Certification of Compliance

CFR 47 Part 15 Subpart B

Test Report File No. : 02-IST-068 **Date of Issue** : 19,April,2002

Model(s) : DV6T811N / DAEWOO

: DRC6000N / THOMSON

Kind of Product : Video Cassette Recorder with DVD Player(TV Interface Device)

Applicant : Daewoo Electronics Co., Ltd.

Address : 543, Dangjung-Dong, Kunpo-City, Kyonggi-Do
435-030, Korea

Manufacturer : Daewoo Electronics Co., Ltd.

Address : 295, Gondan-dong, Kumi-city, Kyungsangbuk-do, Korea

Test Result ☒ **Positive** ☐ **Negative**

Reviewed By

J.H. Lee / General Manager

Approved By

G. Chung / Chief

- The test report with appendix consists of 112 pages.
- The test result only responds to the tested sample.
- It is not allowed to copy this report even partly without the allowance of IST EMC Laboratory.
- This equipment as for has been shown to be capable of continued compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.4 1992.

TABLE OF CONTENTS

Information OF TUNERS

Manufacture	Manufacture Name	Daewoo Model Name
LG Innotek Co., Ltd	TADC-H101F	LGTMI-US2-S
Korea Alps Co., Ltd	TMDH2-A50A	ALTMI-US3-S
LG Innotek Co., Ltd	TADC-H301F	LGTMI-US4-S
SAMSUNG Electric Co., Ltd	TCMN0682PA13B	SSTMI-US3-S
SANYO Electric Co., Ltd	VD065AW	SATMI-US4-S

INFORMATIONS OF TEST LABORATORY

EMC LABORATORY of IST Co., Ltd.*(FCC Filing Lab)*
San 21-8, Goan-Ri, Baekam-Myun, Yongin-City
Kyonggi-Do, 449-860, Korea
TEL : +82 31 333 4093 FAX : +82 31 333 4094

ENVIRONMENTAL CONDITIONS

Temperature	16 ℃
Humidity	43 %
Atmospheric pressure	998 mbar

POWER SUPPLY SYSTEM USED

Power supply system	120Vac , 60Hz

PRODUCT INFORMATIONS

Power supply system	120Vac / 60Hz
Power consumption	24W
Video signal	EIA STANDARD NTSC COLOR
RF input impedance	75 ohm Unbal. (U/V one input)
RF output impedance	75 ohm Unbal.
VHF output signal	Channel 3 or 4 (selectable)
Video input signal	Phono type 1.0 ±0.2Vp-p sync negative 75 ohms unbalanced
Video output signal	Phono type 1.0±0.2Vp-p sync negative 75 ohms unbalanced
Audio input signal	Phono type, -8.8dBm, more then 47k ohms unbalanced
Audio output signal	Phono type -8.8dBm(VCR) 2Vrms(DVD), less then 1k ohms unbalanced
VCR system	Hi-Fi Rotary Double Azimuth 4 heads helical scanning system.
DVD system	DVD, VCD, CD, MP3, CD-R, CD-RW Playback system

- EMC suppression device is not used during the test.
- Please refer to user's manual.

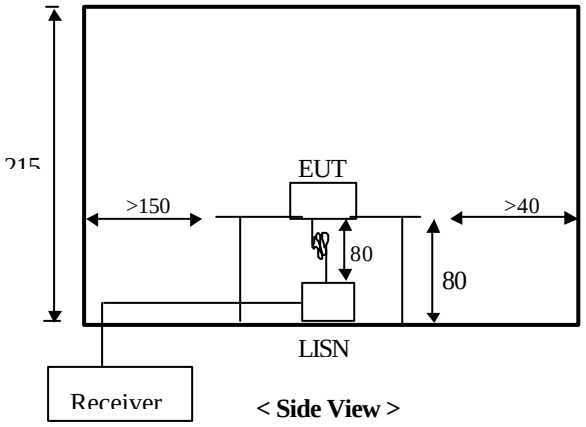
DESCRIPTIONS OF TEST

Conducted Emissions:

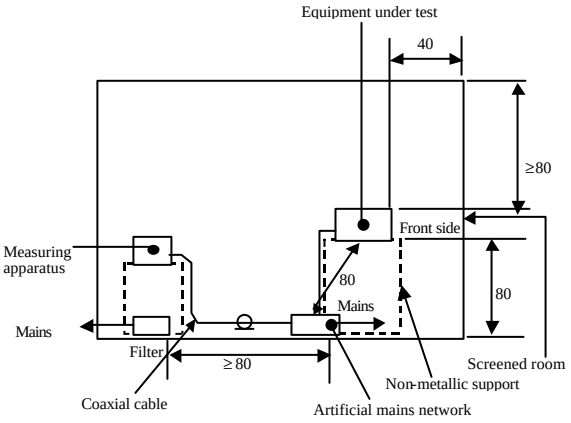
The measurement were performed over the frequency range of 0.45MHz to 30MHz using a 50Ω/50uH LISN as the input transducer to a Spectrum Analyzer or a Field Intensity Meter. The measurements were made with the detector set for "Peak" amplitude within an bandwidth of 10KHz or for "quasi-peak" within a bandwidth of 9KHz.

- **Procedure of Test**

The line-conducted facility is located inside a shielded room No.1. A 1m X 1.5m wooden table 80cm height is placed 40cm away from the vertical wall and 1.5m away from the other wall of the shielded room. The R/S ESH3-Z5 and EMCO 3825/2 LISN are bonded to bottom of the shielded room. The EUT is located on the wooden table with distance more than 80cm from the LISN and powered from the EMCO LISN .The peripheral equipment is powered from the other LISN. Power to the LISNs are filtered by a noise cut power line filters. All electrical cables are shielded by braided tinned steel tubing with inner ϕ 1.2cm. If the EUT is a DC-powered device, power will be derived from the source power supply it normally will be powered from and this supply lines will be connected to the EMCO LISN. All interconnecting cables more than 1m were shortened by non-inductive bundling to a 1m length. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating conditions. The RF output of the LISN was connected to the R/S receiver to determine the frequency producing the maximum emission from the EUT. The frequency producing the maximum level was reexamined using Quasi-Peak mode by manual measurement, after scanned by automatic Peak mode for frequency range from 0.45 to 30MHz. The bandwidth of the receiver was set to 10kHz. The EUT, peripheral equipment, and interconnecting cables were arranged and manipulated to maximize each EME emission.



< Side View >



< Concept Drawing >

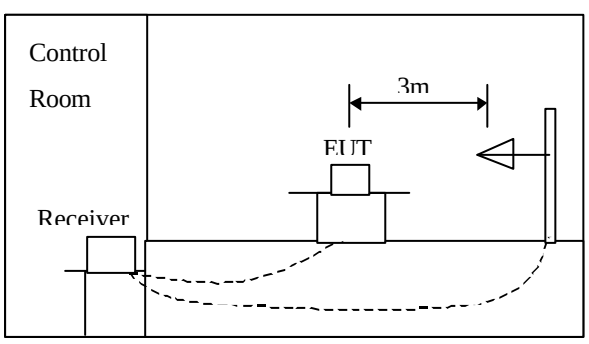
DESCRIPTION OF TEST

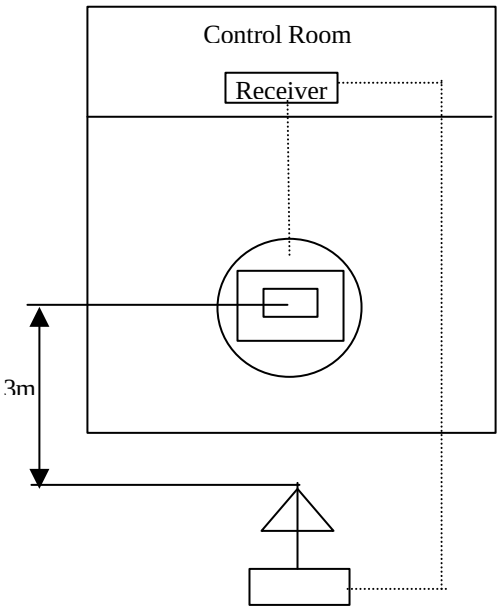
Radiated Emissions:

The measurement was performed over the frequency range of 30MHz to 1GHz using antenna as the input transducer to a Spectrum analyzer or a Field Intensity Meter. The measurement was made with the detector set for "quasi-peak" within a bandwidth of 120KHz.

- **Procedure of Test**

Preliminary measurements were made at 3 meter using bi-conical and log-periodic antennas, and spectrum analyzer to determine the frequency producing the max. emission in anechoic chamber. Appropriate precaution was taken to ensure that all emission from the EUT were maximized and investigated. The system configuration, mode of operation, turn table azimuth and height with respect to the antenna were noted for each frequency found. The spectrum was scanned from 40MHz to 300MHz using S/B bi-conical antenna and 300 to 1000MHz using S/B log-periodic antenna. Above 1GHz, linearly polarized double ridge horn antennas were used. Final measurements were made at open site with 3-meters test distance using S/B bi-log antenna or horn antenna. The OATS have been verified in regular for its normalized site attenuations. The test equipment was placed on a wooden table. Sufficient time for the EUT, peripheral equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. Each frequency found during pre-scan measurements was re-examined by manual. The detector function was set to CISPR quasi-peak mode and the bandwidth of the receiver was set to 120kHz or 1MHz depending on the frequency of type of signal. The EUT, peripheral equipment and interconnecting cables were re-configured to the set-up producing the max. emission for the frequency and were placed on top of a 0.8-meter high nonmetallic 1 x 1.5 meter table. The EUT, peripheral equipment, and interconnecting cables were re-arranged and manipulated to maximize each emission. The turntable containing the system was rotated; the antenna height was varied 1 to 4 meters and stopped at the azimuth or height producing the maximum emission. Each emission was maximized by: varying the mode of operation to the EUT and/or peripheral equipment and changing the polarity of the antenna, whichever determined the worst-case emission.





DESCRIPTION OF TEST

Output Signal level measurements :

The RF output of the TV interface device was fed to the TV receiver via coaxial cable. The signal level was measured by direct connection to the spectrum analyzer with 50/75 ohm matching transformer between the spectrum analyzer and the TV interface device.
The RF output signal level measured RMS voltage was the highest RF level present at the output terminals during normal use of the device. Measurements were made of the levels of both the visual(61.25 MHz) and aural(71.25 MHz) of TV channel 3 and 4.
The voltage corresponding to the peak envelope power of the video modulated signal during maximum amplitude peaks across a resistance(R ohms) matching the rated output impedance of the device, must not exceed 346.4 times the square root of (R)[uV] for all other TV interface device. The voltage corresponding to peak envelope power of the audio modulated signal, if provided by the TV interface device, must not exceed 77.5 times the square root of (R)[uV] for all other TV interface device.(Sec 15.115 (b).(1).(ii))

Output Terminal Conducted Spurious Emission :

The RF output signal was fed to the TV receiver with coaxial cable. The measurements were made by direct connection to the spectrum analyzer and TV interface device with 50/75 ohm matching transformer. The frequency range 30 to 1000MHz was investigated for significant emission. The maximum RMS voltage of any emission appearing on frequencies removed by than 4.6MHz below or 7.4MHz above the video carrier frequency on which the TV interface device is operated must not exceed 10.95 timed the square root of (R) [uV](Sec 15.115 (b).(2).(ii)) This represents the 30dB attenuation.

Transfer Switch Isolation Measurement :

The measurements were made of the maximum RMS voltage at the antenna terminals of the switch for all positions of the transfer switch. The maximum voltage corresponds to the peak envelope power of the video signal during maximum amplitude peaks. In either position of the receiver transfer switch, the maximum voltage at the receiving antenna input terminals of the switch when terminated with a resistance (R ohms) matching the rated impedance of the antenna input of the switch, must not exceed 0.346 times the square root of (R) [uV]. (Sec 15.115 (c).(1).(ii))

SUMMARY

■ Conducted Emission

The requirements are ● MET ○ Not MET
Minimum limit margin 7.2 dB at 4.120 MHz
Maximum limit exceeding

Remarks : With live phase, DVD playback and VCR record mode (Tuner: SSTMI-US3-S)

■ Radiated Emission

The requirements are ● MET ○ Not MET
Minimum limit margin 3.2 dB at 640.8 MHz
Maximum limit exceeding

Remarks : Tuner: LGTMI-US2-S)

■ Output Signal Level Measurements

The requirements are ● MET ○ Not MET
Minimum limit margin
Maximum limit exceeding

Remarks : Limits are kept with more than 9dB margin

■ Output Terminal Conducted Spurious Emission

The requirements are ● MET ○ Not MET
Minimum limit margin
Maximum limit exceeding

Remarks : Limits are kept with more than 10dB margin

■ Transfer Switch Isolation Measurements

The requirements are ● MET ○ Not MET
Minimum limit margin
Maximum limit exceeding

Remarks : Limits are kept with more than 3dB margin

Prepared By

Note :

- ■ means the test is applicable, ☐ is not applicable.

H.C. Kim / EMC Engineer

TEST CONDITIONS AND DATA

Conducted Emissions

◆ Test Equipment Used

Model Name	Manufacturer	Description	Next Cal. Date
ESH3	Rohde Schwarz	Receiver	Jun. 16, 2002
ESH3-Z2	Rohde Schwarz	Pulse Limiter	Jun. 13, 2002
EZM	Rohde Schwarz	Spectrum monitor	-
3825/2	EMCO	LISN	Jun. 13, 2002
PM5515	Philips	Pattern Generator	Jun. 20, 2002

◆ External Peripherals

Device Description	Model Name	Manufacture	FCC Compliance Information
TV Receiver	F19430	Daewoo	Verification

◆ Test Program DVD Playback and VCR record, DVD Playback, VCR Playback, VCR record mode

◆ Test Area Shielded room #3

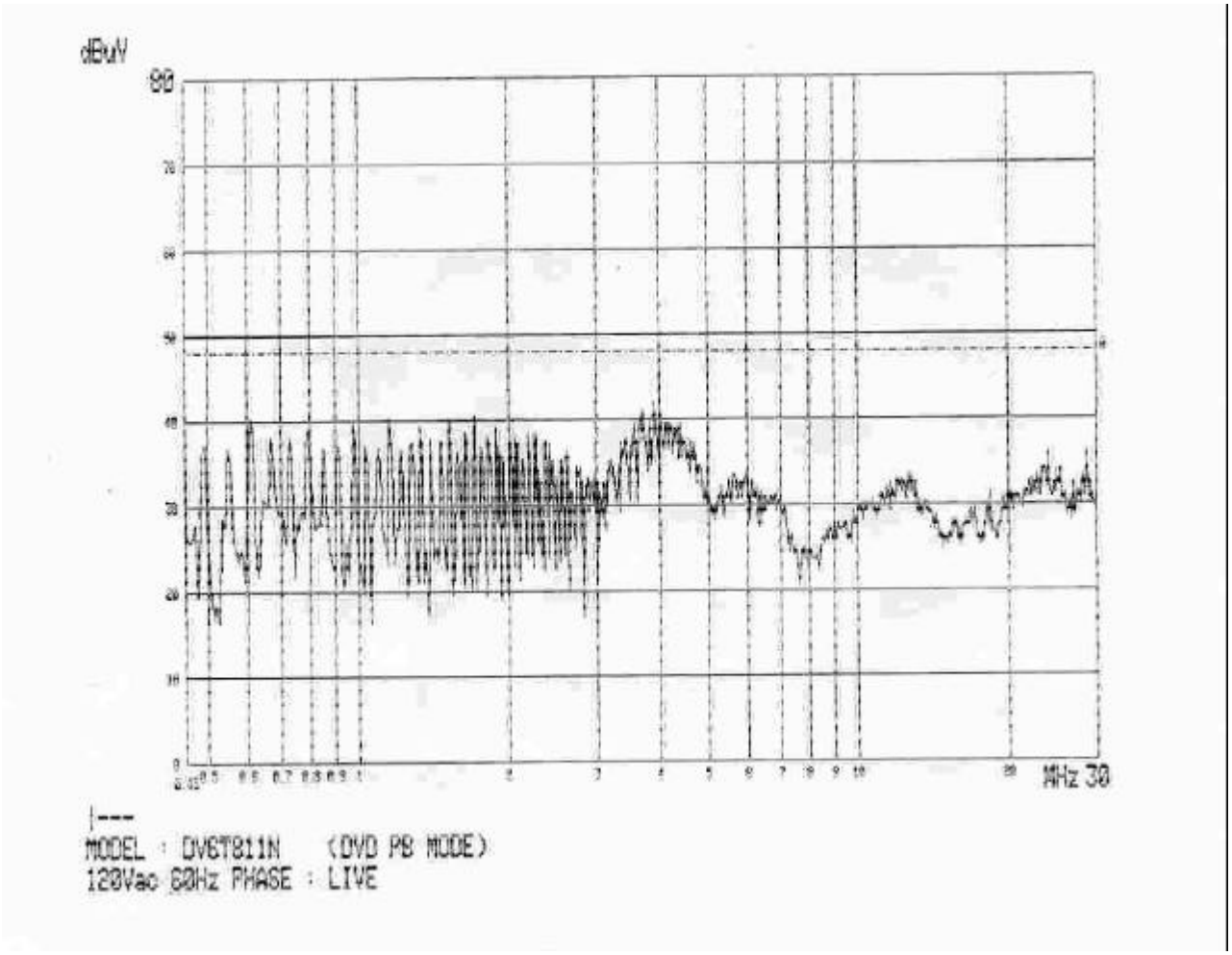
Note : The test were performed with color bar as VITS. The channels were assigned to playback mode for ch3 with 1Vpp pre-recorded reference tape and record mode for ch4 with video input of 5Vpp color bar signal amplified by HP8447D.

This test method cover all case of operation for RF output channels and modes of playback and record.

- Find the test data in following page(s) 9 to 48.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



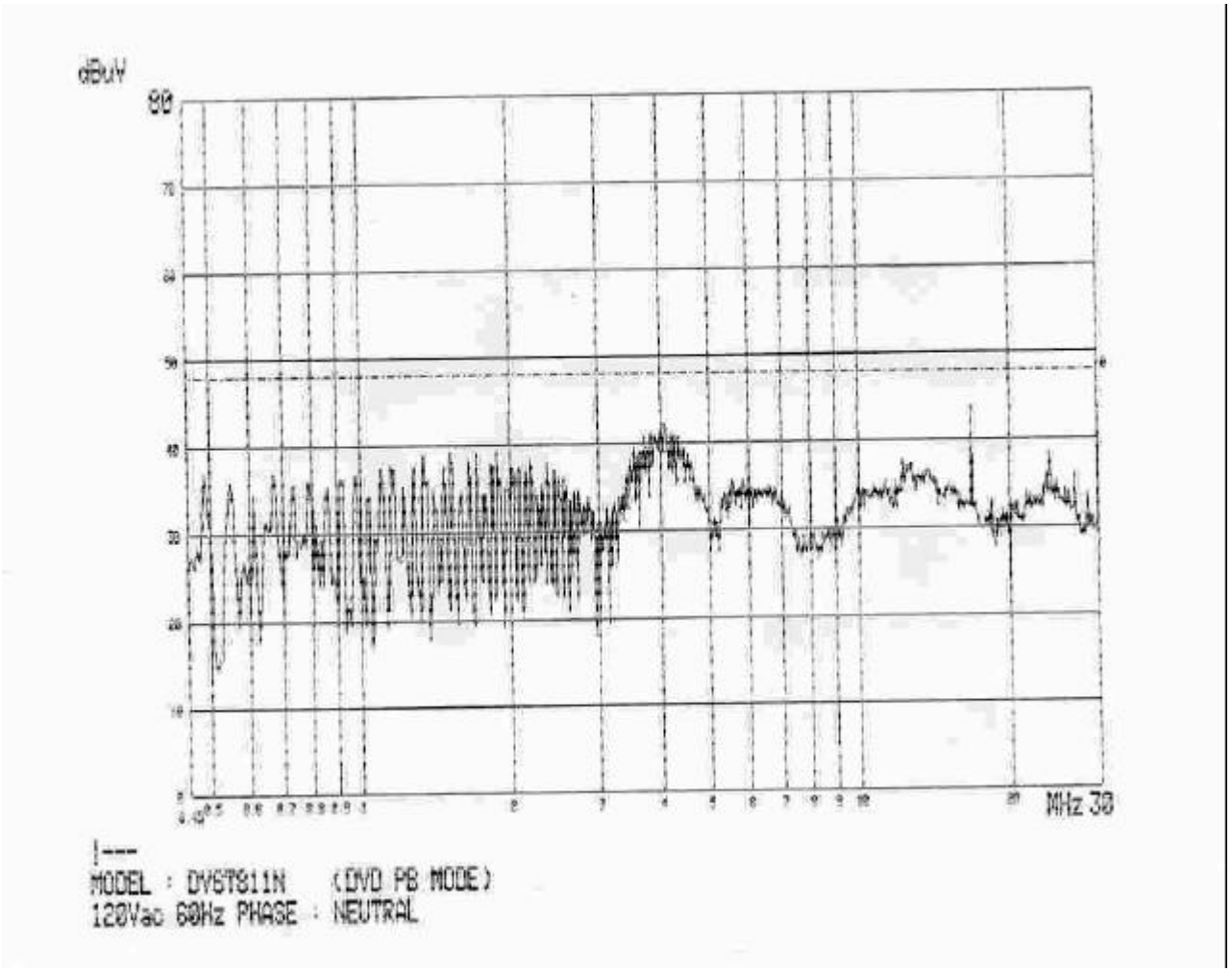
Tuner: **LGTMI-US2-S**

Frequency [MHz]	Measurement [dBuV] Q-Peak	Limit [dBuV] Q-Peak	Margin [dBuV] Q-Peak
1.451	39.1	48.00	9.70
1.708	36.2	48.00	12.60
4.105	39.9	48.00	8.90
22.857	24.3	48.00	24.50

