

FCC ID: JM7-ICS-660098

COMPLIANCE TESTING

OF THE

HOME CARE

- TEST REPORT -

Project Number: 90035A

Prepare for:

Innovative Control Systems

2325 Park Lawn Rd

Waukesha, WI 53186

(U.S.A)

Date(s) tests were performed: March 9th, 10th, 18th, and 24th, 1999

FCC ID: JM7-ICS-660098

All results of this report relate only to the items that were tested.

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1.1 DESCRIPTION OF MEASUREMENT FACILITIES

Site on File with the FCC

ID Number:

31040/SIT

1300F2

*“ The site referenced above has been found to comply with the test site criteria found
in ANSI C63.4-1992 and Title 47CFR, FCC Part 15 Section 2.948.”*

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1.2 SIGNATURE PAGE

SIGNATURE PAGE

Prepared By:

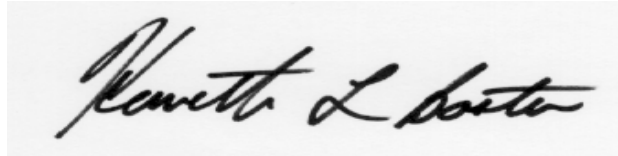


Thomas T. Lee, EMC Engineer

12
May
1999

Date

Approved By:



12
May
1999

Date

Kenneth L. Boston, EMC Lab Manager
PE #31926
Registered Professional Engineer
(State of Wisconsin)

Update Prepared
By:

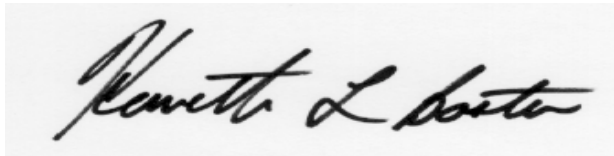


Thomas T. Lee, EMC Engineer

20
July
1999

Date

Update Approved
By:



20
July
1999

Date

Kenneth L. Boston, EMC Lab Manager
PE #31926
Registered Professional Engineer
(State of Wisconsin)

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1.3 SUMMARY OF TEST REPORT

MANUFACTURER: Innovative Control Systems
MODEL: Homecare
SERIAL: Preproduction
DESCRIPTION: Special Alarm Unit

The Homecare Alarm Unit was found to “**meet**” the radiated and conducted emission specification of Title 47 CFR, FCC Part 15, subpart C, for an intentional radiator.

The Homecare Alarm Unit was also found to “**meet**” the radiated emission specification of Title 47 CFR FCC Part 15, subpart B for emissions with regards to the class B digital sections of the product.

This product is a composite device, with the digital section subject to verification. Therefore this technical report will primary contain data that is pertinent to the certification of the transmitter section of the product.

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1.4 INTRODUCTION

On March 9th, 10th, 18th and 24th, 1999, a series of Radiated Emissions tests were performed on a sample model of the Homecare Alarm Unit. This is a transceiver, located integral to a special alarm unit, whose purpose is to protect persons afflicted with dementia or Alzheimer's disease from harm or danger. If the patient approaches a protected door, a 132 kHz signal from the transmitter section product will cause the sensor to activated and send a 418 MHz response signal back to the alarm unit. These tests were performed using the test procedures outlined in ANSI C63.4-1992 for intentional radiators, and in accordance with the general limits set forth in FCC Part 15.207 and 15.209 for a low power transmitter. Tests were also performed as outlined in ANSI C63.4-1992 for non-intentional radiators, in order to allow verification of emissions from the digital section of the product. These tests were performed by Thomas T. Lee, of L. S. Compliance, Inc. and witnessed by Jim Stoffer of Innovative Control Systems.

1.5 PURPOSE

The above mentioned tests were performed in order to determine the compliance of the product with limits contained in various provisions of Title 47 CFR, FCC Part 15, including:

15.205	15.207
15.209	

All radiated emissions tests were performed to measure the emissions in the frequency bands described by the above sections, and to determine whether said emissions are below the limits established by the above sections. These tests were performed in accordance with the procedure described in the American National Standard for methods of measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz (ANSI C63.4-1992). Another document used as reference for the EMI receiver specification was the International Special Committee on Radio Interference (CISPR) number 16-1 (1993).

1.6 RADIATED EMISSION TEST SETUP

The Homecare Alarm Unit was operated within the 3 meter Semi-Anechoic, FCC listed chamber located at L.S. Compliance in Cedarburg, WI. and also on the 10 meter Open Air Test Site located outside the L.S. Compliance facility. The test sample was operated with a 120VAC adapter wall plug. The test sample was positioned upon an 80 cm high wooden table, which was positioned upon the 2 meter turntable within the chamber. The measurement antenna, mounted upon a motorized mast was then placed 3 meters from the product perimeter. This allowed the reader to be scanned in both azimuth and elevation. For low frequency measurements, the product was operated while positioned upon the same table, positioned upon the 2-meter turntable located on the 10 meter OATS facility.

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The measurement antenna, an active loop antenna, was positioned 10 meters away, and oriented to give maximum signal levels. Readings were also taken at a 30 meter separation distance upon the site to establish the range factor needed to correct the limits for the 10 meter distance. These 10 meter OATS measurements were performed for the transmitter fundamental, and harmonics up through the 10th harmonic, although harmonics above the 4th harmonic could not be seen in the noise floor.

Please refer to Section 1.10 for pictures of the test setup.

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1.7 RADIATED EMISSION TEST PROCEDURE

The fundamental and spurious (harmonic) emissions of the transmitter were tested for compliance to the general limits given in Title 47 CFR, FCC Part 15.209. For the calculations used to determine the limits applicable for the test sample, refer to Appendix A. These limits are expressed in decibels (dB) above 1 microvolt per meter ($\mu\text{V}/\text{m}$). The samples were tested from the lowest frequency generated by the transmitter (without going below 9 kHz) to the 10th harmonic of the fundamental frequency generated by the device. The appropriate limits were also observed when the fundamental or spurious signals were located within any of the restricted bands as described in Part 15.205a. These frequencies, and their associated limits, are referenced in Section 1.9. The test sample was activated, by means of placing a passive tag near the front panel of the product, and while positioned on an 80 cm high non-conductive table. The test sample was setup in the 3 Meter FCC listed Semi-Anechoic chamber located at L. S. Compliance, upon the 2 meter turntable in the chamber, and an antenna mast was placed 3 meters from the test object perimeter. A biconical antenna was used to measure emissions from 30 to 300 MHz, a log periodic was used to measure emissions from 300 to 1000 MHz. The test object was placed in continuous transmit, and the spurious signals were maximized by rotating the turntable 360 degrees, and by raising and lowering the antenna between 1 and 4 meters, and was tested using both horizontal and vertical antenna polarities. Brief scans below 30 MHz were also performed in the chamber, using an active loop antenna as the sensing antenna. Information from this 3 meter test was used to identify frequencies for further investigation, during the emissions tests on the 10 meter OATS. For measurement of the transmitter fundamental, harmonics, and low frequency spurious signals, a magnetic loop antenna was used, which was placed at a separation distance of 10 meters upon an FCC listed OATS located at the L. S. Compliance facility in Cedarburg, WI. The fixture was set up on top of the 2 meter flush mounted turntable installed at the 10 meter OATS. The orientation of the loop and fixture were then varied to obtain the maximum signal levels and then readings were taken. Also, while on the OATS, a 20 and 30 meter reading of the fundamental were taken, in order to support the use of a 60 dB/decade ($1/d^3$) scaling factor of the FCC limits.

The unit was scanned for emissions in both transmit and standby modes, over the range of 131 kHz to 1000 MHz to establish compliance with Part 15.209 for the transmitter. Also, the scans were performed to evaluate the digital controller section of the product, which is subject to verification as a Class B digital device. Any significant spurious signals, other than the noise floor of the system, are tabulated in the data section found in Appendix B. Signature scans (taken at 3 meters) can be found in Appendix C.

