

EXHIBIT G

Paragraph 2.983(d)(9)

Tune Up Procedure



Retlif Testing Laboratories

Test Report Number No. R-7456-5
FCC ID: F3S4KMTX

Paragraph 2.983(d)(9) Tune Up Procedure:

1. Connect Marconi 2948 Test Box to RF Output Terminals.
2. Switch Transmitter on and check current is <50 mA.
3. Load frequency synthesizer with the band center frequency (794 MHz)
4. Check on output stage and adjust reference oscillator for output frequency of ± 1.5 kHz.
5. Adjust output filter VC2 - VC3 for maximum RF output $+13$ dBm ± 1.5 dB.
6. Check RF Output at 782.0 to 806.0 MHz . $+13$ dBm - 1.5 dB
7. Connect the AF signal to the Audio Input. Level -10 dBu 1kHz
8. Set digital gain control to minimum and adjust deviation control IC10 so as to show 12 kHz deviation on the modulation meter. Monitor the output to ensure a sinusoidal signal.
9. Increase the modulation frequency to 10 kHz. Ensure a sinusoidal signal.
10. Set user gain control to max and check maximum deviation < 25 kHz deviation.
11. Connect the spectrum analyzer to the RF output. Set the analyzer to reference level $+ 20$ dBm and Full Span. Check all carrier harmonics are > -45 dB below carrier. If not readjust VC2-VC3.
12. End Tune Up.



Retlif Testing Laboratories

Test Report Number No. R-7456-5

FCC ID: F3S4KMTX

EXHIBIT H

Paragraph 2.983(e)

Test Data and Measurement Procedures



Retlif Testing Laboratories

Test Report Number No. R-7456-5
FCC ID: F3S4KMTX

EXHIBIT H

Paragraph 2.985(a)

Power Output



Retlif Testing Laboratories

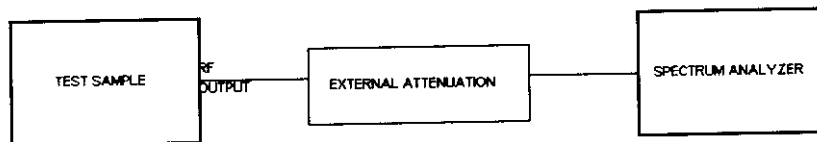
Test Report Number No. R-7456-5
FCC ID: F3S4KMTX

POWER OUTPUT (Para. 2.985(a))

A. Measurement Procedure:

The RF output of the test sample was connected through external attenuators to a spectrum analyzer using a 3MHz resolution bandwidth. The power output was measured for the unmodulated carrier frequency with the EUT being supplied with a low voltage, nominal voltage, and high voltage.

Setup of the test is shown below:



B. Test Results:

The results for the above test are shown of the following single data sheet.



Retlif Testing Laboratories

Test Report Number No. R-7456-5
FCC ID: F3S4KMTX

EXHIBIT H

Paragraph 2.987

Modulation Characteristics



Retlif Testing Laboratories

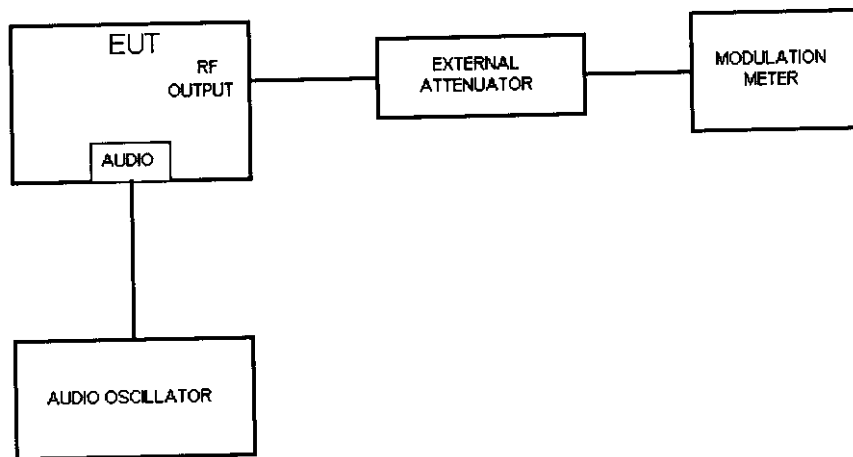
Test Report Number No. R-7456-5
FCC ID: F3S4KMTX

MODULATION CHARACTERISTICS (2.987)

A. Measurement Procedure:

An Audio Oscillator was coupled to the Audio Input of the transmitter under test. The RF Output at the antenna terminals was loosely coupled to a modulation meter as shown below. The Audio Input level was adjusted from -60dBm to +10dBm at each frequency listed herein. At each test frequency and level, the FM modulation was recorded.

Setup of the above test is shown below:



C. Test Results:

The results for the above test are shown on the following single data sheet.



Retlif Testing Laboratories

Test Report Number No. R-7456-5
FCC ID: F3S4KMTX

RETLIF TESTING LABORATORIES

TABULAR DATA SHEET

TEST METHOD:

MODULATION CHARACTERISTICS, Para 2.987

CUSTOMER:

BBM Electronics

JOB No:

R-7456-5

TEST

782 MHz to 806 MHz Wireless FM Transmitter

SAMPLE:

MODEL No:

S4000MTX

SERIAL No:

FCC ID: F3S4KMTX

TEST

SPECIFICATION:

FCC Part 74 Experimental Radio, Auxiliary, Special Broadcast and other Program Distributional Services.

PARAGRAPH: 74.861

OPERATING

MODE:

Transmitting a CW signal at center frequency as specified below

TECHNICIAN:

T. SCHNEIDER

DATE:

3/11/98

NOTES:

Audio Level adjustment set at maximum.

AUDIO FREQUENCY	INPUT LEVEL	DEVIATION	DEVIATION LIMIT		AUDIO FREQUENCY	INPUT LEVEL	DEVIATION	DEVIATION LIMIT
Hz	dBm	KHz	KHz		Hz	dBm	KHz	KHz
40	-60	1.4	75.0		2500	-60	1.8	75.0
40	-50	2.0			2500	-50	2.9	
40	-40	3.7			2500	-40	4.9	
40	-30	7.3			2500	-30	8.1	
40	-20	13.0			2500	-20	14.0	
40	-10	22.8			2500	-10	24.1	
40	0	37.3			2500	0	25.0	
40	10	45.2			2500	10	25.1	
100	-60	1.6			5000	-60	2.1	
100	-50	2.5			5000	-50	3.5	
100	-40	4.9			5000	-40	5.8	
100	-30	9.3			5000	-30	9.8	
100	-20	16.4			5000	-20	17.1	
100	-10	28.9			5000	-10	24.6	
100	0	35.2			5000	0	25.0	
100	10	35.2			5000	10	25.1	
500	-60	1.6			10000	-60	2.5	
500	-50	2.5			10000	-50	4.1	
500	-40	4.3			10000	-40	6.7	
500	-30	7.2			10000	-30	11.3	
500	-20	12.4			10000	-20	19.8	
500	-10	21.6			10000	-10	24.8	
500	0	25.5			10000	0	25.0	
500	10	26.0			10000	10	25.0	
1000	-60	1.6			15000	-60	2.5	
1000	-50	2.5			15000	-50	4.0	
1000	-40	4.3			15000	-40	6.4	
1000	-30	7.2			15000	-30	10.9	
1000	-20	12.3			15000	-20	19.0	
1000	-10	21.3			15000	-10	24.7	
1000	0	25.2	V		15000	0	24.7	V
1000	10	25.3	75.0		15000	10	24.8	75.0

EXHIBIT H

Paragraph 2.989

Occupied Bandwidth



Retlif Testing Laboratories

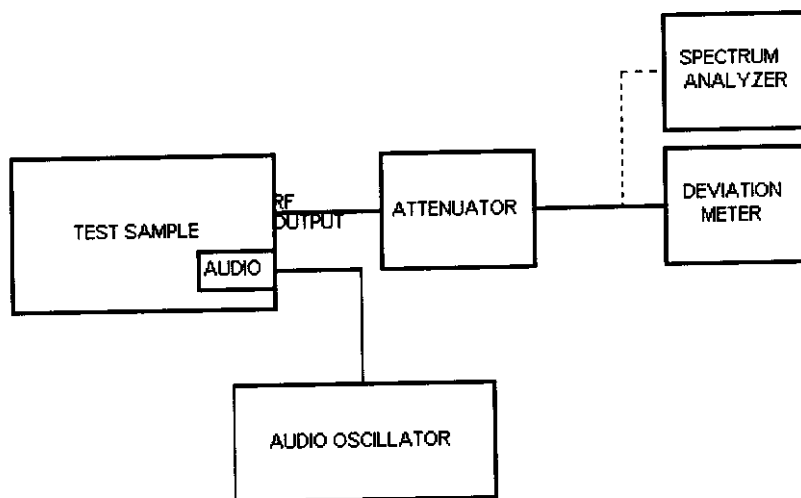
Test Report Number No. R-7456-5
FCC ID: F3S4KMTX

OCCUPIED BANDWIDTH (PARA.2.989)

A. Measurement Procedure:

An audio signal was electrically coupled to the audio input terminals of the test sample. The RF output was monitored using a deviation meter. The audio input level was increased to produce 50% modulation. The RF output was then loosely coupled through external attenuators to a spectrum analyzer and the audio level was increased by 16 dB. The occupied bandwidth of the RF carrier, modulated at 50% plus 16 dB, was then measured. The above procedure was performed with the audio input frequencies of 2500 Hz and 15 kHz applied to the unit. The modulated signal must be within the template as specified by the applicable paragraph in Part 74. The above was performed at the low, mid and high frequencies.

Setup of the test is shown below:



B. Test Results:

The results for the above test are shown on the following six (6) sheets.



Retlif Testing Laboratories

Test Report Number No. R-7456-5
FCC ID: F3S4KMTX

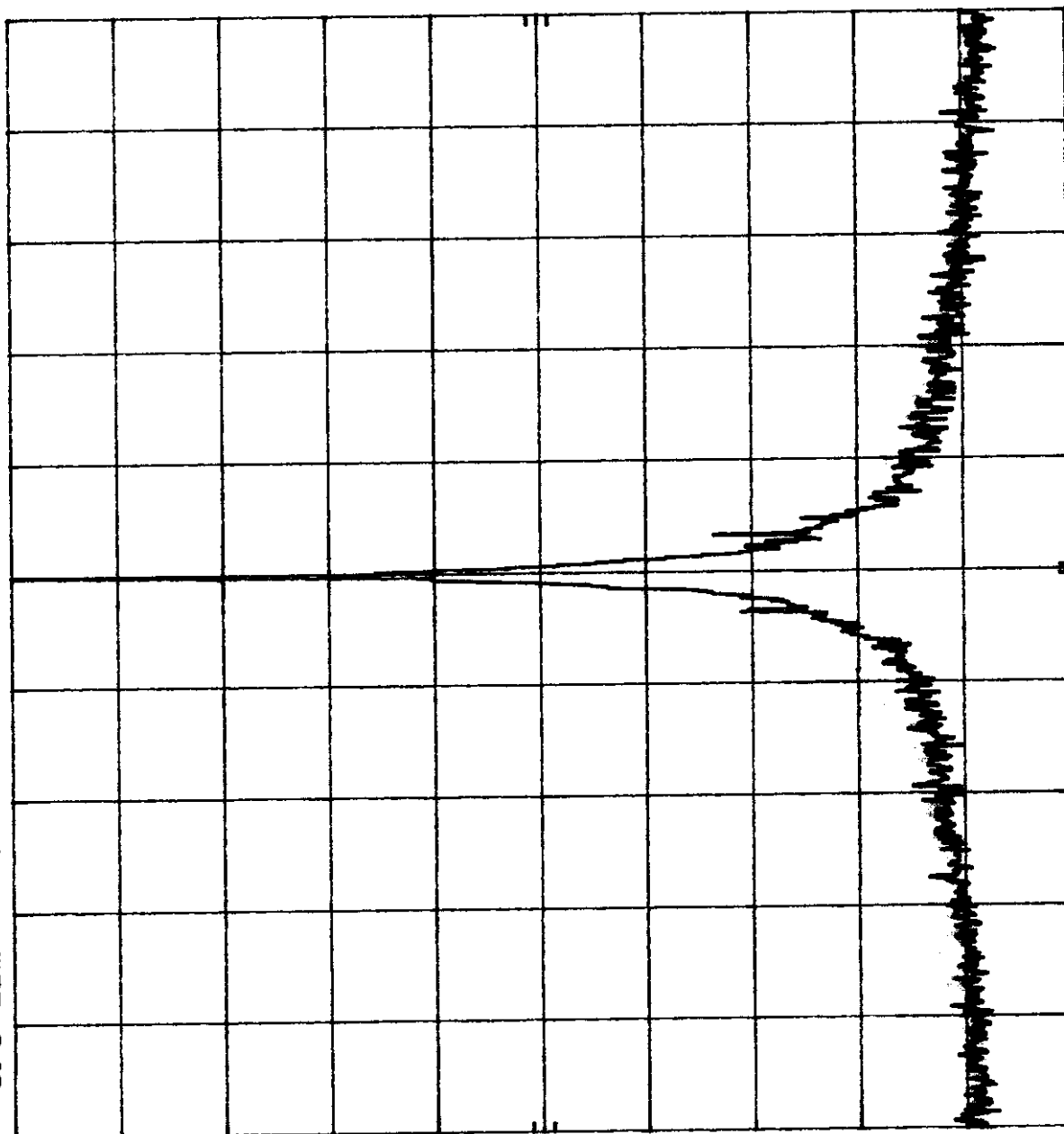
R-7456-6 BBM S4000 FCC ID F3S4KMTX OCCUPIED BW 3/11/98 TS

REF 9.6 dBm ATTEN 10 dB

hp

10 dB/

OFFSET
10.0
dB



CENTER 782.10 MHz
RES BW 300 Hz
SPAN 1.00 MHz
SWP 30.0 sec
VBW 1 kHz

Customer:	BBM Electronics		
Test Sample:	782 MHz to 806 MHz Wireless FM Transmitter		
Model No:	S4000MTX	FCC ID:	F3S4KMTX
Test Method:	Occupied Bandwidth, Paragraph 2.989		
Notes:	Center Frequency= 782.1 MHz		
	Audio Input = 2500 Hz at 50% Modulation plus 16 dB		
Date:	March 11, 1998	Tech:	T. Schneider
		Sheet:	1 of 6

