

TEST REPORT # EMCC-990159D, 2005-02-11

EQUIPMENT UNDER TEST:

Household Microwave / Convection Oven

Type: H4080BM
Model: MW6041
Serial No: 00/59006315
Magnetron Type: TOSHIBA 2M282H (ML)
Equipment Category: Industrial, Scientific and Medical (ISM) equipment
Manufacturer: MIELE & CIE. KG
Address: Carl-Miele-Platz 1
59302 Oelde
Germany

Phone: +49-5245-91-4627
Fax: +49-5245-91-4600

RELEVANT STANDARD:

47 CFR Part 18

MEASUREMENT PROCEDURE USED:

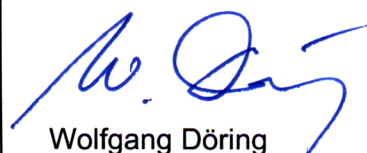
ANSI C63.4-2001 FCC/OET MP-5 (1986) Other

TEST REPORT PREPARED BY:

Wolfgang Döring
EMCC DR. RAŠEK
Moggast 72-74
91320 Ebermannstadt
Germany
Phone: +49-9194-9016
Fax: +49-9194-8125
E-mail: w.doering@emcc.de

TEST PERSONNEL:

HEAD OF LABORATORY:



Wolfgang Döring



Winfried Hoffmann

CONTENTS	Page
1 GENERAL INFORMATION	3
1.1 Purpose.....	3
1.2 Limits and Reservations	3
1.3 Test Location.....	3
1.4 Manufacturer	3
1.5 Dates	3
2 PRODUCT DESCRIPTION.....	4
2.1 Equipment Under Test (EUT).....	4
2.2 EUT Peripherals	4
2.3 Mode of Operation During Testing	4
2.4 Modifications Required for Compliance	4
3 TEST RESULTS SUMMARY	5
4 RADIATION HAZARD	6
4.1 Regulation	6
4.2 Test Equipment	6
4.3 Test Procedure.....	6
4.4 Test Result.....	7
5 POWER OUTPUT	8
5.1 Regulation	8
5.2 Test Equipment	8
5.3 Test Procedure.....	8
5.4 Test Results.....	8
5.5 Result Summary.....	9
6 OPERATING FREQUENCIES.....	10
6.1 Regulation	10
6.2 Test Procedure.....	10
6.3 Results	10
6.4 Result Summary.....	11
6.5 Measurement Plots.....	12
7 RADIATED EMISSIONS.....	16
7.1 Regulation	16
7.2 Test Equipment	18
7.3 Test Procedures.....	18
7.4 Calculation of Field Strength Limits	19
7.5 Field Strength Calculation	19
7.6 Test Results.....	20
7.7 Result Summary.....	21
8 CONDUCTED EMISSIONS	22
8.1 Regulation	22
8.2 Test Procedures.....	22
8.3 Test Equipment	23
8.4 Test Results.....	23
8.5 Result Summary.....	25
8.6 Measurement plots and data	26
9 MISCELLANEOUS COMMENTS AND NOTES	38
10 LIST OF ANNEXES	38

1 GENERAL INFORMATION

1.1 Purpose

The purpose of this report is to show compliance to the FCC regulations for industrial scientific and medical equipment operating under section 18 of the Code of Federal Regulations title 47.

1.2 Limits and Reservations

The test results in this report apply only to the particular Equipment Under Test (EUT) as declared in this report. This test report shall not be reproduced except in full without the written permission of EMCC DR. RAŠEK.

1.3 Test Location

Company Name: EMCC DR. RAŠEK
Street: Moggast 72-74
City: 91320 Ebermannstadt
Country: Germany
Laboratory: Test Laboratory of EMCC DR. RAŠEK
FCC Registration Number: 90566
This site has been fully described in a report submitted to the FCC, and accepted in the letter dated February 04, 2003 Registration Number 90566.
Phone: +49-9194-9016
Fax: +49-9194-8125
E-Mail: emc.cons@emcc.de
Web: www.emcc.de

1.4 Manufacturer

Company Name: MIELE & CIE. KG
Street: Carl-Miele-Platz 1
City: 59302 Oelde
Country: Germany
Name for contact purposes: Mr. Uwe Keller
Phone: +49-5245-91-4627
Fax: +49-5245-91-4600
E-mail: uwe.keller@miele.de

1.5 Dates

Date of receipt of EUT: CW 04/2005
Test date: CW 04/2005

2 PRODUCT DESCRIPTION

2.1 Equipment Under Test (EUT)

Description:	Household Microwave / Convection Oven
Type:	H4080BM
Model:	MW6041
Serial Number:	00/59006315
FCC-ID:	SSVMW6041
Equipment Category:	Industrial, Scientific and Medical (ISM) equipment
Power:	2N~220/127V 60Hz Single Phase AC 240/120V 60Hz Single Phase AC 208/120V 60Hz
Operating frequency:	2450 MHz
Internally used frequencies:	100kHz (SPS), 4.91MHz (Display PCB), 8MHz (Power PCB), 16MHz (Touch PCB), 24.57MHz (Control PCB)
Magnetron Type:	TOSHIBA 2M282H (ML)
Rated Power Input:	1850W @ AC 240V/60Hz 1500W @ AC 208V/60Hz
Rated Microwave Power:	950W @ AC 240V/60Hz 850W @ AC 208V/60Hz

2.2 EUT Peripherals

none

2.3 Mode of Operation During Testing

The EUT was tested as an independent unit with pure water as load. All emission tests performed with the upper nominal supply voltage of 240V/60Hz applied. Frequency measurements performed with both nominal voltages varied according to the MP-5 requirements.

2.4 Modifications Required for Compliance

None.

3 TEST RESULTS SUMMARY

Summary of Test Results for the following EUT:

Manufacturer: MIELE & CIE. KG
Type: H4080BM
Model: MW6041
Serial Number: 00/59006315

Requirement	CFR Section	Report Section	Test Result
Radiation Hazard	OET MP-5, OET Bulletin 56		Pass
Power Output	OET MP-5		Pass
Operating frequencies	18.301, 18.303		Pass
Field Strength Limits (Spurious and Harmonics)	18.305		Pass
AC Line Conducted Emissions	18.307		Pass

The client has made the determination that EUT Condition, Characterization, and Mode of Operation are representative of production units, and meet the requirements of the specifications referenced herein.

Consistent with Industry practice, measurement and test equipment not directly involved in obtaining measurement results but having an impact on measurements (such as cable loss, antenna factors, etc.) are factored into the "Correction Factor" documented in certain test results. Instrumentation employed for testing meets tolerances consistent with known Industry Standards and Regulations.

The measurements contained in this report were made in accordance with the procedure FCC/OET MP-5 (1986) and all applicable Public Notices received prior to the date of testing. All emissions from the device were found to be within the limits outlined in this report.

The test results in this report apply only to the particular Equipment Under Test (EUT) as declared in this report.

Test Personnel: Wolfgang Döring
Issuance Date: 2005-02-11

4 RADIATION HAZARD

Test Requirement: OET Bulletin 56, OET Bulletin 65

Test Procedure: FCC/OET MP-5 (1986)

4.1 Regulation

OET Bulletin 56

Table 1: FCC Limits for Maximum Permissible Exposure (MPE)

(B) Limits for General Population/Uncontrolled Exposure

Frequency Range [MHz]	Electric Field Strength (E) [V/m]	Magnetic Field Strength (H) [A/m]	Power Density (S) [mW/cm ²]	Averaging Time E ² , H ² or S [minutes]
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz *Plane-wave equivalent power density

The limit for an operating frequency of 2,450MHz is 1mW/ cm² .

4.2 Test Equipment

Type	Manufacturer/ Model No.	Serial No.	Last Calibration	Calibration Interval
Field Probe	NARDA 8783D	01095	2004-11	12 month
Electromagnetic Radiation Meter	NARDA 8717-1174R-01	02014	2004-11	12 month

4.3 Test Procedure

EUT was supplied with 230V/60Hz and operated with a 1000 ml of water load located in the center of the oven. Radiation leakage was measured on all sides around the EUT using the field probe.



Fig. 1 Radiation leakage test

4.4 Test Result

Manufacturer: MIELE & CIE. KG
Type: H4080BM
Model: MW6041
Serial Number: 00/59006315

The maximum measured power density was $0.056\text{mW}/\text{cm}^2$ and did not exceed the specified limit.
The EUT meets the requirements of this section.

Test Personnel: Wolfgang Döring
Test Date: 2005-01-24

5 POWER OUTPUT

Test Requirement: FCC 47 CFR, Section 18.305

Test Procedure: FCC/OET MP-5 (1986)

5.1 Regulation

The field strength limit according to Section 18.305 depends on the RF power generated by the equipment. The measured value of power is used to determine the allowable out-of-band field strength under the terms specified in Section 18.305 of the Rules. The AC Input Power to the oven is also measured to determine if the EUT is operating in accordance with the manufacturer's specifications.

5.2 Test Equipment

Type	Manufacturer/ Model No.	Serial No.	Last Calibration	Calibration Interval
AC Power Source	CALIFORNIA INSTRUMENTS HGA with 3 pcs. 5001ih-400	X 70982 HK 51879 HK 51880 HK 51881	-	-
Glass Thermometer	TWG Labortherm-N	387	-	-
Digital Multimeter	CONRAD ME-42	CC344177	2004-06	24 month

5.3 Test Procedure

The input power is measured by the measuring capabilities of the AC source and compared with the nominal power as declared by the manufacturer. The power output is measured by the calorimetric method, using a load of 1000ml of water in the beaker located in the center of the oven. The power output was computed from the measured temperature rise of the load over a period of time using the following equation:

$$P = 4.187 \times Q \times (T2 - T1) / t$$

where

- P = Output power in W,
- Q = Quantity of water in ml,
- T1 = Starting temperature in °C,
- T2 = Final temperature in °C,
- t = Time in sec.

5.4 Test Results

5.4.1 Input Power

Input Power Measurement				
Mode	Input Voltage	Input Current	Power Consumption	Manufacturer Rating
1000ml load	L1: 137.6V L2: 137.9V L1-L2: 238.6V	L1: 8.3A L2: 7.6A	L1: 780W L2: 1020W L1+L2: 1800W	1850W

5.4.2 RF Output Power

RF Output Power Measurement				
Qty. of water	Starting temperature	Final temperature	Elapsed time	Calculated RF power
1000ml	7 °C	32.5 °C	120 sec	889.7W
1000ml	8 °C	33 °C	120 sec	887.3W
1000ml	9 °C	21 °C	60 sec	837.4W
Average power				871.5W

5.5 Result Summary

Manufacturer: MIELE & CIE. KG
Type: H4080BM
Model: MW6041
Serial Number: 00/59006315

The EUT power consumption matches with the manufacturer's rating.

