



**AMERICAN MICROWAVE  
CORPORATION**

## **TEST DATA**

**ON**

**SWN-218-2DT  
WITH OPTION 133**

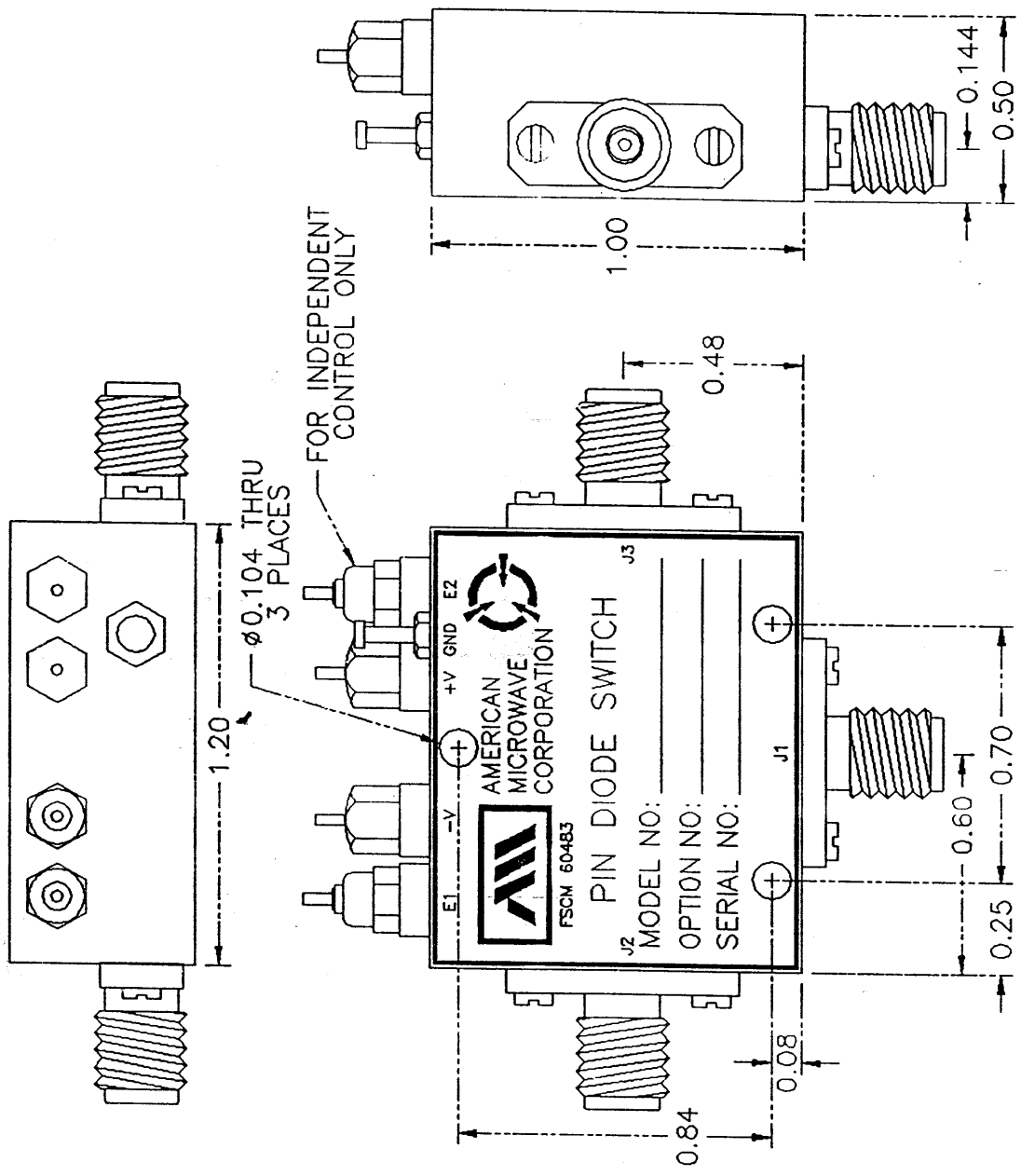
**0.01 to 18 GHz  
HIGH ISOLATION, LOW INSERTION LOSS  
FAST SWITCHING SPEED**

**ABSORPTIVE  
SPDT PIN DIODE  
SWITCH/MODULATOR**

**11 NOVEMBER 1994**

REVISIONS		DATE	APPROVED
ZONE	REV.	4/25/94	<i>WJP</i>
	A		

DESCRIPTION  
ORIGINAL RELEASE



PART NO.		TITLE	
APPROVALS		DATE	
<i>WJP</i>		4/25/94	
DRAWN		CHECKED	ISSUED
<i>WJP</i>		<i>WJP</i>	<i>WJP</i>
		4/27/94	
AMERICAN MICROWAVE CORPORATION FREDERICK, MARYLAND		OUTLINE SW-2TDX STANDARD 2WAY	
SIZE	FSCN NO.	DWG NO.	REV.
A	60483	100-3560	A
SCALE 2:1			SHEET 1 of 1

