

TEST REPORT

Product : 10.6" Tablet PC
Trade mark : Dragon touch, DragonTouch,
KINGSLIM, AKASO, KINGPAD, NeuTab
Model/Type reference : K100, K10, T100, T10, V10, A200,
V100, KS100, K100 PRO, K100 PLUS,
V100 PRO, V100 PLUS
Serial Number : N/A
Report Number : EED32H00221202
FCC ID : S5V-D10K10
Date of Issue : Dec. 18, 2015
Test Standards : 47 CFR Part 15 Subpart C (2014)
Test result : PASS

Prepared for:

Proexpress Distributor LLC

11011 GREENWOOD AVE. N APT 5, SEATTLE, WA 98103.

Prepared by:

Centre Testing International Group Co., Ltd.
Hongwei Industrial Zone, Bao'an 70 District,
Shenzhen, Guangdong, China

TEL: +86-755-3368 3668

FAX: +86-755-3368 3385

Compiled by:

Jon Yang

Reviewed by:

Emen-Li

Approved by:

Sheek Luo

Date:

Dec. 18, 2015

Sheek Luo

Lab supervisor

Check No.:2212851148



2 Version

Version No.	Date	Description
00	Dec. 18, 2015	Original

3 Test Summary

Test Item	Test Requirement	Test method	Result
Antenna Requirement	47 CFR Part 15, Subpart C Section 15.203/15.247 (c)	ANSI C63.10-2013	PASS
AC Power Line Conducted Emission	47 CFR Part 15, Subpart C Section 15.207	ANSI C63.10-2013	PASS
Conducted (Average) Output Power	47 CFR Part 15, Subpart C Section 15.247 (b)(3)	ANSI C63.10-2013	PASS
6dB Occupied Bandwidth	47 CFR Part 15, Subpart C Section 15.247 (a)(2)	ANSI C63.10-2013	PASS
Power Spectral Density	47 CFR Part 15, Subpart C Section 15.247 (e)	ANSI C63.10-2013	PASS
Band-edge for RF Conducted Emissions	47 CFR Part 15, Subpart C Section 15.247(d)	ANSI C63.10-2013	PASS
RF Conducted Spurious Emissions	47 CFR Part 15, Subpart C Section 15.247(d)	ANSI C63.10-2013	PASS
Radiated Spurious Emissions	47 CFR Part 15, Subpart C Section 15.205/15.209	ANSI C63.10-2013	PASS
Restricted bands around fundamental frequency (Radiated Emission)	47 CFR Part 15, Subpart C Section 15.205/15.209	ANSI C63.10-2013	PASS

Remark:

Test according to ANSI C63.4-2014 & ANSI C63.10-2013.

The tested sample(s) and the sample information are provided by the client.

Model No.: K100, K10, T100, T10, V10, A200, V100, KS100, K100 PRO, K100 PLUS, V100 PRO, V100 PLUS.

Only the Model K100 was tested, since the electrical circuit design, layout, components used and internal wiring were identical for all above models. Only different on name due to difference agent and marketing purposes.

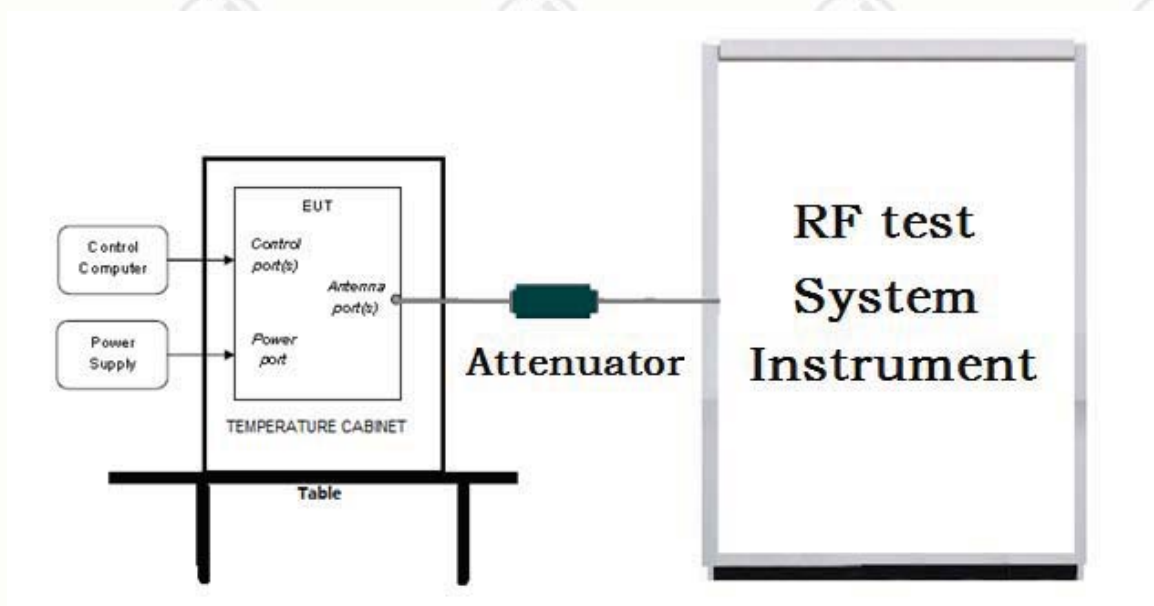
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5 Test Requirement

5.1 Test setup

5.1.1 For Conducted test setup



5.1.2 For Radiated Emissions test setup

Radiated Emissions setup:

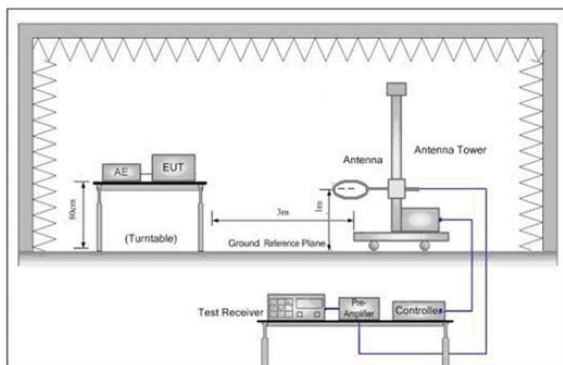


Figure 1. Below 30MHz

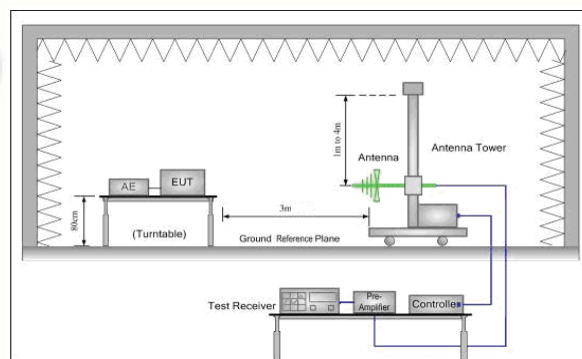


Figure 2. 30MHz to 1GHz

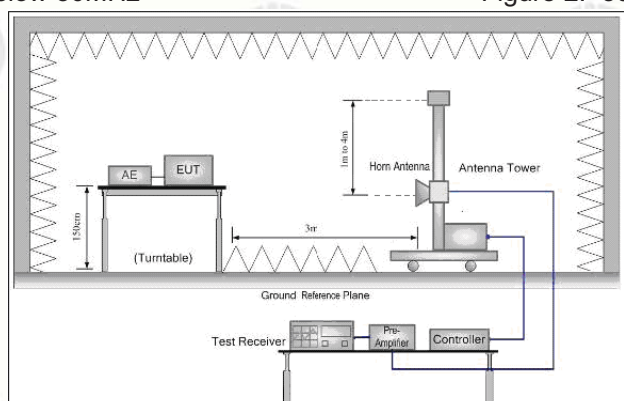
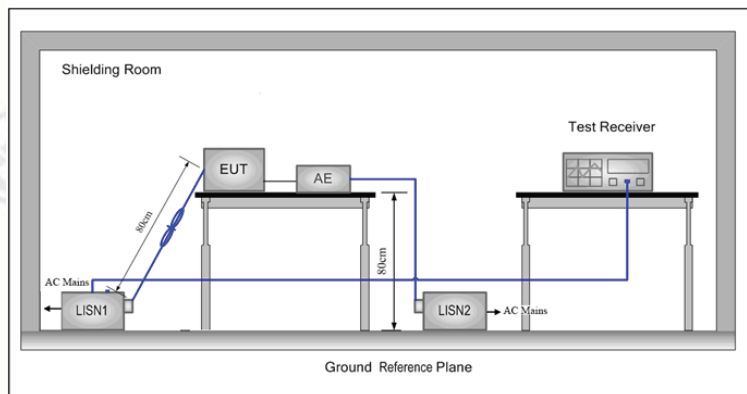


Figure 3. Above 1GHz

5.1.3 For Conducted Emissions test setup

Conducted Emissions setup



5.2 Test Environment

Operating Environment:	
Temperature:	22 °C
Humidity:	50 % RH
Atmospheric Pressure:	1010mbar

5.3 Test Condition

Test channel:

Test Mode	Tx/Rx	RF Channel		
		Low(L)	Middle(M)	High(H)
802.11b/g/n(HT20)	2412MHz ~2462 MHz	Channel 1	Channel 6	Channel11
		2412MHz	2437MHz	2462MHz
802.11n(HT40)	2422MHz ~2452 MHz	Channel 1	Channel 4	Channel7
		2422MHz	2437MHz	2452MHz
Transmitting mode:	Keep the EUT in transmitting mode with all kind of modulation and all kind of data rate.			

Test mode:

Pre-scan under all rate at lowest channel 1

Mode	802.11b							
Data Rate	1Mbps	2Mbps	5.5Mbps	11Mbps				
Power (dBm)	9.48	9.51	9.56	9.59				
Mode	802.11g							
Data Rate	6Mbps	9Mbps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps
Power(dBm)	8.74	8.71	8.70	7.64	8.63	8.61	8.58	8.56
Mode	802.11n (HT20)							
Data Rate	6.5Mbps	13Mbps	19.5Mbps	26Mbps	39Mbps	52Mbps	58.5Mbps	65Mbps
Power (dBm)	8.77	8.74	8.71	8.69	8.68	8.64	8.60	8.55
Mode	802.11n (HT40)							
Data Rate	13.5Mbps	27Mbps	40.5Mbps	54Mbps	81Mbps	108Mbps	121.5Mbps	135Mbps
Power(dBm)	7.26	7.25	7.21	7.19	7.16	7.14	7.13	7.09

Through Pre-scan, 11Mbps of rate is the worst case of 802.11b; 6Mbps of rate is the worst case of 802.11g; 6.5Mbps of rate is the worst case of 802.11n (HT20); 13.5Mbps of rate is the worst case of 802.11n (HT40).

6 General Information

6.1 Client Information

Applicant:	Proexpress Distributor LLC
Address of Applicant:	11011 GREENWOOD AVE. N APT 5, SEATTLE, WA 98103.
Manufacturer:	Proexpress Distributor LLC
Address of Manufacturer:	11011 GREENWOOD AVE. N APT 5, SEATTLE, WA 98103.

