



**AMERICAN MICROWAVE  
CORPORATION**

**TEST DATA**

**ON**

**0.1 GHz TO 20 GHz**  
**(10 MHz TO 20 GHz OPTIONAL)**

**AND**

**0.04 GHz TO 1 GHz**

**VERY HIGH ISOLATION  $\geq$  100 dB**

**HIGH SPEED**

**LOW LOSS**

**NON-REFLECTIVE/ABSORPTIVE**

**SP2T**

**SOLID STATE SWITCH**

**AMC MODEL No:**  
**SWN-218-2A-AKG OPTION 011,120,MIT**  
**(Serial Number: 2MS905318)**

**REPORTED AND PREPARED**  
**BY**  
**RENE AFABLE**

**JULY 29, 1999**

**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

## SP2T NON-REFLECTIVE/ABSORPTIVE SOLID STATE PIN DIODE SWITCH

### KEY FEATURES

- 0.1 GHz TO 20 GHz  
(10MHz to 20GHz optional)
- HIGH ISOLATION ( $\geq 100$  dB)
- LOW INSERTION LOSS
- HIGH SPEED
- TTL LOGIC COMPATIBLE



AMC MODEL No: SWN-218-2A-AGK OPTION 011,120,MIT

### SPECIFICATIONS: (NON-REFLECTIVE)

• FREQUENCY RANGE	:	0.1 GHz to 20 GHz (10MHz to 20GHz Optional)
• INSERTION LOSS	:	5.0 dB MAX.
	:	1.25 dB TYP. @ 2.0 GHz
	:	2.00 dB TYP. @ 6.0 GHz
	:	3.00 dB TYP. @ 12.0 GHz
	:	4.50 dB TYP. @ 20.0 GHz
• ISOLATION	:	$\geq 100$ dB MIN.
	:	$\geq 110$ dB TYP. @ 2.0 GHz
	:	$\geq 110$ dB TYP. @ 6.0 GHz
	:	$\geq 100$ dB TYP. @ 12.0 GHz
	:	$\geq 100$ dB TYP. @ 20.0 GHz
• VSWR	:	2.0:1
• SWITCHING SPEED	:	"RISE" 15nS MAX., 10nS TYP.
	:	"FALL" 15nS MAX., 10nS TYP.
	:	"ON" 100nS MAX., 75nS TYP.
	:	"OFF" 100nS MAX., 75nS TYP.
• CONTROL	:	Single control TTL Toggle (Independent control available)
• VIDEO TRANSIENTS	:	$\leq 2.5$ V Peak to Peak, 300 MHZ Bandwidth
	:	$\leq 1.14$ V Peak to Peak, 20 MHZ Bandwidth
• RF INPUT POWER	:	+20dBm Operating, 1 Watt Survival (Other power Levels available)
• DC POWER SUPPLY	:	+5vdc @ +100mA MAX.
(Other supply voltages available)	:	- 12vdc @ - 100mA MAX.
• SIZE	:	1.2" X 1.0" X 0.5"
• WEIGHT	:	$\leq 1.2$ oz.

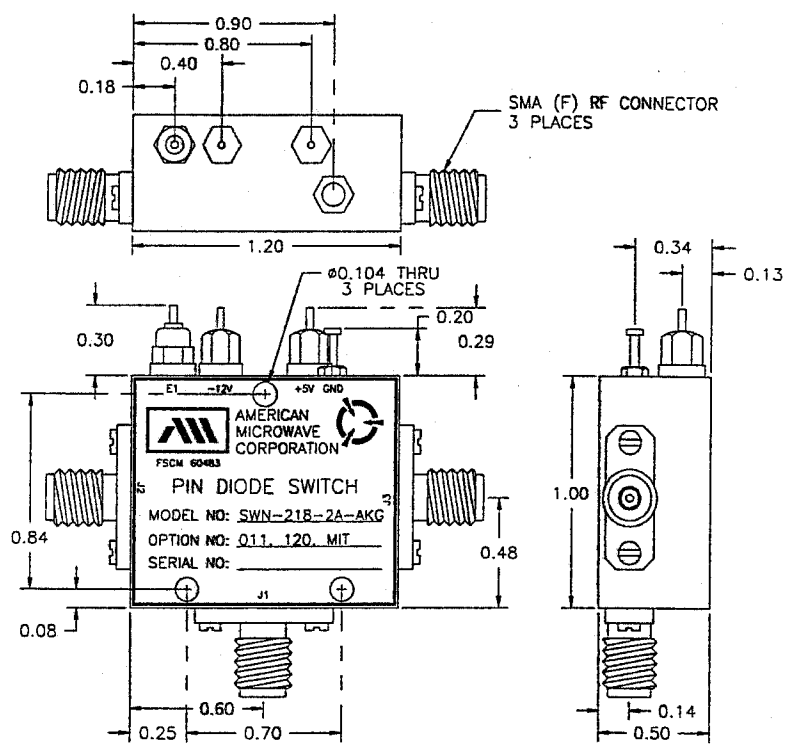
JULY 29, 1999

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



## SUMMARY TEST DATA

**MODEL NUMBER** : SWN-218-2A-AKG OPTION 011,120,MIT  
**SERIAL NUMBER** : 2MS905318  
**ENGINEER** : RENE AFABLE  
**VOLTAGE & CURRENT DRAW** : +5vdc: @+71.2mA; -12V: @ -54.1mA



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

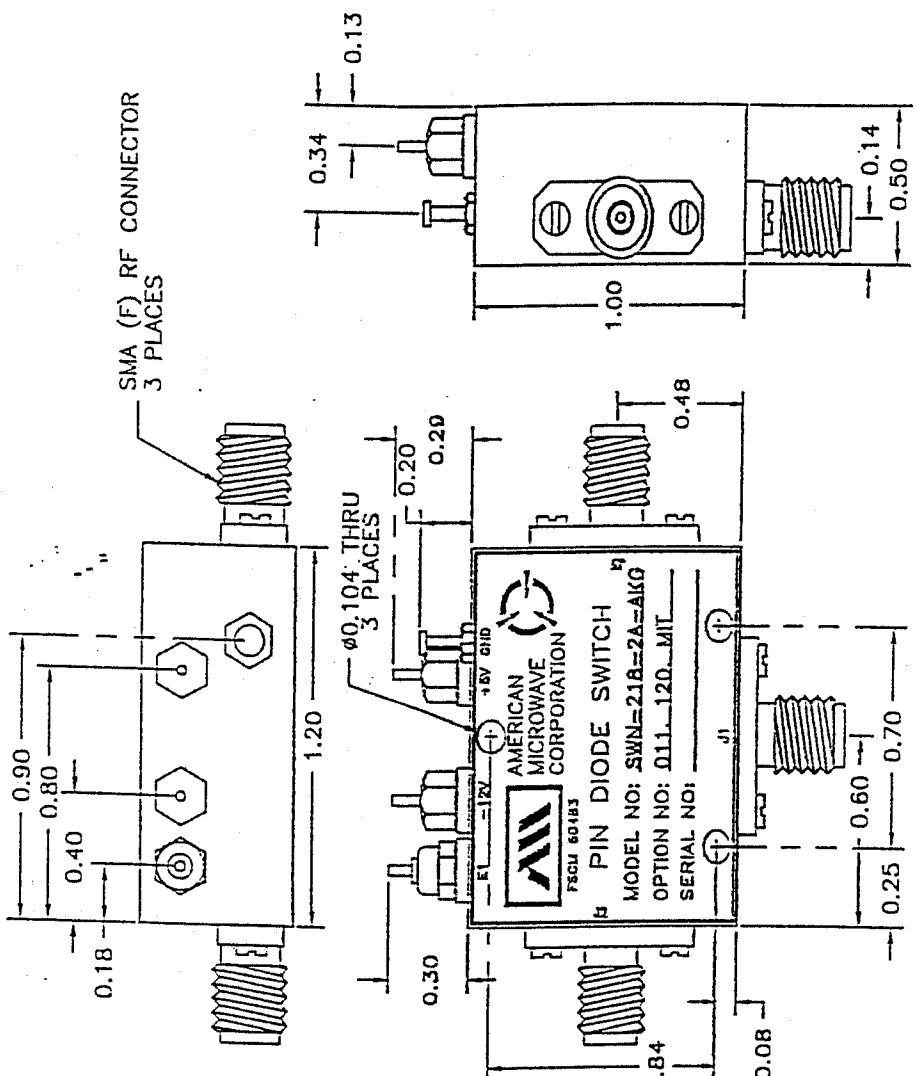
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION.

JULY 29, 1999

**DESCRIPTION:**  
 AMC MODEL SWN-218-2A-AKG OPTION 011, 120, MIT IS A SINGLE POLE TWO THROW, NON-REFLECTING ABSORPTIVE SWITCH MODULE WITH VERY HIGH ISOLATION, LOW LOSS, HIGH SPEED AND WITH INTEGRAL TTL DRIVER, DESIGNED FOR BROAD BAND OPERATIONS.

**SPECIFICATIONS:**

- FREQUENCY: ..... 0.1 GHz TO 20 GHz
- INSERTION LOSS: ..... 5.0dB MAXIMUM
- ISOLATION: ..... 110 MINIMUM
- VSWR (ON AND OFF): ..... 2.0:1 MAXIMUM
- SWITCHING SPEED: ..... 300 nsec (10%-90% RF)
- CONTROL LOGIC: ..... SINGLE CONTROL TTL TOGGLE  
 LOGIC "0" = J1-J2 ON  
 LOGIC "1" = J1-J3 ON
- RF CONNECTORS: ..... SMA FEMALE
- OPERATING TEMPERATURE: ..... 0 TO 55°C
- POWER SUPPLY: ..... -15V @ 200 mA MAXIMUM  
 ..... -12V @ 100 mA MAXIMUM  
 ..... +30 dBm (1 WATT)
- RF POWER (SURVIVAL): ..... +20 dBm MAXIMUM
- RF POWER (OPERATING): ..... 2 DEGREES PER DEGREE C  
 (ALL PORTS WITH RESPECT TO COMMON WITH TEMPERATURE)
- RF PHASE TRACKING: ..... ±0.50° (11)
- SIZE: ..... 1.2" (L) x 1.00" (W) x 0.80" (H)
- WEIGHT: ..... 1.2 oz.



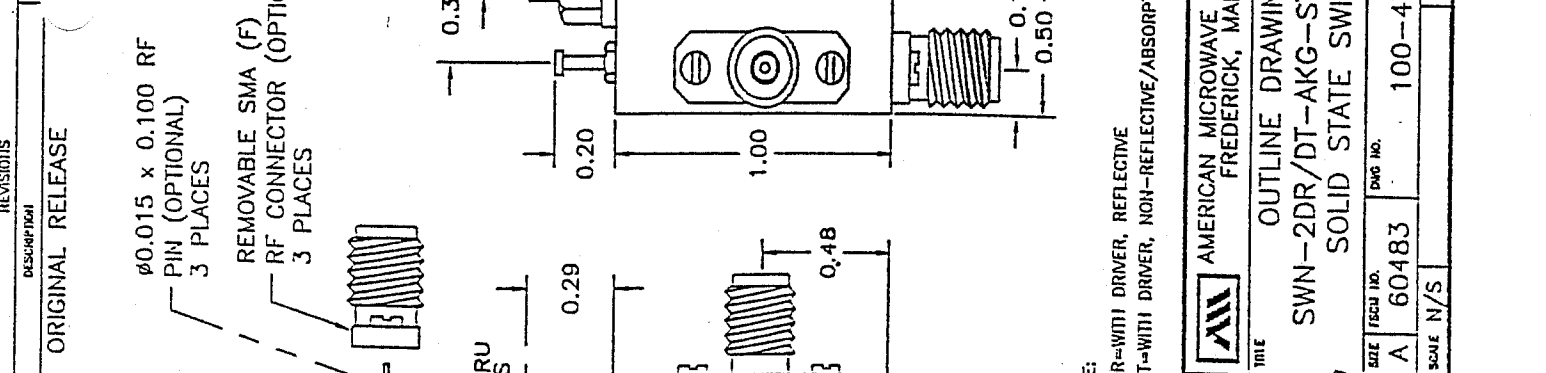
**ENVIRONMENTAL RATINGS:**

- TEMPERATURE: ..... 0°C TO +55°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

APPROVED: DATE: 7/29/99		DRAWN: 7/29/99		CHECKED: WUP		REVISED: CA	
TITLE: AMERICAN MICROWAVE CORPORATION FREDERICK, MARYLAND		OUTLINE DRAWING		SWN-218-2A-AKG 011, 120, MIT		SOLID STATE SWITCH	
SCALE: N/S	DWG NO: A 60483	REV: 1	REV: 1	REV: 1	REV: 1	REV: 1	REV: 1
DWG NO: 100-4790-3		SCALE: N/S		REV: 1		REV: 1	

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



APPROVALS	DATE
DRAWN: W.P., R.R.J.	11/99
CHECKED: W.P.	12/99
ISSUED: J.A.	12/99

SIZE	FEDUCI NO.	DWG NO.
A	60483	100-4790-1

TITLE	SCALE	SHEET
AMERICAN MICROWAVE CORPORATION FREDERICK, MARYLAND OUTLINE DRAWING SWN-2DR/DT-AKG-STANDARD SOLID STATE SWITCH	N/S	1 of 2

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

DESCRIPTION:  
AKG MODEL 2DR/DT-AKG-STANDARD IS A SINGLE POLE TWO THROW, REFLECTIVE OR NON-REFLECTIVE/ABSORPTIVE SWITCH MODULE WITH VERY HIGH ISOLATION, LOW LOSS, HIGH SPEED AND WITH INTEGRAL TTL DRIVER, DESIGNED FOR BROAD BAND OPERATIONS.

