

**SPECIFICATIONS:**

- FREQUENCY: ..... 0.5 GHz TO 18 GHz
- INSERTION LOSS: ..... REFLECTIVE: 3.25db  
ABSORPTIVE: 4.0db
- ISOLATION: ..... 0.5 GHz TO 2 GHz: 60db  
2 GHz TO 18 GHz: 70db
- VSWR: ..... REFLECTIVE IN/OUT: 2.0:1  
ABSORPTIVE IN/OUT: 2.0:1  
ABSORPTIVE OUT/OFF: 2.0:1
- SPEED: ..... RISE: 10ns TYPICAL, 15ns MAX.  
FALL: 10ns TYPICAL, 15ns MAX.  
DELAY ON: 75ns TYPICAL, 100ns MAX.  
DELAY OFF: 75ns TYPICAL, 100ns MAX.
- POWER INPUT: ..... (CW)+20dBm (STANDARD), +10 dBm (HIGH SPEED)
- SURVIVAL POWER: ..... 1 WATT CW, 10 WATTS PEAK 1 usec
- CONTROL: ..... TTL LOGIC "0"-ON "1"-OFF
- POWER SUPPLY: ..... +5V @ 250 mA MAX.  
-5V @ 75mA MAX.(REFLECTIVE)  
100mA MAX.(ABSORPTIVE/NON-REFLECTIVE)

**OPTIONS:**

INDEPENDENT CONTROL WITH SOLDER PIN STANDARD

- DEC-MP ..... 3 BIT DECODER WITH MULTIPIN
- DEC-SP ..... 3 BIT DECODER WITH SOLDER PIN
- MP-IND ..... INDEPENDENT CONTROL WITH MULTIPIN
- 10M18 ..... 10 MHz TO 18 GHz (INSERTION LOSS INCREASES BY 1.5db AT 10 MHz AND 0.5db AT 18 GHz)
- 100M18 ..... 100 MHz TO 18 GHz (INSERTION LOSS INCREASES BY 1.5db AT 100 MHz AND 0.5db AT 18 GHz)
- 118 ..... 1 GHz TO 18 GHz (NO CHANGE IN INSERTION LOSS)
- 218 ..... 2 GHz TO 18 GHz (NO CHANGE IN INSERTION LOSS)
- 412 ..... 4 GHz TO 12.4 GHz (NO CHANGE IN INSERTION LOSS)
- 618 ..... 6 GHz TO 18 GHz (NO CHANGE IN INSERTION LOSS)
- 1218 ..... 12 GHz TO 18 GHz (NO CHANGE IN INSERTION LOSS)
- 100M20 ..... 100 MHz TO 20 GHz (INSERTION LOSS INCREASES BY 1.5db AT 100 MHz AND 1.0db AT 20 GHz)
- 220 ..... 2 GHz TO 20 GHz (INSERTION LOSS INCREASES BY 1.0db AT 20 GHz)
- 1020 ..... 10 GHz TO 20 GHz (INSERTION LOSS INCREASES BY 1.0db AT 20 GHz)
- B01 ..... -12V POWER SUPPLIES
- B02 ..... -15V POWER SUPPLIES
- B03 ..... REVERSE LOGIC "1"-ON "0"-OFF
- B04 ..... DRIVERLESS, CURRENT CONTROLLED
- B05 ..... HIGH SPEED, TURNON/TURNOFF 25 nsec MAXIMUM WHEN APPLICABLE
- B06 ..... HIGH POWER - SPECIFY CW POWER, PEAK POWER, PULSE WIDTH, DUTY CYCLE, RF FREQUENCY AND BANDWIDTH
- B07 ..... CUSTOM DESIGNED PRODUCT- SPECIFY INITIALS OF CUSTOMER
- B08 ..... LOW VIDEO TRANSIENTS - SPECIFY VIDEO BANDWIDTH
- B09 ..... LOW INSERTION LOSS VERSION
- B10 ..... HIGHER ISOLATION VERSION

