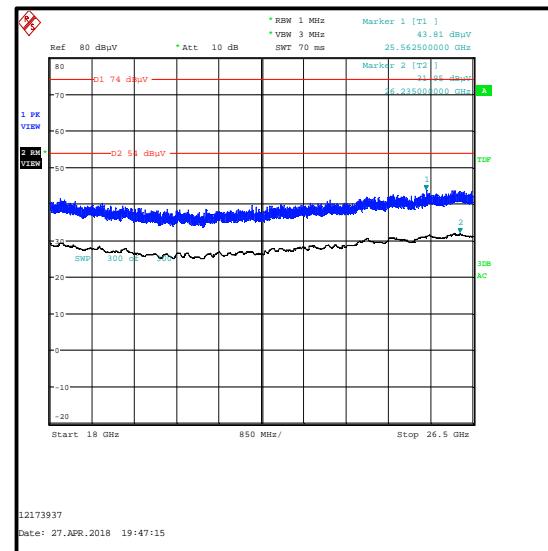
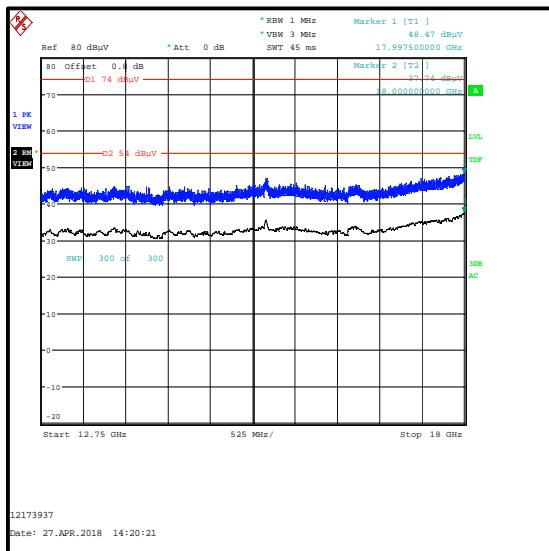
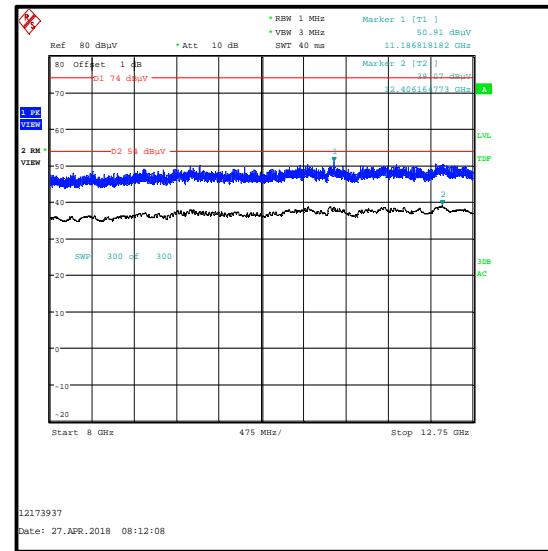
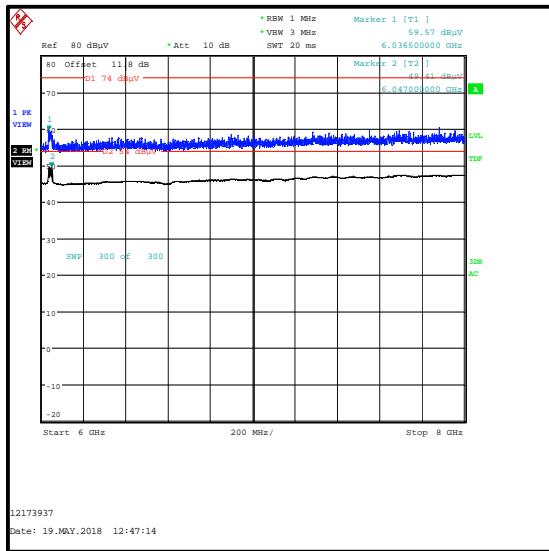
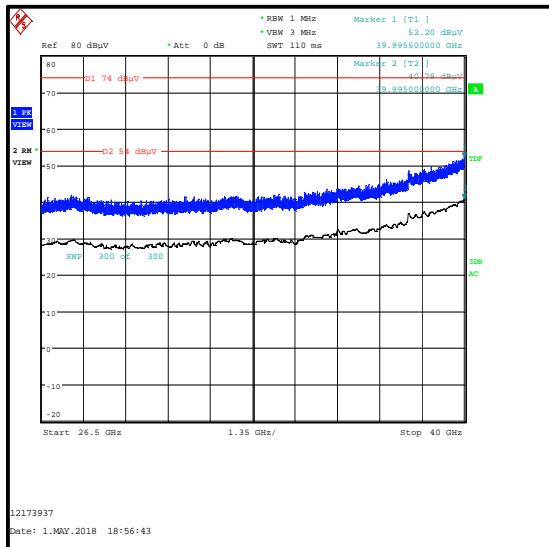


Transmitter Out of Band Radiated Emissions - *Bluetooth LE bottom channel / 2.4 GHz WLAN (SISO) top channel / 5 GHz WLAN (MIMO) bottom channel (continued)*



Transmitter Out of Band Radiated Emissions - *Bluetooth LE bottom channel / 2.4 GHz WLAN (SISO) top channel / 5 GHz WLAN (MIMO) bottom channel (continued)*



