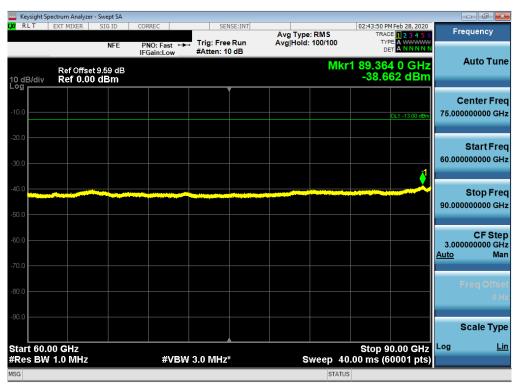




Plot 7-431. Radiated Spurious Plot 60-90 GHz (8CC QPSK High Ch. Ant. Angle 135)



Plot 7-432. Radiated Spurious Plot 60-90 GHz (8CC QPSK High Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogo 052 of 256
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Plot 7-433. Radiated Spurious Plot 60-90 GHz (8CC NC QPSK High Ch. Ant. Angle 135)



Plot 7-434. Radiated Spurious Plot 60-90 GHz (8CC NC QPSK High Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Frequency [MHz]	Channel	CC Active	Mod.	Ant. Pol. [degree]	Antenna Height [cm]	Turn Table Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
89392.0	Mid	CC0	QPSK	135	148	10	-38.10	-13	-25.10
89369.0	Low	CC0-CC7(C)	QPSK	45	148	10	-38.50	-13	-25.50
89395.5	Mid	CC0~CC7(NC)	QPSK	135	148	10	-38.62	-13	-25.62

Table 7-22. Spurious Emissions (60 - 90GHz)

Note

The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 2.61 meters.

Spurious Emissions EIRP Sample Calculation

The raw radiated spurious level is converted to field strength in dBµV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 2.61 meters.

RSE EIRP [dBm] = Analyzer Level [dBm] + AFCL [dB/m] + 107 + 20Log(Dm) - 104.8 + Duty Corretion Factor

Duty Cycle Correction Factor Calculation

- 1 Cycle Time = 626 μs
- O Tx on Time = 468 μs
- O Duty Cycle = Tx on Time / 1 Cycle Time = $468 \mu s / 626 \mu s = 0.75$
- O Duty cycle correction factor = $10\log_{10}(1/\text{Duty Cycle}) = 10\log_{10}(1/0.75) = 1.26 \text{ dB}$

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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7.5.6 Radiated Spurious Emissions Plots (90 – 140GHz)



Plot 7-435. Radiated Spurious Plot 90-140 GHz (1CC QPSK Low Ch. Ant. Angle 135)



Plot 7-436. Radiated Spurious Plot 90-140 GHz (1CC QPSK Low Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogo OFC of OFC
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Plot 7-437. Radiated Spurious Plot 90-140 GHz (8CC QPSK Low Ch. Ant. Angle 135)



Plot 7-438. Radiated Spurious Plot 90-140 GHz (8CC QPSK Low Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-439. Radiated Spurious Plot 90-140 GHz (8CC NC QPSK Low Ch. Ant. Angle 135)



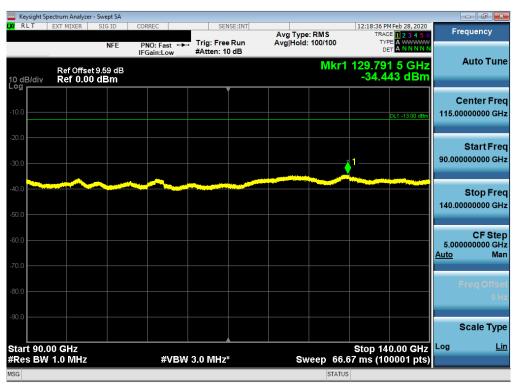
Plot 7-440. Radiated Spurious Plot 90-140 GHz (8CC NC QPSK Low Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-441. Radiated Spurious Plot 90-140 GHz (1CC QPSK Mid Ch. Ant. Angle 135)



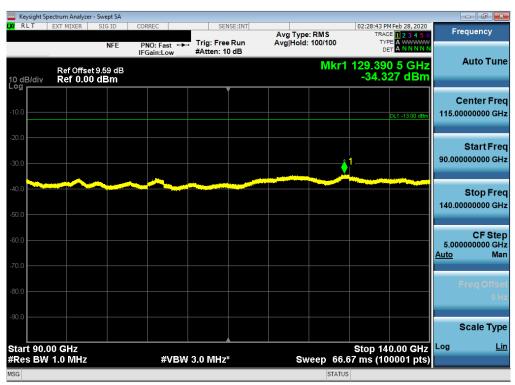
Plot 7-442. Radiated Spurious Plot 90-140 GHz (1CC QPSK Mid Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-443. Radiated Spurious Plot 90-140 GHz (8CC QPSK Mid Ch. Ant. Angle 135)



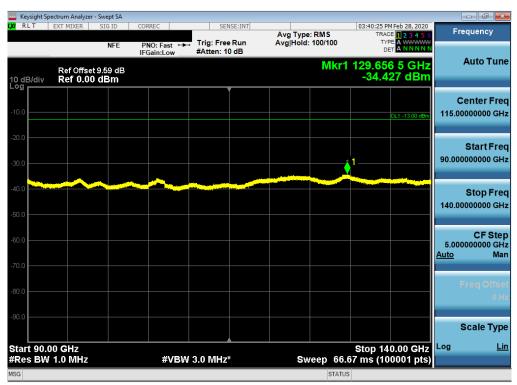
Plot 7-444. Radiated Spurious Plot 90-140 GHz (8CC QPSK Mid Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-445. Radiated Spurious Plot 90-140 GHz (8CC NC QPSK Mid Ch. Ant. Angle 135)



