FCC PART 15C TEST REPORT FOR CERTIFICATION
On Behalf of

CHOICE FORTUNE HOLDINGS LIMITED

LED TV

Model Number: SC-55UK700N

FCC ID: 2AMYC-SC-55UK700N

Prepared for:	CHOICE FORTUNE HOLDINGS LIMITED
	Room 1315, 13/F, Tin King Estate, Tin Lok House,
	Tuen Mun, N.T., HongKong
Prepared By:	EST Technology Co., Ltd.
	Chilingxiang, Qishantou, Santun, Houjie, Dongguan, Guangdong, China
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Report Number:	ESTE-R1801043
Date of Test:	Jan. 02, 2018~Jan. 12, 2018
Date of Report:	Jan. 15, 2018

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EST Technology Co., Ltd.

Applicant: **Address:**	CHOICE FORTUNE HOLDINGS LIMITED Room 1315, 13/F, Tin King Estate, Tin Lok House, Tuen Mun, N.T., HongKong		
Manufacturer **Address:**	CHOICE FORTUNE HOLDINGS LIMITED Room 1315, 13/F, Tin King Estate, Tin Lok House, Tuen Mun, N.T., HongKong		
E.U.T:	LED TV		
Model Number:	SC-55UK700N		
Power Supply:	AC 120V~ 50/60Hz		
Test Voltage:	AC 120V/60Hz		
Trade Name:	SEIKI, SEIKI pro, SEIKI HOME	Serial No.:	------
Date of Receipt:	Jan. 02, 2018	Date of Test:	Jan. 02, 2018~Jan. 12, 2018
Test Specification:	FCC Rules and Regulations Part 15 Subpart C:2017 ANSI C63.10:2013		
Test Result:	The device described above is tested by EST Technology Co., Ltd.. The measurement results were contained in this test report and EST Technology Co., Ltd. was assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliance with the FCC Rules and Regulations Part 15 Subpart C requirements. This report applies to above tested sample only and shall not be reproduced in part without written approval of EST Technology Co., Ltd.		

Date: Jan. 15, 2018

Prepared by:	Reviewed by:	Approved by:
Amy / Assistant	Tony / Engineer	Iceman Hu / Manager

Other Aspects:

Because the electrically and mechanically it self has not changed, Only the screen has been changed, So only need re-tested Conducted Emissions and Radiated(30-1000MHz), other test item needn't re-tested, Test data refer to test report "ESTE-R1708119".

Abbreviations: OK/P=passed fail/F=failed n.a/N=not applicable E.U.T=equipment under tested

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Product Name	:	LED TV		
Model Number	:	SC-55UK700N		
FCC ID	:	2AMYC-SC-55UK700N		
Modulation	:	IEEE 802.11b mode: DSSS(CCK,QPSK, BPSK) IEEE 802.11g mode: OFDM (BPSK/QPSK/16QAM/64QAM) IEEE 802.11n HT20 mode: OFDM (BPSK/QPSK/16QAM/64QAM) IEEE 802.11n HT40 mode: OFDM (BPSK/QPSK/16QAM/64QAM)		
Operation Frequency	:	IEEE 802.11b/g: 2412 ~ 2462 MHz IEEE 802.11n HT20 : 2412 ~ 2462 MHz IEEE 802.11n HT40: 2422 ~ 2452 MHz		
Number of channel	:	IEEE 802.11b 2412 ~ 2462 MHz: 11 Channels IEEE 802.11g 2412 ~ 2462 MHz: 11 Channels IEEE 802.11n HT20 2412 ~ 2462 MHz: 11 Channels IEEE 802.11n HT40 2422 ~ 2452 MHz: 7 Channels		
Antenna	:	Internal antenna		
		Frequency Range	Antenna 0	Antenna 1
		2400~2483.5 MHz	2.94 dBi	2.94 dBi
		Directional gain	5.95 dBi	
		Note: 11b, g, n uses Antenna 0/Antenna 1 11n uses MIMO		
Sample Type	:	Prototype production		

2. SUMMARY OF TEST

2.1. Summary of test result

Description of Test Item	Standard	Results
Power Line Conducted Emission	FCC Part 15: 15.207 ANSI C63.10:2013	PASS
Radiated Emission	FCC Part 15: 15.209 ANSI C63.10:2013 KDB 558074	PASS
Band Edge Compliance	FCC Part 15: 15.247 ANSI C63.10:2013 KDB 558074	N/A
Conducted spurious emissions	FCC Part 15: 15.247 ANSI C63.10:2013 KDB 558074	N/A
6dB Bandwidth	FCC Part 15: 15.247 ANSI C63.10:2013 KDB 558074	N/A
Peak Output Power	FCC Part 15: 15.247 ANSI C63.10:2013 KDB 558074	N/A
Power Spectral Density	FCC Part 15: 15.247 ANSI C63.10:2013 KDB 558074	N/A
Antenna requirement	FCC Part 15: 15.203	N/A
Note: KDB 558074 D01 DTS Meas Guidance v04 Only the screen has been updated. All RF signal test data please refer to " ESTE-R1708119".		

2.2. Test Facilities

EMC Lab	:	Certificated by CNAS, CHINA Registration No.: L5288 Date of registration: November 13, 2017 Certificated by A2LA, USA Registration No.: 4366.01 Date of registration: November 07, 2017 Certificated by FCC, USA Designation Number: CN1215 Registration No.: 722932 Date of registration: November 21, 2017 Certificated by Industry Canada Registration No.: 9405A Date of registration: December 03, 2015 Certificated by VCCI, Japan Registration No.: R-13663; C-14103 Date of registration: July 25, 2017 This Certificate is valid until: July 24, 2020 Certificated by TUV Rheinland, Germany Registration No.: UA 50195514 0001 Date of registration: February 07, 2015 Certificated by TUV/PS, Shenzhen Registration No.: SCN1017 Date of registration: January 27, 2011 Certificated by Intertek ETL SEMKO Registration No.: 2011-RTL-L2-64 Date of registration: April 28, 2011 Certificated by Nemko, Hong Kong Registration No.: 175193 Date of registration: May 4, 2011
Name of Firm	:	EST Technology Co., Ltd.
Site Location	:	Chilingxiang, Qishantou, Santun, Houjie, Dongguan, Guangdong, China

2.3. Measurement uncertainty

Test Item	Uncertainty
Uncertainty for Conduction emission test	±3.48dB
Uncertainty for spurious emissions test (30MHz-1GHz)	±4.60 dB(Polarize: H)
	±4.68 dB(Polarize: V)
Uncertainty for spurious emissions test (1GHz to 18GHz)	±4.96dB
Uncertainty for radio frequency	7×10^{-8}
Uncertainty for conducted RF Power	0.20dB
Uncertainty for Power density test	0.26dB

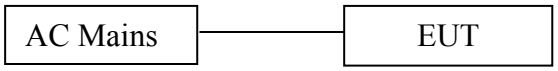
Note：This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

2.4. Assistant equipment used for test

2.4.1. N/A

2.5. Block Diagram

For radiated emissions test: EUT was placed on a turn table, which is 0.8 or 1.5 meter high above ground. EUT was be set into Wi-Fi test mode by software before test.



