

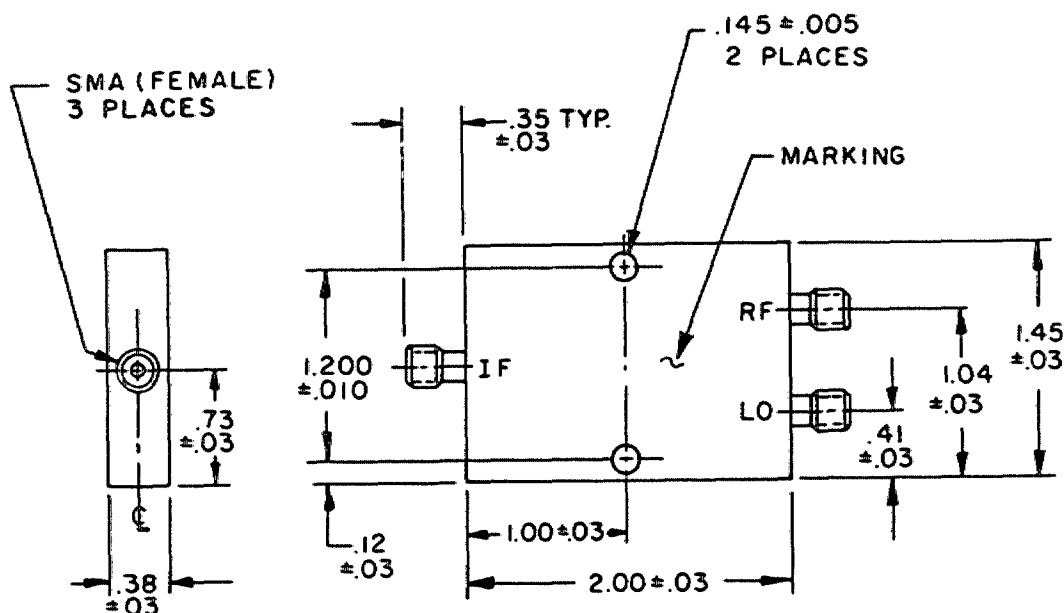
2 September 1977

MILITARY SPECIFICATION SHEET

MIXER STAGES, RADIO FREQUENCY, BALANCED, SMA FEMALE CONNECTORS

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

The complete requirements for procuring mixer described herein shall consist of this document and the latest issue of Specification MIL-M-28837.



NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only and are based upon 1 inch = 25.4 mm.

INCHES	MM
.005	.13
.010	.25
.03	.76
.12	3.05
.145	3.68
.35	8.89
.38	9.65
.41	10.41
.73	18.54
1.00	25.40
1.04	26.42
1.200	30.48
1.45	36.83
2.00	50.80

FIGURE 1. Outline drawing for mixer P/N M28837/3-01N, 01S.

FSC 5985

MIL-M-28837/3

REQUIREMENTS:

Design and construction:

Dimensions and configuration: See figure 1.

Frequency range: RF and LO at 8 to 12.4 GHz.

Input drivepower:

LO - +7 dBm, minimum.

RF - -10 dBm, maximum.

LO + RF - +20 dBm, maximum.

Weight: 0.11 pound (49.83 grams).

Temperature:

Operating: -45°C to +81°C.

Nonoperating: -57°C to +81°C.

Electrical characteristics:

Conversion loss (max):

7.5 dB at IF of dc to 200 MHz.

10.5 dB at IF of 200 to 1,000 MHz.

Noise figure (SSB) (max):

8.5 dB at IF of dc to 200 MHz.

11.5 dB at IF of 200 to 1,000 MHz.

Isolation: LO to RF - 6 dB minimum.

VSWR: LO and RF 2:1 maximum.

Barometric pressure: Test condition D.

Temperature extremes:

Conversion loss: Shall not exceed ± 1 dB from the initial measurement.Noise figure: Shall not exceed ± 1 dB from the initial measurement.

Dust-cover seal: Applicable.

Part number: M28837/3-01N, 01S

NOTE: Mixers covered by this specification are substitutable for the following commercial types:

<u>Dash number</u>	<u>5985 FSN</u>	<u>Manufacturer's code</u>	<u>Commercial type</u>
01N	-	31597	7G0118
	-	80063	SM-A-800819-1

MIL-M-28837/3

Custodians:

Army - EL
Navy - EC
Air Force - 85

Preparing activity:

Navy - EC

Agent:

DLA - ES

Review activities:

Army - MI
Navy - EC, OS
Air Force - 11, 17, 99
DLA - ES

(Project 5985-0840-3)

User activities:

Army - AR
Navy - MC,CG, AS
Air Force - 14, 19