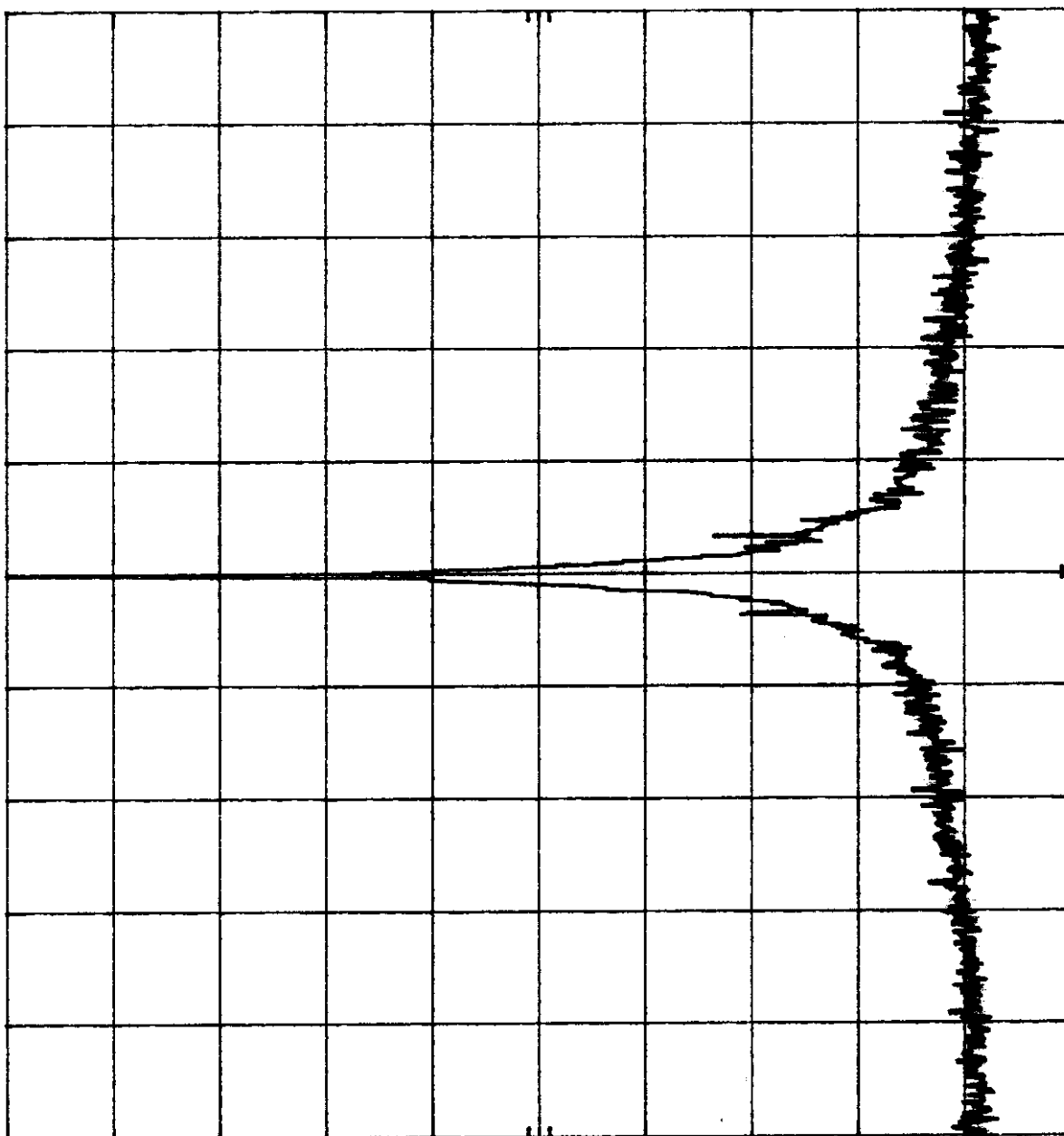


Retlif Testing Laboratories

Report No. R-7456-5

R-7456-6 BBM S4000 FCC ID F3S4KMTX OCCUPIED BW 3/11/98 TS
 REF 9.6 dBm ATTEN 10 dB

10 dB/
 OFFSET
 10.0
 dB



CENTER 782.10 MHz
 RES BW 300 Hz
 VBW 1 kHz
 SPAN 1.00 MHz
 SWP 30.0 sec

Customer:	BBM Electronics				
Test Sample:	782 MHz to 806 MHz Wireless FM Transmitter				
Model No.:	S4000MTX	FCC ID:	F3S4KMTX		
Test Method:	Occupied Bandwidth, Paragraph 2.989				
Notes:	Center Frequency= 782.1 MHz				
	Audio Input = 15000 Hz at 50% Modulation plus 16 dB				
Date:	March 11, 1998	Tech:	T. Schneider	Sheet	2 of 6



Retlif Testing Laboratories

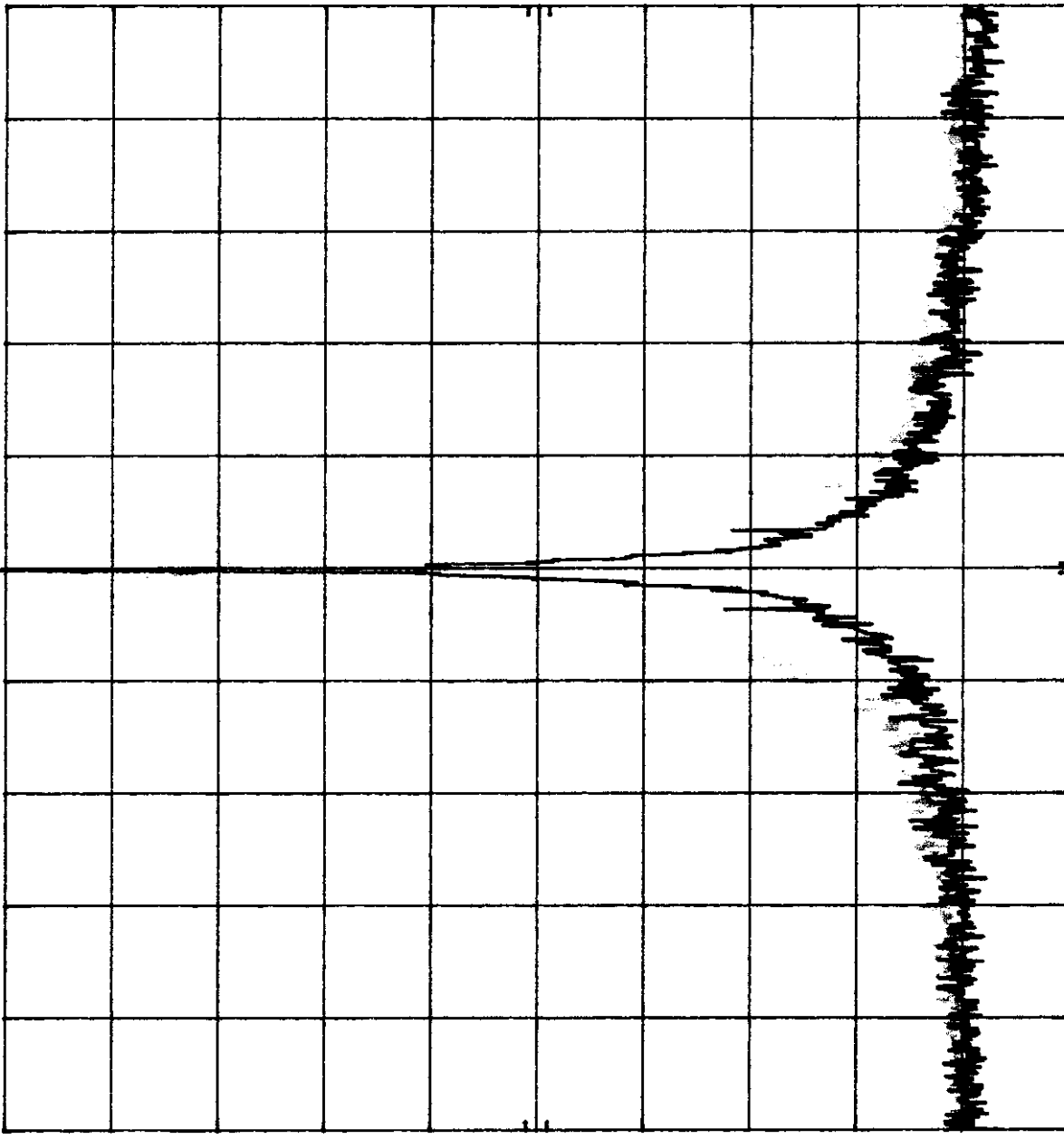
Report No. R-7456-5

R-7456-6 BBM S4000 FCC ID F3S4KMTX OCCUPIED BW 3/11/98 TS
 REF 0.2 dBm ATTEN 10 dB

hp

10 dB/

OFFSET
 10.0
 dB



CENTER 794.10 MHz
 RES BW 300 Hz
 VBW 1 kHz
 SPAN 1.00 MHz
 SWP 30.0 sec

Customer:	BBM Electronics
Test Sample:	782 MHz to 806 MHz Wireless FM Transmitter
Model No:	S4000MTX FCC ID: F3S4KMTX
Test Method:	Occupied Bandwidth, Paragraph 2.989
Notes:	Center Frequency= 794.1 MHz Audio Input = 2500 Hz at 50% Modulation plus 16 dB
Date:	March 11, 1998
Tech:	T. Schneider
Sheet:	3 of 6



Retlif Testing Laboratories

Report No. R-7456-5

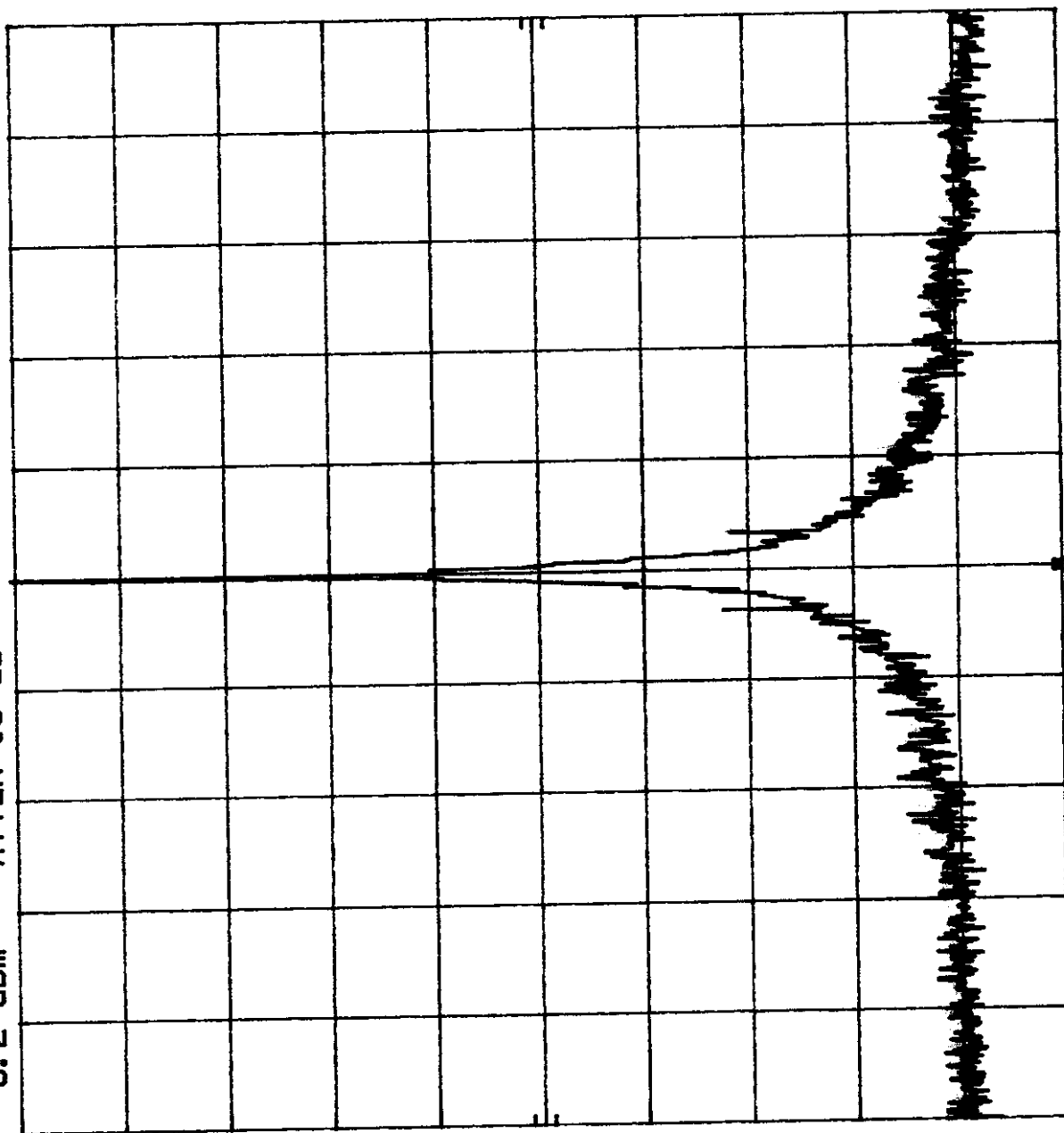
R-7456-6 BBM S4000 FCC ID F3S4KMTX OCCUPIED BW 3/11/98 TS

REF 8.2 dBm ATTEN 10 dB

HP

10 dB/

OFFSET
10.0
dB



SPAN 1.00 MHz
SWP 30.0 sec

VBW 1 kHz

CENTER 794.10 MHz
RES BW 300 Hz

Customer: BBM Electronics
Test Sample: 782 MHz to 806 MHz Wireless FM Transmitter
Model No: S4000MTX FCC ID: F3S4KMTX
Test Method: Occupied Bandwidth, Paragraph 2.989
Notes: Center Frequency = 794.1 MHz
Audio Input = 15000 Hz at 50% Modulation plus 16 dB

Date: March 11, 1998 Tech: T. Schneider Sheet 4 of 6



Retliff Testing Laboratories

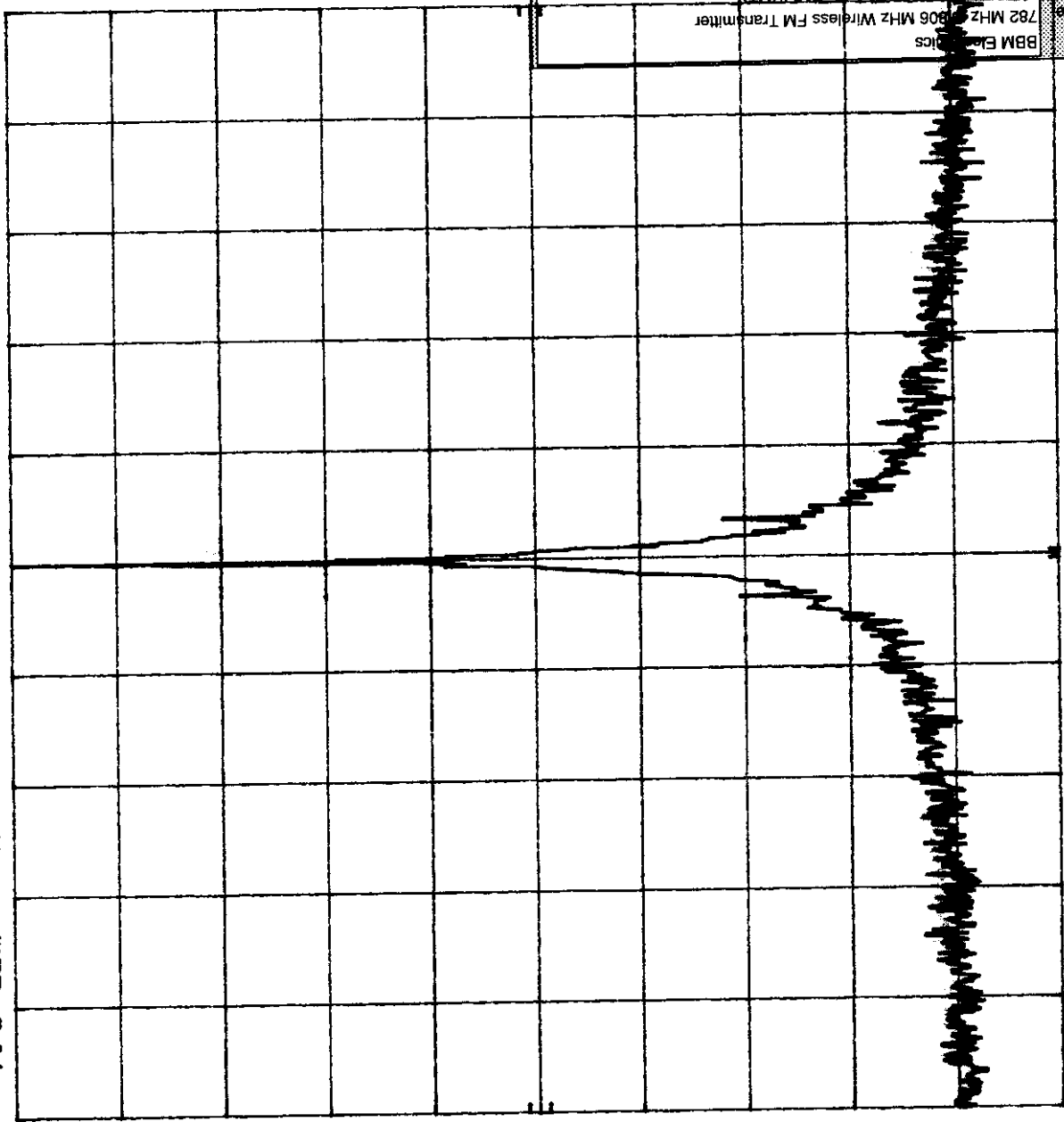
Report No. R-7456-5

R-7456-6 BBM S4000 FCC ID F3S4KMTX OCCUPIED BW 3/11/98 TS
 REF 7.3 dBm ATTEN 10 dB

hp

10 dB/

OFFSET
 10.0
 dB



SPAN 1.00 MHz
 SWP 30.0 dB
 Vbw 1 kHz
 RES BW 300 Hz
 CENTER 805.89 MHz

Report No. R-7456-5

Date: March 11, 1998	Tech: T. Schneider	Sheet: 5 of 6
Notes:		
Test Method: Occupied Bandwidth, Paragraph 2.989		
Model No: S4000MTX		
Test Sample: 782 MHz to 806 MHz Wireless FM Transmitter		
FCC ID: F3S4KMTX		
Audio Input = 2500 Hz at 50% Modulation plus 16 dB		

