

TEST REPORT

Product : Brunswick Sync Tablet
Trade mark : Brunswick
Model/Type reference : 57-863756
Serial Number : N/A
Report Number : EED32I00035802
FCC ID : 2AEGE-57-863756-400
Date of Issue : Mar. 22, 2016
Test Standards : 47 CFR Part 15 Subpart C (2015)
Test result : PASS

Prepared for:

Brunswick Bowling & Billiards Corporation
525 W. Laketon Ave. Muskegon, MI 49441, USA

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:

Ken Yang

Reviewed by:

Emen-Li

Approved by:

Sheek Luo

Date:

Mar. 22, 2016

Sheek Luo

Lab supervisor

Check No.: 2392114859



2 Version

Version No.	Date	Description
00	Mar. 22, 2016	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 Peak 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.

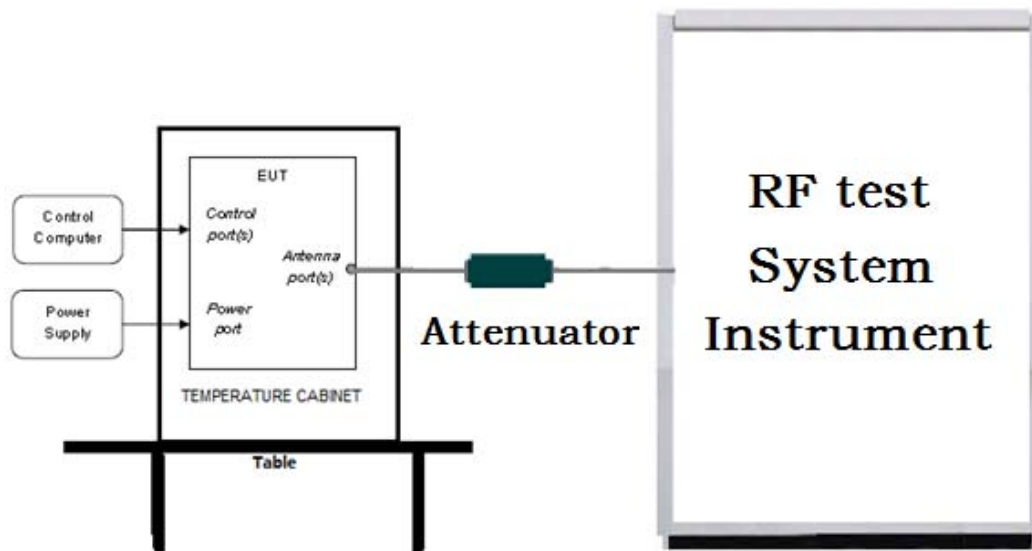
4 Content

1 COVER PAGE	1
2 VERSION	2
3 TEST SUMMARY	3
4 CONTENT	4
5 TEST REQUIREMENT	5
5.1 TEST SETUP	5
5.1.1 For Conducted test setup	5
5.1.2 For Radiated Emissions test setup	5
5.1.3 For Conducted Emissions test setup	6
5.2 TEST ENVIRONMENT	6
5.3 TEST CONDITION	6
6 GENERAL INFORMATION	7
6.1 CLIENT INFORMATION	7
6.2 GENERAL DESCRIPTION OF EUT	7
6.3 PRODUCT SPECIFICATION SUBJECTIVE TO THIS STANDARD	7
6.4 DESCRIPTION OF SUPPORT UNITS	8
6.5 TEST LOCATION	8
6.6 TEST FACILITY	8
6.7 DEVIATION FROM STANDARDS	9
6.8 ABNORMALITIES FROM STANDARD CONDITIONS	9
6.9 OTHER INFORMATION REQUESTED BY THE CUSTOMER	9
6.10 MEASUREMENT UNCERTAINTY(95% CONFIDENCE LEVELS, $k=2$)	9
7 EQUIPMENT LIST	10
8 RADIO TECHNICAL REQUIREMENTS SPECIFICATION	13
Appendix A): Conducted Output Power	14
Appendix B): 6dB Occupied Bandwidth	18
Appendix C): Band-edge for RF Conducted Emissions	22
Appendix D): RF Conducted Spurious Emissions	25
Appendix E): Power Spectral Density	35
Appendix F): Antenna Requirement	39
Appendix G): AC Power Line Conducted Emission	40
Appendix H): Restricted bands around fundamental frequency (Radiated)	43
Appendix I): Radiated Spurious Emissions	45
PHOTOGRAPHS OF TEST SETUP	53
PHOTOGRAPHS OF EUT CONSTRUCTIONAL DETAILS	55

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:

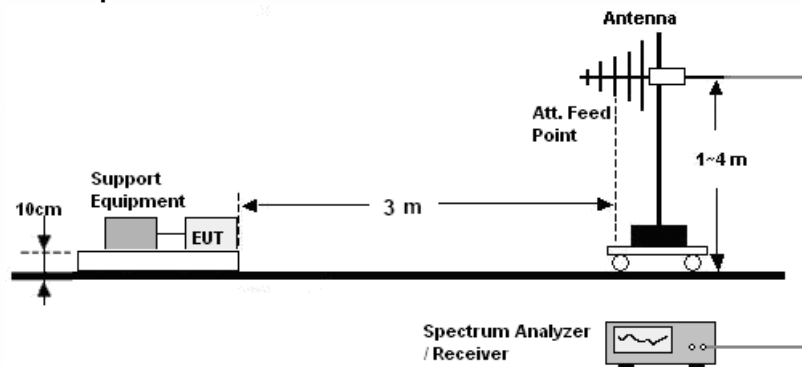


Figure 1. 30MHz to 1GHz

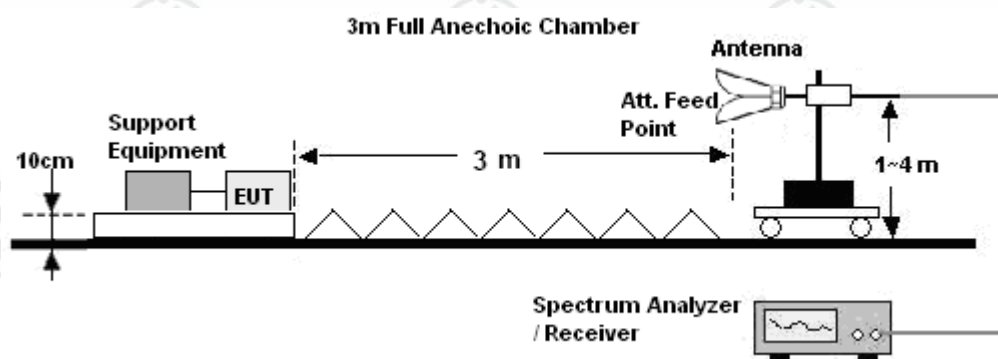
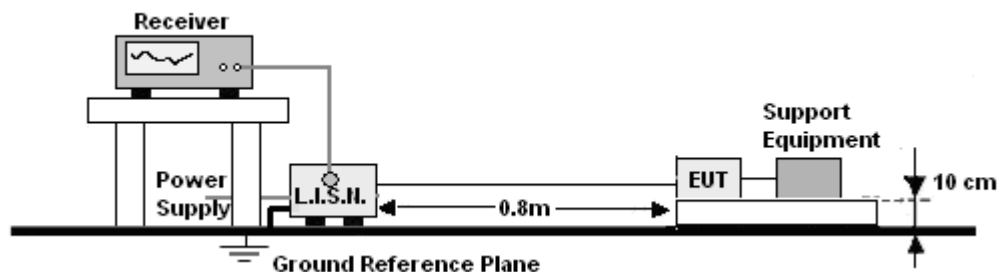


Figure 2. Above 1GHz

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	RF Channel		
		Low(L)	Middle(M)	High(H)
802.11b/g/n(HT20)	2412MHz ~2462 MHz	Channel 1	Channel 6	Channel11
		2412MHz	2437MHz	2462MHz
Transmitting mode:	Keep the EUT transmitted the continuous modulation test signal at the specific channel(s).			

