

# TEST REPORT

## KCTL Inc.

65, Sinwon-ro, Yeongtong-gu,  
Suwon-si, Gyeonggi-do, 16677, Korea  
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Report No.:  
KR19-SRF0200-A

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**KCTL**

### 1. Client

- Name : HC KOREA Co.Ltd
- Address : 711, 93, Gangnam-ro, Suncheon-si, Jeollanam-do, Republic of Korea
- Date of Receipt : 2019-11-04

### 2. Use of Report : -

### 3. Name of Product and Model : Card Reader / HC-RD1

### 4. Manufacturer and Country of Origin : DAE DO COIN Co.Ltd / Korea

### 5. FCC ID : 2AU9X-HCRD1

### 6. Date of Test : 2019-11-21 to 2019-11-28

### 7. Test Standards : FCC Part 15 Subpart C, 15.225

### 8. Test Results : Refer to the test result in the test report

Affirmation	Tested by Name : Myeongjun Kwon 	Technical Manager Name : Jaehyong Lee 
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2019-12-26

**KCTL Inc.**

As a test result of the sample which was submitted from the client, this report does not guarantee the whole product quality. This test report should not be used and copied without a written agreement by KCTL Inc.

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**Report revision history**

Date	Revision	Page No
2019-12-16	Initial report	-
2019-12-26	Added Note 3	5

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Note. The report No. KR19-SRF0200 is superseded by the report No. KR19-SRF0200-A.



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**1. General information**

Client : HC KOREA Co.Ltd  
Address : 711, 93, Gangnam-ro, Suncheon-si, Jeollanam-do, Republic of Korea  
Manufacturer : DAE DO COIN Co.Ltd  
Address : 652ho, 157, Eulji-ro, Jung-gu, Seoul, Republic of Korea  
Laboratory : KCTL Inc.  
Address : 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea  
Accreditations : FCC Site Designation No: KR0040, FCC Site Registration No: 687132  
VCCI Registration No. : R-20080, G-20078, C-20059, T-20056  
Industry Canada Registration No. : 8035A  
KOLAS No.: KT231

**2. Device information**

Equipment under test : Card Reader  
Model : HC-RD1  
Frequency range : 13.56 MHz  
Modulation technique : ASK  
Power source : DC 5 V  
Antenna specification : PCB Loop Antenna (NFC)  
Software version : 0.1  
Hardware version : 0.1  
Test device serial No. : N/A  
Operation temperature : -30 °C ~ 50 °C

**2.1. Accessory information**

Equipment	Manufacturer	Model	Serial No.	Power source
AC ADAPTOR	Shenzhen Perfect Gallant Tec Co,Ltd	PG-1233	-	INPUT:AC 100 V- 240 V, 60 Hz, 0.5 A OUTPUT: DC 5 V 2000 mA

## 2.2. Frequency/channel operations

This device contains the following capabilities: NFC

Frequency (MHz)
13.56

Table 2.2.1. NFC mode

## 3. Antenna requirement

Requirement of FCC part section 15.203:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

- The transmitter has permanently attached PCB Loop Antenna (internal antenna) on board.

## 4. Summary of tests

FCC Part section(s)	Parameter	Test results
15.225(a)	In-band Fundamental Emission	Pass
15.225(b)	In-band Spurious Emission	Pass
15.225(c)	In-band Spurious Emission	Pass
15.225(a) 15.209	Out-of-band Spurious Emission	Pass
	Frequency Stability Tolerance	Pass
15.215(c)	20 dB Bandwidth	Pass
15.207(a)	Conducted emissions	Pass

### Notes:

1. These tests were performed other than open field site, adequate comparison measurements were confirmed against 30 m open field 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.
2. The fundamental of the EUT was investigated in three orthogonal orientations X, Y and Z. It was determined that X orientation was worst-case orientation. Therefore, all final radiated testing was performed with the EUT in X orientation.
3. The radiated test was performed with and without passive tag. The test results shown in the following sections represent the worst case emissions
  - ◆ Worst Case : With passive tag
4. The test procedure(s) in this report were performed in accordance as following.
  - ◆ ANSI C63.10-2013

## 5. Measurement uncertainty

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.10-2013.

All measurement uncertainty values are shown with a coverage factor of  $k=2$  to indicated a 95 % level of confidence. The measurement data shown herein meets or exceeds the  $U_{CISPR}$  measurement uncertainty values specified in CISPR 16-4-2 and thus, can be compared directly to specified limits to determine compliance.

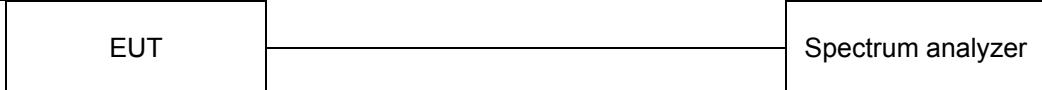
Parameter	Expanded uncertainty ( $\pm$ )	
Radiated spurious emissions	9 kHz ~ 30 MHz	2.28 dB
	30 MHz ~ 300 MHz	4.98 dB
	300 MHz ~ 1 000 MHz	5.14 dB
	1 GHz ~ 6 GHz	6.70 dB
	Above 6 GHz	6.60 dB
Conducted emissions	9 kHz ~ 150 kHz	3.66 dB
	150 kHz ~ 30 MHz	3.26 dB

The logo consists of the letters 'KCTL' in a bold, sans-serif font. The letters are a light blue color and are slightly faded, giving them a watermark-like appearance. They are arranged in a single line, with 'K' and 'C' on the left, 'T' in the center, and 'L' on the right.

