

**DESCRIPTION:**

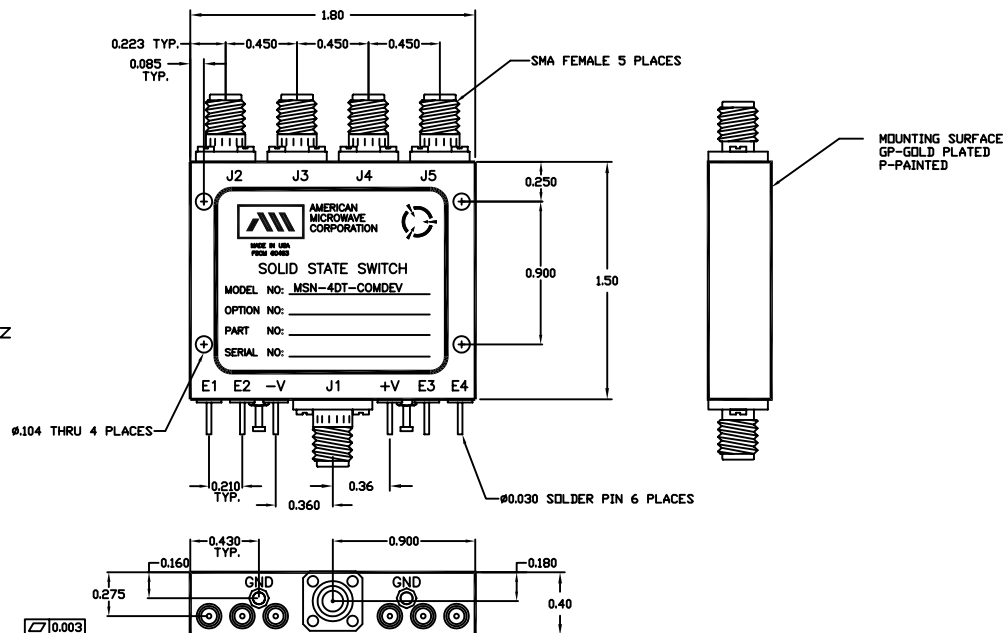
AMC MODEL MSN-4DT-COMDEV IS A SINGLE POLE FOUR THROW NARROW BAND REFLECTIVE SWITCH MODULE, DESIGNED FOR THE 8.3 TO 11.7 GHz FREQUENCY RANGE. THIS 80 dB ISOLATION SWITCH HAS A SWITCHING SPEED OF 30 nS.

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
		- ORIGINAL RELEASE JOB #207109-2	1/19/04	

**SPECIFICATIONS:**

- FREQUENCY: 8.3 TO 11.7 GHz
- INSERTION LOSS: 3.5 dB MAXIMUM
  - VS. FREQUENCY: ± 0.5 dB MAX WITH RESPECT TO NOMINAL INSERTION LOSS
  - VS. TEMPERATURE: ± 0.3 dB MAX WITH RESPECT TO NOMINAL INSERTION LOSS
- NOMINAL INSERTION LOSS IS DEFINED AS THE VALUE MEASURED AT AN AMBIENT TEMPERATURE OF 25°C AT THE CENTER FREQUENCY OF 10.0 GHz
- ISOLATION: 80 dB MINIMUM
- VSWR (ALL PORTS): 2.0:1 MAXIMUM
- SWITCHING SPEED: 30 nS MAXIMUM (10% - 90% AND 90% - 10% RF)
- HARMONIC LEVELS: -30 dBc UNDER MAX INPUT CONDITIONS
- SPURIOUS OUTPUT: -115 dBc MAX, UP TO 200 MHz AWAY FROM 10 GHz AT AN INPUT POWER LEVEL OF -3 dBm
- THIRD ORDER INTERCEPT: +42dBm MINIMUM
- MEAN TIME BETWEEN FAILURES: 1,000,000 HOURS MINIMUM
- POWER SUPPLY: +5.0VDC ±5% @ 140 mA MAXIMUM  
-12.0VDC ±5% @ 100 mA MAXIMUM
- RF INPUT POWER: +23 dBm CW MAXIMUM

**MECHANICAL OUTLINE**



CONTROL INPUTS				*STATE
C1	C2	C3	C4	
0	1	1	1	J1-J2 ON, J1-J3 OFF J1-J4 OFF, J1-J5 OFF
1	0	1	1	J1-J3 ON, J1-J2 OFF J1-J4 OFF, J1-J5 OFF
1	1	0	1	J1-J4 ON, J1-J2 OFF J1-J3 OFF, J1-J5 ON
1	1	1	0	J1-J5 ON, J1-J2 OFF J1-J3 OFF, J1-J4 OFF
1	1	1	1	ALL OFF
ALL OTHERS				NOT VALID

\*J1-J2 CORRESPONDS TO RF1, J1-J3 CORRESPONDS TO RF2  
J1-J4 CORRESPONDS TO RF3, J1-J5 CORRESPONDS TO RF4

**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 ±0.010  
X.XXX ±0.005

PART NO.		AMERICAN MICROWAVE CORPORATION FREDERICK, MARYLAND		
APPROVALS	DATE	TITLE		
DRAWN <i>DPD</i>	1/19/04	PRODUCT FEATURE MSN-4DT-COMDEV 123065-2 REV 2		
CHECKED		SIZE	FSCM NO.	DWG NO.
ISSUED		A	60483	100-6920
		SCALE	N:S	SHEET 1 OF 3