



**TEST DATA**

**ON**

**40 MHz TO 18 GHz**

**AND**

**FROM 40 MHz TO 4 GHz**

**HIGH POWER (2 WATTS AVERAGE)**

**LOW INSERTION LOSS**

**REFLECTIVE**

**SPST**

**SOLID STATE SWITCH**

**AMC MODEL No:**

**SWN-2184-1A OPTIONS HPR150W, MINUS 15V**

**(Serial Number: 1MS909314)**

**PREPARED**

**BY**

**KATIE BAISEY**

**TESTED**

**BY**

**RENE AFABLE**

**AUGUST 21, 2000**

**WEB PAGE: [HTTP://WWW.AMWAVE.COM](http://www.amwave.com)**

**E-MAIL ADDRESS: [AMCPMI@AOL.COM](mailto:AMCPMI@AOL.COM)**

**7311 G GROVE ROAD, FREDERICK, MARYLAND 21704 • Tel. (301) 662-4700 • Fax (301) 662-4938**

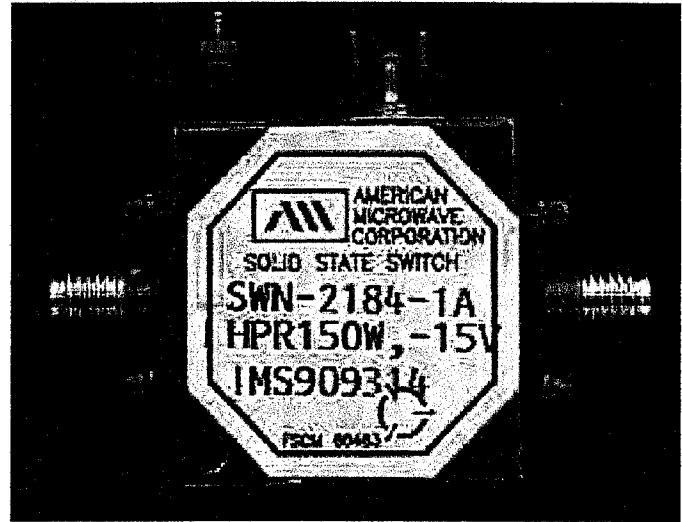


**AMERICAN MICROWAVE CORPORATION**

**HIGH POWER (2 WATTS AVERAGE),  
LOW INSERTION LOSS, REFLECTIVE  
SPST SOLID STATE SWITCH**

KEY FEATURES

- 500 MHz TO 18 GHz
- LOW INSERTION LOSS
- HIGH POWER
- TTL LOGIC COMPATIBLE
- HIGH ISOLATION



**AMC MODEL No: SWN-2184-1A OPTIONS HPR150W, MINUS 15V**

SPECIFICATIONS: (REFLECTIVE)

• FREQUENCY RANGE	:	500 MHz to 18 GHz (10 MHz TO 18 GHz optional)
• INSERTION LOSS	:	2.5 dB MAX.
	:	0.75 dB TYP. @ 500 MHz
	:	0.60 dB TYP. @ 2 GHz
	:	1.10 dB TYP. @ 10 GHz
	:	1.85 dB TYP. @ 14 GHz
	:	2.5 dB TYP. @ 18 GHz
• ISOLATION	:	≥ 70 dB MIN.
	:	≥ 70 dB TYP. @ 500 MHz
	:	≥ 80 dB TYP. @ 2 GHz
	:	≥ 85 dB TYP. @ 10 GHz
	:	≥ 80 dB TYP. @ 14 GHz
	:	≥ 80 dB TYP. @ 18 GHz
• VSWR	:	2.0:1
• SWITCHING SPEED	:	"RISE" 30nS MAX., 25nS TYP.
	:	"FALL" 30nS MAX., 25nS TYP.
	:	"ON" 125nS MAX., 100nS TYP.
	:	"OFF" 125nS MAX., 100nS TYP.
• CONTROL	:	SINGLE CONTROL TTL COMPATIBLE
• VIDEO TRANSIENTS	:	≤3V Peak to Peak @ 300 MHz Bandwidth
	:	≤1.7V Peak to Peak @ 20 MHz Bandwidth
• RF INPUT POWER	:	2 Watt average, 150 watt peak (other power levels
• DC POWER SUPPLY	:	available)
(Other supply voltages available)	:	+5vdc @ 100mA MAX.
	:	- 15vdc @ 20mA MAX.
• SIZE	:	1.0"(L) X 1.0"(W) X 0.5"(H)
• WEIGHT	:	≤ 1.0 oz.

**AUGUST 21, 2000**

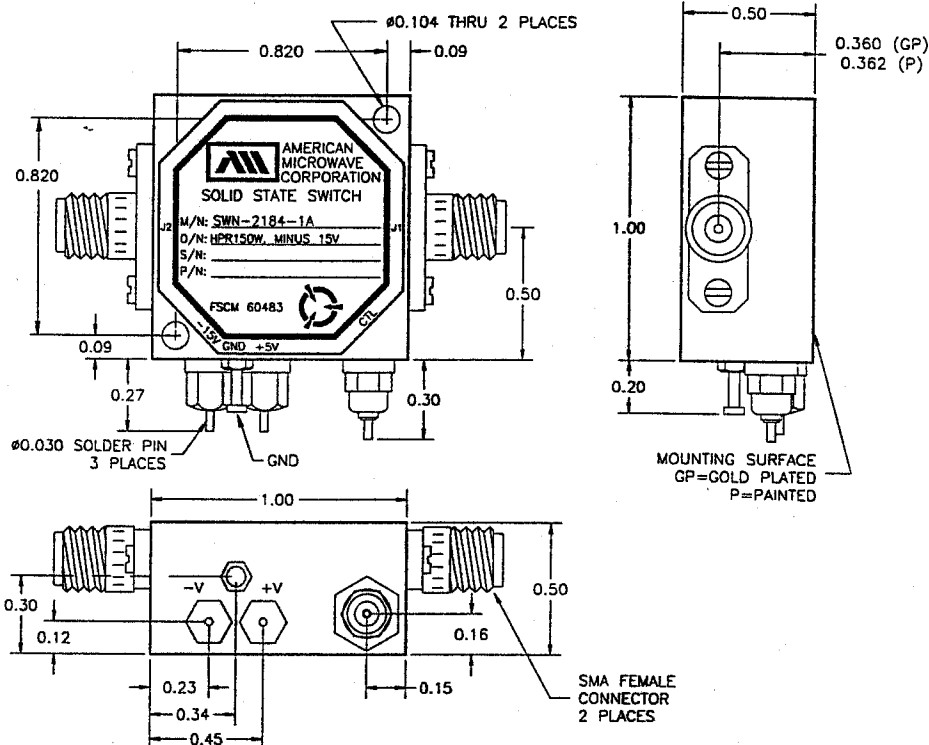
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### SUMMARY TEST DATA

