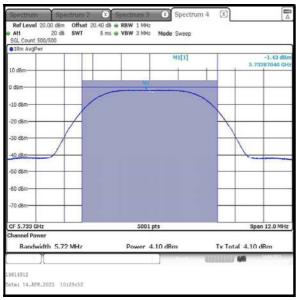
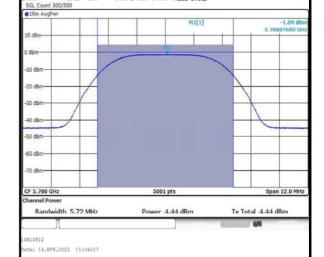
Transmitter Maximum Conducted Output Power (5.725-5.85 GHz band) (continued)

Results: 8DH5 / Beamforming / Core 0 + Core 1 / iPA

Results: Core 1

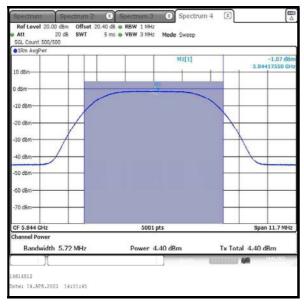




Spectrum 2 X Spectrum 3 X Spectrum 4

Middle Channel

Bottom Channel



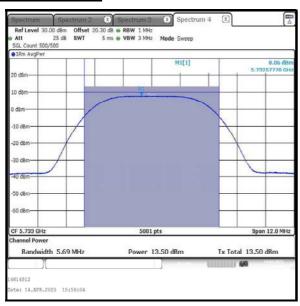
Top Channel

Transmitter Maximum Conducted Output Power (5.725-5.85 GHz band) (continued)

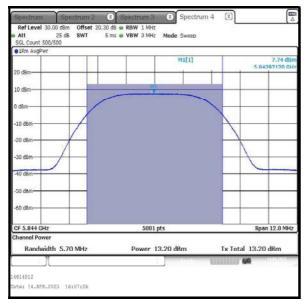
Results: 8DH5 / Beamforming / Core 0 + Core 1 / ePA

Channel	Frequency (MHz)	Conducted Power Core 0 (dBm)	Conducted Power Core 1 (dBm)	Combined Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	5733	13.5	13.3	16.4	30.0	13.6	Complied
Middle	5788	13.3	13.4	16.4	30.0	13.6	Complied
Тор	5844	13.2	13.2	16.2	30.0	13.8	Complied

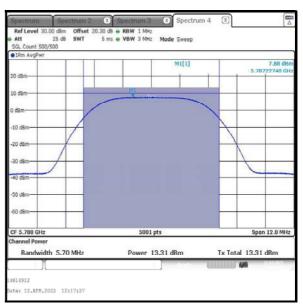
Results: Core 0



Bottom Channel



Top Channel

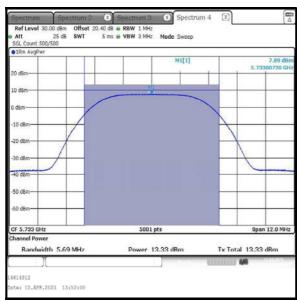


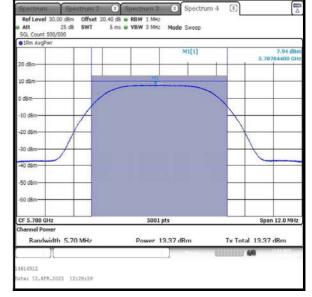
Middle Channel

Transmitter Maximum Conducted Output Power (5.725-5.85 GHz band) (continued)

Results: 8DH5 / Beamforming / Core 0 + Core 1 / ePA

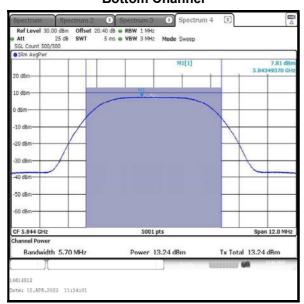
Results: Core 1





Middle Channel

Bottom Channel



Top Channel

4.5 Transmitter Maximum Power Spectral Density

4.5.1 5.15-5.25 GHz band

Test Summary:

Test Engineer:	Raghavendra Katti	Test Dates:	31 March 2023 & 03 April 2023
Test Sample Serial Number:	VWKP4RK7L7		

FCC Reference:	Part 15.407(a)(1)(iv)
Test Method Used:	KDB 789033 D02 Section II.F. referencing II.E.2.b) and II.E.2.d)

Environmental Conditions:

Temperature (°C):	22 to 23
Relative Humidity (%):	38 to 40

Note(s):

- 1. Transmitter Maximum Power Spectral Density tests in all bands were performed using a signal analyser in accordance with KDB 789033 II. F referencing II.E.2.b) Method SA-1 and II.E.2.d) Method SA-2.
- 2. For DH5 where the EUT was transmitting at <98% duty cycle, the calculated duty cycle in Section 4.1 was added to the measured maximum power spectral density in order to compute the average maximum power spectral density during the actual transmission time.
- 3. FCC Part 15.407(a)(1)(iv) limit for PSD is <11 dBm/MHz.
- 4. For Beamforming modes, PSD was measured on both ports and then combined using the *measure and* sum spectral maxima across the outputs technique, stated in FCC KDB 662911 D01 Section E)2)b).
- 5. For details on antenna gains refer to Section 3.4 of this test report.
- 6. For all modes of operation, the antenna gain is < 6 dBi.
- 7. The signal analyser was connected to the RF port on the EUT using suitable attenuation and RF cable. An RF level offset was entered on the signal analyser to compensate for the loss of the attenuator and RF cable.
- 8. As the power spectral density test uses the same test method as the output power test, before the power is integrated across the 26 dB bandwidth, the conducted power spectral density plots are located in the conducted output power section 4.4 of this test report. The peak spectral density was measured by placing a marker on the peak of the signal and the results entered in the tables below.

<u>Transmitter Maximum Power Spectral Density (5.15-5.25 GHz band) (continued)</u>

Results: DH5 / SISO / Core 0 / iPA

Channel	Frequency (MHz)	PSD (dBm /MHz)	Duty cycle correction factor (dB)	Corrected PSD (dBm /MHz)	Limit (dBm /MHz)	Margin (dB)	Result
Bottom	5162	9.3	1.2	10.5	11.0	0.5	Complied
Middle	5203	9.2	1.2	10.4	11.0	0.6	Complied
Тор	5245	9.1	1.2	10.3	11.0	0.7	Complied

Results: 4DH5 / SISO / Core 0 / iPA

Channel	Frequency (MHz)	PSD (dBm /MHz)	Limit (dBm /MHz)	Margin (dB)	Result
Bottom	5162	1.6	11.0	9.4	Complied
Middle	5203	1.9	11.0	9.1	Complied
Тор	5245	1.8	11.0	9.2	Complied

Results: 4DH5 / SISO / Core 0 / ePA

Channel	Frequency (MHz)	PSD (dBm /MHz)	Limit (dBm /MHz)	Margin (dB)	Result
Bottom	5162	9.2	11.0	1.8	Complied
Middle	5203	9.1	11.0	1.9	Complied
Тор	5245	9.4	11.0	1.6	Complied

Results: 8DH5 / SISO / Core 0 / iPA

Channel	Frequency (MHz)	PSD (dBm /MHz)	Limit (dBm /MHz)	Margin (dB)	Result
Bottom	5162	-1.2	11.0	12.2	Complied
Middle	5203	-1.4	11.0	12.4	Complied
Тор	5245	-1.4	11.0	12.4	Complied

Results: 8DH5 / SISO / Core 0 / ePA

Channel	Frequency (MHz)	PSD (dBm /MHz)	Limit (dBm /MHz)	Margin (dB)	Result
Bottom	5162	6.0	11.0	5.0	Complied
Middle	5203	6.3	11.0	4.7	Complied
Тор	5245	6.1	11.0	4.9	Complied

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Transmitter Maximum Power Spectral Density (5.15-5.25 GHz band) (continued)

Results: DH5 / SISO / Core 1 / iPA

Channel	Frequency (MHz)	PSD (dBm /MHz)	Duty cycle correction factor (dB)	Corrected PSD (dBm /MHz)	Limit (dBm /MHz)	Margin (dB)	Result
Bottom	5162	9.3	1.2	10.5	11.0	0.5	Complied
Middle	5203	9.0	1.2	10.2	11.0	0.8	Complied
Тор	5245	9.2	1.2	10.4	11.0	0.6	Complied

Results: 4DH5 / SISO / Core 1 / iPA

Channel	Frequency (MHz)	PSD (dBm /MHz)	Limit (dBm /MHz)	Margin (dB)	Result
Bottom	5162	1.6	11.0	9.4	Complied
Middle	5203	1.6	11.0	9.4	Complied
Тор	5245	1.6	11.0	9.4	Complied

Results: 4DH5 / SISO / Core 1 / ePA

Channel	Frequency (MHz)	PSD (dBm /MHz)	Limit (dBm /MHz)	Margin (dB)	Result
Bottom	5162	9.3	11.0	1.7	Complied
Middle	5203	9.3	11.0	1.7	Complied
Тор	5245	9.5	11.0	1.5	Complied

Results: 8DH5 / SISO / Core 1 / iPA

Channel	Frequency (MHz)	PSD (dBm /MHz)	Limit (dBm /MHz)	Margin (dB)	Result
Bottom	5162	-1.2	11.0	12.2	Complied
Middle	5203	-1.1	11.0	12.1	Complied
Тор	5245	-1.0	11.0	12.0	Complied

Results: 8DH5 / SISO / Core 1 / ePA

Channel	Frequency (MHz)	PSD (dBm /MHz)	Limit (dBm /MHz)	Margin (dB)	Result
Bottom	5162	6.2	11.0	4.8	Complied
Middle	5203	6.3	11.0	4.7	Complied
Тор	5245	6.1	11.0	4.9	Complied

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ISSUE DATE: 04 MAY 2023

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz band) (continued)

Results: DH5 / Beamforming / Core 0 + Core 1 / iPA

			Core 0			Core 1			
Channel	Frequency (MHz)	PSD (dBm /MHz)	Duty Cycle correction factor (dB)	Corrected PSD (dBm /MHz)	PSD (dBm /MHz)	Duty Cycle correction factor (dB)	Corrected PSD (dBm /MHz)		
Bottom	5162	6.5	1.2	7.7	6.5	1.2	7.7		
Middle	5203	6.1	1.2	7.3	6.2	1.2	7.4		
Тор	5245	6.1	1.2	7.3	6.4	1.2	7.6		

