

**DESCRIPTION:**

AMC MODEL MSN-3DR/DT-05-DEC-SP IS A SINGLE POLE THREE THROW SWITCH WITH A TWO BIT DECODER WITH SOLDER PIN STANDARD HAVING A FREQUENCY RANGE OF 0.5 TO 18 GHz, AN INSERTION LOSS OF 2.75 dB (REFLECTIVE), 3.75 dB (ABSORPTIVE), AND ISOLATION OF 60 dB BETWEEN 0.5 TO 2 GHz AND 70 dB BETWEEN 2 TO 18 GHz.

**SPECIFICATIONS:**

- FREQUENCY: 0.5 GHz TO 18 GHz
- INSERTION LOSS: REFLECTIVE: 2.75db  
ABSORPTIVE: 3.75db
- 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
- POWER SUPPLY: +5V @ 150 mA MAX.  
-5V @ 75mA MAX.(RELECTIVE)  
100mA MAX.(ABSORPTIVE/NON-REFLECTIVE)

**OPTIONS:**

INDEPENDENT CONTROL WITH SOLDER PIN STANDARD

- DEC-SP 2 BIT DECODER WITH SOLDER PIN
- 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

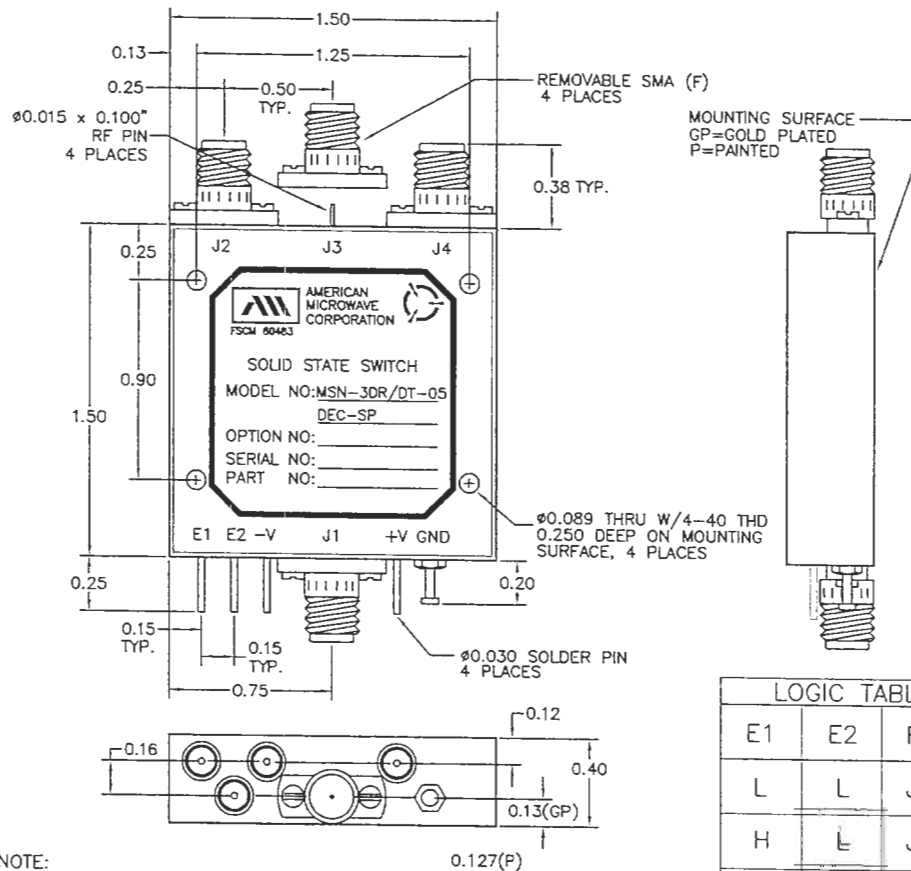
**ENVIRONMENTAL RATINGS:**

- 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: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE  
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	07/07/97	
	B	SEE ECN# 04-110	06/01/04	



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

LOGIC TABLE		
E1	E2	RF
L	L	J1
H	L	J2
L	H	J3

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APPROVALS		DATE	TITLE		REV.
DRAWN	JDJ	6/1/04	PRODUCT FEATURE MSN-3DR/DT-05-DEC-SP REFLECTIVE OR NON-REFLECTIVE/ABSORPTIVE SOLID STATE SWITCH		B
REDRAWN	JDJ	8/10/04	SIZE	FSCM NO.	DWG NO.
ISSUED	JA	9/3/04	A	60483	100-4165-2
SCALE N:S			SHEET 1 OF 3		