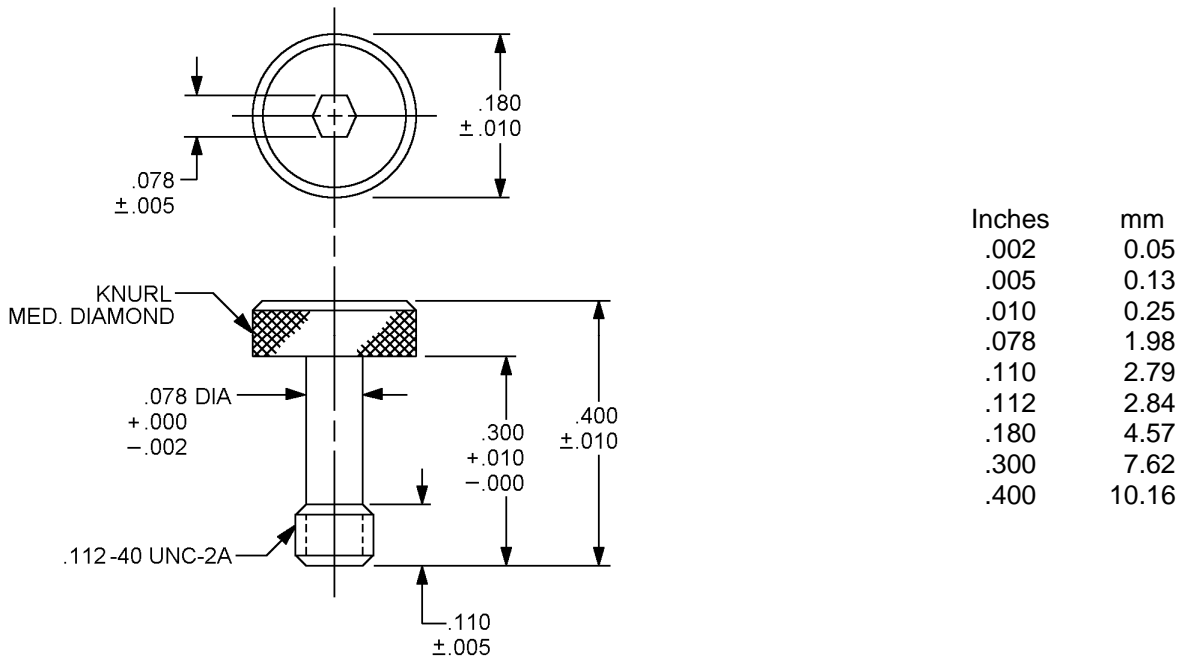
<sup>1/</sup> Metric equivalents are in parentheses.

<sup>2/</sup> Material shall be copper alloy.

<sup>3/</sup> Material shall be aluminum alloy.

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NOTES:

1. Dimensions are in inches.
2. Metric equivalents are for general information only (1.00 inch = 25.4 mm).

FIGURE 2. Socket-head cap screw.

REQUIREMENTS:

Dimensions and configuration: See figure 1 and table I.

Material:

Flange: See table I.

Cap screw: Corrosion resistant steel in accordance with SAE-AMS-QQ-S-763, type 302 or 304.

Marking: See figure 1.

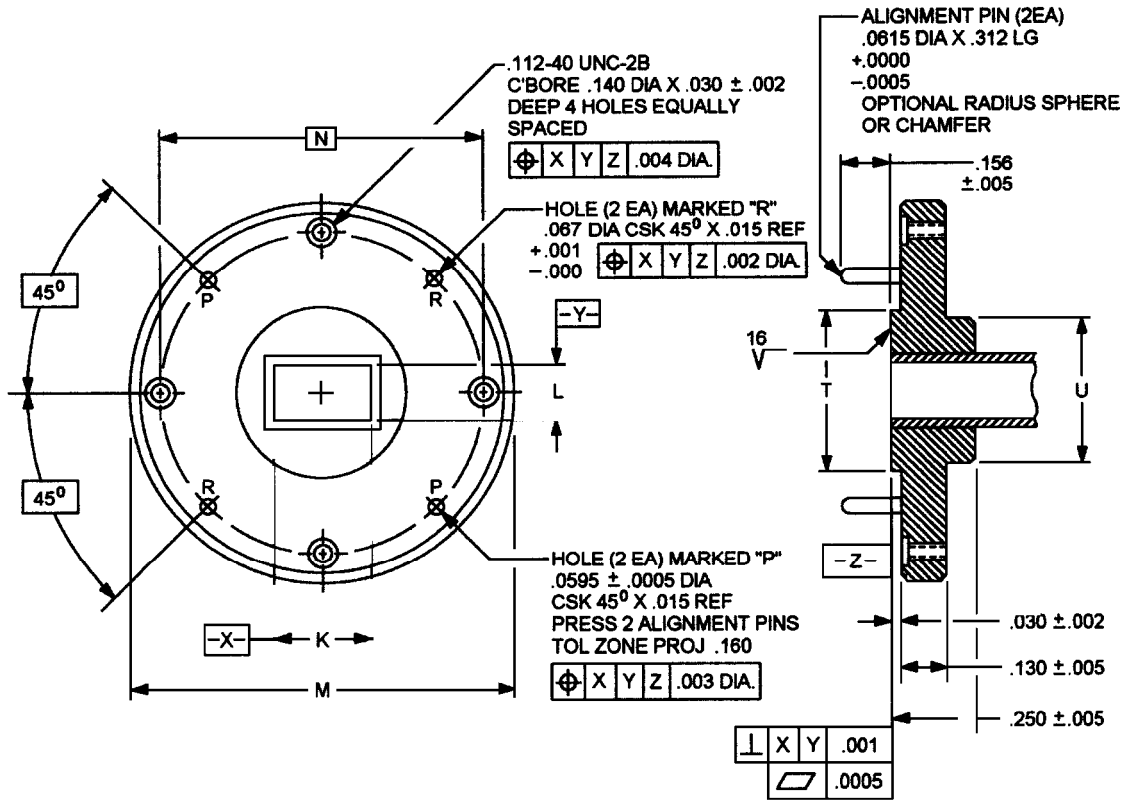
Part or Identifying Number (PIN): M3922/67-(dash number from table I).