The RF output power exceeds 500W. Therefore the field strength limit is calculated according to §18.305 (b) based on the measured average power of 871.5 W.

The EUT meets the requirements of this section.

Test Personnel: Wolfgang Döring
Test Date: 2005-01-24+25

6 OPERATING FREQUENCIES

Test Requirement: FCC 47 CFR, Sections 18.301 and 303

Test Procedure: FCC/OET MP-5 (1986)

6.1 Regulation

Section 18.301 Operating frequencies

ISM equipment may be operated on any frequency above 9 kHz except as indicated in § 18.303. The following frequency bands, in accordance with §2.106 of the rules, are allocated for use by ISM equipment:

ISM frequency	Tolerance
...	...
2,450 MHz	+/- 50.0MHz
...	...

6.2 Test Procedure

According to OET MP-5 Section 4.5 Frequency measurements.

The frequency was measured using a EMI Receiver and a Horn Antenna placed at a distance of approx. 2 meters from the EUT.

The frequency was measured as a function of

- a) line voltage variation (from 80% to 125% of both nominal line voltages) and
- b) load variation (from 1000ml to 200ml).

6.3 Results

6.3.1 Frequency vs Line Voltage Variation Test

a) Nominal Voltage: 208V; Load: 1000ml

Line Voltage [V]	lower -20dBc frequency [MHz]	peak frequency [MHz]	upper -20dBc frequency [MHz]
208 (100%)	2,425.2	2,468	2,473.6
187.2 (90%)	2,427.2	2,468.4	2,470.4
166.4 (80%)	2,427.2	2,439.6	2,454.8
228 (110%)	2,423.2	2,470.4	2,474.4
260 (125%)	2,423.2	2,465.2	2,473.6

b) Nominal Voltage: 240V; Load: 1000ml

Line Voltage [V]	lower -20dBc frequency [MHz]	peak frequency [MHz]	upper -20dBc frequency [MHz]
240 (100%)	2,422.8	2,464	2,469.6
216 (90%)	2,425.2	2,467.2	2,473.6
192 (80%)	2,424.8	2,465.6	2,472.4
264 (110%)	2,423.6	2,468.8	2,473.6
300 (125%)	2,422	2,469.2	2,475.2

6.3.2 Frequency vs Load Variation Test

a) Voltage: 208V, Nominal Load: 1000ml

Load [ml]	lower -20dBc frequency [MHz]	peak frequency [MHz]	upper -20dBc frequency [MHz]
1000 (100%)	2,425.2	2,468	2,473.6
800 (80%)	2,438	2,466.8	2,470.4
600 (60%)	2,434.8	2,468	2,470.4
400 (40%)	2,433.6	2,469.2	2,470.8
200 (20%)	2,428	2,450.8	2,460

b) Voltage: 240V, Nominal Load: 1000ml

Load [ml]	lower -20dBc frequency [MHz]	peak frequency [MHz]	upper -20dBc frequency [MHz]
1000 (100%)	2,422.8	2,464	2,469.6
800 (80%)	2,424	2,450.4	2,474.8
600 (60%)	2,434.8	2,468	2,470.4
400 (40%)	2,431.6	2,470	2,471.6
200 (20%)	2,434	2,469.2	2,472.8

6.4 Result Summary

Manufacturer: MIELE & CIE. KG
Type: H4080BM
Model: MW6041
Serial Number: 00/59006315

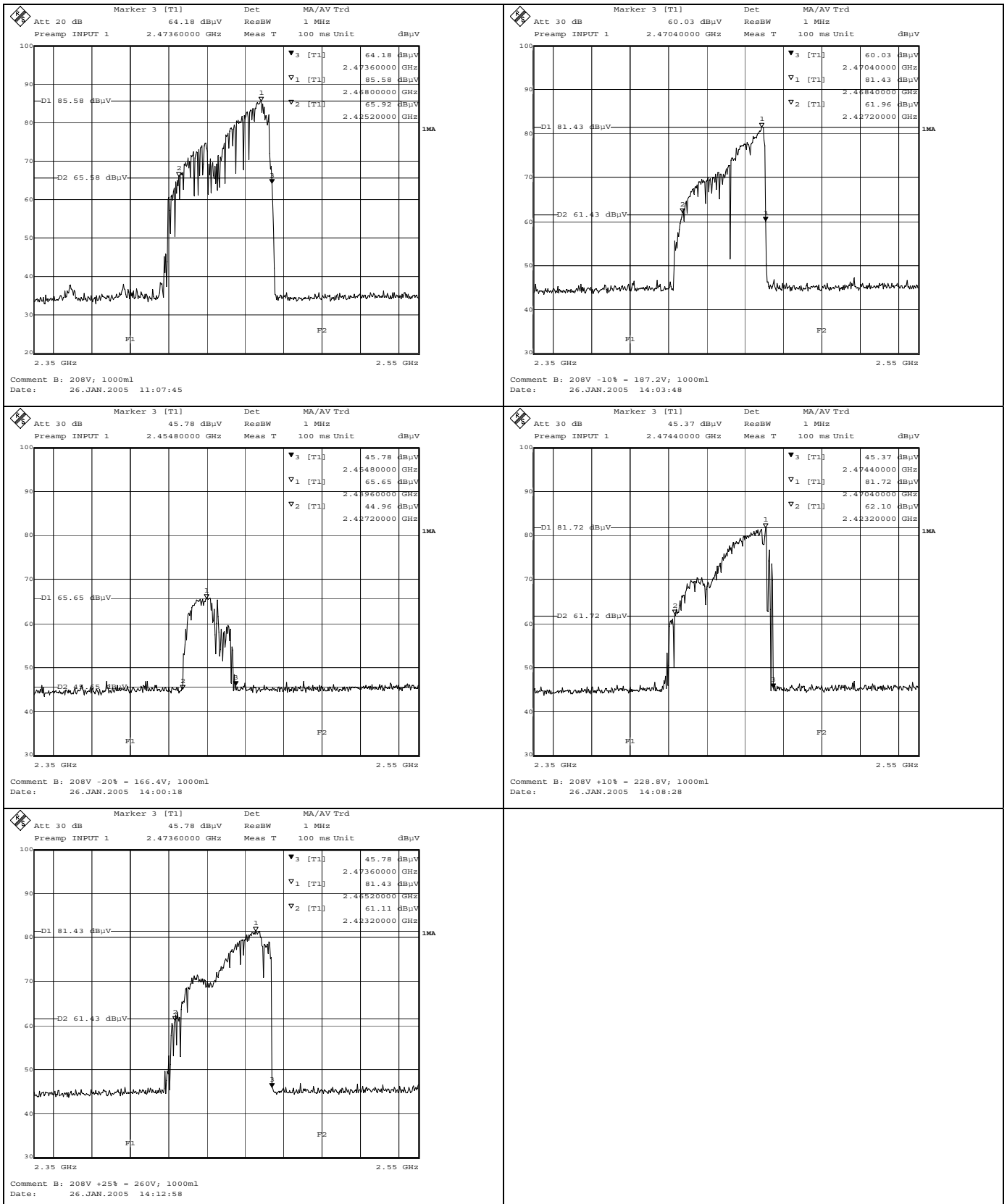
Minimum operating frequency: 2,422 MHz

Maximum operating frequency: 2,475.2 MHz

The EUT meets the requirements of this section.

