

# TEST REPORT



**DT&C Co., Ltd.**

42, Yurim-ro, 154beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea 17042  
Tel : 031-321-2664, Fax : 031-321-1664

1. Report No. : DREFCC1801-0024
2. Client / Applicant
  - Name : LG Electronics USA
  - Address : 1000 Sylvan Avenue Englewood Cliffs, New Jersey, United States
3. Use of Report : Grant of Certification
4. Product Name / Model Name : HOUSEHOLD ELECTRIC RANGE / LSE4616ST
5. Test Standard : FCC Part 18  
(All Induction cooking ranges and ultrasonic equipment)
6. Date of Test : Jan. 03. 2018 ~ Jan. 04. 2018
7. Testing Environment : Temperature (18 ~ 19) °C , Humidity (32 ~ 35) % R.H.
8. Test Result : Refer to the attached Test Result

Affirmation	Tested by	Reviewed by
	Name : DongWook Kim  (Signature)	Name : KyoungHwan Bae  (Signature)

The test results presented in this test report are limited only to the sample supplied by applicant and the use of this test report is inhibited other than its purpose.

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**Jan. 12. 2018**

**DT&C Co., Ltd.**

If this report is required to confirmation of authenticity, please contact to [report@dtnc.net](mailto:report@dtnc.net)

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## 1. General Remarks

This report contains the result of tests performed by :

**DT&C Co., Ltd.**

42, Yurim-ro, 154beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea 17042

<http://www.dtnc.net>

Tel: +82-31-321-2664 Fax: +82-31-321-1664

## 2. Test Laboratory

DT&C Co., Ltd. has been accredited / filed / authorized by the agencies listed in the following table;

Certificate	Nation	Agency	Code	Remark
Accreditation	Korea	KOLAS	393	ISO/IEC 17025
	South Africa	SABS	0006	ISO/IEC 17025
Site Filing	USA	FCC	KR0034 101842 678747, 596748, 804488, 165783	Accredited 2.948 Listed
	Canada	IC	5740A-3 5740A-4	Registered
	Japan	VCCI	C-1427 R-1364, R-3385, R-4076, R-4180, T-1442, G-10338, G-754, G-10815	Registered
Certification	Korea	KC	KR0034	Designation
	Germany	TUV	CARAT 17 11 89112 005	ISO/IEC 17025

Quality control in the testing laboratory is implemented as per ISO/IEC 17025 which is the "General requirements for the competent of calibration and testing laboratory".

### 3. General Information of EUT

Applicant	LG Electronics USA 1000 Sylvan Avenue Englewood Cliffs, New Jersey, United States
Manufacturer	LG Electronics Inc. 170, Seongsanpaechongro, Seongsan-gu, Changwon-si, Gyeongsangnam-do, 51533, Republic of Korea
Factory	LG Electronics Inc. 170, Seongsanpaechongro, Seongsan-gu, Changwon-si, Gyeongsangnam-do, 51533, Republic of Korea
Product Name	HOUSEHOLD ELECTRIC RANGE
Model Name	LSE4616ST
Add Model Name	LSE4616**
Difference of Model	** can be varied SW, SB, ST, BD to indicate color.
Maximum Internal Frequency	20 MHz
FCC ID	BEJS47413B (Contains FCC ID : BEJ-LCW004)
Rated Power	11.6 kW, 120/240 VAC, 60,Hz 9.8 kW, 120/208 VAC, 60 Hz
Remarks	Wireless Module - Frequency Range (MHz) : (2412.0 - 2462.0) MHz

**Related Submittal(s) / Grant(s)**  
**Original submittal only**

## 4. EUT Operations and Test Configurations

### 4.1 Principle of Configuration Selection

**Emission :**

The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use. For each testing mode different configurations were used, Refer to the individual tests.

### 4.2 EUT Operation Mode

No.	Mode	Description
1	COIL #1	Front right cooking zone is operated.
2	COIL #2	Front left cooking zone is operated.
3	COIL #3	Rear right cooking zone is operated.
4	COIL #4	Rear center cooking zone is operated.
5	COIL #5	Rear left cooking zone is operated.
NOTE) Only the induction function is tested due to the manufacturer's request.		

### 4.3 Test Configuration Mode

No.	Mode	Description
1	HEAT	Each cooking zone is operated with an enamelled steel vessel filled with tap water up to 80 % of its maximum capacity. Cooking is operated separately.

#### 4.4 Supported Equipment

Used*	Product Type	Manufacturer	Model	Remarks
-	-	-	-	-
*Abbreviations: AE - Auxiliary/Associated Equipment, or SIM - Simulator				

#### 4.5 EUT In/Output Port

Name	Type*	Cable Max. >3m	Cable Shielded	Cable Back shell	Remarks
Power in	AC	1.8 m	Non-Shield	Plastic	None
*Abbreviations: AC = AC Power Port                      DC = DC Power Port                      N/E = Non-Electrical I/O = Signal Input or Output Port TP = Telecommunication Ports					

#### 4.6 Test Voltage and Frequency

Case	Voltage (V)	Frequency (Hz)	Phases	Remarks
1	AC 240	60 Hz	Single	None

## 5. Test Summary

Test Items	Applied Standards	Results
Conducted Disturbance	MP-5 : 1986	C
Radiated Disturbance	MP-5 : 1986	C
C=Comply   N/C=Not Comply   N/T=Not Tested   N/A=Not Applicable		

The data in this test report are traceable to the national or international standards.

-Conducted Disturbance

Frequency [MHz]	Phase	Result [dB $\mu$ V]	Detector	Limit [dB $\mu$ V]	Margin [dB]
0.80754	N	52.66	QP	56	3.34

-Radiated Disturbance

Frequency [MHz]	Pol.	Result [dB $\mu$ V/m]	Detector	Limit [dB $\mu$ V/m]	Margin [dB]
0.046	Vertical	68.97	QP	73.06	4.09

## 6. Test Environment

Test Items	Test date (YYYY-MM-DD)	Temp. (°C)	Humidity (% R.H.)	Pressure (kPa)
Conducted Disturbance	2018-01-04	19	32	-
Radiated Disturbance	2018-01-03	18	35	

## 7. Test Results : Emission

### 7.1 Conducted Disturbance

MP-5	Mains terminal disturbance voltage	Result
<p><b>Method:</b> The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN).                      All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/50uH of coupling impedance for the measuring instrument.                      The LISN placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane.                      This distance was between the closest points of the LISN and the EUT.                      All other units of the EUT and associated equipment were at least 0.8 m from the LISN.                      All power was connected to the system through LISN. Conducted voltage measurements on mains lines were made at the output of the LISN.                      The measuring port of the LISN for EUT was connected to spectrum analyzer.                      Using conducted emission test software, the emissions were scanned with peak detector mode.                      After scanning over the frequency range, suspected emissions were selected to perform final measurement.                      When performing final measurement, the receiver was used which has Quasi-Peak detector and CISPR Average detector.                      For (0.009 ~ 0.15) MHz frequency range, Quasi-Peak detector and CISPR Average detector with 200 Hz RBW was used.                      For (0.15 ~ 30) MHz frequency range, Quasi-Peak detector and CISPR Average detector with 9 kHz RBW was used.                      By varying the configuration of the test sample and the cable routing it was attempted to maximize the emission.</p>		<b>Comply</b>
Fully configured sample scanned over the following frequency range	Frequency range on each side of line	Measurement Point
	9 kHz to 30 MHz	Mains
EUT mode (Refer to clauses 4)	Test configuration mode	1
	EUT Operation mode	1, 2, 3, 4, 5
<b>Limits – All Induction cooking ranges and ultrasonic equipment</b>		
Frequency (MHz)	Limit dB $\mu$ V	
	Quasi-Peak	Average
0.009 to 0.05	110	-
0.05 to 0.15	90 to 80 <sup>(Note1)</sup>	-
0.15 to 0.50	66 to 56 <sup>(Note1)</sup>	56 to 46 <sup>(Note1)</sup>
0.50 to 5	56	46
5 to 30	60	50
<b>Limits – All other part 18 consumer devices</b>		
Frequency (MHz)	Limit dB $\mu$ V	
	Quasi-Peak	Average
0.15 to 0.50	66 to 56 <sup>(Note1)</sup>	56 to 46 <sup>(Note1)</sup>
0.50 to 5	56	46
5 to 30	60	50
Note 1) Decreases with the logarithm of the frequency.		

Limits – RF lighting devices	
Frequency (MHz)	Maximum RF line voltage measured with a 50 uH/50 ohm LISN (uV)
<b>Non-consumer equipment</b>	
0.45 to 1.6	1 000
1.6 to 30	3 000
<b>Consumer equipment</b>	
0.45 to 2.51	250
2.51 to 3.0	3 000
3.0 to 30	250

Measurement uncertainty	
Expanded uncertainty $U$ (95 %, Confidence level, $k = 2$ )	2.36 dB

Measurement Instrument					
Description	Model	Manufacturer	Identifier	Cal. Date	Cal. Due
MEASUREMENT SOFTWARE	EMI-C VER. 2.00.0171	TSJ	N/A	N/A	N/A
EMI TEST RECEIVER	ESR	ROHDE & SCHWARZ	101767	2017.12.26	2018.12.26
LISN	NNLK8121	SCHWARZBECK	NNLK8121-580	2017.07.27	2018.07.27
PULSE LIMITER	ESH3-Z2	ROHDE & SCHWARZ	101334	2017.12.26	2018.12.26

**Mains terminal disturbance voltage \_Test setup photo**

<b>Test configuration mode</b>	<b>1</b>	<b>EUT Operation mode</b>	<b>1, 2, 3, 4, 5</b>
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Mains terminal disturbance voltage _ Measurement data			
Test configuration mode	1	EUT Operation mode	1
Test voltage (V)	240	Test Frequency (Hz)	60

## Results of Conducted Emission

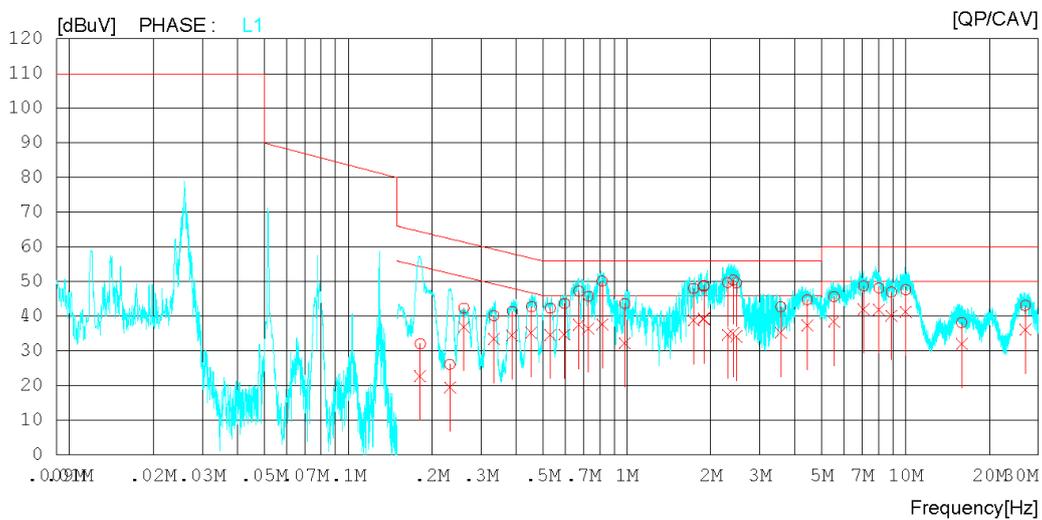
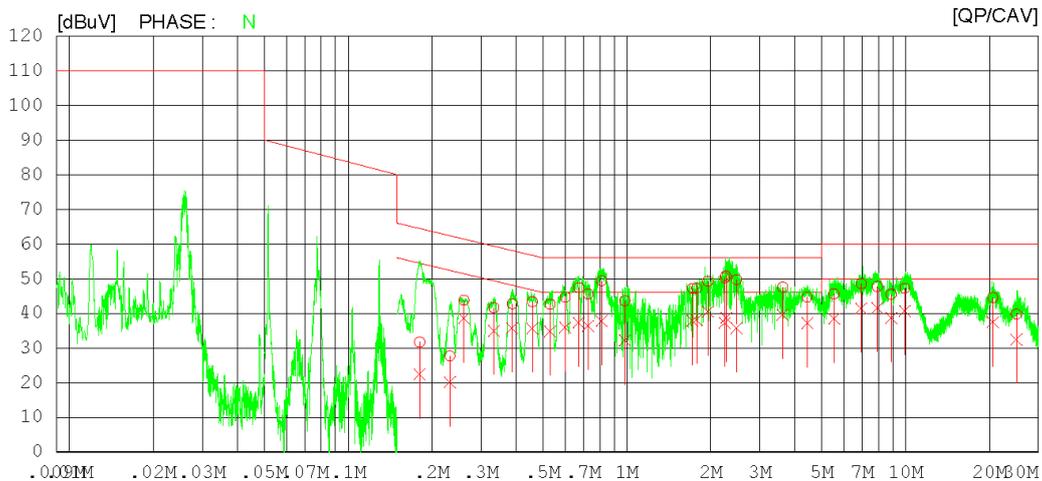
DT&C