Test mode:

Pre-scan under all rate at lowest channel 1

Mode	802.11b							
Data Rate	1Mbps	2Mbps	5.5Mbps	11Mbps				
Power(dBm)	13.54	13.61	13.77	13.78				
Mode	802.11g							
Data Rate	6Mbps	9Mbps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps
Power(dBm)	18.04	18.01	18.00	17.92	17.90	17.80	17.79	17.70
Mode	802.11n (HT20)							
Data Rate	6.5Mbps	13Mbps	19.5Mbps	26Mbps	39Mbps	52Mbps	58.5Mbps	65Mbps
Power(dBm)	16.67	16.66	16.63	16.60	16.59	16.58	16.55	16.41

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).

6 General Information

6.1 Client Information

Applicant:	Brunswick Bowling & Billiards Corporation
Address of Applicant:	525 W. Laketon Ave. Muskegon, MI 49441, USA
Manufacturer:	Shenzhen City Swift Info Technology Limited
Address of Manufacturer:	R303, Buliding C, Future Plaza, No.6060, Qiaoxiang Road, Nanshan Dist., Shenzhen China 518053

6.2 General Description of EUT

Product Name:	Brunswick Sync Tablet
Model No.(EUT):	57-863756
Trade Mark:	Brunswick
EUT Supports Radios application:	Wlan 2.4GHz 802.11b/g/n(HT20)
AC adapter:	AC 100-240V, 50/60Hz Output: DC 12-13.5V, 4.7A
Power Supply:	DC 12V
Sample Received Date:	Feb. 23, 2016
Sample tested Date:	Feb. 23, 2016 to Mar. 11, 2016

6.3 Product Specification subjective to this standard

Operation Frequency:	IEEE 802.11b/g/n(HT20): 2412MHz to 2462MHz						
Channel Numbers:	IEEE 802.11b/g, IEEE 802.11n HT20: 11 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) : OFDM (64QAM, 16QAM, QPSK,BPSK)						
Sample Type:	Fixed production						
Test Software of EUT:	Ampak RFTTestTool (manufacturer declare)						
Hardware Version:	V1.2(manufacturer declare)						
Software Version:	V4.5(manufacturer declare)						
Antenna Type and Gain:	Type: Integral antenna Gain: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		

6.4 Description of Support Units

The EUT has been tested with associated equipment below.

Description	Manufacturer	Model No.	Certification	Supplied by
POWER	Brunswick Bowling	57-501345	FCC VOC	Client

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
Spectrum Analyzer	Keysight	N9010A	MY54510339	04-01-2016	03-31-2017
Attenuator	HuaXiang	SHX370	15040701	04-01-2015	03-31-2016
Attenuator	HuaXiang	SHX370	15040701	04-01-2016	03-31-2017
Signal Generator	Keysight	N5182B	MY53051549	03-31-2015	03-30-2016
Signal Generator	Keysight	N5182B	MY53051549	04-01-2016	03-31-2017
High-pass filter(3-18GHz)	Sinoscite	FL3CX03WG18 NM12-0398-002	---	01-12-2016	01-11-2017
High-pass filter(5-18GHz)	MICRO-TRONICS	SPA-F-63029-4	---	01-12-2016	01-11-2017
band rejection filter (GSM900)	Sinoscite	FL5CX01CA09C L12-0395-001	---	01-12-2016	01-11-2017
band rejection filter (GSM850)	Sinoscite	FL5CX01CA08C L12-0393-001	---	01-12-2016	01-11-2017
band rejection filter (GSM1800)	Sinoscite	FL5CX02CA04C L12-0396-002	---	01-12-2016	01-11-2017
band rejection filter (GSM1900)	Sinoscite	FL5CX02CA03C L12-0394-001	---	01-12-2016	01-11-2017
DC Power	Keysight	E3642A	MY54436035	03-31-2015	03-31-2016
DC Power	Keysight	E3642A	MY54436035	04-01-2016	03-31-2017
PC-1	Lenovo	R4960d	---	04-01-2015	03-31-2016
PC-1	Lenovo	R4960d	---	04-01-2016	03-31-2017
BT&WI-FI Automatic control	R&S	OSPB157	101374	04-01-2015	03-31-2016
BT&WI-FI Automatic control	R&S	OSPB157	101374	04-01-2016	03-31-2017
RF control unit	JS Tonscend	JS0806-2	2015860006	04-01-2015	03-31-2016
RF control unit	JS Tonscend	JS0806-2	2015860006	04-01-2016	03-31-2017
BT&WI-FI Automatic test software	JS Tonscend	JSTS1120-2	---	04-01-2015	03-31-2016
BT&WI-FI Automatic test software	JS Tonscend	JSTS1120-2	---	04-01-2016	03-31-2017

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	04-27-2015	04-26-2016
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	07-31-2015	07-29-2016
Microwave Preamplifier	Agilent	8449B	3008A02425	02-04-2016	02-03-2017
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	06-28-2018
Receiver	R&S	ESCI	100435	06-30-2015	06-28-2018
Multi device Controller	matur	NCD/070/10711112	---	01-12-2016	01-11-2017
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	04-27-2015	04-26-2016
Cable line	Fulai(7M)	SF106	5219/6A	01-12-2016	01-11-2017
Cable line	Fulai(6M)	SF106	5220/6A	01-12-2016	01-11-2017
Cable line	Fulai(3M)	SF106	5216/6A	01-12-2016	01-11-2017
Cable line	Fulai(3M)	SF106	5217/6A	01-12-2016	01-11-2017
Communication test set	R&S	CMW500	152394	04-19-2015	04-18-2016

High-pass filter(3-18GHz)	Sinoscite	FL3CX03WG18NM 12-0398-002	---	01-12-2016	01-11-2017
High-pass filter(5-18GHz)	MICRO-TRONICS	SPA-F-63029-4	---	01-12-2016	01-11-2017
band rejection filter	Sinoscite	FL5CX01CA09CL1 2-0395-001	---	01-12-2016	01-11-2017
band rejection filter	Sinoscite	FL5CX01CA08CL1 2-0393-001	---	01-12-2016	01-11-2017
band rejection filter	Sinoscite	FL5CX02CA04CL1 2-0396-002	---	01-12-2016	01-11-2017
band rejection filter	Sinoscite	FL5CX02CA03CL1 2-0394-001	---	01-12-2016	01-11-2017

8 Radio Technical Requirements Specification

Reference documents for testing:

No.	Identity	Document Title
1	FCC Part15C (2015)	Subpart C-Intentional Radiators
2	ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless Devices

Test Results List:

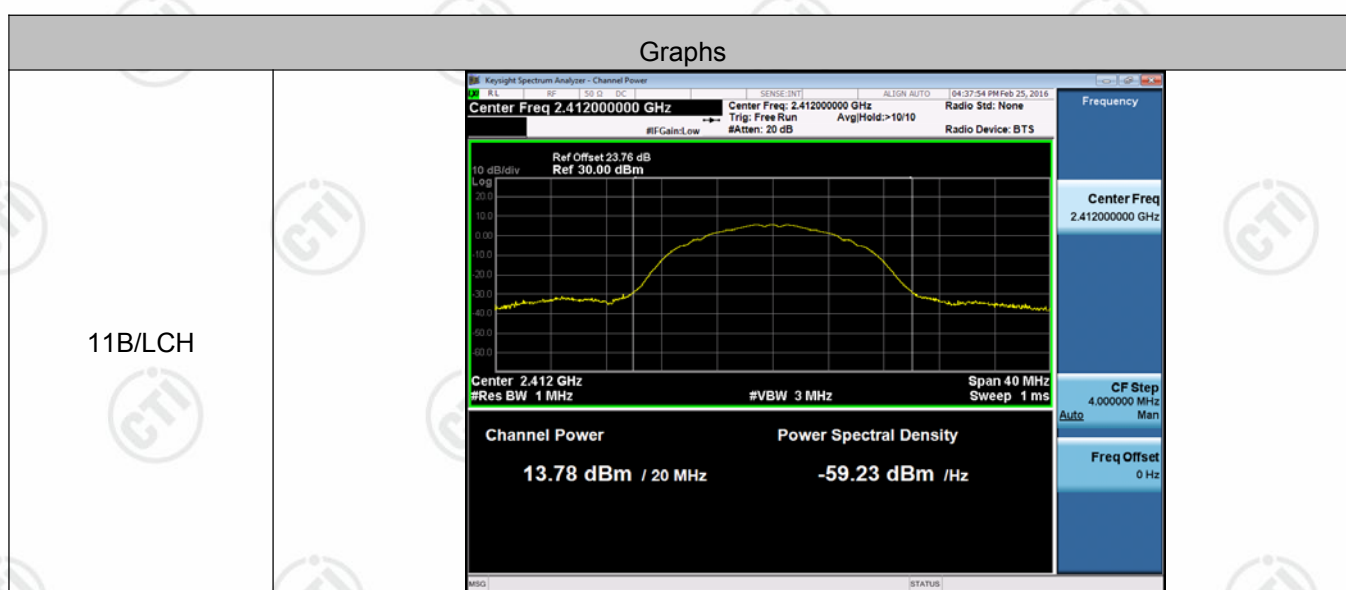
Test Requirement	Test method	Test item	Verdict	Note
Part15C Section 15.247 (b)(3)	ANSI C63.10	Conducted Peak Output Power	PASS	Appendix A)
Part15C Section 15.247 (a)(2)	ANSI C63.10	6dB Occupied Bandwidth	PASS	Appendix B)
Part15C Section 15.247(d)	ANSI C63.10	Band-edge for RF Conducted Emissions	PASS	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)

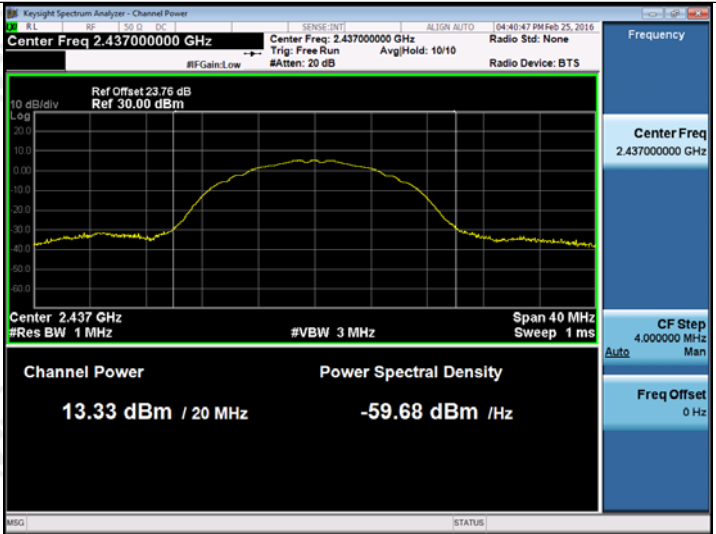
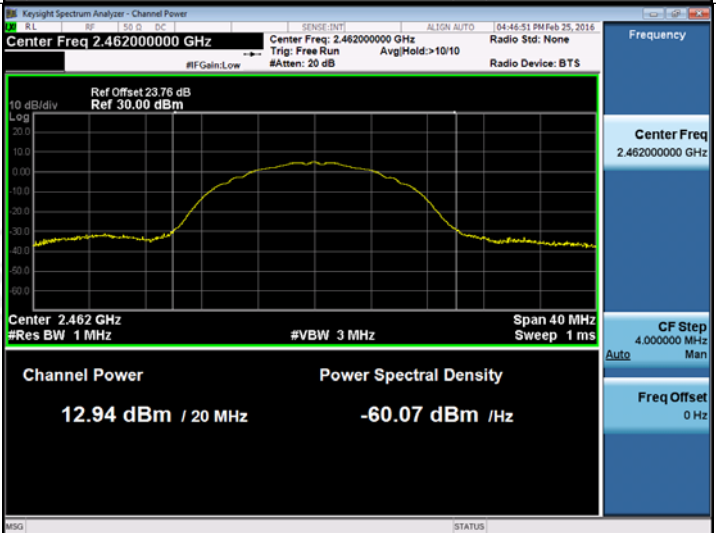
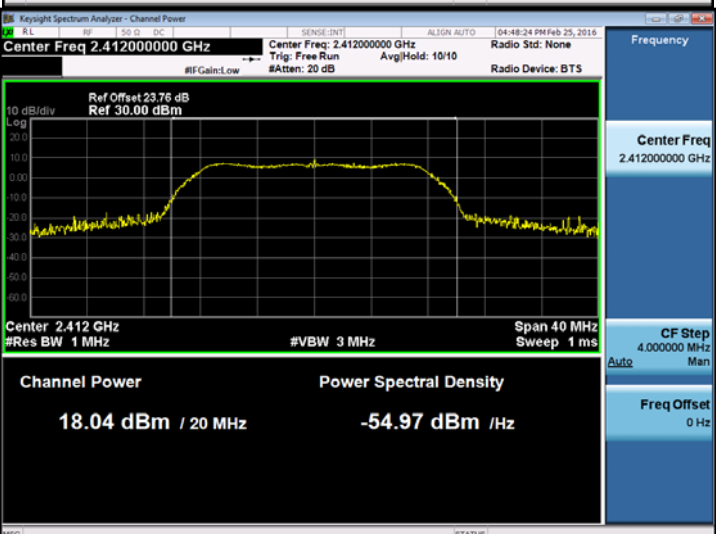
Appendix A): Conducted Output Power