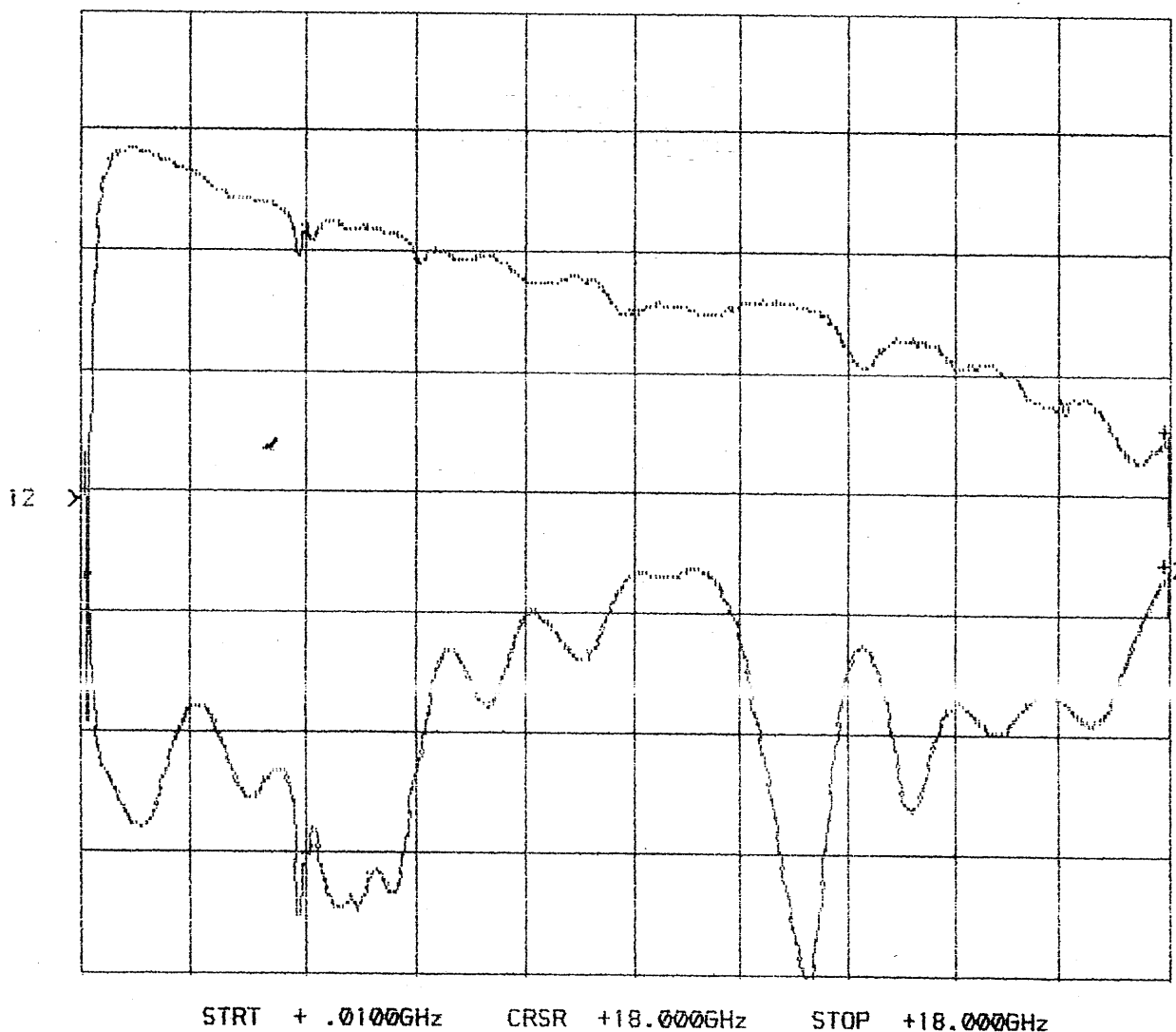


**SUMMARY TEST DATA**  
**SWN-218-2DT (OPTION-133)**  
**PAGE 1**

**SERIAL No** : 2MS411296  
**TECHNICIAN** : RENE AFABLE  
**CURRENT DRAW** : +V = 20mA, -V = 17mA

**INSERTION LOSS Vs VSWR**  
**J1 TO J2**

CH1: A -M - 2.98 dB      CH2: B -M - 12.67 dB  
1.0 dB/ REF - 3.50 dB      5.0 dB/ REF - 9.54 dB



