

INCH-POUND

MIL-DTL-3922/54E
 23 July 2013
 SUPERSEDING
 MIL-DTL-3922/54D
 23 May 2008

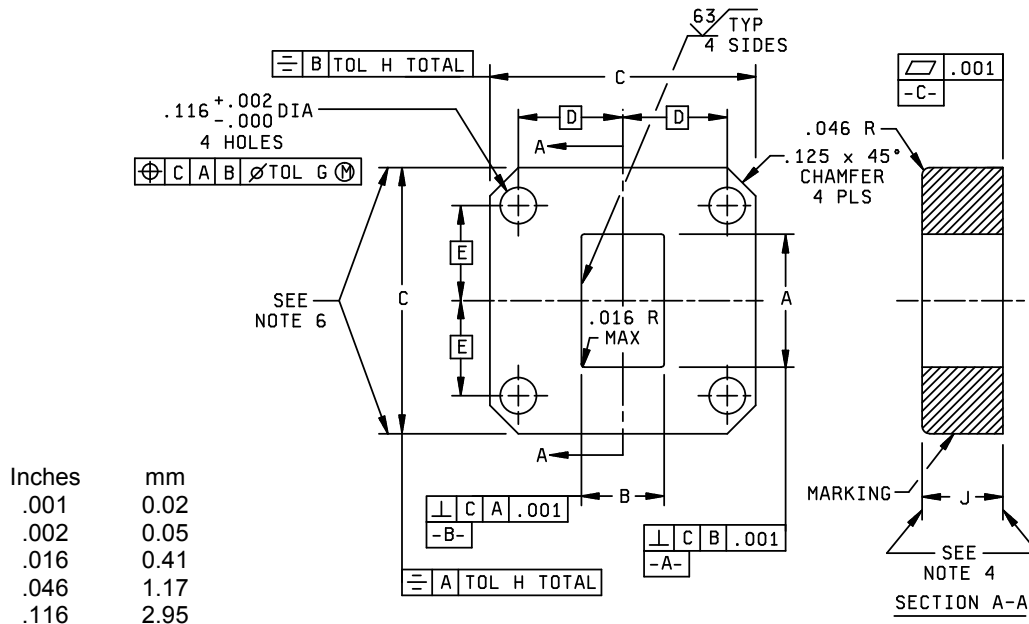
DETAIL SPECIFICATION SHEET

FLANGES, WAVEGUIDE (COVER)
 (SQUARE, 4 HOLE)

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

INACTIVE FOR NEW DESIGN
 AFTER 18 SEPTEMBER 1998

Requirements for acquiring the flanges described herein
 shall consist of this document and MIL-DTL-3922.



NOTES:

1. Dimensions are in inches. Dimensions are in accordance with ASME-Y14.5M.
2. Millimeter equivalents (to the nearest 0.01 mm) are given for general information only and are based upon 1.00 inch = 25.4 mm.
3. Millimeters are in table.
4. These surfaces to be parallel within .0005 (0.01 mm) to facilitate the use of quick disconnect couplings.
5. Roughness of mating surfaces shall not exceed 63 micro-inches in accordance with ASME-B46.1, except that flaws shall be included in the roughness height measurement.
6. These surfaces to be parallel within .002 for PIN M3922/54-003 only.

FIGURE 1. Flange configuration (-001 through -004).

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TABLE I. Dash numbers 001, 003 and dimensions.

| PIN M3922/54- | | | | | | Dimensions <u>1/</u> <u>2/</u> <u>3/</u> | |
|-----------------------|-----------------|----------------------|-----------------------|----------------|----------------------|--|--------------------------------------|
| Dash no. <u>4/</u> | Used with | | Dash no. <u>5/</u> | Used with | | A | B |
| | Waveguide M85/ | Mating flange M3922/ | | Waveguide M85/ | Mating flange M3922/ | | |
| 001 | 1-102 and 1-106 | 59-003 | 002 | 1-103 | 59-004 | .504 ±.001 (12.80) (0.03) | .254 ±.001 (6.45) (0.03) |
| 003 | 3-006 | 59-005 | | | | .362 +.002 (9.19) (0.05) -.000 | .222 +.002 (5.64) (0.05) -.000 |

| Dimensions <u>1/</u> <u>2/</u> <u>3/</u> - Continued | | | | | | | | |
|--|-----------------------|------------------------------|----------------|----------------|----------------|----------------|------------------------------|----------------|
| Dash no. <u>4/</u> | Dash no. <u>5/</u> | C | D BSC | E BSC | G | H | J | K |
| 001 | 002 | .875 ±.015 (22.22) (0.38) | .335 (8.51) | .320 (8.13) | .002 (0.05) | .015 (0.38) | .188 ± .015 (4.78) (0.38) | .156 (3.96) |
| 003 | | .750 ±.005 (19.05) (0.13) | .265 (6.73) | .250 (6.35) | .002 (0.05) | .005 (0.13) | .187 ± .005 (4.75) (0.13) | .109 (2.77) |

1/ Dimensions are in inches. Dimensions are in accordance with ASME-Y14.5M.