Date : 2018-01-04

Order No. : DTNC1712-09973  
 Power Supply : 240 V 60 Hz  
 Temp/Humi. : 19 'C 32 % R.H.  
 Test Condition : COIL#1

Memo :

LIMIT : FCC PART 18 INDUCTION COOKING RANGES AND ULTRASONIC QP  
 FCC PART 18 INDUCTION COOKING RANGES AND ULTRASONIC AV



## Results of Conducted Emission

DT&C

Date : 2018-01-04

Order No. : DTNC1712-09973  
 Power Supply : 240 V 60 Hz  
 Temp/Humi. : 19 °C 32 % R.H.  
 Test Condition : COIL#1

Memo :

LIMIT : FCC PART 18 INDUCTION COOKING RANGES AND ULTRASONIC QP  
 FCC PART 18 INDUCTION COOKING RANGES AND ULTRASONIC AV

NO	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	CAV [dBuV]		QP [dBuV]	CAV [dBuV]	QP [dBuV]	CAV [dBuV]	QP [dBuV]	CAV [dBuV]	
1	0.18047	21.64	12.32	10.04	31.68	22.36	64.46	54.46	32.78	32.10	N
2	0.23150	17.66	10.00	10.04	27.70	20.04	62.40	52.40	34.70	32.36	N
3	0.26050	33.72	28.39	10.04	43.76	38.43	61.42	51.42	17.66	12.99	N
4	0.33350	31.57	24.90	10.03	41.60	34.93	59.36	49.36	17.76	14.43	N
5	0.38801	32.68	25.66	10.05	42.73	35.71	58.11	48.11	15.38	12.40	N
6	0.45843	33.29	25.60	10.05	43.34	35.65	56.72	46.72	13.38	11.07	N
7	0.53109	32.61	24.68	10.05	42.66	34.73	56.00	46.00	13.34	11.27	N
8	0.60250	34.61	25.84	10.06	44.67	35.90	56.00	46.00	11.33	10.10	N
9	0.67299	37.38	27.23	10.06	47.44	37.29	56.00	46.00	8.56	8.71	N
10	0.72796	35.51	26.29	10.06	45.57	36.35	56.00	46.00	10.43	9.65	N
11	0.81150	39.26	27.75	10.06	49.32	37.81	56.00	46.00	6.68	8.19	N
12	0.98499	33.52	22.11	10.08	43.60	32.19	56.00	46.00	12.40	13.81	N
13	1.71947	37.08	27.72	10.11	47.19	37.83	56.00	46.00	8.81	8.17	N
14	1.78145	37.16	28.00	10.12	47.28	38.12	56.00	46.00	8.72	7.88	N
15	1.95324	39.07	30.34	10.13	49.20	40.47	56.00	46.00	6.80	5.53	N
16	2.26962	40.62	28.52	10.13	50.75	38.65	56.00	46.00	5.25	7.35	N
17	2.24835	40.11	27.09	10.13	50.24	37.22	56.00	46.00	5.76	8.78	N
18	2.47374	39.54	25.51	10.14	49.68	35.65	56.00	46.00	6.32	10.35	N
19	3.62876	37.34	29.33	10.17	47.51	39.50	56.00	46.00	8.49	6.50	N
20	4.44306	34.48	26.97	10.20	44.68	37.17	56.00	46.00	11.32	8.83	N
21	5.53766	35.41	28.20	10.24	45.65	38.44	60.00	50.00	14.35	11.56	N
22	6.94846	38.24	31.14	10.26	48.50	41.40	60.00	50.00	11.50	8.60	N
23	7.92612	37.39	31.27	10.29	47.68	41.56	60.00	50.00	12.32	8.44	N
24	8.88394	35.14	28.29	10.32	45.46	38.61	60.00	50.00	14.54	11.39	N
25	9.94720	36.86	30.26	10.35	47.21	40.61	60.00	50.00	12.79	9.39	N
26	20.58527	33.90	26.80	10.62	44.52	37.42	60.00	50.00	15.48	12.58	N
27	25.01734	29.01	21.72	10.73	39.74	32.45	60.00	50.00	20.26	17.55	N
28	0.18150	22.02	12.68	10.03	32.05	22.71	64.42	54.42	32.37	31.71	L1
29	0.23150	16.08	9.44	10.03	26.11	19.47	62.40	52.40	36.29	32.93	L1
30	0.26050	32.34	26.94	10.03	42.37	36.97	61.42	51.42	19.05	14.45	L1
31	0.33350	30.16	23.43	10.02	40.18	33.45	59.36	49.36	19.18	15.91	L1
32	0.38778	31.39	24.49	10.04	41.43	34.53	58.11	48.11	16.68	13.58	L1
33	0.45450	32.73	25.17	10.04	42.77	35.21	56.79	46.79	14.02	11.58	L1
34	0.53192	32.28	24.66	10.04	42.32	34.70	56.00	46.00	13.68	11.30	L1
35	0.59750	33.70	24.71	10.04	43.74	34.75	56.00	46.00	12.26	11.25	L1
36	0.67275	37.19	27.49	10.05	47.24	37.54	56.00	46.00	8.76	8.46	L1
37	0.72836	35.74	26.47	10.05	45.79	36.52	56.00	46.00	10.21	9.48	L1
38	0.81650	40.13	27.62	10.05	50.18	37.67	56.00	46.00	5.82	8.33	L1
39	0.98453	33.59	22.18	10.07	43.66	32.25	56.00	46.00	12.34	13.75	L1
40	1.73568	37.95	28.73	10.10	48.05	38.83	56.00	46.00	7.95	7.17	L1
41	1.88826	38.53	28.99	10.12	48.65	39.11	56.00	46.00	7.35	6.89	L1
42	1.88753	38.75	29.25	10.12	48.87	39.37	56.00	46.00	7.13	6.63	L1
43	2.30001	39.57	24.59	10.13	49.70	34.72	56.00	46.00	6.30	11.28	L1
44	2.40754	40.31	25.00	10.13	50.44	35.13	56.00	46.00	5.56	10.87	L1
45	2.47287	39.53	24.05	10.13	49.66	34.18	56.00	46.00	6.34	11.82	L1
46	3.56971	32.56	25.12	10.16	42.72	35.28	56.00	46.00	13.28	10.72	L1
47	4.44624	34.56	27.16	10.19	44.75	37.35	56.00	46.00	11.25	8.65	L1
48	5.53679	35.44	28.20	10.23	45.67	38.43	60.00	50.00	14.33	11.57	L1

NO	FREQ [MHz]	READING		C.FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
49	7.06423	38.52	31.79	10.25	48.77	42.04	60.00	50.00	11.23	7.96	L1
50	8.02597	37.89	31.65	10.28	48.17	41.93	60.00	50.00	11.83	8.07	L1
51	8.89899	36.67	29.81	10.31	46.98	40.12	60.00	50.00	13.02	9.88	L1
52	10.01608	37.36	30.94	10.34	47.70	41.28	60.00	50.00	12.30	8.72	L1
53	15.91412	27.73	21.57	10.44	38.17	32.01	60.00	50.00	21.83	17.99	L1
54	26.91277	32.36	25.37	10.78	43.14	36.15	60.00	50.00	16.86	13.85	L1

Mains terminal disturbance voltage _ Measurement data			
Test configuration mode	1	EUT Operation mode	2
Test voltage (V)	240	Test Frequency (Hz)	60

## Results of Conducted Emission

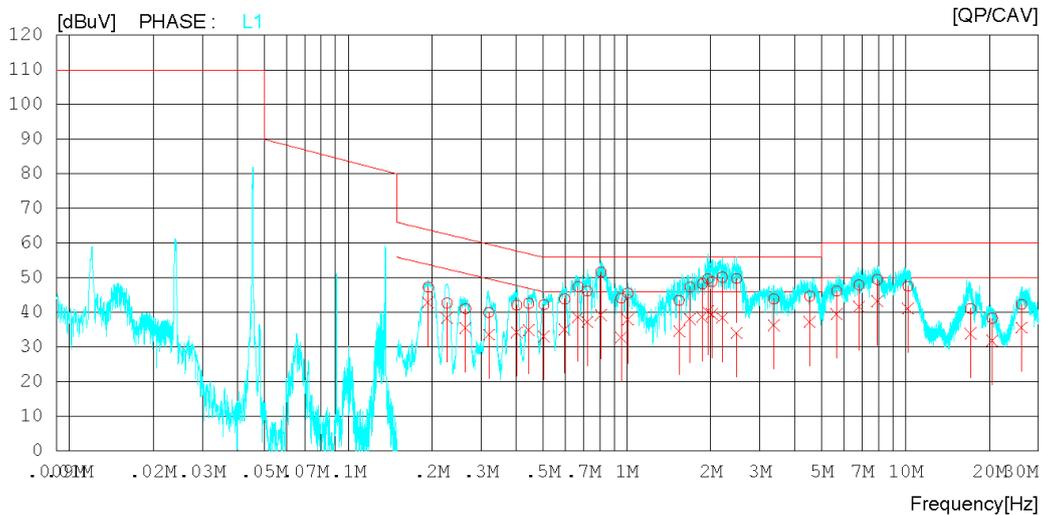
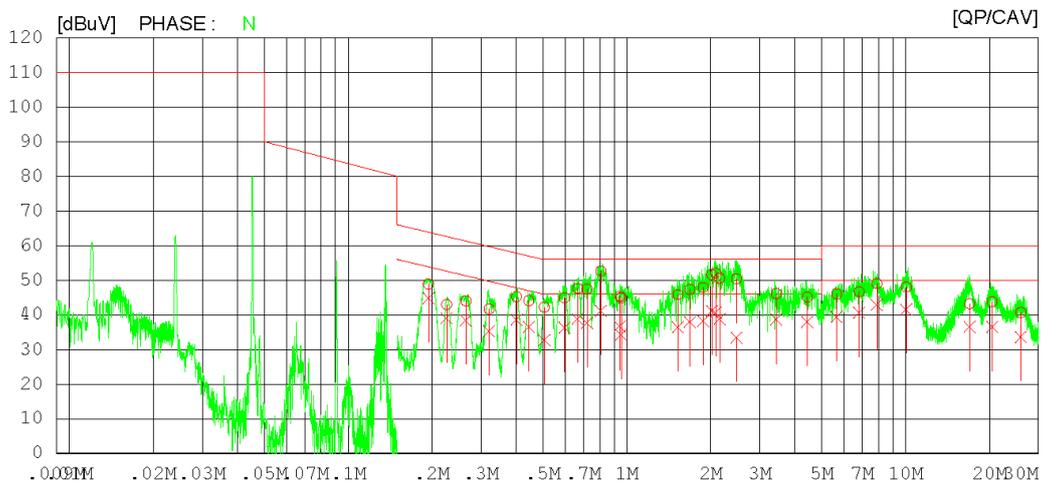
DT&C