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



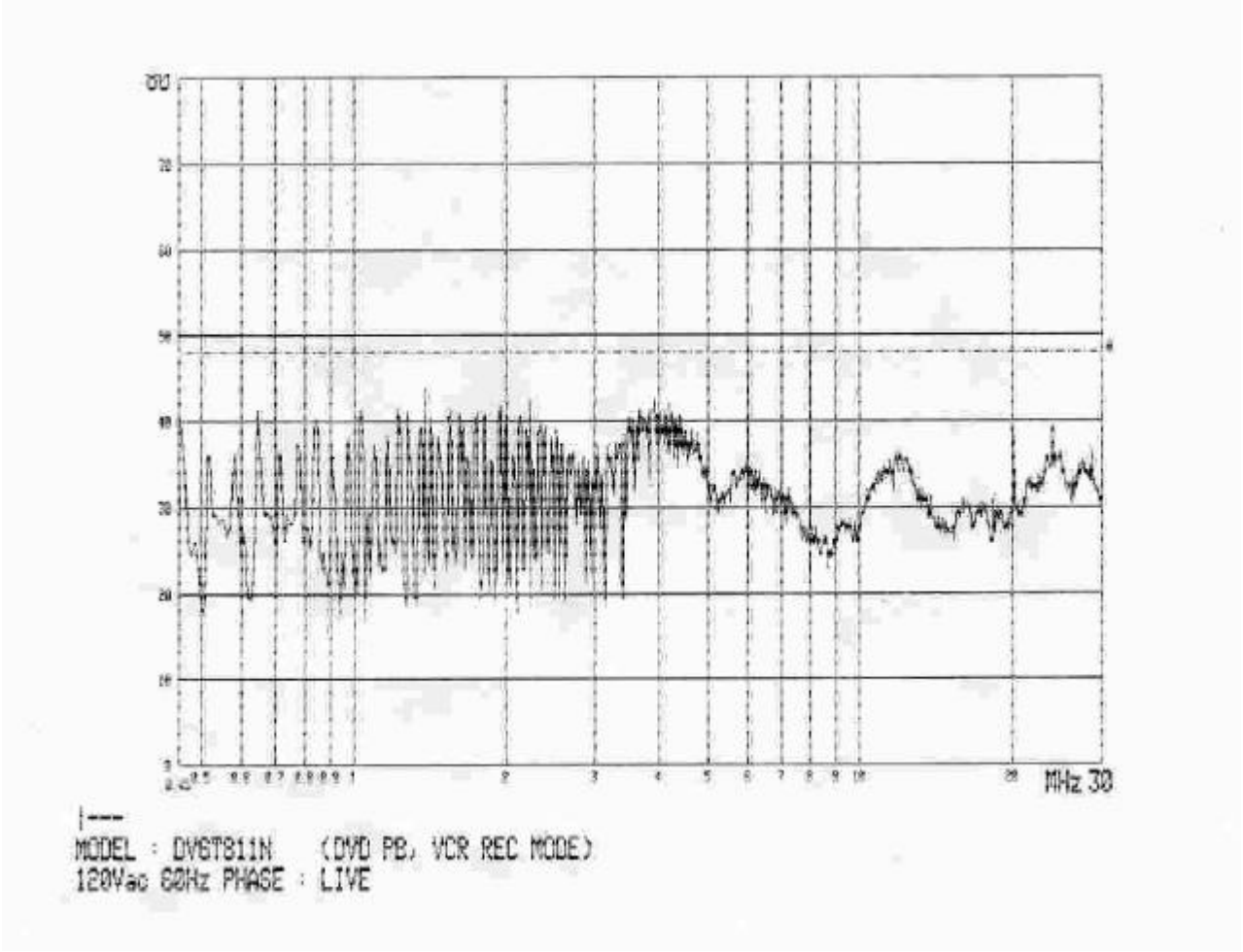
Tuner: **LGTMI-US2-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
0.190	34.7	48.00	14.10
3.894	39.2	48.00	9.60
4.115	39.8	48.00	9.00

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



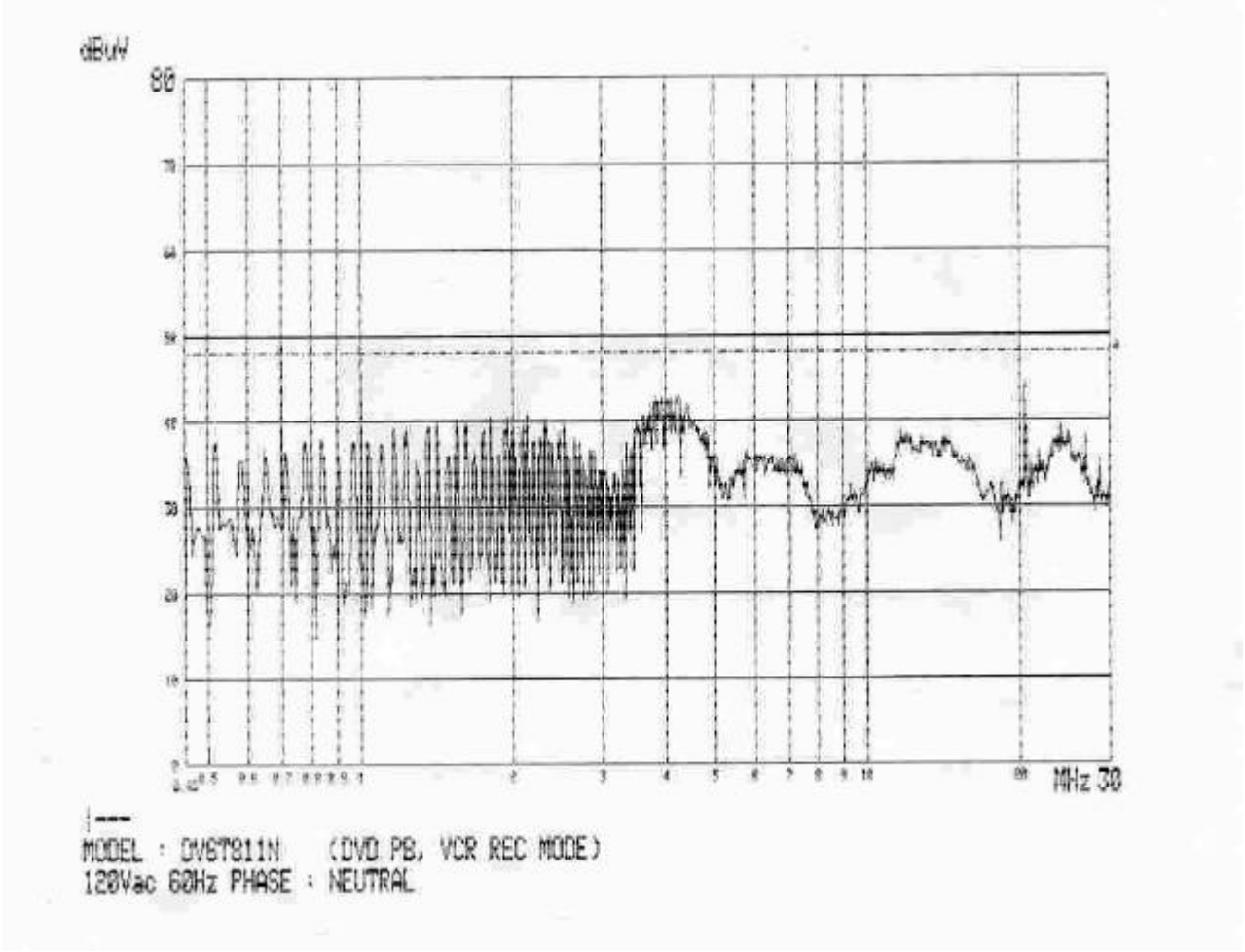
Tuner: **LGTMI-US2-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.774	37.4	48.00	11.40
4.122	39.2	48.00	9.60
25.003	32.3	48.00	16.50

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



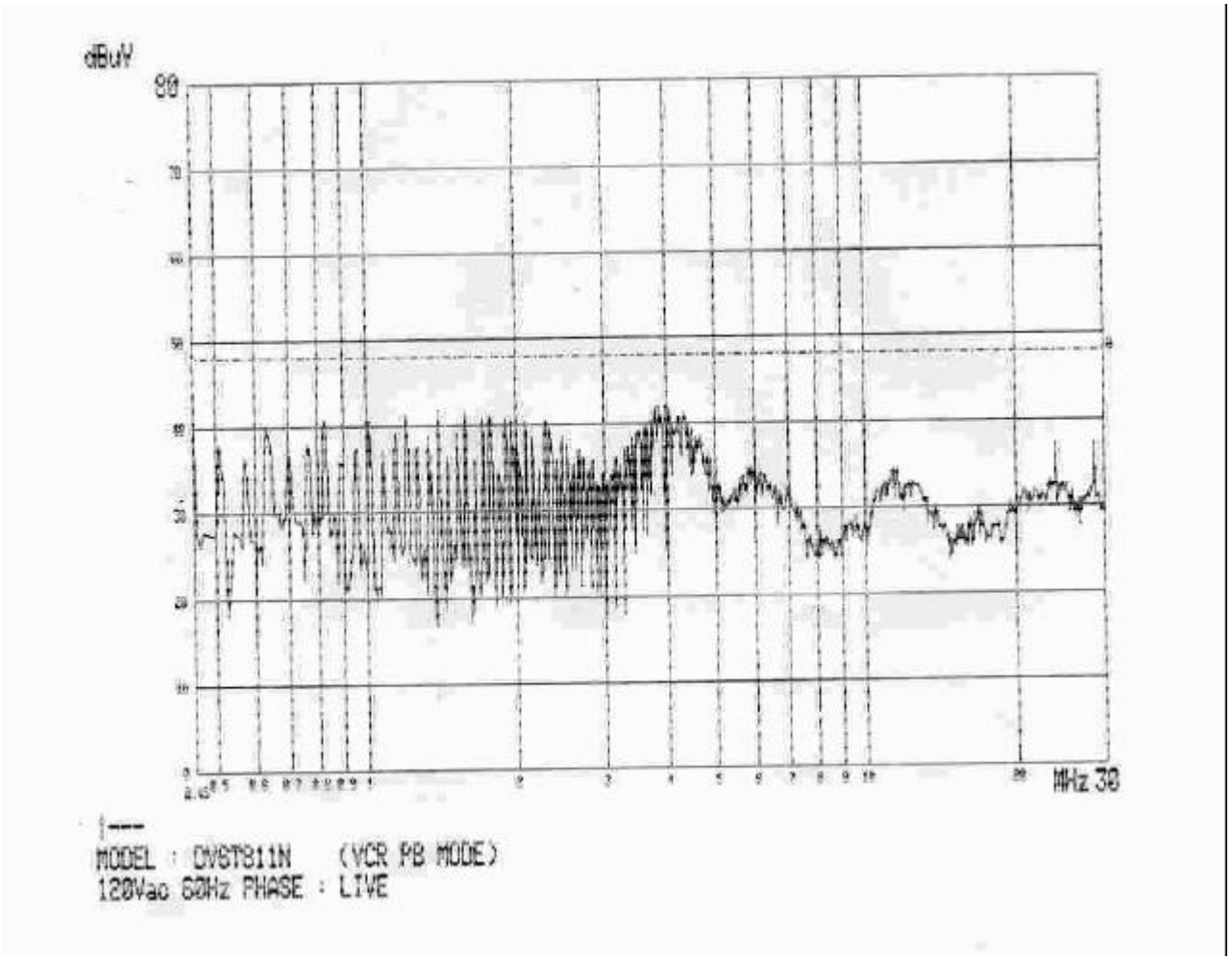
Tuner: **LGTMI-US2-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
3.993	41.2	48.00	7.60
4.198	39.5	48.00	9.30
27.805	34.7	48.00	14.10

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



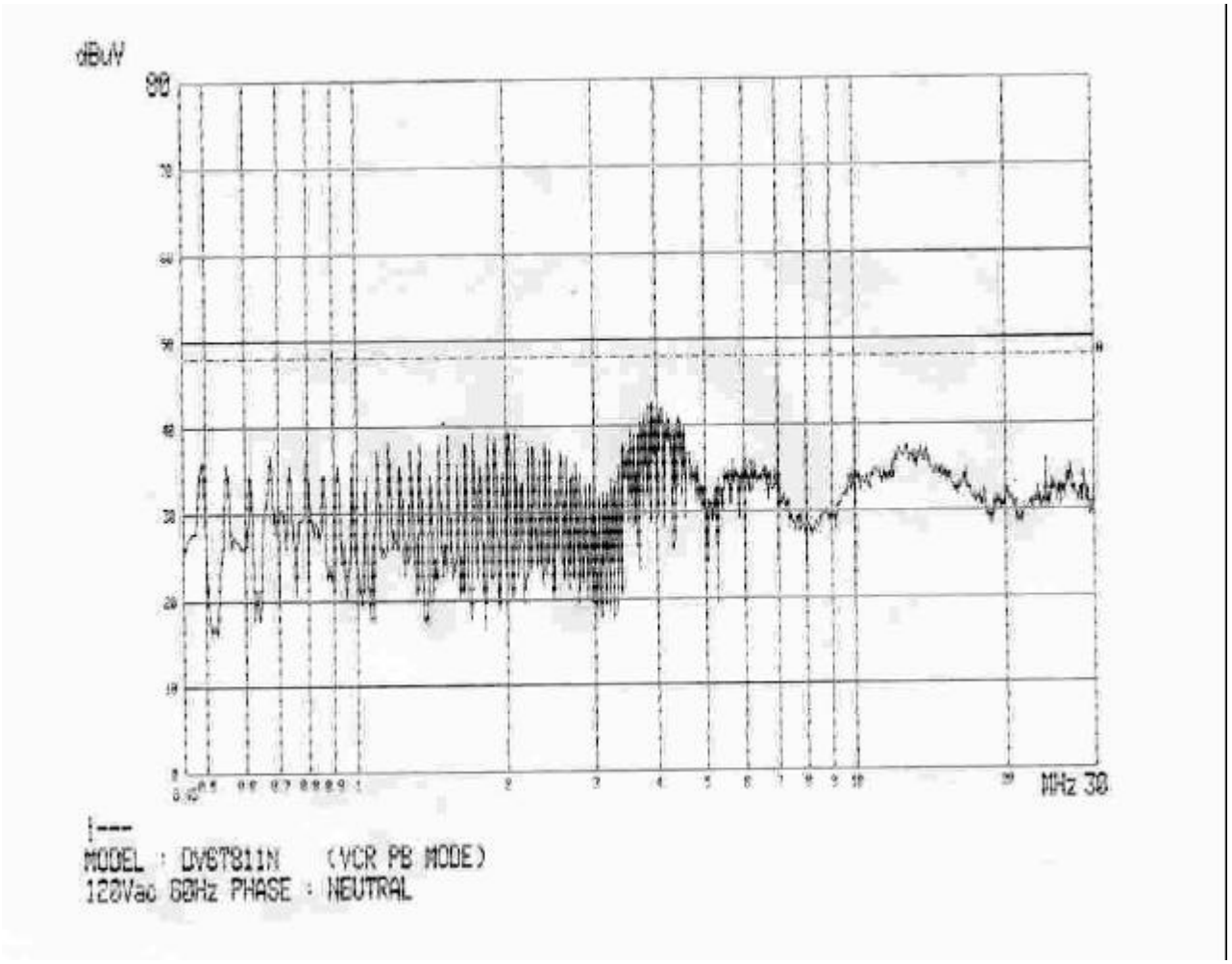
Tuner: **LGTMI-US2-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.712	36.9	48.00	11.90
4.137	40.1	48.00	8.70
4.261	40.3	48.00	8.50

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



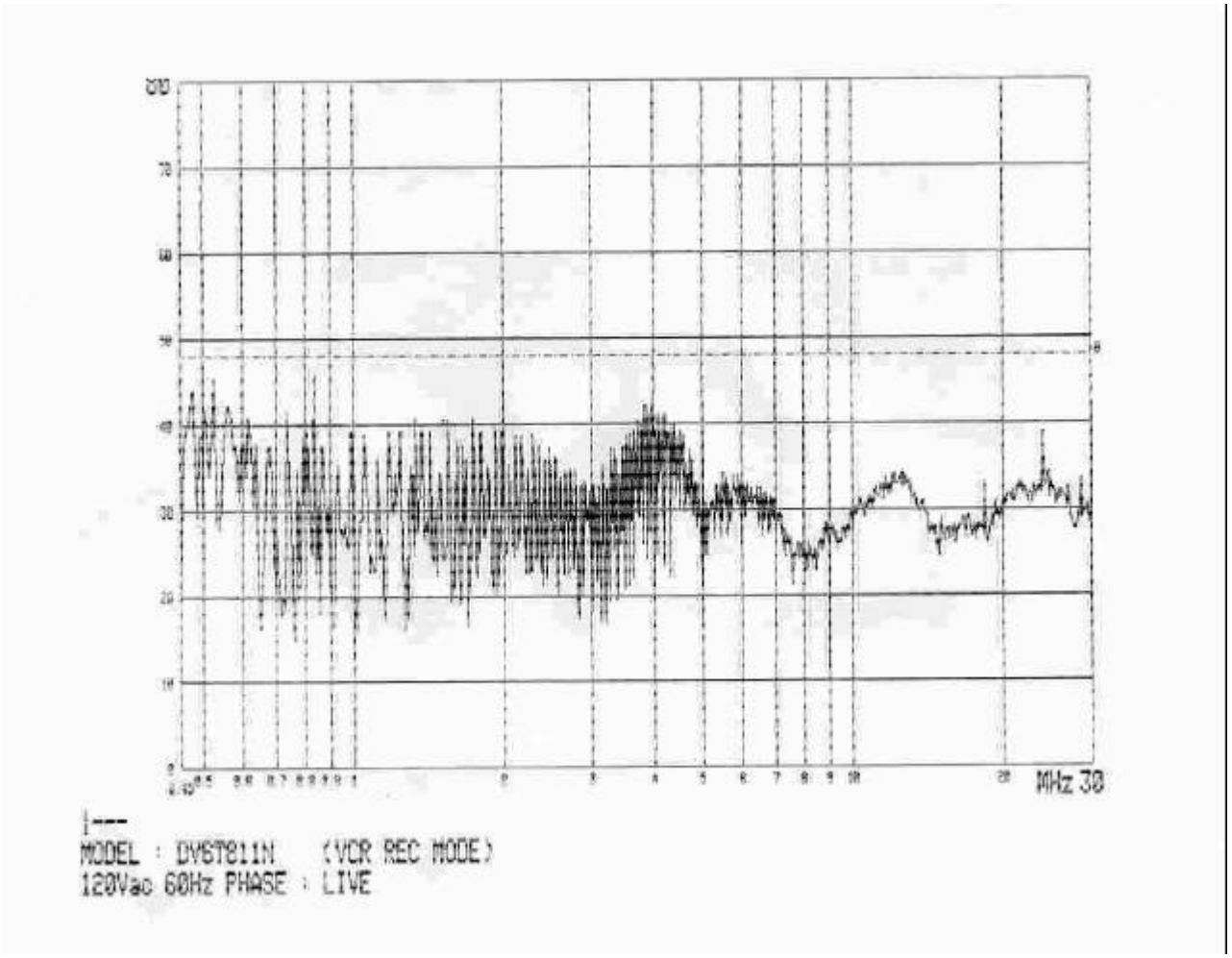
Tuner: **LGTMI-US2-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.710	36.7	48.00	12.10
3.942	39.8	48.00	9.00
4.129	39.6	48.00	9.20