## **6. Test results**

### **6.1. 20 dB Bandwidth & 99% Bandwidth**

#### **Test setup**



#### **Limit**

According to §15.215(c) Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§15.217 through 15.257 and in subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

#### **Test procedure**

ANSI C63.10-2013 - Section 6.9.2

**KCTL**

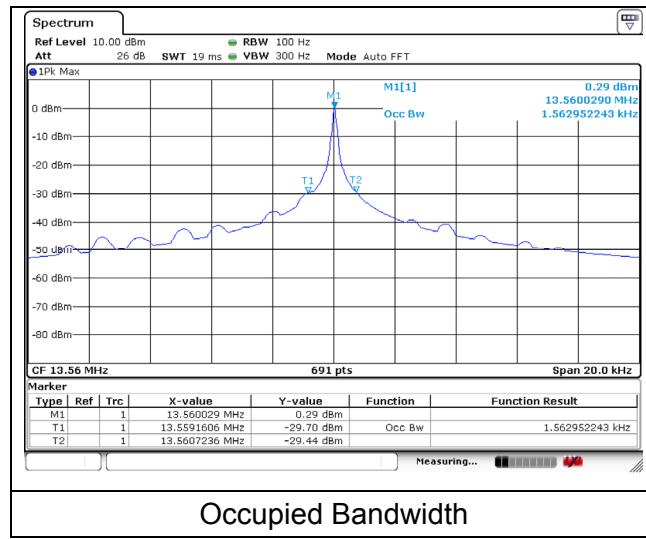
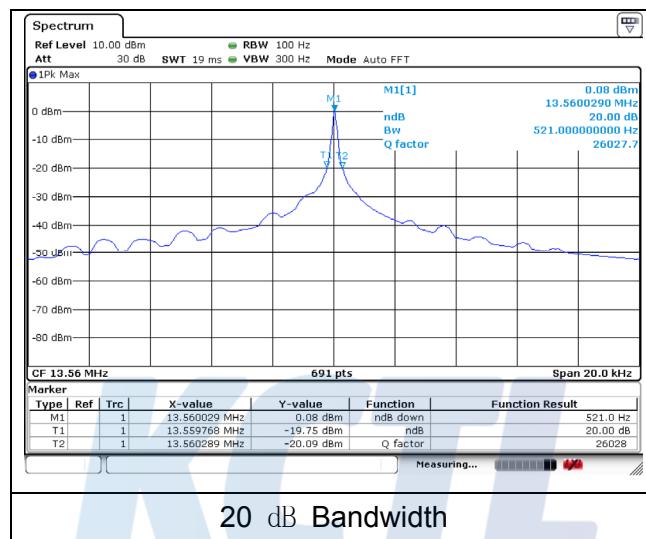
**Test settings**

The occupied bandwidth is measured as the width of the spectral envelope of the modulated signal, at an amplitude level reduced from a reference value by a specified ratio (or in decibels, a specified number of dB down from the reference value). Typical ratios, expressed in dB, are -6 dB, -20 dB, and -26 dB, corresponding to 6 dB BW, 20 dB BW, and 26 dB BW, respectively. In this subclause, the ratio is designated by “-xx dB.” The reference value is either the level of the unmodulated carrier or the highest level of the spectral envelope of the modulated signal, as stated by the applicable requirement. Some requirements might specify a specific maximum or minimum value for the “-xx dB” bandwidth; other requirements might specify that the “-xx dB” bandwidth be entirely contained within the authorized or designated frequency band.

- a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency.
- b) Span: Two times and five times the OBW.
- c) RBW = 1 % to 5 % of the OBW and VBW  $\geq 3 \times$  RBW
- d) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation.
- e) The dynamic range of the instrument at the selected RBW shall be more than 10 dB below the target “-xx dB down” requirement; that is, if the requirement calls for measuring the -20 dB OBW, the instrument noise floor at the selected RBW shall be at least 30 dB below the reference value.
- f) Detector: peak
- g) Trace mode: max hold.
- h) Allow the trace to stabilize.
- i) Determine the “-xx dB down amplitude” using  $((\text{reference value}) - \text{xx})$ . Alternatively, this calculation may be made by using the marker-delta function of the instrument.
- j) If the reference value is determined by an unmodulated carrier, then turn the EUT modulation ON, and either clear the existing trace or start a new trace on the spectrum analyzer and allow the new trace to stabilize. Otherwise, the trace from step g) shall be used for step j)
- k) Place two markers, one at the lowest frequency and the other at the highest frequency of the envelope of the spectral display, such that each marker is at or slightly below the “-xx dB down amplitude” determined in step h). If a marker is below this “-xx dB down amplitude” value, then it shall be as close as possible to this value. The occupied bandwidth is the frequency difference between the two markers. Alternatively, set a marker at the lowest frequency of the envelope of the spectral display, such that the marker is at or slightly below the “-xx dB down amplitude” determined in step h). Reset the marker-delta function and move the marker to the other side of the emission until the delta marker amplitude is at the same level as the reference marker amplitude. The marker-delta frequency reading at this point is the specified emission bandwidth.

