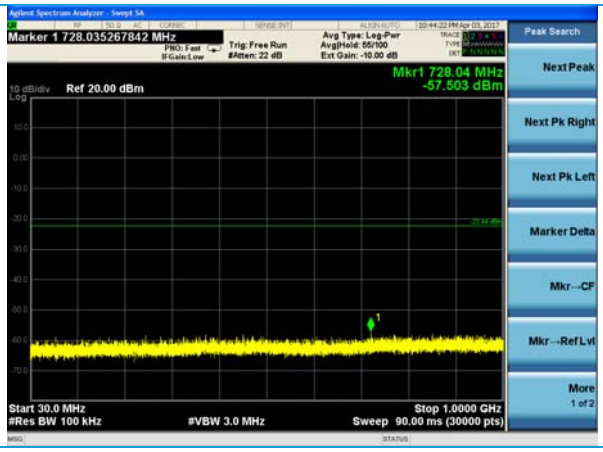
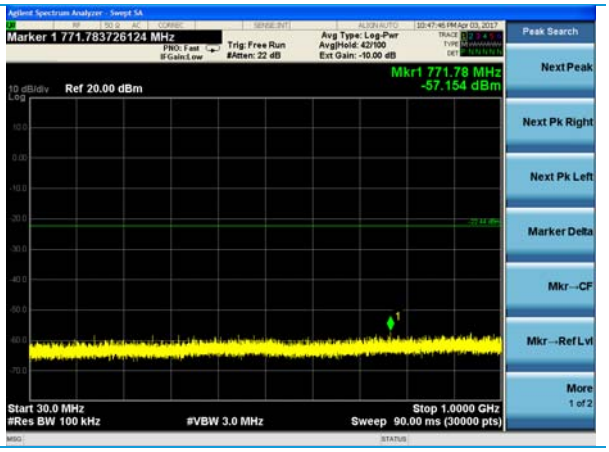
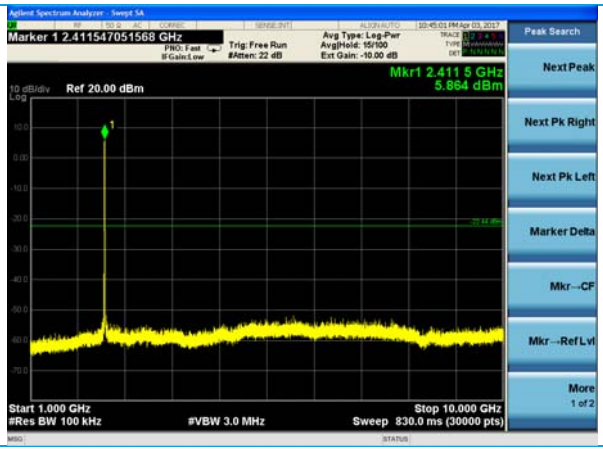
Plots – 100 kHz Conducted Spurious Emissions – 802.11g



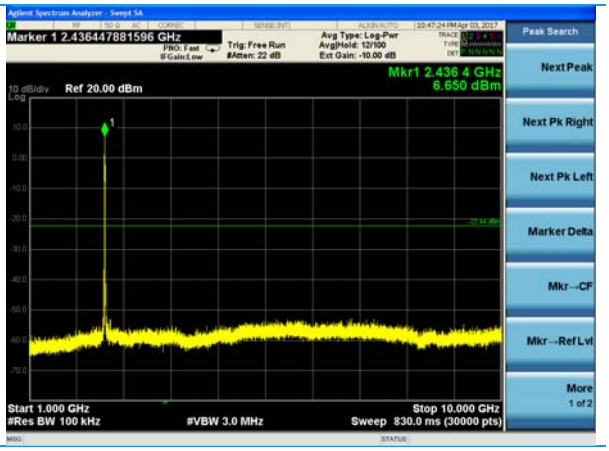
6 Mbps – Low Channel – 30-1000 MHz



6 Mbps – Mid Channel – 30-1000 MHz



6 Mbps – Low Channel – 1-10 GHz

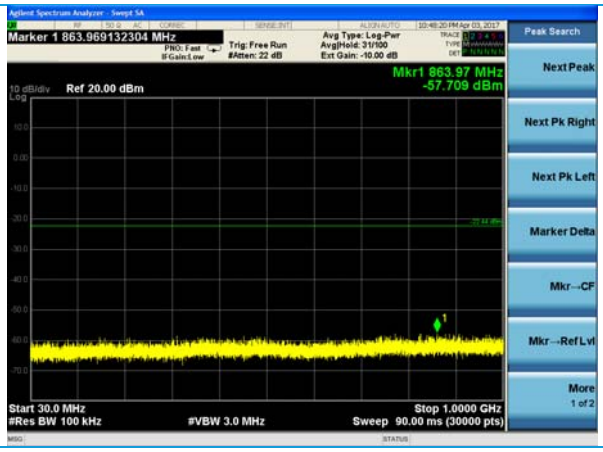


6 Mbps – Mid Channel – 1-10 GHz

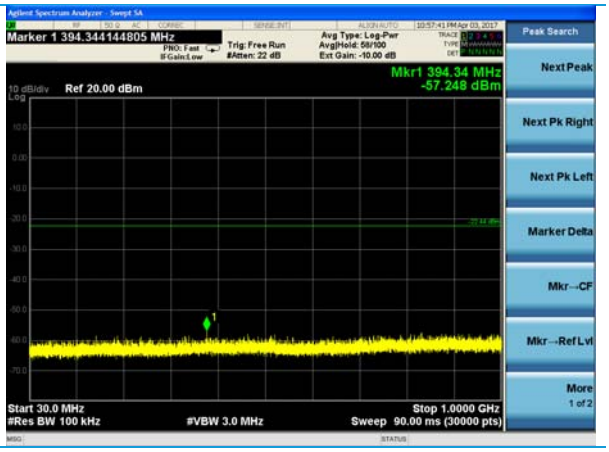
6 Mbps – Low Channel – 10-25 GHz

6 Mbps – Mid Channel – 10-25 GHz

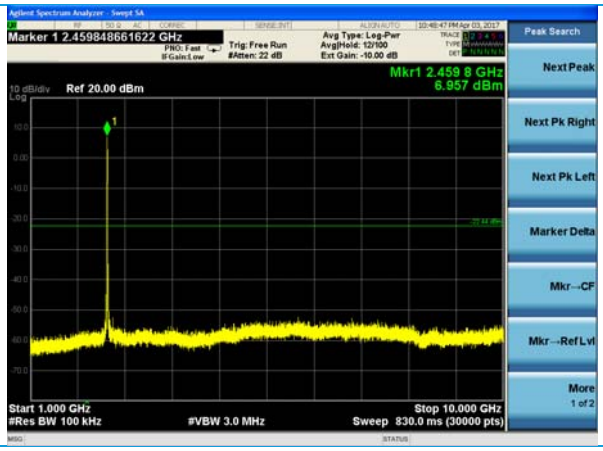
Plots – 100 kHz Conducted Spurious Emissions – 802.11g, continued



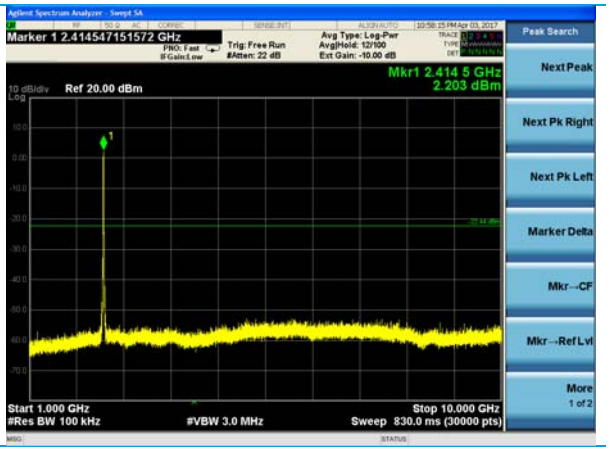
6 Mbps – High Channel – 30-1000 MHz



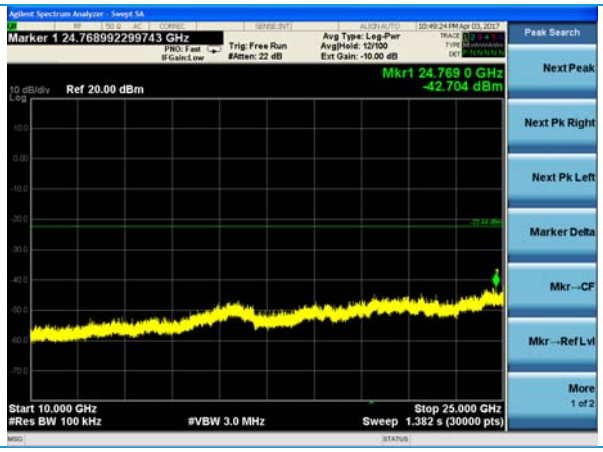
54 Mbps – Low Channel – 30-1000 MHz



6 Mbps – High Channel – 1-10 GHz



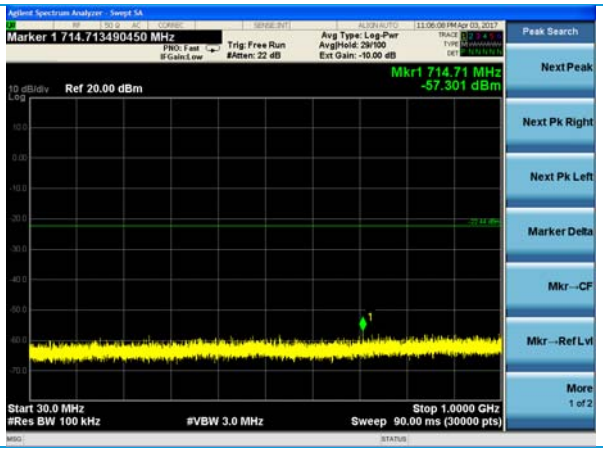
54 Mbps – Low Channel – 1-10 GHz



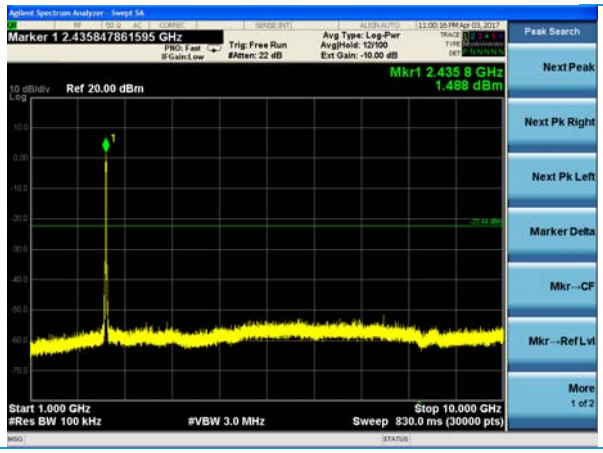
6 Mbps – High Channel – 10-25 GHz

54 Mbps – Low Channel – 10-25 GHz

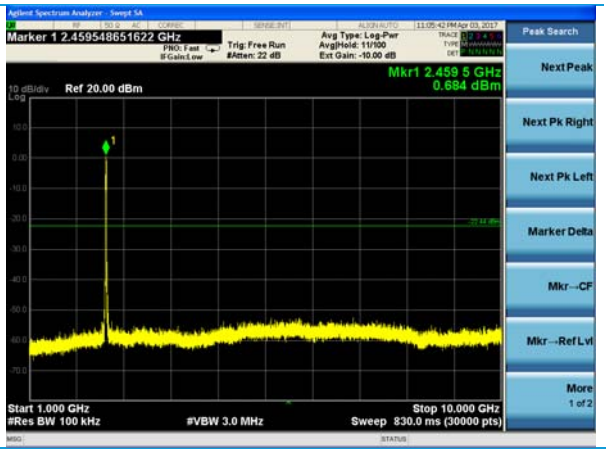
Plots – 100 kHz Conducted Spurious Emissions – 802.11g, continued