MODEL NUMBER  
 OPTION NUMBER  
 SERIAL NUMBER  
 ENGINEER  
 VOLTAGE & CURRENT DRAW

: SWN-2184-1A  
 : HPR150W, MINUS 15V  
 : 1MS909314  
 : RENE AFABLE  
 : +5vdc @ 67.3mA; -15vdc @ 2.2 mA



ALL DIMENSIONS ARE IN INCHES

TOLERANCES:

X.XX	±0.020
X.XXX	±0.010

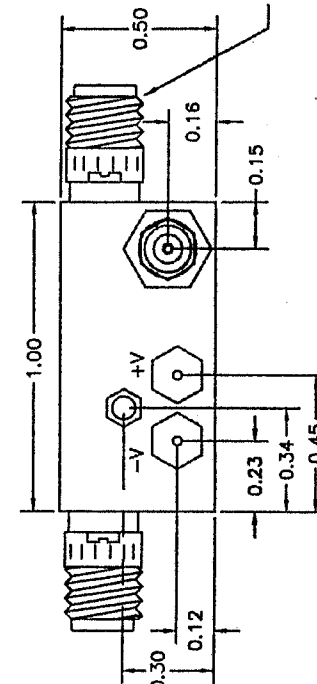
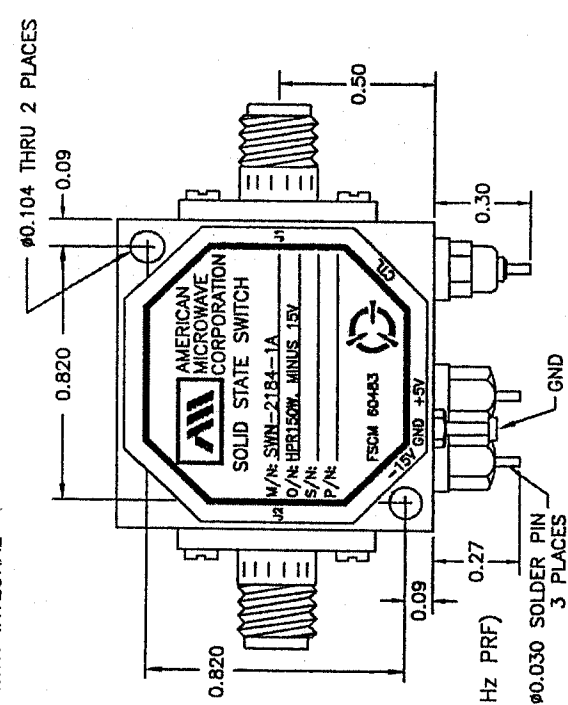
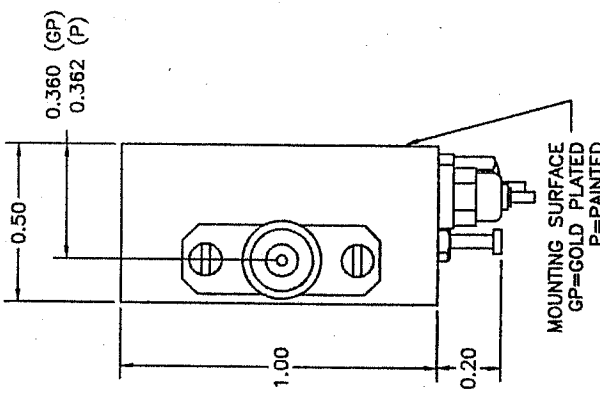
**ENVIRONMENTAL RATINGS:**

- 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: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION.

AUGUST 21, 2000

AMC MODEL SWN-2184-1A OPTIONS HPR150W, MINUS15V IS A HIGH POWER (2 WATTS AVERAGE, 150 WATTS PEAK, 20 $\mu$ SEC PULSE WIDTH) REFLECTIVE SINGLE POLE SINGLE THROW SWITCH MODULE WITH LOW INSERTION LOSS, HIGH ISOLATION AND WITH INTEGRAL TTL DRIVER, DESIGNED FOR 3.0 GHz OPERATING FREQUENCY.

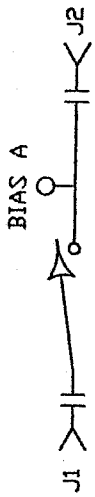


AT = WITH DRIVER, NON-REFLECTIVE/ABSORPTIVE  
 M/N = MANUFACTURER PART NUMBER  
 O/N = OPTION NUMBER  
 S/N = SERIAL NUMBER  
 P/N = PART NUMBER

**SPECIFICATIONS:**

- FREQUENCY: 3 GHz
- INSERTION LOSS: 1.0 dB MAXIMUM 0.75 dB TYPICAL
- ISOLATION: 70 dB MINIMUM, 80 dB TYPICAL
- VSWR: IN/OUT: 2.0:1
- POWER: 2 WATTS AVERAGE (150 WATTS PEAK, 20  $\mu$ S PULSE WIDTH, 600 Hz PRF)
- RISE/FALL TIME: 30 ns MAXIMUM, 20 ns TYPICAL (10% TO 90% RF) (90% TO 10% RF)
- POWER SUPPLY: +5V @ 150 mA MAXIMUM  
-15V @ 50 mA MAXIMUM
- CONTROL: TTL LOGIC "0"=ON "1"=OFF
- SIZE: 1.00" (L) x 1.00" (W) x 0.50" (H)
- WEIGHT: 1.5 OUNCE TYPICAL

**BLOCK DIAGRAM**



**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: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

**CONFIDENTIAL AND PROPRIETARY**

AMERICAN MICROWAVE CORPORATION FREDERICK, MARYLAND	
APPROVALS	DATE
DESIGN WSP & RRA	11/19/99
CHECKED RA	9/26/00
ISSUED	
SIZE A	FSCM NO. 60483
SCALE N/S	DWG NO. 100-4876-5
TITLE OUTLINE DRAWING SWN-2184-1A OPTIONS HPR150W, MINUS 15V	
SHEET 1	OF 3

**DESCRIPTION:** SWN-2184-1DR/DT IS A SINGLE POLE SINGLE THROW, REFLECTIVE OR NON-REFLECTIVE/ABSORPTIVE SWITCH MODULE WITH LOW INSERTION LOSS, HIGH ISOLATION, HIGH SPEED AND WITH INTEGRAL TTL DRIVER, DESIGNED FOR 0.5 GHz TO 18 GHz OPERATION.

