

DESCRIPTION

AMC MODEL SW-2184-1A-225 IS A REFLECTIVE BROAD BAND PULSE MODULATOR/SWITCH WITH INTEGRAL TTL DRIVER, AND BUILT IN INPUT/OUTPUT VIDEO FILTER. DESIGNED FOR WIDE BAND, HIGH SPEED AND LOW DISTORTION RF-LINKED, DATA COMMUNICATIONS.

SPECIFICATIONS

- FREQUENCY RANGE: 0.5 TO 18 GHz
- INSERTION LOSS: 0.5-1 GHz, 1.0 dB MAXIMUM
1-2 GHz, 1.2 dB MAXIMUM
2-4 GHz, 1.5 dB MAXIMUM
4-8 GHz, 2.0 dB MAXIMUM
8-18 GHz, 2.8 dB MAXIMUM
- ISOLATION: 0.5-1 GHz, 60 dB MINIMUM
1-2 GHz, 70 dB MINIMUM
2-8 GHz, 85 dB MINIMUM
8-18 GHz, 80 dB MINIMUM
- VSWR: 0.5-4 GHz, 1.5:1 MAXIMUM
4-8 GHz, 1.8:1 MAXIMUM
8-18 GHz, 1.9:1 MAXIMUM
- RF POWER RATINGS: 2W CW MAXIMUM, 10W PEAK (1 uSec, PW)
- SWITCHING TIME:
RISE (10% RF TO 90% RF): 10 nSec MAXIMUM
FALL (90% RF TO 10% RF): 10 nSec MAXIMUM
ON (50% TTL TO 90% RF): 25 nSec MAXIMUM
OFF (50% TTL TO 10% RF): 25 nSec MAXIMUM
- IN-BAND VIDEO TRANSIENTS: 150 mV P-P ACROSS 50Ω IMPEDANCE
IN 20 MHz BANDWIDTH.
- CONTROL: TTL COMPATIBLE, UNITY LOAD
LOGIC "0" = ISOLATION
LOGIC "1" = INSERTION LOSS
- POWER SUPPLY: +5VDC ±5% @ 65 mA MAXIMUM
-12VDC ±5% @ 40 mA MAXIMUM
- CONNECTORS:
RF INPUT/OUTPUT: SMA (FEMALE)
POWER: SOLDER PIN
CONTROL: SOLDER PIN
- SIZE: 1.10" x 0.87" x 0.37"

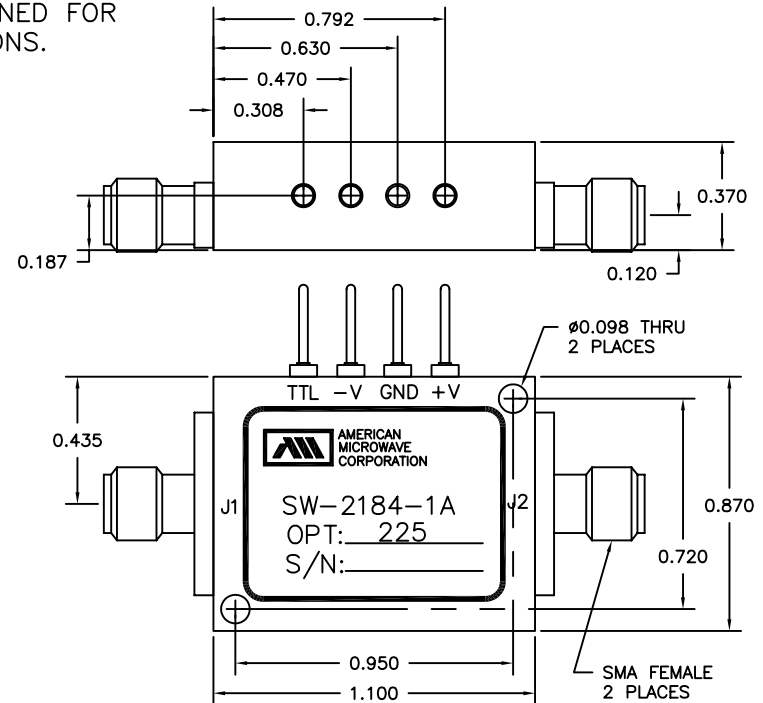
AVAILABLE OPTIONS:

