



TEST REPORT
ON
6 TO 12 GHz
SINGLE POLE TWO THROW
NON-REFLECTIVE / ABSORPTIVE SWITCH MODULE

AMC MODEL No:
SWN-218-2DT-STANDARD
OPTION 612, B05-30NS

Serial Numbers: 2MS004098 THRU 2MS004104

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November 3, 2004

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ISO9001 : 2000 CERTIFIED

TABLE OF CONTENTS

●	PRODUCT DESCRIPTION AND ELECTRICAL SPECIFICATIONS	PAGE 3
●	PRODUCT FEATURE AND ENVIRONMENTAL SPECIFICATIONS	PAGE 4
●	OUTLINE DRAWING	PAGE 5
●	FUNCTIONAL SCHEMATIC	PAGE 6
●	TEST DATA ON SWN-218-2DT-STANDARD OPTIONS 612, B05-30NS SERIAL NUMBERS 2MS004098 THRU 2MS004104	PAGE 7
●	TEST DATA FOR SWN-218-2DT-STANDARD OPTION 612, B05-30NS SERIAL NUMBER 2MS004098	PAGE 8
●	TEST DATA FOR SWN-218-2DT-STANDARD OPTION 612, B05-30NS SERIAL NUMBER 2MS004099	PAGE 9
●	TEST DATA FOR SWN-218-2DT-STANDARD OPTION 612, B05-30NS SERIAL NUMBER 2MS004100	PAGE 10
●	TEST DATA FOR SWN-218-2DT-STANDARD OPTION 612, B05-30NS SERIAL NUMBER 2MS004101	PAGE 11
●	TEST DATA FOR SWN-218-2DT-STANDARD OPTION 612, B05-30NS SERIAL NUMBER 2MS004102	PAGE 12
●	TEST DATA FOR SWN-218-2DT-STANDARD OPTION 612, B05-30NS SERIAL NUMBER 2MS004103	PAGE 13
●	TEST DATA FOR SWN-218-2DT-STANDARD OPTION 612, B05-30NS SERIAL NUMBER 2MS004104	PAGE 14

SINGLE POLE TWO THROW NON-REFLECTIVE / ABSORPTIVE SWITCH MODULE AMC MODEL No: SWN-218-2DT-STANDARD OPT 612, B05-30NS

FEATURES:

- **6 TO 12 GHz FREQUENCY RANGE**
- **LOW INSERTION LOSS**
- **INTEGRAL TTL DRIVER**

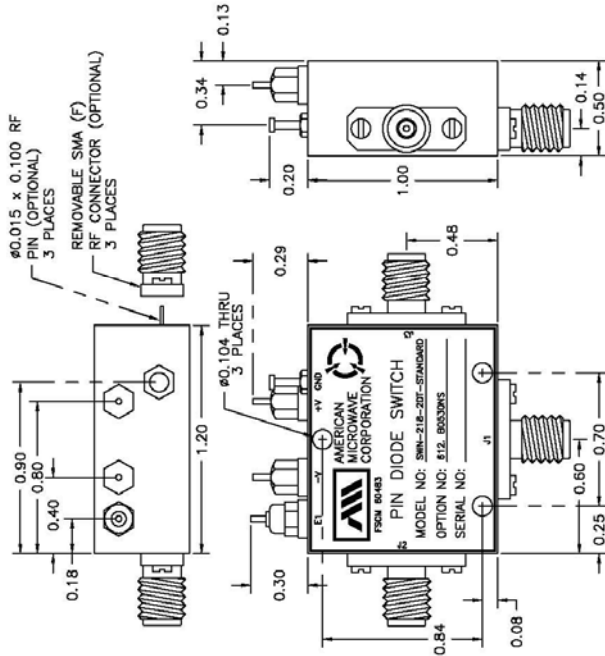
SPECIFICATIONS:

- FREQUENCY : 6 TO 12 GHz
- INSERTION LOSS : 2.5 dB MAXIMUM
- ISOLATION : 40 dB MINIMUM
- VSWR : 2.0:1
- SPEED : RISE: 20 nS
: FALL: 20 nS
- POWER INPUT : (CW) +20 dBm (STANDARD), +10 dBm (HIGH SPEED)
- SURVIVAL POWER : 1 WATT CW, 10 WATTS PEAK TO PEAK 1 uSEC
- CONTROL : TTL LOGIC "0"=J1-J2 ON, "1"=J1-J3 ON
- POWER SUPPLY : +5 V @ 100 mA MAXIMUM
: -5 V @ 100 mA MAXIMUM
- CONNECTORS :
 - RF : SMA FEMALE
 - CONTROL : SOLDER PIN
- SIZE : 1.20" (L) x 1.00" (W) x 0.50" (H)
- WEIGHT : 1.5 OUNCE TYPICAL

PRODUCT FEATURE

REV.	DESCRIPTION	DATE	APPROVED
1	ORIGINAL RELEASE, JOB# 004086E	11/12/08	

MECHANICAL OUTLINE



DESCRIPTION:
 AMC MODEL NUMBER SWN-218-2DT-STANDARD OPTIONS 612, B0530NS IS A SINGLE POLE DOUBLE THROW, ABSORPTIVE, PIN DIODE SWITCH MODULE WITH LOW LOSS WITH INTEGRAL TTL DRIVER AND DESIGNED FOR THE 6 TO 12 GHz FREQUENCY BAND.