STRT + .0100GHz      CRSR +18.000GHz      STOP +18.000GHz

**11 NOVEMBER 1994**

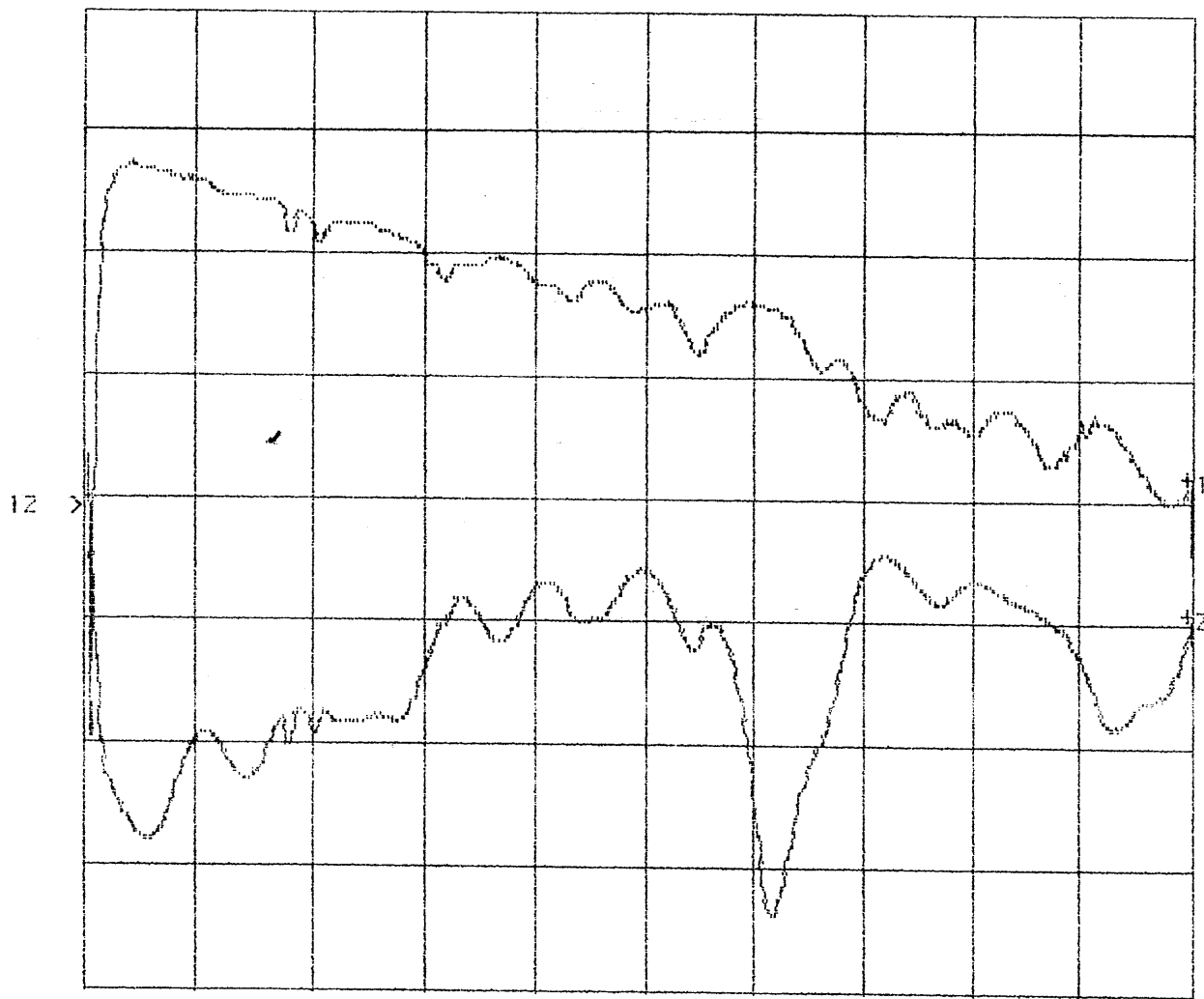


SUMMARY TEST DATA  
SWN-218-2DT (OPTION-133)  
PAGE 2

SERIAL No : 2MS411296  
TECHNICIAN : RENE AFABLE  
CURRENT DRAW : +V = 20mA, -V = 17mA

INSERTION LOSS Vs VSWR  
J1 TO J3

CH1: A -M - 3.30 dB      CH2: B -M - 14.17 dB  
1.0 dB/ REF - 3.50 dB      5.0 dB/ REF - 9.54 dB



STRT + .0100GHz      CRSR +18.000GHz      STOP +18.000GHz

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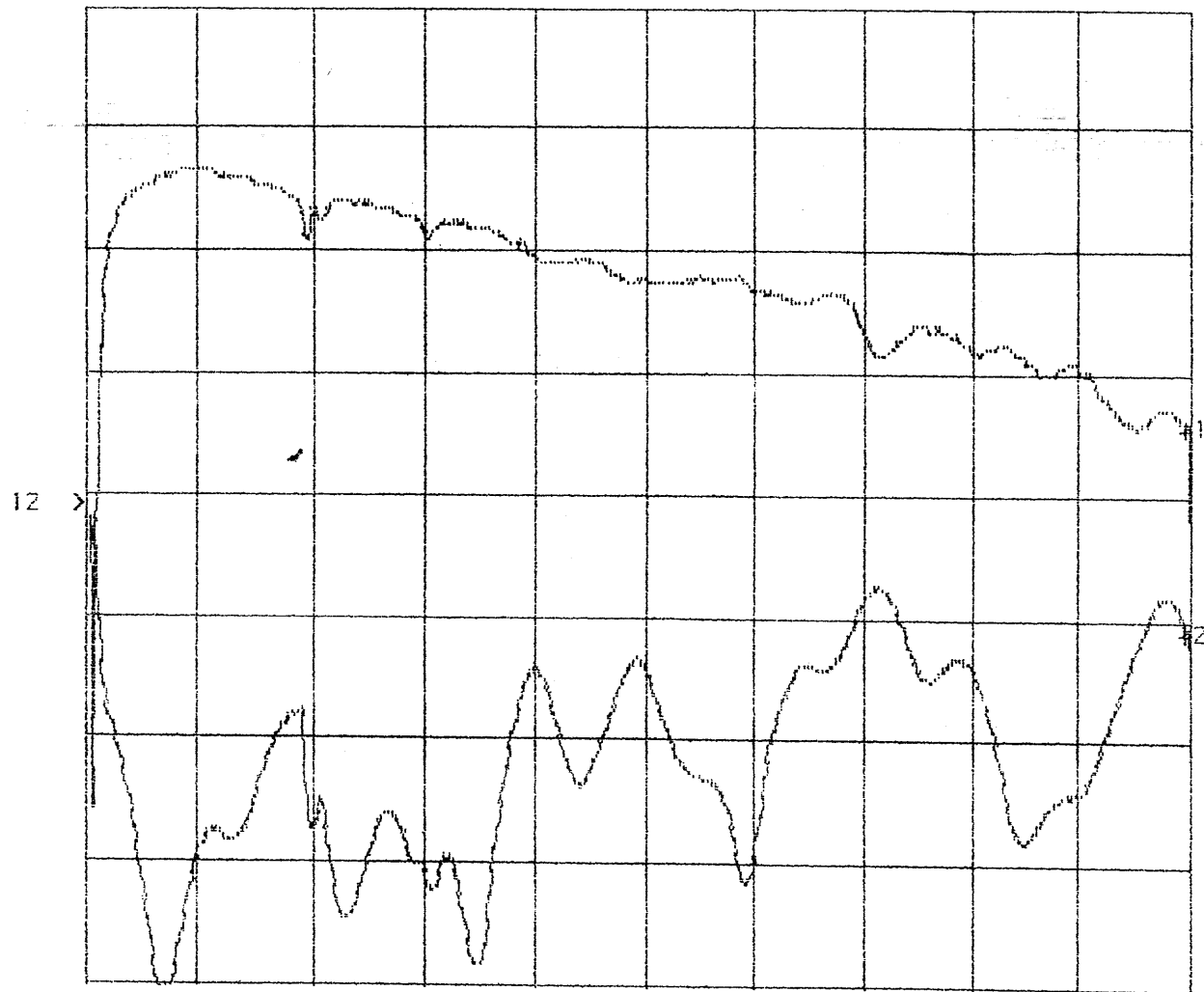