2/ Millimeter equivalents (to the nearest 0.01 mm) are given for general information only and are based upon 1.00 inch = 25.4 mm.

3/ Millimeters are in parentheses.

4/ Material shall be copper alloy.

5/ Material shall be aluminum alloy.

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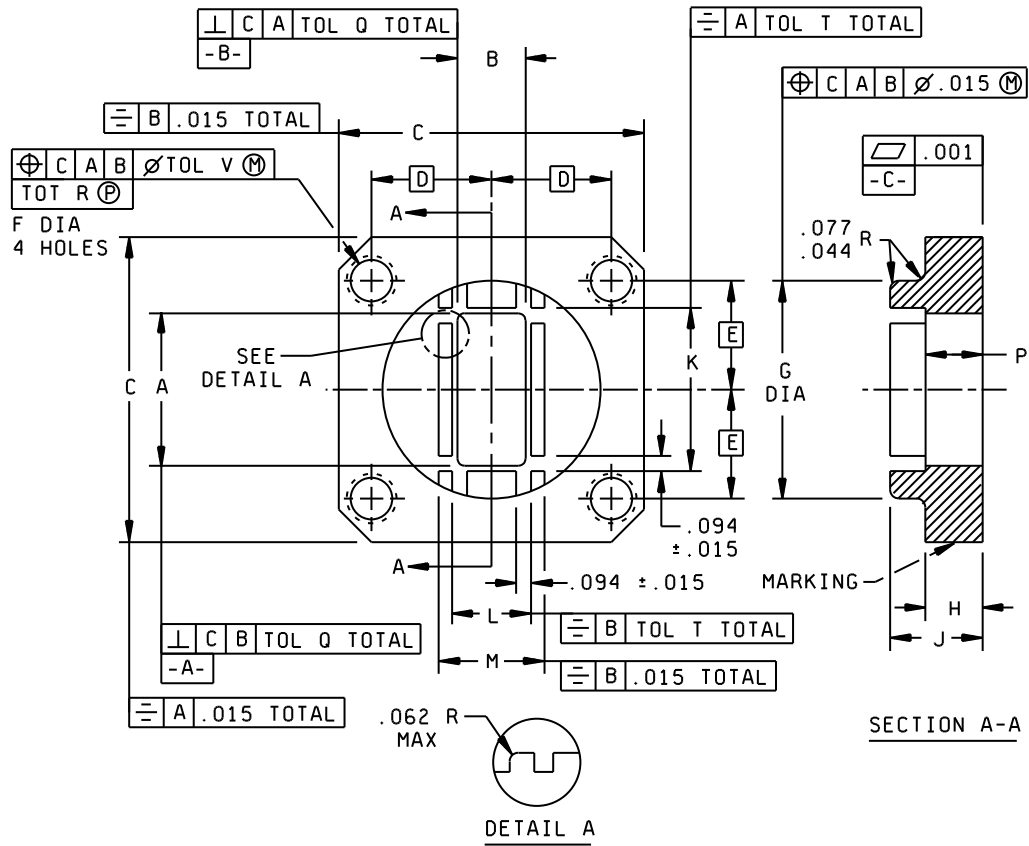
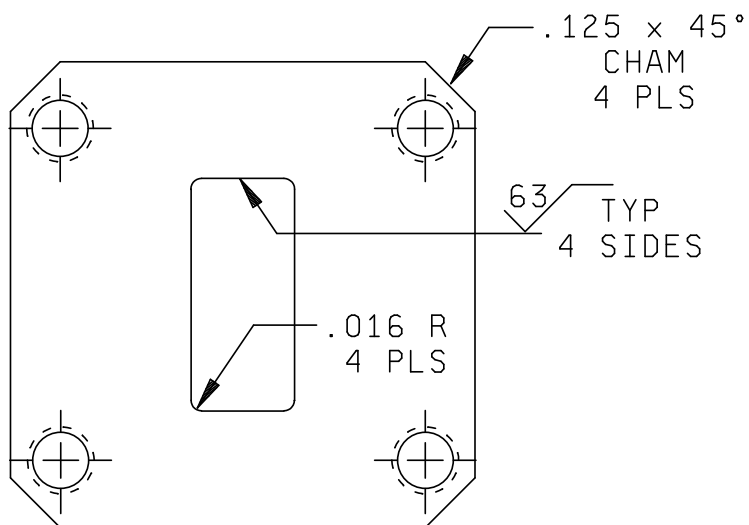


