



TEST REPORT
ON
8 TO 18.2 GHz
SINGLE POLE TWO THROW
ABSORPTIVE / NON-REFLECTIVE SWITCH MODULE

AMC MODEL No:
MSN-2DT-05-STANDARD
OPTION 818, 12X, LVT

Serial Numbers: 2MS909690 AND 2MS909691

**DESIGNED
BY
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**TESTED
BY
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**REPORTED
BY
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October 26, 2004

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ISO9001 : 2000 CERTIFIED

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SINGLE POLE TWO THROW ABSORPTIVE / NON-REFLECTIVE SWITCH MODULE AMC MODEL No: MSN-2DT-05-STANDARD OPTION 818, 12X, LVT

FEATURES:

- **LOW INSERTION LOSS**
- **HIGH ISOLATION**
- **LOW VIDEO TRANSIENTS**
- **LOW HARMONIC DISTORTION**

SPECIFICATIONS:

- FREQUENCY : 8 TO 18.2 GHz
- INSERTION LOSS : 3.0 dB MAXIMUM
- ISOLATION : 60 dB MINIMUM
- VSWR : 2.0:1
- SWITCHING SPEED : < 30 ns
- RISE / FALL TIME : < 10 ns
- MAXIMUM TOGGLE RATE : > 20 ns
- RF CONNECTORS : SMA FEMALE
- DC POWER SUPPLY : +5 V \pm 10% @ 100 mA MAXIMUM
-5 V \pm 10% @ 100 mA MAXIMUM
- CONTROL : TTL LOGIC "0"=ON J3-J1, "1"=ON J3-J2
- CONTROL INTERFACE : DC SOLDER PINS
- HARMONIC DISTORTION : \leq 70 dB @ +10 dBm I/P
- FLATNESS ACROSS BAND (ON STATE) : \pm 0.5 dB
- VIDEO LEAKAGE : 100 mV PEAK TO PEAK, 500 MHz BANDWIDTH (-60 dBm TO -65 dBm LEAKAGE POWER OR ENERGY IN THE BAND OF INTEREST)
- 1 dB COMPRESSION POINT : +20 dBm
- 2 TONE 3RD ORDER INTERCEPT POINT, P_{OUT} 0dBm : +35 dBm
- 2 TONE 2ND ORDER INTERCEPT POINT, P_{OUT} 0dBm : +55 dBm
- 0.1 dB PASS BAND : 8 GHz TO 18.2 GHz



PRODUCT FEATURE

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	1	ORIGINAL RELEASE	6/12/99	

Ø0.089 THRU, TAP WITH 4-40 THD 0.250 DEEP ON MOUNTING SURFACE. 2 PLACES.
 MOUNTING SURFACE GP-GOLD PLATED P-PAINTED
 REMOVABLE SMA (F) 3 PLACES
 Ø0.015 RF PIN 3 PLACES
 Ø0.020 SOLDER PIN 3 PLACES
 0.125 (GP) 0.127 (P)
 0.08
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O/N: 818-12X-LVT
 S/N:
 FSC# 60483
 EI END -5V J3 +5V END
 AMERICAN MICROWAVE CORPORATION
 SOLID STATE SWITCH
 M/N: MSN-2DT-05-STANDARD
 100 mV PEAK TO PEAK, 500 MHz BANDWIDTH (-60 dBm OF INTEREST)
 -65 dBm LEAKAGE POWER OR ENERGY IN THE BAND OF INTEREST
 +20 dBm
 +35 dBm
 +55 dBm
 8 GHz TO 18.2 GHz
 1.5 OUNCES TYPICAL
 1.00 (L) X 1.00 (W) X 0.40 (H)

REMOVABLE SMA (F) 3 PLACES
 Ø0.015 RF PIN 3 PLACES
 Ø0.020 SOLDER PIN 3 PLACES
 0.125 (GP) 0.127 (P)