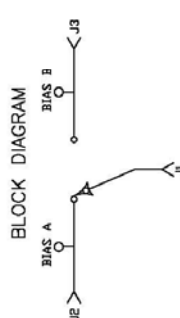
SPECIFICATIONS:

- FREQUENCY: 6 GHz TO 12 GHz
- INSERTION LOSS: 2.5 dB MAXIMUM
- ISOLATION: 40 dB MINIMUM
- VSWR: ABSORPTIVE IN/OUT: 2.0:1
- SPEED: RESORPTIVE QUANTUM: 2.0:1
- RISE: 20 ns MAXIMUM
- FALL: 20 ns MAXIMUM
- POWER INPUT: (CW)+20dBm (STANDARD), +10 dBm (HIGH SPEED)
- SURVIVAL POWER: 1 WATT CW, 10 WATTS PEAK 1 usec
- CONTROL: TTL LOGIC "0"= J1-J2 ON "1"= J1-J3 ON
- POWER SUPPLY: +5V @ 100 mA MAXIMUM
- -5V @ 100 mA MAXIMUM
- CONNECTORS: SMA FEMALE
- RF SOLDER PIN
- CONTROL SOLDER PIN
- SIZE: 1.20" (L) x 1.00" (W) x 0.50" (H)
- WEIGHT: 1.5 OUNCE TYPICAL

ENVIRONMENTAL RATINGS:

- TEMPERATURE: -55°C TO +85°C (OPERATING)
- -55°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

