FCC PART 15C TEST REPORT FOR CERTIFICATION On Behalf of

Chunghsin Technology Group CO.,LTD

32inch HD DLED TV

Model Number: ELST3216H

FCC ID: 2AE2W-3216

Prepared for:	Chunghsin Technology Group CO., LTD			
	NO. 618-2 GONGREN WEST ROAD, JIAOJIANG AREA,			
	TAIZHOU, ZHEJIANG, China			
Prepared By:	EST Technology Co., Ltd.			
	Chilingxiang, Qishantou, Santun, Houjie, Dongguan, Guangdong, China			
	Tel: 86-769-83081888-808			

Report Number:	ESTE-R1807040
Date of Test:	Jul. 11~25, 2018
Date of Report:	Jul. 25, 2018

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EST Technology Co., Ltd.

Applicant: Address:	Chunghsin Technolo NO. 618-2 GONGRI TAIZHOU, ZHEJIA	EN WEST ROAD, JIA	OJIANG AREA,			
Manufacturer Address:	Chunghsin Technology Group CO., LTD NO. 618-2 GONGREN WEST ROAD, JIAOJIANG AREA, TAIZHOU, ZHEJIANG, China					
E.U.T:	32inch HD DLED T	V				
Model Number:	ELST3216H	CONTRACTOR AND				
Power Supply:	AC 120V~50/60Hz					
Test Voltage:	AC 120V/60Hz					
Trade Name:	<u>w</u>	Serial No.:				
Date of Receipt:	Jul. 11, 2018	Date of Test:	Jul. 11~25, 2018			
Test Specification:	FCC Rules and Regu ANSI C63.10:2013	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 Ltd. was assumed full responsibility for the accuracy and completeness of measurements. Also, this report shows that the EUT to be technically compliance with the FCC Rules and Regulations Part 15 Subpart C requirements.					
		above tested sample or approval of EST Techno	nly and shall not be reproduced in blogy Co., Ltd.			
Prepared by:		wed by:	Date: Jul. 25, 2018 Approved by:			
1,79	(10)		*			
Ring / Assistant	Tony / E	ingineer	Iceman Hull Manager			
Other Aspects: None.						
Abbreviations: OK/P=pa	ssed fail/F=failed	n.a/N=not applicable 1	E.U.T=equipment under tested			

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Product Name	Product Name : 32inch HD DLED TV						
Model Number	:	ELST3216H					
FCC ID	:	2AE2W-3216					
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 Directional gain: 4.22dBi (Directional gain =ANT(G)+10*LOG(N)=1.21+10*LOG(2))					
		Frequency Range	Antenna 0	Antenna 1			
		2400~2483.5 MHz	1.21dBi	1.21dBi			
		IEEE 802.11b/g Use SISO IEEE 802.11n Use 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	PASS			
Tower Eine Conducted Einission	ANSI C63.10:2013	17100			
	FCC Part 15: 15.209				
Radiated Emission	ANSI C63.10:2013	PASS			
	KDB 558074				
	FCC Part 15: 15.247				
Band Edge Compliance	ANSI C63.10:2013	PASS			
	KDB 558074				
	FCC Part 15: 15.247				
Conducted spurious emissions	ANSI C63.10:2013	PASS			
	KDB 558074				
	FCC Part 15: 15.247				
6dB Bandwidth	ANSI C63.10:2013	PASS			
	KDB 558074				
	FCC Part 15: 15.247				
Peak Output Power	ANSI C63.10:2013	PASS			
	KDB 558074				
	FCC Part 15: 15.247				
Power Spectral Density	ANSI C63.10:2013	PASS			
	KDB 558074				
Antenna requirement	FCC Part 15: 15.203	PASS			
Note: KDB 558074 D01 DTS Meas Guidance v04					

KDB 662911 D01 Multiple Transmitter Output v02r01



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
		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	±4.60 dB(Polarize: H)		
(30MHz-1GHz)	±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: 32inch HD DLED TV)

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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	Center	Upper
	channel	channel	channel
IEEE 802.11b;IEEE 802.11g;IEEE 802.11n HT20	2412MHz	2437MHz	2462MHz
Transmitting			
IEEE 802.11b;IEEE 802.11g;IEEE 802.11n HT20	2412MHz	2437MHz	2462MHz
Receiving			
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						
O1 1	Frequency	Channel	Frequency	CI 1	Frequency	
Channel	(MHz)		(MHz)	Channel	(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	Channel	Frequency	Channel	Frequency	
Channel	(MHz)	Channel	(MHz)	Channel	(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	Last Cal.	Next Cal.
				Body		
EMI Test Receiver	Rohde	ESHS30	832354	CEPREI	June 15,18	1 Year
	& Schwarz					
Artificial Mains Network	Rohde	ENV216	101260	CEPREI	June 15,18	1 Year
	& Schwarz					
Pulse Limiter	Rohde	ESH3-Z2	101100	CEPREI	June 15,18	1 Year
	& Schwarz					
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	Last Cal.	Next Cal.
				Body		
EMI Test	Rohde	ESR7	101780	CEPREI	June 15,18	1 Year
Receiver	& Schwarz					
Active Loop Antenna	SCHWARZB	FMZB1519	1519-038	CEPREI	October	1 Year
	ECK				08,17	
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	Last Cal.	Next Cal.
				Body		
EMI Test	Rohde	ESR7	101780	CEPREI	June 15,18	1 Year
Receiver	& Schwarz					
Bilog Antenna	Teseq	CBL 6111D	27090	CEPREI	June 15,18	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	Last Cal.	Next Cal.
				Body		
Horn Antenna	SCHWARZB	BBHA 9120 D	BBHA912	CEPREI	June 18,18	1 Year
	ECK		0D1002			
Horn Antenna	SCHWARZB	BBHA9170	BBHA917	CEPREI	June 18,18	1Year
	ECK		0242			
Signal Amplifier	SCHWARZB	BBV9718	9718-212	CEPREI	June 18,18	1 Year
	ECK					
Spectrum Analyzer	Rohde	FSV	103173	CEPREI	June 15,18	1 Year
	&Schwarz					
PSA Series Spertrum	Agilent	E4447A	MY50180	CEPREI	June 15,18	1Year
Analyzer			031			
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.	Nerial No	Calibration Body	Last Cal.	Next Cal.
Spectrum Analyzer	Rohde &Schwarz	FSV	103173	CEPREI	June 15,18	1 Year
Spectrum Analyzer	Agilent	E4408B	MY44211139	CEPREI	June 15,18	1 Year



3 POWER LINE CONDUCTED EMISSION TEST

3.1. Limit

	Maximum R	Maximum RF Line Voltage					
Frequency	Quasi-Peak Level	Average Level					
	dB(µV)	$dB(\mu V)$					
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*					
$500kHz \sim 5MHz$	56	46					
$5MHz \sim 30MHz$	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, 80cm 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.

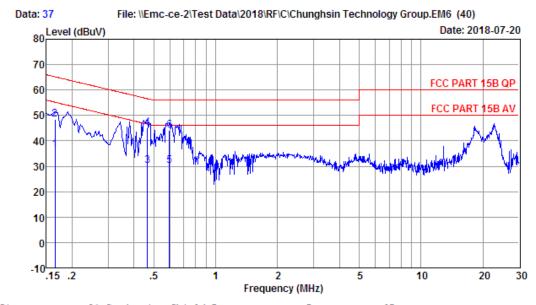


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3.4. Test data

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Site no : 2# Conduction Shield Room Data no. : 37
Env. / Ins. : Temp:26.1°C Humi:56% Press:101.50kPa LINE Phase : NEUTRAL

Limit : FCC PART 15B QP

Engineer : Seven

EUT : 32inch HD DLED TV
Power : AC 120V/60Hz
M/N : ELST3216H
Test Mode : TX Mode

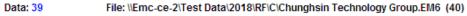
	Freq.	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuv)	Limits (dBuv)	Margin (dB)	Remark
1	0.165	9.64	0.04	26.86	36.54	55.21	18.67	Average
2	0.165	9.64	0.04	38.86	48.54	65.21	16.67	QP
3	0.466	9.74	0.05	20.50	30.29	46.58	16.29	Average
4	0.466	9.74	0.05	35.50	45.29	56.58	11.29	QP
5	0.595	9.77	0.05	20.39	30.21	46.00	15.79	Average
6	0.595	9.77	0.05	34.39	44.21	56.00	11.79	QP

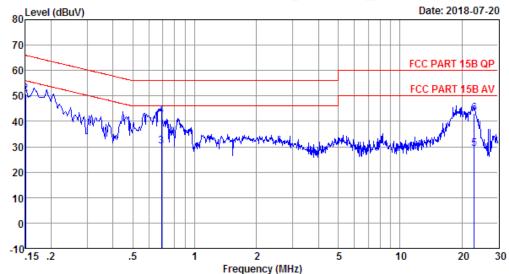
Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.

- 2. Margin= Limit Emission Level.
- 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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: 2# Conduction Shield Room Data no. : 39 Env. / Ins. : Temp:26.1°C Humi:56% Press:101.50kPa LINE Phase : LINE

: FCC PART 15B QP : Seven Limit

Engineer

EUT : 32inch HD DLED TV : AC 120V/60Hz : ELST3216H Power M/N Test Mode : TX Mode

	Freq.	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuv)	Limits (dBuv)	Margin (dB)	Remark
1	0.150	9.66	0.04	25.98	35.68	56.00	20.32	Average
2	0.150	9.66	0.04	40.98	50.68	66.00	15.32	QP
3	0.690	9.77	0.05	20.31	30.13	46.00	15.87	Average
4	0.690	9.77	0.05	32.31	42.13	56.00	13.87	QP
5	23.018	9.94	0.09	19.26	29.29	50.00	20.71	Average
6	23.018	9.94	0.09	33.26	43.29	60.00	16.71	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 $dB\mu V = 20 \log Emission level \mu V/m$

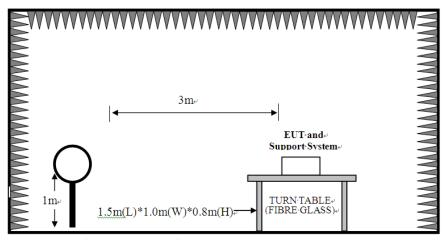
- (2) The smaller limit shall apply at the cross point between two frequency bands.
- (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.



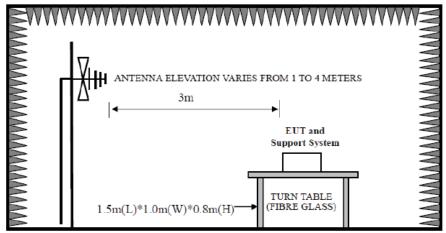
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4.2. Block Diagram of Test setup

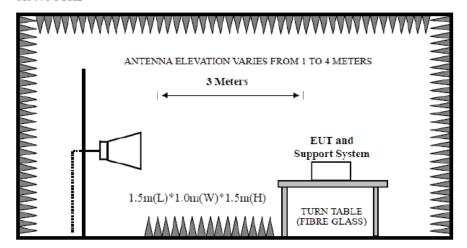
9kHz~30MHz+



30~1000MHz



Above 1GHz





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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.



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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.

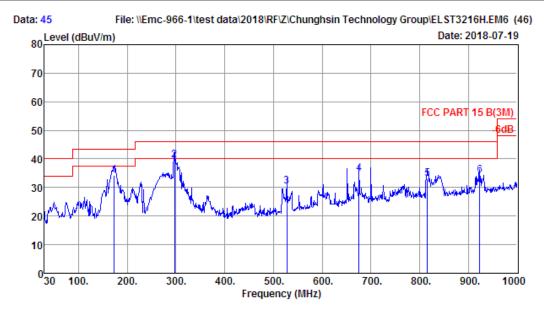


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30-1000 MHz

EST Technology

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Site no : 1# 966 Chamber Data no. : 45

Env. / Ins. : Temp:25.3'; Humi:54%; Press:101.52kPa LINE Phase : HORIZONTAL

Limit : FCC PART 15 B(3M)

Engineer : Seven

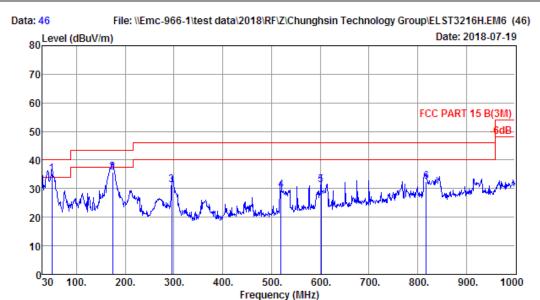
EUT : 32inch HD DLED TV
Power : AC 120V/60Hz
M/N : ELST3216H
Test Mode : TX Mode

	Freq.	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	173.560	9.74	1.43	23.11	34.28	43.50	9.22	QP
2	296.750	13.68	2.04	23.75	39.47	46.00	6.53	QP
3	527.610	18.86	2.97	8.59	30.42	46.00	15.58	QP
4	676.020	21.16	3.43	10.18	34.77	46.00	11.23	QP
5	815.700	22.96	3.87	6.37	33.20	46.00	12.80	QP
6	923.370	24.20	4.18	5.97	34.35	46.00	11.65	QP

- 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. : 46
Env. / Ins. : Temp:25.3';Humi:54%;Press:101.52kPa LINE Phase : VERTICAL

Limit : FCC PART 15 B(3M)

Engineer : Seven

EUT : 32inch HD DLED TV
Power : AC 120V/60Hz
M/N : ELST3216H
Test Mode : TX Mode

	Freq.	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	49.400	8.65	0.45	25.89	34.99	40.00	5.01	QP
2	174.530	9.70	1.44	24.72	35.86	43.50	7.64	QP
3	295.780	13.64	2.04	15.66	31.34	46.00	14.66	QP
4	519.850	18.70	2.94	7.76	29.40	46.00	16.60	QP
5	602.300	20.24	3.19	8.00	31.43	46.00	14.57	QP
6	817.640	22.98	3.88	5.70	32.56	46.00	13.44	QP

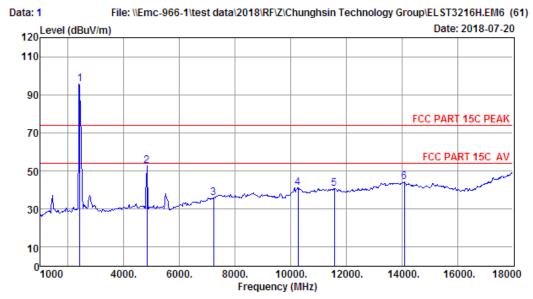
- 2. Margin= Limit Emission Level.
- 3. The emission levels that are 20dB below the official limit are not reported.



1000-18000 MHz

EST Technology

Chilingxiang, Qishantou, Santun, Houjie, Dongguan, Guangdong, China Tel:+86-769-83081888 Fax:+86-769-83081878



Site no. : 1# 966 Chamber Data no. : 1
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV
Power : AC 120V/60Hz
M/N : ELST3216H

Test Mode : IEEE 802.11b CH1 2412TX

Antenna 0

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.00	27.39	3.23	34.94	100.09	95.77	74.00	-21.77	Peak
2	4824.00	32.09	4.69	35.08	50.87	52.57	74.00	21.43	Peak
3	7236.00	36.63	6.03	33.42	26.83	36.07	74.00	37.93	Peak
4	10265.00	39.21	9.98	34.39	26.50	41.30	74.00	32.70	Peak
5	11574.00	40.00	8.26	32.42	24.91	40.75	74.00	33.25	Peak
6	14090.00	41.61	10.14	32.99	25.48	44.24	74.00	29.76	Peak

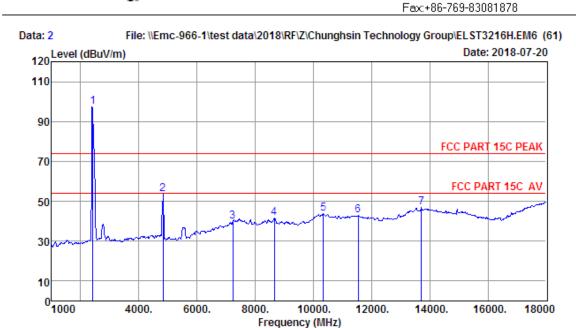
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.

2. Margin= Limit - Emission Level.

The emission levels that are 20dB below the official limit are not reported.



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Site no. : 1# 966 Chamber

Data no. : 2 Ant. pol. : HORIZONTAL : 3m ANT9120D 1-18G Dis. / Ant.

: FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

: Seven Engineer

: 32inch HD DLED TV EUT : AC 120V/60Hz Power M/N : ELST3216H

: IEEE 802.11b CH1 2412TX Test Mode

Antenna 0

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.00	27.39	3.23	34.94	101.70	97.38	74.00	-23.38	Peak
2	4824.00	32.09	4.69	35.08	51.74	53.44	74.00	20.56	Peak
3	7236.00	36.63	6.03	33.42	30.62	39.86	74.00	34.14	Peak
4	8650.00	37.41	6.90	33.18	30.29	41.42	74.00	32.58	Peak
5	10350.00	39.24	10.10	34.30	28.80	43.84	74.00	30.16	Peak
6	11540.00	40.05	8.27	32.49	27.22	43.05	74.00	30.95	Peak
7	13716.00	41.47	9.96	32.66	27.95	46.72	74.00	27.28	Peak

- 2. Margin= Limit Emission Level.
- 3. The emission levels that are 20dB below the official limit are not reported.



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Data: 3 File: \\Emc-966-1\test data\2018\RF\Z\Chunghsin Technology Group\ELST3216H.EM6 (61) Date: 2018-07-20 Level (dBuV/m) 110 90 FCC PART 15C PEAK 70 FCC PART 15C AV 50 30 0<mark>1000</mark> 4000. 6000. 8000. 10000. 12000. 14000. 16000. 18000

Frequency (MHz)

Site no. : 1# 966 Chamber Data no. : 3
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11b CH6 2437TX

Antenna 0

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	27.48	3.26	35.07	98.18	93.85	74.00	-19.85	Peak
2	4874.00	32.18	4.73	35.14	46.26	48.03	74.00	25.97	Peak
3	7311.00	36.78	6.09	33.31	30.85	40.41	74.00	33.59	Peak
4	10316.00	39.23	10.20	34.34	28.04	43.13	74.00	30.87	Peak
5	11268.00	40.01	8.38	32.97	28.29	43.71	74.00	30.29	Peak
6	14056.00	41.65	10.13	32.95	27.33	46.16	74.00	27.84	Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 4 File: \\Emc-966-1\test data\2018\RF\Z\Chunghsin Technology Group\ELST3216H.EM6 (61) Date: 2018-07-20 Level (dBuV/m) 110 90 FCC PART 15C PEAK 70 FCC PART 15C AV 50 30 0<mark>1000</mark> 4000. 6000. 8000. 10000. 12000. 14000. 16000. 18000

Frequency (MHz)

Site no. : 1# 966 Chamber

Data no. : 4
Ant. pol. : HORIZONTAL Dis. / Ant. : 3m ANT9120D 1-18G

: FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

: Seven Engineer

: 32inch HD DLED TV EUT : AC 120V/60Hz Power M/N : ELST3216H

: IEEE 802.11b CH6 2437TX Test Mode

Antenna 0

Freq. (MHz)	Ant.	Ant. Cable	Amp		Emission			
	-	Factor (dB/m)	Loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)
2437.00	27.48	3.26	35.07	99.27	94.94	74.00	-20.94	Peak
4874.00	32.18	4.73	35.14	47.67	49.44	74.00	24.56	Peak
7311.00	36.78	6.09	33.31	31.02	40.58	74.00	33.42	Peak
8650.00	37.41	6.90	33.18	29.82	40.95	74.00	33.05	Peak
11200.00	39.98	8.43	33.10	27.24	42.55	74.00	31.45	Peak
13920.00	41.63	10.11	32.83	26.87	45.78	74.00	28.22	Peak
	(MHz) 2437.00 4874.00 7311.00 8650.00 11200.00	Freq. Factor (dB/m) 2437.00 27.48 4874.00 32.18 7311.00 36.78 8650.00 37.41 11200.00 39.98	Freq. Factor Loss (MHz) (dB/m) (dB) 2437.00 27.48 3.26 4874.00 32.18 4.73 7311.00 36.78 6.09 8650.00 37.41 6.90 11200.00 39.98 8.43	Freq. Factor Loss Factor (MHz) (dB/m) (dB) (dB) 2437.00 27.48 3.26 35.07 4874.00 32.18 4.73 35.14 7311.00 36.78 6.09 33.31 8650.00 37.41 6.90 33.18 11200.00 39.98 8.43 33.10	Freq. Factor Loss Factor Reading (MHz) (dB/m) (dB) (dB) (dB) (dBuV) 2437.00 27.48 3.26 35.07 99.27 4874.00 32.18 4.73 35.14 47.67 7311.00 36.78 6.09 33.31 31.02 8650.00 37.41 6.90 33.18 29.82 11200.00 39.98 8.43 33.10 27.24	Freq. Factor Loss Factor Reading Level (MHz) (dB/m) (dB) (dB) (dBuV) (dBuV/m) 2437.00 27.48 3.26 35.07 99.27 94.94 4874.00 32.18 4.73 35.14 47.67 49.44 7311.00 36.78 6.09 33.31 31.02 40.58 8650.00 37.41 6.90 33.18 29.82 40.95 11200.00 39.98 8.43 33.10 27.24 42.55	Freq. Factor Loss Factor Reading Level Limits (MHz) (dB/m) (dB) (dB) (dBuV) (dBuV/m) (dBuV/m) 2437.00 27.48 3.26 35.07 99.27 94.94 74.00 4874.00 32.18 4.73 35.14 47.67 49.44 74.00 7311.00 36.78 6.09 33.31 31.02 40.58 74.00 8650.00 37.41 6.90 33.18 29.82 40.95 74.00 11200.00 39.98 8.43 33.10 27.24 42.55 74.00	Freq. Factor Loss Factor Reading Level Limits Margin (MHz) (dB/m) (dB) (dB) (dBuV) (dBuV/m) (

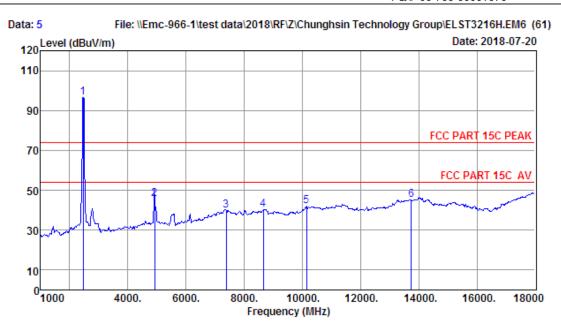
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.