6.2 General Description of EUT

Product Name:	10.6" Tablet PC	
Model No.(EUT):	K100, K10, T100, T10, V10, A200, V100, KS100, K100 PRO, K100 PLUS, V100 PRO, V100 PLUS	
Test Mode No.:	K100	
Trade Mark:	Dragon touch, DragonTouch, KINGSLIM, AKASO, KINGPAD, NeuTab	
EUT Supports Radios application:	Wlan 2.4GHz 802.11b/g/n(HT20&HT40)	
Power Supply:	Adapter:	AC 100-240V, 50/60Hz, 0.3A Output: DC 5.0V, 2000mA
	Battery:	DC 3.7V, 7200mA
Sample Received Date:	Nov. 24, 2015	
Sample tested Date:	Nov. 24, 2015 to Dec. 18, 2015	

6.3 Product Specification subjective to this standard

Operation Frequency:	IEEE 802.11b/g/n(HT20): 2412MHz to 2462MHz IEEE 802.11n(HT40): 2422MHz to 2452MHz
Channel Numbers:	IEEE 802.11b/g, IEEE 802.11n HT20: 11 Channels IEEE 802.11n HT40: 7 Channels
Channel Separation:	5MHz
Type of Modulation:	IEEE for 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE for 802.11g : OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE for 802.11n(HT20 and HT40) : OFDM (64QAM, 16QAM,QPSK, BPSK)
Sample Type:	Portable production
Test Power Grade:	802.11b: 20, 802.11g: 20, 802.11n(HT20): 20, 802.11n(HT40): 18 (manufacturer declare)
Test Software of EUT:	REALTEK 11n 8723BS SDIO WLAN NIC Massproduction kit (manufacturer declare)
Antenna Type and Gain:	Type:Internal antenna Gain:2.2dBi
Test Voltage:	AC 120V/60Hz

Operation Frequency each of channel(802.11b/g/n HT20)

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2412MHz	4	2427MHz	7	2442MHz	10	2457MHz
2	2417MHz	5	2432MHz	8	2447MHz	11	2462MHz
3	2422MHz	6	2437MHz	9	2452MHz		

Operation Frequency each of channel(802.11n HT40)					
Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2422MHz	4	2437MHz	7	2452MHz
2	2427MHz	5	2442MHz		
3	2432MHz	6	2447MHz		

6.4 Description of Support Units

The EUT has been tested independently.

6.5 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd.

Hongwei Industrial Zone, Bao'an 70 District, Shenzhen, Guangdong, China518101

Telephone: +86 (0) 755 3368 3668 Fax: +86 (0) 755 3368 3385

No tests were sub-contracted.

6.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

CNAS-Lab Code: L1910

Centre Testing International Group Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC 17025: 2005 General Requirements) for the Competence of Testing and Calibration Laboratories..

A2LA-Lab Cert. No. 3061.01

Centre Testing International Group Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

FCC-Registration No.: 565659

Centre Testing International Group Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. Registration 565659.

IC-Registration No.: 7408A

The 3m Alternate Test Site of Centre Testing International Group Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 7408A .

IC-Registration No.: 7408B

The 10m Alternate Test Site of Centre Testing International Group Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 7408B.

NEMKO-Aut. No.: ELA503

Centre Testing International Group Co., Ltd. has been assessed the quality assurance system, the testing facilities, qualifications and testing practices of the relevant parts of the organization. The quality assurance system of the Laboratory has been validated against ISO/IEC 17025 or equivalent. The laboratory also fulfils the conditions described in Nemko Document NLA-10.

VCCI

The Radiation 3 & 10 meters site of Centre Testing International Group Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-4096.

Main Ports Conducted Interference Measurement of Centre Testing International Group Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: C-4563.

Telecommunication Ports Conducted Disturbance Measurement of Centre Testing International Group Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: T-2146.

The Radiation 3 meters site of Centre Testing International Group Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-758

6.7 Deviation from Standards

None.

6.8 Abnormalities from Standard Conditions

None.

6.9 Other Information Requested by the Customer

None.

6.10 Measurement Uncertainty (95% confidence levels, k=2)

No.	Item	Measurement Uncertainty
1	Radio Frequency	7.9×10^{-8}
2	RF power, conducted	0.31dB (30MHz-1GHz)
		0.57dB (1GHz-18GHz)
3	Radiated Spurious emission test	4.5dB (30MHz-1GHz)
		4.8dB (1GHz-12.75GHz)
4	Conduction emission	3.6dB (9kHz to 150kHz)
		3.2dB (150kHz to 30MHz)
5	Temperature test	0.64°C
6	Humidity test	2.8%
7	DC power voltages	0.025%

7 Equipment List

RF test system					
Equipment	Manufacturer	Mode No.	Serial Number	Cal. Date (mm-dd-yyyy)	Cal. Due date (mm-dd-yyyy)
Signal Generator	Keysight	E8257D	MY53401106	04-14-2015	04-13-2016
Communication test set test set	Agilent	N4010A	MY47230124	04-02-2015	04-01-2016
Spectrum Analyzer	Keysight	N9010A	MY54510339	04-01-2015	03-31-2016
Attenuator	HuaXiang	SHX370	15040701	04-01-2015	03-31-2016
Signal Generator	Keysight	N5182B	MY53051549	03-31-2015	03-30-2016
High-pass filter(3-18GHz)	Sinoscite	FL3CX03WG18 NM12-0398-002	---	01-13-2015	01-12-2016
High-pass filter(5-18GHz)	MICRO-TRONICS	SPA-F-63029-4	---	01-13-2015	01-12-2016
band rejection filter (GSM900)	Sinoscite	FL5CX01CA09C L12-0395-001	---	01-13-2015	01-12-2016
band rejection filter (GSM850)	Sinoscite	FL5CX01CA08C L12-0393-001	---	01-13-2015	01-12-2016
band rejection filter (GSM1800)	Sinoscite	FL5CX02CA04C L12-0396-002	---	01-13-2015	01-12-2016
band rejection filter (GSM1900)	Sinoscite	FL5CX02CA03C L12-0394-001	---	01-13-2015	01-12-2016
DC Power	Keysight	E3642A	MY54436035	03-31-2015	03-30-2016
PC-1	Lenovo	R4960d	---	04-01-2015	03-31-2016
BT&WI-FI Automatic control	R&S	OSPB157	101374	04-01-2015	03-31-2016
RF control unit	JS Tonscend	JS0806-2	2015860006	04-01-2015	03-31-2016
BT&WI-FI Automatic test software	JS Tonscend	JSTS1120-2	---	04-01-2015	03-31-2016

Conducted disturbance Test					
Equipment	Manufacturer	Mode No.	Serial Number	Cal. date (mm-dd-yyyy)	Cal. Due date (mm-dd-yyyy)
Receiver	R&S	ESCI	100435	06-30-2015	06-28-2016
Receiver	R&S	ESCI	100009	06-30-2015	06-28-2016
Temperature/ Humidity Indicator	Belida	TT-512	101	07-09-2015	07-07-2016
Communication test set	Agilent	E5515C	GB47050533	01-13-2015	01-12-2016
Communication test set	R&S	CMW500	152394	04-19-2015	04-18-2016
LISN	R&S	ENV216	100098	06-30-2015	06-28-2016
LISN	schwarzbeck	NNLK8121	8121-529	06-30-2015	06-28-2016
Voltage Probe	R&S	ESH2-Z3	100042	07-09-2014	07-08-2017
Current Probe	R&S	EZ17	100106	07-09-2014	07-08-2017
ISN	TESEQ GmbH	ISN T800	30297	01-29-2015	01-27-2017

3M Semi/full-anechoic Chamber					
Equipment	Manufacturer	Mode No.	Serial Number	Cal. date (mm-dd-yyyy)	Cal. Due date (mm-dd-yyyy)
3M Chamber	TDK	SAC-3	---	06-02-2013	06-01-2016
TRILOG Broadband Antenna	schwarzbeck	VULB9163	9163-617	07-13-2015	07-29-2016
Microwave Preamplifier	Agilent	8449B	3008A02425	02-05-2015	02-04-2016
Horn Antenna	ETS-LINDGREN	3117	00057410	06-30-2015	06-28-2018
Loop Antenna	ETS	6502	00071730	07-30-2015	07-28-2017
Spectrum Analyzer	R&S	FSP40	100416	06-30-2015	06-28-2016
Receiver	R&S	ESCI	100435	06-30-2015	06-28-2016
Multi device Controller	matur	NCD/070/10711112	---	01-13-2015	01-12-2016
LISN	schwarzbeck	NNBM8125	81251547	06-30-2015	06-28-2016
LISN	schwarzbeck	NNBM8125	81251548	06-30-2015	06-28-2016
Signal Generator	Agilent	E4438C	MY45095744	04-19-2015	04-18-2016
Signal Generator	Keysight	E8257D	MY53401106	04-14-2015	04-13-2016
Temperature/ Humidity Indicator	TAYLOR	1451	1905	07-08-2015	07-06-2016
Communication test set	Agilent	E5515C	GB47050533	01-13-2015	01-12-2016
Cable line	Fulai(7M)	SF106	5219/6A	01-13-2015	01-12-2016
Cable line	Fulai(6M)	SF106	5220/6A	01-13-2015	01-12-2016
Cable line	Fulai(3M)	SF106	5216/6A	01-13-2015	01-12-2016
Cable line	Fulai(3M)	SF106	5217/6A	01-13-2015	01-12-2016
Communication test set	R&S	CMW500	152394	04-19-2015	04-18-2016
High-pass filter(3-18GHz)	Sinoscite	FL3CX03WG18NM 12-0398-002	---	01-13-2015	01-12-2016
High-pass filter(5-18GHz)	MICRO-TRONICS	SPA-F-63029-4	---	01-13-2015	01-12-2016
band rejection filter	Sinoscite	FL5CX01CA09CL1 2-0395-001	---	01-13-2015	01-12-2016
band rejection filter	Sinoscite	FL5CX01CA08CL1 2-0393-001	---	01-13-2015	01-12-2016
band rejection filter	Sinoscite	FL5CX02CA04CL1 2-0396-002	---	01-13-2015	01-12-2016
band rejection filter	Sinoscite	FL5CX02CA03CL1 2-0394-001	---	01-13-2015	01-12-2016

8 Radio Technical Requirements Specification

Reference documents for testing:

No.	Identity	Document Title
1	FCC Part15C (2014)	Subpart C-Intentional Radiators
2	ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless Devices

Test Results List:

Test Requirement	Test method	Test item	Verdict	Note
Part15C Section 15.247 (b)(3)	ANSI C63.10	Conducted (Average) Output Power	PASS	Appendix A)
Part15C Section 15.247 (a)(2)	ANSI C63.10	6dB Occupied Bandwidth	PASS	Appendix B)
Part15C Section 15.247(d)	ANSI C63.10	Band-edge for RF Conducted Emissions	PASS	Appendix C)
Part15C Section 15.247(d)	ANSI C63.10	RF Conducted Spurious Emissions	PASS	Appendix D)
Part15C Section 15.247 (e)	ANSI C63.10	Power Spectral Density	PASS	Appendix E)
Part15C Section 15.203/15.247 (c)	ANSI C63.10	Antenna Requirement	PASS	Appendix F)
Part15C Section 15.207	ANSI C63.10	AC Power Line Conducted Emission	PASS	Appendix G)
Part15C Section 15.205/15.209	ANSI C63.10	Restricted bands around fundamental frequency (Radiated Emission)	PASS	Appendix H)
Part15C Section 15.205/15.209	ANSI C63.10	Radiated Spurious Emissions	PASS	Appendix I)