Customer:	BBM Electronics
Test Sample:	782 MHz to 806 MHz Wireless FM Transmitter
Model No:	S4000MTX FCC ID: F3S4KMTX
Test Method:	Occupied Bandwidth, Paragraph 2.989
Notes:	Center Frequency = 805.9 MHz
	Audio Input = 2500 Hz at 50% Modulation plus 16 dB
Date:	March 11, 1998
Tech:	T. Schneider
Sheet:	5 of 6



Retlif Testing Laboratories

Report No. R-7456-5

R-7456-6 BBM S4000 FCC ID F3S4KMTX OCCUPIED BW 3/11/98 TS

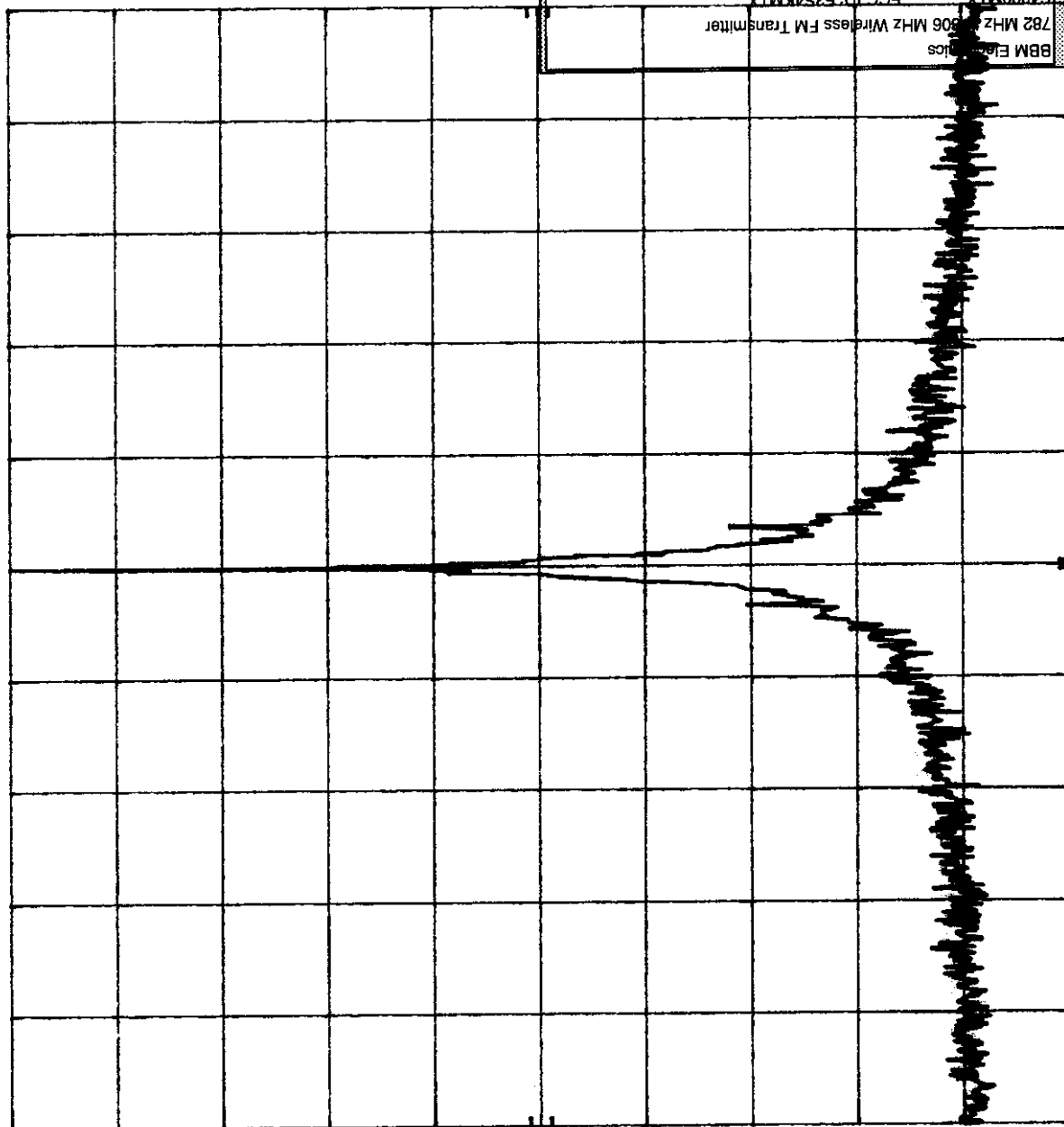
REF 7.3 dBm ATTEN 10 dB

hp

10 dB/

OFFSET

10.0
dB



CENTER 805.89 MHz
RES BW 300 Hz
SPAN 1.00 MHz
SWP 30.0 dB
VBW 1 kHz

Report No. R-7456-5

Date: March 11, 1998		Tech: T. Schneider		Sheet: 6 of 6	
Notes:					
Test Method: Occupied Bandwidth, Paragraph 2.989					
Model No: S4000MTX					
Test Sample: 782 MHz to 806 MHz Wireless FM Transmitter					
FCC ID: F3S4KMTX					
Audio Input = 15000 Hz at 50% Modulation plus 16 dB					

Customer:	BBM Electronics
Test Sample:	782 MHz to 806 MHz Wireless FM Transmitter
Model No:	S4000MTX FCC ID: F3S4KMTX
Test Method:	Occupied Bandwidth, Paragraph 2.989
Notes:	Center Frequency= 805.9 MHz
	Audio Input = 15000 Hz at 50% Modulation plus 16 dB
Date:	March 11, 1998
Tech:	T. Schneider
Sheet:	6 of 6



Retlif Testing Laboratories

Report No. R-7456-5

EXHIBIT H

Paragraph 2.991

Antenna Conducted Emissions



Retlif Testing Laboratories

Test Report Number No. R-7456-5
FCC ID: F3S4KMTX

ANTENNA CONDUCTED EMISSIONS (PARA.2.991)

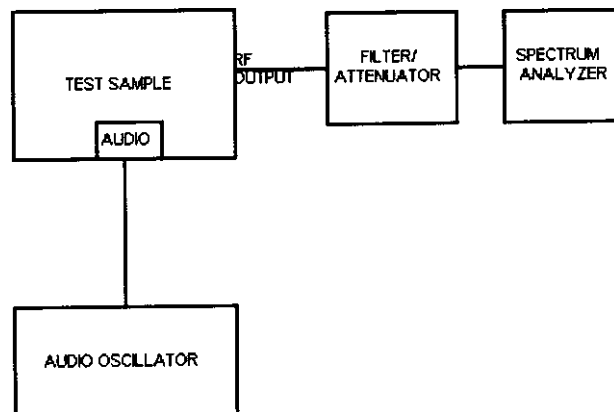
A. Measurement Procedure:

The RF output of the test sample was coupled to a spectrum analyzer. The test sample was then modulated as stated in the occupied bandwidth test. The frequency range was scanned from the lowest frequency generated by the test sample to its tenth harmonic. The limits for the spurious emissions are calculated utilizing the measured output power and the following equation:

$$\text{Limit} = \text{Level of Fundamental} - (43 + 10 \log P_T)$$

The above was performed at the low, mid and high frequencies.

Setup of the test is shown below:



B. Test Results:

The results for the above test are shown on the following (18) data sheets.



Retlif Testing Laboratories

Test Report Number No. R-7456-5
FCC ID: F3S4KMTX

R-7456-6 BBM S4000 FCC ID F3S4KMTX OCCUPIED BW 3/11/98 TS

REF 9.6 dBm ATTEN 10 dB

hp

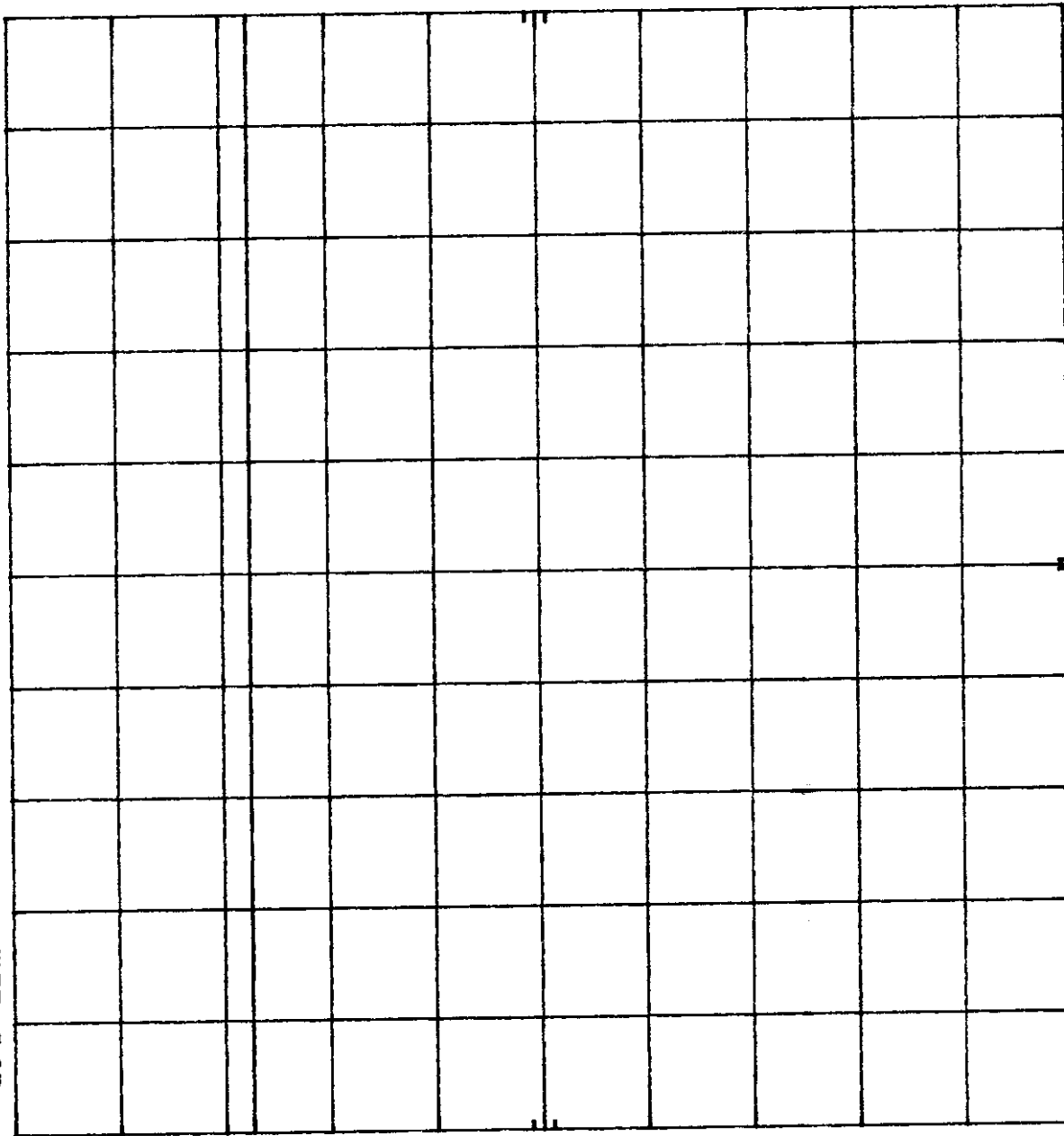
10 dB/

OFFSET

10.0
dB

DL

-13.0
dBm



START 30 MHz

RES BW 100 kHz

VBW 300 kHz

SWP 20.0 sec

STOP 200 MHz

Customer:	BBM Electronics
Test Sample:	782 MHz to 806 MHz Wireless FM Transmitter
Model No:	S4000MTX FCC ID: F3S4KMTX
Test Method:	Antenna Conducted Emissions, Paragraph 2.991
Notes:	Center Frequency= 782.1 MHz Audio Input = 15000 Hz at 50% Modulation plus 16 dB
Date:	March 11, 1998
Tech:	T. Schneider
Sheet:	1 of 18



Retlif Testing Laboratories

Report No. R-7456-5

R-7456-6 BBM S4000 FCC ID F3S4KMTX OCCUPIED BW 3/11/98 TS
 REF 9.6 dBm ATTEN 10 dB

hp

10 dB/

OFFSET

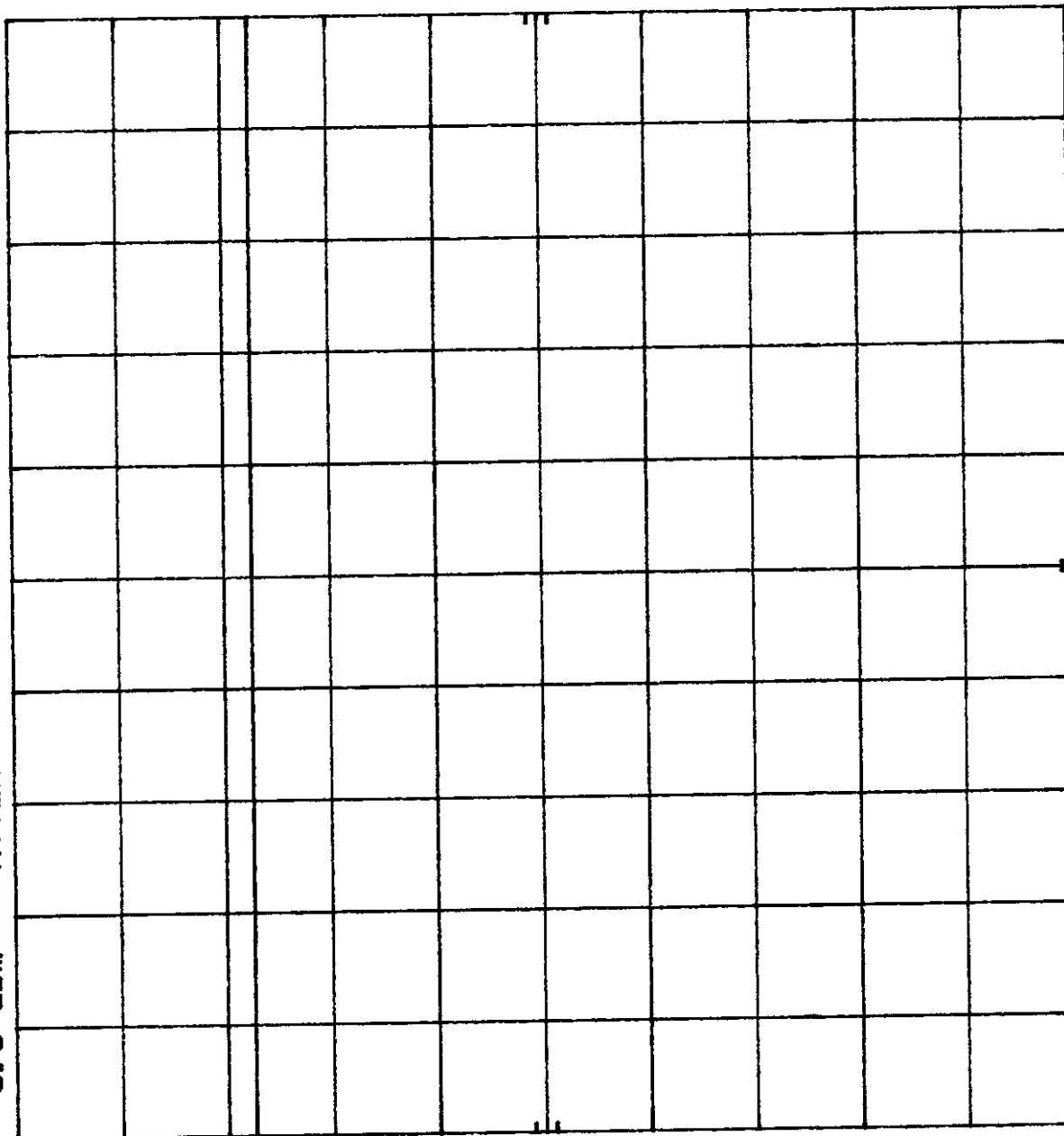
10.0

dB

DL

-13.0

dBm



START 200 MHz RES BW 100 kHz VBW 300 kHz SWP 20.0 sec STOP 500 MHz

Customer:	BBM Electronics
Test Sample:	782 MHz to 806 MHz Wireless FM Transmitter
Model No:	S4000MTX FCC ID: F3S4KMTX
Test Method:	Antenna Conducted Emissions, Paragraph 2.991
Notes:	Center Frequency= 782.1 MHz Audio Input = 15000 Hz at 50% Modulation plus 16 dB
Date:	March 11, 1998
Tech:	T. Schneider
Sheet:	2 of 18



