

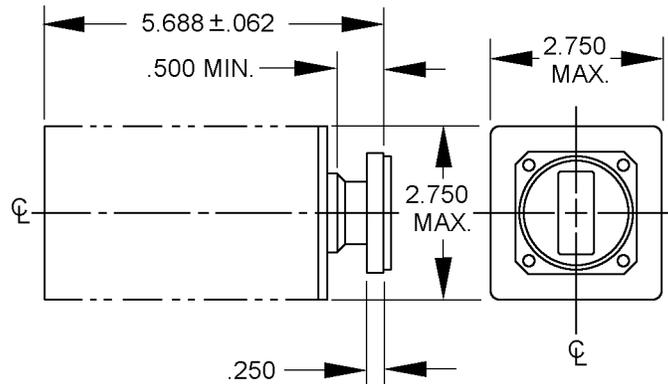
INCH-POUND
MIL-DTL-3954/19B
18 February 2015
SUPERSEDING
MIL-D-3954/19A
29 May 1974

MILITARY SPECIFICATION SHEET

DUMMY LOADS, ELECTRICAL, WAVEGUIDE
(FREQUENCY RANGE 8.2 TO 12.4 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
2.750	69.85
5.688	144.48

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.



TABLE I. Characteristics.

PIN	Class	Material	Flange equal to 2/	VSWR max	Power		Pressure		Figure	Flow rate (GPM 1/)	Input temp. (°C)	Output temp. (°C)
					Average	Peak	Internal	Coolant chamber				
					(watts)	(kilowatts)	(psig)	(psig)				
M3954/19-01	I	AL	M3922/53-003 (UG-135/U)	1.10	3/ 400	290	30	--	1			
M3954/19-02	II	Copper	M3922/53-001 (UG-39/U)	1.10	400	290	30	100	2			
M3954/19-03	II	AL	M3922/53-003 (UG-135/U)	1.10	1000	290	30	100	2	0.30	35	60
M3954/19-04	II	Copper	M3922/53-001 (UG-39/U)	1.10	1000	290	30	100	2	0.30	35	60
M3954/19-05	II	Corrosion resisting steel	2/M3922/53-001 (UG-39/U)	1.10	1000	290	30	100	2	0.30	35	60

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 500 watts.

TABLE II. Cross reference of PIN/ AN nomenclature.

PIN	AN nomenclature
M3954/19-01	DA-146/U

REQUIREMENTS:

Design and construction

Dimensions and configuration: See figure 1.

Weight:

Dry load – 1.6 lbs max.
 Liquid cooled load – 29 lbs max.

Performance characteristics: See table I.

Part or Identifying Number (PIN): M3954/19 – (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 5985-2015-009)

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>.