4.26. Transmitter Out of Band Radiated Emissions - *Bluetooth LE bottom channel / 2.4 GHz WLAN (SISO) top channel / 5 GHz WLAN (MIMO) top channel*

Test Summary:

Test Engineers:	Mohamed Toubella, Marco Zunarelli, Tom Sleigh & Mark Perry	Test Dates:	27 April 2018 to 19 May 2018
Test Sample Serial Number:	C02W6002JTDV, C02VR00RJH93		

FCC Reference:	Parts 15.33, 15.205(a), 15.209(a), 15.247(d) & 15.407(b)
ISED Canada Reference:	RSS-Gen 6.13 & 8.9 / RSS-247 5.5, 6.2.4.2
Test Method Used:	ANSI C63.10 Sections 6.3, 6.5, 6.6, 11.11, 11.12.2.4 & 11.12.2.5.1, KDB 558074 Sections 11, 12.2.4, 12.2.5.1, 12.7, KDB 789033 II.G
Frequency Range:	30 MHz to 40 GHz
Configuration:	<i>Bluetooth LE bottom channel / 2.4 GHz WLAN (SISO) top channel / 5 GHz WLAN (3Tx MIMO) top channel</i>

Environmental Conditions:

Temperature (°C):	20 to 24
Relative Humidity (%):	36 to 50

Note(s):

1. All other intermodulation products were below the noise floor level or greater than 20 dB from the specification limit.
2. The *Bluetooth LE* and 2.4 GHz WLAN fundamentals are shown on the 1 GHz to 3 GHz plot.
3. The 5 GHz WLAN fundamental is shown on the 4 GHz to 6 GHz plot.
4. Pre-scans were made against the FCC Part 15 general limits for radiated emissions.
5. The emission at approximately 4944.000 MHz is the second harmonic of the 2.4GHz WLAN signal and was therefore not measured.
6. The emission at approximately 5617.500MHz is not an intermodulation product and was therefore not measured
7. The test receiver resolution bandwidth was set to 120 kHz and video bandwidth to 500 kHz, for measurements below 1 GHz. For measurements above 1 GHz the resolution bandwidth was set to 1 MHz and video bandwidth to 3 MHz, with the sweep time set to auto. Markers were placed on the highest measured level.
8. Measurements below 1 GHz were performed in a semi-anechoic chamber (Asset Number K0017) at a distance of 3 metres. The EUT was placed at a height of 80 cm above the reference ground plane in the centre of the chamber turntable. Maximum emission levels were determined by height searching the measurement antenna over the range 1 metre to 4 metres.
9. Measurements above 1 GHz were performed in a fully anechoic chamber (Asset Number K0002) at a distance of 3 metres. The EUT was placed at a height of 1.5 metres above the test chamber floor in the centre of the chamber turntable. All measurement antennas were placed at a fixed height of 1.5 metres above the test chamber floor, in line with the EUT. Final measurements above 1 GHz were performed in a fully anechoic chamber (Asset Number K0017) at a distance of 3 metres. The EUT was placed at a height of 1.5 m above the reference ground plane in the centre of the chamber turntable. Maximum emission levels were determined by height searching the measurement antenna over the range 1 metre to 4 metres.to 4 metres.to 4 metres.

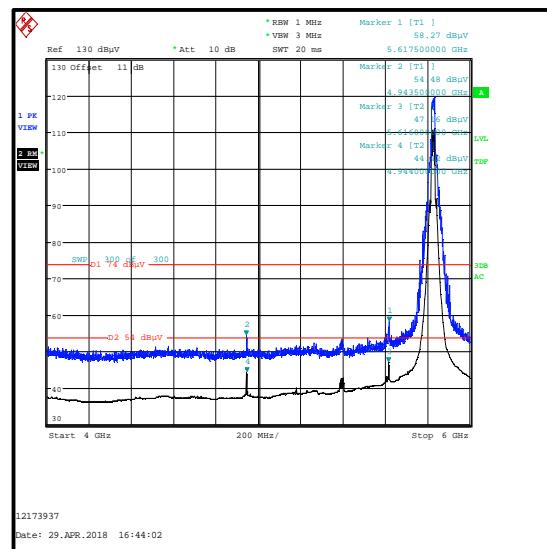
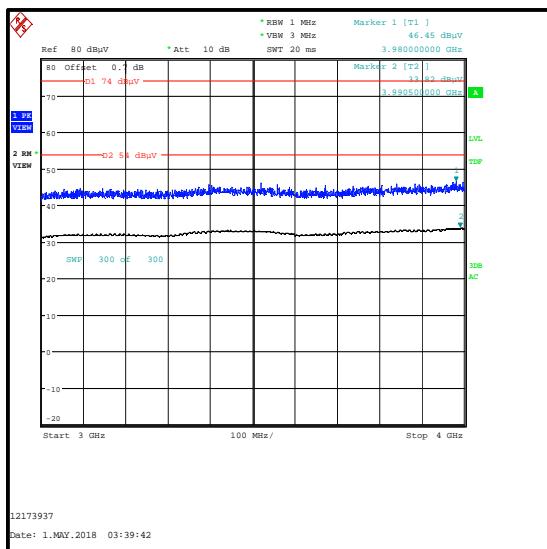
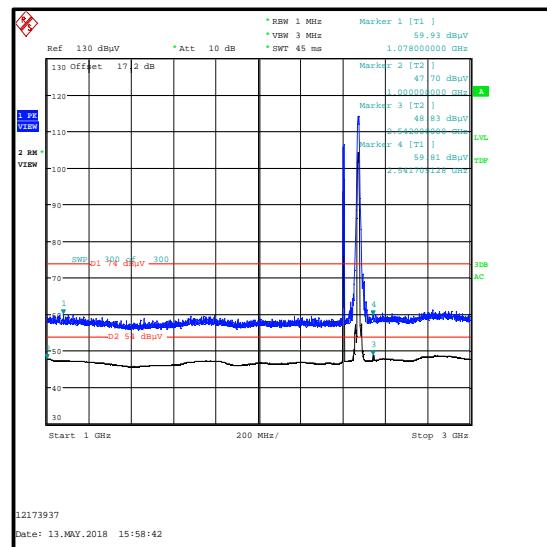
Transmitter Out of Band Radiated Emissions - *Bluetooth LE bottom channel / 2.4 GHz WLAN (SISO) top channel / 5 GHz WLAN (MIMO) top channel (continued)*