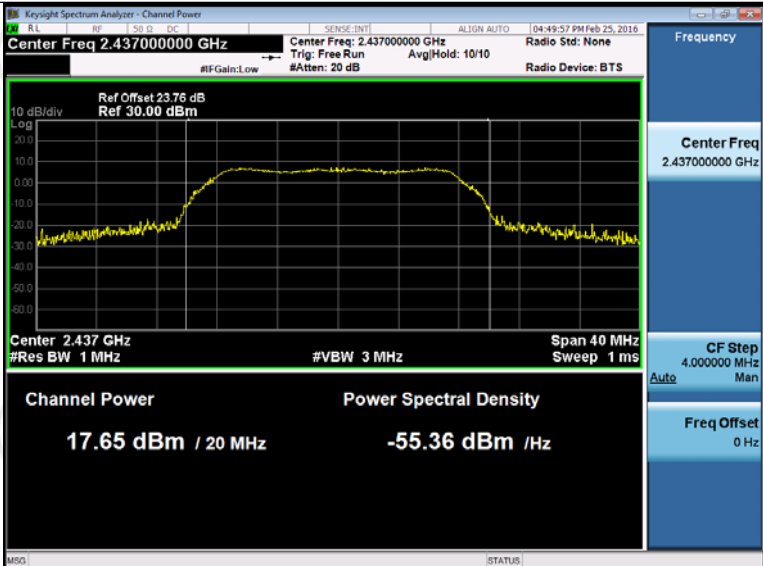
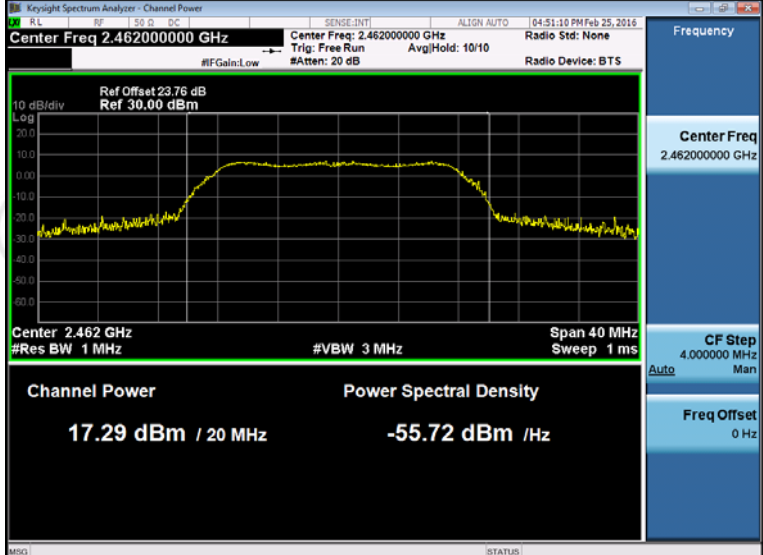
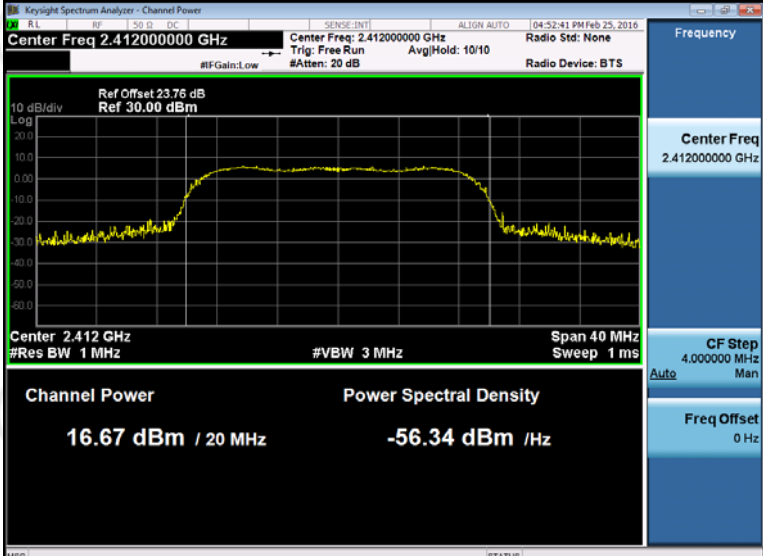
Result Table

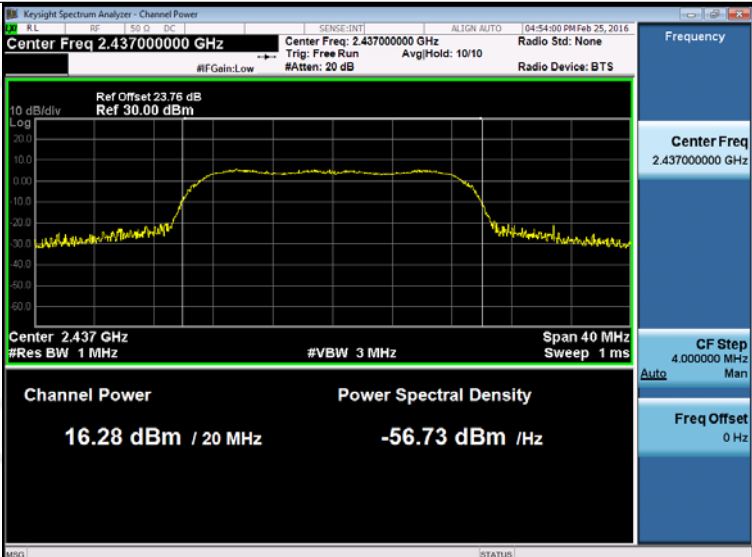
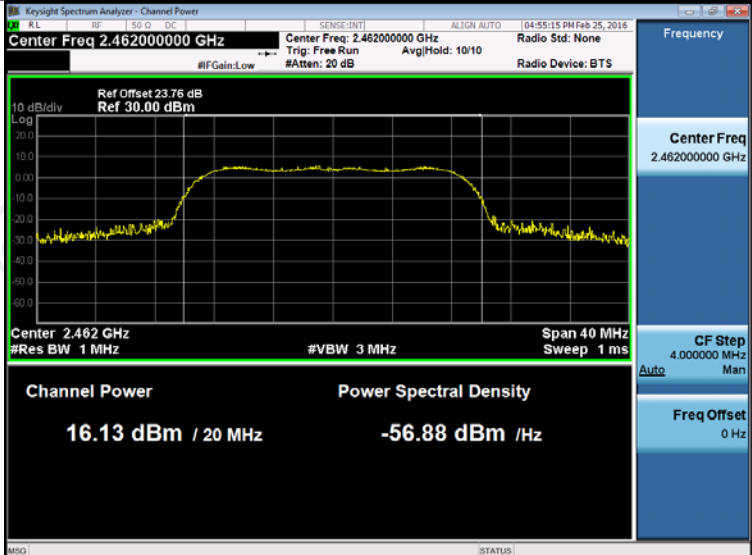
Mode	Channel	Conducted Output Power [dBm]	Verdict	Remark
11B	LCH	13.78	PASS	RMS detector
11B	MCH	13.33	PASS	
11B	HCH	12.94	PASS	
11G	LCH	18.04	PASS	
11G	MCH	17.65	PASS	
11G	HCH	17.29	PASS	
11N20SISO	LCH	16.67	PASS	
11N20SISO	MCH	16.28	PASS	
11N20SISO	HCH	16.13	PASS	

