

NOTES:

1.0 SPECIFICATIONS.

- 1.1 FREQUENCY RANGE: SEE TABLE
- 1.2 IMPEDANCE: 50 OHMS NOMINAL
- 1.3 VSWR MAX.:
  - DC to 2.0 GHz 1.10:1
  - 2.0 to 4.0 GHz 1.15:1
  - 4.0 to 8.0 GHz: 1.20:1
  - 8.0 to 12.4 GHz: 1.25:1
  - 12.4 to 18.0 GHz: 1.35:1

1.4 ATTENUATION & ACCURACY: SEE TABLE

1.5 MAXIMUM INPUT POWER

- 1.5.1 2 WATTS AVG. AT +25°C DERATED LINEARLY TO 0.5 WATTS AT +125°C
- 1.5.2 500 WATTS PEAK

1.6 OPERATING TEMP. RANGE:  
-55°C to +125°C

1.7 WEIGHT: 0.45 Oz. MAX.

2.0 MARKING.

- 2.1 ENGRAVE SERIAL NO. AND DATE CODE ON NUT AS SHOWN.
- 2.2 MARK BODY AS SHOWN.  
(REF: INK-09119-27-XX) FOR NON-SCREENED.  
(REF: INK-09120-27-XX) FOR SCREENED.

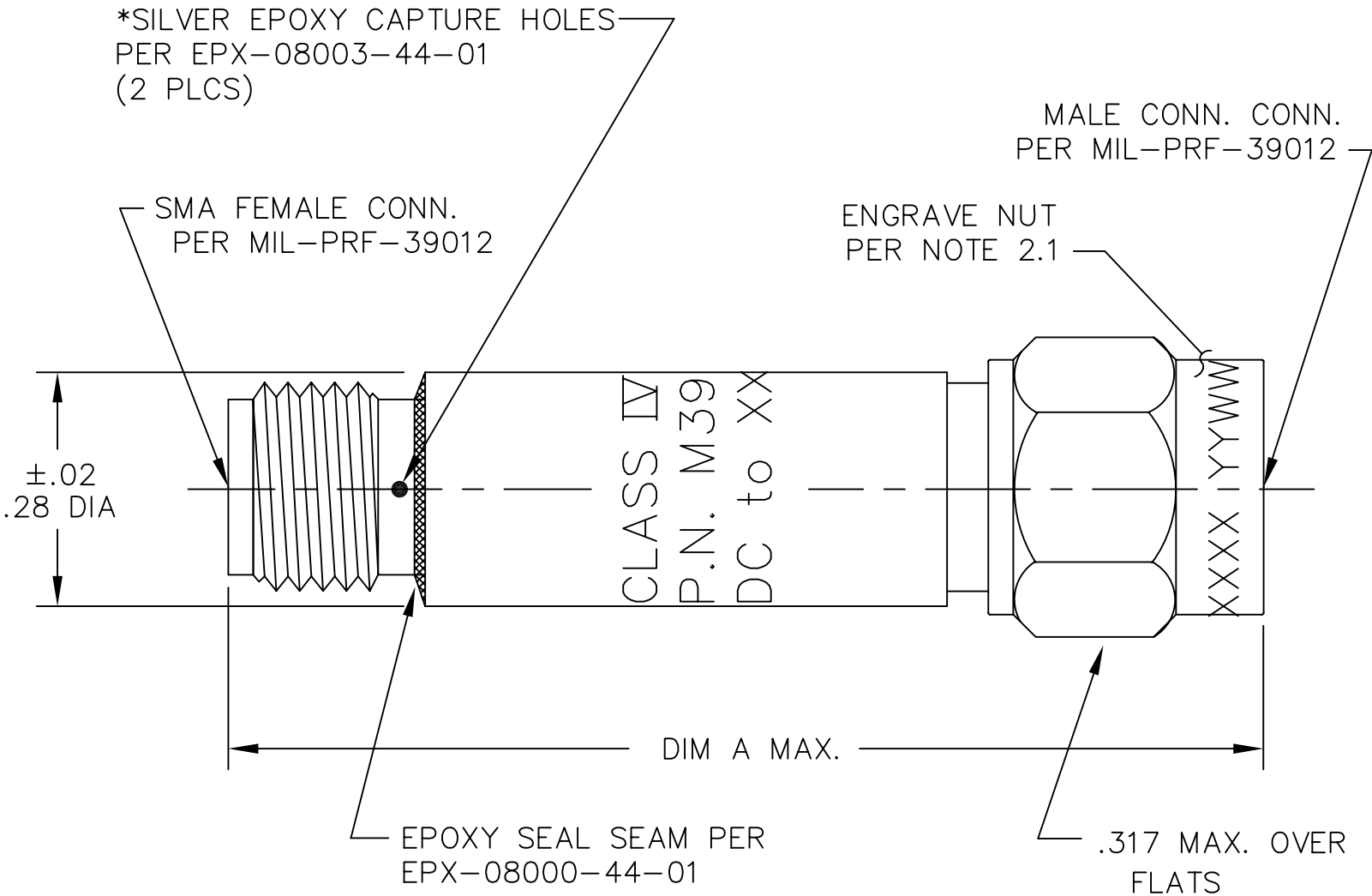
3.0 TESTING:

TEST IN CONJUNCTION WITH:

- ATP-07839-60-01 FOR SCREENED UNITS.
- ATP-09210-60-01 FOR NON-SCREENED UNITS.

4.0 BAG MARKING:

MODEL M3933/25-YYY SEE MODEL NO. FOR LAST 3 DIGITS  
ATTENUATOR FIXED COAXIAL LINE  
2 WATTS AVERAGE INPUT POWER  
FREQ. RANGE: DC-XX GHz SEE TABLE ON SHT. 2  
MFR 34078  
LOT NO. \_\_\_\_\_  
DATE CODE: YYWW YEAR & WEEK



\*N/A ON UNITS .94 O.A.L.

| DATE        | 7/14/92  | 10/8/93 | 2/4/94    | 4/8/94    | 1/16/95   | 12/12/02  | 2/25/03   | 3/19/04   | 3/10/06   |
|-------------|----------|---------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| DESCRIPTION | RELEASED | 13000   | ECN 13307 | ECN 13483 | ECN 14231 | ECN 18866 | ECN 19058 | ECN 19711 | ECN 20764 |
| REV.        | -        | A       | B         | C         | D         | E         | F         | G         | H         |

|                                                                                                                                                                                                                                                                         |  |                                                                                                                                   |                                       |                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------------------|
| UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES AND TOLERANCES ARE:<br><br>3 PLACE DECIMALS ±.005<br>2 PLACE DECIMALS ±.02<br>FRACTIONS ±1/64<br>PARALLELITY: T.I.R. _____<br>FLATNESS: T.I.R. _____<br>CONCENTRICITY: T.I.R. _____<br>ANGLES AND PERPENDICULARITY: ±1° |  | FSCM NO.<br><b>34078</b>                                                                                                          | <b>MIDWEST MICROWAVE</b>              |                         |
|                                                                                                                                                                                                                                                                         |  | NOTICE: The information contained in this drawing is proprietary and must not be used without the permission of Midwest Microwave |                                       | TITLE<br><br>ATTENUATOR |
| DRAWN/DATE<br>M.HOLLMAN<br>7/3/92                                                                                                                                                                                                                                       |  | ENG./DATE<br>G.KOZAK<br>7/14/92                                                                                                   | DRAWING NUMBER<br>M3933/25-XX(N or S) |                         |
| CHECKED/DATE<br>G.KOZAK<br>7/14/92                                                                                                                                                                                                                                      |  | APPROVED/DATE                                                                                                                     | SCALE: 5=1                            | SHEET 1 of 2            |