**Test results**

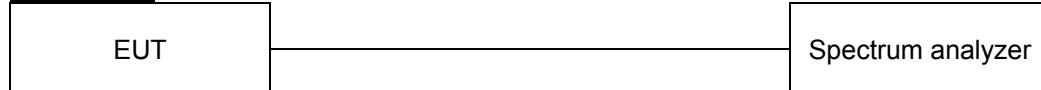
Frequency [MHz]	20 dB Bandwidth [MHz]		Limit [MHz]	Occupied Bandwidth (99 % BW) [kHz]	20 dB Bandwidth [kHz]
13.56	Lowest Frequency	13.559 768	13.110	1.563	0.521
	Highest Frequency	13.560 289	14.010		

**Note:**

Because the measured signal is CW/CW-like, adjusting the RBW per C63.10 would not be practical since measured bandwidth will always follow the RBW and the result will be approximately twice the RBW.

## **6.2. Frequency Stability**

### **Test setup**



### **Limit**

15.225 (e) The frequency tolerance of the carrier signal shall be maintained within  $\pm 0.01$  % of the operating frequency over a temperature variation of -20 degrees to +50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85 % to 115 % of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

### **Test procedure**

ANSI C63.10-2013 - Section 6.8.1

**KCTL**

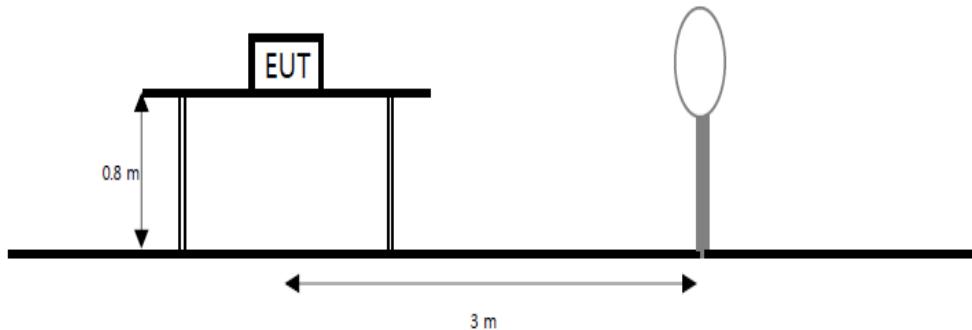
**Test results**

Voltage	Voltage	TEMP	Maintaining time	Measure frequency	Frequency deviation	Deviation
				[Hz]	[Hz]	[%]
100	5.00	20	Startup	13 559 995	5.0	-0.000 04
			2 minutes	13 559 995	5.0	-0.000 04
			5 minutes	13 559 995	5.0	-0.000 04
			10 minutes	13 559 995	5.0	-0.000 04
		-20	Startup	13 560 201	-201.0	0.001 48
			2 minutes	13 560 201	-201.0	0.001 48
			5 minutes	13 560 201	-201.0	0.001 48
			10 minutes	13 560 201	-201.0	0.001 48
		-10	Startup	13 560 148	-148.0	0.001 09
			2 minutes	13 560 147	-147.0	0.001 08
			5 minutes	13 560 147	-147.0	0.001 08
			10 minutes	13 560 148	-148.0	0.001 09
		0	Startup	13 560 122	-122.0	0.000 90
			2 minutes	13 560 122	-122.0	0.000 90
			5 minutes	13 560 122	-122.0	0.000 90
			10 minutes	13 560 123	-123.0	0.000 91
		10	Startup	13 560 050	-50.0	0.000 37
			2 minutes	13 560 050	-50.0	0.000 37
			5 minutes	13 560 050	-50.0	0.000 37
			10 minutes	13 560 050	-50.0	0.000 37
		25	Startup	13 559 984	16.0	-0.000 12
			2 minutes	13 559 984	16.0	-0.000 12
			5 minutes	13 559 982	18.0	-0.000 13
			10 minutes	13 559 984	16.0	-0.000 12
		30	Startup	13 559 971	29.0	-0.000 21
			2 minutes	13 559 971	29.0	-0.000 21
			5 minutes	13 559 971	29.0	-0.000 21
			10 minutes	13 559 971	29.0	-0.000 21
		40	Startup	13 559 963	37.0	-0.000 27
			2 minutes	13 559 963	37.0	-0.000 27
			5 minutes	13 559 963	37.0	-0.000 27
			10 minutes	13 559 963	37.0	-0.000 27
		50	Startup	13 559 763	237.0	-0.001 75
			2 minutes	13 559 763	237.0	-0.001 75
			5 minutes	13 559 763	237.0	-0.001 75
			10 minutes	13 559 763	237.0	-0.001 75
85	4.25	20	Startup	13 559 997	3.0	-0.000 02
			2 minutes	13 559 997	3.0	-0.000 02
			5 minutes	13 559 997	3.0	-0.000 02
			10 minutes	13 559 997	3.0	-0.000 02
115	5.75	20	Startup	13 559 993	7.0	-0.000 05
			2 minutes	13 559 993	7.0	-0.000 05
			5 minutes	13 559 993	7.0	-0.000 05
			10 minutes	13 559 993	7.0	-0.000 05