54 Mbps – High Channel – 30-1000 MHz



54 Mbps – Mid Channel – 1-10 GHz

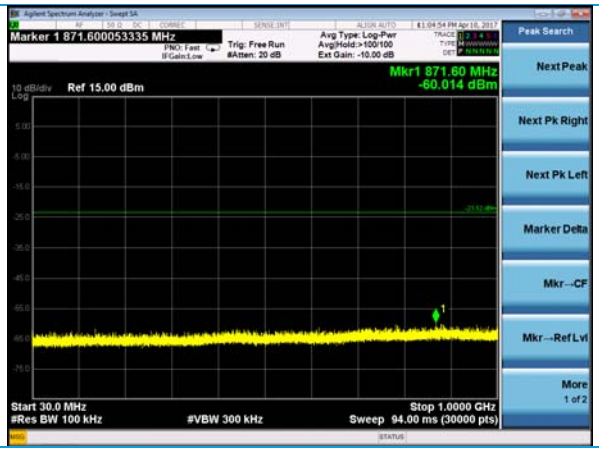


54 Mbps – High Channel – 1-10 GHz

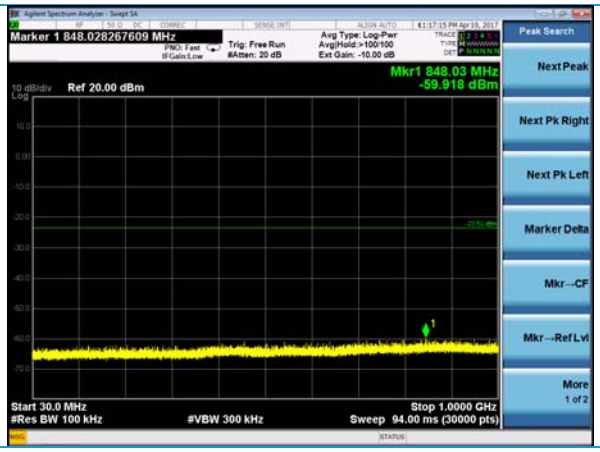
54 Mbps – Mid Channel – 10-25 GHz

54 Mbps – High Channel – 10-25 GHz

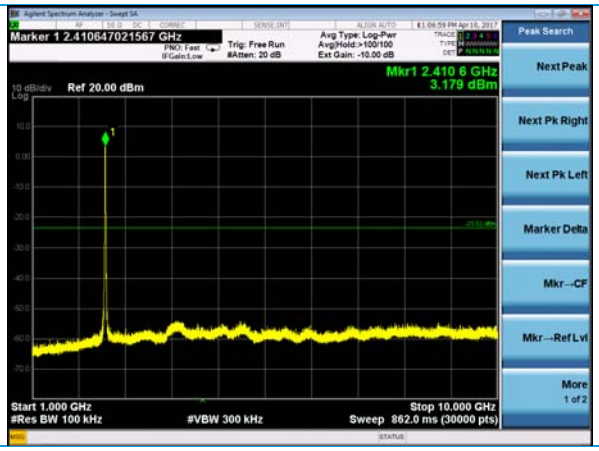
Plots – 100 kHz Conducted Spurious Emissions – 802.11n



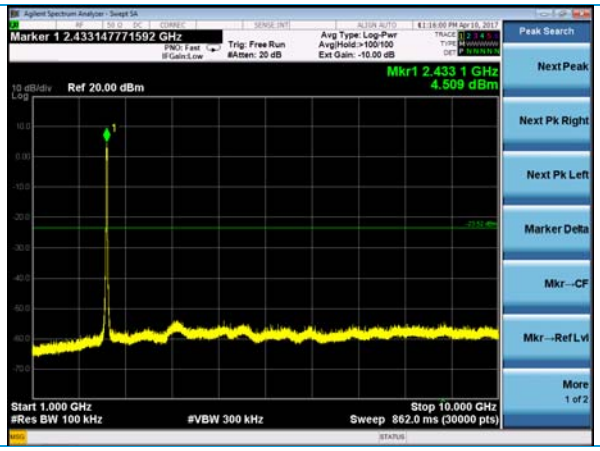
MCS0 – Low Channel – 30-1000 MHz



MCS0 – Mid Channel – 30-1000 MHz



MCS0 – Low Channel – 1-10 GHz

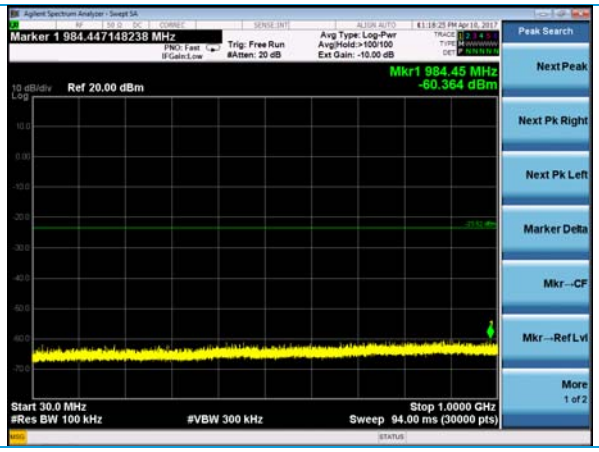


MCS0 – Mid Channel – 1-10 GHz

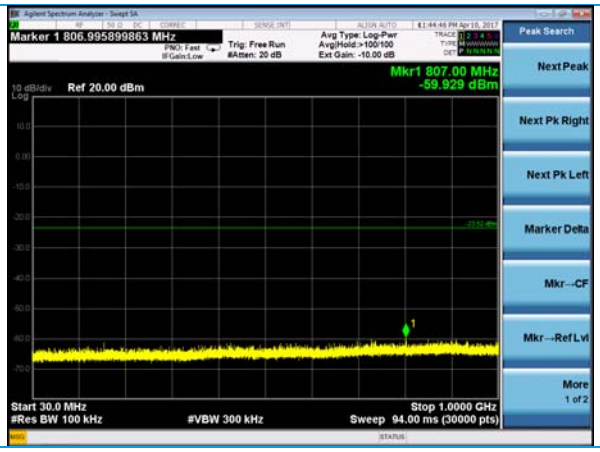
MCS0 – Low Channel – 10-25 GHz

MCS0 – Mid Channel – 10-25 GHz

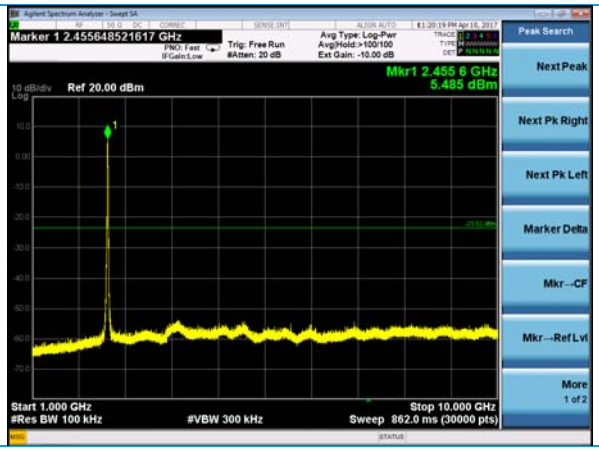
Plots – 100 kHz Conducted Spurious Emissions – 802.11n, continued



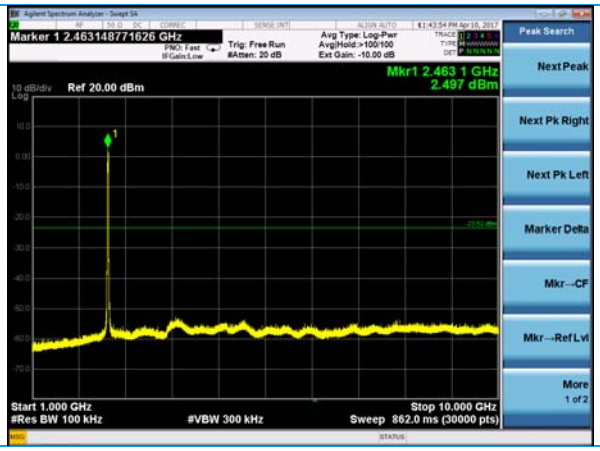
MCS0 – Channel 10 – 30-1000 MHz



MCS0 – Channel 11 – 30-1000 MHz



MCS0 – Channel 10 – 1-10 GHz

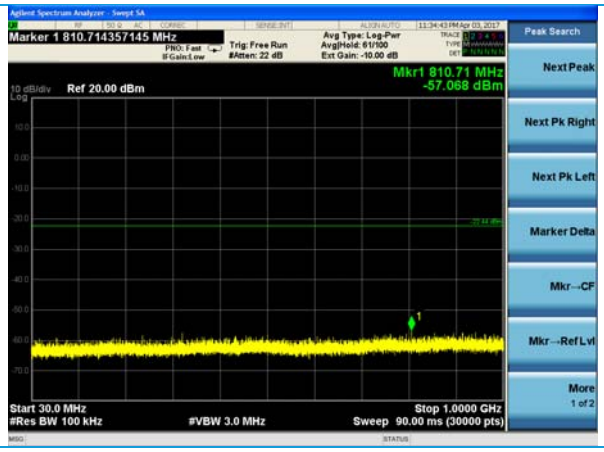


MCS0 – Channel 11 – 1-10 GHz

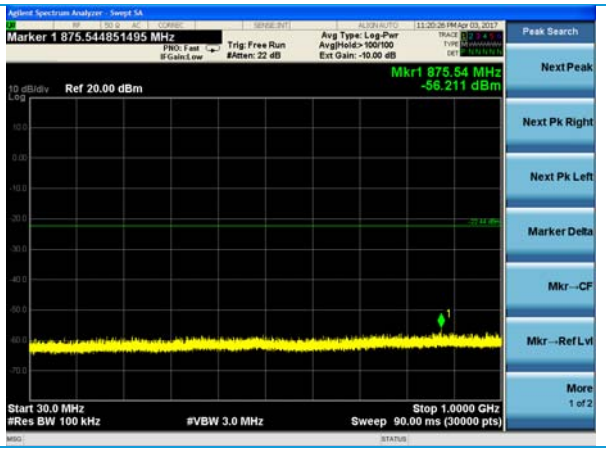
MCS0 – Channel 10 – 10-25 GHz

MCS0 – Channel 11 – 10-25 GHz

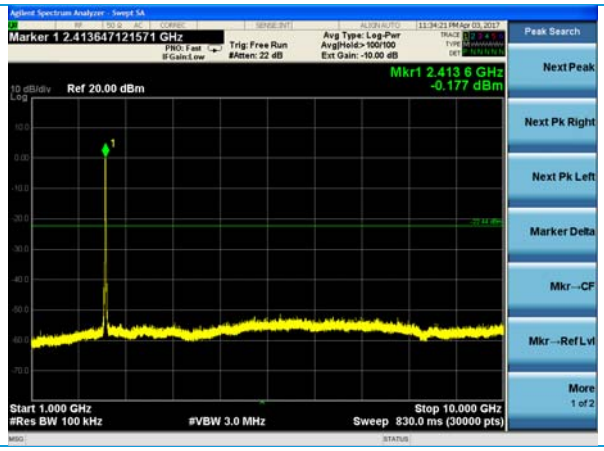
Plots – 100 kHz Conducted Spurious Emissions – 802.11n, continued