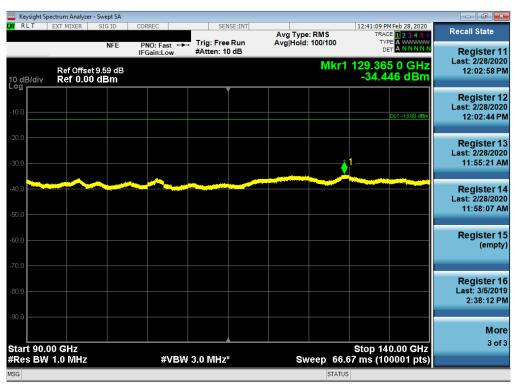
Plot 7-446. Radiated Spurious Plot 90-140 GHz (8CC NC QPSK Mid Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-447. Radiated Spurious Plot 90-140 GHz (1CC QPSK High Ch. Ant. Angle 135)



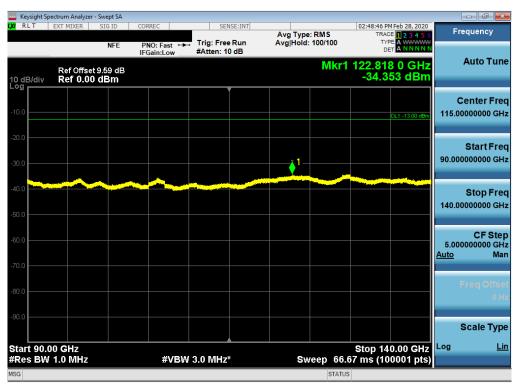
Plot 7-448. Radiated Spurious Plot 90-140 GHz (1CC QPSK High Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-449. Radiated Spurious Plot 90-140 GHz (8CC QPSK High Ch. Ant. Angle 135)



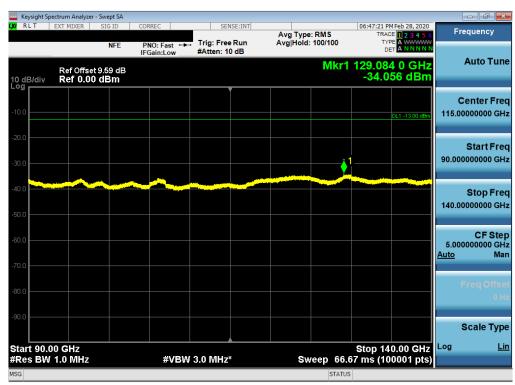
Plot 7-450. Radiated Spurious Plot 90-140 GHz (8CC QPSK High Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-451. Radiated Spurious Plot 90-140 GHz (8CC NC QPSK High Ch. Ant. Angle 135)



Plot 7-452. Radiated Spurious Plot 90-140 GHz (8CC NC QPSK High Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Frequency [MHz]	Channel	CC Active	Mod.	Ant. Pol. [degree]	Antenna Height [cm]	Turn Table Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
129944.0	Low	CC0	QPSK	45	148	10	-34.15	-13	-21.15
129662.0	Mid	CC0-CC7(C)	QPSK	45	148	10	-34.22	-13	-21.22
129084.0	High	CC0~CC7(NC)	QPSK	45	148	10	-24.05	-13	-11.05

Table 7-23. Spurious Emissions (90 - 140GHz)

Note

The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 2.61 meters.

Spurious Emissions EIRP Sample Calculation

The raw radiated spurious level is converted to field strength in $dB\mu V/m$. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 2.61 meters.

RSE EIRP [dBm] = Analyzer Level [dBm] + AFCL [dB/m] + 107 + 20Log(Dm) - 104.8 + Duty Corretion Factor

Duty Cycle Correction Factor Calculation

- 1 Cycle Time = 626 μs
- Tx on Time = 468 μs
- \circ Duty Cycle = Tx on Time / 1 Cycle Time = 468 μ s / 626 μ s = 0.75
- Duty cycle correction factor = $10\log_{10}(1/\text{Duty Cycle}) = 10\log_{10}(1/0.75) = 1.26 \text{ dB}$

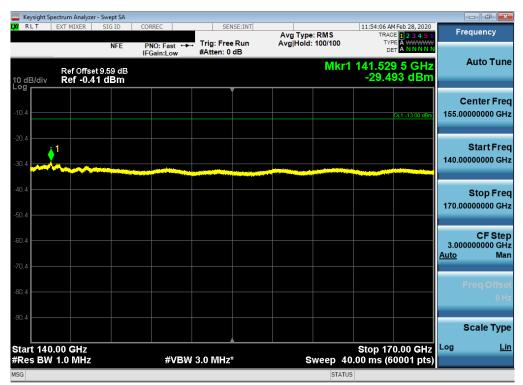
FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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7.5.7 Radiated Spurious Emissions Plots (140 – 170GHz)



Plot 7-453. Radiated Spurious Plot 140-170 GHz (1CC QPSK Low Ch. Ant. Angle 135)



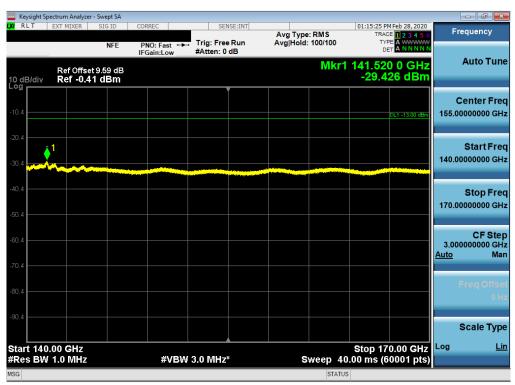
Plot 7-454. Radiated Spurious Plot 140-170 GHz (1CC QPSK Low Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-455. Radiated Spurious Plot 140-170 GHz (8CC QPSK Low Ch. Ant. Angle 135)



Plot 7-456. Radiated Spurious Plot 140-170 GHz (8CC QPSK Low Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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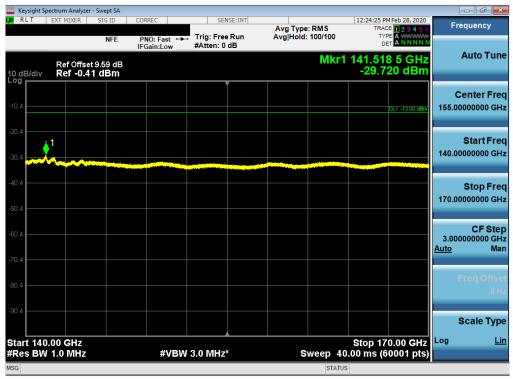
Plot 7-457. Radiated Spurious Plot 140-170 GHz (8CC NC QPSK Low Ch. Ant. Angle 135)



