



# TEST REPORT

**This laboratory is accredited by Radio Research Agency**  
The tests reported herein have been performed in accordance with  
its terms of accreditation.

<b>Test Report No.</b>	CE2019-00181
<b>Date of Receipt</b>	02 December, 2019
<b>Date of test</b>	02 December, 2019 ~ 11 December, 2019
<b>Issue Date</b>	12 December, 2019
<b>Applied Standard</b>	FCC part 18
<b>Trade Name</b>	LG
<b>Equipment Name</b>	HOUSEHOLD DUAL FUEL RANGE
<b>Model Name</b>	SKSDR480SIS
<b>FCC ID</b>	BEJZ65143B
<b>FCC Grant type</b>	Class II Permissive Change (LCD Display circuit change)
<b>Applicant</b>	LG Electronics USA
<b>Address</b>	1000 Sylvan Avenue Englewood Cliffs, New Jersey, United States
<b>Test Laboratory</b>	KTC (Korea Testing Certification)
<b>Address</b>	22 Heungan-daero 27beon-gil, Gunpo-si, Gyeonggi-do, Korea

## Signature

Tested by : Byung Jin, Hyun *Byung Jin, Hyun*  
Engineer

Approved by : Yong Sung, Kim *Yong Sung, Kim*  
General Manager

This report details the results of the testing carried out only one sample, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. This report must not be used by the client to claim product certification, approval or endorsement by agency of the federal government.



# Table of contents

## 1. Report information

- 1.1 Revision history
- 1.2 Sample calculation

## 2. Summary of test results

- 2.1 Emission

## 3. General Information

- 3.1 Test facility
- 3.2 Equipment Under Test(E.U.T)
- 3.3 Description of EUT
- 3.4 Mode

## 4. Test Setup configuration

- 4.1 Cable description
- 4.2 EUT operating mode(s)
- 4.3 Test Condition

## 5. Result of individual tests

- 5.1 Conducted emission
- 5.2 Radiated emission



# 1. Report information

## 1.1 Revision history

No.	Revised detailed information
Issue 0	There are no revisions and this version is basic test report.

## 1.2 Sample calculation

### 1.2.1 Conducted disturbance (at 10 MHz)

- Class B limit = 60 dB $\mu$ V (Quasi-peak limit)
- Level (50 dB $\mu$ V) = Meter Reading (40.2 dB $\mu$ V) + factor ( 9.8 dB, AMN factor 9.7 dB + Cable loss 0.1 dB)
- Margin (10 dB) = Limit (60 dB $\mu$ V) – Level (50 dB $\mu$ V) = 10 dB below limit

### 1.2.2 Radiated disturbance (at 100 MHz)

- Class B limit = 40 dB $\mu$ V/m at 3 m
- Level (30 dB $\mu$ V/m)  
= Meter Reading (50 dB $\mu$ V) + factor (- 20 dB (1/m), antenna factor + cable loss – amplifier gain)
- Margin (10 dB) = Limit (40 dB $\mu$ V/m) – Level (30 dB $\mu$ V/m) = 10 dB below limit

# 2. Summary of test results

## 2.1 Emission

The EUT has been tested according to the following specifications:

Applied	Test type	Applied standard	Result
<input checked="" type="checkbox"/>	Conducted emission	FCC Part 18 / MP-5:1986	Complied
<input checked="" type="checkbox"/>	Radiated emission		Complied



### 3. General Information

#### 3.1 Test facility

We are the accredited EMC laboratory by RRA (KOREA).

We certify that the above products had performed test on our laboratory and it was confirmed to comply with FCC requirement.

The sites are constructed in conformance with the requirements of CISPR publication 16/ANSI C63.4

The test was performed accordance to the procedures from FCC/OET MP-5.

Test data and results are issue on the EMC test report No. as follows.

#### 3.2 Equipment Under Test (E.U.T)

Name of E.U.T. : HOUSEHOLD DUAL FUEL RANGE

Model Name: SKSDR480SIS

Information of Variant model: None

#### 3.3 Description of EUT

Oven Range Models	SKSDR480SIS
Description	48" Duel Fuel Pro Range
Electrical Requirements	120/240 V : 13.5 kW, 120/208 V : 10.5 kW
Exterior Dimensions	47 7/8" (W) x 35 1/4" (H) x 26 3/4" (D) (D with door closed) 121.6 cm (W) x 89.6 cm (H) x 67.9 cm (D) (D with door closed)
Height to cooking surface	36" (91.4 cm)
Net weight	529.1 lb (240 kg)
Total capacity	Right Oven : 5.2 cu.ft, Left Oven : 2.7 cu.ft. Total : 7.9 cu.ft

#### 3.4 Mode (Inductions Heating)

	Low Frequency	High Frequency
Small Hob # 1 (Down)	25 kHz	75 kHz
Small Hob # 2 (Up)	25 kHz	75 kHz

## 4. Test Setup configuration

### 4.1 Cable description

The type(s) of cables which were connected to the ports (of the EUT) are as follows:

No.	From the port of EUT	To	Length[m]	Shielded[Y/N]
1	Power cable	AC power	1.3	N
2	Power cable	AC power	1.1	N
3				
4				
5				
6				
7				
8				
9				

### 4.2 EUT operating mode(s)

To achieve compliance applied standard specification, the following mode(s) were made during compliance testing: Induction Mode

### 4.3 Test Condition

The EUT was installed, arranged and operated in a manner that is most representative of equipment as typically used.

The measurements were carried out while varying operating modes and cable positions within typically arrangement to determine maximum emission level.

The representative and worst test mode(s) were noted in the test report.

◆ Test voltage / Frequency : AC 208 V, AC 240 V / 60 Hz

This device has been tested in the configurations of induction mode.

Induction mode : This device has been operated with an enameled steel vessel filled with tap water up to 80 % of it's maximum capacity.