FIGURE 2. Flange configuration (-005 through -016).

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| Inches | mm |
|--------|------|
| .001 | 0.02 |
| .003 | 0.08 |
| .015 | 0.38 |
| .016 | 0.41 |
| .044 | 1.12 |
| .077 | 1.96 |
| .094 | 2.39 |
| .125 | 3.18 |

NOTES:

1. Dimensions are in inches. Dimensions are in accordance with ASME-Y14.5M.
2. Millimeter equivalents (to the nearest 0.01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
3. Millimeters are in table.
4. Roughness of mating surfaces shall not exceed 63 micro-inches in accordance with ASME-B46.1, except that flaws shall be included in the roughness height measurement.

FIGURE 2. Flange configuration (-005 through -016) - Continued.

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TABLE II. Dash numbers 005 thru 016 and dimensions.

| PIN M3922/54- | | | | | | Dimensions <u>1/</u> <u>2/</u> <u>3/</u> | |
|-----------------------|---------------------|-------------------------------|-----------------------|---------------------|-------------------------------|--|------------------------------|
| Dash no. <u>4/</u> | Used with | | Dash no. <u>5/</u> | Used with | | A | B |
| | Waveguide M85/1- | Mating flange M3922/59- | | Waveguide M85/1- | Mating flange M3922/59- | | |
| 005 | 073 069 | 015 | 006 | 071 072 177 | 016 | 1.122 ±.004 (28.50) (0.10) | .497 ±.004 (12.62) (0.10) |
| 007 | 075 079 | 013 | 008 | 077 078 178 | 014 | .900 ±.004 (22.86) (0.10) | .400 ±.004 (10.16) (0.10) |
| 009 | 089 093 | --- | 010 | 090 091 180 | --- | .622 ±.002 (15.80) (0.05) | .311 ±.002 (7.90) (0.05) |
| 011 | 069 073 | 007 | 012 | 071 072 177 | 009 | 1.122 ±.004 (28.50) (0.10) | .497 ±.004 (12.62) (0.10) |
| 013 | 075 079 | 006 | 014 | 077 078 178 | 008 | .900 ±.004 (22.86) (0.10) | .400 ±.004 (10.16) (0.10) |
| 015 | 089 093 | 001 | 016 | 090 091 180 | 002 | .622 ±.002 (15.80) (0.05) | .311 ±.002 (7.90) (0.05) |

| Dimensions <u>1/</u> <u>2/</u> <u>3/</u> - Continued. | | | | | | | | |
|---|-----------------------|----------------------|-----------------|-----------------|---------------------------------------|----------------------|------------------------------|----------------------|
| Dash no. <u>4/</u> | Dash no. <u>5/</u> | C ±.015 (0.38) | D BSC | E BSC | F | G ±.015 (0.38) | H | J ±.015 (0.38) |
| 005 | 006 | 1.875 (47.62) | .737 (18.72) | .676 (17.17) | .164-32 UNC-2B | 1.625 (41.27) | .250 ± .015 (6.35) (0.38) | .625 (15.88) |
| 007 | 008 | 1.625 (41.27) | .640 (16.26) | .610 (15.49) | .164-32 UNC-2B | 1.422 (36.12) | .160 ± .010 (4.06) (0.25) | .438 (11.12) |
| 009 | 010 | 1.312 (33.32) | .478 (12.14) | .497 (12.62) | .138-32 UNC-2B | 1.000 (25.40) | .250 ± .015 (6.35) (0.38) | .438 (11.12) |
| 011 | 012 | 1.875 (47.62) | .737 (18.72) | .676 (17.17) | .169 + .003 (4.29) (0.08) -.000 | 1.625 (41.27) | .250 ± .015 (6.35) (0.38) | .625 (15.88) |
| 013 | 014 | 1.625 (41.27) | .640 (16.26) | .610 (15.49) | .169 + .003 (4.29) (0.08) -.000 | 1.422 (36.12) | .160 ± .010 (4.06) (0.25) | .438 (11.12) |
| 015 | 016 | 1.312 (33.32) | .478 (12.14) | .497 (12.62) | .144 + .003 (3.66) (0.08) -.000 | 1.000 (25.40) | .250 ± .015 (6.35) (0.38) | .438 (11.12) |

See footnotes at end of table.