**SUMMARY TEST DATA**  
**SWN-218-2DT (OPTION-133)**  
**PAGE 4**

**SERIAL No** : 2MS411296  
**TECHNICIAN** : RENE AFABLE  
**CURRENT DRAW** : +V = 20mA, -V = 17mA

**VSWR OUTPUT ON**  
**J2 TO J1**

CH1: A -M -- 2.96 dB      CH2: B -M -- 15.14 dB  
1.0 dB/ REF - 3.50 dB      5.0 dB/ REF - 9.54 dB



STRT + .0100GHz      CRSR +18.000GHz      STOP +18.000GHz

**11 NOVEMBER 1994**

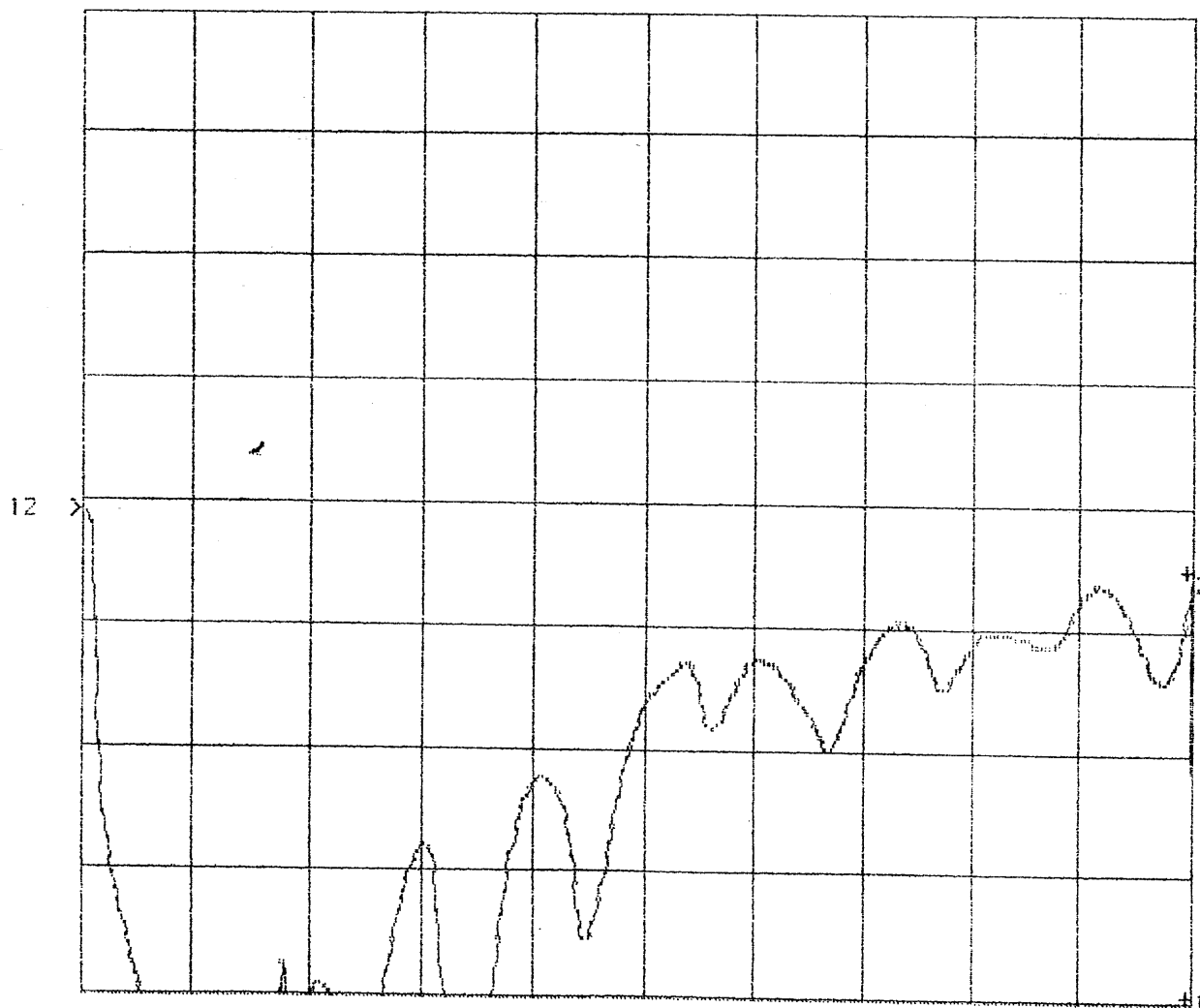


**SUMMARY TEST DATA**  
**SWN-218-2DT (OPTION-133)**  
**PAGE 5**

**SERIAL No : 2MS411296**  
**TECHNICIAN : RENE AFABLE**  
**CURRENT DRAW : +V = 20mA, -V = 17mA**

**VSWR OUTPUT OFF**  
**J3 TO J1**

CH1: A -M - 52.07 dB      CH2: B -M - 12.22 dB  
1.0 dB/ REF - 3.50 dB      5.0 dB/ REF - 9.54 dB



