




# TEST REPORT

<p><b>KCTL Inc.</b> 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea TEL: 82-31-285-0894 FAX: 82-505-299-8311 <a href="http://www.kctl.co.kr">www.kctl.co.kr</a></p>	<p>Report No.: KR22-SRF0117-A Page (1) of (21)</p>	   <b>KCTL</b>
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**1. Client**

- Name : IDP Corp.,Ltd
- Address : (Guro-dong, Buycksan digital valley 7), 601, 50, Digital-ro33-gil, Guro-gu, Seoul, Korea
- Date of Receipt : 2022-05-25

**2. Use of Report** : Certification

**3. Name of Product / Model** : Laminator / SMART-81L

**4. Manufacturer / Country of Origin** : IDP Corp.,Ltd / Korea



**5. FCC ID** : VU2-SMART-81L

**6. Date of Test** : 2022-06-02 to 2022-06-08

**7. Location of Test** :  Permanent Testing Lab  On Site Testing  
(Address:65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea)

**8. Test method used** : FCC Part 15 Subpart C, 15.225



**9. Test Result** : Refer to the test result in the test report

Affirmation	Tested by	Technical Manager
	Name :Taekyong Nam (Signature) 	Name : Heesu Ahn (Signature) 

2022-07-01

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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
2022-06-27	Originally issued	-
2022-07-01	Updated	p.9,10,12,20,21

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Note. The report No. KR22-SRF0117 is superseded by the report No. KR22-SRF0117-A.

**General remarks for test reports**

**Statement concerning the uncertainty of the measurement systems used for the tests**

(may be required by the product standard or client)

Internal procedure used for type testing through which traceability of the measuring uncertainty has been established:

**Procedure number, issue date and title:**

Calculations leading to the reported values are on file with the testing laboratory that conducted the testing.

Statement not required by the standard or client used for type testing

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### 1. General information

Client : IDP Corp.,Ltd  
Address : (Guro-dong, Buycksan digital valley 7), 601, 50, Digital-ro33-gil, Guro-gu, Seoul, Korea  
Manufacturer : IDP Corp.,Ltd  
Address : (Guro-dong, Buycksan digital valley 7), 601, 50, Digital-ro33-gil, Guro-gu, Seoul, Korea  
Factory : EVERINT Co., Ltd.  
Address : 129, Chungjusandan 1-ro, Chungju-si, Chungcheongbuk-do, 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  
CAB Identifier: KR0040, ISED Number: 8035A  
KOLAS No.: KT231

### 2. Device information

Equipment under test : Laminator  
Model : SMART-81L  
Derivative Model : SMART-810L, SMART-81 Laminator, SMART-810 Laminator, CUBO4 Laminator, GRASYS ID300RTL, FDP-81L, QUALICA-RD Hercules L, KJJ REHEXA-L, ID-81L, CP-4L, IDBOX-4L, SOLID-810L, SOLID-810 Laminator  
Modulation technique : ASK (RFID)  
Number of channels : 1 ch (RFID)  
Frequency range : 13.56 MHz (RFID)  
Power source : AC 110 V  
Antenna specification : FPCB Coil Antenna(RFID)  
Antenna gain : N/A  
Software version : smart81laminatorSum\_0\_98.bin  
Hardware version : MAIN BD,81 LAM,0.3  
Test device serial No. : N/A  
Operation temperature : -20 °C ~ 50 °C

## 2.1. Information about derivative model

The difference between basic model and derivative models is:  
 The basic and derivative model are electrically identical.

	Model name	Difference
Basic model	SMART-81L	
Derivative model	SMART-810L, SMART-81 Laminator, SMART-810 Laminator, CUBO4 Laminator, GRASYS ID300RTL, FDP-81L, QUALICA-RD Hercules L, KJJ REHEXA-L, ID-81L, CP-4L, IDBOX-4L	Simplified derivation based on model name of each buyers.
	SOLID-810L, SOLID-810 Laminator	It is the same as the basic model, only the exterior color are different.

## 2.2. Accessory information

Equipment	Manufacturer	Model	Serial No.	Power source	Note.
N/A	-	-	-	-	-

## 2.3. Frequency/channel operations

This device contains the following capabilities:  
 RFID(13.56 MHz)

Ch.	Frequency (MHz)
01	13.56

Table 2.3.1. RFID

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### 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 FPCB Coil Antenna (Internal antenna) on board.