| DASH<br>NO. | ATTENUATION    dB |                  |                   |                   | DIM A<br>INCHES (MM)<br>MAX. |
|-------------|-------------------|------------------|-------------------|-------------------|------------------------------|
|             | NOMINAL           | DEVIATION    (±) |                   |                   |                              |
|             |                   | DC to<br>2.0 GHz | DC to<br>12.4 GHz | DC to<br>18.0 GHz |                              |
| 65 N/S      | 3.5               |                  |                   | 0.3               | 0.87 (22.10)                 |
| 66 N/S      | 4.0               |                  |                   | 0.3               | 0.87 (22.10)                 |
| 67 N/S      | 4.5               |                  |                   | 0.3               | 0.87 (22.10)                 |
| 68 N/S      | 5.0               |                  |                   | 0.3               | 0.87 (22.10)                 |
| 69 N/S      | 5.5               |                  |                   | 0.3               | 0.87 (22.10)                 |
| 70 N/S      | 6.0               |                  |                   | 0.3               | 0.87 (22.10)                 |
| 71 N/S      | 6.5               |                  |                   | 0.3               | 0.87 (22.10)                 |
| 72 N/S      | 7.0               |                  |                   | 0.4               | 0.87 (22.10)                 |
| 73 N/S      | 7.5               |                  |                   | 0.4               | 0.87 (22.10)                 |
| 74 N/S      | 8.0               |                  |                   | 0.4               | 0.87 (22.10)                 |
| 75 N/S      | 8.5               |                  |                   | 0.4               | 0.87 (22.10)                 |
| 76 N/S      | 9.0               |                  |                   | 0.5               | 0.87 (22.10)                 |
| 77 N/S      | 9.5               |                  |                   | 0.5               | 0.87 (22.10)                 |
| 78 N/S      | 10.0              |                  |                   | 0.5               | 0.87 (22.10)                 |
| 79 N/S      | 11.0              |                  |                   | 0.5               | 0.87 (22.10)                 |
| 80 N/S      | 12.0              |                  |                   | 0.5               | 0.87 (22.10)                 |
| 81 N/S      | 13.0              |                  |                   | 0.5               | 0.94 (23.88)                 |
| 82 N/S      | 14.0              |                  |                   | 0.5               | 0.94 (23.88)                 |
| 83 N/S      | 15.0              |                  |                   | 0.6               | 1.04 (26.42)                 |
| 84 N/S      | 16.0              |                  |                   | 0.6               | 1.04 (26.42)                 |
| 85 N/S      | 17.0              |                  |                   | 0.6               | 1.04 (26.42)                 |
| 86 N/S      | 18.0              |                  |                   | 0.6               | 1.04 (26.42)                 |
| 87 N/S      | 19.0              |                  |                   | 0.6               | 1.04 (26.42)                 |
| 88 N/S      | 20.0              |                  |                   | 0.6               | 1.04 (26.42)                 |
| 89 N/S      | 25.0              |                  |                   | 1.0               | 1.04 (26.42)                 |
| 90 N/S      | 30.0              |                  |                   | 1.0               | 1.04 (26.42)                 |
| 91 N/S      | 35.0              |                  |                   | 1.0               | 1.35 (34.29)                 |
| 92 N/S      | 40.0              |                  |                   | 1.0               | 1.35 (34.29)                 |
| 93 N/S      | 45.0              |                  |                   | 1.0               | 1.35 (34.29)                 |
| 94 N/S      | 50.0              |                  |                   | 2.0               | 1.35 (34.29)                 |
| 95 N/S      | 60.0              |                  |                   | 2.0               | 1.35 (34.29)                 |