SPECIFICATIONS:  
• FREQUENCY: 0.5 GHz TO 18 GHz  
• INSERTION LOSS: REFLECTIVE: 4.0dB  
ABSORPTIVE: 4.5dB  
• ISOLATION: 0.5 GHz TO 6 GHz: 110dB  
6 GHz TO 18 GHz: 100dB  
• VSWR: REFLECTIVE IN/OUT: 2.0:1  
ABSORPTIVE IN/OUT: 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"= J1-J2 ON "1"= J1-J3 ON  
• POWER SUPPLY: +5V @ 100 mA MAX.  
-5V @ 75mA MAX (REFLECTIVE)  
100mA MAX (ABSORPTIVE/NON-REFLECTIVE)  
• SIZE: 1.2" (L) x 1.00" (W) x 0.50" (H)  
• WEIGHT: 1.2 oz.

OPTIONS:  
SINGLE CONTROL WITH SOLDER PIN STANDARD  
10M1B INDEPENDANT CONTROL WITH SOLDER PIN (LOGIC "0" - ON "1" - OFF)  
BY 1.5db AT 10 GHz (INSERTION LOSS INCREASES  
BY 0.5db AT 18 GHz)  
100M1B 100 MHz TO 18 GHz (INSERTION LOSS INCREASES  
BY 1.5db AT 100 MHz AND 0.5db AT 18 GHz)  
11B 1 GHz TO 18 GHz (NO CHANGE IN INSERTION LOSS)  
21B 2 GHz TO 18 GHz (NO CHANGE IN INSERTION LOSS)  
412 4 GHz TO 12.4 GHz (NO CHANGE IN INSERTION LOSS)  
61B 6 GHz TO 18 GHz (NO CHANGE IN INSERTION LOSS)  
121B 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)  
801 -12V POWER SUPPLIES  
802 -15V POWER SUPPLIES  
803 REVERSE LOGIC "1"=ON "0"=OFF  
804 DRIVERLESS, CURRENT CONTROLLED  
805 HIGH SPEED, TURNON/TURNOFF 20 nsec MAXIMUM  
WHEN APPLICABLE OR OPTION HS  
806 HIGH POWER - SPECIFY CW POWER, PEAK POWER, PULSE WIDTH,  
DUTY CYCLE, RF FREQUENCY AND BANDWIDTH  
807 CUSTOM DESIGNED PRODUCT - SPECIFY INITIALS OF CUSTOMER  
808 LOW VIDEO TRANSIENTS - SPECIFY VIDEO BANDWIDTH  
809 LOW INSERTION LOSS VERSION  
810 HIGHER ISOLATION VERSION

ENVIRONMENTAL RATINGS:  
• TEMPERATURE: -55°C TO +85°C (OPERATING)  
-65°C TO +125°C (STORAGE)  
• HUMIDITY: MIL-S10-202F, METHOD 1039 COND. B  
• SHOCK: MIL-S10-202F, METHOD 2138 COND. B  
• VIBRATION: MIL-S10-202F, METHOD 2048 COND. B  
• ALTITUDE: MIL-S10-202F, METHOD 105C COND. B  
• TEMPERATURE CYCLE: MIL-S10-202F, METHOD 107D COND. A

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

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

**DESCRIPTION:** DR/DT-IND-SP IS A SINGLE POLE TWO THROW, REFLECTIVE AHC MODEL DRIVER/ABSORPTIVE SWITCH MODULE WITH VERY HIGH ISOLATION, LOW LOSS, HIGH SPEED AND WITH INTEGRAL TTL DRIVER, DESIGNED FOR BROAD BAND OPERATIONS.

**SPECIFICATIONS:**

- FREQUENCY: 0.5 GHz TO 18 GHz
- INSERTION LOSS: REFLECTIVE: 4.0dB  
ABSORPTIVE: 4.5dB
- ISOLATION: 0.5 GHz TO 6 GHz: 110dB  
6 GHz TO 18 GHz: 100dB
- VSWR: REFLECTIVE IN/OUT: 2.0:1  
ABSORPTIVE IN/OUT: 2.0:1
- SPEED: RISE: 10ns TYPICAL, 15ns MAX.  
FALL: 10ns TYPICAL, 15ns MAX.  
DELAY OFF: 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" = J1-J2 ON "1" = J1-J3 OH
- POWER SUPPLY: +5V @ 100 mA MAX.  
-5V @ 75mA MAX.(REFLECTIVE)  
100mA MAX.(ABSORPTIVE/NON-REFLECTIVE)
- SIZE: 1.2" (L) x 1.00" (W) x 0.50" (H)
- WEIGHT: 1.2 oz.

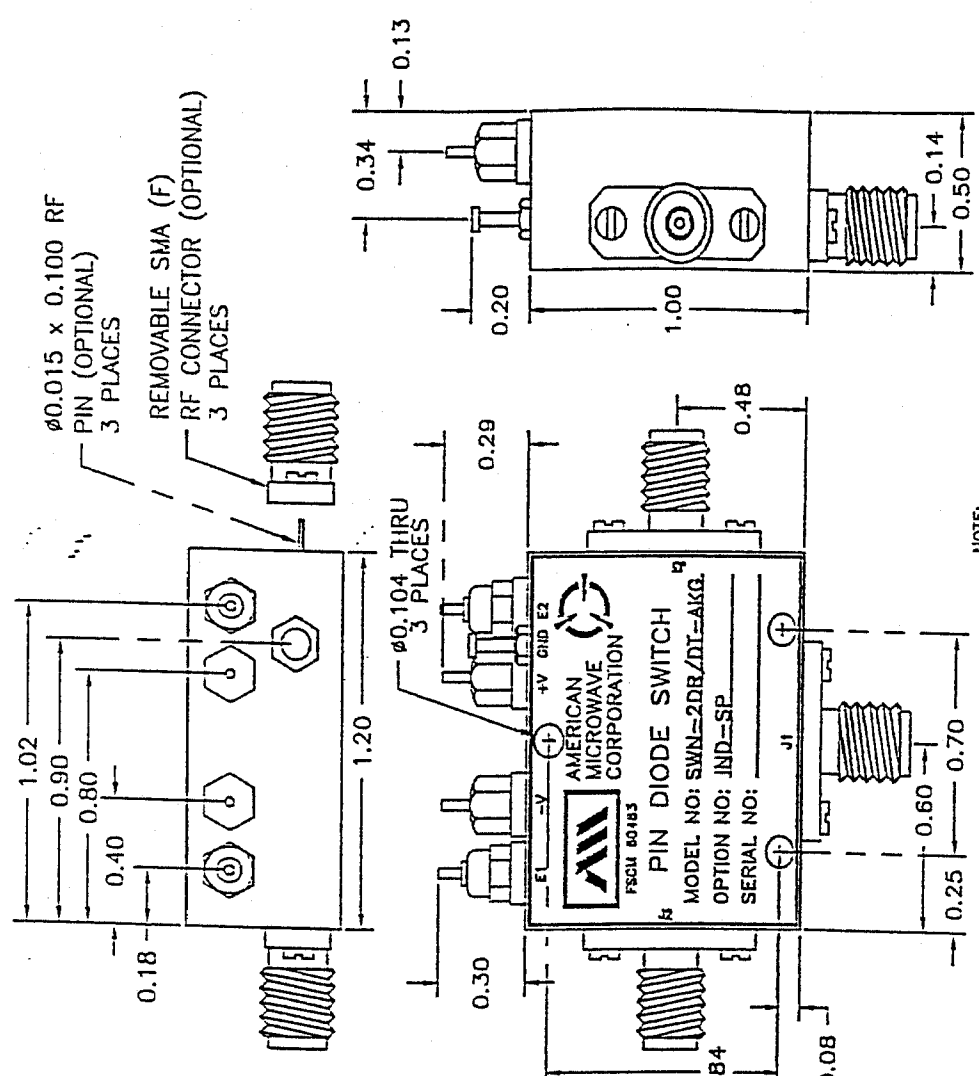
**OPTIONS:**

- SINGLE CONTROL WITH SOLDER PIN STANDARD
- IND-SP INDEPENDANT CONTROL WITH SOLDER PIN (LOGIC "0" = ON "1" = OFF)
- 10M1B 10 MHz TO 18 GHz (INSERTION LOSS INCREASES BY 1.5db AT 10 GHz AND 0.5db AT 18 GHz)
- 100M1B 100 MHz TO 18 GHz (INSERTION LOSS INCREASES BY 1.5db AT 100 MHz AND 0.5db AT 18 GHz)
- 11B 1 GHz TO 18 GHz (NO CHANGE IN INSERTION LOSS)
- 21B 2 GHz TO 18 GHz (NO CHANGE IN INSERTION LOSS)
- 41B 4 GHz TO 12 GHz (NO CHANGE IN INSERTION LOSS)
- 61B 6 GHz TO 18 GHz (NO CHANGE IN INSERTION LOSS)
- 121B 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
- B08 HIGH POWER - SPECIFY CW POWER, PULSE WIDTH, DUTY CYCLE, RF FREQUENCY AND BANDWIDTH
- B07 CUSTOM DESIGNED PRODUCT - SPECIFY INITIALS OF CUSTOMER
- B09 LOW VIDEO TRANSIENTS - SPECIFY VIDEO BANDWIDTH
- B10 HIGHER ISOLATION VERSION

**ENVIRONMENTAL RATINGS:**

- TEMPERATURE: -55°C TO +85°C (OPERATING)  
-55°C TO +125°C (STORAGE)
- HUMIDITY: MIL-S1D-202F, METHOD 103B COND. B
- SHOCK: MIL-S1D-202F, METHOD 213B COND. B
- VIBRATION: MIL-S1D-202F, METHOD 204D COND. B
- ALTITUDE: MIL-S1D-202F, METHOD 105C COND. B
- TEMPERATURE CYCLE: MIL-S1D-202F, METHOD 107D COND. B

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION



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

APPROVALS	DATE
DRAWN WJP, R.R.J	1/29/99
CHECKED WJP	1/29/99
ISSUED C.A.	1/29/99
TITLE	
AMERICAN MICROWAVE CORPORATION FREDERICK, MARYLAND	
OUTLINE DRAWING	
SWN-2DR/DT-AKG-IND-SP SOLID STATE SWITCH	
SITE FSCIL NO.	END NO.
A 60483	100-4790-2
SCALE N/S	SHEET 1 of 2

**DESCRIPTION:** 2DR/DT-STANDARD IS A SINGLE POLE TWO THROW, REFLECTIVE OR AMC MODEL REFLECTIVE SWITCH MODULE WITH VERY LOW INSERTION LOSS, HIGH ABSORPTIVE/ISOLATION AND WITH INTEGRAL TIL DRIVER, DESIGNED FOR BROAD BAND OPERATIONS.