## 5. Results of individual test

### 5.1 Disturbance voltage at the mains terminals

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm / 50 uH (50 ohm / 50 uH for RF lighting devices) coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50 ohm / 50 uH (50 ohm / 50 uH for RF lighting devices) coupling impedance with 50 ohm termination. (Please refer to the block diagram of the test setup and photographs.) Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface

cables must be changed according to FCC/OET MP-5: 1986 on conducted measurement.

#### Limits of disturbance voltage at the mains terminals

(a) All Induction cooking ranges and ultrasonic equipment:

Frequency range Limits [MHz]	Limits [dB(μV)]	
	Quasi-peak	Average
0.009 to 0.05	110	-
0.05 to 0.15	90 to 80 *)	-
0.15 to 0.50	66 to 56 *)	56 to 46 *)
0.50 to 5	56	46
5 to 30	60	50
*) Decreasing linearly with the logarithm of the frequency		

(b) All other part 18 customer devices :

Frequency range Limits [MHz]	Limits [dB(μV)]	
	Quasi-peak	Average
0.15 to 0.50	66 to 56 *)	56 to 46 *)
0.50 to 5	56	46
5 to 30	60	50
*) Decreasing linearly with the logarithm of the frequency		



### 5.1.1 Test instrumentation

Test instrumentations which were used in the Conducted disturbance test are as follows;

Test instrumentation	Model name	Manufacturer	Serial Number	Calibration	
				Date	Interval (Month)
EMI Test Receiver	ESCI	Rohde & Schwarz	100343	2020-05-15	12
LISN	ENV216	Rohde & Schwarz	101339	2020-02-08	12
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

### 5.1.2 Temperature and humidity condition

Test date	02 December, 2019	Test Engineer	Byung Jin, Hyun	
Climate condition	Ambient temperature	21.2 °C	Relative humidity	48 %
	Atmospheric pressure	100.9 Kpa	-	

### 5.1.3 Test results

#### ● Cooking element #1 (AC 208 V / 60 Hz)

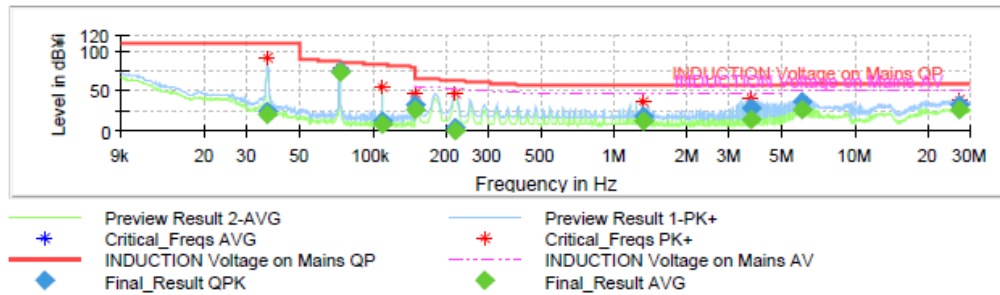
CE\_SKSDR480SIS\_208 V\_60 Hz\_DOWN

1 / 1

## Test Report

### Common Information

Test Description: EMI SYSTEM Conducted Emission  
Test Site: KTC EMC center  
Operator Name: BJ HYUN



### Final Result

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line
0.036440	---	20.00	---	---	15000.0	0.200	N
0.036440	24.50	---	110.00	85.50	15000.0	0.200	N
0.072680	75.98	---	86.56	10.59	15000.0	0.200	L1
0.072680	---	74.12	---	---	15000.0	0.200	L1
0.109000	11.34	---	82.84	71.50	15000.0	0.200	L1
0.109000	---	8.38	---	---	15000.0	0.200	L1
0.150000	---	26.20	55.92	29.72	15000.0	9.000	L1
0.150000	32.63	---	65.92	33.29	15000.0	9.000	L1
0.218000	4.73	---	62.84	58.11	15000.0	9.000	L1
0.218000	---	0.17	52.84	52.67	15000.0	9.000	L1
1.310000	---	12.14	46.00	33.86	15000.0	9.000	L1
1.310000	18.31	---	56.00	37.69	15000.0	9.000	L1
3.706000	28.04	---	56.00	27.96	15000.0	9.000	N
3.706000	---	14.18	46.00	31.82	15000.0	9.000	N
6.034000	---	27.12	50.00	22.88	15000.0	9.000	L1
6.034000	37.51	---	60.00	22.49	15000.0	9.000	L1
26.906000	---	25.74	50.00	24.26	15000.0	9.000	N
26.906000	32.38	---	60.00	27.62	15000.0	9.000	N



● **Cooking element #2 (AC 208 V / 60 Hz)**

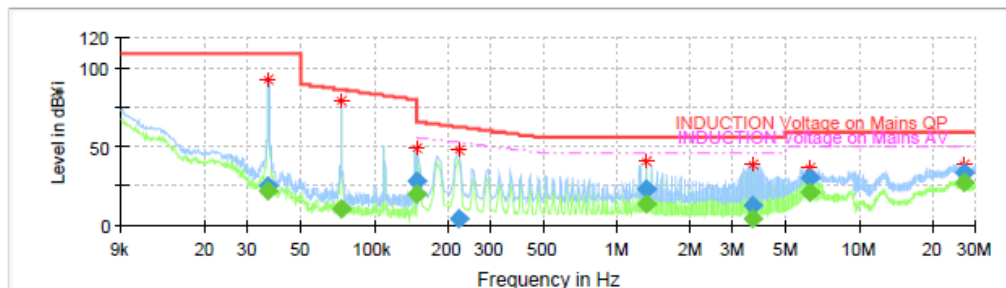
CE\_SKSDR480SIS\_208 V\_60 Hz\_UP

1 / 1

## Test Report

### Common Information

Test Description: EMI SYSTEM Conducted Emission  
Test Site: KTC EMC center  
Operator Name: BJ HYUN