Results: Peak

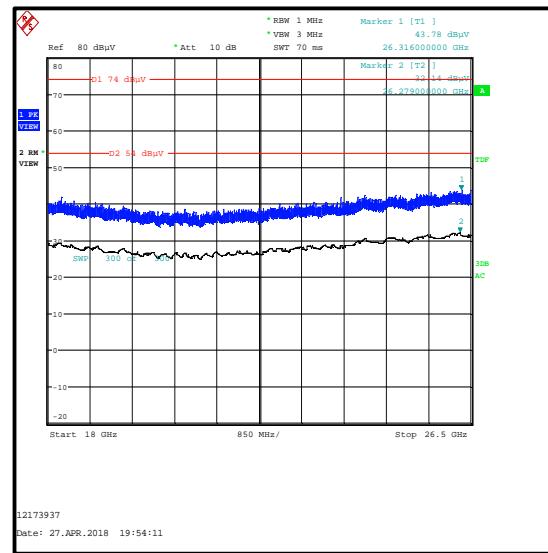
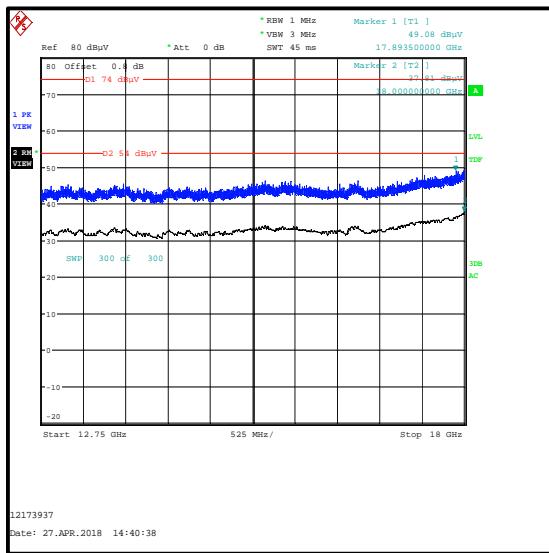
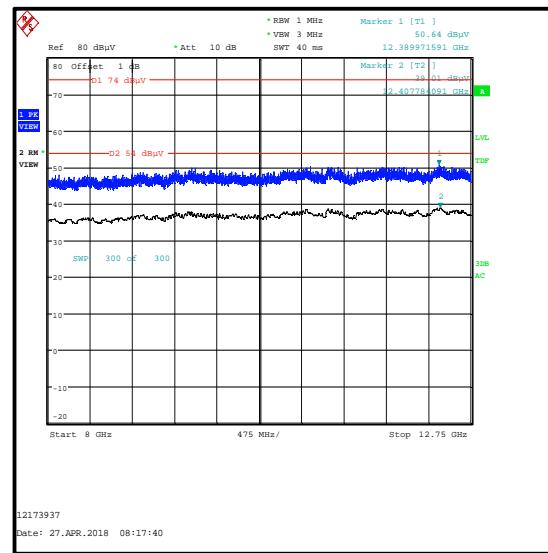
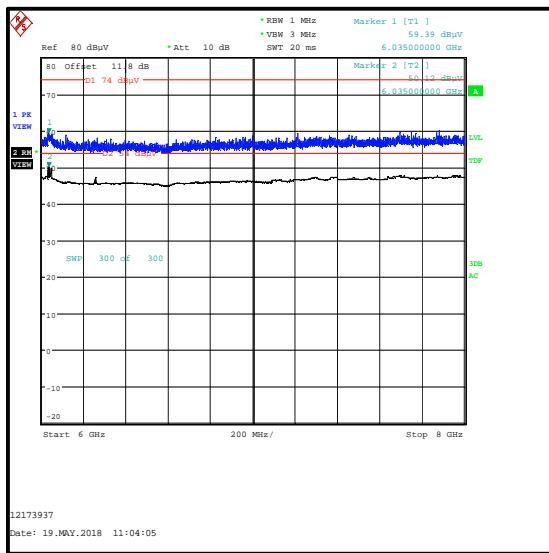
Frequency (MHz)	Antenna Polarity	Peak Level (dB μ V/m)	Peak Limit (dB μ V/m)	Margin (dB)	Result
6035.200	Vertical	60.6	68.2	7.6	Complied