**SPECIFICATIONS:**

- FREQUENCY: 0.5 GHz TO 18 GHz
- REFLECTIVE: 2.5db
- INSERTION LOSS: 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 CHG: 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" = J1-J2 ON "1" = J1-J3 ON
- POWER SUPPLY: +5V @ 100 mA MAX.
- -5V @ 75mA MAX.(RELECTIVE)
- 100mA MAX.(ABSORPTIVE/NON-REFLECTIVE)
- CONNECTORS: SMA FEMALE
- CONTROL: SOLDER PIN
- SIZE: 1.20" (L) x 1.00" (W) x 0.50" (H)
- WEIGHT: 1.5 OUNCE TYPICAL

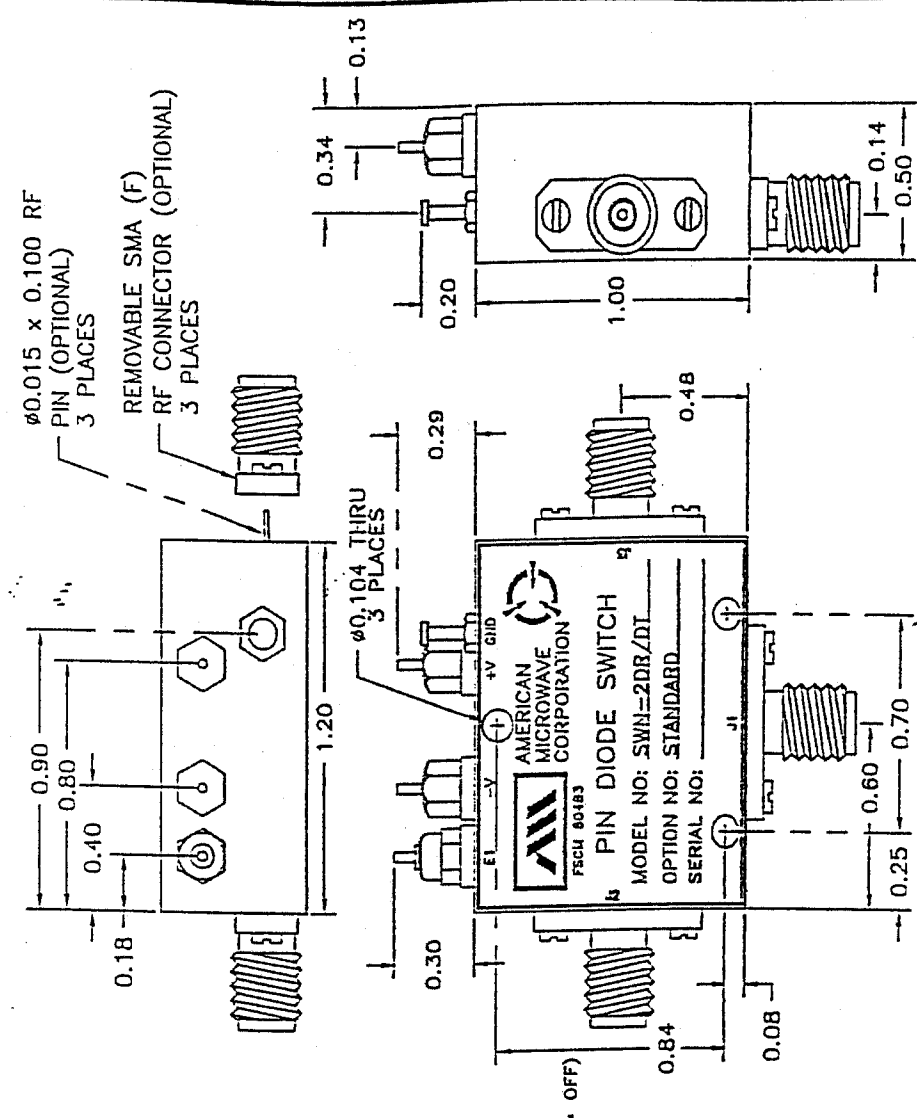
**OPTIONS:**

- SINGLE CONTROL WITH SOLDER PIN STANDARD
- IND-SP INDEPENDANT CONTROL WITH SOLDER PIN (LOGIC "0" = ON "1" = OFF)
- 10M1B 10 MHz TO 18 GHz (INSERTION LOSS INCREASES BY 1.5db AT 10 MHz AND 0.5db AT 18 GHz)
- 100M1B 100 MHz TO 18 GHz (INSERTION LOSS INCREASES BY 1.5db AT 100 MHz AND 0.5db AT 18 GHz)
- 11B: 1 GHz TO 18 GHz (NO CHANGE IN INSERTION LOSS)
- 21B: 2 GHz TO 18 GHz (NO CHANGE IN INSERTION LOSS)
- 412: 4 GHz TO 12.4 GHz (NO CHANGE IN INSERTION LOSS)
- 61B: 6 GHz TO 18 GHz (NO CHANGE IN INSERTION LOSS)
- 121B: 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 INITIALS 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)
- -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

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION



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

APPROVALS		DATE
DRAWN: WJP	REV: RR	1/29/99
CHECKED: WJP	DATE: 1/29/99	
ESD: RR	DATE: 1/29/99	
TITLE: AMERICAN MICROWAVE CORPORATION FREDERICK, MARYLAND OUTLINE DRAWING SWN-2DR/DT-STANDARD SOLID STATE SWITCH		
SIZE: A	FSCM NO: 60483	DWG NO: 100-4427-1
SCALE: N/S	SHEET 1 of 2	

**DESCRIPTION:** SWN-2DR/DT-IND-SP IS A SINGLE POLE TWO THROW, REFLECTIVE OR ABSORPTIVE REFLECTIVE SWITCH MODULE WITH VERY LOW INSERTION LOSS, HIGH ISOLATION AND WITH INTEGRAL TTL DRIVER, DESIGNED FOR BROAD BAND OPERATIONS.

**SPECIFICATIONS:**

- FREQUENCY: 0.5 GHz TO 18 GHz
- 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"= J1-J2 ON "1"= J1-J3 ON
- POWER SUPPLY: +5V @ 100 mA MAX.  
-5V @ 75mA MAX.(REFLECTIVE)  
100mA MAX.(ABSORPTIVE/NOH-REFLECTIVE)
- CONNECTORS: SMA FEMALE  
CONTROL: SOLDER PIN
- SIZE: 1.20" (L) x 1.00" (W) x 0.50" (H)
- WEIGHT: 1.5 OUNCE TYPICAL

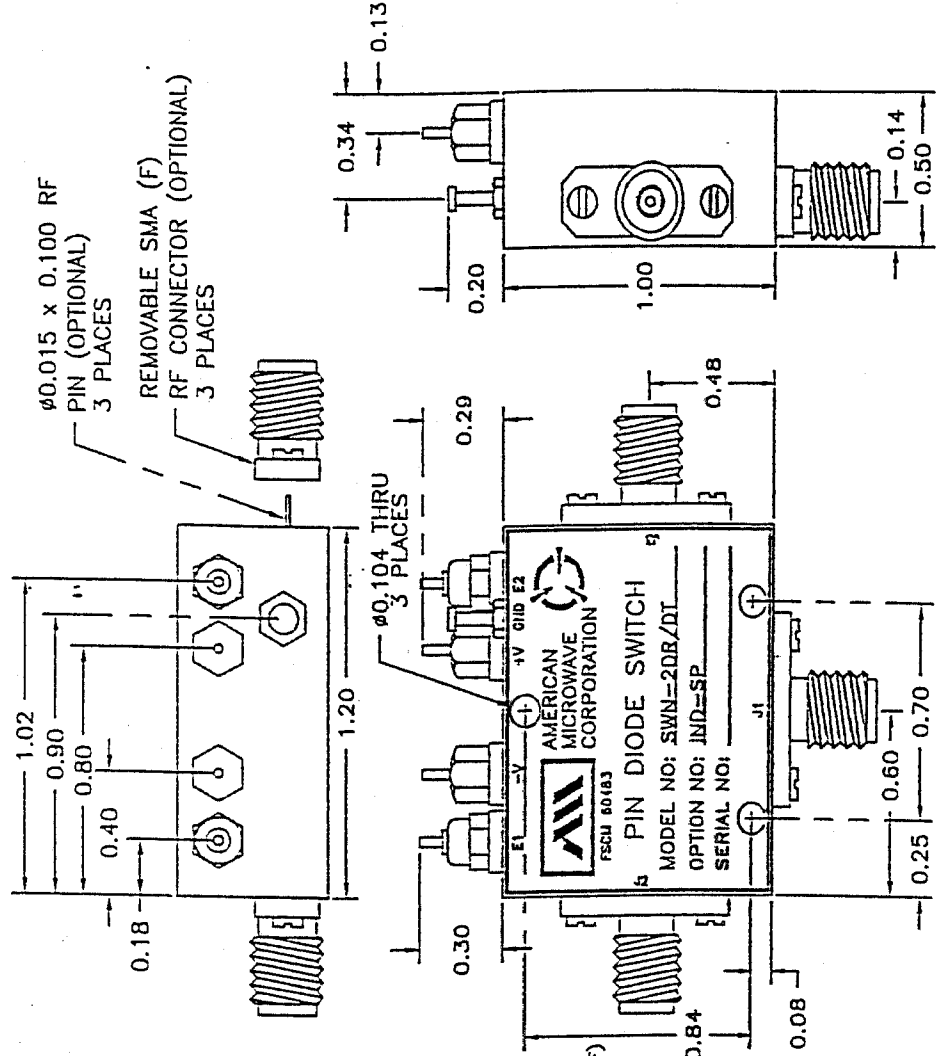
**OPTIONS:**

- SINGLE CONTROL WITH SOLDER PIN STANDARD
- IND-SP: INDEPENDANT CONTROL WITH SOLDER PIN (LOGIC "0" = ON "1" = OFF)
  - 10M1B: 10 MHz TO 18 GHz (INSERTION LOSS INCREASES BY 1.5db AT 10 MHz AND 0.5db AT 18 GHz)
  - 10M2B: 100 MHz TO 18 GHz (INSERTION LOSS INCREASES BY 1.5db AT 100 MHz AND 0.5db AT 18 GHz)
  - 11B: 1 GHz TO 18 GHz (NO CHANGE IN INSERTION LOSS)
  - 21B: 2 GHz TO 18 GHz (NO CHANGE IN INSERTION LOSS)
  - 41B: 4 GHz TO 12.4 GHz (NO CHANGE IN INSERTION LOSS)
  - 61B: 6 GHz TO 18 GHz (NO CHANGE IN INSERTION LOSS)
  - 121B: 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: CUSTOMER DESIGNED PRODUCT - SPECIFY INITIALS 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)  
-65°C TO +125°C (STORAGE)
- HUMIDITY: MIL-STD-202F, METHOD 103B COND. B
- VIBRATION: MIL-STD-202F, METHOD 213B COND. B
- SHOCK: 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 DR REVISION



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

APPROVALS		DATE	TITLE
DESIGN	1/19/99	1/29/99	AMERICAN MICROWAVE CORPORATION
CHECKED	1/22/99		FREDERICK, MARYLAND
ISSUED	1/29/99		
SIZE	FSCU NO. A	DWG NO. 60483	SCALE N/S
REV.		100-4427-2	SHEET 1 of 2

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

OUTLINE DRAWING  
SWN-2DR/DT-IND-SP  
SOLID STATE SWITCH





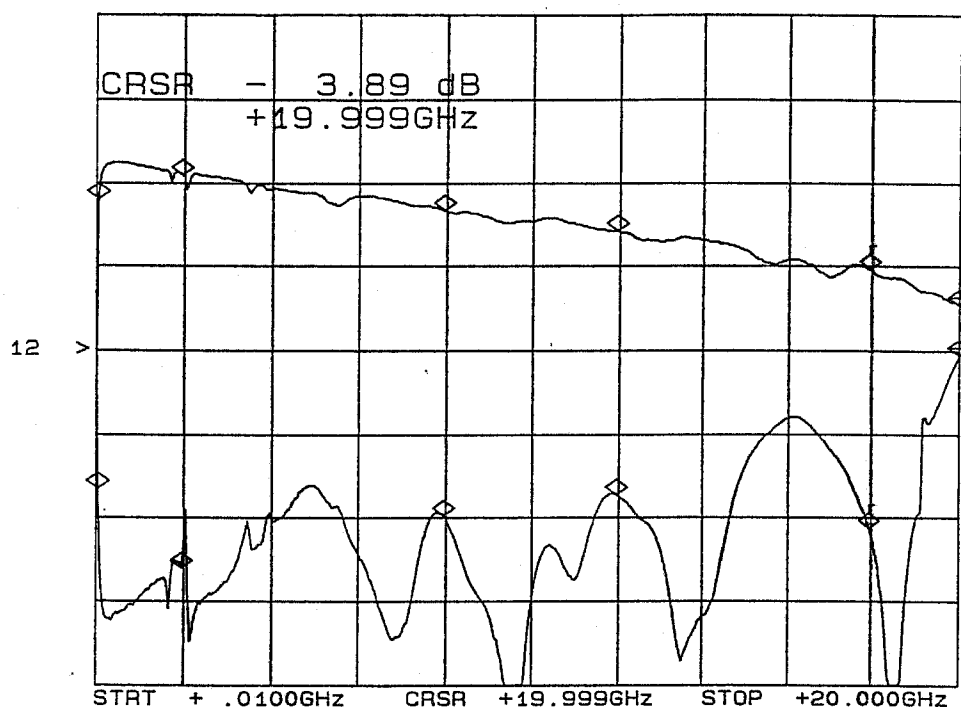
## SUMMARY TEST DATA

**MODEL NUMBER** : SWN-218-2A-AKG OPTIONS 011,120,MIT  
**SERIAL NUMBER** : 2MS905318  
**ENGINEER** : RENE AFABLE  
**VOLTAGE & CURRENT DRAW** : +5vdc: @+71.2mA; -12vdc: @ -54.1mA

