

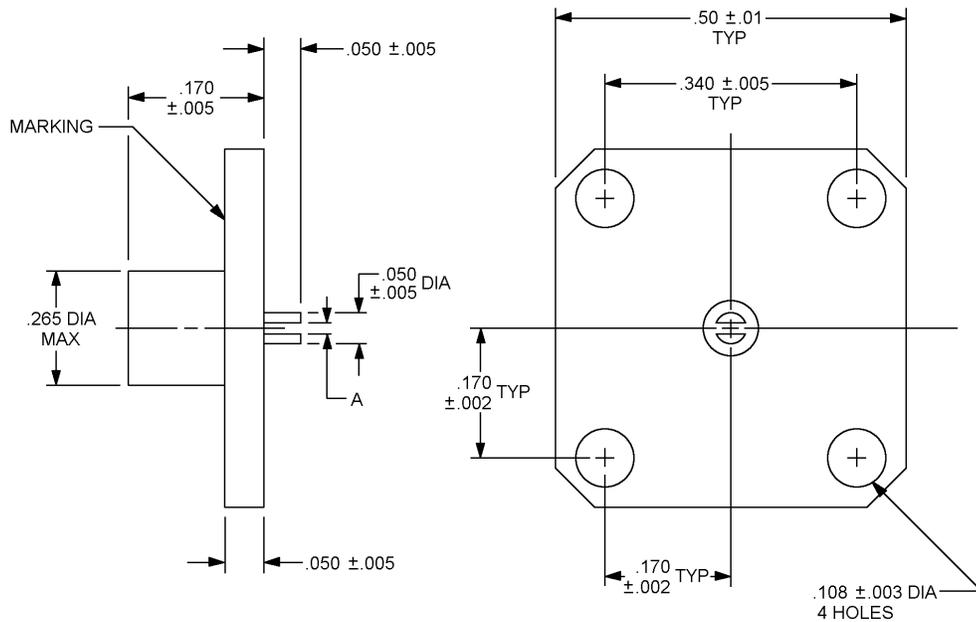
MIL-DTL-39030/14B  
 14 April 2003  
 SUPERSEDING  
 MIL-D-39030/14A  
 19 November 1985

DETAIL SPECIFICATION SHEET

DUMMY LOAD, ELECTRICAL,  
 TYPE XIV (BIFURCATED CONTACT), STRIPLINE, LOW POWER

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

The requirements for acquiring the product described herein shall  
 consist of this specification and MIL-DTL-39030.



Inches	mm
.002	0.05
.003	0.08
.005	0.13
.01	0.3
.013	0.33
.023	0.58
.028	0.71
.050	1.27
.108	2.74
.170	4.32
.265	6.73
.340	8.64
.50	12.7

Dash number	A
01	.028
04	±.002
02	.013
05	±.002
03	.023
06	±.002

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.

FIGURE 1. Dimensions and configurations.

REQUIREMENTS:

Dimensions and configurations: See figure 1.

Electrical characteristics:

Operating frequency: DC to 18.0 GHz.

Voltage standing wave ratio (VSWR):

- 1.15:1, maximum (DC to 4.0 GHz)
- 1.20:1, maximum (4.0 to 8.0 GHz)
- 1.25:1, maximum (8.0 to 12.0 GHz)
- 1.40:1, maximum (12.0 to 18.0 GHz)

Power:

Average: 1 watt, maximum.

Peak: Peak power input is specified at 200 watts maximum at 10 microsecond pulse with a .1 percent duty cycle. Average power during peak power application shall not exceed maximum average power.

Note: Power input is specified at a heat sink temperature of +60°C.

Nominal characteristic impedance: 50 ohms.

Material:

Body: Aluminum alloy in accordance with ASTM B211 and SAE-AMS-QQ-A-225 for dash numbers 01, 02, and 03. Brass in accordance with ASTM B121, ASTM B36, ASTM B16, ASTM B16M, and ASTM B124 for dash numbers 04, 05, and 06.

Finish: Chemical conversion coating in accordance with MIL-C-5541, class 1A for dash numbers 01, 02, and 03. Nickel in accordance with SAE-AMS-QQ-N-290, class 1 for dash numbers 04, 05, and 06.

Bifurcated contact pin: Beryllium copper in accordance with ASTM B196, ASTM B197, and ASTM B194.

Finish: The male pin shall be a minimum gold thickness of 50 micro inches (1.27 μm) in accordance with ASTM B488, type 3, grade C, class 1.27, over 50 micro inches (1.27 μm) minimum of nickel in accordance with AMS-QQ-N-290, class 1, measured anywhere along the mating surface, for all series. The socket contact shall be a minimum of 50 micro inches (1.27 μm) of gold in accordance with ASTM B488, type 3, grade C, class 1.27, over 50 micro inches (1.27 μm) minimum of nickel in accordance with AMS-QQ-N-290, class 1, including the I.D., measured at a depth of .040 inch minimum. The plating on non-significant surfaces in the I.D. shall be of sufficient thickness to ensure plating continuity and uniform utility and protection. This plating may consist of an underplate only. A silver underplate shall not be permitted.

Weight: .25 ounce, maximum.

Ambient temperature range:

Operating: -55°C to +125°C.

Nonoperating (storage): -65°C to +150°C.

Solderability: Method 208 of MIL-STD-202, the following details and exception shall apply:

- a. Number of terminations of each part to be tested: One contact.
- b. Special preparation of terminations: No wiping, cleaning, scraping, or abrasive cleaning of the contact shall be performed.
- c. Depth of immersion: The entire surface of the contact shall be covered.
- d. Method of mounting: The dummy load shall be mounted onto a heat sink.
- e. Examination of terminations: There shall be no evidence of pinholes and blistering.

Note: This test shall be preformed after the visual and mechanical inspection is qualification.

Part or Identifying Number (PIN): M39030/14-(dash number from figure 1).

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 - 11  
DLA - CC

Preparing activity:  
DLA - CC  
  
(Project 5985-1244-009)

Review activities:  
Army - AV, MI  
Navy - AS, OS, SH  
Air Force - 19