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**ENVIRONMENTAL RATINGS:**

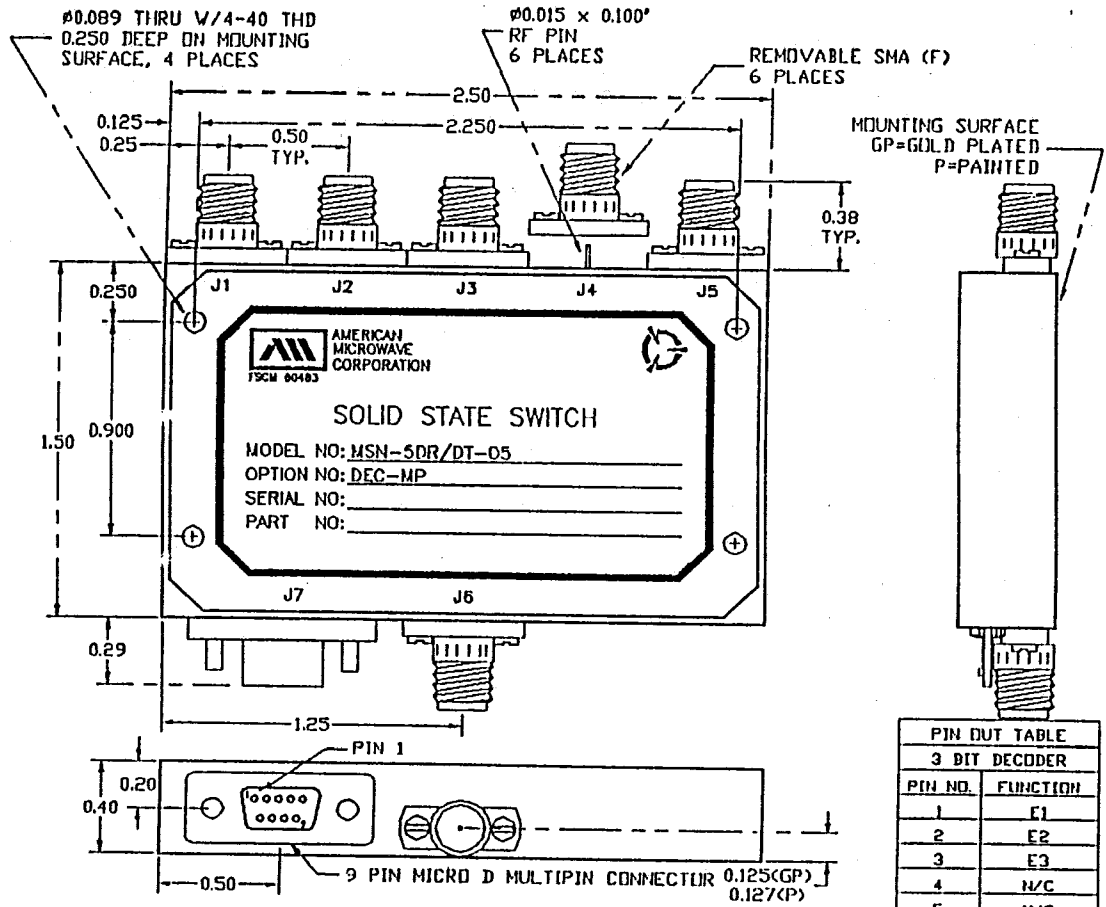
- TEMPERATURE: ..... -55°C TO +85°C (OPERATING)  
-65°C TO +125°C (STORAGE)
- HUMIDITY: ..... MIL-STD-202F, METHOD 103B COND. B
- SHOCK: ..... MIL-STD-202F, METHOD 213B COND. B
- VIBRATION: ..... MIL-STD-202F, METHOD 204D COND. B
- ALTITUDE: ..... MIL-STD-202F, METHOD 105C COND. B
- TEMPERATURE CYCLE: ..... MIL-STD-202F, METHOD 107D COND. A

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

ALL DIMENSIONS ARE IN INCHES  
TOLERANCES:

X.XX ±0.020  
X.XXX ±0.010

| REVISIONS |      |                  |        |          |
|-----------|------|------------------|--------|----------|
| ZONE      | REV. | DESCRIPTION      | DATE   | APPROVED |
| A         |      | ORIGINAL RELEASE | 1/7/97 |          |



| 3 BIT DECODER |          |
|---------------|----------|
| PIN NO.       | FUNCTION |
| 1             | E1       |
| 2             | E2       |
| 3             | E3       |
| 4             | N/C      |
| 5             | N/C      |
| 6             | GND      |
| 7             | +V       |
| 8             | -V       |
| 9             | GND      |

NOTE:  
DR=WITH DRIVER, REFLECTIVE  
DT=WITH DRIVER, NON-REFLECTIVE/ABSORPTIVE

|                        |         |   |                   |                       |
|------------------------|---------|---|-------------------|-----------------------|
| PART NO.               |         | AMERICAN MICROWAVE CORPORATION<br>FREDERICK, MARYLAND   |                   |                       |
| APPROVALS              | DATE    | TITLE<br>OUTLINE DRAWING<br>MSN-5DR/DT-05-DEC-MP<br>REFLECTIVE OR NON-REFLECTIVE/ABSORPTIVE<br>SOLID STATE SWITCH |                   |                       |
| DESIGN<br>WSP          | 1/7/97  | SIZE<br>A   | FSCM NO.<br>60483 | DWG NO.<br>100-4166-2 |
| CHECKED<br>L. H. H. H. | 3/26/97 | SCALE<br>N/S  | REV.<br>A         | REV.<br>A             |
| TESTED                 |         |   |                   | SHEET 1 of 1          |