M/N = MANUFACTURER PART NUMBER
 O/N = OPTION NUMBER
 S/N = SERIAL NUMBER

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

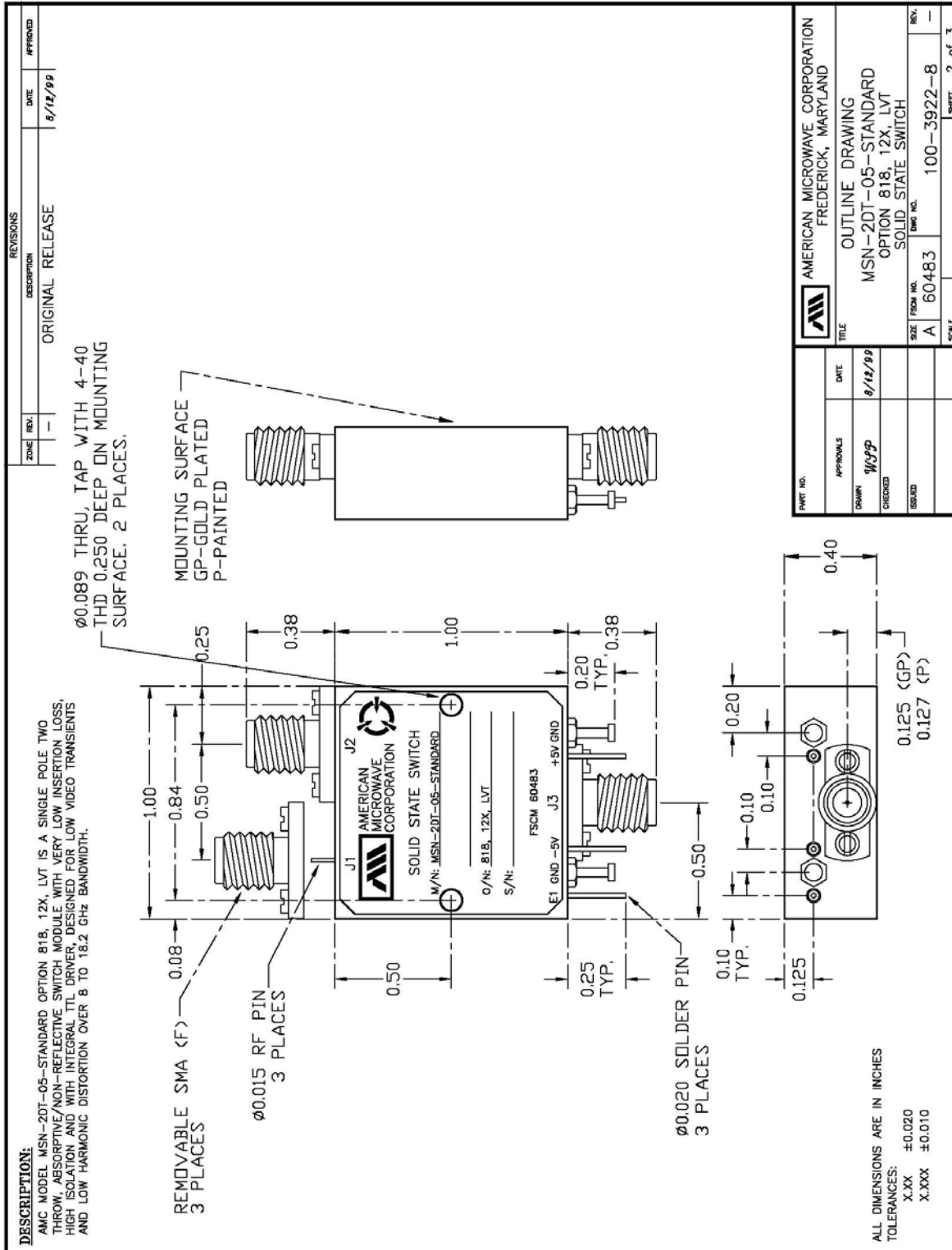
ALL DIMENSIONS ARE IN INCHES
 TOLERANCES:
 X.XX ±0.020
 X.XXX ±0.010

ENVIRONMENTAL RATINGS:
 • TEMPERATURE: -10°C TO +55°C (OPERATING)
 -40°C TO +71°C (STORAGE)
 • HUMIDITY: 95% OVER TEMPERATURE
 • SHOCK: MIL-STD-202F, METHOD 213B COND. B
 MIL-STD-202F, METHOD 2040 COND. B
 • VIBRATION: MIL-STD-202F, METHOD 105C COND. B
 MIL-STD-202F, METHOD 1070 COND. A
 • ALTITUDE: MIL-STD-202F, METHOD 105C COND. B
 • TEMPERATURE CYCLE: MIL-STD-202F, METHOD 1070 COND. A