Results: Average

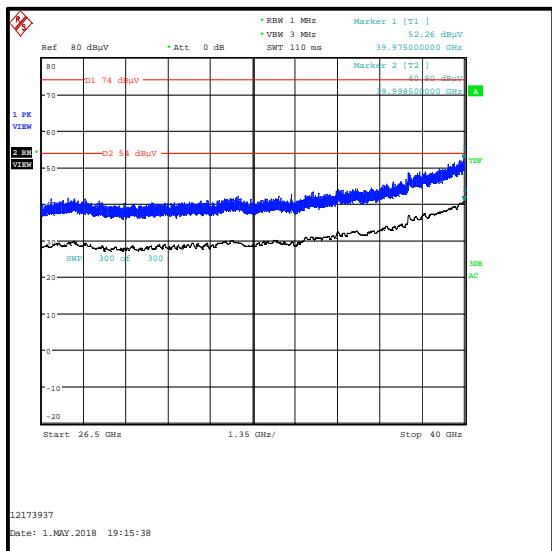
Frequency (MHz)	Antenna Polarity	Average Level (dB μ V/m)	Average Limit (dB μ V/m)	Margin (dB)	Result
See note 1					



Transmitter Out of Band Radiated Emissions - *Bluetooth LE bottom channel / 2.4 GHz WLAN (SISO) top channel / 5 GHz WLAN (MIMO) top channel (continued)*



Transmitter Out of Band Radiated Emissions - *Bluetooth LE bottom channel / 2.4 GHz WLAN (SISO) top channel / 5 GHz WLAN (MIMO) top channel (continued)*



4.27. Transmitter Out of Band Radiated Emissions - *Bluetooth LE top channel / 2.4 GHz WLAN (SISO) bottom channel / 5 GHz WLAN (MIMO) bottom channel*

Test Summary:

Test Engineers:	Mohamed Toubella, Marco Zunarelli, Tom Sleigh & Mark Perry	Test Dates:	27 April 2018 to 19 May 2018
Test Sample Serial Number:	C02W6002JTDV, C02VR00RJH93		

FCC Reference:	Parts 15.33, 15.205(a), 15.209(a), 15.247(d) & 15.407(b)
ISED Canada Reference:	RSS-Gen 6.13 & 8.9 / RSS-247 5.5, 6.2.1.2
Test Method Used:	ANSI C63.10 Sections 6.3, 6.5, 6.6, 11.11, 11.12.2.4 & 11.12.2.5.1, KDB 558074 Sections 11, 12.2.4, 12.2.5.1, 12.7, KDB 789033 II.G
Frequency Range:	30 MHz to 40 GHz
Configuration:	<i>Bluetooth LE top channel / 2.4 GHz WLAN (SISO) bottom channel / 5 GHz WLAN (3Tx MIMO) bottom channel</i>

Environmental Conditions:

Temperature (°C):	20 to 24
Relative Humidity (%):	36 to 48

Note(s):

1. All other intermodulation products were below the noise floor level or greater than 20 dB from the specification limit.
2. The *Bluetooth LE* and 2.4 GHz WLAN fundamentals are shown on the 1 GHz to 3 GHz plot.
3. The 5 GHz WLAN fundamental is shown on the 4 GHz to 6 GHz plot.
4. Pre-scans were made against the FCC Part 15 general limits for radiated emissions.
5. The emissions at approximately 5365.500 MHz and 5612.000 MHz are not intermodulation products and were therefore not measured.
6. The test receiver resolution bandwidth was set to 120 kHz and video bandwidth to 500 kHz, for measurements below 1 GHz. For measurements above 1 GHz the resolution bandwidth was set to 1 MHz and video bandwidth to 3 MHz, with the sweep time set to auto. Markers were placed on the highest measured level.
7. Measurements below 1 GHz were performed in a semi-anechoic chamber (Asset Number K0001) at a distance of 3 metres. The EUT was placed at a height of 80 cm above the reference ground plane in the centre of the chamber turntable. Maximum emission levels were determined by height searching the measurement antenna over the range 1 metre to 4 metres.
8. Measurements above 1 GHz were performed in a fully anechoic chamber (Asset Number K0002) at a distance of 3 metres. The EUT was placed at a height of 1.5 metres above the test chamber floor in the centre of the chamber turntable. All measurement antennas were placed at a fixed height of 1.5 metres above the test chamber floor, in line with the EUT. Final measurements above 1 GHz were performed in a fully anechoic chamber (Asset Number K0017) at a distance of 3 metres. The EUT was placed at a height of 1.5 m above the reference ground plane in the centre of the chamber turntable. Maximum emission levels were determined by height searching the measurement antenna over the range 1 metre to 4 metres.to 4 metres.to 4 metres