### Final Result

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line
0.036600	25.34	---	110.00	84.66	15000.0	0.200	N
0.036600	---	21.40	---	---	15000.0	0.200	N
0.073000	-11.75	---	86.52	98.27	15000.0	0.200	L1
0.073000	---	10.32	---	---	15000.0	0.200	L1
0.150000	---	19.52	55.92	36.40	15000.0	9.000	L1
0.150000	27.68	---	65.92	38.23	15000.0	9.000	L1
0.222000	3.83	---	62.69	58.86	15000.0	9.000	L1
0.222000	---	-0.30	52.69	52.98	15000.0	9.000	L1
1.322000	---	13.23	46.00	32.77	15000.0	9.000	L1
1.322000	23.35	---	56.00	32.65	15000.0	9.000	L1
3.650000	12.48	---	56.00	43.52	15000.0	9.000	N
3.650000	---	4.68	46.00	41.32	15000.0	9.000	N
6.238000	29.81	---	60.00	30.19	15000.0	9.000	L1
6.238000	---	20.39	50.00	29.61	15000.0	9.000	L1
26.898000	32.88	---	60.00	27.12	15000.0	9.000	L1
26.898000	---	26.72	50.00	23.28	15000.0	9.000	L1

# ● Cooking element #1 (AC 240 V / 60 Hz)

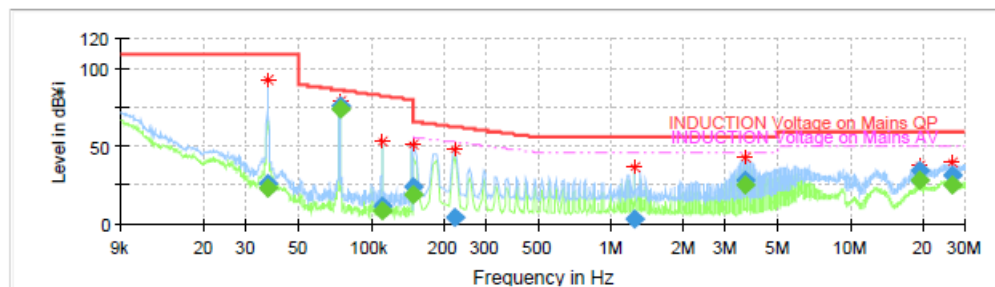
CE\_SKSDR480SIS\_240 V\_60 Hz\_DOWN

1 / 1

## Test Report

### Common Information

Test Description: EMI SYSTEM Conducted Emission  
Test Site: KTC EMC center  
Operator Name: BJ HYUN



### Final Result

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line
0.037000	---	22.80	---	---	15000.0	0.200	N
0.037000	26.43	---	110.00	83.57	15000.0	0.200	N
0.073720	75.91	---	86.43	10.52	15000.0	0.200	L1
0.073720	---	74.16	---	---	15000.0	0.200	L1
0.110600	11.03	---	82.71	71.68	15000.0	0.200	L1
0.110600	---	8.41	---	---	15000.0	0.200	L1
0.150000	---	19.30	55.92	36.62	15000.0	9.000	L1
0.150000	24.43	---	65.92	41.49	15000.0	9.000	L1
0.222000	3.92	---	62.69	58.77	15000.0	9.000	L1
0.222000	---	-0.28	52.69	52.96	15000.0	9.000	L1
1.254000	---	-1.02	46.00	47.02	15000.0	9.000	L1
1.254000	3.40	---	56.00	52.60	15000.0	9.000	L1
3.630000	27.83	---	56.00	28.17	15000.0	9.000	N
3.630000	---	24.59	46.00	21.41	15000.0	9.000	N
19.314000	34.62	---	60.00	25.38	15000.0	9.000	N
19.314000	---	28.66	50.00	21.34	15000.0	9.000	N
26.462000	31.68	---	60.00	28.32	15000.0	9.000	L1
26.462000	---	25.49	50.00	24.51	15000.0	9.000	L1

# ● Cooking element #2 (AC 240 V / 60 Hz)

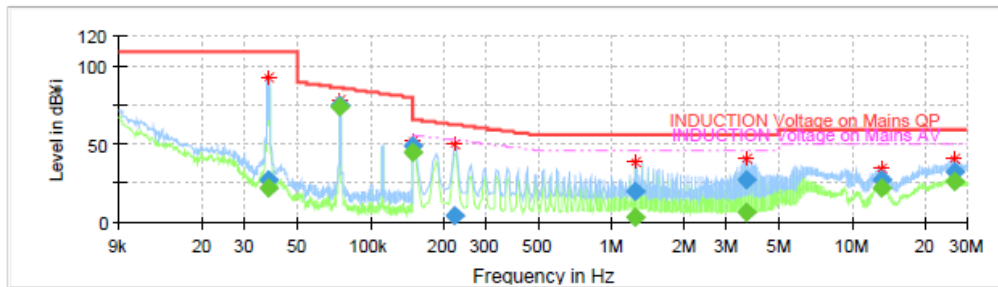
CE\_SKSDR480SIS\_240 V\_60 Hz\_UP

1 / 1

## Test Report

### Common Information

Test Description: EMI SYSTEM Conducted Emission  
Test Site: KTC EMC center  
Operator Name: BJ HYUN



### Final Result

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line
0.037800	26.76	---	110.00	83.24	15000.0	0.200	N
0.037800	---	22.05	---	---	15000.0	0.200	N
0.074280	75.40	---	86.36	10.96	15000.0	0.200	L1
0.074280	---	73.85	---	---	15000.0	0.200	L1
0.148600	---	44.53	55.99	11.46	15000.0	0.200	L1
0.148600	48.92	---	65.99	17.07	15000.0	0.200	L1
0.222000	4.05	---	62.69	58.64	15000.0	9.000	L1
0.222000	---	-0.17	52.69	52.85	15000.0	9.000	L1
1.262000	---	2.98	46.00	43.02	15000.0	9.000	L1
1.262000	19.42	---	56.00	36.58	15000.0	9.000	L1
3.650000	27.44	---	56.00	28.56	15000.0	9.000	N
3.650000	---	6.08	46.00	39.92	15000.0	9.000	N
13.246000	27.56	---	60.00	32.44	15000.0	9.000	N
13.246000	---	21.41	50.00	28.59	15000.0	9.000	N
26.494000	32.68	---	60.00	27.32	15000.0	9.000	L1
26.494000	---	26.47	50.00	23.53	15000.0	9.000	L1



