

INCH-POUND

MIL-DTL-15370/5E
17 June 2011
SUPERSEDING
MIL-DTL-15370/5D
24 January 2002

DETAIL SPECIFICATION SHEET

COUPLERS, DIRECTIONAL (WAVEGUIDE-CROSSGUIDE)

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

The requirements for acquiring the couplers described
herein shall consist of this document and MIL-DTL-15370.

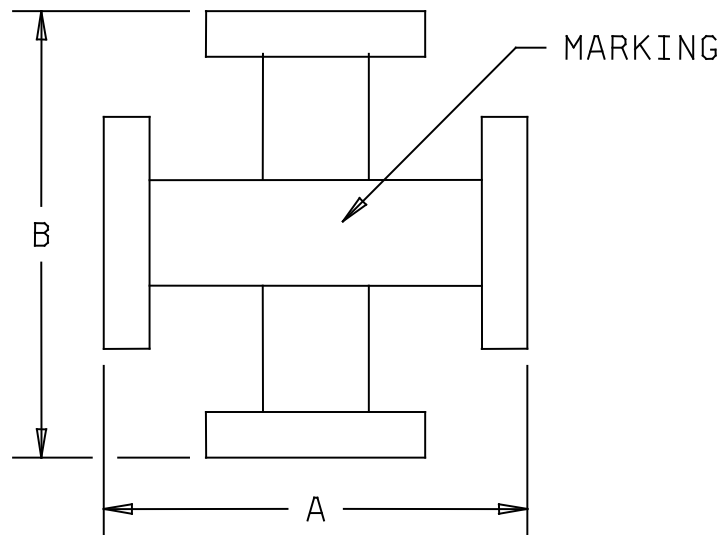


FIGURE 1. Dimensions and configuration for part numbers M15370/5-001, M15370/5-002 and M15370/5-007.

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REQUIREMENTS:

Design, construction and physical dimensions: See figures 1 and 2, and table I.

Equivalent waveguide: See table II.

Flange: See table II.

Temperature range: -65°C to +95°C.

Coupling: See table II.

Coupling tolerance: See table II.

Coupling variation: See table II.

Effective directivity: See table II.

VSWR: See table II.

Frequency range: See table II.

Power rating: See table II.

Marking: See figures 1 and 2.

Cross-reference data: See table III.

Part number: M15370/5- (and a dash number from table I).

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TABLE I. Physical characteristics.

Dash Number	Dimensions <u>1/</u> <u>2/</u> <u>3/</u>							
	A		B		C Max	D ± .02	E ± .02	F ± .02
	Min	Max	Min	Max				
001	5.938 (150.83)	6.063 (154.00)	5.938 (150.83)	6.063 (154.00)	N/A	N/A	N/A	N/A
002	2.938 (74.63)	3.063 (77.80)	2.938 (74.63)	3.063 (77.80)	N/A	N/A	N/A	N/A
003	N/A	N/A	N/A	N/A	3.50 (88.90)	1.25 (31.75)	2.50 (63.50)	.39 (9.91)
004	N/A	N/A	N/A	N/A	3.50 (88.90)	1.25 (31.75)	2.50 (63.50)	.39 (9.91)
005	N/A	N/A	N/A	N/A	3.50 (88.90)	1.25 (31.75)	2.50 (63.50)	.39 (9.91)
006	N/A	N/A	N/A	N/A	3.50 (88.90)	1.25 (31.75)	2.50 (63.50)	.39 (9.91)
007	8.49 (215.65)	8.51 (216.15)	8.49 (215.65)	8.51 (216.15)	N/A	N/A	N/A	N/A
008	N/A	N/A	N/A	N/A	4.50 (114.3)	1.31 (33.27)	2.63 (66.80)	.39 (9.91)
009	N/A	N/A	N/A	N/A	4.50 (114.3)	1.31 (33.27)	2.63 (66.80)	.39 (9.91)
010	N/A	N/A	N/A	N/A	4.50 (114.3)	1.31 (33.27)	2.63 (66.80)	.39 (9.91)
011	N/A	N/A	N/A	N/A	2.88 (73.15)	1.12 (28.45)	2.25 (57.15)	.39 (9.91)
012	N/A	N/A	N/A	N/A	2.88 (73.15)	1.12 (28.45)	2.25 (57.15)	.39 (9.91)
013	N/A	N/A	N/A	N/A	2.88 (73.15)	1.12 (28.45)	2.25 (57.15)	.39 (9.91)
014	N/A	N/A	N/A	N/A	1.00 (25.4)	1.00 (25.4)	2.25 (57.15)	.39 (9.91)

1/ Dimensions are in inches.2/ Metric equivalents (to the nearest .01 mm) are given for general information only.3/ Metric equivalents are in parentheses.

