



**AMERICAN MICROWAVE
CORPORATION**

TEST DATA

ON

100dB ISOLATION

0.5 to 18 GHz

SPST

ABSORPTIVE, PIN DIODE SWITCH

MODEL No: SWN-2183-1AT

AND :

MODEL No: SWN-AKG-1DT

(Serial No: IMS41392)

BY

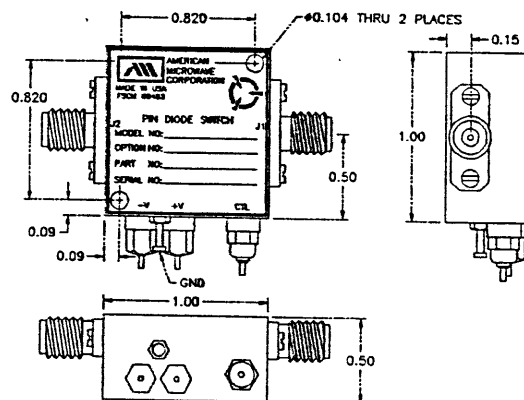
**AMERICAN MICROWAVE
CORPORATION**

22 NOVEMBER 1994

AMERICAN MICROWAVE CORPORATION

ABSORPTIVE SPST 100dB ISOLATION SWITCH/MODULATOR

- HIGH ISOLATION
- 500 MHz TO 18 GHz
- LOW INSERTION LOSS
- HIGH SWITCHING SPEED



AMC MODEL Nos: SWN-2183-1AT & SWN-AKG-1DT

SPECIFICATIONS:

- FREQUENCY RANGE : 500 MHz to 18 GHz
- ISOLATION : $\geq 65\text{dB}$ @ 500 MHz (TYPICAL)
: $> 100\text{dB}$ @ 2 to 18 GHz (TYPICAL)
- INSERTION LOSS : 3.5dB MAX. @ 18 GHz (2.75dB TYPICAL)
- VSWR : 2.0:1 MAX.
- SWITCHING SPEED : $< 10\text{nS}$ RISE/FALL (10% to 90%RF/90% to 10%RF)
: $< 30\text{nS}$ ON/OFF (50% TTL to 90%RF/10%RF)
- CONTROL : TTL LOGIC
- RF POWER OPERATING : +20dBm MAX.
- DC POWER SUPPLY : $\pm 5\text{vdc}$ @ $< 100\text{mA}$ MAX.
- SIZE : 1.0" X 1.0" X 0.5"