Channel	Frequency (MHz)	Corrected PSD Core 0 (dBm /MHz)	Corrected PSD Core 1 (dBm /MHz)	Combined PSD (dBm /MHz)	Limit (dBm/MHz)	Margin (dB)	Result
Bottom	5162	7.7	7.7	10.7	11.0	0.3	Complied
Middle	5203	7.3	7.4	10.4	11.0	0.6	Complied
Тор	5245	7.3	7.6	10.5	11.0	0.5	Complied

Results: 4DH5 / Beamforming / Core 0 + Core 1 / iPA

Channel	Frequency (MHz)	Corrected PSD Core 0 (dBm /MHz)	Corrected PSD Core 1 (dBm /MHz)	Combined PSD (dBm /MHz)	Limit (dBm/MHz)	Margin (dB)	Result
Bottom	5162	1.7	1.1	4.4	11.0	6.6	Complied
Middle	5203	1.9	1.6	4.8	11.0	6.2	Complied
Тор	5245	1.7	1.6	4.7	11.0	6.3	Complied

Results: 4DH5 / Beamforming / Core 0 + Core 1 / ePA

Channel	Frequency (MHz)	Corrected PSD Core 0 (dBm /MHz)	Corrected PSD Core 1 (dBm /MHz)	Combined PSD (dBm /MHz)	Limit (dBm/MHz)	Margin (dB)	Result
Bottom	5162	6.4	6.3	9.4	11.0	1.6	Complied
Middle	5203	6.3	6.2	9.3	11.0	1.7	Complied
Тор	5245	6.4	6.1	9.3	11.0	1.7	Complied

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz band) (continued)

Results: 8DH5 / Beamforming / Core 0 + Core 1 / iPA

Channel	Frequency (MHz)	PSD Core 0 (dBm /MHz)	PSD Core 1 (dBm /MHz)	Combined PSD (dBm /MHz)	Limit (dBm/MHz)	Margin (dB)	Result
Bottom	5162	-1.2	-1.4	1.7	11.0	9.3	Complied
Middle	5203	-1.3	-1.5	1.6	11.0	9.4	Complied
Тор	5245	-1.3	-1.6	1.6	11.0	9.4	Complied

Results: 8DH5 / Beamforming / Core 0 + Core 1 / ePA

Channel	Frequency (MHz)	PSD Core 0 (dBm /MHz)	PSD Core 1 (dBm /MHz)	Combined PSD (dBm /MHz)	Limit (dBm/MHz)	Margin (dB)	Result
Bottom	5162	3.3	2.6	6.0	11.0	5.0	Complied
Middle	5203	3.2	2.2	5.7	11.0	5.3	Complied
Тор	5245	3.1	3.1	6.1	11.0	4.9	Complied

Transmitter Maximum Power Spectral Density (5.725-5.85 GHz band)

4.5.2 5.725-5.85 GHz band

Test Summary:

Test Engineer:	Raghavendra Katti	Test Dates:	04 April 2023 to 14 April 2023
Test Sample Serial Number:	VWKP4RK7L7		

FCC Reference:	Part 15.407(a)(3)(i)
Test Method Used:	KDB 789033 D02 Section II.F. referencing II.E.2.b) and II.E.2.d)

Environmental Conditions:

Temperature (°C):	21 to 24
Relative Humidity (%):	37 to 40

Note(s):

- 1. Transmitter Maximum Power Spectral Density tests in all bands were performed using a signal analyser in accordance with KDB 789033 II. F referencing II.E.2.b) Method SA-1 and II.E.2.d) Method SA-2.
- 2. For DH5 where the EUT was transmitting at <98% duty cycle, the calculated duty cycle in Section 4.1 was added to the measured maximum power spectral density in order to compute the average maximum power spectral density during the actual transmission time.
- 3. FCC Part 15.407(a)(3)(i) limit for PSD in the 5.725-5.85 GHz operating band is <30 dBm/500 kHz.
- 4. In accordance with ANSI C63.10 Section 4.1.4.1, use of bandwidths greater than those specified can produce higher readings. Compliance against the applicable limits is shown using a 1 MHz resolution bandwidth. This was deemed worst case.
- 5. For Beamforming modes, PSD was measured on both ports and then combined using the *measure and* sum spectral maxima across the outputs technique, stated in FCC KDB 662911 D01 Section E)2)b).
- 6. For details on antenna gains refer to Section 3.4 of this test report.
- 7. For all modes of operation, the antenna gain is < 6 dBi.
- 8. The signal analyser was connected to the RF port on the EUT using suitable attenuation and RF cable. An RF level offset was entered on the signal analyser to compensate for the loss of the attenuator and RF cable.
- 9. As the power spectral density test uses the same test method as the output power test, before the power is integrated across the 26 dB bandwidth, the conducted power spectral density plots are located in the conducted output power section 4.4 of this test report. The peak spectral density was measured by placing a marker on the peak of the signal and the results entered in the tables below.

Transmitter Maximum Power Spectral Density (5.725-5.85 GHz band) (continued)

Results: DH5 / SISO / Core 0 / iPA

Channel	Frequency (MHz)	PSD (dBm / 1 MHz)	Duty cycle correction factor (dB)	Corrected PSD (dBm / 1 MHz)	Limit (dBm / 500 kHz)	Margin (dB)	Result
Bottom	5733	10.1	1.1	11.2	30.0	18.8	Complied
Middle	5788	10.2	1.1	11.3	30.0	18.7	Complied
Тор	5844	10.4	1.1	11.5	30.0	18.5	Complied

Results: 4DH5 / SISO / Core 0 / iPA

Channel	Frequency (MHz)	PSD (dBm / 1 MHz)	Limit (dBm / 500 kHz)	Margin (dB)	Result
Bottom	5733	1.7	30.0	28.3	Complied
Middle	5788	1.8	30.0	28.2	Complied
Тор	5844	1.7	30.0	28.3	Complied

Results: 4DH5 / SISO / Core 0 / ePA

Channel	Frequency (MHz)	PSD (dBm / 1 MHz)	Limit (dBm / 500 kHz)	Margin (dB)	Result
Bottom	5733	12.0	30.0	18.0	Complied
Middle	5788	12.0	30.0	18.0	Complied
Тор	5844	12.4	30.0	17.6	Complied

Results: 8DH5 / SISO / Core 0 / iPA

Channel	Frequency (MHz)	PSD (dBm / 1 MHz)	Limit (dBm / 500 kHz)	Margin (dB)	Result
Bottom	5733	-1.7	30.0	31.7	Complied
Middle	5788	-1.2	30.0	31.2	Complied
Тор	5844	-1.5	30.0	31.5	Complied

Results: 8DH5 / SISO / Core 0 / ePA

Channel	Frequency (MHz)	PSD (dBm / 1 MHz)	Limit (dBm / 500 kHz)	Margin (dB)	Result
Bottom	5733	8.0	30.0	22.0	Complied
Middle	5788	8.0	30.0	22.0	Complied
Тор	5844	7.9	30.0	22.1	Complied

<u>Transmitter Maximum Power Spectral Density (5.725-5.85 GHz band) (continued)</u>

Results: DH5 / SISO / Core 1 / iPA

Channel	Frequency (MHz)	PSD (dBm / 1 MHz)	Duty cycle correction factor (dB)	Corrected PSD (dBm / 1 MHz)	Limit (dBm / 500 kHz)	Margin (dB)	Result
Bottom	5733	10.3	1.1	11.4	30.0	18.6	Complied
Middle	5788	10.2	1.1	11.3	30.0	18.7	Complied
Тор	5844	10.3	1.1	11.4	30.0	18.6	Complied

Results: 4DH5 / SISO / Core 1 / iPA

Channel	Frequency (MHz)	PSD (dBm / 1 MHz)	Limit (dBm / 500 kHz)	Margin (dB)	Result
Bottom	5733	1.6	30.0	28.4	Complied
Middle	5788	1.9	30.0	28.1	Complied
Тор	5844	1.9	30.0	28.1	Complied

Results: 4DH5 / SISO / Core 1 / ePA

Channel	Frequency (MHz)	PSD (dBm / 1 MHz)	Limit (dBm / 500 kHz)	Margin (dB)	Result
Bottom	5733	12.3	30.0	17.7	Complied
Middle	5788	12.5	30.0	17.5	Complied
Тор	5844	12.2	30.0	17.8	Complied

Results: 8DH5 / SISO / Core 1 / iPA

Channel	Frequency (MHz)	PSD (dBm / 1 MHz)	Limit (dBm / 500 kHz)	Margin (dB)	Result
Bottom	5733	-1.0	30.0	31.0	Complied
Middle	5788	-1.0	30.0	31.0	Complied
Тор	5844	-1.1	30.0	31.1	Complied

Results: 8DH5 / SISO / Core 1 / ePA

Channel	Frequency (MHz)	PSD (dBm / 1 MHz)	Limit (dBm / 500 kHz)	Margin (dB)	Result
Bottom	5733	7.7	30.0	22.3	Complied
Middle	5788	7.7	30.0	22.3	Complied
Тор	5844	8.0	30.0	22.0	Complied

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<u>Transmitter Maximum Power Spectral Density (5.725-5.85 GHz band) (continued)</u>

Results: DH5 / Beamforming / Core 0 + Core 1 / iPA

			Core 0			Core 1	
Channel	Frequency (MHz)	PSD (dBm / 1 MHz)	Duty Cycle correction factor (dB)	Corrected PSD (dBm / 1 MHz)	PSD (dBm / 1 MHz)	Duty Cycle correction factor (dB)	Corrected PSD (dBm / 1 MHz)
Bottom	5733	10.4	1.1	11.5	10.4	1.1	11.5
Middle	5788	10.1	1.1	11.2	10.4	1.1	11.5
Тор	5844	10.3	1.1	11.4	10.5	1.1	11.6