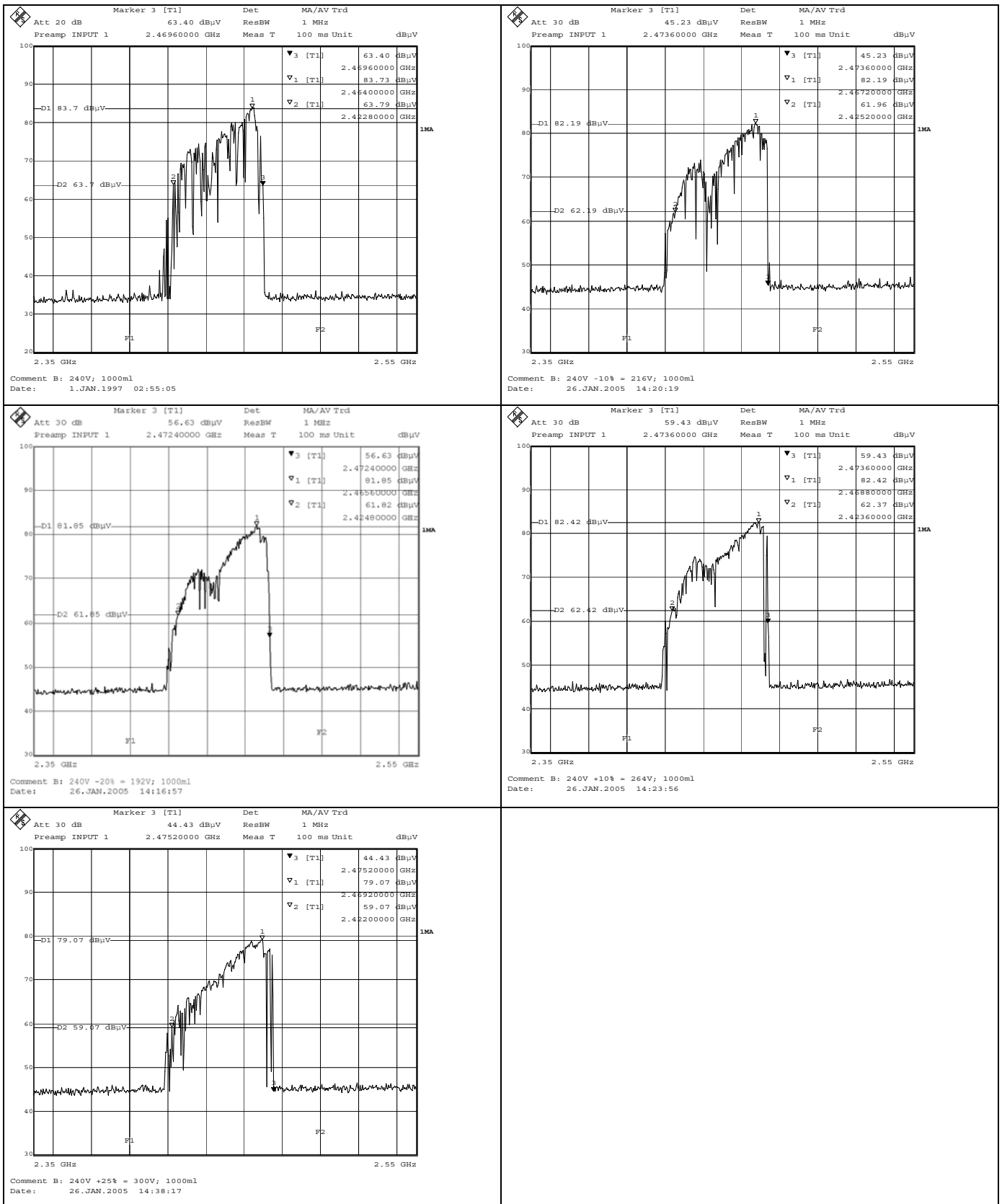
6.5 Measurement Plots

6.5.1 Frequency vs Line Voltage Variation Test (Nominal Voltage = 208 V)

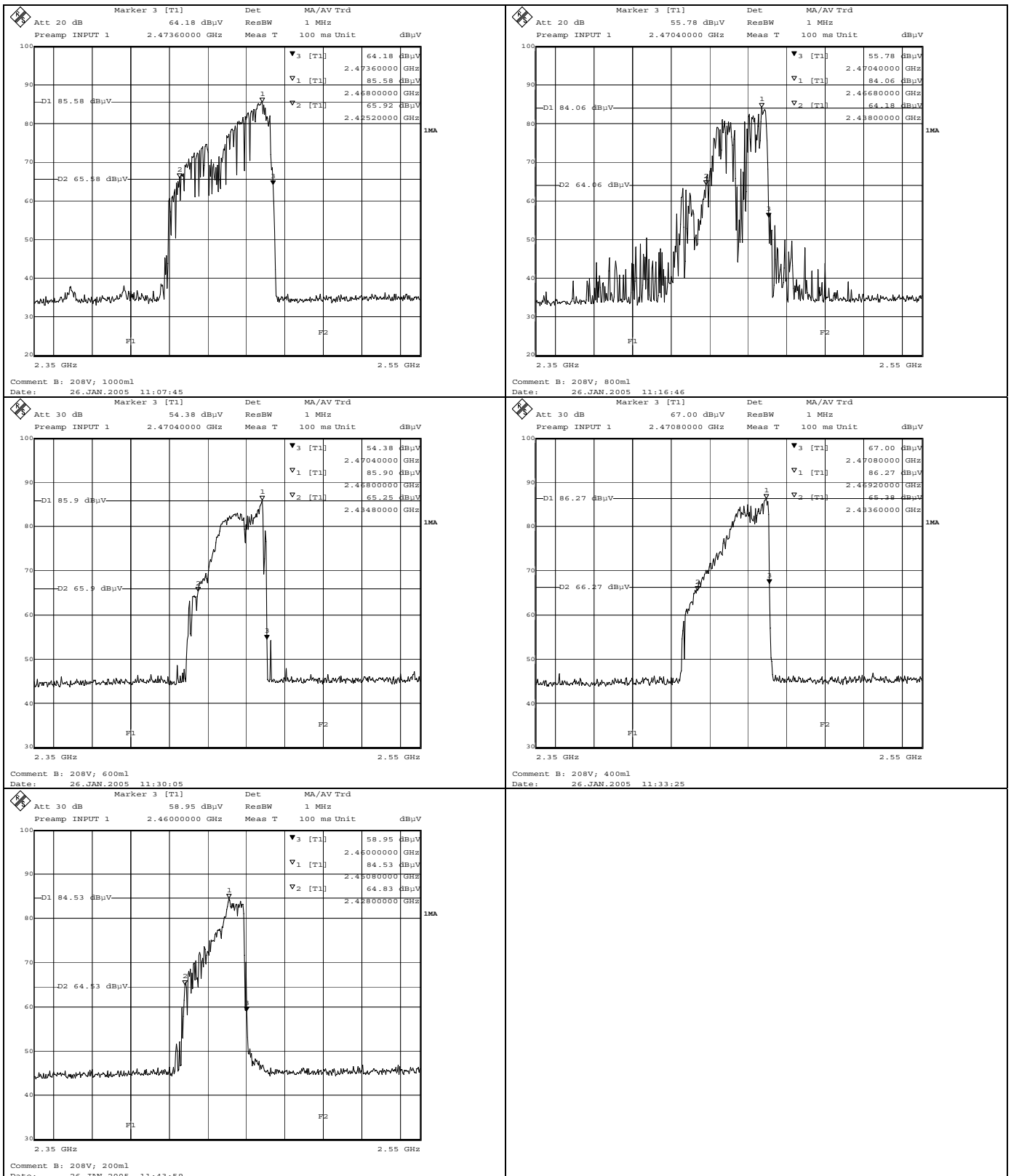


TEST OF MIELE & CIE. KG HOUSEHOLD MICROWAVE / CONVECTION OVEN TYPE H4080BM MODEL MW6041TO 47 CFR PART 18

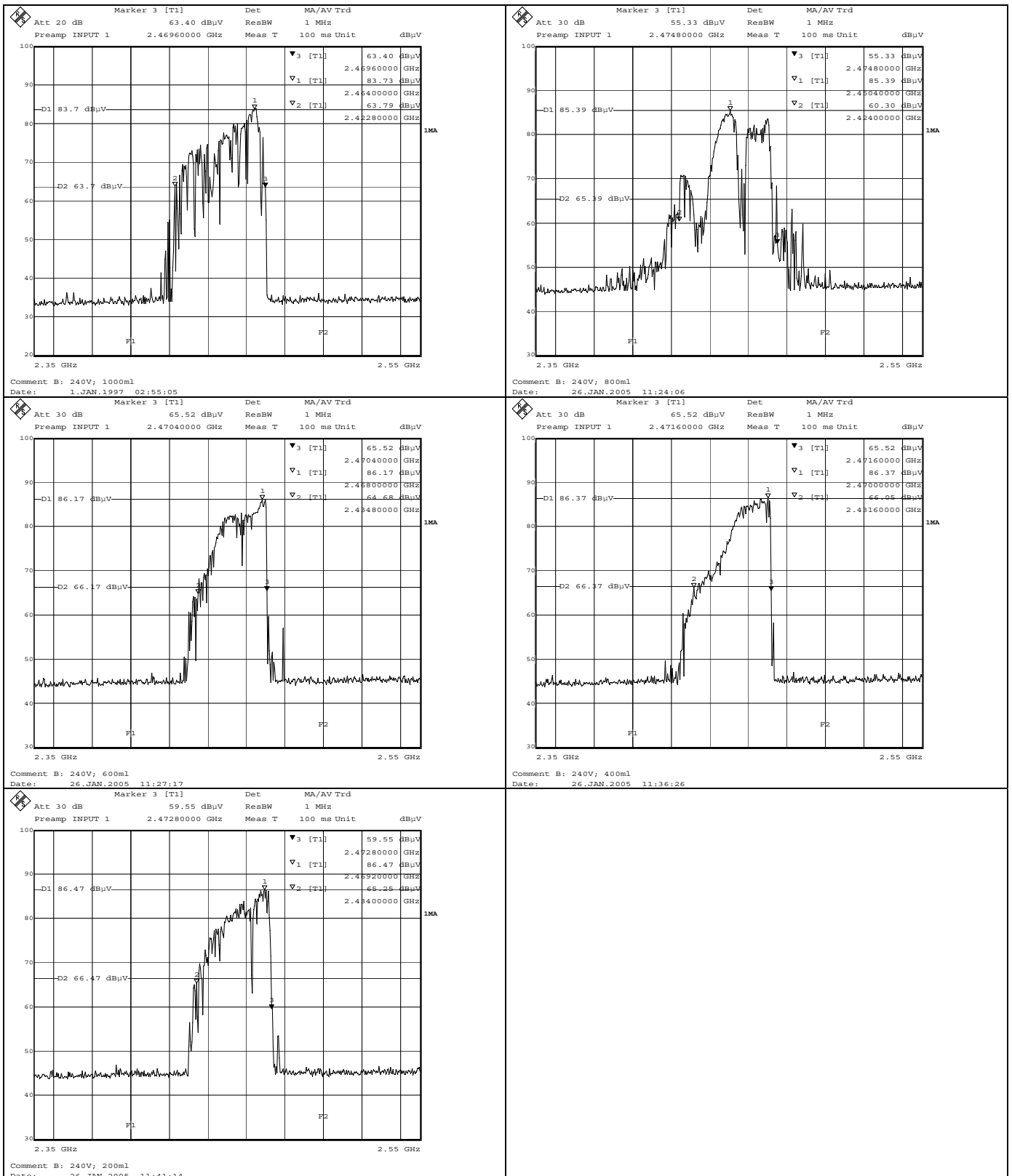
6.5.2 Frequency vs Line Voltage Variation Test (Nominal Voltage = 240 V)



6.5.3 Frequency vs Load Variation Test (Nominal Voltage = 208 V)



6.5.4 Frequency vs Load Variation Test (Nominal Voltage = 240 V)



7 RADIATED EMISSIONS

Test Requirement: FCC 47 CFR, Part 18

Test Procedure: FCC/OET MP-5 (1986)

7.1 Regulation

FCC 47 CFR

Section 18.305 Field strength limits

(a) ISM equipment operating on a frequency specified in § 18.301 is permitted unlimited radiated energy in the band specified for that frequency.