- 2. Margin= Limit Emission Level.
- 3. The emission levels that are 20dB below the official limit are not reported.



Report No. ESTE-R1807040

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Site no. : 1# 966 Chamber

Data no. : 5 Ant. pol. : HORIZONTAL : 3m ANT9120D 1-18G Dis. / Ant.

: FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

: Seven Engineer

: 32inch HD DLED TV EUT : AC 120V/60Hz Power M/N : ELST3216H

: IEEE 802.11b CH11 2462TX Test Mode

Antenna 0

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.00	27.52	3.27	35.14	101.09	96.74	74.00	-22.74	Peak
2	4924.00	32.28	4.77	35.20	43.98	45.83	74.00	28.17	Peak
3	7386.00	36.97	6.12	33.17	30.09	40.01	74.00	33.99	Peak
4	8650.00	37.41	6.90	33.18	29.36	40.49	74.00	33.51	Peak
5	10146.00	39.16	9.48	34.51	27.77	41.90	74.00	32.10	Peak
6	13750.00	41.50	10.01	32.69	26.25	45.07	74.00	28.93	Peak

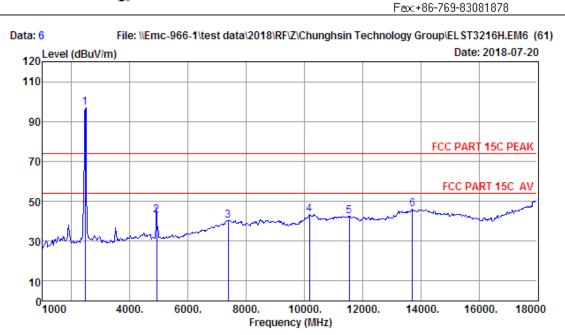
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.

- 2. Margin= Limit Emission Level.
- 3. The emission levels that are 20dB below the official limit are not reported.



Report No. ESTE-R1807040

Chilingxiang, Qishantou, Santun, Houjie, Dongguan,Guangdong,China Tel:+86-769-83081888



Site no. : 1# 966 Chamber Data no. : 6
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11b CH11 2462TX

Antenna 0

	Freq.	Ant.	Cable	Amp		Emission		Margin (dB)	Remark
		•	Loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		
1	2462.00	27.52	3.27	35.14	101.50	97.15	74.00	-23.15	Peak
2	4924.00	32.28	4.77	35.20	41.03	42.88	74.00	31.12	Peak
3	7386.00	36.97	6.12	33.17	30.40	40.32	74.00	33.68	Peak
4	10180.00	39.17	9.62	34.47	29.01	43.33	74.00	30.67	Peak
5	11540.00	40.05	8.27	32.49	26.89	42.72	74.00	31.28	Peak
6	13716.00	41.47	9.96	32.66	27.06	45.83	74.00	28.17	Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



Chilingxiang, Qishantou, Santun, Houjie, Dongguan, Guangdong, China Tel:+86-769-83081888 Fax:+86-769-83081878

Data: 7 File: \\Emc-966-1\test data\2018\RF\Z\Chunghsin Technology Group\ELST3216H.EM6 (61) Date: 2018-07-20 Level (dBuV/m) 110 90 FCC PART 15C PEAK 70 FCC PART 15C AV 50 30 0<mark>1000</mark> 4000. 6000. 8000. 10000. 12000. 14000. 16000. 18000

Frequency (MHz)

Site no. : 1# 966 Chamber

Data no. : 7
Ant. pol. : HORIZONTAL : 3m ANT9120D 1-18G Dis. / Ant.

: FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

: 32inch HD DLED TV EUT : AC 120V/60Hz Power M/N : ELST3216H

Test Mode : IEEE 802.11g CH1 2412TX

Antenna 0

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.00	27.39	3.23	34.94	97.68	93.36	74.00	-19.36	Peak
2	4824.00	32.09	4.69	35.08	40.95	42.65	74.00	31.35	Peak
3	7236.00	36.63	6.03	33.42	29.78	39.02	74.00	34.98	Peak
4	10129.00	39.15	9.40	34.53	29.31	43.33	74.00	30.67	Peak
5	12084.00	39.38	8.30	32.55	27.72	42.85	74.00	31.15	Peak
6	14056.00	41.65	10.13	32.95	26.83	45.66	74.00	28.34	Peak

- 2. Margin= Limit Emission Level.
- 3. The emission levels that are 20dB below the official limit are not reported.



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Data: 8 File: \\Emc-966-1\test data\2018\RF\Z\Chunghsin Technology Group\ELST3216H.EM6 (61) Date: 2018-07-20 Level (dBuV/m) 110 90 FCC PART 15C PEAK 70 FCC PART 15C AV 50 30/1/ 0<mark>1000</mark> 4000. 6000. 8000. 10000. 12000. 14000. 16000. 18000 Frequency (MHz)

Site no. : 1# 966 Chamber Data no. : 8
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11g CH1 2412TX

Antenna 0

	Freq.	Ant.	Cable	Amp		Emission			
		•	•			Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)
1	2412.00	27.39	3.23	34.94	98.58	94.26	74.00	-20.26	Peak
2	4824.00	32.09	4.69	35.08	48.98	50.68	74.00	23.32	Peak
3	7236.00	36.63	6.03	33.42	30.45	39.69	74.00	34.31	Peak
4	10316.00	39.23	10.20	34.34	29.88	44.97	74.00	29.03	Peak
5	11540.00	40.05	8.27	32.49	27.55	43.38	74.00	30.62	Peak
6	13665.00	41.43	9.89	32.62	27.98	46.68	74.00	27.32	Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 9 File: \\Emc-966-1\test data\2018\RF\Z\Chunghsin Technology Group\ELST3216H.EM6 (61) Date: 2018-07-20 Level (dBuV/m) 110 90 FCC PART 15C PEAK 70 FCC PART 15C AV 50 30 0<mark>1000</mark> 4000. 6000. 8000. 10000. 12000. 14000. 16000. 18000 Frequency (MHz)

Site no. : 1# 966 Chamber

Data no. : 9
Ant. pol. : HORIZONTAL : 3m ANT9120D 1-18G Dis. / Ant.

: FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

: Seven Engineer

: 32inch HD DLED TV EUT : AC 120V/60Hz Power M/N : ELST3216H

Test Mode : IEEE 802.11g CH6 2437TX

Antenna 0

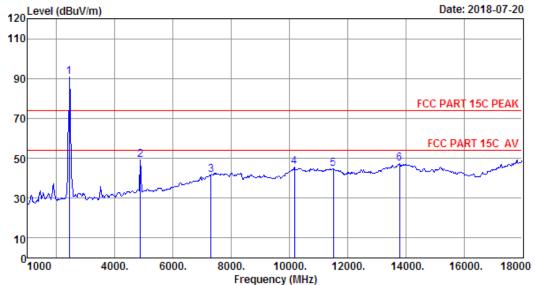
	_	Ant.	Cable	Amp		Emission			
	Freq. (MHz)	Factor (dB/m)	Loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	27.48	3.26	35.07	97.01	92.68	74.00	-18.68	Peak
2	4874.00	32.18	4.73	35.14	42.15	43.92	74.00	30.08	Peak
3	7311.00	36.78	6.09	33.31	29.98	39.54	74.00	34.46	Peak
4	10316.00	39.23	10.20	34.34	28.64	43.73	74.00	30.27	Peak
5	11506.00	40.10	8.28	32.55	27.94	43.77	74.00	30.23	Peak
6	13410.00	41.09	9.55	32.61	28.24	46.27	74.00	27.73	Peak

- 2. Margin= Limit Emission Level.
- 3. The emission levels that are 20dB below the official limit are not reported.



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Data: 10 File: \\Emc-966-1\test data\\2018\\RF\Z\\Chunghsin Technology Group\\ELST3216\H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 10
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11g CH6 2437TX

Antenna 0

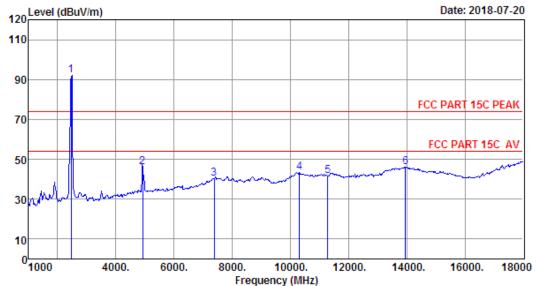
	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	27.48	3.26	35.07	95.25	90.92	74.00	-16.92	Peak
2	4874.00	32.18	4.73	35.14	47.44	49.21	74.00	24.79	Peak
3	7311.00	36.78	6.09	33.31	31.99	41.55	74.00	32.45	Peak
4	10180.00	39.17	9.62	34.47	31.09	45.41	74.00	28.59	Peak
5	11506.00	40.10	8.28	32.55	29.10	44.93	74.00	29.07	Peak
6	13784.00	41.53	10.05	32.72	28.40	47.26	74.00	26.74	Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 11 File: \\Emc-966-1\\test data\\2018\\RF\Z\\Chunghsin Technology Group\\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 11
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11g CH11 2462TX

Antenna 0

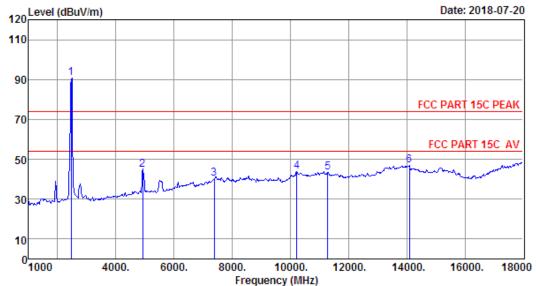
	Freq.	Ant.	Cable	Amp		Emission			
		-	Factor (dB/m)	Loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)
1	2462.00	27.52	3.27	35.14	96.44	92.09	74.00	-18.09	Peak
2	4924.00	32.28	4.77	35.20	44.12	45.97	74.00	28.03	Peak
3	7386.00	36.97	6.12	33.17	30.55	40.47	74.00	33.53	Peak
4	10316.00	39.23	10.20	34.34	28.14	43.23	74.00	30.77	Peak
5	11285.00	40.01	8.36	32.94	26.09	41.52	74.00	32.48	Peak
6	13954.00	41.66	10.12	32.84	27.05	45.99	74.00	28.01	Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



Chilingxiang, Qishantou, Santun, Houjie, Dongguan, Guangdong, China Tel:+86-769-83081888 Fax:+86-769-83081878

Data: 12 File: \\Emc-966-1\test data\2018\RF\Z\Chunghsin Technology Group\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber

Data no. : 12 Ant. pol. : HORIZONTAL : 3m ANT9120D 1-18G Dis. / Ant.

: FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

: Seven Engineer

: 32inch HD DLED TV EUT : AC 120V/60Hz Power M/N : ELST3216H

Test Mode : IEEE 802.11g CH11 2462TX

Antenna 0

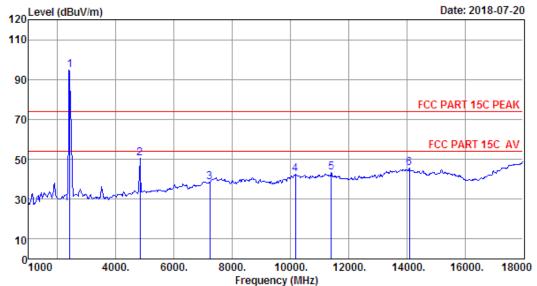
	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.00	27.52	3.27	35.14	95.18	90.83	74.00	-16.83	Peak
2	4924.00	32.28	4.77	35.20	42.71	44.56	74.00	29.44	Peak
3	7386.00	36.97	6.12	33.17	30.56	40.48	74.00	33.52	Peak
4	10214.00	39.19	9.77	34.43	29.50	44.03	74.00	29.97	Peak
5	11285.00	40.01	8.36	32.94	27.81	43.24	74.00	30.76	Peak
6	14090.00	41.61	10.14	32.99	27.98	46.74	74.00	27.26	Peak

- 2. Margin= Limit Emission Level.
- 3. The emission levels that are 20dB below the official limit are not reported.



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Data: 13 File: \Emc-966-1\test data\2018\RF\Z\Chunghsin Technology Group\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 13
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11b CH1 2412TX

Antenna 1

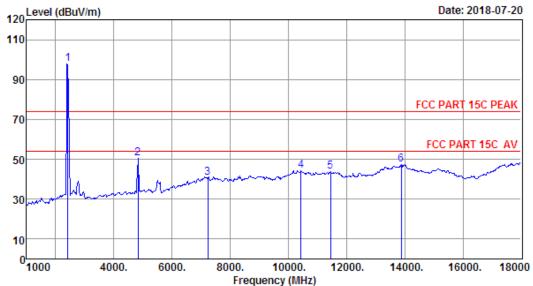
	_	Ant.	Cable	Amp		Emission			
	Freq. (MHz)	Factor (dB/m)	Loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.00	27.39	3.23	34.94	99.08	94.76	74.00	-20.76	Peak
2	4824.00	32.09	4.69	35.08	48.98	50.68	74.00	23.32	Peak
3	7236.00	36.63	6.03	33.42	29.45	38.69	74.00	35.31	Peak
4	10180.00	39.17	9.62	34.47	28.06	42.38	74.00	31.62	Peak
5	11404.00	40.06	8.29	32.71	27.57	43.21	74.00	30.79	Peak
6	14090.00	41.61	10.14	32.99	26.79	45.55	74.00	28.45	Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 14 File: \\Emc-966-1\test data\2018\RF\Z\Chunghsin Technology Group\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber

Data no. : 14 Ant. pol. : HORIZONTAL : 3m ANT9120D 1-18G Dis. / Ant.

: FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

: 32inch HD DLED TV EUT : AC 120V/60Hz Power M/N : ELST3216H

: IEEE 802.11b CH1 2412TX Test Mode

Antenna 1

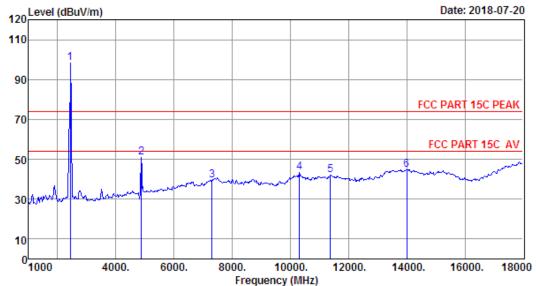
	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.00	27.39	3.23	34.94	102.40	98.08	74.00	-24.08	Peak
2	4824.00	32.09	4.69	35.08	48.83	50.53	74.00	23.47	Peak
3	7236.00	36.63	6.03	33.42	31.47	40.71	74.00	33.29	Peak
4	10435.00	39.27	9.85	34.20	29.20	44.12	74.00	29.88	Peak
5	11455.00	40.08	8.28	32.62	27.91	43.65	74.00	30.35	Peak
6	13886.00	41.61	10.11	32.80	28.34	47.26	74.00	26.74	Peak

- 2. Margin= Limit Emission Level.
- 3. The emission levels that are 20dB below the official limit are not reported.



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Data: 15 File: \\Emc-966-1\\test data\\2018\\RF\Z\\Chunghsin Technology Group\\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 15
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11b CH6 2437TX

Antenna 1

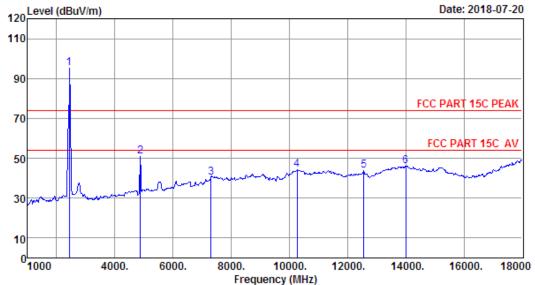
	Freq.	Ant.		Amp		Emission			
		•		Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	27.48	3.26	35.07	102.59	98.26	74.00	-24.26	Peak
2	4874.00	32.18	4.73	35.14	49.02	50.79	74.00	23.21	Peak
3	7311.00	36.78	6.09	33.31	29.69	39.25	74.00	34.75	Peak
4	10316.00	39.23	10.20	34.34	28.21	43.30	74.00	30.70	Peak
5	11370.00	40.05	8.30	32.78	26.40	41.97	74.00	32.03	Peak
6	14005.00	41.70	10.13	32.88	25.98	44.93	74.00	29.07	Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 16 File: \\Emc-966-1\test data\2018\RF\Z\Chunghsin Technology Group\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber

Data no. : 16 Ant. pol. : HORIZONTAL : 3m ANT9120D 1-18G Dis. / Ant.

: FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

: 32inch HD DLED TV EUT : AC 120V/60Hz Power M/N : ELST3216H

: IEEE 802.11b CH6 2437TX Test Mode

Antenna 1

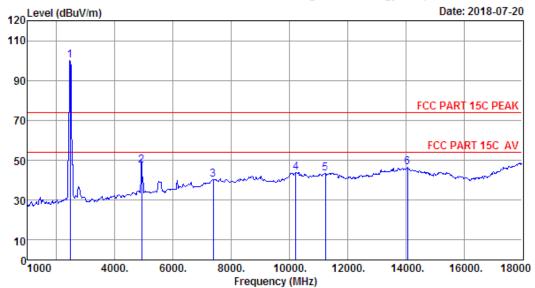
	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	27.48	3.26	35.07	99.70	95.37	74.00	-21.37	Peak
2	4874.00	32.18	4.73	35.14	48.95	50.72	74.00	23.28	Peak
3	7311.00	36.78	6.09	33.31	30.86	40.42	74.00	33.58	Peak
4	10265.00	39.21	9.98	34.39	29.44	44.24	74.00	29.76	Peak
5	12560.00	39.41	8.63	32.77	28.50	43.77	74.00	30.23	Peak
6	14005.00	41.70	10.13	32.88	27.21	46.16	74.00	27.84	Peak

- 2. Margin= Limit Emission Level.
- 3. The emission levels that are 20dB below the official limit are not reported.



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Data: 17 File: \\Emc-966-1\test data\2018\RF\Z\Chunghsin Technology Group\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber

Data no. : 17 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m ANT9120D 1-18G

: FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

: Seven Engineer

: 32inch HD DLED TV EUT : AC 120V/60Hz Power M/N : ELST3216H

: IEEE 802.11b CH11 2462TX Test Mode

Antenna 1

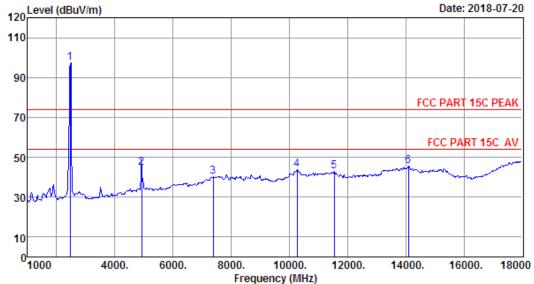
	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.00	27.52	3.27	35.14	104.45	100.10	74.00	-26.10	Peak
2	4924.00	32.28	4.77	35.20	45.38	47.23	74.00	26.77	Peak
3	7386.00	36.97	6.12	33.17	30.45	40.37	74.00	33.63	Peak
4	10214.00	39.19	9.77	34.43	29.27	43.80	74.00	30.20	Peak
5	11234.00	39.99	8.40	33.03	28.22	43.58	74.00	30.42	Peak
6	14056.00	41.65	10.13	32.95	27.46	46.29	74.00	27.71	Peak

- 2. Margin= Limit Emission Level.
- 3. The emission levels that are 20dB below the official limit are not reported.



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Data: 18 File: \\Emc-966-1\test data\\2018\\RF\\Z\\Chunghsin Technology Group\\ELST3216\H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 18
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11b CH11 2462TX

Antenna 1

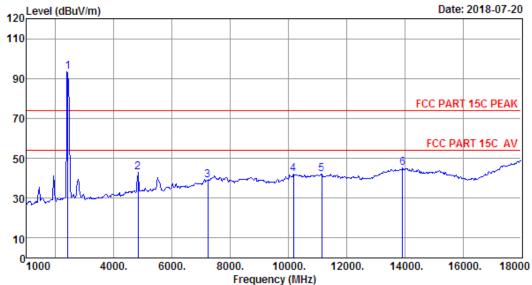
	Ai		Cable	Amp		Emission			
	Freq. (MHz)	Factor (dB/m)	Loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.00	27.52	3.27	35.14	101.62	97.27	74.00	-23.27	Peak
2	4924.00	32.28	4.77	35.20	42.93	44.78	74.00	29.22	Peak
3	7386.00	36.97	6.12	33.17	30.20	40.12	74.00	33.88	Peak
4	10265.00	39.21	9.98	34.39	28.95	43.75	74.00	30.25	Peak
5	11540.00	40.05	8.27	32.49	27.07	42.90	74.00	31.10	Peak
6	14090.00	41.61	10.14	32.99	26.69	45.45	74.00	28.55	Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 19 File: \\Emc-966-1\test data\2018\RF\Z\Chunghsin Technology Group\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber

Data no. : 19 Ant. pol. : HORIZONTAL : 3m ANT9120D 1-18G Dis. / Ant.

: FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

: Seven Engineer

: 32inch HD DLED TV EUT : AC 120V/60Hz Power M/N : ELST3216H

Test Mode : IEEE 802.11g CH1 2412TX

Antenna 1

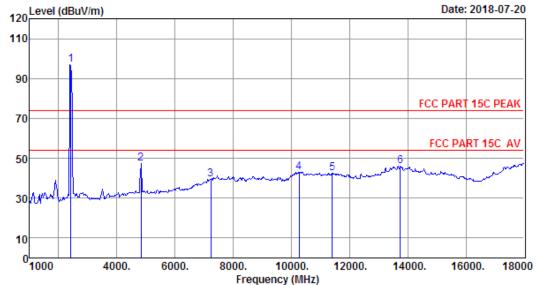
	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.00	27.39	3.23	34.94	97.84	93.52	74.00	-19.52	Peak
2	4824.00	32.09	4.69	35.08	41.20	42.90	74.00	31.10	Peak
3	7236.00	36.63	6.03	33.42	29.89	39.13	74.00	34.87	Peak
4	10180.00	39.17	9.62	34.47	27.75	42.07	74.00	31.93	Peak
5	11149.00	39.96	8.46	33.16	26.82	42.08	74.00	31.92	Peak
6	13920.00	41.63	10.11	32.83	26.23	45.14	74.00	28.86	Peak

- 2. Margin= Limit Emission Level.
- 3. The emission levels that are 20dB below the official limit are not reported.



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Data: 20 File: \\Emc-966-1\\test data\\2018\\RF\Z\\Chunghsin Technology Group\\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 20
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11g CH1 2412TX

Antenna 1

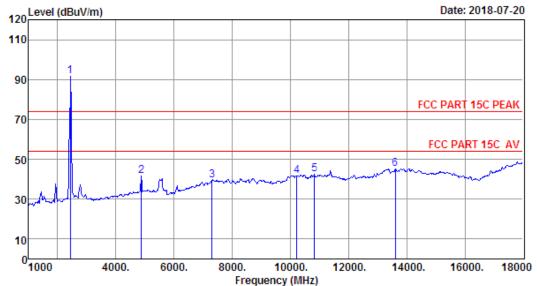
Freq.	Ant.	Cable	Amp		Emission			
	Factor (dB/m)	Loss (dB)		Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
2412.00	27.39	3.23	34.94	101.28	96.96	74.00	-22.96	Peak
4824.00	32.09	4.69	35.08	45.76	47.46	74.00	26.54	Peak
7236.00	36.63	6.03	33.42	30.34	39.58	74.00	34.42	Peak
10265.00	39.21	9.98	34.39	28.34	43.14	74.00	30.86	Peak
11404.00	40.06	8.29	32.71	26.82	42.46	74.00	31.54	Peak
13750.00	41.50	10.01	32.69	27.04	45.86	74.00	28.14	Peak
	(MHz) 2412.00 4824.00 7236.00 10265.00 11404.00	Freq. Factor (dB/m) 2412.00 27.39 4824.00 32.09 7236.00 36.63 10265.00 39.21 11404.00 40.06	Freq. Factor Loss (MHz) (dB/m) (dB) 2412.00 27.39 3.23 4824.00 32.09 4.69 7236.00 36.63 6.03 10265.00 39.21 9.98 11404.00 40.06 8.29	Freq. Factor Loss Factor (MHz) (dB/m) (dB) (dB) 2412.00 27.39 3.23 34.94 4824.00 32.09 4.69 35.08 7236.00 36.63 6.03 33.42 10265.00 39.21 9.98 34.39 11404.00 40.06 8.29 32.71	Freq. Factor Loss Factor Reading (MHz) (dB/m) (dB) (dB) (dBuV) 2412.00 27.39 3.23 34.94 101.28 4824.00 32.09 4.69 35.08 45.76 7236.00 36.63 6.03 33.42 30.34 10265.00 39.21 9.98 34.39 28.34 11404.00 40.06 8.29 32.71 26.82	Freq. Factor Loss Factor Reading Level (MHz) (dB/m) (dB) (dB) (dBuV) (dBuV/m) 2412.00 27.39 3.23 34.94 101.28 96.96 4824.00 32.09 4.69 35.08 45.76 47.46 7236.00 36.63 6.03 33.42 30.34 39.58 10265.00 39.21 9.98 34.39 28.34 43.14 11404.00 40.06 8.29 32.71 26.82 42.46	Freq. Factor Loss Factor Reading Level Limits (MHz) (dB/m) (dB) (dB) (dBuV) (dBuV/m) (dBuV/m) 2412.00 27.39 3.23 34.94 101.28 96.96 74.00 4824.00 32.09 4.69 35.08 45.76 47.46 74.00 7236.00 36.63 6.03 33.42 30.34 39.58 74.00 10265.00 39.21 9.98 34.39 28.34 43.14 74.00 11404.00 40.06 8.29 32.71 26.82 42.46 74.00	Freq. Factor Loss Factor Reading Level Limits Margin (MHz) (dB/m) (dB) (dB) (dBuV) (dBuV/m) (

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 21 File: \\Emc-966-1\test data\2018\RF\Z\Chunghsin Technology Group\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber

Data no. : 21 Ant. pol. : HORIZONTAL : 3m ANT9120D 1-18G Dis. / Ant.

: FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

: 32inch HD DLED TV EUT : AC 120V/60Hz Power M/N : ELST3216H

Test Mode : IEEE 802.11g CH6 2437TX

Antenna 1

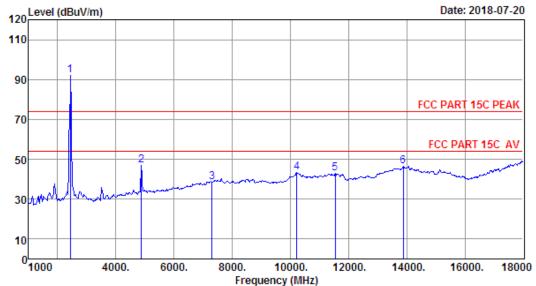
	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	27.48	3.26	35.07	96.13	91.80	74.00	-17.80	Peak
2	4874.00	32.18	4.73	35.14	39.76	41.53	74.00	32.47	Peak
3	7311.00	36.78	6.09	33.31	30.00	39.56	74.00	34.44	Peak
4	10214.00	39.19	9.77	34.43	27.31	41.84	74.00	32.16	Peak
5	10826.00	39.69	8.70	33.67	27.65	42.37	74.00	31.63	Peak
6	13614.00	41.39	9.82	32.59	26.73	45.35	74.00	28.65	Peak

- 2. Margin= Limit Emission Level.
- 3. The emission levels that are 20dB below the official limit are not reported.



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Data: 22 File: \\Emc-966-1\\test data\\2018\\RF\Z\\Chunghsin Technology Group\\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 22
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11g CH6 2437TX

Antenna 1

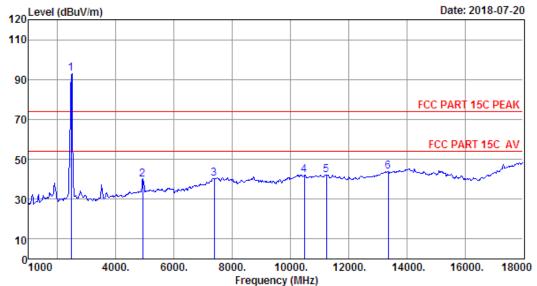
	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	27.48	3.26	35.07	96.56	92.23	74.00	-18.23	Peak
2	4874.00	32.18	4.73	35.14	45.04	46.81	74.00	27.19	Peak
3	7311.00	36.78	6.09	33.31	28.83	38.39	74.00	35.61	Peak
4	10214.00	39.19	9.77	34.43	28.72	43.25	74.00	30.75	Peak
5	11540.00	40.05	8.27	32.49	27.06	42.89	74.00	31.11	Peak
6	13886.00	41.61	10.11	32.80	27.49	46.41	74.00	27.59	Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 23 File: \\Emc-966-1\\test data\\2018\\RF\Z\\Chunghsin Technology Group\\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 23
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11g CH11 2462TX

Antenna 1

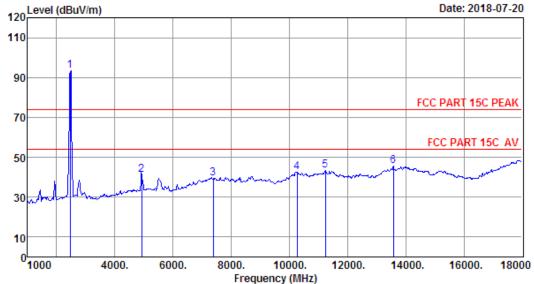
	Freg.	•		•		Reading	Emission Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	2462.00	27.52	3.27	35.14	97.14	92.79	74.00	-18.79	Peak	
2	4924.00	32.28	4.77	35.20	38.21	40.06	74.00	33.94	Peak	
3	7386.00	36.97	6.12	33.17	30.21	40.13	74.00	33.87	Peak	
4	10486.00	39.29	9.70	34.14	27.24	42.09	74.00	31.91	Peak	
5	11234.00	39.99	8.40	33.03	26.92	42.28	74.00	31.72	Peak	
6	13359.00	40.97	9.48	32.63	26.19	44.01	74.00	29.99	Peak	

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 24 File: \\Emc-966-1\test data\2018\RF\Z\Chunghsin Technology Group\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber

Data no. : 24 Ant. pol. : HORIZONTAL : 3m ANT9120D 1-18G Dis. / Ant.

: FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

: Seven Engineer

: 32inch HD DLED TV EUT : AC 120V/60Hz Power M/N : ELST3216H

Test Mode : IEEE 802.11g CH11 2462TX

Antenna 1

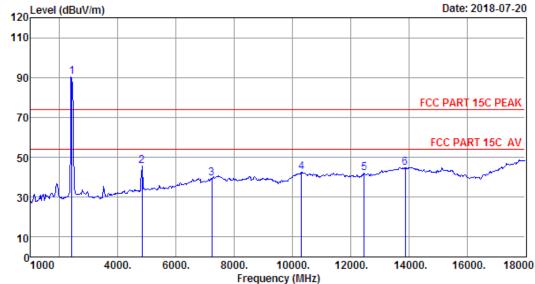
	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.00	27.52	3.27	35.14	97.71	93.36	74.00	-19.36	Peak
2	4924.00	32.28	4.77	35.20	39.36	41.21	74.00	32.79	Peak
3	7386.00	36.97	6.12	33.17	29.40	39.32	74.00	34.68	Peak
4	10265.00	39.21	9.98	34.39	27.87	42.67	74.00	31.33	Peak
5	11234.00	39.99	8.40	33.03	28.05	43.41	74.00	30.59	Peak
6	13580.00	41.37	9.78	32.57	26.84	45.42	74.00	28.58	Peak

- 2. Margin= Limit Emission Level.
- 3. The emission levels that are 20dB below the official limit are not reported.



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Data: 25 File: \\Emc-966-1\test data\\2018\\RF\\Z\\Chunghsin Technology Group\\ELST3216\H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 25
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11n HT20 CH1 2412TX

Antenna 0+1

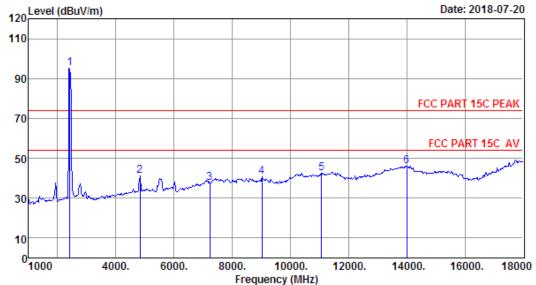
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.00	27.39	3.23	34.94	94.66	90.34	74.00	-16.34	Peak
2	4824.00	32.09	4.69	35.08	44.12	45.82	74.00	28.18	Peak
3	7236.00	36.63	6.03	33.42	30.17	39.41	74.00	34.59	Peak
4	10316.00	39.23	10.20	34.34	27.54	42.63	74.00	31.37	Peak
5	12475.00	39.30	8.57	32.71	26.78	41.94	74.00	32.06	Peak
6	13886.00	41.61	10.11	32.80	26.01	44.93	74.00	29.07	Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 26 File: \\Emc-966-1\test data\2018\RF\Z\Chunghsin Technology Group\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber

Data no. : 26 Ant. pol. : HORIZONTAL : 3m ANT9120D 1-18G Dis. / Ant.

: FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

: 32inch HD DLED TV EUT : AC 120V/60Hz Power M/N : ELST3216H

: IEEE 802.11n HT20 CH1 2412TX Test Mode

Antenna 0+1

	_	Ant.	Cable	Amp		Emission			
	Freq. (MHz)	Factor (dB/m)	Loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.00	27.39	3.23	34.94	99.40	95.08	74.00	-21.08	Peak
2	4824.00	32.09	4.69	35.08	39.67	41.37	74.00	32.63	Peak
3	7236.00	36.63	6.03	33.42	28.40	37.64	74.00	36.36	Peak
4	9024.00	37.93	6.95	33.72	29.40	40.56	74.00	33.44	Peak
5	11064.00	39.93	8.52	33.32	27.35	42.48	74.00	31.52	Peak
6	14005.00	41.70	10.13	32.88	27.22	46.17	74.00	27.83	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.

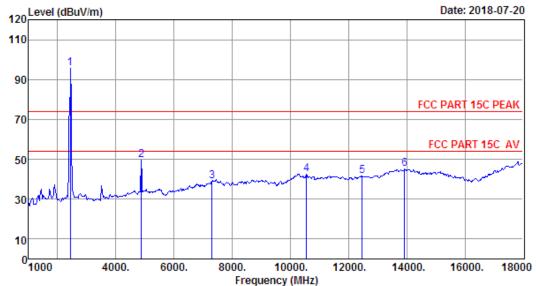
- 2. Margin= Limit Emission Level.
- 3. The emission levels that are 20dB below the official limit are not reported.



Report No. ESTE-R1807040

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Data: 27 File: \\Emc-966-1\\test data\\2018\\RF\Z\\Chunghsin Technology Group\\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 27
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11n HT20 CH6 2437TX

Antenna 0+1

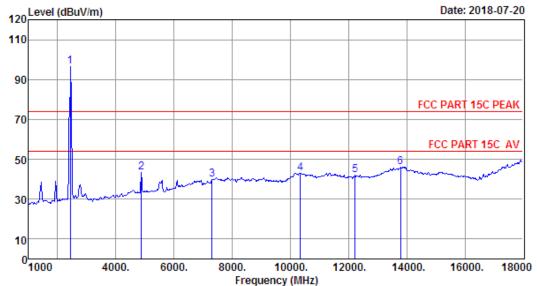
	_	Ant.	Cable	Amp		Emission			Remark
	Freq. (MHz)	Factor (dB/m)	Loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	
1	2437.00	27.48	3.26	35.07	99.84	95.51	74.00	-21.51	Peak
2	4874.00	32.18	4.73	35.14	47.86	49.63	74.00	24.37	Peak
3	7311.00	36.78	6.09	33.31	29.42	38.98	74.00	35.02	Peak
4	10554.00	39.36	9.50	34.05	27.88	42.69	74.00	31.31	Peak
5	12475.00	39.30	8.57	32.71	26.44	41.60	74.00	32.40	Peak
6	13920.00	41.63	10.11	32.83	26.28	45.19	74.00	28.81	Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 28 File: \\Emc-966-1\test data\2018\RF\Z\Chunghsin Technology Group\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber

Data no. : 28 Ant. pol. : HORIZONTAL : 3m ANT9120D 1-18G Dis. / Ant.

: FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

: 32inch HD DLED TV EUT : AC 120V/60Hz Power M/N : ELST3216H

: IEEE 802.11n HT20 CH6 2437TX Test Mode

Antenna 0+1

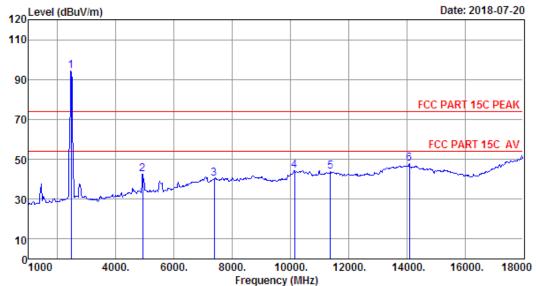
	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	27.48	3.26	35.07	100.99	96.66	74.00	-22.66	Peak
2	4874.00	32.18	4.73	35.14	41.78	43.55	74.00	30.45	Peak
3	7311.00	36.78	6.09	33.31	30.13	39.69	74.00	34.31	Peak
4	10350.00	39.24	10.10	34.30	28.11	43.15	74.00	30.85	Peak
5	12220.00	39.36	8.39	32.60	27.09	42.24	74.00	31.76	Peak
6	13784.00	41.53	10.05	32.72	27.29	46.15	74.00	27.85	Peak

- 2. Margin= Limit Emission Level.
- 3. The emission levels that are 20dB below the official limit are not reported.



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Data: 29 File: \\Emc-966-1\test data\2018\RF\Z\Chunghsin Technology Group\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber

Data no. : 29 Ant. pol. : HORIZONTAL : 3m ANT9120D 1-18G Dis. / Ant.

: FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

: 32inch HD DLED TV EUT : AC 120V/60Hz Power M/N : ELST3216H

: IEEE 802.11n HT20 CH11 2462TX Test Mode

Antenna 0+1

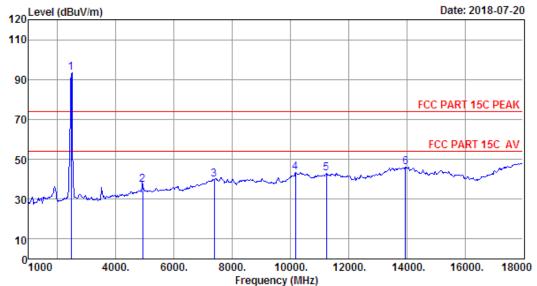
	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.00	27.52	3.27	35.14	98.57	94.22	74.00	-20.22	Peak
2	4924.00	32.28	4.77	35.20	40.47	42.32	74.00	31.68	Peak
3	7386.00	36.97	6.12	33.17	30.41	40.33	74.00	33.67	Peak
4	10146.00	39.16	9.48	34.51	30.25	44.38	74.00	29.62	Peak
5	11370.00	40.05	8.30	32.78	28.12	43.69	74.00	30.31	Peak
6	14090.00	41.61	10.14	32.99	28.87	47.63	74.00	26.37	Peak

- 2. Margin= Limit Emission Level.
- 3. The emission levels that are 20dB below the official limit are not reported.



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Data: 30 File: \Emc-966-1\test data\2018\RF\Z\Chunghsin Technology Group\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 30
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11n HT20 CH11 2462TX

Antenna 0+1

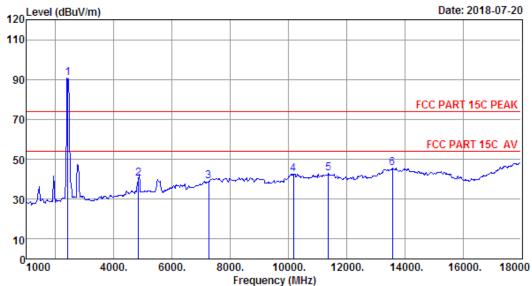
		Ant.	Cable	Amp		Emission			
	Freq. (MHz)	Factor (dB/m)	Loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.00	27.52	3.27	35.14	97.99	93.64	74.00	-19.64	Peak
2	4924.00	32.28	4.77	35.20	35.29	37.14	74.00	36.86	Peak
3	7386.00	36.97	6.12	33.17	30.09	40.01	74.00	33.99	Peak
4	10180.00	39.17	9.62	34.47	29.06	43.38	74.00	30.62	Peak
5	11234.00	39.99	8.40	33.03	27.76	43.12	74.00	30.88	Peak
6	13954.00	41.66	10.12	32.84	27.15	46.09	74.00	27.91	Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 31 File: \Emc-966-1\test data\2018\RF\Z\Chunghsin Technology Group\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 31
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11n HT40 CH3 2422TX

Antenna 0+1

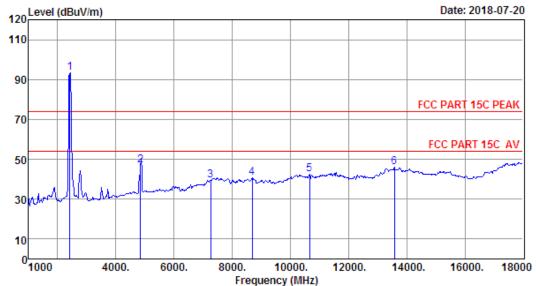
	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2422.00	27.43	3.24	35.00	94.99	90.66	74.00	-16.66	Peak
2	4844.00	32.12	4.70	35.10	38.78	40.50	74.00	33.50	Peak
3	7266.00	36.71	6.05	33.36	29.60	39.00	74.00	35.00	Peak
4	10180.00	39.17	9.62	34.47	28.41	42.73	74.00	31.27	Peak
5	11370.00	40.05	8.30	32.78	27.37	42.94	74.00	31.06	Peak
6	13580.00	41.37	9.78	32.57	27.17	45.75	74.00	28.25	Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 32 File: \\Emc-966-1\\test data\\2018\\RF\Z\\Chunghsin Technology Group\\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 32
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11n HT40 CH3 2422TX

Antenna 0+1

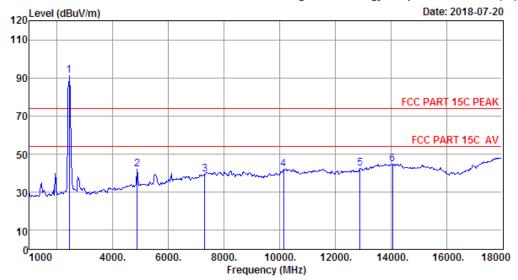
	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2422.00	27 43	3.24	35.00	97.79	93.46	74.00	-19.46	Peak
2		32.12	4.70	35.10	45.11	46.83	74.00	27.17	Peak
3	7266.00	36.71	6.05	33.36	30.15	39.55	74.00	34.45	Peak
4	8684.00	37.46	6.90	33.06	29.31	40.61	74.00	33.39	Peak
5	10656.00	39.49	9.20	33.92	27.64	42.41	74.00	31.59	Peak
6	13580.00	41.37	9.78	32.57	27.33	45.91	74.00	28.09	Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 33 File: \\Emc-966-1\test data\\2018\\RF\Z\\Chunghsin Technology Group\\ELST3216\H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 33
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11n HT40 CH6 2437TX