Channel	Frequency (MHz)	Corrected PSD Core 0 (dBm / 1 MHz)	Corrected PSD Core 1 (dBm / 1 MHz)	PSD (dBm / 1 MHz)	Limit (dBm / 500 kHz)	Margin (dB)	Result
Bottom	5733	11.5	11.5	14.5	30.0	15.5	Complied
Middle	5788	11.2	11.5	14.4	30.0	15.6	Complied
Тор	5844	11.4	11.6	14.5	30.0	15.5	Complied

Results: 4DH5 / Beamforming / Core 0 + Core 1 / iPA

Channel	Frequency (MHz)	PSD Core 0 (dBm / 1 MHz)	PSD Core 1 (dBm / 1 MHz)	Combined PSD (dBm / 1 MHz)	Limit (dBm / 500 kHz)	Margin (dB)	Result
Bottom	5733	1.9	1.7	4.8	30.0	25.2	Complied
Middle	5788	1.7	1.9	4.8	30.0	25.2	Complied
Тор	5844	1.7	2.0	4.9	30.0	25.1	Complied

Results: 4DH5 / Beamforming / Core 0 + Core 1 / ePA

Channel	Frequency (MHz)	PSD Core 0 (dBm / 1 MHz)	PSD Core 1 (dBm / 1 MHz)	Combined PSD (dBm / 1 MHz)	Limit (dBm / 500 kHz)	Margin (dB)	Result
Bottom	5733	12.1	12.0	15.1	30.0	14.9	Complied
Middle	5788	12.3	12.1	15.2	30.0	14.8	Complied
Тор	5844	12.3	12.2	15.3	30.0	14.7	Complied

Transmitter Maximum Power Spectral Density (5.725-5.85 GHz band) (continued)

Results: 8DH5 / Beamforming / Core 0 + Core 1 / iPA

Channel	Frequency (MHz)	PSD Core 0 (dBm / 1 MHz)	PSD Core 1 (dBm / 1 MHz)	Combined PSD (dBm / 1 MHz)	Limit (dBm / 500 kHz)	Margin (dB)	Result
Bottom	5733	-1.4	-1.4	1.6	30.0	28.4	Complied
Middle	5788	-1.0	-1.1	2.0	30.0	28.0	Complied
Тор	5844	-1.2	-1.1	1.9	30.0	28.1	Complied

Results: 8DH5 / Beamforming / Core 0 + Core 1 / ePA

Channel	Frequency (MHz)	PSD Core 0 (dBm / 1 MHz)	PSD Core 1 (dBm / 1 MHz)	Combined PSD (dBm / 1 MHz)	Limit (dBm / 500 kHz)	Margin (dB)	Result
Bottom	5733	8.1	7.9	11.0	30.0	19.0	Complied
Middle	5788	7.9	7.9	10.9	30.0	19.1	Complied
Тор	5844	7.7	7.8	10.8	30.0	19.2	Complied

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5 Radiated Test Results

5.1 Transmitter Out of Band Radiated Emissions <1 GHz

5.1.1 5.15-5.25 GHz band

Test Summary:

Test Engineer:	Andrew Harding	Test Date:	09 March 2023
Test Sample Serial Number:	WGCDCC9QNK		

FCC Reference: Parts 15.407(b)(1),(9),(10) & 15.209(a)	
Test Method Used:	KDB 789033 II.G. & ANSI C63.10 Sections 6.3, 6.4 and 6.5
Frequency Range:	9 kHz to 1000 MHz

Environmental Conditions:

Temperature (°C):	19
Relative Humidity (%):	35 to 37

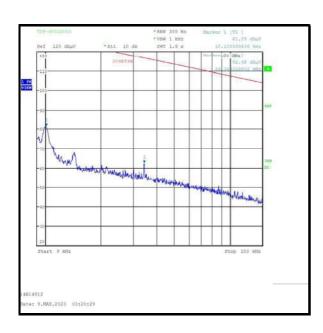
Note(s):

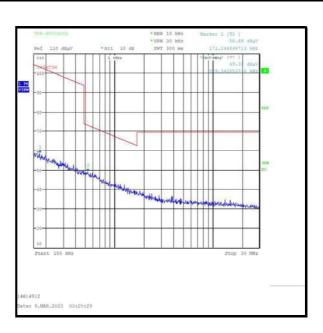
- 1. The final measured value, for the given emission in the field strength result tables, incorporates the calibrated antenna factor and cable loss.
- 2. All emissions shown on the pre-scan plots were investigated and found to be ambient, or >20 dB below the applicable limit or below the measurement system noise floor. Therefore the highest peak noise floor reading of the measuring receiver was recorded in the table below.
- 3. Measurements below 30 MHz were performed in a semi-anechoic chamber (Asset Number K0001) at 3 metres. The EUT was placed at a height of 80 cm above the reference ground plane in the centre of the chamber turntable. The limit was extrapolated to 3 metres in accordance with ANSI C63.10 clause 6.4.3 using the method described in clause 6.4.4.2. ANSI C63.10 clause 5.2 states an alternative test site that can demonstrate equivalence to an open area test site may be used for measurements below 30 MHz. Therefore, measurements were performed in a semi-anechoic chamber. The correlation data between semi-anechoic chamber and an open field test site is available upon request.
- 4. 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.
- 5. Pre-scans were performed and markers placed on the highest measured levels. The test receiver was configured as follows: For 9 kHz to 150 kHz, the resolution bandwidth was set to 300 Hz and video bandwidth 1 kHz. A peak detector was used and trace mode was Max Hold. For 150 kHz to 30 MHz, the resolution bandwidth was set to 10 kHz and video bandwidth 30 kHz, trace mode was Max Hold. For 30 MHz to 1 GHz, the resolution bandwidth was set to 120 kHz and video bandwidth 500 kHz. A peak detector was used, sweep time was set to auto and trace mode was Max Hold.

Transmitter Out of Band Radiated Emissions <1 GHz (continued)

Results: Peak / Middle Channel / 4DH5 / Beamforming / Core 0 + Core 1 / ePA

Frequency	Antenna	Level	Limit	Margin	Result
(MHz)	Polarity	(dBμV/m)	(dBμV/m)	(dB)	
956.040	Vertical	38.1	46.0	7.9	Complied







Transmitter Out of Band Radiated Emissions <1 GHz (continued)

5.1.2 5.725-5.85 GHz band

Test Summary:

Test Engineer:	Andrew Harding	Test Date:	09 March 2023
Test Sample Serial Number:	WGCDCC9QNK		

FCC Reference: Parts 15.407(b)(1),(6),(7) & 15.209(a)	
Test Method Used: KDB 789033 II.G. & ANSI C63.10 Sections 6.3, 6.4 and 6.5	
Frequency Range:	9 kHz to 1000 MHz

Environmental Conditions:

Temperature (°C):	19
Relative Humidity (%):	35 to 37

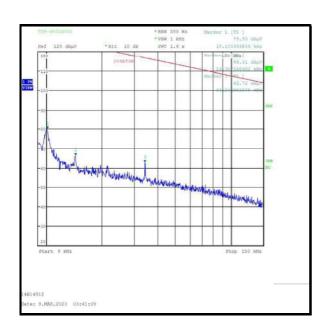
Note(s):

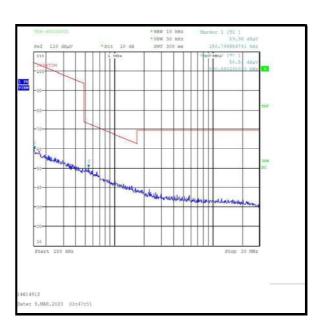
- 1. The final measured value, for the given emission in the field strength result tables, incorporates the calibrated antenna factor and cable loss.
- 2. All emissions shown on the pre-scan plots were investigated and found to be ambient, or >20 dB below the applicable limit or below the measurement system noise floor. Therefore the highest peak noise floor reading of the measuring receiver was recorded in the table below.
- 3. Measurements below 30 MHz were performed in a semi-anechoic chamber (Asset Number K0001) at 3 metres. The EUT was placed at a height of 80 cm above the reference ground plane in the centre of the chamber turntable. The limit was extrapolated to 3 metres in accordance with ANSI C63.10 clause 6.4.3 using the method described in clause 6.4.4.2. ANSI C63.10 clause 5.2 states an alternative test site that can demonstrate equivalence to an open area test site may be used for measurements below 30 MHz. Therefore, measurements were performed in a semi-anechoic chamber. The correlation data between semi-anechoic chamber and an open field test site is available upon request.
- 4. 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.
- 5. Pre-scans were performed and markers placed on the highest measured levels. The test receiver was configured as follows: For 9 kHz to 150 kHz, the resolution bandwidth was set to 300 Hz and video bandwidth 1 kHz. A peak detector was used and trace mode was Max Hold. For 150 kHz to 30 MHz, the resolution bandwidth was set to 10 kHz and video bandwidth 30 kHz, trace mode was Max Hold. For 30 MHz to 1 GHz, the resolution bandwidth was set to 120 kHz and video bandwidth 500 kHz. A peak detector was used, sweep time was set to auto and trace mode was Max Hold.