Date : 2018-01-04

Order No. : DTNC1712-09973  
 Power Supply : 240 V 60 Hz  
 Temp/Humi. : 19 'C 32 % R.H.  
 Test Condition : COIL#2

Memo :

LIMIT : FCC PART 18 INDUCTION COOKING RANGES AND ULTRASONIC QP  
 FCC PART 18 INDUCTION COOKING RANGES AND ULTRASONIC AV



## Results of Conducted Emission

DT&C

Date : 2018-01-04

Order No. : DTNC1712-09973  
 Power Supply : 240 V 60 Hz  
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 FCC PART 18 INDUCTION COOKING RANGES AND ULTRASONIC AV

NO	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	CAV [dBuV]		QP [dBuV]	CAV [dBuV]	QP [dBuV]	CAV [dBuV]	QP [dBuV]	CAV [dBuV]	
1	0.19403	38.80	34.76	10.03	48.83	44.79	63.86	53.86	15.03	9.07	N
2	0.22550	32.95	28.87	10.04	42.99	38.91	62.61	52.61	19.62	13.70	N
3	0.26450	33.91	28.31	10.04	43.95	38.35	61.29	51.29	17.34	12.94	N
4	0.32021	31.59	25.32	10.03	41.62	35.35	59.70	49.70	18.08	14.35	N
5	0.40195	35.19	28.41	10.05	45.24	38.46	57.81	47.81	12.57	9.35	N
6	0.44450	34.01	26.47	10.05	44.06	36.52	56.98	46.98	12.92	10.46	N
7	0.50550	32.18	22.65	10.05	42.23	32.70	56.00	46.00	13.77	13.30	N
8	0.59750	34.79	26.23	10.05	44.84	36.28	56.00	46.00	11.16	9.72	N
9	0.66649	37.53	28.74	10.06	47.59	38.80	56.00	46.00	8.41	7.20	N
10	0.72088	37.33	27.54	10.06	47.39	37.60	56.00	46.00	8.61	8.40	N
11	0.80754	42.60	31.04	10.06	52.66	41.10	56.00	46.00	3.34	4.90	N
12	0.95432	34.86	24.07	10.08	44.94	34.15	56.00	46.00	11.06	11.85	N
13	0.94380	35.25	26.61	10.07	45.32	36.68	56.00	46.00	10.68	9.32	N
14	1.52407	35.69	26.32	10.11	45.80	36.43	56.00	46.00	10.20	9.57	N
15	1.68283	37.20	27.75	10.11	47.31	37.86	56.00	46.00	8.69	8.14	N
16	1.87886	37.73	27.99	10.13	47.86	38.12	56.00	46.00	8.14	7.88	N
17	2.01718	41.42	30.98	10.13	51.55	41.11	56.00	46.00	4.45	4.89	N
18	2.08452	41.92	30.49	10.13	52.05	40.62	56.00	46.00	3.95	5.38	N
19	2.15164	40.37	28.68	10.13	50.50	38.81	56.00	46.00	5.50	7.19	N
20	2.47524	40.19	23.20	10.14	50.33	33.34	56.00	46.00	5.67	12.66	N
21	3.43742	35.96	28.42	10.15	46.11	38.57	56.00	46.00	9.89	7.43	N
22	4.44135	34.92	27.71	10.20	45.12	37.91	56.00	46.00	10.88	8.09	N
23	5.66356	35.81	29.13	10.24	46.05	39.37	60.00	50.00	13.95	10.63	N
24	6.81784	36.39	30.31	10.26	46.65	40.57	60.00	50.00	13.35	9.43	N
25	7.89006	38.75	32.57	10.29	49.04	42.86	60.00	50.00	10.96	7.14	N
26	10.06085	37.64	31.18	10.35	47.99	41.53	60.00	50.00	12.01	8.47	N
27	16.99353	32.66	25.93	10.54	43.20	36.47	60.00	50.00	16.80	13.53	N
28	20.48388	33.13	25.90	10.61	43.74	36.51	60.00	50.00	16.26	13.49	N
29	25.93669	29.88	22.81	10.75	40.63	33.56	60.00	50.00	19.37	16.44	N
30	0.19369	37.30	32.90	10.02	47.32	42.92	63.88	53.88	16.56	10.96	L1
31	0.22634	32.65	28.36	10.03	42.68	38.39	62.58	52.58	19.90	14.19	L1
32	0.26383	31.05	25.50	10.03	41.08	35.53	61.31	51.31	20.23	15.78	L1
33	0.31937	29.96	23.58	10.02	39.98	33.60	59.72	49.72	19.74	16.12	L1
34	0.40260	32.04	24.21	10.04	42.08	34.25	57.80	47.80	15.72	13.55	L1
35	0.44450	32.60	24.81	10.04	42.64	34.85	56.98	46.98	14.34	12.13	L1
36	0.50464	32.21	23.08	10.04	42.25	33.12	56.00	46.00	13.75	12.88	L1
37	0.59904	33.84	25.07	10.04	43.88	35.11	56.00	46.00	12.12	10.89	L1
38	0.66836	37.42	28.64	10.05	47.47	38.69	56.00	46.00	8.53	7.31	L1
39	0.72122	36.15	27.19	10.05	46.20	37.24	56.00	46.00	9.80	8.76	L1
40	0.80815	41.60	29.21	10.05	51.65	39.26	56.00	46.00	4.35	6.74	L1
41	0.95450	34.10	22.71	10.07	44.17	32.78	56.00	46.00	11.83	13.22	L1
42	1.00892	35.53	27.89	10.07	45.60	37.96	56.00	46.00	10.40	8.04	L1
43	1.54086	33.39	24.62	10.09	43.48	34.71	56.00	46.00	12.52	11.29	L1
44	1.68370	37.24	28.00	10.10	47.34	38.10	56.00	46.00	8.66	7.90	L1
45	1.86728	38.12	28.60	10.12	48.24	38.72	56.00	46.00	7.76	7.28	L1
46	1.95205	39.58	30.22	10.13	49.71	40.35	56.00	46.00	6.29	5.65	L1
47	2.01766	38.76	29.40	10.13	48.89	39.53	56.00	46.00	7.11	6.47	L1
48	2.20258	40.05	28.36	10.13	50.18	38.49	56.00	46.00	5.82	7.51	L1

NO	FREQ [MHz]	READING		C.FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
49	2.47379	39.66	23.92	10.13	49.79	34.05	56.00	46.00	6.21	11.95	L1
50	3.37577	33.75	26.12	10.14	43.89	36.26	56.00	46.00	12.11	9.74	L1
51	4.53455	34.47	27.05	10.20	44.67	37.25	56.00	46.00	11.33	8.75	L1
52	5.66472	35.94	29.33	10.23	46.17	39.56	60.00	50.00	13.83	10.44	L1
53	6.81321	37.69	31.49	10.25	47.94	41.74	60.00	50.00	12.06	8.26	L1
54	7.92074	39.25	32.94	10.28	49.53	43.22	60.00	50.00	10.47	6.78	L1
55	10.20586	37.22	30.78	10.34	47.56	41.12	60.00	50.00	12.44	8.88	L1
56	17.12204	30.62	23.40	10.49	41.11	33.89	60.00	50.00	18.89	16.11	L1
57	20.49256	27.73	21.21	10.61	38.34	31.82	60.00	50.00	21.66	18.18	L1
58	26.08286	31.54	24.89	10.76	42.30	35.65	60.00	50.00	17.70	14.35	L1

Mains terminal disturbance voltage _ Measurement data			
Test configuration mode	1	EUT Operation mode	3
Test voltage (V)	240	Test Frequency (Hz)	60

## Results of Conducted Emission

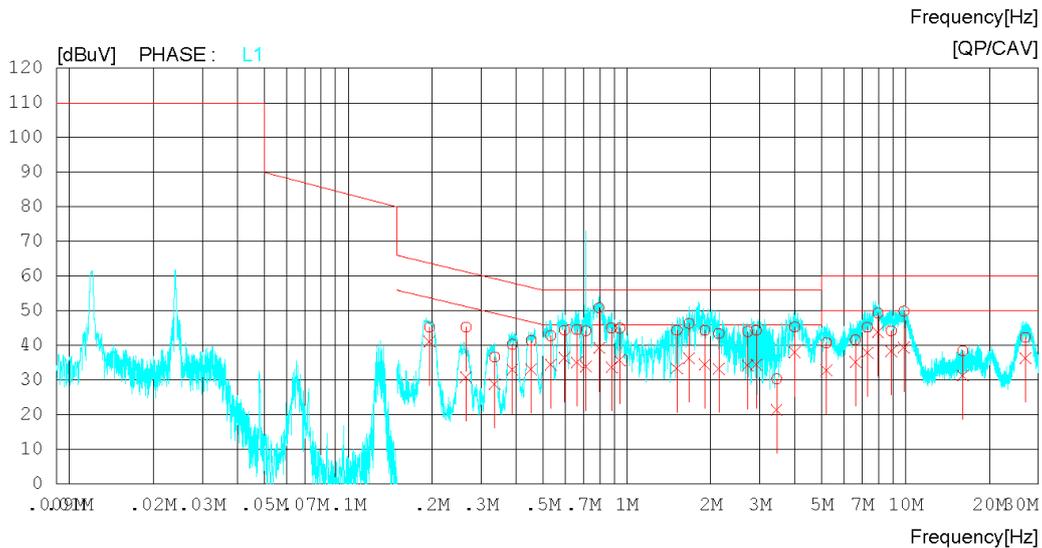
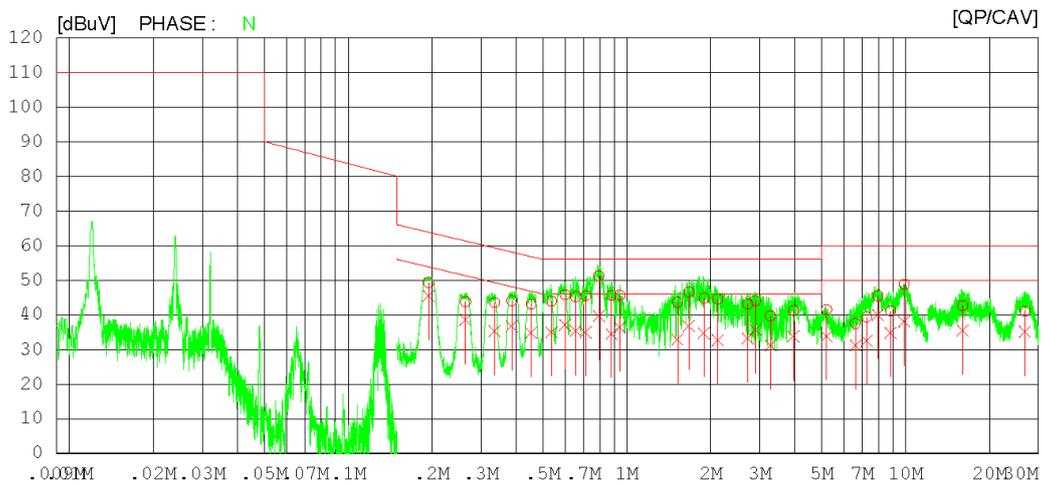
DT&C