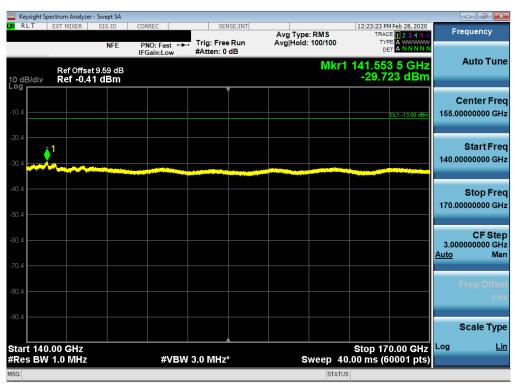
Plot 7-458. Radiated Spurious Plot 140-170 GHz (8CC NC QPSK Low Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-459. Radiated Spurious Plot 140-170 GHz (1CC QPSK Mid Ch. Ant. Angle 135)



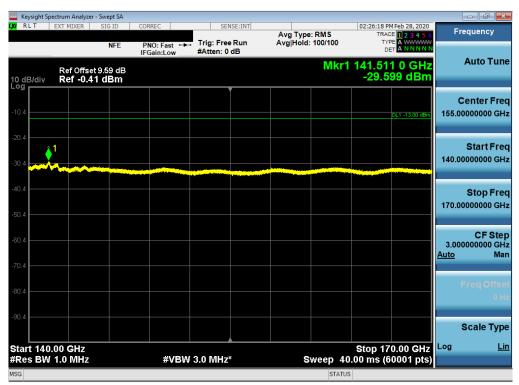
Plot 7-460. Radiated Spurious Plot 140-170 GHz (1CC QPSK Mid Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-461. Radiated Spurious Plot 140-170 GHz (8CC QPSK Mid Ch. Ant. Angle 135)



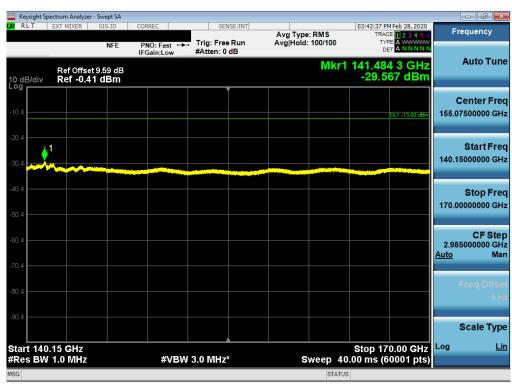
Plot 7-462. Radiated Spurious Plot 140-170 GHz (8CC QPSK Mid Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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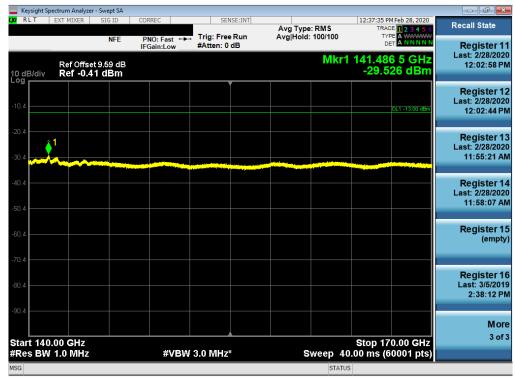
Plot 7-463. Radiated Spurious Plot 140-170 GHz (8CC NC QPSK Mid Ch. Ant. Angle 135)



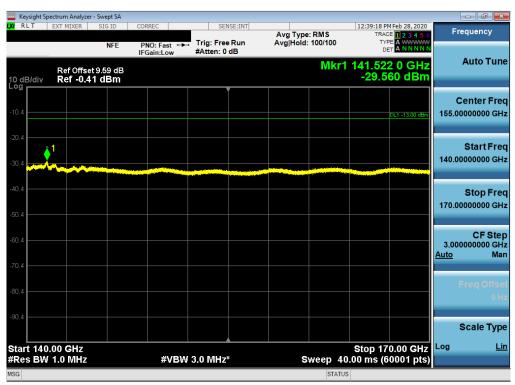
Plot 7-464. Radiated Spurious Plot 140-170 GHz (8CC NC QPSK Mid Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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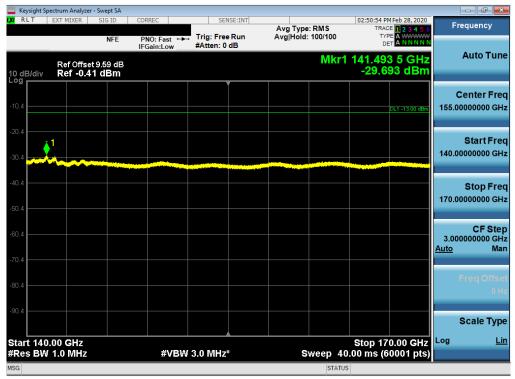
Plot 7-465. Radiated Spurious Plot 140-170 GHz (1CC QPSK High Ch. Ant. Angle 135)



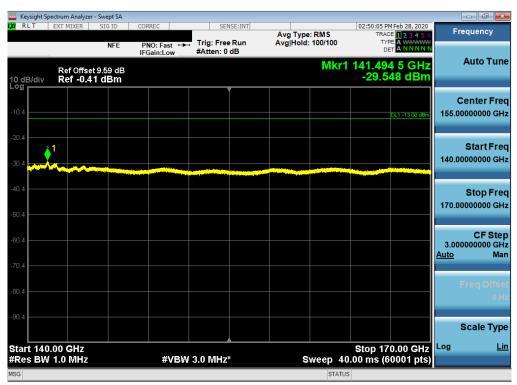
Plot 7-466. Radiated Spurious Plot 140-170 GHz (1CC QPSK High Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-467. Radiated Spurious Plot 140-170 GHz (8CC QPSK High Ch. Ant. Angle 135)