## 5.2 Radiated disturbance (Field strength )

- (a) According to exploratory test no any obvious emission were detected from 9 kHz to 30 MHz. Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30 m open area test site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788.
- (b) ISM equipment operating on a frequency specified in §18.301 is permitted unlimited radiated energy in the band specified for that frequency.
- (c) 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 (uV/m)	Distance (meters)
Any type unless otherwise specified (miscellaneous)	Any ISM frequency	Below 500 500 or more	25 $25 \times \text{SQRT}(\text{power}/500)$	300 <sup>1</sup> 300
	Any non-ISM frequency	Below 500 500 or more	15 $15 \times \text{SQRT}(\text{power}/500)$	300 <sup>1</sup> 300
Industrial heaters and RF stabilized arc welders	On or below 5 725 MHz Above 5 725 MHz	Any Any	10 ( <sup>2</sup> )	1,600 ( <sup>2</sup> )
Medical diathermy	Any ISM frequency Any non-ISM frequency	Any Any	25 15	300 300
Ultrasonic	Below 490 kHz	Below 500 500 or more	$2\,400/\text{F}(\text{kHz})$ $2\,400/\text{F}(\text{kHz}) \times \text{SQRT}(\text{power}/500)$	300 <sup>3</sup> 300
	490 to 1 600 kHz Above 1 600 kHz	Any Any	$24\,000/\text{F}(\text{kHz})$ 15	30 30
<b>Induction cooking ranges</b>	<b>Below 90 kHz</b> On or above 90 kHz	<b>Any</b> Any	<b>1 500</b> 300	<b><sup>4</sup>30</b> <sup>4</sup> 30

<sup>1</sup> Field strength may not exceed 10 µV/m at 1 600 meters. Consumer equipment operating below 1 000 MHz is not permitted the increase in field strength otherwise permitted here for power over 500 watts.

<sup>2</sup> Reduced to the greatest extent possible.

<sup>3</sup> Field strength may not exceed 10 µV/m at 1 600 meters. Consumer equipment is not permitted the increase in field strength otherwise permitted here for over 500 watts.

<sup>4</sup> 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 for RF lighting devices shall be the following:

Frequency (MHz)	Field strength limit at 30 meters (μV/m)
<b>Non-consumer equipment</b>	-
30 to 88	30
88 to 216	50
216 to 1 000	70
<b>Consumer equipment:</b>	-
30 to 88	10
88 to 216	15
216 to 1 000	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.

#### Limits for radiated disturbance of ITE at a measuring distance of 3 m

Frequency range Limits [MHz]	Class B Limits [dB(μV/m)]	
	Peak	Average
Above 1 000	74	54

## 5.2.1 Test instrumentation

Test instrumentations which were used in the Radiated disturbance test are as follows;

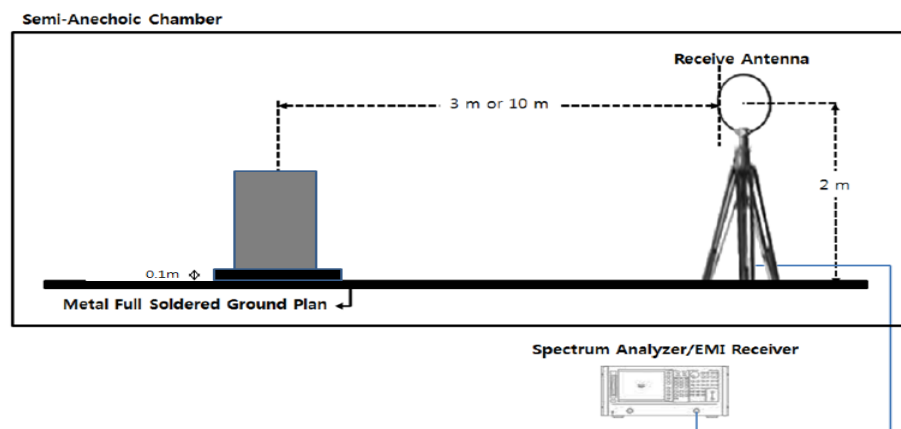
Test instrumentation	Model name	Manufacturer	Serial Number	Calibration	
				Date	Interval (Month)
EMI Test Receiver	ESU40	Rohde & Schwarz	100198	2020-05-15	12
Loop Antenna	HFH2-Z2	Rohde & Schwarz	827945/007	2021-05-02	24
Turn Table	DT3000-3t	Innco Systems	-	N/A	-

## 5.2.2 Temperature and humidity condition

Test date	10 December, 2019	Test engineer	Byung Jin, Hyun	
Climate condition	Ambient temperature	20.7 °C	Relative humidity	49 %
	Atmospheric pressure	100.9 Kpa		
Test place	10 m Semi-Anechoic Chamber			

## 5.2.3 Test Set-up

The Radiated emission measurements were conducted at the worst test conditions. The measurements of below 1 GHz were made at 3 m Semi Anechoic Chamber or 10 m Semi Anechoic Chamber that complies with CISPR 16/ANSI C63.4. The frequency range of 9 kHz to 30 MHz, the EUT was placed on a non-conductive turntable approximately 0.1 m above the ground plane. The turntable with EUT was rotated 360° and receive antenna was fixed 2.0 m on the ground plane.