**SPECIFICATIONS:**

- FREQUENCY: 0.5 GHz TO 18 GHz
- INSERTION LOSS: REFLECTIVE: 2.5db  
ABSORPTIVE: 3.5db
- 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
- CONTROL: TTL LOGIC "0"=ON "1"=OFF
- POWER SUPPLY: +5V @ 70 mA MAX.  
-5V @ 50 mA MAX.(REFLECTIVE)  
100mA MAX.(ABSORPTIVE/NON-REFLECTIVE)

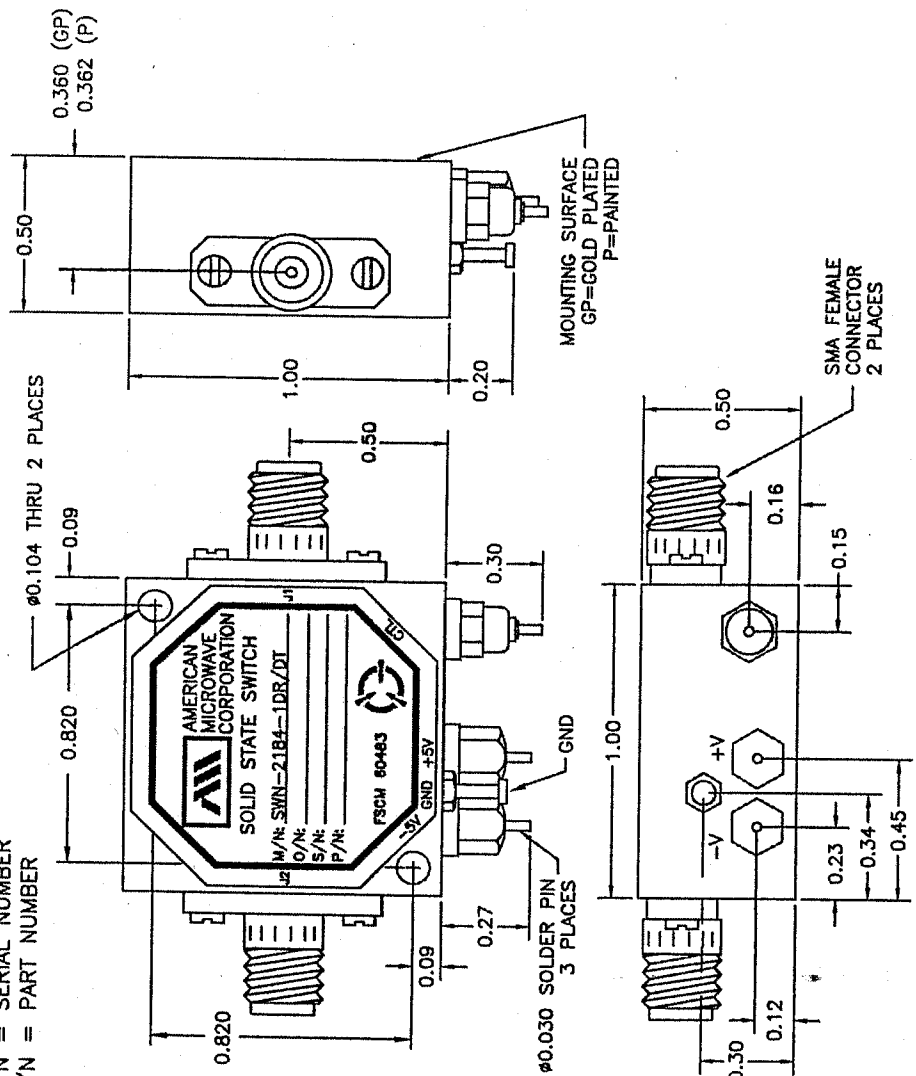
**OPTIONS:**

- 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 20 nsec MAXIMUM WHEN APPLICABLE OR OPTION HS
- B06 HIGH POWER - SPECIFY CW POWER, PEAK POWER, PULSE WIDTH, DUTY CYCLE, RF FREQUENCY AND BANDWIDTH
- B07 CUSTOM DESIGNED PRODUCT- SPECIFY DETAILS OF CUSTOMER
- B08 LOW VIDEO TRANSIENTS - SPECIFY VIDEO BANDWIDTH
- B09 LOW INSERTION LOSS VERSION
- B10 HIGHER ISOLATION VERSION

**ENVIRONMENTAL RATINGS:**

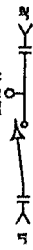
- TEMPERATURE: -55°C TO +85°C (OPERATING)  
-85°C TO +125°C (STORAGE)
  - HUMIDITY: MIL-STD-202F, METHOD 103B COND. B
  - SHOCK: MIL-STD-202F, METHOD 213B COND. B
  - VIBRATION: MIL-STD-202F, METHOD 204D COND. B
  - ALTITUDES: MIL-STD-202F, METHOD 105C COND. B
  - TEMPERATURE CYCLE: MIL-STD-202F, METHOD 107D COND. A
- NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

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



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

BLOCK DIAGRAM



**AMC CONFIDENTIAL AND PROPRIETARY**

AMERICAN MICROWAVE CORPORATION  
 FREDERICK, MARYLAND

PRODUCT FEATURE  
 SWN-2184-1DR/DT  
 STANDARD ONE WAY

APPROVALS: [Signatures]  
 DATE: 10/07/00

SIZE: A  
 FSCM NO.: 60483  
 DWG. NO.: 100-5652

SCALE: N/S  
 SHEET: 1 of 3



### SUMMARY TEST DATA

MODEL NUMBER	: SWN-2184-1A
OPTION NUMBER	: HPR150W, MINUS 15V
SERIAL NUMBER	: 1MS909314
ENGINEER	: RENE AFABLE
VOLTAGE & CURRENT DRAW	: +5vdc @ 67.3mA; -15vdc @ 2.2mA

