

INCH-POUND

MIL-DTL-3954/13B

18 February 2015

SUPERSEDING

MIL-D-3954/13A

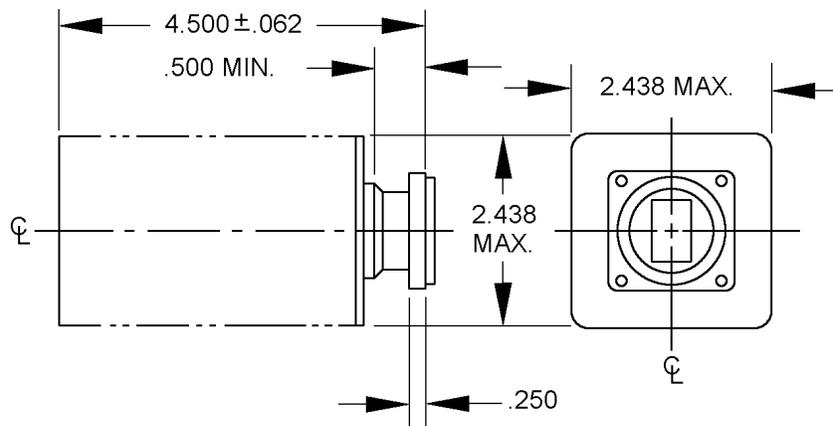
14 October 1966

MILITARY SPECIFICATION SHEET

DUMMY LOADS, ELECTRICAL, WAVEGUIDE
(FREQUENCY RANGE 12.4 TO 18.0 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.



Inches	mm
.062	1.57
.250	6.35
.500	12.70
2.438	61.93
4.500	114.30

NOTES

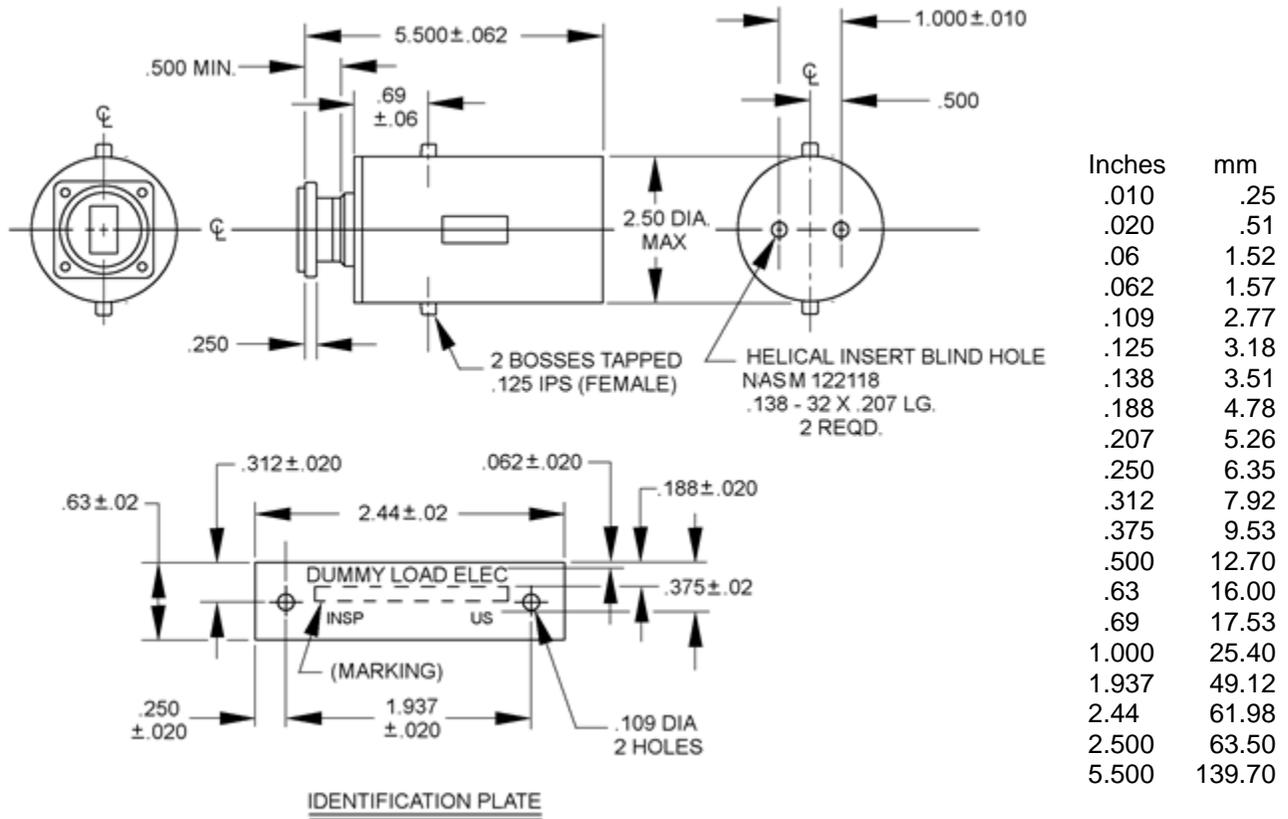
1. Dimensions are in inches.
2. Unless otherwise specified, tolerance is $\pm .005$ (.13 mm).
3. Metric equivalents (to the nearest .01 mm) are given for general information only.
4. Screws, lockwashers and gasket are supplied with mating flange.
5. Quantity of fins required will be dependent on heat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

FIGURE 1. Class 1 dummy load.