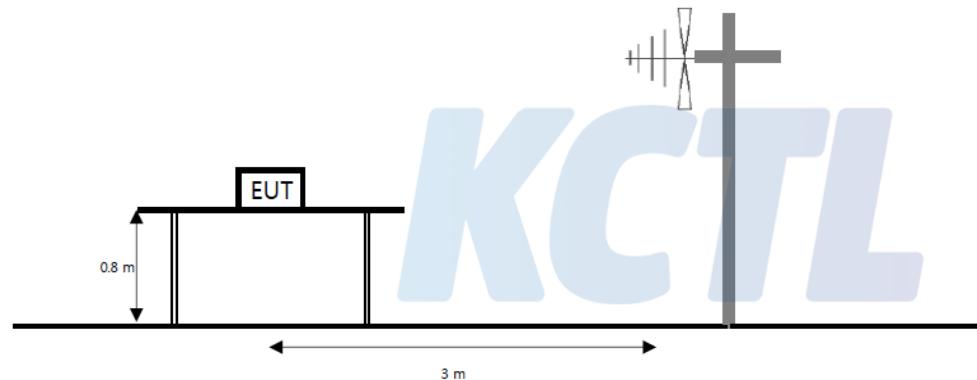
### **6.3. Radiated spurious emissions**

#### **Test setup**

The diagram below shows the test setup that is utilized to make the measurements for emission from 9 kHz to 30 MHz Emissions



The diagram below shows the test setup that is utilized to make the measurements for emission from 30 MHz to 1 GHz emissions.



#### **Limit**

15.225 (a) The field strength of any emission within the band 13.553-13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters.

15.225 (b) Within the bands 13.410-13.553 MHz and 13.567-13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters.

15.225 (c) Within the bands 13.110-13.410 MHz and 13.710-14.010 MHz, the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.

15.225 (d) The Field Strength of any emissions appearing outside of the 13.110-14.010 MHz band shall not exceed the general radiated emission limits in 15.209.

Frequency (MHz)	Field Strength ( $\mu$ V/m)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30(29.54 dB $\mu$ V/m)	30
30.0-88.0	100(40 dB $\mu$ V/m)	3
88-216	150(43.5 dB $\mu$ V/m)	3
216-960	200 (46 dB $\mu$ V/m)	3
Above 960	500 (53.98 dB $\mu$ V/m)	3

**Test procedure**

ANSI C63.10-2013 - Section 6.4, 6.5

**Test settings**

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = as specified in table
3. VBW  $\geq$  3 x RBW
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

**Table. RBW as a function of frequency**

Frequency	RBW
9 kHz to 150 kHz	200 Hz to 300 Hz
0.15 MHz to 30 MHz	9 kHz to 10 kHz
30 MHz to 1 000 MHz	100 kHz to 120 kHz
> 1 000 MHz	1 MHz

**Notes:**

1.  $f < 30$  MHz, extrapolation factor of 40 dB/decade of distance.  $F_d = 40\log(D_m/D_s)$
2.  $f \geq 30$  MHz, extrapolation factor of 20 dB/decade of distance.  $F_d = 20\log(D_m/D_s)$

Where:

 $F_d$  = Distance factor in dB $D_m$  = Measurement distance in meters $D_s$  = Specification distance in meters

2. Measurements were performed at 3m and the data was extrapolated to the specified measurement distance of 30m using the square of an inverse linear distance extrapolation factor (40 dB/decade) as specified in § 15.31(f)(2). Extrapolation Factor =  $40 \log_{10}(30/3) = 40$  dB.
3. (dB) = Antenna factor(dB/m) + Cable loss(dB) + or Amp. gain(dB) + or  $F_d$ (dB)
4. Result = Reading + Cable loss + Amp gain + Ant. factor - Distance factor
5. The worst-case emissions are reported however emissions whose levels were not within 20 dB of respective limits were not reported.
6. All measurements were recorded using a spectrum analyzer employing a quasi-peak detector.
7. Below 30 MHz frequency range, all orientations about parallel, perpendicular, and ground-parallel were investigated then reported and the worse orientations of Face-on and Face-off were set for final test.
8. Face-on = Parallel, Face-off = Perpendicular