(EUT: LED TV)

2.6. Test mode

A special test software was used to control EUT work in Continuous TX mode, and select test channel, wireless mode and data rate.

Test mode	Lower channel	Center channel	Upper channel
IEEE 802.11b;IEEE 802.11g;IEEE 802.11n HT20 Transmitting	2412MHz	2437MHz	2462MHz
IEEE 802.11b;IEEE 802.11g;IEEE 802.11n HT20 Receiving	2412MHz	2437MHz	2462MHz
IEEE 802.11n HT40 Transmitting	2422MHz	2437MHz	2452MHz
IEEE 802.11n HT40 Receiving	2422MHz	2437MHz	2452MHz

2.7. Channel List

IEEE 802.11b;IEEE 802.11g;IEEE 802.11n HT20					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	6	2437	11	2462
2	2417	7	2442		
3	2422	8	2447		
4	2427	9	2452		
5	2432	10	2457		
IEEE 802.11n HT40					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
3	2422	6	2437	9	2452
4	2427	7	2442		
5	2432	8	2447		

2.8. Test Equipment

2.8.1. For conducted emission test

Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESHS30	832354	CEPREI	June 17,17	1 Year
Artificial Mains Network	Rohde & Schwarz	ENV216	101260	CEPREI	June 17,17	1 Year
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	101100	CEPREI	June 17,17	1 Year
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A

2.8.2. For radiated emission test(9 kHz-30MHz)

Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESR7	101780	CEPREI	June 17,17	1 Year
Active Loop Antenna	SCHWARZBECK	FMZB1519	1519-038	CEPREI	October 08,17	1 Year
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A

2.8.3. For radiated emissions test (30-1000MHz)

Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESR7	101780	CEPREI	June 17,17	1 Year
Bilog Antenna	Teseq	CBL 6111D	27090	CEPREI	June 08,17	1 Year
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A

2.8.4. For radiated emission test(above 1GHz)

Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA9120D1002	CEPREI	June 08,17	1 Year
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170242	CEPREI	June 08,17	1Year
Signal Amplifier	SCHWARZBECK	BBV9718	9718-212	CEPREI	March 12,17	1 Year
Spectrum Analyzer	Rohde &Schwarz	FSV	103173	CEPREI	June 17,17	1 Year
PSA Series Spertrum Analyzer	Agilent	E4447A	MY50180031	CEPREI	June 16,17	1Year
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A

2.8.5. For connect EUT antenna terminal test

Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
Spectrum Analyzer	Rohde &Schwarz	FSV	103173	CEPREI	June 17,17	1 Year
Spectrum Analyzer	Agilent	E4408B	MY44211139	CEPREI	June 17,17	1 Year

3 POWER LINE CONDUCTED EMISSION TEST

3.1. Limit

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level dB(μV)	Average Level dB(μV)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Notes: 1. * Decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies.

3.2. Test Procedure

The EUT was placed on a non-metallic table, 10cm above the ground plane. The EUT Power connected to the power mains through a line impedance stabilization network (L.I.S.N. 1#). This provides a 50 ohm coupling impedance for the EUT (Please refer the block diagram of the test setup and photographs). The AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10: 2013 on Conducted Emission Test.

The bandwidth of test receiver (R & S ESHS30) is set at 10kHz.

The frequency range from 150kHz to 30MHz is checked.

3.3. Test Result

PASS.

3.4. Test data

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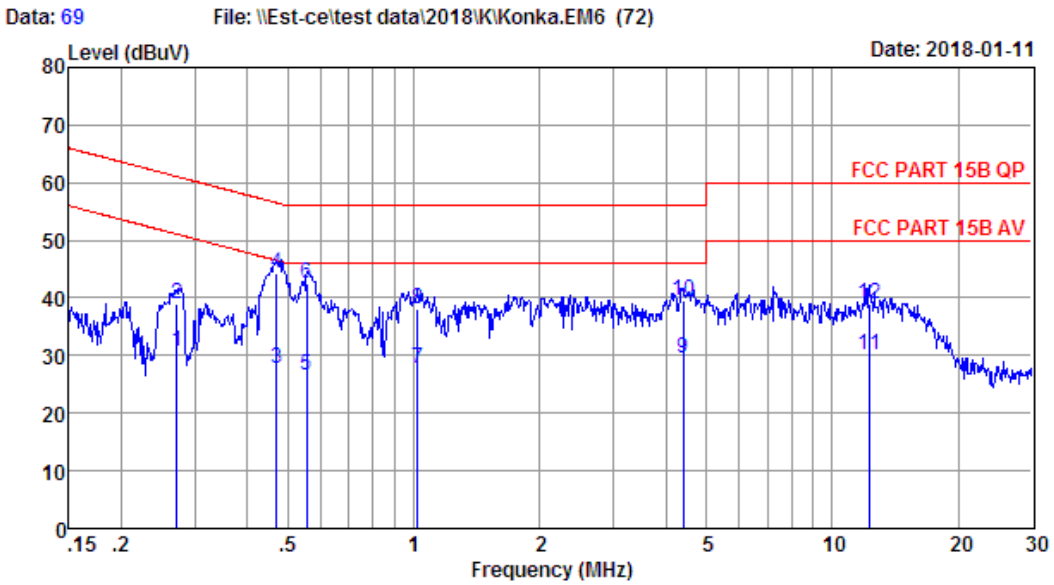

Site no : 844 Shield Room Data no. : 69
Env. / Ins. : Temp:24.3'C Humi:51% Press:101.50kPa LINE Phase : LINE
Limit : FCC PART 15B QP
Engineer : Viking
EUT : LED TV
Power : AC 120V/60Hz
M/N : SC-55UK700N
Test Mode : TX Mode

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuv)	Limits (dBuv)	Margin (dB)	Remark
1	0.272	9.72	9.92	11.10	30.74	51.07	20.33	Average
2	0.272	9.72	9.92	19.39	39.03	61.07	22.04	QP
3	0.471	9.72	9.92	8.20	27.84	46.49	18.65	Average
4	0.471	9.72	9.92	24.62	44.26	56.49	12.23	QP
5	0.555	9.72	9.92	6.80	26.44	46.00	19.56	Average
6	0.555	9.72	9.92	22.87	42.51	56.00	13.49	QP
7	1.021	9.72	9.94	8.16	27.82	46.00	18.18	Average
8	1.021	9.72	9.94	18.55	38.21	56.00	17.79	QP
9	4.407	9.76	10.00	9.61	29.37	46.00	16.63	Average
10	4.407	9.76	10.00	19.82	39.58	56.00	16.42	QP
11	12.253	9.84	10.10	10.15	30.09	50.00	19.91	Average
12	12.253	9.84	10.10	19.16	39.10	60.00	20.90	QP