### INSERTION LOSS & RETURN LOSS\*

J1-J2

CH1: C -M - 3.89 dB      CH2: R -M - 9.80 dB  
 2.0 dB/ REF - 5.00 dB      5.0 dB/ REF - 9.54 dB



\*J1: INPUT ARM

FREQUENCY	INSERTION LOSS	RETURN LOSS
100 MHz	1.36 dB	17.7 dB
2.0 GHz	0.80 dB	22.5 dB
8.0 GHz	1.64 dB	19.4 dB
12.0 GHz	2.14 dB	18.1 dB
18.0 GHz	3.06 dB	20.1 dB
20.0 GHz	3.89 dB	9.80 dB

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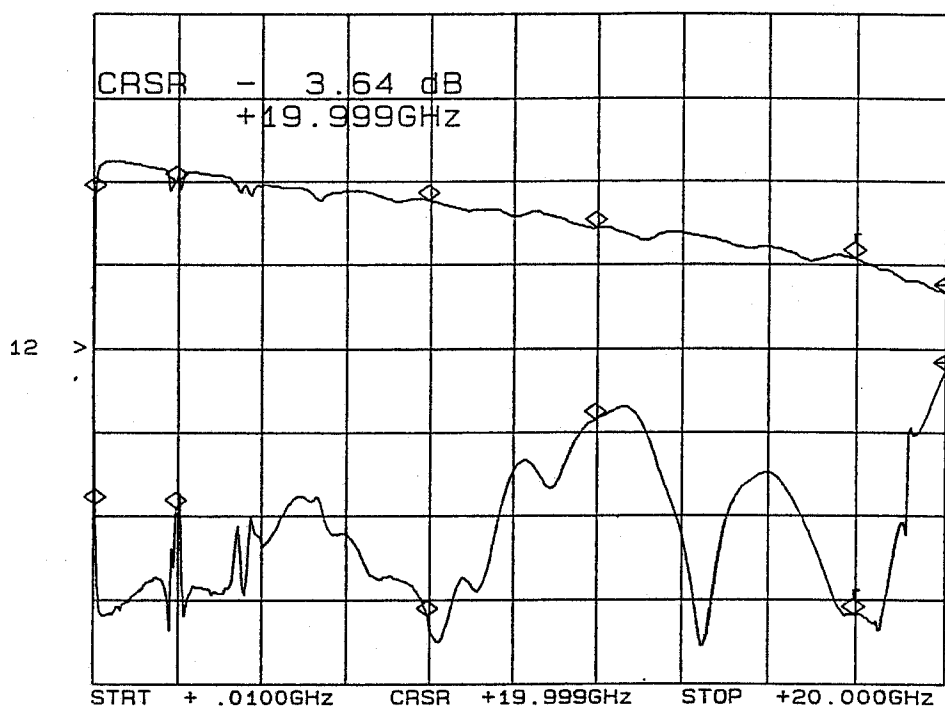
## SUMMARY TEST DATA

MODEL NUMBER : SWN-218-2A-AGK OPTIONS 011,120,MIT  
 SERIAL NUMBER : 2MS905318  
 ENGINEER : RENE AFABLE  
 VOLTAGE & CURRENT DRAW : +5vdc: @+71.2mA; -12vdc: @ -54.1mA

## INSERTION LOSS &amp; RETURN LOSS\*

J1-J3

CH1: C -M - 3.64 dB      CH2: R -M - 10.77 dB  
 2.0 dB/ REF - 5.00 dB      5.0 dB/ REF - 9.54 dB



\*J1: INPUT ARM

FREQUENCY	INSERTION LOSS	RETURN LOSS
100 MHz	1.24 dB	18.8 dB
2.0 GHz	0.98 dB	18.9 dB
8.0 GHz	1.44 dB	25.4 dB
12.0 GHz	2.09 dB	13.7 dB
18.0 GHz	2.84 dB	25.3 dB
20.0 GHz	3.64 dB	10.7 dB



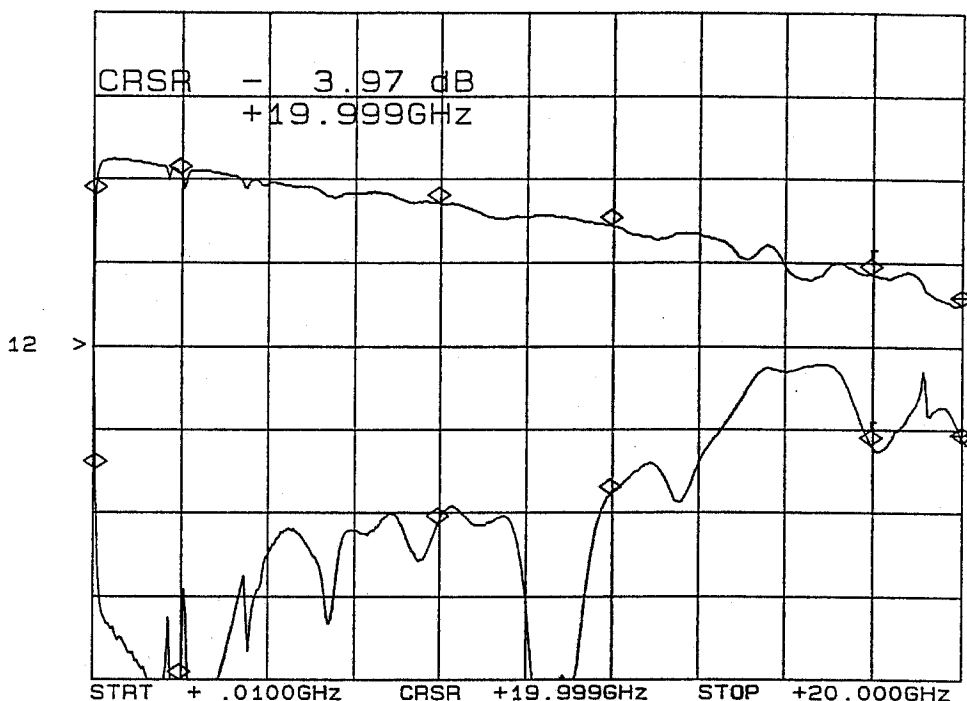
### SUMMARY TEST DATA

**MODEL NUMBER** : SWN-218-2A-AKG OPTIONS 011,120,MIT  
**SERIAL NUMBER** : 2MS905318  
**ENGINEER** : RENE AFABLE  
**VOLTAGE & CURRENT DRAW** : +5vdc: @+71.2mA; -12vdc: @ -54.1mA

#### INSERTION LOSS & RETURN LOSS\*

J2-J1

CH1: C -M - 3.97 dB      CH2: R -M - 15.23 dB  
 2.0 dB/ REF - 5.00 dB      5.0 dB/ REF - 9.54 dB



\*J1: INPUT ARM

FREQUENCY	INSERTION LOSS	RETURN LOSS
100 MHz	1.37 dB	16.8 dB
2.0 GHz	0.84 dB	30.8 dB
8.0 GHz	1.55 dB	20.1 dB
12.0 GHz	2.10 dB	18.3 dB
18.0 GHz	3.24 dB	15.4 dB
20.0 GHz	3.97 dB	15.2 dB



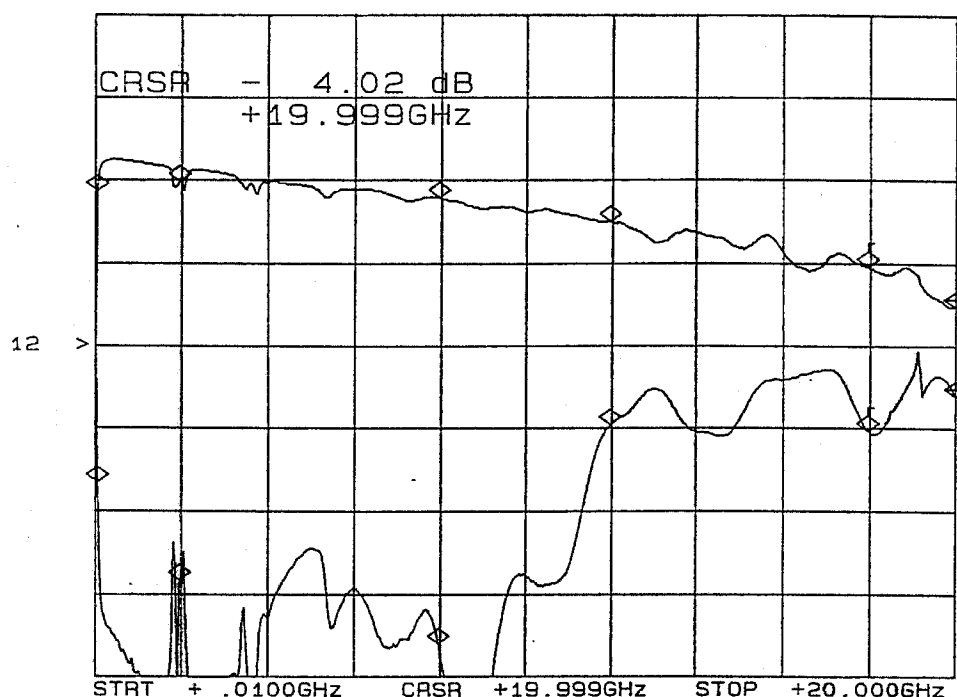
## SUMMARY TEST DATA

**MODEL NUMBER** : SWN-218-2A-AKG OPTIONS 011,120,MIT  
**SERIAL NUMBER** : 2MS905318  
**ENGINEER** : RENE AFABLE  
**VOLTAGE & CURRENT DRAW** : +5vdc: @+71.2mA; -12vdc: @ -54.1mA

### INSERTION LOSS & RETURN LOSS\*

J3-J1

CH1: C -M - 4.02 dB      CH2: R -M - 12.58 dB  
 2.0 dB/ REF - 5.00 dB      5.0 dB/ REF - 9.54 dB



\*J1: INPUT ARM

FREQUENCY	INSERTION LOSS	RETURN LOSS
100 MHz	1.26 dB	17.7 dB
2.0 GHz	1.01 dB	23.6 dB
8.0 GHz	1.42 dB	27.4 dB
12.0 GHz	1.99 dB	14.2 dB
18.0 GHz	3.05 dB	14.6 dB
20.0 GHz	4.02 dB	12.5 dB

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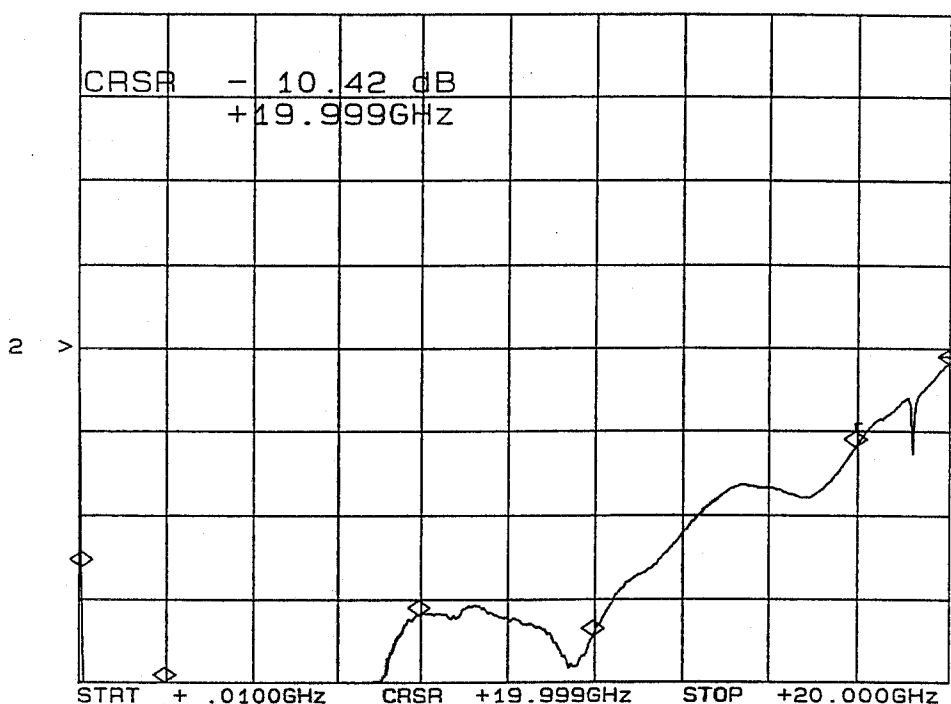
### SUMMARY TEST DATA