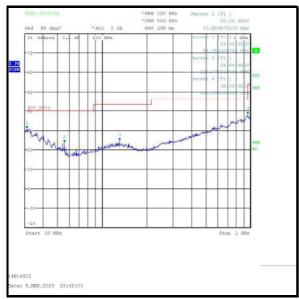
Transmitter Out of Band Radiated Emissions <1 GHz (continued)

Results: Peak / Middle Channel / 4DH5 / Beamforming / Core 0 + Core 1 / ePA

Frequency	Antenna	Level	Limit	Margin	Result
(MHz)	Polarity	(dBμV/m)	(dBμV/m)	(dB)	
960.000	Vertical	38.1	46.0	7.9	Complied







5.2 Transmitter Out of Band Radiated Emissions >1 GHz

5.2.1 5.15-5.25 GHz band

Test Summary:

Test Engineer:	Andrew Harding	Test Dates:	07 March 2023 to 10 March 2023
Test Sample Serial Number:	WGCDCC9QNK		

FCC Reference:	Part 15.407(b)(1),(10) & 15.209(a)	
Test Method Used:	KDB 789033 II.G. & ANSI C63.10 Sections 6.3 and 6.6	
Frequency Range:	1 GHz to 40 GHz	

Environmental Conditions:

Temperature (°C):	19 to 20
Relative Humidity (%):	35 to 40

Note(s):

- 1. FCC Part 15.407(b)(1) states for transmitters operating in the band 5.15 to 5.25 GHz: all emissions outside of the 5.15 to 5.35 GHz band will not exceed -27 dBm/MHz. Part(b)(10) states the provisions of 15.205 apply e.g. restricted bands of operation.
- 2. The final measured value, for the given emission in the field strength result tables, incorporates the calibrated antenna factor and cable loss.
- 3. All emissions shown on the pre-scan plots were investigated and found to be ambient, or 20 dB below the applicable limit or below the measurement system noise floor. Therefore the highest peak and average noise floor readings of the measuring receiver were recorded in the table below.
- 4. Appropriate RF filters and attenuators were used during pre-scans and final measurements. Insertion losses were entered on the spectrum analyser as RF levels offsets.
- 5. The emission shown on the 1 GHz to 6 GHz plot at approximately 5203 MHz is the EUT fundamental.
- 6. Measurements were performed across the two restricted bands (4.5 to 5.15 GHz & 5.35 to 5.46 GHz) closest to the band of operation with the EUT transmitting on the bottom channel in the 5.15 to 5.25 GHz band. 4.5 to 5.15 GHz plot is included in this section of the test report. For the EUT transmitting on the top channel in the 5.15 to 5.25 GHz band, these plots were included as part of upper band edge measurements and can be in "Transmitting Band Edge Radiated Emission 5.15 to 5.25 GHz band" section of this test report. Plots are included in this section of the test report Peak and average measurements were made.
- 7. Pre-scans 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 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. 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.
- 8. Pre-scans were performed and a marker placed on the highest measured level of the appropriate plot. The test receiver resolution bandwidth was set to 1 MHz and video bandwidth 3 MHz. The sweep time was set to auto. Peak and average measurements were performed with their own appropriate detectors during the pre-scan measurements.

<u>Transmitter Out of Band Radiated Emissions (5.15-5.25 GHz band operation) (continued)</u> Results: Middle Channel / Field Strength / Peak

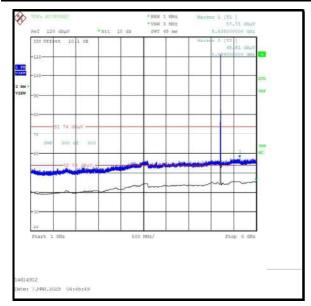
Frequency (MHz)	Antenna Polarity	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5039.500	Vertical	57.9	74.0	16.1	Complied

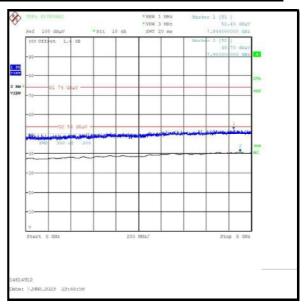
Results: Middle Channel / Field Strength / Average

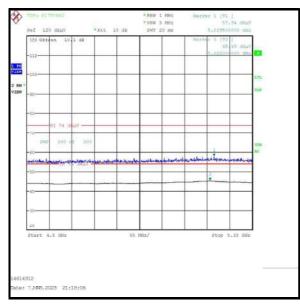
Frequency (MHz)	Antenna Polarity	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5028.000	Vertical	45.5	54.0	8.5	Complied

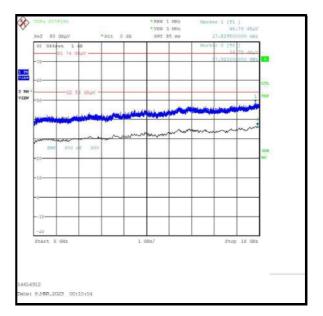
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Transmitter Out of Band Radiated Emissions (5.15-5.25 GHz band operation) (continued)



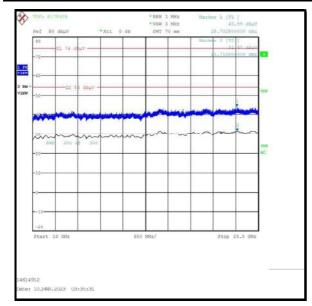


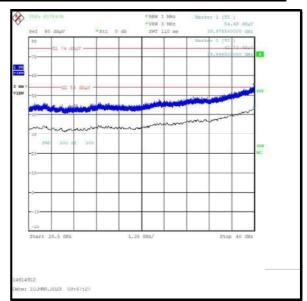




Restricted Band 4.5 GHz to 5.15 GHz

Transmitter Out of Band Radiated Emissions (5.15-5.25 GHz band operation) (continued)





Transmitter Out of Band Radiated Emissions >1 GHz (continued)

5.2.2 5.725-5.85 GHz band

Test Summary:

Test Engineer:	Andrew Harding	Test Dates:	07 March 2023 to 10 March 2023
Test Sample Serial Number:	WGCDCC9QNK		

FCC Reference:	Part 15.407(b)(4)(i),(10) & 15.209(a)
Test Method Used:	KDB 789033 II.G. & ANSI C63.10 Sections 6.3 and 6.6
Frequency Range:	1 GHz to 40 GHz

Environmental Conditions:

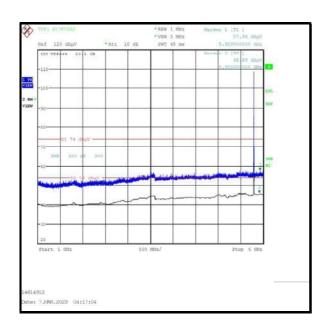
Temperature (°C):	19 to 20
Relative Humidity (%):	35 to 40

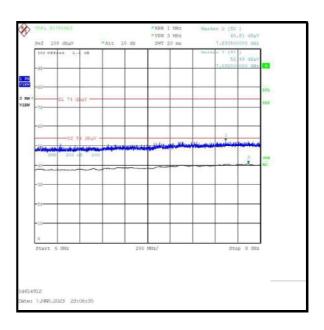
Note(s):

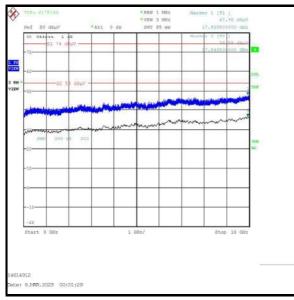
- 1. FCC Part 15.407(b)(4)(i) states for transmitters operating in the band 5.725 to 5.85 GHz: all emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge. Part(b)(10) states the provisions of 15.205 apply e.g. restricted bands of operation.
- 2. The final measured value, for the given emission in the field strength result tables, incorporates the calibrated antenna factor and cable loss.
- 3. Appropriate RF filters and attenuators were used during pre-scans and final measurements. Insertion losses were entered on the spectrum analyser as RF levels offsets.
- 4. All emissions shown on the pre-scan plots were investigated and found to be ambient, or 20 dB below the applicable limit or below the measurement system noise floor. Therefore the highest peak and average noise floor readings of the measuring receiver were recorded in the table below.
- 5. The emission shown on the 1 GHz to 6 GHz plot at approximately 5788 MHz is the EUT fundamental.
- 6. Pre-scans 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 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. 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.
- 7. Pre-scans were performed and a marker placed on the highest measured level of the appropriate plot. The test receiver resolution bandwidth was set to 1 MHz and video bandwidth 3 MHz. The sweep time was set to auto. Peak and average measurements were performed with their own appropriate detectors during the pre-scan measurements.

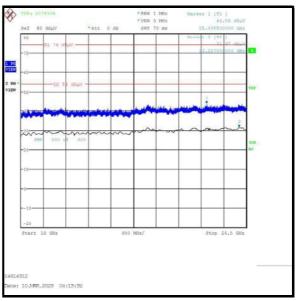
<u>Transmitter Out of Band Radiated Emissions (5.725-5.85 GHz band operation) (continued)</u> <u>Results: Middle Channel / EIRP</u>

Frequency (MHz)	Antenna Polarity	Level (dBm)	Limit (dBm)	Margin (dB)	Result
5929.000	Vertical	-37.2	-27.0	10.2	Complied

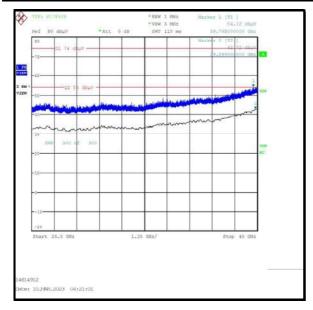








Transmitter Out of Band Radiated Emissions (5.725-5.85 GHz band operation) (continued)



5.3 Transmitter Band Edge Radiated Emissions

5.3.1 5.15-5.25 GHz band

Test Summary:

Test Engineers:	John Ferdinand, Andrew Harding & Vi Van	Test Dates:	24 February 2023 to 01 March 2023
Test Sample Serial Number:	WGCDCC9QNK		

FCC Reference:	Parts 15.407(b)(1),(10), 15.205 & 15.209(a)
Test Method Used:	ANSI C63.10 Section 6.10 & KDB 789033 II.G.

Environmental Conditions:

Temperature (°C):	20 to 22
Relative Humidity (%):	33 to 38

Note(s):

- 1. Lower band edge measurements were performed with the EUT transmitting on the bottom channel. Upper band edge measurements were performed with the EUT transmitting on the top channel.
- 2. In addition, the lower and upper band edges were performed with the EUT configured in hopping mode. It was set to hop across the 79 channels closest to the applicable band edge. These plots are archived on the UL IT server and available for inspection if required.
- 3. For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz. However, there are restricted bands of operation below the lower band edge at 4.5-5.15 GHz and also above the upper band edge at 5.35-5.46 GHz therefore the provisions of FCC Part 15.205 apply. Tests for at 4.5-5.15 GHz restricted band were performed and are included in section 5.2.1 of this test report.
- 4. Field strength measurements using peak and average detectors were performed in the restricted bands below 5.15 GHz and above 5.35 GHz. Field strength and EIRP results were found to be compliant with the restricted band limits and Part 15.407 out-of-band limits.