Test Graph



11B/MCH	 KeySight Spectrum Analyzer - Channel Power Center Freq 2.437000000 GHz Ref Offset 23.76 dB Ref 30.00 dBm Channel Power: 13.33 dBm / 20 MHz Power Spectral Density: -59.68 dBm / Hz Center Freq: 2.437 GHz #Res BW 1 MHz #VBW 3 MHz Span 40 MHz Sweep 1 ms Frequency: 2.437000000 GHz CF Step: 4.000000 MHz Freq Offset: 0 Hz
11B/HCH	 KeySight Spectrum Analyzer - Channel Power Center Freq 2.462000000 GHz Ref Offset 23.76 dB Ref 30.00 dBm Channel Power: 12.94 dBm / 20 MHz Power Spectral Density: -60.07 dBm / Hz Center Freq: 2.462 GHz #Res BW 1 MHz #VBW 3 MHz Span 40 MHz Sweep 1 ms Frequency: 2.462000000 GHz CF Step: 4.000000 MHz Freq Offset: 0 Hz
11G/LCH	 KeySight Spectrum Analyzer - Channel Power Center Freq 2.412000000 GHz Ref Offset 23.76 dB Ref 30.00 dBm Channel Power: 18.04 dBm / 20 MHz Power Spectral Density: -54.97 dBm / Hz Center Freq: 2.412 GHz #Res BW 1 MHz #VBW 3 MHz Span 40 MHz Sweep 1 ms Frequency: 2.412000000 GHz CF Step: 4.000000 MHz Freq Offset: 0 Hz

11G/MCH	
11G/HCH	
11N20SISO/LCH	

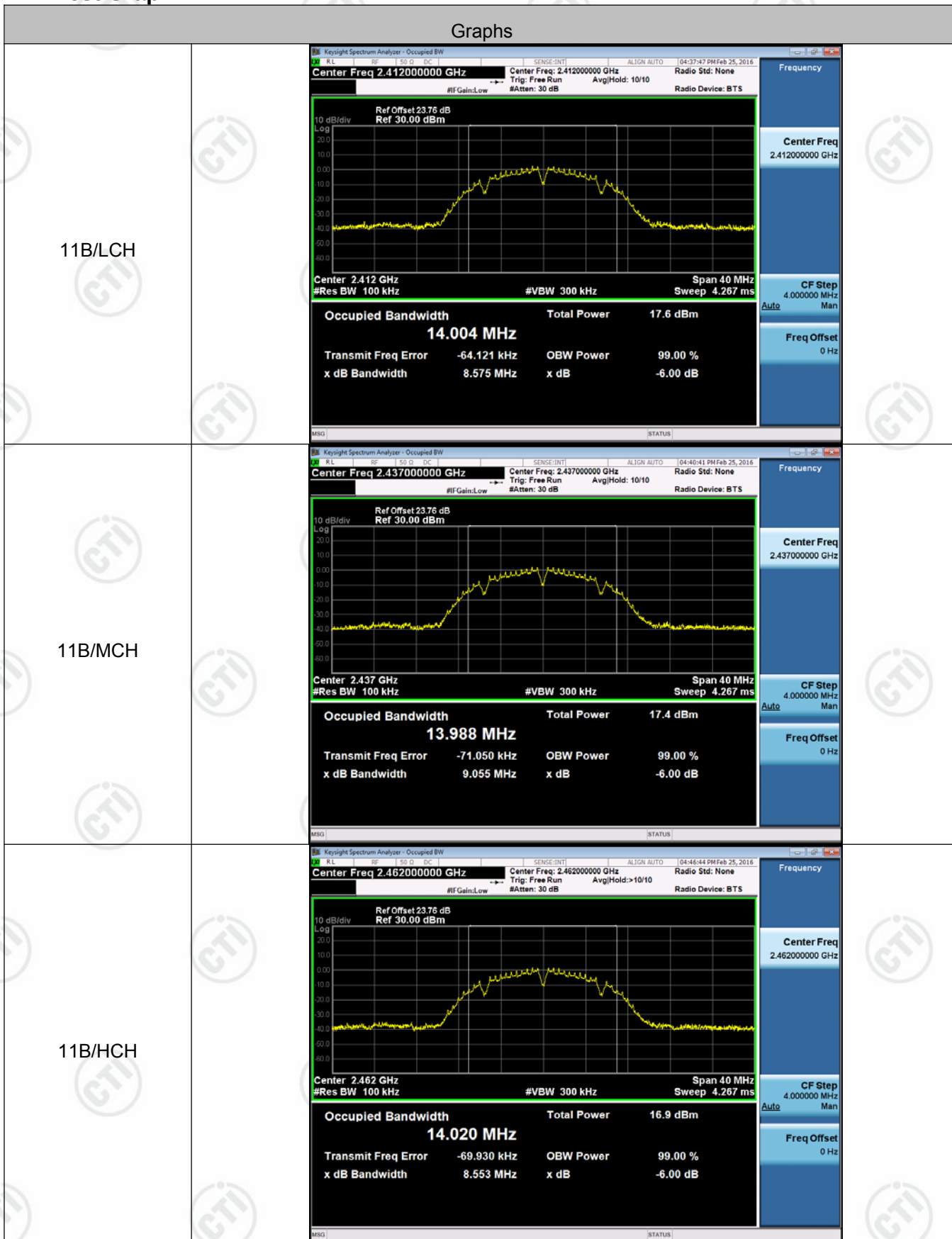
11N20SISO/MCH	
11N20SISO/HCH	

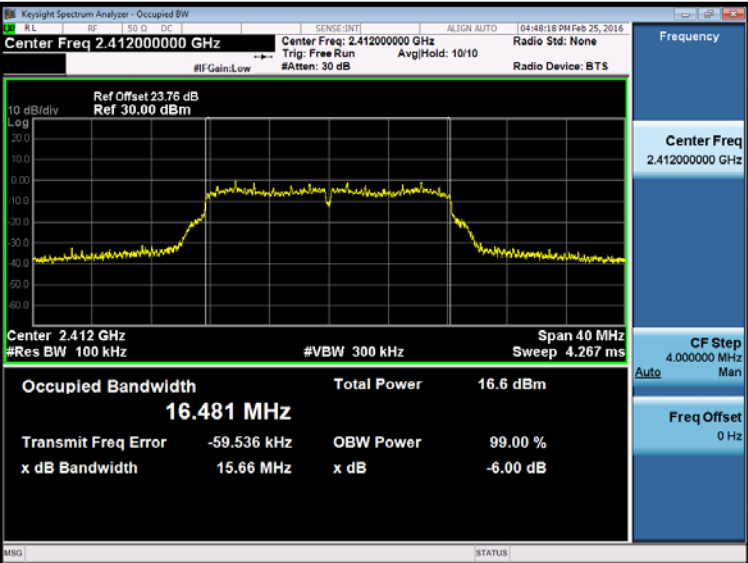
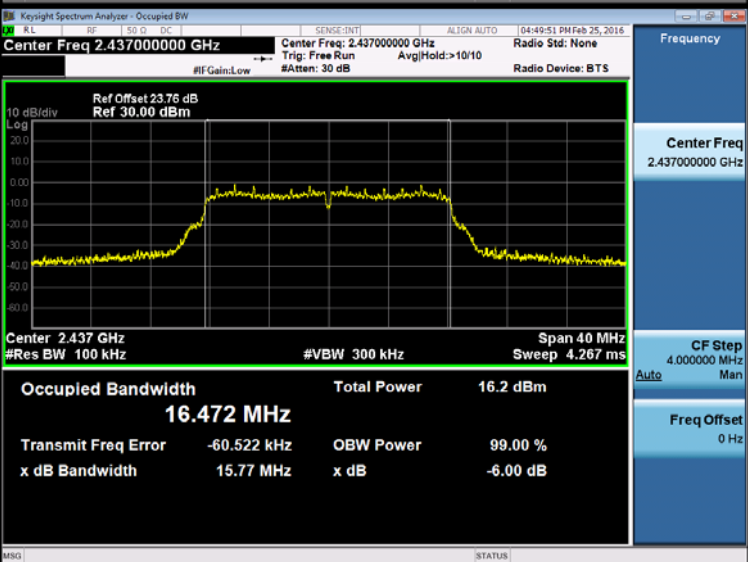
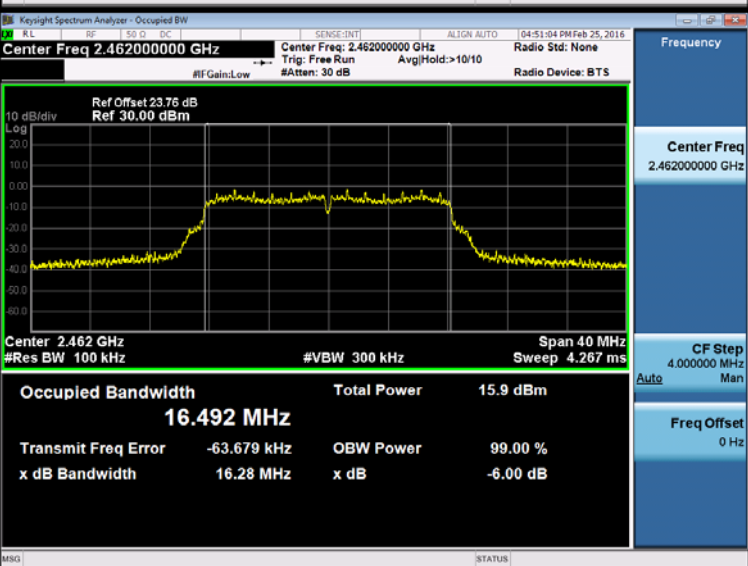
Appendix B): 6dB Occupied Bandwidth