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.
2. Margin= Limit - Emission Level.
3. If the average limit is met when useing a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

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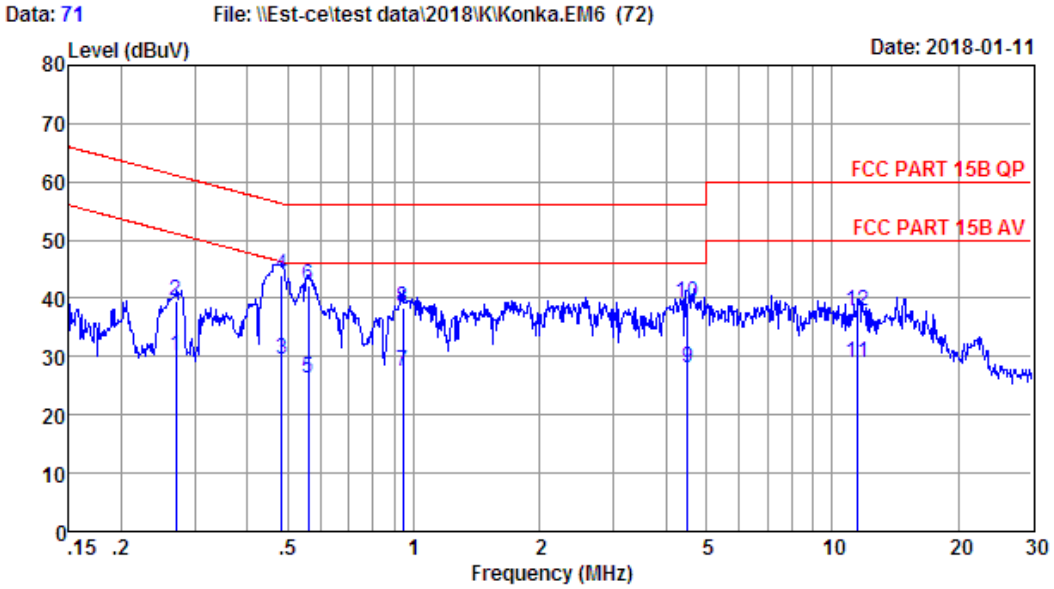


Site no : 844 Shield Room Data no. : 71
Env. / Ins. : Temp:24.3'C Humi:51% Press:101.50kPa LINE Phase : NEUTRAL
Limit : FCC PART 15B QP
Engineer : Viking
EUT : LED TV
Power : AC 120V/60Hz
M/N : SC-55UK700N
Test Mode : TX Mode

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuv)	Limits (dBuv)	Margin (dB)	Remark
1	0.270	9.62	9.92	10.60	30.14	51.12	20.98	Average
2	0.270	9.62	9.92	19.93	39.47	61.12	21.65	QP
3	0.484	9.65	9.92	10.07	29.64	46.27	16.63	Average
4	0.484	9.65	9.92	24.53	44.10	56.27	12.17	QP
5	0.561	9.66	9.92	6.80	26.38	46.00	19.62	Average
6	0.561	9.66	9.92	22.53	42.11	56.00	13.89	QP
7	0.943	9.72	9.94	7.67	27.33	46.00	18.67	Average
8	0.943	9.72	9.94	18.59	38.25	56.00	17.75	QP
9	4.501	9.90	10.00	8.24	28.14	46.00	17.86	Average
10	4.501	9.90	10.00	19.50	39.40	56.00	16.60	QP
11	11.498	10.04	10.08	8.94	29.06	50.00	20.94	Average
12	11.498	10.04	10.08	17.62	37.74	60.00	22.26	QP

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.
2. Margin= Limit - Emission Level.
3. If the average limit is met when useing a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

4 RADIATED EMISSION TEST

4.1 Limit

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

15.205 Restricted frequency band

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	([2])

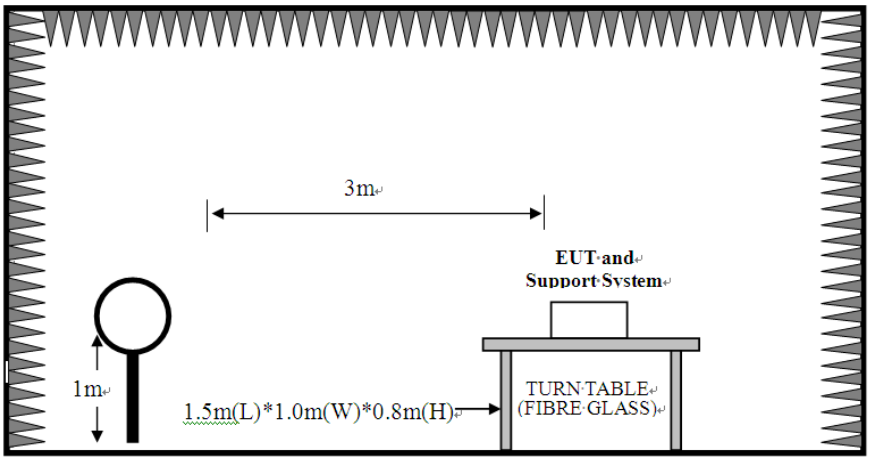
15.209 Limit

Frequency (MHz)	Field Strength(μV/m)	Distance(m)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

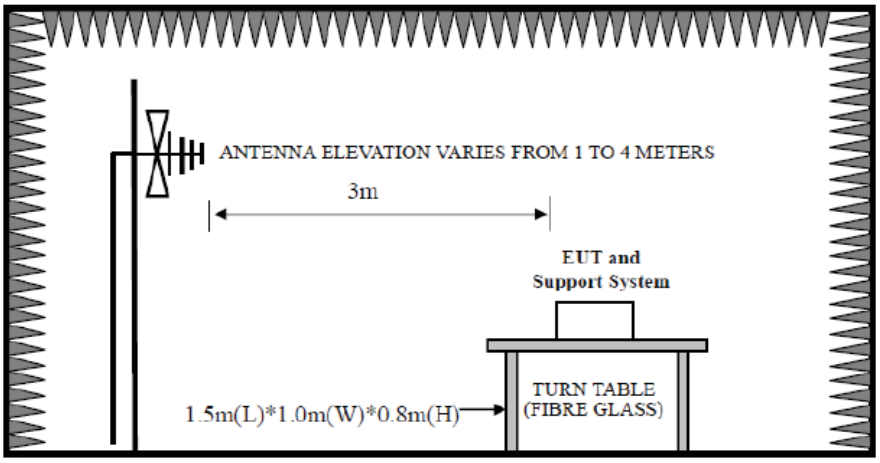
Remark：(1) Emission level dBμV = 20 log Emission level μV/m
(2) The smaller limit shall apply at the cross point between two frequency bands.
(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