Antenna 0+1

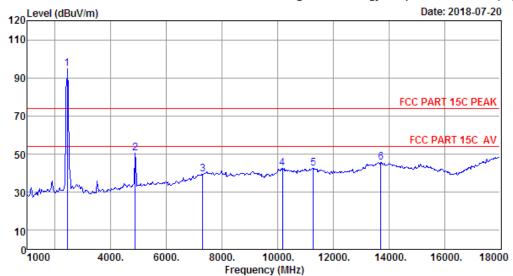
	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	27.48	3.26	35.07	95.69	91.36	74.00	-17.36	Peak
2	4874.00	32.18	4.73	35.14	40.45	42.22	74.00	31.78	Peak
3	7311.00	36.78	6.09	33.31	29.70	39.26	74.00	34.74	Peak
4	10146.00	39.16	9.48	34.51	28.09	42.22	74.00	31.78	Peak
5	12900.00	39.94	8.96	32.84	26.52	42.58	74.00	31.42	Peak
6	14056.00	41.65	10.13	32.95	26.08	44.91	74.00	29.09	Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 34 File: \\Emc-966-1\test data\\2018\\RF\Z\\Chunghsin Technology Group\\ELST3216\H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 34
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11n HT40 CH6 2437TX

Antenna 0+1

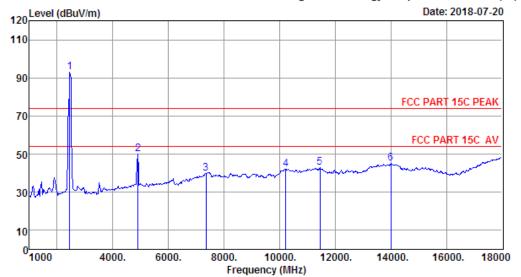
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	-	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	27.48	3.26	35.07	99.29	94.96	74.00	-20.96	Peak
2	4874.00	32.18	4.73	35.14	48.75	50.52	74.00	23.48	Peak
3	7311.00	36.78	6.09	33.31	29.94	39.50	74.00	34.50	Peak
4	10180.00	39.17	9.62	34.47	28.24	42.56	74.00	31.44	Peak
5	11285.00	40.01	8.36	32.94	27.15	42.58	74.00	31.42	Peak
6	13716.00	41.47	9.96	32.66	26.84	45.61	74.00	28.39	Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 35 File: \Emc-966-1\test data\2018\RF\Z\Chunghsin Technology Group\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 35
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11n HT40 CH9 2452TX

Antenna 0+1

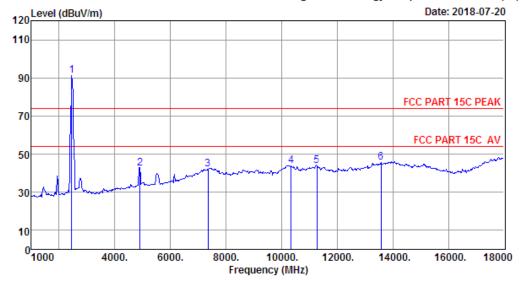
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2452.00	27.48	3.26	35.07	97.50	93.17	74.00	-19.17	Peak
2	4904.00	32.24	4.76	35.18	48.32	50.14	74.00	23.86	Peak
3	7356.00	36.90	6.11	33.22	30.11	39.90	74.00	34.10	Peak
4	10214.00	39.19	9.77	34.43	27.65	42.18	74.00	31.82	Peak
5	11455.00	40.08	8.28	32.62	27.00	42.74	74.00	31.26	Peak
6	14005.00	41.70	10.13	32.88	26.14	45.09	74.00	28.91	Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 36 File: \Emc-966-1\test data\2018\RF\Z\Chunghsin Technology Group\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 36
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11n HT40 CH9 2452TX

Antenna 0+1

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2452.00	27.48	3.26	35.07	95.63	91.30	74.00	-17.30	Peak
2	4904.00	32.24	4.76	35.18	40.82	42.64	74.00	31.36	Peak
3	7356.00	36.90	6.11	33.22	32.35	42.14	74.00	31.86	Peak
4	10350.00	39.24	10.10	34.30	28.88	43.92	74.00	30.08	Peak
5	11268.00	40.01	8.38	32.97	28.58	44.00	74.00	30.00	Peak
6	13580.00	41.37	9.78	32.57	26.98	45.56	74.00	28.44	Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



18000MHz - 25000MHz

Pass

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

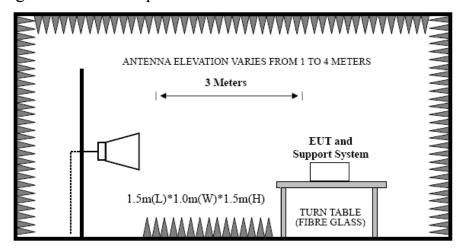


5 BAND EDGE COMPLIANCE TEST

5.1 Limit

All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits

5.2 Block Diagram of Test setup



5.3 Test Procedure

EUT was placed on a turn table, which is 1.5 m high above ground. 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.

Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of emissions

Peak: RBW = 1MHz, VBW = 1MHz, Detector=PEAK detector, Sweep time = auto.

AV : RBW = 1MHz, VBW = 10Hz, Detector=PEAK detector, Sweep time = auto.

5.4 Test Result

Pass (The testing data was attached in the next pages.)

- 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 2412 MHz . 2422MHz. 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.

Report No. ESTE-R1807040

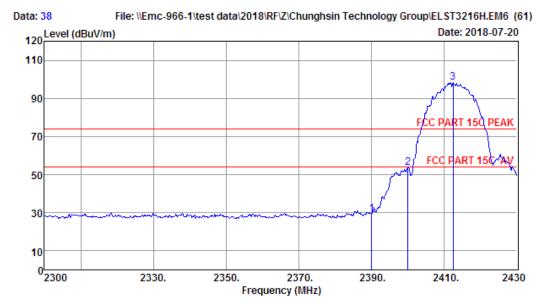


EST Technology Co. , Ltd

5.5 Test Data

EST Technology

Chilingxiang, Qishantou, Santun, Houjie, Dongguan, Guangdong, China Tel:+86-769-83081888 Fax:+86-769-83081878



Site no. : 1# 966 Chamber Data no. : 38
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11b CH1 2412TX

Antenna 0

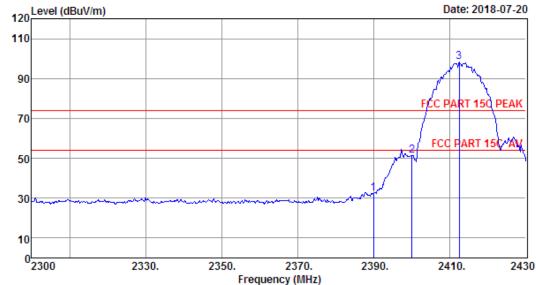
	Freq.			-	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2	2390.00 2400.00				33.72 58.17	29.41 53.79	74.00 74.00	44.59 20.21	Peak Peak
3	2412.45	27.39	3.23	34.94	102.82	98.50	74.00	-24.50	Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 39 File: \\Emc-966-1\\test data\\2018\\RF\Z\\Chunghsin Technology Group\\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 39
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV
Power : AC 120V/60Hz
M/N : ELST3216H

Test Mode : IEEE 802.11b CH1 2412TX

Antenna 0

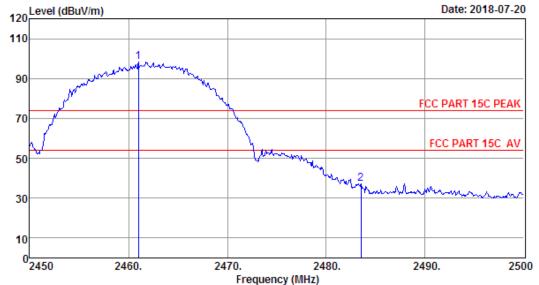
	Freq.			-	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
 1	2389.96	27.35	3.21	34.87	36.82	32.51	74.00	41.49	Peak
2	2399.97	27.35	3.21	34.94	55.87	51.49	74.00	22.51	Peak
3	2412.45	27.39	3.23	34.94	102.41	98.09	74.00	-24.09	Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 40 File: \\Emc-966-1\test data\\2018\\RF\Z\\Chunghsin Technology Group\\ELST3216\H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 40
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11b CH11 2462TX

Antenna 0

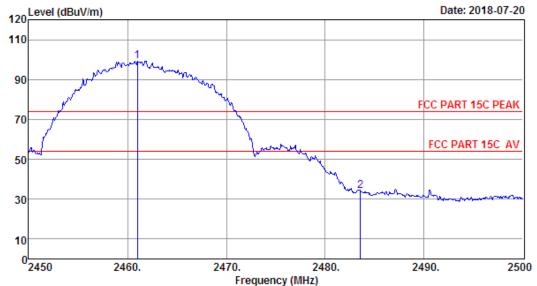
	Freq.	Factor	Factor	Reading	Emission Level (dBuV/m)		Margin (dB)	Remark
_	2461.00 2483.50		 		98.17 37.17	74.00 74.00	-24.17 36.83	Peak Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 41 File: \\Emc-966-1\test data\2018\RF\Z\Chunghsin Technology Group\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber

Data no. : 41 Ant. pol. : HORIZONTAL : 3m ANT9120D 1-18G Dis. / Ant.

: FCC PART 15C PEAK

Env. / Ins. : Temp:28.6';Humi:50%;Press:101.52kPa

Engineer : Seven

: 32inch HD DLED TV EUT : AC 120V/60Hz Power M/N : ELST3216H

: IEEE 802.11b CH11 2462TX Test Mode

Antenna 0

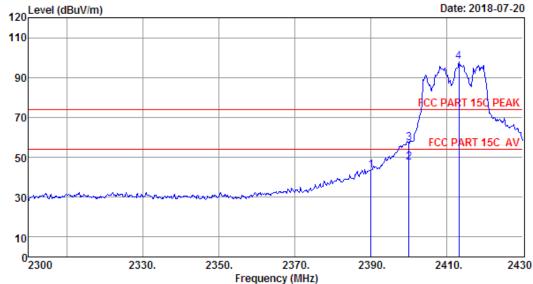
	Freq.	Factor	Factor	Reading	Emission Level (dBuV/m)		Margin (dB)	Remark
1 2	2461.00 2483.55		 		99.39 34.13	74.00 74.00	-25.39 39.87	Peak Peak

- 2. Margin= Limit Emission Level.
- 3. The emission levels that are 20dB below the official limit are not reported.



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Data: 42 File: \\Emc-966-1\\test data\\2018\\RF\\Z\\Chunghsin Technology Group\\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 42
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11g CH1 2412TX

Antenna 0

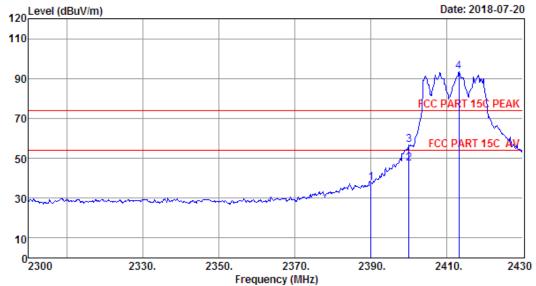
	Freq.			•	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.35	3.21	34.87	47.92	43.61	74.00	30.39	Peak
2	2400.00	27.35	3.21	34.94	51.60	47.22	54.00	6.78	Average
3	2400.00	27.35	3.21	34.94	61.60	57.22	74.00	16.78	Peak
4	2413.10	27.39	3.23	34.94	101.99	97.67	74.00	-23.67	Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 43 File: \\Emc-966-1\test data\2018\RF\Z\Chunghsin Technology Group\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber

Data no. : 43 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m ANT9120D 1-18G

: FCC PART 15C PEAK

Env. / Ins. : Temp:28.6';Humi:50%;Press:101.52kPa

Engineer : Seven

: 32inch HD DLED TV EUT : AC 120V/60Hz Power M/N : ELST3216H

Test Mode : IEEE 802.11g CH1 2412TX

Antenna 0

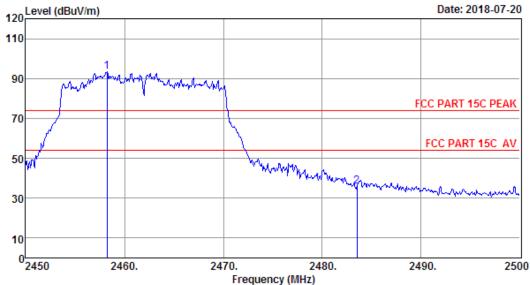
	Freq.			-	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.35	3.21	34.87	42.16	37.85	74.00	36.15	Peak
2	2400.00	27.35	3.21	34.94	51.85	47.47	54.00	6.53	Average
3	2400.00	27.35	3.21	34.94	60.85	56.47	74.00	17.53	Peak
4	2413.10	27.39	3.23	34.94	97.56	93.24	74.00	-19.24	Peak

- 2. Margin= Limit Emission Level.
- 3. The emission levels that are 20dB below the official limit are not reported.



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Data: 44 File: \\Emc-966-1\\test data\\2018\\RF\Z\\Chunghsin Technology Group\\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 44
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11g CH11 2462TX

Antenna 0

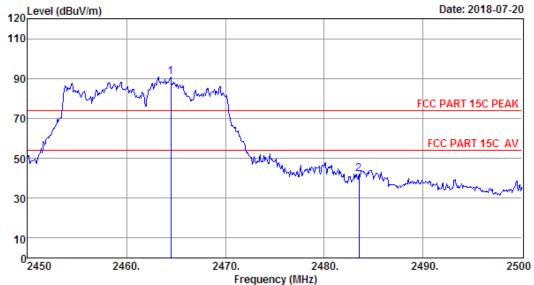
	Freq.		Factor	_	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2	2458.25 2483.50	 			93.37 36.00	74.00 74.00	-19.37 38.00	Peak Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 45 File: \\Emc-966-1\test data\\2018\\RF\\Z\\Chunghsin Technology Group\\ELST3216\H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 45
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11g CH11 2462TX

Antenna 0

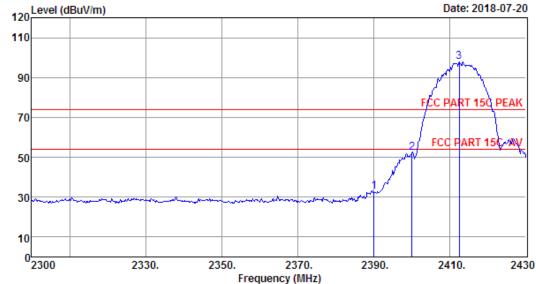
	Freq.		Factor	_	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2	2464.50 2483.50	 			90.69 42.23	74.00 74.00	-16.69 31.77	Peak Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 46 File: \\Emc-966-1\test data\2018\RF\Z\Chunghsin Technology Group\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber

Data no. : 46 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m ANT9120D 1-18G

: FCC PART 15C PEAK

: Temp:28.6';Humi:50%;Press:101.52kPa Env. / Ins.

Engineer : Seven

: 32inch HD DLED TV EUT : AC 120V/60Hz Power M/N : ELST3216H

: IEEE 802.11b CH1 2412TX Test Mode

Antenna 1

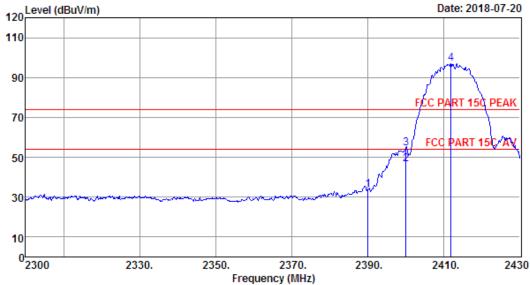
	Freq.			-	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
 1	2390.00	27.35	3.21	34.87	36.97	32.66	74.00	41.34	Peak
2	2400.00	27.35	3.21	34.94	56.71	52.33	74.00	21.67	Peak
3	2412.45	27.39	3.23	34.94	102.38	98.06	74.00	-24.06	Peak

- 2. Margin= Limit Emission Level.
- 3. The emission levels that are 20dB below the official limit are not reported.



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Data: 47 File: \\Emc-966-1\test data\\2018\\RF\\Z\\Chunghsin Technology Group\\ELST3216\H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 47
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11b CH1 2412TX

Antenna 1

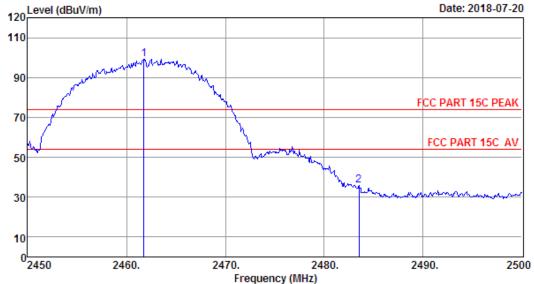
	Freq.			-	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.35	3.21	34.87	38.12	33.81	74.00	40.19	Peak
2	2400.00	27.35	3.21	34.94	50.98	46.60	54.00	7.40	Average
3	2400.00	27.35	3.21	34.94	58.98	54.60	74.00	19.40	Peak
4	2411.80	27.39	3.23	34.94	101.40	97.08	74.00	-23.08	Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 48 File: \\Emc-966-1\test data\\2018\\RF\\Z\\Chunghsin Technology Group\\ELST3216\H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 48
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11b CH11 2462TX

Antenna 1

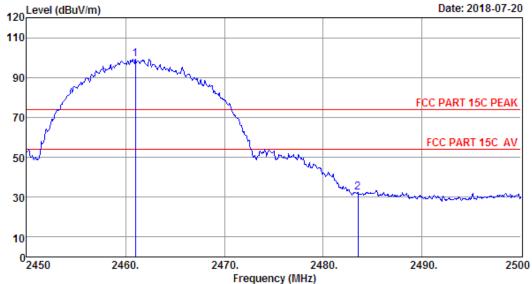
	Freq.	Factor	Loss	_	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
_	2461.75 2483.50			 	99.17 35.87	74.00 74.00	-25.17 38.13	Peak Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 49 File: \\Emc-966-1\\test data\\2018\\RF\\Z\\Chunghsin Technology Group\\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 49
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV
Power : AC 120V/60Hz
M/N : ELST3216H

Test Mode : IEEE 802.11b CH11 2462TX

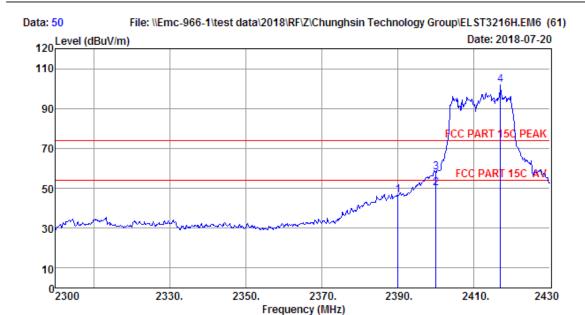
Antenna 1

	Freq.	Factor	Factor	Reading	Emission Level (dBuV/m)		Margin (dB)	Remark
_	2461.00 2483.50		 		99.32 32.32	74.00 74.00	-25.32 41.68	Peak Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Site no. : 1# 966 Chamber Data no. : 50
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11g CH1 2412TX

Antenna 0

	Freq.			-	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.35	3.21	34.87	50.92	46.61	74.00	27.39	Peak
2	2400.00	27.35	3.21	34.94	54.60	50.22	54.00	3.78	Average
3	2400.00	27.35	3.21	34.94	62.60	58.22	74.00	15.78	Peak
4	2417.00	27.39	3.23	34.94	105.98	101.66	74.00	-27.66	Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 51 File: \\Emc-966-1\test data\2018\RF\Z\Chunghsin Technology Group\ELST3216H.EM6 (61) Date: 2018-07-20 120 90 70 FCC PART 15CMV 50 30

2370.

Frequency (MHz)

2390.

2410.

2430

Site no. : 1# 966 Chamber

Data no. : 51 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m ANT9120D 1-18G

2350.

: FCC PART 15C PEAK

Env. / Ins. : Temp:28.6';Humi:50%;Press:101.52kPa

2330.

Engineer : Seven

0<mark>2300</mark>

: 32inch HD DLED TV EUT : AC 120V/60Hz Power M/N : ELST3216H

Test Mode : IEEE 802.11g CH1 2412TX

Antenna 0

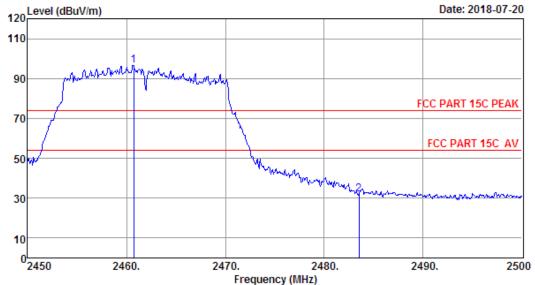
	Freq.			-	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.35	3.21	34.87	42.16	37.85	74.00	36.15	Peak
2	2400.00	27.35	3.21	34.94	53.85	49.47	54.00	4.53	Average
3	2400.00	27.35	3.21	34.94	61.85	57.47	74.00	16.53	Peak
4	2413.10	27.39	3.23	34.94	97.56	93.24	74.00	-19.24	Peak

- 2. Margin= Limit Emission Level.
- 3. The emission levels that are 20dB below the official limit are not reported.