#### 4. Summary of tests

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

**Notes:**

1. All modes of operation and data rates were investigated. The test results shown in the following sections represent the worst case emissions.
2. 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.
3. 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
4. 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 : Without passive tag
5. The test procedure(s) in this report were performed in accordance as following.
  - ◆ ANSI C63.10-2013

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## 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 indicate a 95 % level of confidence. The measurement data shown herein meets or exceeds the  $U_{\text{CISPR}}$  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	2.4 dB
	30 MHz ~ 1 000 MHz	2.3 dB
Conducted emissions	9 kHz ~ 150 kHz	1.6 dB
	150 kHz ~ 30 MHz	1.7 dB





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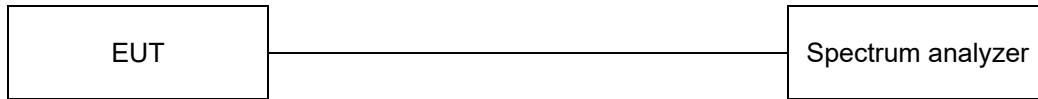
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## 6. Test results

### 6.1. 20 dB 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 - Section 6.9.2

#### Test settings

The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW and video bandwidth (VBW) shall be approximately three times RBW, unless otherwise specified by the applicable requirement.

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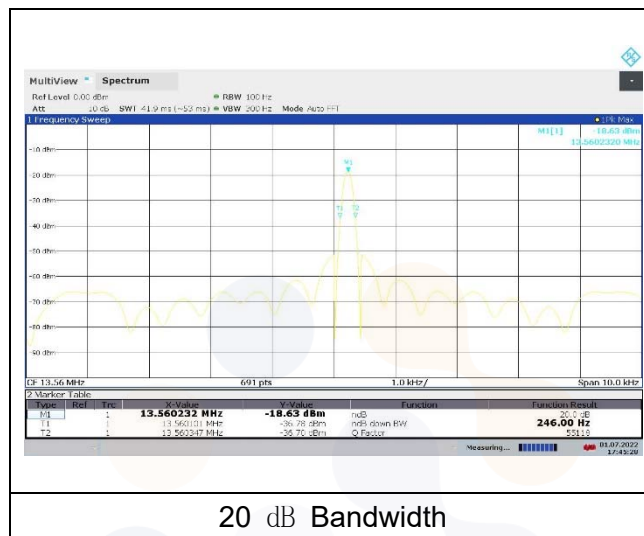
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## Test results

Frequency [MHz]	20 dB Bandwidth [MHz]		Limit [MHz]	20 dB Bandwidth [kHz]
13.56	Lowest Frequency	13.560 101	13.110 000	0.246
	Highest Frequency	13.560 347	14.010 000	



### 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

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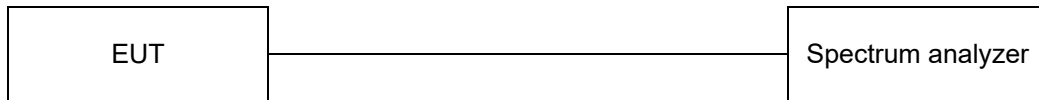
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## 6.2. Frequency tolerance

### 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



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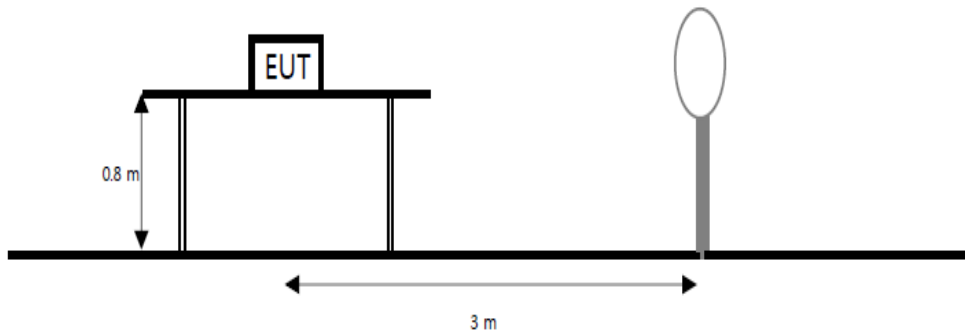
**Test results**