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Report No. R-7456-5

R-7456-6 BBM S4000 FCC ID F3S4KMTX OCCUPIED BW 3/11/98 TS

REF 9.6 dBm ATTEN 10 dB

hp

10 dB/

OFFSET

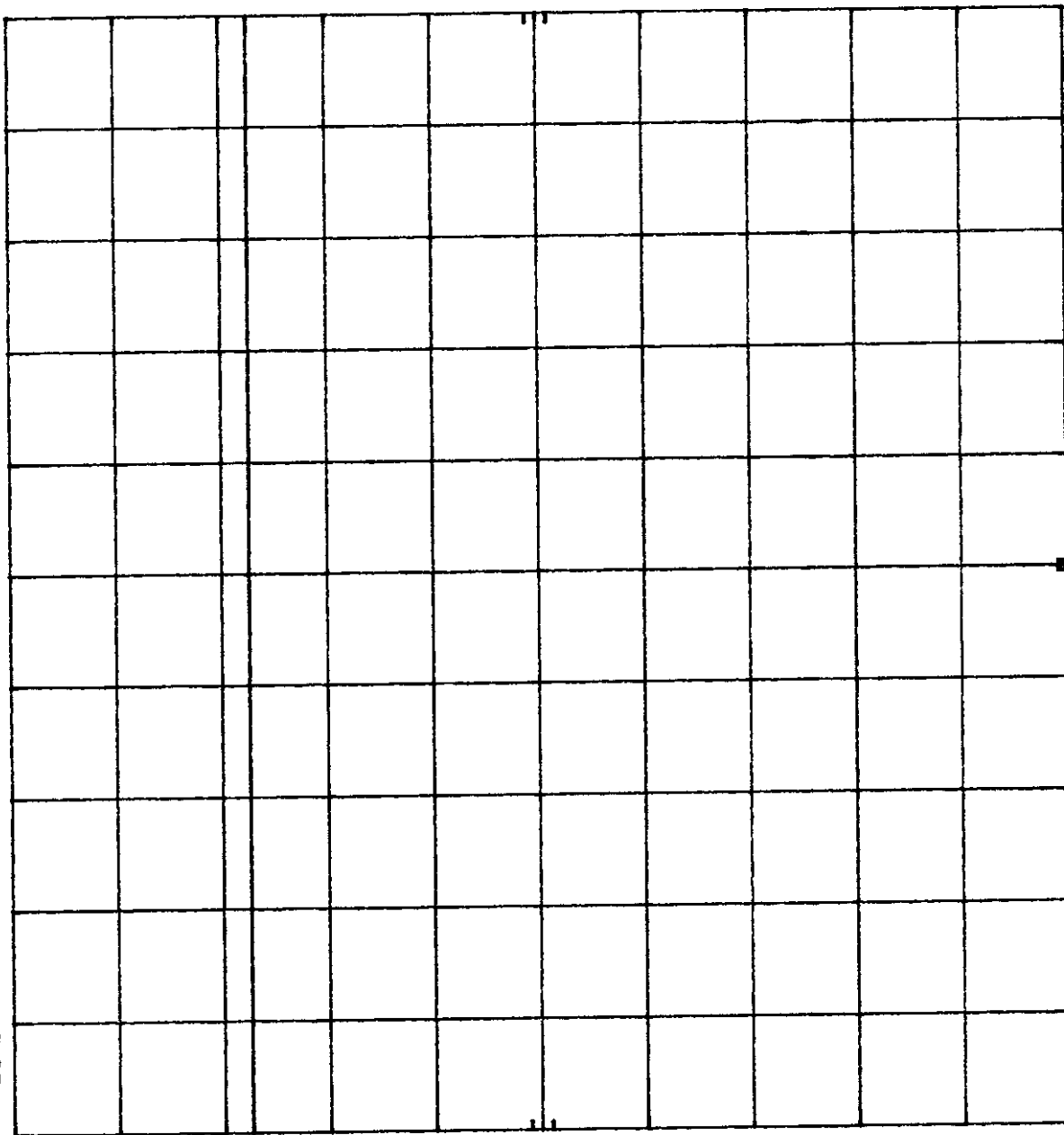
10.0

dB

DL

-13.0

dBm



START 500 MHz

RES BW 100 kHz

VBW 300 kHz

SWP 20.0 sec

STOP 1.000 GHz

Customer: BBM Electronics
 Test Sample: 782 MHz to 806 MHz Wireless FM Transmitter
 Model No: S4000MTX FCC ID: F3S4KMTX
 Test Method: Antenna Conducted Emissions, Paragraph 2.991
 Notes: Center Frequency= 782.1 MHz
 Audio Input = 15000 Hz at 50% Modulation plus 16 dB

Date: March 11, 1998

Tech: T. Schneider

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Report No. R-7456-5

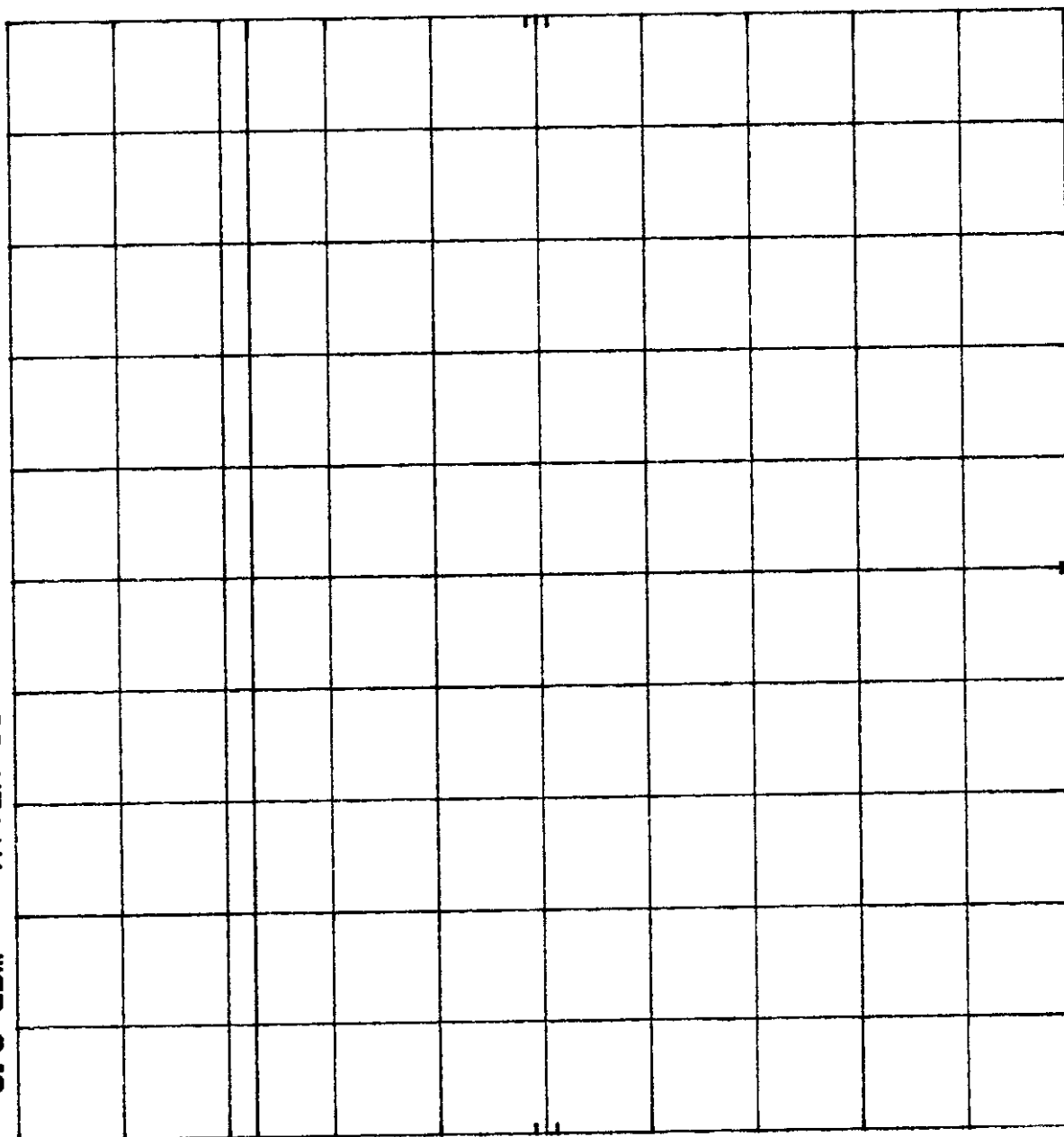
R-7456-6 BBM S4000 FCC ID F3S4KMTX OCCUPIED BW 3/11/98 TS
 REF 9.6 dBm ATTEN 10 dB

hp

10 dB/

OFFSET
10.0
dB

DL
-13.0
dBm



START 1.00 GHz RES BW 1 MHz
 STOP 2.00 GHz SWP 20.0 sec
 VBW 3 MHz

Customer:	BBM Electronics
Test Sample:	782 MHz to 806 MHz Wireless FM Transmitter
Model No.:	S4000MTX FCC ID: F3S4KMTX
Test Method:	Occupied Bandwidth, Paragraph 2.989
Notes:	Center Frequency= 782.1 MHz
	Audio Input = 15000 Hz at 50% Modulation plus 16 dB
Date:	March 11, 1998
Tech:	T. Schneider
Sheet	4 of 18



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Report No. R-7456-5

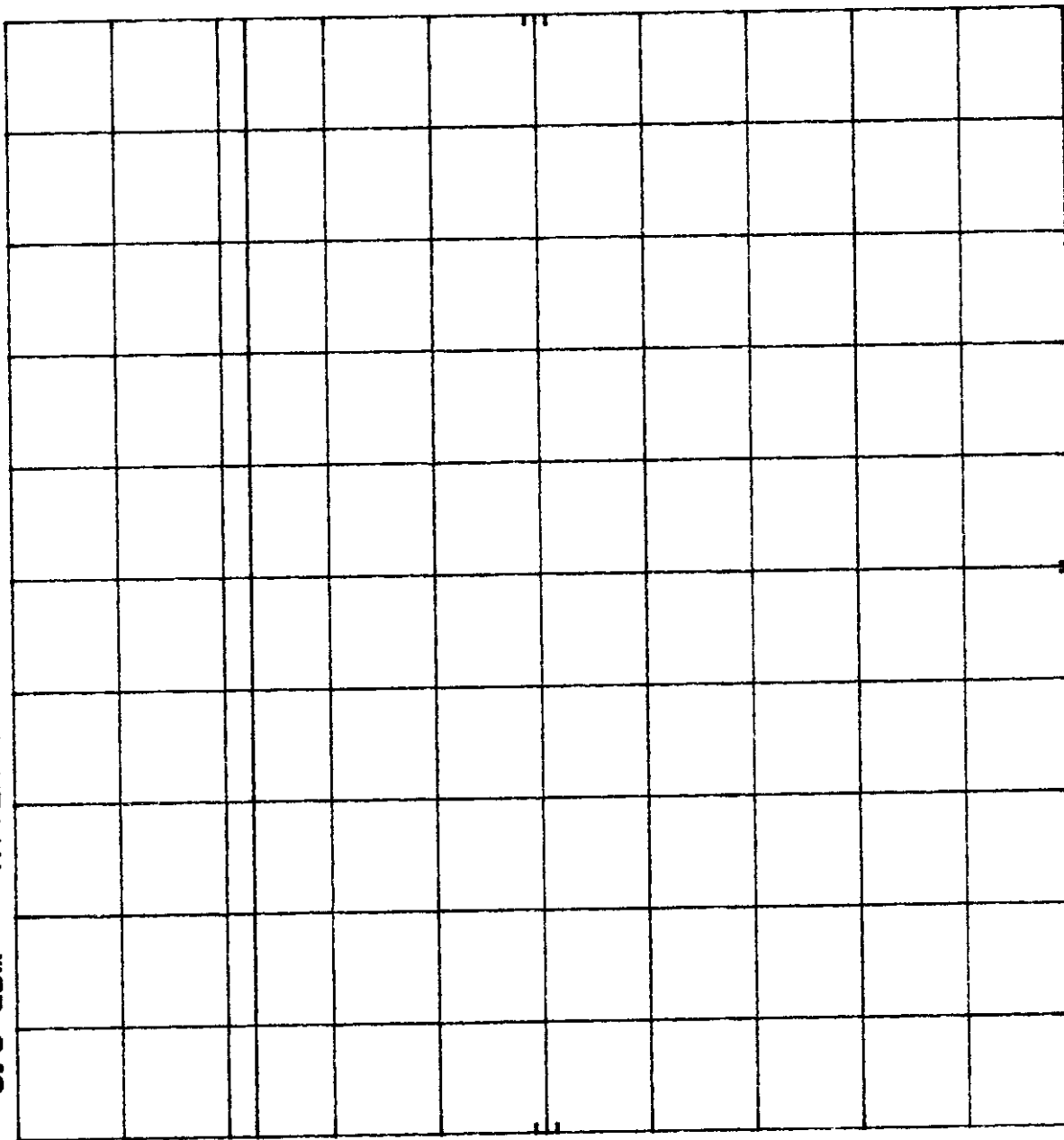
R-7456-6 BBM S4000 FCC ID F3S4KMTX OCCUPIED BW 3/11/98 TS
 REF 9.6 dBm ATTEN 10 dB

hp

10 dB/

OFFSET
10.0
dB

DL
-13.0
dBm



STOP 4.00 GHz
SWP 20.0 sec

VBW 3 MHz

START 2.00 GHz
RES BW 1 MHz

Customer:	BBM Electronics
Test Sample:	782 MHz to 806 MHz Wireless FM Transmitter
Model No:	S4000MTX FCC ID: F3S4KMTX
Test Method:	Antenna Conducted Emissions, Paragraph 2.991
Notes:	Center Frequency= 782.1 MHz Audio Input = 15000 Hz at 50% Modulation plus 16 dB
Date:	March 11, 1998
Tech:	T. Schneider
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Report No. R-7456-5

R-7456-8 BBM S4000 FCC ID F3S4KMTX OCCUPIED BW 3/11/98 TS

REF 9.6 dBm ATTN 10 dB

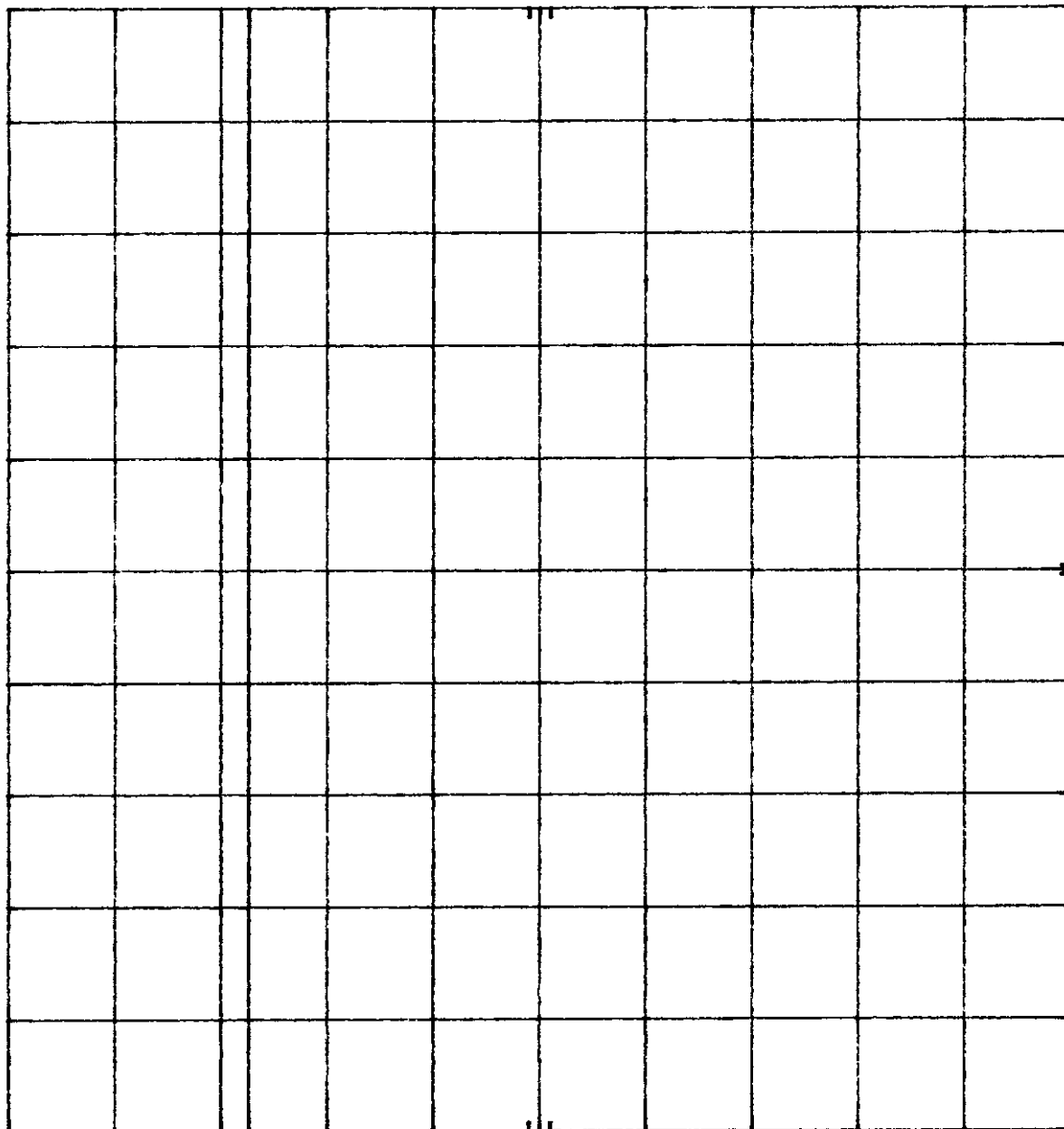
hp

10 dB/

OFFSET

10.0
dB

DL
-13.0
dBm



START 4.00 GHz RES BW 1 MHz VBW 3 MHz STOP 8.00 GHz SWP 20.0 sec

Customer:	BBM Electronics
Test Sample:	782 MHz to 806 MHz Wireless FM Transmitter
Model No.:	S4000MTX FCC ID: F3S4KMTX
Test Method:	Antenna Conducted Emissions, Paragraph 2.991
Notes:	Center Frequency= 782.1 MHz Audio Input = 15000 Hz at 50% Modulation plus 16 dB
Date:	March 11, 1998
Tech:	T. Schneider
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Retlif Testing Laboratories