(b) The field strength levels of emissions which lie outside the bands specified in § 18.301, unless otherwise indicated, shall not exceed the following:

Equipment	Operating frequency	RF Power generated by equipment [watts]	Field strength limit [$\mu\text{V}/\text{m}$]	Distance [meters]
Any type unless otherwise specified (miscellaneous).	Any ISM frequency	Below 500	25	300
		500 or more	$25 \times \text{SQRT}(\text{power}/500)$	300 ⁽¹⁾
Industrial heaters and RF stabilized arc welders.	Any non-ISM frequency	Below 500	15	300
		500 or more	$15 \times \text{SQRT}(\text{power}/500)$	300 ⁽¹⁾
Medical diathermy	On or below 5,725 MHz	Any	10	1,600
	Above 5,725 MHz	Any	⁽²⁾	⁽²⁾
Ultrasonic	Any ISM frequency	Any	25	300
		Any non-ISM frequency	Any	15
Induction cooking ranges	Below 490 kHz	Below 500	$2,400/\text{F}(\text{kHz})$	300
		500 or more	$2,400/\text{F}(\text{kHz}) \times \text{SQRT}(\text{power}/500)$	300 ⁽³⁾
	490 to 1,600 kHz	Any	$24,000/\text{F}(\text{kHz})$	30
	Above 1,600 kHz	Any	15	30
Induction cooking ranges	Below 90 kHz	Any	1,500	30 ⁽⁴⁾
	On or above 90 kHz	Any	300	30 ⁽⁴⁾

¹ Field strength may not exceed 10 $\mu\text{V}/\text{m}$ at 1600 meters. Consumer equipment operating below 1000 MHz is not permitted the increase in field strength otherwise permitted here for power over 500 watts.

² Reduced to the greatest extent possible.

³ Field strength may not exceed 10 $\mu\text{V}/\text{m}$ at 1600 meters. Consumer equipment is not permitted the increase in field strength otherwise permitted here for over 500 watts.

⁴ Induction cooking ranges manufactured prior to February 1, 1980, shall be subject to the field strength limits for miscellaneous ISM equipment.

(c) The field strength limits of RF lighting devices shall be the following:

Equipment	Frequency (MHz)	Field strength limit at 30 meters ($\mu\text{V}/\text{m}$)
Non-consumer equipment	30-88	30
	88-216	50
	216-1000	70
Consumer equipment	30-88	10
	88-216	15
	216-1000	20

NOTES

1. The tighter limit shall apply at the boundary between two frequency ranges.

2. Testing for compliance with these limits may be made at closer distances, provided a sufficient number of measurements are taken to plot the radiation pattern, to determine the major lobes of radiation, and to determine

the expected field strength level at 30, 300, or 1600 meters. Alternatively, if measurements are made at only one closer fixed distance, then the permissible field strength limits shall be adjusted using 1/d as an attenuation factor.

Section 18.311 Methods of measurement

The measurement techniques which will be used by the FCC to determine compliance with the technical requirements of this part are set out in FCC Measurement Procedure MP-5, "Methods of Measurements of Radio Noise Emissions from ISM equipment". Although the procedures in MP-5 are not mandated, manufacturers are encouraged to follow the same techniques which will be used by the FCC.

Section 18.309 Frequency range of radiated measurements:

(a) For field strength measurements:

Frequency band in which device operates (MHz)	Range of frequency measurements	
	Lowest frequency	Highest frequency
Below 1.705	Lowest frequency generated in the device but not lower than 9 kHz.	30 MHz.
1.705 - 30	Lowest frequency generated in the device but not lower than 9 kHz.	400 MHz.
30 - 500	Lowest frequency generated in the device or 25 MHz, whichever is lower.	Tenth harmonic or 1,000 MHz, whichever is higher.
500 - 1000	Lowest frequency generated in the device or 100 MHz, whichever is lower.	Tenth harmonic.
Above 1000	do	Tenth harmonic or highest detectable emission.

FCC/OET MP-5 (1986)

Section 2.2.2 Detector function selection and bandwidths.

For radio noise meters or spectrum analyzers which include weighting circuits, the detector function shall be linear. The detector function selector shall be set to average, unless otherwise specified for a given device. For RF lighting devices, the measuring instrument shall have the detector function set to the CISPR quasi-peak function. The 6 dB bandwidth of the measuring instrument shall not be less than:

- 200 Hz for measurements below 150 kHz
- 9 kHz for measurements from 150 kHz to 30 MHz
- 100 kHz for measurements from 30 MHz to 1000 MHz
- 1 MHz for measurements above 1000 MHz

Post detector video filters, if used, shall be wide enough not to affect the peak detector reading.

Alternatively, field strength meters and spectrum analyzers without weighting circuits may be employed, provided measurements are made on the peak basis and recorded as observed.

Section 2.2.6 Antenna-to-test unit distance

Measurements shall be made at the distance at which the limits are specified, to the extend possible. [...] The Commission as an alternative shall accept measurements at a closer fixed distance, provided 1/d is used as attenuation law factor (where d is the distance measured in appropriate units). [...]

7.2 Test Equipment

Type	Manufacturer/ Model No.	Serial No.	Last Calibration	Calibration Interval
Antenna (30 MHz - 1 GHz)	EMCO Model 3143	9604-1269	2003-08	18 month
Receiver (30 MHz - 1 GHz)	Rohde & Schwarz ESS	837010/001	2004-08	18 month
EMI Receiver / Analyzer (1 GHz – 25 GHz)	Rohde & Schwarz ESIB 40	100126	2003-07	24 month
Antenna (1 GHz – 18 GHz)	Schwarzbeck BBHA 9120 D	248	2004-03	24 month
Standard Gain Horn Antenna (18 GHz – 25 GHz)	Mid Century MC 20/31B	1362/86	2004-08	24 month

7.3 Test Procedures

An EUT which is normally operated on a table shall be placed on a nonconductive table having a height of 1 m above test site ground level. [...] Measurements made on a test table of 80 cm height as called for in some international measurement standards will be accepted for proof of compliance. Although the results will probably be only marginally different than with the 1 meter height, the risk for discrepancies lies with the manufacturer. FCC tests will be performed at a height of 1 meter.

The EUT was tested on a 80cm test table.

With the EUT operating in max. power mode with load as specified in FCC/OET MP-5, emissions from the unit are maximized by adjusting the polarization of the receive antenna and rotating the EUT. Manipulating the system cables also maximizes EUT emissions [*Remark: Not applicable*]. Worst case emissions are listed under chapter: test results.

The following loads were used:

- Second and third harmonics measured with two loads: one of 300ml of water and the other of 700ml of water. Each load was tested both with the beaker located in the center of the oven and with it in the right front corner
- All other measurements: 700ml of water, with the beaker located in the center of the oven.

Radiated Emissions Test Characteristics	
Frequency range	30 MHz - 25 GHz
Test distance	10 m (30 MHz – 1000 MHz)* 3m (1 GHz – 25 GHz)*
Test instrumentation resolution bandwidth	120 kHz (30 MHz - 1000 MHz) 1 MHz (1 GHz - 25 GHz)
Receive antenna scan height	1 m - 4 m
Receive antenna polarization	Vertical/Horizontal

* According to FCC/OET MP-5 (1986) Section 2.2.6 Antenna-to-test unit distance:

[...] The Commission as an alternative shall accept measurements at a closer fixed distance, provided 1/d is used as attenuation law factor (where d is the distance measured in appropriate units). [...]

When performing measurements at a distance other than that specified, the results was extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse linear-distance for field strength measurements).

7.4 Calculation of Field Strength Limits

E.g. radiated spurious emissions field strength limits:

$$\mu\text{V/m at 300 meters} = 25 \times \text{SQRT}(\text{power}/500) = 25 \times \text{SQRT}(871.5/500) = 33.0$$

33 $\mu\text{V/m}$ corresponds with 30.37 dB $\mu\text{V/m}$.

7.5 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor. The basic equation with a sample calculation is as follows:

$$\text{FS} = \text{RA} + \text{AF} + \text{CF}$$

where

FS = Field Strength in dB $\mu\text{V/m}$

RA = Receiver Amplitude in dB μV

AF = Antenna Factor in dB(1/m)

CF = Cable Attenuation Factor in dB

Assume a receiver reading of 30 dB μV is obtained. The Antenna Factor of 20 dB(1/m) and a Cable Factor of 0.3 dB are added, giving a field strength of 50.3 dB $\mu\text{V/m}$. The 50.3 dB $\mu\text{V/m}$ value can be mathematically converted to its corresponding level in $\mu\text{V/m}$.

$$\text{FS} = 30 + 20 + 0.3 = 50.3 \text{ [dB}\mu\text{V/m]}$$

$$\text{Level in } \mu\text{V/m} = \text{Common Antilogarithm}(50.3/20) = 327.3$$

For test distance other than what is specified, the field strength is calculated by adding additionally an extrapolation factor of 20 dB/decade (inverse linear-distance for field strength measurements). The basic equation with a sample calculation is as follows:

$$\text{FS} = \text{FST} + \text{DF}$$

where

FS = Field Strength in dB $\mu\text{V/m}$

FST = Field Strength at test distance in dB $\mu\text{V/m}$

DF = Distance Extrapolation Factor in dB,

where $\text{DF} = 20 \log(\text{D}_{\text{test}}/\text{D}_{\text{spec}})$ where D_{test} = Test Distance and D_{spec} = Specified Distance

Assume the tests performed at a reduced Test Distance of 10 m instead of the Specified Distance of 300 m giving a Distance Extrapolation Factor of $\text{DF} = 20 \log(10\text{m}/300\text{m}) = -29.5$ dB.

Assuming a measured field strength level of 50.3 dB $\mu\text{V/m}$ is obtained. The Distance Factor of -29.5 dB is added, giving a field strength of 20.8 dB $\mu\text{V/m}$. The 20.8 dB $\mu\text{V/m}$ value can be mathematically converted to its corresponding level in $\mu\text{V/m}$.

$$\text{FS} = 30 + 20 + 0.3 - 29.5 = 20.8 \text{ [dB}\mu\text{V/m]}$$

$$\text{Level in } \mu\text{V/m} = \text{Common Antilogarithm}(20.8/20) = 10.96$$

7.6 Test Results

Manufacturer: MIELE & CIE. KG
 Type: H4080BM
 Model: MW6041
 Serial Number: 00/59006315

PRODUCT SPURIOUS EMISSIONS DATA BELOW 1 GHz; Test Distance = 10m											
No	Emission Frequency*	Receiver Bandwidth and Mode	Receiver Reading RA [dB(μV)]	Load / Load Location	Antenna Factor AF *** [dB]	Distance Extrapol. Factor DF [dB]	Result = Corrected Reading FS [dB(μV/m)]	Result [μV/m]	Spec Limit [μV/m]	Polarization Ant.	Margin [dB]
1	129.2	120, AV 120, PK**	AV 8 PK 20	700ml/ center	8.7	-29.5	AV -12.8 PK -0.8	AV 0.23 PK 0.91	AV 30.37	v	AV 45.8
2	145.8	120, AV 120, PK**	AV 8 PK 20		11.4		AV -10.1 PK 1.9	AV 0.31 PK 1.24		v	AV 43.2
3	146.5	120, AV 120, PK**	AV 8 PK 22		11.5		AV -10.0 PK 4.0	AV 0.31 PK 1.58		v	AV 43.0
4	382.5	120, AV 120, PK**	AV 2 PK 8		18.6		AV -8.9 PK -2.9	AV 0.36 PK 0.71		v	AV 42.0
5	746.6	120, AV 120, PK**	AV -7 PK 16		25.9		AV -10.6 PK 12.4	AV 0.29 PK 4.15		v	AV 43.6
6	985	120, AV 120, PK**	AV -8 PK 9		29.7		AV -7.8 PK 9.2	AV 0.41 PK 2.87		h	AV 40.8

Remark: * Six max. emissions above noise floor reported. ** Peak measurement for information, only.
 *** Cable attenuation already included in antenna factor.