## 5.2.4 Test results

Measurement Distance : 10 m

Note : Frequency range to be scanned up to 30 MHz, because the frequency band in which the EUT operates less than 1.705 MHz

- Measurement setting

Frequency range	9 kHz to 150 kHz	0.15 MHz to 30 MHz
Detector mode	Peak	Peak
Resolution bandwidth	200 Hz	9 kHz

- Measurement Data : Induction Mode (AC 208 V, 60 Hz)

Distance [m]	Frequency [MHz]	ANT. Pol.	Reading [dBuV]	D.C.F	C.F [dB(1/m)]	Field Strength [dB(uV/m)]	Limits [dB(uV/m)]	Margin [dB]	Cooking element
10	0.040	H	61.2	23.8	20.0	57.4	63.5	6.12	#1
10	0.081	H	42.3	9.5	19.9	52.7	63.5	10.82	#1
10	0.121	H	42.8	9.5	19.9	53.2	63.5	10.32	#1

Distance [m]	Frequency [MHz]	ANT. Pol.	Reading [dBuV]	D.C.F	C.F [dB(1/m)]	Field Strength [dB(uV/m)]	Limits [dB(uV/m)]	Margin [dB]	Cooking element
10	0.040	V	59.6	23.8	20.0	55.8	63.5	7.72	#1
10	0.081	V	39.3	9.5	19.9	49.7	63.5	13.82	#1
10	0.121	V	40.2	9.5	19.9	50.6	63.5	12.92	#1

Distance [m]	Frequency [MHz]	ANT. Pol.	Reading [dBuV]	D.C.F	C.F [dB(1/m)]	Field Strength [dB(uV/m)]	Limits [dB(uV/m)]	Margin [dB]	Cooking element
10	0.041	H	61.5	23.8	20.0	57.7	63.5	5.82	#2
10	0.081	H	41.4	9.5	19.9	51.8	63.5	11.72	#2
10	0.122	H	45.9	9.5	19.9	56.3	63.5	7.22	#2

Distance [m]	Frequency [MHz]	ANT. Pol.	Reading [dBuV]	D.C.F	C.F [dB(1/m)]	Field Strength [dB(uV/m)]	Limits [dB(uV/m)]	Margin [dB]	Cooking element
10	0.041	V	59.8	23.8	20.0	56.0	63.5	7.52	#2
10	0.081	V	39.7	9.5	19.9	50.1	63.5	13.42	#2
10	0.122	V	43.3	9.5	19.9	53.7	63.5	9.82	#2

- Measurement Data : Induction Mode (AC 240 V, 60 Hz)

Distance [m]	Frequency [MHz]	ANT. Pol.	Reading [dBuV]	D.C.F	C.F [dB(1/m)]	Field Strength [dB(uV/m)]	Limits [dB(uV/m)]	Margin [dB]	Cooking element
10	0.037	H	64.6	22.9	20.0	61.7	63.5	1.82	#1
10	0.075	H	45.6	9.5	19.9	56.0	63.5	7.52	#1
10	0.113	H	42.4	9.5	19.9	52.8	63.5	10.72	#1

Distance [m]	Frequency [MHz]	ANT. Pol.	Reading [dBuV]	D.C.F	C.F [dB(1/m)]	Field Strength [dB(uV/m)]	Limits [dB(uV/m)]	Margin [dB]	Cooking element
10	0.038	V	63.1	22.9	20.0	60.2	63.5	3.32	#1
10	0.075	V	42.5	9.5	19.9	52.9	63.5	10.62	#1
10	0.113	V	38.6	9.5	19.9	49.0	63.5	14.52	#1

Distance [m]	Frequency [MHz]	ANT. Pol.	Reading [dBuV]	D.C.F	C.F [dB(1/m)]	Field Strength [dB(uV/m)]	Limits [dB(uV/m)]	Margin [dB]	Cooking element
10	0.042	H	62.2	22.9	20.0	59.3	63.5	4.22	#2
10	0.085	H	42.0	9.5	19.9	52.4	63.5	11.12	#2
10	0.127	H	45.4	9.5	19.9	55.8	63.5	7.72	#2

Distance [m]	Frequency [MHz]	ANT. Pol.	Reading [dBuV]	D.C.F	C.F [dB(1/m)]	Field Strength [dB(uV/m)]	Limits [dB(uV/m)]	Margin [dB]	Cooking element
10	0.042	V	59.4	22.9	20.0	56.5	63.5	7.02	#2
10	0.085	V	38.2	9.5	19.9	48.6	63.5	14.92	#2
10	0.127	V	44.2	9.5	19.9	54.6	63.5	8.92	#2

Note.1 The worst case data were reported.

And no other spurious and harmonic emissions were reported greater than listed emission above table.

2. All measurements were recorded using a spectrum analyzer employing a peak detector for below 30 MHz

3. Correction Factor (C.F) : Cable loss + Antenna Factor

4. Distance Correction Factor (D.C.F) =  $X \log_{10}(10 \text{ m} / 30 \text{ m})$

$X = [FS_{d1} - FS_{d2}] / \log_{10}(d1/d2)$  where:

d1 and d2 are the measurement distances (d2 > d1) in m

FS<sub>d1</sub> is the field strength at d1 in dBuV/m

FS<sub>d2</sub> is the field strength at d2 in dBuV/m

5. Sample calculation

Field Strength = Reading + D.C.F + C.F

Margin = Limit – Field Strength

Where D.C.F = Distance Correction Factor

6. "V" = Vertical / "H" = Horizontal

7. Cooking element "1" = Up, "2" = Down



**[ AC 208 V, 60 Hz ]**

#1 of cooking element					
Distance [m]	ANT. Pol.	Frequency [MHz]	Meter reading [dBuV]	C.F [dB(1/m)]	Final reading [dB(uV/m)]
3	H	0.040	87.9	20.0	<b>107.9</b>
	V	0.040	86.6	20.0	106.6
10	H	0.040	61.2	20.0	<b>81.2</b>
	V	0.040	59.6	20.0	79.6
Extrapolation factor from 3 m to 10 m : -51.1					