MCS7 – Low Channel – 30-1000 MHz



MCS7 – Mid Channel – 30-1000 MHz



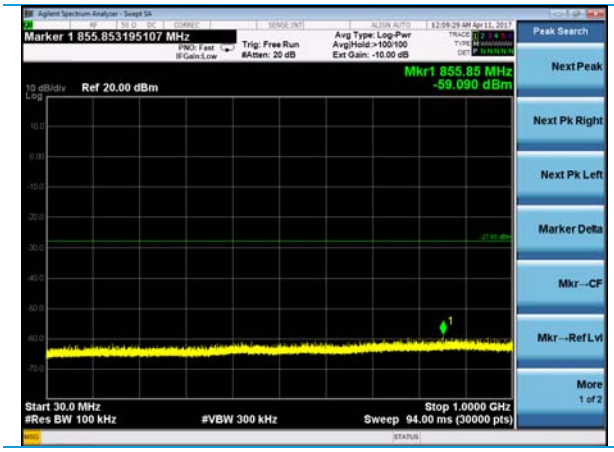
MCS7 – Low Channel – 1-10 GHz

MCS7 – Mid Channel – 1-10 GHz

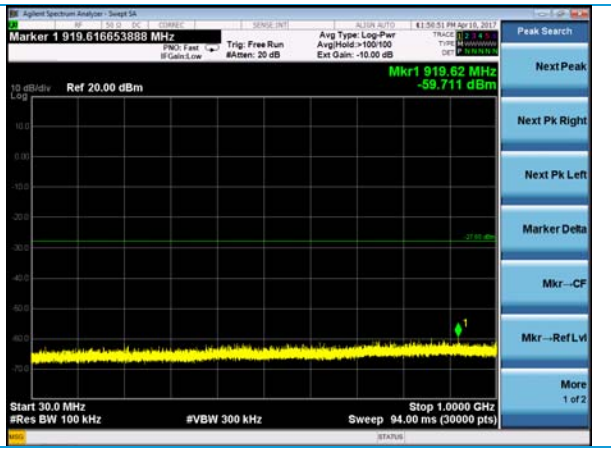
MCS7 – Low Channel – 10-25 GHz

MCS7 – Mid Channel – 10-25 GHz

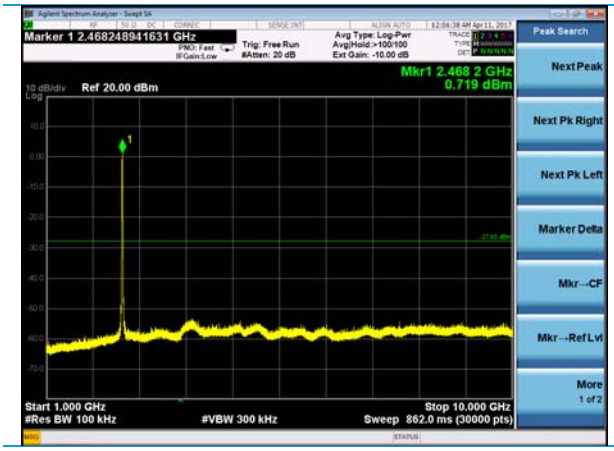
Plots – 100 kHz Conducted Spurious Emissions – 802.11n, continued