Report No. R-7456-5

R-7456-6 BBM S4000 FCC ID F3S4KMTX OCCUPIED BW 3/11/98 TS

REF 8.2 dBm ATTEN 10 dB

hp

10 dB/

OFFSET

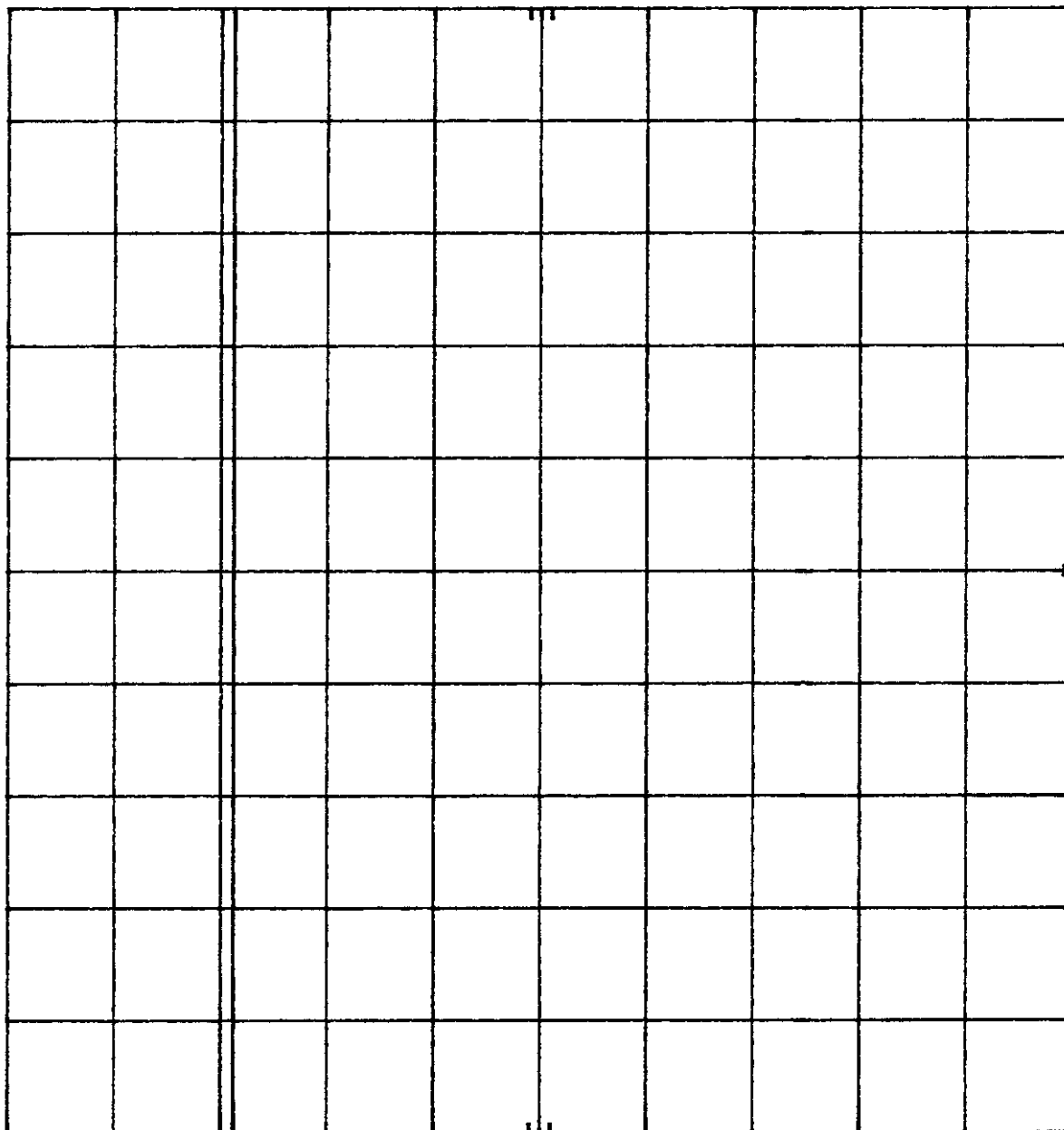
10.0

dB

DL

-13.0

dBm



START 30 MHz

RES BW 100 kHz

VBW 300 kHz

SWP 20.0 sec

STOP 200 MHz

Customer:	BBM Electronics
Test Sample:	782 MHz to 806 MHz Wireless FM Transmitter
Model No:	S4000MTX FCC ID: F3S4KMTX
Test Method:	Antenna Conducted Emissions, Paragraph 2.991
Notes:	Center Frequency= 794.1 MHz Audio Input = 15000 Hz at 50% Modulation plus 16 dB
Date:	March 11, 1998
Tech:	T. Schneider
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Report No. R-7456-5

R-7456-6 BBM S4000 FCC ID F3S4KMTX OCCUPIED BW 3/11/98 TS
 REF 8.2 dBm ATTEN 10 dB

hp

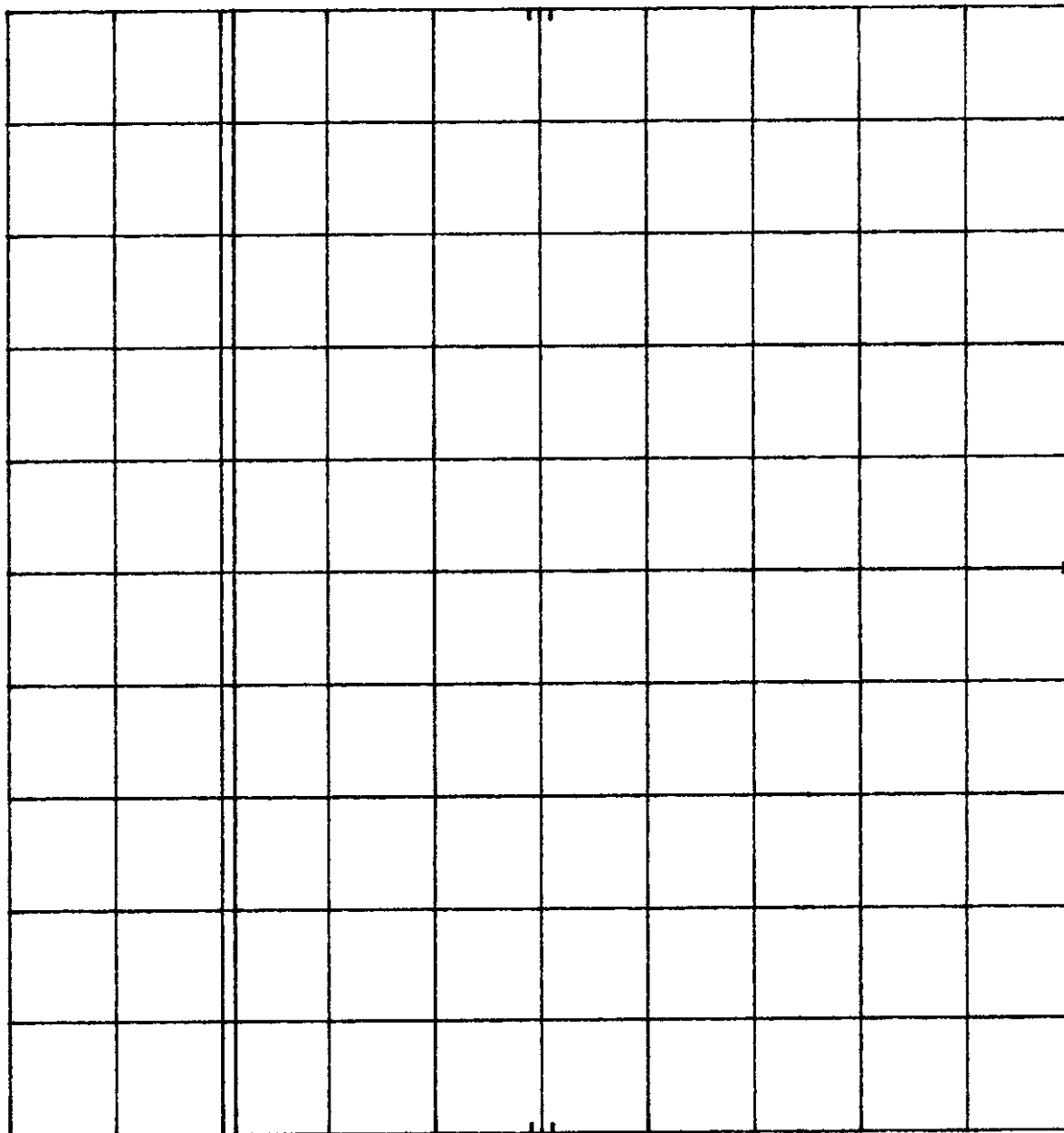
10 dB/

OFFSET

10.0
dB

DL

-13.0
dBm



START 200 MHz RES BW 100 kHz VBW 300 kHz SWP 20.0 sec STOP 500 MHz

Customer:	BBM Electronics
Test Sample:	782 MHz to 806 MHz Wireless FM Transmitter
Model No:	S4000MTX FCC ID: F3S4KMTX
Test Method:	Antenna Conducted Emissions, Paragraph 2.991
Notes:	Center Frequency= 794.1 MHz Audio Input = 15000 Hz at 50% Modulation, plus 16 dB
Date:	March 11, 1998
Tech:	T. Schneider
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Report No. R-7456-5

R-7456-6 BBM S4000 FCC ID F3S4KMTX OCCUPIED BW 3/11/98 TS
 REF 8.2 dBm ATTEN 10 dB

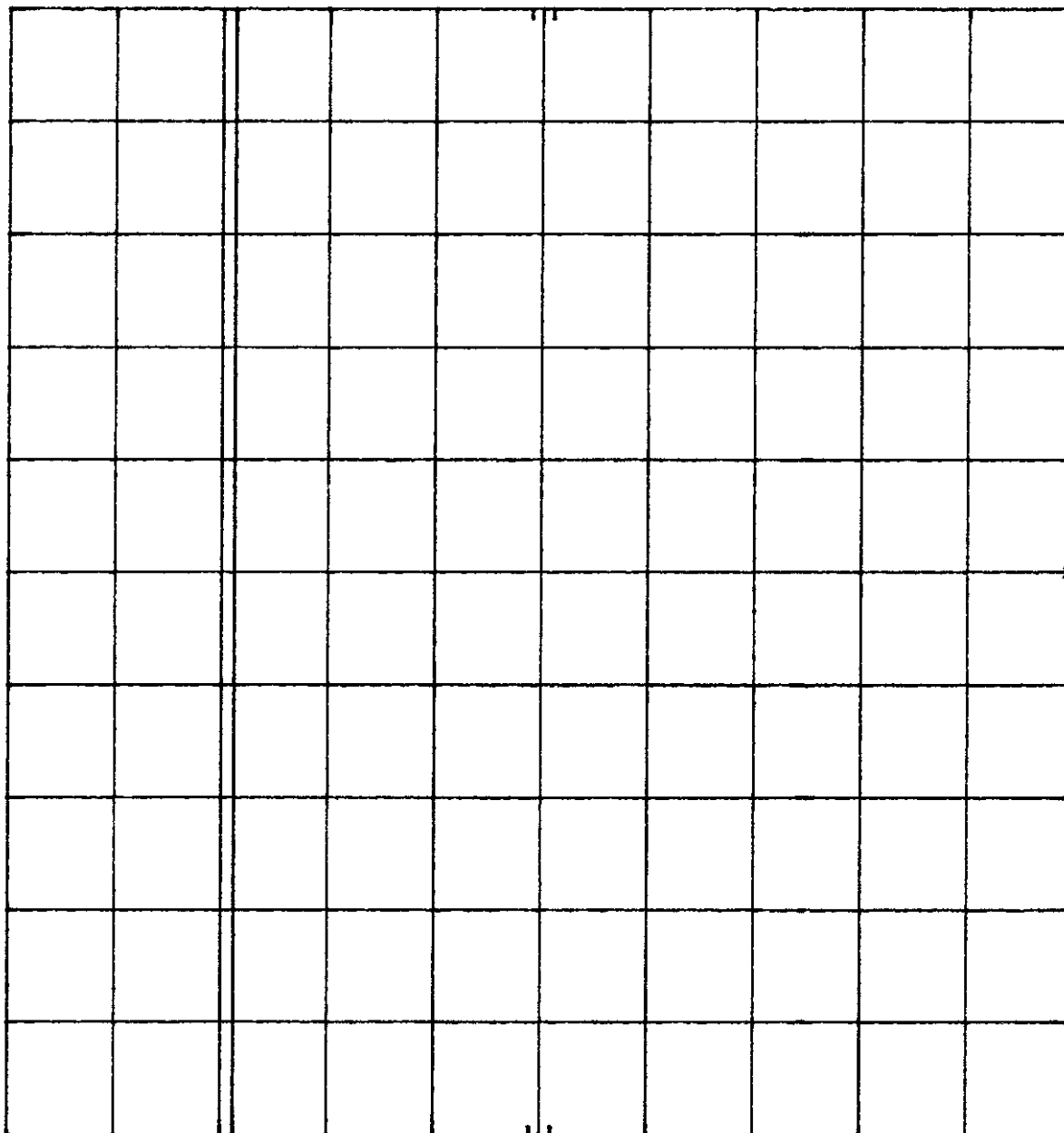
hp

10 dB/

OFFSET

10.0
dB

DL
-13.0
dBm



START 500 MHz RES BW 100 kHz VBW 300 kHz STOP 1.000 GHz SWP 20.0 sec

Customer:	BBM Electronics		
Test Sample:	782 MHz to 806 MHz Wireless FM Transmitter		
Model No:	S4000MTX	FCC ID:	F3S4KMTX
Test Method:	Antenna Conducted Emissions, Paragraph 2.991		
Notes:	Center Frequency= 794.1 MHz		
	Audio Input = 15000 Hz at 50% Modulation plus 16 dB		
Date:	March 11, 1998	Tech:	T. Schneider
	Sheet	9	of 18