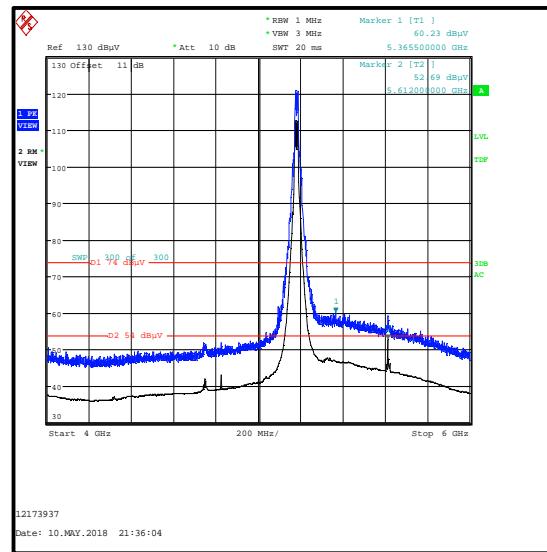
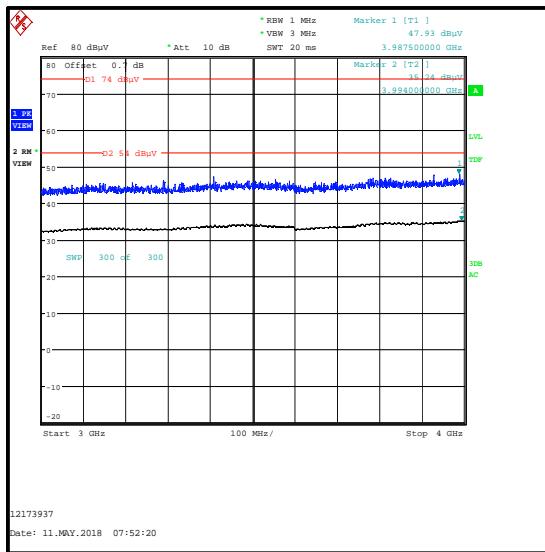
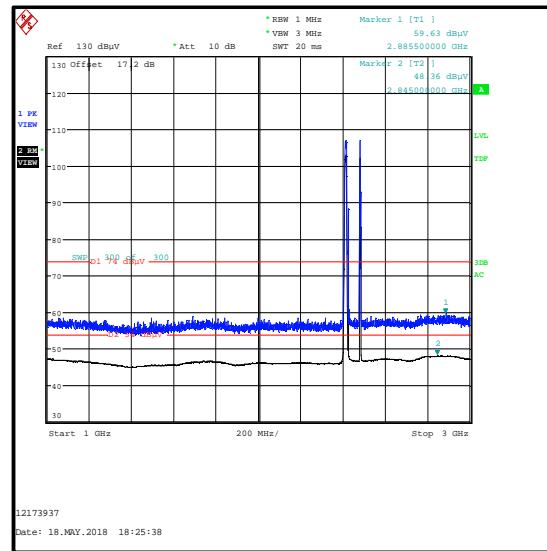
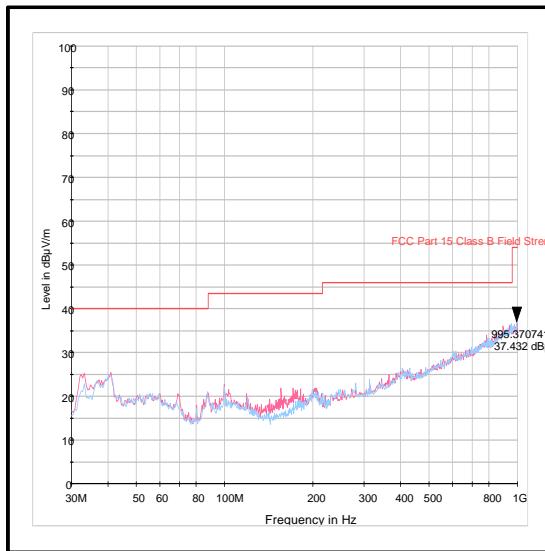
Transmitter Out of Band Radiated Emissions - *Bluetooth LE top channel / 2.4 GHz WLAN (SISO) bottom channel / 5 GHz WLAN (MIMO) bottom channel (continued)*