BLOCK DIAGRAM

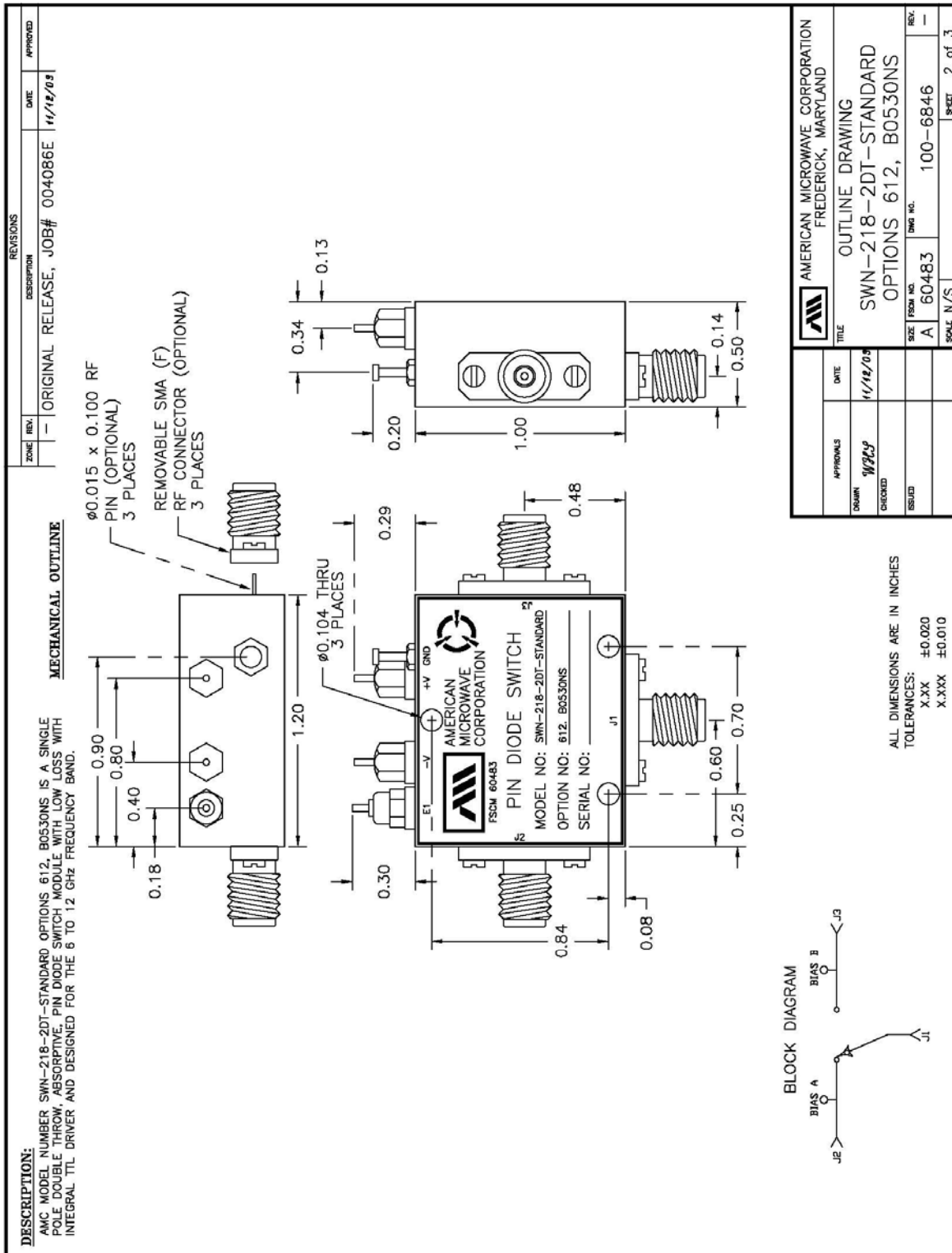


ALL DIMENSIONS ARE IN INCHES

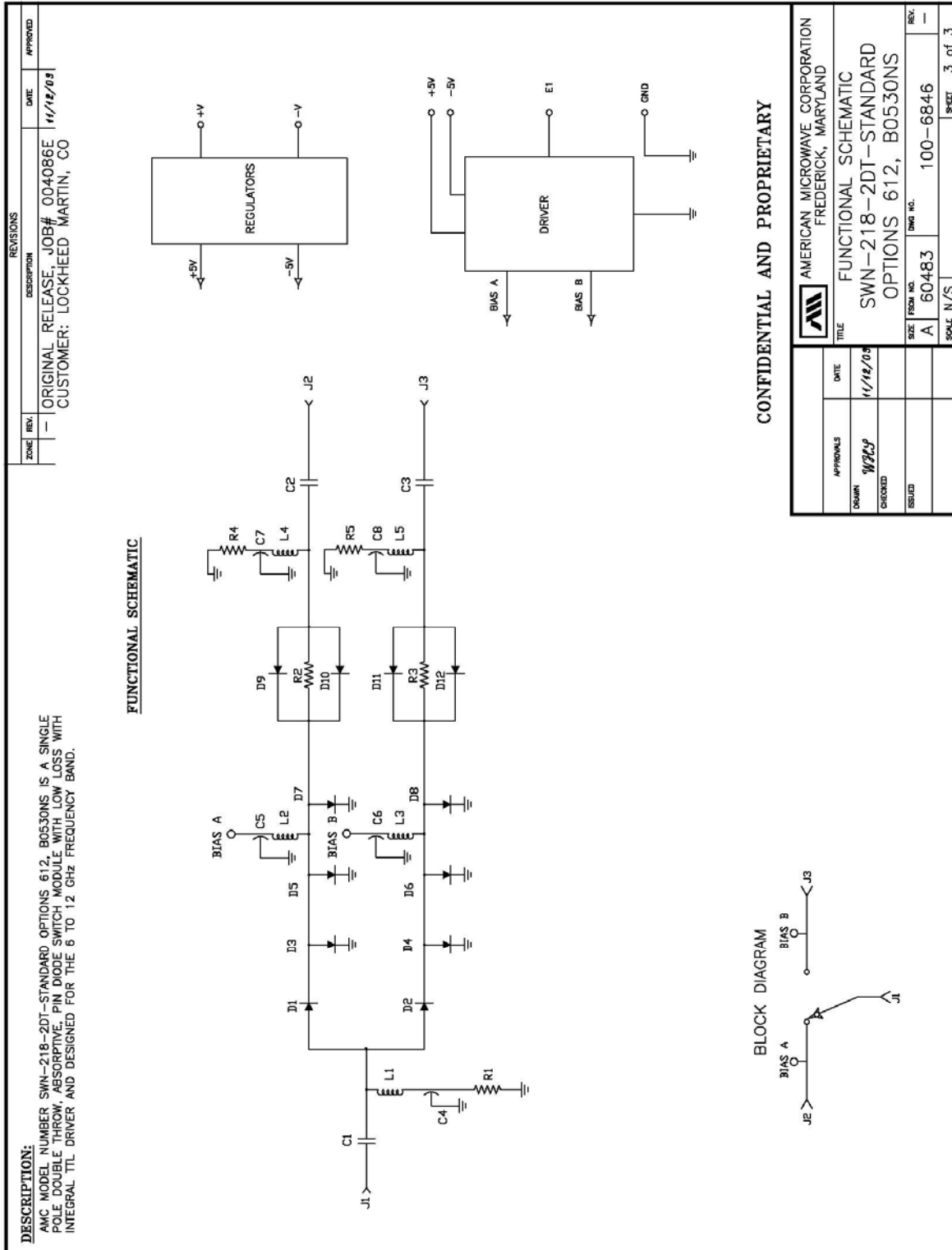
TOLERANCES:
 X.XXX ±0.020
 X.XXX ±0.010

APPROVALS	DATE	TITLE	REV.
	11/12/08	AMERICAN MICROWAVE CORPORATION FREDERICK, MARYLAND	
		PRODUCT FEATURE	
		SWN-218-2DT-STANDARD	
		OPTIONS 612, B0530NS	
		SIZE FROM NO. A 60483	
		DRWG NO. 100-6846	
		SCALE N/S	
			SHEET 1 of 3

OUTLINE DRAWING



FUNCTIONAL SCHEMATIC



CONFIDENTIAL AND PROPRIETARY

		AMERICAN MICROWAVE CORPORATION FREDERICK, MARYLAND	
FUNCTIONAL SCHEMATIC SWN-218-2DT-STANDARD OPTIONS 612, B0530NS			
DRAWN	DATE	REV.	REV.
WPS	11/18/03	—	—
CHECKED		SIZE	SHEET
ESUD		A 60483	3 of 3
		DWG. NO.	100-6846
		SCALE	N/S

FINAL TEST DATA

FINAL TEST DATA SHEETS

FOR

AMC MODEL NUMBER

SWN-218-2DT-STANDARD
OPTION 612, B05-30NS

Serial Numbers:

2MS004098 THRU 2MS004104



FINAL TEST DATA

AMC MODEL NO: SWN-218-2DT-STANDARD OPTIONS 612, B05-30NS
 SERIAL NUMBER: 2MS004102


 AME/ MICROWAVE CORPORATION
 7311-G GROVE RD., FREDERICK MD, 21704
 TEL: 301-662-4700 FAX: 301-662-4938

DATE: 4/29/00

FINAL TEST DATA
 ON
 MICROWAVE SWITCH

CUSTOMER: LOCKHEED MARTIN TECHNICIAN: TACH
 JOB NO: 004086E
 MODEL NO: SWN-218-2DT OPTION NO: 612, B05-30NS