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Data: 52 File: \\Emc-966-1\test data\\2018\\RF\\Z\\Chunghsin Technology Group\\ELST3216\H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 52
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11g CH11 2462TX

Antenna 1

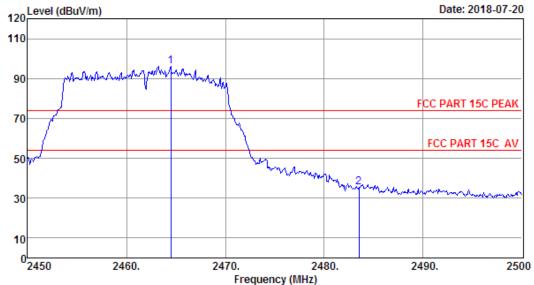
	Freq. (MHz)	Loss	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
_	2460.75 2483.50	 	 	96.63 31.86	74.00 74.00	-22.63 42.14	Peak Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 53 File: \\Emc-966-1\test data\\2018\\RF\\Z\\Chunghsin Technology Group\\ELST3216\H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 53
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11g CH11 2462TX

Antenna 1

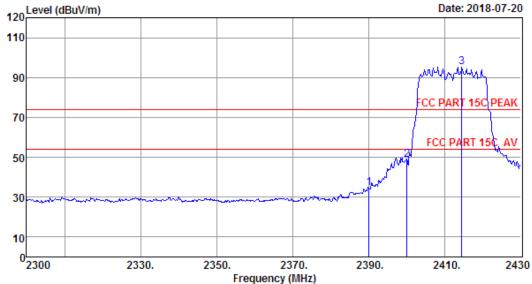
	-			Factor	_	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2464.50	27.52	3.27	35.14	100.54	96.19	74.00	-22.19	Peak
2	2483.50	27.56	3.29	35.21	39.97	35.61	74.00	38.39	Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 54 File: \\Emc-966-1\test data\2018\RF\Z\Chunghsin Technology Group\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber

Data no. : 54 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m ANT9120D 1-18G

: FCC PART 15C PEAK

Env. / Ins. : Temp:28.6';Humi:50%;Press:101.52kPa

Engineer : Seven

: 32inch HD DLED TV EUT : AC 120V/60Hz Power M/N : ELST3216H

: IEEE 802.11n HT20 CH1 2412TX Test Mode

Antenna 0+1

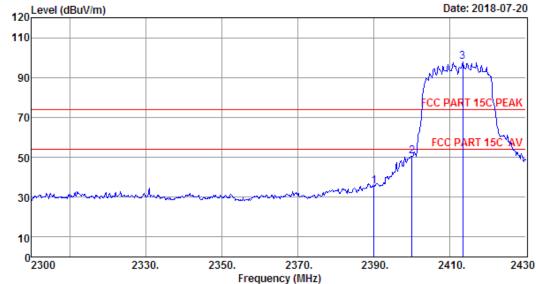
	Freq.			-	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.35	3.21	34.87	38.67	34.36	74.00	39.64	Peak
2	2400.00	27.35	3.21	34.94	53.09	48.71	74.00	25.29	Peak
3	2414.40	27.39	3.23	34.94	99.57	95.25	74.00	-21.25	Peak

- 2. Margin= Limit Emission Level.
- 3. The emission levels that are 20dB below the official limit are not reported.



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Data: 55 File: \\Emc-966-1\\test data\\2018\\RF\\Z\\Chunghsin Technology Group\\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 55
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV
Power : AC 120V/60Hz
M/N : ELST3216H

Test Mode : IEEE 802.11n HT20 CH1 2412TX

Antenna 0+1

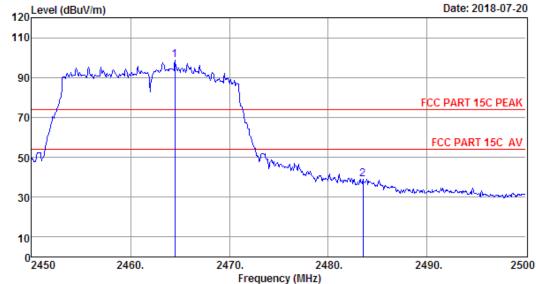
		Freq.			•	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
_	1	2390.00	27.35	3.21	34.87	39.57	35.26	74.00	38.74	Peak
	2	2400.00	27.35	3.21	34.94	54.94	50.56	74.00	23.44	Peak
	3	2413.36	27.39	3.23	34.94	102.06	97.74	74.00	-23.74	Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 56 File: \\Emc-966-1\test data\\2018\\RF\\Z\\Chunghsin Technology Group\\ELST3216\H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 56
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11n HT20 CH11 2462TX

Antenna 0+1

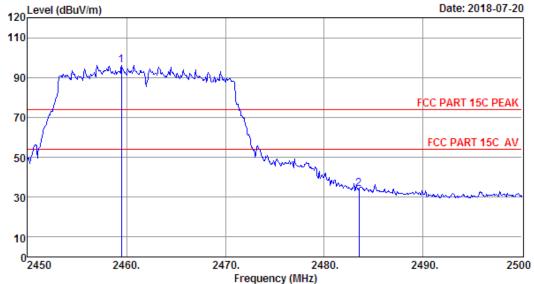
		Freq.	Factor		Factor	_	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	1	2464.50	27.52	3.27	35.14	102.90	98.55	74.00	-24.55	Peak
2	2	2483.50	27.56	3.29	35.21	43.40	39.04	74.00	34.96	Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 57 File: \\Emc-966-1\test data\2018\RF\Z\Chunghsin Technology Group\ELST3216H.EM6 (61)



Data no. : 57 Ant. pol. : HORIZONTAL Site no. : 1# 966 Chamber

Dis. / Ant. : 3m ANT9120D 1-18G

: FCC PART 15C PEAK

: Temp:28.6';Humi:50%;Press:101.52kPa Env. / Ins.

Engineer : Seven

: 32inch HD DLED TV EUT : AC 120V/60Hz Power M/N : ELST3216H

: IEEE 802.11n HT20 CH11 2462TX Test Mode

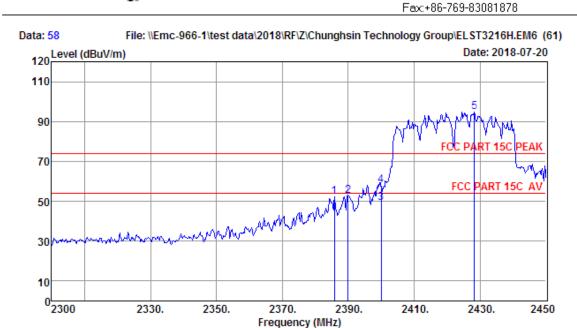
Antenna 0+1

	Freq.	Factor	Factor	Reading	Emission Level (dBuV/m)		Margin (dB)	Remark
1 2	2459.50 2483.50		 		96.27 34.19	74.00 74.00	-22.27 39.81	Peak Peak

- 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. : 58
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11n HT40 CH3 2422TX

Antenna 0+1

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2385.80	27.35	3.21	34.87	56.72	52.41	74.00	21.59	Peak
2	2390.00	27.35	3.21	34.87	57.22	52.91	74.00	21.09	Peak
3	2400.00	27.35	3.21	34.94	53.31	48.93	54.00	5.07	Average
4	2400.00	27.35	3.21	34.94	62.31	57.93	74.00	16.07	Peak
5	2428.25	27.43	3.24	35.00	99.29	94.96	74.00	-20.96	Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 59 File: \\Emc-966-1\test data\2018\RF\Z\Chunghsin Technology Group\ELST3216H.EM6 (61) Date: 2018-07-20 120 90 70 FCC PART 15C 50 30 0<mark>2300</mark>

2370.

Frequency (MHz)

2390.

2410.

2430.

2450

Data no. : 59 Ant. pol. : HORIZONTAL Site no. : 1# 966 Chamber Dis. / Ant. : 3m ANT9120D 1-18G

2350.

: FCC PART 15C PEAK

Env. / Ins. : Temp:28.6';Humi:50%;Press:101.52kPa

2330.

Engineer : Seven

: 32inch HD DLED TV EUT : AC 120V/60Hz Power M/N : ELST3216H

: IEEE 802.11n HT40 CH3 2422TX Test Mode

Antenna 0+1

	Freq.		Cable Loss (dB)	-	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.35	3.21	34.87	50.46	46.15	74.00	27.85	Peak
2	2400.00	27.35	3.21	34.94	54.45	50.07	54.00	3.93	Average
3	2400.00	27.35	3.21	34.94	62.45	58.07	74.00	15.93	Peak
4	2433.50	27.43	3.24	35.00	98.53	94.20	74.00	-20.20	Peak

- 2. Margin= Limit Emission Level.
- 3. The emission levels that are 20dB below the official limit are not reported.



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Data: 60 File: \\Emc-966-1\test data\2018\RF\Z\Chunghsin Technology Group\ELST3216H.EM6 (61) Date: 2018-07-20 110 90 FCC PART 15C PEAK 70 FCC PART 15C AV 50 30

2460.

Frequency (MHz)

2470.

2480.

2490.

2500

Site no. : 1# 966 Chamber

2450.

Data no. : 60 Ant. pol. : HORIZONTAL : 3m ANT9120D 1-18G Dis. / Ant.

: FCC PART 15C PEAK

2440.

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

0<mark>2430</mark>

: 32inch HD DLED TV EUT : AC 120V/60Hz Power M/N : ELST3216H

: IEEE 802.11n HT40 CH9 2452TX Test Mode

Antenna 0+1

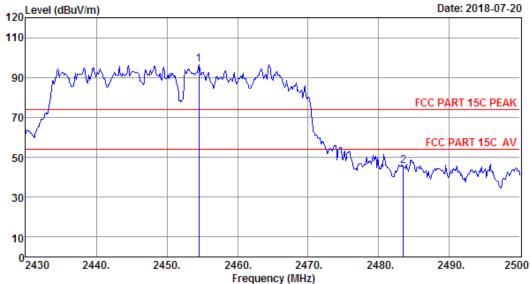
Freq.	Loss	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
2438.26 2483.48			92.93 41.53	74.00 74.00	-18.93 32.47	Peak Peak

- 2. Margin= Limit Emission Level.
- 3. The emission levels that are 20dB below the official limit are not reported.



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Data: 61 File: \\Emc-966-1\test data\\2018\\RF\Z\\Chunghsin Technology Group\\ELST3216H.EM6 (61)



Site no. : 1# 966 Chamber Data no. : 61
Dis. / Ant. : 3m ANT9120D 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:28.6'; Humi:50%; Press:101.52kPa

Engineer : Seven

EUT : 32inch HD DLED TV Power : AC 120V/60Hz M/N : ELST3216H

Test Mode : IEEE 802.11n HT40 CH9 2452TX

Antenna 0+1

	Freq. (MHz)	Loss	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
_	2454.50 2483.48	 	 	96.58 45.50	74.00 74.00	-22.58 28.50	Peak Peak

- 2. Margin= Limit Emission Level.
- The emission levels that are 20dB below the official limit are not reported.



6 6dB & 20dB Bandwidth Test

6.1 Limit

For direct sequence systems, the minimum 6dB bandwidth shall be at least 500kHz

6.2 Test Procedure for 6dB

- 1, The transmitter output (antenna port) was connected to the spectrum analyzer. Connect EUT antenna terminal to the spectrum analyzer with a low loss SMA cable.
- 2, Follow the test procedure as described in KDB 558074
 - (1). Set resolution bandwidth (RBW) = 100 kHz.
 - (2). Set the video bandwidth (VBW) $\geq 3 \times RBW$.
 - (3). Detector = Peak.
 - (4). Trace mode = \max hold.
 - (5). Sweep = auto couple.
 - (6). Allow the trace to stabilize.
 - (7). Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

6.3 Test Procedure for 20dB

- 1, The transmitter output (antenna port) was connected to the spectrum analyzer. Connect EUT antenna terminal to the spectrum analyzer with a low loss SMA cable.
- 2, Follow the test procedure as described in C63.10
 - (1). The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the EMI receiver or spectrum analyzer shall be between two times and five times the OBW.
 - (2). The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW andvideo bandwidth (VBW) shall be approximately three times RBW, unless otherwise specified by the applicable requirement.
 - (3). Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.5.2.
 - (4). Steps a) through c) might require iteration to adjust within the specified tolerances.
 - (5). 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.
 - (6). Set detection mode to peak and trace mode to max hold.
 - (7). Determine the reference value: Set the EUT to transmit an unmodulated carrier or modulated signal, as applicable. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace (this is the reference value).
 - (8). Determine the "-xx dB down amplitude" using [(reference value) -xx]. Alternatively, this calculation may be made by using the marker-delta function of the instrument.
 - (9). 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).
 - (10). 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,



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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.

(11). The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).



Report No. ESTE-R1807040

6.4 Test Result

EUT: 32inch HD DL	ED TV				
M/N: ELST3216H				1	
Test date: 2018-07-24	1	Test site: RF Site		Tested by	: Seven
		CdD handwyidth	20dD bandwidth	Lir	nit
Test Mode	СН	6dB bandwidth (MHz)	20dB bandwidth (MHz)	6dB BW (KHz)	20dB BW
,		Antenna 0			
	CH1	9.575	16.214	>500	/
IEEE 802.11 b	CH6	9.587	16.241	>500	/
	CH11	9.156	16.141	>500	/
	CH1	15.428	18.487	>500	/
IEEE 802.11 g	СН6	15.176	18.327	>500	/
	CH11	15.109	18.529	>500	/
IEEE 002 11	CH1	15.007	18.465	>500	/
IEEE 802.11 n HT 20	СН6	15.697	18.504	>500	/
111 20	CH11	15.136	18.299	>500	/
IEEE 002 11	CH3	35.051	39.760	>500	/
IEEE 802.11 n HT 40	CH6	35.049	39.764	>500	/
111 40	CH9	35.147	39.897	>500	/
		Antenna 1			
	CH1	9.169	16.024	>500	/
IEEE 802.11 b	CH6	9.255	16.195	>500	/
	CH11	9.937	16.135	>500	/
	CH1	15.497	18.014	>500	/
IEEE 802.11 g	CH6	15.056	18.603	>500	/
	CH11	15.410	18.052	>500	/
IEEE 802.11 n	CH1	15.216	18.165	>500	/
HT 20	CH6	15.409	18.102	>500	/
111 20	CH11	15.165	18.052	>500	/
IEEE 802.11 n	CH3	35.108	39.713	>500	/
HT 40	CH6	35.110	39.886	>500	/
III TO	CH9	35.092	39.672	>500	/

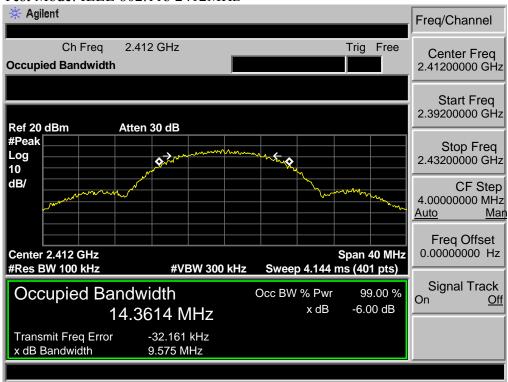


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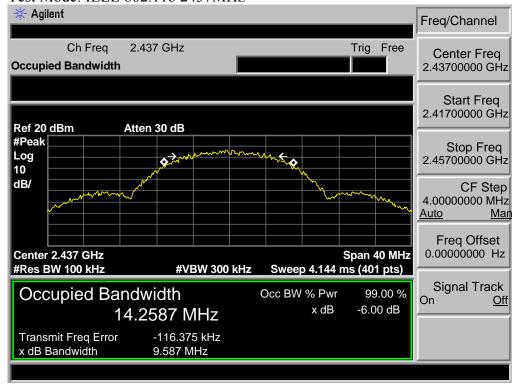
6.5 6dB Test Data

Antenna 0

Test Mode: IEEE 802.11b 2412MHz



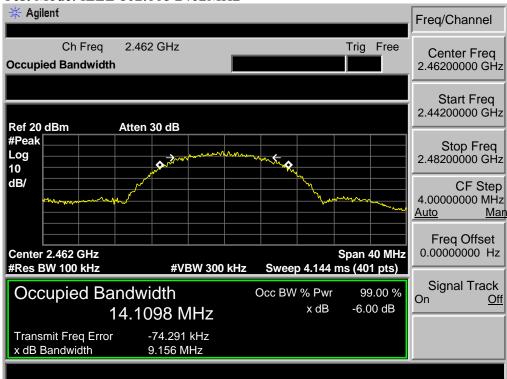
Test Mode: IEEE 802.11b 2437MHz



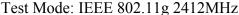


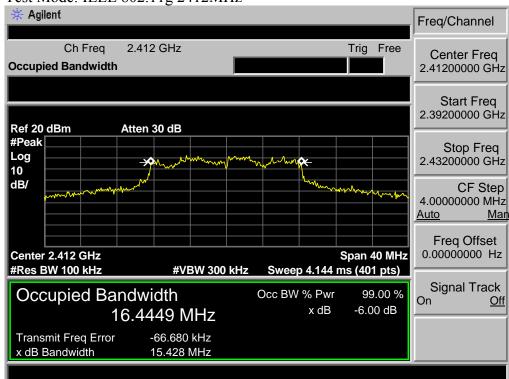
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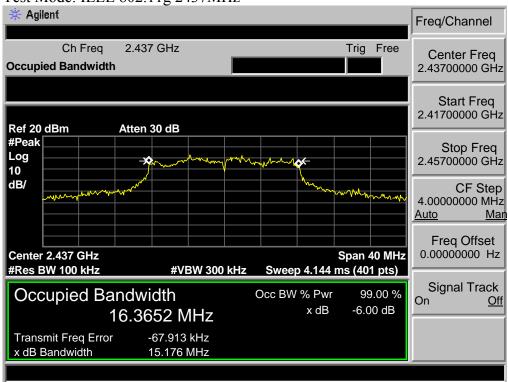