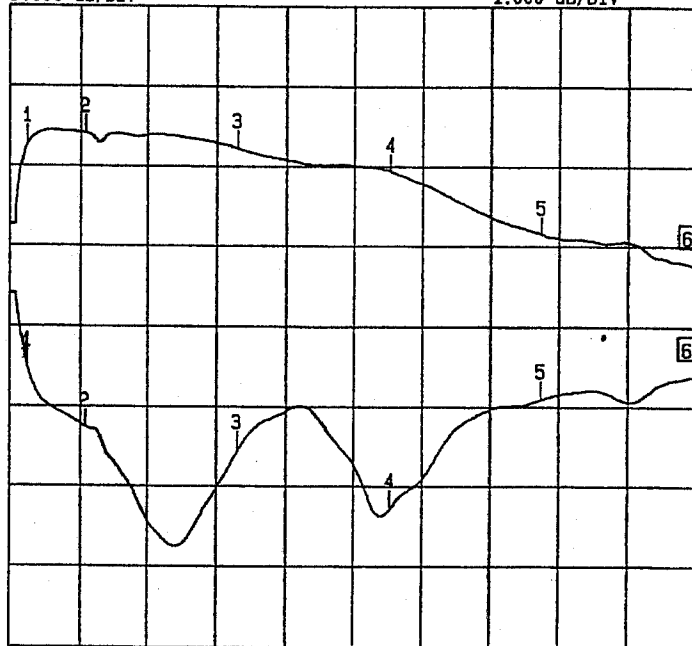
### INSERTION LOSS & RETURN LOSS\*

J1-J2

CH1: S11 FWD REFL  
LOG MAGNITUDE  
REF= -9.540 dB  
5.000 dB/DIV

CH3: S21 FWD TRANS  
LOG MAGNITUDE  
REF= -3.000 dB  
1.000 dB/DIV

CH 3 - S21  
REFERENCE PLANE  
0.0000 mm



MARKER 6  
18.004000000 GHz  
-2.233 dB

MARKER TO MAX  
MARKER TO MIN

- 1 0.501575000 GHz  
-0.712 dB
- 2 2.011050000 GHz  
-0.576 dB
- 3 6.003050000 GHz  
-0.774 dB
- 4 10.007525000 GHz  
-1.060 dB
- 5 14.012000000 GHz  
-1.854 dB

0.040000000  
\*J1: INPUT ARM

GHz

18.004000000

MARKER READOUT  
FUNCTIONS

FREQUENCY	INSERTION LOSS	RETURN LOSS
500 MHz	0.71 dB	12.1 dB
2.0 GHz	0.57 dB	15.8 dB
6.0 GHz	0.77 dB	17.2 dB
10.0 GHz	1.06 dB	20.8 dB
14.0 GHz	1.85 dB	14.0 dB
18.0 GHz	2.23 dB	12.6 dB



### SUMMARY TEST DATA

MODEL NUMBER	: SWN-2184-1A
OPTION NUMBER	: HPR150W, MINUS 15V
SERIAL NUMBER	: 1MS909314
ENGINEER	: RENE AFABLE
VOLTAGE & CURRENT DRAW	: +5vdc @ 67.3mA; -15vdc @ 2.2mA

### INSERTION LOSS & RETURN LOSS\*

J2-J1

CH2: S12 REV TRANS  
LOG MAGNITUDE  
REF= -3.000 dB  
1.000 dB/DIV

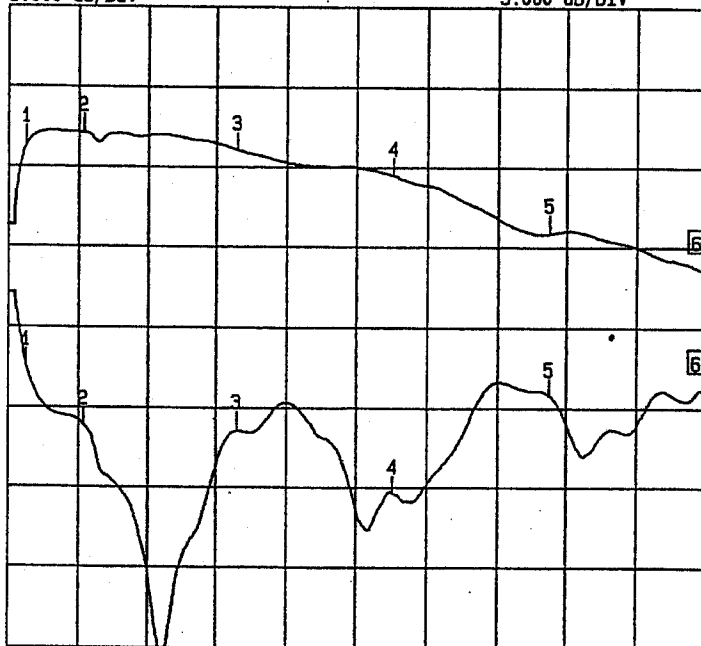
CH4: S22 REV REFL  
LOG MAGNITUDE  
REF= -9.540 dB  
5.000 dB/DIV

CH 2 - S12  
REFERENCE PLANE  
0.0000 mm

MARKER 6  
18.004000000 GHz  
-2.275 dB

MARKER TO MAX  
MARKER TO MIN

- 1 0.501575000 GHz  
-0.715 dB
- 2 2.011050000 GHz  
-0.566 dB
- 3 6.003050000 GHz  
-0.786 dB
- 4 10.007525000 GHz  
-1.103 dB
- 5 14.012000000 GHz  
-1.826 dB



0.040000000 GHz 18.004000000

\*J2: INPUT ARM

MARKER READOUT  
FUNCTIONS

FREQUENCY	INSERTION LOSS	RETURN LOSS
500 MHz	0.71 dB	11.9 dB
2.0 GHz	0.56 dB	15.7 dB
6.0 GHz	0.78 dB	15.9 dB
10.0 GHz	1.10 dB	19.9 dB
14.0 GHz	1.82 dB	13.7 dB
18.0 GHz	2.27 dB	13.3 dB



## SUMMARY TEST DATA

MODEL NUMBER	: SWN-2184-1A
OPTION NUMBER	: HPR150W, MINUS 15V
SERIAL NUMBER	: 1MS909314
ENGINEER	: RENE AFABLE
VOLTAGE & CURRENT DRAW	: +5vdc @ 67.3mA; -15vdc @ 2.2 mA