<u>Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)</u>

Results: Static / DH5 / SISO / Core 0 / iPA

Results: Lower Band Edge / Peak

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5138.600	57.5	74.0	16.5	Complied
5150	56.2	74.0	17.8	Complied

Results: Upper Band Edge / Peak

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	56.3	74.0	17.7	Complied
5362.980	59.0	74.0	15.0	Complied

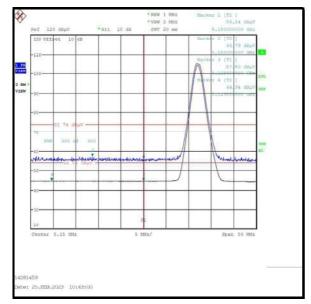
Results: Lower Band Edge / Average

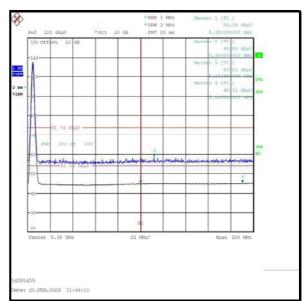
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5129.550	44.9	54.0	9.1	Complied
5150	44.8	54.0	9.2	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	45.0	54.0	9.0	Complied
5449.440	45.3	54.0	8.7	Complied

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued) Results: Static / DH5 / SISO / Core 0 / iPA





Lower Band Edge

Upper Band Edge

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)

Results: Static / 4DH5 / SISO / Core 0 / iPA

Results: Lower Band Edge / Peak

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5140.600	57.8	74.0	16.2	Complied
5150	55.4	74.0	18.6	Complied

Results: Upper Band Edge / Peak

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	55.7	74.0	18.3	Complied
5416.880	57.7	74.0	16.3	Complied

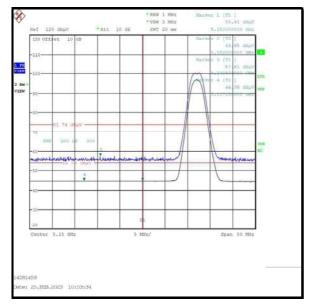
Results: Lower Band Edge / Average

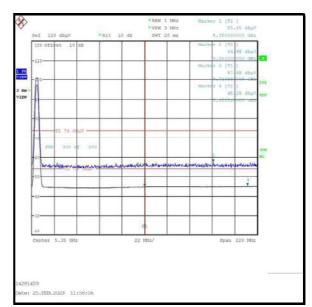
Frequency (MHz)	Level (dBµV/m)	Limit (dBμV/m)	Margin (dB)	Result
5137.050	45.0	54.0	9.0	Complied
5150	44.9	54.0	9.1	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	45.0	54.0	9.0	Complied
5450.540	45.3	54.0	8.7	Complied

<u>Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)</u> <u>Results: Static / 4DH5 / SISO / Core 0 / iPA</u>





Lower Band Edge

Upper Band Edge

<u>Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)</u>

Results: Static / 4DH5 / SISO / Core 0 / ePA

Results: Lower Band Edge / Peak

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5142.000	59.5	74.0	14.5	Complied
5150	58.1	74.0	15.9	Complied

Results: Upper Band Edge / Peak

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	56.7	74.0	17.3	Complied
5453.840	59.1	74.0	14.9	Complied

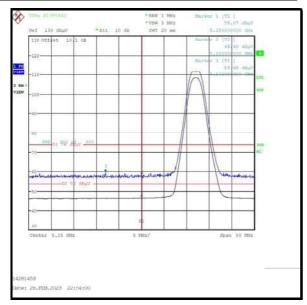
Results: Lower Band Edge / Average

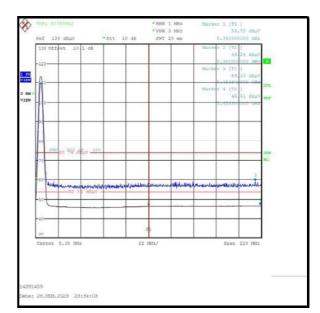
Frequency	Level	Limit	Margin	Result
(MHz)	(dBμV/m)	(dBμV/m)	(dB)	
5150	46.4	54.0	7.6	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	46.2	54.0	7.8	Complied
5458.900	46.6	54.0	7.4	Complied

<u>Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)</u> Results: Static / 4DH5 / SISO / Core 0 / ePA





Lower Band Edge

Upper Band Edge

<u>Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)</u>

Results: Static / 8DH5 / SISO / Core 0 / iPA

Results: Lower Band Edge / Peak

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5140.700	57.8	74.0	16.2	Complied
5150	56.3	74.0	17.7	Complied

Results: Upper Band Edge / Peak

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	56.0	74.0	18.0	Complied
5423.480	57.9	74.0	16.1	Complied

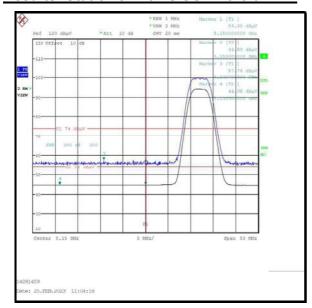
Results: Lower Band Edge / Average

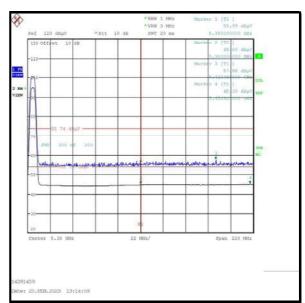
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5130.900	45.0	54.0	9.0	Complied
5150	44.9	54.0	9.1	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	45.0	54.0	9.0	Complied
5456.920	45.3	54.0	8.7	Complied

<u>Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)</u> <u>Results: Static / 8DH5 / SISO / Core 0 / iPA</u>





Lower Band Edge

Upper Band Edge

<u>Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)</u>

Results: Static / 8DH5 / SISO / Core 0 / ePA

Results: Lower Band Edge / Peak

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5128.950	59.1	74.0	14.9	Complied
5150	57.1	74.0	16.9	Complied

Results: Upper Band Edge / Peak

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	56.8	74.0	17.2	Complied
5363.850	59.4	74.0	14.6	Complied

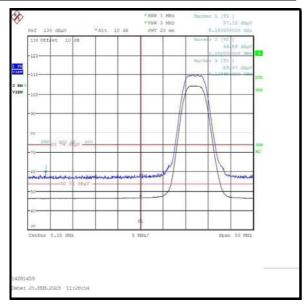
Results: Lower Band Edge / Average

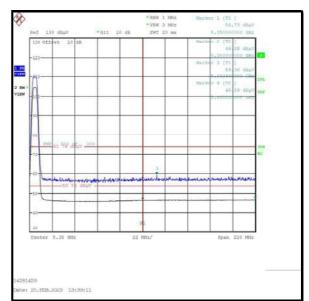
Frequency	Level	Limit	Margin	Result
(MHz)	(dBμV/m)	(dBμV/m)	(dB)	
5150	46.6	54.0	7.4	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dΒμV/m)	Margin (dB)	Result
5350	46.3	54.0	7.7	Complied
5460.000	46.7	54.0	7.3	Complied

<u>Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)</u> Results: Static / 8DH5 / SISO / Core 0 / ePA





Lower Band Edge

Upper Band Edge

<u>Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)</u>

Results: Static / DH5 / SISO / Core 1 / iPA

Results: Lower Band Edge / Peak

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5134.950	57.8	74.0	16.2	Complied
5150	55.8	74.0	18.2	Complied

Results: Upper Band Edge / Peak

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	55.4	74.0	18.6	Complied
5436.680	58.3	74.0	15.7	Complied

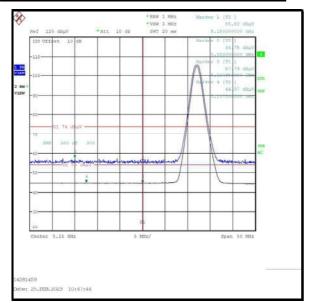
Results: Lower Band Edge / Average

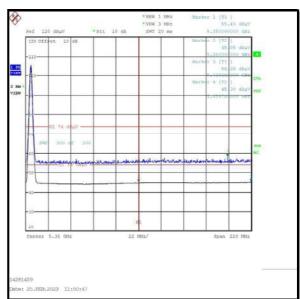
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5137.500	45.0	54.0	9.0	Complied
5150	44.8	54.0	9.2	Complied

Results: Upper Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	45.1	54.0	8.9	Complied
5459.780	45.3	54.0	8.7	Complied

<u>Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)</u> <u>Results: Static / DH5 / SISO / Core 1 / iPA</u>





Lower Band Edge

Upper Band Edge

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)

Results: Static / 4DH5 / SISO / Core 1 / iPA

Results: Lower Band Edge / Peak

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5128.250	57.6	74.0	16.4	Complied
5150	55.5	74.0	18.5	Complied

Results: Upper Band Edge / Peak

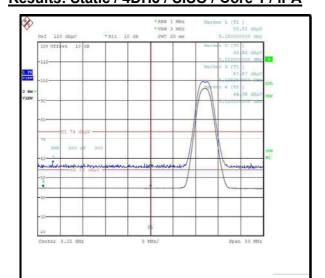
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	56.3	74.0	17.7	Complied
5456.700	58.0	74.0	16.0	Complied

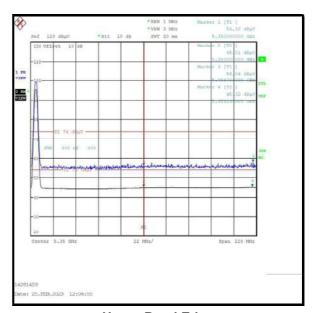
Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5126.100	45.0	54.0	9.0	Complied
5150	44.8	54.0	9.2	Complied

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	45.0	54.0	9.0	Complied
5456.260	45.3	54.0	8.7	Complied

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Lower Band Edge

Upper Band Edge

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)

Results: Static / 4DH5 / SISO / Core 1 / ePA

Results: Lower Band Edge / Peak

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5148.400	59.3	74.0	14.7	Complied
5150	57.2	74.0	16.8	Complied

Results: Upper Band Edge / Peak

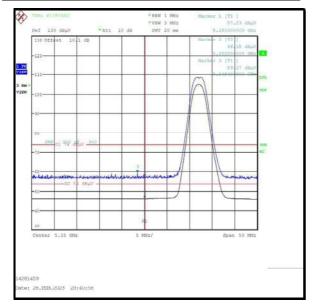
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	56.5	74.0	17.5	Complied
5432.500	58.8	74.0	15.2	Complied