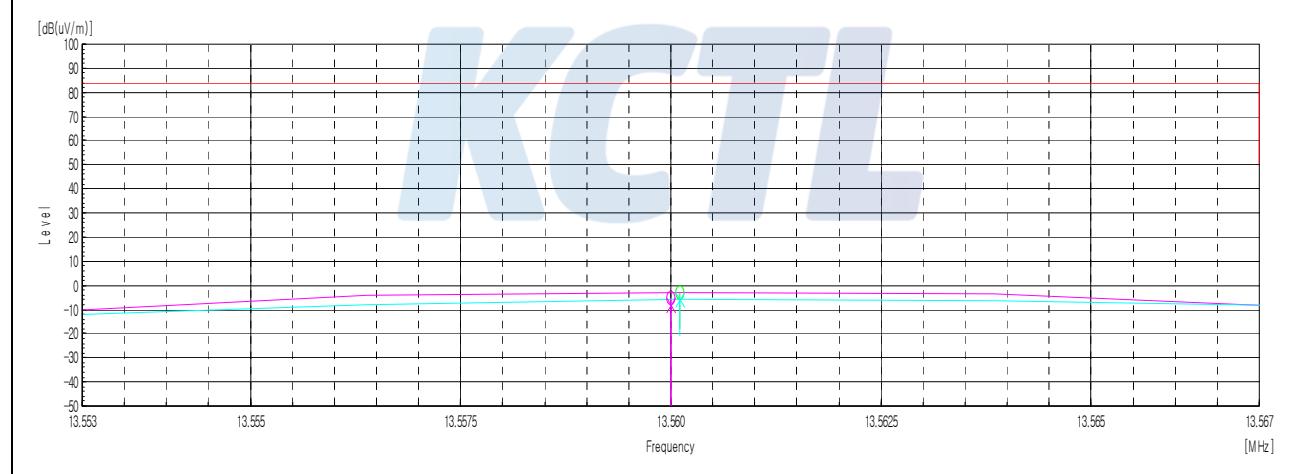
**Test results for fundamental****15.225 (a) 13.553 MHz - 13.567 MHz**

[Face-on]

Frequency (MHz)	Reading (dB( $\mu$ N))	Antenna Factor (dB)	Amp. + Cable (dB)	Distance Factor (dB)	Result (dB( $\mu$ N/m))	Limit (dB( $\mu$ N/m))	Margin (dB)
<b>Quasi peak data</b>							
13.56	45.60	20.27	-31.27	40.00	-5.40	84.00	89.40

[Face-off]

Frequency (MHz)	Reading (dB( $\mu$ N))	Antenna Factor (dB)	Amp. + Cable (dB)	Distance Factor (dB)	Result (dB( $\mu$ N/m))	Limit (dB( $\mu$ N/m))	Margin (dB)
<b>Quasi peak data</b>							
13.56	42.90	20.27	-31.27	40.00	-8.10	84.00	92.10

**Face-on/Face-off**

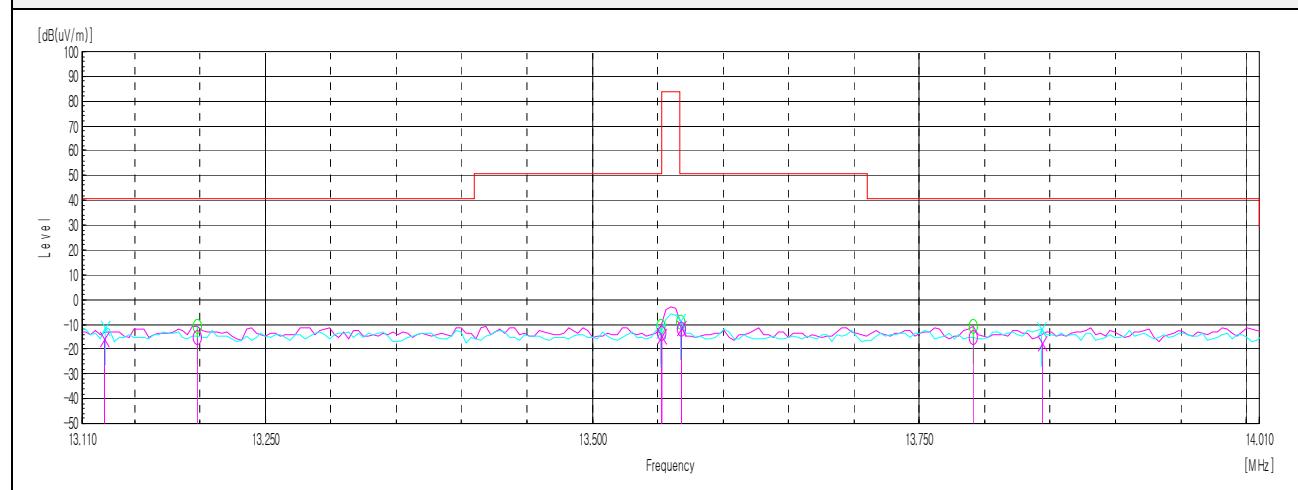
**Test results for in-band & out-band (9 kHz to 30 MHz)****15.225 (b,c) 13.110 MHz - 14.010 MHz**

[Face-on]