REFLECTIVE AND MULTI-THROW VERSIONS AVAILABLE

7311 G GROVE ROAD, FREDERICK, MARYLAND 21701 • Tel. (301) 662-4700 • Fax (301) 662-4938

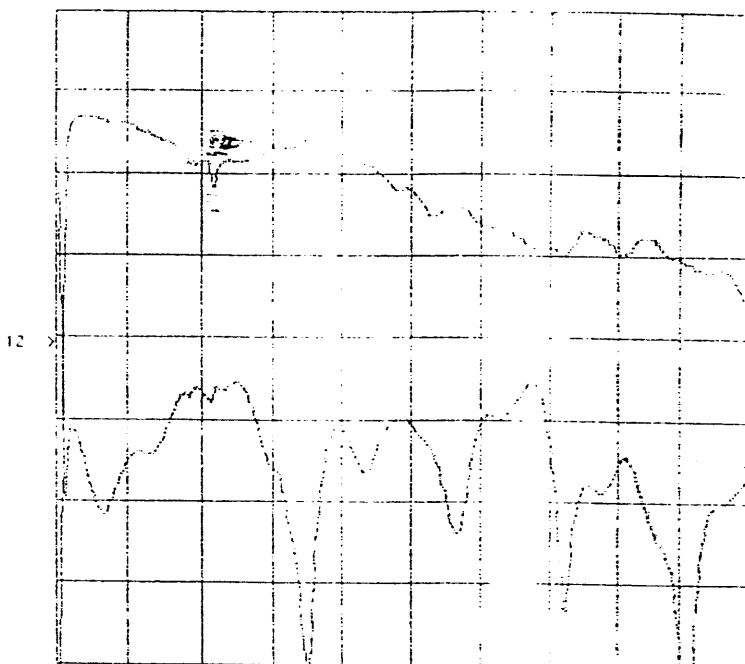


SUMMARY TEST DATA
SWN-AKG-1DT (ABSORPTIVE)
PAGE 3

SERIAL No : 1MS41392
TECHNICIAN : HOLLY HAHN
CURRENT DRAW : +V = 20mA, -V = 60mA

INSERTION LOSS
J1 TO J2

CH1: A -M - 3.12 dB CH2: B -M - 17.25 dB
1.0 dB/ REF - 3.50 dB 5.0 dB/ PFF - 9.54 dB