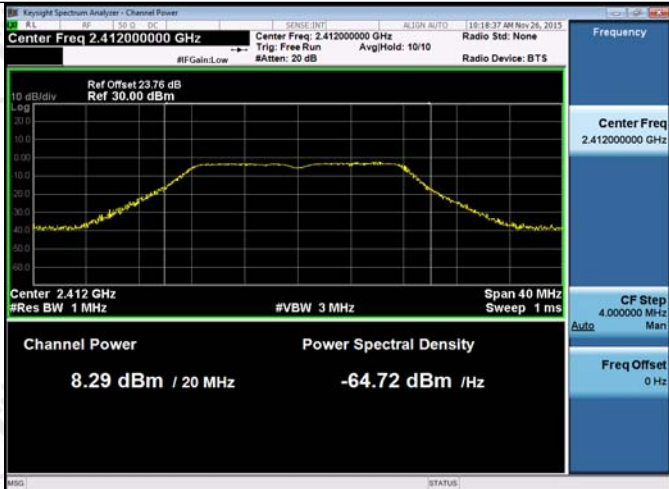
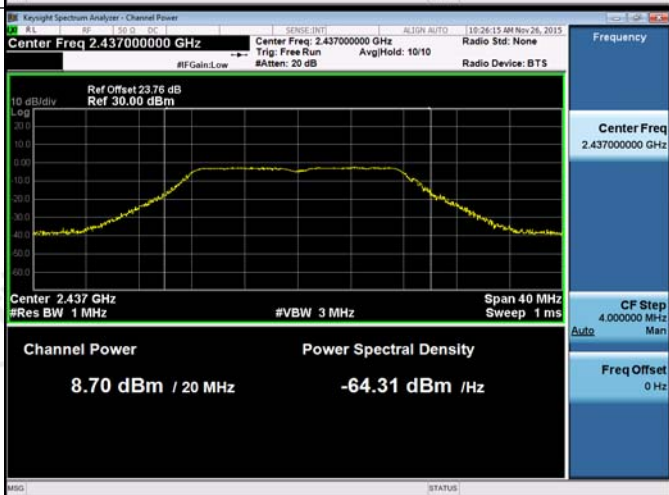
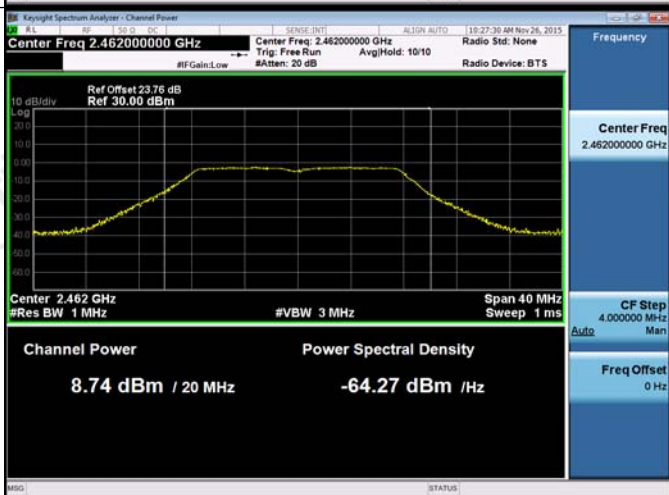
Appendix A) Conducted (Average) Output Power

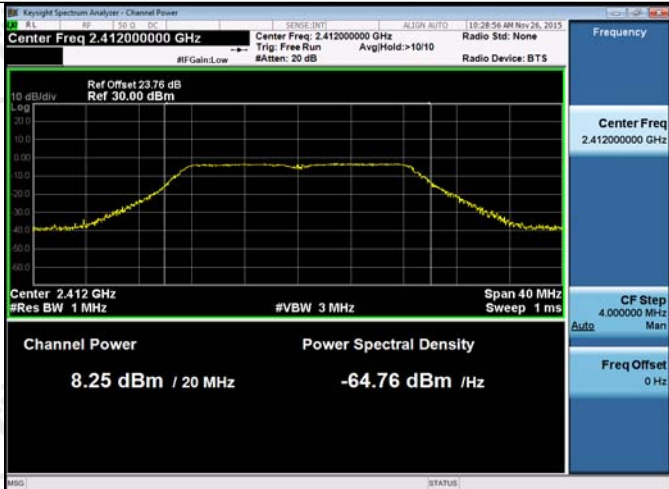
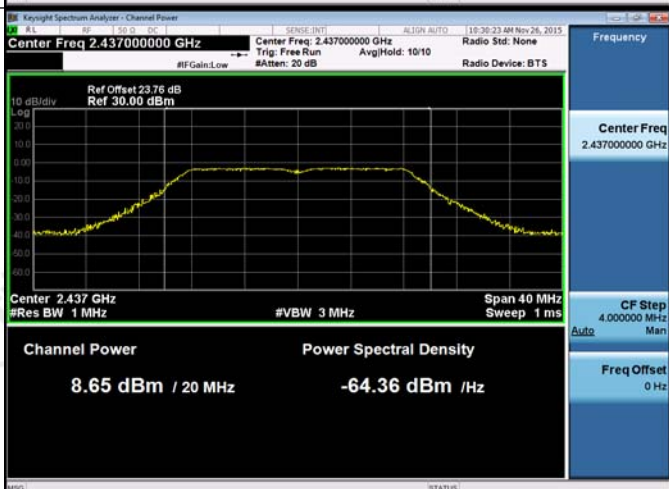
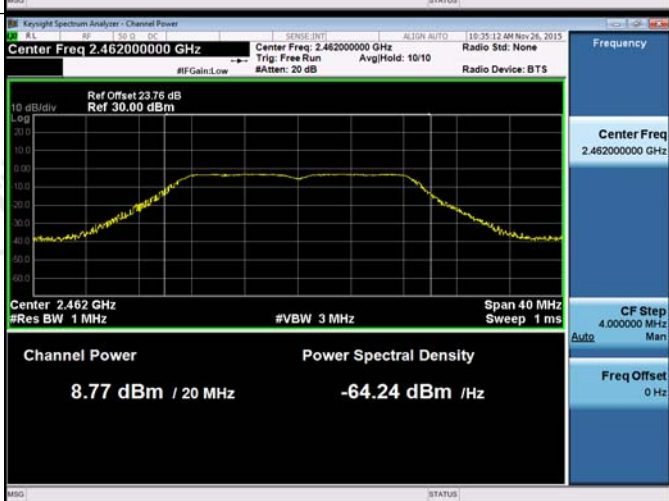
Result Table

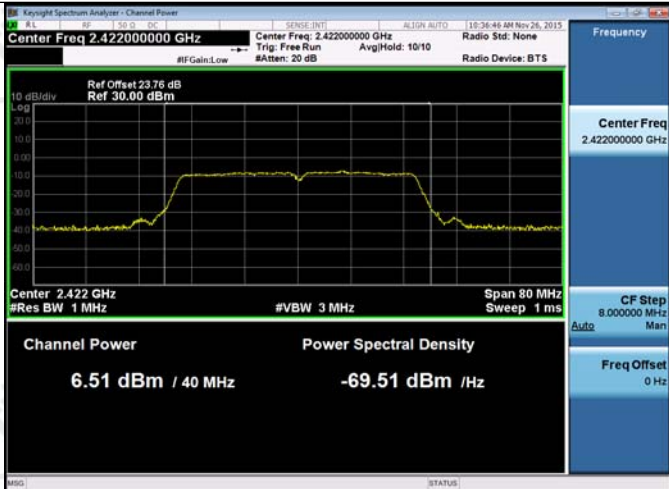
Mode	Channel	Conducted Average Output Power [dBm]	Verdict	Remark
11B	LCH	9.08	PASS	RMS detector
11B	MCH	9.59	PASS	
11B	HCH	9.52	PASS	
11G	LCH	8.29	PASS	
11G	MCH	8.7	PASS	
11G	HCH	8.74	PASS	
11N20SISO	LCH	8.25	PASS	
11N20SISO	MCH	8.65	PASS	
11N20SISO	HCH	8.77	PASS	
11N40SISO	LCH	6.51	PASS	
11N40SISO	MCH	6.75	PASS	
11N40SISO	HCH	7.26	PASS	

Test Graph



11G/LCH	 KeySight Spectrum Analyzer - Channel Power Center Freq: 2.412000000 GHz Ref Offset: 23.76 dB Ref: 30.00 dBm Channel Power: 8.29 dBm / 20 MHz Power Spectral Density: -64.72 dBm / Hz
11G/MCH	 KeySight Spectrum Analyzer - Channel Power Center Freq: 2.437000000 GHz Ref Offset: 23.76 dB Ref: 30.00 dBm Channel Power: 8.70 dBm / 20 MHz Power Spectral Density: -64.31 dBm / Hz
11G/HCH	 KeySight Spectrum Analyzer - Channel Power Center Freq: 2.462000000 GHz Ref Offset: 23.76 dB Ref: 30.00 dBm Channel Power: 8.74 dBm / 20 MHz Power Spectral Density: -64.27 dBm / Hz

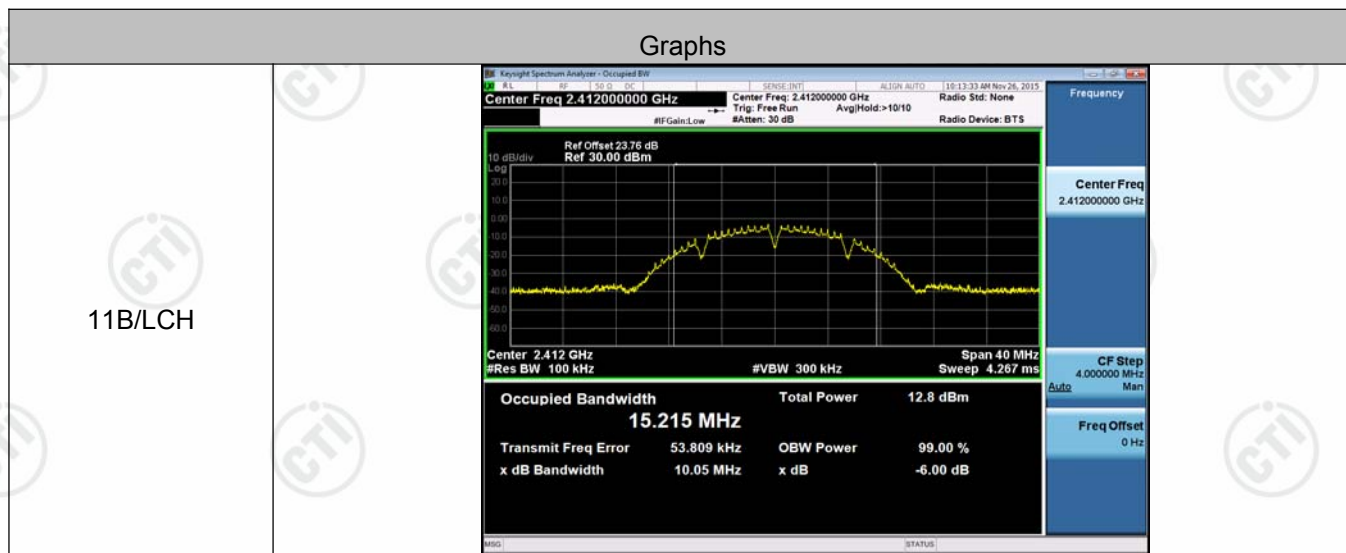
11N20SISO/LCH	 KeySight Spectrum Analyzer - Channel Power Center Freq 2.412000000 GHz Ref Offset 23.76 dB Ref 30.00 dBm Center 2.412 GHz #Res BW 1 MHz #VBW 3 MHz Span 40 MHz Sweep 1 ms Channel Power 8.25 dBm / 20 MHz Power Spectral Density -64.76 dBm /Hz
11N20SISO/MCH	 KeySight Spectrum Analyzer - Channel Power Center Freq 2.437000000 GHz Ref Offset 23.76 dB Ref 30.00 dBm Center 2.437 GHz #Res BW 1 MHz #VBW 3 MHz Span 40 MHz Sweep 1 ms Channel Power 8.65 dBm / 20 MHz Power Spectral Density -64.36 dBm /Hz
11N20SISO/HCH	 KeySight Spectrum Analyzer - Channel Power Center Freq 2.462000000 GHz Ref Offset 23.76 dB Ref 30.00 dBm Center 2.462 GHz #Res BW 1 MHz #VBW 3 MHz Span 40 MHz Sweep 1 ms Channel Power 8.77 dBm / 20 MHz Power Spectral Density -64.24 dBm /Hz