PRODUCT SPURIOUS EMISSIONS DATA ABOVE 1 GHz;
 Test Distance = 3m

No	Emission Frequency* [MHz]	Receiver Bandwidth and Mode [kHz]	Receiver Reading RA [dB(μV)]	Load/ Load Location* [dB]	Cable Attenuation [dB]	Antenna Factor AF [dB]	Distance Extrapol. Factor DF [dB]	Result = Corrected Reading FS [dB(μV/m)]	Result [μV/m]	Spec Limit [μV/m]	Polarization Ant.	Margin [dB]
1	1234	1000, AV	11	700ml/center	1.8	25.1	-40.0	-2.1	0.79	30.37	v	35.1
2	2200		18		2.5	27.9		8.4	2.63		h	24.6
3	4176		16		3.9	29.9		9.8	3.09		v	23.2
4	4891		30	300ml/center	4	31.3		25.3	18.41		v	7.7
5	7400		16	700ml/center	5.2	36.2		17.4	7.41		v	15.6
6	7660		22		5.2	36.2		23.4	14.79		v	9.6
7	9840		13		6.2	38.3		17.5	7.5		v	15.5
8	12320		11		6.7	38.5		16.2	6.46		v	16.8
9	14735		11		7.4	41.4		19.8	9.77		h	13.2
10	16032		10		8	37.3		15.3	5.82		v	17.7
11	17206		12		8.5	40.3		20.8	10.96		v	12.2
12	19754		11		5	36.2		12.2	4.07		v	20.8
13	22097		13	5	37.2	15.2		5.75	v		17.8	
14	24500		11	5.5	38.3	14.8		5.5	h, v		18.2	

Remark: * Tests performed for loads and load positions as per FCC/OET-MP5. Results for max. reading at particular frequencies reported, only.

7.7 Result Summary

Manufacturer: MIELE & CIE. KG
 Type: H4080BM
 Model: MW6041
 Serial Number: 00/59006315

The EUT meets the requirements of this section.

Test Personnel: Wolfgang Döring

Test Date: 2005-01-25+26

8 CONDUCTED EMISSIONS

Test Requirement: FCC 47 CFR, Part 18

Test Procedure: FCC/OET MP-5 (1986)

8.1 Regulation

Section 18.307 Conduction limits.

For the following equipment, when intended to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies shall not exceed the limits in the following tables.

Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal using a 50 μ H/50 ohms line impedance stabilization network (LISN). [...]

(b) All other part 18 consumer devices:

Frequency of Emission [MHz]	Conducted Limit [dBuV]	
	Quasi-peak (QP)	Average (AV)
0.15-0.5	66 to 56 *	56 to 46 *
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

(d) If testing with a quasi-peak detector demonstrates that the equipment complies with the average limits specified in the appropriate table in this section, additional testing to demonstrate compliance using a average detector is not required.

(e) this conduction limits shall apply only outside of the frequency bands specified in § 18.301.

[...]

(g) The tighter limit applies at the boundary between the frequency ranges.

8.2 Test Procedures

The EUT shall be placed 40 centimeters from an earth grounded conducting surface at least 2 meters square (e.g. the floor of the test chamber) and shall be kept at least 80 centimeters from any other earthed conducting surface. Floor standing equipment may of course be mounted on an earth grounded floor. If the measurement is made in a shielded enclosure, the walls of the enclosure may be substituted for the 2 meters square conducting surface.

If the EUT is supplied with a flexible power lead, the voltage shall be measured at the plug end of the power lead. The length of the power lead in excess 80 centimeters separating the EUT from the LISN shall be folded back and forth so as to form a bundle not exceeding 30 to 40 centimeters in length. [...]
The EUT is connected to a dedicated LISN and all peripherals are connected to a second separate LISN circuit. The LISNs are bonded to the groundplane.

Conducted measurements are made on each current carrying conductor with respect to ground.

Test performed in a shielded enclosure. The EUT was tested as a tabletop equipment. It was placed on a 80cm test table. The EUT was equipped with a

Tests performed at the AC input of the EUT on lines N, L1 and L2. The EUT was powered by both nominal voltages L1-L2 of 208V 60 Hz and L1-L2 of 240V 60 Hz, respectively.

Tests performed with a load of 1000ml of water with the beaker placed in the center of the oven. The initial step in collecting conducted data is a peak and average scan of the measurement range with an EMI test receiver. The significant peaks are then measured with quasi-peak detector. Worst case conducted emissions are reported.

8.3 Test Equipment

Type	Manufacturer/ Model No.	Serial No.	Last Calibration	Calibration Interval
EMI Receiver	Rohde & Schwarz ESS	832808/004	2004-03	18 month
Protector Limiter 10 dB	Rohde & Schwarz ESH3-Z2 357.8810.52	844.165/032	n.a.	n.a.
V-LISN 50 ohms//(50 uH + 5 ohms)	Rohde & Schwarz ESH3-Z5	838641/006	2004-06	24 month
AC Power Source	CALIFORNIA INSTRUMENTS HGA with 3 pcs. 5001ih-400	X 70982 HK 51879 HK 51880 HK 51881	n.a.	n.a.
Digital Multimeter	CONRAD ME-42	CC344177	2004-06	24 month

8.4 Test Results

8.4.1 Line Voltage (L1-L2) 208 V

PRODUCT EMISSIONS Quasi-Peak (QP) DATA Line Voltage L1-L2: 208 V / 60 Hz						
No	Tested Line	Emission Frequency	QP Level	QP Limit:	Margin	Remarks
		[kHz]	[dBμV]	[dBμV]	[dB]	
1	N	615	42.1	56	13.9	
2	N	730	43.5	56	12.5	
3	N	945	45.2	56	10.8	
4	N	1025	46.4	56	9.6	
5	N	1355	45	56	11	
6	N	1595	41.1	56	14.9	

TEST OF MIELE & CIE. KG HOUSEHOLD MICROWAVE / CONVECTION OVEN TYPE H4080BM MODEL MW6041TO 47 CFR PART 18

PRODUCT EMISSIONS Average (AV) DATA Line Voltage L1-L2: 208 V / 60 Hz						
No	Tested Line	Emission Frequency	AV Level	AV Limit:	Margin	Remarks
		[kHz]	[dBμV]	[dBμV]	[dB]	
1	N	725	33.6	46	12.4	
2	N	840	28.5	46	17.5	
3	N	11535	33.4	50	16.6	
4	L1	16470	34.7	50	15.3	
5	N	16565	33.9	50	16.1	
6	N	24660	36.7	50	13.3	

8.4.2 Line Voltage (L1-L2) 240 V

PRODUCT EMISSIONS Quasi-Peak (QP) DATA Line Voltage L1-L2: 240 V / 60 Hz						
No	Tested Line	Emission Frequency	QP Level	QP Limit:	Margin	Remarks
		[kHz]	[dBμV]	[dBμV]	[dB]	
1	L1	515	36.5	56	19.5	
2	N	635	36.5	56	19.5	
3	L1	880	36.6	56	19.4	
4	N	1555	36.1	56	19.9	
5	L1	2640	36.5	56	19.5	
6	N	11720	41.3	60	18.7	

PRODUCT EMISSIONS Average (AV) DATA Line Voltage L1-L2: 240 V / 60 Hz						
No	Tested Line	Emission Frequency	AV Level	AV Limit:	Margin	Remarks
		[kHz]	[dBμV]	[dBμV]	[dB]	
1	N	785	34.3	46	11.7	
2	N	825	32.5	46	13.5	
3	N	11680	36.3	50	13.7	
4	L1	16570	34.1	50	15.9	
5	N	16585	34.8	50	15.2	
6	N	25890	36.8	50	13.2	

8.5 Result Summary

Manufacturer: MIELE & CIE. KG
Type: H4080BM
Model: MW6041
Serial Number: 00/59006315

The EUT meets the requirements of this section.

Test Personnel: Wolfgang Döring

Test Date: 2005-01-24

8.6 Measurement plots and data

EMCC DR.RASEK Conducted Emissions

24. Jan 05 16:41

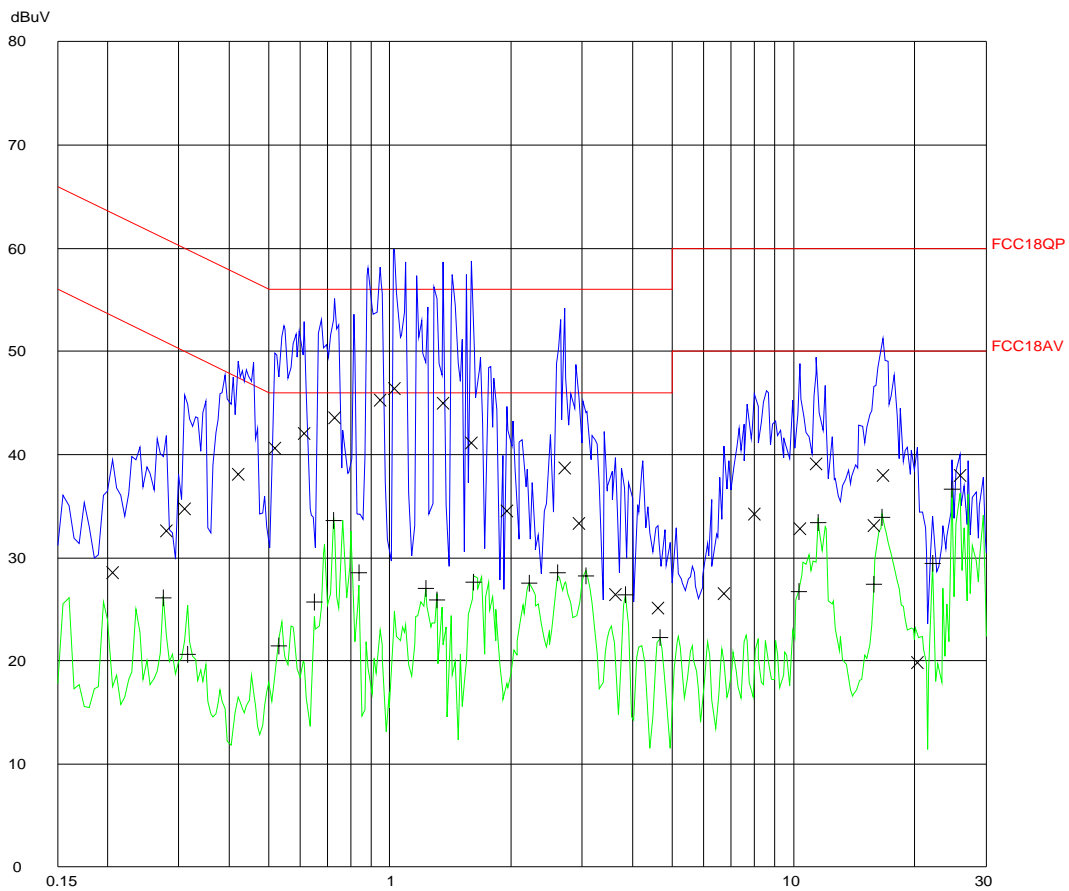
EUT: H4080BM
 Manuf: MIELE
 Op Cond: Operating; 208V
 Operator: Doering
 Test Spec: FCC Part 18
 Comment: N