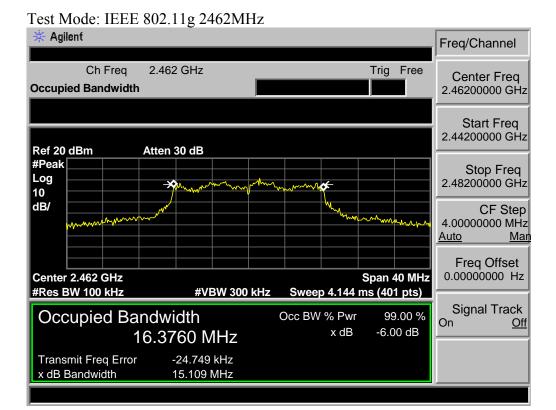




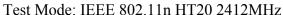
Test Mode: IEEE 802.11g 2437MHz

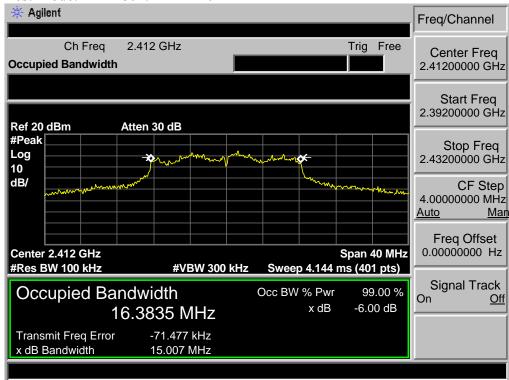




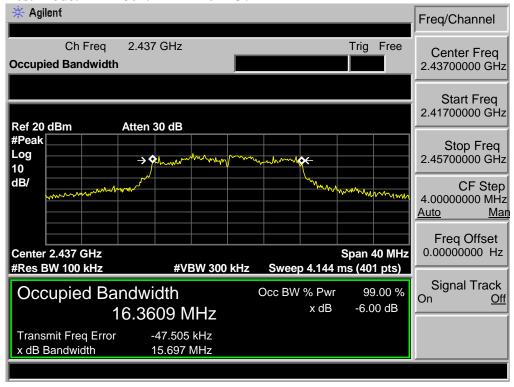






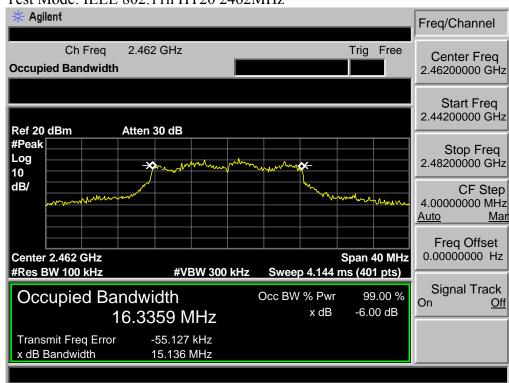


Test Mode: IEEE 802.11n HT20 2437MHz



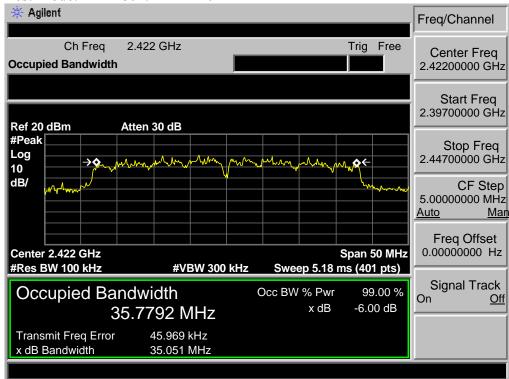


Test Mode: IEEE 802.11n HT20 2462MHz

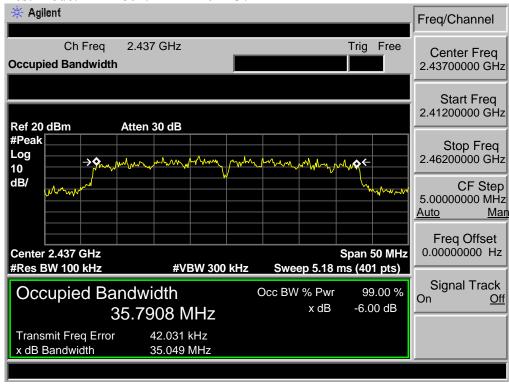




Test Mode: IEEE 802.11n HT40 2422MHz

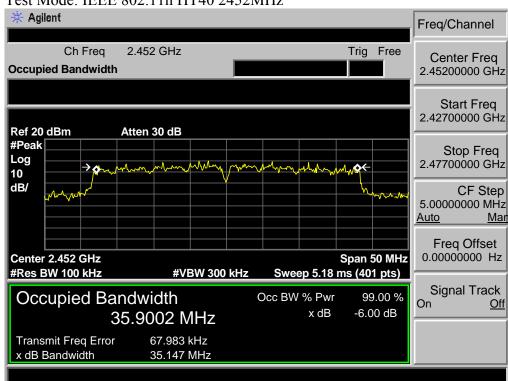


Test Mode: IEEE 802.11n HT40 2437MHz





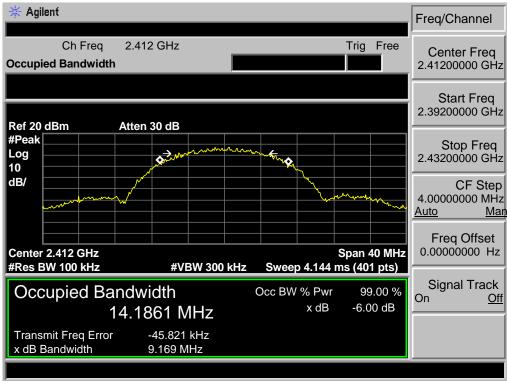
Test Mode: IEEE 802.11n HT40 2452MHz



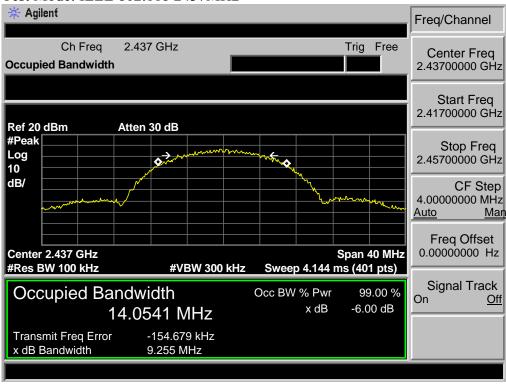


Antenna 1

Test Mode: IEEE 802.11b 2412MHz

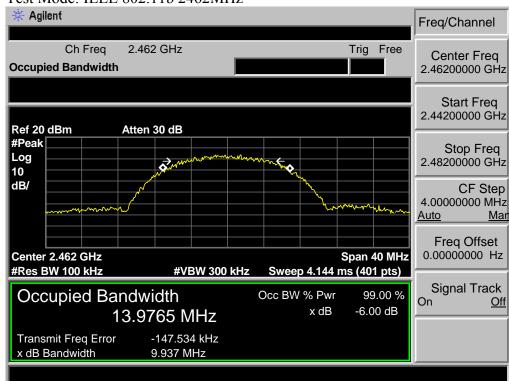


Test Mode: IEEE 802.11b 2437MHz

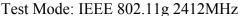


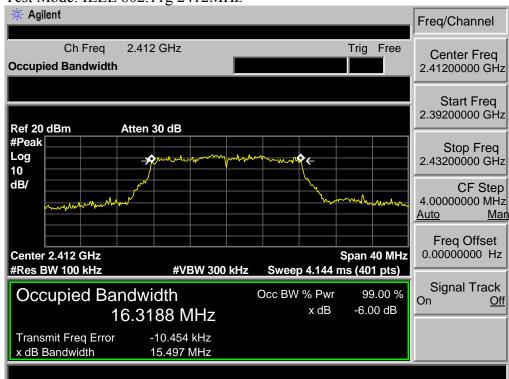


Test Mode: IEEE 802.11b 2462MHz

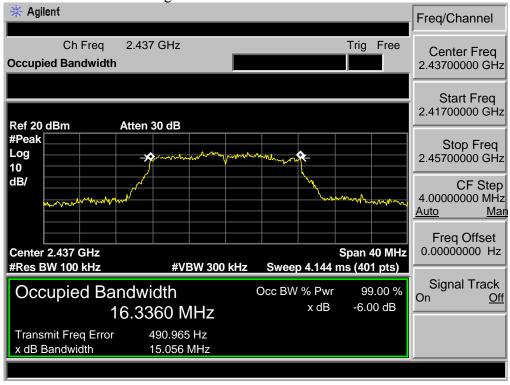




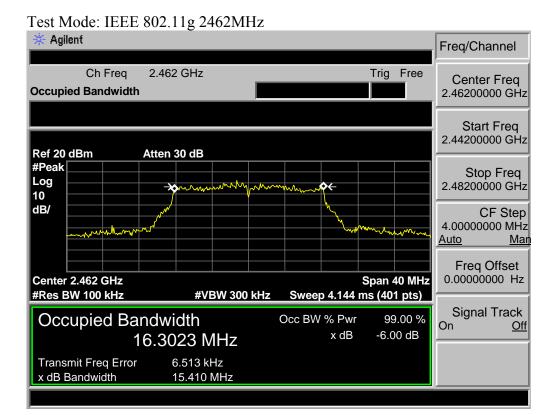




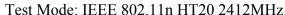
Test Mode: IEEE 802.11g 2437MHz

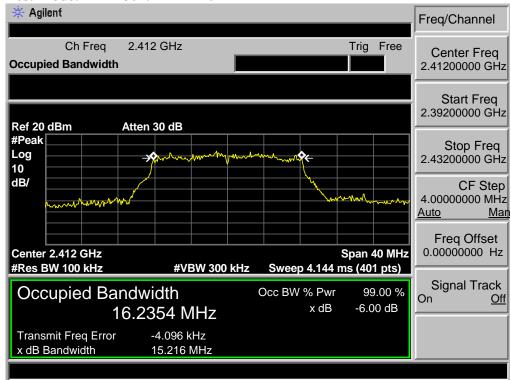




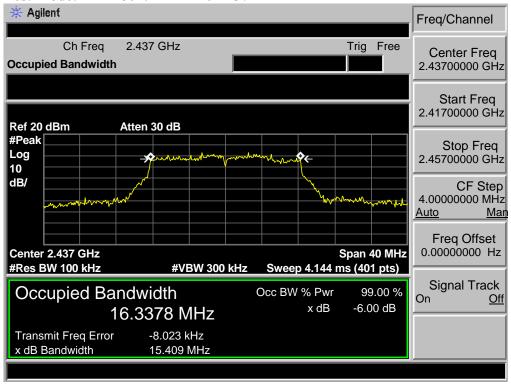






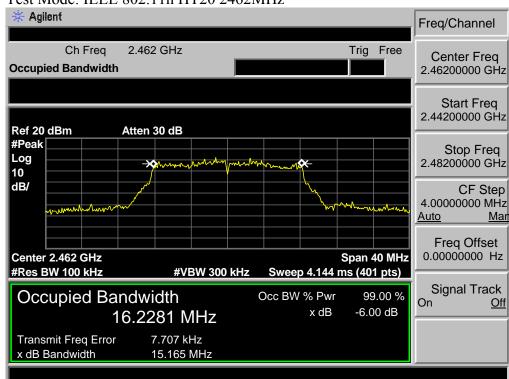


Test Mode: IEEE 802.11n HT20 2437MHz



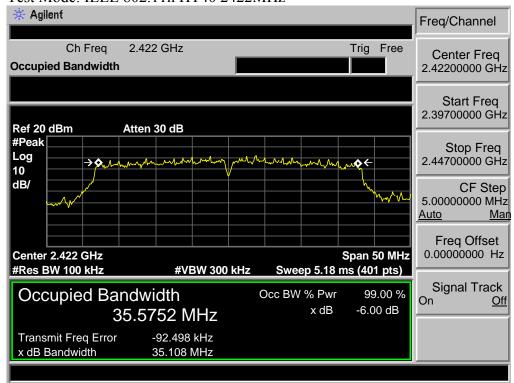


Test Mode: IEEE 802.11n HT20 2462MHz

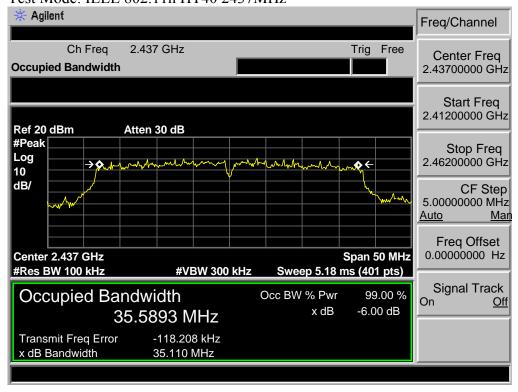




Test Mode: IEEE 802.11n HT40 2422MHz

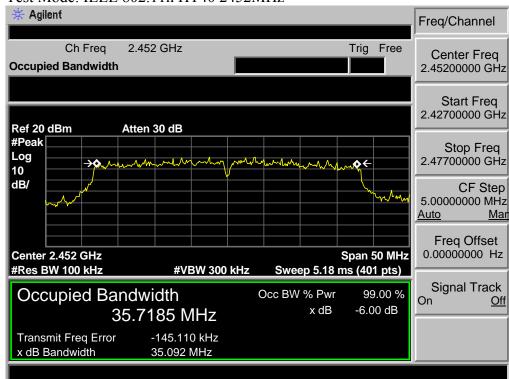


Test Mode: IEEE 802.11n HT40 2437MHz





Test Mode: IEEE 802.11n HT40 2452MHz

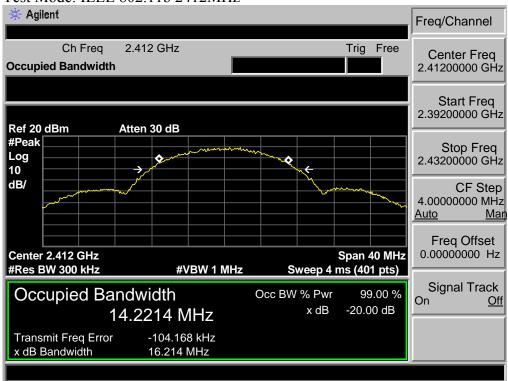




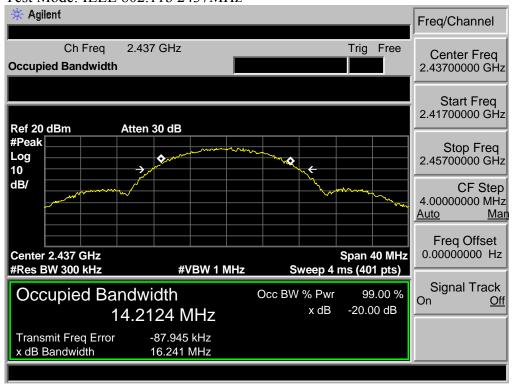
6.6 20dB Test Data

Antenna 0

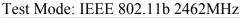
Test Mode: IEEE 802.11b 2412MHz

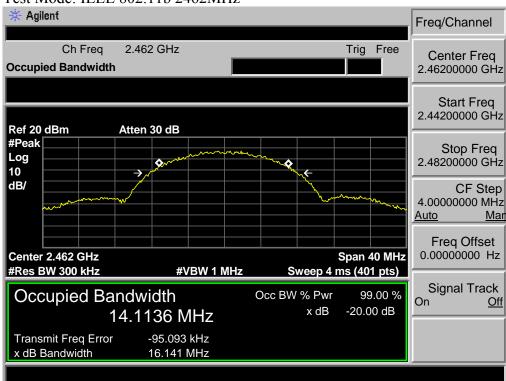


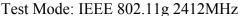
Test Mode: IEEE 802.11b 2437MHz

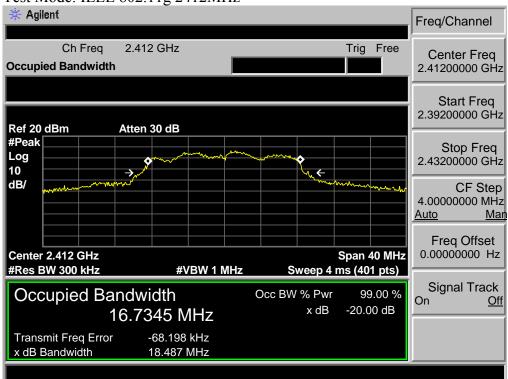




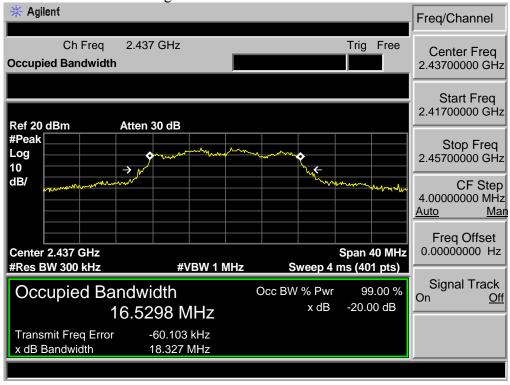


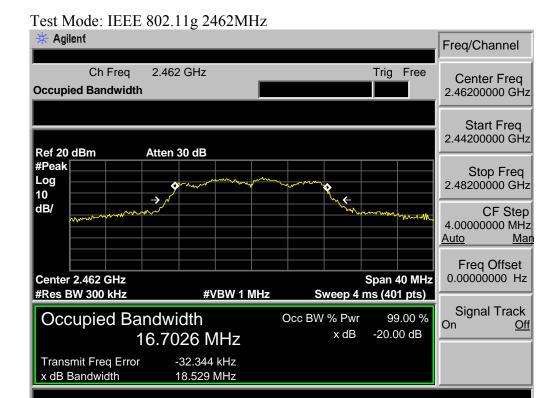






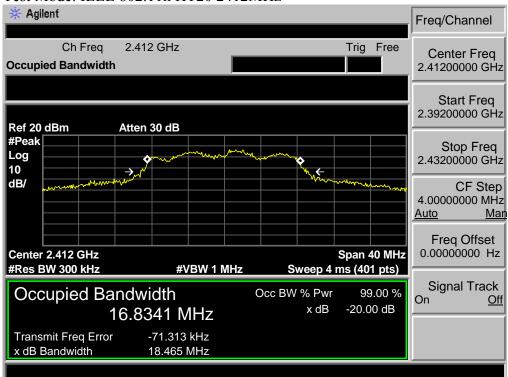
Test Mode: IEEE 802.11g 2437MHz



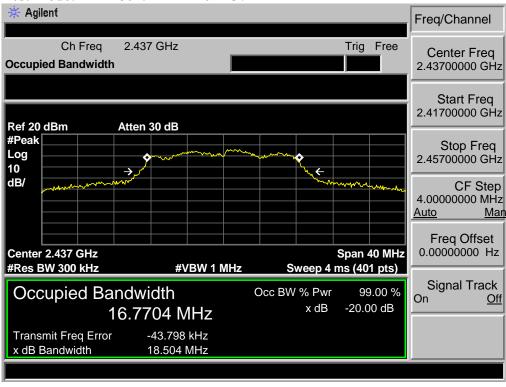




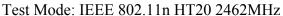


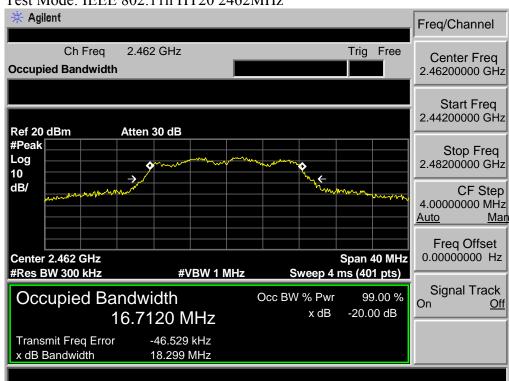


Test Mode: IEEE 802.11n HT20 2437MHz



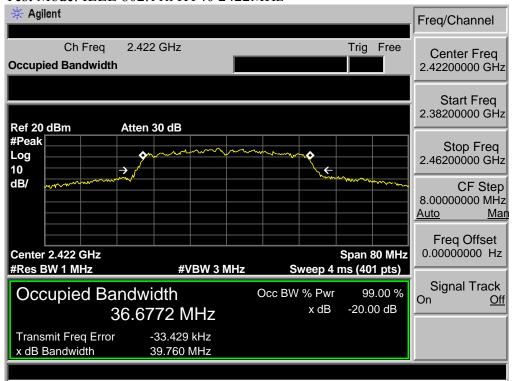




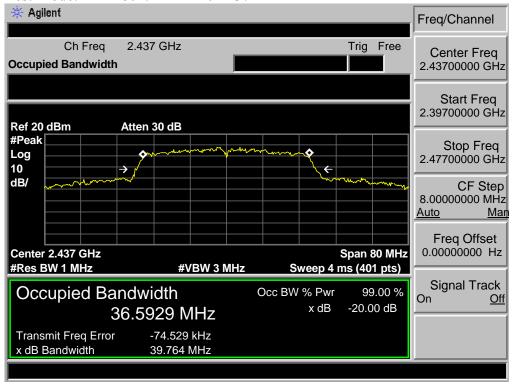




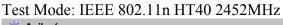
Test Mode: IEEE 802.11n HT40 2422MHz

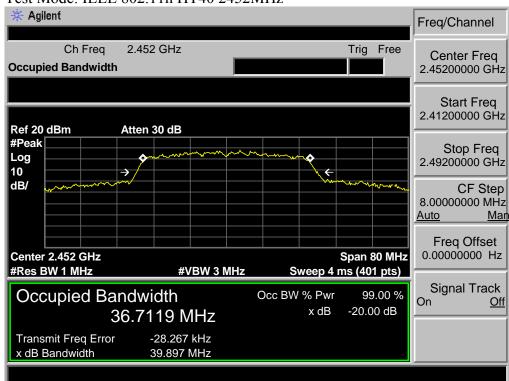


Test Mode: IEEE 802.11n HT40 2437MHz





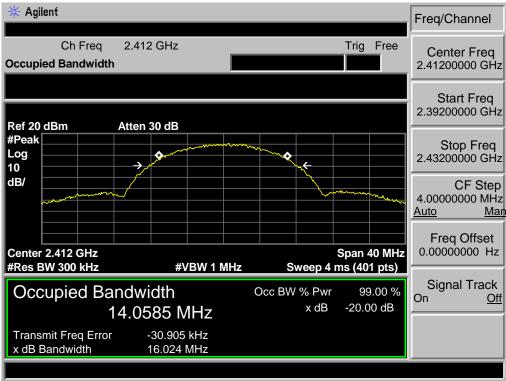




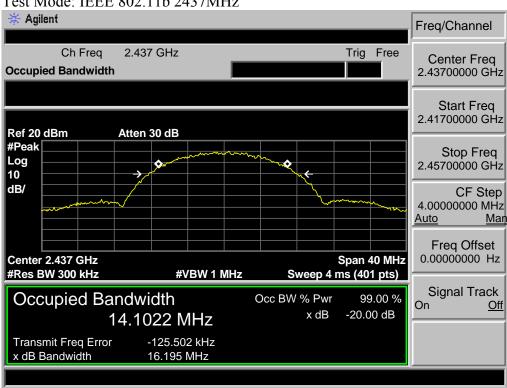


Antenna 1

Test Mode: IEEE 802.11b 2412MHz

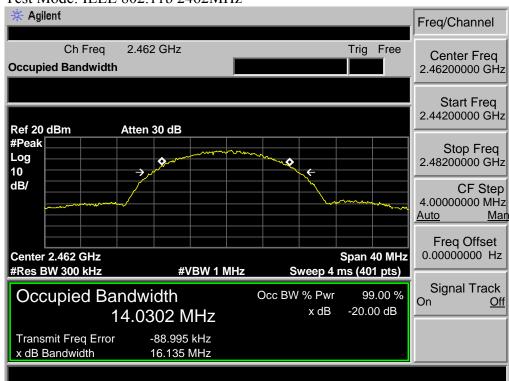


Test Mode: IEEE 802.11b 2437MHz

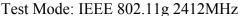


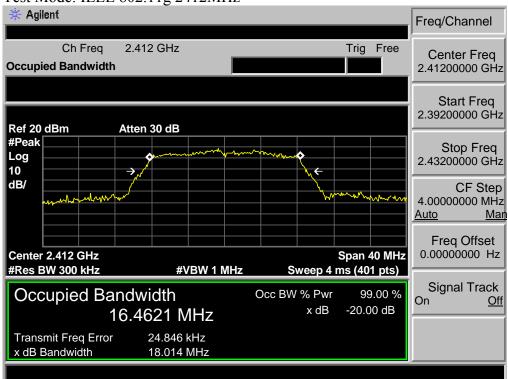




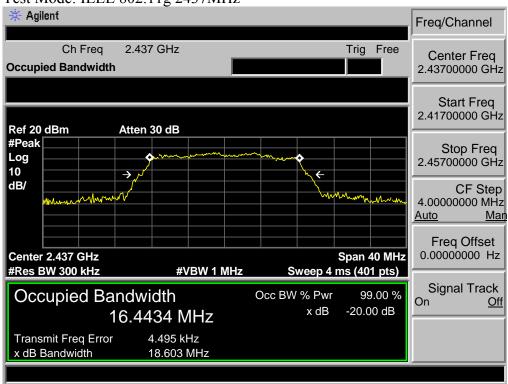




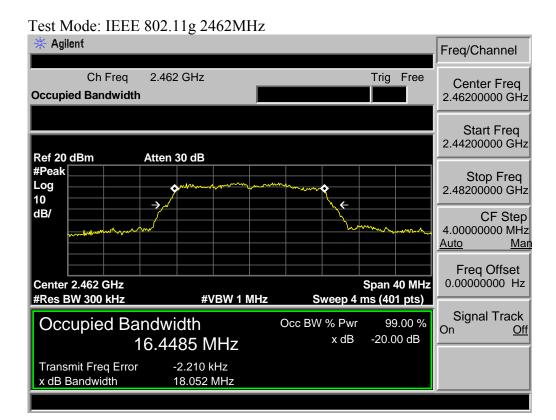




Test Mode: IEEE 802.11g 2437MHz

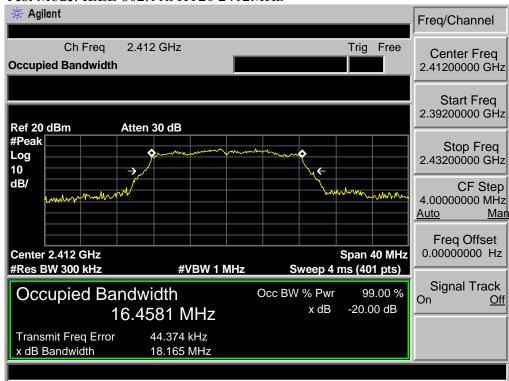




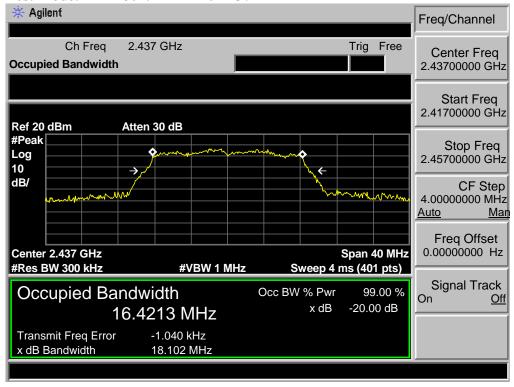




Test Mode: IEEE 802.11n HT20 2412MHz

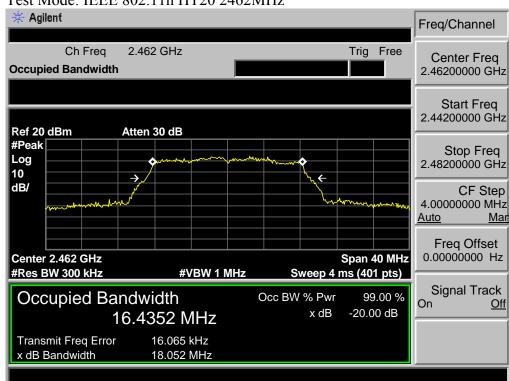


Test Mode: IEEE 802.11n HT20 2437MHz

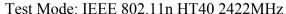


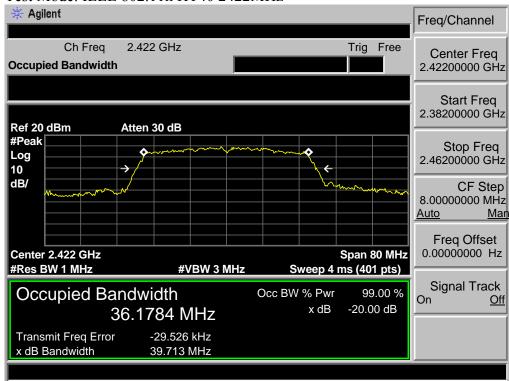


Test Mode: IEEE 802.11n HT20 2462MHz

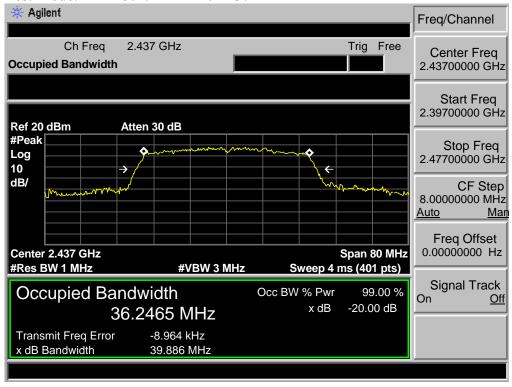






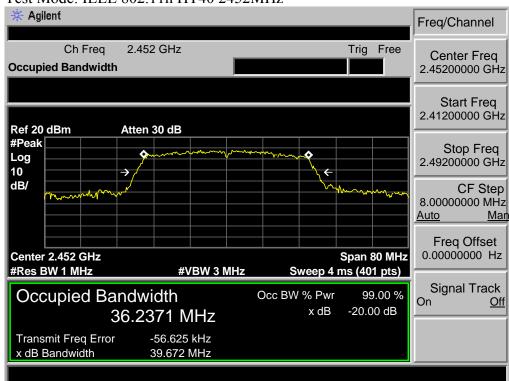


Test Mode: IEEE 802.11n HT40 2437MHz





Test Mode: IEEE 802.11n HT40 2452MHz





7 OUTPUT POWER TEST

7.1 Limit

For systems using digital modulation in the 2400—2483.5MHz, The Peak out put Power shall not exceed 1W(30dBm)

7.2 Test Procedure