STRT + .01006GHz      CRSR +18.000GHz      STOP +18.000GHz

**11 NOVEMBER 1994**

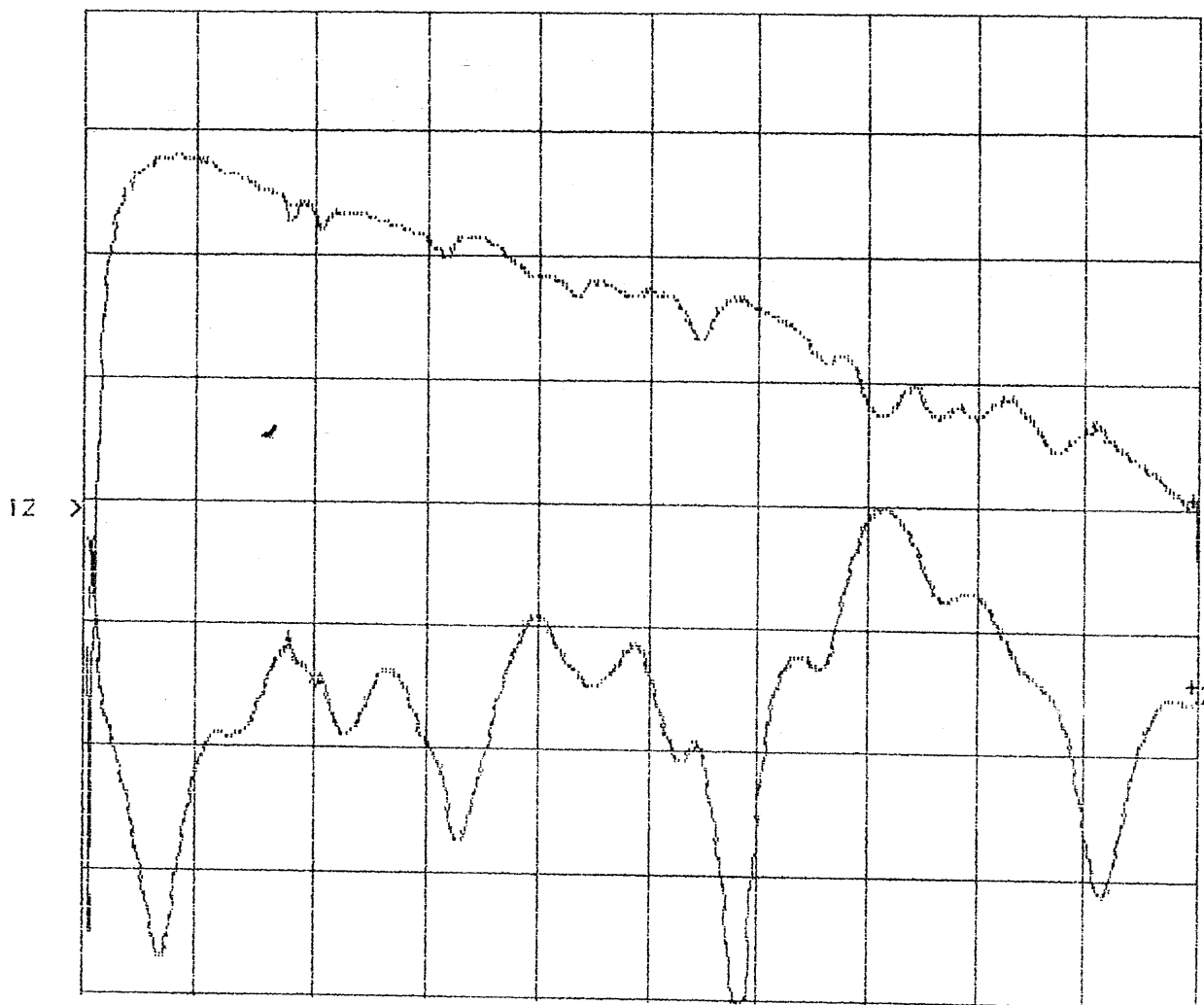


**SUMMARY TEST DATA**  
**SWN-218-2DT (OPTION-133)**  
**PAGE 6**

**SERIAL No** : 2MS411296  
**TECHNICIAN** : RENE AFABLE  
**CURRENT DRAW** : +V = 20mA, -V = 17mA

**VSWR OUTPUT ON**  
**J3 TO J1**

CH1: A -M - 3.43 dB      CH2: B -M - 15.73 dB  
1.0 dB/ REF - 3.50 dB      5.0 dB/ REF - 9.54 dB



STRT + .0100GHz      CRSR +18.000GHz      STOP +18.000GHz

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**SUMMARY TEST DATA**  
**SWN-218-2DT (OPTION-133)**  
**PAGE 7**

**SERIAL No** : 2MS411296  
**TECHNICIAN** : RENE AFABLE  
**CURRENT DRAW** : +V = 20mA, -V = 17mA

**ISOLATION**  
(MEASURED ON A SPECTRUM ANALYZER AND RECORDED)

<b>FREQUENCY</b>	<b>MEASURED ISOLATION</b>
0.01 GHz	62dB
0.02 GHz	74dB
0.03 GHz	78dB
0.05 GHz	74dB
0.1 GHz	84dB
0.25 GHz	82dB
0.5 GHz	80dB
1.0 GHz	82dB
2.0 GHz	90dB
4.0 GHz	90dB
6.0 GHz	84dB
8.0 GHz	84dB
10.0 GHz	> 90dB
12.0 GHz	88dB
14.0 GHz	82dB
18.0 GHz	76dB