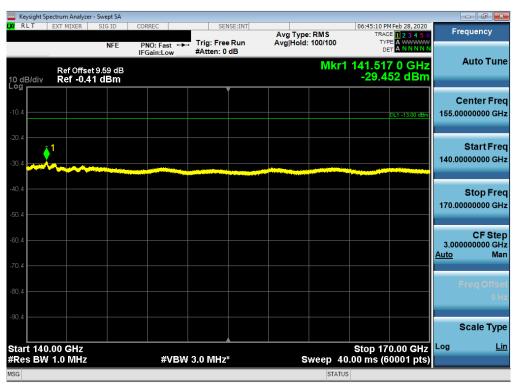
Plot 7-468. Radiated Spurious Plot 140-170 GHz (8CC QPSK High Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-469. Radiated Spurious Plot 140-170 GHz (8CC NC QPSK High Ch. Ant. Angle 135)



Plot 7-470. Radiated Spurious Plot 140-170 GHz (8CC NC QPSK High Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Frequency [MHz]	Channel	CC Active	Mod.	Ant. Pol. [degree]	Antenna Height [cm]	Turn Table Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
141529.5	Low	CC0	QPSK	45	148	10	-29.49	-13	-16.49
141520.0	Low	CC0-CC7(C)	QPSK	45	148	10	-29.42	-13	-16.42
141526.0	Low	CC0~CC7(NC)	QPSK	45	148	10	-29.39	-13	-16.39

Table 7-24. Spurious Emissions (140 – 170GHz)

Note

The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 2.61 meters.

Spurious Emissions EIRP Sample Calculation

The raw radiated spurious level is converted to field strength in $dB\mu V/m$. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 2.61 meters.

RSE EIRP [dBm] = Analyzer Level [dBm] + AFCL [dB/m] + 107 + 20Log(Dm) - 104.8 + Duty Corretion Factor

Duty Cycle Correction Factor Calculation

- 1 Cycle Time = 626 μs
- O Tx on Time = 468 μs
- O Duty Cycle = Tx on Time / 1 Cycle Time = $468 \mu s / 626 \mu s = 0.75$
- o Duty cycle correction factor = $10\log_{10}(1/\text{Duty Cycle}) = 10\log_{10}(1/0.75) = 1.26 \text{ dB}$

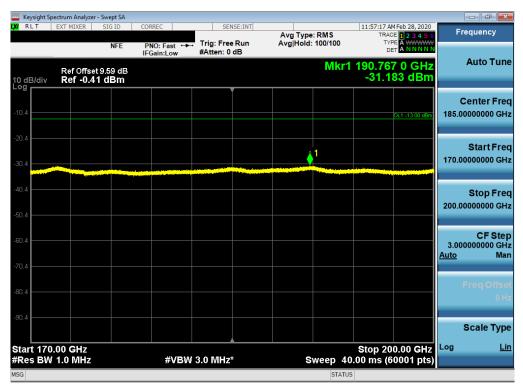
FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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7.5.8 Radiated Spurious Emissions Plots (170 – 200GHz)



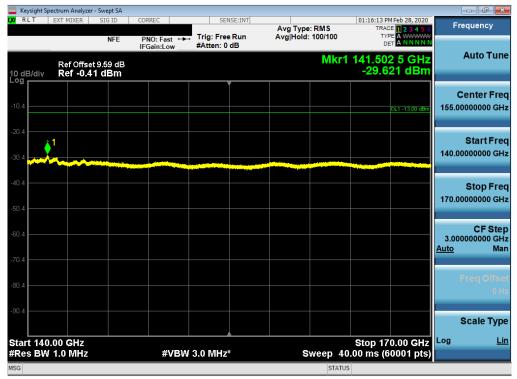
Plot 7-471. Radiated Spurious Plot 170-200 GHz (1CC QPSK Low Ch. Ant. Angle 135)



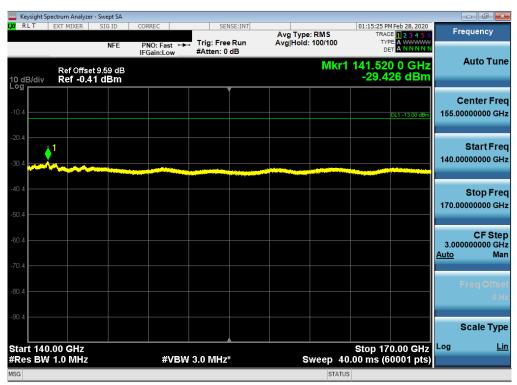
Plot 7-472. Radiated Spurious Plot 170-200 GHz (1CC QPSK Low Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
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Plot 7-473. Radiated Spurious Plot 170-200 GHz (8CC QPSK Low Ch. Ant. Angle 135)



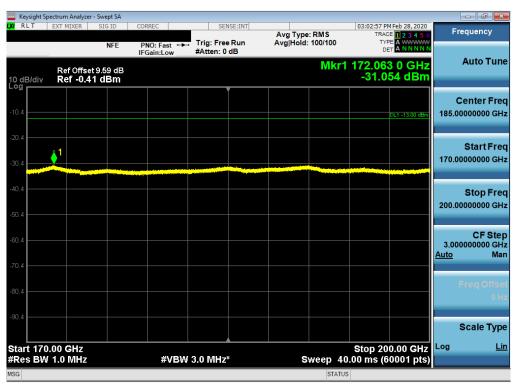
Plot 7-474. Radiated Spurious Plot 170-200 GHz (8CC QPSK Low Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-475. Radiated Spurious Plot 170-200 GHz (8CC NC QPSK Low Ch. Ant. Angle 135)