STRT + .0100GHz CRSR +18.000GHz STOP +16.000GHz

FREQUENCY	INSERTION LOSS	FREQUENCY	INSERTION LOSS
0.5 GHz	0.75 dB	8.0 GHz	1.25 dB
0.8 GHz	0.75 dB	10.0 GHz	1.70 dB
1.0 GHz	0.75 dB	12.0 GHz	2.25 dB
2.0 GHz	0.80 dB	14.0 GHz	2.45 dB
4.0 GHz	1.40 dB	16.0 GHz	2.45 dB
6.0 GHz	1.25 dB	18.0 GHz	3.12 dB

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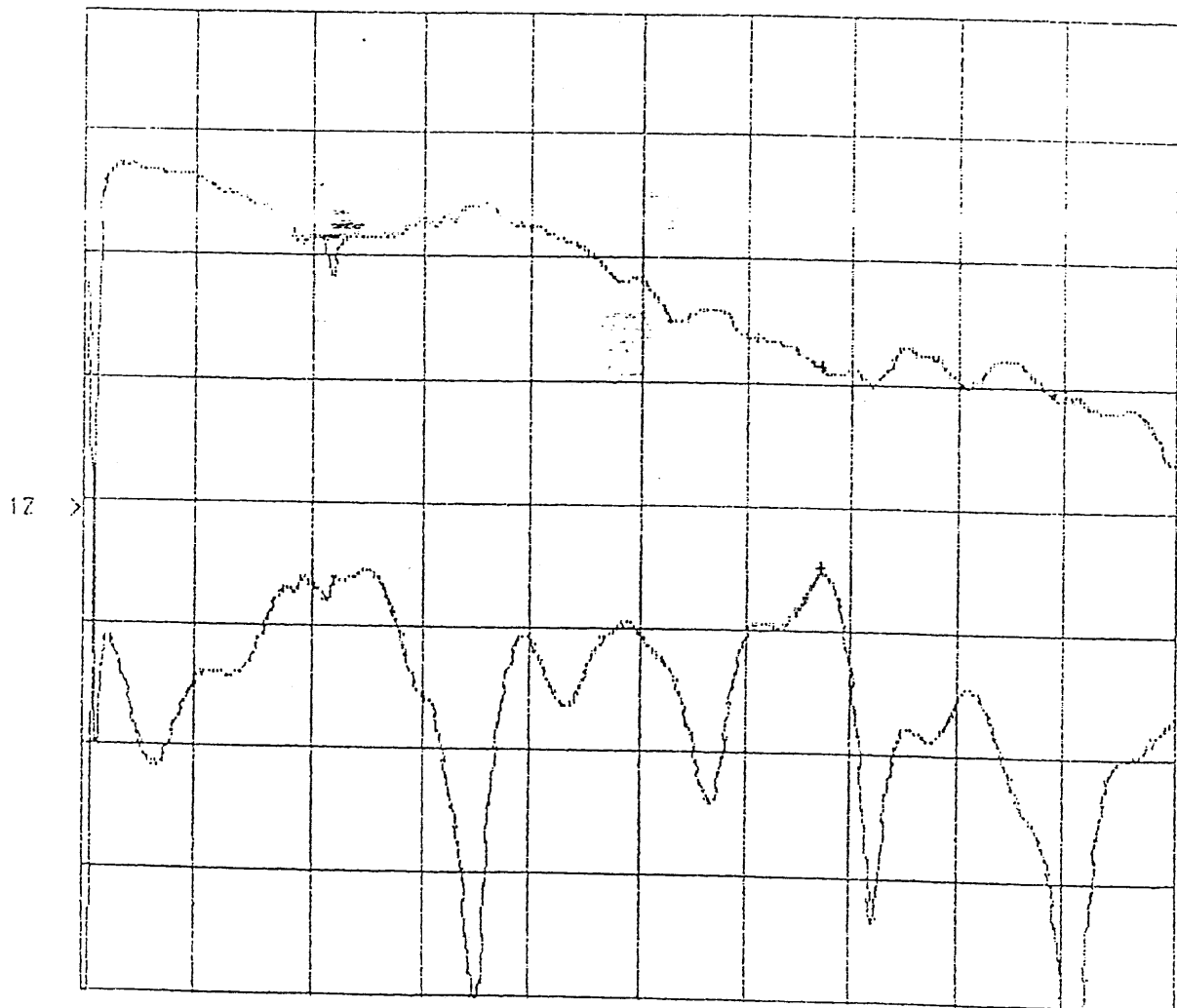