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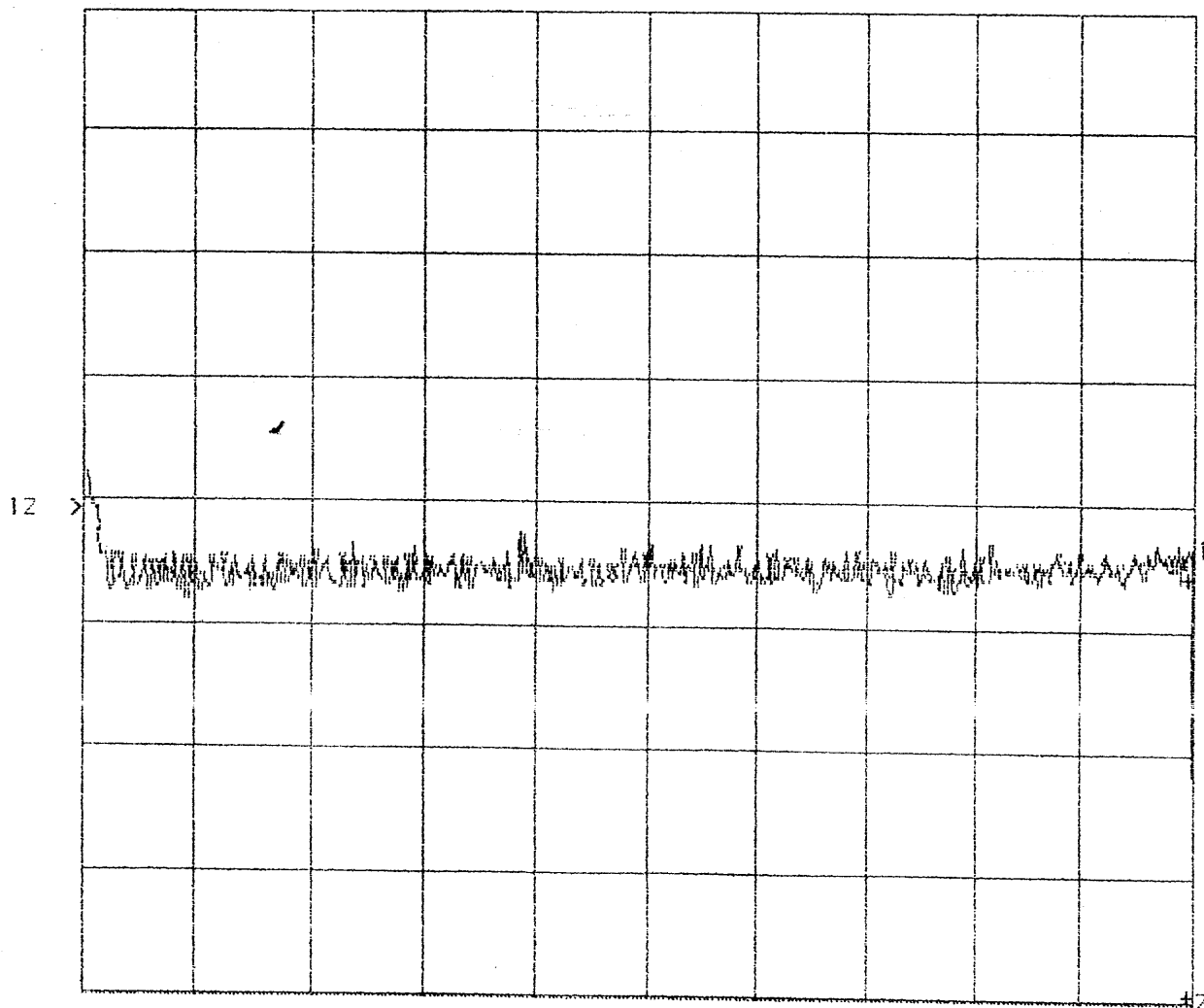
SUMMARY TEST DATA  
SWN-218-2DT (OPTION-133)  
PAGE 8

SERIAL No : 2MS411296  
TECHNICIAN : RENE AFABLE  
CURRENT DRAW : +V = 20mA, -V = 17mA

ISOLATION  
J1 TO J2

(AS MEASURE ON A NETWORK ANALYSER)

CH1: A	-M	- 71.80 dB	CH2: B	-M	- 48.45 dB
20.0 dB/	REF	- 60.00 dB	5.0 dB/	REF	- 9.54 dB