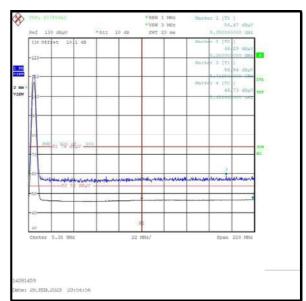
Results: Lower Band Edge / Average

Frequency	Level	Limit	Margin	Result
(MHz)	(dBμV/m)	(dBμV/m)	(dB)	
5150	46.2	54.0	7.8	Complied

Frequency (MHz)	Level (dBμV/m)	Limit (dΒμV/m)	Margin (dB)	Result
5350	46.3	54.0	7.7	Complied
5458.460	46.7	54.0	7.3	Complied

<u>Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)</u> Results: Static / 4DH5 / SISO / Core 1 / ePA





Lower Band Edge

Upper Band Edge

<u>Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)</u>

Results: Static / 8DH5 / SISO / Core 1 / iPA

Results: Lower Band Edge / Peak

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5134.450	57.8	74.0	16.2	Complied
5150	55.4	74.0	18.6	Complied

Results: Upper Band Edge / Peak

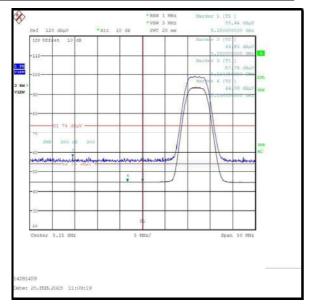
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	55.2	74.0	18.8	Complied
5368.700	57.9	74.0	16.1	Complied

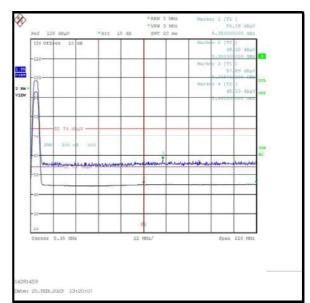
Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5146.650	45.0	54.0	9.0	Complied
5150	44.8	54.0	9.2	Complied

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	45.1	54.0	8.9	Complied
5460.000	45.3	54.0	8.7	Complied

<u>Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)</u> <u>Results: Static / 8DH5 / SISO / Core 1 / iPA</u>





Lower Band Edge

Upper Band Edge

<u>Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)</u>

Results: Static / 8DH5 / SISO / Core 1 / ePA

Results: Lower Band Edge / Peak

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5131.450	58.6	74.0	15.4	Complied
5150	56.4	74.0	17.6	Complied

Results: Upper Band Edge / Peak

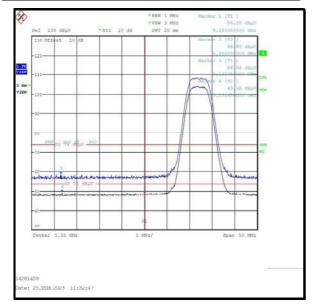
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	56.4	74.0	17.6	Complied
5367.820	58.6	74.0	15.4	Complied

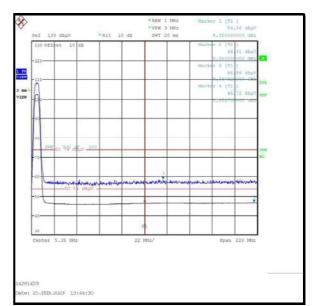
Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5131.650	49.4	54.0	4.6	Complied
5150	48.8	54.0	5.2	Complied

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	46.3	54.0	7.7	Complied
5456.700	46.7	54.0	7.3	Complied

<u>Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)</u> Results: Static / 8DH5 / SISO / Core 1 / ePA





Lower Band Edge

Upper Band Edge

<u>Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)</u>

Results: Static / DH5 / Beamforming / Core 0 + Core 1 / iPA

Results: Lower Band Edge / Peak

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5140.224	57.7	74.0	16.3	Complied
5150	55.4	74.0	18.6	Complied

Results: Upper Band Edge / Peak

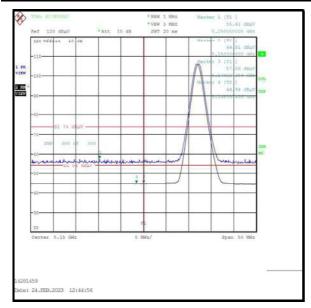
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	55.6	74.0	18.4	Complied
5366.571	57.1	74.0	16.9	Complied

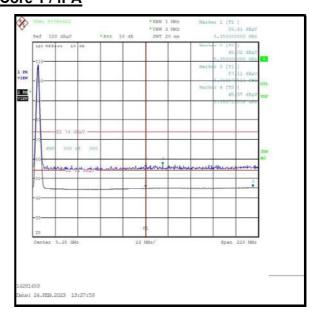
Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5148.397	44.9	54.0	9.1	Complied
5150	44.8	54.0	9.2	Complied

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	45.0	54.0	9.0	Complied
5457.115	45.4	54.0	8.6	Complied

<u>Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)</u> <u>Results: Static / DH5 / Beamforming / Core 0 + Core 1 / iPA</u>





Lower Band Edge

Upper Band Edge

<u>Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)</u>

Results: Static / 4DH5 / Beamforming / Core 0 + Core 1 / iPA

Results: Lower Band Edge / Peak

Frequency (MHz)	Level (dBμV/m)	Limit (dΒμV/m)	Margin (dB)	Result
5126.202	57.5	74.0	16.5	Complied
5150	55.3	74.0	18.7	Complied

Results: Upper Band Edge / Peak

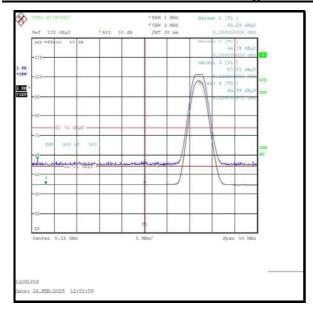
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	56.0	74.0	18.0	Complied
5399.712	58.0	74.0	16.0	Complied

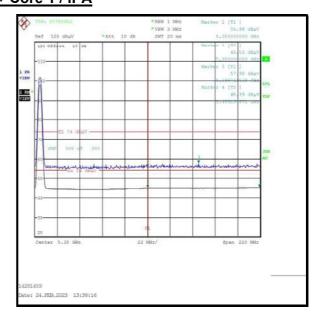
Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5128.045	45.0	54.0	9.0	Complied
5150	44.8	54.0	9.2	Complied

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	45.0	54.0	9.0	Complied
5459.295	45.4	54.0	8.6	Complied

<u>Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)</u> Results: Static / 4DH5 / Beamforming / Core 0 + Core 1 / iPA





Lower Band Edge

Upper Band Edge

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)

Results: Static / 4DH5 / Beamforming / Core 0 + Core 1 / ePA

Results: Lower Band Edge / Peak

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5138.750	59.5	74.0	14.5	Complied
5150	58.3	74.0	15.7	Complied

Results: Upper Band Edge / Peak

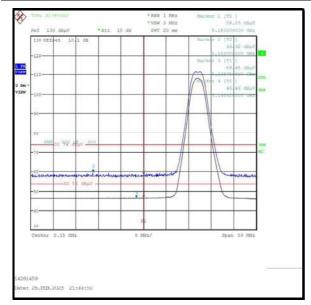
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	56.6	74.0	17.4	Complied
5425.460	59.2	74.0	14.8	Complied

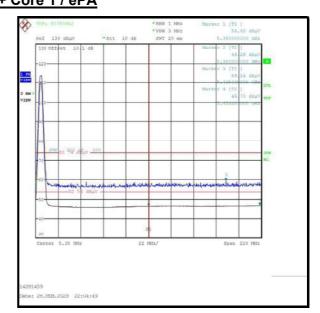
Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5148.400	46.5	54.0	7.5	Complied
5150	46.4	54.0	7.6	Complied

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	46.3	54.0	7.7	Complied
5458.680	46.7	54.0	7.3	Complied

<u>Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)</u> Results: Static / 4DH5 / Beamforming / Core 0 + Core 1 / ePA





Lower Band Edge

Upper Band Edge

<u>Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)</u>

Results: Static / 8DH5 / Beamforming / Core 0 + Core 1 / iPA

Results: Lower Band Edge / Peak

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5128.446	58.0	74.0	16.0	Complied
5150	56.3	74.0	17.7	Complied

Results: Upper Band Edge / Peak

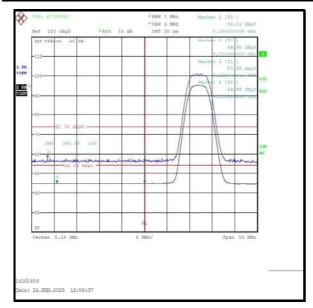
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	55.8	74.0	18.2	Complied
5424.038	57.9	74.0	16.1	Complied

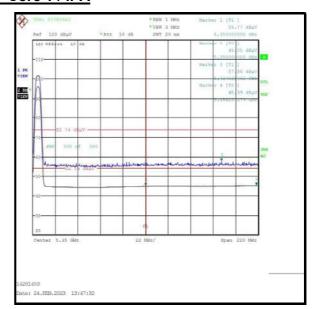
Results: Lower Band Edge / Average

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5130.529	45.0	54.0	9.0	Complied
5150	44.9	54.0	9.1	Complied

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	45.1	54.0	8.9	Complied
5458.237	45.4	54.0	8.6	Complied

<u>Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)</u> Results: Static / 8DH5 / Beamforming / Core 0 + Core 1 / iPA





Lower Band Edge

Upper Band Edge

<u>Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)</u>

Results: Static / 8DH5 / Beamforming / Core 0 + Core 1 / ePA

Results: Lower Band Edge / Peak

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5141.506	59.3	74.0	14.7	Complied
5150	58.3	74.0	15.7	Complied

Results: Upper Band Edge / Peak

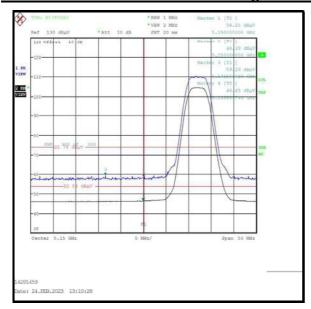
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5350	56.9	74.0	17.1	Complied
5372.917	59.5	74.0	14.5	Complied

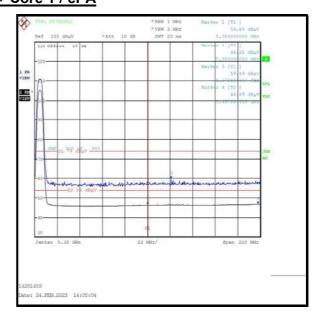
Results: Lower Band Edge / Average

Frequency	Level	Limit	Margin	Result
(MHz)	(dBμV/m)	(dBμV/m)	(dB)	
5150	46.4	54.0	7.6	Complied

Frequency (MHz)	Level (dBμV/m)	Limit (dΒμV/m)	Margin (dB)	Result
5350	46.3	54.0	7.7	Complied
5457.885	46.7	54.0	7.3	Complied

<u>Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz band operation) (continued)</u> Results: Static / 8DH5 / Beamforming / Core 0 + Core 1 / ePA





Lower Band Edge

Upper Band Edge

Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band)

5.3.2 5.725-5.85 GHz band

Test Summary:

Test Engineers:	John Ferdinand, Andrew Harding & Vi Van	Test Dates:	24 February 2023 to 01 March 2023
Test Sample Serial Number:	WGCDCC9QNK		

FCC Reference:	Parts 15.407(b)(4)(i),(10), 15.205 & 15.209(a)
Test Method Used:	ANSI C63.10 Section 6.10 & KDB 789033 II.G.