Voltage [%]	Voltage [V]	TEMP [°C]	Maintaining time	Measure frequency [Hz]	Frequency deviation [Hz]	Deviation [%]		
100	110	20(Ref.)	Startup	13 560 150	-150.0	0.001 11		
			2 minutes	13 560 150	-150.0	0.001 11		
			5 minutes	13 560 150	-150.0	0.001 11		
			10 minutes	13 560 150	-150.0	0.001 11		
		-20	Startup	13 560 205	-205.0	0.001 51		
			2 minutes	13 560 205	-205.0	0.001 51		
			5 minutes	13 560 205	-205.0	0.001 51		
			10 minutes	13 560 205	-205.0	0.001 51		
		-10	Startup	13 560 205	-205.0	0.001 51		
			2 minutes	13 560 205	-205.0	0.001 51		
			5 minutes	13 560 205	-205.0	0.001 51		
			10 minutes	13 560 205	-205.0	0.001 51		
		0	Startup	13 560 205	-205.0	0.001 51		
			2 minutes	13 560 205	-205.0	0.001 51		
			5 minutes	13 560 205	-205.0	0.001 51		
			10 minutes	13 560 205	-205.0	0.001 51		
		10	Startup	13 560 191	-191.0	0.001 41		
			2 minutes	13 560 191	-191.0	0.001 41		
			5 minutes	13 560 191	-191.0	0.001 41		
			10 minutes	13 560 191	-191.0	0.001 41		
		25	Startup	13 560 176	-176.0	0.001 30		
			2 minutes	13 560 176	-176.0	0.001 30		
			5 minutes	13 560 176	-176.0	0.001 30		
			10 minutes	13 560 176	-176.0	0.001 30		
		30	Startup	13 560 119	-119.0	0.000 88		
			2 minutes	13 560 119	-119.0	0.000 88		
			5 minutes	13 560 119	-119.0	0.000 88		
			10 minutes	13 560 119	-119.0	0.000 88		
		40	Startup	13 560 090	-90.0	0.000 66		
			2 minutes	13 560 090	-90.0	0.000 66		
			5 minutes	13 560 090	-90.0	0.000 66		
			10 minutes	13 560 090	-90.0	0.000 66		
		50	Startup	13 560 075	-75.0	0.000 55		
			2 minutes	13 560 075	-75.0	0.000 55		
			5 minutes	13 560 075	-75.0	0.000 55		
			10 minutes	13 560 075	-75.0	0.000 55		
		85	93.5	20	Startup	13 560 150	-150.0	0.001 11
					2 minutes	13 560 150	-150.0	0.001 11
					5 minutes	13 560 150	-150.0	0.001 11
					10 minutes	13 560 150	-150.0	0.001 11
115	126.5	20	Startup	13 560 150	-150.0	0.001 11		
			2 minutes	13 560 150	-150.0	0.001 11		
			5 minutes	13 560 150	-150.0	0.001 11		
			10 minutes	13 560 150	-150.0	0.001 11		

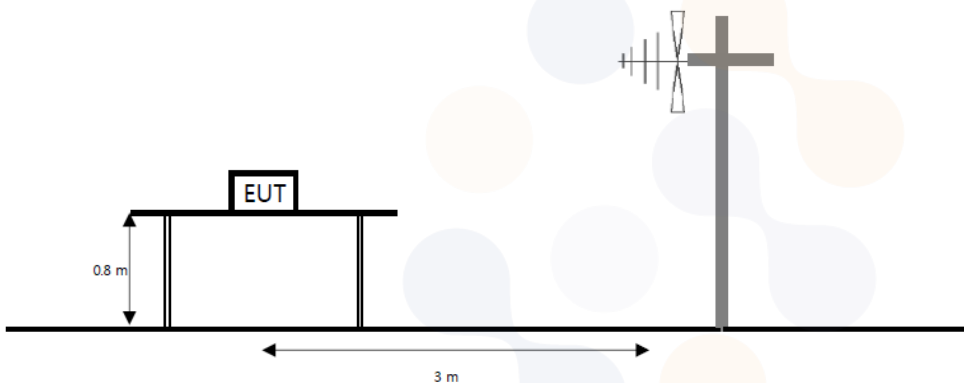
## 6.3. Radiated spurious emissions

### 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) With in 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) With in 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  $\geq 3 \times$  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.  $F_d = 40 \log(D_m/D_s)$   
 $f \geq 30$  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. Factors(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
9. <sup>1)</sup> means restricted band