SUMMARY TEST DATA
SWN-AKG-1DT (ABSORPTIVE)
PAGE 2

SERIAL No : IMS41392
TECHNICIAN : HOLLY HAHN
CURRENT DRAW : +V = 20mA, -V = 60mA

VSWR INPUT ON
J1 TO J2

CH1: A -M - 2.35 dB CH2: B -M - 12.12 dB
1.0 dB/ REF - 3.50 dB 5.0 dB/ REF - 9.54 dB



STRT + .0100GHz CRSR +12.1086Hz STOP +18.000GHz

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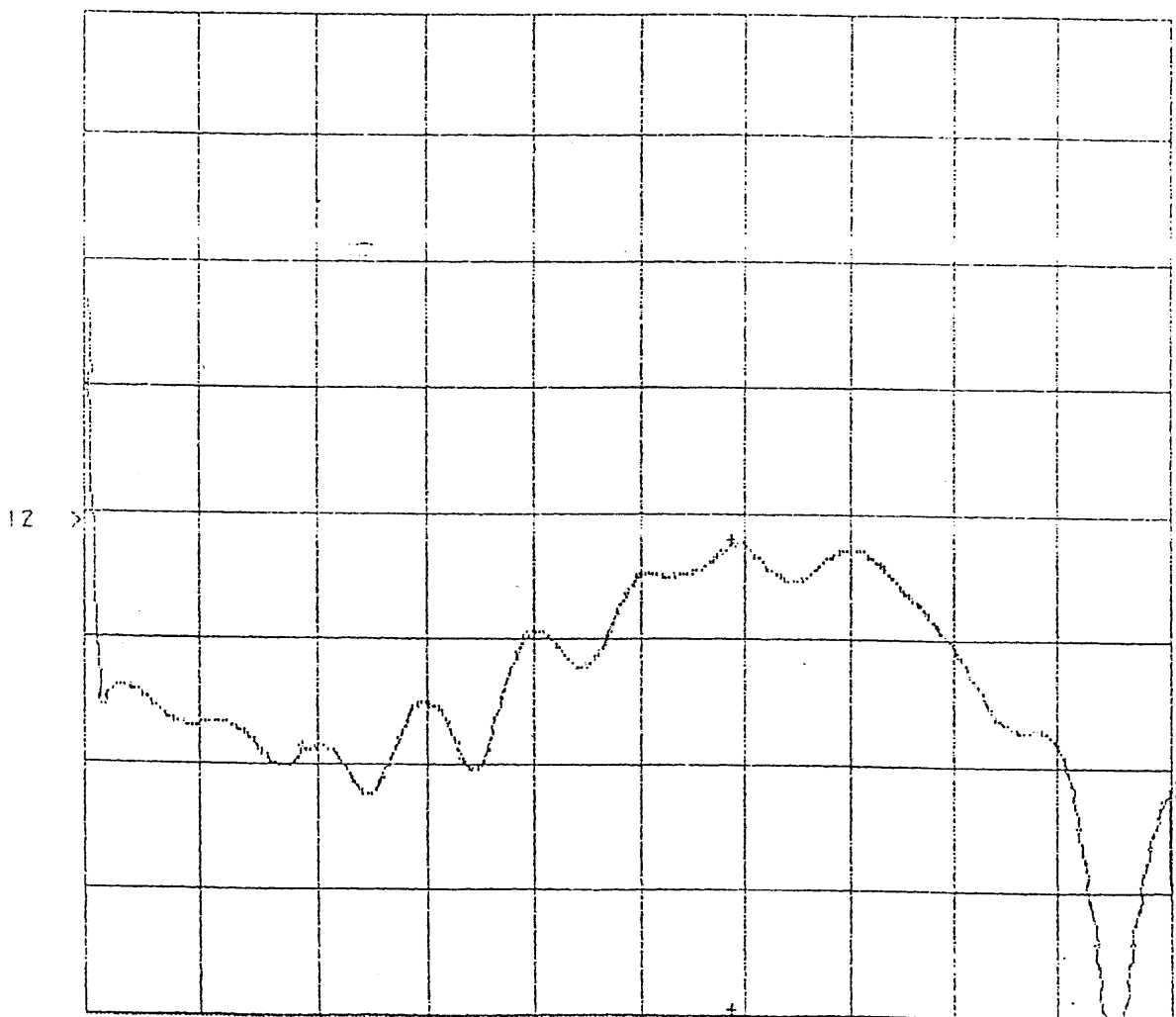