Results: Peak

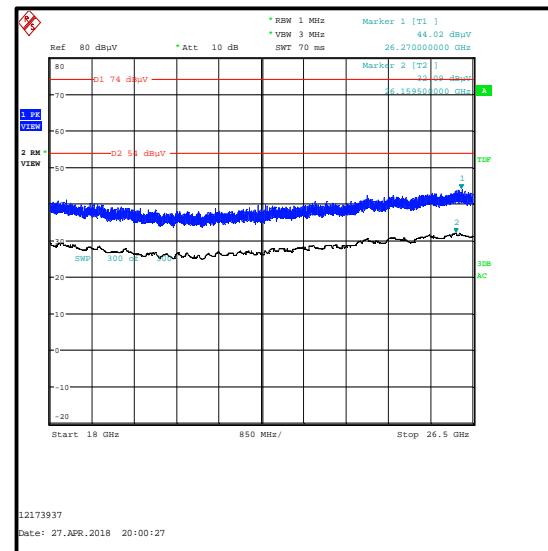
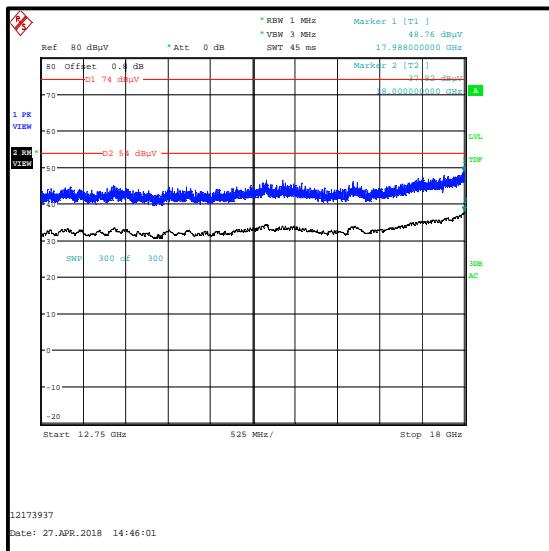
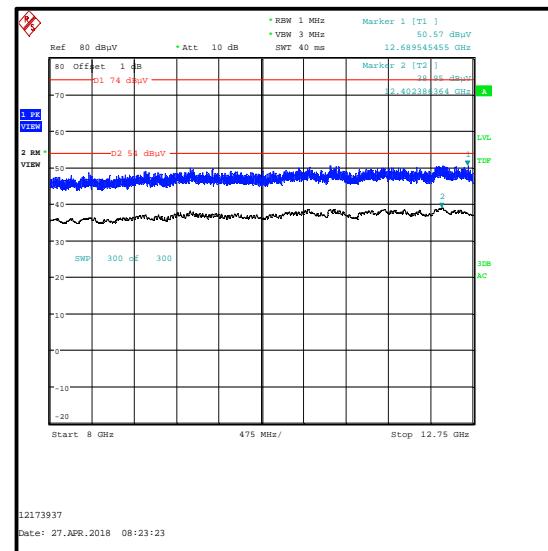
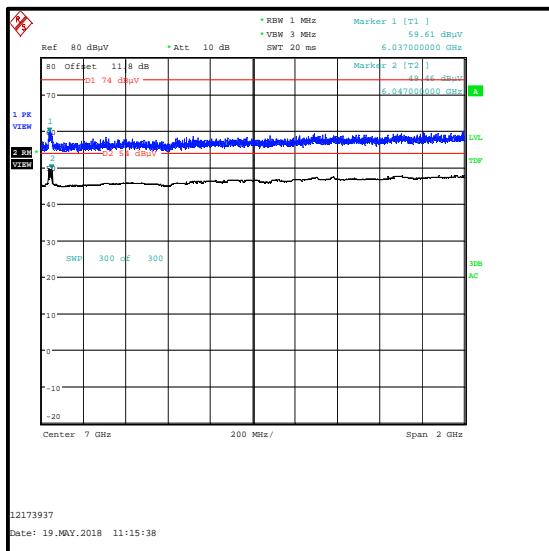
Frequency (MHz)	Antenna Polarity	Peak Level (dB μ V/m)	Peak Limit (dB μ V/m)	Margin (dB)	Result
6047.050	Vertical	60.1	68.2	8.1	Complied

Results: Average

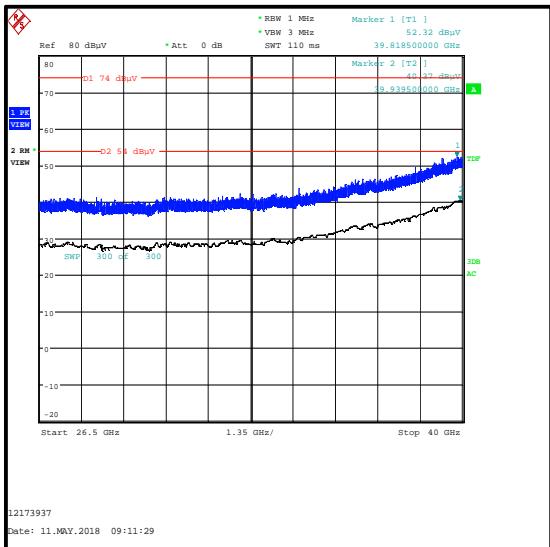
Frequency (MHz)	Antenna Polarity	Average Level (dB μ V/m)	Average Limit (dB μ V/m)	Margin (dB)	Result
See note 1					



Transmitter Out of Band Radiated Emissions - *Bluetooth LE top channel / 2.4 GHz WLAN (SISO) bottom channel / 5 GHz WLAN (MIMO) bottom channel (continued)*



Transmitter Out of Band Radiated Emissions - *Bluetooth LE top channel / 2.4 GHz WLAN (SISO) bottom channel / 5 GHz WLAN (MIMO) bottom channel (continued)*



4.28. Transmitter Out of Band Radiated Emissions - *Bluetooth LE top channel / 2.4 GHz WLAN (SISO) bottom channel / 5 GHz WLAN (MIMO) top channel*

Test Summary:

Test Engineers:	Mohamed Toubella, Marco Zunarelli, Tom Sleigh & Mark Perry	Test Dates:	27 April 2018 to 19 May 2018
Test Sample Serial Number:	C02W6002JTDV, C02VR00RJH93		

FCC Reference:	Parts 15.33, 15.205(a), 15.209(a), 15.247(d) & 15.407(b)
ISED Canada Reference:	RSS-Gen 6.13 & 8.9 / RSS-247 5.5, 6.2.4.2
Test Method Used:	ANSI C63.10 Sections 6.3, 6.5, 6.6, 11.11, 11.12.2.4 & 11.12.2.5.1, KDB 558074 Sections 11, 12.2.4, 12.2.5.1, 12.7, KDB 789033 II.G
Frequency Range:	30 MHz to 40 GHz
Configuration:	<i>Bluetooth LE top channel / 2.4 GHz WLAN (SISO) bottom channel / 5 GHz WLAN (3Tx MIMO) top channel</i>

Environmental Conditions:

Temperature (°C):	21 to 23
Relative Humidity (%):	45 to 48

Note(s):