AMSC N/A

FSC 5985

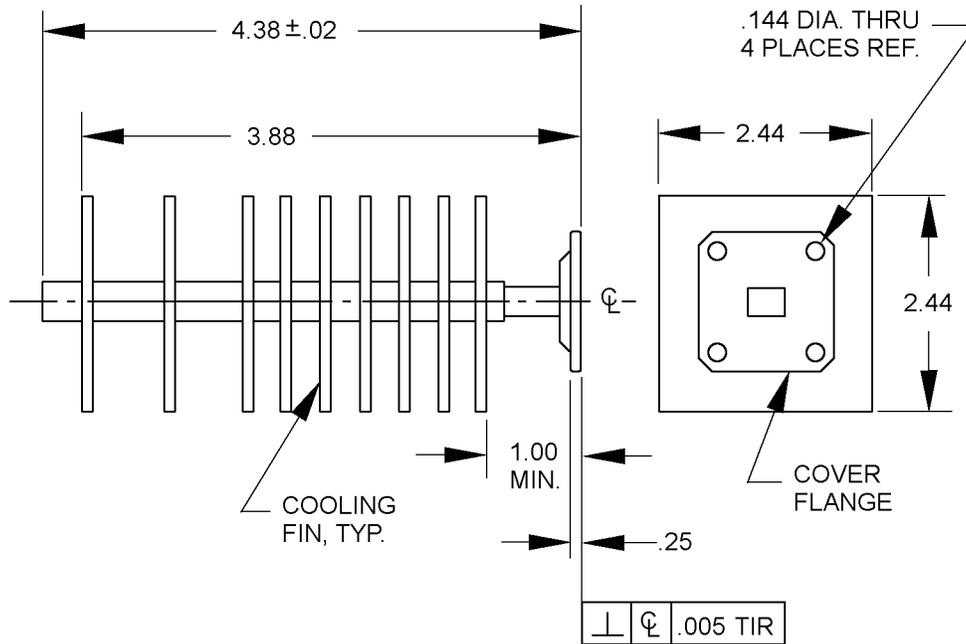




NOTES

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.

FIGURE 2. Class II dummy load.



Inches	mm
.005	.13
.144	3.66
.250	6.35
1.00	25.40
2.44	61.98
3.88	98.55
4.38	111.25

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.
5. Quantity of fins required will be dependent on heat level requirement of the load.

FIGURE 3. Class 1 dummy load.

TABLE I. Characteristics.

PIN	Class	Material	Flange equal to 2/	VSWR max	Power		Pressure		Figure	Flow rate	Input temp.	Output temp.
					Average	Peak	Internal	Coolant chamber				
					(watts)	(kilowatts)	(psig)	(psig)				
M3954/13-01	I	AL	M3922/53-006 (UG-1665/U)	1.15	3/ 70	160	30		1			
M3954/13-02	II	AL	M3922/53-006 (UG-1665/U)	1.15	500	160	30	100	2	0.15	35	60
M3954/13-03	II	Copper	M3922/53-005 (UG-419/U)	1.15	500	160	30	100	2	0.15	35	60
M3954/13-04	II	Corrosion resisting steel	M3922/53-005 (UG-419/U)	1.15	500	160	30	100	2	0.15	35	60
M3954/13-05	I	AL	M3922/53-006 (UG-1665/U)	1.10	200	10	30		3			

1/ 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
Cp = Specific heat of coolant.
ΔT = Coolant temperature rise in °F.

The calculations were made for Cp = 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.

2/ Except thickness.

3/ This is a test power value. The average rated power is 250 watts.

TABLE II. Cross reference of PIN/ AN nomenclature.

PIN	AN nomenclature
M3954/13-01	DA-159/U

REQUIREMENTS:

Design and construction

Dimensions and configuration: See figures 1, 2 and 3.

Weight:

Dry loads – .95 lb max.

Liquid cooled load – 1.7 lbs max.

Performance characteristics: See table I.

Shock (PIN M3954/13-05 only): Method 213 of MIL-STD-202, condition A.

Part or Identifying Number (PIN): M3954/13 – (dash number from table I).

Referenced documents. In addition to MIL-DTL-3954, this document references the following:

MIL-STD-202

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 5985-2015-010)

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>.