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1.8 TEST EQUIPMENT UTILIZED FOR THE RADIATED EMISSION TEST

A list of the test equipment and antennas used for the tests can be found in Section 1.16, which includes the calibration information as well as the equipment description. All equipment is calibrated and used according to the user manuals supplied by the manufacturer. All antenna calibrations were performed at a N.I.S.T traceable site, and the resultant correction factors were entered into the Hewlett Packard 8546A EMI receiver software database. The connecting cables used were also measured for loss using a calibrated signal generator and the HP 8546A EMI receiver. The resulting loss factors were entered into the HP 8546A database. This allowed for automatic changes in the antenna correction factor, as well as cable loss or other corrections, to be added to the EMI receiver display while taking measurements. Thus, the resulting data taken from the HP 8546A is an actual reading and can be entered into the database as a corrected meter reading. The HP 8546A EMI receiver was operated with a bandwidth of 9 kHz when receiving signals below 30 MHz, a bandwidth of 120 kHz when receiving signals at 30 MHz-1 GHz and a bandwidth of 1 MHz when receiving signals above 1 GHz, in accordance with CISPR 16. The Peak, Quasi-peak, and Average detector functions were used.

1.9 RADIATED EMISSION TEST RESULTS AND CONCLUSION

Based on the procedures outlined in this report, and the test results included in Appendices B and C, it can be determined that the Homecare Alarm Unit does “**meet**” the emission requirements of Title 47 CFR, FCC Part 15 Subpart C for an intentional radiator. The Homecare product was also found to “meet” the emission requirements of Part 15, subpart B for unintentional radiators with regards to the Digital section of the Control unit. As this level is within the tolerances of the test equipment and site employed, there is a possibility that these units, or similar units selected out of production may not meet the required limit specification if tested by another agency.

The enclosed test results pertain to the samples of the test item listed, and only for the tests performed on the data sheets. Any subsequent modification or changes to the test sample, it could invalidate the data contained herein, and could therefore invalidate the findings of this report.

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1.10 CONDUCTED EMISSIONS TEST SETUP

The conducted emission tests were performed within an 8'X10' shielded room located at L. S. Compliance, Inc. in Cedarburg, WI. The test item was placed on a non-conductive rubber cart, with a height of 80 cm above the reference ground plane. The test object was spaced 40 cm from the rear wall of the shielded room and further than 80 cm from adjacent walls, and the test object power supply was plugged into a 50 Ω (ohm) 50/250 μ H Line Impedance Stabilization Network (LISN). The test area and set-up are in accordance with ANSI C63.4-1992, sections 5, 6, and 7 and with CISPR 22. The AC power supply to the LISN was fed into the shielded room via an appropriate broadband EMI filter.

See Section 1.15 for pictures of the test setup.

1.11 CONDUCTED EMISSIONS TEST PROCEDURE

After the Homecare Alarm Unit was set-up in the shielded ESD room and connected to the LISN, the RF sampling port of the LISN was cabled to a 10dB attenuator-limiter, and then to the EMI receiver. The EMCO LISN used has the ability to terminate the unused port with a 50 Ω (ohm) load when switched to either L1 (line) or L2 (neutral). The appropriate frequency range and bandwidths were entered into the HP 8546A EMI receiver, and measurements were made. The bandwidth used for these measurements is 9 kHz, as specified in C.I.S.P.R. 16-1 (1993) Section 1 Table 1, for Quasi-Peak and Average detectors in the frequency range of 450 kHz to 30 MHz. The test object cables and position were varied to find the maximum signal levels. Final readings were then taken and recorded.

The limits for conducted emissions can be found in 47 CFR FCC Part 15.207a.

1.12 CONDUCTED EMISSIONS TEST EQUIPMENT

A list of the test equipment and accessories utilized for the conducted emissions test setup can be found in section 1.15. This list includes calibration dates and due dates along with descriptions. All equipment is calibrated and used according to the operations manual supplied by the manufacturer. Calibrations of the LISN and limiter are traceable to N.I.S.T. All cables are calibrated and checked periodically for malfunction. The emissions are measured on the HP 8546A EMI receiver, which has automatic correction for all factors stored in memory, which allows for direct readings to be taken.

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1.13 CONDUCTED EMISSIONS TEST RESULTS AND CONCLUSION

The Homecare product was found to “**meet**” the Class B emissions in accordance with the 47 CFR FCC Part 15 requirement. The significant emissions signals were exhibited to be below the Class B AVG and Q-Peak limit in accordance with FCC Part 15.207a. Please see plotted graphs in Appendix C.

Manufacturer: Innovative Control Systems
Model: Homecare Alarm Unit
Serial Number(s): pre-production

1.14 - Restricted Bands affecting this product (transmitter)

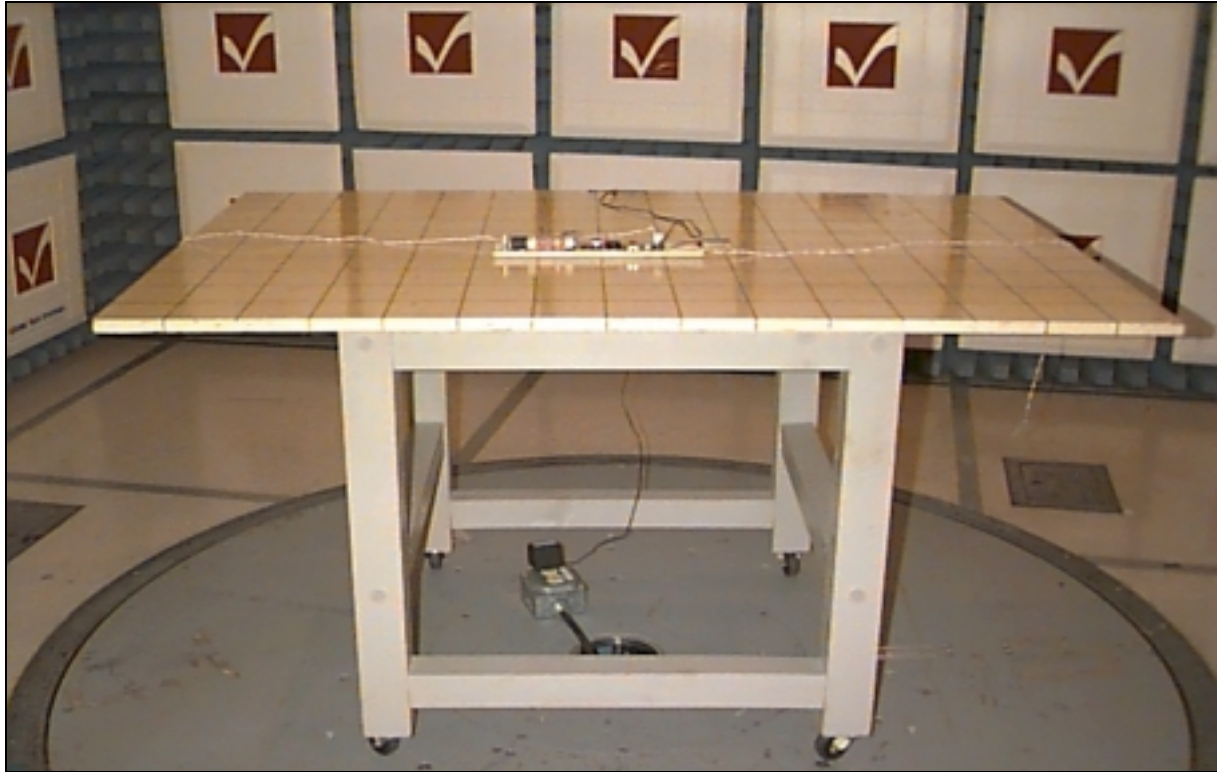
0.090 kHz- 0.110 kHz

0.495 kHz- 0.505 kHz

1.15 - Photos taken during testing

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RADIATED EMISSIONS TEST SETUP



Front view of the Homecare Alarm Unit during the Radiated Emissions tests in the 3-Meter FCC listed Semi-Anechoic Chamber

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RADIATED EMISSIONS TEST SETUP



Rear view of the Homecare Alarm Unit during the Radiated Emissions tests in the 3-Meter FCC listed Semi-Anechoic Chamber

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CONDUCTED EMISSIONS TEST SETUP



Front view of the Homecare during the Conducted Emissions tests in the Shielded ESD room.