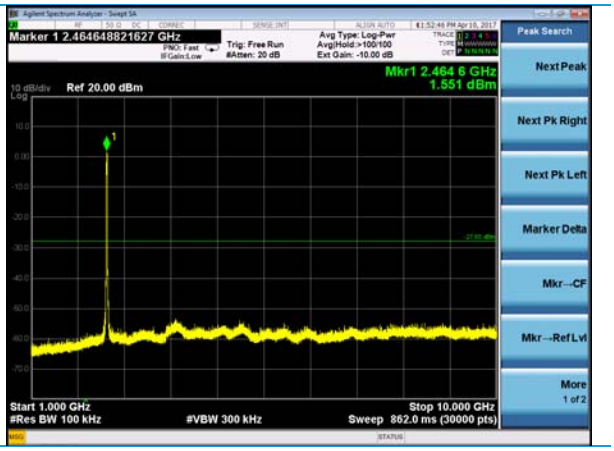
MCS7 – Channel 10 – 30-1000 MHz



MCS7 – Channel 11 – 30-1000 MHz



MCS7 – Channel 10 – 1-10 GHz

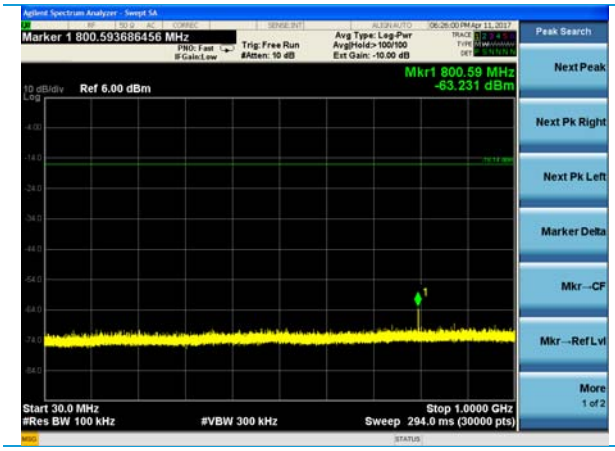


MCS7 – Channel 11 – 1-10 GHz

MCS7 – Channel 10 – 10-25 GHz

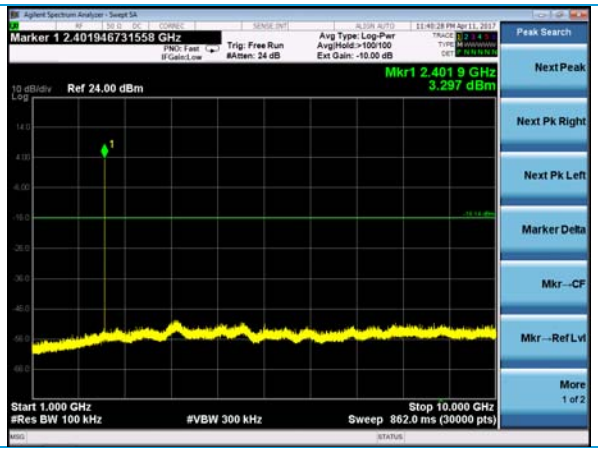
MCS7 – Channel 11 – 10-25 GHz

Plots – 100 kHz Conducted Spurious Emissions – BLE

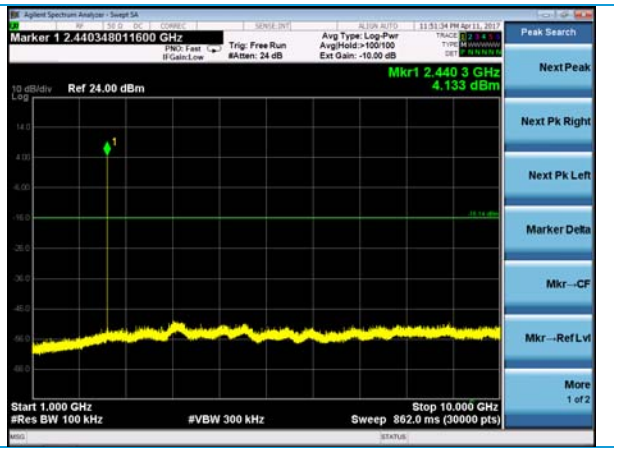


BLE – Low Channel – 30-1000 MHz

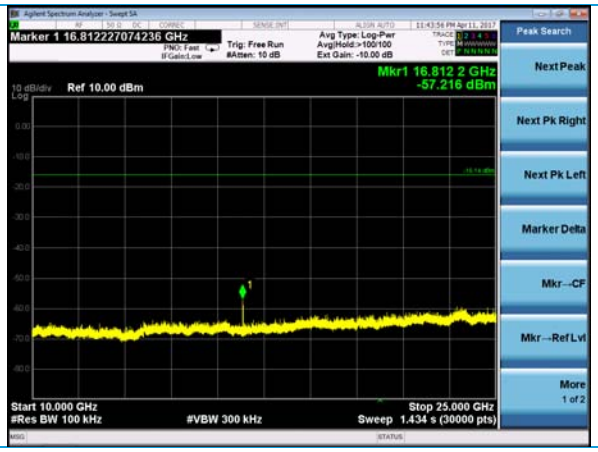
BLE – Mid Channel – 30-1000 MHz



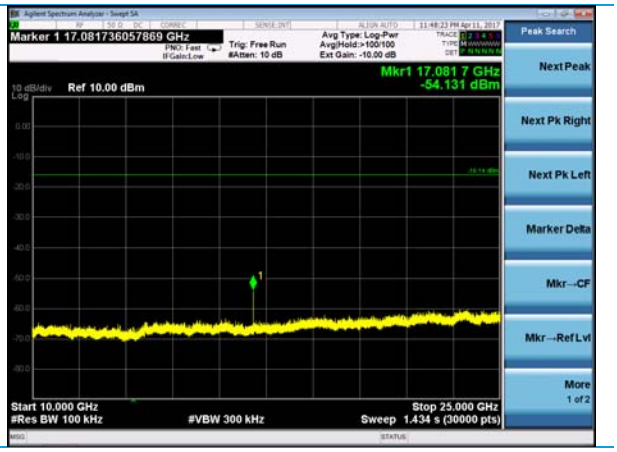
BLE – Low Channel – 1-10 GHz



BLE – Mid Channel – 1-10 GHz

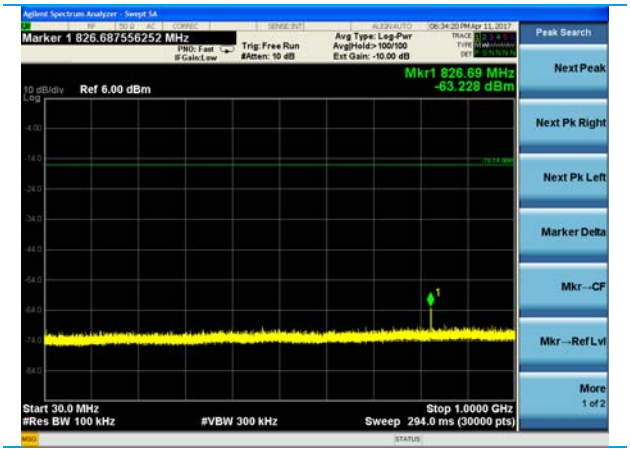


BLE – Low Channel – 10-25 GHz

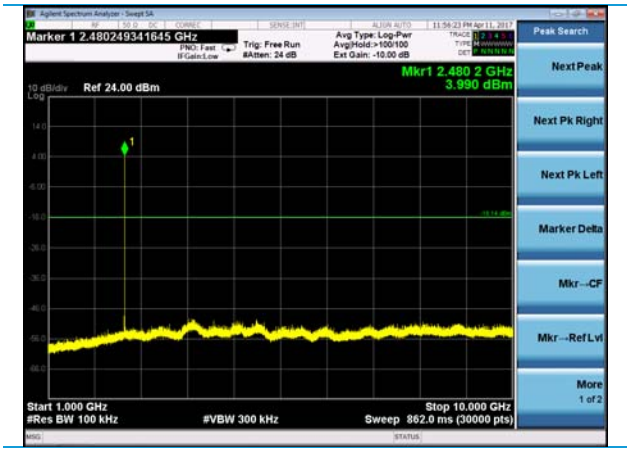


BLE – Mid Channel – 10-25 GHz

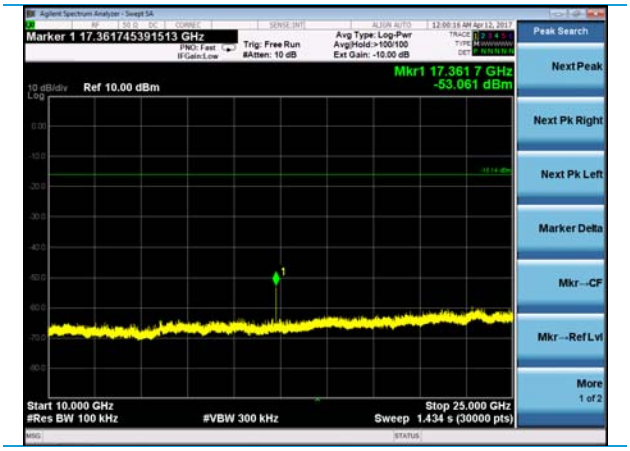
Plots – 100 kHz Conducted Spurious Emissions – BLE, continued



BLE – High Channel – 30-1000 MHz



BLE – High Channel – 1-10 GHz



BLE – High Channel – 10-25 GHz

5.1.7 Antenna Port Conducted Emissions – Frequency Stability

Operator	Kimberly Bay
QA	Shane Dock
Test Date	April 17, 2017
Location	Conducted RF Test Bench
Temp. / R.H.	22°C / 39% R.H.
Requirement	FCC 2.1055 (d) / RSS-GEN Section 6.11
Method	ANSI C63.10 2013 Section 6.8.2

Test Parameters

Frequency	WLAN: 2412, 2437, and 2462 MHz; MCS0 & MCS7 also used 2457 MHz (see Note) BLE: 2402, 2440, and 2480 MHz
Settings	Peak detector
Voltage	Nominal supply voltage 24.0 VAC and ± 15% of nominal voltage used.
EUT	Un-modulated signal
Note	Channel 11 operated in reduced power for 802.11n, due to exceeding limits at full power. Both channels 10 (at full power) and 11 (at reduced power) are tested here to show compliance.
Example Calculation	Frequency Deviation = Nominal Channel Frequency – Measured Channel Frequency PPM Deviation = Frequency Deviation / 1000000

Instrumentation

LSR a Laird Business

Date: 20-Dec-2016 Test: Frequency Stability Job #: C-2630

PE: Kim Customer: United Technology Electronic Controls Quote #: 316392

No.	Asset #	Description	Manufacturer	Model #	Serial #	Cal Date	Cal Due Date	Equipment Status
1	EE 960088	MXE Spectrum Analyzer	Agilent	N9038A	MY51210138	3/2/2017	3/2/2018	Active Calibration
2	AA 960143	Phaseflex	Gore	EKD01D01048.0	5546519	6/26/2015	6/25/2017	Active Calibration

Table – Frequency Stability at 2412 MHz - WLAN

Supply Voltage (VAC)	Frequency (Hz)	Deviation		
		Hz	%	ppm
20.4	2411994341	5659	$2.3x10^{-4}$	$5.7x10^{-3}$
20.0	2411992225	7775	$3.2x10^{-4}$	$7.8x10^{-3}$
27.6	2411992475	7525	$3.1x10^{-4}$	$7.5x10^{-3}$

Table – Frequency Stability at 2437 MHz - WLAN

Supply Voltage (VAC)	Frequency (Hz)	Deviation		
		Hz	%	ppm
20.4	2436991191	8809	$3.6x10^{-4}$	$8.8x10^{-3}$
24.0	2436988175	11825	$4.9x10^{-4}$	$11.8x10^{-3}$
27.6	2436990208	9792	$4.0x10^{-4}$	$9.8x10^{-3}$

Table – Frequency Stability at 2457 MHz - WLAN

Supply Voltage (VAC)	Frequency (Hz)	Deviation		
		Hz	%	ppm
20.4	2456992191	7809	$3.2x10^{-4}$	$7.8x10^{-3}$
24.0	2456992025	7975	$3.2x10^{-4}$	$8.0x10^{-3}$
27.6	2456993208	6792	$2.8x10^{-4}$	$6.8x10^{-3}$

Table – Frequency Stability at 2462 MHz - WLAN

Supply Voltage (VAC)	Frequency (Hz)	Deviation		
		Hz	%	ppm
20.4	2461991658	8342	$3.4x10^{-4}$	$8.3x10^{-3}$
24.0	2461988975	11025	$4.5x10^{-4}$	$11.0x10^{-3}$
27.6	2461986991	13009	$5.3x10^{-4}$	$13.0x10^{-3}$

Table – Frequency Stability at 2402 MHz - BLE

Supply Voltage (VAC)	Frequency (Hz)	Deviation		
		Hz	%	ppm
20.4	2402007620	7620	$3.2x10^{-4}$	$7.6x10^{-3}$
24.0	2402006644	6644	$2.8x10^{-4}$	$6.6x10^{-3}$
27.6	2402007077	7077	$2.9x10^{-4}$	$7.1x10^{-3}$

Table – Frequency Stability at 2440 MHz - BLE

Supply Voltage (VAC)	Frequency (Hz)	Deviation		
		Hz	%	ppm
20.4	2440006989	6989	$2.9x10^{-4}$	$7.0x10^{-3}$
24.0	2440005982	5982	$2.5x10^{-4}$	$6.0x10^{-3}$
27.6	2440227140	227140	$9.3x10^{-3}$	$2.3x10^{-1}$

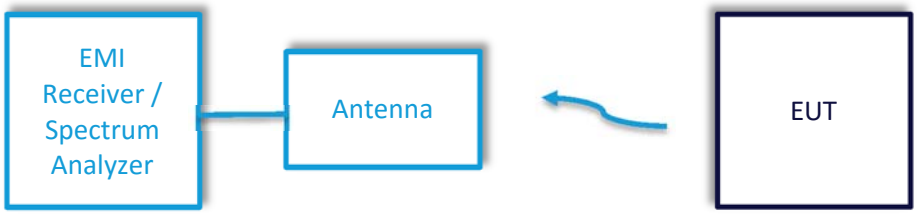
Table – Frequency Stability at 2480 MHz - BLE

Supply Voltage (VAC)	Frequency (Hz)	Deviation		
		Hz	%	ppm
20.4	2480006999	6999	$2.8x10^{-4}$	$7.0x10^{-3}$
24.0	2480005670	5670	$2.3x10^{-4}$	$5.7x10^{-3}$
27.6	2480007572	7572	$3.1x10^{-4}$	$7.6x10^{-3}$

5.2 Radiated Emissions

Description of Measurement	The frequency spectrum is investigated for intentional and / or unintentional signals emanating from the EUT by use of a standardized test site and measurement antenna. The antenna, cable, pre-amp, and other necessary measurement system correction factors are loaded onto the EMI receiver / spectrum analyzer when the measurements are performed allowing the data to be gathered and reported as corrected values. The maximum emissions from the EUT are determined by turn-table azimuth rotation (360°) and scanning of the measurement antenna. Maximized levels are noted at degree values of azimuth, measurement antenna height, and measurement antenna polarity.
Example Calculations	Measurement (dBµV) + Cable factor (dB) + Other (dB) + Antenna Factor (dB/m) = Corrected Reading (dBµV/m) Margin (dB) = Limit (dBµV/m) - Corrected Reading (dBµV/m) Example at 4000 MHz: Reading = 40 dBµV + 3.4 dB + 0.9 dB + 6.5 dB/m = 50.8 dBµV/m Average Limit = 20 log (500) = 54 dBµV/m Margin = 54 dBµV/m - 50.8 dBµV/m = 3.2 dB

Block Diagram



5.2.1 Radiated – Restricted-Band Band-Edges

Operator	WLAN: Shane Dock / Kimberly Bay BLE: Michael Hintzke
QA	WLAN: Kimberly Bay / Shane Dock BLE: Aidi Zainal
Test Date	WLAN: March 28, 2017 / April 6, 2017 BLE: April 11, 2017
Location	3-meter Semi-Anechoic Chamber
Temp. / R.H.	21°C / 33-38% R.H.
Requirement	FCC 15.247 (d) / RSS-247 Section 5.5
Method	ANSI C63.10 2013 Sections 6.3, 6.6, 6.10

Limits:

Frequency (MHz)	Average Limit (dBµV/m)	Peak Limit (dBµV/m)
2310-2390	54	74
2483.5-2500	54	74

Test Parameters

Frequency	2310-2390 MHz 2483.5-2500 MHz
Distance	3-meters
Settings	Peak detector
Settings	RBW = 1 MHz VBW = 3 MHz for peak measurements VBW ≥ 1/duty cycle for average measurements (if duty cycle = 1, then VBW = 10 Hz)
EUT	Modulated signal
Example Calculation	Margin (dB) = Limit (dBµV/m) – Measurement (dBµV/m) Ex: 74 dBµV/m (peak limit) – 55.2 dBµV/m (measured peak) = 18.8 dB margin

Instrumentation

LSR
a Laird Business

Date : 20-Dec-2016 Test : Band-Edge Job # : C-2630

PE: Kim Customer : United Technology Electronic Controls Quote #: 316392

No.	Asset #	Description	Manufacturer	Model #	Serial #	Cal Date	Cal Due Date	Equipment Status
1	EE 960087	Spectrum Analyzer	Agilent	N9010A	MY53400296	12/22/2016	12/22/2017	Active Calibration
2	AA 960171	Cable - low loss 6m	A.H. Systems, Inc	SAC-26G-6	386	3/31/2016	5/5/2017	Active Verification
3	AA 960007	Double Ridge Horn Antenna	EMCO	3115	9311-4138	7/22/2016	7/22/2017	Active Calibration