Frequency (MHz)	Reading (dB( $\mu$ V))	Antenna Factor (dB)	Amp. + Cable (dB)	Distance Factor (dB)	Result (dB( $\mu$ V/m))	Limit (dB( $\mu$ V/m))	Margin (dB)
<b>Quasi peak data</b>							
13.20	35.50	20.26	-31.26	40.00	-15.50	40.51	56.01
13.55	37.40	20.27	-31.27	40.00	-13.60	50.47	64.07
13.57	39.10	20.27	-31.27	40.00	-11.90	50.47	62.37
13.79	35.70	20.28	-31.28	40.00	-15.30	40.51	55.81

[Face-off]

Frequency (MHz)	Reading (dB( $\mu$ V))	Antenna Factor (dB)	Amp. + Cable (dB)	Distance Factor (dB)	Result (dB( $\mu$ V/m))	Limit (dB( $\mu$ V/m))	Margin (dB)
<b>Quasi peak data</b>							
13.13	35.10	20.26	-31.26	40.00	-15.90	40.51	56.41
13.55	36.40	20.27	-31.27	40.00	-14.60	50.47	65.07
13.57	39.80	20.27	-31.27	40.00	-11.20	50.47	61.67
13.84	33.30	20.28	-31.18	40.00	-17.60	40.51	58.11

**Face-on/Face-off**

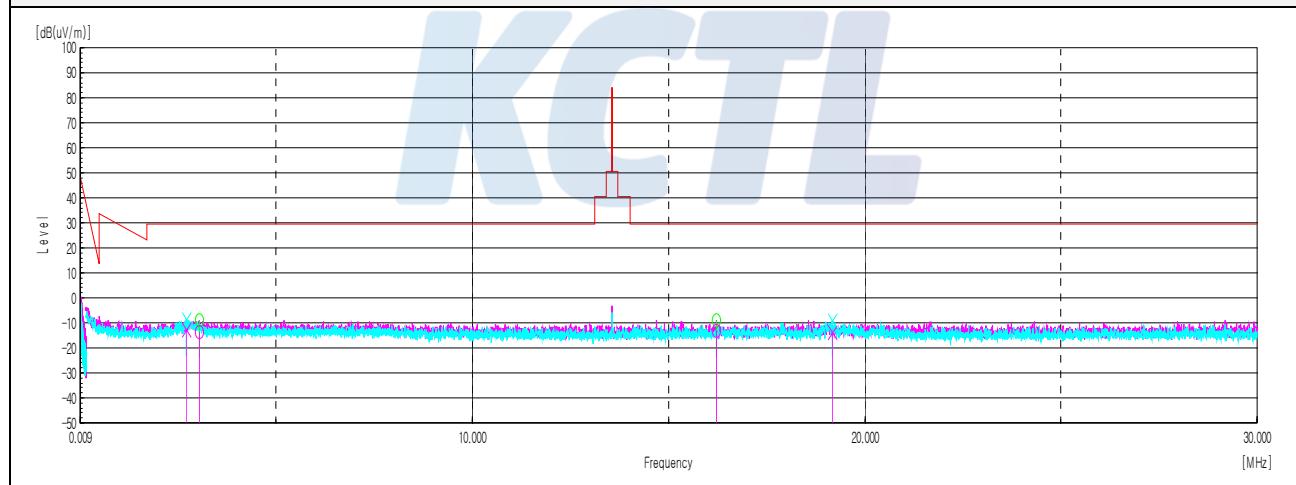
**15.225 (d) 9 kHz - 30 MHz**

[Face-on]

Frequency (MHz)	Reading (dB( $\mu$ V))	Antenna Factor (dB)	Amp. + Cable (dB)	Distance Factor (dB)	Result (dB( $\mu$ V/m))	Limit (dB( $\mu$ V/m))	Margin (dB)
<b>Quasi peak data</b>							
3.04	38.20	20.15	-31.95	40.00	-13.60	29.54	43.14
16.21	37.50	20.40	-31.10	40.00	-13.20	29.54	42.74

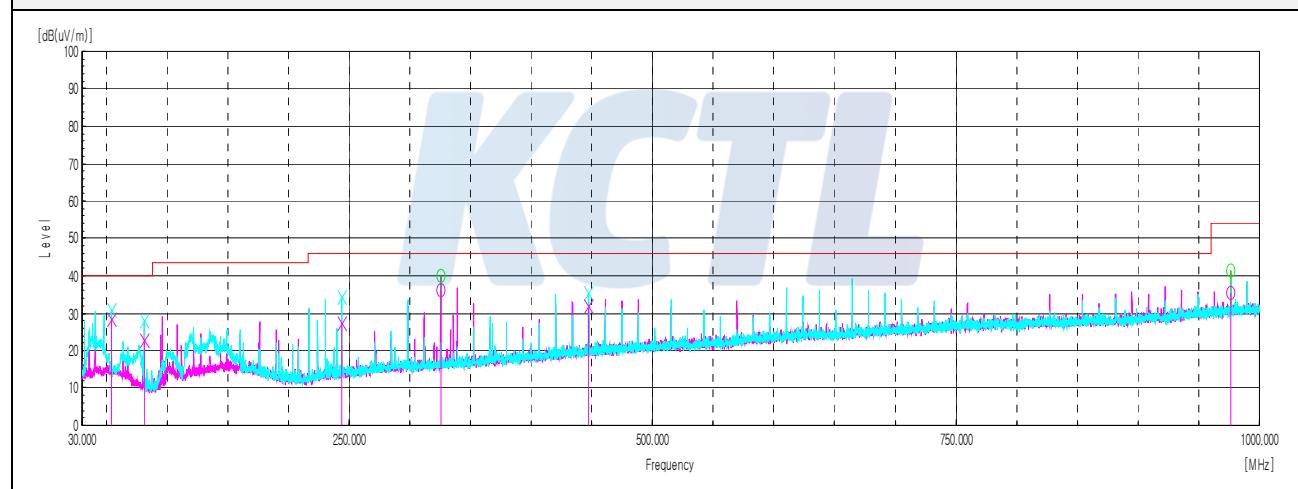
[Face-off]