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## Test results for fundamental

### 15.225 (a) 13.553-13.567 MHz

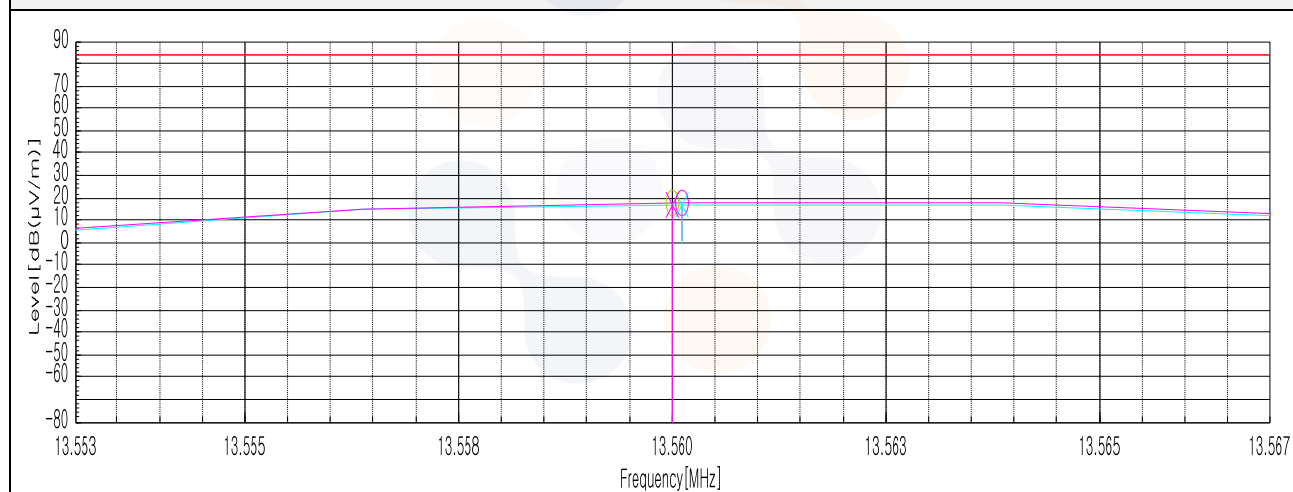
[Face-on]

Frequency	Reading	Antenna Factor	Amp. + Cable	Distance Factor	Result	Limit	Margin
(MHz)	(dB( $\mu V$ ))	(dB)	(dB)	(dB)	(dB( $\mu V/m$ ))	(dB( $\mu V/m$ ))	(dB)
<b>Quasi peak data</b>							
13.56	68.70	20.20	-31.02	40.00	17.88	84.00	66.12

[Face-off]

Frequency	Reading	Antenna Factor	Amp. + Cable	Distance Factor	Result	Limit	Margin
(MHz)	(dB( $\mu V$ ))	(dB)	(dB)	(dB)	(dB( $\mu V/m$ ))	(dB( $\mu V/m$ ))	(dB)
<b>Quasi peak data</b>							
13.56	67.60	20.20	-31.02	40.00	16.78	84.00	67.22

### Face-on/Face-off



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## Test results for in-band & out-band (9 kHz to 30 MHz)