### ISOLATION\*

(AS MEASURED ON A VECTOR NETWORK ANALYZER CW MODE)

FREQUENCY	J1
500 MHz	70 dB
1 GHz	80 dB
2 GHz	83 dB
4 GHz	84 dB
6 GHz	86 dB
8 GHz	83 dB
10 GHz	85 dB
12 GHz	79 dB
14 GHz	83 dB
16 GHz	78 dB
18 GHz	81 dB

\*J1: INPUT ARM

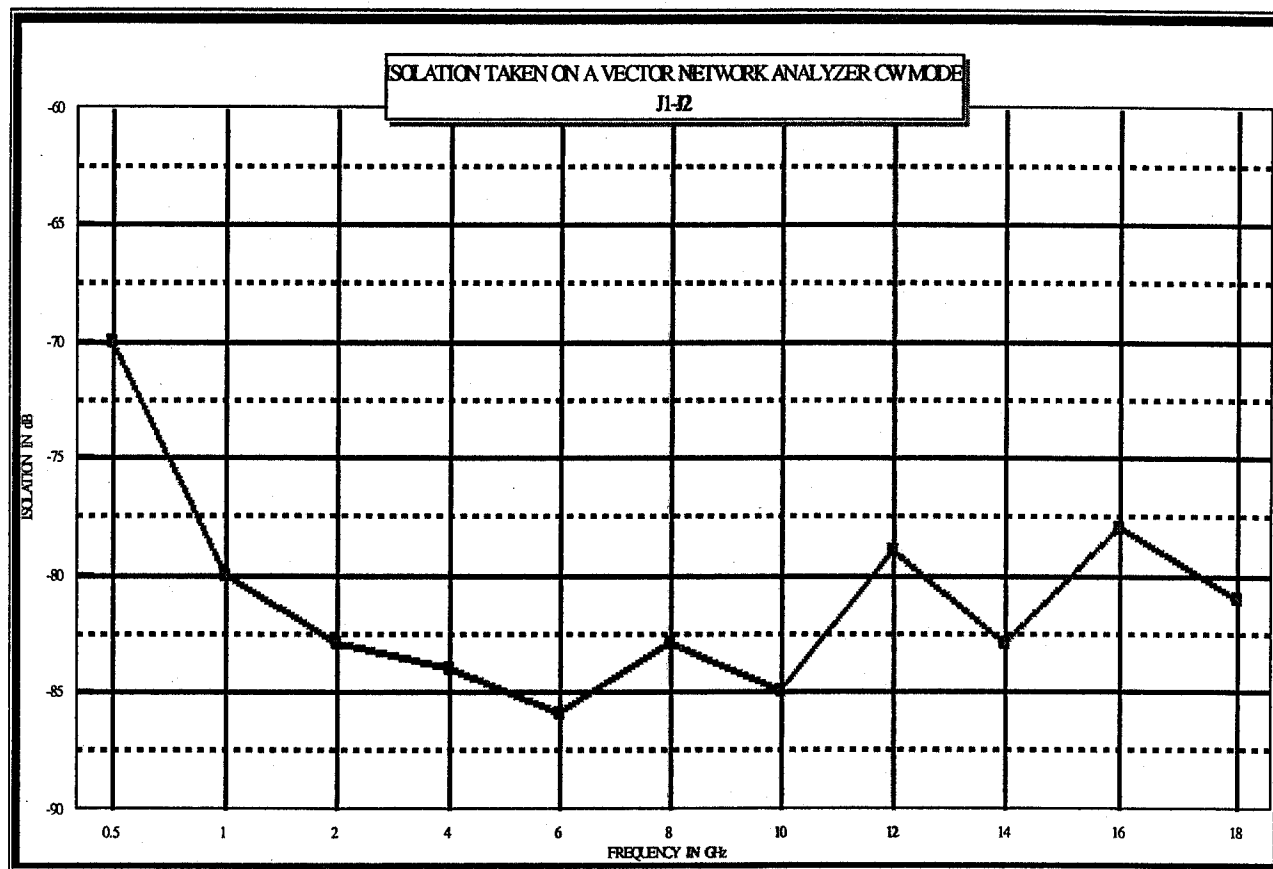
AUGUST 21, 2000





MODEL NUMBER : SWN-2184-1A  
OPTION NUMBER : HPR150W, MINUS 15V  
SERIAL NUMBER : 1MS909314  
ENGINEER : RENE AFABLE  
VOLTAGE & CURRENT DRAW : +5vdc @ 67.3mA; -15vdc @ 2.2mA

**ISOLATION\***  
(AS MEASURED ON A VECTOR NETWORK ANALYZER CW MODE)  
J1-J2



\*J1: INPUT ARM

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**AMERICAN MICROWAVE  
CORPORATION**

**TEST DATA**

**FROM**

**40 MHz TO 4 GHz**

**HIGH POWER (2 WATTS AVERAGE)**

**LOW INSERTION LOSS**

**REFLECTIVE**

**SPST**

**SOLID STATE SWITCH**

**AMC MODEL No:**

**SWN-2184-1A OPTIONS HPR150W, MINUS 15V**

**(Serial Number: 1MS909314)**

**PREPARED**

**BY**

**KATIE BAISEY**

**TESTED**

**BY**

**RENE AFABLE**

**AUGUST 21, 2000**



### SUMMARY TEST DATA

MODEL NUMBER	: SWN-2184-1A
OPTION NUMBER	: HPR150W, MINUS 15V
SERIAL NUMBER	: 1MS909314
ENGINEER	: RENE AFABLE
VOLTAGE & CURRENT DRAW	: +5vdc @ 67.3mA; -15vdc @ 2.2mA