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



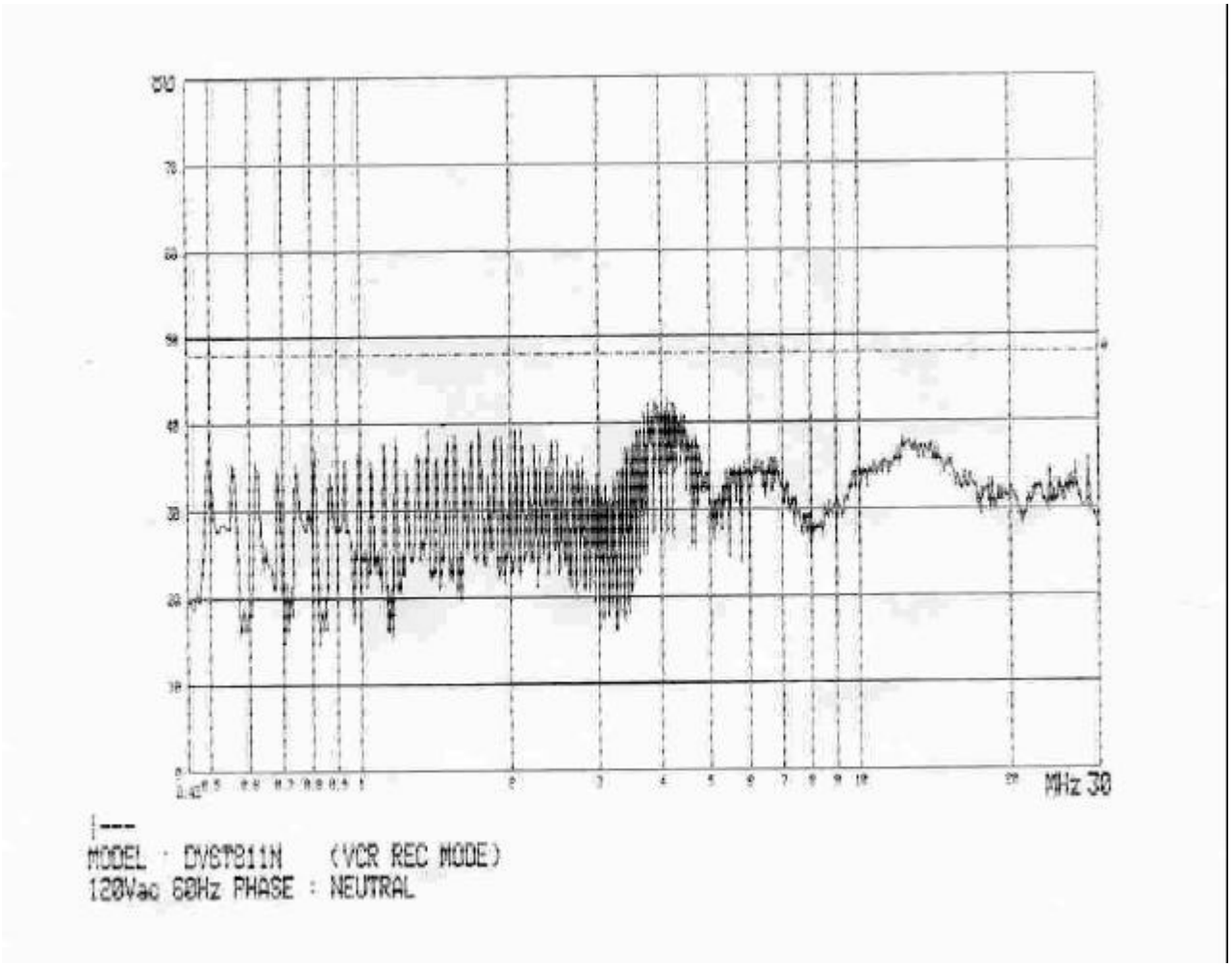
Tuner: **LGTMI-US2-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.853	35.3	48.00	13.50
3.824	39.9	48.00	8.90
4.238	39.4	48.00	9.40

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



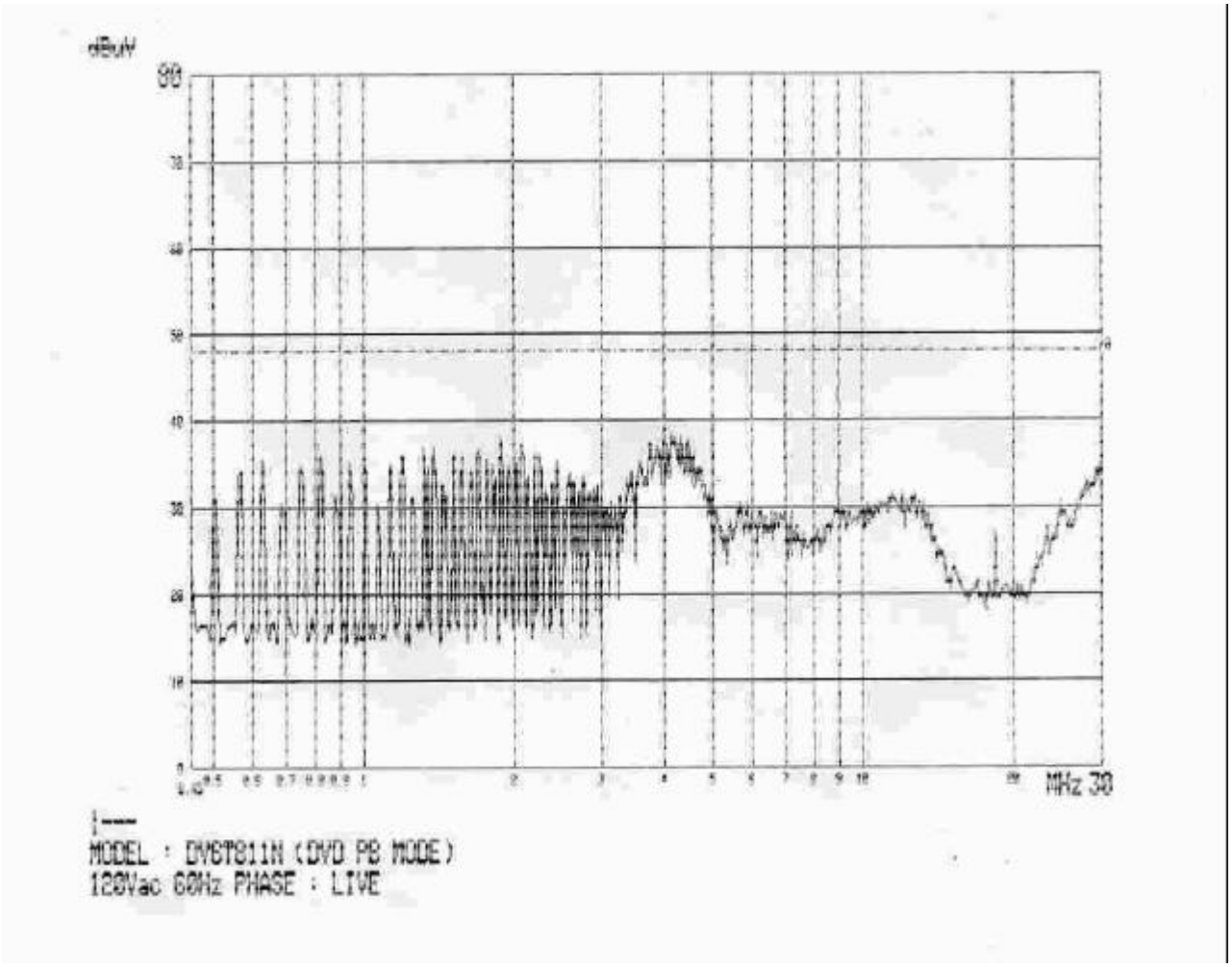
Tuner: **LGTMI-US2-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.852	34.1	48.00	14.70
4.038	40.2	48.00	8.60
27.001	33.6	48.00	15.20

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



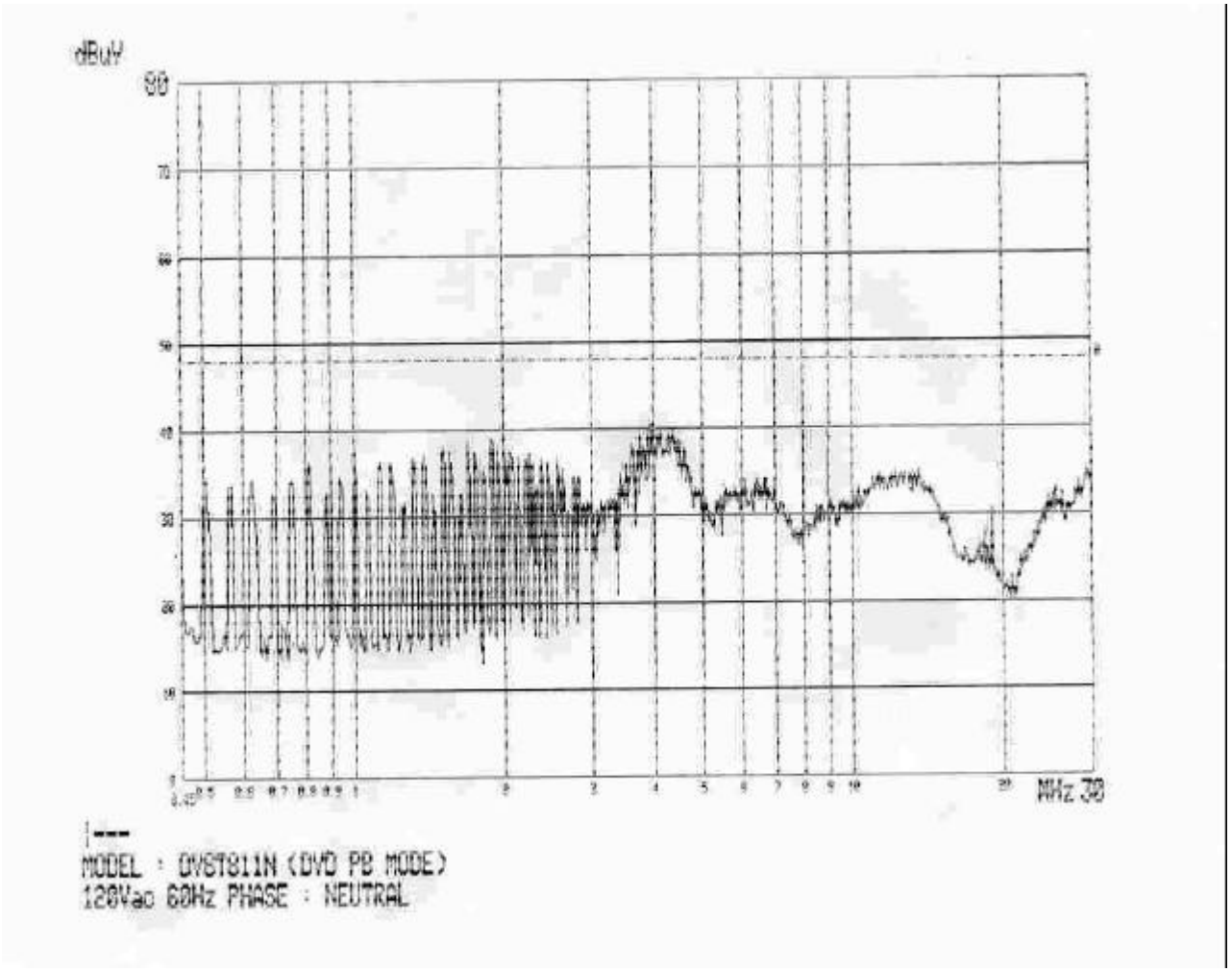
Tuner: **ALTMI-US3-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.708	38.1	48.00	10.70
4.125	37.9	48.00	10.90

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



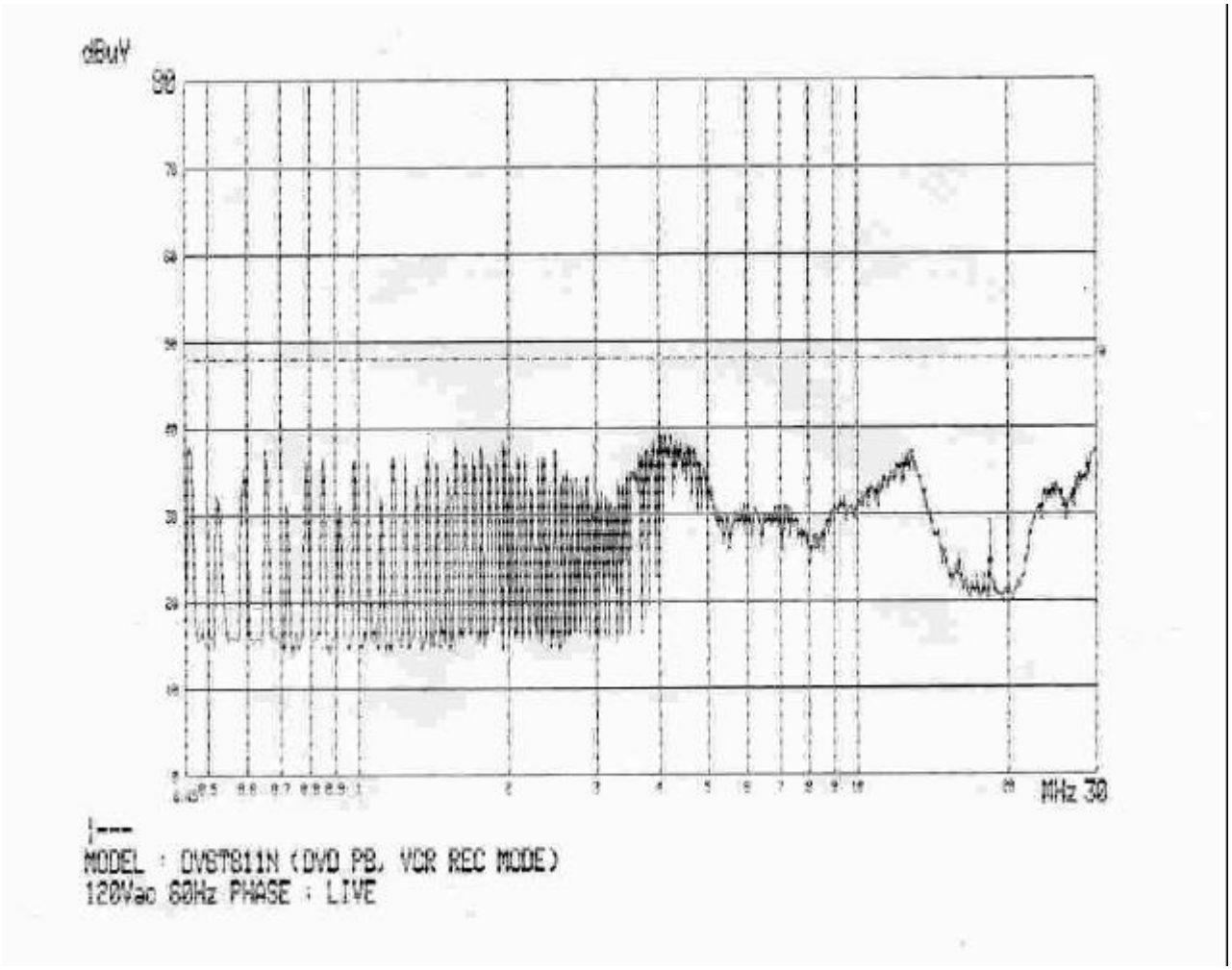
Tuner: **ALTMI-US3-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.710	39.1	48.00	9.70
4.119	38.2	48.00	10.60

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



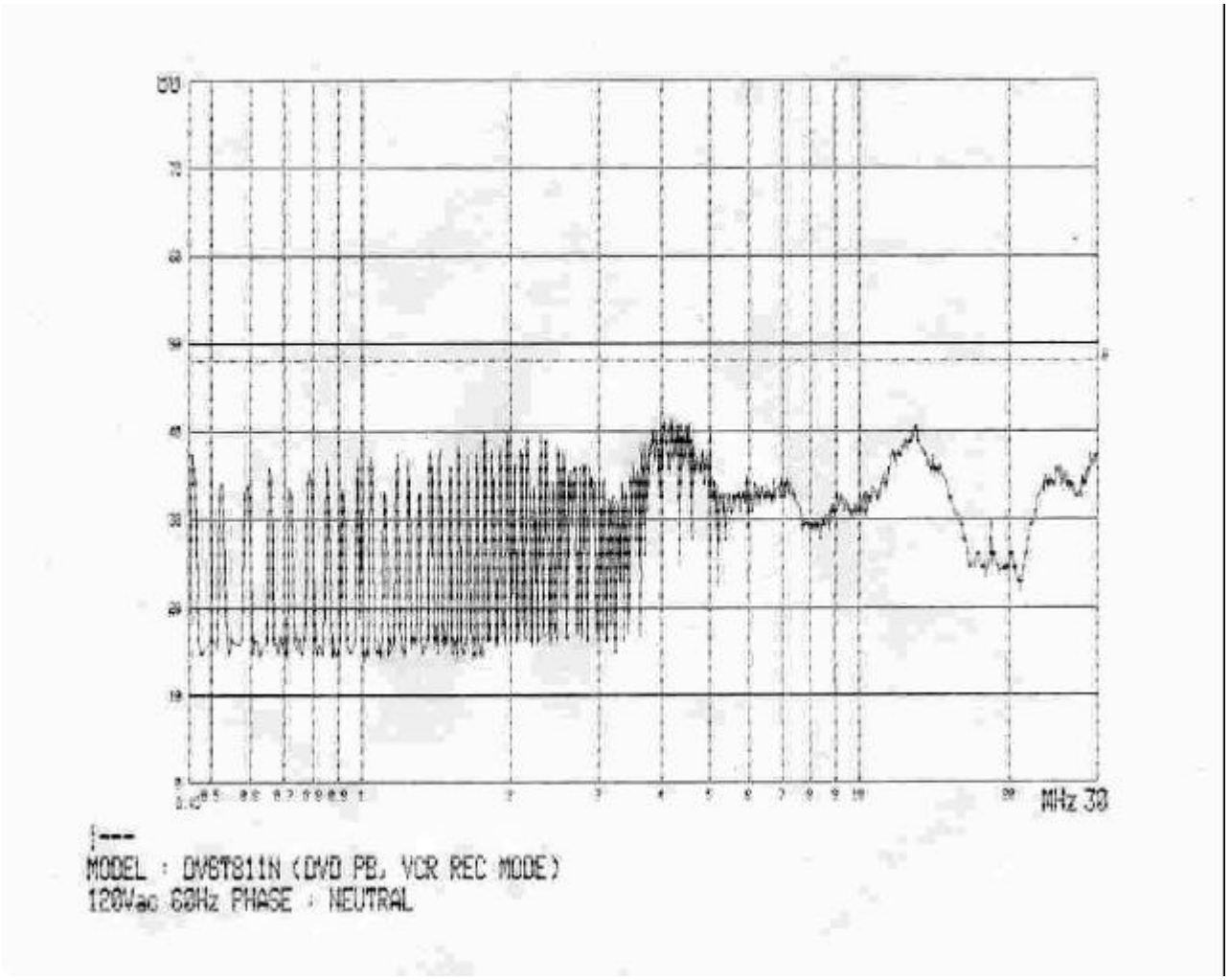
Tuner: **ALTMI-US3-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
0.460	36.5	48.00	12.30
4.120	37.6	48.00	11.20
14.198	34.4	48.00	14.40

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



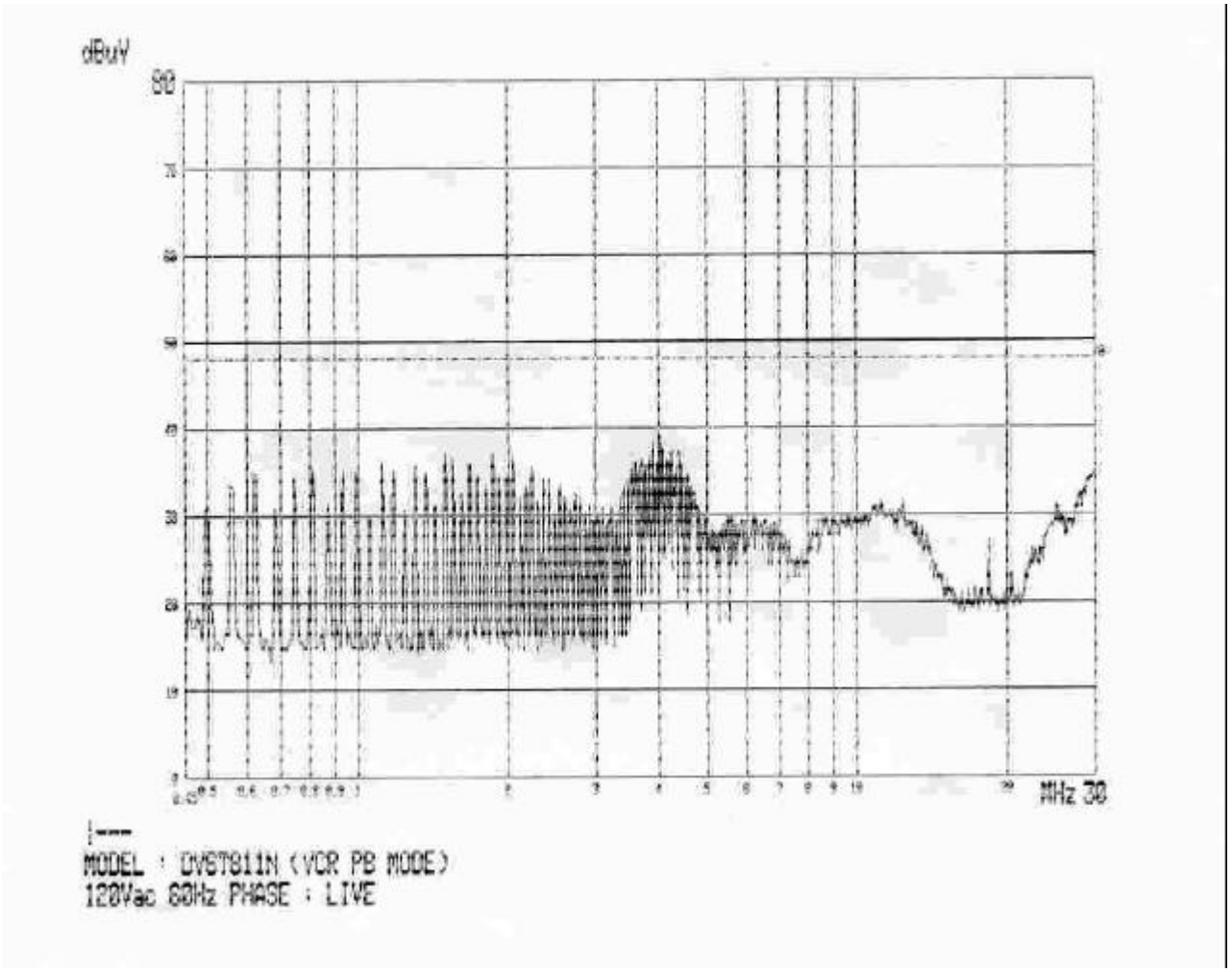
Tuner: **ALTMI-US3-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
0.460	37.1	48.00	11.70
4.120	39.8	48.00	9.00
14.198	40.1	48.00	8.70