### 15.225 (b,c) 13.110-14.010 MHz

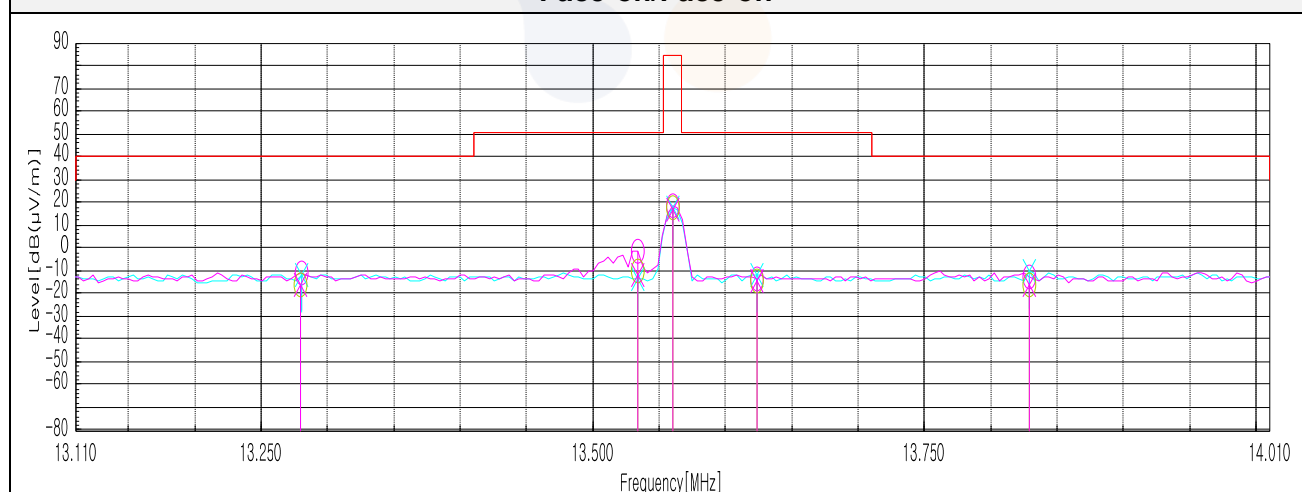
[Face-on]

Frequency	Reading	Antenna Factor	Amp. + Cable	Distance Factor	Result	Limit	Margin
(MHz)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
<b>Quasi peak data</b>							
13.28	34.60	20.20	-31.04	40.00	-16.24	40.50	56.74
13.53	40.70	20.20	-31.02	40.00	-10.12	50.50	60.62
13.62	36.80	20.20	-31.01	40.00	-14.01	50.50	64.51
13.83	34.50	20.20	-30.98	40.00	-16.28	40.50	56.78

[Face-off]

Frequency	Reading	Antenna Factor	Amp. + Cable	Distance Factor	Result	Limit	Margin
(MHz)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
<b>Quasi peak data</b>							
13.28	34.50	20.20	-31.04	40.00	-16.34	40.50	56.84
13.53	39.20	20.20	-31.02	40.00	-11.62	50.50	62.12
13.62	36.60	20.20	-31.01	40.00	-14.21	50.50	64.71
13.83	34.50	20.20	-30.98	40.00	-16.28	40.50	56.78

### Face-on/Face-off





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## Test results (9 kHz to 30 MHz)