Frequency (MHz)	Reading (dB( $\mu$ V))	Antenna Factor (dB)	Amp. + Cable (dB)	Distance Factor (dB)	Result (dB( $\mu$ V/m))	Limit (dB( $\mu$ V/m))	Margin (dB)
<b>Quasi peak data</b>							
2.71	39.30	20.13	-31.93	40.00	-12.50	29.54	42.04
19.16	36.90	20.63	-31.03	40.00	-13.50	29.54	43.04

**Face-on/Face-off**

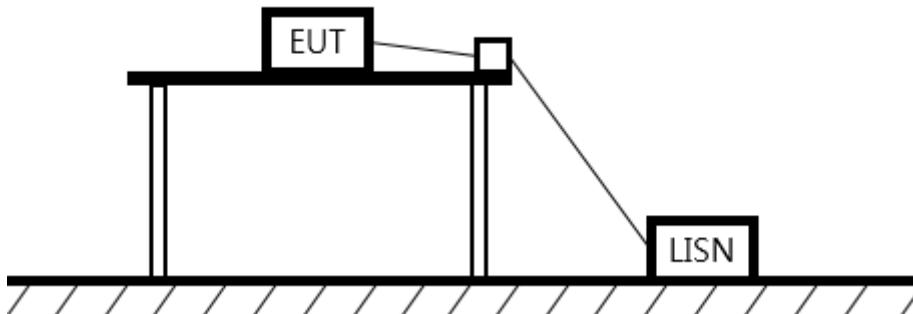
**Test results (Below 1 000 MHz)****15.225 (d) 30 MHz - 1000 MHz**

Frequency	Pol.	Reading	Antenna Factor	Amp. + Cable	Distance Factor	Result	Limit	Margin
(MHz)	(V/H)	(dB(µV))	(dB)	(dB)	(dB)	(dB(µV/m))	(dB(µV/m))	(dB)
<b>Quasi peak data</b>								
54.25	V	40.10	18.32	-30.18	-	28.24	40.00	11.76
81.29	V	38.40	14.25	-29.66	-	22.99	40.00	17.01
244.01	V	38.10	17.46	-28.24	-	27.32	46.00	18.68
325.37	H	43.80	19.86	-27.61	-	36.05	46.00	9.95
447.46	V	35.50	22.95	-26.71	-	31.74	46.00	14.26
976.36	H	28.20	30.20	-22.99	-	35.41	54.00	18.59

**Horizontal/Vertical**

## 6.4. AC Conducted emission

### Test setup



### Limit

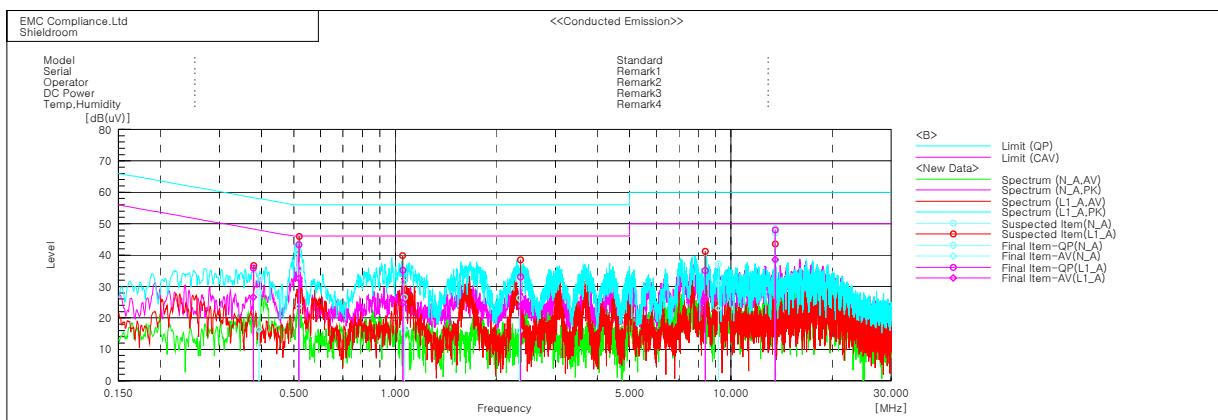
According to 15.207(a), for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50uH/50 ohm line impedance stabilization network (LISN). Compliance with the provision of this paragraph shall on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower applies at the boundary between the frequencies ranges.