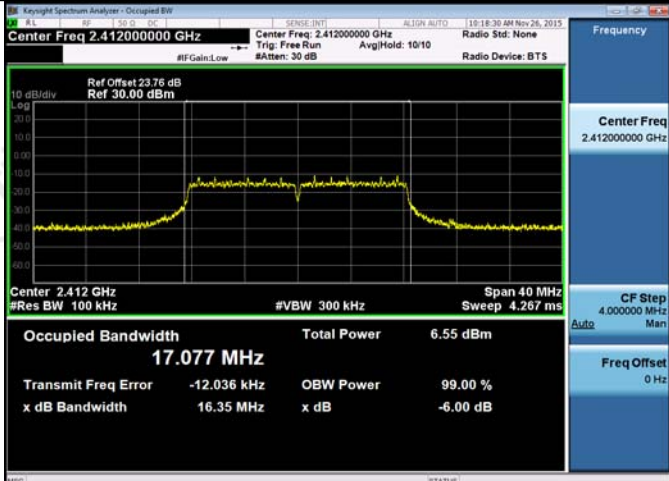
11N40SISO/LCH	 Key: Keysight Spectrum Analyzer - Channel Power Center Freq: 2.422000000 GHz Ref Offset: 23.76 dB Ref: 30.00 dBm Channel Power: 6.51 dBm / 40 MHz Power Spectral Density: -69.51 dBm / Hz
11N40SISO/MCH	 Key: Keysight Spectrum Analyzer - Channel Power Center Freq: 2.437000000 GHz Ref Offset: 23.76 dB Ref: 30.00 dBm Channel Power: 6.75 dBm / 40 MHz Power Spectral Density: -69.27 dBm / Hz
11N40SISO/HCH	 Key: Keysight Spectrum Analyzer - Channel Power Center Freq: 2.452000000 GHz Ref Offset: 23.76 dB Ref: 30.00 dBm Channel Power: 7.26 dBm / 40 MHz Power Spectral Density: -68.76 dBm / Hz

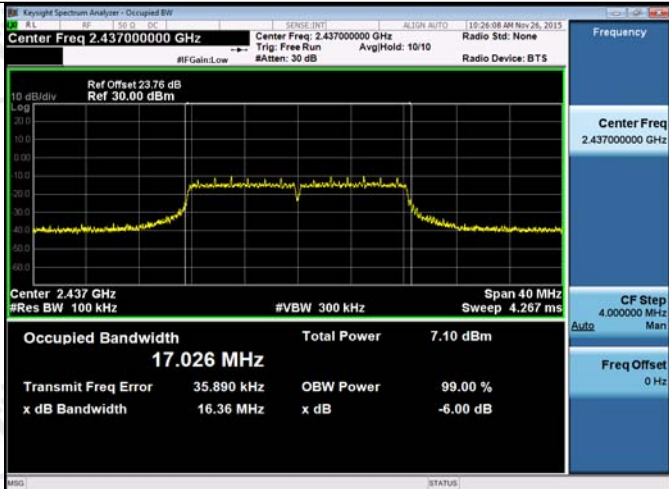
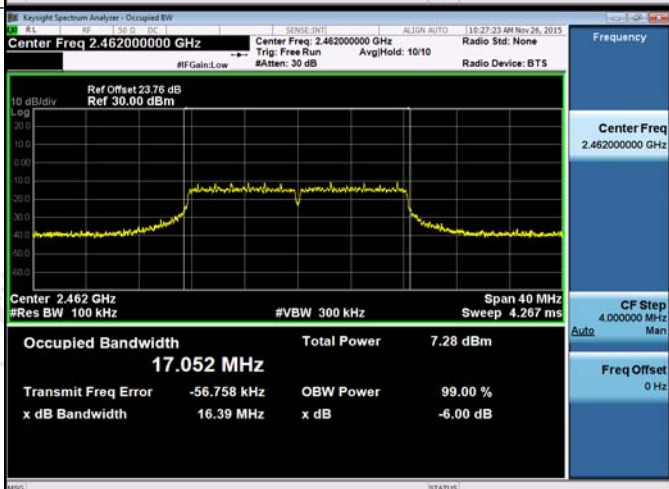
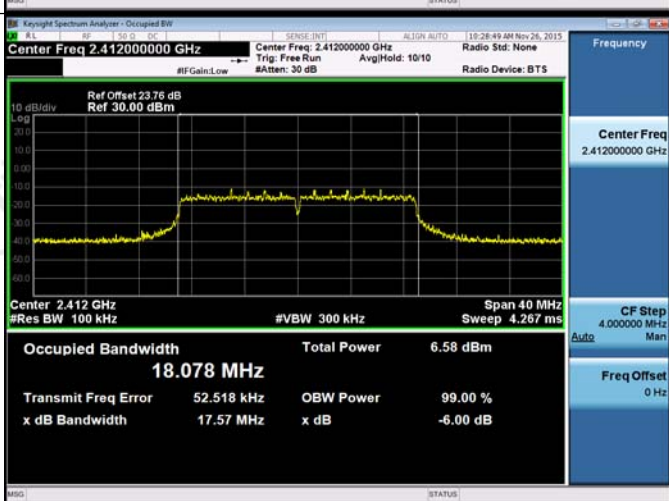
Appendix B) 6dB Occupied Bandwidth Result Table

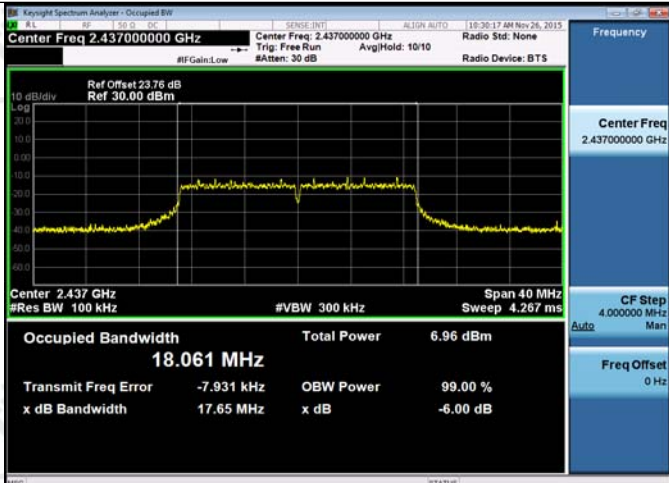
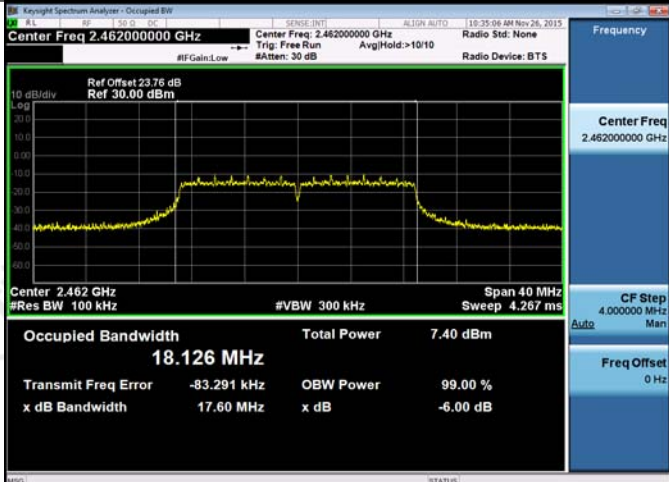
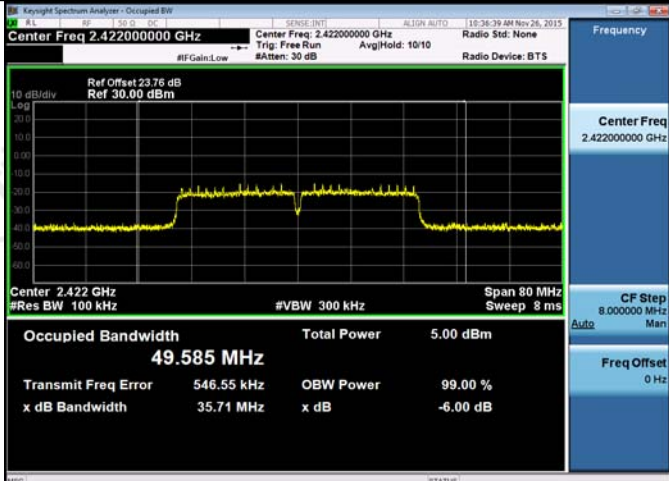
Mode	Channel	6dB Bandwidth [MHz]	99% OBW [MHz]	Verdict	Remark
11B	LCH	10.05	15.215	PASS	Peak detector
11B	MCH	9.582	15.193	PASS	
11B	HCH	10.05	15.225	PASS	
11G	LCH	16.35	17.077	PASS	
11G	MCH	16.36	17.026	PASS	
11G	HCH	16.39	17.052	PASS	
11N20SISO	LCH	17.57	18.078	PASS	
11N20SISO	MCH	17.65	18.061	PASS	
11N20SISO	HCH	17.60	18.126	PASS	
11N40SISO	LCH	35.71	49.585	PASS	
11N40SISO	MCH	35.47	47.653	PASS	
11N40SISO	HCH	35.46	44.626	PASS	

Test Graph



11B/MCH	 KeySight Spectrum Analyzer - Occupied BW Center Freq: 2.437000000 GHz Ref Offset: 23.76 dB Ref: 30.00 dBm Center: 2.437 GHz #Res BW: 100 kHz Occupied Bandwidth: 15.193 MHz Total Power: 13.3 dBm Transmit Freq Error: 49.343 kHz x dB Bandwidth: 9.582 MHz
11B/HCH	 KeySight Spectrum Analyzer - Occupied BW Center Freq: 2.462000000 GHz Ref Offset: 23.76 dB Ref: 30.00 dBm Center: 2.462 GHz #Res BW: 100 kHz Occupied Bandwidth: 15.225 MHz Total Power: 13.4 dBm Transmit Freq Error: 3.440 kHz x dB Bandwidth: 10.05 MHz
11G/LCH	 KeySight Spectrum Analyzer - Occupied BW Center Freq: 2.412000000 GHz Ref Offset: 23.76 dB Ref: 30.00 dBm Center: 2.412 GHz #Res BW: 100 kHz Occupied Bandwidth: 17.077 MHz Total Power: 6.55 dBm Transmit Freq Error: -12.036 kHz x dB Bandwidth: 16.35 MHz