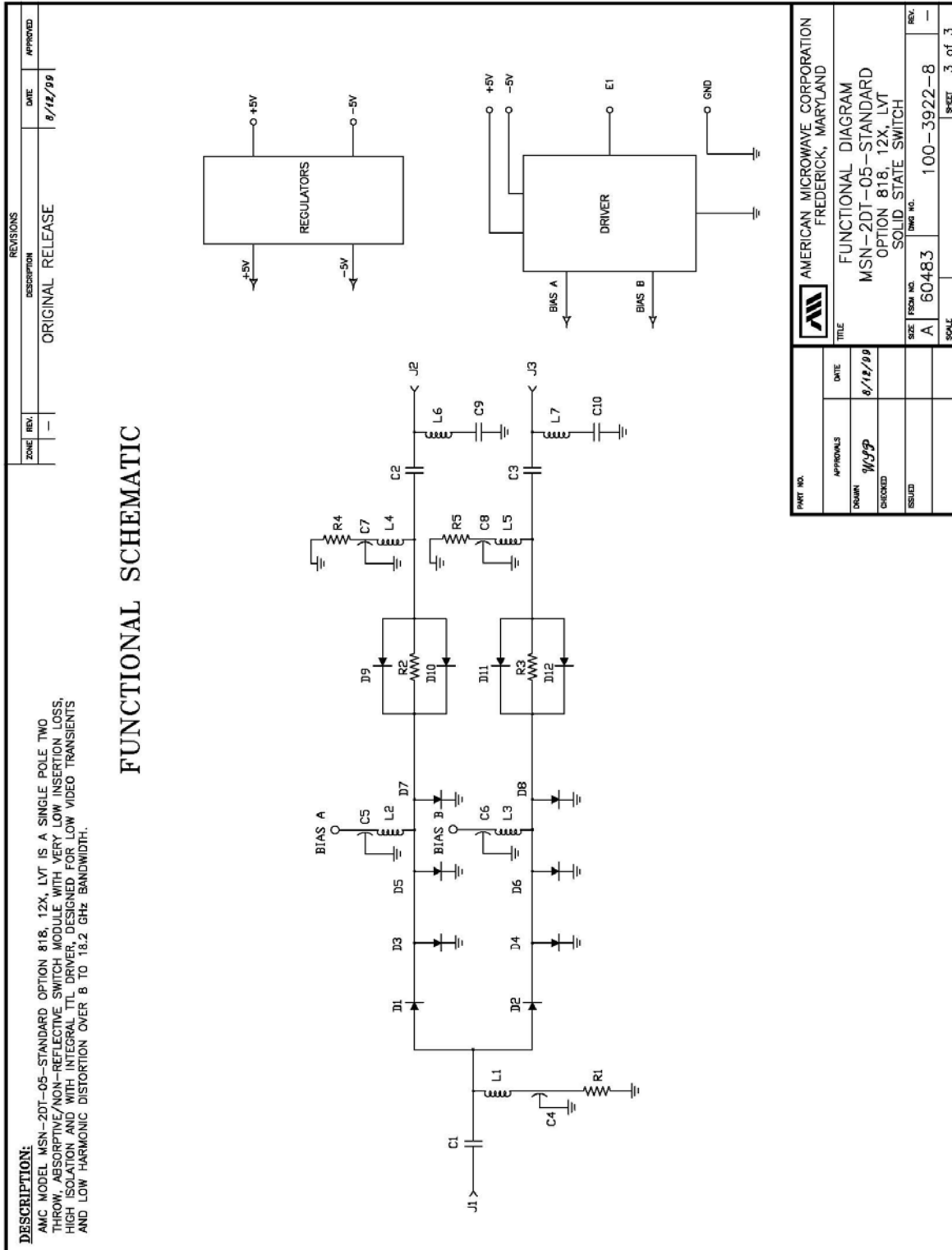
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

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OUTLINE DRAWING



FUNCTIONAL SCHEMATIC



APPROVALS	DATE
DESIGN	8/12/99
CHECKED	
ISSUED	

 AMERICAN MICROWAVE CORPORATION FREDERICK, MARYLAND	
TITLE FUNCTIONAL DIAGRAM MSN-2DT-05-STANDARD OPTION 818, 12X, LVT SOLID STATE SWITCH	
SIZE	REV.
A 60483	100-3922-8
SCALE	SHEET 3 of 3

FINAL TEST DATA

FINAL TEST DATA SHEETS

FOR

AMC MODEL NUMBER

MSN-2DT-05-STANDARD
OPTION 818, 12X, LVT

Serial Numbers:

2MS909690 THRU 2MS909691