| DASH NO. | ATTENUATION    dB |                  |                   |                   | DIM A<br>INCHES (MM)<br>MAX. |
|----------|-------------------|------------------|-------------------|-------------------|------------------------------|
|          | NOMINAL           | DEVIATION    (±) |                   |                   |                              |
|          |                   | DC to<br>2.0 GHz | DC to<br>12.4 GHz | DC to<br>18.0 GHz |                              |
| 33 N/S   | 7                 |                  | 0.4               |                   | 0.87 (22.10)                 |
| 34 N/S   | 8                 |                  | 0.4               |                   | 0.87 (22.10)                 |
| 35 N/S   | 9                 |                  | 0.4               |                   | 0.87 (22.10)                 |
| 36 N/S   | 10                |                  | 0.4               |                   | 0.87 (22.10)                 |
| 37 N/S   | 11                |                  | 0.4               |                   | 0.87 (22.10)                 |
| 38 N/S   | 12                |                  | 0.4               |                   | 0.87 (22.10)                 |
| 39 N/S   | 13                |                  | 0.4               |                   | 0.94 (23.88)                 |
| 40 N/S   | 14                |                  | 0.4               |                   | 0.94 (23.88)                 |
| 41 N/S   | 15                |                  | 0.4               |                   | 0.94 (23.88)                 |
| 42 N/S   | 16                |                  | 0.4               |                   | 0.94 (23.88)                 |
| 43 N/S   | 17                |                  | 0.4               |                   | 0.94 (23.88)                 |
| 44 N/S   | 18                |                  | 0.4               |                   | 0.94 (23.88)                 |
| 45 N/S   | 19                |                  | 0.4               |                   | 0.94 (23.88)                 |
| 46 N/S   | 20                |                  | 0.7               |                   | 1.04 (26.42)                 |
| 47 N/S   | 21                |                  | 0.7               |                   | 1.04 (26.42)                 |
| 48 N/S   | 22                |                  | 0.7               |                   | 1.04 (26.42)                 |
| 49 N/S   | 23                |                  | 0.7               |                   | 1.04 (26.42)                 |
| 50 N/S   | 24                |                  | 0.7               |                   | 1.04 (26.42)                 |
| 51 N/S   | 25                |                  | 0.7               |                   | 1.04 (26.42)                 |
| 52 N/S   | 30                |                  | 1.0               |                   | 1.04 (26.42)                 |
| 53 N/S   | 35                |                  | 1.0               |                   | 1.35 (34.29)                 |
| 54 N/S   | 40                |                  | 1.0               |                   | 1.35 (34.29)                 |
| 55 N/S   | 45                |                  | 1.5               |                   | 1.35 (34.29)                 |
| 56 N/S   | 50                |                  | 2.0               |                   | 1.35 (34.29)                 |
| 57 N/S   | 60                |                  | 2.0               |                   | 1.35 (34.29)                 |
| 58 N/S   | 0                 |                  |                   | 0.3               | 0.87 (22.10)                 |
| 59 N/S   | 0.5               |                  |                   | 0.3               | 0.87 (22.10)                 |
| 60 N/S   | 1.0               |                  |                   | 0.3               | 0.87 (22.10)                 |
| 61 N/S   | 1.5               |                  |                   | 0.3               | 0.87 (22.10)                 |
| 62 N/S   | 2.0               |                  |                   | 0.3               | 0.87 (22.10)                 |
| 63 N/S   | 2.5               |                  |                   | 0.3               | 0.87 (22.10)                 |
| 64 N/S   | 3.0               |                  |                   | 0.3               | 0.87 (22.10)                 |