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TABLE II. Electrical characteristics.

Dash number	Frequency range	Coupling (dB)		Coupling variation (dB) max	Effective directivity (dB) min	VSWR max	Power Dissipation of internal load (avg)	Equivalent waveguide	Flange
		Nominal	Tolerance						
001	<u>GHz</u> 3.95-5.85	20	± 2.0	± 1.5	20	1.05:1	<u>Watts</u> 2	M85/1-055 (RG-49/U)	M3922/57-002 (UG-149A/U) <u>2/</u>
002	8.2-12.4	20	± 2.0	± 1.5	20	1.05:1	1	M85/1-079 (RG-52/U)	M3922/53-001 (UG-39/U)
003	12.4-18.0	20	± 2.0	± 1.5	20	1.15:1	1	M85/1-090 (RG-349/U)	M3922/53-006 Port 1 (UG-1665/U) M3922/59-002 Ports 2 and 3 (UG-1666/U)
004	12.4-18.0	30	± 2.0	± 1.5	20	1.15:1	1	M85/1-090 (RG-349/U)	M3922/53-006 Port 1 (UG-1665/U) M3922/59-002 Ports 2 and 3 (UG-1666/U)
005	12.4-18.0	20	± 2.0	± 1.5	20	1.15:1	1	M85/1-090 (RG-349/U)	M3922/59-002 (UG-1666/U)
006	12.4-18.0	20	± 2.0	± 1.5	20	1.15:1	1	M85/1-090 (RG-349/U)	M3922/53-012 Ports 1 and 2 (UG-1665/U) Port 3 <u>1/</u>
007	1.70-2.60	60	± 2.0	± 1.5	20	1.10:1	1	M85/1-029 (RG-105/U)	M3922/52-006 (UG-1711/U)
008	8.2-12.4	30	± 1.0	± 0.5	20	1.10:1	1	M85/1-079 (RG-52/U)	M3922/53-001 (UG-39/U)
009	8.2-12.4	40	± 1.0	± 0.5	20	1.08:1	1	M85/1-079 (RG-52/U)	M3922/53-001 (UG-39/U)
010	8.2-12.4	50	± 1.0	± 0.5	20	1.05:1	1	M85/1-079 (RG-52/U)	M3922/53-001 (UG-39/U)
011	12.4-17.5	30	± 1.0	± 0.5	20	1.15:1	1	M85/1-090 (RG-349/U)	M3922/59-002 (UG-1666/U)
012	12.4-17.5	40	± 1.0	± 0.5	20	1.10:1	1	M85/1-090 (RG-349/U)	M3922/53-006 Port 1 (UG-1665/U) M3922/59-002 Ports 2 and 3 (UG-1666/U)
013	12.4-17.5	50	± 1.0	± 0.5	20	1.05:1	1	M85/1-090 (RG-349/U)	M3922/59-002 (UG-1666/U)
014	12.4-17.5	15	± 1.0	± 0.5	20	1.25:1	1	M85/1-090 (RG-349/U)	M3922/59-002 (UG-1666/U)

1/ Same as ports 1 and 2, except the lip thickness is .25 inch and tapped holes .138-32UNC-2B.

2/ MIL-DTL-3922/57 flange specification sheet is inactive for new design and is no longer used, except for replacement purposes.

TABLE III. Cross-reference of part number/AN nomenclature.

Dash Number	AN nomenclature
001	CU-1506/U
002	CU-988/U

Referenced documents: In addition to MIL-DTL-15370, this document references the following MIL-DTL-3922/57

The margins of this specification sheet are marked with vertical lines to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

Custodians:

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

Preparing activity:

DLA - CC

(Project 5985-2010-021)

Review activities:

Navy - AS, CG, MC, OS, SH
Air Force - 99

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.daps.dla.mil>.