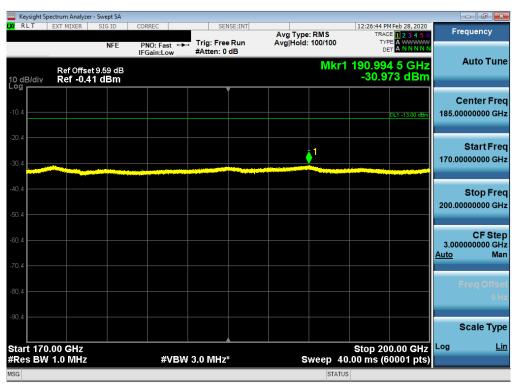
Plot 7-476. Radiated Spurious Plot 170-200 GHz (8CC NC QPSK Low Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-477. Radiated Spurious Plot 170-200 GHz (1CC QPSK Mid Ch. Ant. Angle 135)



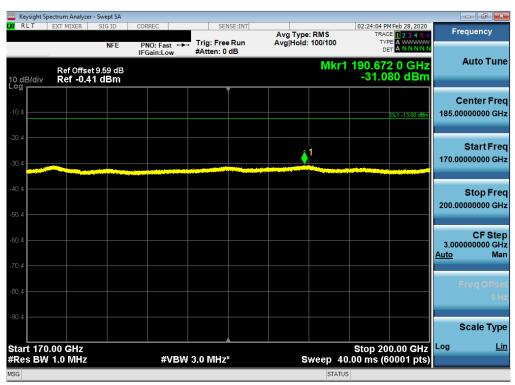
Plot 7-478. Radiated Spurious Plot 170-200 GHz (1CC QPSK Mid Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
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Plot 7-479. Radiated Spurious Plot 170-200 GHz (8CC QPSK Mid Ch. Ant. Angle 135)



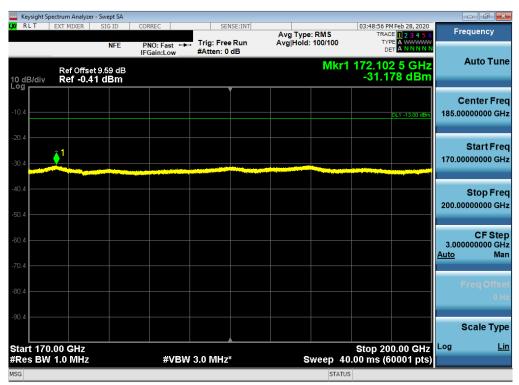
Plot 7-480. Radiated Spurious Plot 170-200 GHz (8CC QPSK Mid Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
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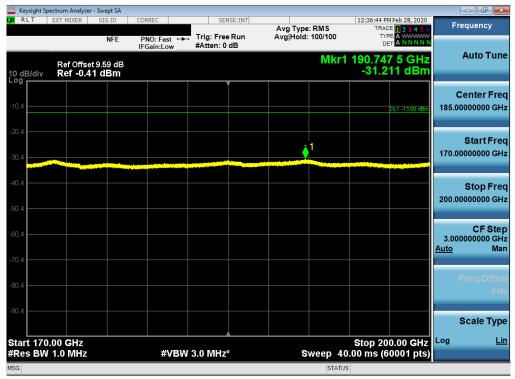
Plot 7-481. Radiated Spurious Plot 170-200 GHz (8CC NC QPSK Mid Ch. Ant. Angle 135)



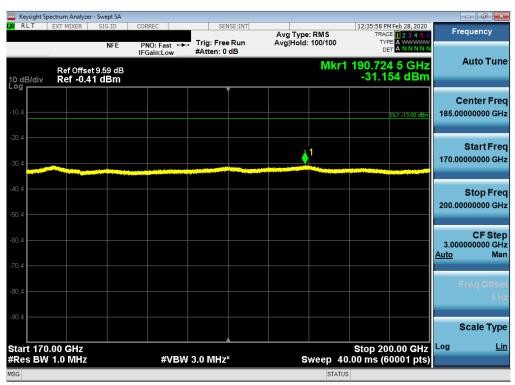
Plot 7-482. Radiated Spurious Plot 170-200 GHz (8CC NC QPSK Mid Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
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Plot 7-483. Radiated Spurious Plot 170-200 GHz (1CC QPSK High Ch. Ant. Angle 135)



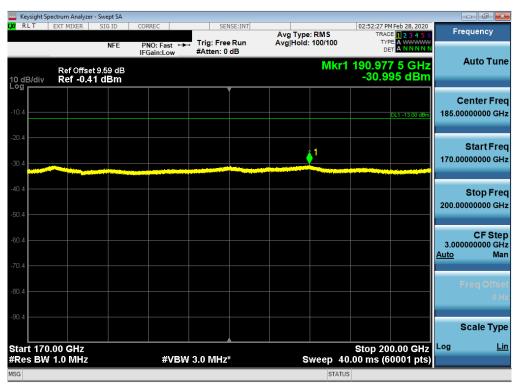
Plot 7-484. Radiated Spurious Plot 170-200 GHz (1CC QPSK High Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dogo 202 of 256	
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Plot 7-485. Radiated Spurious Plot 170-200 GHz (8CC QPSK High Ch. Ant. Angle 135)



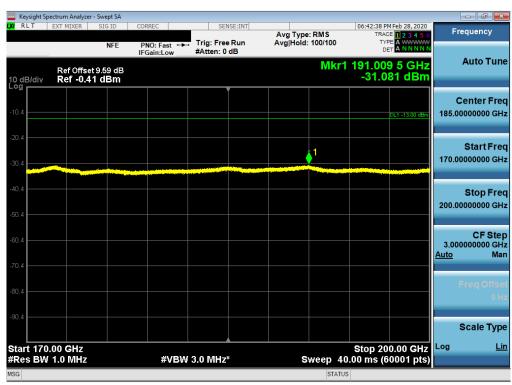
Plot 7-486. Radiated Spurious Plot 170-200 GHz (8CC QPSK High Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-487. Radiated Spurious Plot 170-200 GHz (8CC NC QPSK High Ch. Ant. Angle 135)



Plot 7-488. Radiated Spurious Plot 170-200 GHz (8CC NC QPSK High Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A00	Proud to be part of @element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dogo 204 of 256	
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Frequency [MHz]	Channel	CC Active	Mod.	Ant. Pol. [degree]	Antenna Height [cm]	Turn Table Azimuth [degree]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
190994.5	Mid	CC0	QPSK	45	148	10	-30.97	-13	-17.97
172009.0	Low	CC0-CC7(C)	QPSK	45	148	10	-30.91	-13	-17.91
171946.5	High	CC0~CC7(NC)	QPSK	135	148	10	-31.01	-13	-18.01

Table 7-25. Spurious Emissions (170 - 200GHz)

Note

The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 2.61 meters.