1. All other intermodulation products were below the noise floor level or greater than 20 dB from the specification limit.
2. The *Bluetooth LE* and 2.4 GHz WLAN fundamentals are shown on the 1 GHz to 3 GHz plot.
3. The 5 GHz WLAN fundamental is shown on the 4 GHz to 6 GHz plot.
4. Pre-scans were made against the FCC Part 15 general limits for radiated emissions.
5. The emission at approximately 4944.000 MHz is the second harmonic of the 2.4GHz WLAN signal and was therefore not measured.
6. The emissions at approximately 5618.000 MHz and 6032.500 MHz are not intermodulation products and were therefore not measured.
7. The test receiver resolution bandwidth was set to 120 kHz and video bandwidth to 500 kHz, for measurements below 1 GHz. For measurements above 1 GHz the resolution bandwidth was set to 1 MHz and video bandwidth to 3 MHz, with the sweep time set to auto. Markers were placed on the highest measured level.
8. Measurements below 1 GHz were performed in a semi-anechoic chamber (Asset Number K0017) at a distance of 3 metres. The EUT was placed at a height of 80 cm above the reference ground plane in the centre of the chamber turntable. Maximum emission levels were determined by height searching the measurement antenna over the range 1 metre to 4 metres.
9. Measurements above 1 GHz were performed in a fully anechoic chamber (Asset Number K0002) at a distance of 3 metres. The EUT was placed at a height of 1.5 metres above the test chamber floor in the centre of the chamber turntable. All measurement antennas were placed at a fixed height of 1.5 metres above the test chamber floor, in line with the EUT. Final measurements above 1 GHz were performed in a fully anechoic chamber (Asset Number K0017) at a distance of 3 metres. The EUT was placed at a height of 1.5 m above the reference ground plane in the centre of the chamber turntable. Maximum emission levels were determined by height searching the measurement antenna over the range 1 metre to 4 metres.to 4 metres.to 4 metres

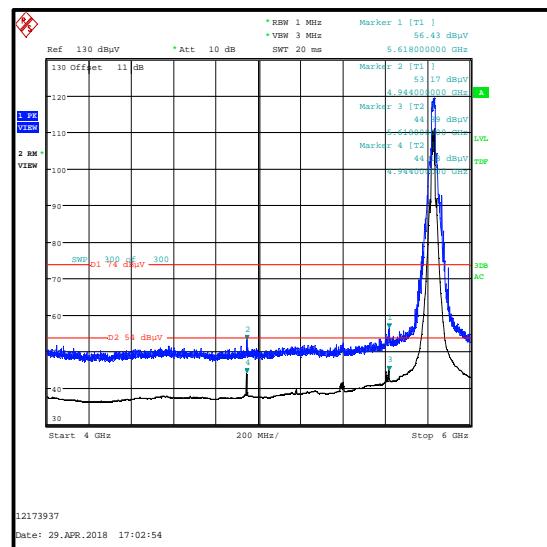
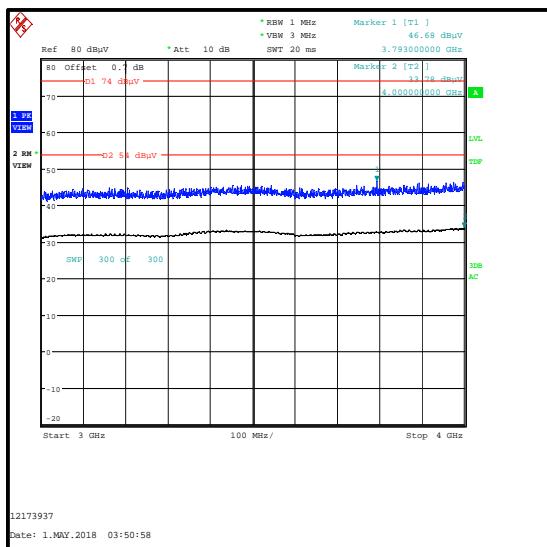
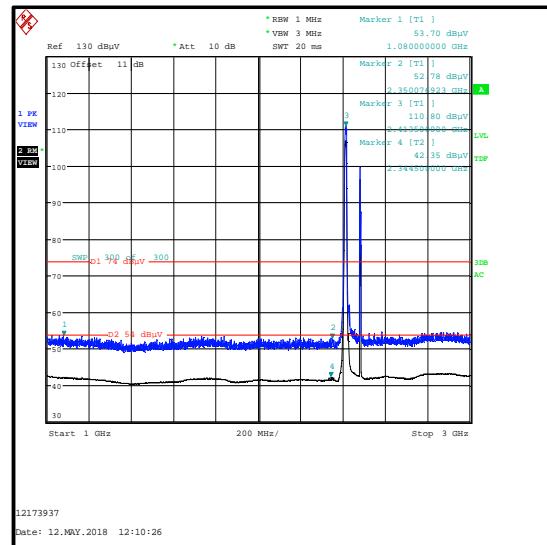
Transmitter Out of Band Radiated Emissions - *Bluetooth LE top channel / 2.4 GHz WLAN (SISO bottom channel / 5 GHz WLAN (MIMO) top channel (continued)*