Table – Restricted-Band Lower Band-Edge – WLAN

Mode/ Rate	Peak Frequency (MHz)	Peak (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin (dBm)	Average Frequency (MHz)	Average (dBµV/m)	Average Limit (dBµV/m)	Average Margin (dB)
802.11b / 1 Mbps	2386	55.2	74	18.8	2387	45.9	54	8.1
802.11b / 11 Mbps	2387	54.6	74	19.4	2387	44.5	54	9.5
802.11g / 6 Mbps	2390	70.5	74	3.5	2390	49.0	54	5.0
802.11g / 54 Mbps	2390	69.2	74	4.8	2390	47.9	54	6.1
802.11n / MCS0	2390	71.9	74	2.1	2390	52.0	54	2.0
802.11n / MCS7	2390	68.8	74	5.2	2390	45.9	54	8.1

Table – Restricted-Band Upper Band-Edge – WLAN

Mode/ Rate	Peak Frequency (MHz)	Peak (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin (dBm)	Average Frequency (MHz)	Average (dBµV/m)	Average Limit (dBµV/m)	Average Margin (dB)
802.11b / 1 Mbps	2487	55.6	74	18.4	2487	48.6	54	5.4
802.11b / 11 Mbps	2486	58.6	74	15.4	2487	49.0	54	5.0
802.11g / 6 Mbps	2484	72.9	74	1.1	2484	51.5	54	2.5
802.11g / 54 Mbps	2484	73.8	74	0.2	2484	50.6	54	3.4
802.11n / MCS0 (Ch.10)	2492	48.5	74	25.5	2489	36.5	54	17.5
802.11n / MCS0 (Ch.11)	2484	69.0	74	5.0	2484	48.6	54	5.4
802.11n / MCS7 (Ch.10)	2484	64.3	74	9.7	2484	47.4	54	6.6
802.11n / MCS7 (Ch.11)	2484	70.5	74	3.5	2484	49.2	54	4.8

Table – Restricted-Band Band-Edges – BLE

Band Edge	Peak Frequency (MHz)	Peak (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin (dBm)	Average Frequency (MHz)	Average (dBµV/m)	Average Limit (dBµV/m)	Average Margin (dB)
Lower	2389	58.3	74	15.7	2390	43.5	54	10.5
Upper	2484	60.3	74	13.7	2484	46.3	54	7.7