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



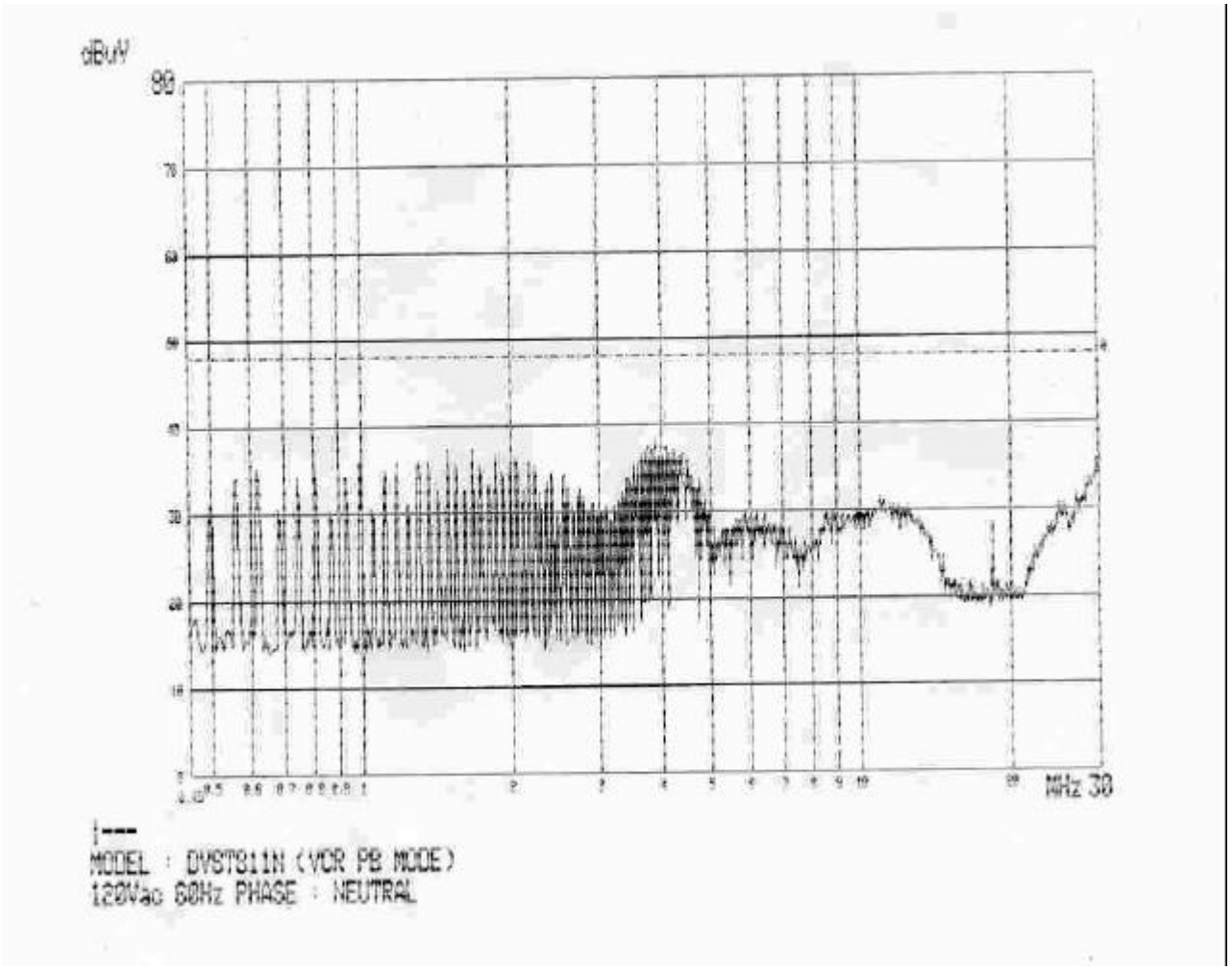
Tuner: **ALTMI-US3-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.651	36.1	48.00	12.70
1.812	36.5	48.00	12.30
4.121	39.7	48.00	9.10

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



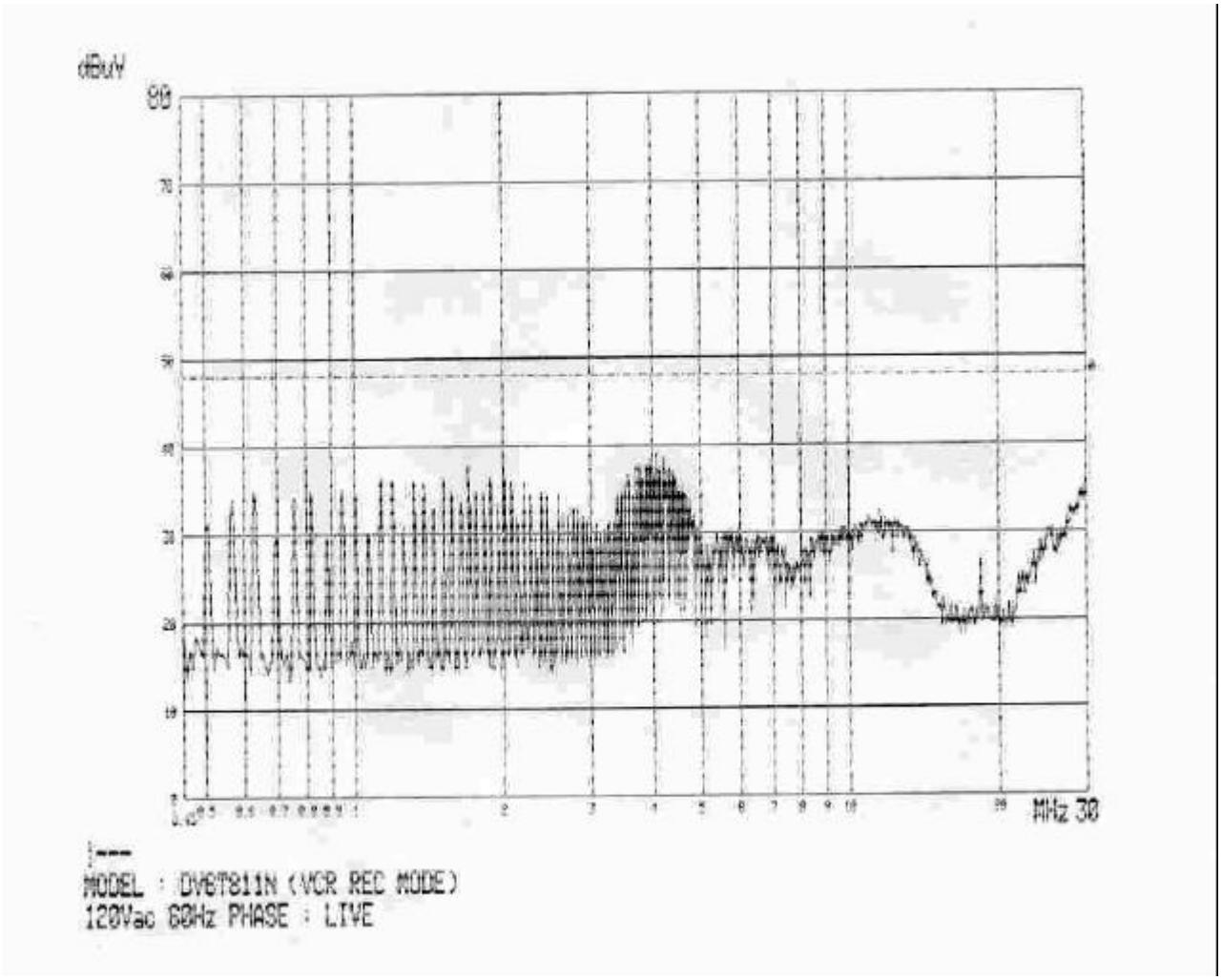
Tuner: **ALTMI-US3-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.649	36.1	48.00	12.70
1.811	36.4	48.00	12.40
4.122	39.5	48.00	9.30

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



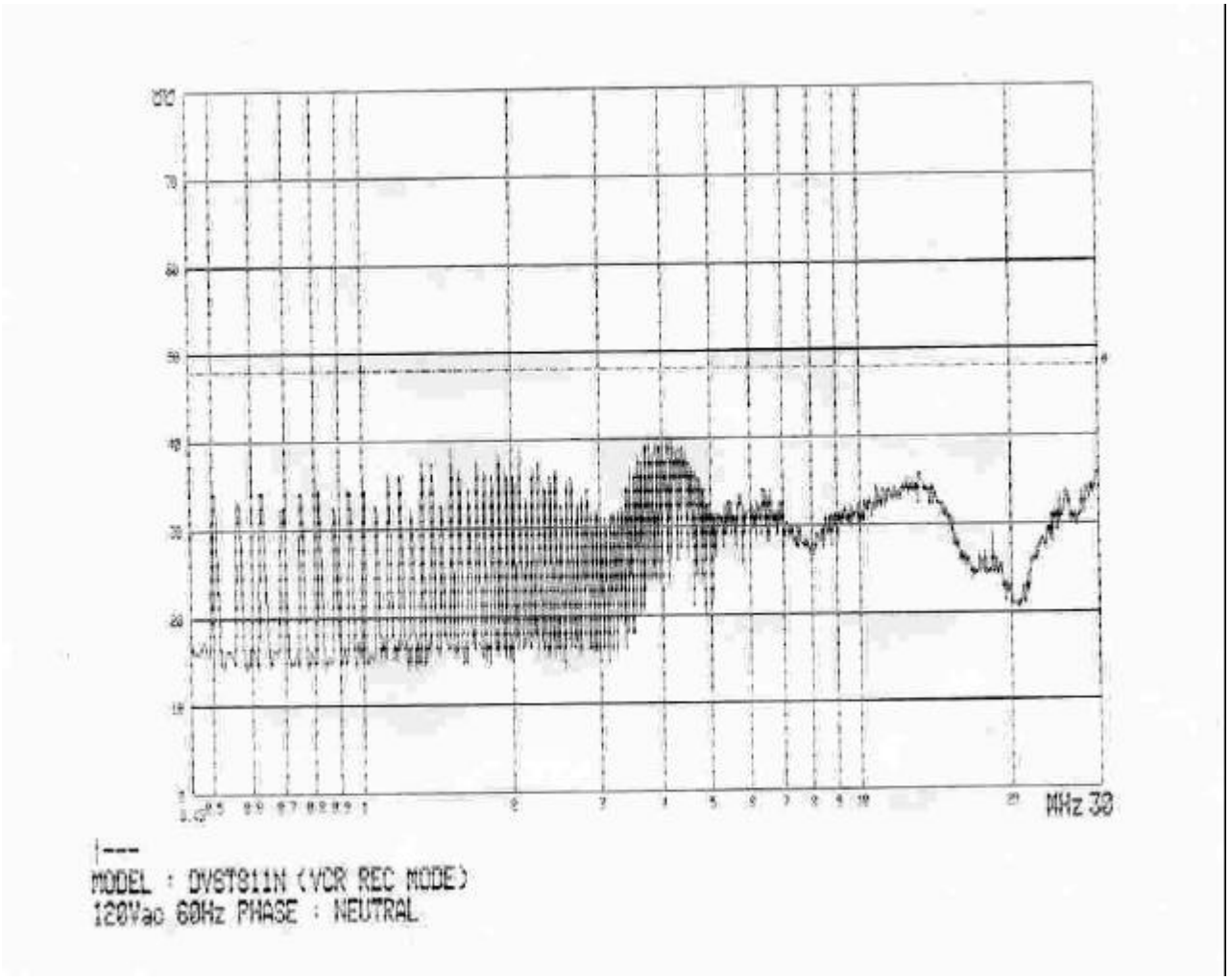
Tuner: **ALTMI-US3-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.251	36.3	48.00	12.50
1.819	37.6	48.00	11.20
4.124	39.9	48.00	8.90

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



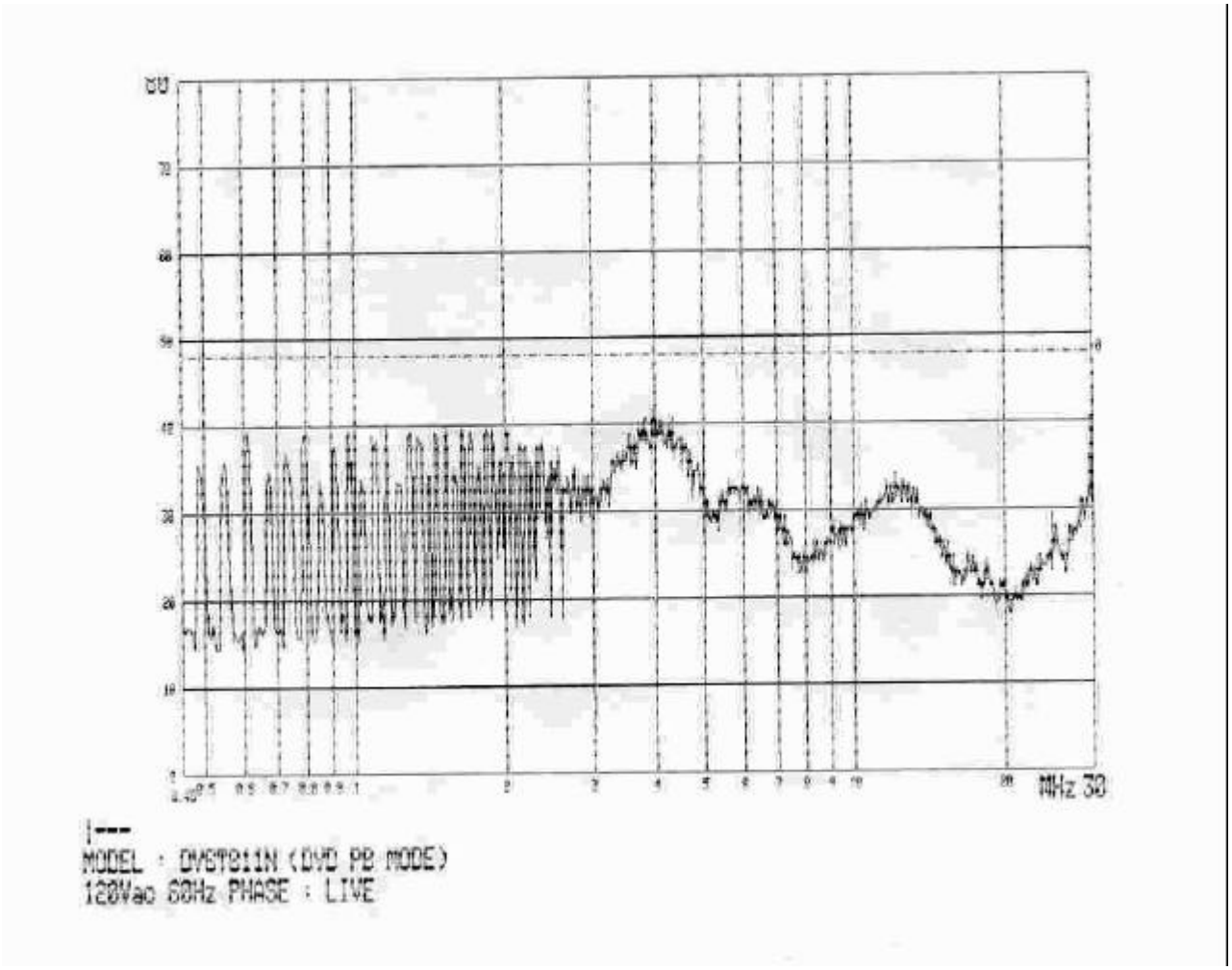
Tuner: **ALTMI-US3-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.549	36.6	48.00	12.20
1.815	37.9	48.00	10.90
4.124	40.1	48.00	8.70

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



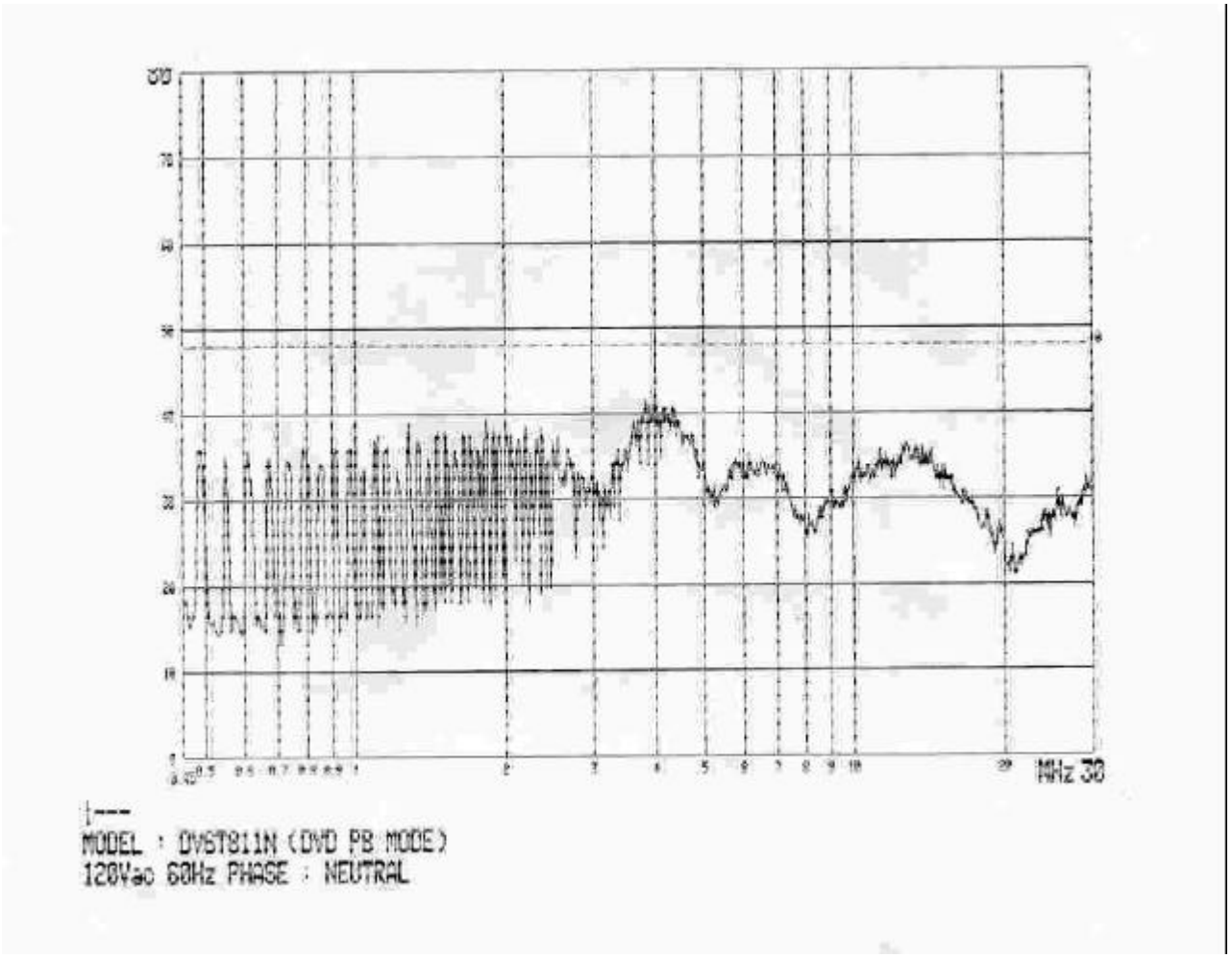
Tuner: **LGTMI-US4-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
0.623	38.1	48.00	10.70
2.314	37.9	48.00	10.90
3.997	41.6	48.00	7.20

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



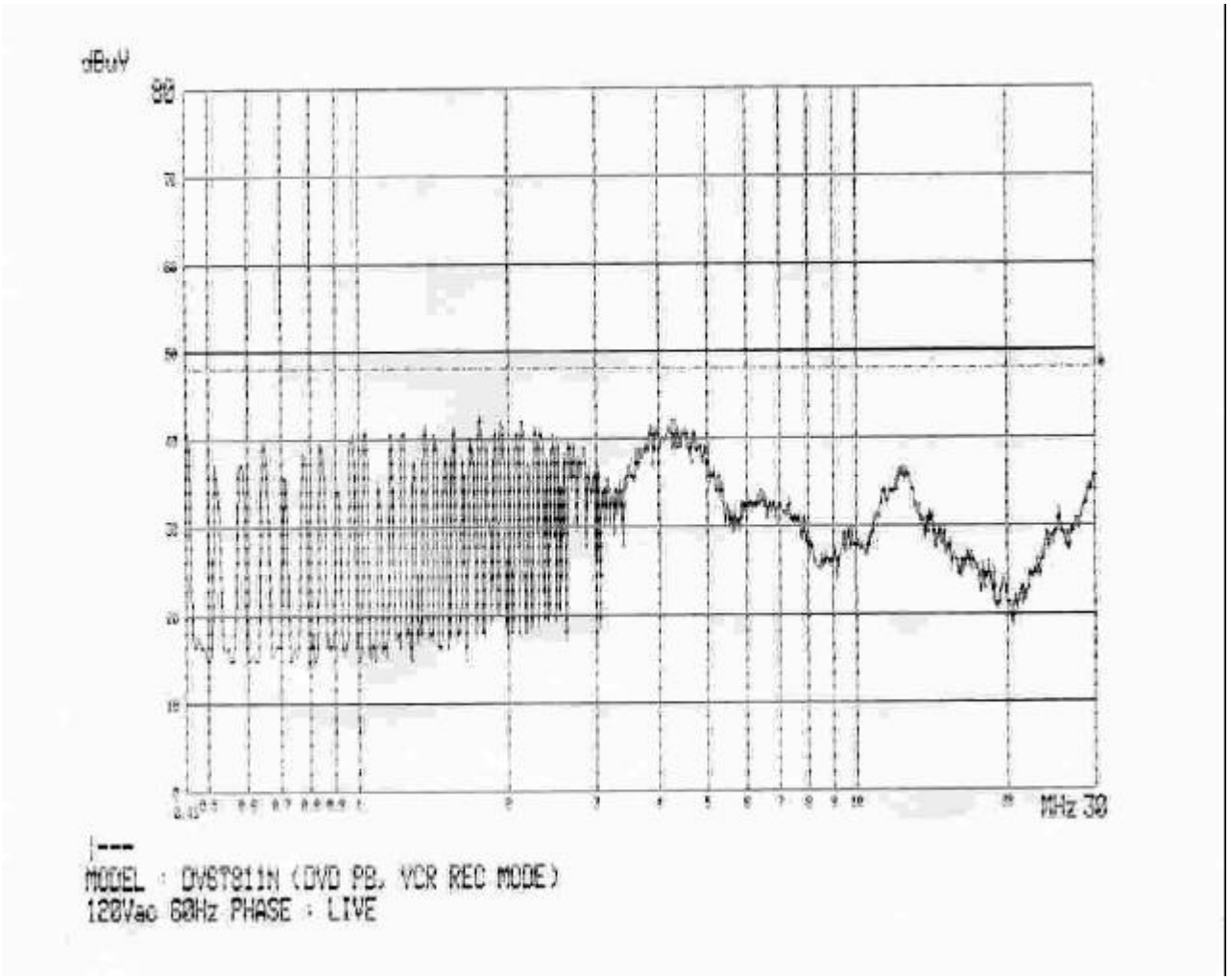
Tuner: **LGTMI-US4-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.410	39.1	48.00	9.70
4.119	41.3	48.00	7.50
4.451	41.0	48.00	7.80