**MODEL NUMBER** : SWN-218-2A-AKG OPTIONS 011,120,MIT  
**SERIAL NUMBER** : 2MS905318  
**ENGINEER** : RENE AFABLE  
**VOLTAGE & CURRENT DRAW** : +5vdc: @+176mA; -12vdc: @ -48mA

#### OFF ARM TERMINATION\*

J2

CH2: R -M - 10.42 dB  
5.0 dB/ REF - 9.54 dB



\*J2: INPUT ARM

FREQUENCY	RETURN LOSS
100 MHz	22.5 dB
2.0 GHz	30.0 dB
8.0 GHz	25.4 dB
12.0 GHz	26.6 dB
18.0 GHz	15.4 dB
20.0 GHz	10.4 dB



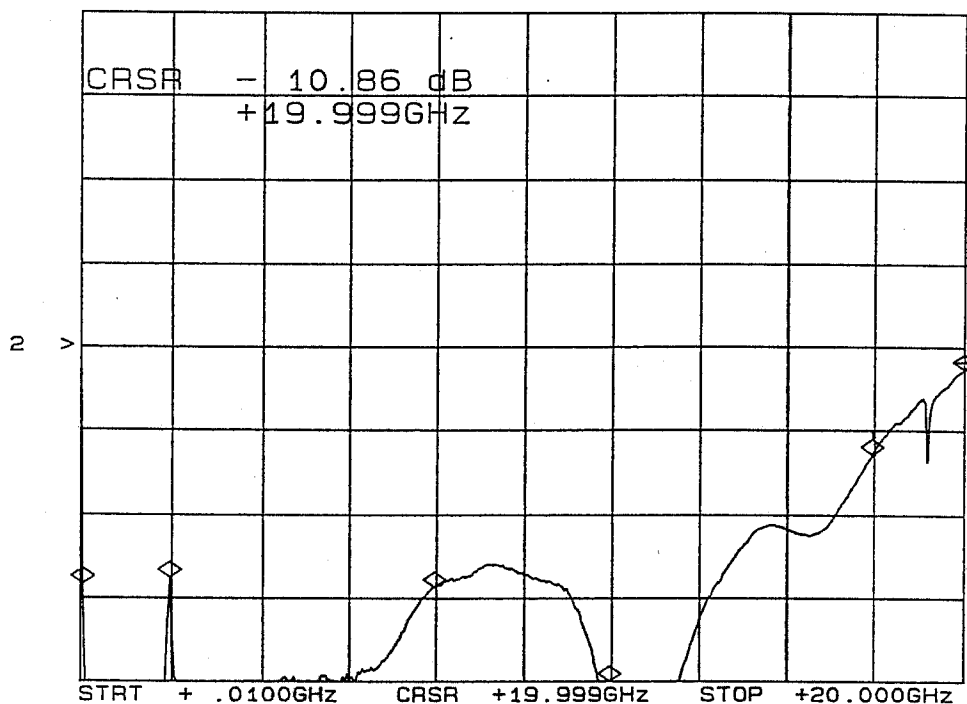
### SUMMARY TEST DATA

**MODEL NUMBER** : SWN-218-2A-AKG    **OPTIONS** 011,120,MIT  
**SERIAL NUMBER** : 2MS905318  
**ENGINEER** : RENE AFABLE  
**VOLTAGE & CURRENT DRAW** : +5vdc: @+176mA; -12vdc: @ -48mA

#### OFF ARM TERMINATION\*

J3

CH2: R -M - 10.86 dB  
5.0 dB/ REF - 9.54 dB



\*J3: INPUT ARM

FREQUENCY	RETURN LOSS
100 MHz	23.6 dB
2.0 GHz	23.2 dB
8.0 GHz	23.7 dB
12.0 GHz	32.7 dB
18.0 GHz	15.8 dB
20.0 GHz	10.8 dB



## SUMMARY TEST DATA

<b>MODEL NUMBER</b>	: SWN-218-2A-AKG OPTION 011,120,MIT
<b>SERIAL NUMBER</b>	: 2MS905318
<b>ENGINEER</b>	: RENE AFABLE
<b>VOLTAGE &amp; CURRENT DRAW</b>	: +5vdc: @+71.2mA; -12V: @ -54.1mA

### ISOLATION\*

(AS MEASURED ON A SPECTRUM ANALYZER)

FREQUENCY	J2	J3
50 MHz	110 dB	110 dB
100 MHz	112 dB	113 dB
500 MHz	110 dB	110 dB
1 GHz	> 110 dB	> 110 dB
2 GHz	> 110 dB	> 110 dB
4 GHz	> 110 dB	> 110 dB
6 GHz	> 110 dB	> 110 dB
8 GHz	> 104 dB	> 105 dB
10 GHz	104 dB	104 dB
12 GHz	103 dB	103 dB
14 GHz	101 dB	102 dB
16 GHz	100 dB	100 dB
18 GHz	100 dB	100 dB
20 GHz	100 dB	100 dB

\* J1: INPUT ARM

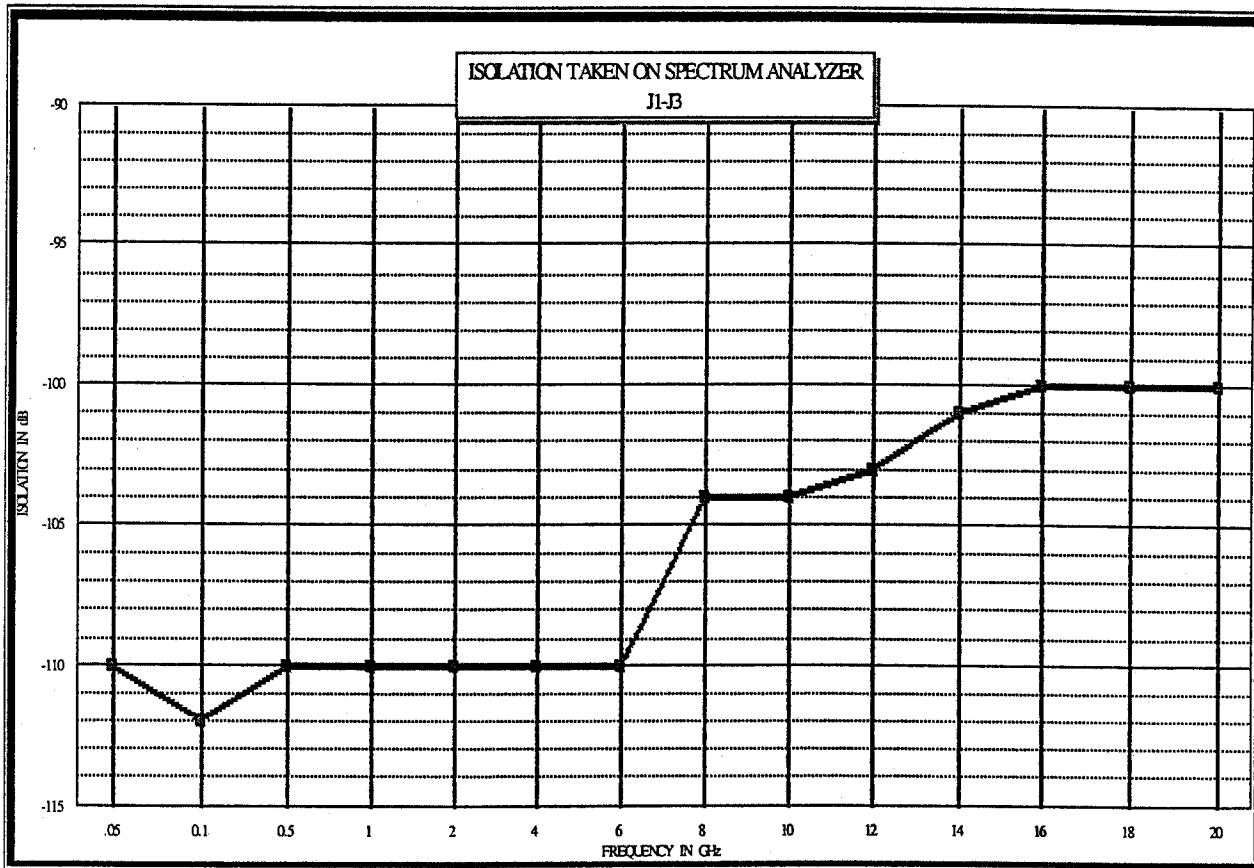
JULY 29, 1999



### SUMMARY TEST DATA

MODEL NUMBER	: SWN-218-2A-AKG	OPTION 011,120,MIT
SERIAL NUMBER	: 2MS905318	
ENGINEER	: RENE AFABLE	
VOLTAGE & CURRENT DRAW	: +5vdc: @ +176mA;	-12vdc @ -48mA

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



\*J1: INPUT ARM

JULY 29, 1999

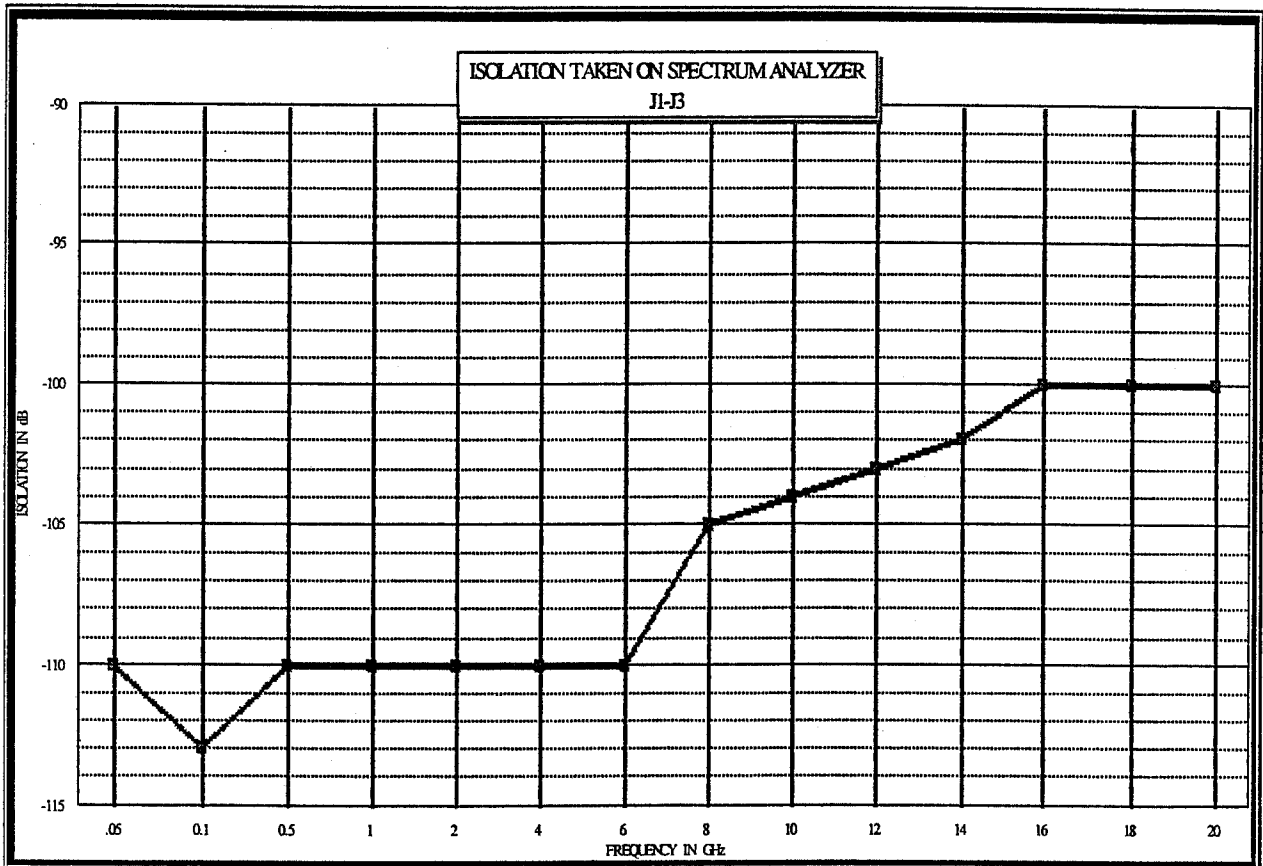




### SUMMARY TEST DATA

**MODEL NUMBER** : SWN-218-2A-AKG OPTION 011,120,MIT  
**SERIAL NUMBER** : 2MS905318  
**ENGINEER** : RENE AFABLE  
**VOLTAGE & CURRENT DRAW** : +5vdc: @ +176mA; -12vdc @ -48mA