- 1, The transmitter output (antenna port) was connected to the spectrum analyzer. Connect EUT antenna terminal to the spectrum analyzer with a low loss SMA cable.
- 2, Follow the test procedure as described in KDB 558074
 - (1)Set span to at least 1.5 times the OBW.
 - (2)Set RBW = 1-5% of the OBW, not to exceed 1 MHz.
 - (3)Set VBW \geq 3 x RBW.
 - (4)Number of points in sweep $\geq 2 \times \text{span} / \text{RBW}$. (This gives bin-to-bin spacing $\leq \text{RBW}/2$, so that narrowband signals are not lost between frequency bins.)
 - (4)Sweep time = auto.
 - (5) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
 - (6)If transmit duty cycle < 98 %, use a sweep trigger with the level set to enable triggering only on full power pulses. The transmitter shall operate at maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no off intervals) or at duty cycle ≥ 98 %, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to "free run".
 - (7)Trace average at least 100 traces in power averaging (i.e., RMS) mode.
 - (8)Compute power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function, with band limits set equal to the OBW band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.



7.3 Test Result

EUT: 32inch HI	D DLED TV				
M/N: ELST3210	6H				
Test date: 2018-07-24		Test site: RF Site			Tested by: Seven
		·	Pass		
Test Mode	СН	Conducted Power (dBm)			Limit
		Ant 0	Ant 1	Total	(dBm)
IEEE 802.11 b	CH1	14.34	15.63	/	30
	СН6	14.95	15.10	/	30
	CH11	12.34	12.74	/	30
IEEE 802.11 g	CH1	9.92	12.04	/	30
	СН6	10.58	11.85	/	30
	CH11	8.18	9.43	/	30
IEEE 802.11 n HT 20	CH1	10.78	12.32	14.63	30
	CH6	10.42	11.84	14.20	30
	CH11	8.18	9.41	11.85	30
IEEE 802.11 n HT 40	СН3	7.62	10.06	12.02	30
	СН6	7.58	8.95	11.33	30
	CH9	7.94	9.00	11.51	30
Conclusion: PA	ASS				

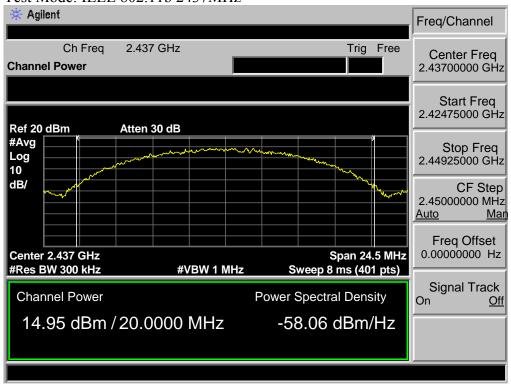
7.4 Test Data

Antenna 0

Test Mode: IEEE 802.11b 2412MHz

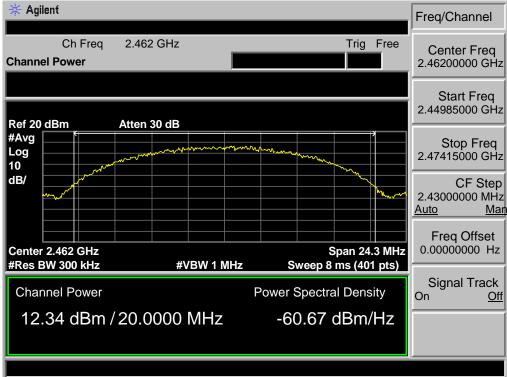


Test Mode: IEEE 802.11b 2437MHz

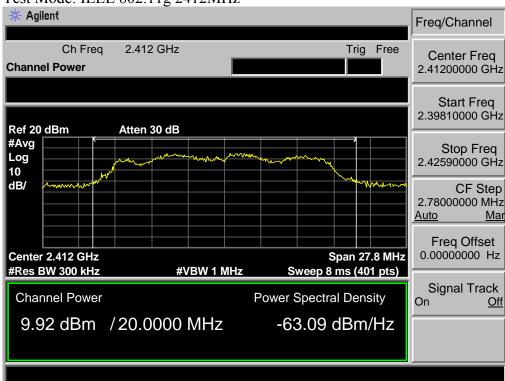




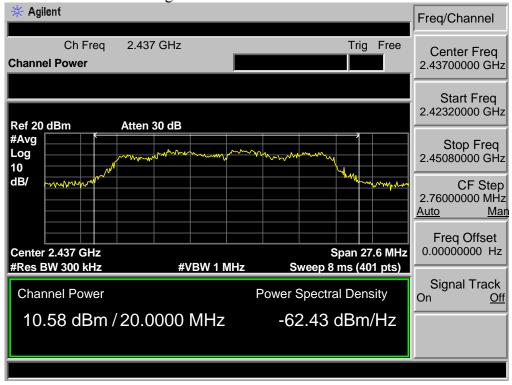




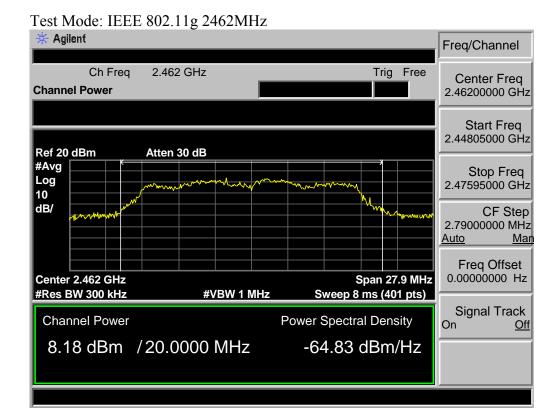
Test Mode: IEEE 802.11g 2412MHz



Test Mode: IEEE 802.11g 2437MHz

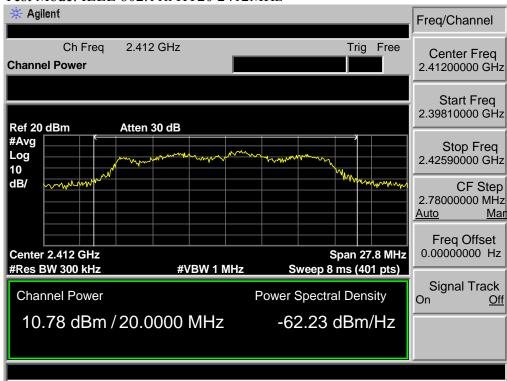




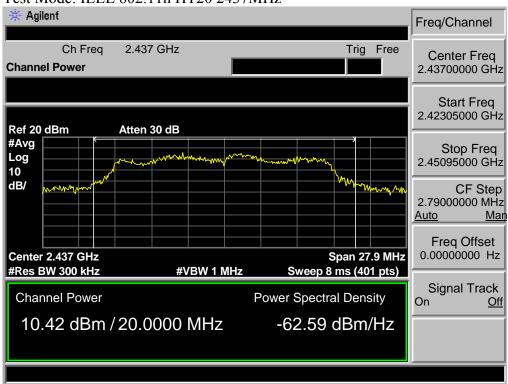




Test Mode: IEEE 802.11n HT20 2412MHz

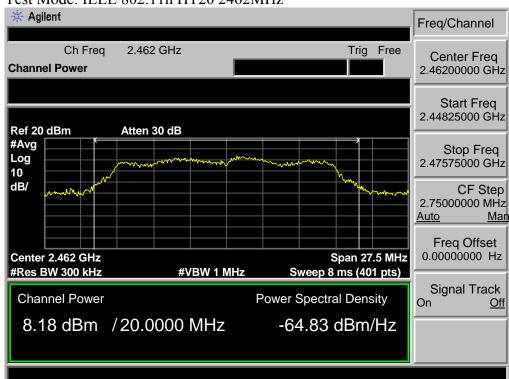


Test Mode: IEEE 802.11n HT20 2437MHz



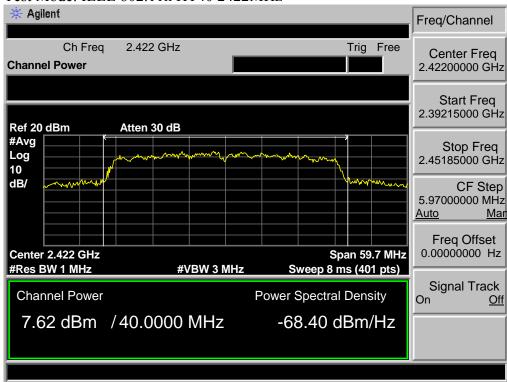


Test Mode: IEEE 802.11n HT20 2462MHz

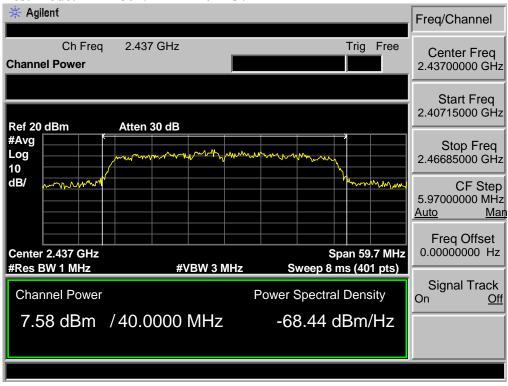




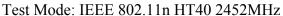
Test Mode: IEEE 802.11n HT40 2422MHz

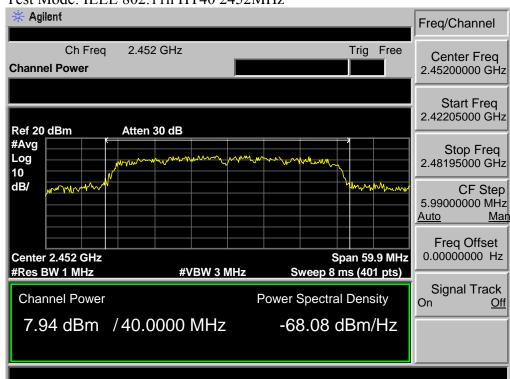


Test Mode: IEEE 802.11n HT40 2437MHz





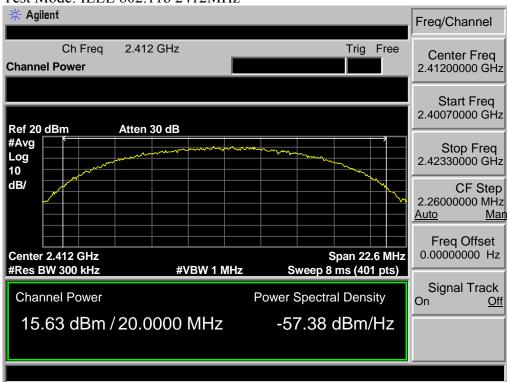




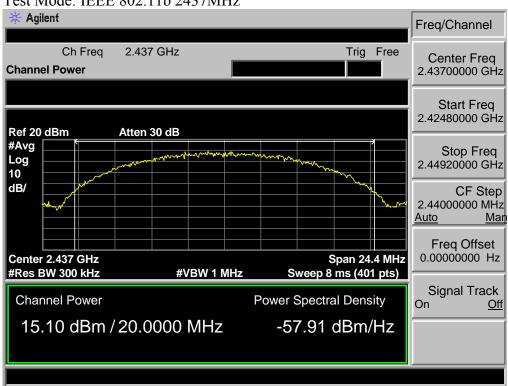


Antenna 1

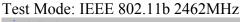
Test Mode: IEEE 802.11b 2412MHz



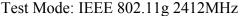
Test Mode: IEEE 802.11b 2437MHz





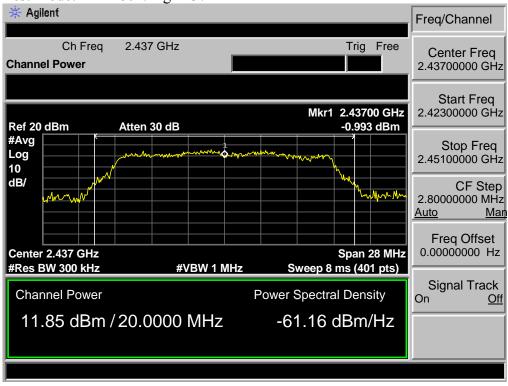




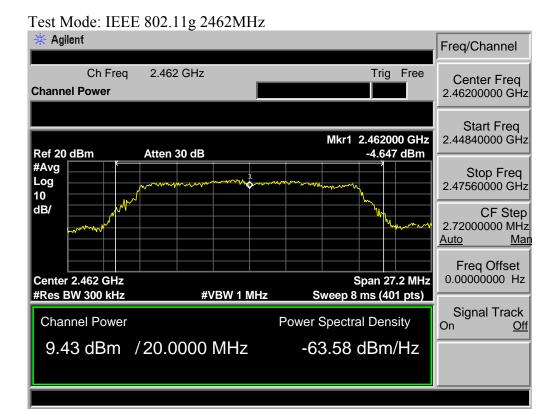




Test Mode: IEEE 802.11g 2437MHz

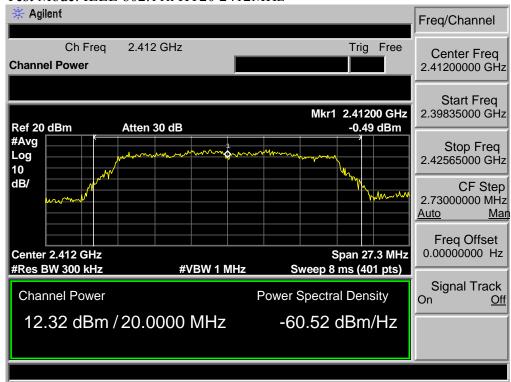




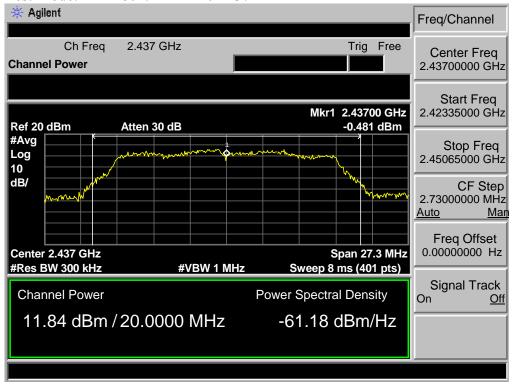




Test Mode: IEEE 802.11n HT20 2412MHz

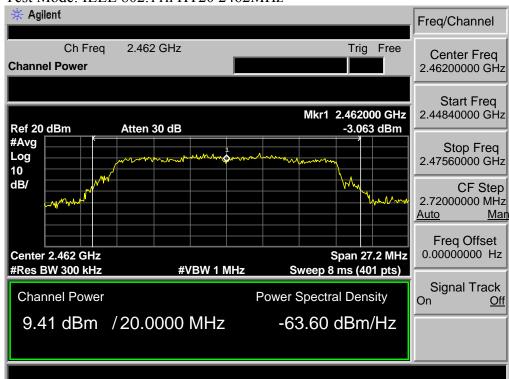


Test Mode: IEEE 802.11n HT20 2437MHz

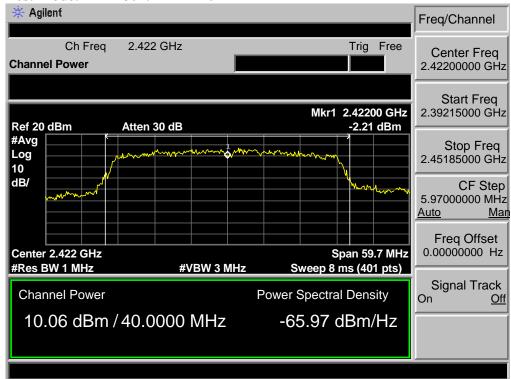




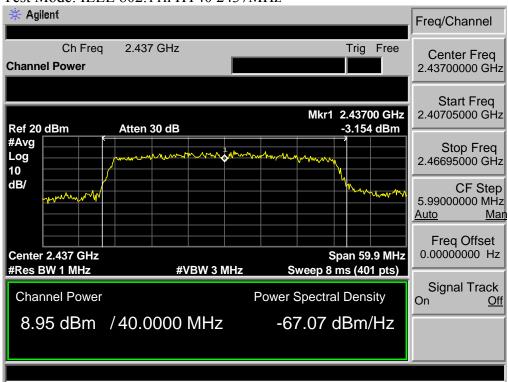
Test Mode: IEEE 802.11n HT20 2462MHz



Test Mode: IEEE 802.11n HT40 2422MHz

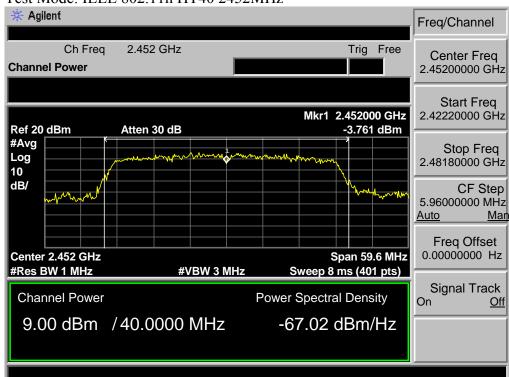


Test Mode: IEEE 802.11n HT40 2437MHz





Test Mode: IEEE 802.11n HT40 2452MHz





8 POWER SPECTRAL DENSITY TEST

8.1 Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.