- A01: 50Ω CONTROL IMPEDANCE
- A02: 100Ω CONTROL IMPEDANCE
- A03: INVERSE CONTROL LOGIC (LOGIC "1" = ISOLATION)
- A04: EXTENDED FREQUENCY TO 100 MHz
- A05: 5 WATTS CW MAXIMUM
- A06: 2 nSec RISE/FALL TIME
- A07: SINGLE ENDED ECL DRIVER (10 nSec ON/OFF TIME)
- A09: BALANCED ECL DRIVER (10 nSec ON/OFF TIME)
- A10: -15 VOLT POWER SUPPLY

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 JOB# 208202 | 11/22/92 | |
| | B | SEE ECN# 05-056 | 8/18/05 | |



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

AMERICAN MICROWAVE CORPORATION

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ISO 9001:2000 CERTIFIED



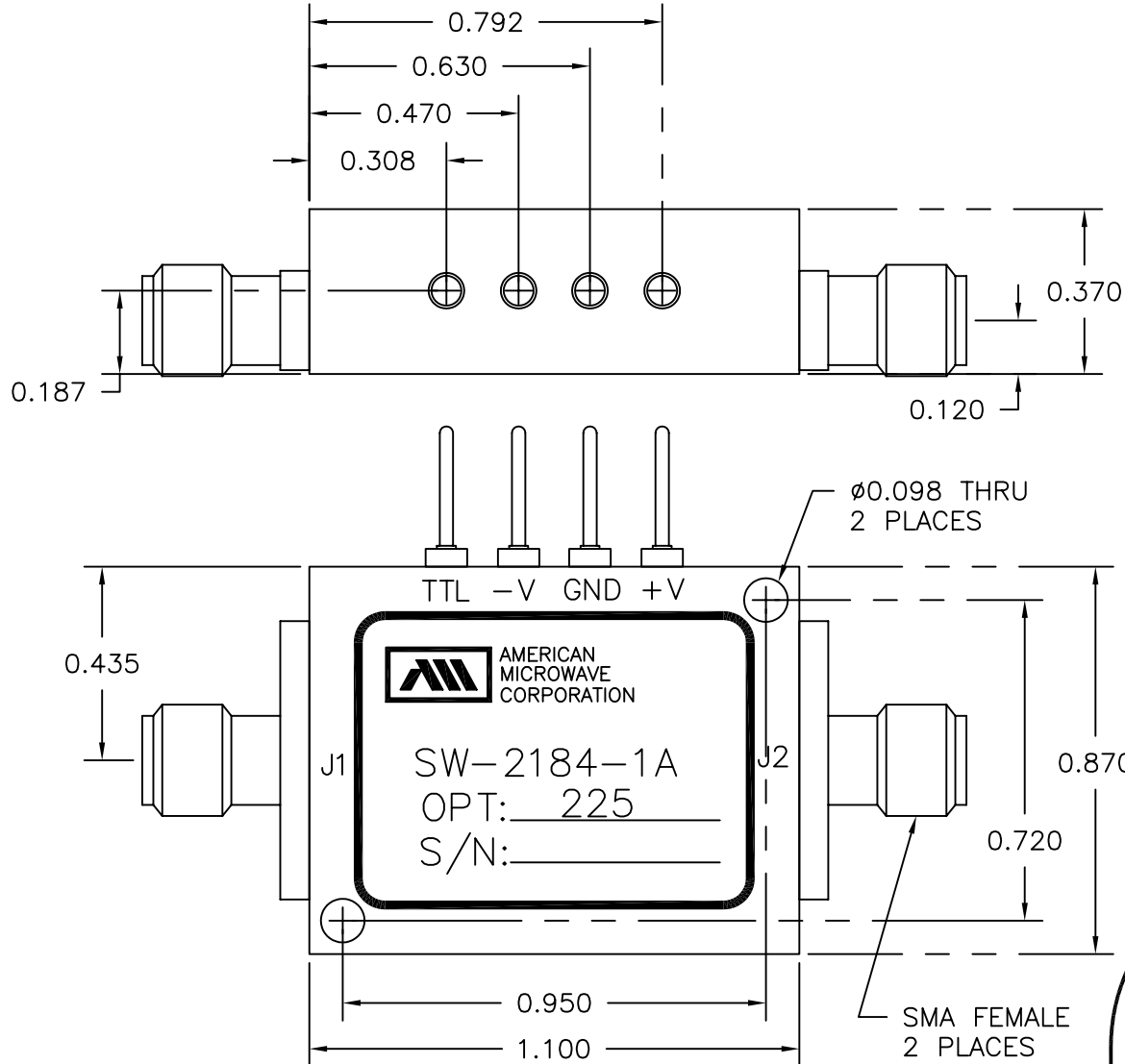
| APPROVALS | | DATE | TITLE | | | |
|---------------------|--|----------|--|----------------|------------------|--------|
| DRAWN <i>WSP</i> | | 11/22/92 | PRODUCT FEATURE SW-2184-1A-225 | | | |
| MODIFIED <i>JDJ</i> | | 8/18/05 | 0.5-18 GHz, REFLECTIVE SPST SWITCH/MODULATOR | | | |
| ISSUED | | | SIZE A | FSCM NO. 60483 | DWG NO. 100-2863 | REV. B |
| | | | SCALE N:S | SHEET | | 1 OF 4 |