Plots – Restricted-Band Band-Edges – 802.11b, 1 Mbps

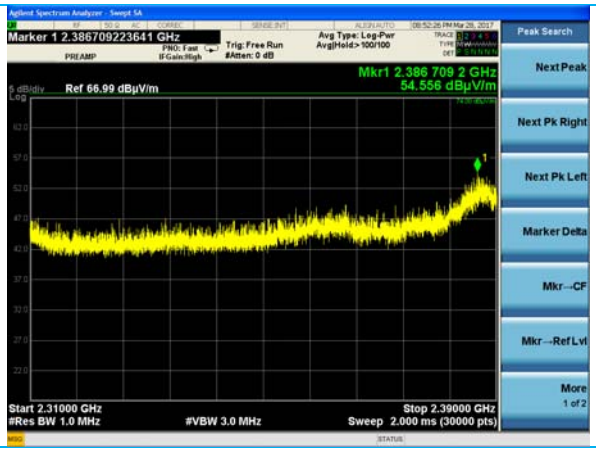
Lower Band-Edge – Peak

Lower Band-Edge – Average

Upper Band-Edge – Peak

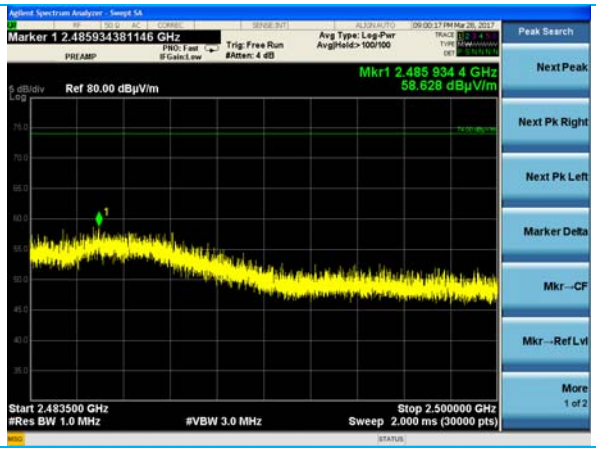
Upper Band-Edge – Average

Plots – Restricted-Band Band-Edges – 802.11b, 11 Mbps



Lower Band-Edge – Peak

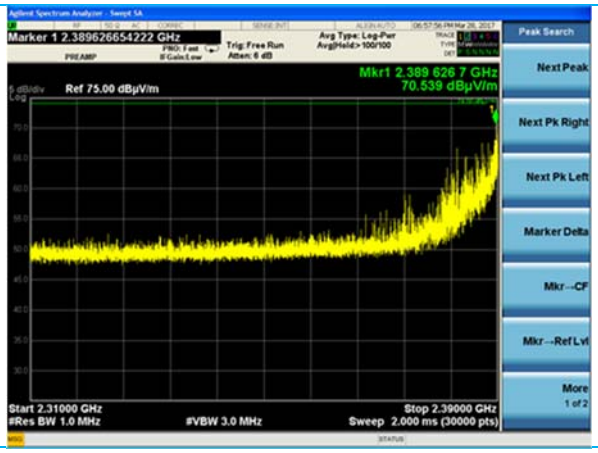
Lower Band-Edge – Average



Upper Band-Edge – Peak

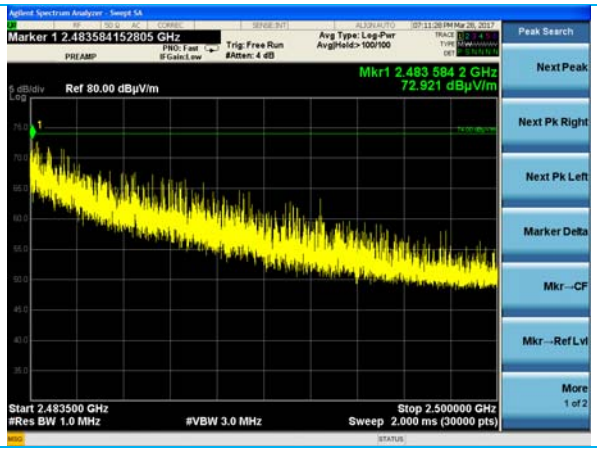
Upper Band-Edge – Average

Plots – Restricted-Band Band-Edges – 802.11g, 6 Mbps



Lower Band-Edge – Peak

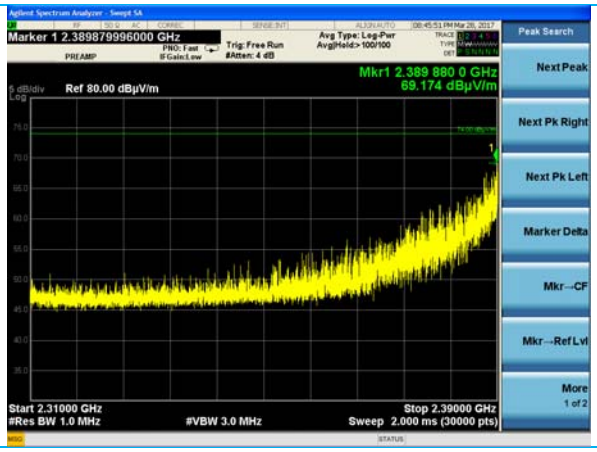
Lower Band-Edge – Average



Upper Band-Edge – Peak

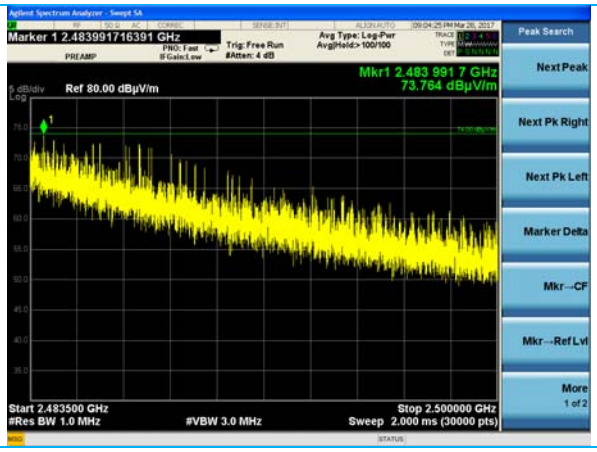
Upper Band-Edge – Average

Plots – Restricted-Band Band-Edges – 802.11g, 54 Mbps



Lower Band-Edge – Peak

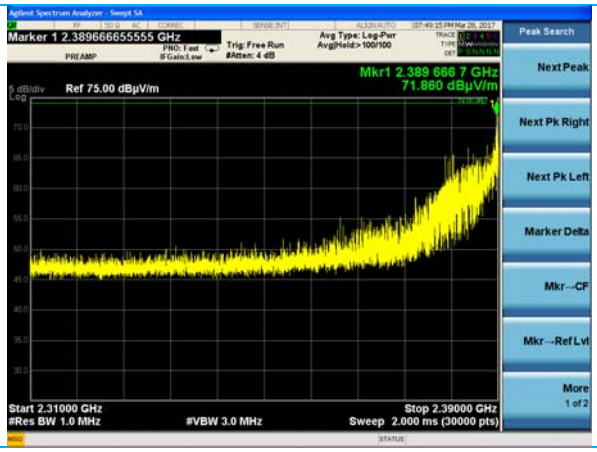
Lower Band-Edge – Average



Upper Band-Edge – Peak

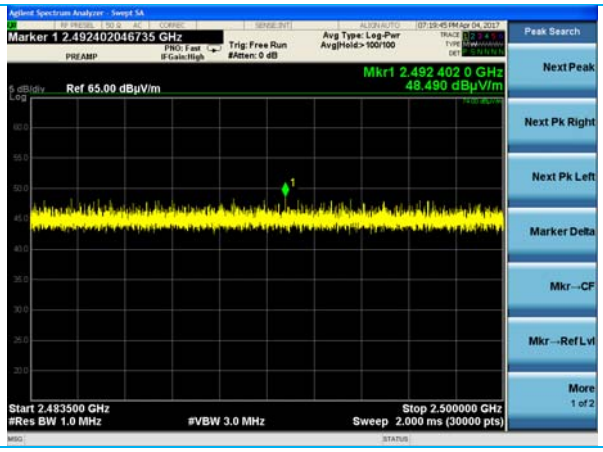
Upper Band-Edge – Average

Plots – Restricted-Band Band-Edges – 802.11n, MCS0



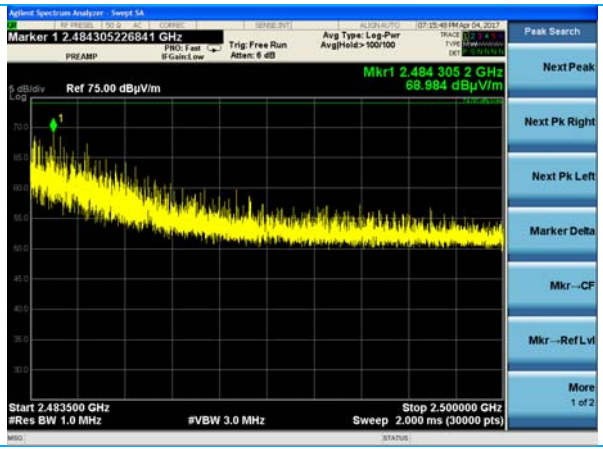
Lower Band-Edge – Peak

Lower Band-Edge – Average



Upper Band-Edge – Channel 10 – Peak

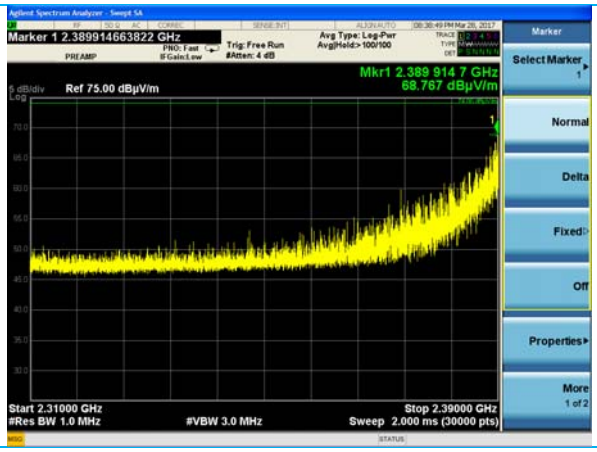
Upper Band-Edge – Channel 10 – Average



Upper Band-Edge – Channel 11 – Peak

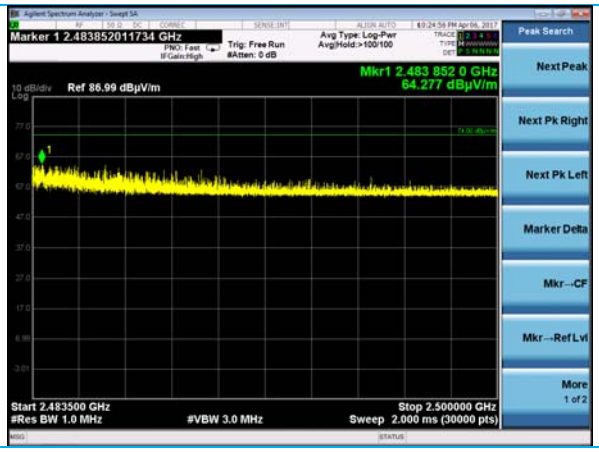
Upper Band-Edge – Channel 11 – Peak

Plots – Restricted-Band Band-Edges – 802.11n, MCS7

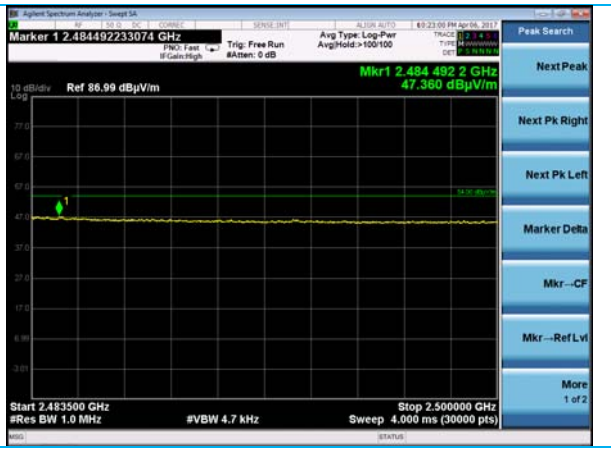


Lower Band-Edge – Peak

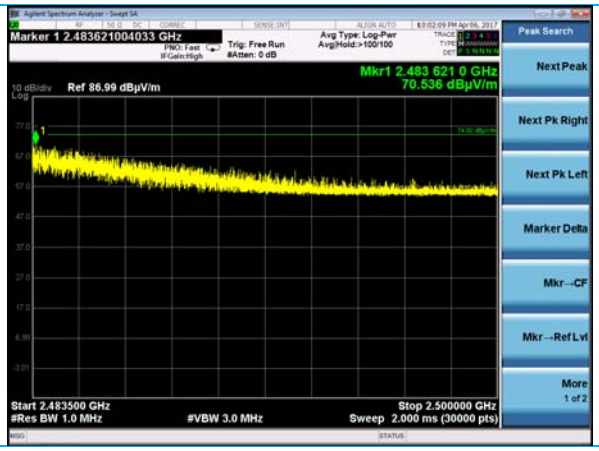
Lower Band-Edge – Average



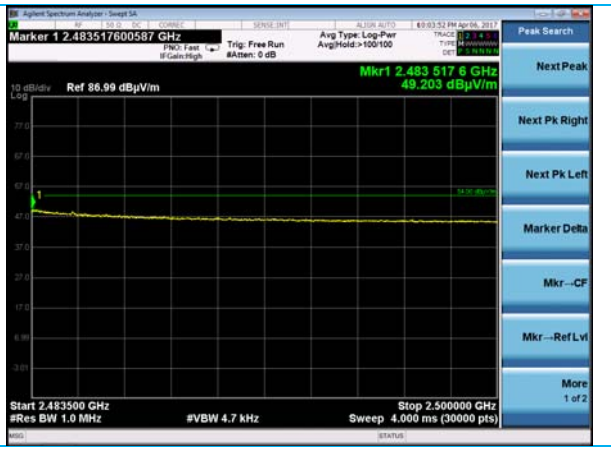
Upper Band-Edge – Channel 10 – Peak



Upper Band-Edge – Channel 10 – Average

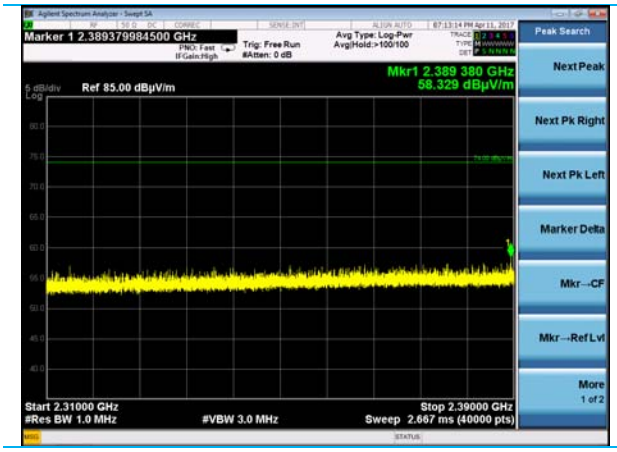


Upper Band-Edge – Channel 11 – Peak



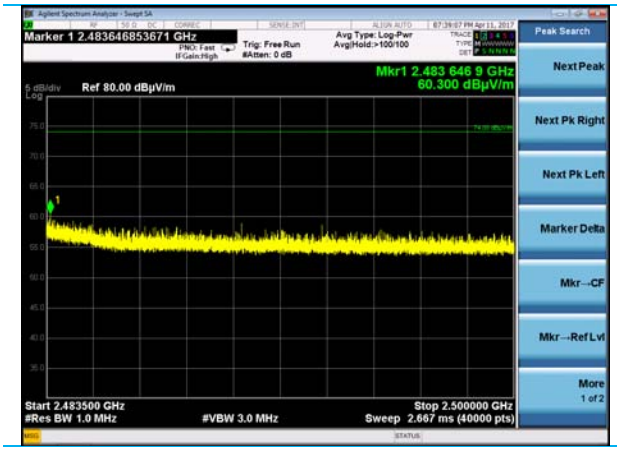
Upper Band-Edge – Channel 11 - Average

Plots – Restricted-Band Band-Edges – BLE



Lower Band-Edge – Peak

Lower Band-Edge – Average



Upper Band-Edge – Peak

Upper Band-Edge – Average

5.2.2 Radiated – Spurious Emissions

Operator	WLAN: Shane Dock / Kimberly Bay BLE: Michael Hintzke / Kimberly Bay
QA	WLAN: Michael Hintzke & Kimberly Bay / Shane Dock BLE: Aidi Zainal / Shane Dock
Test Date	WLAN: March 27-28, 2017 / April 14, 2017 BLE: April 11-12, 2017
Location	3-meter Semi-Anechoic Chamber
Temp. / R.H.	22°C / 38% R.H.
Requirement	FCC 15.247 (d) / RSS-247 Section 5.5
Method	ANSI C63.10 Sections 6.5, 6.6

Limits:

Frequency (MHz)	Quasi-Peak Limit (dBµV/m)	Average Limit (dBµV/m)	Peak Limit (dBµV/m)
30-88	40	N/A	N/A
88-216	43.5	N/A	N/A
216-960	46	N/A	N/A
960-1000	54	N/A	N/A
Above 1000	N/A	54	74

Test Parameters

Frequency	30 MHz – 25 GHz
Distance	3-meters
Settings	Quasi Peak detector used for 30-1000 MHz measurements Peak detector used for 1-25 GHz measurements
Settings	For 30-1000 MHz: RBW = 120 kHz, VBW = 1.2 MHz For 1-25 GHz: RBW = 1 MHz, VBW = 3 MHz, unless otherwise noted
EUT	Modulated signal
Note	1 Mbps data used for WLAN – worst case emissions
Example Calculation	Margin (dB) = Limit (dBµV/m) – Measurement (dBµV/m) Ex: 54 dBµV/m (average limit) – 48.5 dBµV/m (measured average) = 5.5 dB margin

Instrumentation

LSR a Laird Business

Date: 20-Dec-2016 Test: Radiated Emissions Job #: C-2630

PE: Kim Customer: United Technology Electronic Controls Quote #: 316392

No.	Asset #	Description	Manufacturer	Model #	Serial #	Cal Date	Cal Due Date	Equipment Status
1	EE 960087	Spectrum Analyzer	Agilent	N9010A	MY53400296	12/22/2016	12/22/2017	Active Calibration
2	AA 960081	Double Ridge Horn Antenna	EMCO	3115	6907	3/17/2017	3/17/2018	Active Calibration
3	AA 960171	Cable - low loss 6m	A.H. Systems, Inc	SAC-26G-6	386	3/31/2016	5/5/2017	Active Verification
4	AA 960007	Double Ridge Horn Antenna	EMCO	3115	9311-4138	7/22/2016	7/22/2017	Active Calibration
5	EE 960160	Low Noise Amplifier	Mini-Circuits	ZVA-213X-S+	977711030	7/22/2016	7/22/2017	Active Calibration
6	AA 960150	Biconical Antenna	ETS Lindgren	3110B	0003-3346	3/3/2017	3/3/2018	Active Calibration
7	AA 960163	Log Periodic Antenna	A.H. Systems, Inc	SAS-512-2	500	3/28/2017	3/28/2017	Active Calibration
8	EE 960085	EMI Receiver	Agilent	N9038A	MY51210148	5/12/2016	5/12/2017	Active Calibration
9	AA 960154	High Pass Filter 2.4 GHz	KWM	HPF-L-14186	7272-02	7/25/2016	7/25/2017	Active Calibration