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RADIATED EMISSIONS TEST SETUP AT 10 METER



Front view of the Homecare Alarm Unit during the Radiated Emissions tests using the Loop Antenna on the 10-Meter FCC listed OATS

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1.16 - Test Equipment

Asset #	Manufacturer	Model #	Serial #	Description	Due Date
AA960004	EMCO	3146	9512-4276	Log Periodic Antenna	9/12/99
AA960005	EMCO	3110B	9601/2280	Biconical Antenna	9/12/99
AA960006	EMCO	6502	2753	Active loop antenna	6/7/99
EE960004	EMCO	2090	9607-1164	Mast/Ttable Controller	I.O
EE960013	HP	85462A	3617A00320	Receiver RF Section W/Display	8/12/99
EE960014	HP	85460A	3448A00296	Receiver Preselector Section	8/12/99
AA960008	EMCO	3816/2NM	9701/1057	LSN 16 Amp	9/15/99
AA960031	HP	11947A	3107A0170	Transient Limiter	I.O



APPENDIX A:

SAMPLE CALCULATIONS

FCC ID: JM7-ICS-660098

Manufacturer: Innovative Control Systems
Model: Homecare Alarm Unit
Serial Number(s): "pre-production"

**I. Calculation of Radiated Emissions limits for
FCC Part 15.209; general limits for intentional radiators.**

FIELD STRENGTH OF TRANSMITTER FUNDAMENTAL AND HARMONIC FREQUENCIES:

For the frequency range of 9 kHz to 490 kHz the limit (at 10 meters) is found by:
LIMIT (dBuV/m) = $20\log(2400/F \text{ in kHz}) + 88.62$

For the frequency range of 490 kHz to 1705 kHz the limit (at 10 meters) is found by:
LIMIT (bBuV/m) = $20\log(24000/F \text{ in kHz}) + 28.62$

For the frequency range of 1705 kHz to 30 MHz the limit (at 10 meters) is found by:
LIMIT (bDuV/m) = $20\log(30) + 28.62$

For the frequency range of 30 MHz to 88 MHz the limit (at 3 meters) is found by:
LIMIT (dBuV/m) = $20\log(100)$

For the frequency range of 88 MHz to 216 MHz the limit (at 3 meters) is found by:
LIMIT (dBuV/m) = $20\log(150)$

For the frequency range of 216 MHz to 960 MHz the limit (at 3 meters) is found by:
LIMIT (dBuV/m) = $20\log(200)$

For the frequency range of 960 MHz to 40 GHz the limit (at 3 meters) is found by:
LIMIT (dBuV/m) = $20\log(500)$

Where the measurement distance was specified to be 30 or 300 meters, a correction factor was applied in order to permit measurement to be performed at a separation distance of 10 meters. In accordance with part 15.31(f)(2), the scaling factor was determined by taking measurements at three distances on the radial comprising the maximum signal level, and using the results to derive a scaling factor. The measurement values are shown in Appendix B, for readings taken at 10, 20 and 30 meters; this resulted in a scaling factor determined to be the cube of an inverse linear distance extrapolation factor. $(1/D^3)$, which derives the scaling factors shown below, which were used in performing the conversions shown above; and on following page.

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From 300 meters down to 10 meters: $\text{FACTOR(dB)} = 60\log(300/10) = 88.62\text{dB}$

From 30 meters down to 10 meters: $\text{FACTOR(dB)} = 60\log(30/10) = 28.62$
dB

From 300 meters down to 30 meters: $\text{FACTOR(dB)} = 60\log(300/30) = 60 \text{ dB}$

From 300 meters down to 20 meters $\text{FACTOR(dB)} = 60\log(300/20) = 70.56$
dB

FCC ID: JM7-ICS-660098

Manufacturer: Innovative Control Systems
 Model: Homecare Alarm Unit
 Serial Number(s): "pre-production"

II. LIMITS FOR READINGS TAKEN AT 10 METERS

Frequency (MHz)	FCC limit (uV/m)	FCC limit (dBuV/m)	Scaling factor	Adjusted limit (dBuV/m)
0.131	18.32 @300m	25.26	88.62	113.88
0.262	9.16 @300m	19.24	88.62	107.86
0.393	6.11 @300m	15.72	88.62	104.34
0.524	45.8 @ 30m	33.22	28.62	61.84
0.655	36.64 @30m	31.28	28.62	59.9
0.786	30.53 @30m	29.7	28.62	58.32
0.917	26.17 @30m	28.36	28.62	56.98
1.048	22.9 @30m	27.2	28.62	55.82
1.179	20.36 @30m	26.17	28.62	54.79
1.31	18.32 @30m	25.26	28.62	53.88
1.705-30.0	30.00 @30m	29.54	28.62	58.16

For a frequency of 0.131 MHz, the 30 meter limit is: $25.26\text{dBuV/m} + 60.0\text{ dB} = 85.26\text{ dBuV}$

For a frequency of 0.131 MHz, the 20 meter limit is: $25.26\text{dBuV/m} + 70.56\text{ dB} = 95.82\text{ dBuV}$

Class B limits are given in uV/m in 15.209a, and can be converted into dBuV/m using the formulas given on the preceding page.

Frequency (MHz)	FCC limit (uV/m)	FCC limit (dBuV/m)
30-88	100	40
88-216	150	43.52
216-960	200	46.02
960-40000	500	53.98

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APPENDIX B:

DATA CHARTS

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Measurement of Radiated Emissions in the 3 Meter FCC Listed Semi-Anechoic Chamber

Frequency Range inspected: 30 to 1000 MHz

Date of Test:	March 10 th , 1999	Manufacturer:	Innovative Control Systems
Location:	L.S. Compliance, Inc. W66 N220 Commerce Court Cedarburg, WI 53012	Model No.:	Special Alarm Units
Specifications:	Title 47CFR, FCC Part 15.209a	Serial No.:	Pre-production
Distance:	3 meters	Configuration:	Active, transmitting
Equipment:	HP 8546A EMI Receiver EMCO 3115 Double Ridged Waveguide EMCO 3146A Log Periodic EMCO 3110B Biconical	Detector(s) Used:	Quasi-Peak

The following table depicts the level of significant Class B spurious emissions

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Frequency (MHz)	Antenna Polarity	Height (meters)	Azimuth (0° - 360°)	Q-Peak Reading (dBuV/m)	15.209a Limit(dBuV/m)	Margin (dB)
69.862	V	1.2	110	30.2	40	9.8
74.0457	V	1.2	110	32.82	40	7.18
240.6	V	1.2	110	29.12	40	10.88
246.7	V	1.2	110	20.19	40	19.81
69.2	H	1	0	30.51	43.52	13.01
74.6	H	1	0	32.85	43.52	10.67
129.2	H	1	0	20.02	46.02	26
234.5	H	1	0	30.83	46.02	15.19
238.5	H	1	0	32.2	40	7.8
252.1	H	1	0	24.56	40	15.44
454	V	1	33	20.15	43.52	23.37
471	V	1	33	20.1	43.52	23.42
483.8	V	1	0	8.24	43.52	35.28
720	V	1	0	24.29	43.52	19.23
730.5	V	1	0	24.61	46.02	21.41
450.5	H	1	60	23.74	46.02	22.28
483	H	1	60	17.01	46.02	29.01
501.3	H	1	250	18.42	46.02	27.6
706	H	1	250	25.16	46.02	20.86
739.3	H	1	250	25.56	46.02	20.46
947.5	H	1	175	28.5	46.02	17.52

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Measurement of Radiated Emission upon the 10 Meter FCC Listed OATS

Frequency range inspected: 0.009 MHz to 30 MHz

Date of Test:	March 9 th , 10 th , 18 th , 24 th , 1999	Manufacturer:	Innovative Control Systems
Location:	L.S. Compliance, Inc. W66 N220 Commerce Court Cedarburg, WI 53012	Model No.:	Special Alarm Units
Specifications:	Title 47CFR, FCC Part 15.209a	Serial No.:	Pre-production
Distance:	10 meters, 20 and 30 meters	Configuration:	Active, transmitting
Equipment:	HP 8546A EMI Receiver EMCO 6502 Active Loop	Detector(s) Used:	Quasi-Peak, average

Readings taken at 10 meters for Fundamental and Harmonic emissions:

Frequency (MHz)	Reading (dBuV/m)	Detectors	15.209 Limit(dBuV/m)	Margin (dB)
0.131	89.1	Avg Amp	113.88	24.78
0.262	39.6	Avg Amp	107.86	68.26
0.393	39.8	Avg Amp	104.34	64.54
0.524	40.3	QP **	61.84	21.54
0.655	42.1	QP **	59.9	17.8

Use of the characters ** in the detector column indicates noise and ambient signals (AM Broadcast) seen during the measurement procedure. Higher order harmonics were found to be below the noise floor on the outdoor site.