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Report No. R-7456-5

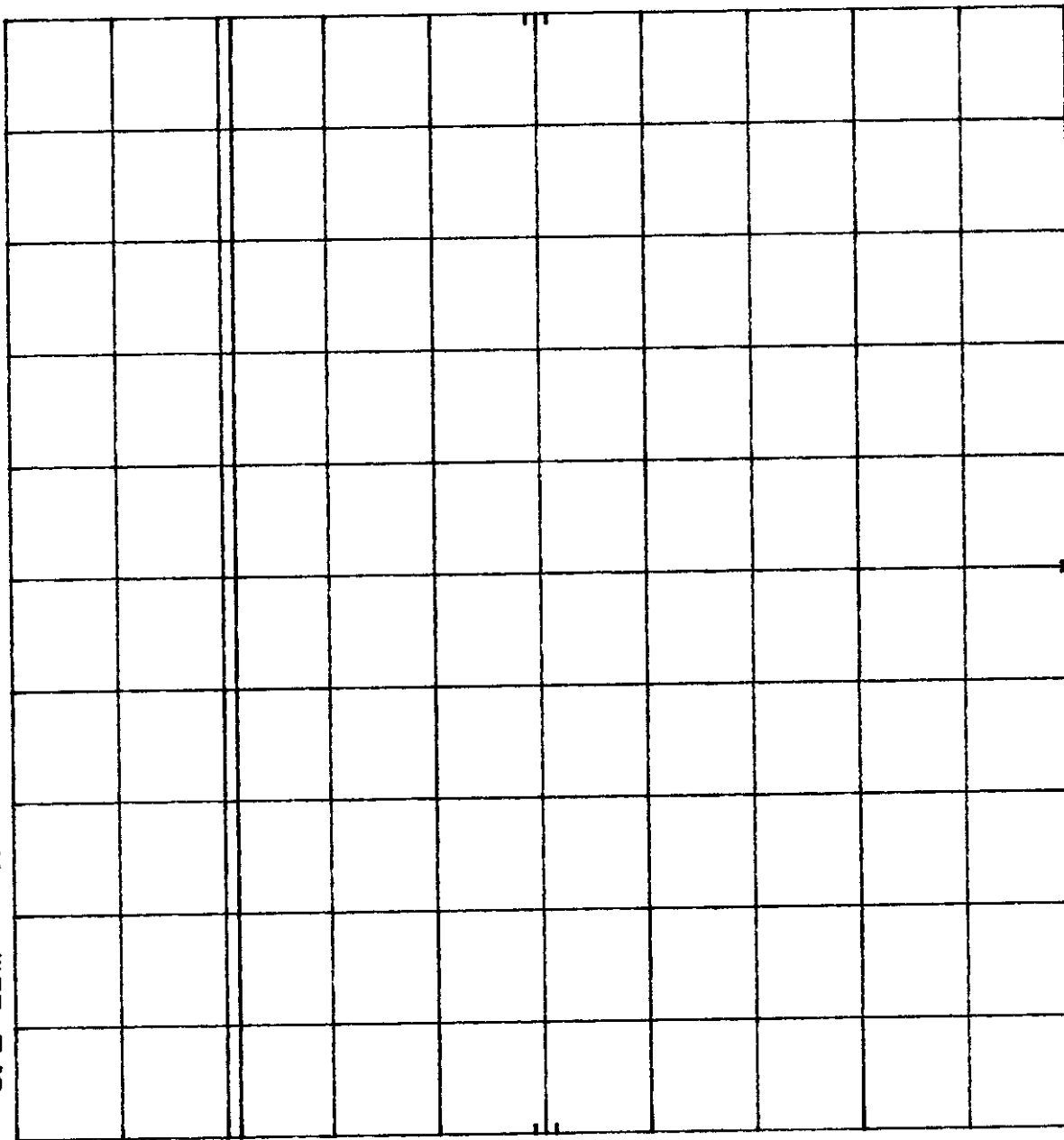
R-7456-6 BBM S4000 FCC ID F3S4KMTX OCCUPIED BW 3/11/98 TS
 REF 8.2 dBm ATTEN 10 dB

hp

10 dB/

OFFSET
10.0
dB

DL
-13.0
dBm



START 1.00 GHz RES BW 1 MHz VBW 3 MHz STOP 2.00 GHz SWP 20.0 sec

Customer:	BBM Electronics
Test Sample:	782 MHz to 806 MHz Wireless FM Transmitter
Model No:	S4000MTX FCC ID: F3S4KMTX
Test Method:	Antenna Conducted Emissions, Paragraph 2.991
Notes:	Center Frequency= 794.1 MHz
	Audio Input = 15000 Hz at 50% Modulation plus 16 dB
Date:	March 11, 1998
Tech:	T. Schneider
Sheet	10 of 18



Retlif Testing Laboratories

Report No. R-7456-5

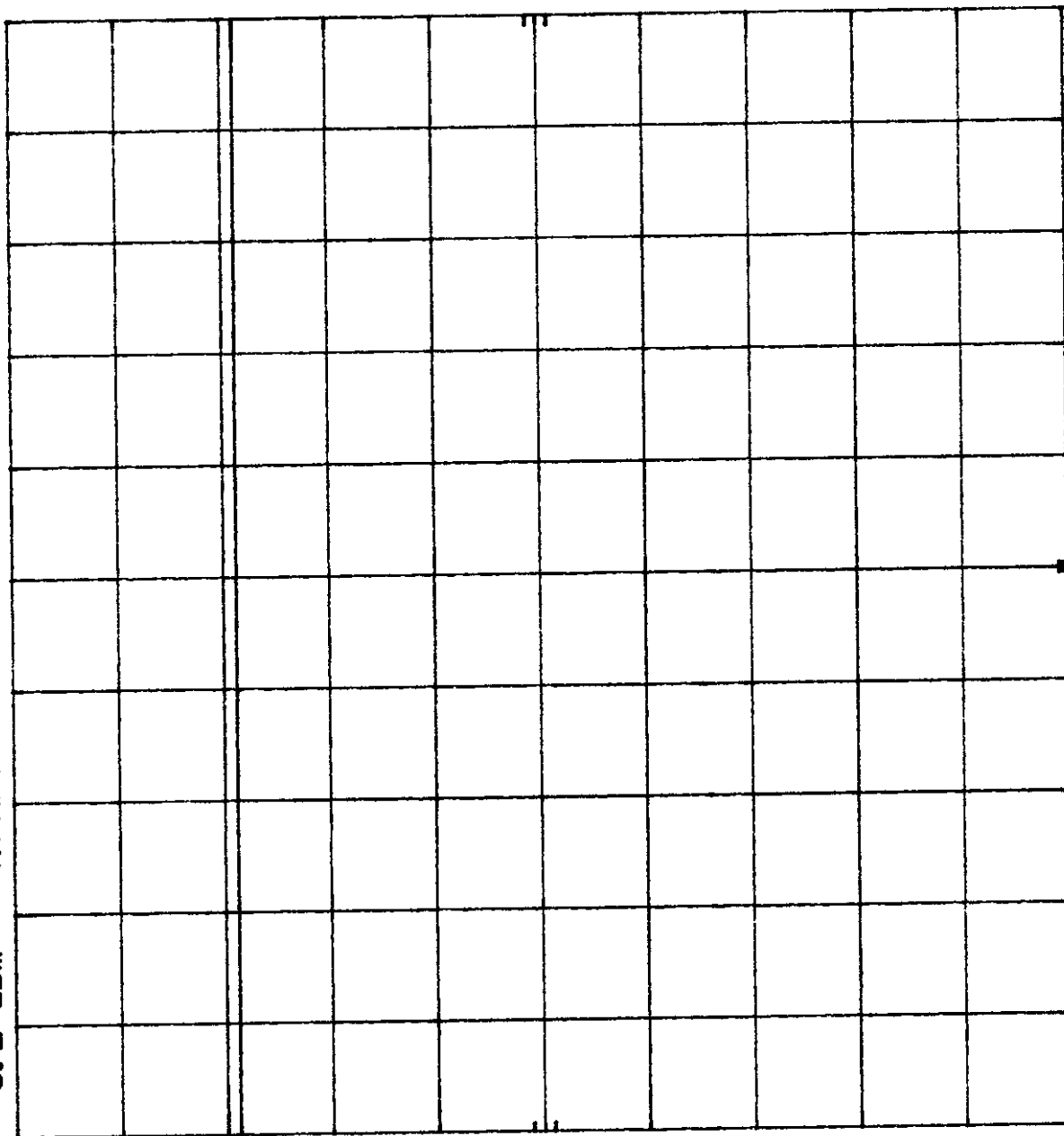
R-7456-6 BBM S4000 FCC ID F3S4KMTX OCCUPIED BW 3/11/98 TS
 REF 8.2 dBm ATTEN 10 dB

hp

10 dB/

OFFSET
10.0
dB

DL
-13.0
dBm



START 2.00 GHz RES BW 1 MHz VBW 3 MHz STOP 4.00 GHz SWP 20.0 sec

Customer: BBM Electronics
 Test Sample: 782 MHz to 806 MHz Wireless FM Transmitter
 Model No: S4000MTX FCC ID: F3S4KMTX
 Test Method: Antenna Conducted Emissions, Paragraph 2.991
 Notes: Center Frequency= 794.1 MHz
 Audio Input = 15000 Hz at 50% Modulation plus 16 dB
 Date: March 11, 1998 Tech: T. Schneider Sheet 11 of 18



Retlif Testing Laboratories

Report No. R-7456-5

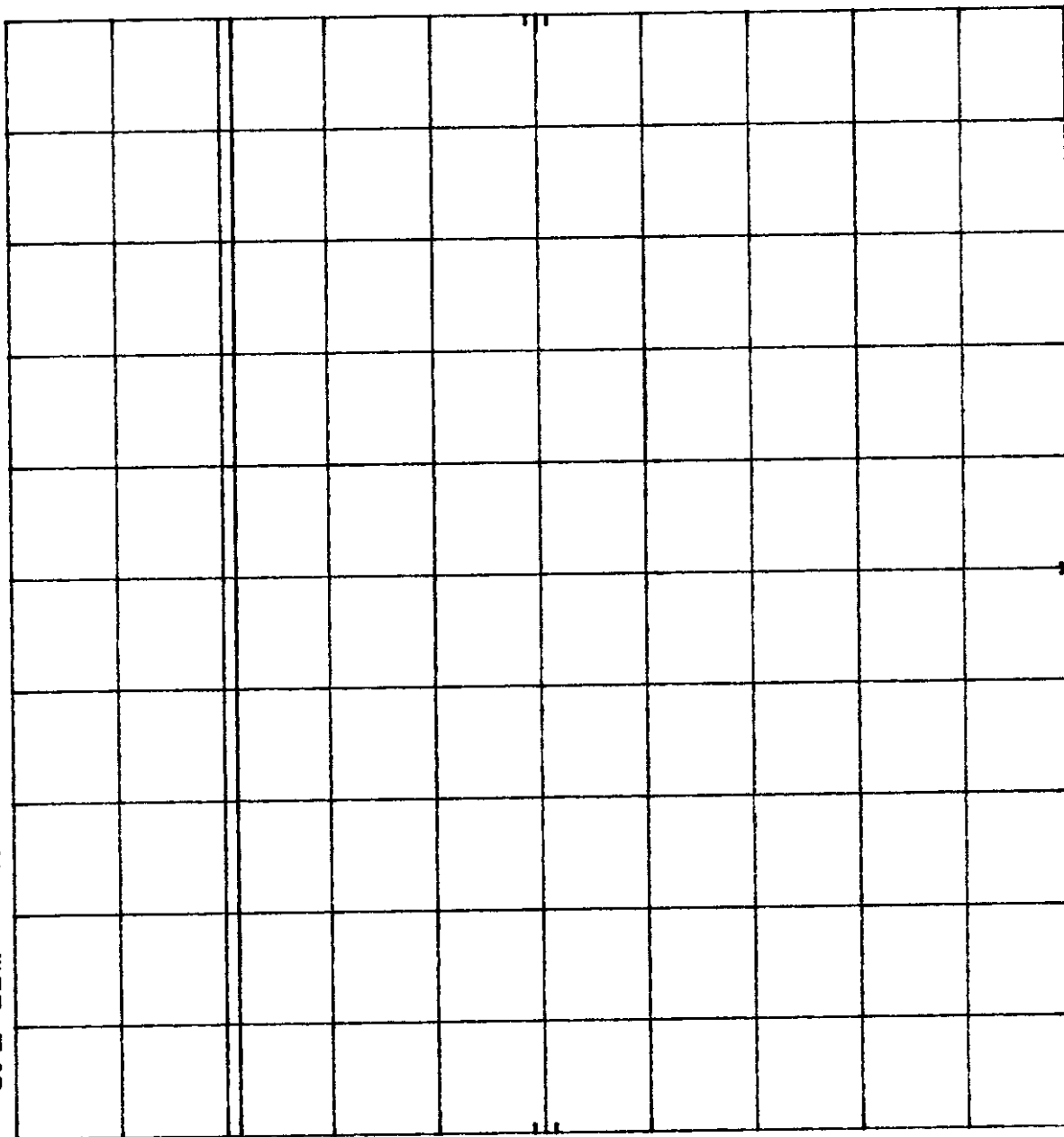
R-7456-6 BBM S4000 FCC ID F3S4KMTX OCCUPIED BW 3/11/98 TS
 REF 8.2 dBm ATTEN 10 dB

10 dB/

10 dB/

OFFSET
10.0
dB

DL
-13.0
dBm



STOP 8.10 GHz
SWP 20.0 sec

VBW 3 MHz

START 4.00 GHz
RES BW 1 MHz

Customer:	BBM Electronics
Test Sample:	782 MHz to 806 MHz Wireless FM Transmitter
Model No:	S4000MTX FCC ID: F3S4KMTX
Test Method:	Antenna Conducted Emissions, Paragraph 2.991
Notes:	Center Frequency= 794.1 MHz Audio Input = 15000 Hz at 50% Modulation plus 16 dB
Date:	March 11, 1998
Tech:	T. Schneider
Sheet	12 of 18



Retlif Testing Laboratories

Report No. R-7456-5

R-7456-6 88M S4000 FCC ID F3S4KMTX OCCUPIED BW 3/11/98 TS

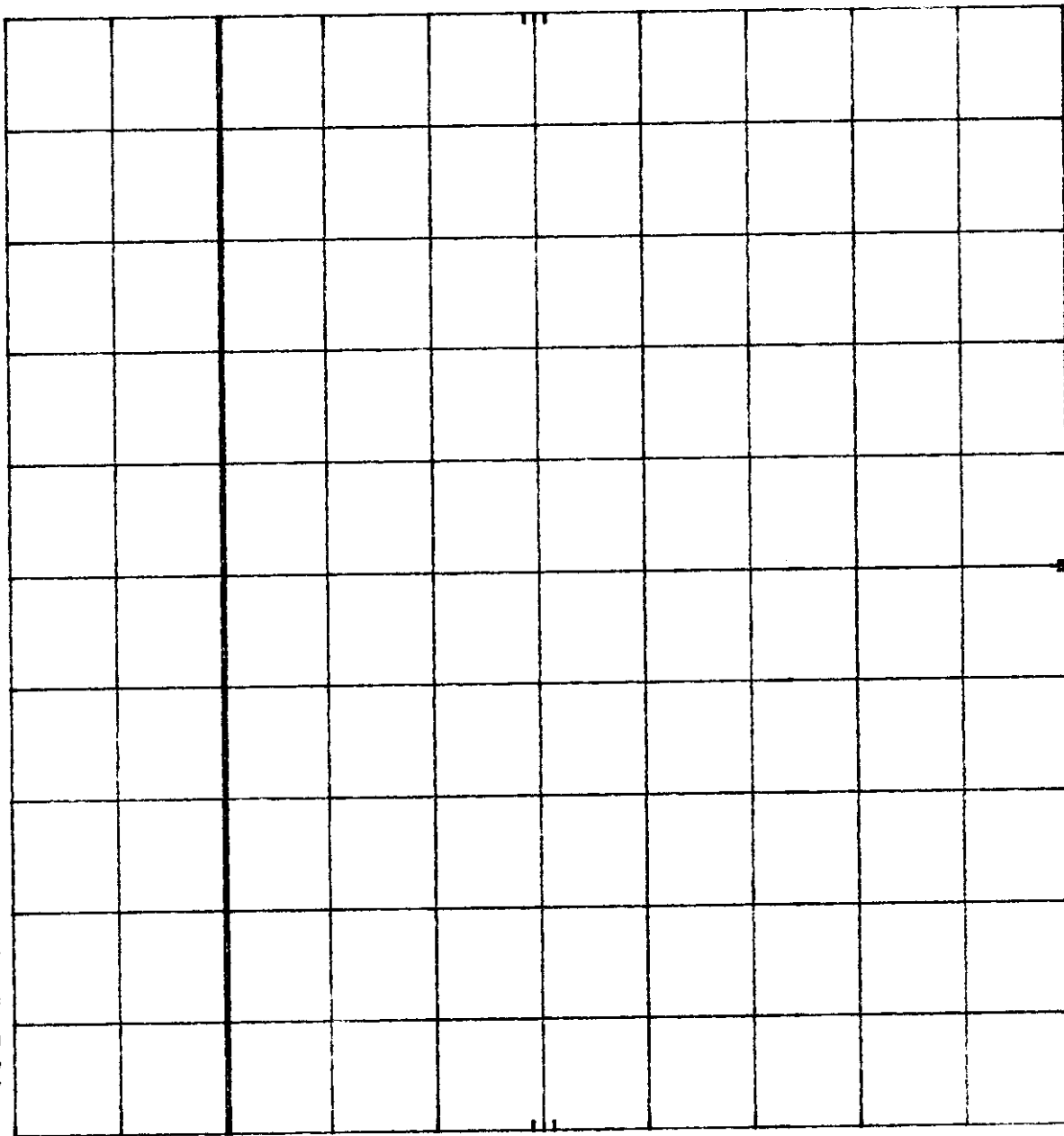
REF 7.3 dBm ATTEN 10 dB

hp

10 dB/

OFFSET
10.0
dB

DL
-13.0
dBm



START 30 MHz RES BW 100 kHz VBW 300 kHz STOP 200 MHz SWP 20.0 sec

Customer:	BBM Electronics
Test Sample:	782 MHz to 806 MHz Wireless FM Transmitter
Model No:	S4000MTX FCC ID: F3S4KMTX
Test Method:	Antenna Conducted Emissions, Paragraph 2.991
Notes:	Center Frequency= 805.9 MHz Audio Input = 15000 Hz at 50% Modulation plus 16 dB
Date:	March 11, 1998
Tech:	T. Schneider
Sheet:	13 of 18