4.2. Block Diagram of Test setup

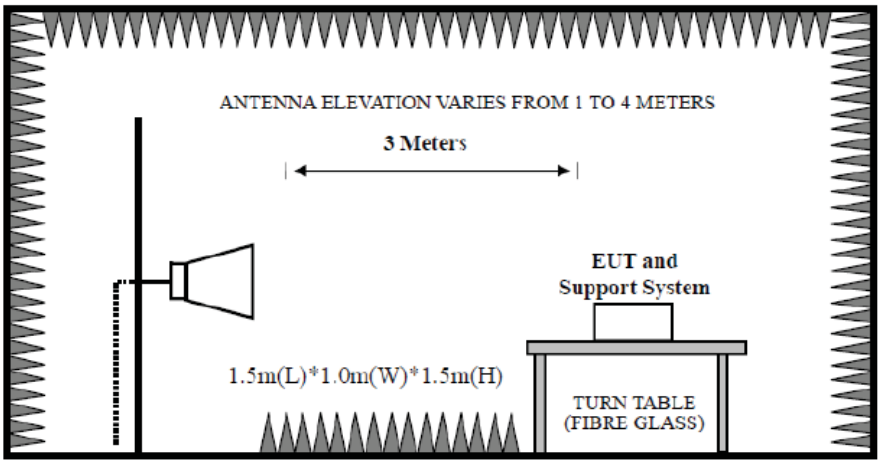
9kHz~30MHz



30~1000MHz



Above 1GHz



4.3. Test Procedure

EUT was placed on a turn table, which is 0.8 meter high above ground for 9kHz~1000MHz test, and which is 1.5 meter high above ground for above 1GHz test. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarization of the antenna are set on test.

The test frequency analyzer system was set to Peak Detect (300Hz RBW in 9kHz to 150kHz and 10kHz RBW in 150kHz to 30MHz) Function and Specified Bandwidth with Maximum Hold Mode.

The bandwidth of the EMI test receiver (R&S ESVS10) is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's VBW is set at 1MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz

PEAK detector, 1MHz/1MHz for PAEK measurement,

PEAK detector, 1MHz/10Hz for Average measurement

The frequency range from 30MHz to 10th harmonic (25GHz) are checked.

4.4. Test Result

PASS.

Note: 1、For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.

2、The frequency 2412MHz 、2422MHz、2437 MHz、2452MHz and 2462 MHz is fundamental frequency which no limit, the limit on plots is automatically generated by the software, it's not fundamental limit, we can't remove it.

4.5. Test Data

9 kHz – 30 MHz
Pass
Note: The amplitude of spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.

30-1000 MHz

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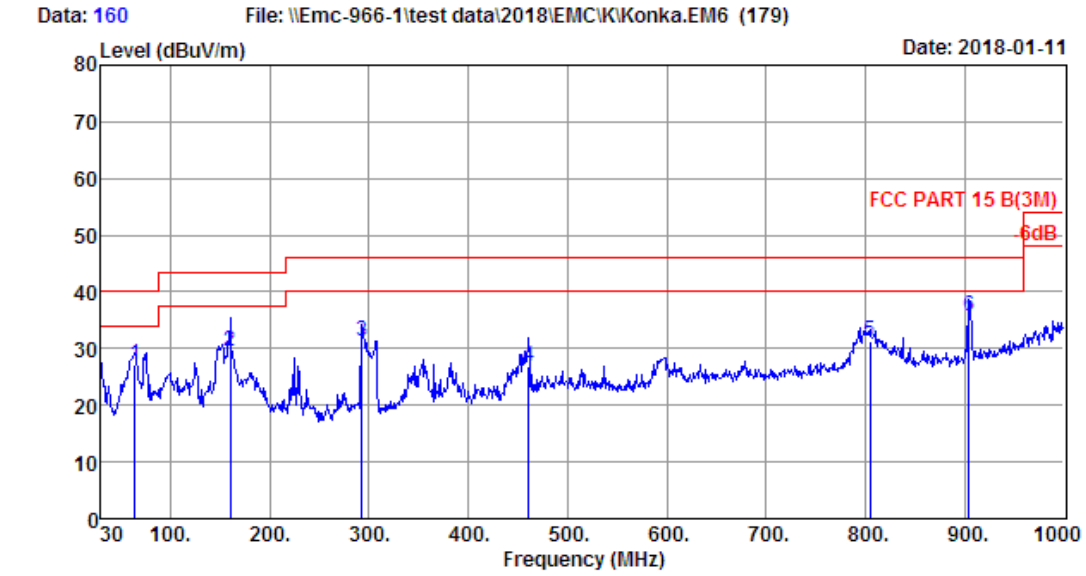

Site no. : 1# 966 Chamber Data no. : 160
Dis. / Ant. : 3m 37062 Ant. pol. : VERTICAL
Limit : FCC PART 15 B(3M)
Env. / Ins. : Temp:24.8';Humi:52%;Press:101.52kPa
Engineer : Viking
EUT : LED TV
Power : AC 120V/60Hz
M/N : SC-55UK700N
Test Mode : TX Mode

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	63.95	5.30	0.70	21.30	27.30	40.00	12.70	QP
2	159.98	11.20	1.35	16.96	29.51	43.50	13.99	QP
3	292.87	13.48	2.04	15.64	31.16	46.00	14.84	QP
4	460.68	17.42	2.79	6.54	26.75	46.00	19.25	QP
5	805.03	22.85	3.83	4.74	31.42	46.00	14.58	QP
6	903.97	23.98	4.06	7.74	35.78	46.00	10.22	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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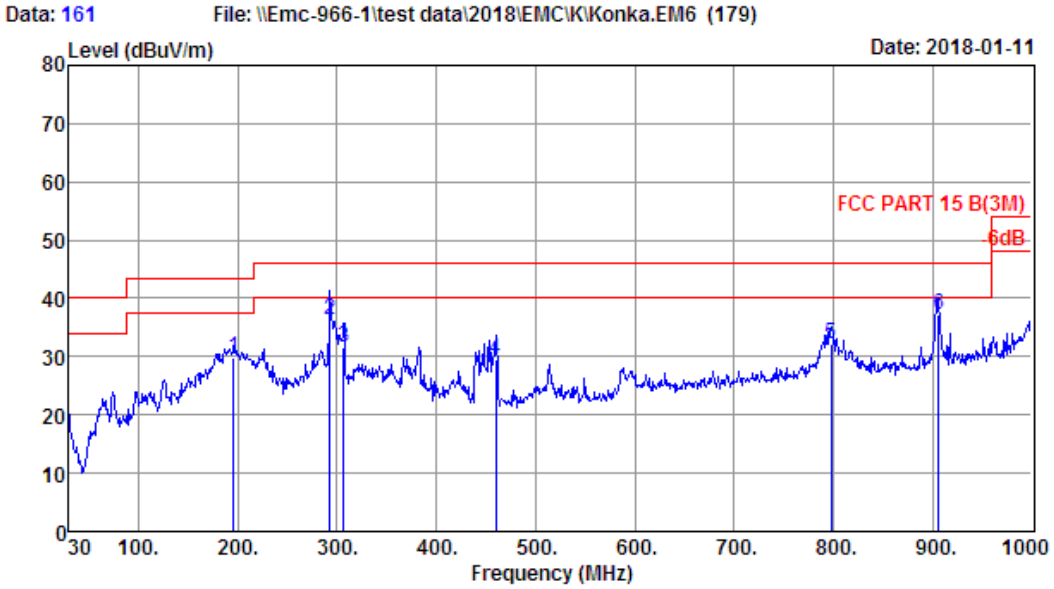