10 meter readings from above plus reading taken at 20 and 30 meters :

Distance	Frequency	Reading (dBuV/m)	Detector	Limit (dBuV/m)	Margin (dB)

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10 meters	0.131	89.1	Average	113.88	24.78
20 meters	0.131	75.1	Average	95.82	20.72
30 meters	0.131	61.02	Average	85.26	24.26

Limits used above were derived on page 18 and 19. The readings taken above are used to confirm the $1/\text{dist}^3$ scaling factor, due to close agreement of the margin in dB.

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Conducted Emissions Performed Inside the Shielded ESD Room

Date of Test:	<u>March 9th, 10th, 18th, 24th, 1999</u>	Manufacturer:	<u>Innovative Control Systems</u>
Location:	<u>L.S. Compliance, Inc.</u> <u>W66 N220 Commerce Court</u> <u>Cedarburg, WI 53012</u>	Model No.:	<u>Special Alarm Units</u>
Specifications:	<u>FCC Part 15.207a and 15.207b</u>	Serial No.:	<u>N/A</u>
Distance:	<u>Test performed in the ESD Room</u>	Configuration:	<u>Pre-installation, .8m height</u>
Equipment:	<u>HP 8546A</u> <u>LISN-3816/2NM</u>	Detector(s) Used:	<u>Quasi-Peak and AVG</u>

Conducted Emissions L1 and L2 FCC Part 15.207a and 15.207b, Class B

Frequency (MHz)	Line	Q-Peak Reading (dBuV)	After relaxation factor (q-peak-13dB)	AVG (dBuV)	FCC Q-Peak Class B Limits (dBuV)	Margin Q-Peak (dB)
0.45	L1	34.6	21.6	6.2	47.96	26.36
0.48	L1	33.6	20.6	5.4	47.96	27.36
0.64	L1	27.7	14.7	3.5	47.96	33.26
1.02	L1	24.4	11.4	2.6	47.96	36.56
9.56	L1	15.9	2.9	2.9	47.96	45.06
12.55	L1	20.3	7.3	8.5	47.96	40.66
14.25	L1	22.3	9.3	9.5	47.96	38.66
0.47	L2	36.4	23.4	7.8	47.96	24.56
0.53	L2	31.7	18.7	4.7	47.96	29.26
0.64	L2	31.7	18.7	4.7	47.96	29.26
1.15	L2	27.6	14.6	2.8	47.96	33.36
13.94	L2	34.4	21.4	31.3	47.96	26.56
14.28	L2	42.4	29.4	40.8	47.96	18.56

Note: The 13dB relaxation factor was taken into account as described per FCC Part 15.207b “if the level of the emission measured using the quasi-peak instrumentation is 6 dB, or more, higher than the level of the emission measured using the average detector and a 9 kHz minimum bandwidth, that emission is considered broadband and the level obtained with the quasi-peak detector may be reduced by 13 dB for comparison to the limits.” For example, 13 dB is subtracted from the quasi-peak to obtain the “after relaxation factor” as shown above.

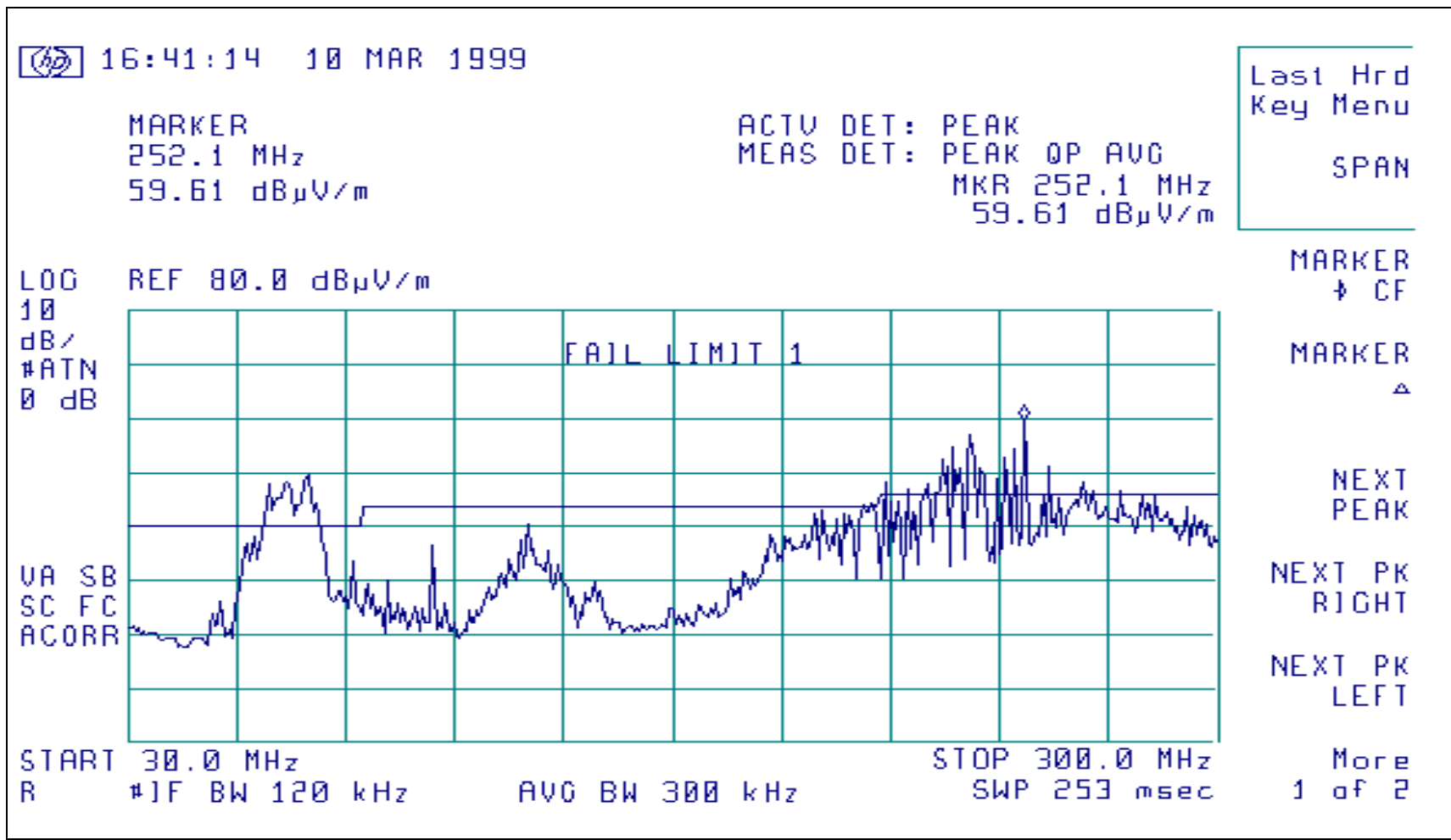
Please refer to the screen captured graphs in Appendix

APPENDIX C:

GRAPHS

FCC ID: JM7 ICS-660098

Signature Scan of the Radiated Emissions of the Homecare Alarm Unit, horizontal polarity, 30-300 MHz
Inside 3 meter Chamber, PEAK HOLD scan, FCC class B limit displayed