Retlif Testing Laboratories

Report No. R-7456-5

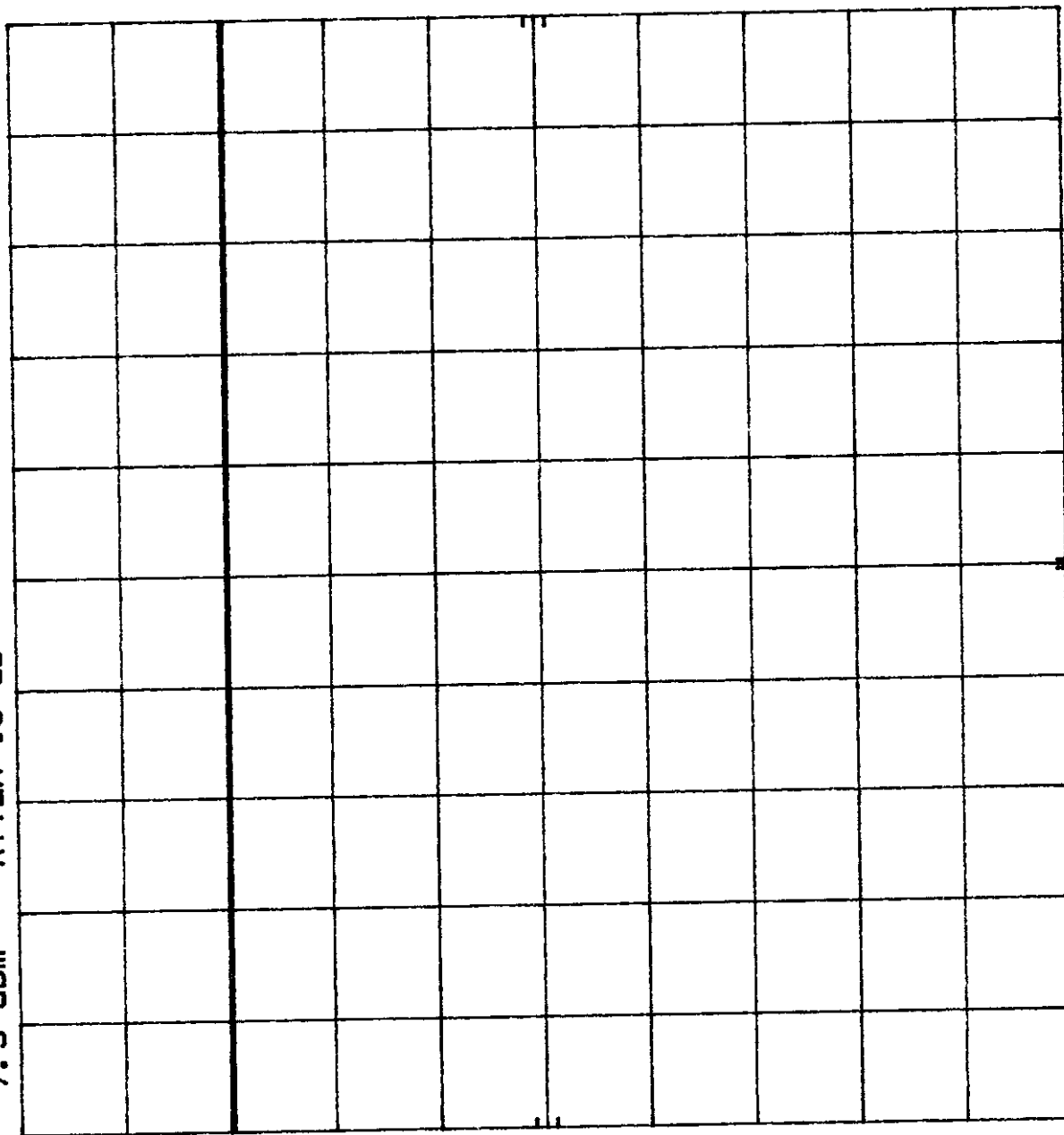
R-7456-6 BBM S4000 FCC ID F3S4KMTX OCCUPIED BW 3/11/98 TS
 REF 7.3 dBm ATTEN 10 dB

hp

10 dB/

OFFSET
10.0
dB

DL
-13.0
dBm



START 200 MHz RES BW 100 kHz VBW 300 kHz SWP 20.0 sec STOP 500 MHz

Customer:	BBM Electronics		
Test Sample:	782 MHz to 806 MHz Wireless FM Transmitter		
Model No:	S4000MTX	FCC ID:	F3S4KMTX
Test Method:	Antenna Conducted Emissions, Paragraph 2.991		
Notes:	Center Frequency= 805.9 MHz		
	Audio Input = 15000 Hz at 50% Modulation plus 16 dB		
Date:	March 11, 1998	Tech:	T. Schneider
	Sheet	14	of 18



Retlif Testing Laboratories

Report No. R-7456-5

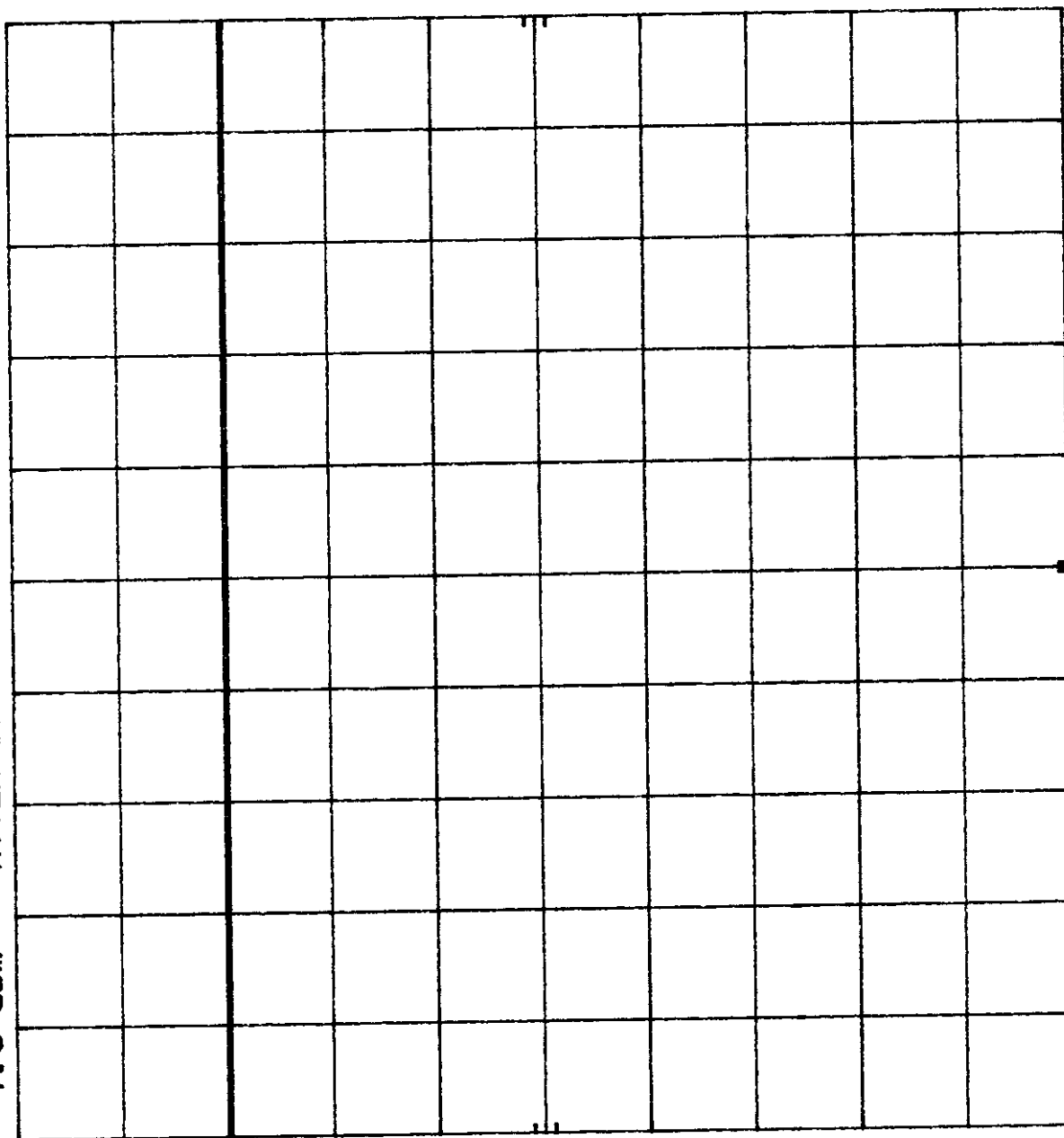
R-7456-6 BBM S4000 FCC ID F3S4KMTX OCCUPIED BW 3/11/98 TS
 REF 7.3 dBm ATTEN 10 dB

hp

10 dB/

OFFSET
10.0
dB

DL
-13.0
dBm



START 500 MHz RES BW 100 kHz VBW 300 kHz STOP 1.000 GHz SWP 20.0 sec

Customer:	BBM Electronics
Test Sample:	782 MHz to 806 MHz Wireless FM Transmitter
Model No:	S4000MTX FCC ID: F3S4KMTX
Test Method:	Antenna Conducted Emissions, Paragraph 2.991
Notes:	Center Frequency= 805.9 MHz Audio Input = 15000 Hz at 50% Modulation plus 16 dB
Date:	March 11, 1998
Tech:	T. Schneider
Sheet	15 of 18



Retlif Testing Laboratories

Report No. R-7456-5

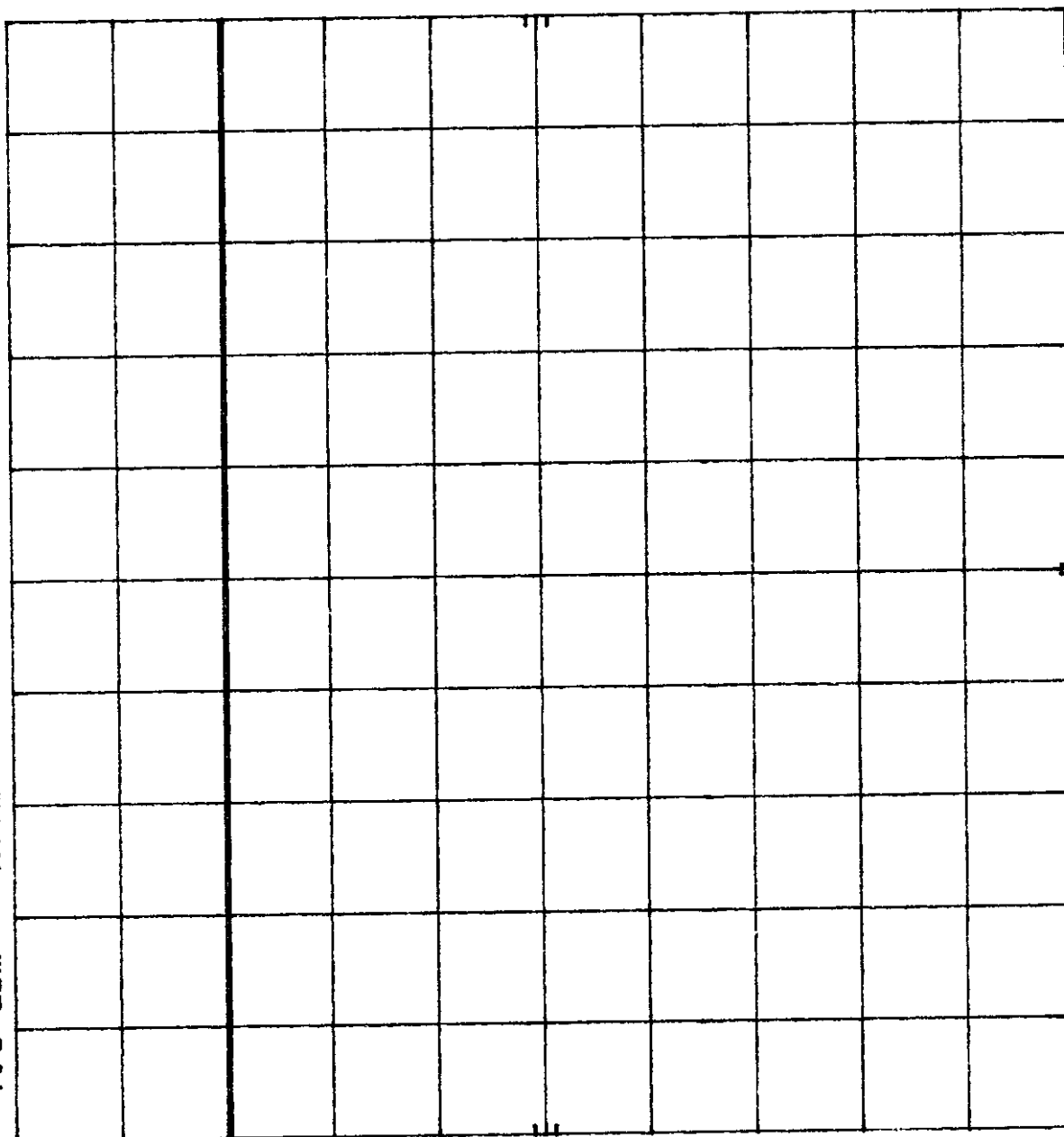
R-7456-6 BBM S4000 FCC ID F3S4KMTX OCCUPIED BW 3/11/98 TS
 REF 7.3 dBm ATTEN 10 dB

hp

10 dB/

OFFSET
10.0
dB

DL
-13.0
dBm



START 1.00 GHz RES BW 1 MHz VBW 3 MHz STOP 2.00 GHz SWP 20.0 sec

Customer:	BBM Electronics		
Test Sample:	782 MHz to 806 MHz Wireless FM Transmitter		
Model No:	S4000MTX	FCC ID:	F3S4KMTX
Test Method:	Antenna Conducted Emissions, Paragraph 2.991		
Notes:	Center Frequency= 805.9 MHz		
	Audio Input = 15000 Hz at 50% Modulation plus 16 dB		
Date:	March 11, 1998	Tech:	T. Schneider
		Sheet	16 of 18