Spurious Emissions EIRP Sample Calculation

The raw radiated spurious level is converted to field strength in $dB\mu V/m$. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 2.61 meters.

RSE EIRP [dBm] = Analyzer Level [dBm] + AFCL [dB/m] + 107 + 20Log(Dm) - 104.8 + Duty Corretion Factor

Duty Cycle Correction Factor Calculation

- 1 Cycle Time = 626 μs
- O Tx on Time = 468 μs
- O Duty Cycle = Tx on Time / 1 Cycle Time = $468 \mu s / 626 \mu s = 0.75$
- o Duty cycle correction factor = $10\log_{10}(1/\text{Duty Cycle}) = 10\log_{10}(1/0.75) = 1.26 \text{ dB}$

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7.6 Band Edge Emissions

§2.1051 §30.203

Test Overview

All out of band emissions are measured in a radiated setup while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All modulations were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

The minimum permissible attenuation level of any spurious emission is -13dBm/1MHz. However, in the bands immediately outside and adjacent to the licensee's frequency block, having a bandwidth equal to 10 percent of the channel bandwidth, the conductive power or the total radiated power of any emission shall be -5 dBm/MHz or lower.

Test Procedure Used

ANSI C63.26-2015 Section 5.7.3 ANSI C63.26-2015 Section 6.4

Test Settings

- 1. Start and stop frequency were set such that both upper and lower band edges are measured.
- Span was set large enough so as to capture all out of band emissions near the band edge
- 3. RBW = 1MHz
- 4. VBW > 3 x RBW
- 5. Detector = RMS
- 6. Number of sweep points ≥ 2 x Span/RBW
- 7. Trace mode = trace average
- 8. Sweep time = auto couple
- 9. The trace was allowed to stabilize

Test Notes

- 1) The EUT was tested while positioned upright and mounted on a mast 1.5m height. The worst case emissions are reported with the EUT in this fixed position and with the modulations and active component carriers shown in the tables below.
- 2) All measurements in this section was performed in the radiated setup in the far field.
- 3) All appropriate Antenna Factor and Cable Loss have been applied in the spectrum analyzer for each measurement. Additionally, band Edge measurements in this section are shown as equivalent conductive powers for direct comparison to the 30.203 limit. The condutive power at the band edge is calculated by subtracting the gain of the EUT's antenna from the measured EIRP level. Antenna Gain information is shown on the following page.
- 4) 1CC = 1 Component Carrier Active, 8CC = 8 Component Carriers Active, and 8CC NC = 8 Non-contigious Component Carriers Active. Each component carrier's bandwidth is either of 50MHz or 100MHz Bandwidth.

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- 5) For band edge measurement of EUT's Antenna A, the receive horn antenna was maximized on Antenna A and then the other antennas (B, C, and D) were individually energized and measured while maintaining maximized position on Antenna A. These measurements were saved into a spreadsheet and their spectra were summed to determine the total conducted power for the band edge emissions level shown starting in Section 7.6.5. The same procedure was repeated with the receive horn antenna maximized on Antennas B, C, and D.
- 6) The MIMO Band Edges were calculated by using the "measure and sum the spectra across the outputs" technique specified in Section 6.4.3.2.2 of ANSI C63.26-2015. The spectra were summed linearly and converted to dBm for comparison with the limit.

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7.6.1 Antenna Gain Information at the Band Edge

The following antenna gain information is provided to demonstrate the antenna performance of the 37 – 40GHz band. These antenna gains were subtracted from the measured EIRP levels at the lower and upper band edge frequencies to determine an equivalent conductive power that was compared directly with the §30.203 limits.

Frequency	Gain
(GHz)	(dBi)
36.5	26.53
36.6	26.55
36.7	26.57
36.8	26.60
36.9	26.62
37.0	26.64
37.1	26.67
37.2	26.69
37.3	26.71
37.4	26.73
37.5	26.75
37.6	26.77
37.7	26.78
37.8	26.80
37.9	26.82
38.0	26.84

Frequency	Gain
(GHz)	(dBi)
38.1	26.85
38.2	26.87
38.3	26.88
38.4	26.90
38.5	26.91
38.6	26.92
38.7	26.93
38.8	26.95
38.9	26.96
39.0	26.97
39.1	26.98
39.2	26.99
39.3	27.00
39.4	27.00
39.5	27.01
39.6	27.02

Frequency	Gain
(GHz)	(dBi)
39.7	27.02
39.8	27.03
39.9	27.04
40.0	27.04
40.1	27.04
40.2	27.05
40.3	27.05
40.4	27.05
40.5	27.05

Table 7-26. Antenna Gains at the Band Edges

Sample Analyzer Offset Calculation (at 37.0GHz)

Measurement Antenna Factor = 46.66dB/m

Cable Loss = 10.76dB

Far Field Distance = 2.61m

EUT Antenna Gain = 26.64dBi

Duty Cyccle Correction Factor = 1.26dB

Analyzer Offset (dB) = AF (dB/m) + CL (dB) + $107 + 20\log_{10}(D) - 104.8dB - Gain (dBi) + Duty Correction factor (dB)$

= 46.66dB/m + 10.76dB + 107 + 20log₁₀(2.61) - 104.8dB - 26.64dBi + 1.26dB

= 42.57dB

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Sample Analyzer Offset Calculation (at 40.0GHz)