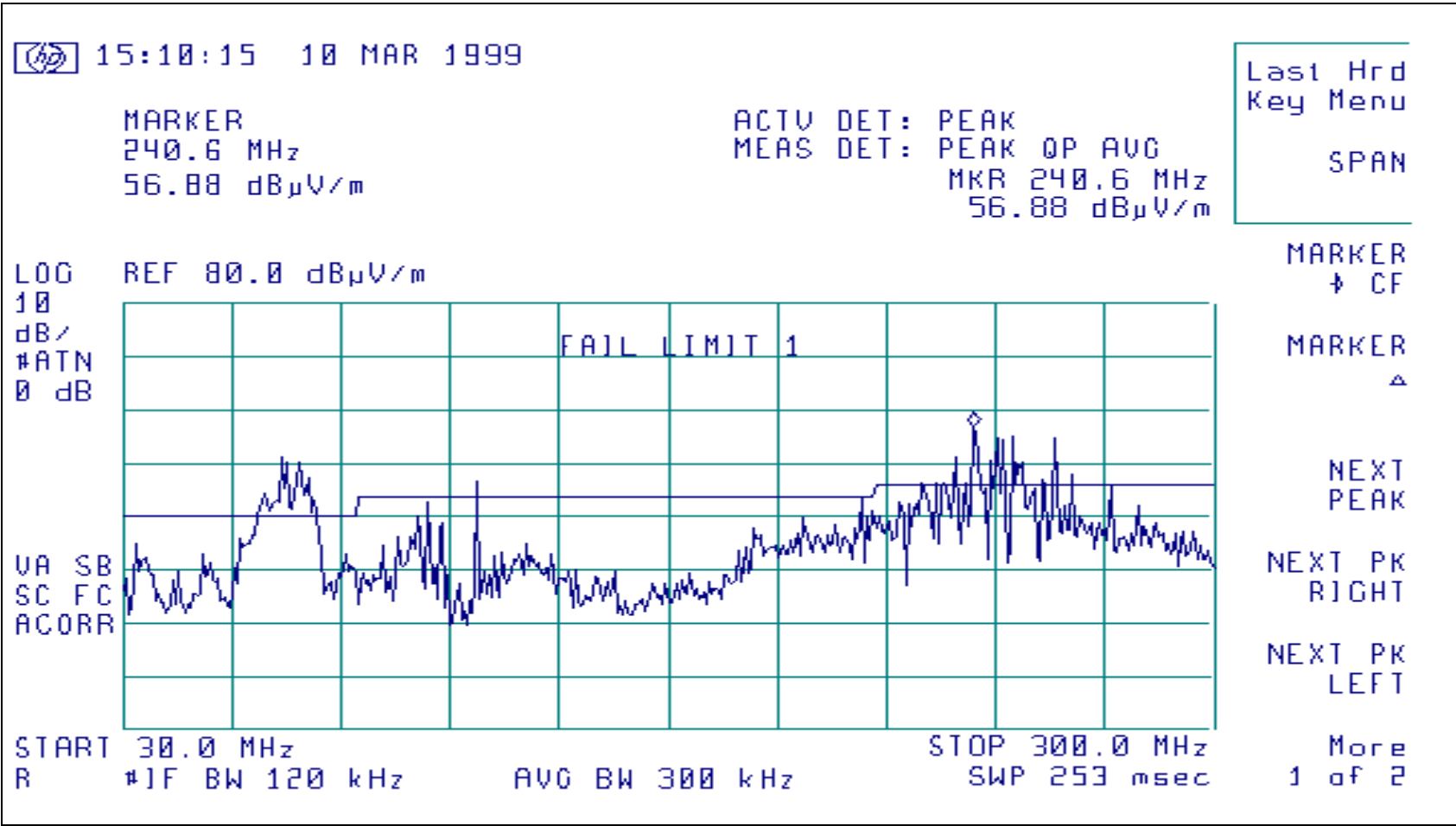




FCC ID: JM7 ICS-660098

Signature Scan of the Radiated Emissions of the Homecare Alarm Unit, vertical polarity, 30-300 MHz

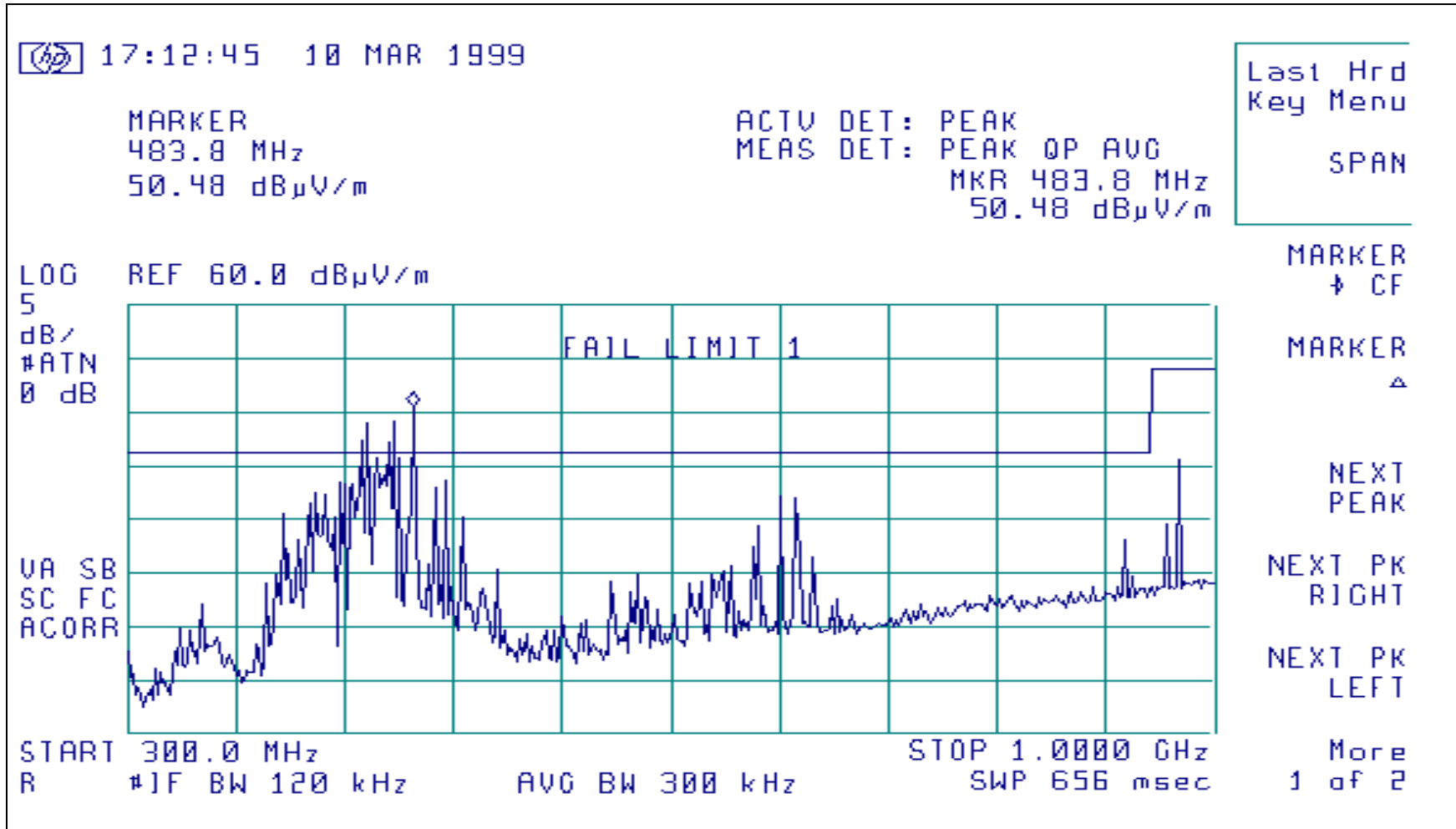
Inside 3 meter Chamber, PEAK HOLD scan, FCC class B limit displayed