Table – Radiated Spurious Emissions 30-1000 MHz – BLE

Frequency (MHz)	Height (m)	Azimuth (degree)	Quasi Peak Reading (dBµV/m)	Quasi Peak Limit (dBµV/m)	Margin (dB)	Antenna Polarity	EUT Orientation
140	1	0	25.5	43.5	18.0	V	V

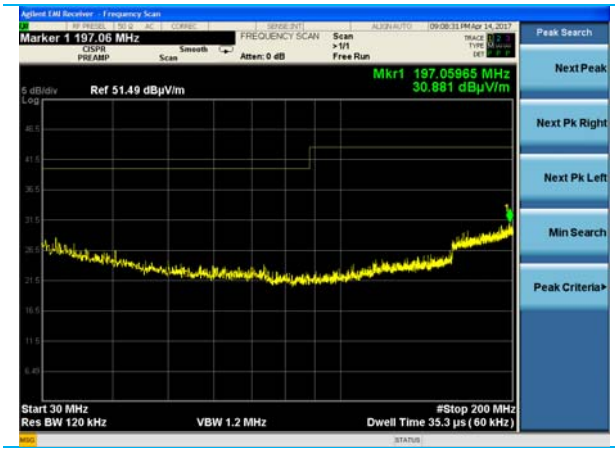
Table – Radiated Spurious Emissions 1-25 GHz - WLAN

Frequency (MHz)	Height (m)	Azimuth (degree)	Peak Reading (dBµV/m)	Average Reading (dBµV/m)	Average Limit (dBµV/m)	Margin (dB)	Antenna Polarity	EUT Orientation
4824	1.2	117	51.4	48.5	54	5.5	Horizontal	Vertical
4824	2.4	179	52.2	49.4	54	4.6	Vertical	Vertical
4874	1.5	119	50.5	47.7	54	6.3	Horizontal	Vertical
7311	1.4	81	45.7	36.7	54	17.3	Horizontal	Vertical
4874	1.0	153	50.0	47.8	54	6.2	Vertical	Vertical
7311	1.9	125	46.7	37.7	54	16.3	Vertical	Vertical
4924	2.3	117	48.1	45.3	54	8.7	Horizontal	Vertical
7385	1.4	82	46.8	38.0	54	16.0	Horizontal	Vertical
4924	1.9	264	49.3	46.2	54	7.8	Vertical	Vertical
7385	1.7	106	47.8	38.9	54	15.1	Vertical	Vertical
2510	2.6	139	51.2	39.6	54	14.4	Vertical	Vertical
2309	2.6	116	48.7	37.8	54	16.2	Vertical	Vertical

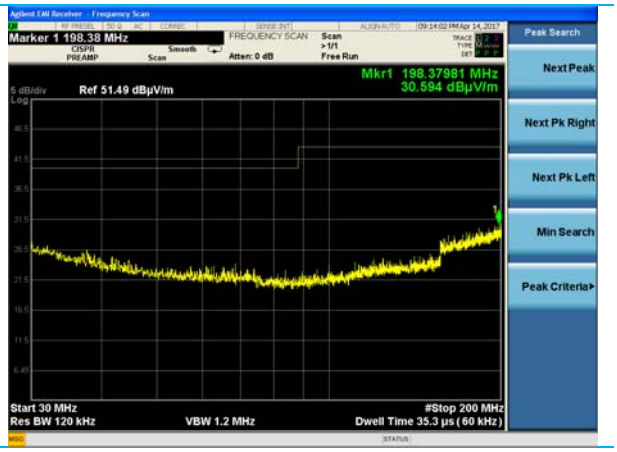
Table – Radiated Spurious Emissions 1-25 GHz - BLE

Frequency (MHz)	Height (m)	Azimuth (degree)	Peak Reading (dBµV/m)	Average Reading (dBµV/m)	Average Limit (dBµV/m)	Margin (dB)	Antenna Polarity	EUT Orientation
4804	2.57	146	47.7	39.9	54	14.1	Horizontal	Vertical
4804	1.05	126	48.4	40.6	54	13.4	Vertical	Vertical
4880	1.00	155	50.5	45.6	54	8.4	Horizontal	Vertical
7320	1.11	166	49.7	39.7	54	14.3	Horizontal	Vertical
4880	1.08	123	50.1	44.6	54	9.4	Vertical	Vertical
7320	1.00	137	50.2	41.1	54	12.9	Vertical	Vertical
4960	1.00	158	51.0	46.4	54	7.6	Horizontal	Vertical
7440	1.00	150	50.2	42.2	54	11.8	Horizontal	Vertical
4960	1.06	146	51.3	46.9	54	7.1	Vertical	Vertical
7440	2.77	156	50.4	40.9	54	13.1	Vertical	Vertical

Plots – Radiated Spurious Emissions – WLAN

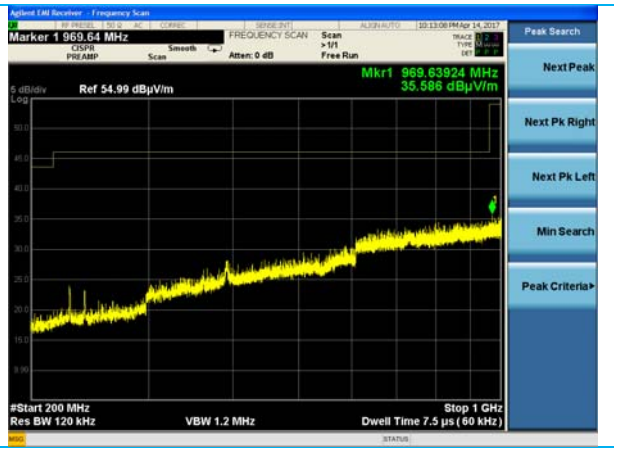


Horizontal

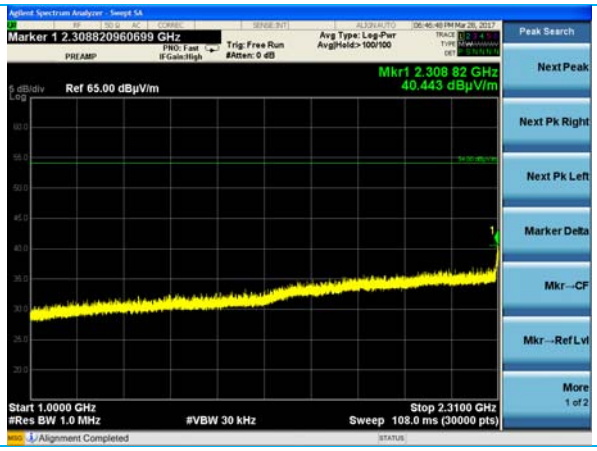


Vertical

Horizontal



Vertical



1-2.31 GHz
(Reduced VBW)

2.5-4 GHz
(Reduced VBW)

Plots – Radiated Spurious Emissions – WLAN, continued

Low Channel – Horizontal

(Reduced VBW)

Low Channel – Vertical

(Reduced VBW)

Mid Channel – Horizontal

(Reduced VBW)

Mid Channel – Vertical

(Reduced VBW)

High Channel – Horizontal

(Reduced VBW)

High Channel – Vertical

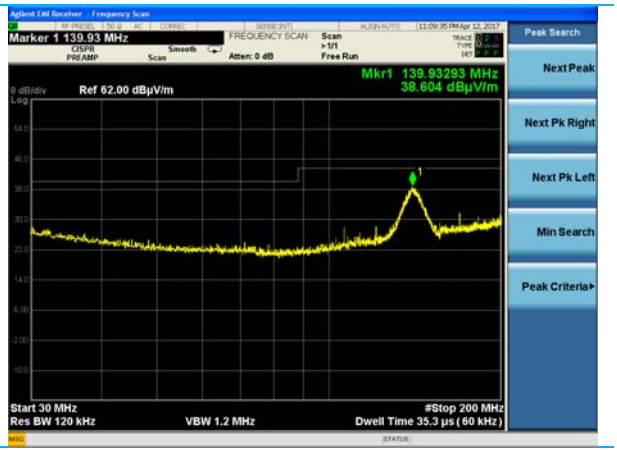
(Reduced VBW)

Plots – Radiated Spurious Emissions – WLAN, continued

	
Horizontal (Reduced VBW)	Vertical (Reduced VBW)

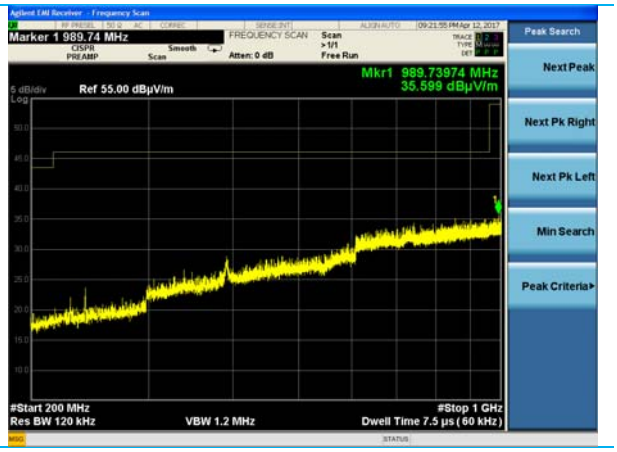
Plots – Radiated Spurious Emissions – BLE