#2 of cooking element					
Distance [m]	ANT. Pol.	Frequency [MHz]	Meter reading [dBuV]	C.F [dB(1/m)]	Final reading [dB(uV/m)]
3	H	0.040	87.6	20.0	<b>107.6</b>
	V	0.041	85.8	20.0	105.8
10	H	0.041	61.5	20.0	<b>81.5</b>
	V	0.041	59.8	20.0	79.8
Extrapolation factor from 3 m to 10 m : <b>-49.9</b>					

$$\text{D.C.F. (10 m to 30 m)} = -49.9 \log_{10} (10 \text{ m} / 30 \text{ m}) = 23.8 \text{ dB}$$

**[ AC 240 V, 60 Hz ]**

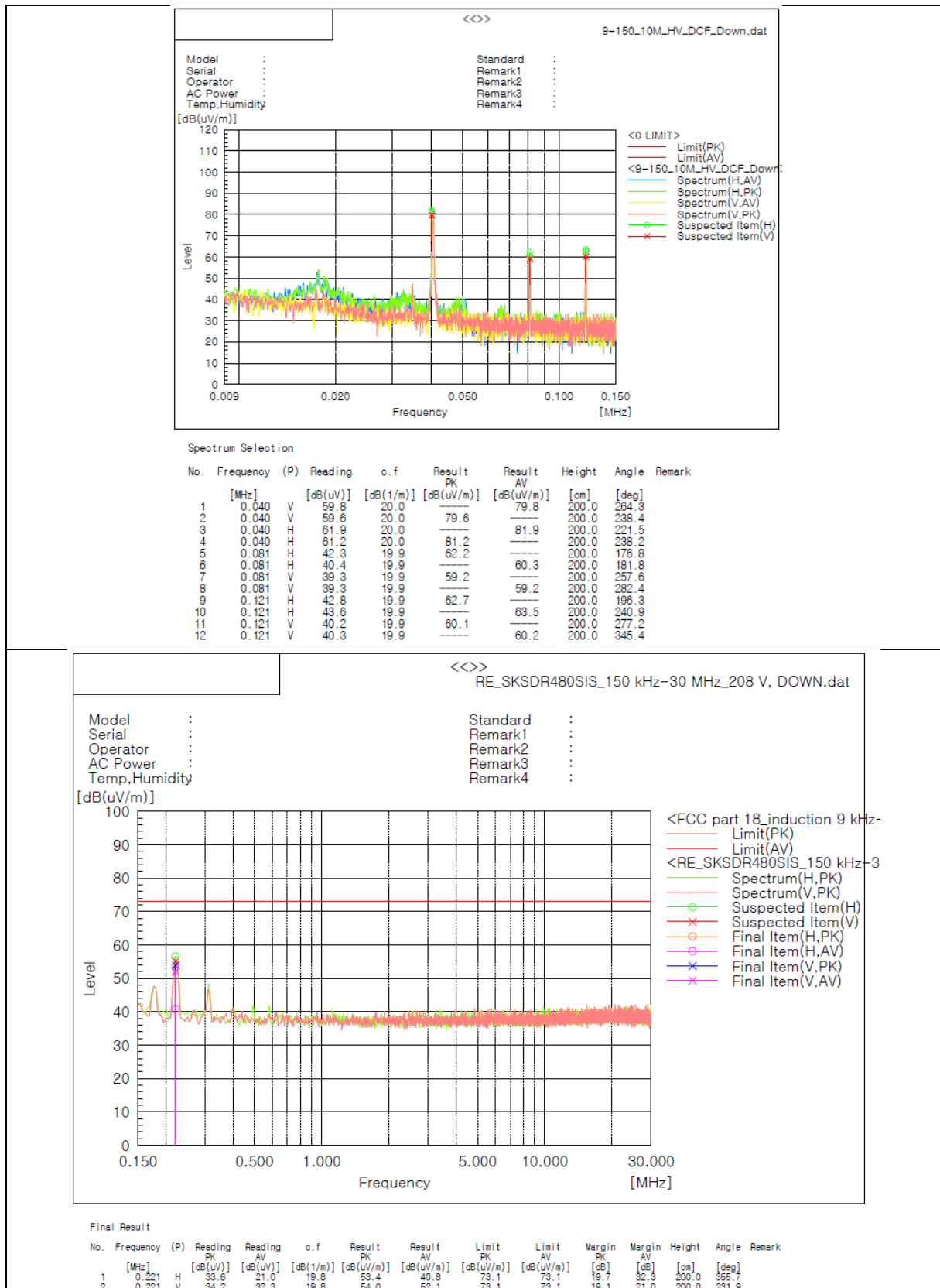
#1 of cooking element					
Distance [m]	ANT. Pol.	Frequency [MHz]	Meter reading [dBuV]	C.F [dB(1/m)]	Final reading [dB(uV/m)]
3	H	0.038	89.7	20.0	<b>109.7</b>
	V	0.038	87.6	20.0	107.6
10	H	0.037	64.6	20.0	<b>84.6</b>
	V	0.038	63.1	20.0	83.1
Extrapolation factor from 3 m to 10 m : <b>-48.0</b>					

#2 of cooking element					
Distance [m]	ANT. Pol.	Frequency [MHz]	Meter reading [dBuV]	C.F [dB(1/m)]	Final reading [dB(uV/m)]
3	H	0.042	89.2	20.0	<b>109.2</b>
	V	0.042	86.0	20.0	86.0
10	H	0.042	62.2	20.0	<b>82.2</b>
	V	0.042	59.4	20.0	79.4
Extrapolation factor from 3 m to 10 m : -51.6					