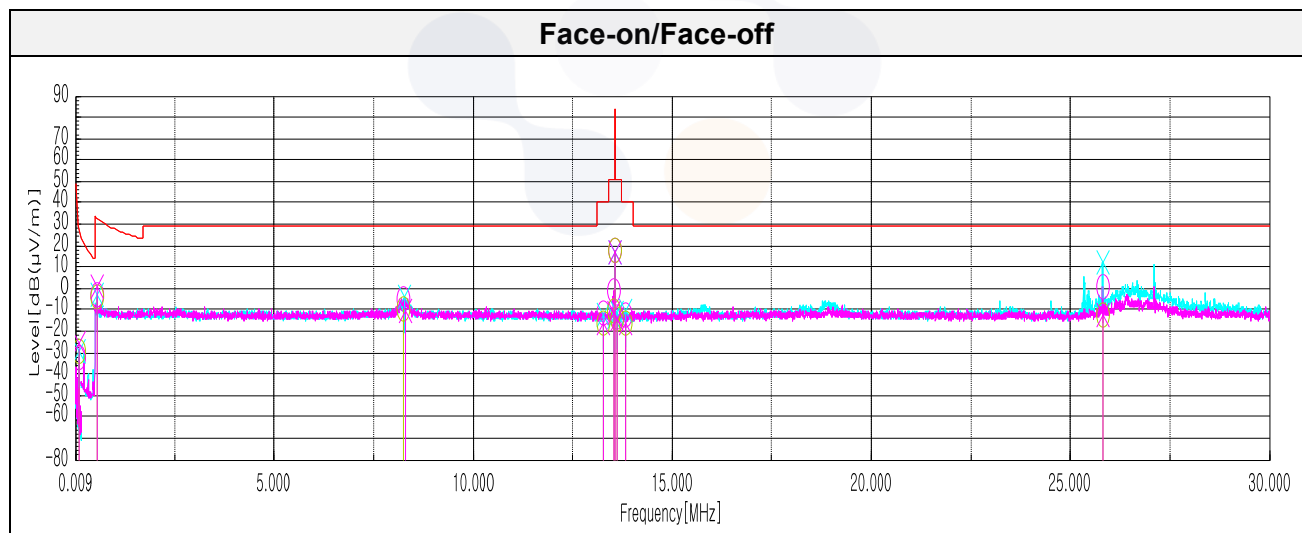
### 15.225 (d) 0.009-30 MHz

[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>							
0.56	48.00	19.90	-32.15	40.00	-4.25	32.70	36.95
8.24	41.80	20.16	-31.48	40.00	-9.52	29.50	39.02
25.81	37.00	20.69	-30.52	40.00	-12.83	29.50	42.33

[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>							
0.56	52.80	19.90	-32.15	40.00	0.55	32.70	32.15
8.29	40.30	20.17	-31.48	40.00	-11.01	29.50	40.51
25.81	37.50	20.69	-30.52	40.00	-12.33	29.50	41.83



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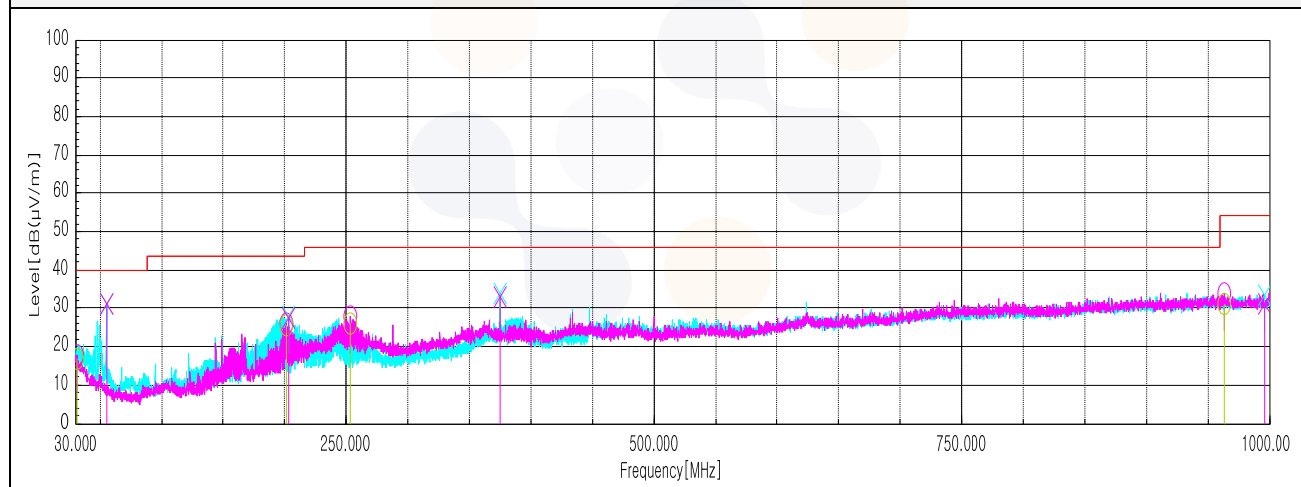