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150k	30M	5k	10k	PK+AV	10ms	AUTO	LN ON	60dB

Final Measurement: x QP / + AV
 Meas Time: 1 s
 Subranges: 25
 Acc Margin: 25dB

Transducer No.	Start	Stop	Name
1	10k	30M	Limiter



8.6 Measurement plots and data (continued)

Final Measurement Results:

24. Jan 05 16:41

Frequency MHz	QP Level dBuV	QP Limit dBuV
0.20500	28.5	63.4
0.28000	32.6	60.8
0.31000	34.7	60.0
0.42000	38.0	57.5
0.52000	40.5	56.0
0.61500	42.0	56.0
0.73000	43.5	56.0
0.94500	45.2	56.0
1.02500	46.4	56.0
1.35500	44.9	56.0
1.59500	41.0	56.0
1.95000	34.5	56.0
2.72000	38.6	56.0
2.94000	33.2	56.0
3.62000	26.4	56.0
4.63000	25.0	56.0
6.73000	26.5	60.0
8.02000	34.2	60.0
10.38000	32.8	60.0
11.41500	39.0	60.0
15.79500	33.0	60.0
16.67500	37.9	60.0
20.26500	19.8	60.0
25.89000	38.0	60.0

Frequency MHz	AV Level dBuV	AV Limit dBuV
0.27500	26.1	51.0
0.31500	20.6	49.8
0.53000	21.4	46.0
0.65000	25.7	46.0
0.72500	33.5	46.0
0.84000	28.5	46.0
1.23000	27.0	46.0
1.30500	25.9	46.0
1.61000	27.6	46.0
2.22000	27.5	46.0
2.60000	28.5	46.0
3.06500	28.2	46.0
3.83000	26.4	46.0
4.67500	22.2	46.0
10.32000	26.7	50.0
11.53500	33.4	50.0
15.87000	27.4	50.0
16.56500	33.9	50.0
22.19500	29.4	50.0
24.66000	36.6	50.0

* limit exceeded

8.6 Measurement plots and data (continued)

EMCC DR.RASEK Conducted Emissions

24. Jan 05 16:53

EUT: H4080BM
 Manuf: MIELE
 Op Cond: Operating; 208V
 Operator: Doering
 Test Spec: FCC Part 18
 Comment: L1

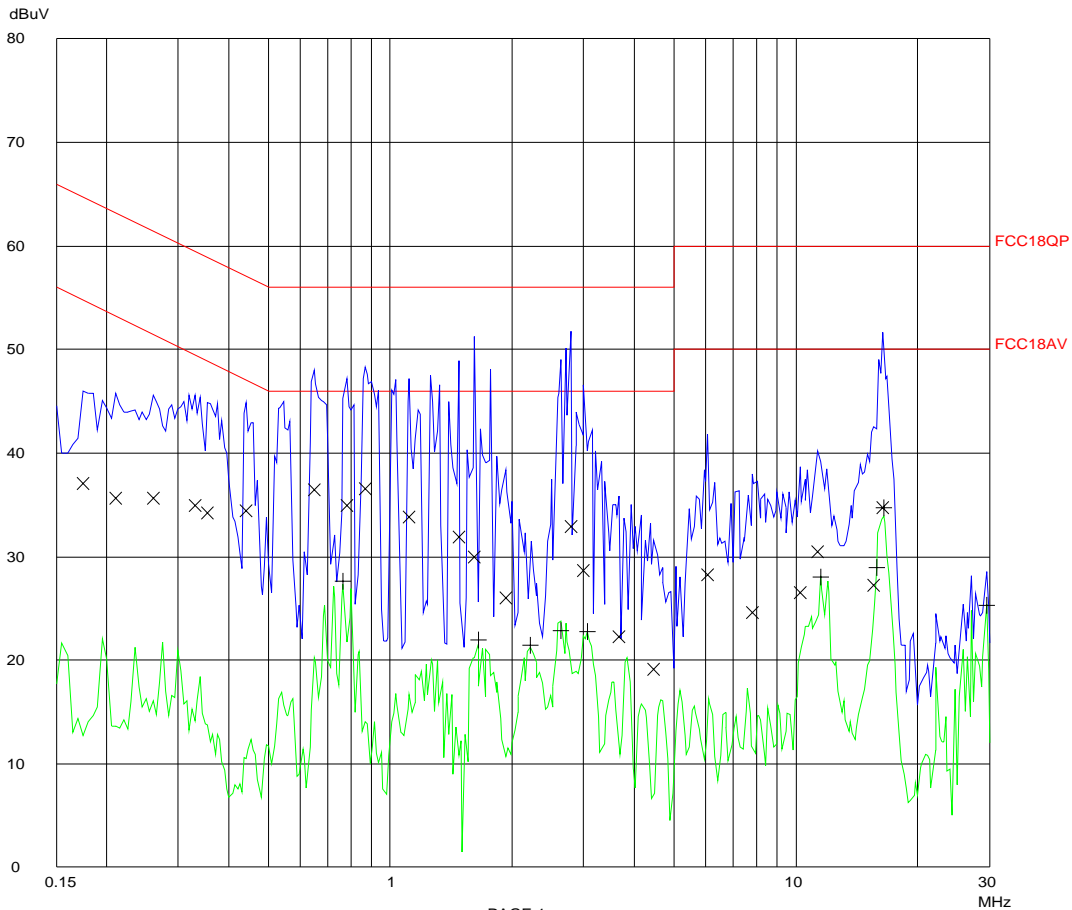
Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150k	30M	5k	10k	PK+AV	10ms	AUTO	LN ON	60dB

Final Measurement: x QP / + AV

Transducer No.	Start	Stop	Name
1	10k	30M	Limiter

Meas Time: 1 s
 Subranges: 25
 Acc Margin: 25dB



8.6 Measurement plots and data (continued)

EMCC DR.RASEK Conducted Emissions

24. Jan 05 16:53

EUT: H4080BM
 Manuf: MIELE
 Op Cond: Operating; 208V
 Operator: Doering
 Test Spec: FCC Part 18
 Comment: L1

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150k	30M	5k	10k	PK+AV	10ms	AUTO	LN ON	60dB

Final Measurement Results:

Frequency	QP Level	QP Limit
MHz	dBuV	dBuV
0.17500	37.0	64.7
0.21000	35.6	63.2
0.26000	35.6	61.4
0.33000	34.8	59.5
0.35500	34.2	58.8
0.44000	34.4	57.0
0.65000	36.4	56.0
0.78000	34.8	56.0
0.87000	36.5	56.0
1.11000	33.8	56.0
1.47500	31.8	56.0
1.61500	29.9	56.0
1.92500	26.0	56.0
2.79500	32.8	56.0
3.00000	28.6	56.0
3.66000	22.2	56.0
4.47000	19.1	56.0
6.07000	28.2	60.0
7.81500	24.5	60.0
10.25500	26.5	60.0
11.33000	30.4	60.0
15.52500	27.2	60.0
16.35000	34.7	60.0

Frequency	AV Level	AV Limit
MHz	dBuV	dBuV
0.76500	27.6	46.0
1.64500	21.9	46.0
2.22000	21.4	46.0
2.63500	22.8	46.0
3.06500	22.8	46.0
11.53000	28.0	50.0
15.86500	28.9	50.0
16.47000	34.6	50.0
29.59000	25.2	50.0

* limit exceeded

8.6 Measurement plots and data (continued)

EMCC DR.RASEK Conducted Emissions

24. Jan 05 17:02

EUT: H4080BM
 Manuf: MIELE
 Op Cond: Operating; 208V
 Operator: Doering
 Test Spec: FCC Part 18
 Comment: L2