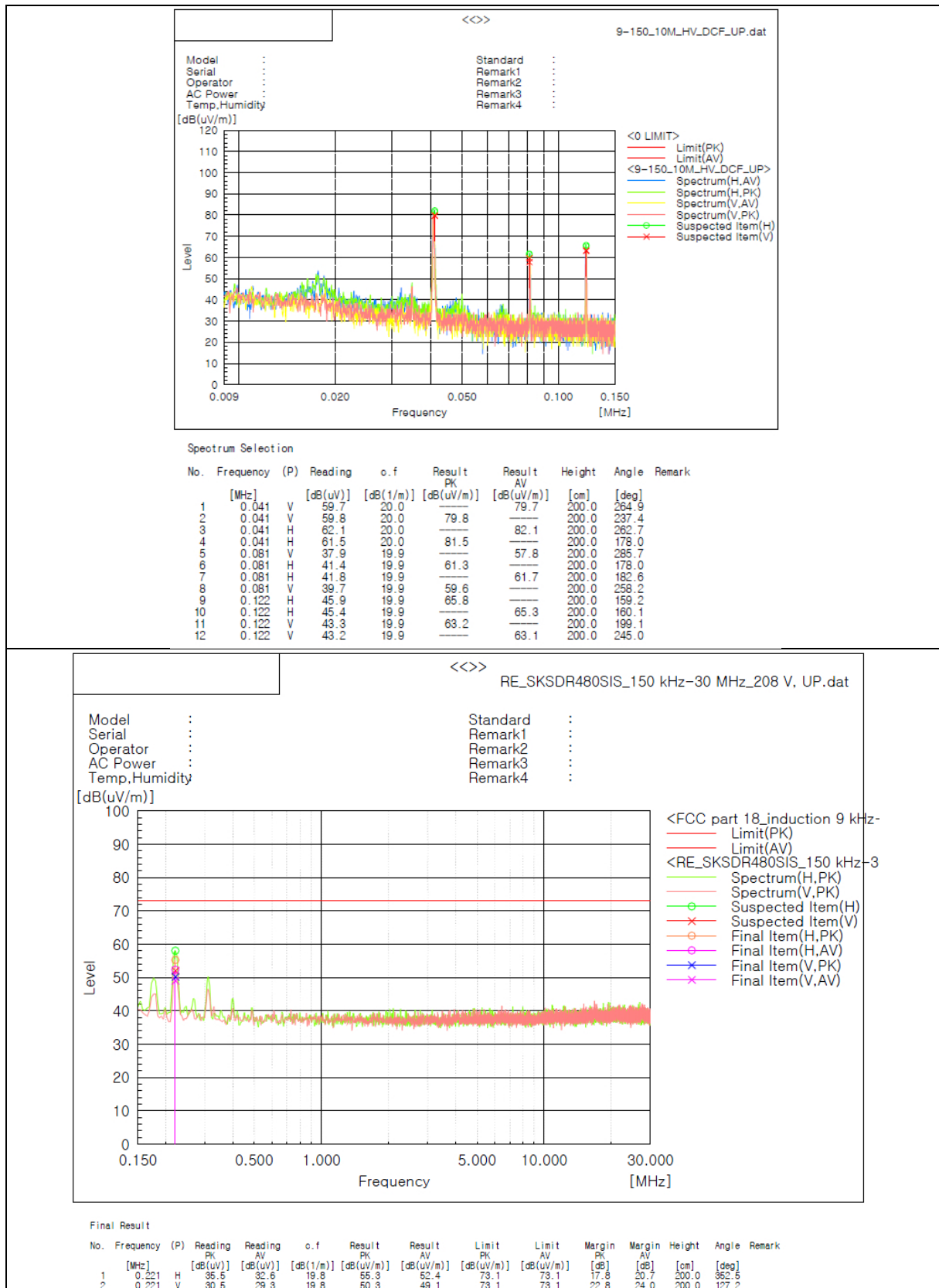
$$\text{D.C.F. (10 m to 30 m)} = -48 \log_{10} (10 \text{ m} / 30 \text{ m}) = 22.9 \text{ dB}$$

## 5.2.5 Test results

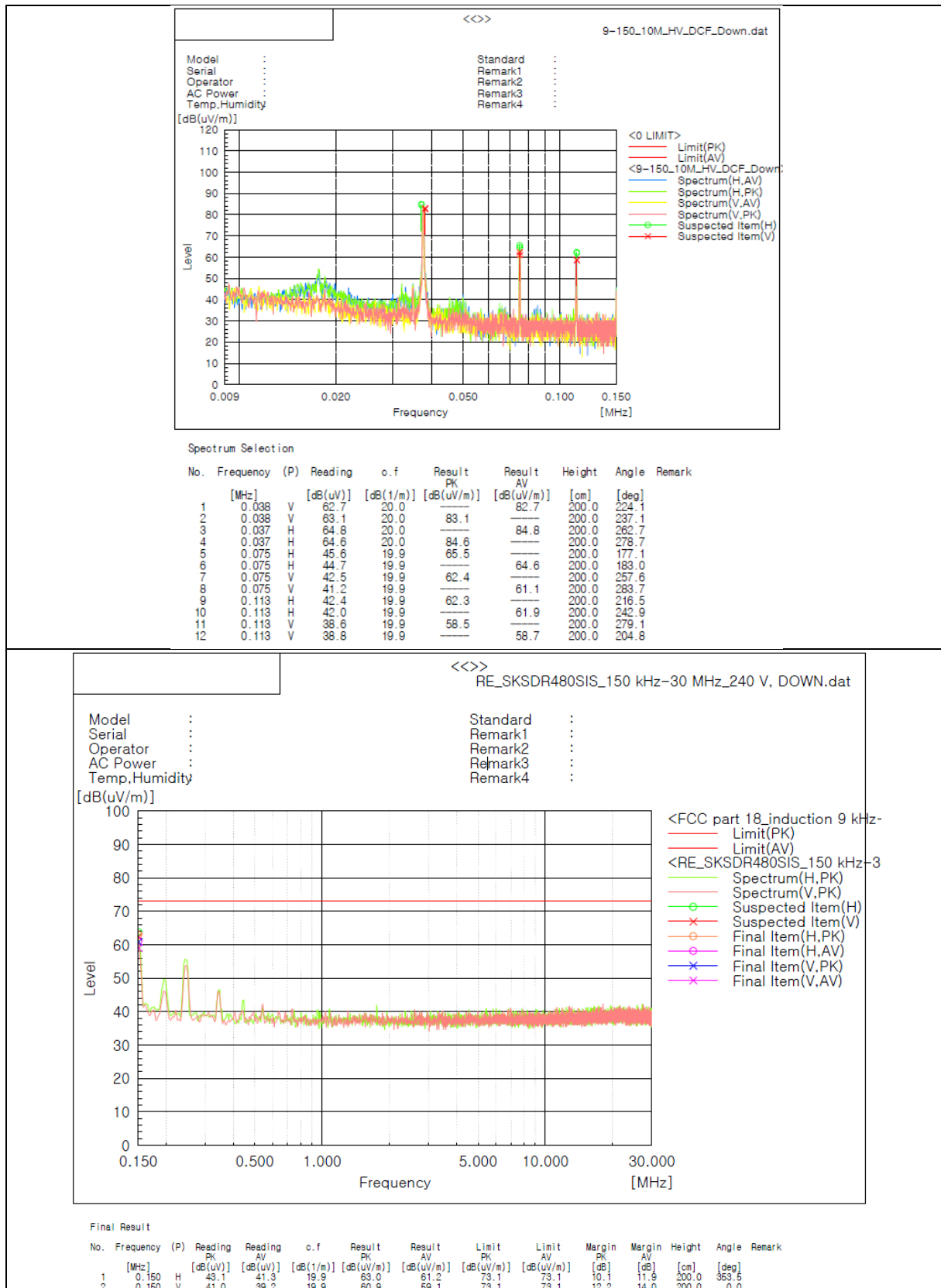
### ● Cooking element #1 at 10 m (AC 208 V, 60 Hz)