Date : 2018-01-04

Order No. : DTNC1712-09973  
 Power Supply : 240 V 60 Hz  
 Temp/Humi. : 19 °C 32 % R.H.  
 Test Condition : COIL#3

Memo :

LIMIT : FCC PART 18 INDUCTION COOKING RANGES AND ULTRASONIC QP  
 FCC PART 18 INDUCTION COOKING RANGES AND ULTRASONIC AV



## Results of Conducted Emission

DT&C

Date : 2018-01-04

Order No. : DTNC1712-09973  
 Power Supply : 240 V 60 Hz  
 Temp/Humi. : 19 °C 32 % R.H.  
 Test Condition : COIL#3

Memo :

LIMIT : FCC PART 18 INDUCTION COOKING RANGES AND ULTRASONIC QP  
 FCC PART 18 INDUCTION COOKING RANGES AND ULTRASONIC AV

NO	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	CAV [dBuV]		QP [dBuV]	CAV [dBuV]	QP [dBuV]	CAV [dBuV]	QP [dBuV]	CAV [dBuV]	
1	0.19418	39.26	35.42	10.03	49.29	45.45	63.86	53.86	14.57	8.41	N
2	0.26377	33.72	28.50	10.04	43.76	38.54	61.31	51.31	17.55	12.77	N
3	0.33550	33.44	25.26	10.03	43.47	35.29	59.31	49.31	15.84	14.02	N
4	0.38650	34.00	26.67	10.05	44.05	36.72	58.14	48.14	14.09	11.42	N
5	0.45412	33.05	24.78	10.05	43.10	34.83	56.80	46.80	13.70	11.97	N
6	0.53681	33.92	24.91	10.05	43.97	34.96	56.00	46.00	12.03	11.04	N
7	0.60009	35.73	26.94	10.06	45.79	37.00	56.00	46.00	10.21	9.00	N
8	0.65650	35.12	25.28	10.06	45.18	35.34	56.00	46.00	10.82	10.66	N
9	0.71173	35.42	24.89	10.06	45.48	34.95	56.00	46.00	10.52	11.05	N
10	0.79416	41.18	29.60	10.06	51.24	39.66	56.00	46.00	4.76	6.34	N
11	0.88150	35.48	24.46	10.06	45.54	34.52	56.00	46.00	10.46	11.48	N
12	0.94346	35.59	26.31	10.07	45.66	36.38	56.00	46.00	10.34	9.62	N
13	1.51991	33.53	22.73	10.11	43.64	32.84	56.00	46.00	12.36	13.16	N
14	1.66896	36.50	26.65	10.11	46.61	36.76	56.00	46.00	9.39	9.24	N
15	1.89128	34.66	24.58	10.13	44.79	34.71	56.00	46.00	11.21	11.29	N
16	2.11901	34.39	22.46	10.13	44.52	32.59	56.00	46.00	11.48	13.41	N
17	2.71636	32.98	23.02	10.14	43.12	33.16	56.00	46.00	12.88	12.84	N
18	2.89612	33.93	25.59	10.14	44.07	35.73	56.00	46.00	11.93	10.27	N
19	3.27504	29.54	21.01	10.15	39.69	31.16	56.00	46.00	16.31	14.84	N
20	3.96940	31.01	23.60	10.17	41.18	33.77	56.00	46.00	14.82	12.23	N
21	5.21143	31.27	23.62	10.23	41.50	33.85	60.00	50.00	18.50	16.15	N
22	6.60739	27.24	20.92	10.26	37.50	31.18	60.00	50.00	22.50	18.82	N
23	7.24796	29.06	22.25	10.26	39.32	32.51	60.00	50.00	20.68	17.49	N
24	7.96056	35.19	29.67	10.29	45.48	39.96	60.00	50.00	14.52	10.04	N
25	8.84255	30.84	24.46	10.31	41.15	34.77	60.00	50.00	18.85	15.23	N
26	9.90068	38.44	27.68	10.35	48.79	38.03	60.00	50.00	11.21	11.97	N
27	16.04033	32.14	24.91	10.52	42.66	35.43	60.00	50.00	17.34	14.57	N
28	26.81440	30.27	24.37	10.77	41.04	35.14	60.00	50.00	18.96	14.86	N
29	0.19606	35.26	31.10	10.02	45.28	41.12	63.78	53.78	18.50	12.66	L1
30	0.26480	35.26	20.77	10.03	45.29	30.80	61.28	51.28	15.99	20.48	L1
31	0.33550	26.67	18.82	10.02	36.69	28.84	59.31	49.31	22.62	20.47	L1
32	0.38848	30.30	23.00	10.04	40.34	33.04	58.10	48.10	17.76	15.06	L1
33	0.45337	31.37	23.08	10.04	41.41	33.12	56.81	46.81	15.40	13.69	L1
34	0.53350	32.83	24.44	10.04	42.87	34.48	56.00	46.00	13.13	11.52	L1
35	0.59819	34.35	26.30	10.04	44.39	36.34	56.00	46.00	11.61	9.66	L1
36	0.66150	34.49	25.09	10.05	44.54	35.14	56.00	46.00	11.46	10.86	L1
37	0.71309	34.15	23.90	10.05	44.20	33.95	56.00	46.00	11.80	12.05	L1
38	0.79450	40.81	29.22	10.05	50.86	39.27	56.00	46.00	5.14	6.73	L1
39	0.88198	35.02	23.74	10.05	45.07	33.79	56.00	46.00	10.93	12.21	L1
40	0.94377	34.92	25.71	10.06	44.98	35.77	56.00	46.00	11.02	10.23	L1
41	1.50949	34.30	23.29	10.09	44.39	33.38	56.00	46.00	11.61	12.62	L1
42	1.66954	36.25	26.23	10.10	46.35	36.33	56.00	46.00	9.65	9.67	L1
43	1.90402	34.26	24.42	10.12	44.38	34.54	56.00	46.00	11.62	11.46	L1
44	2.13898	33.35	23.18	10.13	43.48	33.31	56.00	46.00	12.52	12.69	L1
45	2.71491	33.89	24.12	10.13	44.02	34.25	56.00	46.00	11.98	11.75	L1
46	2.91319	34.30	24.35	10.14	44.44	34.49	56.00	46.00	11.56	11.51	L1
47	3.44986	20.22	11.36	10.14	30.36	21.50	56.00	46.00	25.64	24.50	L1
48	4.00586	35.18	27.80	10.17	45.35	37.97	56.00	46.00	10.65	8.03	L1

NO	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
49	5.20390	30.52	22.61	10.22	40.74	32.83	60.00	50.00	19.26	17.17	L1
50	6.61346	31.36	24.96	10.25	41.61	35.21	60.00	50.00	18.39	14.79	L1
51	7.28761	35.00	27.66	10.25	45.25	37.91	60.00	50.00	14.75	12.09	L1
52	7.96027	39.10	33.57	10.28	49.38	43.85	60.00	50.00	10.62	6.15	L1
53	8.88279	33.86	28.03	10.31	44.17	38.34	60.00	50.00	15.83	11.66	L1
54	9.86566	39.58	29.04	10.34	49.92	39.38	60.00	50.00	10.08	10.62	L1
55	16.04554	27.98	20.88	10.45	38.43	31.33	60.00	50.00	21.57	18.67	L1
56	26.92178	31.59	25.55	10.78	42.37	36.33	60.00	50.00	17.63	13.67	L1

Mains terminal disturbance voltage _ Measurement data			
Test configuration mode	1	EUT Operation mode	4
Test voltage (V)	240	Test Frequency (Hz)	60

## Results of Conducted Emission

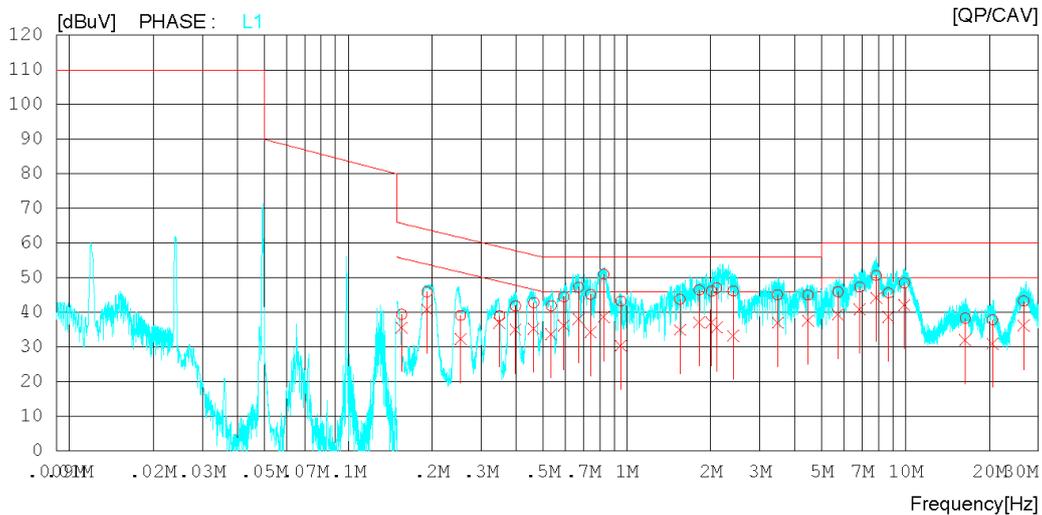
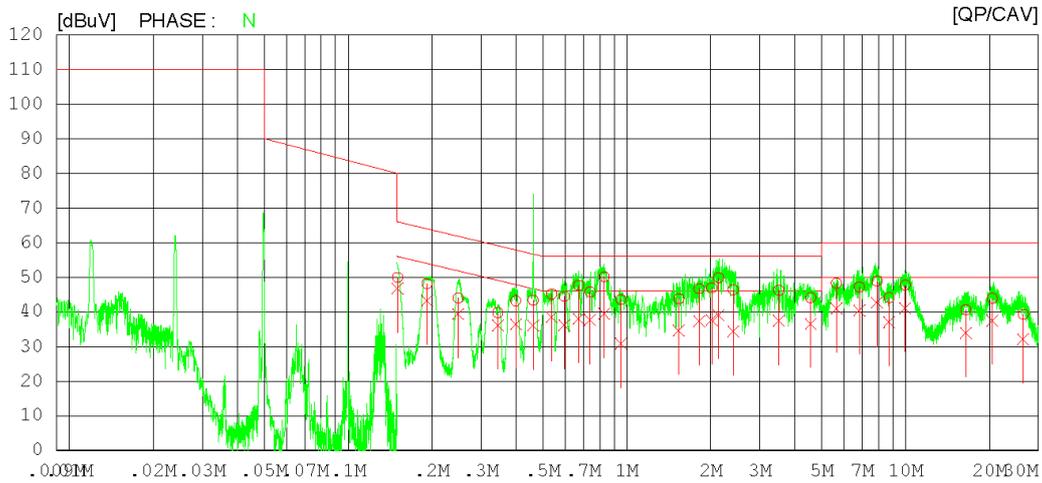
DT&C

Date : 2018-01-04

Order No. : DTNC1712-09973  
 Power Supply : 240 V 60 Hz  
 Temp/Humi. : 19 °C 32 % R.H.  
 Test Condition : COIL#4

Memo :

LIMIT : FCC PART 18 INDUCTION COOKING RANGES AND ULTRASONIC QP  
 FCC PART 18 INDUCTION COOKING RANGES AND ULTRASONIC AV



## Results of Conducted Emission

DT&C

Date : 2018-01-04

Order No. : DTNC1712-09973  
 Power Supply : 240 V 60 Hz  
 Temp/Humi. : 19 °C 32 % R.H.  
 Test Condition : COIL#4

Memo :