**ISOLATION\***  
 (AS MEASURED ON A SPECTRUM ANALYZER)  
 J1-J3



\*J1: INPUT ARM

JULY 29, 1999



**TEST DATA**

**FROM**

**0.04 GHz TO 1 GHz**

**ON**

**SP2T**

**SOLID STATE SWITCH**

**AMC MODEL No:**

**SWN-218-2A-AKG OPTION 011,120,MIT**

**(Serial Number: 2MS905318)**

**JULY 29, 1999**



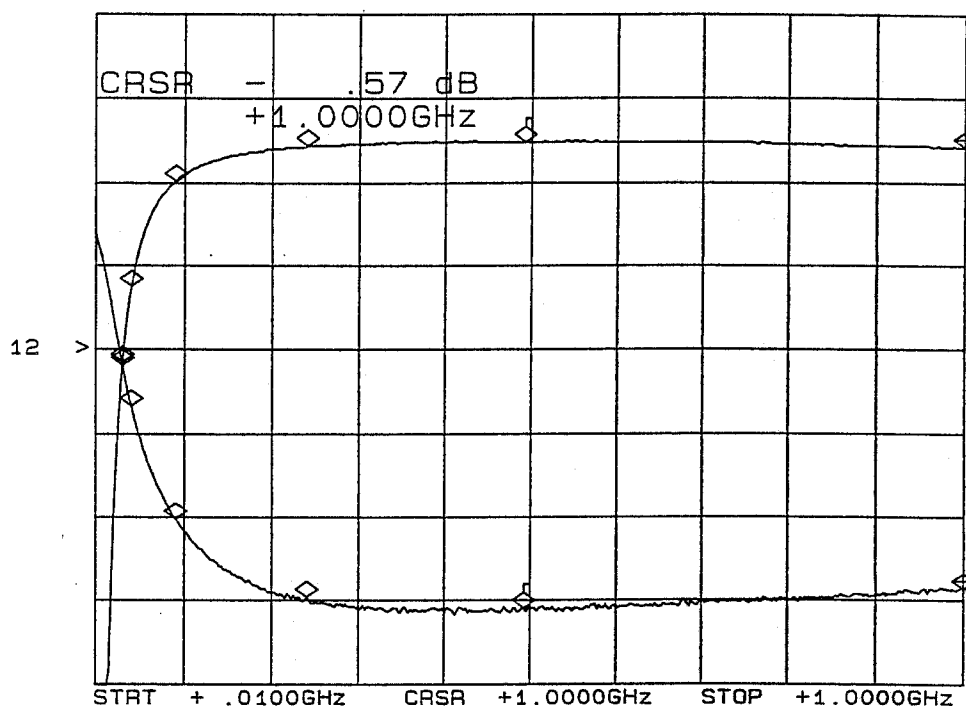
## SUMMARY TEST DATA

MODEL NUMBER	: SWN-218-2A-AGK	OPTIONS 011,120,MIT
SERIAL NUMBER	: 2MS905318	
ENGINEER	: RENE AFABLE	
VOLTAGE & CURRENT DRAW	: +5vdc: @+176mA; -12vdc: @ -48mA	

### INSERTION LOSS & RETURN LOSS\*

J1-J2

CH1: C -M - .57 dB      CH2: R -M - 23.78 dB  
 1.0 dB/ REF - 3.00 dB      5.0 dB/ REF - 9.54 dB



\*J1: INPUT ARM

FREQUENCY	INSERTION LOSS	RETURN LOSS
40 MHz	3.15 dB	10.4 dB
50 MHz	2.23 dB	12.8 dB
100 MHz	0.96 dB	19.6 dB
250 MHz	0.55 dB	24.2 dB
500 MHz	0.50 dB	24.9 dB
1 GHz	0.57 dB	23.7 dB

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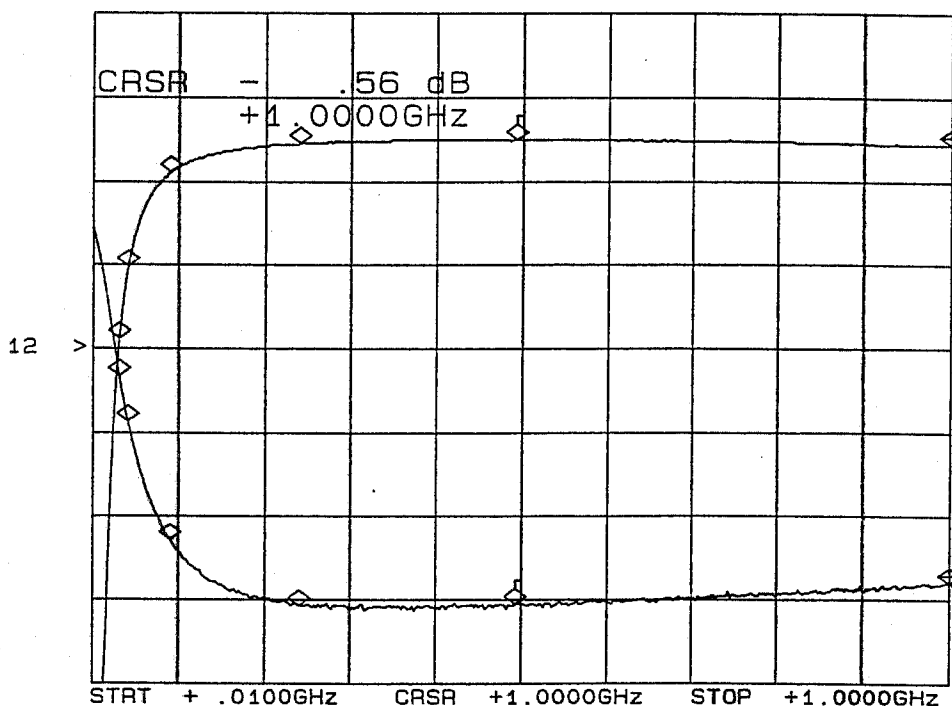
### SUMMARY TEST DATA

**MODEL NUMBER** : SWN-218-2A-AKG OPTIONS 011,120,MIT  
**SERIAL NUMBER** : 2MS905318  
**ENGINEER** : RENE AFABLE  
**VOLTAGE & CURRENT DRAW** : +5vdc: @+176mA; -12vdc: @ -48mA

#### INSERTION LOSS & RETURN LOSS\*

J1-J3

CH1: C -M - .56 dB CH2: R -M - 23.51 dB  
 1.0 dB/ REF - 3.00 dB 5.0 dB/ REF - 9.54 dB



\*J1: INPUT ARM

FREQUENCY	INSERTION LOSS	RETURN LOSS
40 MHz	2.87 dB	11.1 dB
50 MHz	2.01 dB	13.8 dB
100 MHz	0.87 dB	20.9 dB
250 MHz	0.53 dB	24.8 dB
500 MHz	0.49 dB	24.7 dB
1 GHz	0.56 dB	23.5 dB



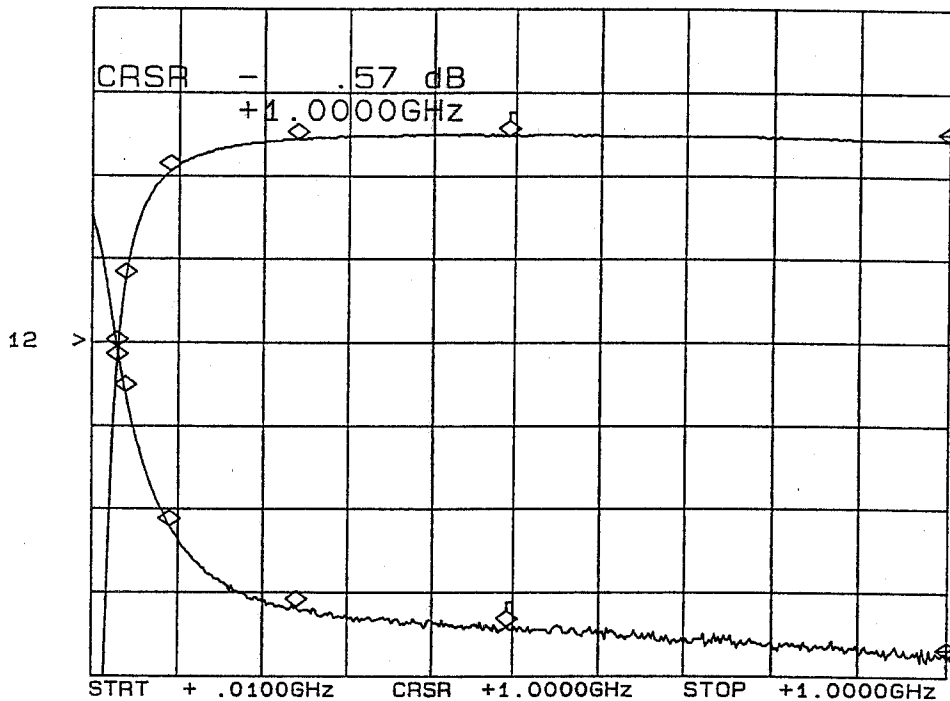
## SUMMARY TEST DATA

MODEL NUMBER : SWN-218-2A-AKG OPTIONS 011,120,MIT  
 SERIAL NUMBER : 2MS905318  
 ENGINEER : RENE AFABLE  
 VOLTAGE & CURRENT DRAW : +5vdc: @+176mA; -12vdc: @ -48mA

INSERTION LOSS & RETURN LOSS\*

J2-J1

CH1: C -M - .57 dB      CH2: R -M - 28.34 dB  
 1.0 dB/ REF - 3.00 dB      5.0 dB/ REF - 9.54 dB



\*J2: INPUT ARM

FREQUENCY	INSERTION LOSS	RETURN LOSS
40 MHz	3.21 dB	9.78 dB
50 MHz	2.23 dB	12.5 dB
100 MHz	0.92 dB	20.5 dB
250 MHz	0.54 dB	25.3 dB
500 MHz	0.50 dB	26.5 dB
1 GHz	0.57 dB	28.3 dB

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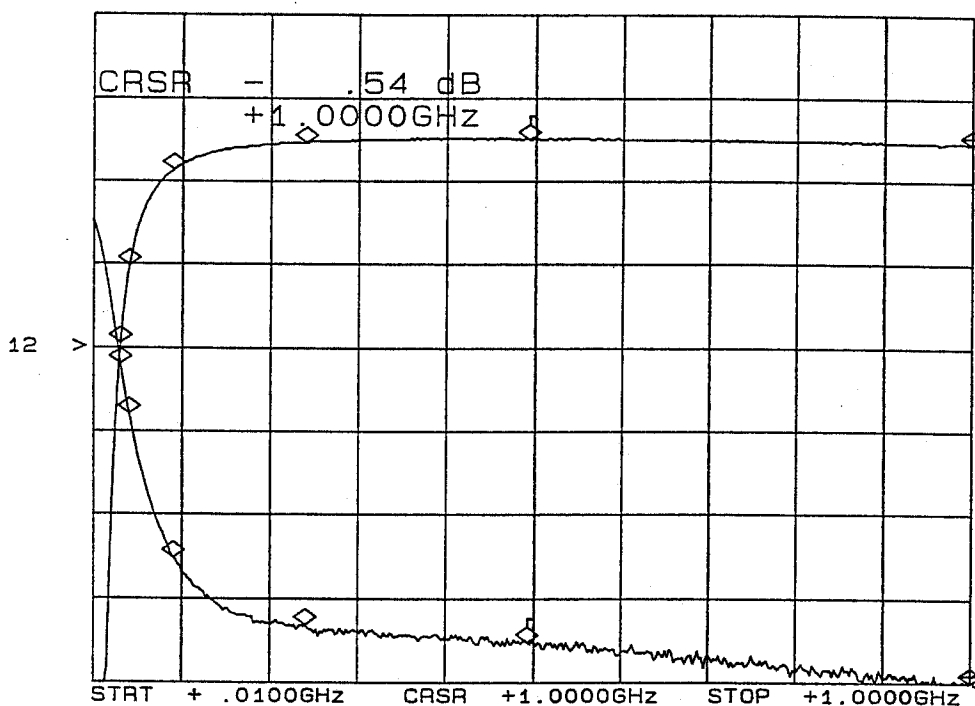
## SUMMARY TEST DATA