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



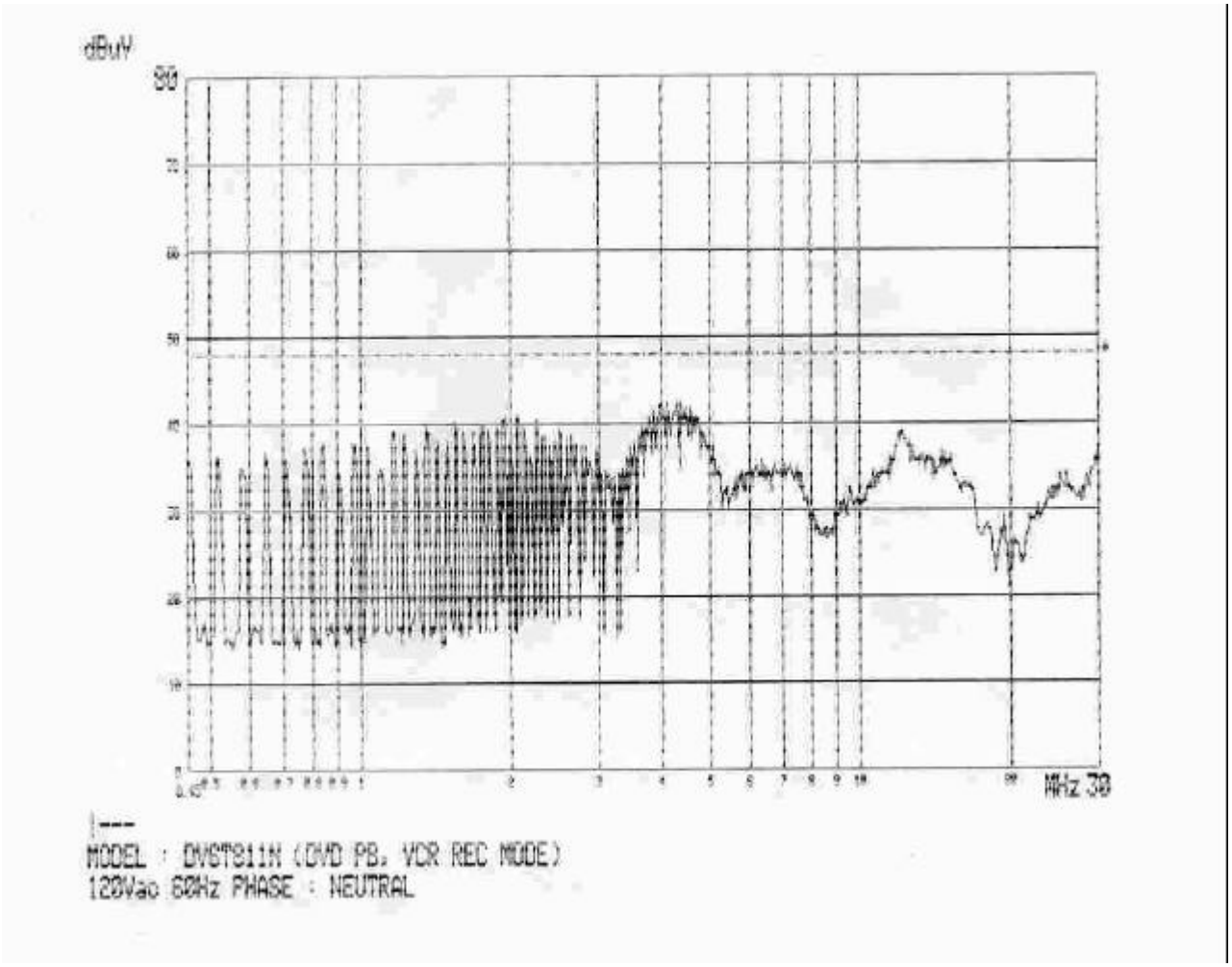
Tuner: **LGTMI-US4-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
0.461	39.3	48.00	9.50
1.731	41.2	48.00	7.60
4.312	40.9	48.00	7.90

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



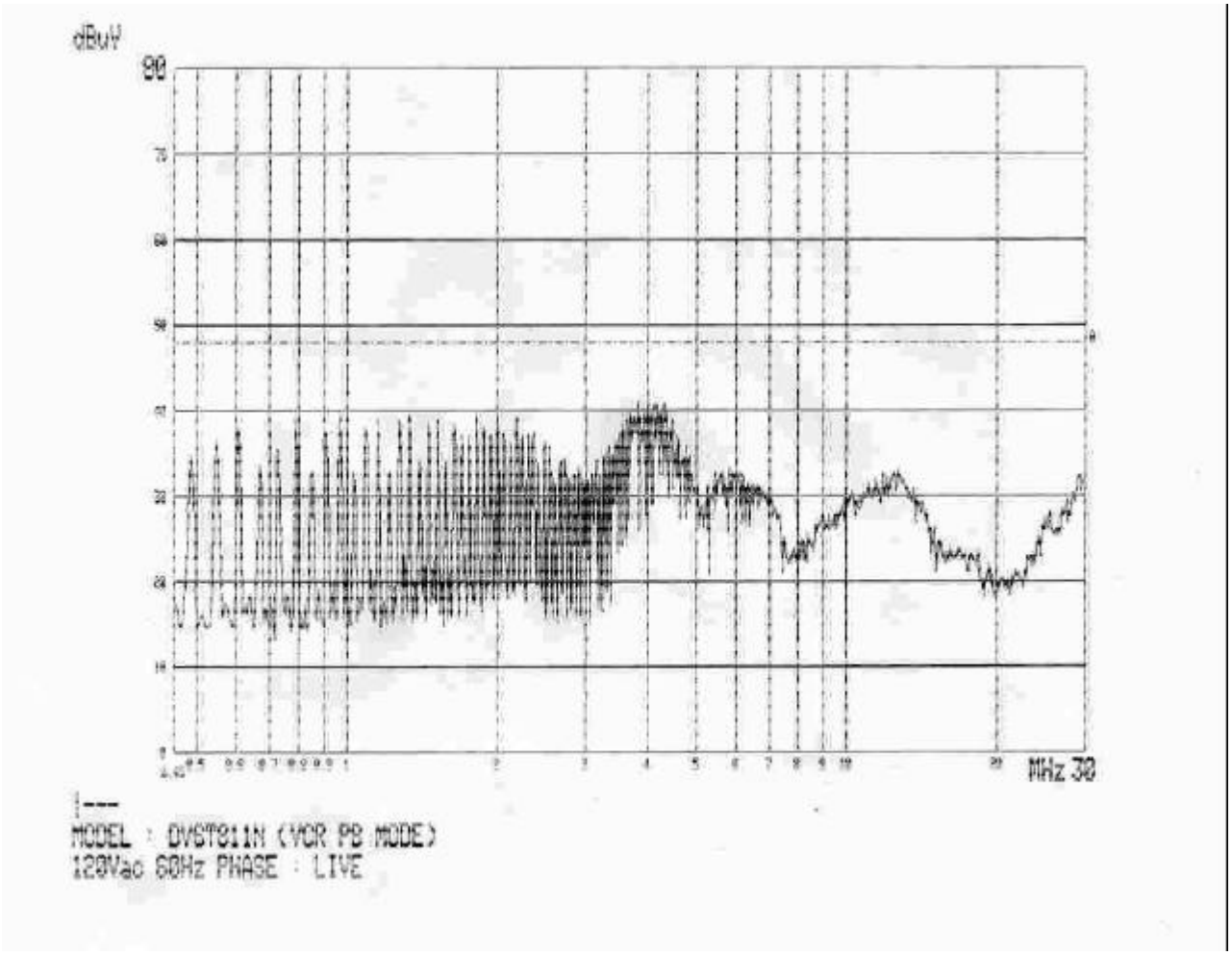
Tuner: **LGTMI-US4-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.989	40.3	48.00	8.50
4.012	42.1	48.00	6.70
4.215	42.4	48.00	6.40

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



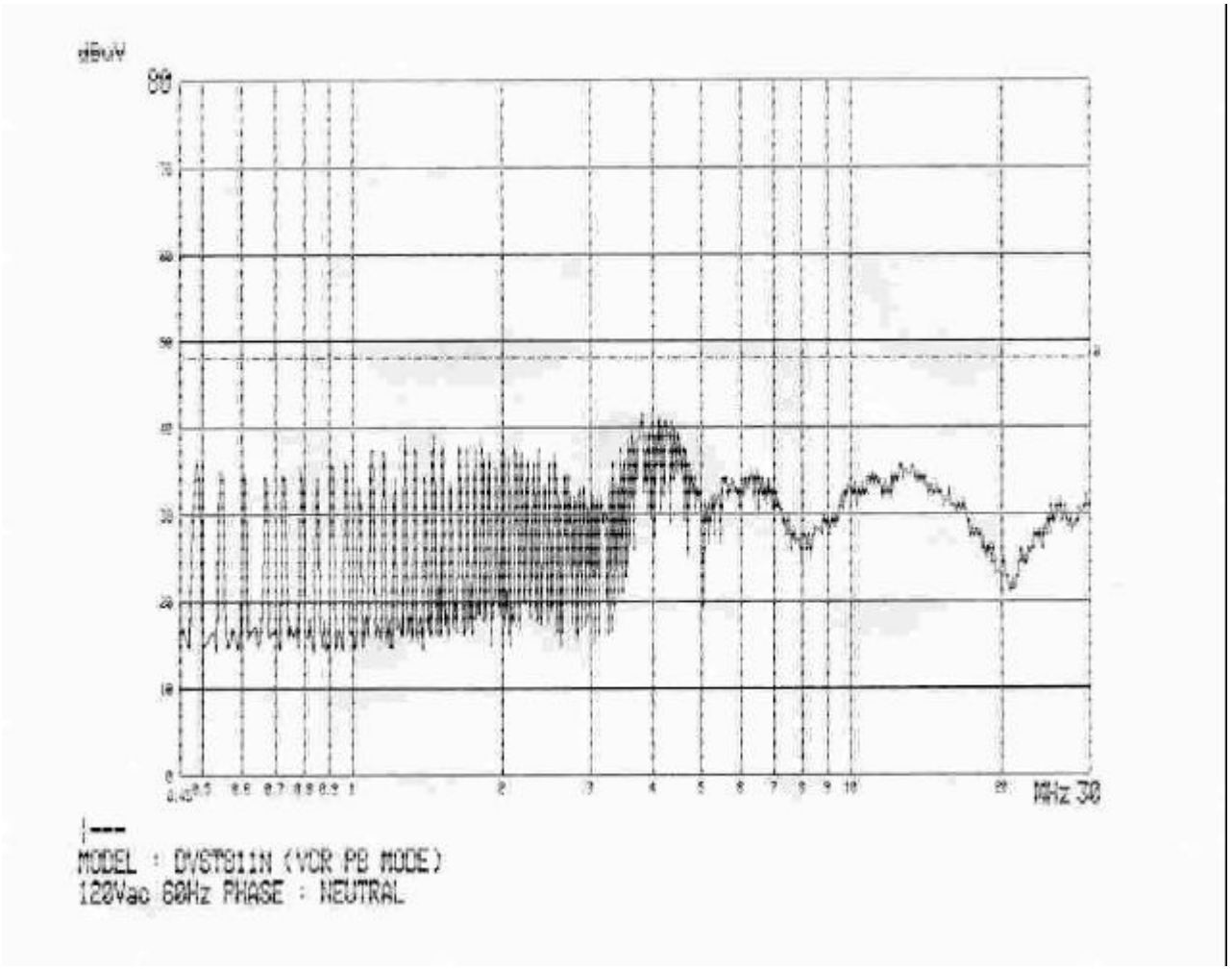
Tuner: **LGTMI-US4-S**

Frequency [MHz]	Measurement [dBuV] Q-Peak	Limit [dBuV] Q-Peak	Margin [dBuV] Q-Peak
1.451	37.6	48.00	11.20
3.812	41.6	48.00	7.20
4.212	40.3	48.00	8.50

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



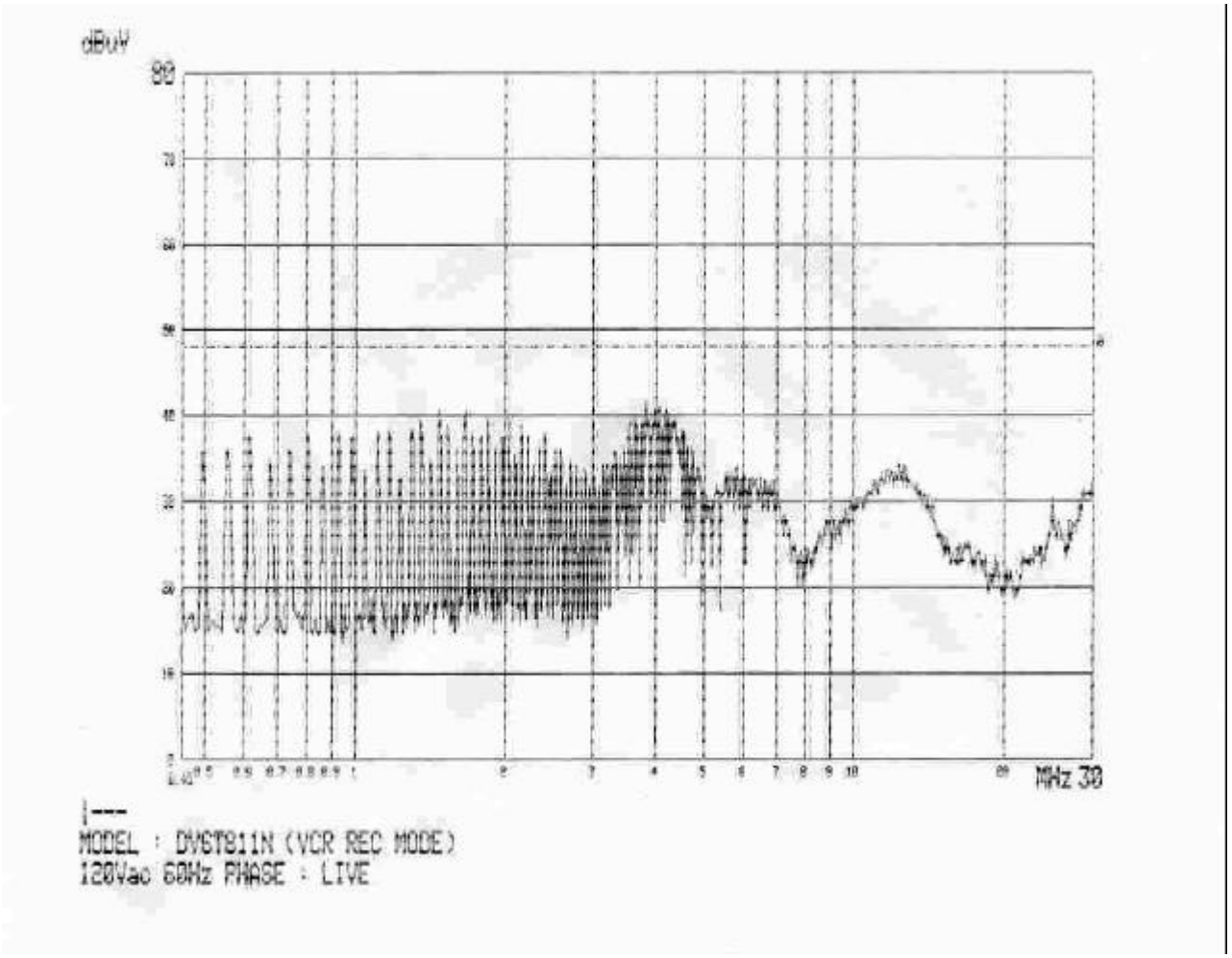
Tuner: **LGTMI-US4-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.450	37.7	48.00	11.10
3.816	41.1	48.00	7.70
4.214	40.2	48.00	8.60

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



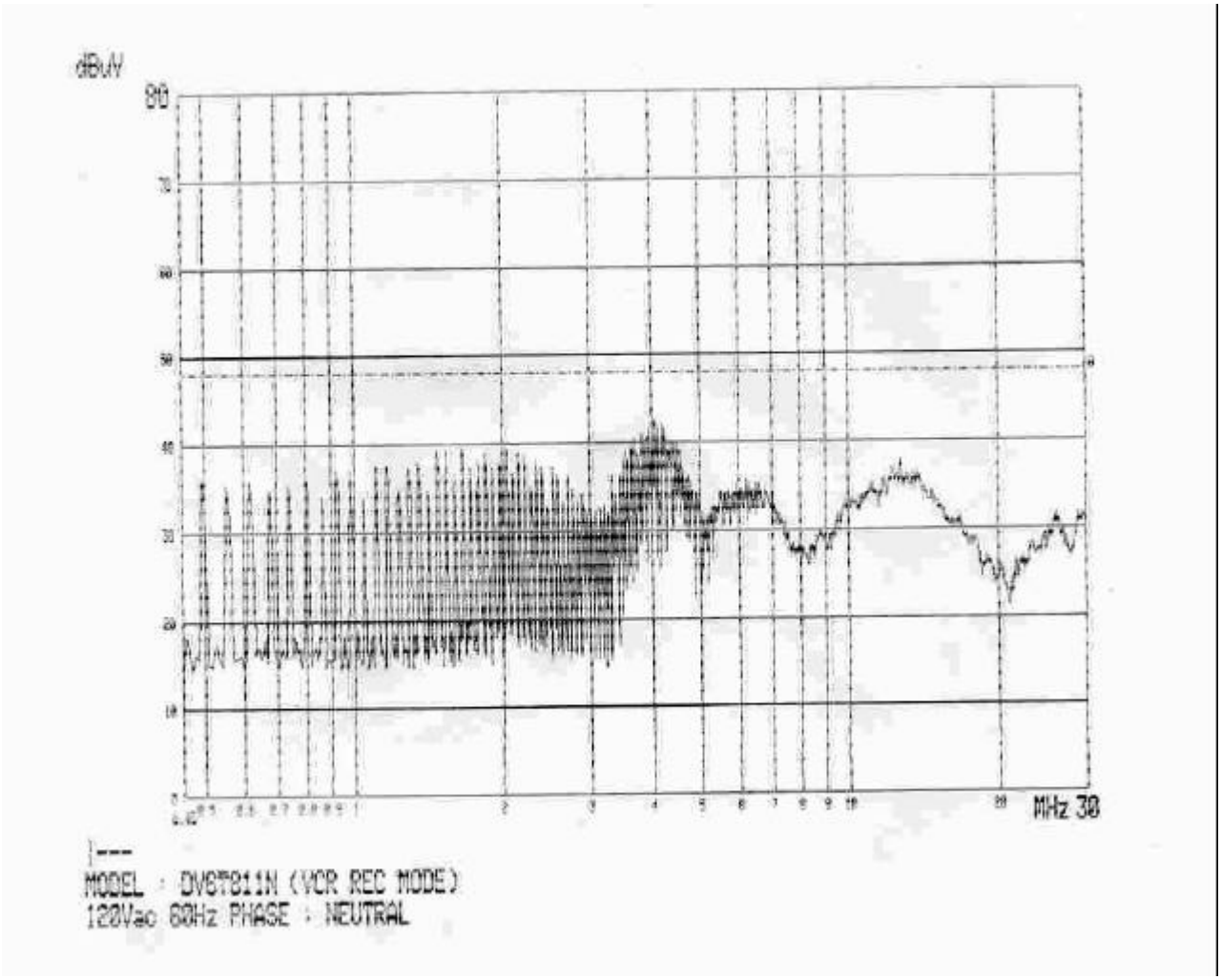
Tuner: **LGTMI-US4-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.651	39.8	48.00	9.00
1.721	40.2	48.00	8.60
3.872	40.6	48.00	8.20