LIMIT : FCC PART 18 INDUCTION COOKING RANGES AND ULTRASONIC QP  
 FCC PART 18 INDUCTION COOKING RANGES AND ULTRASONIC AV

NO	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	CAV [dBuV]		QP [dBuV]	CAV [dBuV]	QP [dBuV]	CAV [dBuV]	QP [dBuV]	CAV [dBuV]	
1	0.15050	39.92	36.69	10.02	49.94	46.71	65.97	55.97	16.03	9.26	N
2	0.19194	38.11	33.20	10.03	48.14	43.23	63.95	53.95	15.81	10.72	N
3	0.24850	33.90	29.31	10.04	43.94	39.35	61.81	51.81	17.87	12.46	N
4	0.34450	29.68	26.04	10.03	39.71	36.07	59.09	49.09	19.38	13.02	N
5	0.39920	33.12	26.33	10.05	43.17	36.38	57.87	47.87	14.70	11.49	N
6	0.46122	33.32	25.93	10.05	43.37	35.98	56.67	46.67	13.30	10.69	N
7	0.53799	35.12	28.38	10.05	45.17	38.43	56.00	46.00	10.83	7.57	N
8	0.59750	34.39	26.06	10.05	44.44	36.11	56.00	46.00	11.56	9.89	N
9	0.67252	37.58	27.92	10.06	47.64	37.98	56.00	46.00	8.36	8.02	N
10	0.73850	35.66	27.56	10.06	45.72	37.62	56.00	46.00	10.28	8.38	N
11	0.82892	39.99	29.39	10.06	50.05	39.45	56.00	46.00	5.95	6.55	N
12	0.95350	33.48	20.68	10.08	43.56	30.76	56.00	46.00	12.44	15.24	N
13	1.53783	33.65	24.50	10.11	43.76	34.61	56.00	46.00	12.24	11.39	N
14	1.81657	36.57	27.16	10.12	46.69	37.28	56.00	46.00	9.31	8.72	N
15	2.01586	36.76	27.40	10.13	46.89	37.53	56.00	46.00	9.11	8.47	N
16	2.13572	39.66	28.94	10.13	49.79	39.07	56.00	46.00	6.21	6.93	N
17	2.40748	36.19	24.15	10.14	46.33	34.29	56.00	46.00	9.67	11.71	N
18	3.50921	36.02	27.24	10.17	46.19	37.41	56.00	46.00	9.81	8.59	N
19	4.57326	33.84	26.37	10.21	44.05	36.58	56.00	46.00	11.95	9.42	N
20	5.65174	37.99	30.76	10.24	48.23	41.00	60.00	50.00	11.77	9.00	N
21	6.82508	36.85	30.12	10.26	47.11	40.38	60.00	50.00	12.89	9.62	N
22	7.90412	38.60	32.33	10.29	48.89	42.62	60.00	50.00	11.11	7.38	N
23	8.73666	33.78	26.71	10.31	44.09	37.02	60.00	50.00	15.91	12.98	N
24	9.97263	37.34	30.72	10.35	47.69	41.07	60.00	50.00	12.31	8.93	N
25	16.46105	30.04	23.31	10.53	40.57	33.84	60.00	50.00	19.43	16.16	N
26	20.50672	33.25	26.84	10.62	43.87	37.46	60.00	50.00	16.13	12.54	N
27	26.47956	28.48	21.28	10.76	39.24	32.04	60.00	50.00	20.76	17.96	N
28	0.15550	29.44	25.61	10.02	39.46	35.63	65.70	55.70	26.24	20.07	L1
29	0.19198	35.85	30.77	10.02	45.87	40.79	63.95	53.95	18.08	13.16	L1
30	0.25350	29.06	22.26	10.03	39.09	32.29	61.64	51.64	22.55	19.35	L1
31	0.34916	29.01	26.97	10.02	39.03	36.99	58.98	48.98	19.95	11.99	L1
32	0.39907	31.80	25.03	10.04	41.84	35.07	57.87	47.87	16.03	12.80	L1
33	0.46350	32.77	25.33	10.04	42.81	35.37	56.63	46.63	13.82	11.26	L1
34	0.53558	31.86	23.70	10.04	41.90	33.74	56.00	46.00	14.10	12.26	L1
35	0.59486	34.47	26.08	10.04	44.51	36.12	56.00	46.00	11.49	9.88	L1
36	0.67197	37.20	28.01	10.05	47.25	38.06	56.00	46.00	8.75	7.94	L1
37	0.74150	35.18	24.25	10.05	45.23	34.30	56.00	46.00	10.77	11.70	L1
38	0.82684	40.99	28.65	10.05	51.04	38.70	56.00	46.00	4.96	7.30	L1
39	0.95350	33.18	20.35	10.07	43.25	30.42	56.00	46.00	12.75	15.58	L1
40	1.55057	33.70	24.87	10.09	43.79	34.96	56.00	46.00	12.21	11.04	L1
41	1.81599	36.40	27.05	10.11	46.51	37.16	56.00	46.00	9.49	8.84	L1
42	2.01412	35.97	27.02	10.13	46.10	37.15	56.00	46.00	9.90	8.85	L1
43	2.10214	36.95	25.59	10.13	47.08	35.72	56.00	46.00	8.92	10.28	L1
44	2.40661	36.08	23.18	10.13	46.21	33.31	56.00	46.00	9.79	12.69	L1
45	3.47535	34.94	26.88	10.14	45.08	37.02	56.00	46.00	10.92	8.98	L1
46	4.46791	34.86	27.42	10.19	45.05	37.61	56.00	46.00	10.95	8.39	L1
47	5.72613	35.75	29.15	10.23	45.98	39.38	60.00	50.00	14.02	10.62	L1
48	6.85895	37.05	30.64	10.25	47.30	40.89	60.00	50.00	12.70	9.11	L1

NO	FREQ [MHz]	READING		C.FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
49	7.84595	40.37	33.92	10.28	50.65	44.20	60.00	50.00	9.35	5.80	L1
50	8.68109	35.35	28.41	10.30	45.65	38.71	60.00	50.00	14.35	11.29	L1
51	9.90837	38.20	31.85	10.34	48.54	42.19	60.00	50.00	11.46	7.81	L1
52	16.40519	27.91	21.54	10.47	38.38	32.01	60.00	50.00	21.62	17.99	L1
53	20.52900	27.29	20.39	10.61	37.90	31.00	60.00	50.00	22.10	19.00	L1
54	26.52297	32.58	25.47	10.76	43.34	36.23	60.00	50.00	16.66	13.77	L1

Mains terminal disturbance voltage _ Measurement data			
Test configuration mode	1	EUT Operation mode	5
Test voltage (V)	240	Test Frequency (Hz)	60

## Results of Conducted Emission

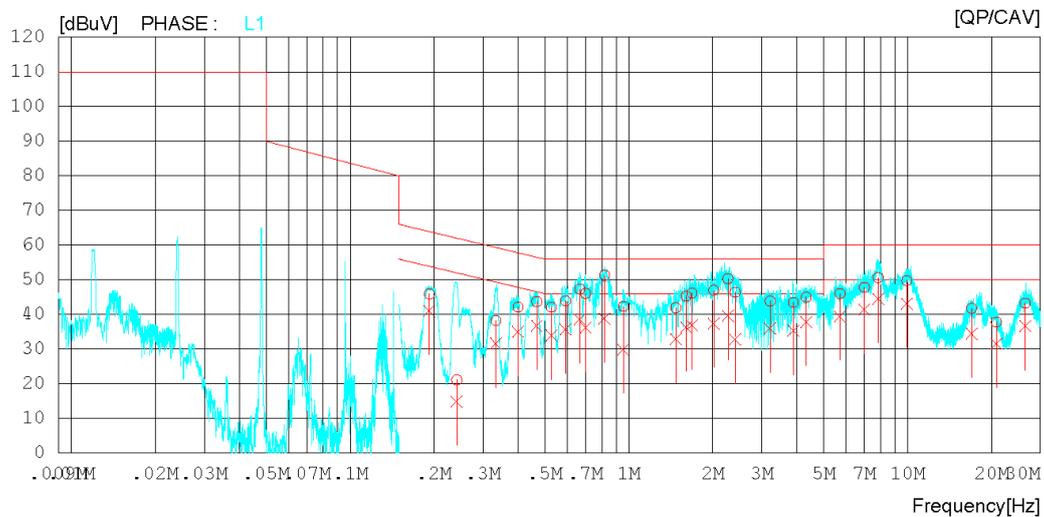
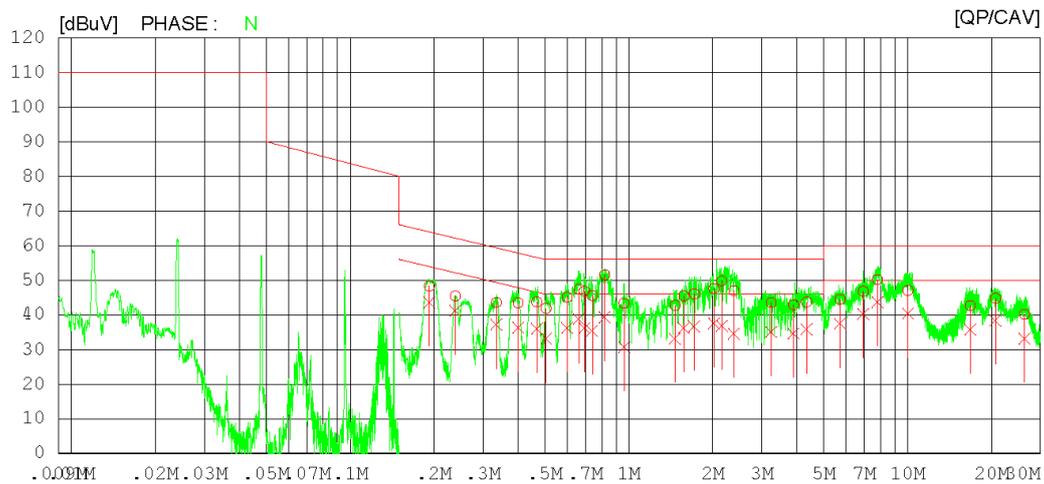
DT&amp;C

Date : 2018-01-04

Order No. : DTNC1712-09973  
 Power Supply : 240 V 60 Hz  
 Temp/Humi. : 19 'C 32 % R.H.  
 Test Condition : COIL#5

Memo :

LIMIT : FCC PART 18 INDUCTION COOKING RANGES AND ULTRASONIC QP  
 FCC PART 18 INDUCTION COOKING RANGES AND ULTRASONIC AV



## Results of Conducted Emission

DT&C

Date : 2018-01-04

Order No. : DTNC1712-09973  
 Power Supply : 240 V 60 Hz  
 Temp/Humi. : 19 °C 32 % R.H.  
 Test Condition : COIL#5

Memo :

