

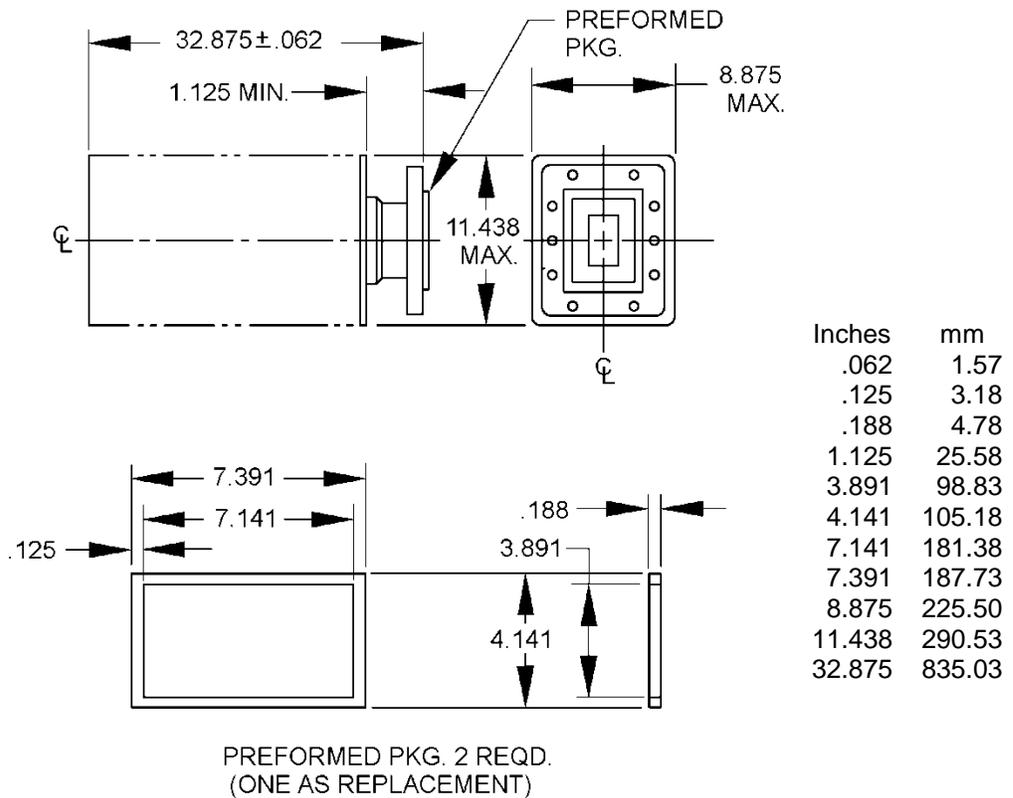
INCH-POUND  
MIL-DTL-3954/15B  
18 February 2015  
SUPERSEDING  
MIL-D-3954/15A  
29 May 1974

MILITARY SPECIFICATION SHEET

DUMMY LOADS, ELECTRICAL, WAVEGUIDE  
(FREQUENCY RANGE 1.12 TO 1.70 GIGAHERTZ)

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

The complete requirements for procuring the product described herein shall consist of this Specification Sheet and MIL-DTL-3954.