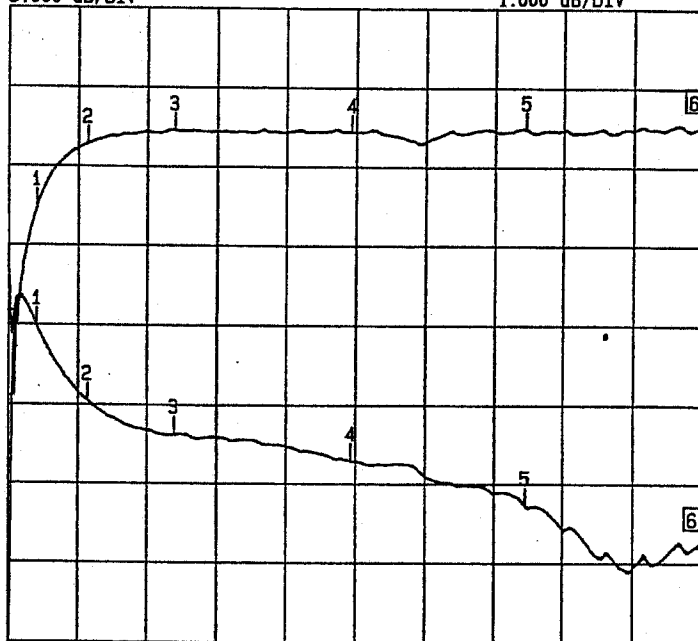
### INSERTION LOSS & RETURN LOSS\*

J1-J2

CH1: S11 FWD REFL  
LOG MAGNITUDE  
REF= -7.360 dB  
5.000 dB/DIV

CH3: S21 FWD TRANS  
LOG MAGNITUDE  
REF= -3.000 dB  
1.000 dB/DIV

CH 3 - S21  
REFERENCE PLANE  
0.0000 mm



MARKER 6  
4.000000000 GHz  
-0.505 dB

MARKER TO MAX  
MARKER TO MIN

- 1 0.200875000 GHz  
-1.497 dB
- 2 0.500350000 GHz  
-0.698 dB
- 3 1.000300000 GHz  
-0.532 dB
- 4 2.000200000 GHz  
-0.552 dB
- 5 3.000100000 GHz  
-0.508 dB

0.040000000

GHz

4.000000000

MARKER READOUT  
FUNCTIONS

\*J1: INPUT ARM

FREQUENCY	INSERTION LOSS	RETURN LOSS
200 MHz	1.49 dB	7.35 dB
500 MHz	0.69 dB	12.1 dB
1.0 GHz	0.53 dB	14.2 dB
2.0 GHz	0.55 dB	15.9 dB
3.0 GHz	0.50 dB	18.7 dB
4.0 GHz	0.50 dB	21.3 dB



### SUMMARY TEST DATA

<b>MODEL NUMBER</b>	: SWN-2184-1A
<b>OPTION NUMBER</b>	: HPR150W, MINUS 15V
<b>SERIAL NUMBER</b>	: 1MS909314
<b>ENGINEER</b>	: RENE AFABLE
<b>VOLTAGE &amp; CURRENT DRAW</b>	: +5vdc @ 67.3mA; -15vdc @ 2.2mA

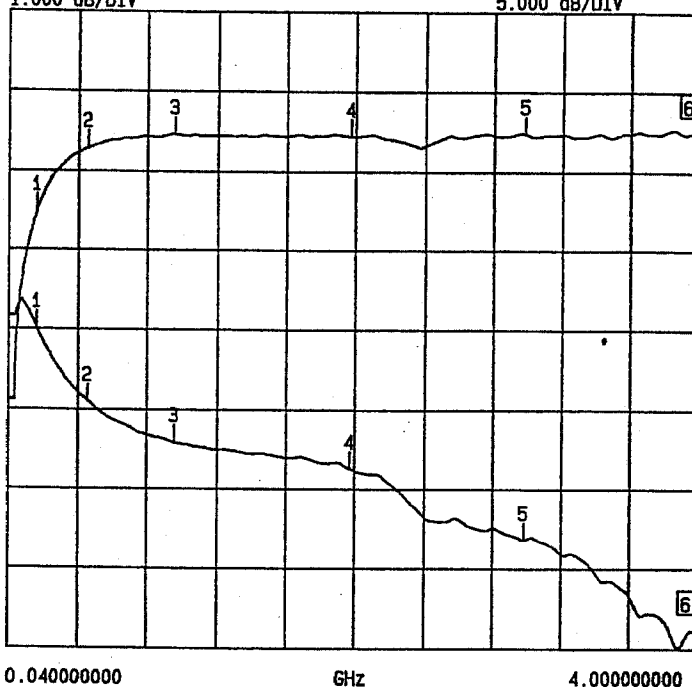
### INSERTION LOSS & RETURN LOSS\*

J2-J1

CH2: S21 FWD TRANS  
LOG MAGNITUDE  
REF= -3.000 dB  
1.000 dB/DIV

CH4: S22 REV REFL  
LOG MAGNITUDE  
REF= -7.360 dB  
5.000 dB/DIV

CH 2 - S21  
REFERENCE PLANE  
0.0000 mm



MARKER 6  
4.000000000 GHz  
-0.508 dB

MARKER TO MAX  
MARKER TO MIN

- 1 0.200875000 GHz  
-1.507 dB
- 2 0.500350000 GHz  
-0.702 dB
- 3 1.000300000 GHz  
-0.532 dB
- 4 2.000200000 GHz  
-0.551 dB
- 5 3.000100000 GHz  
-0.512 dB

MARKER READOUT  
FUNCTIONS

\*J2: INPUT ARM

FREQUENCY	INSERTION LOSS	RETURN LOSS
200 MHz	1.50 dB	7.3 dB
500 MHz	0.70 dB	11.8 dB
1.0 GHz	0.53 dB	14.4 dB
2.0 GHz	0.55 dB	16.1 dB
3.0 GHz	0.51 dB	20.6 dB
4.0 GHz	0.50 dB	26.2 dB



## SUMMARY TEST DATA

MODEL NUMBER	: SWN-2184-1A
OPTION NUMBER	: HPR150W, MINUS 15V
SERIAL NUMBER	: 1MS909314
ENGINEER	: RENE AFABLE
VOLTAGE & CURRENT DRAW	: +5vdc @ 67.3mA; -15vdc @ 2.2 mA