Site no. : 1# 966 Chamber Data no. : 161
Dis. / Ant. : 3m 37062 Ant. pol. : HORIZONTAL
Limit : FCC PART 15 B(3M)
Env. / Ins. : Temp:24.8';Humi:52%;Press:101.52kPa
Engineer : Viking
EUT : LED TV
Power : AC 120V/60Hz
M/N : SC-55UK700N
Test Mode : TX Mode

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	195.87	8.36	1.45	20.09	29.90	43.50	13.60	QP
2	292.87	13.48	2.04	20.85	36.37	46.00	9.63	QP
3	306.45	13.86	2.08	15.71	31.65	46.00	14.35	QP
4	459.71	17.40	2.78	9.37	29.55	46.00	16.45	QP
5	798.24	22.80	3.81	5.51	32.12	46.00	13.88	QP
6	905.91	24.02	4.07	9.02	37.11	46.00	8.89	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

5 TEST SETUP PHOTO

Conducted Test

Radiated Test (30-1000 MHz)

6 PHOTOS OF EUT

External Photos

M/N: SC-55UK700N

External Photos

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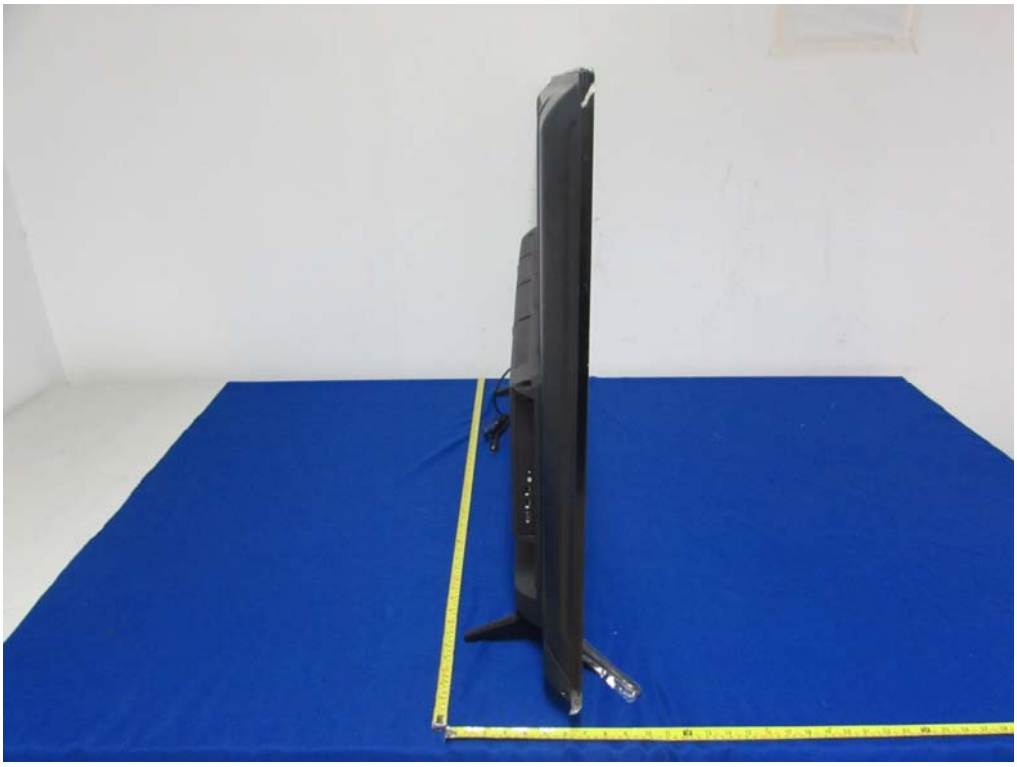