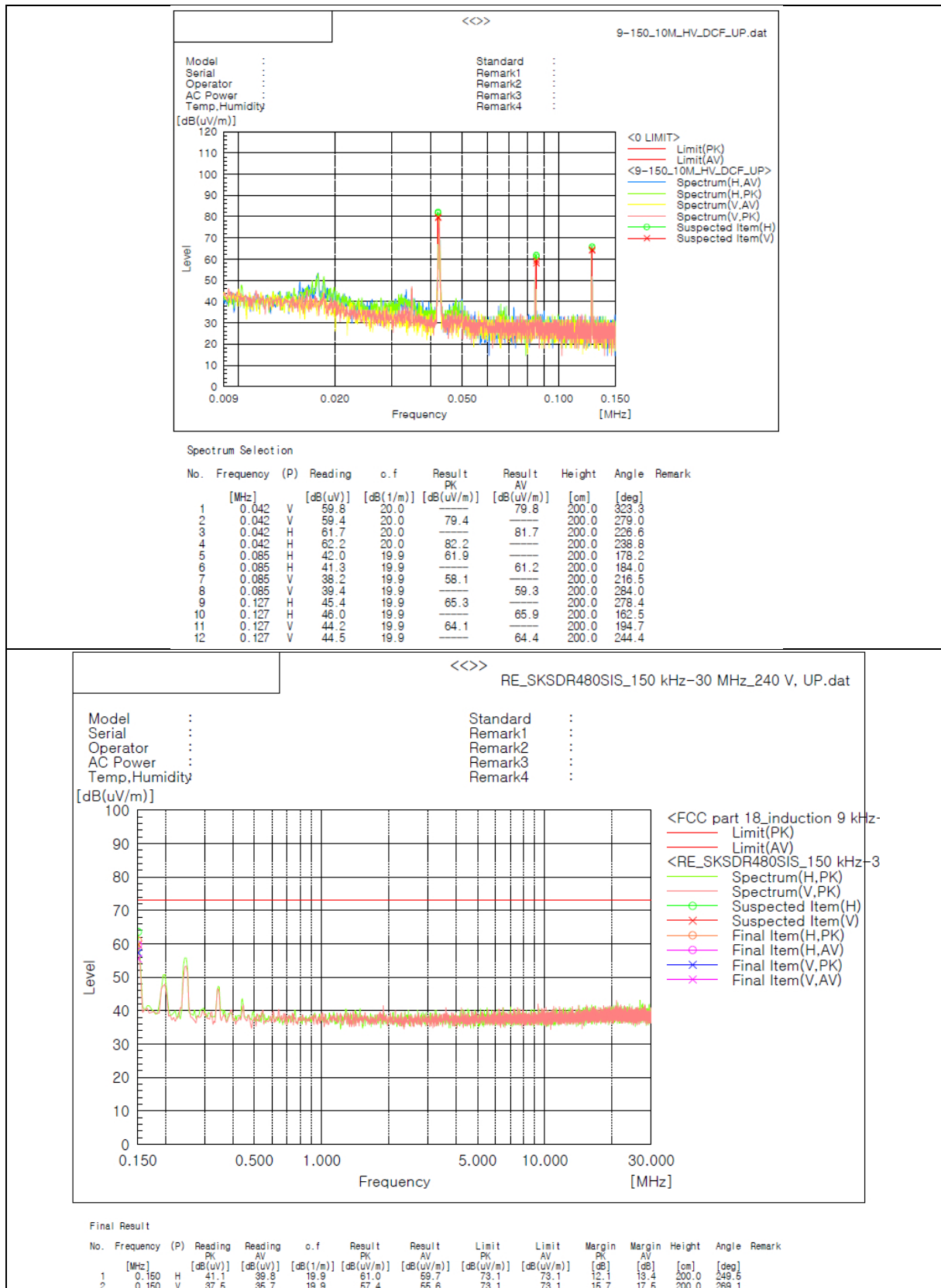
● Cooking element #2 at 10 m (AC 208 V, 60 Hz)



● Cooking element #1 at 10 m (AC 240 V, 60 Hz)



● Cooking element #2 at 10 m (AC 240 V, 60 Hz)



End.