LIMIT : FCC PART 18 INDUCTION COOKING RANGES AND ULTRASONIC QP  
 FCC PART 18 INDUCTION COOKING RANGES AND ULTRASONIC AV

NO	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	CAV [dBuV]		QP [dBuV]	CAV [dBuV]	QP [dBuV]	CAV [dBuV]	QP [dBuV]	CAV [dBuV]	
1	0.19250	38.24	33.57	10.03	48.27	43.60	63.93	53.93	15.66	10.33	N
2	0.23867	35.37	31.14	10.04	45.41	41.18	62.14	52.14	16.73	10.96	N
3	0.33504	33.48	27.12	10.03	43.51	37.15	59.33	49.33	15.82	12.18	N
4	0.40050	33.36	26.24	10.05	43.41	36.29	57.84	47.84	14.43	11.55	N
5	0.46750	33.68	25.91	10.05	43.73	35.96	56.56	46.56	12.83	10.60	N
6	0.50533	31.78	22.95	10.05	41.83	33.00	56.00	46.00	14.17	13.00	N
7	0.60150	35.00	26.12	10.06	45.06	36.18	56.00	46.00	10.94	9.82	N
8	0.66250	37.32	28.72	10.06	47.38	38.78	56.00	46.00	8.62	7.22	N
9	0.69237	36.77	26.09	10.06	46.83	36.15	56.00	46.00	9.17	9.85	N
10	0.73950	35.46	25.38	10.06	45.52	35.44	56.00	46.00	10.48	10.56	N
11	0.81910	41.48	29.21	10.06	51.54	39.27	56.00	46.00	4.46	6.73	N
12	0.96167	33.23	20.57	10.08	43.31	30.65	56.00	46.00	12.69	15.35	N
13	1.46365	32.59	23.04	10.10	42.69	33.14	56.00	46.00	13.31	12.86	N
14	1.57412	35.32	26.08	10.11	45.43	36.19	56.00	46.00	10.57	9.81	N
15	1.71868	35.95	26.51	10.11	46.06	36.62	56.00	46.00	9.94	9.38	N
16	2.01712	37.42	27.37	10.13	47.55	37.50	56.00	46.00	8.45	8.50	N
17	2.15225	39.63	26.69	10.13	49.76	36.82	56.00	46.00	6.24	9.18	N
18	2.38383	36.82	24.42	10.14	46.96	34.56	56.00	46.00	9.04	11.44	N
19	3.24452	33.32	24.86	10.15	43.47	35.01	56.00	46.00	12.53	10.99	N
20	3.90489	32.71	24.41	10.17	42.88	34.58	56.00	46.00	13.12	11.42	N
21	4.34567	33.44	25.61	10.20	43.64	35.81	56.00	46.00	12.36	10.19	N
22	5.73090	34.25	27.17	10.24	44.49	37.41	60.00	50.00	15.51	12.59	N
23	6.93775	36.55	29.98	10.26	46.81	40.24	60.00	50.00	13.19	9.76	N
24	7.79303	39.87	33.36	10.29	50.16	43.65	60.00	50.00	9.84	6.35	N
25	10.04860	36.66	29.99	10.35	47.01	40.34	60.00	50.00	12.99	9.66	N
26	16.80527	32.12	25.21	10.54	42.66	35.75	60.00	50.00	17.34	14.25	N
27	20.70143	34.13	27.69	10.63	44.76	38.32	60.00	50.00	15.24	11.68	N
28	26.31883	29.39	22.36	10.76	40.15	33.12	60.00	50.00	19.85	16.88	N
29	0.19250	35.86	31.03	10.02	45.88	41.05	63.93	53.93	18.05	12.88	L1
30	0.24112	11.08	4.85	10.03	21.11	14.88	62.06	52.06	40.95	37.18	L1
31	0.33339	28.22	21.60	10.02	38.24	31.62	59.37	49.37	21.13	17.75	L1
32	0.40050	32.04	24.97	10.04	42.08	35.01	57.84	47.84	15.76	12.83	L1
33	0.46697	33.66	26.73	10.04	43.70	36.77	56.57	46.57	12.87	9.80	L1
34	0.52842	32.01	23.89	10.04	42.05	33.93	56.00	46.00	13.95	12.07	L1
35	0.59350	33.87	25.63	10.04	43.91	35.67	56.00	46.00	12.09	10.33	L1
36	0.66740	37.24	28.49	10.05	47.29	38.54	56.00	46.00	8.71	7.46	L1
37	0.69955	35.99	26.18	10.05	46.04	36.23	56.00	46.00	9.96	9.77	L1
38	0.81895	41.23	28.72	10.05	51.28	38.77	56.00	46.00	4.72	7.23	L1
39	0.95566	32.28	19.79	10.07	42.35	29.86	56.00	46.00	13.65	16.14	L1
40	1.47436	31.85	22.77	10.08	41.93	32.85	56.00	46.00	14.07	13.15	L1
41	1.60452	35.18	26.21	10.10	45.28	36.31	56.00	46.00	10.72	9.69	L1
42	1.68308	36.09	26.78	10.10	46.19	36.88	56.00	46.00	9.81	9.12	L1
43	2.01597	36.86	27.27	10.13	46.99	37.40	56.00	46.00	9.01	8.60	L1
44	2.26860	40.22	29.42	10.12	50.34	39.54	56.00	46.00	5.66	6.46	L1
45	2.40640	36.30	22.68	10.13	46.43	32.81	56.00	46.00	9.57	13.19	L1
46	3.21500	33.70	25.84	10.14	43.84	35.98	56.00	46.00	12.16	10.02	L1
47	3.89476	33.33	25.15	10.16	43.49	35.31	56.00	46.00	12.51	10.69	L1
48	4.33235	34.83	27.63	10.19	45.02	37.82	56.00	46.00	10.98	8.18	L1

NO	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
49	5.72771	35.77	29.19	10.23	46.00	39.42	60.00	50.00	14.00	10.58	L1
50	7.00258	37.58	31.19	10.25	47.83	41.44	60.00	50.00	12.17	8.56	L1
51	7.84455	40.33	34.22	10.28	50.61	44.50	60.00	50.00	9.39	5.50	L1
52	9.93456	39.44	32.76	10.34	49.78	43.10	60.00	50.00	10.22	6.90	L1
53	16.98183	31.31	24.01	10.48	41.79	34.49	60.00	50.00	18.21	15.51	L1
54	20.81518	27.17	20.92	10.62	37.79	31.54	60.00	50.00	22.21	18.46	L1
55	26.46325	32.49	25.92	10.76	43.25	36.68	60.00	50.00	16.75	13.32	L1

### Calculation

N : Neutral phase, L1 : Live phase
Measurements using quasi-peak mode & average mode.
If no frequencies are specified in the tables, no measurement for quasi-peak or average was necessary.
The limit for consumer device is on the FCC Part section 18.307.
Margin(dB) : Limit(dBμV) - Result(dBμV)

## 7.2 Radiated Disturbance

MP-5	Radiated disturbance 9 kHz - 30 MHz				Result
<p><b>Method:</b> Preliminary (peak) measurements were performed at an antenna to EUT separation distance of 10 meter below 30 MHz.                      The frequency range of 9 kHz to 30 MHz, The EUT was placed on a non-conductive turntable approximately 0.8 m.                      The EUT was rotated 360° about its azimuth with the receive antenna located at various heights in horizontal and vertical polarities.                      Final measurements were then performed by rotating the EUT 360° and adjusting the receive antenna height from 2 m.                      All frequencies were investigated in both horizontal and vertical antenna polarity, where applicable.                      For final measurement below 150 kHz frequency range, Quasi-Peak detector with (RBW = 200 Hz Bandwidth) was used.                      For final measurement below 30 MHz frequency range, Quasi-Peak detector with (RBW = 9 kHz Bandwidth) was used.</p>					<b>Comply</b>
<b>EUT mode</b> (Refer to clauses 4)		<b>Test configuration mode</b>		<b>1</b>	
		<b>EUT Operation mode</b>		<b>1, 2, 3, 4, 5</b>	
<b>For field strength measurements</b>					
Equipment	Operating frequency	RF Power generated by equipment (W)	Field strength limit (uV/m)	Distance (m)	
Any type unless otherwise specified (miscellaneous).	Any ISM frequency	Below 500	25	300	
		500 or more	$25 \times \text{SQRT}(\text{power}/500)$	1300	
	Any non-ISM frequency	Below 500	15	300	
		500 or more	$15 \times \text{SQRT}(\text{power}/500)$	1300	
Industrial heaters and RF stabilized arc welders.	On or below 5,725 MHz	Any	10	1,600	
	Above 5,725 MHz	Any	(Note2)	(Note2)	
Medical diathermy	Any ISM frequency	Any	25	300	
	Any non-ISM frequency	Any	15	300	
Ultrasonic	Below 490 kHz	Below 500	$2,400/F(\text{kHz})$	300	
		500 or more	$2,400/F(\text{kHz}) \times \text{SQRT}(\text{power}/500)$	300 <sup>Note3)</sup>	
	490 to 1,600 kHz	Any	$24,000/F(\text{kHz})$	30	
	Above 1,600 kHz	Any	15	30	
Induction cooking ranges	Below 90	Any	1,500	30 <sup>Note4)</sup>	
	On or above 90 kHz	Any	300	30 <sup>Note4)</sup>	
<p>Note 1) Field strength may not exceed 10 <math>\mu\text{V}/\text{m}</math> 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.                      Note 2) Reduced to the greatest extent possible.                      Note 3) Field strength may not exceed 10 <math>\mu\text{V}/\text{m}</math> at 1600 meters. Consumer equipment is not permitted the increase in field strength otherwise permitted here for over 500 watts.                      Note 4) Induction cooking ranges manufactured prior to February 1, 1980, shall be subject to the field strength limits for miscellaneous ISM equipment.</p>					

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 to 30	Lowest frequency generated in the device, but not lower than 9 kHz.	400 MHz
30 to 500	Lowest frequency generated in the device or 25 MHz, whichever is lower.	Tenth harmonic or 1,000 MHz, whichever is higher.
500 to 1,000	Lowest frequency generated in the device or 100 MHz, whichever is lower.	Tenth harmonic
Above 1,000	.....do .....	Tenth harmonic or highest detectable emission.

Measurement uncertainty	
Expanded uncertainty $U$ (95 %, Confidence level, $k = 2$ )	1.94 dB, 9 kHz ~ 30 MHz 4.16 dB, (30 ~ 1 000) MHz

Measurement Instrument					
Description	Model	Manufacturer	Identifier	Cal. Date	Cal. Due
MEASUREMENT SOFTWARE	EMI-R VER. 2.00.0177	TSJ	N/A	N/A	N/A
EMI TEST RECEIVER	ESR7	ROHDE & SCHWARZ	101061	2017.02.16	2018.02.16
LOOP ANTENNA	6502	ELF-LINDGREN	203480	2017.08.08	2019.08.08
(NOTE : THE MEASUREMENT ANTENNAS WERE CALIBRATED IN ACCORDANCE TO THE REQUIREMENTS OF C63.5-2017.)					