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TABLE II. Dash numbers 005 thru 016 and dimensions. - Continued.

| Dimensions <u>1/</u> <u>2/</u> <u>3/</u> - Continued. | | | | | | | | | |
|---|-----------------------|--------------------------------|-------------------------------|------------------|----------------------|----------------|----------------|----------------|----------------|
| Dash no. <u>4/</u> | Dash no. <u>5/</u> | K | L | M Min | P ±.005 (0.13) | Q | R | T | V |
| 005 | 006 | 1.253 ± .003 (31.83) (0.08) | .628 ± .003 (15.95) (0.08) | .875 (22.23) | .437 (11.10) | .004 (0.10) | .203 (5.16) | .003 (0.08) | .004 (0.10) |
| 007 | 008 | 1.003 ± .003 (25.48) (0.08) | .503 ± .003 (12.78) (0.08) | .750 (19.05) | .312 (7.92) | .003 (0.08) | .250 (6.35) | .003 (0.08) | .004 (0.10) |
| 009 | 010 | .705 ± .002 (17.91) (0.05) | .394 ± .002 (10.01) (0.05) | 1.000 (25.40) | .312 (7.92) | .002 (0.05) | --- | .002 (0.05) | .004 (0.10) |
| 011 | 012 | 1.253 ± .003 (31.83) (0.08) | .628 ± .003 (15.95) (0.08) | .875 (22.23) | .437 (11.10) | .004 (0.10) | --- | .003 (0.08) | .002 (0.05) |
| 013 | 014 | 1.003 ± .003 (25.48) (0.08) | .503 ± .003 (12.78) (0.08) | .750 (19.05) | .312 (7.92) | .003 (0.08) | --- | .003 (0.08) | .002 (0.05) |
| 015 | 016 | .705 ± .002 (17.91) (0.05) | .394 ± .002 (10.01) (0.05) | 1.000 (25.40) | .312 (7.92) | .002 (0.05) | --- | .002 (0.05) | .002 (0.05) |

- 1/ Dimensions are in inches. Dimensions are in accordance with ASME-Y14.5M.
- 2/ Millimeter equivalents (to the nearest 0.01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
- 3/ Millimeters are in parentheses.
- 4/ Materials shall be copper alloy.
- 5/ Materials shall be aluminum alloy.

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REQUIREMENTS:

Dimensions and configuration: See figures 1 and 2 and tables I and II.

Material: Metallic alloy as specified in tables I and II.

Marking: See figures 1 and 2.

PIN: M3922/54- (and dash number from tables I and II).

TABLE III. Cross-reference and engineering information.

| PIN M3922/54- | AN nomenclature | Frequency range (GHz) |
|------------------|-----------------|--------------------------|
| 001 | UG-595/U | 18.0 - 26.5 |
| 002 | UG-597/U | 18.0 - 26.5 |
| 003 | UG-599/U | 26.5 - 40.0 |
| 005 | --- | 7.05 - 10.00 |
| 006 | --- | 7.05 - 10.00 |
| 007 | --- | 8.20 - 12.40 |
| 008 | --- | 8.20 - 12.40 |
| 009 | --- | 12.40 - 18.00 |
| 010 | --- | 12.40 - 18.00 |
| 011 | --- | 7.05 - 10.00 |
| 012 | --- | 7.05 - 10.00 |
| 013 | --- | 8.20 - 12.40 |
| 014 | --- | 8.20 - 12.40 |
| 015 | --- | 12.40 - 18.00 |
| 016 | --- | 12.40 - 18.00 |

Part M3922/54-004 has been canceled.

Referenced documents. In addition to MIL-DTL-3922, this specification sheet references the following documents:
ASME-B46.1
ASME-Y14.5M

Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Custodians:
Army - CR
Navy - EC
Air Force - 85
DLA - CC

Preparing activity:
DLA - CC

(Project 5985-2013-031)

Review activities:
Army - AV, MI
Navy - AS, MC, OS, SH
Air Force - 99

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