Measurement Antenna Factor = 47.86dB/m

Cable Loss = 11.33dB

Far Field Distance = 2.61m

EUT Antenna Gain = 27.04dBi

Duty Cyccle Correction Factor = 1.26dB

Analyzer Offset (dB) = AF (dB/m) + CL (dB) + $107 + 20\log_{10}(D) - 104.8dB - Gain (dBi) + Duty Correction factor (dB)$

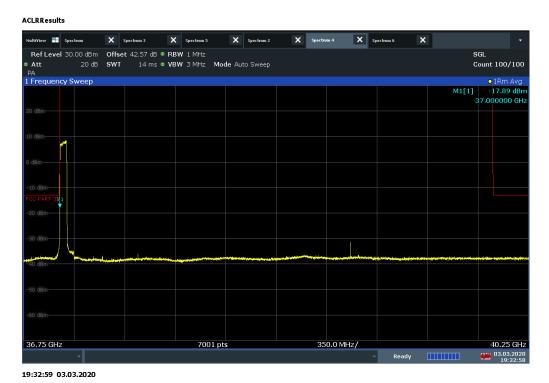
 $= 47.86 dB/m + 11.33 dB + 107 + 20log_{10}(2.61) - 104.8 dB - 27.04 dBi + 1.26 dB$

= 43.94dB

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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7.6.2 Antenna A Conducted Band Edge Maximized on Antenna A



Plot 7-489. Band Edge Plot (50MHz BW 1CC QPSK Low Channel)



Plot 7-490. Band Edge Plot (100MHz BW 1CC QPSK Low Channel)

FCC ID: A3LAT1K02-A00

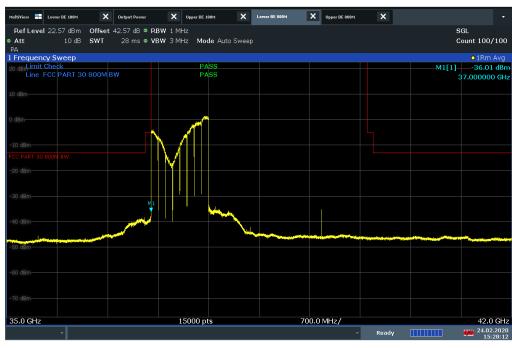
| Comparison of the part of the





Plot 7-491. Band Edge Plot (50MHz BW 8CC QPSK Low Channel)

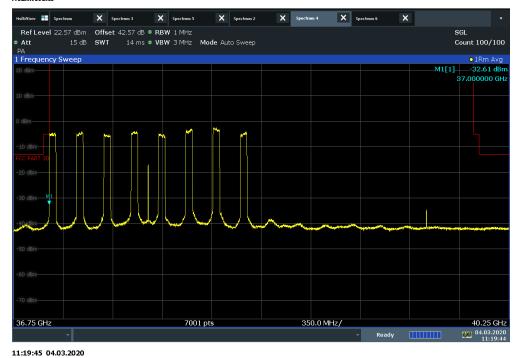
ACLRResults



Plot 7-492. Band Edge Plot (100MHz BW 8CC QPSK Low Channel)

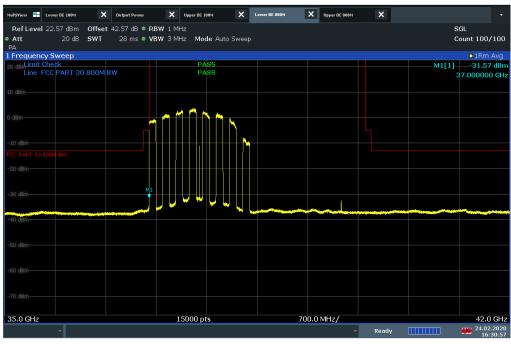
FCC ID: A3LAT1K02-A00	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-493. Band Edge Plot (50MHz BW 8CC NC QPSK Low Channel)

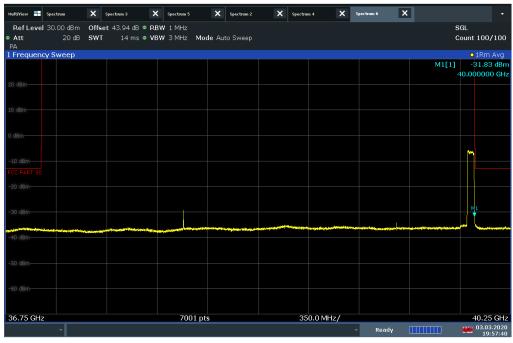




Plot 7-494. Band Edge Plot (100MHz BW 8CC NC QPSK Low Channel)

FCC ID: A3LAT1K02-A00	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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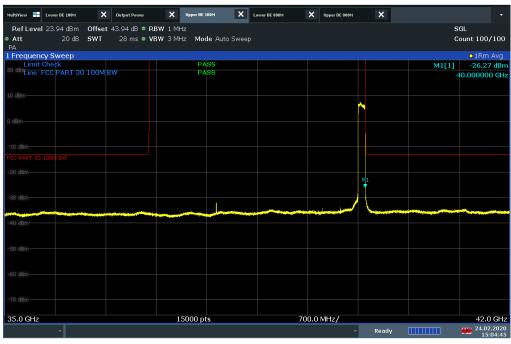




19:57:40 03.03.2020

Plot 7-495. Band Edge Plot (50MHz BW 1CC QPSK High Channel)