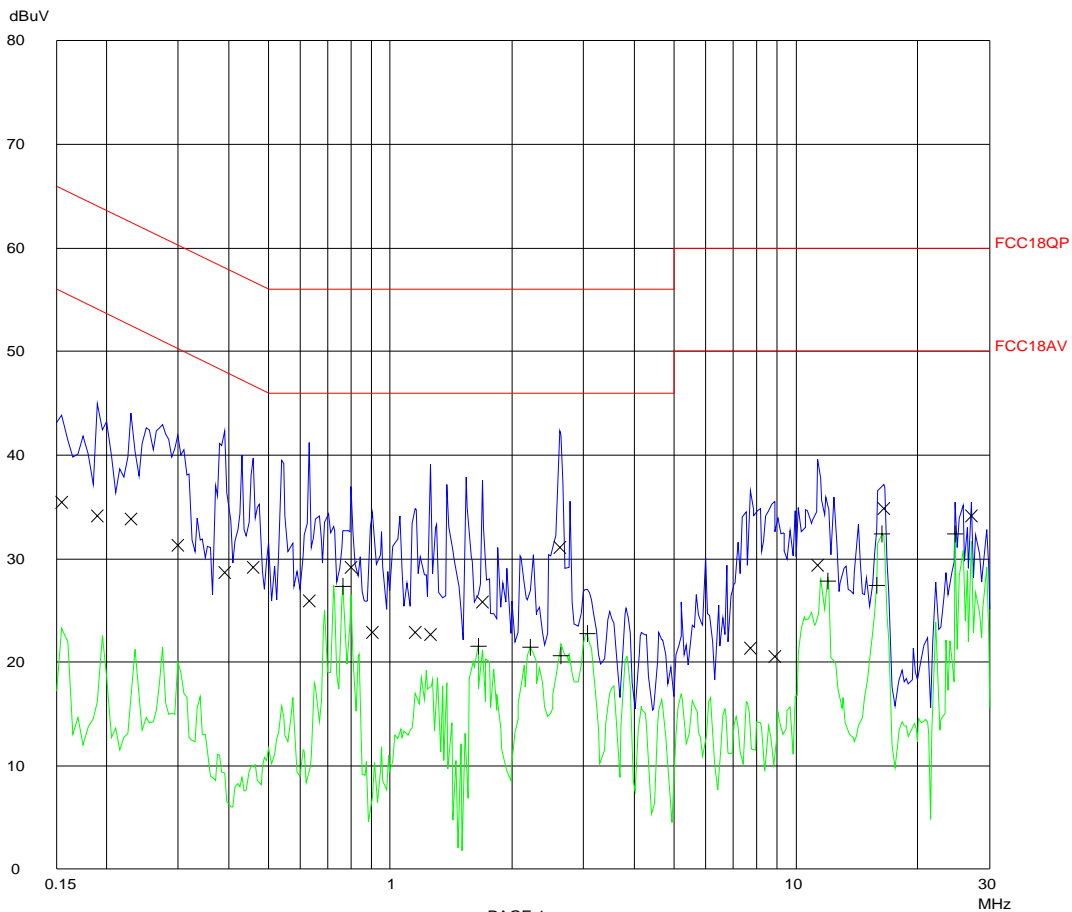
Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150k	30M	5k	10k	PK+AV	10ms	AUTO	LN ON	60dB

Final Measurement: x QP / + AV

Transducer No.	Start	Stop	Name
1	10k	30M	Limiter

Meas Time: 1 s
 Subranges: 25
 Acc Margin: 25dB



8.6 Measurement plots and data (continued)

EMCC DR.RASEK Conducted Emissions

24. Jan 05 17:02

EUT: H4080BM
 Manuf: MIELE
 Op Cond: Operating; 208V
 Operator: Doering
 Test Spec: FCC Part 18
 Comment: L2

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150k	30M	5k	10k	PK+AV	10ms	AUTO	LN ON	60dB

Final Measurement Results:

Frequency MHz	QP Level dBuV	QP Limit dBuV
0.15500	35.3	65.7
0.19000	34.1	64.1
0.23000	33.8	62.4
0.30000	31.2	60.2
0.39000	28.6	58.0
0.46000	29.1	56.7
0.63000	25.9	56.0
0.80000	29.1	56.0
0.90500	22.8	56.0
1.15000	22.8	56.0
1.25500	22.6	56.0
1.68500	25.8	56.0
2.61500	31.1	56.0
7.71000	21.3	60.0
8.86500	20.4	60.0
11.33500	29.3	60.0
16.47000	34.8	60.0
27.12500	34.0	60.0

Frequency MHz	AV Level dBuV	AV Limit dBuV
0.76500	27.3	46.0
1.64500	21.5	46.0
2.22000	21.4	46.0
2.63000	20.6	46.0
3.06500	22.7	46.0
11.96000	27.7	50.0
15.86500	27.4	50.0
16.29500	32.4	50.0
24.66000	32.4	50.0

* limit exceeded

8.6 Measurement plots and data (continued)

EMCC DR.RASEK Conducted Emissions

24. Jan 05 16:06

EUT: H4080BM
 Manuf: MIELE
 Op Cond: Operating; 240V
 Operator: Doering
 Test Spec: FCC Part 18
 Comment: N

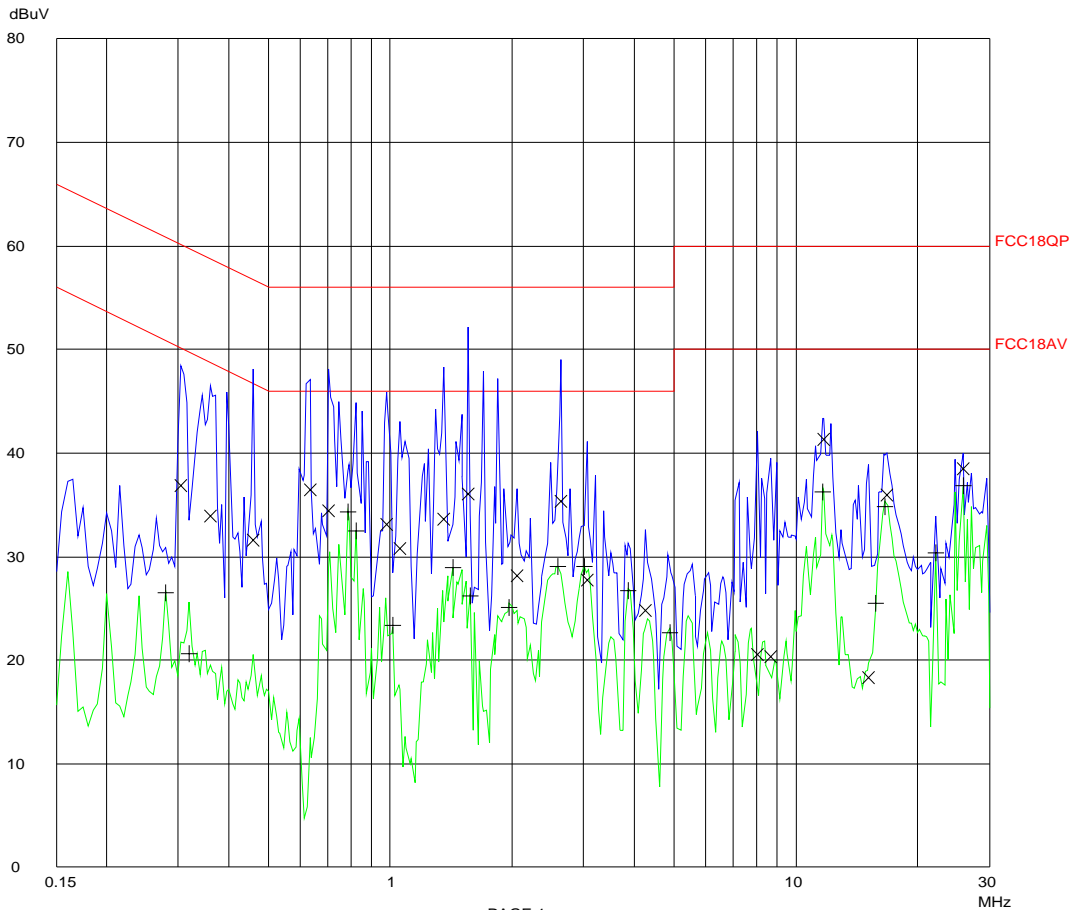
Scan Settings (1 Range)

Frequencies				Receiver Settings			
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp OpRge
150k	30M	5k	10k	PK+AV	10ms	AUTO LN ON	60dB

Final Measurement: x QP / + AV

Transducer No.	Start	Stop	Name
1	10k	30M	Limiter

Meas Time: 1 s
 Subranges: 25
 Acc Margin: 25dB



8.6 Measurement plots and data (continued)

EMCC DR.RASEK Conducted Emissions

24. Jan 05 16:06

EUT: H4080BM
 Manuf: MIELE
 Op Cond: Operating; 240V
 Operator: Doering
 Test Spec: FCC Part 18
 Comment: N

Scan Settings (1 Range)

----- Frequencies -----			----- Receiver Settings -----					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150k	30M	5k	10k	PK+AV	10ms	AUTO	LN ON	60dB

Final Measurement Results:

Frequency MHz	QP Level dBuV	QP Limit dBuV
0.30500	36.8	60.1
0.36000	33.8	58.7
0.46000	31.5	56.7
0.63500	36.4	56.0
0.70500	34.4	56.0
0.98000	33.0	56.0
1.05500	30.8	56.0
1.35500	33.5	56.0
1.55500	36.0	56.0
2.05500	28.1	56.0
2.63500	35.3	56.0
3.05500	27.7	56.0
4.26000	24.7	56.0
8.06000	20.5	60.0
8.66000	20.2	60.0
11.72000	41.2	60.0
15.09000	18.2	60.0
16.76000	35.9	60.0
25.89000	38.4	60.0

Frequency MHz	AV Level dBuV	AV Limit dBuV
0.28000	26.5	50.8
0.32000	20.6	49.7
0.78500	34.3	46.0
0.82500	32.4	46.0
1.01500	23.3	46.0
1.42500	28.9	46.0
1.57500	26.2	46.0
1.96000	25.1	46.0
2.59000	29.0	46.0
3.00500	29.0	46.0
3.86500	26.6	46.0
4.88000	22.6	46.0
11.68000	36.2	50.0
15.71500	25.5	50.0
16.58500	34.8	50.0
22.19000	30.3	50.0
25.89000	36.8	50.0