11G/MCH	 Keyight Spectrum Analyzer - Occupied BW Center Freq: 2.437000000 GHz Ref Offset: 23.76 dB Ref: 30.00 dBm Center: 2.437 GHz #Res BW: 100 kHz Span: 40 MHz Sweep: 4.267 ms Occupied Bandwidth: 17.026 MHz Total Power: 7.10 dBm Transmit Freq Error: 35.890 kHz OBW Power: 99.00 % x dB Bandwidth: 16.36 MHz x dB: -6.00 dB
11G/HCH	 Keyight Spectrum Analyzer - Occupied BW Center Freq: 2.462000000 GHz Ref Offset: 23.76 dB Ref: 30.00 dBm Center: 2.462 GHz #Res BW: 100 kHz Span: 40 MHz Sweep: 4.267 ms Occupied Bandwidth: 17.052 MHz Total Power: 7.28 dBm Transmit Freq Error: -56.758 kHz OBW Power: 99.00 % x dB Bandwidth: 16.39 MHz x dB: -6.00 dB
11N20SISO/LCH	 Keyight Spectrum Analyzer - Occupied BW Center Freq: 2.412000000 GHz Ref Offset: 23.76 dB Ref: 30.00 dBm Center: 2.412 GHz #Res BW: 100 kHz Span: 40 MHz Sweep: 4.267 ms Occupied Bandwidth: 18.078 MHz Total Power: 6.58 dBm Transmit Freq Error: 52.518 kHz OBW Power: 99.00 % x dB Bandwidth: 17.57 MHz x dB: -6.00 dB

11N20SISO/MCH	 Key: KeySight Spectrum Analyzer - Occupied BW Center Freq 2.437000000 GHz Ref Offset 23.76 dB Ref 30.00 dBm Center 2.437 GHz #Res BW 100 kHz Span 40 MHz Sweep 4.267 ms Occupied Bandwidth 18.061 MHz Total Power 6.96 dBm Transmit Freq Error -7.931 kHz OBW Power 99.00 % x dB Bandwidth 17.65 MHz x dB -6.00 dB
11N20SISO/HCH	 Key: KeySight Spectrum Analyzer - Occupied BW Center Freq 2.462000000 GHz Ref Offset 23.76 dB Ref 30.00 dBm Center 2.462 GHz #Res BW 100 kHz Span 40 MHz Sweep 4.267 ms Occupied Bandwidth 18.126 MHz Total Power 7.40 dBm Transmit Freq Error -83.291 kHz OBW Power 99.00 % x dB Bandwidth 17.60 MHz x dB -6.00 dB
11N40SISO/LCH	 Key: KeySight Spectrum Analyzer - Occupied BW Center Freq 2.422000000 GHz Ref Offset 23.76 dB Ref 30.00 dBm Center 2.422 GHz #Res BW 100 kHz Span 80 MHz Sweep 8 ms Occupied Bandwidth 49.585 MHz Total Power 5.00 dBm Transmit Freq Error 546.55 kHz OBW Power 99.00 % x dB Bandwidth 35.71 MHz x dB -6.00 dB

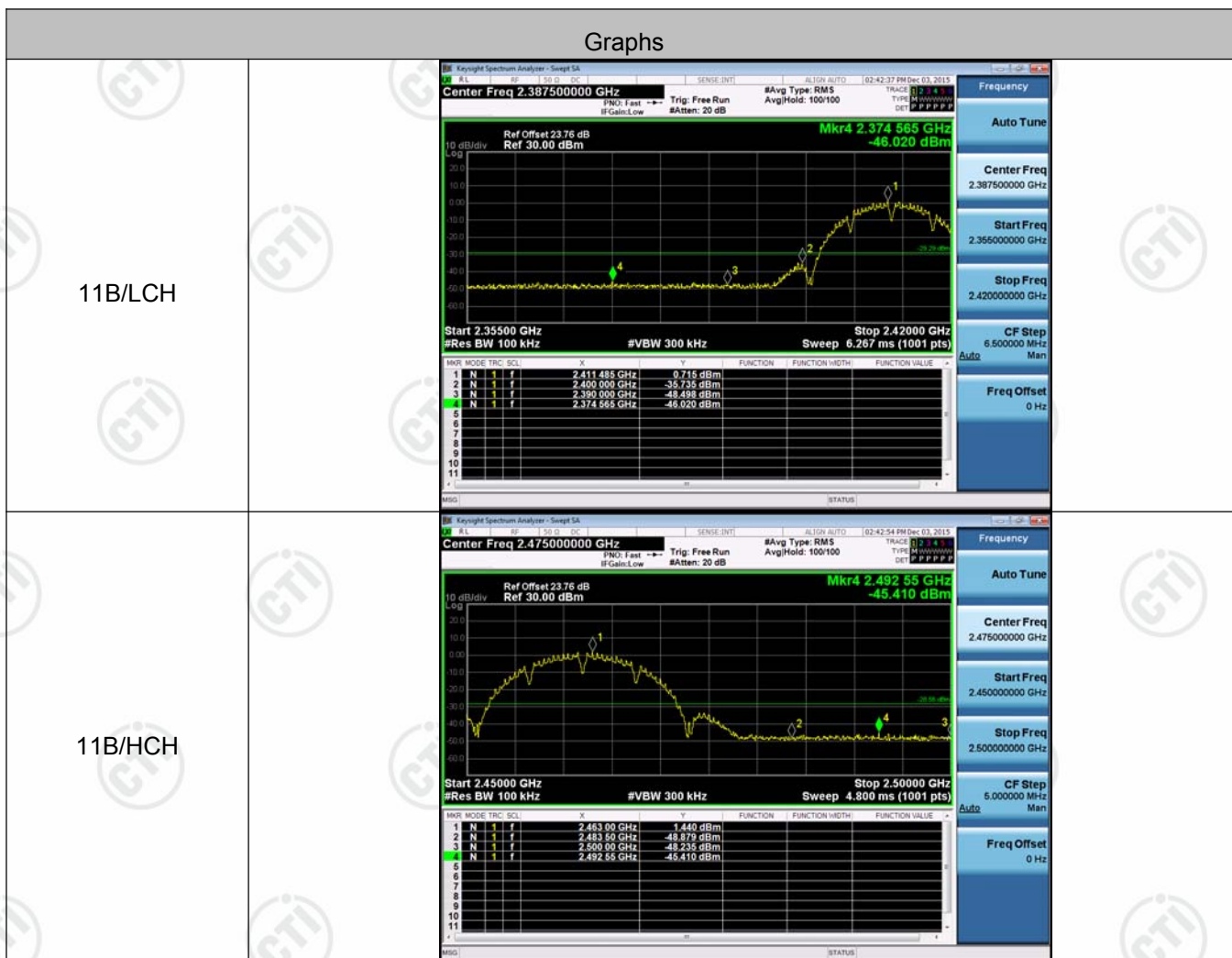


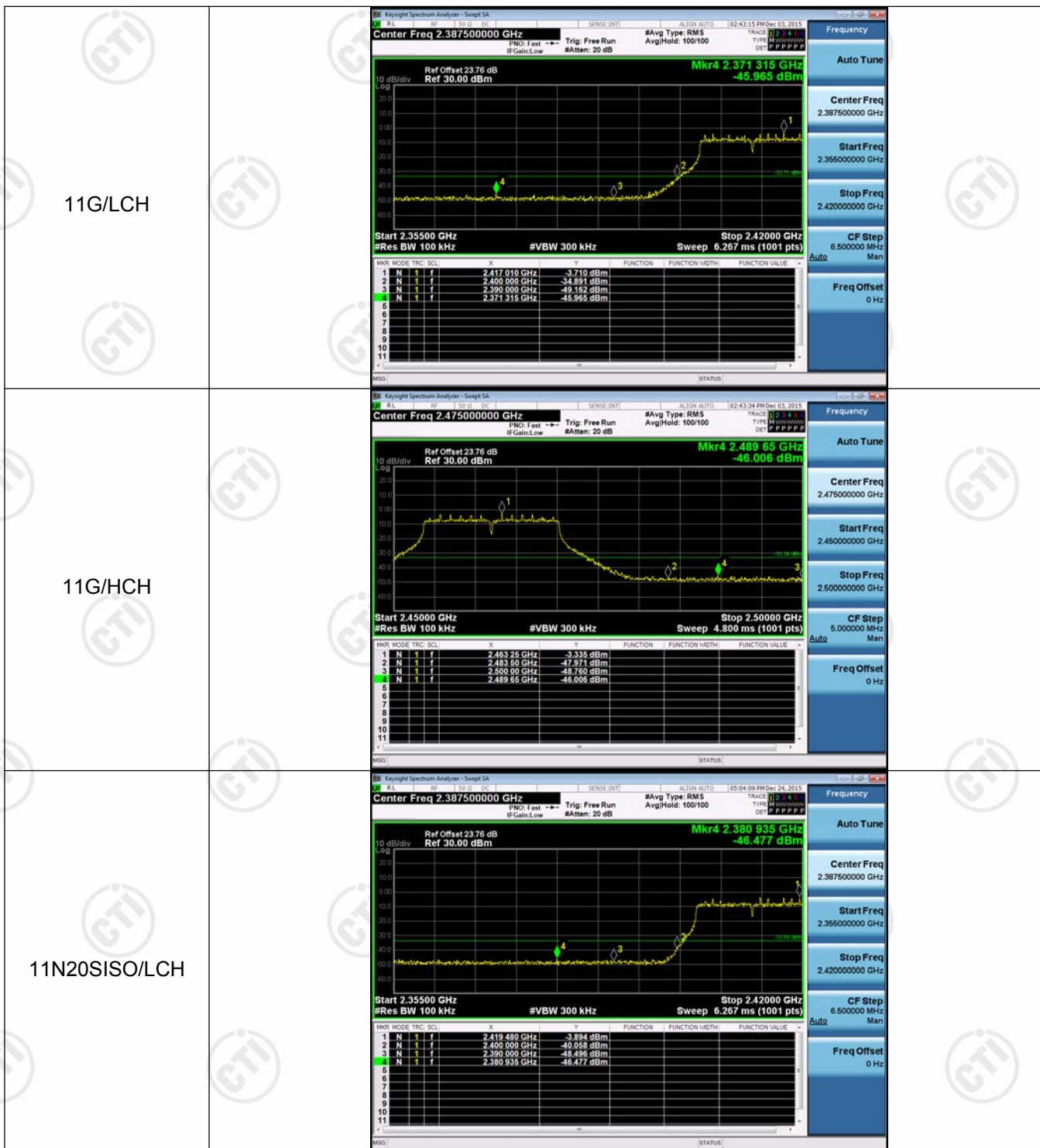
Appendix C) Band-edge for RF Conducted Emissions

Result Table

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	0.715	-46.020	-29.29	PASS
11B	HCH	1.440	-45.410	-28.56	PASS
11G	LCH	-3.710	-45.965	-33.71	PASS
11G	HCH	-3.335	-46.006	-33.34	PASS
11N20SISO	LCH	-3.894	-46.477	-33.89	PASS
11N20SISO	HCH	-4.512	-46.035	-34.51	PASS
11N40SISO	LCH	-7.862	-46.577	-37.86	PASS
11N40SISO	HCH	-7.729	-45.943	-37.73	PASS