**MODEL NUMBER** : SWN-218-2A-AKG OPTIONS 011,120,MIT  
**SERIAL NUMBER** : 2MS905318  
**ENGINEER** : RENE AFABLE  
**VOLTAGE & CURRENT DRAW** : +5vdc: @+176mA; -12vdc: @ -48mA

### INSERTION LOSS & RETURN LOSS\*

J3-J1

CH1: C -M - .54 dB      CH2: R -M - 29.72 dB  
 1.0 dB/ REF - 3.00 dB      5.0 dB/ REF - 9.54 dB



\*J3: INPUT ARM

FREQUENCY	INSERTION LOSS	RETURN LOSS
40 MHz	2.92 dB	10.4 dB
50 MHz	2.01 dB	13.4 dB
100 MHz	0.84 dB	22.0 dB
250 MHz	0.52 dB	25.9 dB
500 MHz	0.48 dB	27.0 dB
1 GHz	0.54 dB	29.7 dB

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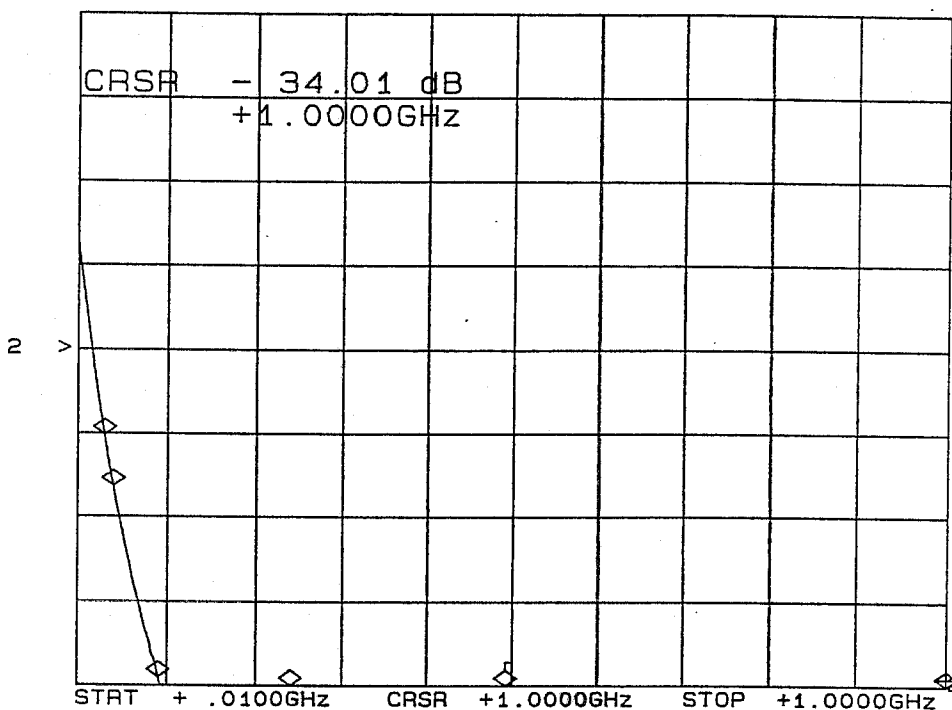
### SUMMARY TEST DATA

**MODEL NUMBER** : SWN-218-2A-AKG    **OPTIONS** 011,120,MIT  
**SERIAL NUMBER** : 2MS905318  
**ENGINEER** : RENE AFABLE  
**VOLTAGE & CURRENT DRAW** : +5vdc: @+176mA; -12vdc: @ -48mA

#### OFF ARM TERMINATION\*

J2

CH2: R -M - 34.01 dB  
 5.0 dB/ REF - 9.54 dB



\*J2: INPUT ARM

FREQUENCY	RETURN LOSS
40 MHz	14.5 dB
50 MHz	17.6 dB
100 MHz	29.0 dB
250 MHz	37.4 dB
500 MHz	36.3 dB
1 GHz	34.0 dB



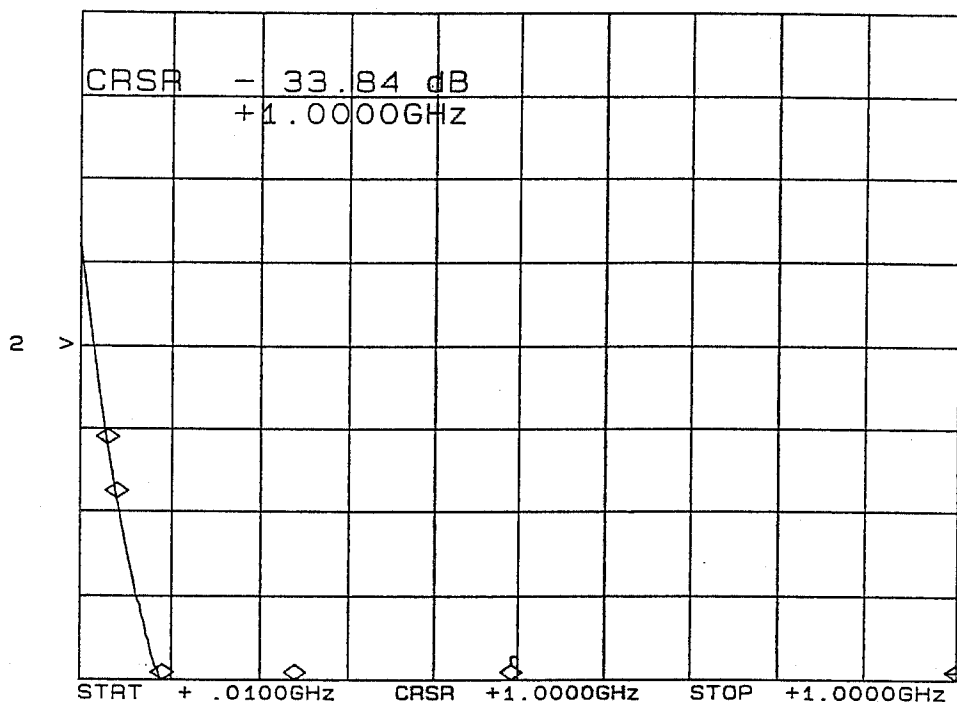
### SUMMARY TEST DATA

**MODEL NUMBER** : SWN-218-2A-AKG OPTIONS 011,120,MIT  
**SERIAL NUMBER** : 2MS905318  
**ENGINEER** : RENE AFABLE  
**VOLTAGE & CURRENT DRAW** : +5vdc: @+176mA; -12vdc: @ -48mA

#### OFF ARM TERMINATION\*

J3

CH2: R -M - 33.84 dB  
 5.0 dB/ REF - 9.54 dB



\*J3: INPUT ARM

FREQUENCY	RETURN LOSS
40 MHz	15.4 dB
50 MHz	18.6 dB
100 MHz	29.7 dB
250 MHz	36.5 dB
500 MHz	34.9 dB
1 GHz	33.8 dB





## SUMMARY TEST DATA

**MODEL NUMBER** : SWN-218-2A-AKG OPTION 011,120,MIT  
**SERIAL NUMBER** : 2MS905318  
**ENGINEER** : RENE AFABLE  
**VOLTAGE & CURRENT DRAW** : +5vdc: @+71.2mA; -12V: @ -54.1mA

### SWITCHING SPEED

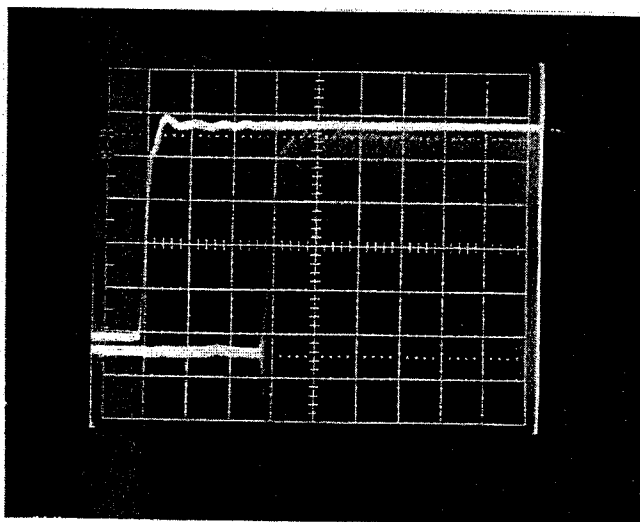
"Rise/Fall" Time: 10% RF to 90% RF & 90% RF to 10% RF  
 "On/Off" Time: 50% TTL to 90% RF or 10% RF

### TYPICAL OF ALL ARMS

"DELAY ON": 60 nS  
 "RISE TIME": 6 nS

**HORIZONTAL SCALE:**  
 20 nS PER DIVISION

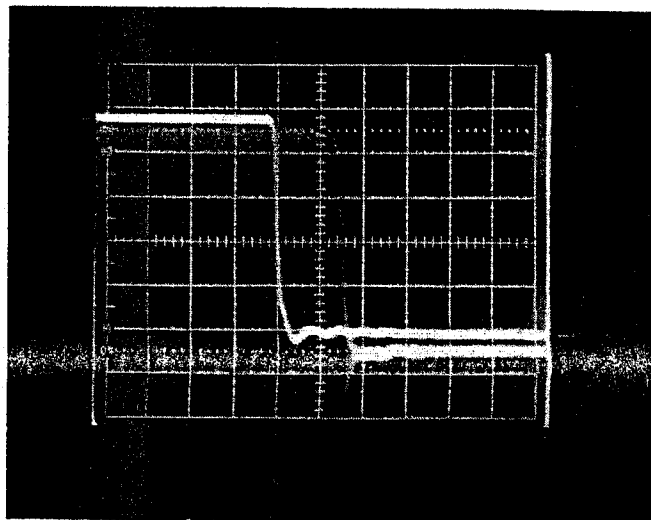
**VERTICAL SCALE:**  
 10 mV PER DIVISION



"DELAY OFF": 32 nS  
 "FALL TIME": 4 nS

**HORIZONTAL SCALE:**  
 20 nS PER DIVISION

**VERTICAL SCALE:**  
 10 mV PER DIVISION



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## SUMMARY TEST DATA

MODEL NUMBER	: SWN-218-2A-AKG	OPTION 011,120,MIT
SERIAL NUMBER	: 2MS905318	
ENGINEER	: RENE AFABLE	
VOLTAGE & CURRENT DRAW	: +5vdc: @+71.2mA; -12V: @ -54.1mA	

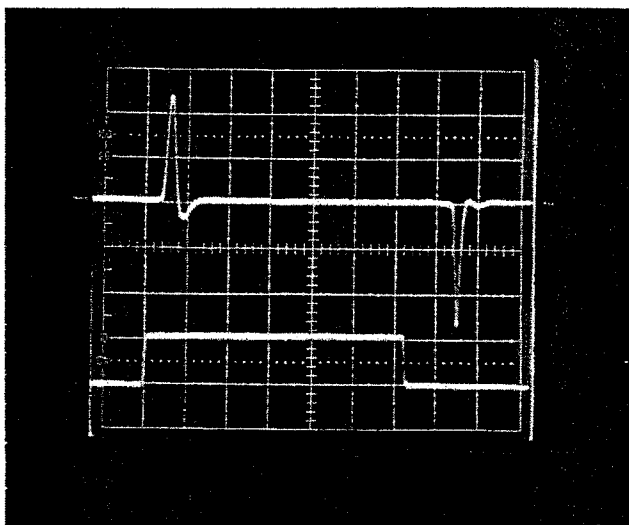
### VIDEO TRANSIENTS

TYPICAL OF ALL ARMS

$\leq 2.5$  V P-P  
MEASURED IN A  
300 MHZ BANDWIDTH

VERTICAL SCALE:  
0.5 V PER DIVISION

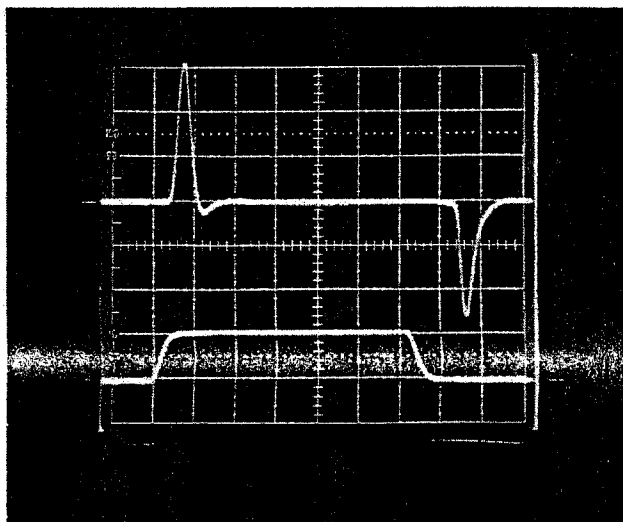
HORIZONTAL SCALE:  
50 ns PER DIVISION



$\leq 1.14$  V P-P  
MEASURED IN A  
20 MHZ BANDWIDTH

VERTICAL SCALE:  
0.2 V PER DIVISION

HORIZONTAL SCALE:  
50 ns PER DIVISION



JULY 29, 1999



AMERICAN MICROWAVE  
CORPORATION

APPENDIX A  
MISCELLANEOUS  
TEST DATA AND PLOTS  
ON  
ISOLATION  
AS  
MEASURED  
ON A SCALAR NETWORK

ANALYZER  
(NOISE FLOOR OF SCALAR NETWORK ANALYZER IS -70 dB)