**Radiated disturbance at 9 kHz ~ 30 MHz \_Test setup photo**

<b>Test configuration mode</b>	<b>1</b>	<b>EUT Operation mode</b>	<b>1, 2, 3, 4, 5</b>
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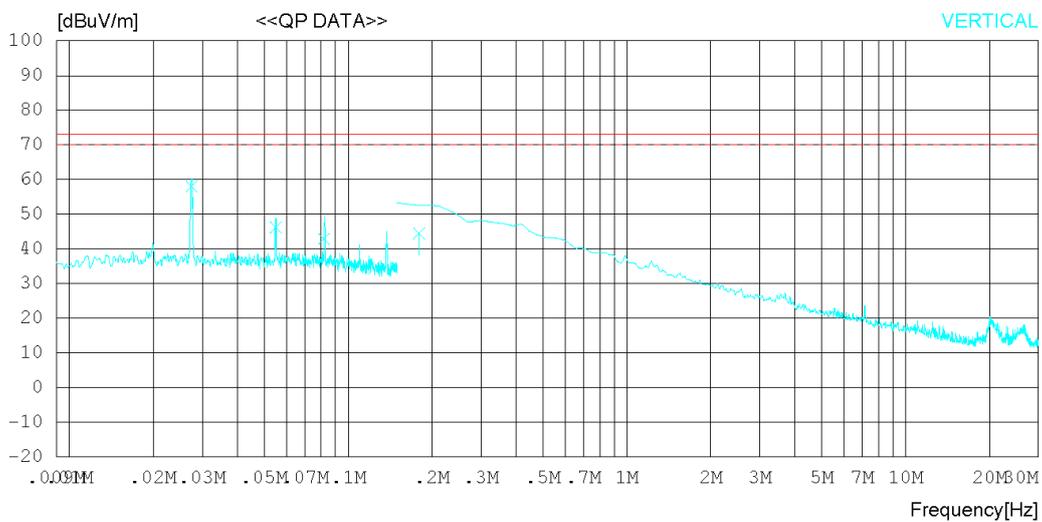
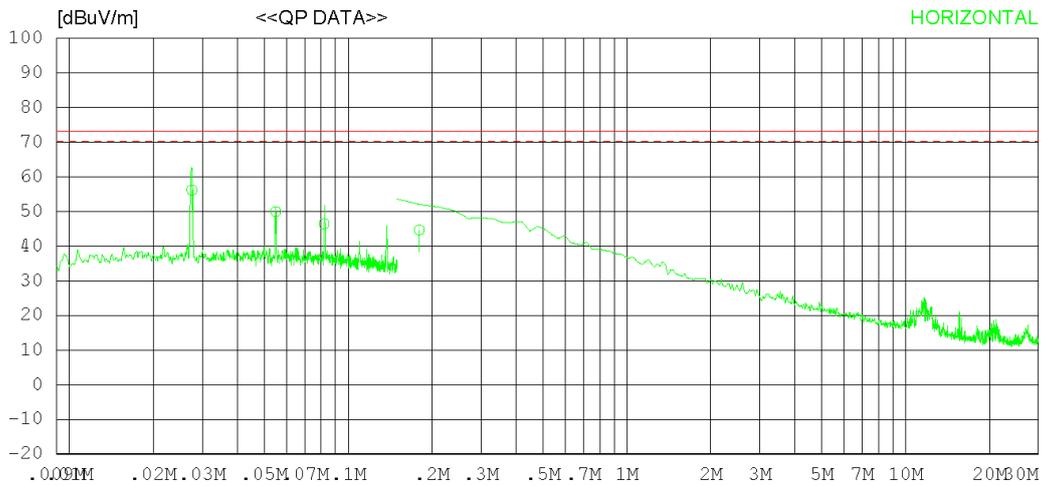
Radiated disturbance at 9 kHz ~ 30 MHz _ Measurement data			
Test configuration mode	1	EUT Operation mode	1
Test voltage (V)	240	Test Frequency (Hz)	60

## RADIATED EMISSION

Date 2018-01-03

Order No.	DTNC1712-09973
Power Supply	240 V 60 Hz
Temp/Humi	18 'C 35 % R.H.
Test Condition	COIL #1

LIMIT : FCC PART 18 INDUCTION BELOW 90 kHz  
MARGIN: 3 dB



## RADIATED EMISSION

Date 2018-01-03

Order No.	DTNC1712-09973
Power Supply	240 V 60 Hz
Temp/Humi	18 °C 35 % R.H.
Test Condition	COIL #1

LIMIT : FCC PART 18 INDUCTION BELOW 90 kHz  
MARGIN: 3 dB

No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	0.028	43.00	13.05	0.03	0.00	56.08	73.06	16.98	200	47
2	0.055	38.20	11.66	0.04	0.00	49.90	73.06	23.16	200	1
3	0.082	34.80	11.44	0.10	0.00	46.34	73.06	26.72	200	78
4	0.180	33.20	11.18	0.20	0.00	44.58	73.06	28.48	200	354
----- Vertical -----										
5	0.028	45.00	13.05	0.03	0.00	58.08	73.06	14.98	200	336
6	0.055	34.50	11.66	0.04	0.00	46.20	73.06	26.86	200	1
7	0.082	31.40	11.44	0.10	0.00	42.94	73.06	30.12	200	1
8	0.180	33.10	11.18	0.20	0.00	44.48	73.06	28.58	200	358

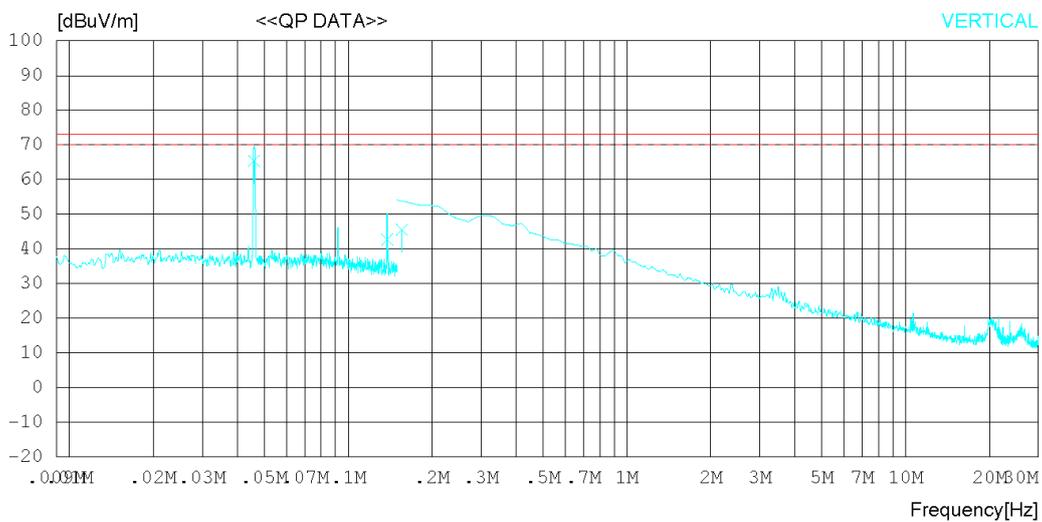
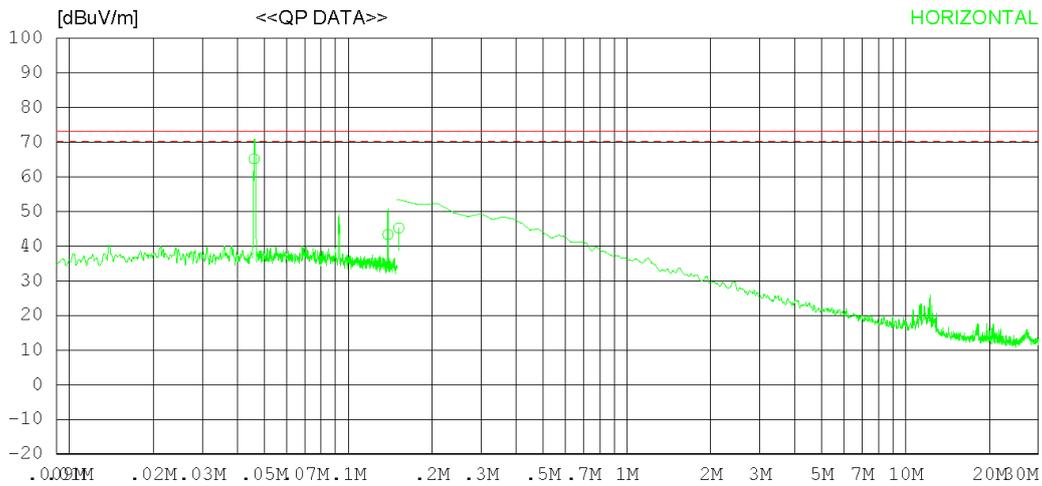
Radiated disturbance at 9 kHz ~ 30 MHz _ Measurement data			
Test configuration mode	1	EUT Operation mode	2
Test voltage (V)	240	Test Frequency (Hz)	60

## RADIATED EMISSION

Date 2018-01-03

Order No.	DTNC1712-09973
Power Supply	240 V 60 Hz
Temp/Humi	18 'C 35 % R.H.
Test Condition	COIL #2

LIMIT : FCC PART 18 INDUCTION BELOW 90 kHz  
MARGIN: 3 dB



## RADIATED EMISSION

Date 2018-01-03

Order No.	DTNC1712-09973
Power Supply	240 V 60 Hz
Temp/Humi	18 °C 35 % R.H.
Test Condition	COIL #2

LIMIT : FCC PART 18 INDUCTION BELOW 90 kHz  
MARGIN: 3 dB

No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	0.046	53.20	11.84	0.03	0.00	65.07	73.06	7.99	200	309
2	0.139	31.90	11.24	0.16	0.00	43.30	73.06	29.76	200	320
3	0.152	33.80	11.22	0.17	0.00	45.19	73.06	27.87	200	358
----- Vertical -----										
4	0.046	53.50	11.84	0.03	0.00	65.37	73.06	7.69	200	1
5	0.138	31.30	11.24	0.16	0.00	42.70	73.06	30.36	200	359
6	0.156	34.20	11.22	0.18	0.00	45.60	73.06	27.46	200	0

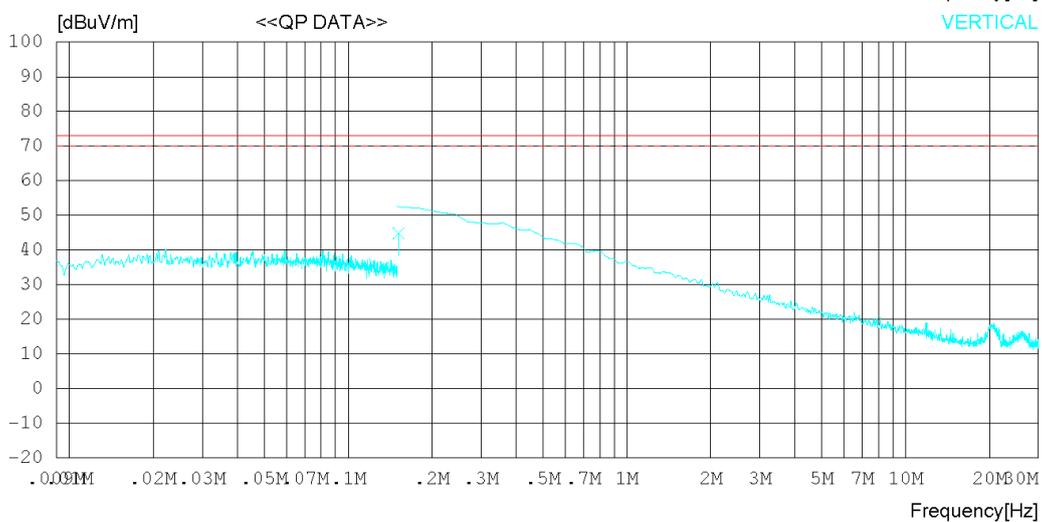
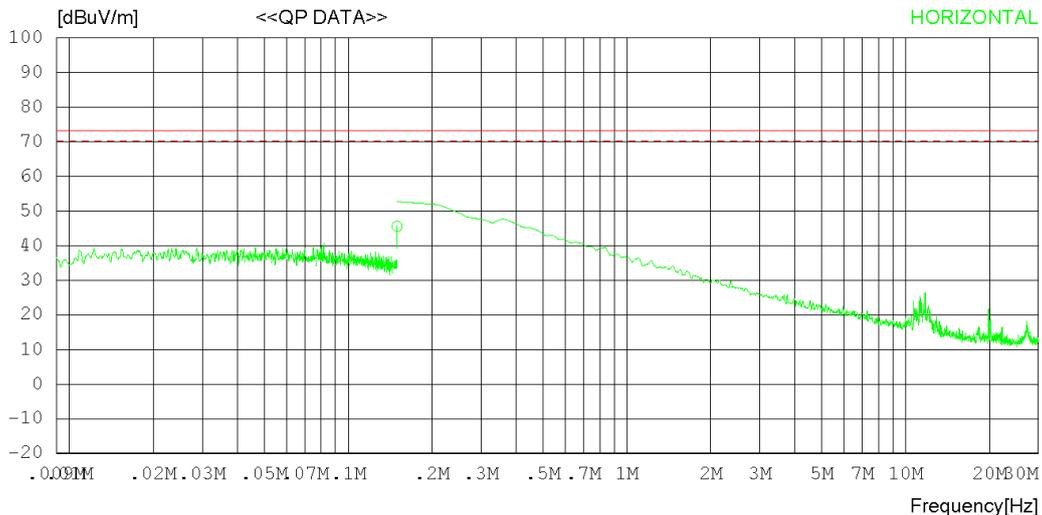
Radiated disturbance at 9 kHz ~ 30 MHz _ Measurement data			
Test configuration mode	1	EUT Operation mode	3
Test voltage (V)	240	Test Frequency (Hz)	60