External Photos

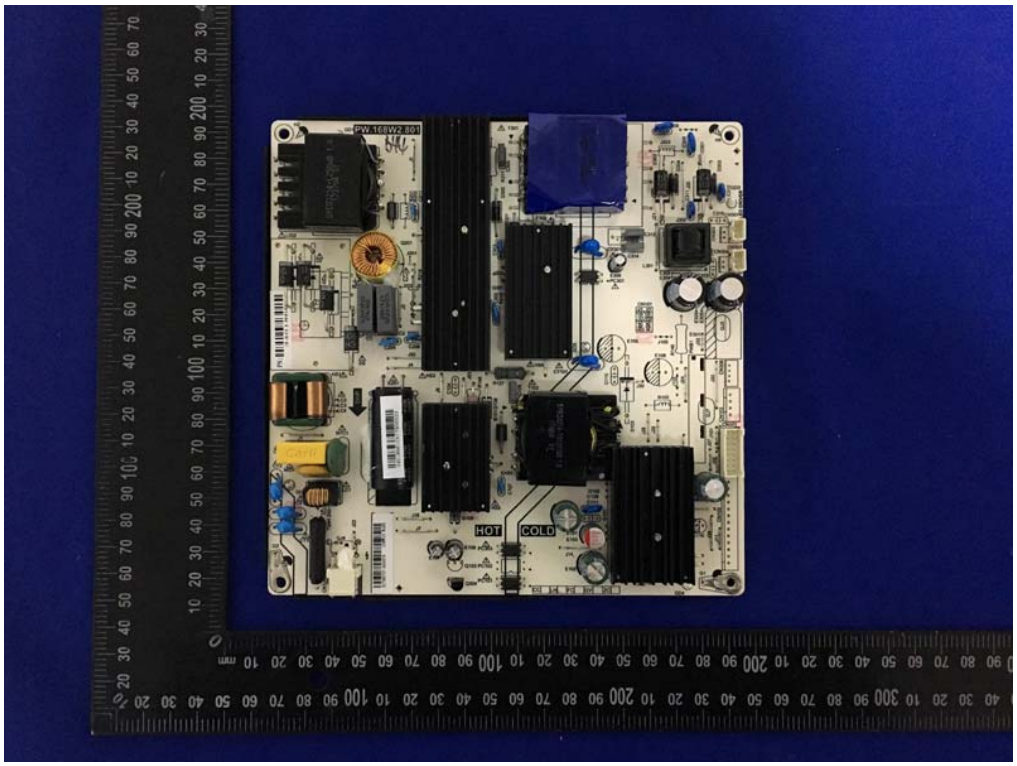
M/N: SC-55UK700N

External Photos

M/N: SC-55UK700N

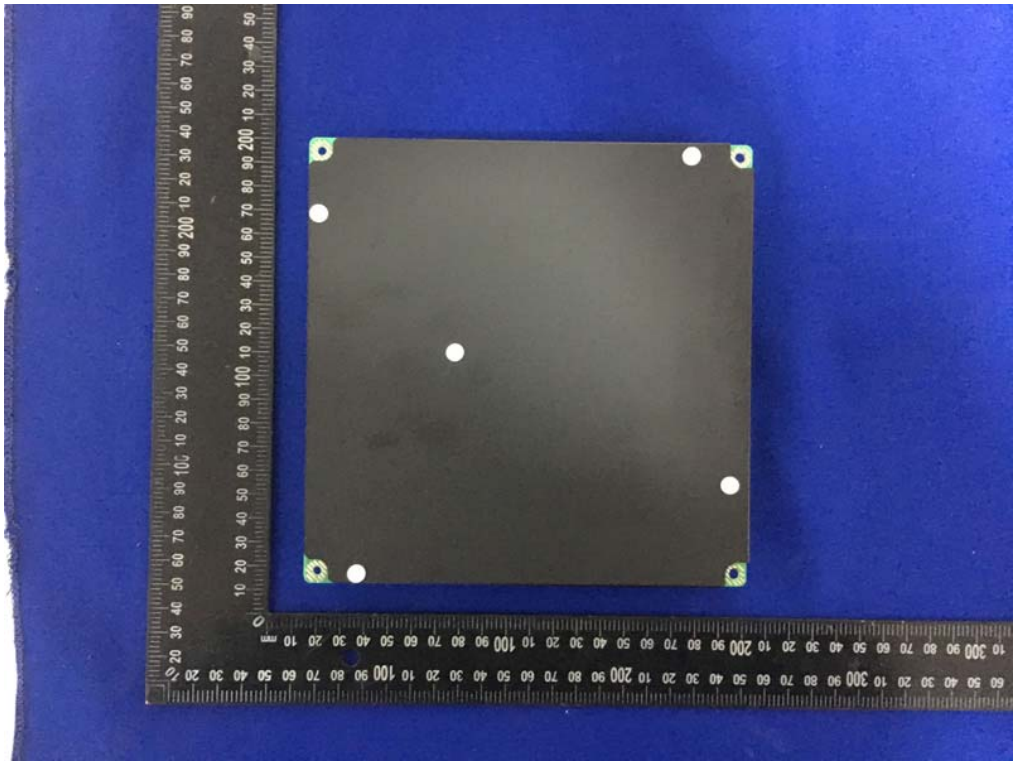
Internal Photos

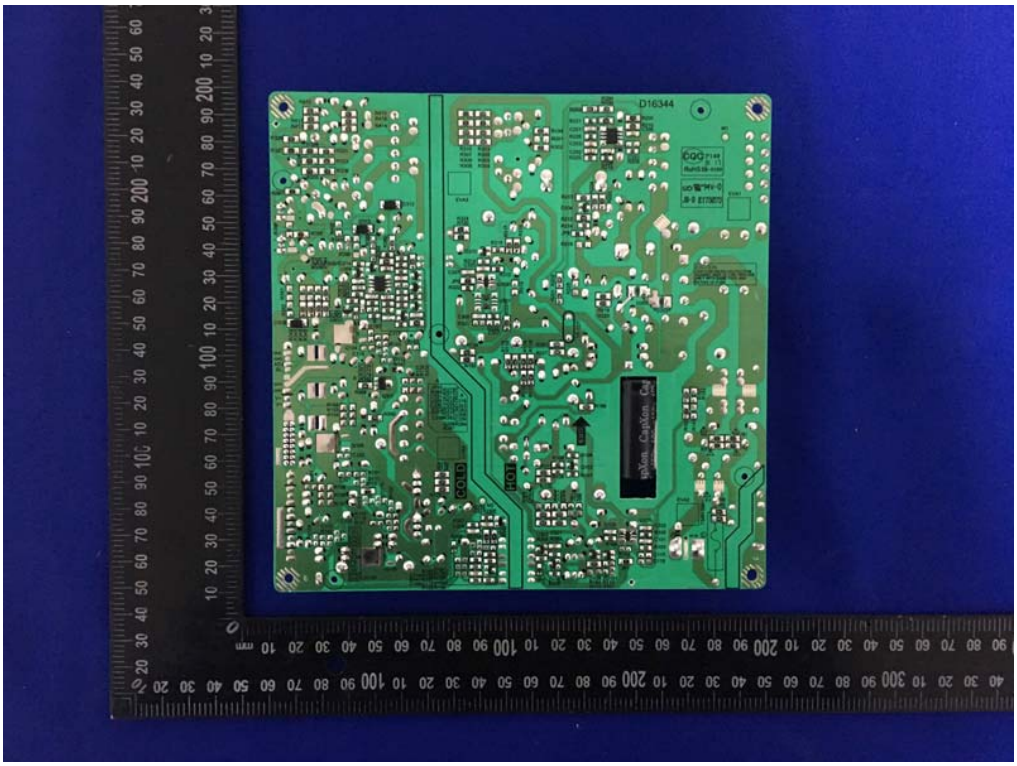
M/N: SC-55UK700N



Internal Photos

M/N: SC-55UK700N





Internal Photos

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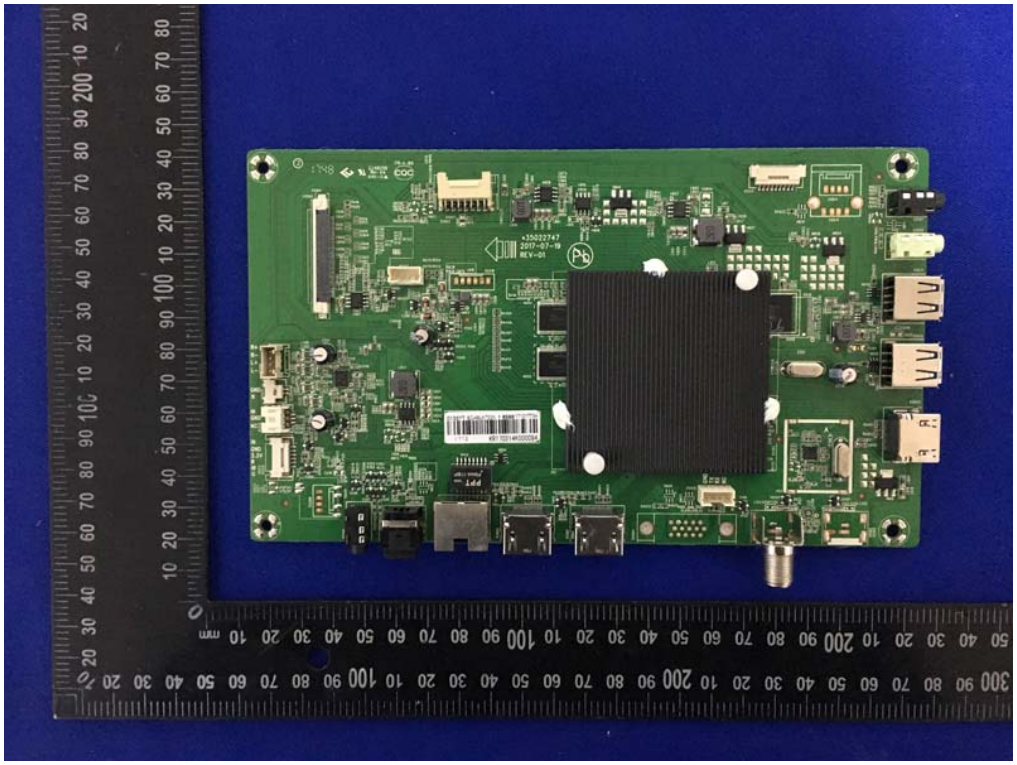