Results: Peak

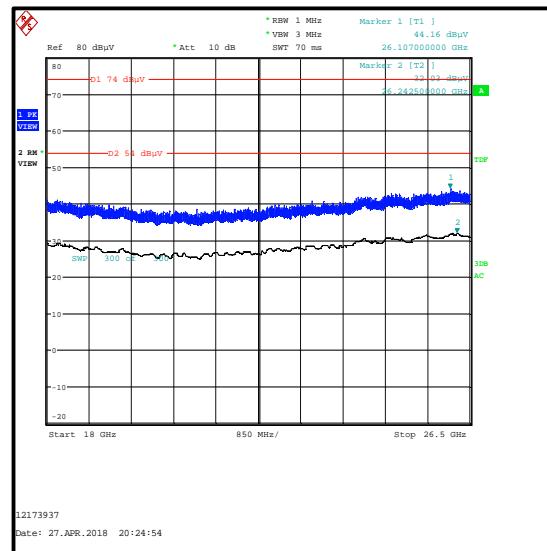
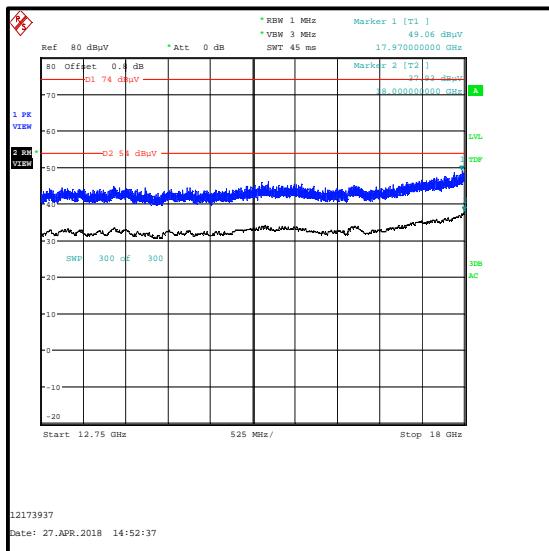
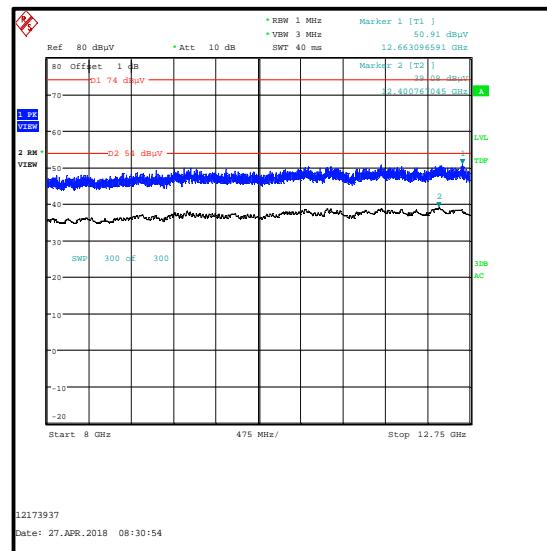
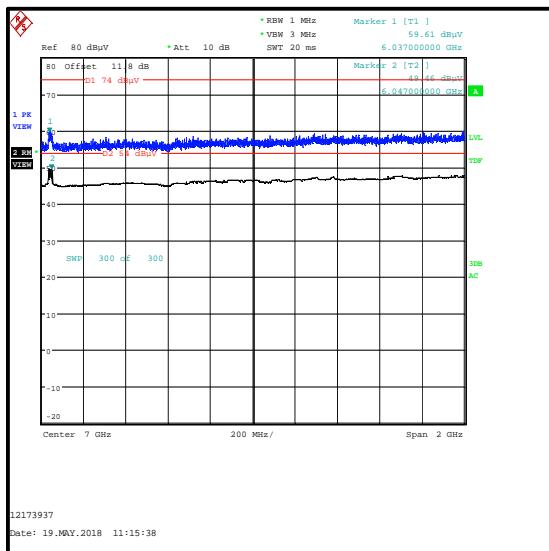
Frequency (MHz)	Antenna Polarity	Peak Level (dB μ V/m)	Peak Limit (dB μ V/m)	Margin (dB)	Result
See note 1					

Results: Average

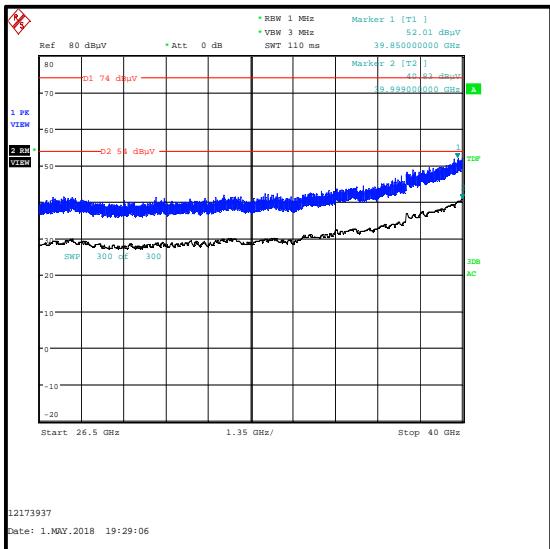
Frequency (MHz)	Antenna Polarity	Average Level (dB μ V/m)	Average Limit (dB μ V/m)	Margin (dB)	Result
See note 1					



Transmitter Out of Band Radiated Emissions - *Bluetooth LE top channel / 2.4 GHz WLAN (SISO) bottom channel / 5 GHz WLAN (MIMO) top channel (continued)*



Transmitter Out of Band Radiated Emissions - *Bluetooth LE top channel / 2.4 GHz WLAN (SISO) bottom channel / 5 GHz WLAN (MIMO) top channel (continued)*



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