Environmental Conditions:

Temperature (°C):	20 to 22
Relative Humidity (%):	33 to 38

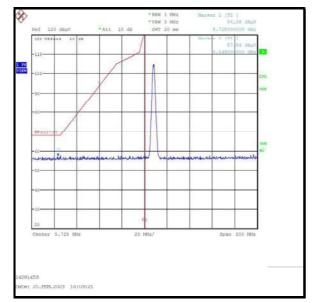
Note(s):

- 1. Lower band edge measurements were performed with the EUT transmitting on the bottom channel. Upper band edge measurements were performed with the EUT transmitting on the top channel.
- 2. For completeness, results are also shown as EIRP in dBm and also as field strength in dBµV/m. Measured field strength was converted to EIRP in accordance with KDB 789033 G.2.c)(iii) using a conversion factor of 95.2.

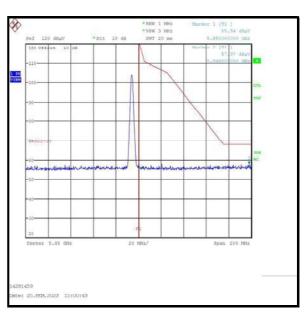
<u>Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)</u> <u>Results: Static / DH5 / SISO / Core 0 / iPA</u>

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5648.000	-37.6	-27.0	10.6	Complied
5725	-38.9	27.0	65.9	Complied
5850	-39.3	27.0	66.3	Complied
5948.000	-37.2	-27.0	10.2	Complied

Frequency (MHz)	Level (dBµV/m)	Limit (dBμV/m)	Margin (dB)	Result
5648.000	57.6	68.2	10.6	Complied
5725	56.3	122.2	65.9	Complied
5850	55.9	122.2	66.3	Complied
5948.000	58.0	68.2	10.2	Complied





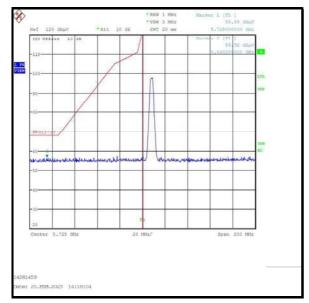


Upper Band Edge

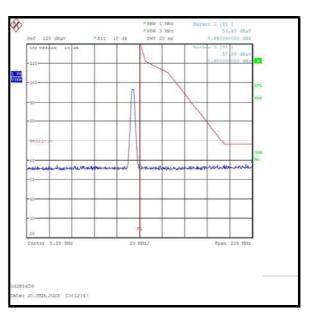
<u>Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)</u> Results: Static / 4DH5 / SISO / Core 0 / iPA

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5640.200	-38.3	-27.0	11.3	Complied
5725	-39.5	27.0	66.5	Complied
5850	-38.8	27.0	65.8	Complied
5950.000	-37.2	-27.0	10.2	Complied

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5640.200	56.9	68.2	11.3	Complied
5725	55.7	122.2	66.5	Complied
5850	56.4	122.2	65.8	Complied
5950.000	58.0	68.2	10.2	Complied





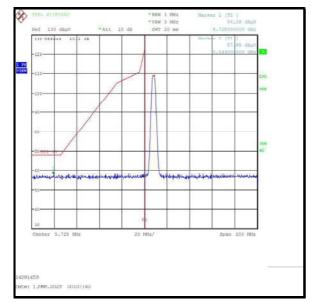


Upper Band Edge

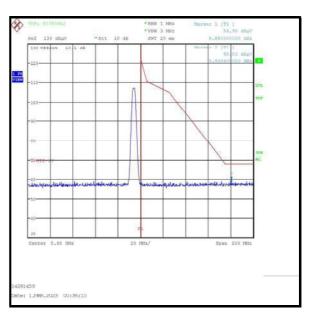
<u>Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)</u> Results: Static / 4DH5 / SISO / Core 0 / ePA

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5644.000	-37.3	-27.0	10.3	Complied
5725	-38.9	27.0	65.9	Complied
5850	-38.3	27.0	65.3	Complied
5930.600	-35.2	-27.0	8.2	Complied

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5644.000	57.9	68.2	10.3	Complied
5725	56.3	122.2	65.9	Complied
5850	56.9	122.2	65.3	Complied
5930.600	60.0	68.2	8.2	Complied





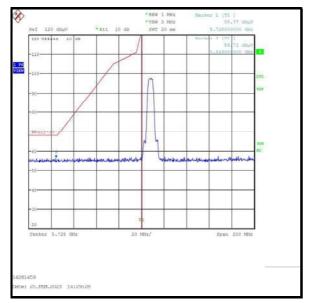


Upper Band Edge

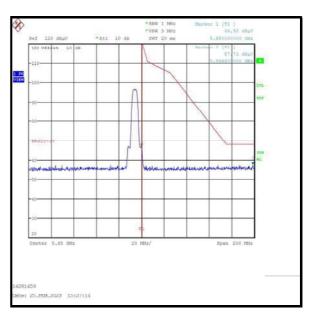
<u>Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)</u> <u>Results: Static / 8DH5 / SISO / Core 0 / iPA</u>

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5649.000	-38.5	-27.0	11.5	Complied
5725	-39.4	27.0	66.4	Complied
5850	-28.3	27.0	55.3	Complied
5948.600	-37.5	-27.0	10.5	Complied

Frequency (MHz)	Level (dBµV/m)	Limit (dBμV/m)	Margin (dB)	Result
5649.000	56.7	68.2	11.5	Complied
5725	55.8	122.2	66.4	Complied
5850	66.9	122.2	55.3	Complied
5948.600	57.7	68.2	10.5	Complied





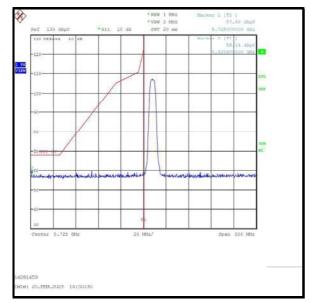


Upper Band Edge

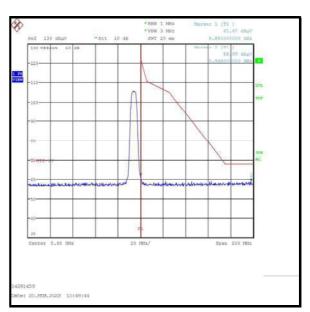
<u>Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)</u> <u>Results: Static / 8DH5 / SISO / Core 0 / ePA</u>

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5625.800	-37.1	-27.0	10.1	Complied
5725	-37.6	27.0	64.6	Complied
5850	-33.5	27.0	60.5	Complied
5948.000	-36.2	-27.0	9.2	Complied

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5625.800	58.1	68.2	10.1	Complied
5725	57.6	122.2	64.6	Complied
5850	61.7	122.2	60.5	Complied
5948.000	59.0	68.2	9.2	Complied





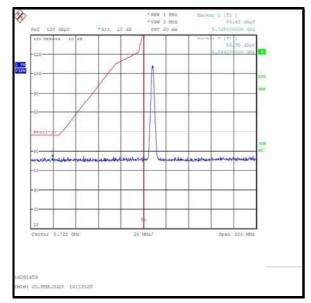


Upper Band Edge

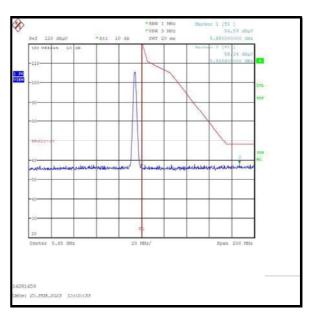
<u>Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)</u> Results: Static / DH5 / SISO / Core 1 / iPA

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5644.200	-38.2	-27.0	11.2	Complied
5725	-39.8	27.0	66.8	Complied
5850	-38.6	27.0	65.6	Complied
5936.800	-36.9	-27.0	9.9	Complied

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5644.200	57.0	68.2	11.2	Complied
5725	55.4	122.2	66.8	Complied
5850	56.6	122.2	65.6	Complied
5936.800	58.3	68.2	9.9	Complied





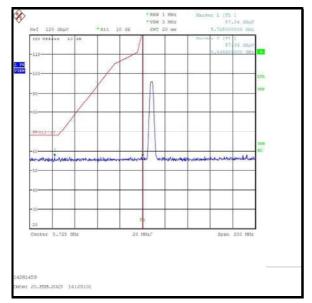


Upper Band Edge

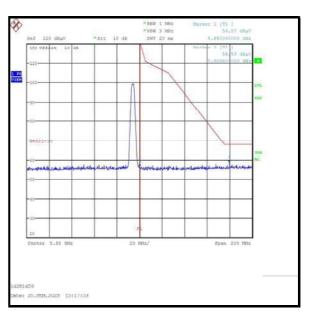
Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued) Results: Static / 4DH5 / SISO / Core 1 / iPA

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5646.800	-37.8	-27.0	10.8	Complied
5725	-38.1	27.0	65.1	Complied
5850	-38.6	27.0	65.6	Complied
5929.600	-36.6	-27.0	9.6	Complied