ON A  
SP2T  
SOLID STATE SWITCH

AMC MODEL No:  
SWN-218-2A-AKG OPTION 011,120,MIT  
(Serial Number: 2MS905318)

FROM 0.1 GHz TO 20 GHz

AND

FROM 0.04 GHz TO 1 GHz

JULY 29, 1999



## SUMMARY TEST DATA

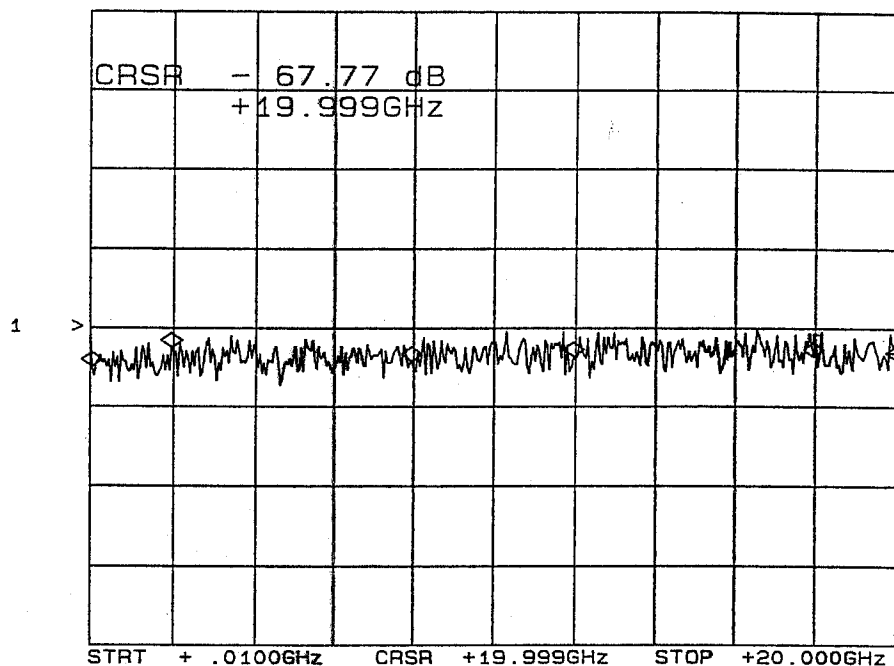
**MODEL NUMBER** : SWN-218-2A-AKG OPTION 011,120,MIT  
**SERIAL NUMBER** : 2MS905318  
**ENGINEER** : RENE AFABLE  
**VOLTAGE & CURRENT DRAW** : +5vdc @ +176mA; -12vdc @ -48mA

### ISOLATION\*

(AS MEASURED ON A SCALAR NETWORK ANALYZER)

J1-J2

CH1: C -M - 67.77 dB  
20.0 dB/ REF - 60.00 dB



\*J1: INPUT ARM

FREQUENCY	ISOLATION
100 MHz	69.6 dB
2.0 GHz	64.7 dB
8.0 GHz	68.4 dB
12.0 GHz	67.1 dB
18.0 GHz	67.0 dB
20.0 GHz	67.7 dB

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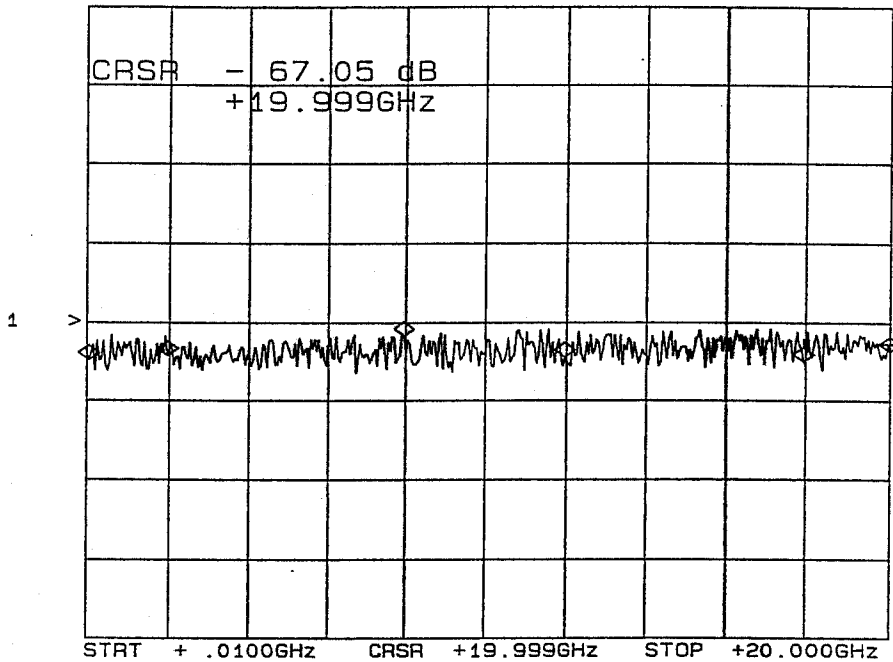


### SUMMARY TEST DATA

**MODEL NUMBER** : SWN-218-2A-AKG OPTION 011,120,MIT  
**SERIAL NUMBER** : 2MS905318  
**ENGINEER** : RENE AFABLE  
**VOLTAGE & CURRENT DRAW** : +5vdc @ +176mA; -12vdc @ -48mA

**ISOLATION\***  
 (AS MEASURED ON A SCALAR NETWORK ANALYZER)  
 J1-J3

CH1: C -M - 67.05 dB  
 20.0 dB/ REF - 60.00 dB



\*J1: INPUT ARM

FREQUENCY	ISOLATION
100 MHz	69.4 dB
2.0 GHz	68.1 dB
8.0 GHz	63.3 dB
12.0 GHz	68.7 dB
18.0 GHz	69.8 dB
20.0 GHz	67.0 dB

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**ISOLATION  
DATA AND PLOTS  
FROM  
0.04 GHz TO 1 GHz  
AS  
MEASURED  
ON A SCALAR NETWORK**

**ANALYZER**  
(NOISE FLOOR OF SCALAR NETWORK ANALYZER IS -70 dB)

**ON A  
SP2T  
SOLID STATE SWITCH**

**AMC MODEL No:  
SWN-218-2A-AKG OPTION 011,120,MIT**  
(Serial Number: 2MS905318)

**JULY 29, 1999**

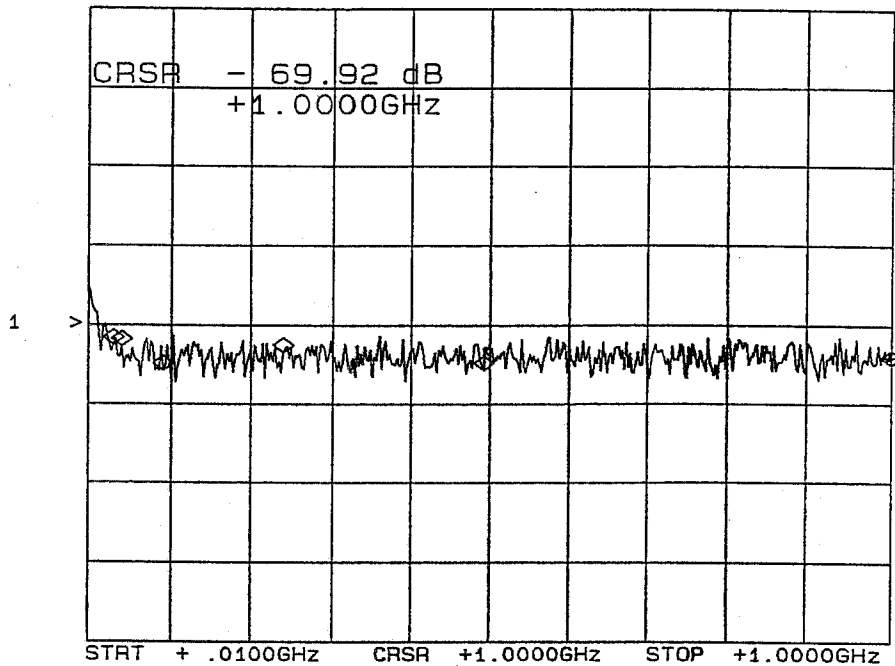


### SUMMARY TEST DATA

**MODEL NUMBER** : SWN-218-2A-AKG OPTION 011,120,MIT  
**SERIAL NUMBER** : 2MS905318  
**ENGINEER** : RENE AFABLE  
**VOLTAGE & CURRENT DRAW** : +5vdc @ +176mA; -12vdc @ -48mA

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

CH1: C -M - 69.92 dB  
 20.0 dB/ REF - 60.00 dB



\*J1: INPUT ARM

FREQUENCY	ISOLATION
40 MHz	64.6 dB
50 MHz	65.3 dB
100 MHz	71.5 dB
250 MHz	66.7 dB
500 MHz	71.2 dB
1 GHz	69.9 dB

JULY 29, 1999

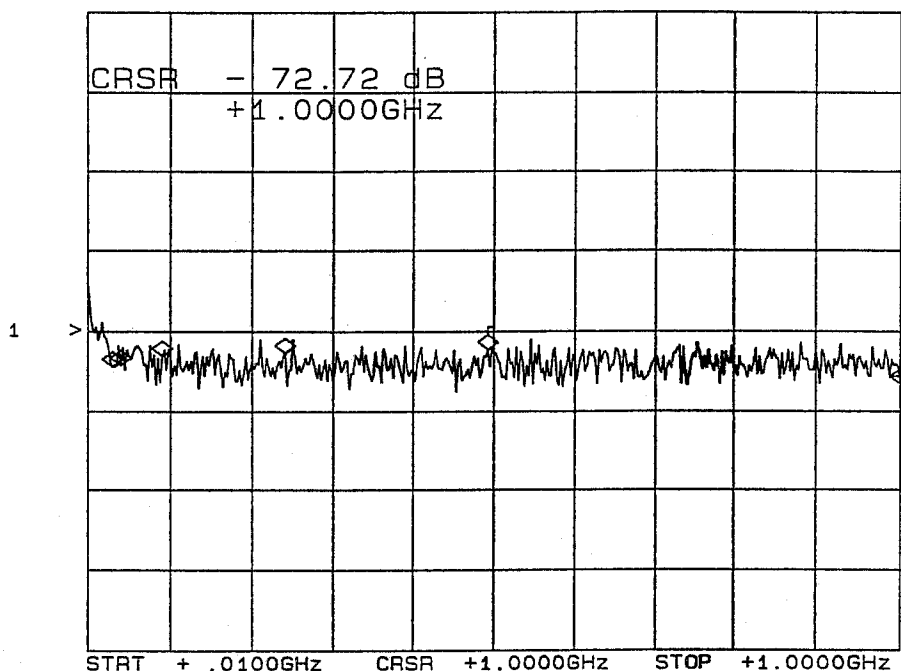


### SUMMARY TEST DATA

**MODEL NUMBER** : SWN-218-2A-AGK OPTION 011,120,MIT  
**SERIAL NUMBER** : 2MS905318  
**ENGINEER** : RENE AFABLE  
**VOLTAGE & CURRENT DRAW** : +5vdc @ +176mA; -12vdc @ -48mA

**ISOLATION\***  
 (AS MEASURED ON A SCALAR NETWORK ANALYZER)  
 J1-J3

CH1: C -M - 72.72 dB  
 20.0 dB/ REF - 60.00 dB



\*J1: INPUT ARM

FREQUENCY	ISOLATION
40 MHz	68.7 dB
50 MHz	68.1 dB
100 MHz	66.1 dB
250 MHz	65.2 dB
500 MHz	64.4 dB
1 GHz	72.7 dB

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