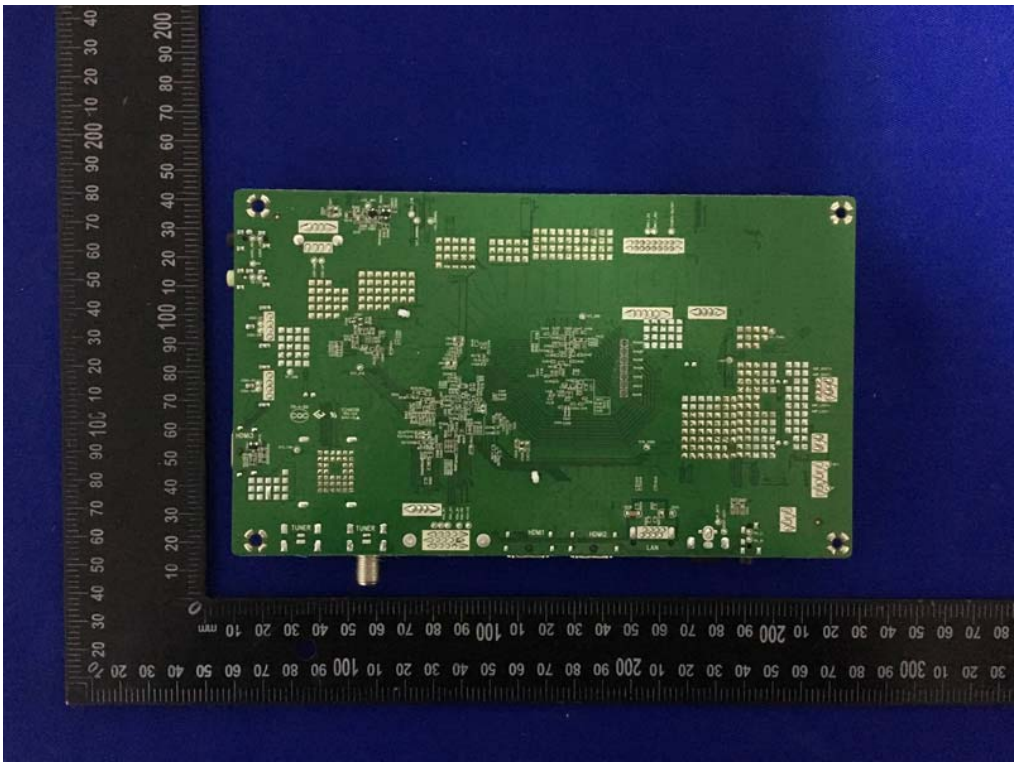

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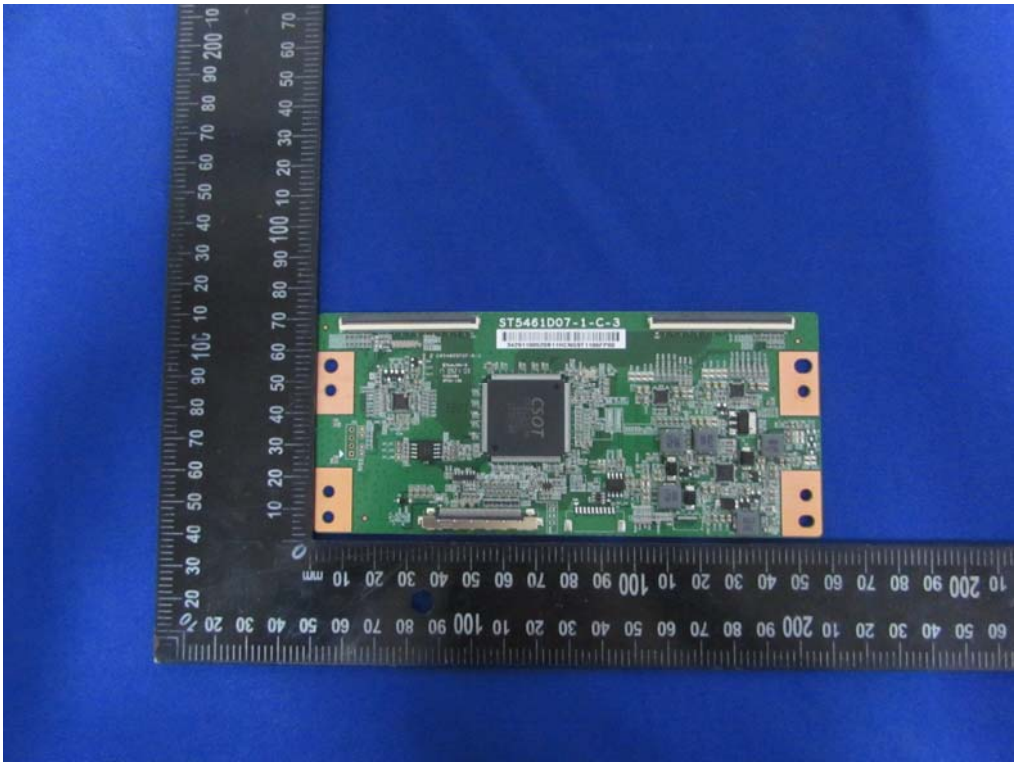