Horizontal

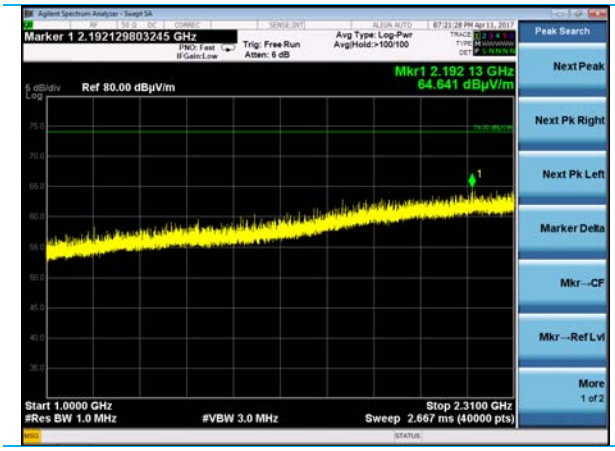


Vertical

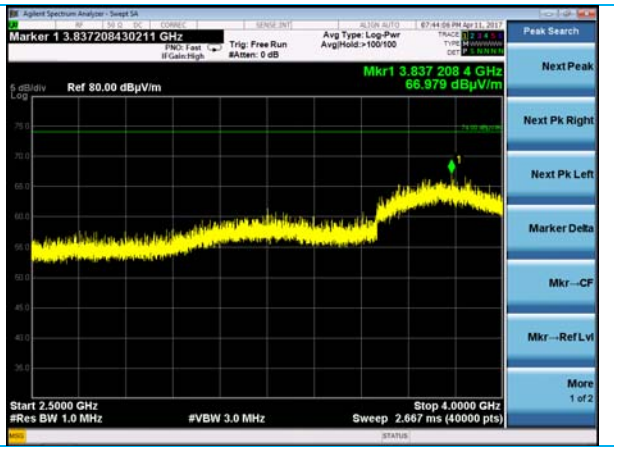
Horizontal



Vertical

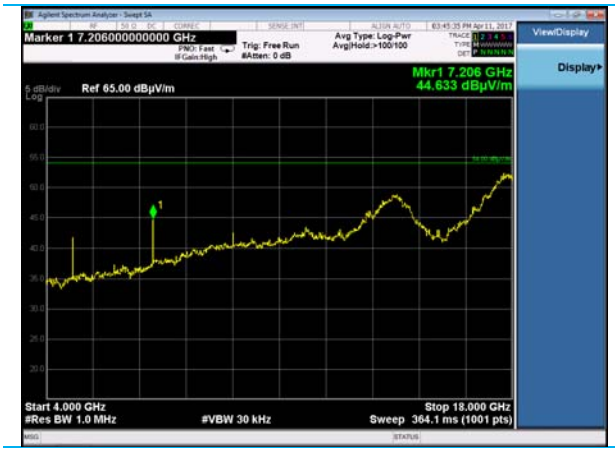


1-2.31 GHz



2.5-4 GHz

Plots – Radiated Spurious Emissions – BLE, continued

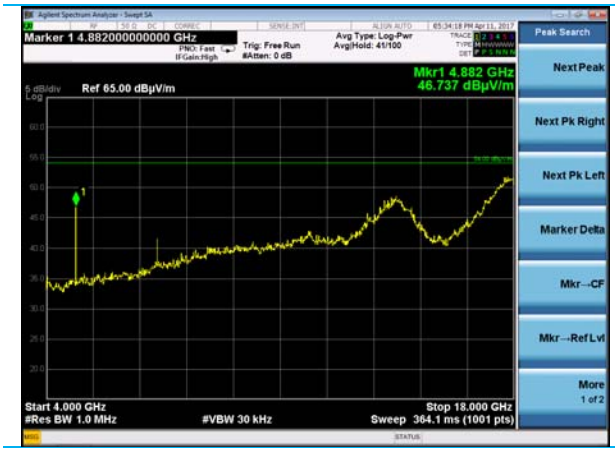


Low Channel – Horizontal

(Reduced VBW)

Low Channel – Vertical

(Reduced VBW)

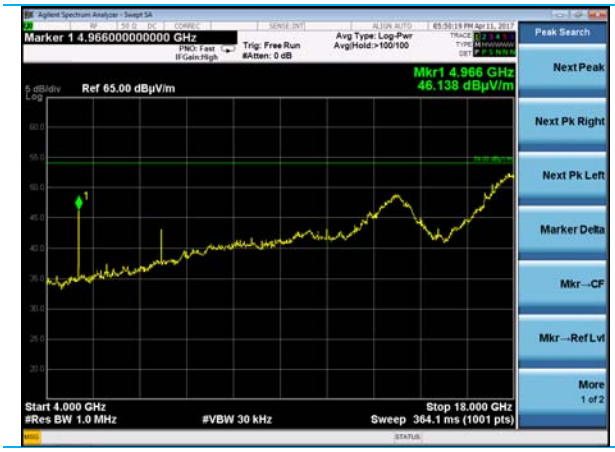


Mid Channel – Horizontal

(Reduced VBW)

Mid Channel – Vertical

(Reduced VBW)



High Channel – Horizontal

(Reduced VBW)

High Channel – Vertical

(Reduced VBW)

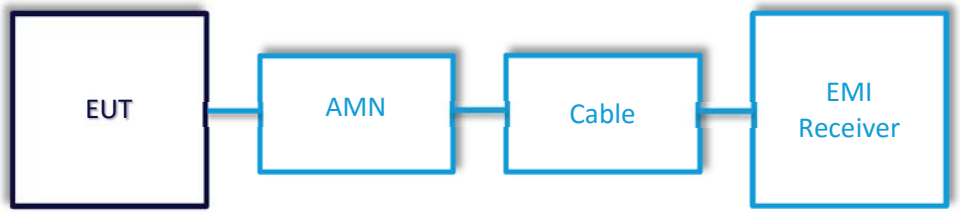
Plots – Radiated Spurious Emissions – BLE, continued

	
Horizontal (Reduced VBW)	Vertical (Reduced VBW)

5.3 AC Mains Conducted Emissions

Description of Measurement	A line impedance stabilization network (LISN) or artificial mains network (AMN) allows the emissions of the power supply conductors to be measured while isolating the EUT from the supply mains. The AMN, cable, and other necessary measurement system correction factors are loaded onto the EMI receiver when the measurements are performed. The data is gathered and reported as the corrected values. Maximum emissions are determined with a peak max hold trace then measurements at a selection of the highest points are made with quasi-peak and average detectors. Results are recorded and compared to limit for each line. (e.g. line and neutral)
Example Calculations	Measurement (dBµV) + Cable factor (dB) + Other (dB) = Corrected Reading (dBµV) Margin (dB) = Limit (dBµV) - Corrected Reading (dBµV)

Block Diagram



5.3.1 AC Mains Conducted Emissions

Operator	Kimberly Bay
QA	Shane Dock
Test Date	April 18, 2017
Location	H+V Ground Plane
Temp. / R.H.	21°C / 42% R.H.
Requirement	FCC 15.207 / RSS-GEN Section 8.8
Method	ANSI C63.10 2013 Section 6.2

Limits:

Frequency of Emission (MHz)	Conducted Limit (dBµV)	
	Quasi-Peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

Test Parameters

Frequency	150 kHz to 30 MHz
Settings	Peak, Quasi Peak, and Average detectors used
Settings	RBW = 9 kHz, VBW = 90 kHz
Note	There was no significant difference between channels.
Example Calculation	Margin (dB) = Limit (dBµV) – Measurement (dBµV) Ex: 66 dBµV (quasi-peak limit) – 28.4 dBµV (measured quasi-peak) = 37.6 dB margin

Instrumentation

LSR
a Laird Business

Date : 20-Dec-2016 Test : Conducted AC Emissions Job # : C-2630

PE: Kim Customer : United Technology Electronic Controls Quote #: 316392

No.	Asset #	Description	Manufacturer	Model #	Serial #	Cal Date	Cal Due Date	Equipment Status
1	EE 960088	MXE Spectrum Analyzer	Agilent	N9038A	MY51210138	3/2/2017	3/2/2018	Active Calibration
2	EE 960089	LISN	COM-POWER	LI-215A	191943	3/13/2017	3/13/2018	Active Calibration

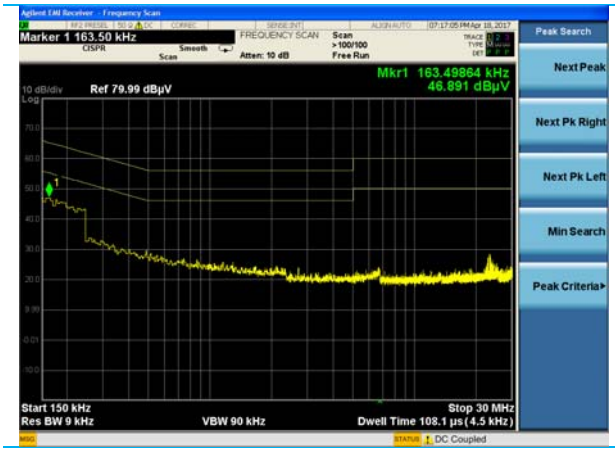
Table – Conducted AC Emissions – WLAN

Frequency (MHz)	Line	Q-Peak Reading (dBµV)	Q-Peak Limit (dBµV)	Quasi-Peak Margin (dB)	Average Reading (dBµV)	Average Limit (dBµV)	Average Margin (dB)
0.164	1	41.8	65.3	23.5	31.9	55.3	23.4
0.150	1	42.4	66.0	23.6	32.5	56.0	23.5
0.245	1	39.0	61.9	22.9	29.2	51.9	22.7
0.249	2	25.7	61.8	36.1	18.8	51.8	33.0
23.125	2	18.8	60.0	41.2	12.0	50.0	38.0
0.150	2	28.4	66.0	37.6	21.1	56.0	34.9

Table – Conducted AC Emissions – BLE

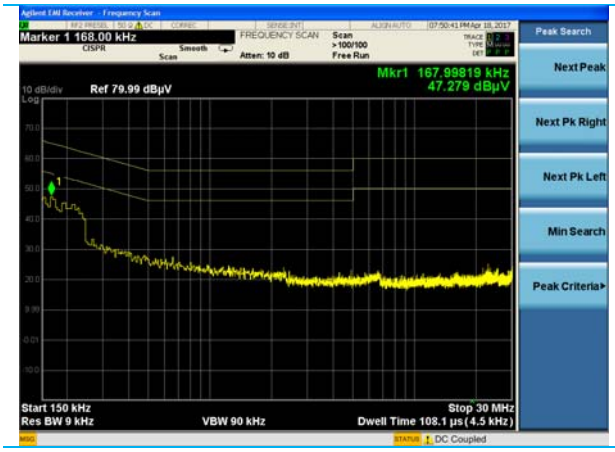
Frequency (MHz)	Line	Q-Peak Reading (dBµV)	Q-Peak Limit (dBµV)	Quasi-Peak Margin (dB)	Average Reading (dBµV)	Average Limit (dBµV)	Average Margin (dB)
0.169	1	41.4	65.0	23.6	31.6	55.0	23.4
0.195	1	40.3	63.8	23.5	30.3	53.8	23.5
0.154	1	42.3	65.8	23.5	32.4	55.8	23.4
0.249	2	25.7	61.8	36.1	18.8	51.8	33.0
0.298	2	28.7	60.3	31.6	21.9	50.3	28.4
23.030	2	17.9	60.0	42.1	11.0	50.0	39.0

Plots – Conducted AC Emissions

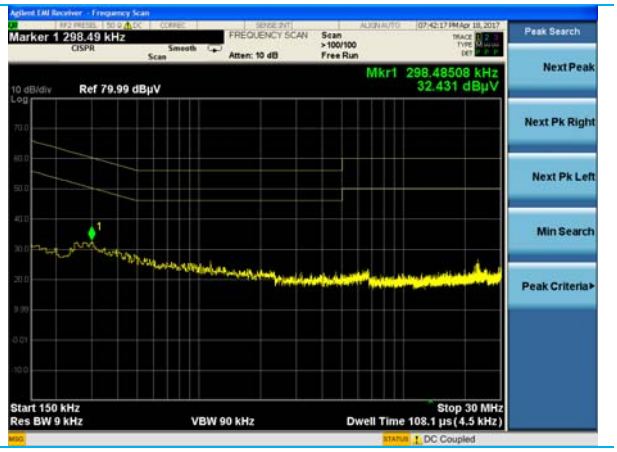


WLAN – Line 1

WLAN – Line 2



BLE – Line 1



BLE – Line 2

6 REVISION HISTORY

Version	Date	Notes	Person
V0	5/18/2017	Initial Draft Release	KB
V1	5/19/2017	Final	KB

END OF REPORT