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5646.800	57.4	68.2	10.8	Complied
5725	57.1	122.2	65.1	Complied
5850	56.6	122.2	65.6	Complied
5929.600	58.6	68.2	9.6	Complied





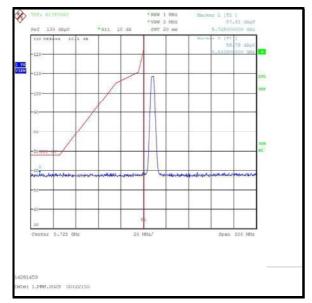


Upper Band Edge

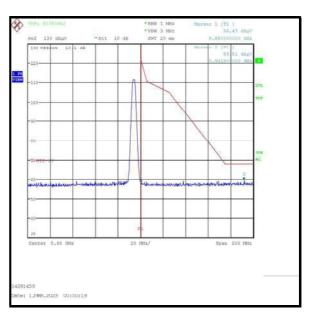
<u>Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)</u> Results: Static / 4DH5 / SISO / Core 1 / ePA

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5632.800	-36.4	-27.0	9.4	Complied
5725	-37.6	27.0	64.6	Complied
5850	-36.7	27.0	63.7	Complied
5941.800	-35.7	-27.0	8.7	Complied

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5632.800	58.8	68.2	9.4	Complied
5725	57.6	122.2	64.6	Complied
5850	58.5	122.2	63.7	Complied
5941.800	59.5	68.2	8.7	Complied





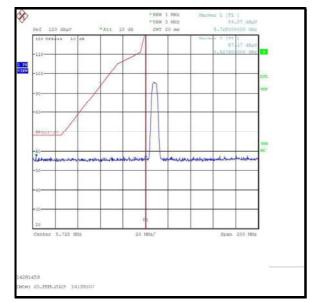


Upper Band Edge

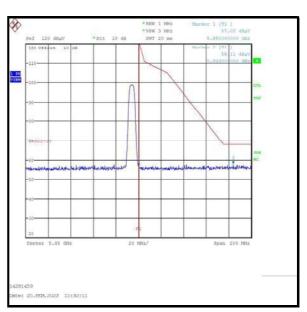
<u>Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)</u> <u>Results: Static / 8DH5 / SISO / Core 1 / iPA</u>

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5627.800	-38.0	-27.0	11.0	Complied
5725	-38.9	27.0	65.9	Complied
5850	-38.2	27.0	65.2	Complied
5934.000	-37.1	-27.0	10.1	Complied

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5627.800	57.2	68.2	11.0	Complied
5725	56.3	122.2	65.9	Complied
5850	57.0	122.2	65.2	Complied
5934.000	58.1	68.2	10.1	Complied





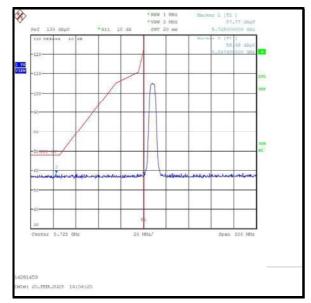


Upper Band Edge

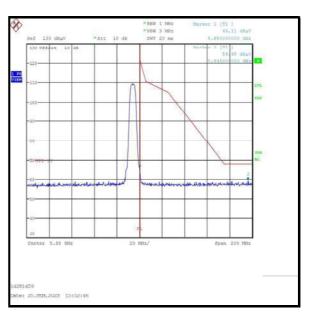
<u>Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)</u> Results: Static / 8DH5 / SISO / Core 1 / ePA

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5647.400	-36.7	-27.0	9.7	Complied
5725	-37.4	27.0	64.4	Complied
5850	-29.1	27.0	56.1	Complied
5946.000	-35.7	-27.0	8.7	Complied

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5647.400	58.5	68.2	9.7	Complied
5725	57.8	122.2	64.4	Complied
5850	66.1	122.2	56.1	Complied
5946.000	59.5	68.2	8.7	Complied





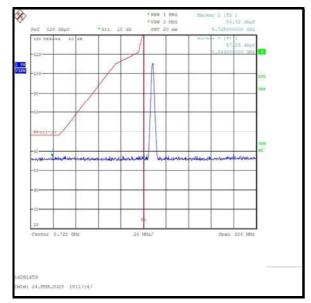


Upper Band Edge

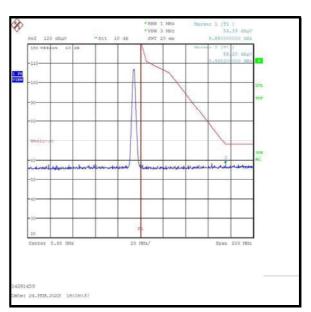
<u>Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)</u> <u>Results: Static / DH5 / Beamforming / Core 0 + Core 1 / iPA</u>

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5644.000	-37.9	-27.0	10.9	Complied
5725	-39.1	27.0	66.1	Complied
5850	-38.8	27.0	65.8	Complied
5925.200	-37.0	-27.0	10.0	Complied

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5644.000	57.3	68.2	10.9	Complied
5725	56.1	122.2	66.1	Complied
5850	56.4	122.2	65.8	Complied
5925.200	58.2	68.2	10.0	Complied





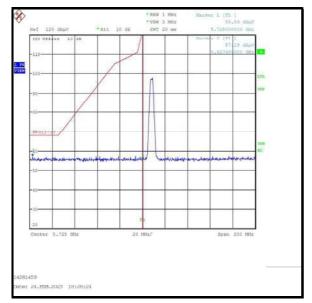


Upper Band Edge

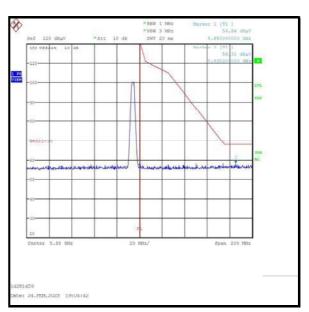
<u>Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)</u> Results: Static / 4DH5 / Beamforming / Core 0 + Core 1 / iPA

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5627.400	-38.0	-27.0	11.0	Complied
5725	-39.6	27.0	66.6	Complied
5850	-38.4	27.0	65.4	Complied
5935.200	-36.9	-27.0	9.9	Complied

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5627.400	57.2	68.2	11.0	Complied
5725	55.6	122.2	66.6	Complied
5850	56.8	122.2	65.4	Complied
5935.200	58.3	68.2	9.9	Complied





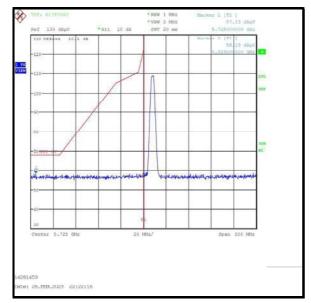


Upper Band Edge

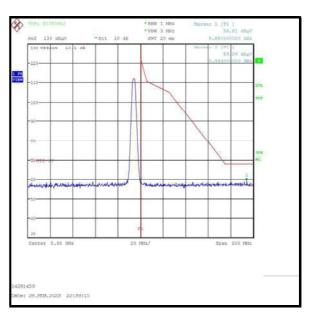
<u>Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)</u> Results: Static / 4DH5 / Beamforming / Core 0 + Core 1 / ePA

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5629.200	-37.0	-27.0	10.0	Complied
5725	-38.1	27.0	65.1	Complied
5850	-36.4	27.0	63.4	Complied
5944.000	-36.1	-27.0	9.1	Complied

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5629.200	58.2	68.2	10.0	Complied
5725	57.1	122.2	65.1	Complied
5850	58.8	122.2	63.4	Complied
5944.000	59.1	68.2	9.1	Complied







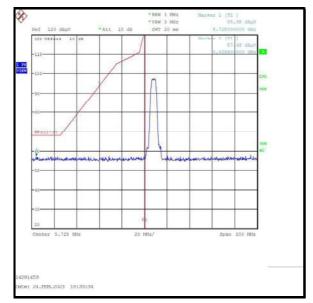
Upper Band Edge

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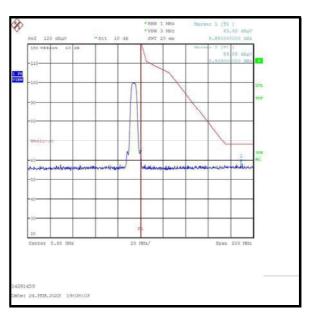
<u>Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued)</u> <u>Results: Static / 8DH5 / Beamforming / Core 0 + Core 1 / iPA</u>

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5628.800	-37.7	-27.0	10.7	Complied
5725	-39.2	27.0	66.2	Complied
5850	-31.6	27.0	58.6	Complied
5939.000	-36.1	-27.0	9.1	Complied

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5628.800	57.5	68.2	10.7	Complied
5725	56.0	122.2	66.2	Complied
5850	63.6	122.2	58.6	Complied
5939.000	59.1	68.2	9.1	Complied





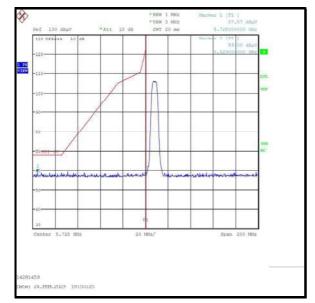


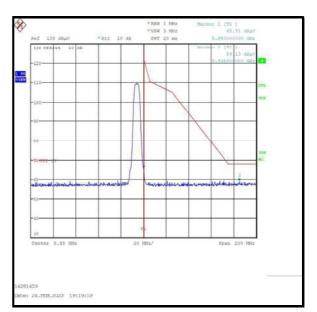
Upper Band Edge

Transmitter Band Edge Radiated Emissions (5.725-5.85 GHz band operation) (continued) Results: Static / 8DH5 / Beamforming / Core 0 + Core 1 / ePA

Frequency (MHz)	Level (dBm)	Limit (dBm/MHz)	Margin (dB)	Result
5629.000	-36.2	-27.0	9.2	Complied
5725	-37.6	27.0	64.6	Complied
5850	-29.3	27.0	56.3	Complied
5935.000	-36.1	-27.0	9.1	Complied

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
5629.000	59.0	68.2	9.2	Complied
5725	57.6	122.2	64.6	Complied
5850	65.9	122.2	56.3	Complied
5935.000	59.1	68.2	9.1	Complied





Lower Band Edge

Upper Band Edge

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