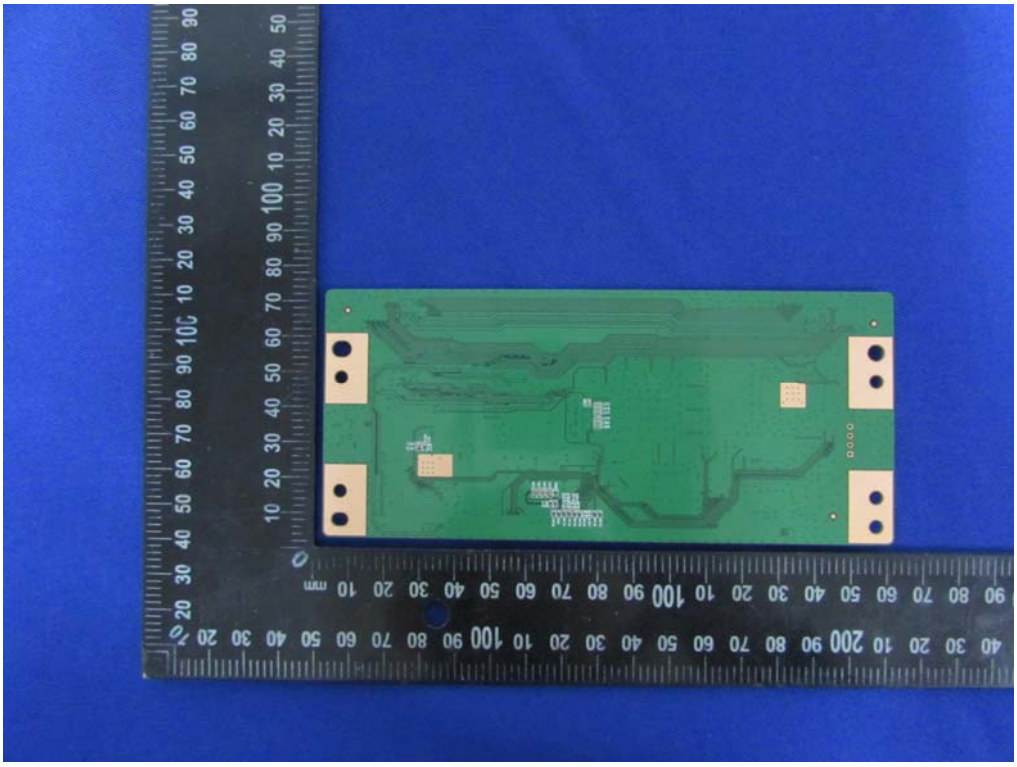

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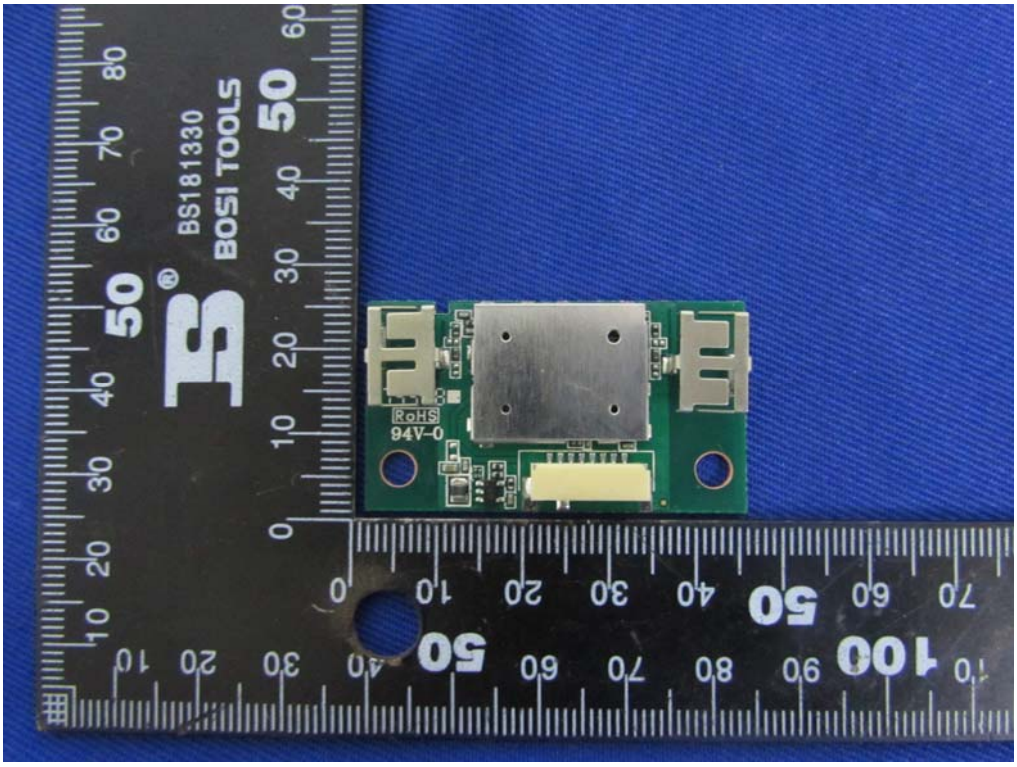

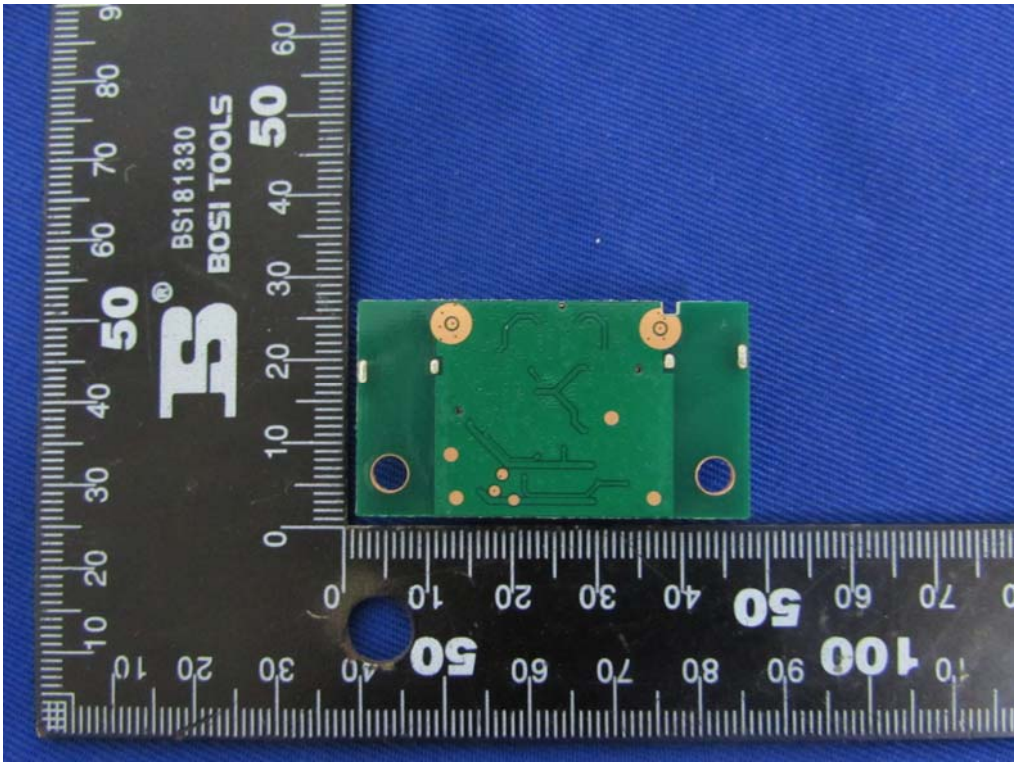

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