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



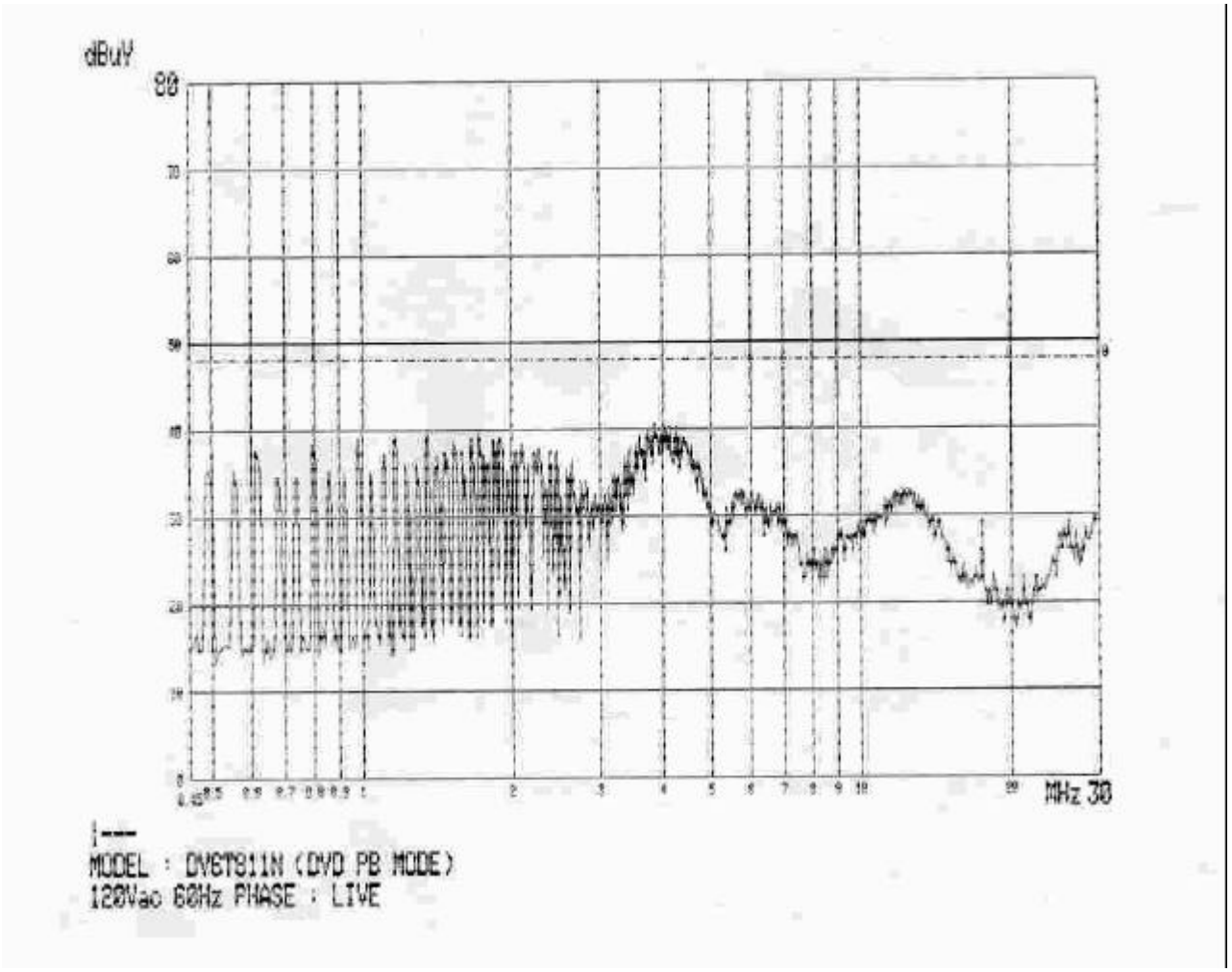
Tuner: **LGTMI-US4-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.653	38.6	48.00	10.20
1.724	38.8	48.00	10.00
3.878	42.5	48.00	6.30

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



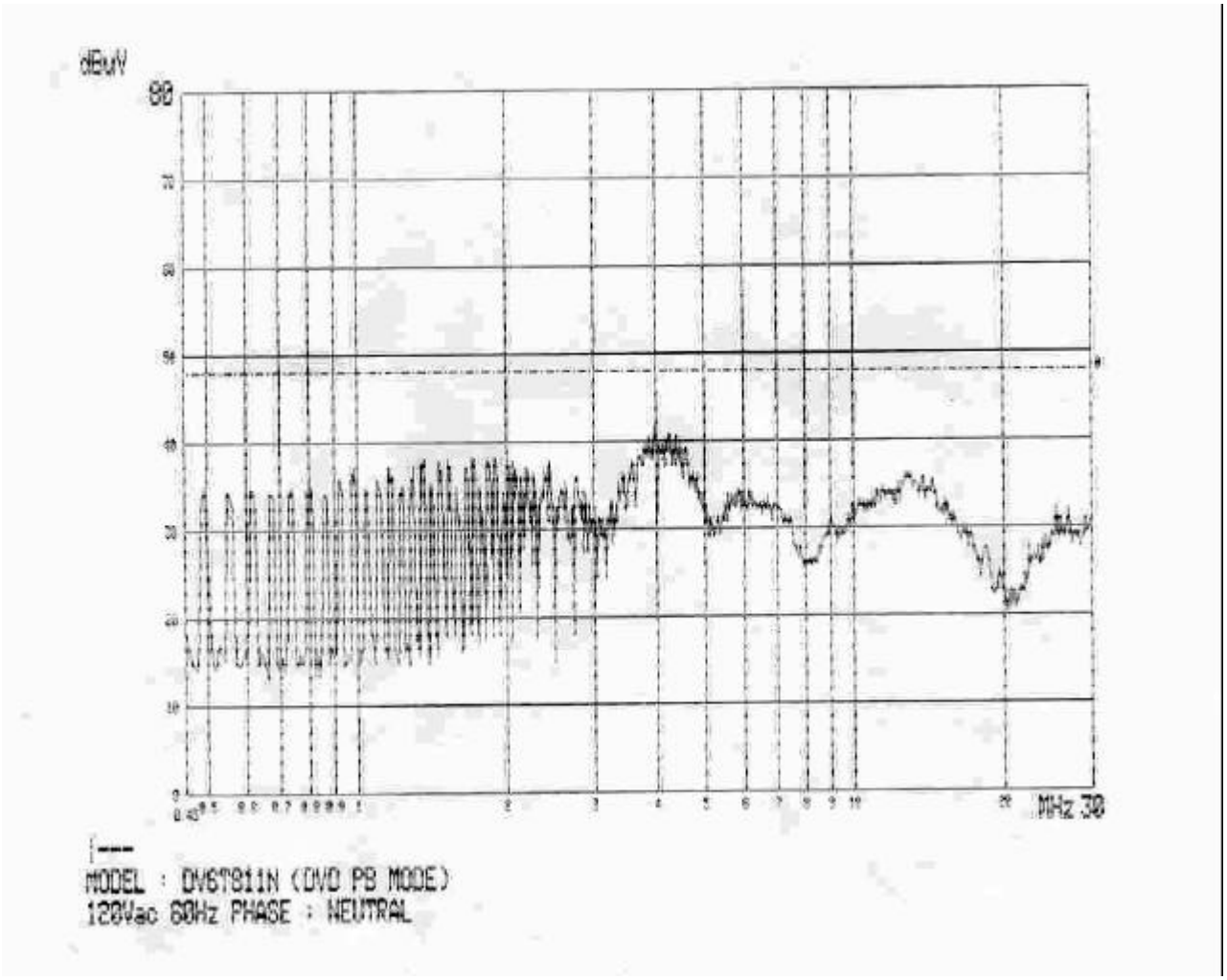
Tuner: **SSTMI-US4-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.452	39.5	48.00	9.30
1.708	39.7	48.00	9.10
4.124	40.2	48.00	8.60

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



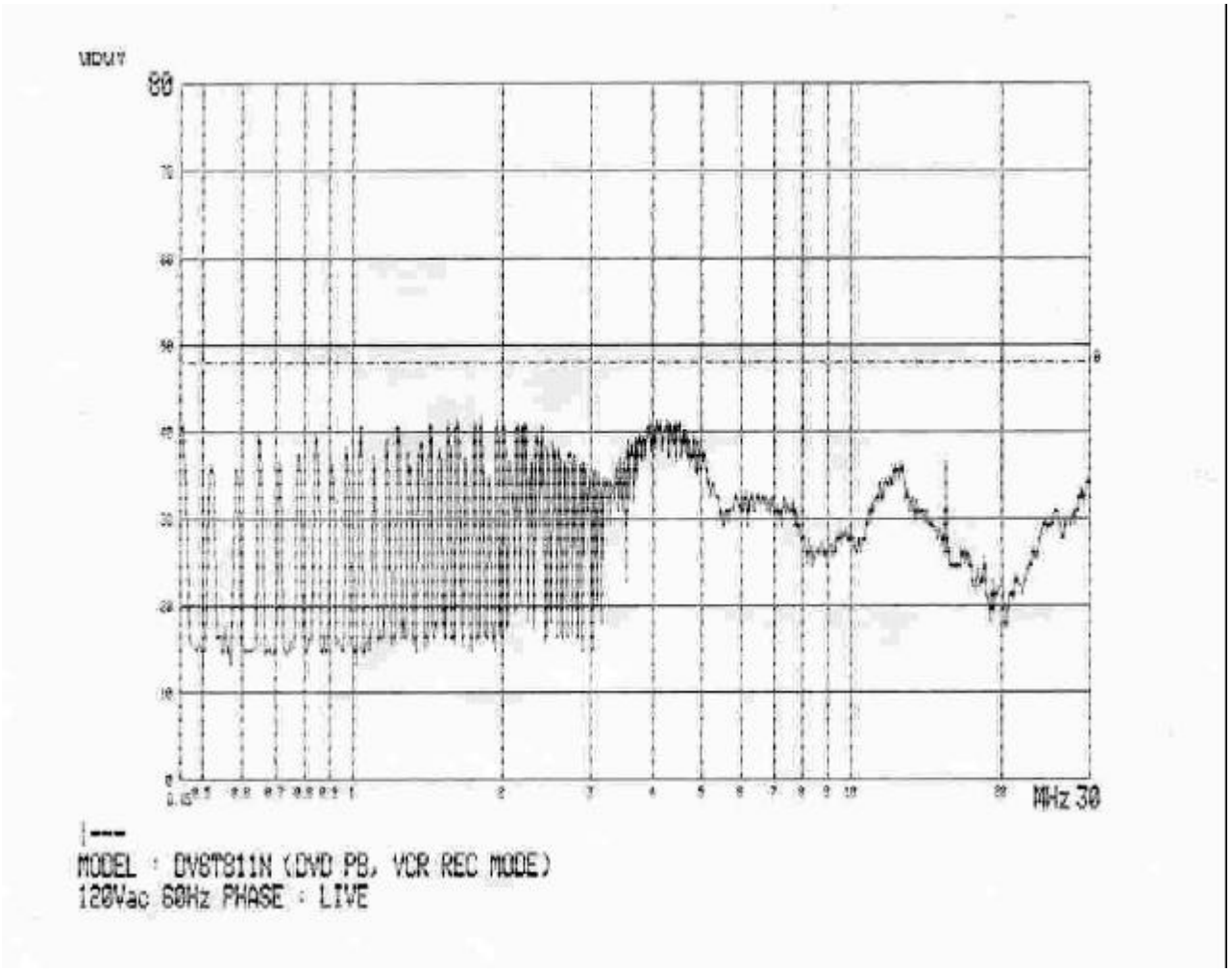
Tuner: **SSTMI-US4-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.451	37.6	48.00	11.20
1.702	37.3	48.00	11.50
4.012	39.9	48.00	8.90

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



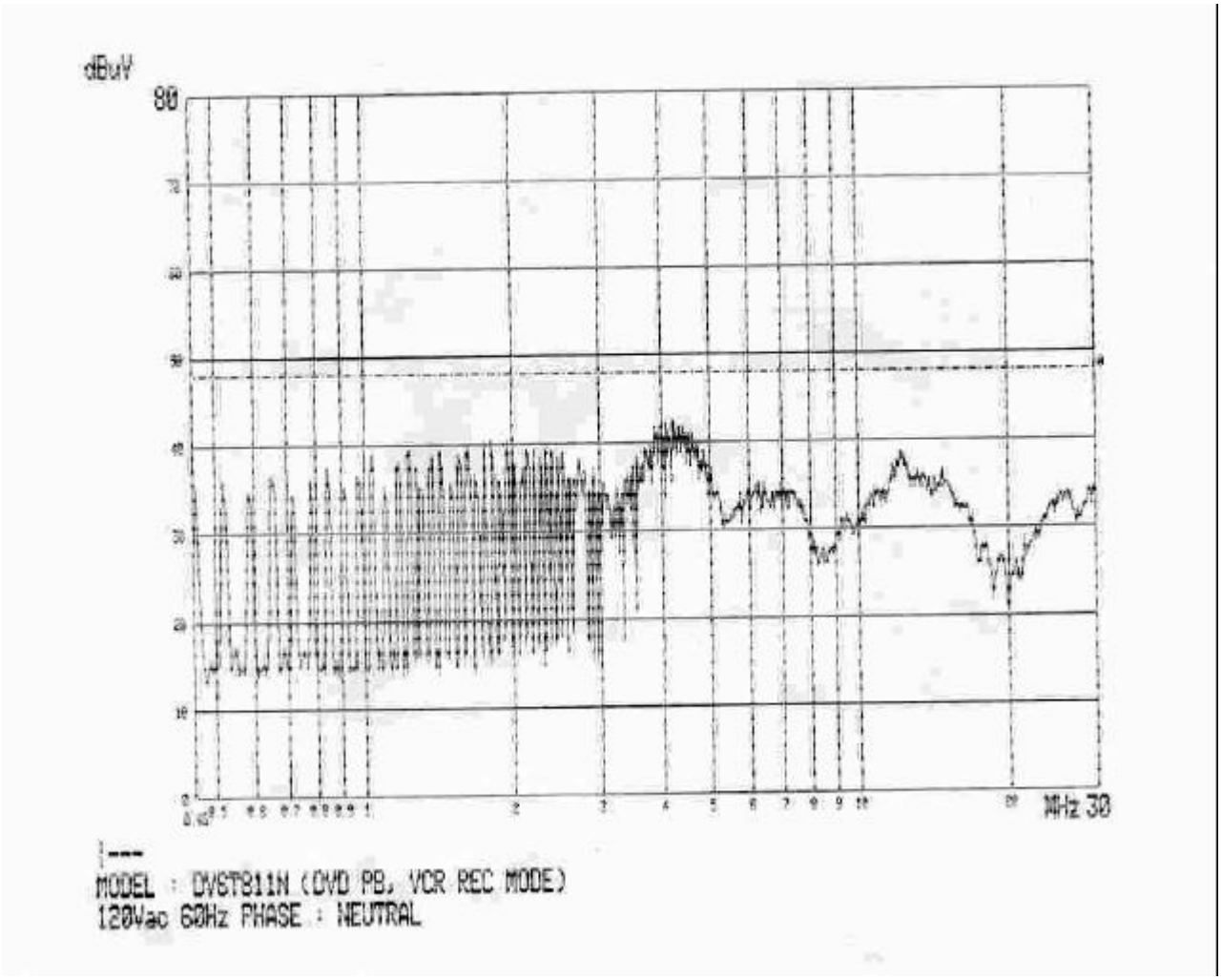
Tuner: **SSTMI-US4-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.824	39.2	48.00	9.60
4.120	41.6	48.00	7.20
14.198	37.2	48.00	11.60
17.523	32.3	48.00	16.50

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



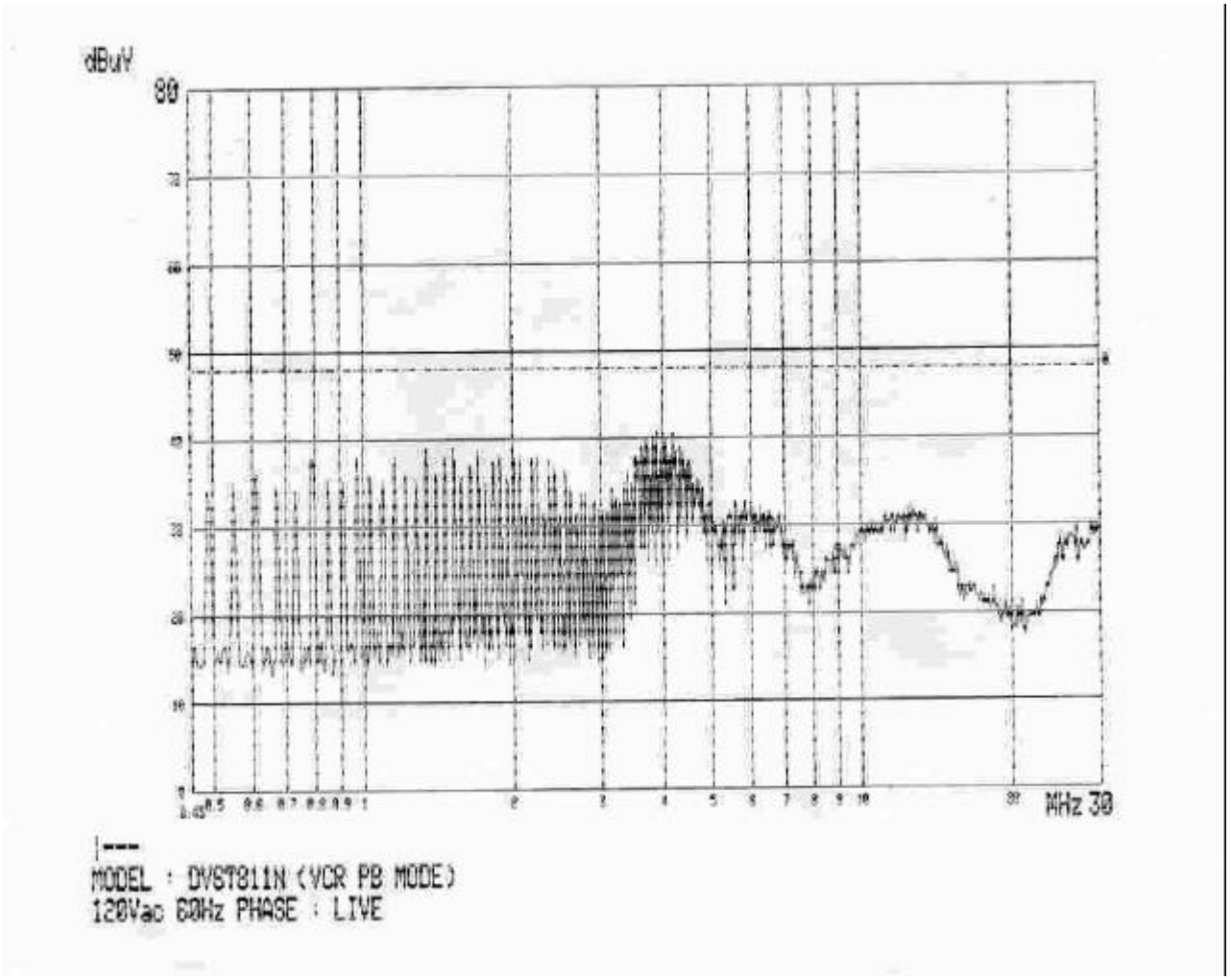
Tuner: **SSTMI-US4-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
0.463	39.5	48.00	9.30
1.716	40.6	48.00	8.20
4.120	41.0	48.00	7.80
14.198	34.3	48.00	14.50

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



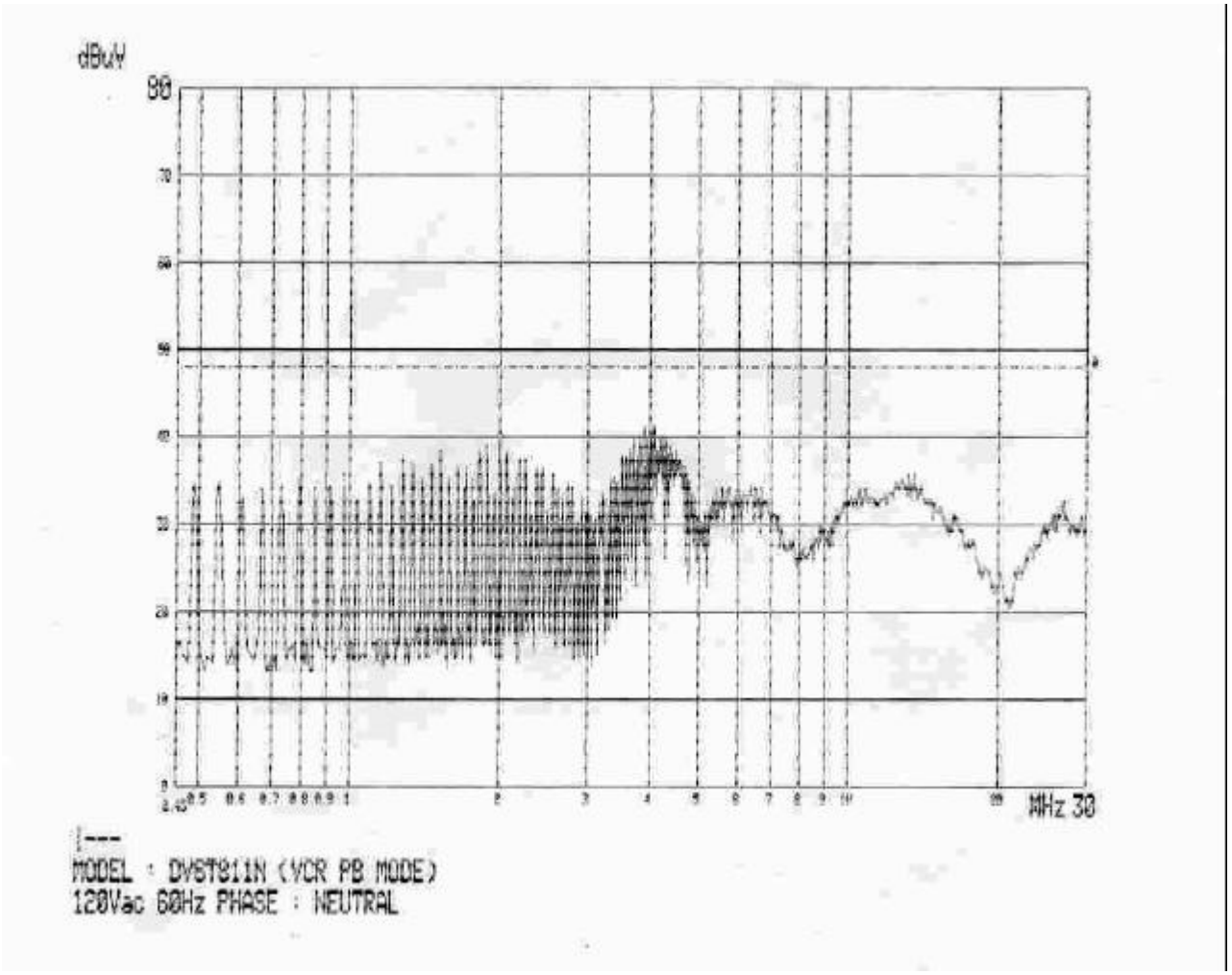
Tuner: **SSTMI-US4-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.456	38.3	48.00	10.50
1.710	37.9	48.00	10.90
4.131	40.4	48.00	8.40