### SWITCHING SPEED

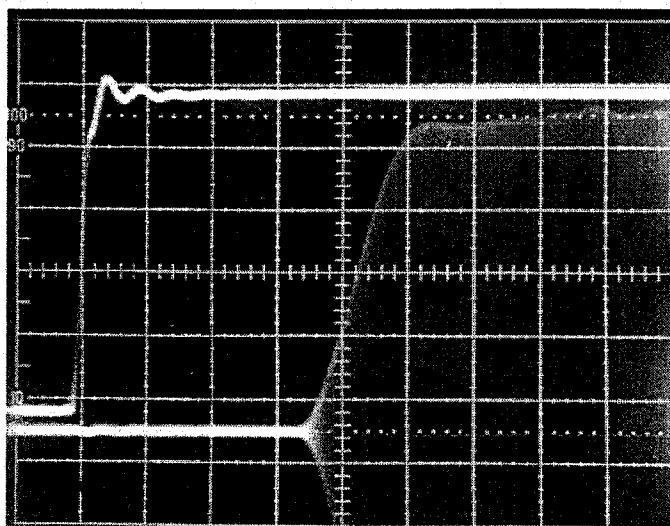
"Rise/Fall" Time: 10% RF to 90% RF & 90% RF to 10% RF  
 "On/Off" Time: 50% TTL to 90% RF or 10% RF

TYPICAL OF ALL ARMS

"DELAY ON": 98 nS  
 "RISE TIME": 24 nS

HORIZONTAL SCALE:  
 20 nS PER DIVISION

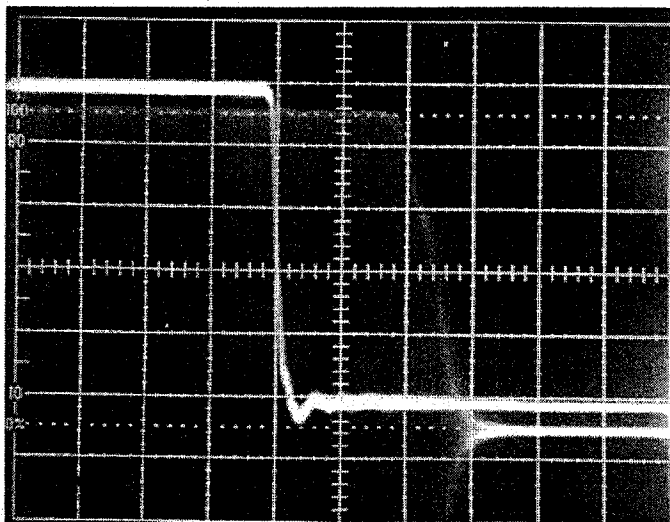
VERTICAL SCALE:  
 10 mV PER DIVISION



"DELAY OFF": 56 nS  
 "FALL TIME": 17 nS

HORIZONTAL SCALE:  
 20 nS PER DIVISION

VERTICAL SCALE:  
 10 mV PER DIVISION



AUGUST 21, 2000



## SUMMARY TEST DATA

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OPTION NUMBER	: HPR150W, MINUS 15V
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ENGINEER	: RENE AFABLE
VOLTAGE & CURRENT DRAW	: +5vdc @ 67.3mA; -15vdc @ 2.2 mA

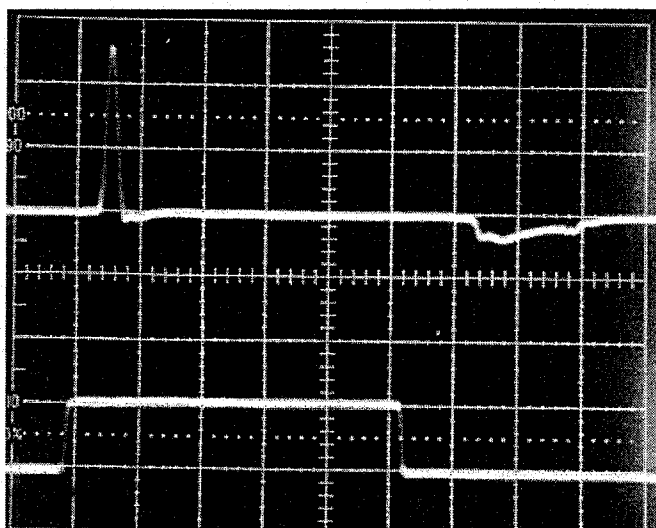
### VIDEO TRANSIENTS

TYPICAL OF ALL ARMS

$\leq 3$  V P-P  
MEASURED IN A  
300 MHZ BANDWIDTH

VERTICAL SCALE:  
1 V PER DIVISION

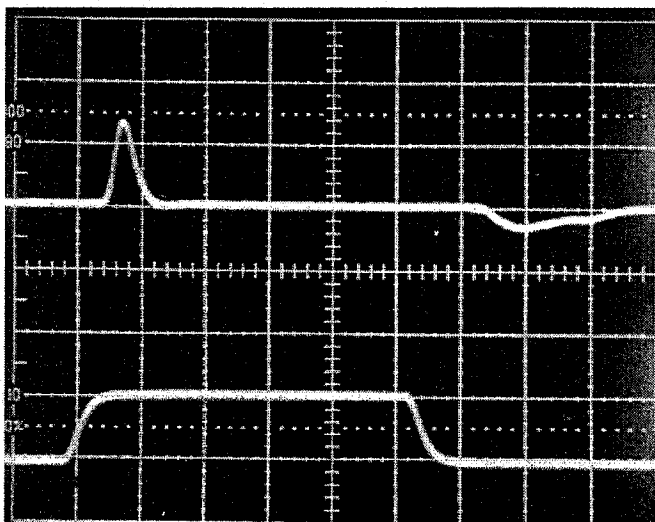
HORIZONTAL SCALE:  
50 nS PER DIVISION



$\leq 1.7$  V P-P  
MEASURED IN A  
20 MHZ BANDWIDTH

VERTICAL SCALE:  
1 V PER DIVISION

HORIZONTAL SCALE:  
50 nS PER DIVISION



AUGUST 21, 2000



**APPENDIX A**  
**MISCELLANEOUS**  
**TEST DATA AND PLOTS**  
**ON**  
**ISOLATION**  
**AS**  
**MEASURED**  
**ON A VECTOR NETWORK ANALYZER**  
**ON A**  
**SPST**  
**SOLID STATE SWITCH**  
**AMC MODEL No:**  
**SWN-2184-1A OPTION HPR150W, MINUS 15V**  
**(Serial Number: 1MS909314)**  
**FROM 40 MHz TO 18 GHz**  
**AND**  
**FROM 40 MHz TO 4 GHz**