FCC ID: JM7 ICS-660098

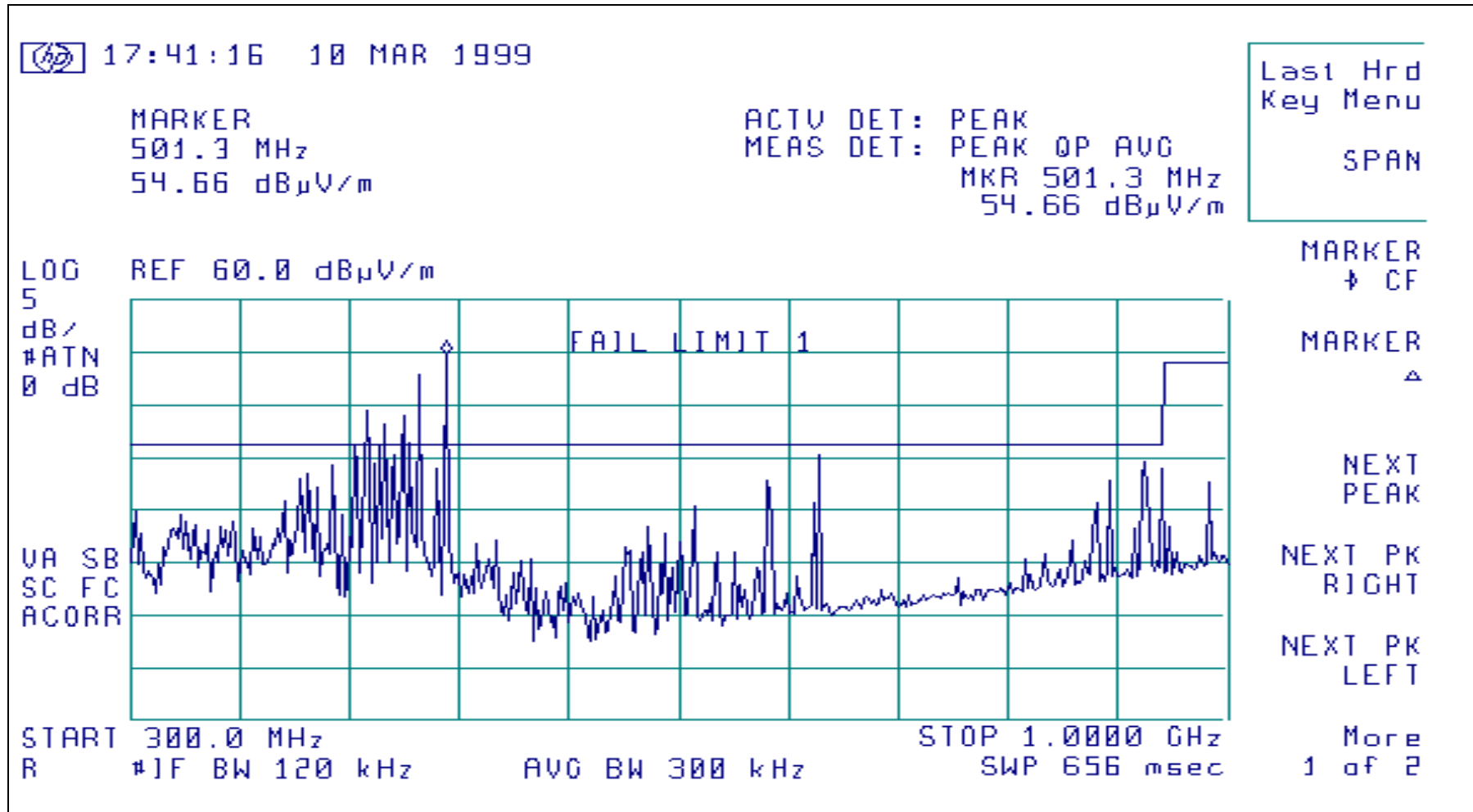
Signature Scan of the Emissions of the Homecare Alarm Unit, vertical polarity, from 300 MHz to 1000 MHz
Inside 3 meter Chamber, PEAK HOLD scan, FCC class B limit displayed





FCC ID: JM7 ICS-660098

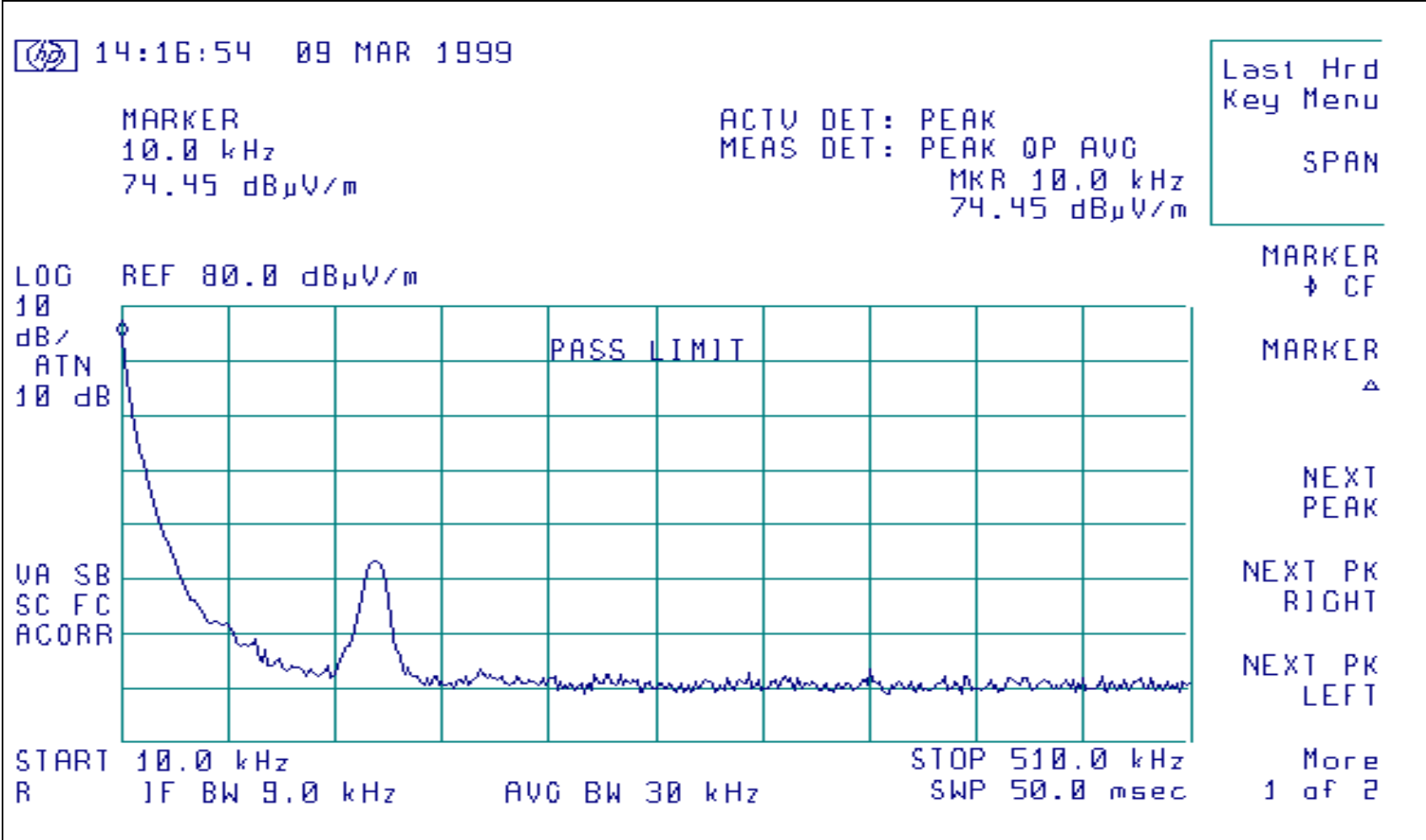
Signature Scan of the Emissions of the Homecare Alarm Unit, horizontal polarity, from 300 MHz to 1000 MHz
Inside 3 meter Chamber, PEAK HOLD scan, FCC class B limit displayed