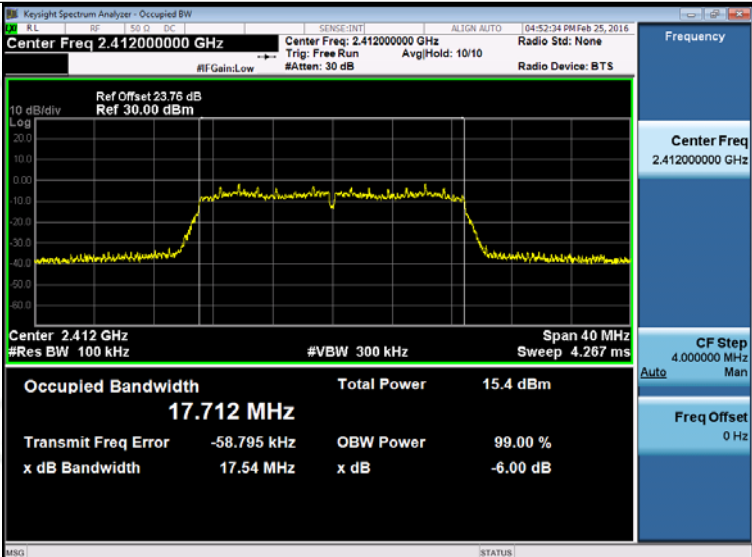
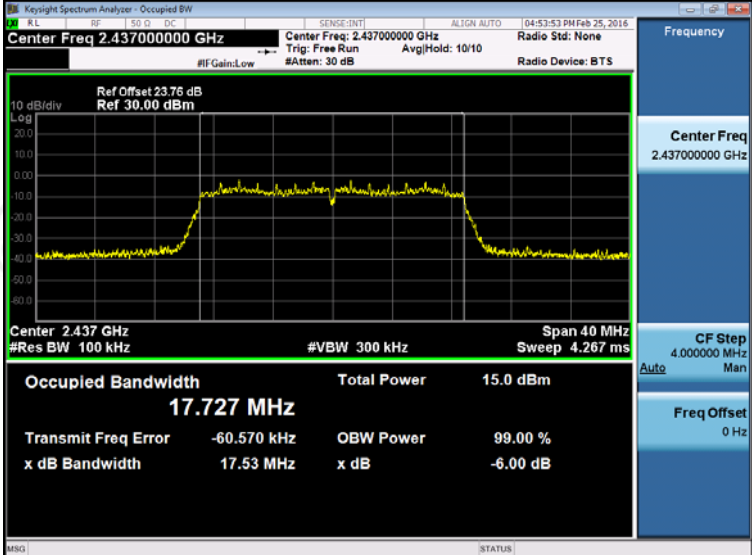
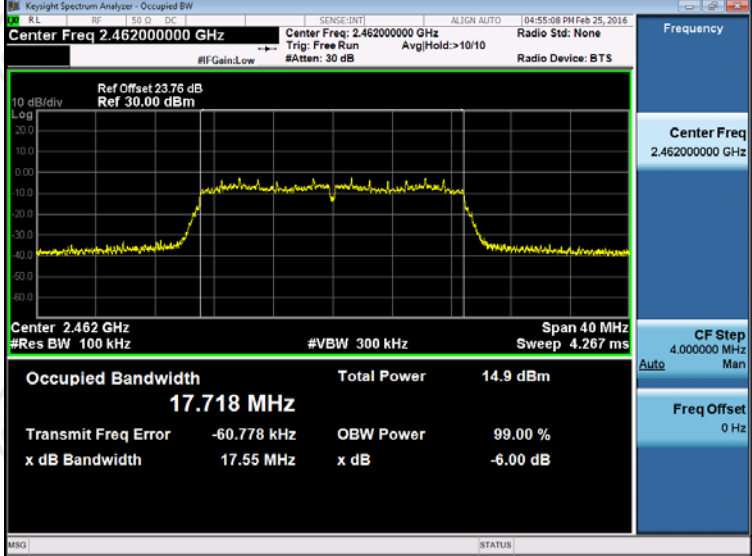
Result Table

Mode	Channel	6dB Bandwidth [MHz]	99% OBW [MHz]	Verdict	Remark
11B	LCH	8.575	14.004	PASS	Peak detector
11B	MCH	9.055	13.988	PASS	
11B	HCH	8.553	14.020	PASS	
11G	LCH	15.66	16.481	PASS	
11G	MCH	15.77	16.472	PASS	
11G	HCH	16.28	16.492	PASS	
11N20SISO	LCH	17.54	17.712	PASS	
11N20SISO	MCH	17.53	17.727	PASS	
11N20SISO	HCH	17.55	17.718	PASS	