SUMMARY TEST DATA
SWN-AKG-1DT (ABSORPTIVE)
PAGE 3

SERIAL No : 1MS41392
TECHNICIAN : HOLLY HAHN
CURRENT DRAW : +V = 20mA, -V = 60mA

VSWR INPUT OFF
J1 TO J2

CH1: A -M - 55.49 dB CH2: B -M - 10.64 dB
1.0 dB/ REF - 3.50 dB 5.0 dB/ REF - 9.54 dB



STRT + .0100GHz CRSR +10.714GHz STOP +18.000GHz

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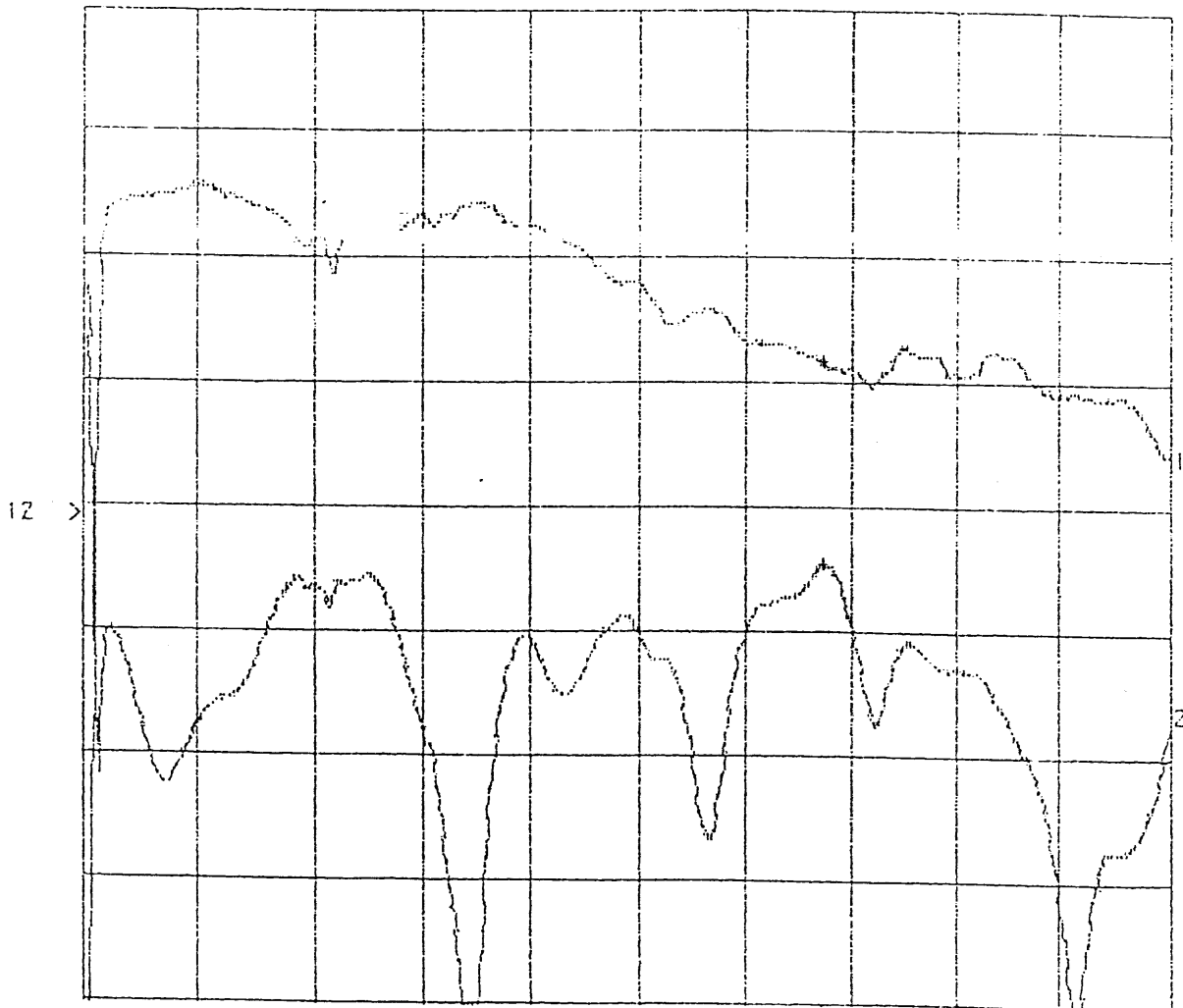


SUMMARY TEST DATA
SWN-AKG-1DT (ABSORPTIVE)
PAGE 4

SERIAL No : 1MS41392
TECHNICIAN : HOLLY HAHN
CURRENT DRAW : +V = 20mA, -V = 60mA

VSWR OUTPUT ON
J2 TO J1

CH1: A -M - 2.34 dB CH2: B -M - 11.80 dB
1.0 dB/ REF - 3.50 dB 5.0 dB/ REF - 9.54 dB