FCC ID: JM7 ICS-660098

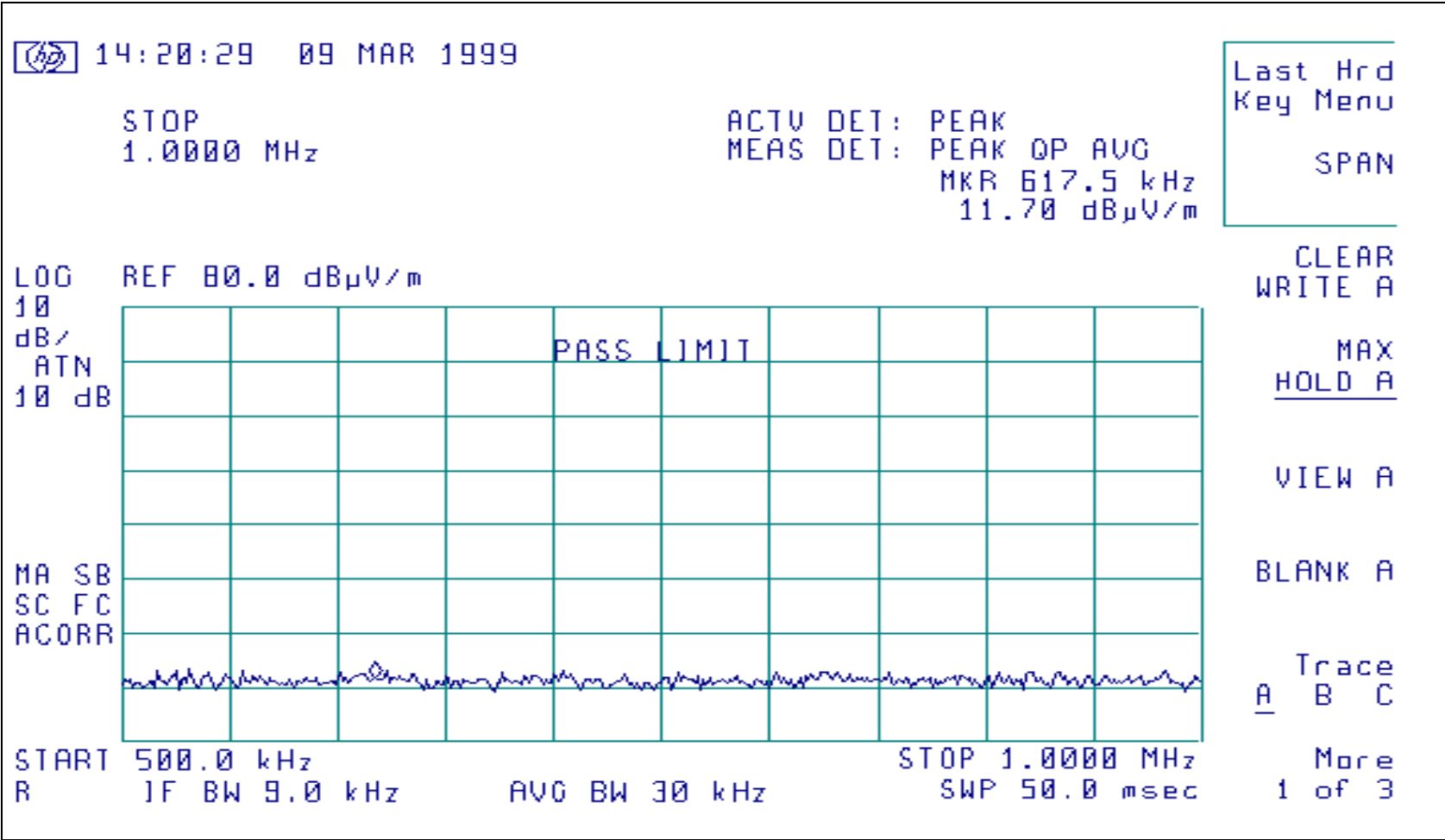
Signature scan of the fundamental and harmonic frequencies from 10kHz to 510 KHz of the Homecare Alarm Unit, performed at 3 meter distance, in the 3 meter chamber using the Loop Antenna





FCC ID: JM7 ICS-660098

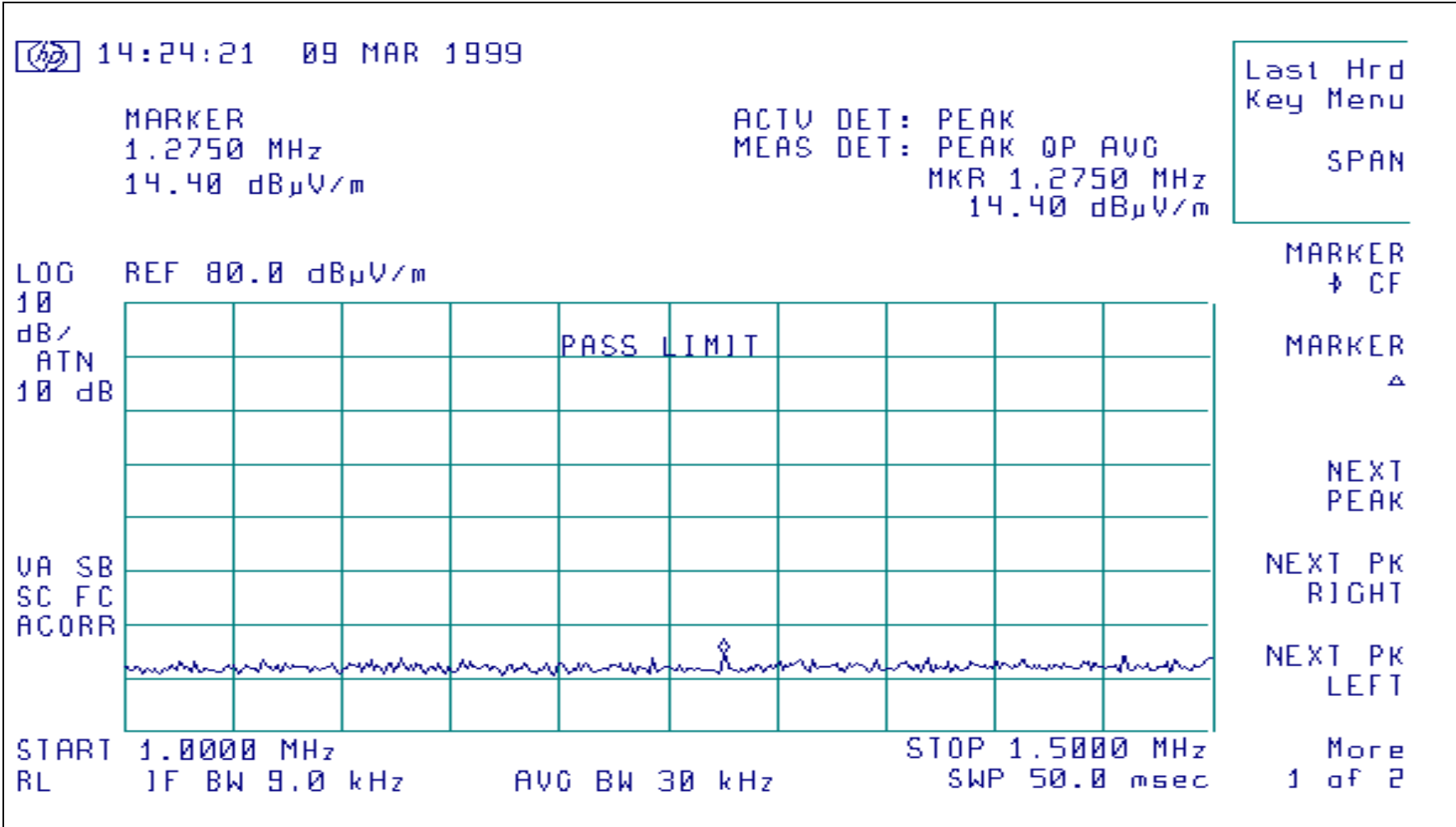
Signature scan of emissions fundamental and harmonic frequencies from 500 kHz to 1000 MHz of the Homecare Alarm Unit, performed at 3 meter distance, in the 3 meter chamber using the Loop Antenna





FCC ID: JM7 ICS-660098

Signature scan of the fundamental and harmonic frquencies from 1 MHz to 1.5 MHz of the Homecare Alarm Unit, performed at 3 meter distance, in the 3 meter chamber using the Loop Antenna