Frequency of Emission (MHz)	Conducted limit (dB $\mu$ V/m)	
	Quasi-peak	Average
0.15 – 0.50	66 - 56*	56 - 46*
0.50 – 5.00	56	46
5.00 – 30.0	60	50

### Measurement procedure

1. The EUT was placed on a wooden table of size, 1 m by 1.5 m, raised 80 cm in which is located 40 cm away from the vertical wall and 1.5m away from the side wall of the shielded room.
2. Each current-carrying conductor of the EUT power cord was individually connected through a 50Ω/50μH LISN, which is an input transducer to a spectrum analyzer or an EMI/Field Intensity — Meter, to the input power source.
3. Exploratory measurements were made to identify the frequency of the emission that had the highest amplitude relative to the limit by operating the EUT in a range of typical modes of operation, cable position, and with a typical system equipment configuration and arrangement. Based on the exploratory tests of the EUT, the one EUT cable configuration and arrangement and mode of operation that had produced the emission with the highest amplitude relative to the limit was selected for the final measurement.
4. The final test on all current-carrying conductors of all of the power cords to the equipment that comprises the EUT (but not the cords associated with other non-EUT equipment is the system) was then performed over the frequency range of 0.15 MHz to 30 MHz.
5. The measurements were made with the detector set to peak amplitude within a bandwidth of 10 kHz or to quasi-peak and average within a bandwidth of 9 kHz. The EUT was in transmitting mode during the measurements.

## Test results



## Final Result

## --- N\_A Phase ---

No.	Frequency [MHz]	Reading QP [dB(uV)]	Reading CAV [dB(uV)]	c.f.	Result QP [dB]	Result CAV [dB(uV)]	Limit QP [dB(uV)]	Limit AV [dB(uV)]	Margin QP [dB]	Margin CAV [dB]
1	0.3936	18.1	6.3	10.0	28.1	16.3	58.0	48.0	29.9	31.7
2	0.51642	25.6	13.6	10.1	35.7	23.7	56.0	46.0	20.3	22.3
3	1.06606	16.6	6.1	10.0	26.6	16.1	56.0	46.0	29.4	29.9
4	2.34886	16.5	6.0	9.9	26.4	15.9	56.0	46.0	29.6	30.1
5	9.1773	20.9	12.8	10.3	31.2	23.1	60.0	50.0	28.8	26.9
6	13.55963	37.9	27.4	10.6	48.5	38.0	60.0	50.0	11.5	12.0

## --- L\_A Phase ---

No.	Frequency [MHz]	Reading QP [dB(uV)]	Reading CAV [dB(uV)]	c.f.	Result QP [dB]	Result CAV [dB(uV)]	Limit QP [dB(uV)]	Limit AV [dB(uV)]	Margin QP [dB]	Margin CAV [dB]
1	0.37899	25.8	16.4	10.1	35.9	26.5	58.3	48.3	22.4	21.8
2	0.51727	33.2	22.4	10.1	43.3	32.5	56.0	46.0	12.7	13.5
3	1.05615	25.1	14.8	10.0	35.1	24.8	56.0	46.0	20.9	21.2
4	2.36394	23.2	13.8	9.9	33.1	23.7	56.0	46.0	22.9	22.3
5	8.38615	24.8	15.8	10.2	35.0	26.0	60.0	50.0	25.0	24.0
6	13.5609	37.4	28.0	10.6	48.0	38.6	60.0	50.0	12.0	11.4

## 7. Measurement equipment

Equipment Name	Manufacturer	Model No.	Serial No.	Next Cal. Date
Spectrum Analyzer	R&S	FSV30	100808	20.07.30
Temp & Humid Chamber	ESPEC CORP.	SH-641	92005476	20.07.30
EMI TEST RECEIVER	R&S	ESCI7	100732	20.08.22
Bi-Log Antenna	SCHWARZBECK	VULB 9168	583	20.05.04
Amplifier	SONOMA INSTRUMENT	310N	284608	20.08.22
COAXIAL FIXED ATTENUATOR	Agilent	8491B-003	2708A18758	20.05.04
AMPLIFIER	L-3 Narda-MITEQ	JS44-18004000-33-8P	2000997	20.08.01
LOOP Antenna	R&S	HFH2-Z2	100355	20.08.24
Antenna Mast	Innco Systems	MA4640-XP-ET	-	-
Turn Table	Innco Systems	DT2000	79	-
TWO-LINE V - NETWORK	R&S	ENV216	101358	20.04.05
EMI TEST RECEIVER	R&S	ESCI	100001	20.08.22
Vector Signal Generator	R&S	SMBV100A	257566	20.01.04
Signal Generator	R&S	SMB100A	176206	20.01.25
Cable Assembly	RadiAll	2301761768000PJ	1724.659	-
Cable Assembly	gigalane	RG-400	-	-
Cable Assembly	HUER+SUHNER	SUCOFLEX 104	MY4342/4	-

**End of test report**