

## DESCRIPTION

AMC MODEL SW-2181-5A-171 IS A REFLECTIVE BROAD BAND SP5T SWITCH MODULE WITH INTEGRAL TTL DRIVER.

## SPECIFICATIONS

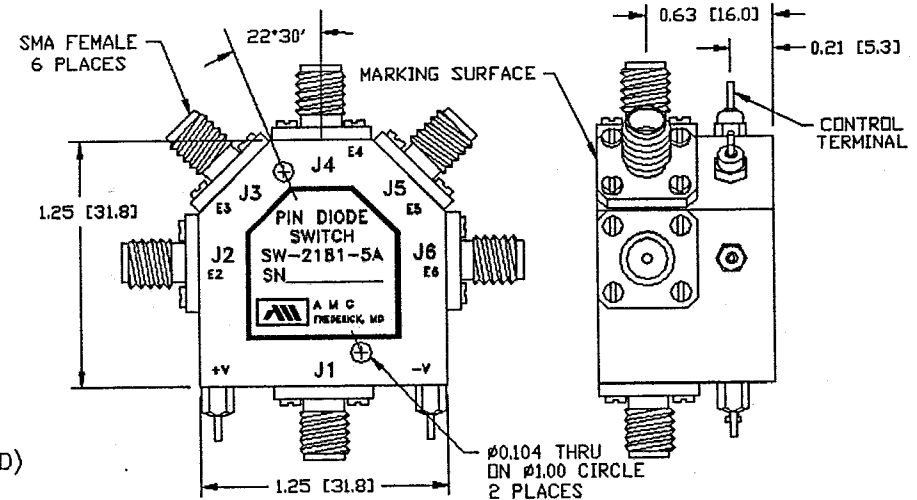
- FREQUENCY RANGE ..... 0.3-20 GHz MINIMUM
- INSERTION LOSS ..... 0.3-4 GHz, 1.4 dB MAXIMUM  
4-8 GHz, 1.5 dB MAXIMUM  
8-12.4 GHz, 2.0 dB MAXIMUM  
12.4-20 GHz, 3.0 dB MAXIMUM
- ISOLATION ..... 0.3-12.4 GHz, 60 dB MINIMUM  
12.4-20 GHz, 50 dB MINIMUM
- VSWR (ON) ..... 1.8:1 MAXIMUM
- RF POWER RATING ..... 1W CW, 75W PEAK (1μS, PW MAXIMUM)
- SWITCHING TIME  
RISE (10% RF TO 90% RF) ..... 15 ns MAXIMUM  
FALL (90% RF TO 10% RF) ..... 15 ns MAXIMUM  
ON (50% TTL TO 90% RF) ..... 45 ns MAXIMUM  
OFF (50% TTL TO 10% RF) ..... 45 ns MAXIMUM
- CONTROL ..... TTL, LOW POWER SCHOTTKY, (UNITY LOAD)  
(SEE TRUTH TABLE)  
LOGIC "1" = INSERTION LOSS  
LOGIC "0" = ISOLATION
- POWER SUPPLY ..... +5VDC ±5% @ 250 mA MAXIMUM  
-5VDC ±5% @ 100 mA MAXIMUM
- CONNECTORS  
RF INPUT/OUTPUT ..... SMA (FEMALE)  
POWER/CONTROL ..... SOLDER PIN
- SIZE ..... 1.25" x 1.25" x 0.88"

## AVAILABLE OPTIONS

- A01 ..... 50Ω CONTROL IMPEDANCE
- A02 ..... 100Ω CONTROL IMPEDANCE
- A03 ..... INVERSE CONTROL LOGIC (LOGIC "0" ISOLATION)
- A04 ..... EXTENDED FREQUENCY RANGE TO 100 MHz
- A07 ..... VIDEO FILTER ON COMMON PORT ONLY (0.25 dB EXCESS LOSS)
- A08 ..... VIDEO FILTER ON OUTPUT PORTS ONLY (0.25 dB EXCESS LOSS)
- A09 ..... VIDEO FILTER ON ALL PORTS (0.5 dB EXCESS LOSS)
- A10 ..... SMA MALE RF CONNECTORS (0.4 dB EXCESS LOSS)
- A11 ..... SMC CONTROL TERMINALS
- A13 ..... +12 TO +18 VDC POWER SUPPLY
- A14 ..... -12 TO -18 VDC POWER SUPPLY

REVISIONS				DATE	APPROVED
ZONE	REV.	DESCRIPTION			
	A	ORIGINAL RELEASE, JOB #212326-2		6/22/93	6/29/93 JYJ

## MECHANICAL OUTLINE



TRUTH TABLE					
E6	E5	E4	E3	E2	RF PATH ON
0	0	0	0	1	J1-J2
0	0	0	1	0	J1-J3
0	0	1	0	0	J1-J4
0	1	0	0	0	J1-J5
1	0	0	0	0	J1-J6

### NOTES:

1. DIMENSIONS ARE IN INCHES [MILLIMETERS]
2. TOLERANCES: X.XX ±0.020  
X.XXX ±0.010
3. WEIGHT: APPROX. 2.5 OZ

## ENVIRONMENTAL RATINGS

- TEMPERATURE:  
OPERATING ..... -65°C TO +110°C  
NON-OPERATING ..... -65°C TO +125°C
- 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



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APPROVALS \_\_\_\_\_ DATE \_\_\_\_\_

DRAWN *WJG* 6/22/93

CHECKED *[Signature]* 6/29/93

### PRODUCT FEATURE

**SW-2181-5A-171**

0.3-20 GHz, SP5T SWITCH MODULE

SIZE A

SHEET 1 OF 2

DWG. # 100-3184