Test Graph





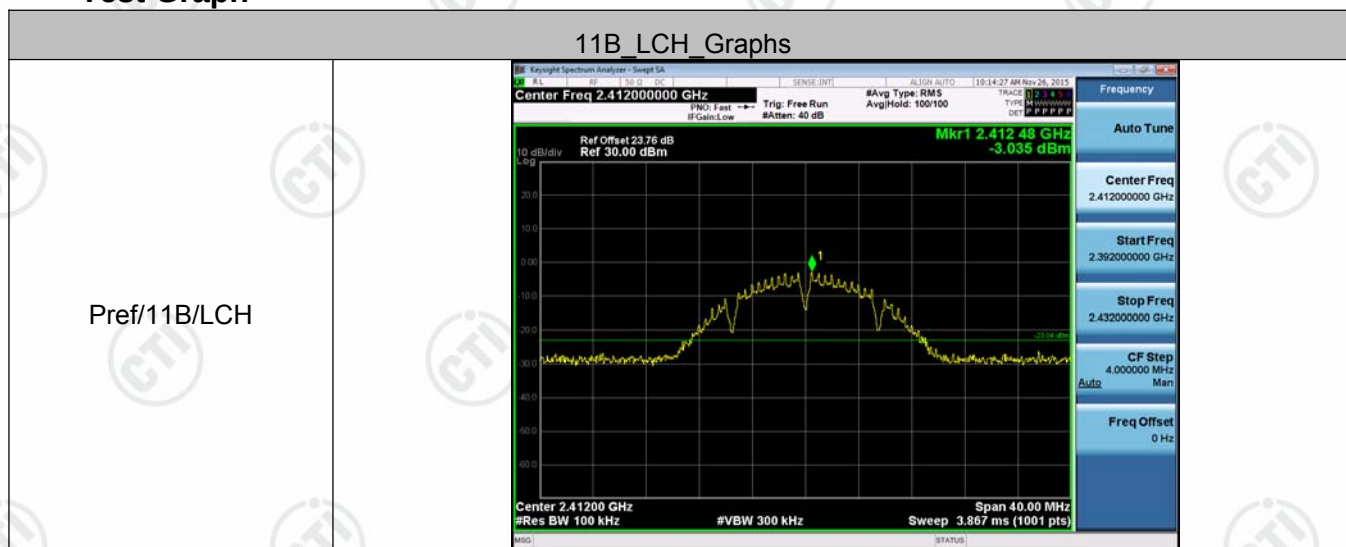
11N20SISO/HCH	Keylight Spectrum Analyzer - Sweep SA AL SENSE INT ALT/ON AUTO 02:44:14 PM Dec 03, 2015 Center Freq 2.475000000 GHz PNO: Fast IF Gain: Low Trig: Free Run #Atten: 20 dB #Avg Type: RMS Avg/Hold: 100/100 TRACE 0 1 2 3 4 5 TYPE M W W W W W W W DET P P P P P P P Ref Offset 23.76 dB Ref 30.00 dBm Mkr4 2.49135 GHz -46.035 dBm 10 dB/div Log Start 2.45000 GHz #Res BW 100 kHz #VBW 300 kHz Stop 2.50000 GHz Sweep 4.800 ms (1001 pts) <table><tr><th>MNR</th><th>MODE</th><th>TRC</th><th>SOL</th><th>F</th><th>F</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>2.45700</td><td>GHz</td><td>-4.512</td><td>dBm</td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>2.48350</td><td>GHz</td><td>-48.799</td><td>dBm</td><td></td></tr><tr><td>3</td><td>N</td><td>1</td><td>f</td><td>2.50000</td><td>GHz</td><td>-48.465</td><td>dBm</td><td></td></tr><tr><td>4</td><td>N</td><td>1</td><td>f</td><td>2.49135</td><td>GHz</td><td>-46.035</td><td>dBm</td><td></td></tr></table> Frequency Auto Tune Center Freq 2.475000000 GHz Start Freq 2.450000000 GHz Stop Freq 2.500000000 GHz CF Step 5.000000 MHz Man Freq Offset 0 Hz	MNR	MODE	TRC	SOL	F	F	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	2.45700	GHz	-4.512	dBm		2	N	1	f	2.48350	GHz	-48.799	dBm		3	N	1	f	2.50000	GHz	-48.465	dBm		4	N	1	f	2.49135	GHz	-46.035	dBm	
MNR	MODE	TRC	SOL	F	F	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE																																						
1	N	1	f	2.45700	GHz	-4.512	dBm																																							
2	N	1	f	2.48350	GHz	-48.799	dBm																																							
3	N	1	f	2.50000	GHz	-48.465	dBm																																							
4	N	1	f	2.49135	GHz	-46.035	dBm																																							
11N40SISO/LCH	Keylight Spectrum Analyzer - Sweep SA AL SENSE INT ALT/ON AUTO 05:09:04 PM Dec 24, 2015 Center Freq 2.387500000 GHz PNO: Fast IF Gain: Low Trig: Free Run #Atten: 20 dB #Avg Type: RMS Avg/Hold: 100/100 TRACE 0 1 2 3 4 5 TYPE M W W W W W W W DET P P P P P P P Ref Offset 23.76 dB Ref 30.00 dBm Mkr4 2.381650 GHz -46.577 dBm 10 dB/div Log Start 2.35500 GHz #Res BW 100 kHz #VBW 300 kHz Stop 2.42000 GHz Sweep 6.267 ms (1001 pts) <table><tr><th>MNR</th><th>MODE</th><th>TRC</th><th>SOL</th><th>F</th><th>F</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>2.41940</td><td>GHz</td><td>-7.862</td><td>dBm</td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>2.40000</td><td>GHz</td><td>-43.576</td><td>dBm</td><td></td></tr><tr><td>3</td><td>N</td><td>1</td><td>f</td><td>2.39000</td><td>GHz</td><td>-49.794</td><td>dBm</td><td></td></tr><tr><td>4</td><td>N</td><td>1</td><td>f</td><td>2.38165</td><td>GHz</td><td>-46.577</td><td>dBm</td><td></td></tr></table> Frequency Auto Tune Center Freq 2.387500000 GHz Start Freq 2.356000000 GHz Stop Freq 2.420000000 GHz CF Step 5.000000 MHz Man Freq Offset 0 Hz	MNR	MODE	TRC	SOL	F	F	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	2.41940	GHz	-7.862	dBm		2	N	1	f	2.40000	GHz	-43.576	dBm		3	N	1	f	2.39000	GHz	-49.794	dBm		4	N	1	f	2.38165	GHz	-46.577	dBm	
MNR	MODE	TRC	SOL	F	F	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE																																						
1	N	1	f	2.41940	GHz	-7.862	dBm																																							
2	N	1	f	2.40000	GHz	-43.576	dBm																																							
3	N	1	f	2.39000	GHz	-49.794	dBm																																							
4	N	1	f	2.38165	GHz	-46.577	dBm																																							
11N40SISO/HCH	Keylight Spectrum Analyzer - Sweep SA AL SENSE INT ALT/ON AUTO 05:07:54 PM Dec 24, 2015 Center Freq 2.475000000 GHz PNO: Fast IF Gain: Low Trig: Free Run #Atten: 20 dB #Avg Type: RMS Avg/Hold: 100/100 TRACE 0 1 2 3 4 5 TYPE M W W W W W W W DET P P P P P P P Ref Offset 23.76 dB Ref 30.00 dBm Mkr4 2.48425 GHz -45.943 dBm 10 dB/div Log Start 2.45000 GHz #Res BW 100 kHz #VBW 300 kHz Stop 2.50000 GHz Sweep 4.800 ms (1001 pts) <table><tr><th>MNR</th><th>MODE</th><th>TRC</th><th>SOL</th><th>F</th><th>F</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>2.46070</td><td>GHz</td><td>-7.729</td><td>dBm</td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>2.48350</td><td>GHz</td><td>-48.773</td><td>dBm</td><td></td></tr><tr><td>3</td><td>N</td><td>1</td><td>f</td><td>2.50000</td><td>GHz</td><td>-48.465</td><td>dBm</td><td></td></tr><tr><td>4</td><td>N</td><td>1</td><td>f</td><td>2.48425</td><td>GHz</td><td>-45.943</td><td>dBm</td><td></td></tr></table> Frequency Auto Tune Center Freq 2.475000000 GHz Start Freq 2.450000000 GHz Stop Freq 2.500000000 GHz CF Step 5.000000 MHz Man Freq Offset 0 Hz	MNR	MODE	TRC	SOL	F	F	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	2.46070	GHz	-7.729	dBm		2	N	1	f	2.48350	GHz	-48.773	dBm		3	N	1	f	2.50000	GHz	-48.465	dBm		4	N	1	f	2.48425	GHz	-45.943	dBm	
MNR	MODE	TRC	SOL	F	F	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE																																						
1	N	1	f	2.46070	GHz	-7.729	dBm																																							
2	N	1	f	2.48350	GHz	-48.773	dBm																																							
3	N	1	f	2.50000	GHz	-48.465	dBm																																							
4	N	1	f	2.48425	GHz	-45.943	dBm																																							