STRT + .0100GHz CRSR +12.153GHz STOP +18.000GHz

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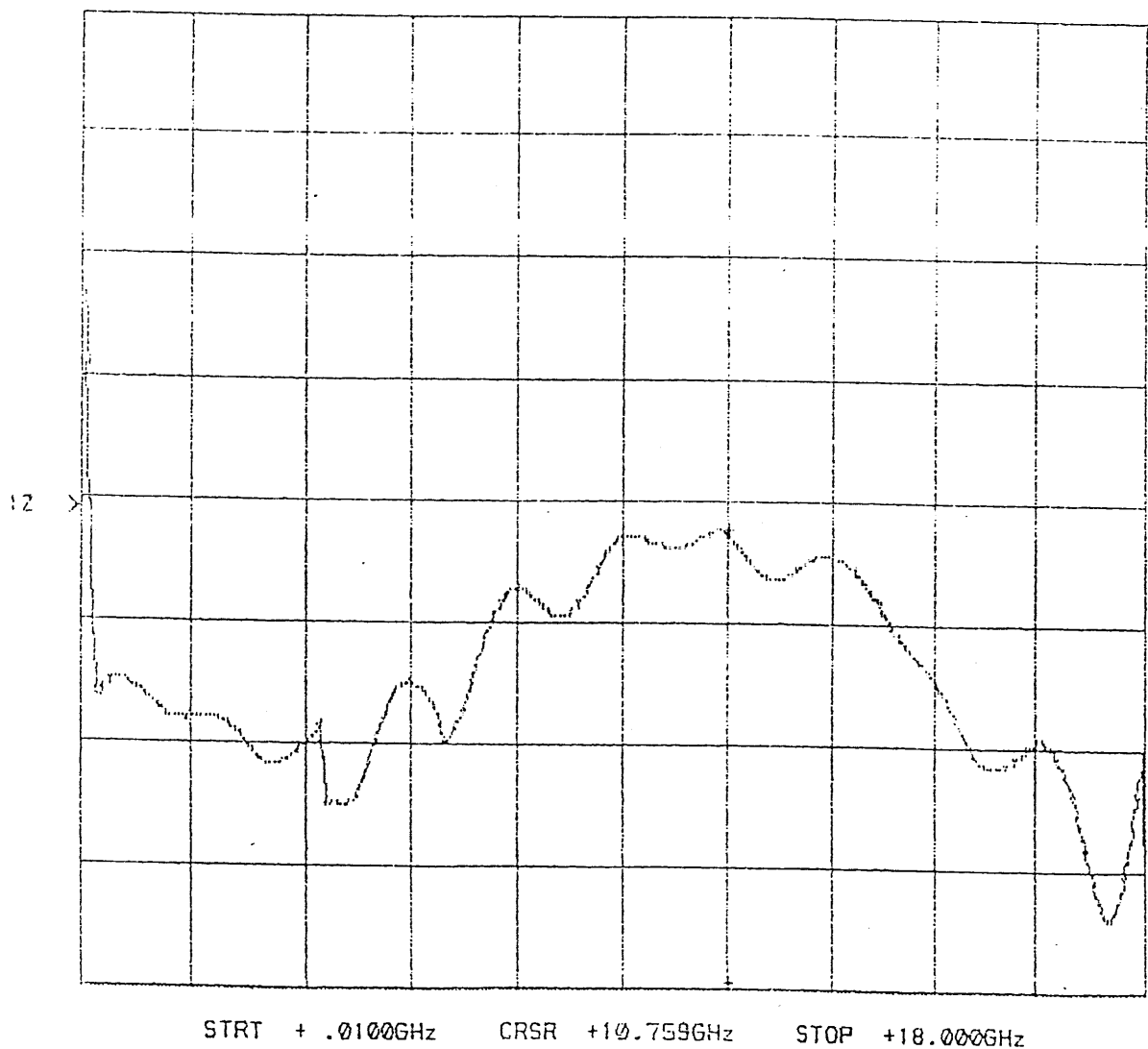


SUMMARY TEST DATA
SWN-AKG-1DT (ABSORPTIVE)
PAGE 5

SERIAL No : IMS41392
TECHNICIAN : HOLLY HAHN
CURRENT DRAW : +V = 20mA, -V = 60mA

VSWR OUTPUT OFF
J2 TO J1

CH1: A -M - 53.09 dB
1.0 dB/ REF - 3.50 dB
CH2: B -M - 10.73 dB
5.0 dB/ REF - 9.54 dB



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SUMMARY TEST DATA
SWN-AKG-1DT (ABSORPTIVE)
PAGE 6

SERIAL No : 1MS41392
TECHNICIAN : HOLLY HAHN
CURRENT DRAW : +V = 20mA, -V = 60mA

ISOLATION
(MEASURED ON A SPECTRUM ANALYZER AND RECORDED)

FREQUENCY	MEASURED ISOLATION
0.1 GHz	48dB
0.5 GHz	67dB
2.0 GHz	96dB
4.0 GHz	> 104dB
8.0 GHz	> 104dB
10.0 GHz	103dB
14.0 GHz	104dB
18.0 GHz	> 100dB