## Test results (Below 1 000 MHz)

### 15.225 (d) 30-1000 MHz

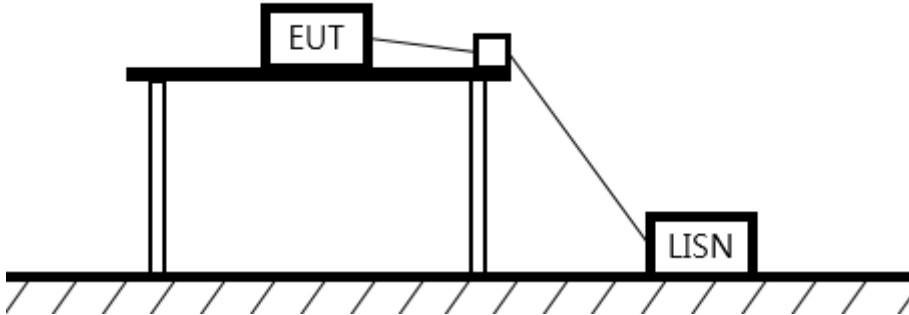
Frequency (MHz)	Pol. (V/H)	Reading (dB( $\mu V$ ))	Antenna Factor (dB)	Amp. + Cable (dB)	Distance Factor (dB)	Result (dB( $\mu V/m$ ))	Limit (dB( $\mu V/m$ ))	Margin (dB)
<b>Quasi peak data</b>								
31.58	H	24.80	24.08	-30.36	-	18.52	40.00	21.48
55.22	V	47.40	12.66	-29.79	-	30.27	40.00	9.73
201.33	H	36.20	15.23	-27.14	-	24.29	43.50	19.21
203.39	V	37.60	15.27	-27.12	-	25.75	43.50	17.75
253.34 <sup>1)</sup>	H	33.60	18.80	-26.35	-	26.05	46.00	19.95
374.96	V	35.20	20.70	-24.90	-	31.00	46.00	15.00
963.26 <sup>1)</sup>	H	19.40	26.87	-18.70	-	27.57	54.00	26.43
995.76 <sup>1)</sup>	V	18.60	27.23	-18.12	-	27.71	54.00	26.29

### 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 50 $\mu$ H/50 ohm line impedance stabilization network (LISN). Compliance with the provision of this paragraph shall be 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.

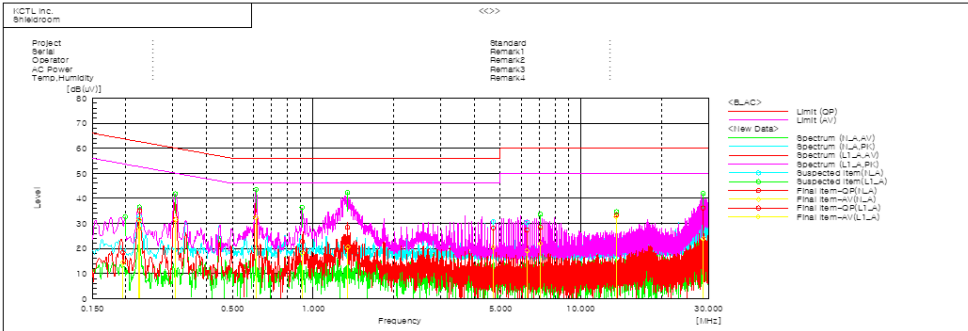
Frequency of Emission (MHz)	Conducted limit (dB $\mu$ V/m)	
	Quasi-peak	Average
0.15 – 0.50	66 - 56*	56 - 46*
0.50 – 5.00	56	46
5.00 – 30.0	60	50

### 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 50 $\Omega$ /50 $\mu$ H 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 in 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

120 V 50/60 Hz

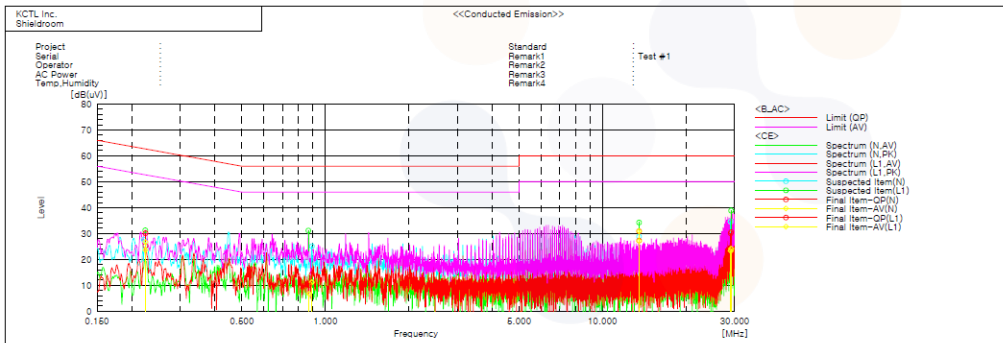


### Final Result

--- N_A Phase ---										
No.	Frequency	Reading QP	Reading CAV	c.f	Result QP	Result CAV	Limit QP	Limit AV	Margin QP	Margin CAV
	[MHz]	[dB(uV)]	[dB(uV)]	[dB]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB]	[dB]
1	0.2239	21.4	18.3	9.8	31.2	28.1	62.7	52.7	31.5	24.6
2	4.70775	18.3	10.7	9.8	28.1	20.5	56.0	46.0	27.9	25.5
3	6.276	17.5	9.1	9.9	27.4	19.0	60.0	50.0	32.6	31.0