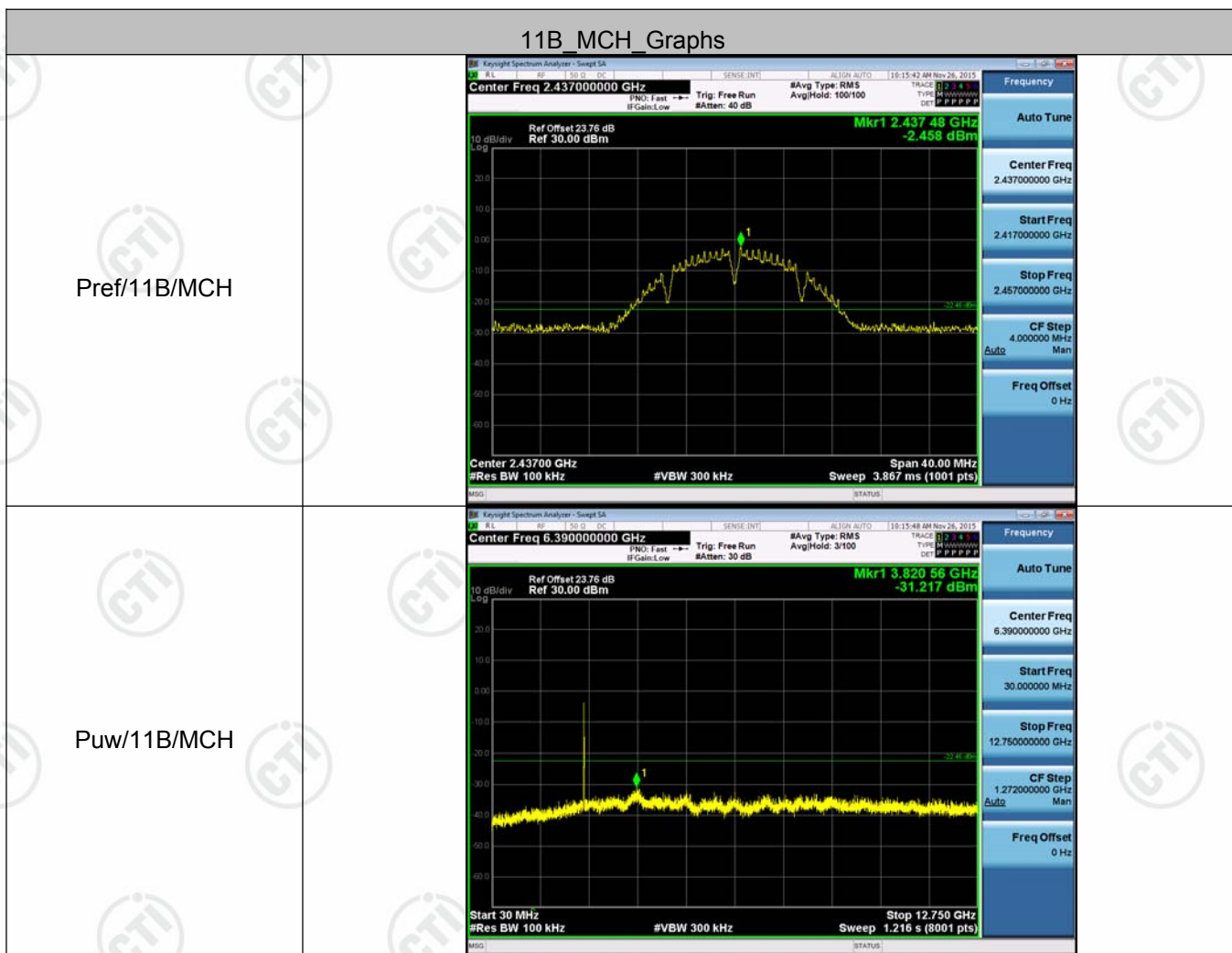
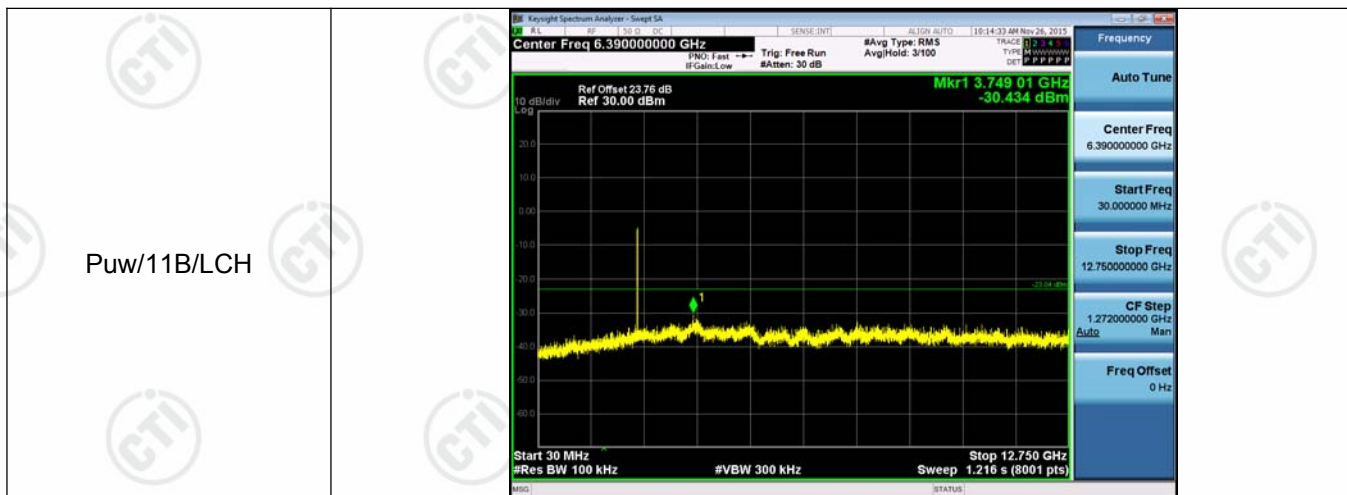
Appendix D) RF Conducted Spurious Emissions

Result Table

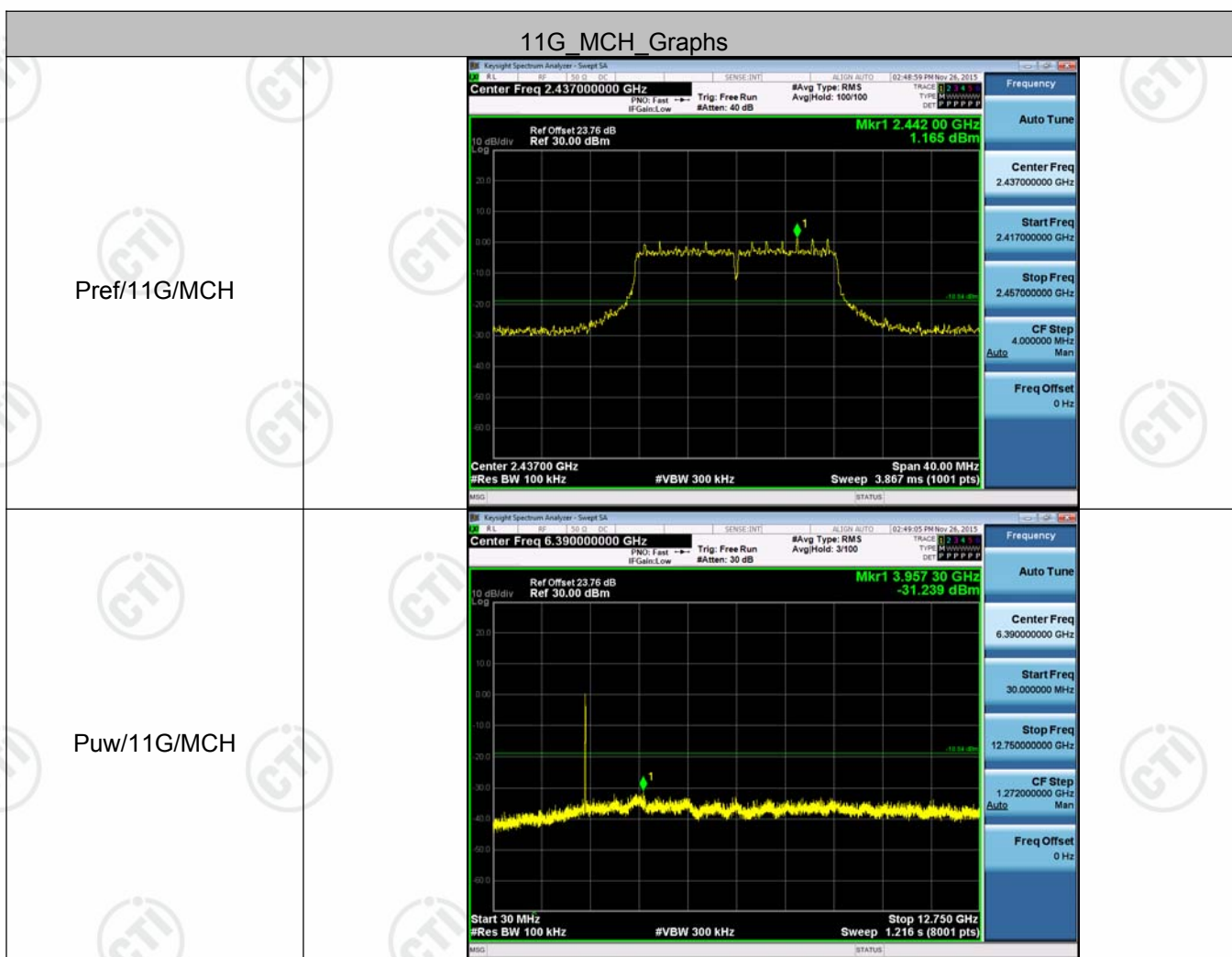
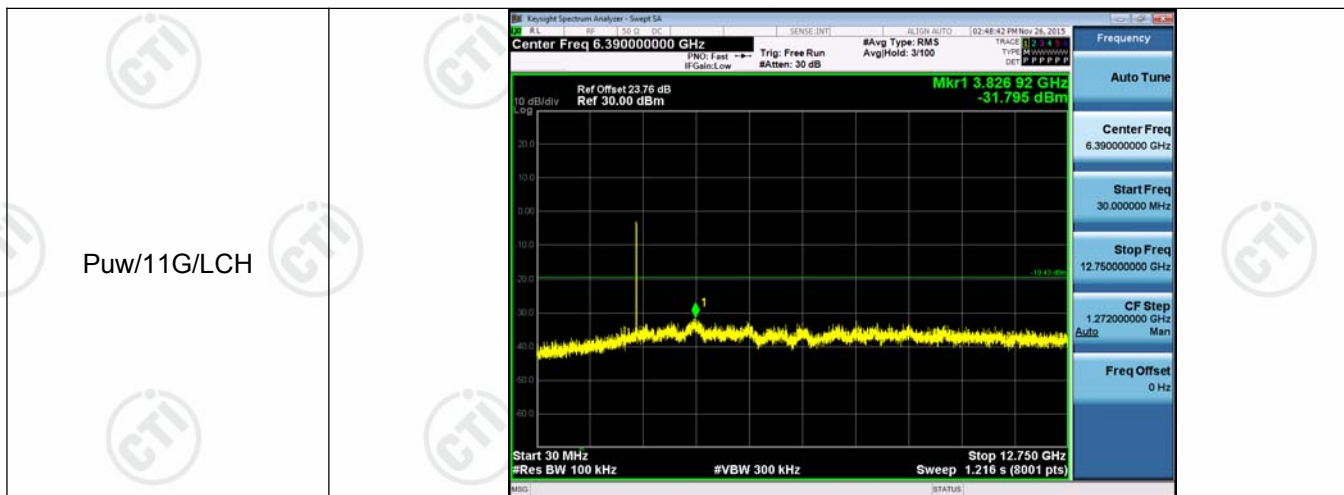
Mode	Channel	Pref [dBm]	Puw[dBm]	Verdict
11B	LCH	-3.035	<Limit	PASS
11B	MCH	-2.458	<Limit	PASS
11B	HCH	-2.341	<Limit	PASS
11G	LCH	0.574	<Limit	PASS
11G	MCH	1.165	<Limit	PASS
11G	HCH	1.356	<Limit	PASS
11N20SISO	LCH	-0.788	<Limit	PASS
11N20SISO	MCH	-0.022	<Limit	PASS
11N20SISO	HCH	0.145	<Limit	PASS
11N40SISO	LCH	-4.99	<Limit	PASS
11N40SISO	MCH	-4.724	<Limit	PASS
11N40SISO	HCH	-4.432	<Limit	PASS