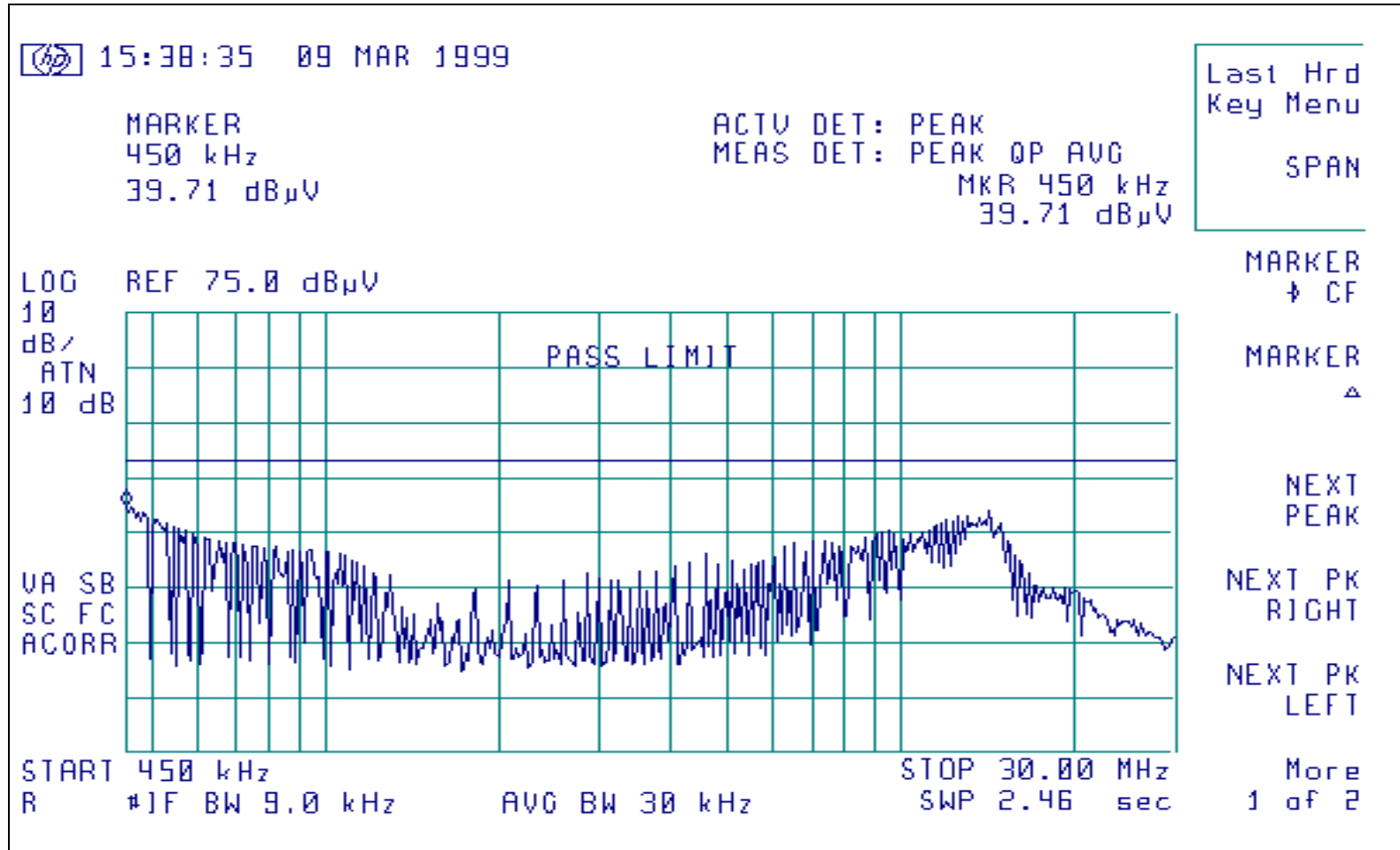


FCC ID: JM7 ICS-660098

**Conducted Emissions L1 from 450kHz to 30 MHz of the Homecare Alarm Unit, measurement in the shielded
ESD room**

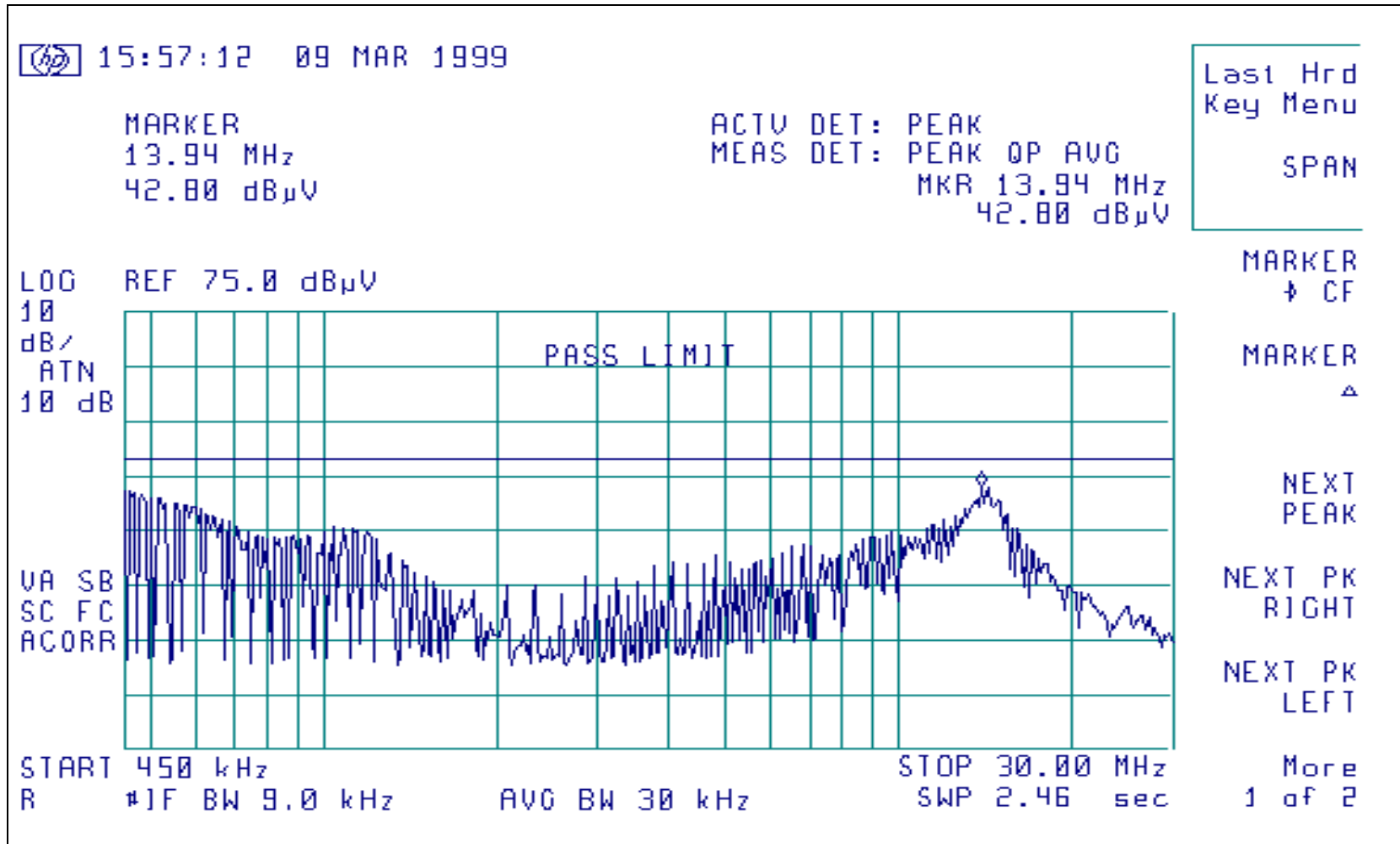


FCC ID: JM7 ICS-660098



FCC ID: JM7 ICS-660098

Conducted Emissions L2 from 450kHz to 30 MHz of the Homecare Alarm Unit, measurement in the shielded ESD room



FCC ID: JM7 ICS-660098