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



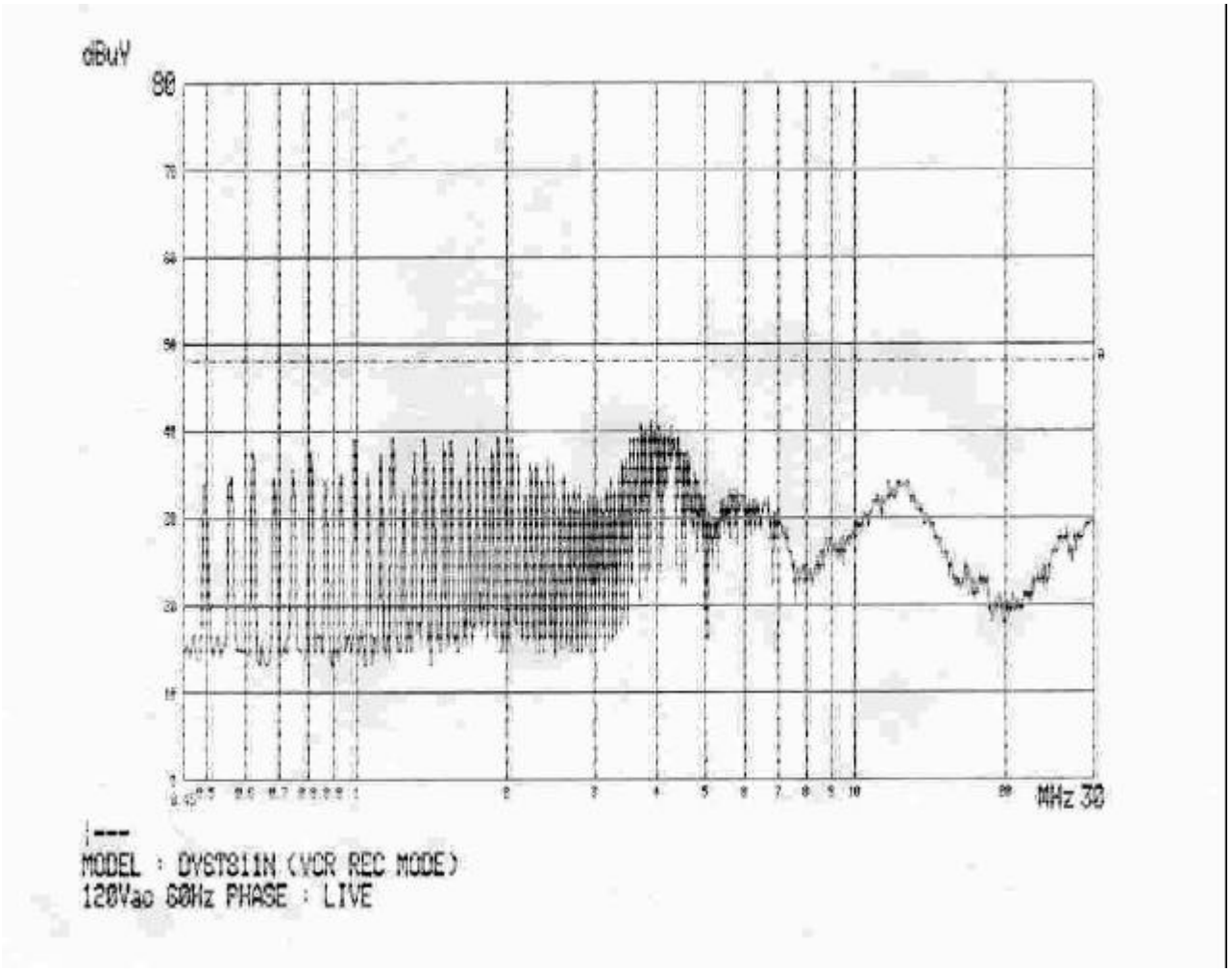
Tuner: **SSTMI-US4-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.455	36.4	48.00	12.40
1.707	35.2	48.00	13.60
4.015	40.3	48.00	8.50

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



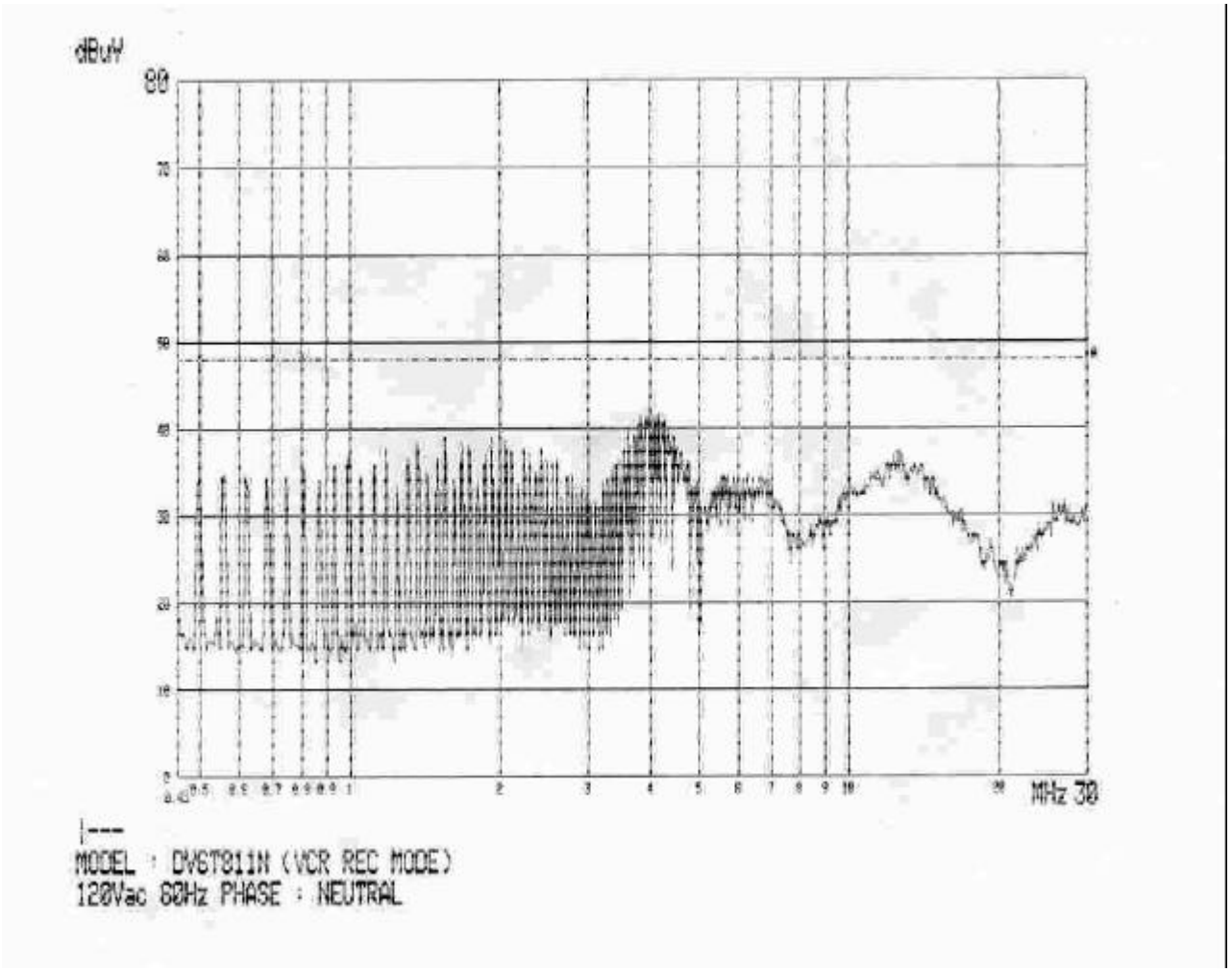
Tuner: **SSTMI-US4-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.455	36.7	48.00	12.10
1.713	36.3	48.00	12.50
4.132	40.3	48.00	8.50

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



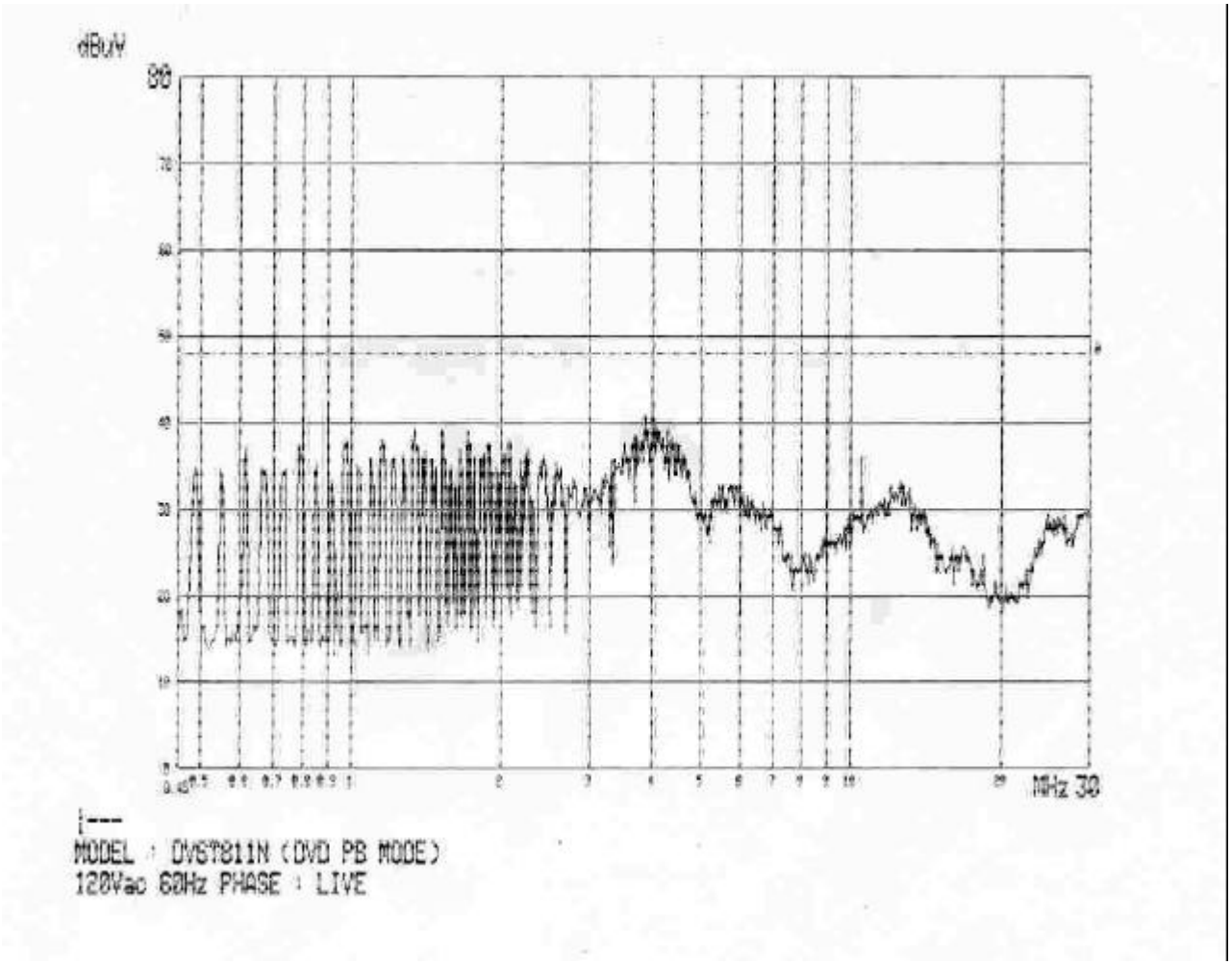
Tuner: **SSTMI-US4-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.452	36.1	48.00	12.70
1.705	35.7	48.00	13.10
4.011	40.2	48.00	8.60

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



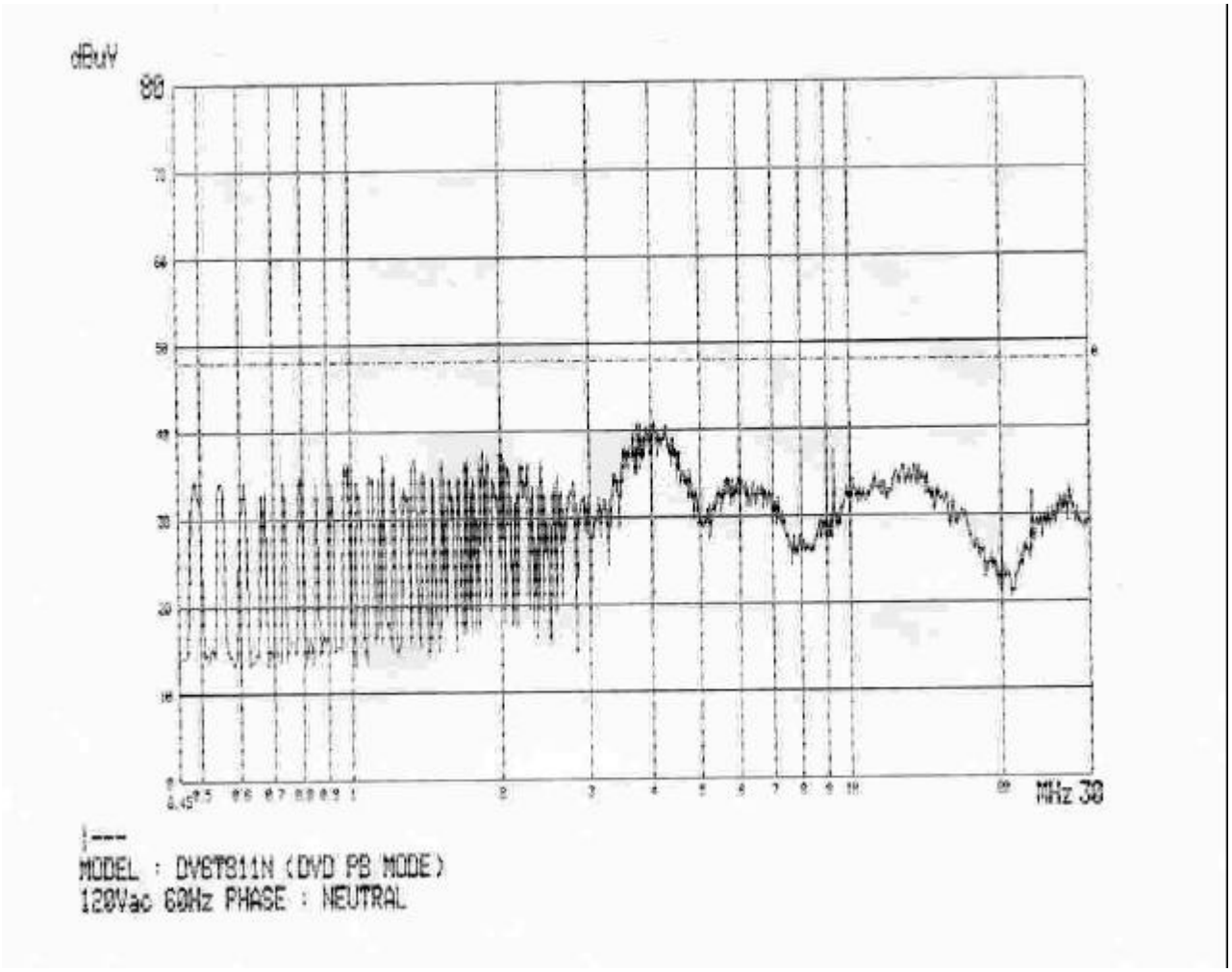
Tuner: **SATMI-US4-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.406	38.1	48.00	10.70
3.899	40.1	48.00	8.70
4.123	39.9	48.00	8.90
11.910	32.6	48.00	16.20

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



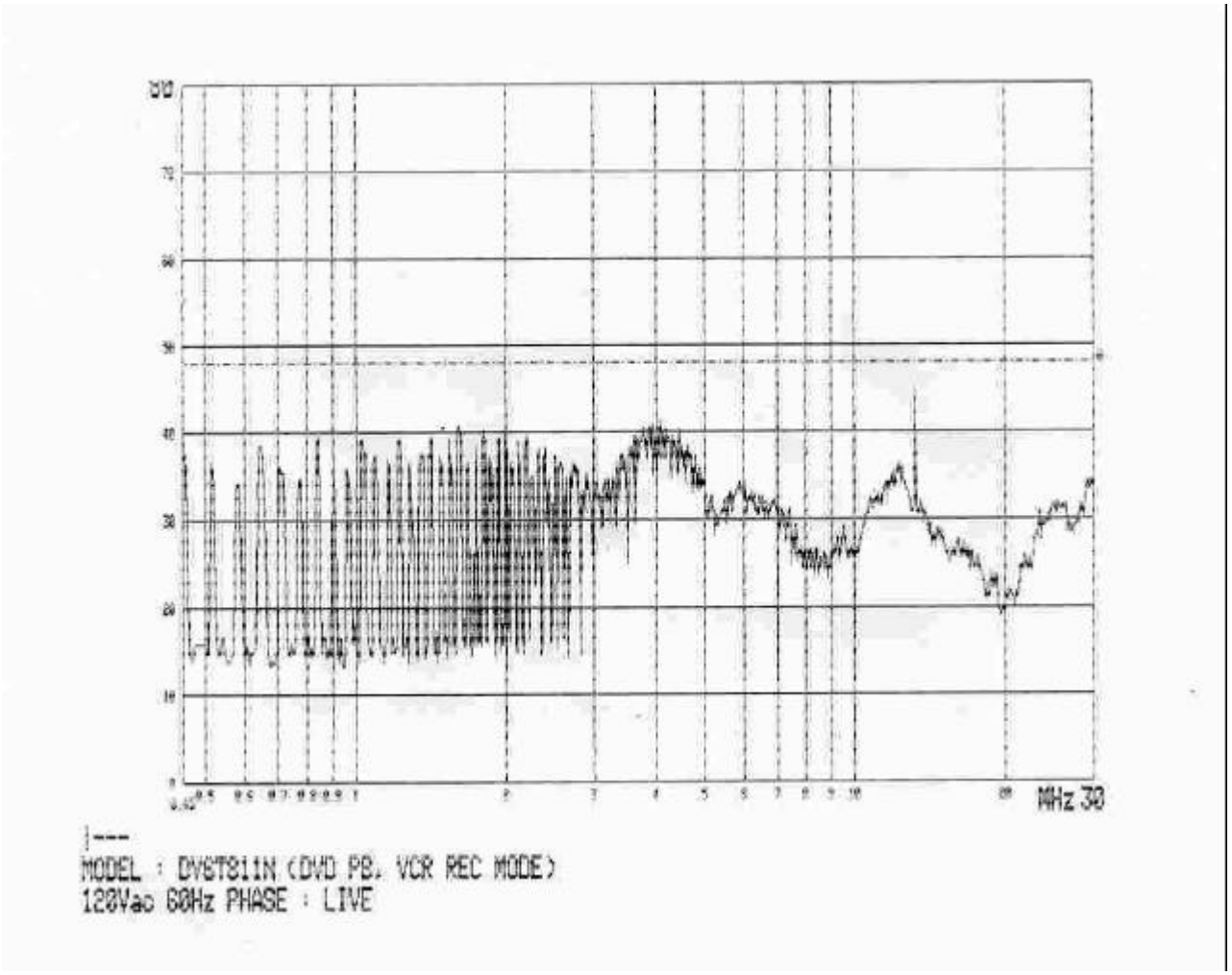
Tuner: **SATMI-US4-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.405	36.9	48.00	11.90
3.898	39.8	48.00	9.00
4.098	40.3	48.00	8.50
9.326	34.4	48.00	14.40