Test Graph

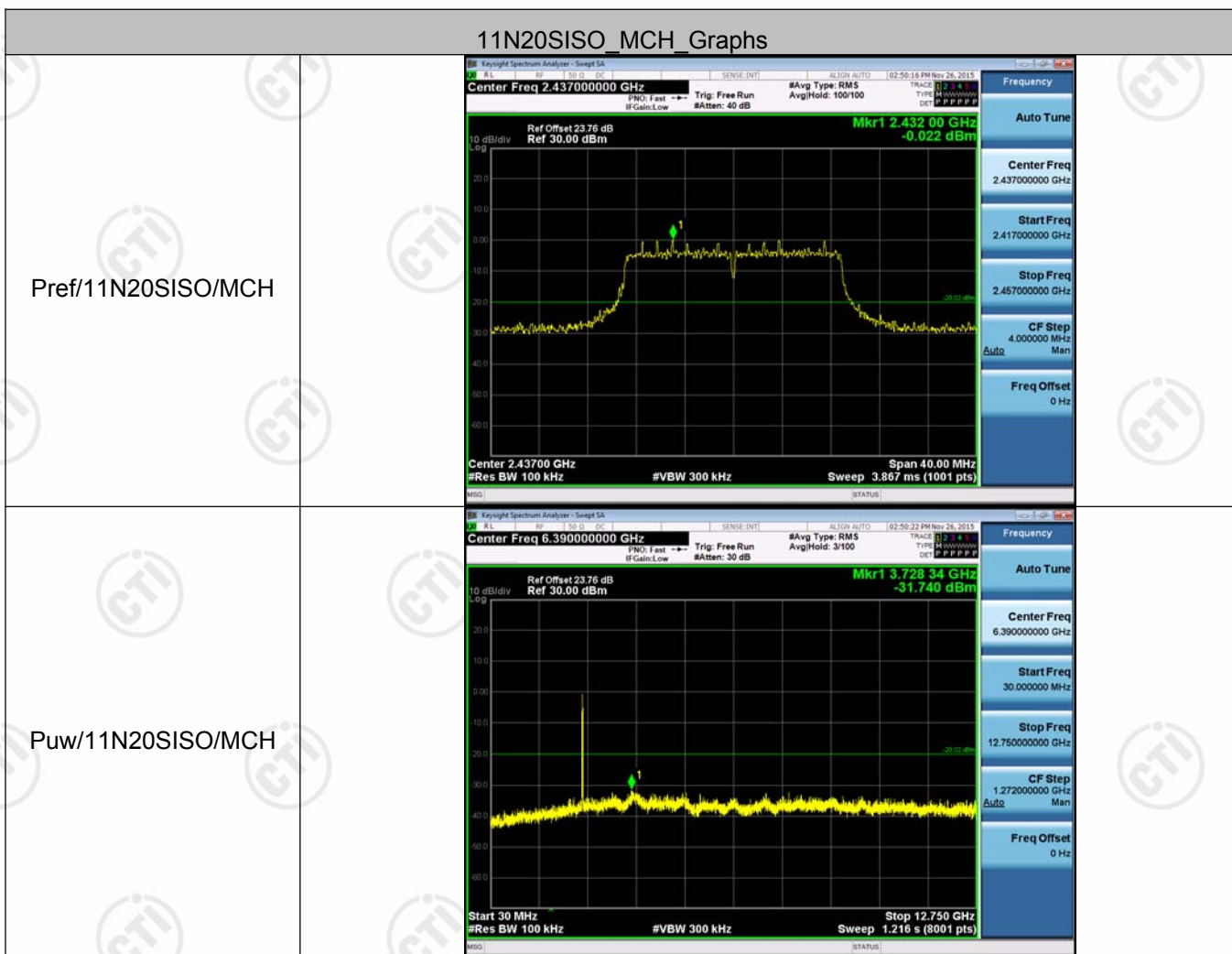
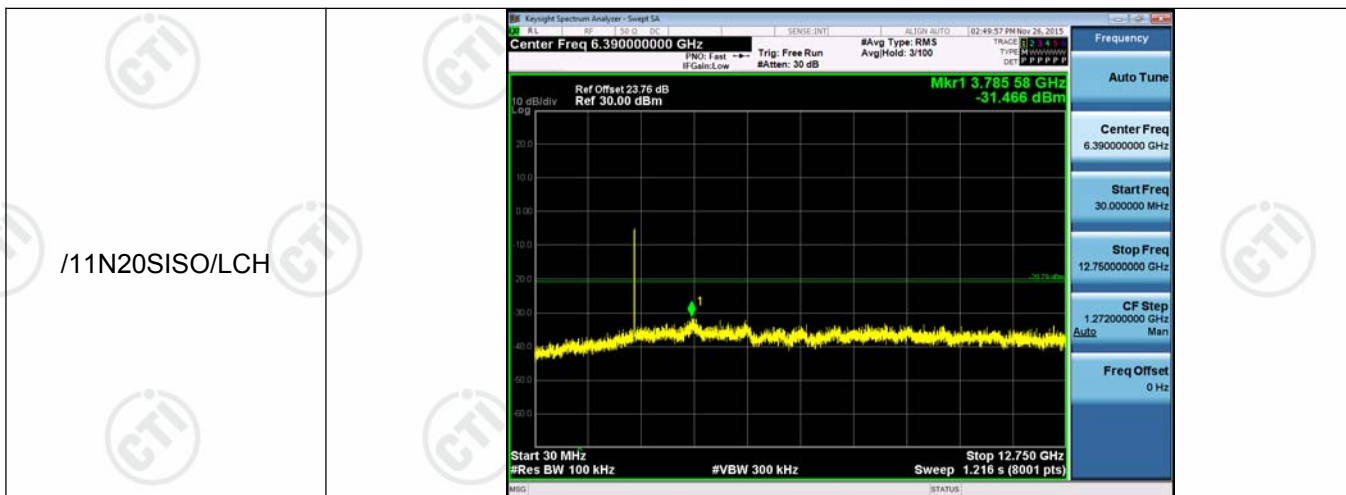




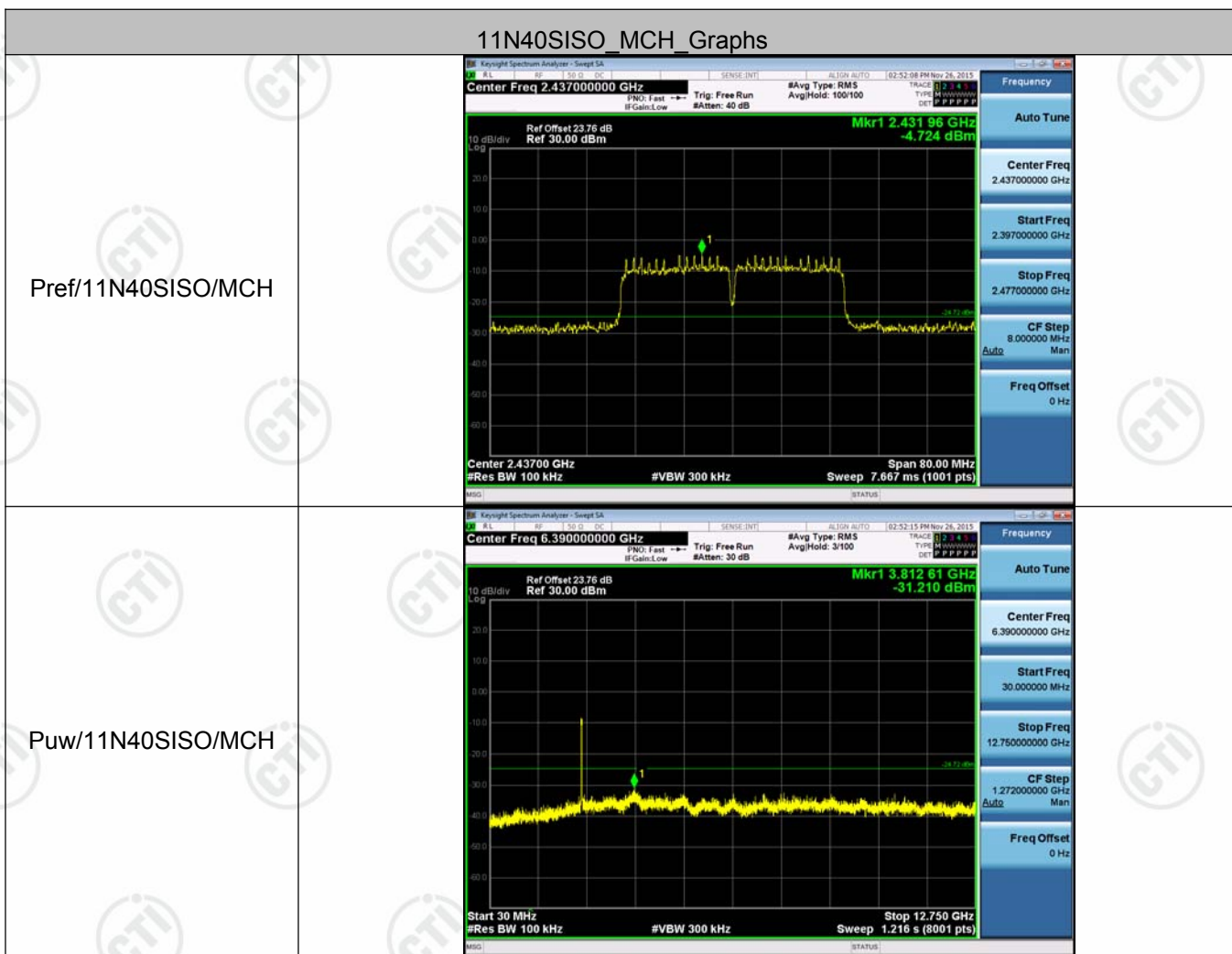
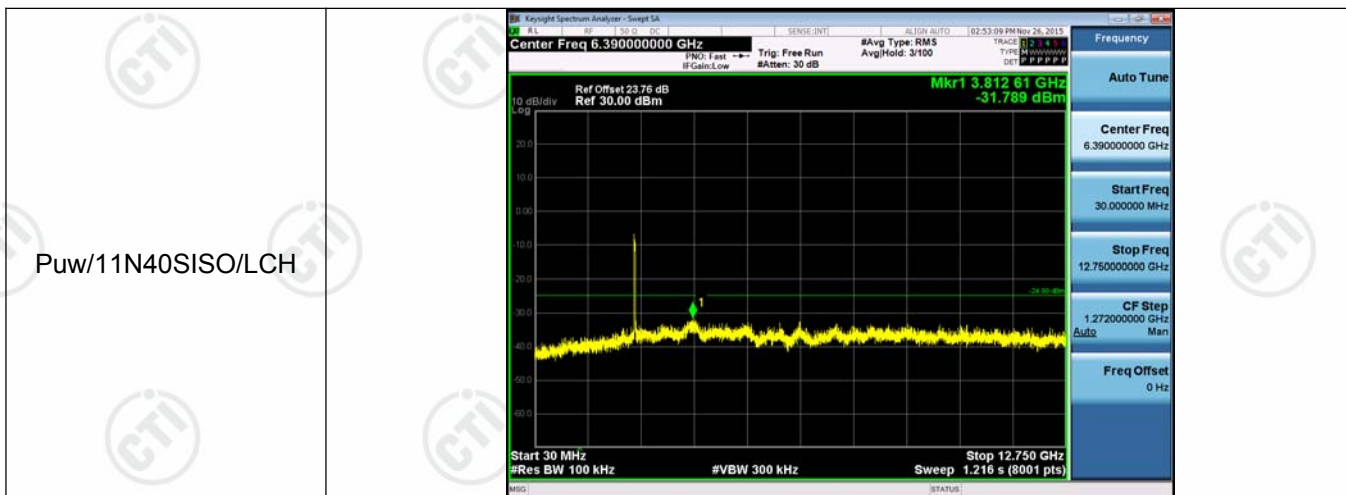














Appendix E) Power Spectral Density

Result Table

Mode	Channel	Power Spectral Density [dBm]	Verdict
11B	LCH	-16.176	PASS
11B	MCH	-16.324	PASS
11B	HCH	-15.813	PASS
11G	LCH	-23.154	PASS
11G	MCH	-23.692	PASS
11G	HCH	-23.555	PASS
11N20SISO	LCH	-25.272	PASS
11N20SISO	MCH	-22.733	PASS
11N20SISO	HCH	-24.715	PASS
11N40SISO	LCH	-30.367	PASS
11N40SISO	MCH	-29.431	PASS
11N40SISO	HCH	-29.017	PASS

Test Graph