Retlif Testing Laboratories

Report No. R-7456-5

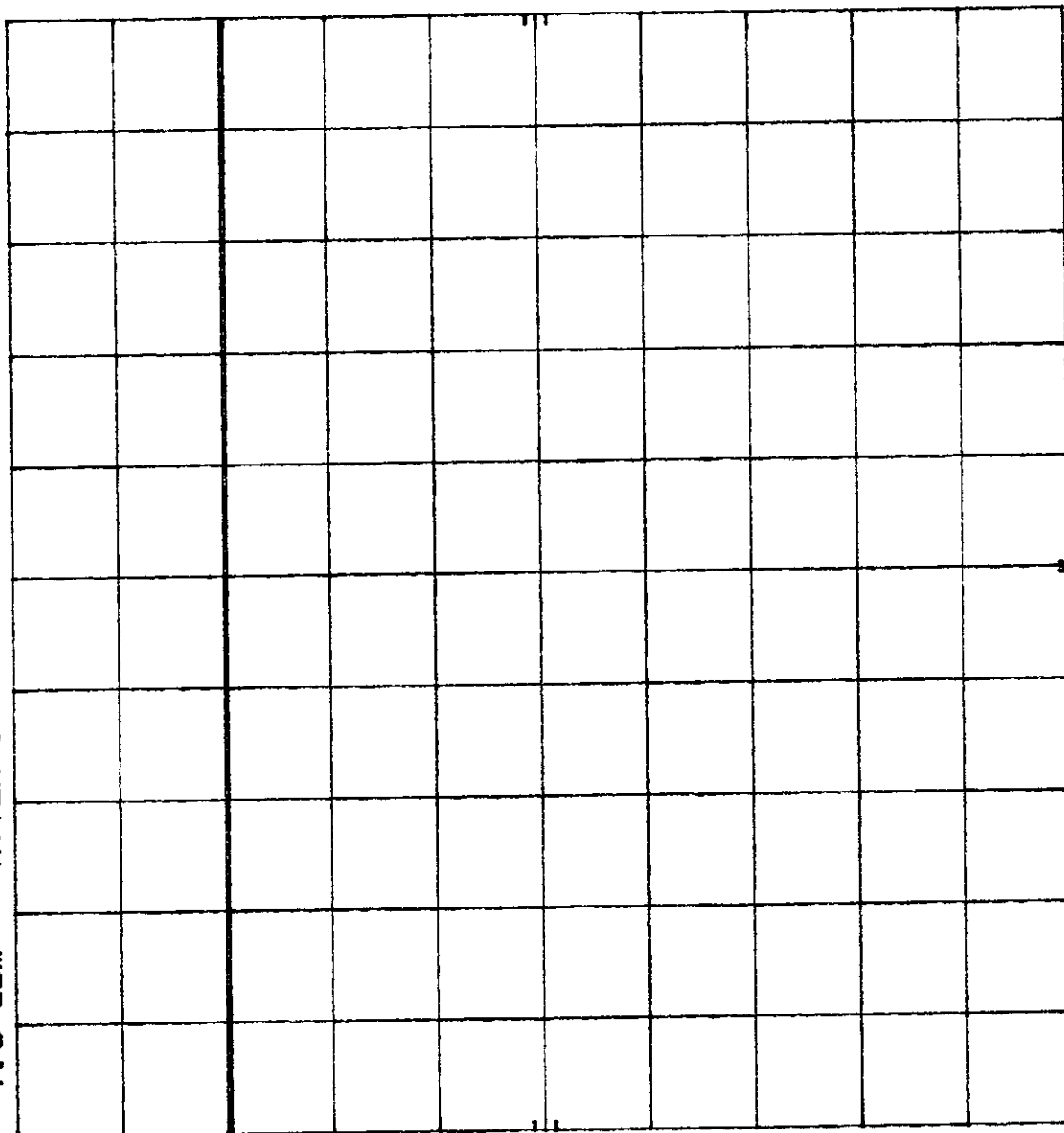
R-7456-6 BBM S4000 FCC ID F3S4KMTX OCCUPIED BW 3/11/98 TS
 REF 7.3 dBm ATTEN 10 dB

10 dB/

10 dB/

OFFSET
10.0
dB

DL
-13.0
dBm



START 2.00 GHz RES BW 1 MHz VBW 3 MHz STOP 4.00 GHz SWP 20.0 sec

Customer:	BBM Electronics
Test Sample:	782 MHz to 806 MHz Wireless FM Transmitter
Model No:	S4000MTX FCC ID: F3S4KMTX
Test Method:	Antenna Conducted Emissions, Paragraph 2.991
Notes:	Center Frequency= 805.9 MHz Audio Input = 15000 Hz at 50% Modulation plus 16 dB
Date:	March 11, 1998
Tech:	T. Schneider
Sheet:	17 of 18



Retlif Testing Laboratories

Report No. R-7456-5

R-7456-6 BBM S4000 FCC ID F3S4KMTX OCCUPIED BW 3/11/98 TS
 REF 7.3 dBm ATTEN 10 dB

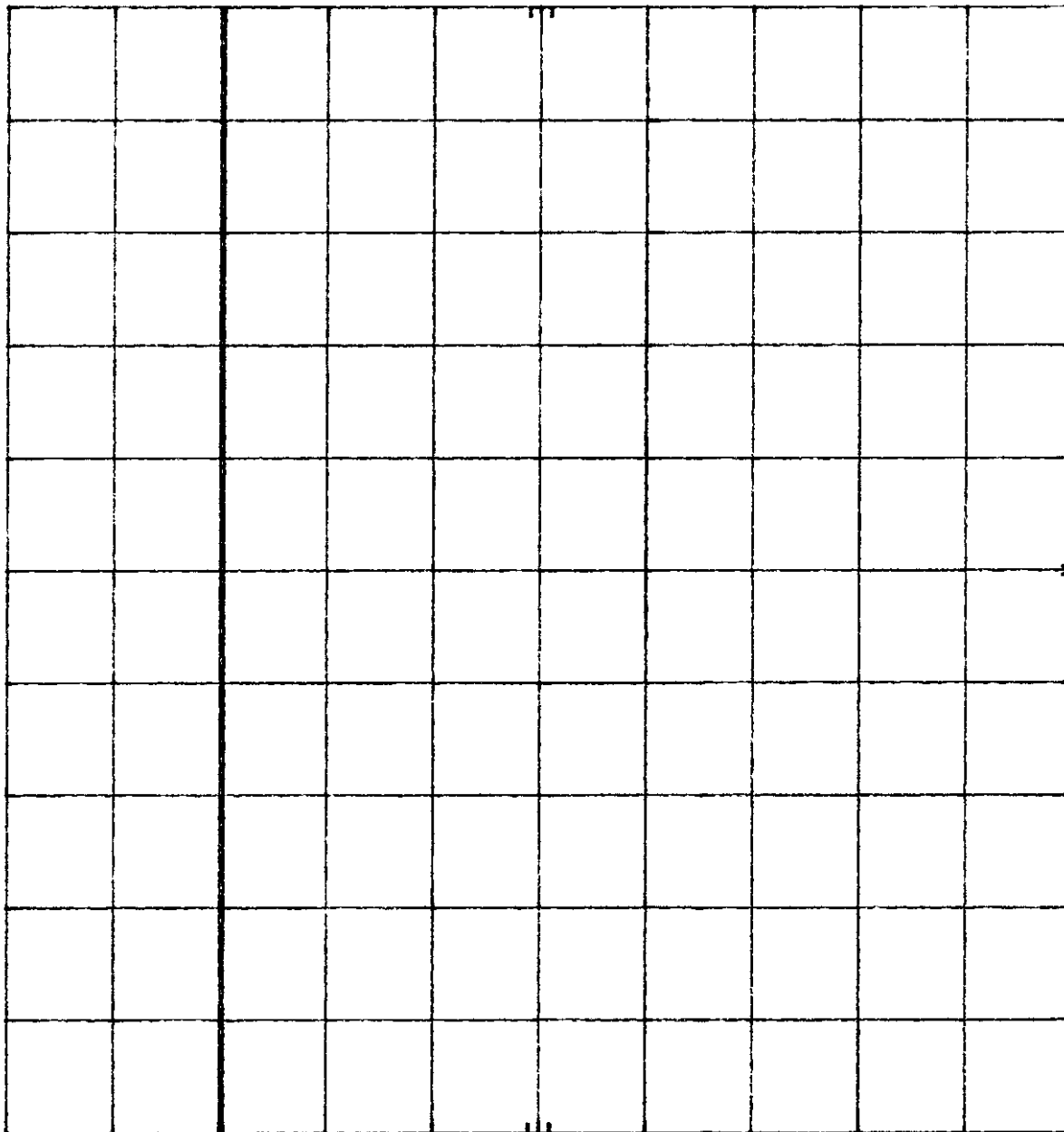
hp

10 dB/

OFFSET

10.0
dB

DL
-13.0
dBm



START 4.00 GHz RES BW 1 MHz VBW 3 MHz STOP 8.10 GHz SWP 20.0 sec

Customer:	BBM Electronics
Test Sample:	782 MHz to 806 MHz Wireless FM Transmitter
Model No:	S4000MTX FCC ID: F3S4KMTX
Test Method:	Antenna Conducted Emissions, Paragraph 2.991
Notes:	Center Frequency= 805.9 MHz Audio Input = 15000 Hz at 50% Modulation plus 16 dB
Date:	March 11, 1998
Tech:	T. Schneider
Sheet	18 of 18



Retlif Testing Laboratories

Report No. R-7456-5

EXHIBIT H

Para. 2.993

Field Strength of Spurious Radiation



Retlif Testing Laboratories

Test Report Number No. R-7456-5
FCC ID: F3S4KMTX

FIELD STRENGTH OF SPURIOUS RADIATION (PARA 2.993)

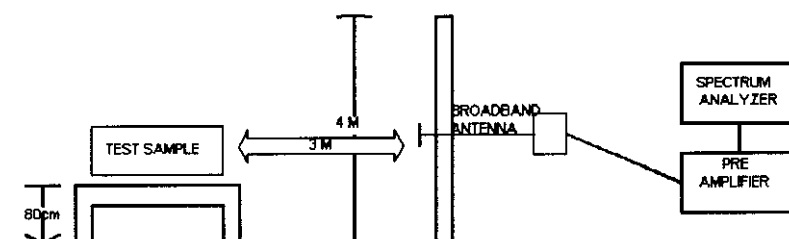
A. Measurement Procedure:

The test sample was then placed on an 80cm high wooden test stand which was located three meters from the test antenna on an FCC listed test site. The frequency range scanned was from the lowest frequency generated by the test sample to its tenth harmonic. In order to maximize the level of each emission observed from the test sample, the broadband antenna was tuned to the frequency of each emission and the test sample was rotated 360 degrees. To further maximize the each emission observed, the test antenna was both horizontally and vertically polarized, and then was raised and lowered from one to four meters from the ground plane. The limits for all of the spurious emissions was calculated utilizing the measured output power and the following equation:

$$\text{Limit (dB}\mu\text{V/M)} = 20 \log \left[\left\{ (49.2 \times P_T)^{1/3} \right\} \times 10^6 \right] - (43 + 10 \log P_T)$$

The above procedure was performed at the lower, middle and upper frequencies of the device's range.

Setup of the test is shown below:



B. Test Results:

The results for the above test are shown on the following three (3) data sheets.



Retlif Testing Laboratories

Test Report Number No. R-7456-5
FCC ID: F3S4KMTX

TABULAR DATA SHEET

SPURIOUS EMISSIONS, PARAGRAPH 2.993

BBM Electronic Group Limited

JOB No.: R-7456-5

794 Mhz - 806 Mhz UHF FM Transmitter

FCC ID: F3S4KMTX

S4000MTX

SERIAL No.: N/A

FCC PART 74: Low Power Auxiliary Stations

PARAGRAPH: 74.861

CONTINUOUSLY TRANSMITTING A CW SIGNAL AT CENTER FREQUENCY

Dennis Cortes

DATE: 3/12/98

Center Frequency= 794.10 Mhz Distance= 3 Meters LIMIT = $\frac{49.2 \times \text{OUTPUT POWER}}{3}$ (43 + 10log OUTPUT POWER)

[illegible]

TABULAR DATA SHEET

[illegible]

EXHIBIT H

Para. 2.995

Frequency Stability



Retlif Testing Laboratories

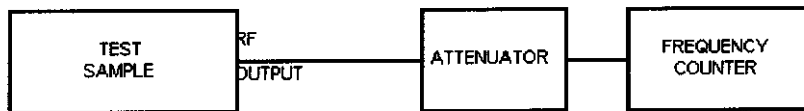
Test Report Number No. R-7456-5
FCC ID: F3S4KMTX

FREQUENCY STABILITY MEASUREMENTS (PARA 2.995)

A. Measurement Procedure (Frequency vs. Voltage):

The RF output of the test sample was coupled to a frequency counter through external attenuation. Using a Variable power supply and voltmeter, the input voltage was varied. Measurements were taken with the device being supplied with 85, 100, and 115 percent of its rated input voltage and set to transmit the unmodulated carrier frequency.

Setup of the test is shown below:



B. Test Results:

The results for the above test are shown on the following single data sheet.



Retlif Testing Laboratories

Test Report Number No. R-7456-5
FCC ID: F3S4KMTX

TABULAR DATA SHEET

FREQUENCY STABILITY (85% TO 115% OF INPUT POWER) Para 2.985

BBM Electronics

JOB No.:

R-7456-5

782 MHz to 806 MHz Wireless FM Transmitter

S4000MTX

SERIAL No.:

FCC ID: F3S4KMTX

FCC Part 74 Experimental Radio, Auxiliary, Special Broadcast and other Program Distributional Services.

PARAGRAPH: 74.861 (e) (4)

Transmitting a CW signal at center frequency of 794.1 MHz

T. Schneider

DATE:

3/09/98

Level adjustment set at maximum.

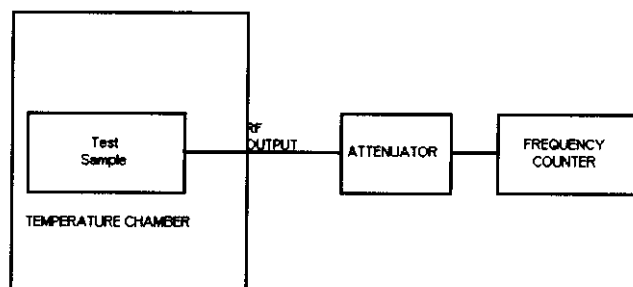
[illegible]

FREQUENCY STABILITY MEASUREMENTS (PARA 2.995)

A. Measurement Procedure (Frequency vs. Temperature)

The RF output of the test sample was coupled to a frequency counter through external attenuators. With the counter connected, the test sample was activated and placed into a temperature chamber. The temperature was then programmed to start at -30 degrees Celsius and reach +50 degrees Celsius in 10 degrees increments. Each increment was held for 30 minutes in order to let the test sample stabilize at that temperature.

Setup of the test is shown below:



B. Test Results:

The results for the above test are shown of the following single data sheet.



Retlif Testing Laboratories

Test Report Number No. R-7456-5
FCC ID: F3S4KMTX

RETLIF TESTING LABORATORIES

TABULAR DATA SHEET

TEST METHOD:

FREQUENCY STABILITY (-30 DEGREES TO +50 DEGREES) Para 2.985

CUSTOMER:

BBM Electronics

JOB No.:

R-7456-5

TEST

782 MHz to 806 MHz Wireless FM Transmitter

SAMPLE:

MODEL No.:

S4000MTX

SERIAL No.:

FCC ID: F3S4KMTX

TEST

FCC Part 74 Experimental Radio, Auxiliary, Special Broadcast and other Program Distributional Services

SPECIFICATION:

PARAGRAPH: 74.861 (e) (4)

OPERATING

Transmitting a CW signal at center frequency of 794.1 MHz

MODE:

N. Accardi

DATE:

3/11/98

TECHNICIAN:

Level adjustment set at maximum.

[illegible]

TEST EQUIPMENT LIST



Retlif Testing Laboratories

Test Report Number No. R-7456-5
FCC ID: F3S4KMTX

Equipment List

EN	Type	Manufacturer	Frequency Range	Model No.	Serial No.	Cal Date	Due Date
067	Open Area Test Site	Retlif	3 Meter	RNY	001	8/30/97	8/30/99
128C	Double Ridge Guide	Eaton Corporation	1 GHz - 18 GHz	96001	2385	10/6/97	10/6/98
133	Broadband Pre-Amplifier	Electro-Metrics	10 kHz - 1 GHz, 26dB	BPA-1000	174	6/20/97	6/20/98
141	Spectrum Analyzer	Hewlett Packard	100 Hz - 40 GHz	8566B	2637A03491	3/2/98	9/2/98
141A	Graphics Plotter	Hewlett Packard	N/A	7470A	2517A07605	3/4/98	3/4/99
141B	Quasi-Peak Adaptor	Hewlett Packard	100 Hz - 1 GHz	85650A	2521A00862	3/3/98	9/3/98
206B	6.0 dB Attenuator	Texscan	0 - 1.0 GHz	FP-50 - 6 dB	5785	6/20/97	6/20/98
333	Attenuator	Narda	DC - 11 GHz	768-10	67	6/19/97	6/19/98
488	HP Test Oscillator	Hewlett Packard	10 Hz - 10 MHz	654A	0951A02574	4/26/97	4/26/98
523	Biconilog	Electro-Mechanics	26 MHz - 1100 MHz	3143	9602-1234	9/30/97	9/30/98
534	DC Power Supply	Lambda		DV-1827-2	71046	5/9/97	5/9/98
543	Preamplifier	Hewlett Packard	1.0 GHz - 26.5 GHz	8449B	3008A00829	8/12/97	8/12/98



Retlif Testing Laboratories

Test Report Number No. R-7456-5
FCC ID: F3S4KMTX