

INCH-POUND

MIL-DTL-28839/1A

20 May 2013

SUPERSEDING

MIL-W-28839/1

13 March 1978

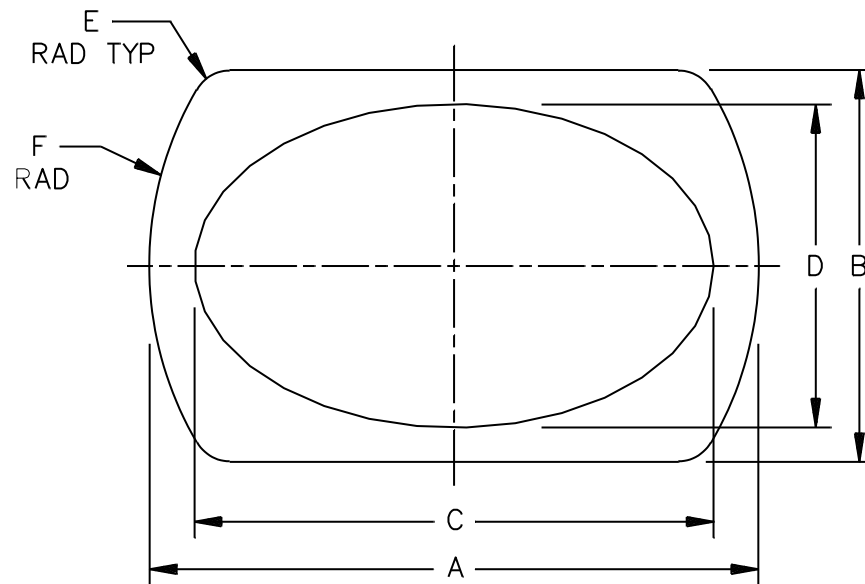
DETAIL SPECIFICATION SHEET

WAVEGUIDES, ELLIPTICAL, SEMIRIGID

INACTIVE FOR NEW DESIGN
AFTER 8 MAY 1998

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

The requirements for acquiring the antenna described herein
shall consist of this specification sheet and MIL-DTL-28839.



Letter dimensions											
A		B		C		D		E		F	
Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
4.05 (102.87)	4.09 (103.89)	2.487 (63.17)	2.521 (64.03)	3.453 (87.71)	3.487 (88.57)	2.047 (52)	2.081 (52.86)	.233 (5.92)	.267 (6.78)	2.143 (54.43)	2.177 (55.29)

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are in parentheses.
3. Metric equivalents are given for general information only and are based upon 1.00 inch = 25.4 mm.
4. Unless otherwise specified, tolerances is $\pm .017$ (.43 mm)

FIGURE 1. Waveguide.

REQUIREMENTS:

Dimensions and configuration: See figure 1.

Material: Accordance with ASTM-B241/B241M Aluminum alloy 1060, 1100, 6061, or 6063.

Frequency range: 2.65 – 3.20 GHz.

VSWR: 1.07, maximum.

Attenuation: .011 dB per foot.

Axial twist: 6.0 degree per foot.

Bending radii (minimum):

E plane: 20 inches (51 cm).

H plane: 42 inches (107 cm).

Surface roughness: 63 microinches

Military part number: M28839/-01- (Three digits indicating the nominal length of the waveguide; i.e., -030 identifies a length of 30 feet).

Cross reference data:

<u>Dash</u> <u>Number</u>	<u>AN</u> <u>nomenclature</u>	<u>Manufacturers'</u> <u>code</u>	<u>Commercial type</u>	<u>NSN</u>
01-xxx	RG- 387/U	94661	PM457-10-1	5985-01-018-5848

Referenced documents. In addition to MIL-DTL-28839, this specification sheet references the following documents:
ASTM-B241/B241M

The margins of this specification are marked with vertical lines to indicate where modifications from this revision 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.

Custodians:

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

Preparing activity:

DLA – CC
(Project 5985-2013-016)

Review activities:

Army – MI
Navy – SH, OS
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.dla.mil/>.