**AUGUST 21, 2000**

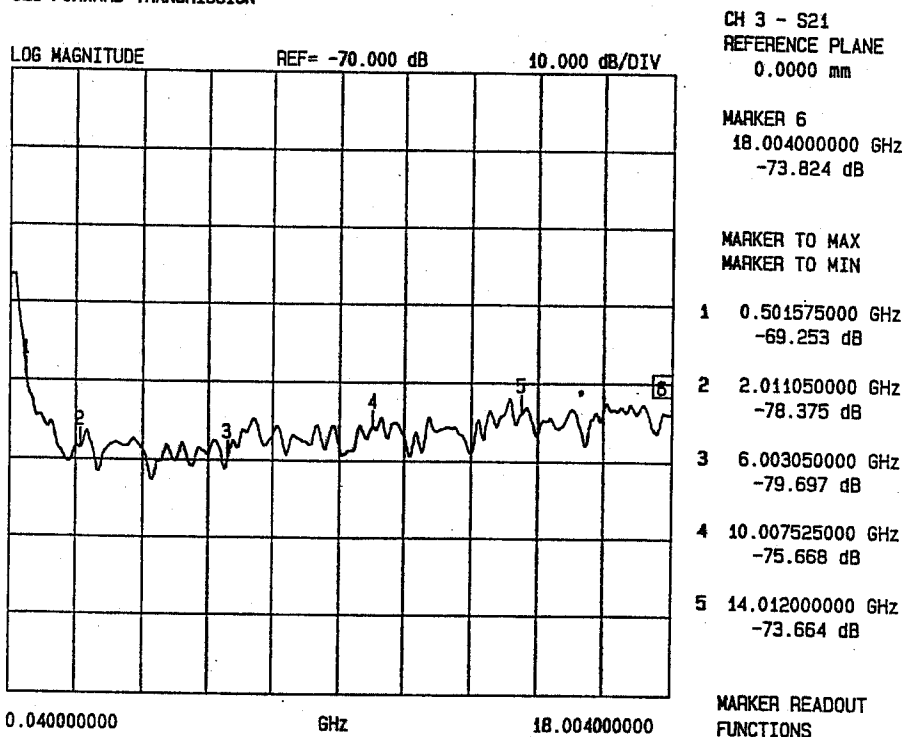


### SUMMARY TEST DATA

MODEL NUMBER	: SWN-2184-1A
OPTION NUMBER	: HPR150W, MINUS 15V
SERIAL NUMBER	: 1MS909314
ENGINEER	: RENE AFABLE
VOLTAGE & CURRENT DRAW	: +5vdc @ 67.3mA; -15vdc @ 2.2mA

**ISOLATION\***  
(AS MEASURED ON A VECTOR NETWORK ANALYZER)  
J1-J2

S21 FORWARD TRANSMISSION



\*J1: INPUT ARM

FREQUENCY	ISOLATION
500 MHz	69.25 dB
2.0 GHz	78.37 dB
6.0 GHz	79.69 dB
10.0 GHz	75.66 dB
14.0 GHz	73.66 dB
18.0 GHz	73.82 dB

AUGUST 21, 2000





**ISOLATION  
DATA AND PLOTS  
FROM  
40 MHz TO 4 GHz  
AS  
MEASURED  
ON A VECTOR NETWORK ANALYZER  
ON A  
SPST  
SOLID STATE SWITCH**

**AMC MODEL No:  
SWN-2184-1A OPTIONS HPR150W, MINUS 15V  
(Serial Number: IMS909314)**

**PREPARED  
BY  
KATIE BAISEY**

**TESTED  
BY  
RENE AFABLE**

**AUGUST 21, 2000**

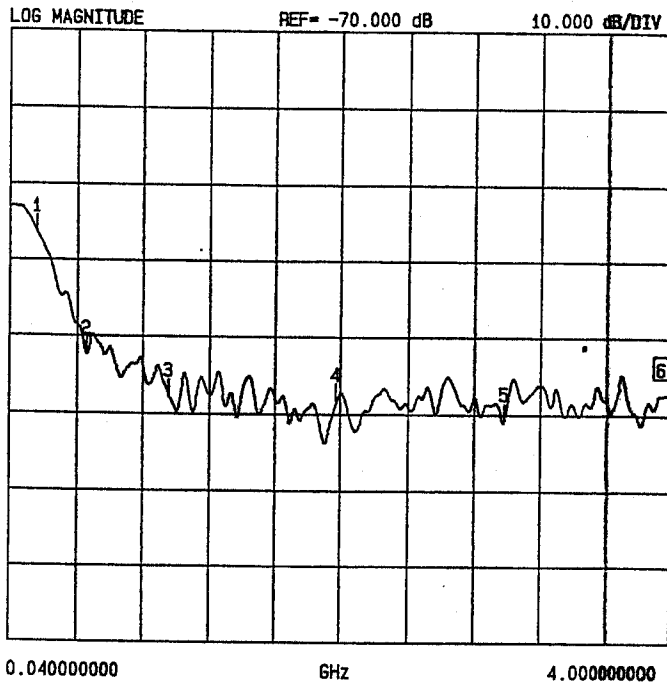


**SUMMARY TEST DATA**

<b>MODEL NUMBER</b>	<b>: SWN-2184-1A</b>
<b>OPTION NUMBER</b>	<b>: HPR150W, MINUS 15V</b>
<b>SERIAL NUMBER</b>	<b>: 1MS909314</b>
<b>ENGINEER</b>	<b>: RENE AFABLE</b>
<b>VOLTAGE &amp; CURRENT DRAW</b>	<b>: +5vdc @ 67.3mA; -15vdc @ 2.2mA</b>

**ISOLATION\***  
(AS MEASURED ON A VECTOR NETWORK ANALYZER)  
J1-J2

S21 FORWARD TRANSMISSION



CH 3 - S21  
REFERENCE PLANE  
0.0000 mm  
MARKER 6  
4.000000000 GHz  
-77.379 dB

MARKER TO MAX  
MARKER TO MIN

1	0.200875000 GHz	-56.295 dB
2	0.500350000 GHz	-72.343 dB
3	1.000300000 GHz	-77.949 dB
4	2.000200000 GHz	-78.350 dB
5	3.000100000 GHz	-80.798 dB

MARKER READOUT  
FUNCTIONS

\*J1: INPUT ARM

FREQUENCY	ISOLATION
200 MHz	56.29 dB
500 MHz	72.34 dB
1.0 GHz	77.94 dB
2.0 GHz	78.35 dB
3.0 GHz	80.79 dB
4.0 GHz	77.37 dB

AUGUST 21, 2000