Test Graph



11G/LCH	 KeySight Spectrum Analyzer - Occupied BW Center Freq 2.41200000 GHz Center Freq: 2.41200000 GHz Radio Std: None Trig: Free Run Avg/Hold: 10/10 #IF Gain: Low #Atten: 30 dB Radio Device: BTS Ref Offset 23.76 dB Ref 30.00 dBm 10 dB/div Log Center 2.412 GHz Span 40 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 4.267 ms Occupied Bandwidth 16.481 MHz Total Power 16.6 dBm Transmit Freq Error -59.536 kHz OBW Power 99.00 % x dB Bandwidth 15.66 MHz x dB -6.00 dB MSG STATUS	Frequency Center Freq 2.41200000 GHz CF Step 4.000000 MHz Auto Man Freq Offset 0 Hz
11G/MCH	 KeySight Spectrum Analyzer - Occupied BW Center Freq 2.43700000 GHz Center Freq: 2.43700000 GHz Radio Std: None Trig: Free Run Avg/Hold: 10/10 #IF Gain: Low #Atten: 30 dB Radio Device: BTS Ref Offset 23.76 dB Ref 30.00 dBm 10 dB/div Log Center 2.437 GHz Span 40 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 4.267 ms Occupied Bandwidth 16.472 MHz Total Power 16.2 dBm Transmit Freq Error -60.522 kHz OBW Power 99.00 % x dB Bandwidth 15.77 MHz x dB -6.00 dB MSG STATUS	Frequency Center Freq 2.43700000 GHz CF Step 4.000000 MHz Auto Man Freq Offset 0 Hz
11G/HCH	 KeySight Spectrum Analyzer - Occupied BW Center Freq 2.46200000 GHz Center Freq: 2.46200000 GHz Radio Std: None Trig: Free Run Avg/Hold: 10/10 #IF Gain: Low #Atten: 30 dB Radio Device: BTS Ref Offset 23.76 dB Ref 30.00 dBm 10 dB/div Log Center 2.462 GHz Span 40 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 4.267 ms Occupied Bandwidth 16.492 MHz Total Power 15.9 dBm Transmit Freq Error -63.679 kHz OBW Power 99.00 % x dB Bandwidth 16.28 MHz x dB -6.00 dB MSG STATUS	Frequency Center Freq 2.46200000 GHz CF Step 4.000000 MHz Auto Man Freq Offset 0 Hz

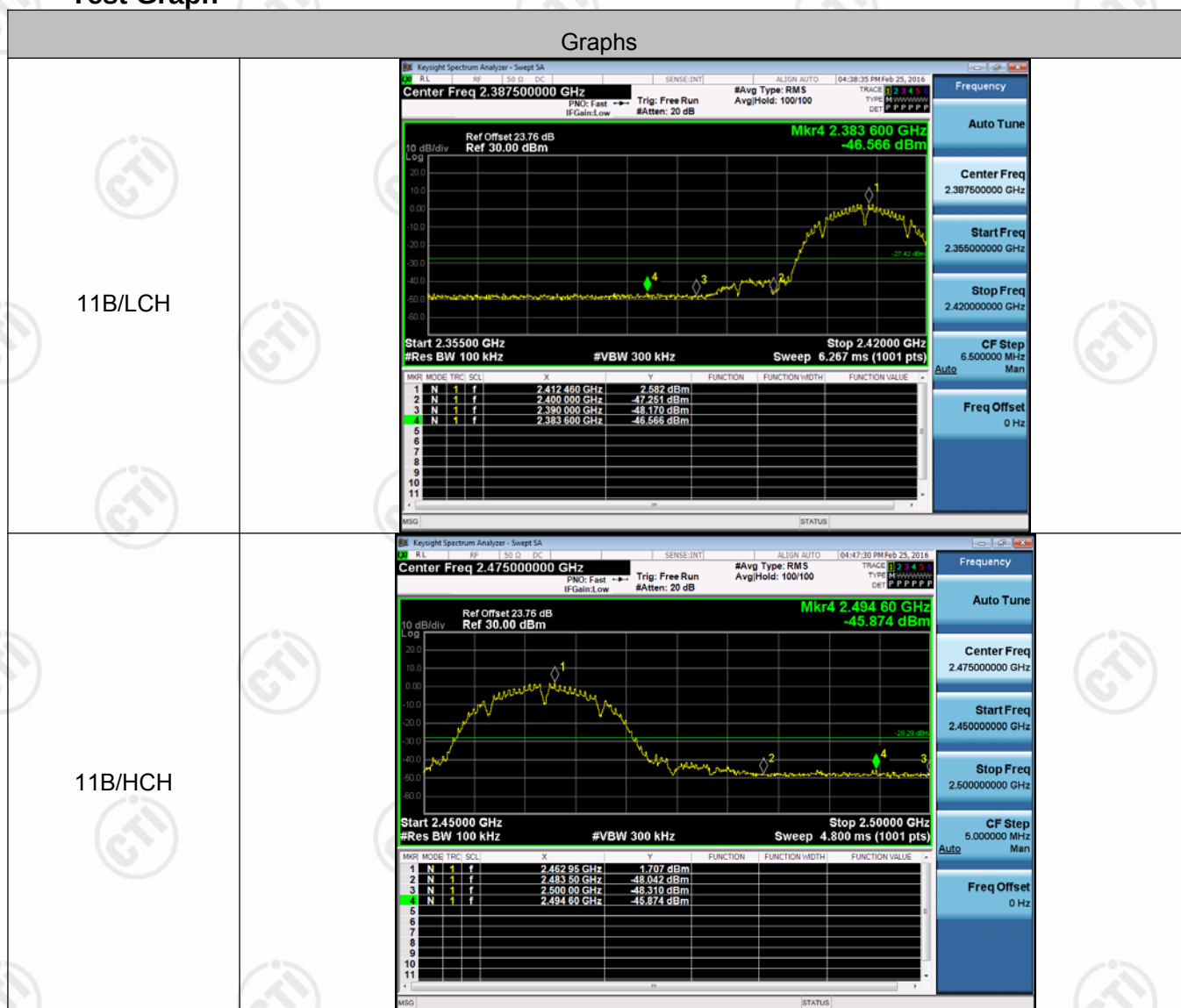
11N20SISO/LCH	 Key parameters for 11N20SISO/LCH: - Center Freq: 2.412000000 GHz - Occupied Bandwidth: 17.712 MHz - Total Power: 15.4 dBm - Transmit Freq Error: -58.795 kHz - x dB Bandwidth: 17.54 MHz - x dB Power: -6.00 dB
11N20SISO/MCH	 Key parameters for 11N20SISO/MCH: - Center Freq: 2.437000000 GHz - Occupied Bandwidth: 17.727 MHz - Total Power: 15.0 dBm - Transmit Freq Error: -60.570 kHz - x dB Bandwidth: 17.53 MHz - x dB Power: -6.00 dB
11N20SISO/HCH	 Key parameters for 11N20SISO/HCH: - Center Freq: 2.462000000 GHz - Occupied Bandwidth: 17.718 MHz - Total Power: 14.9 dBm - Transmit Freq Error: -60.778 kHz - x dB Bandwidth: 17.55 MHz - x dB Power: -6.00 dB