## RADIATED EMISSION

Date 2018-01-03

Order No.	DTNC1712-09973
Power Supply	240 V 60 Hz
Temp/Humi	18 °C 35 % R.H.
Test Condition	COIL #3

LIMIT : FCC PART 18 INDUCTION BELOW 90 kHz  
MARGIN: 3 dB



## RADIATED EMISSION

Date 2018-01-03

Order No.	DTNC1712-09973
Power Supply	240 V 60 Hz
Temp/Humi	18 °C 35 % R.H.
Test Condition	COIL #3

LIMIT : FCC PART 18 INDUCTION BELOW 90 kHz  
MARGIN: 3 dB

No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	0.150	34.10	11.23	0.17	0.00	45.50	73.06	27.56	200	358
----- Vertical -----										
2	0.152	33.50	11.22	0.17	0.00	44.89	73.06	28.17	200	164

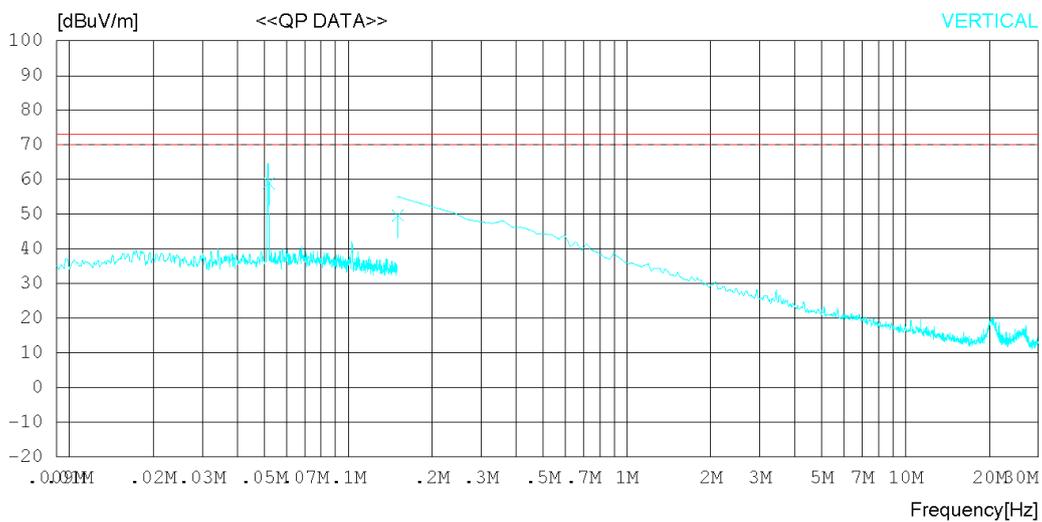
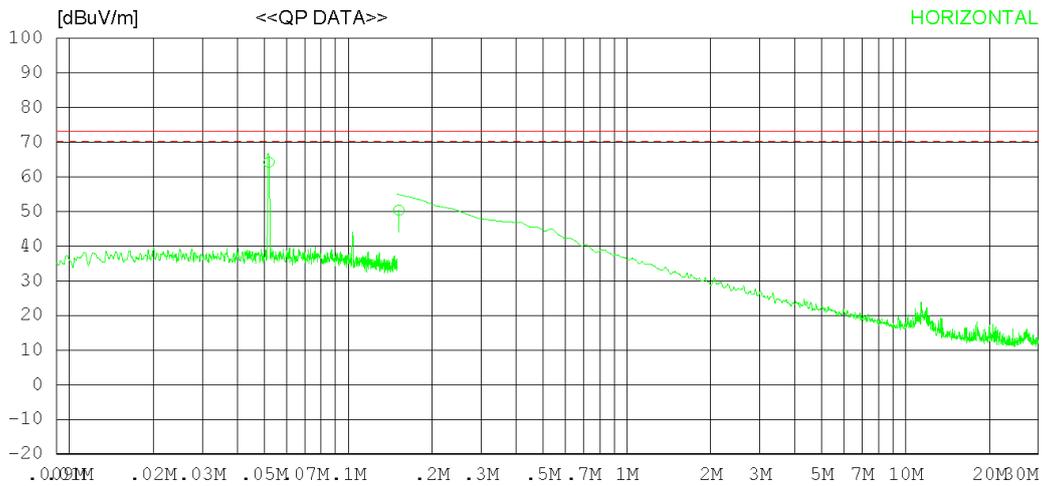
Radiated disturbance at 9 kHz ~ 30 MHz _ Measurement data			
Test configuration mode	1	EUT Operation mode	4
Test voltage (V)	240	Test Frequency (Hz)	60

## RADIATED EMISSION

Date 2018-01-03

Order No. DTNC1712-09973  
 Power Supply 240 V 60 Hz  
 Temp/Humi 18 'C 35 % R.H.  
 Test Condition COIL #4

LIMIT : FCC PART 18 INDUCTION BELOW 90 kHz  
 MARGIN: 3 dB



## RADIATED EMISSION

Date 2018-01-03

Order No.	DTNC1712-09973
Power Supply	240 V 60 Hz
Temp/Humi	18 °C 35 % R.H.
Test Condition	COIL #4

LIMIT : FCC PART 18 INDUCTION BELOW 90 kHz  
MARGIN: 3 dB

No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	0.052	52.40	11.68	0.04	0.00	64.12	73.06	8.94	200	1
2	0.152	38.90	11.22	0.17	0.00	50.29	73.06	22.77	200	358
----- Vertical -----										
3	0.052	47.30	11.68	0.04	0.00	59.02	73.06	14.04	200	1
4	0.151	38.30	11.22	0.17	0.00	49.69	73.06	23.37	200	252

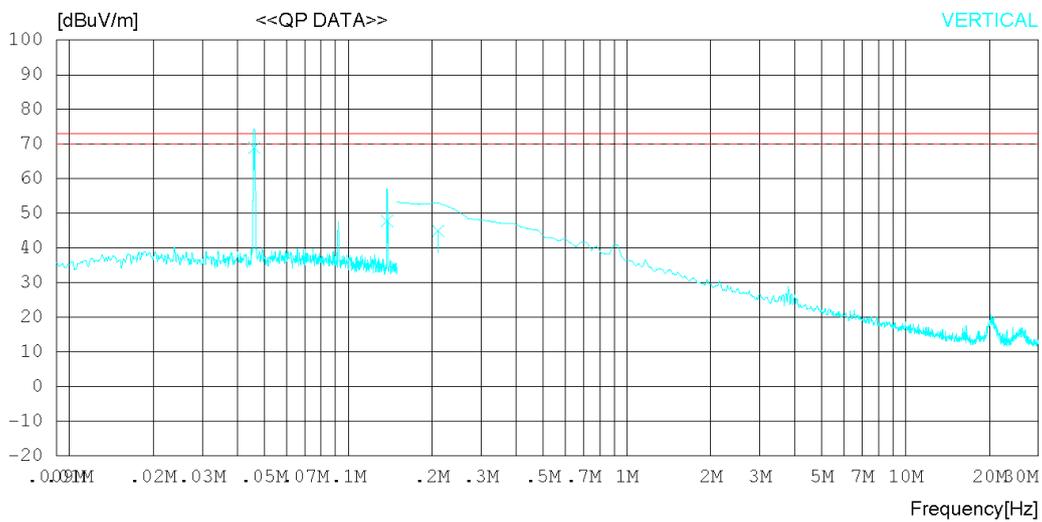
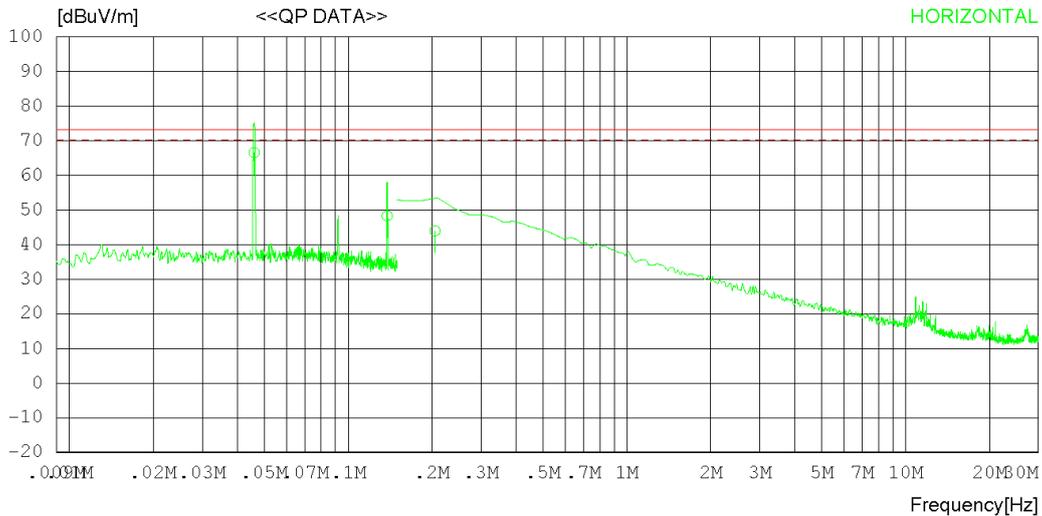
Radiated disturbance at 9 kHz ~ 30 MHz _Measurement data			
Test configuration mode	1	EUT Operation mode	5
Test voltage (V)	240	Test Frequency (Hz)	60

## RADIATED EMISSION

Date 2018-01-03

Order No. DTNC1712-09973  
 Power Supply 240 V 60 Hz  
 Temp/Humi 18 °C 35 % R.H.  
 Test Condition COIL #5

LIMIT : FCC PART 18 INDUCTION BELOW 90 kHz  
 MARGIN: 3 dB



## RADIATED EMISSION

Date 2018-01-03

Order No.	DTNC1712-09973
Power Supply	240 V 60 Hz
Temp/Humi	18 °C 35 % R.H.
Test Condition	COIL #5

LIMIT : FCC PART 18 INDUCTION BELOW 90 kHz  
MARGIN: 3 dB

No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	0.046	54.60	11.84	0.03	0.00	66.47	73.06	6.59	200	66
2	0.138	36.80	11.24	0.16	0.00	48.20	73.06	24.86	200	55
3	0.205	32.50	11.14	0.23	0.00	43.87	73.06	29.19	200	304
----- Vertical -----										
4	0.046	57.10	11.84	0.03	0.00	68.97	73.06	4.09	200	322
5	0.138	36.40	11.24	0.16	0.00	47.80	73.06	25.26	200	0
6	0.210	33.60	11.14	0.23	0.00	44.97	73.06	28.09	200	1

### Calculation

*Pol. H = Horizontal V = Vertical
**AF + CL + Amp. = Antenna Factor + Cable Loss + Amplifier.
Distance Correction factor : $20 * \log (30 / 10) = 9.54 \text{ dBuV/m}$
The limit at 30 meters is $20 * \log (1,500)$
The limit for consumer device is on the FCC Part section 18.305.

### 8. Photographs of EUT

**Front View of Product**



**Rear View of Product**



## 9. Revision History

Date	Description	Revised By	Reviewed By
Jan.12.2018	Initial report	DongWook Kim	KyoungHwan Bae

-End of test report-