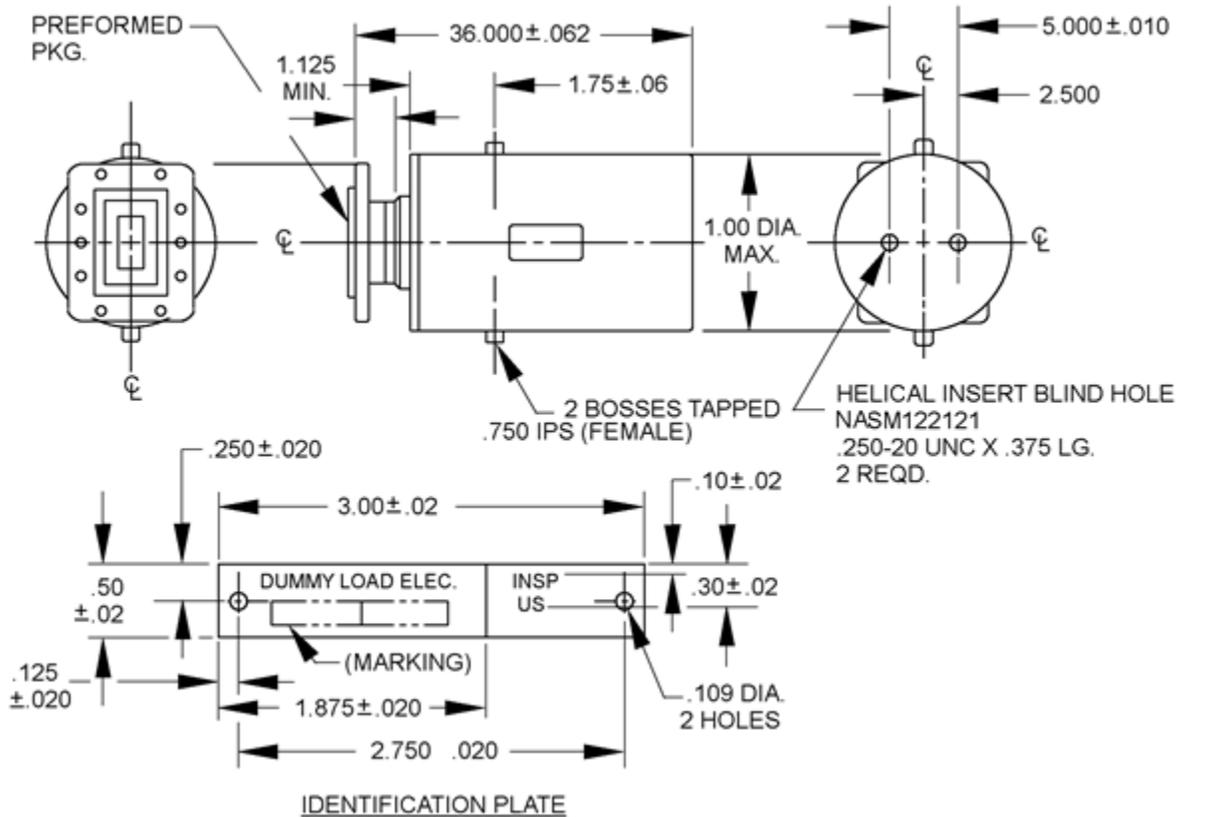


NOTES

1. Dimensions are in inches.
2. Unless otherwise specified, tolerance is  $\pm .005$  (.13 mm).
3. Metric equivalents (to the nearest .01 mm) are given for general information only.
4. Screws, lockwashers and gasket are supplied with mating flange.
5. Quantity of fins required will be dependent on heat level requirement of the load.

FIGURE 1. Class 1 dummy load.





Inches	Mm	Inches	mm
.010	.25	.500	12.70
.02	.51	.750	19.05
.05	1.52	1.125	28.56
.052	1.57	1.75	44.45
.100	2.54	1.875	47.63
.109	2.77	2.500	63.50
.125	3.18	2.750	69.25
.250	6.35	3.00	76.2
.300	7.62	5.000	127.0
.375	9.38	11.00	379.4
		36.000	314.40

NOTES

1. Dimensions are in inches.
2. Unless otherwise specified, tolerance is ± .005 (.13 mm).
3. Metric equivalents (to the nearest .01 mm) are given for general information only.
4. Screws, lockwashers and gasket are supplied with mating flange.

FIGURE 2. Class II dummy load.

TABLE I. Characteristics.

PIN	Class	Material	Flange equal to	VSWR max	Power		Pressure		Figure	Flow rate (GPM <sup>1/</sup> )	Input temp. (°C)	Output temp. (°C)
					Average	Peak	Internal	Coolant chamber				
					(watts)	(kilowatts)	(psig)	(psig)				
M3954/15-01	I	AL	M3922/58-008 (UG-418B/U)	1.10	2/ 2,200	2,200	23		1			
M3954/15-02	II	AL	M3922/58-008 (UG-418B/U)	1.10	15,000	17,200	30	150	2	5	35	60
M3954/15-03	II	Copper	M3922/58-007 (UG-417B/U)	1.10	15,000	17,200	30	150	2	5	35	60
M3954/15-04	II	Corrosion resisting steel	M3922/58-007 (UG-417B/U)	1.10	15,000	17,200	30	150	2	5	35	60

<sup>1/</sup> The flow rate was determined from the following formula:

$$Q = \frac{6.8P}{C_p \Delta T}$$

Where: Q = Minimum flow rate in GPM  
 P = Avg power in kilowatts  
 C<sub>p</sub> = Specific heat of coolant.  
 ΔT = Coolant temperature rise in °F.

The calculations were made for C<sub>p</sub> = 1 for water, a ΔT of 45°F and a safety factor of approximately 2. For different coolants of different temperature rises, a different flow rate would be necessary.

<sup>2/</sup> This is a test power value. The average rated power is 8,000 watts.

TABLE II. Cross reference of PIN/ AN nomenclature.

PIN	AN nomenclature
M3954/15-01	DA-147/U

REQUIREMENTS:

Design and construction

Dimensions and configuration: See figures 1 and 2.

Weight:

Dry loads – 113 lbs max.

Liquid cooled load – 270 lbs max.

Performance characteristics: See table I.

Part or Identifying Number (PIN): M3954/15 – (dash number from table I).

Referenced documents. This document references MIL-DTL-3954.

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

CONCLUDING MATERIAL

Custodians:

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

Preparing activity:  
DLA - CC

(Project 5985-2015-005)

Review activities:

Army – AR, MI  
Navy – AS, CG, MC, OS, SH  
Air Force – 19, 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.dla.mil>.