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MECHANICAL OUTLINE



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X.XXX ±0.010

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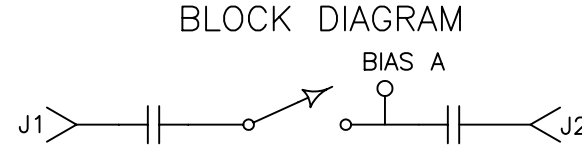
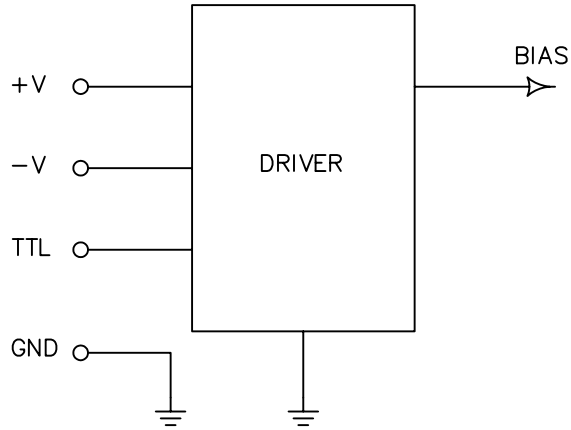
| APPROVALS | | DATE | TITLE | | | |
|---------------------|--|----------|--|-------------------|---------------------|-----------|
| DRAWN <i>WSP</i> | | 11/22/92 | MECHANICAL OUTLINE SW-2184-1A-225 | | | |
| MODIFIED <i>JDJ</i> | | 8/18/05 | 0.5-18 GHz, REFLECTIVE SPST SWITCH/MODULATOR | | | |
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| SCALE N:S | | | SHEET | | 2 OF 4 | |

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FUNCTIONAL BLOCK DIAGRAM



CONFIDENTIAL AND PROPRIETARY

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| APPROVALS | | DATE | TITLE | | |
| DRAWN <i>WSP</i> | | 11/22/92 | FUNCTIONAL BLOCK DIAGRAM | | |
| MODIFIED <i>JDJ</i> | | 8/18/05 | SW-2184-1A-225 | | |
| ISSUED | | | 0.5-18 GHz, REFLECTIVE SPST SWITCH/MODULATOR | SIZE | REV. |
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| | | | DWG NO. 100-2863 | SCALE N:S | |
| | | | SHEET 3 OF 4 | | |