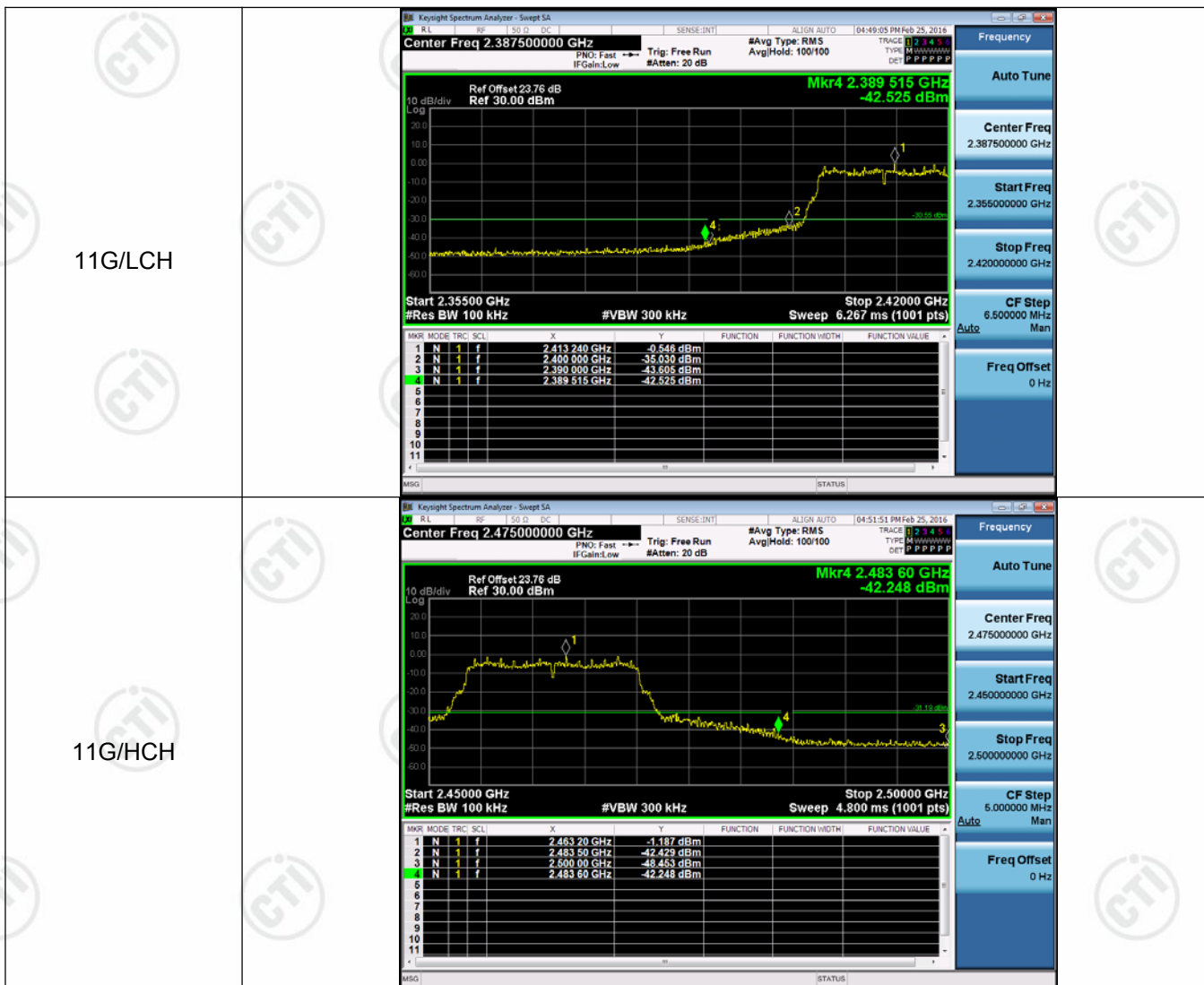
Appendix C): Band-edge for RF Conducted Emissions

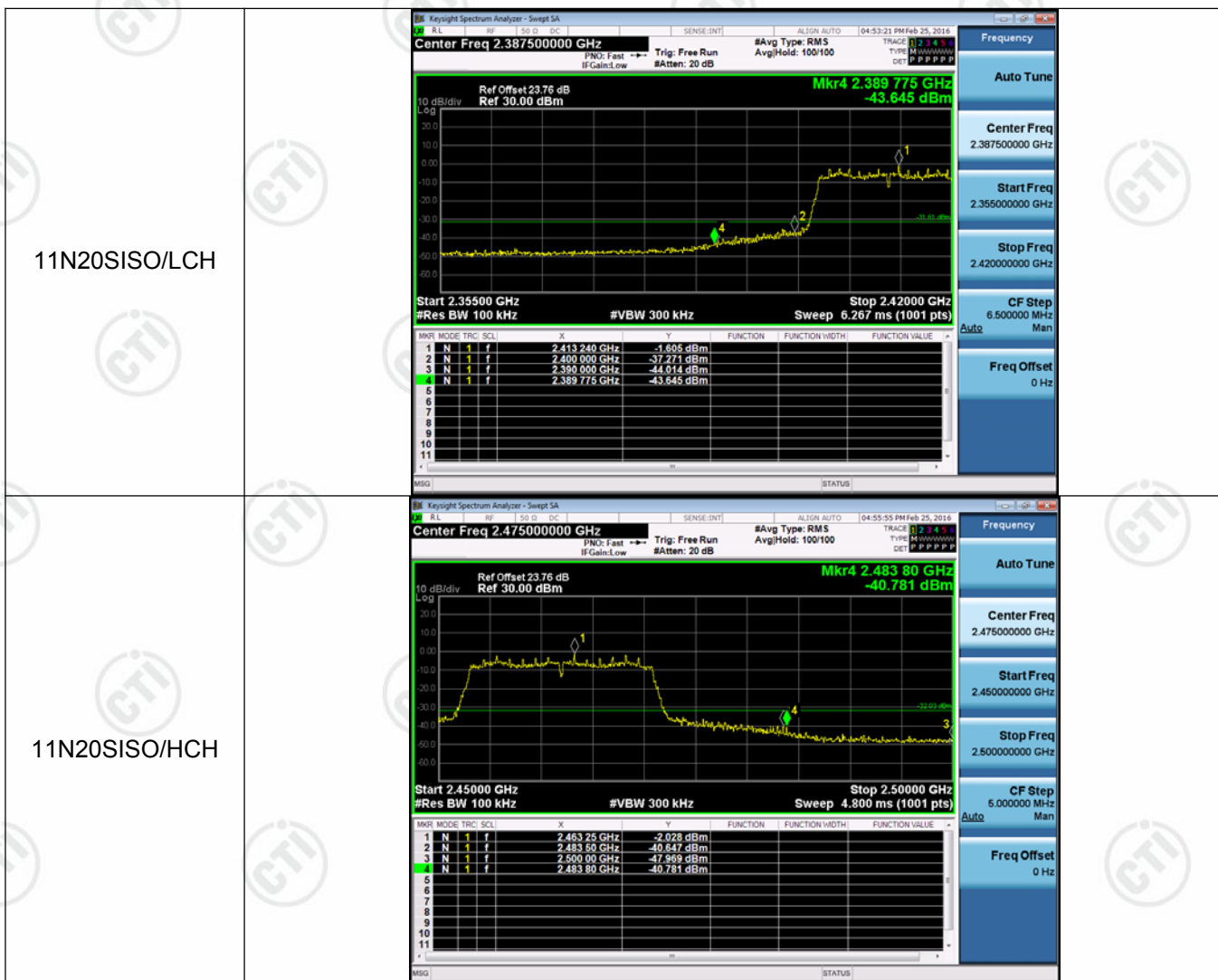
Result Table

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	2.582	-46.566	-27.42	PASS
11B	HCH	1.707	-45.874	-28.29	PASS
11G	LCH	-0.546	-42.525	-30.55	PASS
11G	HCH	-1.187	-42.248	-31.19	PASS
11N20SISO	LCH	-1.605	-43.645	-31.61	PASS
11N20SISO	HCH	-2.028	-40.781	-32.03	PASS

Test Graph







Appendix D): RF Conducted Spurious Emissions

Result Table

Mode	Channel	Pref [dBm]	Puw[dBm]	Verdict
11B	LCH	2.384	<Limit	PASS
11B	MCH	2.333	<Limit	PASS
11B	HCH	1.756	<Limit	PASS
11G	LCH	-0.060	<Limit	PASS
11G	MCH	-0.815	<Limit	PASS
11G	HCH	-1.493	<Limit	PASS
11N20SISO	LCH	-1.654	<Limit	PASS
11N20SISO	MCH	-1.863	<Limit	PASS
11N20SISO	HCH	-2.542	<Limit	PASS

Test Graph