* limit exceeded

8.6 Measurement plots and data (continued)

EMCC DR.RASEK Conducted Emissions

24. Jan 05 16:21

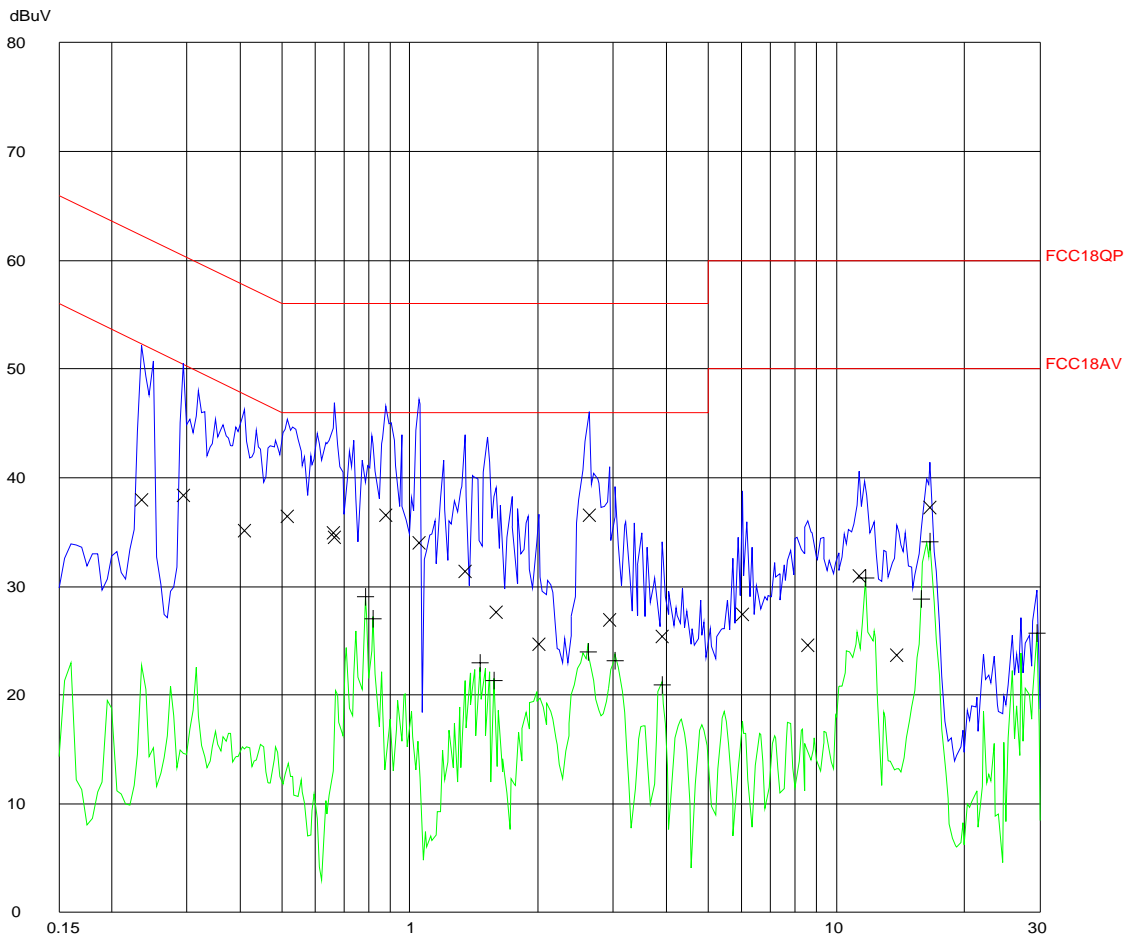
EUT: H4080BM
 Manuf: MIELE
 Op Cond: Operating; 240V
 Operator: Doering
 Test Spec: FCC Part 18
 Comment: L1

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150k	30M	5k	10k	PK+AV	10ms	AUTO	LN ON	60dB

Final Measurement: x QP / + AV
 Meas Time: 1 s
 Subranges: 25
 Acc Margin: 25dB

Transducer No.	Start	Stop	Name
1	10k	30M	Limiter



PAGE 1

8.6 Measurement plots and data (continued)

EMCC DR.RASEK Conducted Emissions

24. Jan 05 16:21

EUT: H4080BM
 Manuf: MIELE
 Op Cond: Operating; 240V
 Operator: Doering
 Test Spec: FCC Part 18
 Comment: L1

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150k	30M	5k	10k	PK+AV	10ms	AUTO	LN ON	60dB

Final Measurement Results:

Frequency MHz	QP Level dBuV	QP Limit dBuV
0.23500	38.0	62.3
0.29500	38.4	60.3
0.41000	35.1	57.7
0.51500	36.5	56.0
0.66000	34.9	56.0
0.66500	34.5	56.0
0.88000	36.6	56.0
1.05000	34.0	56.0
1.34500	31.3	56.0
1.59000	27.6	56.0
2.01000	24.6	56.0
2.64000	36.5	56.0
2.94500	26.8	56.0
3.89500	25.3	56.0
6.03500	27.3	60.0
8.59500	24.6	60.0
11.35000	30.9	60.0
13.89500	23.7	60.0
16.57000	37.2	60.0

Frequency MHz	AV Level dBuV	AV Limit dBuV
0.78500	29.0	46.0
0.82000	27.0	46.0
1.46000	23.0	46.0
1.57500	21.3	46.0
2.62000	23.9	46.0
3.03500	23.1	46.0
3.89500	20.9	46.0
11.69000	30.7	50.0
15.87500	28.8	50.0
16.57000	34.1	50.0
29.59000	25.6	50.0

* limit exceeded

8.6 Measurement plots and data (continued)

EMCC DR.RASEK Conducted Emissions

24. Jan 05 16:31

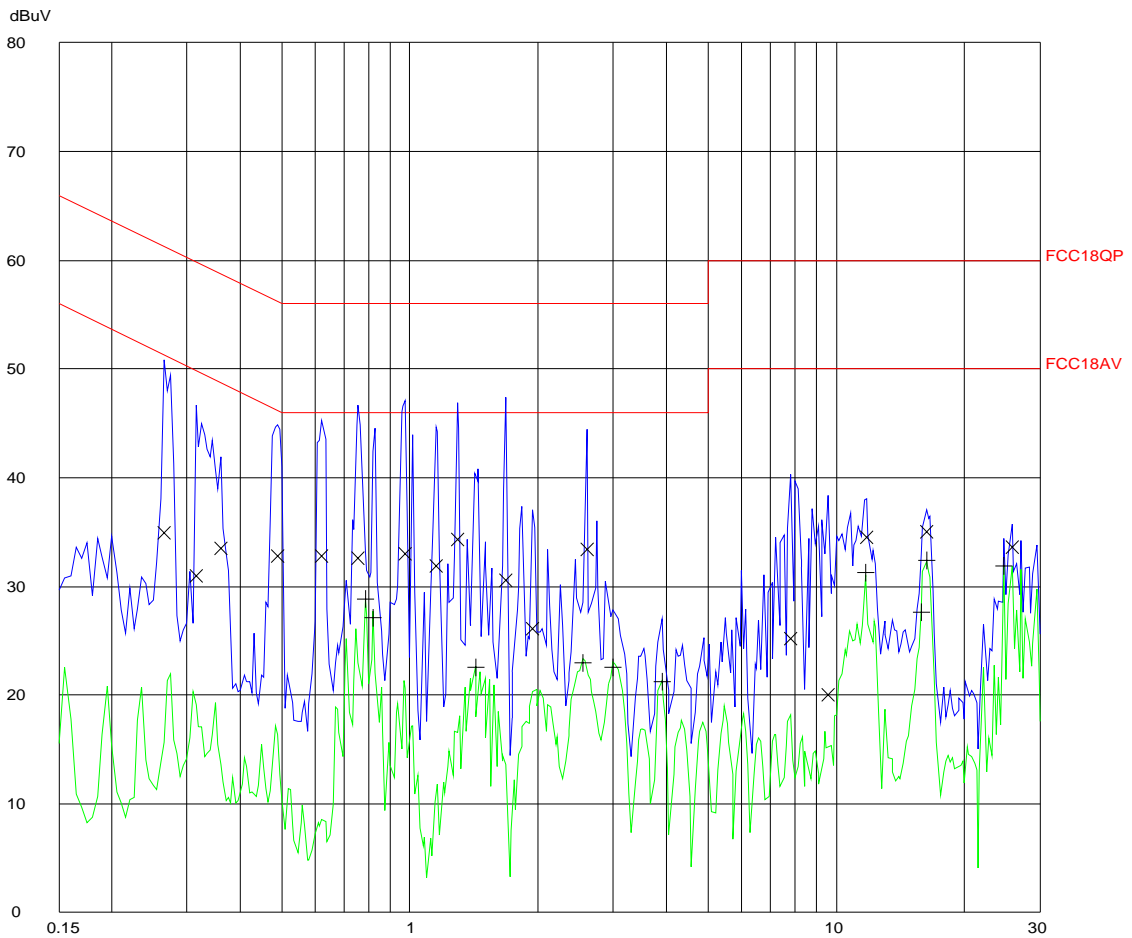
EUT: H4080BM
 Manuf: MIELE
 Op Cond: Operating; 240V
 Operator: Doering
 Test Spec: FCC Part 18
 Comment: L2

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150k	30M	5k	10k	PK+AV	10ms	AUTO	LN ON	60dB

Final Measurement: x QP / + AV
 Meas Time: 1 s
 Subranges: 25
 Acc Margin: 25dB

Transducer No.	Start	Stop	Name
1	10k	30M	Limiter



PAGE 1

8.6 Measurement plots and data (continued)

EMCC DR.RASEK Conducted Emissions

24. Jan 05 16:31

EUT: H4080BM
 Manuf: MIELE
 Op Cond: Operating; 240V
 Operator: Doering
 Test Spec: FCC Part 18
 Comment: L2

Scan Settings (1 Range)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp OpRge
150k	30M	5k	10k	PK+AV	10ms	AUTO	LN ON 60dB

Final Measurement Results:

Frequency MHz	QP Level dBuV	QP Limit dBuV
0.26500	34.9	61.3
0.31500	31.0	59.8
0.36000	33.5	58.7
0.49000	32.7	56.2
0.62000	32.7	56.0
0.75500	32.6	56.0
0.97500	33.0	56.0
1.15000	31.8	56.0
1.29500	34.2	56.0
1.67500	30.5	56.0
1.94500	26.1	56.0
2.60000	33.4	56.0
7.83000	25.1	60.0
9.56000	20.0	60.0
11.75500	34.5	60.0
16.30500	35.0	60.0
25.89000	33.5	60.0

Frequency MHz	AV Level dBuV	AV Limit dBuV
0.78500	28.8	46.0
0.82000	27.1	46.0
1.42500	22.5	46.0
2.54500	22.9	46.0
3.00000	22.5	46.0
3.89500	21.2	46.0
11.72500	31.2	50.0
15.87500	27.5	50.0
16.30500	32.4	50.0
24.66000	31.9	50.0

* limit exceeded

9 MISCELLANEOUS COMMENTS AND NOTES

None.

10 LIST OF ANNEXES

The following annexes are separated parts to this test report.

Annex	Description	File name	Pages
Annex 0	Label and Label Placement Diagrams	990159D_Annex0.pdf	2
Annex 1	Photographs of test setups	990159D_Annex1.pdf	4
Annex 2	Photographs of equipment under test (EUT) external views	990159D_Annex2.pdf	8
Annex 3	Photographs of equipment under test (EUT) internal views	990159D_Annex3.pdf	13