--- L1_A Phase ---										
No.	Frequency	Reading QP	Reading CAV	c.f	Result QP	Result CAV	Limit QP	Limit AV	Margin QP	Margin CAV
	[MHz]	[dB(uV)]	[dB(uV)]	[dB]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB]	[dB]
1	0.15001	8.4	4.3	10.0	18.4	14.3	63.8	53.8	45.4	39.5
2	0.22483	25.3	21.6	9.8	35.1	31.4	62.6	52.6	27.5	21.2
3	0.30648	21.7	21.8	9.7	31.4	31.5	60.1	50.1	28.7	18.6
4	0.61302	22.4	22.4	9.9	32.3	32.3	56.0	46.0	23.7	13.7
5	0.91156	13.1	6.2	9.8	22.9	18.0	56.0	46.0	33.1	28.0
6	1.34582	18.6	10.8	9.8	28.4	20.6	56.0	46.0	27.6	25.4
7	7.0611	18.5	12.0	9.9	28.4	21.9	60.0	50.0	31.6	28.1
8	13.55123	22.9	22.1	10.5	33.3	32.6	60.0	50.0	28.7	17.4
9	28.58789	25.2	12.9	11.0	36.2	23.9	60.0	50.0	23.8	25.1

240 V 50/60 Hz



### Final Result

--- N Phase ---										
No.	Frequency	Reading QP	Reading CAV	c.f	Result QP	Result CAV	Limit QP	Limit AV	Margin QP	Margin CAV
	[MHz]	[dB(uV)]	[dB(uV)]	[dB]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB]	[dB]
1	0.22425	15.6	13.9	9.7	25.3	23.6	62.7	52.7	37.4	29.1
2	0.89371	4.5	1.4	9.7	14.2	11.1	56.0	46.0	41.8	34.9
3	13.56005	17.3	17.2	9.9	27.2	27.1	60.0	50.0	32.8	22.9
4	29.01571	20.2	13.5	9.8	30.0	23.3	60.0	50.0	30.0	26.7

--- L1 Phase ---										
No.	Frequency	Reading QP	Reading CAV	c.f	Result QP	Result CAV	Limit QP	Limit AV	Margin QP	Margin CAV
	[MHz]	[dB(uV)]	[dB(uV)]	[dB]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB]	[dB]
1	0.22458	20.4	17.0	9.7	30.1	26.7	62.6	52.6	32.5	25.9
2	0.87349	0.2	-3.1	9.7	9.9	6.6	56.0	46.0	46.1	39.4
3	13.55979	21.0	21.0	9.9	30.9	30.9	60.0	50.0	29.1	19.1
4	29.14017	20.7	14.3	9.8	30.5	24.1	60.0	50.0	29.5	25.9

## 7. Measurement equipment

Equipment Name	Manufacturer	Model No.	Serial No.	Next Cal. Date
EMI TEST RECEIVER	R&S	ESC17	100732	23.01.19
Bi-Log Antenna	TESEQ	CBL 6112D	55545	24.04.27
Amplifier	SONOMA INSTRUMENT	310N	284608	22.08.19
ATTENUATOR	KEYSIGHT	8491B-6dB	MY39271060	24.04.27
LOOP Antenna	R&S	HFH2-Z2	100355	22.08.21
Antenna Mast	Innco Systems	MA4640-XP-ET	-	-
Turn Table	Innco Systems	CO3000	1175/45850319/P	-
ISOLATION TRANSFORMER	ONETECH CO., LTD	OT-IT500VA	OTR1-16026	23.03.28
Signal Generator	R&S	SMB100A	176206	23.01.19
Spectrum Analyzer	R&S	FSV30	100806	22.09.17
Attenuator	API Inmet	40AH2W-20	10	22.07.29
AC/DC Power Supply	KIKUSUI	PCR2000W	GB001619	22.07.27
TWO-LINE V -NETWORK	R&S	ENV216	101358	22.09.29
EMI TEST RECEIVER	R&S	ESC13	100001	22.08.19
Spectrum Analyzer	R&S	FSW26	101353	22.12.21

**End of test report**