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



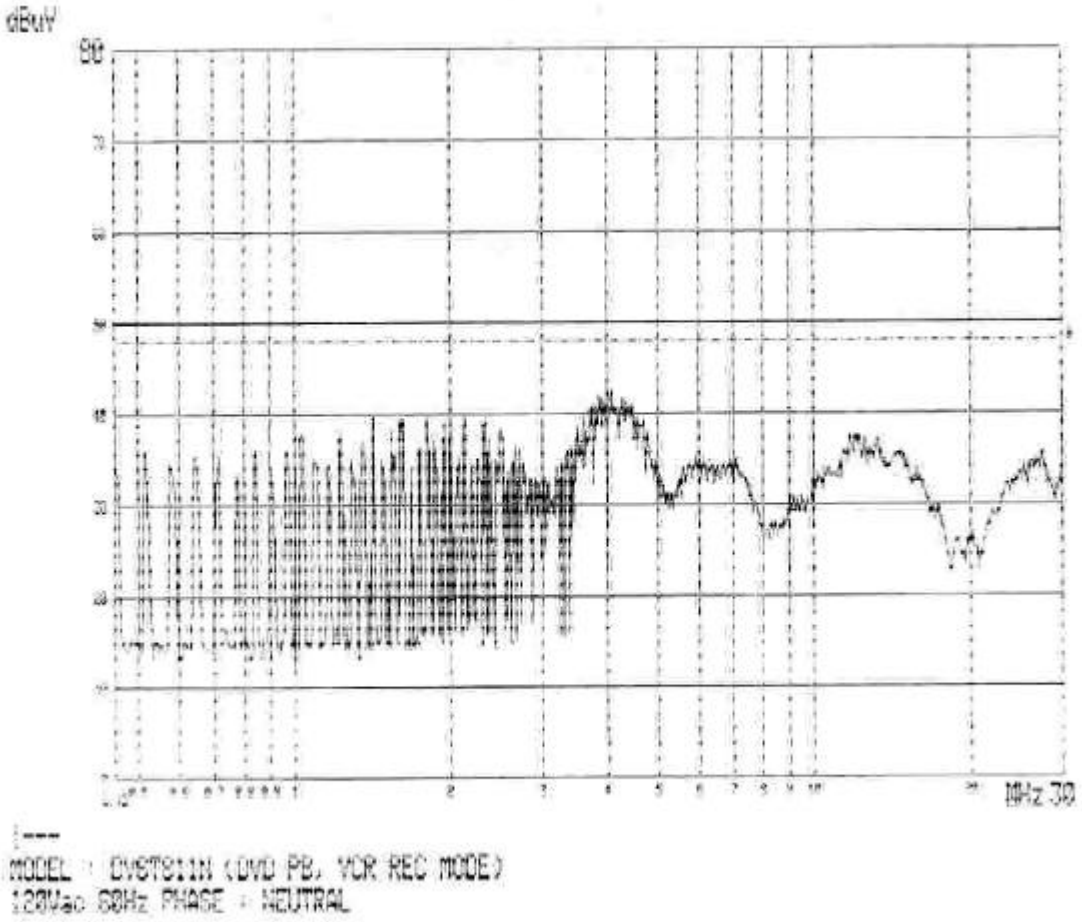
Tuner: **SATMI-US4-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.810	40.2	48.00	8.60
4.121	40.1	48.00	8.70
14.121	40.9	48.00	7.90

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



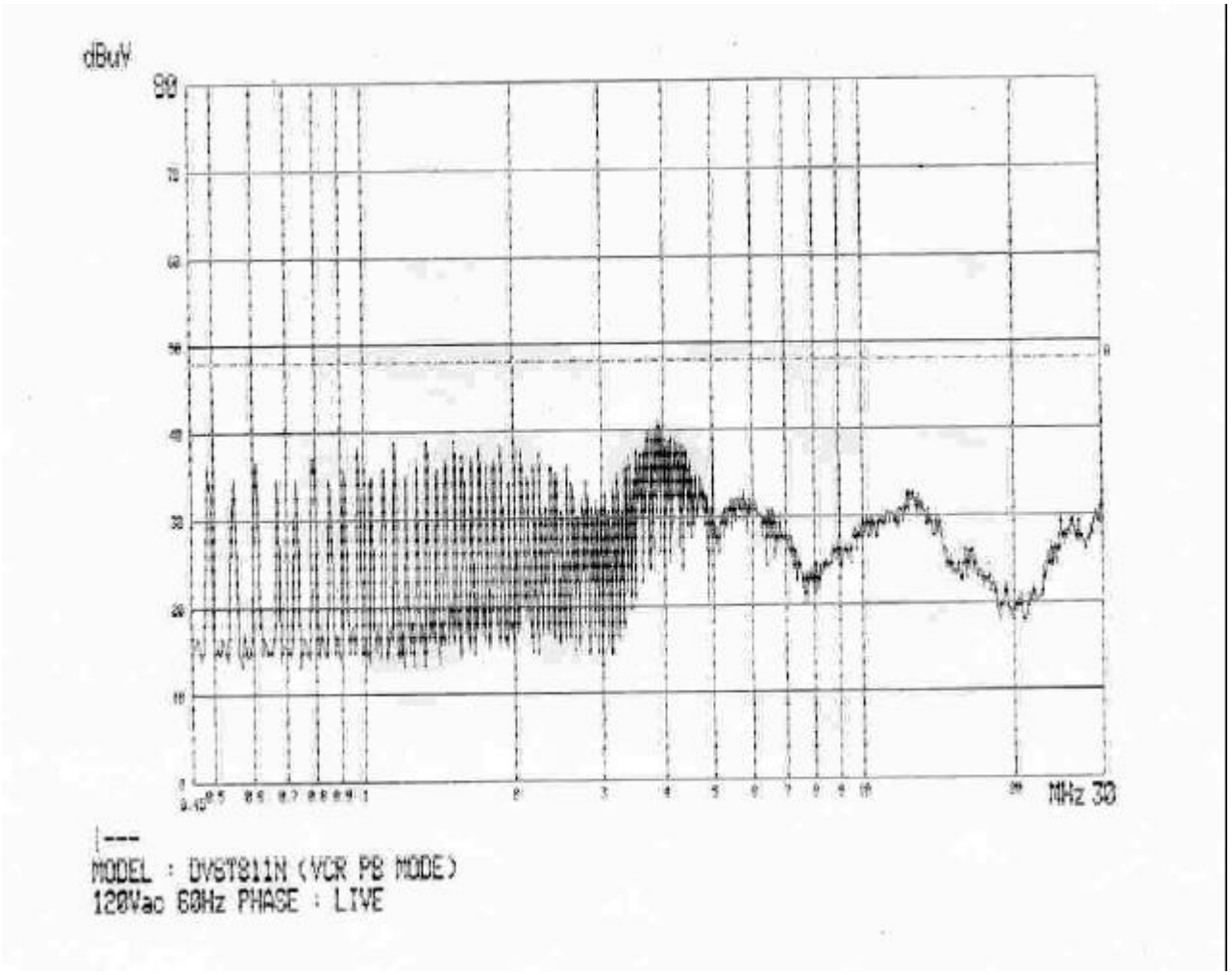
Tuner: **SATMI-US4-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.712	39.4	48.00	9.40
4.124	41.5	48.00	7.30
14.196	38.2	48.00	10.60

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



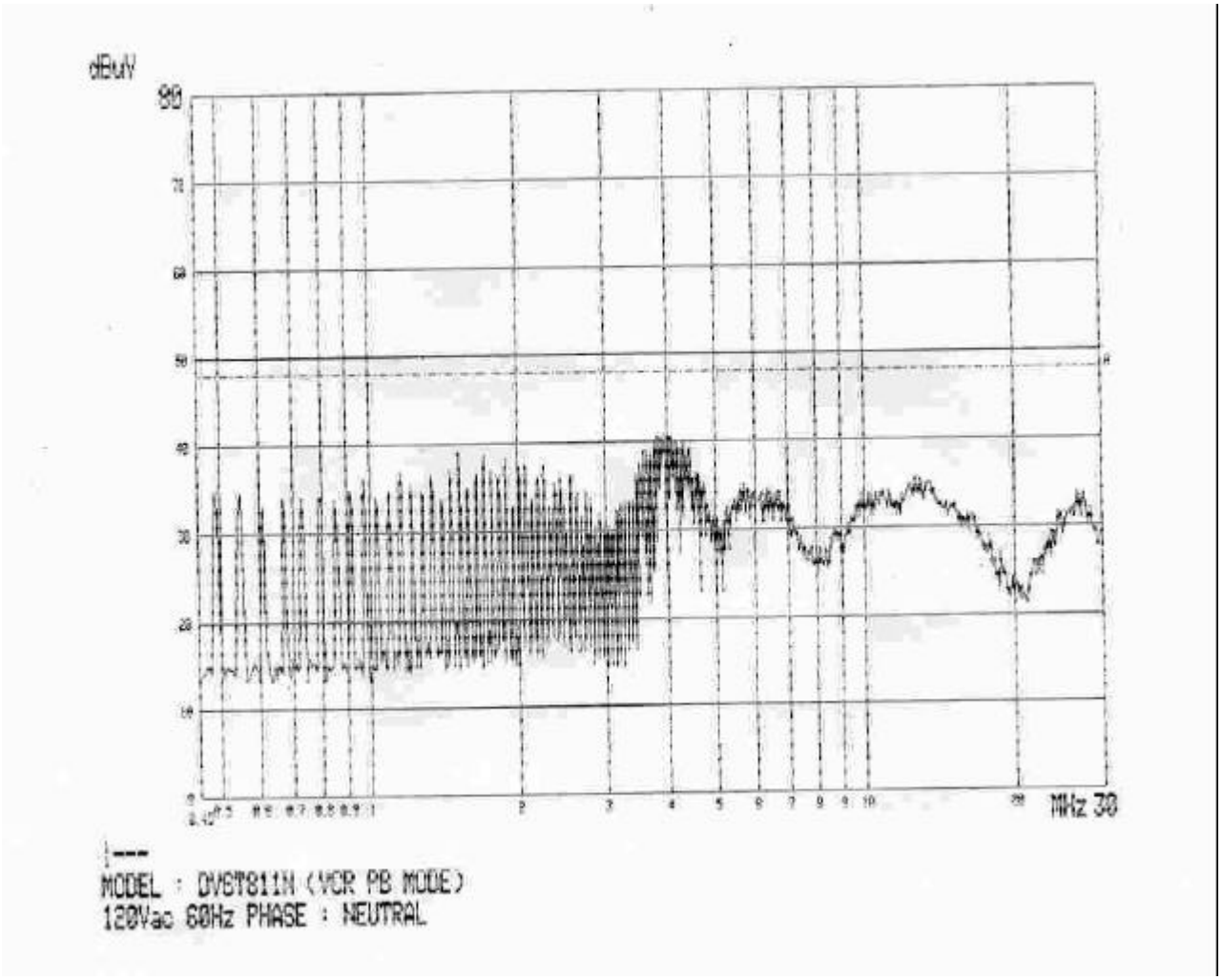
Tuner: **SATMI-US4-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.630	38.1	48.00	10.70
1.813	37.9	48.00	10.90
3.883	40.2	48.00	8.60

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



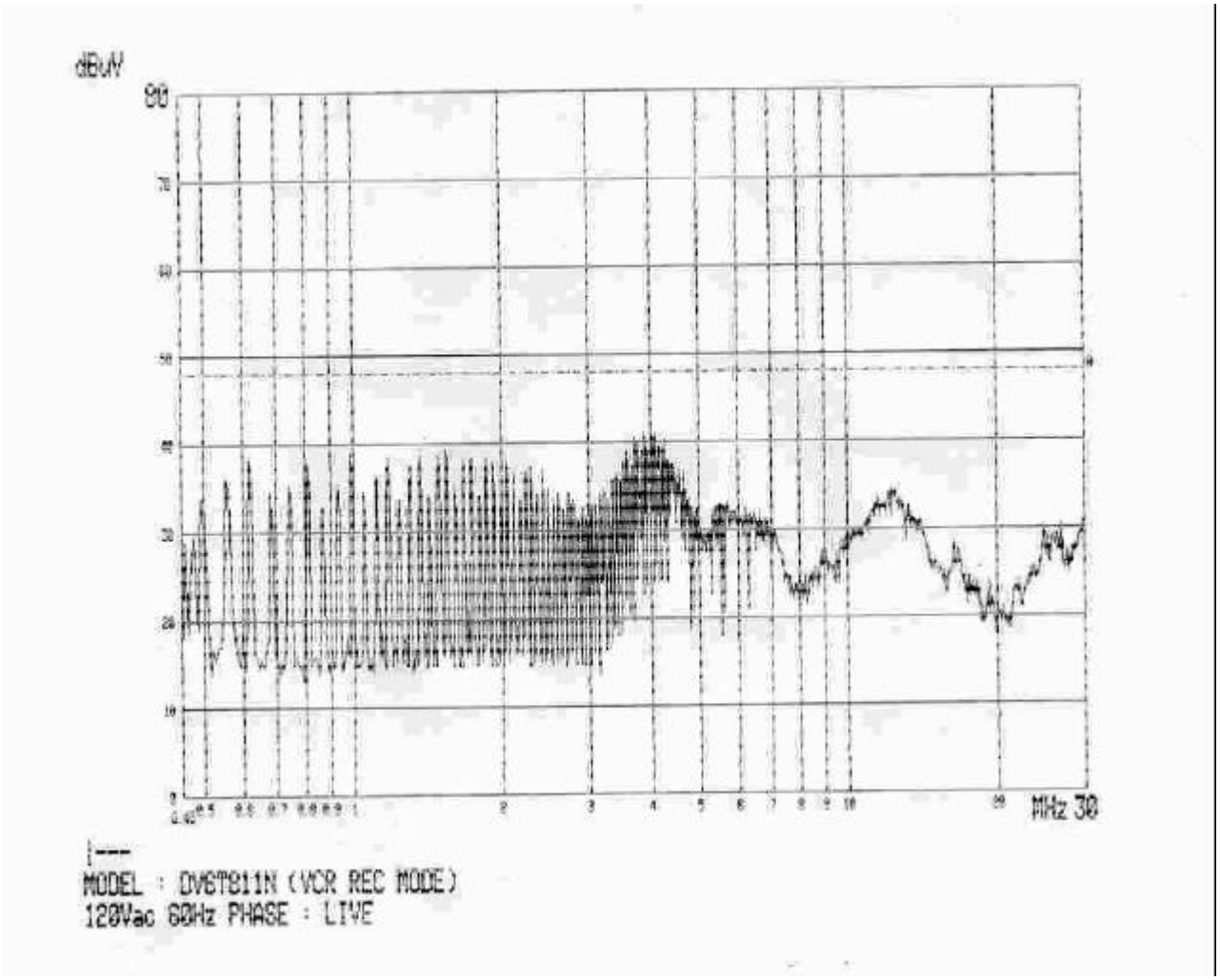
Tuner: **SATMI-US4-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.651	37.9	48.00	10.90
1.813	37.8	48.00	11.00
4.021	39.9	48.00	8.90

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



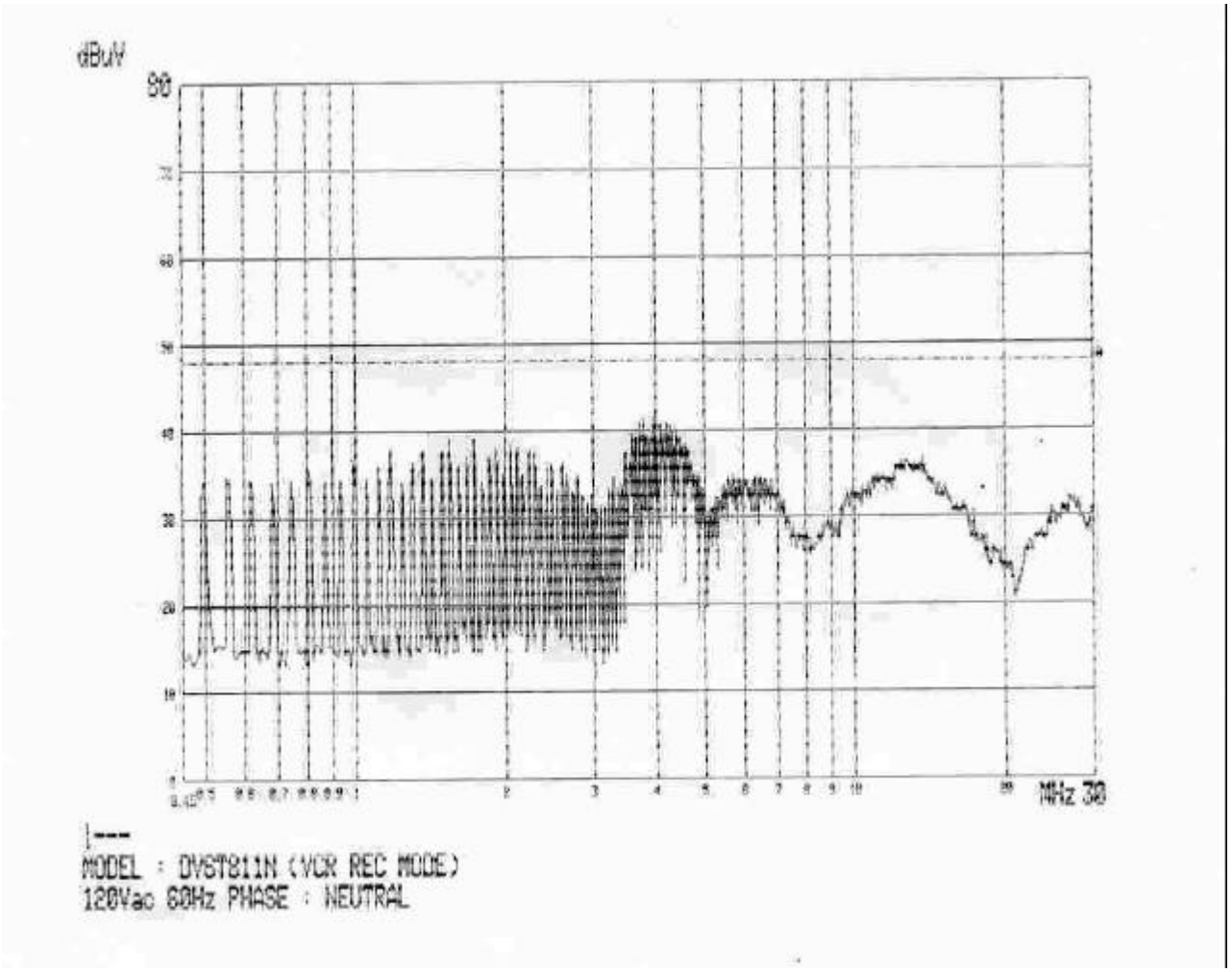
Tuner: **SATMI-US4-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
0.903	37.5	48.00	11.30
1.713	38.3	48.00	10.50
4.011	40.0	48.00	8.80

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

Conducted Emissions

(Mains Terminal Disturbance Voltages)



Tuner: **SATMI-US4-S**

Frequency [MHz]	Measurement [dBuV]	Limit [dBuV]	Margin [dBuV]
	Q-Peak	Q-Peak	Q-Peak
1.648	37.9	48.00	10.90
1.831	37.6	48.00	11.20
3.998	40.8	48.00	8.00

Note : The insertion loss, 0.8dB, is negligible compare with the margin evaluated.

TEST CONDITIONS AND DATA
Radiated Emission

◆ Test Equipment Used

Model Name	Manufacturer	Description	Next Cal. Date
ESVP	Rohde Schwarz	Receiver	Jun. 12, 2002
VULB9160	Schwarzbeck	Antenna	Jun. 04, 2002
EZM	Rohde Schwarz	Spectrum monitor	-
8566B	Hewlett Packard	Spectrum Analyzer	Jul. 13, 2002
85685A	Hewlett Packard	RF preselector	Jul. 13, 2002

◆ External Peripherals

Device Description	Model Name	Manufacture	FCC Compliance Information
TV Receiver	F19430	Daewoo	Verification

◆ Test Program DVD Playback and VCR record, DVD Playback, VCR Playback, VCR record mode

◆ Test Area Open Field Test Site #2

Note : The final measurement in OATS was performed for worst case investigated. Please refer to all of other results of preliminary test in appendix A. The test were performed with color bar as VITS. The channels were assigned to playback mode for ch3 with 1Vpp pre-recorded reference tape and record mode for ch4 with video input of 5Vpp color bar signal amplified by HP8447D.

This test method cover all case of operation for RF output channels and modes of playback and record.

The final measurement was performed for only LG tuner after investigation of radiation characteristic.

Find the test data in following page(s) 50.

Radiated Emissions

(Disturbance Radiation)

- Tuner : **LGTMI-US2-S**

-	Freq. [MHz]	Reading [dBuV]	Antenna Factor [dB]	Cable Loss [dB]	Angle [deg]	Polar. [H/V]	Result [dBuV]	Limit [dBuV]	Margin [dB]
	86.0	24.4	8.1	2.1	65	V	34.6	40.0	5.4
	184.3	25.7	10.4	3.2	346	H	39.4	43.5	4.1
	189.0	18.4	9.9	3.3	247	V	31.6	43.5	11.9
	200.4	17.3	9.3	3.3	322	H	29.9	43.5	13.6
	202.7	25.1	9.3	3.3	296	H	37.7	43.5	5.8
	215.9	24.4	9.4	3.5	228	H	37.3	43.5	6.2
	460.7	18.5	16.1	5.7	18	H	40.3	46.0	5.7
	540.0	16.4	17.4	6.3	310	H	40.1	46.0	6.0
	648.0	16.5	19.4	7.0	357	V	42.8	46.0	3.2
	863.9	10.1	21.8	8.6	219	V	40.5	46.0	5.6
	972.0	14.1	22.9	9.2	69	V	46.2	54.0	7.8

End of data

Note :