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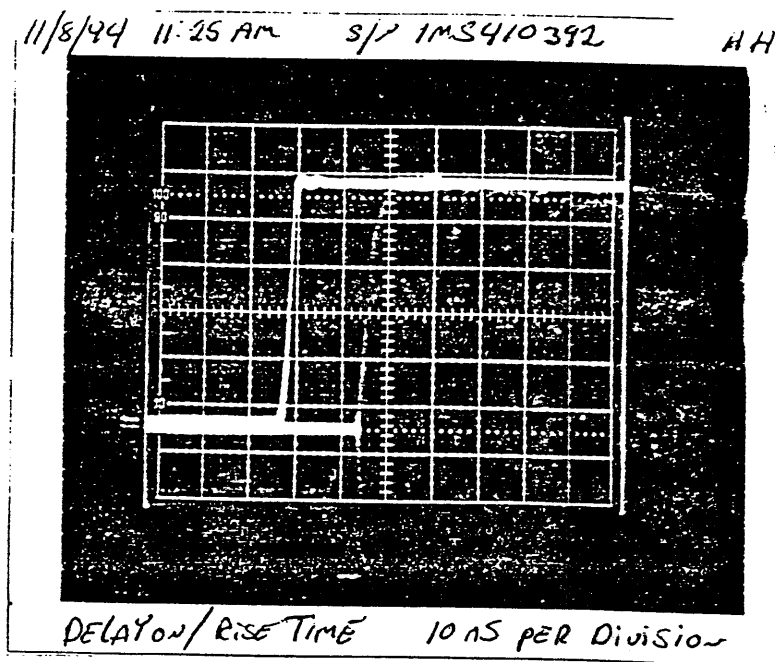
SUMMARY TEST DATA
SWN-AKG-1DT (ABSORPTIVE)
PAGE 7

SERIAL No : IMS41392
TECHNICIAN : HOLLY HAHN
CURRENT DRAW : +V = 20mA, -V = 60mA

SWITCHING SPEED

10nS PER DIVISION

DELAY ON:



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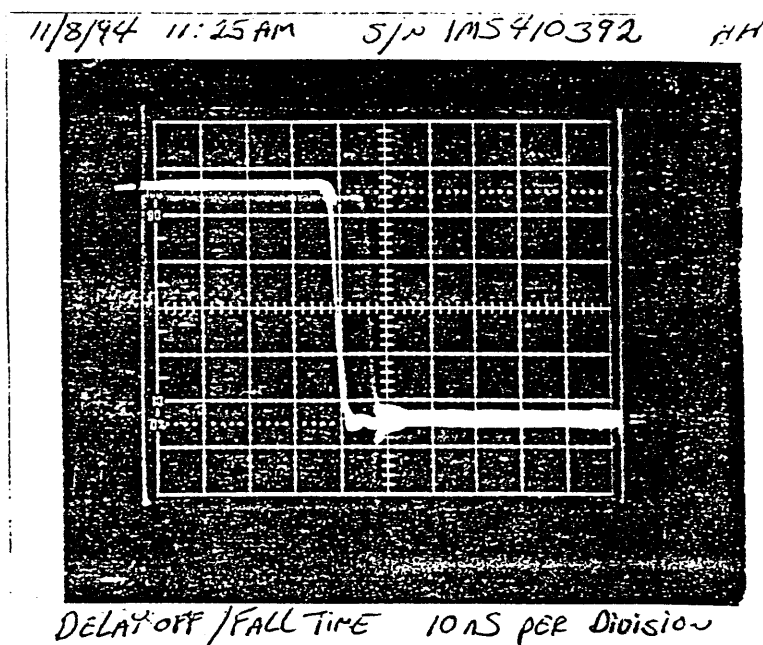
SUMMARY TEST DATA
SWN-AKG-1DT (ABSORPTIVE)
PAGE 8

SERIAL No : IMS41392
TECHNICIAN : HOLLY HAHN
CURRENT DRAW : +V = 20mA, -V = 60mA

SWITCHING SPEED

10ns PER DIVISION

DELAY OFF:



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