STRT + .01000GHz    CRSR +18.0000GHz    STOP +18.0000GHz  
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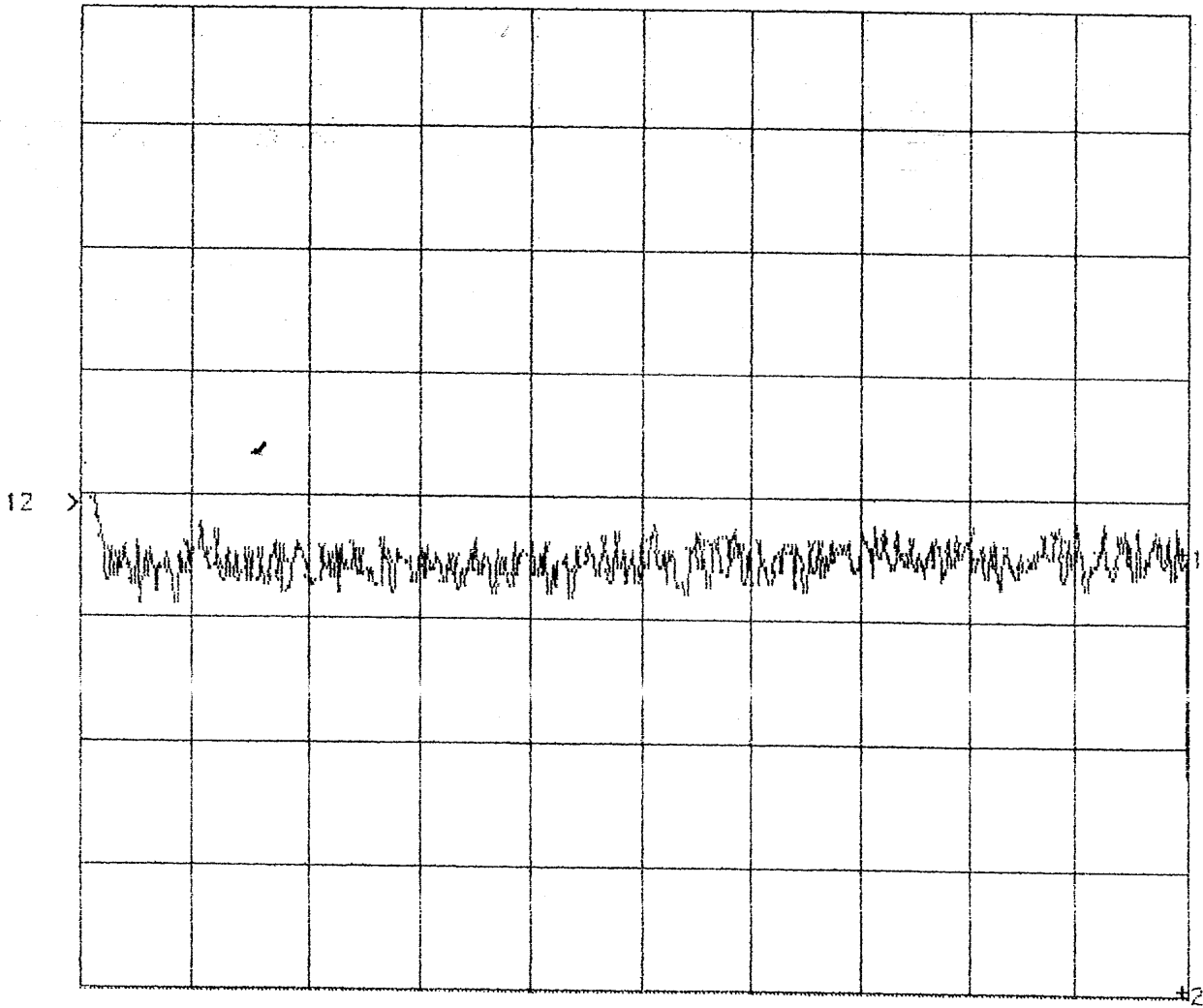
**SUMMARY TEST DATA**  
**SWN-218-2DT (OPTION-133)**  
**PAGE 9**

**SERIAL No : 2MS411296**  
**TECHNICIAN : RENE AFABLE**  
**CURRENT DRAW : +V = 20mA, -V = 17mA**

**ISOLATION**  
**J1 TO J3**

(AS MEASURE ON A NETWORK ANALYSER)

CH1: A -M - 68.83 dB      CH2: B -M - 47.33 dB  
20.0 dB/ REF - 60.00 dB      5.0 dB/ REF - 9.54 dB



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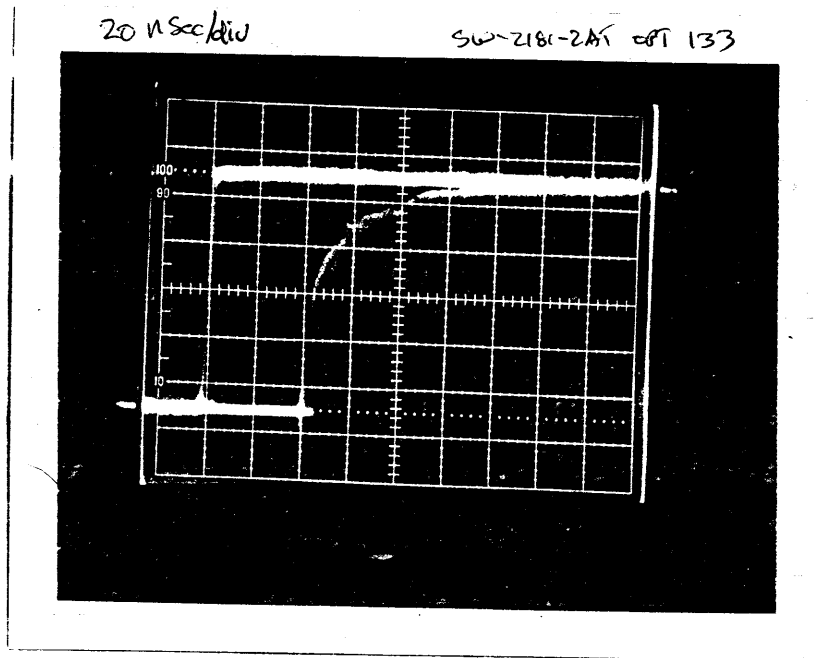
SUMMARY TEST DATA  
SWN-218-2DT (OPTION-133)  
PAGE 10

SERIAL No : 2MS411296  
TECHNICIAN : RENE AFABLE  
CURRENT DRAW : +V = 20mA, -V = 17mA

**SWITCHING SPEED**

20ns PER DIVISION

DELAY ON:



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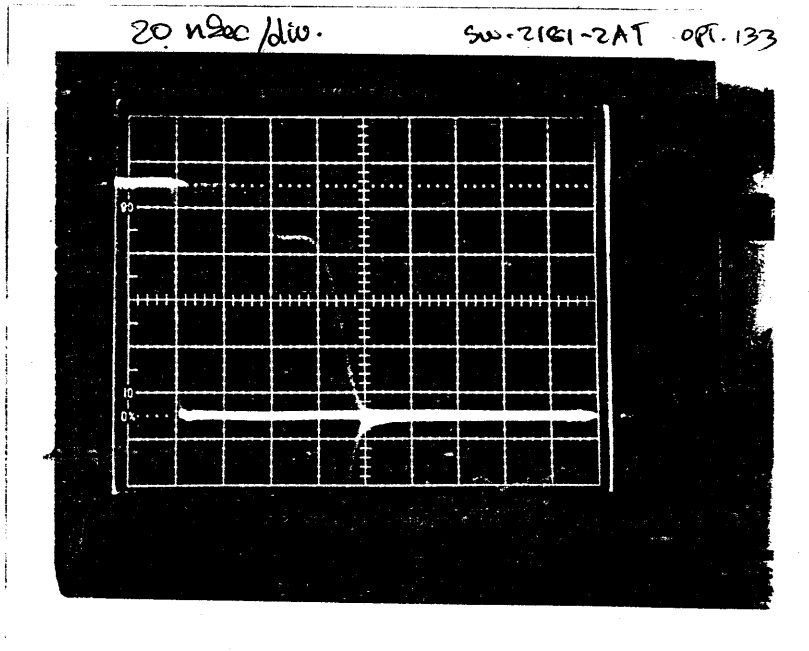
SUMMARY TEST DATA  
SWN-218-2DT (OPTION-133)  
PAGE 11

SERIAL No : 2MS411296  
TECHNICIAN : RENE AFABLE  
CURRENT DRAW : +V = 20mA, -V = 17mA

**SWITCHING SPEED**

20nS PER DIVISION

**DELAY OFF:**



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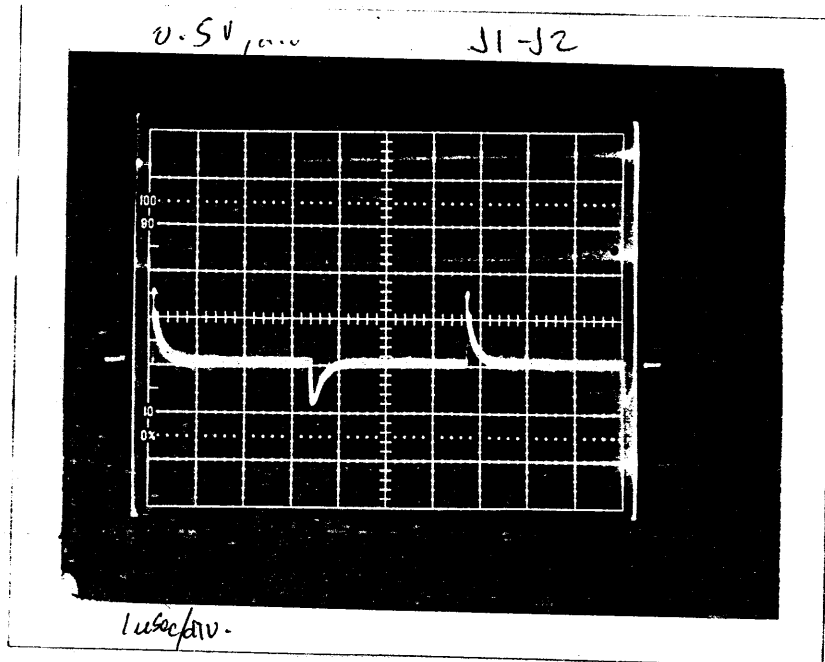


SUMMARY TEST DATA  
SWN-218-2DT (OPTION-133)  
PAGE 12

SERIAL No : 2MS411296  
TECHNICIAN : RENE AFABLE  
CURRENT DRAW : +V = 20mA, -V = 17mA

VIDEO TRANSIENTS  
J1 TO J2

Vertical  
Scale:  
0.5 volts  
Per Division



Horizontal Scale: 1 $\mu$ Sec Per Division

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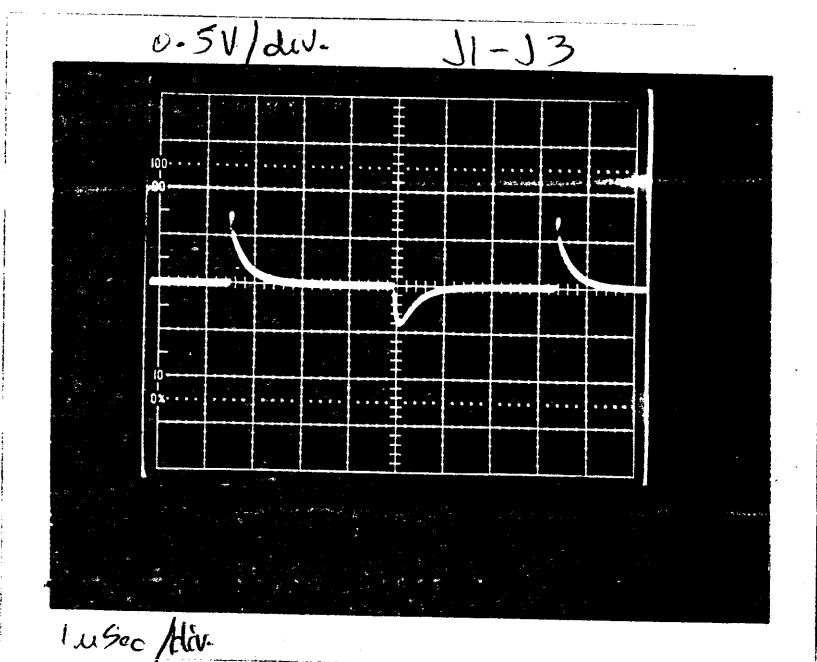


SUMMARY TEST DATA  
SWN-218-2DT (OPTION-133)  
PAGE 13

SERIAL No : 2MS411296  
TECHNICIAN : RENE AFABLE  
CURRENT DRAW : +V = 20mA, -V = 17mA

### VIDEO TRANSIENTS J1 TO J3

Vertical  
Scale:  
0.5 volts  
Per Division



Horizontal Scale: 1μSec Per Division