 SERIAL NO: 2MS004102 SPECIFICATION:
 CURRENT DRAW: +5 VDC @ 40 mA; -5 VDC @ 30 mA FREQUENCY RANGE: 6.0 TO 12.0 GHz

INSERTION LOSS (WORST CASE)	RETURN LOSS (WORST CASE)					
	INPUT dB	INPUT VSWR	OUTPUT ON dB	OUTPUT ON VSWR	OUTPUT OFF dB	OUTPUT OFF VSWR
J1-J2 <u>2.3</u> dB	<u>13.3</u> dB	<u>1.54</u> : 1	<u>18.9</u> dB	<u>1.25</u> : 1	<u>14.7</u> dB	<u>1.44</u> : 1
J1-J3 <u>2.2</u> dB	<u>13.7</u> dB	<u>1.52</u> : 1	<u>19.0</u> dB	<u>1.25</u> : 1	<u>14.9</u> dB	<u>1.43</u> : 1
	dB	1. : 1	dB	1. : 1	dB	1. : 1
	dB	1. : 1	dB	1. : 1	dB	1. : 1
	dB	1. : 1	dB	1. : 1	dB	1. : 1
	dB	1. : 1	dB	1. : 1	dB	1. : 1
	dB	1. : 1	dB	1. : 1	dB	1. : 1
	dB	1. : 1	dB	1. : 1	dB	1. : 1
	dB	1. : 1	dB	1. : 1	dB	1. : 1
	dB	1. : 1	dB	1. : 1	dB	1. : 1
	dB	1. : 1	dB	1. : 1	dB	1. : 1
ISOLATION	SWITCHING SPEED					
	DELAY ON	RISE TIME	DELAY OFF	FALL TIME		
J1-J2 <u>>40</u> dB	<u>< 20</u> nS	<u>< 20</u> nS	<u>< 20</u> nS	<u>< 20</u> nS		
J1-J3 <u>>40</u> dB	<u>< 20</u> nS	<u>< 20</u> nS	<u>< 20</u> nS	<u>< 20</u> nS		
	nS	nS	nS	nS		
	nS	nS	nS	nS		
	nS	nS	nS	nS		
	nS	nS	nS	nS		
	nS	nS	nS	nS		
	nS	nS	nS	nS		
	nS	nS	nS	nS		
	nS	nS	nS	nS		

NOTE: Any additional test data on back

TESTED ON: HP8720C

QA/QC APPROVAL: PA

DATED: 5/1/00