8.2 Test Procedure

- 1, The transmitter output (antenna port) was connected to the spectrum analyzer. Connect EUT antenna terminal to the spectrum analyzer with a low loss SMA cable.
- 2, Follow the test procedure as described in KDB 558074
- (1). Set analyzer center frequency to DTS channel center frequency.
- (2). Set the span to 1.5 times the DTS bandwidth.
- (3). Set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- (4). Set the VBW \geq 3 RBW.
- (5). Detector = peak.
- (6). Sweep time = auto couple.
- (7). Trace mode = max hold.
- (8). Allow trace to fully stabilize.
- (9). Use the peak marker function to determine the maximum amplitude level.
- (10). If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.



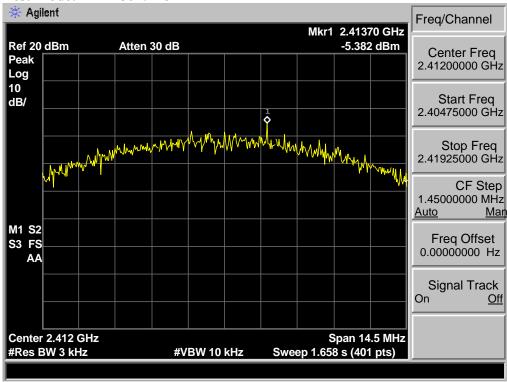
8.3 Test Result

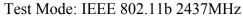
EUT: 32inch HI	D DLED TV				
M/N: ELST3210	6H				
Test date: 2018-7-24		Test site: RF Site			Tested by: Seven
			Pass		
Test Mode	СН	Power density (dBm/3kHz)			Limit
		Ant 0	Ant 1	Total	(dBm/3kHz)
IEEE 802.11 b	CH1	-5.382	-6.331	/	8
	СН6	-6.532	-7.325	/	8
	CH11	-10.740	-9.105	/	8
IEEE 802.11 g	CH1	-12.890	-11.480	/	8
	СН6	-12.240	-11.610	/	8
	CH11	-13.990	-13.700	/	8
IEEE 802.11 n HT 20	CH1	-12.390	-11.310	-8.810	8
	СН6	-12.180	-11.600	-8.870	8
	CH11	-14.380	-14.050	-11.200	8
IEEE 802.11 n HT 40	СНЗ	-15.720	-14.070	-11.810	8
	СН6	-16.370	-14.320	-12.210	8
	СН9	-17.580	-14.110	-12.500	8
Conclusion: PA	ASS				

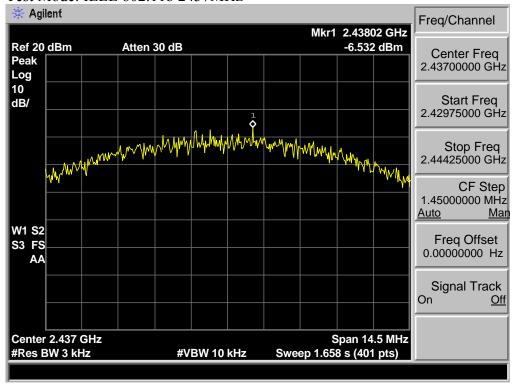
8.4 Test Data

Antenna 0

Test Mode: IEEE 802.11b 2412MHz

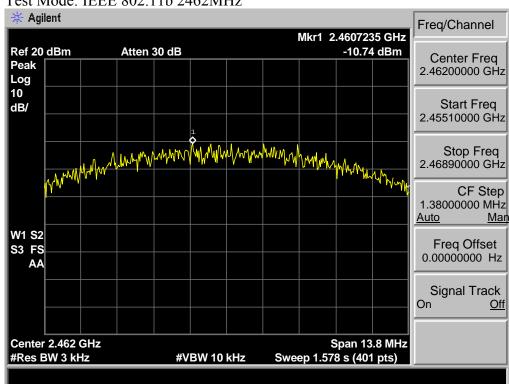






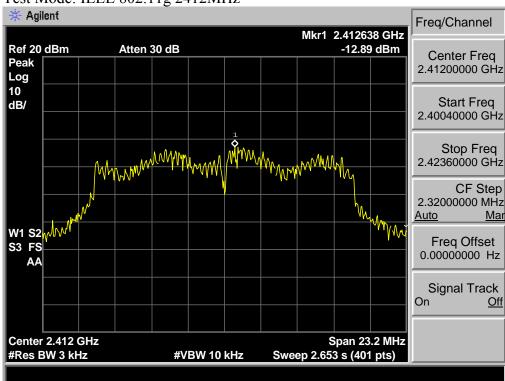




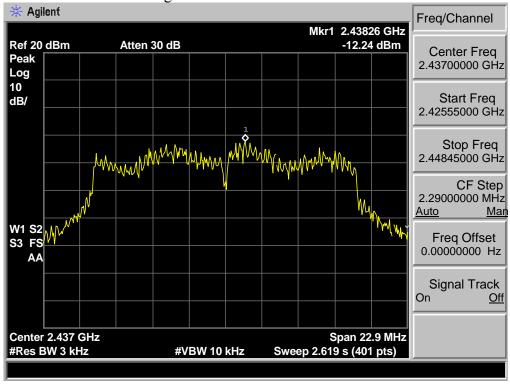




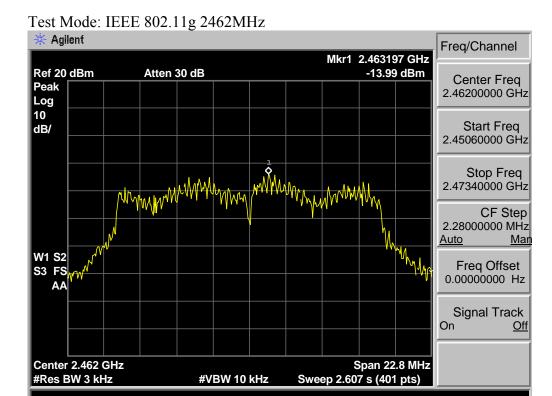
Test Mode: IEEE 802.11g 2412MHz



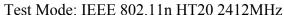
Test Mode: IEEE 802.11g 2437MHz

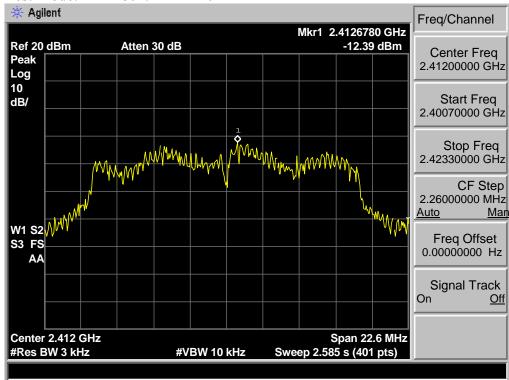




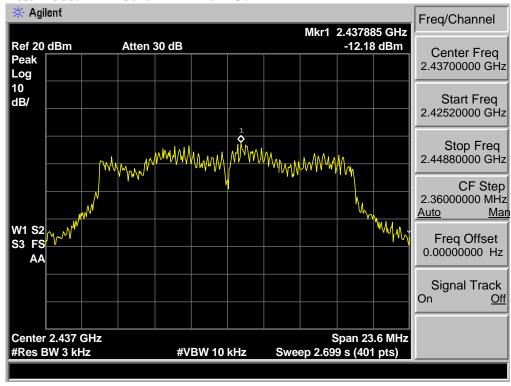






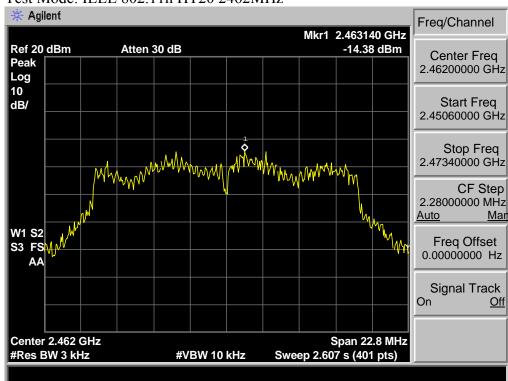


Test Mode: IEEE 802.11n HT20 2437MHz

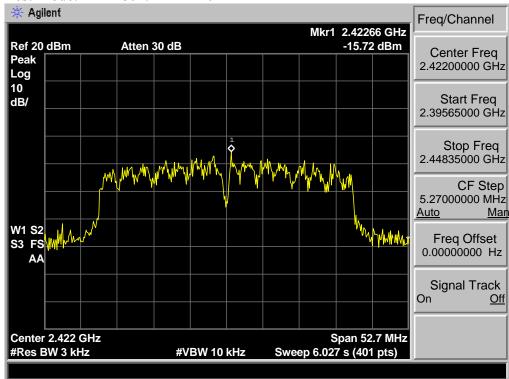




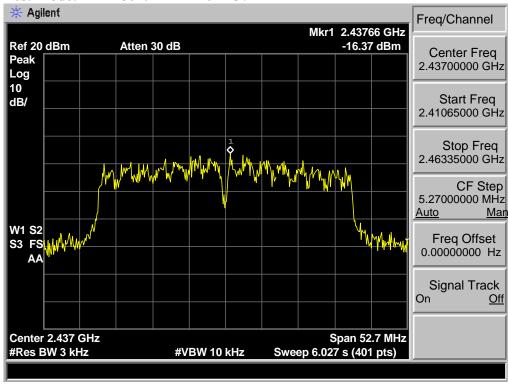
Test Mode: IEEE 802.11n HT20 2462MHz





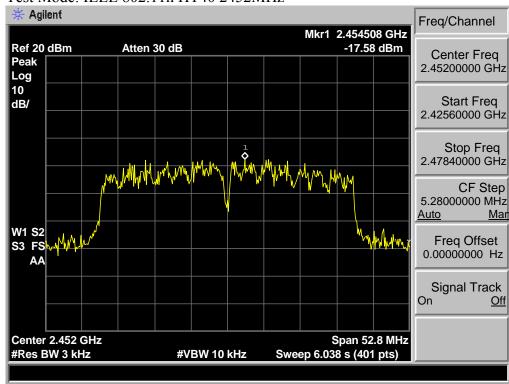


Test Mode: IEEE 802.11n HT40 2437MHz





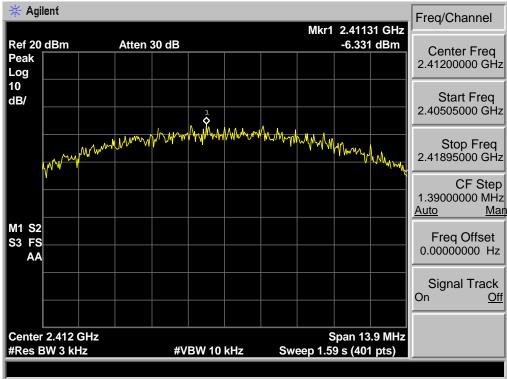
Test Mode: IEEE 802.11n HT40 2452MHz



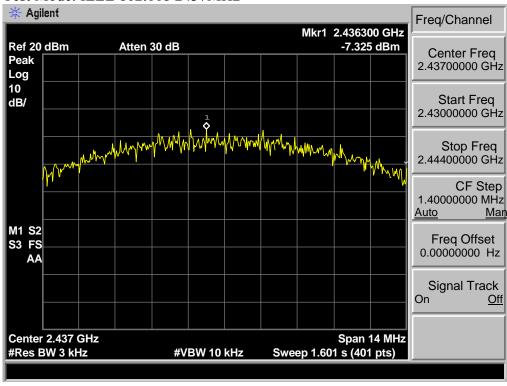


Antenna 1

Test Mode: IEEE 802.11b 2412MHz

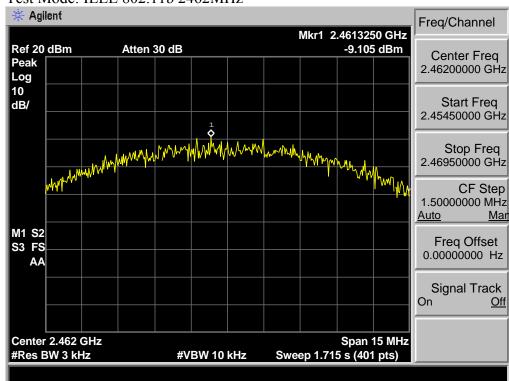


Test Mode: IEEE 802.11b 2437MHz

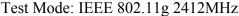


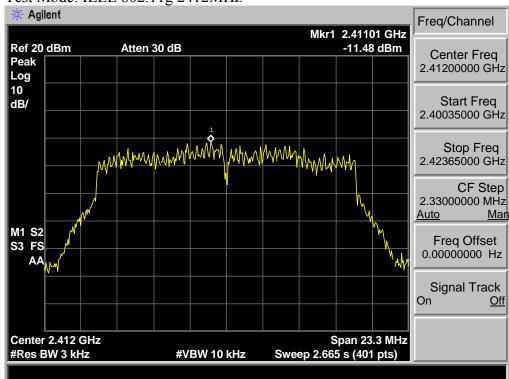


Test Mode: IEEE 802.11b 2462MHz

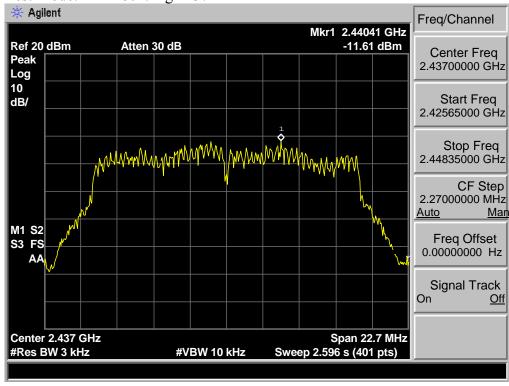




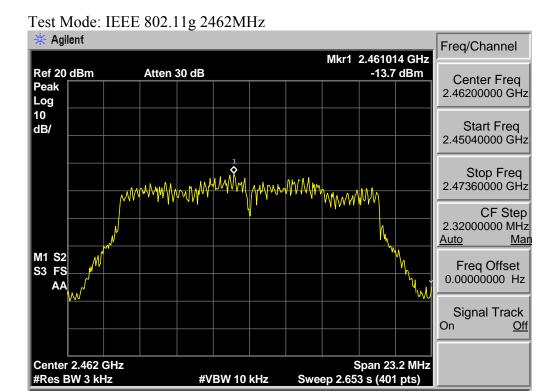




Test Mode: IEEE 802.11g 2437MHz

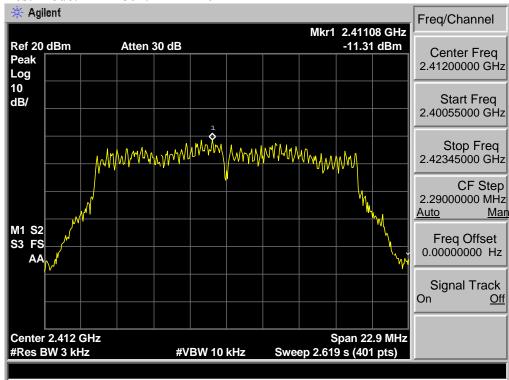




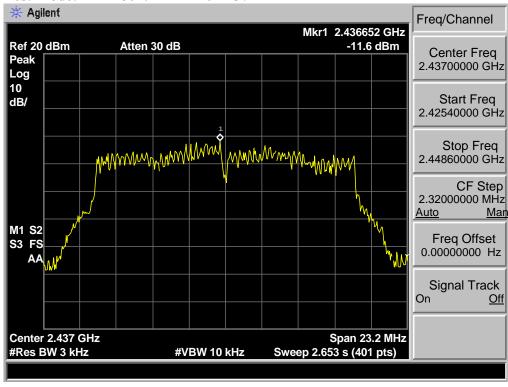






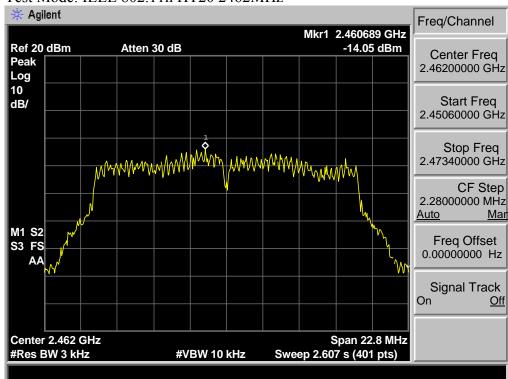


Test Mode: IEEE 802.11n HT20 2437MHz



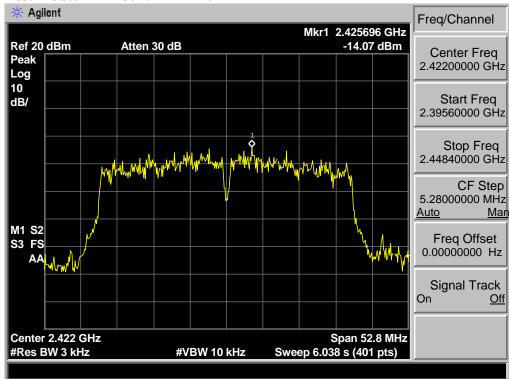


Test Mode: IEEE 802.11n HT20 2462MHz

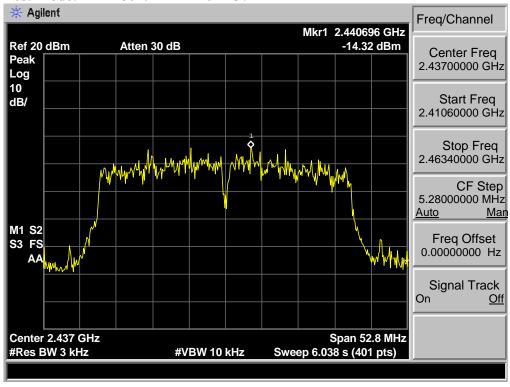




Test Mode: IEEE 802.11n HT40 2422MHz

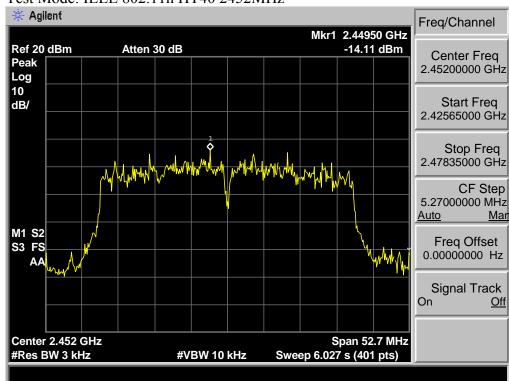


Test Mode: IEEE 802.11n HT40 2437MHz





Test Mode: IEEE 802.11n HT40 2452MHz





9 ANTENNA REQUIREMENTS

9.1 Limit

For intentional device, according to FCC 47 CFR 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. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

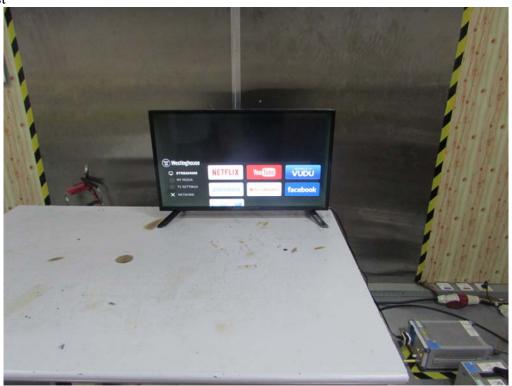
9.2 Result

The antennas used for this product are Internal antenna and that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is only 1.21dBi.



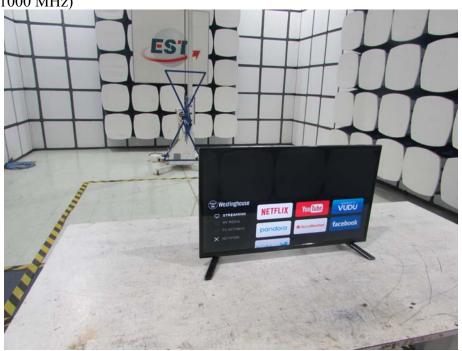
10 TEST SETUP PHOTO

Conducted Test





Radiated Test (30-1000 MHz)

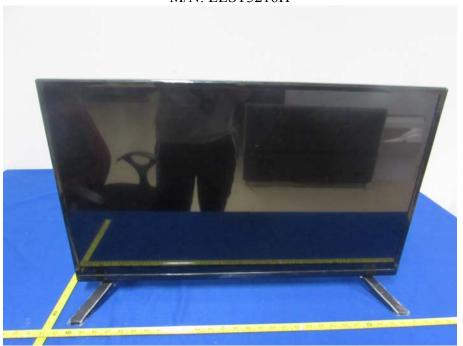


Radiated Test (Above 1000 MHz)



11 PHOTOS OF EUT

External Photos M/N: ELST3216H





External Photos M/N: ELST3216H







External Photos M/N: ELST3216H





External Photos M/N: ELST3216H







Internal Photos M/N: ELST3216H

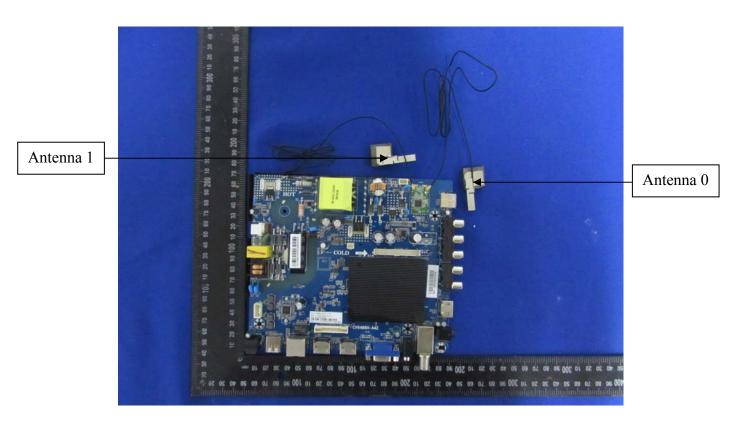






Internal Photos M/N: ELST3216H





EST

Antenna 1

Port

Internal Photos M/N: ELST3216H



Antenna 0 Port