| DASH NO. | ATTENUATION    dB |                  |                   |                   | DIM A<br>INCHES (MM)<br>MAX. |
|----------|-------------------|------------------|-------------------|-------------------|------------------------------|
|          | NOMINAL           | DEVIATION    (±) |                   |                   |                              |
|          |                   | DC to<br>2.0 GHz | DC to<br>12.4 GHz | DC to<br>18.0 GHz |                              |
| 01 N/S   | 1                 | 0.3              |                   |                   | 0.87 (22.10)                 |
| 02 N/S   | 2                 | 0.3              |                   |                   | 0.87 (22.10)                 |
| 03 N/S   | 3                 | 0.3              |                   |                   | 0.87 (22.10)                 |
| 04 N/S   | 4                 | 0.3              |                   |                   | 0.87 (22.10)                 |
| 05 N/S   | 5                 | 0.3              |                   |                   | 0.87 (22.10)                 |
| 06 N/S   | 6                 | 0.3              |                   |                   | 0.87 (22.10)                 |
| 07 N/S   | 7                 | 0.3              |                   |                   | 0.87 (22.10)                 |
| 08 N/S   | 8                 | 0.3              |                   |                   | 0.87 (22.10)                 |
| 09 N/S   | 9                 | 0.3              |                   |                   | 0.87 (22.10)                 |
| 10 N/S   | 10                | 0.3              |                   |                   | 0.87 (22.10)                 |
| 11 N/S   | 11                | 0.3              |                   |                   | 0.87 (22.10)                 |
| 12 N/S   | 12                | 0.3              |                   |                   | 0.87 (22.10)                 |
| 13 N/S   | 13                | 0.3              |                   |                   | 1.03 (26.16)                 |
| 14 N/S   | 14                | 0.3              |                   |                   | 1.03 (26.16)                 |
| 15 N/S   | 15                | 0.3              |                   |                   | 1.03 (26.16)                 |
| 16 N/S   | 16                | 0.3              |                   |                   | 1.03 (26.16)                 |
| 17 N/S   | 17                | 0.3              |                   |                   | 1.03 (26.16)                 |
| 18 N/S   | 18                | 0.3              |                   |                   | 1.03 (26.16)                 |
| 19 N/S   | 19                | 0.3              |                   |                   | 1.03 (26.16)                 |
| 20 N/S   | 20                | 0.3              |                   |                   | 1.03 (26.16)                 |
| 21 N/S   | 21                | 0.5              |                   |                   | 1.03 (26.16)                 |
| 22 N/S   | 22                | 0.5              |                   |                   | 1.03 (26.16)                 |
| 23 N/S   | 23                | 0.5              |                   |                   | 1.03 (26.16)                 |
| 24 N/S   | 24                | 0.5              |                   |                   | 1.03 (26.16)                 |
| 25 N/S   | 25                | 0.5              |                   |                   | 1.03 (26.16)                 |
| 26 N/S   | 30                | 0.5              |                   |                   | 1.03 (26.16)                 |
| 27 N/S   | 1                 |                  | 0.3               |                   | 0.87 (22.10)                 |
| 28 N/S   | 2                 |                  | 0.3               |                   | 0.87 (22.10)                 |
| 29 N/S   | 3                 |                  | 0.3               |                   | 0.87 (22.10)                 |
| 30 N/S   | 4                 |                  | 0.3               |                   | 0.87 (22.10)                 |
| 31 N/S   | 5                 |                  | 0.3               |                   | 0.87 (22.10)                 |
| 32 N/S   | 6                 |                  | 0.3               |                   | 0.87 (22.10)                 |

UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES AND TOLERANCES ARE:

3 PLACE DECIMALS ±.005

2 PLACE DECIMALS ±.02

FRACTIONS ±1/64

PARALLELITY: T.I.R. \_\_\_\_\_

FLATNESS: T.I.R. \_\_\_\_\_

CONCENTRICITY: T.I.R. \_\_\_\_\_

ANGLES AND PERPENDICULARITY: ±1°

FSCM NO.

34078

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DRAWN/DATE

M.HOLLMAN

7/3/92

CHECKED/DATE

G.KOZAK

7/14/92

ENG./DATE

G.KOZAK

7/14/92

APPROVED/DATE

TITLE

ATTENUATOR

DRAWING NUMBER

M3933/25-XX(N or S)

SCALE:

1=1

SHEET

2

of

2