Material supplied with flange: Four socket-head cap screws as specified in figure 2.

ENGINEERING INFORMATION:

Finished flange and waveguide assembly (dash numbers 004 through 013 only). See figure 3 and table II.

Cross reference and supersession data, frequency range, and return loss data: See table III.



Inches	mm	Inches	mm	Inches	mm
.0005	0.013	.015	0.38	.130	3.30
.001	0.03	.030	0.76	.140	3.56
.002	0.05	.0595	1.511	.156	3.96
.003	0.08	.0615	1.562	.160	4.06
.004	0.10	.067	1.70	.250	6.35
.005	0.13	.112	2.84	.312	7.92

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only based upon 1.00 inch = 25.4 mm.
3. See table II for lettered dimensions.

FIGURE 3. Finished flange and waveguide assembly.

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TABLE II. Finished flange and waveguide assembly dimensions (004 through 013 only).

PIN M3922/67-	Dimensions <sup>1/</sup>					
	K ±.0015 (0.038)	L ±.0015 (0.038)	M +.000 -.002 -0.05	N BSC	T ±.005 (0.13)	U ±.005 (0.13)
004, 011	.4200 (10.668)	.1700 (4.318)	1.125 (28.58)	.9375 (23.812)	.625 (15.88)	.625 (15.88)
005, 012	.2800 (7.112)	.1400 (3.556)	1.125 (28.58)	.9375 (23.812)	.500 (12.70)	.468 (11.89)
006, 013	.2240 (5.690)	.1120 (2.845)	1.125 (28.58)	.9375 (23.812)	.500 (12.70)	.468 (11.89)
007	.1880 (4.775)	.0940 (2.388)	1.125 (28.58)	.9375 (23.812)	.500 (12.70)	.468 (11.89)
008	.1480 (3.759)	.0740 (1.880)	.750 (19.05)	.5625 (14.288)	.375 (9.53)	.312 (7.92)
009	.1220 (3.099)	.0610 (1.549)	.750 (19.05)	.5625 (14.288)	.375 (9.53)	.312 (7.92)
010	.1000 (2.540)	.0500 (1.270)	.750 (19.05)	.5625 (14.288)	.375 (9.53)	.312 (7.92)

<sup>1/</sup> Metric equivalents are in parentheses.

TABLE III. Suggested frequency range, cross reference, supersession data, and return loss data.

PIN M3922/67-	AN nomenclature	Frequency range	Worst case return loss (dB)	
			Lowest frequency	Highest frequency
		<u>GHz</u>		
001	UG-383/U	33.0 - 50.0	-29.6	-36.3
002	UG-385/U	50.0 - 75.0	-22.4	-28.9
003	UG-387/U	60.0 - 90.0	-18.8	-25.4
004	---	18.0 - 26.5	-55.1	-61.2
005	---	26.5 - 40.0	-48.7	-54.2
006 <sup>1/</sup>	---	33.0 - 50.0	-43.7	-50.3
007 <sup>2/</sup>	---	40.0 - 60.0	-41.4	-47.4
008	---	50.0 - 75.0	-36.5	-43.0
009	---	60.0 - 90.0	-32.9	-39.5
010	---	75.0 - 110.0	-30.1	-36.1
011	---	18.0 - 26.5	-55.1	-61.2
012	---	26.5 - 40.0	-48.7	-54.2
013	---	33.0 - 50.0	-43.7	-50.3

<sup>1/</sup> Supersedes M3922/65-001.

<sup>2/</sup> Supersedes M3922/65-002.

Referenced documents: In addition to MIL-DTL-3922, this specification sheet also references:  
SAE-AMS-QQ-S-763

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Custodians:  
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Navy - EC  
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Preparing activity:  
DLA - CC  
  
(Project 5985-2009-030)

Review activities:  
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