ACLRResults

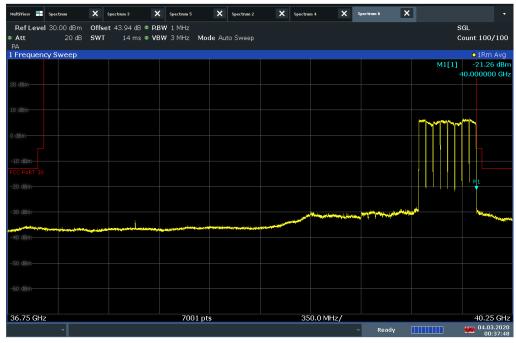


15:04:46 24.02.2020

Plot 7-496. Band Edge Plot (100MHz BW 1CC QPSK High Channel)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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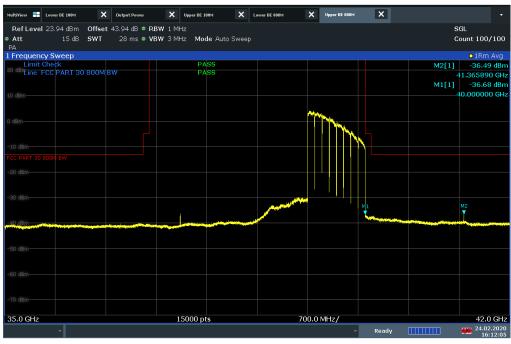




00:37:48 04.03.2020

Plot 7-497. Band Edge Plot (50MHz BW 8CC QPSK High Channel)

ACLRResults



16:12:06 24.02.2020

Plot 7-498. Band Edge Plot (100MHz BW 8CC QPSK High Channel)

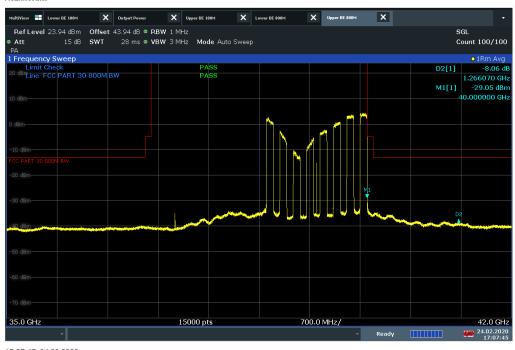
FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-499. Band Edge Plot (50MHz BW 8CC NC QPSK High Channel)

ACLRResults

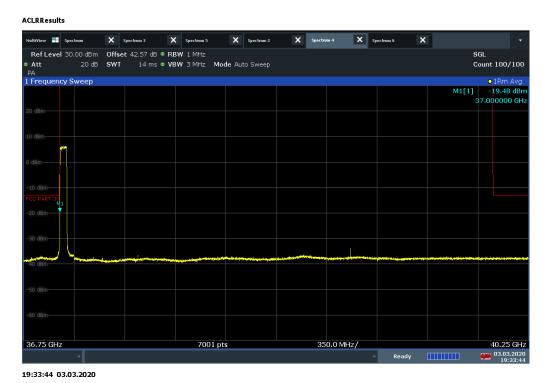


Plot 7-500. Band Edge Plot (100MHz BW 8CC NC QPSK High Channel)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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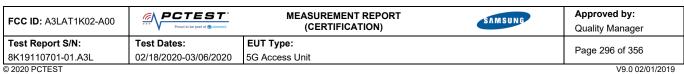
7.6.3 Antenna B Conducted Band Edge Maximized on Antenna A



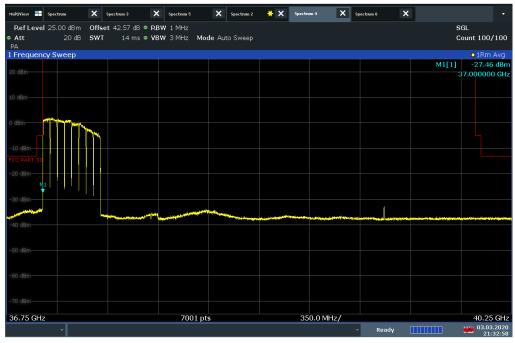
Plot 7-501. Band Edge Plot (50MHz BW 1CC QPSK Low Channel)



Plot 7-502. Band Edge Plot (100MHz BW 1CC QPSK Low Channel)







21:32:59 03.03.2020

Plot 7-503. Band Edge Plot (50MHz BW 8CC QPSK Low Channel)

ACLRResults

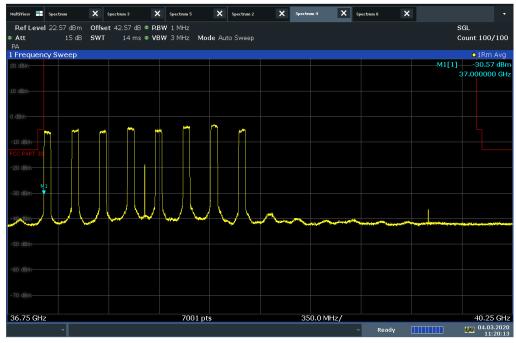


15:24:03 24.02.2020

Plot 7-504. Band Edge Plot (100MHz BW 8CC QPSK Low Channel)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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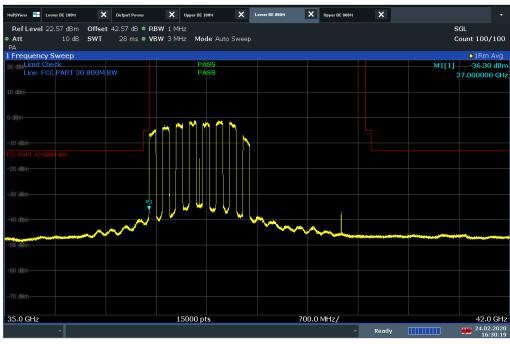




11:20:13 04.03.2020

Plot 7-505. Band Edge Plot (50MHz BW 8CC NC QPSK Low Channel)





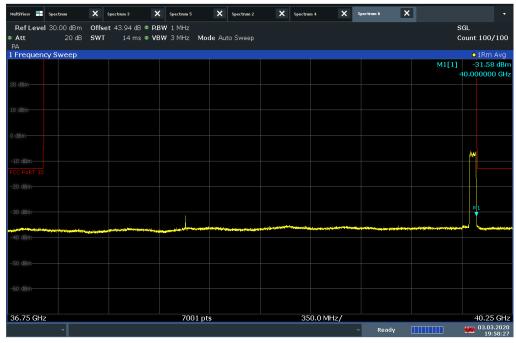
16:30:19 24.02.2020

Plot 7-506. Band Edge Plot (100MHz BW 8CC NC QPSK Low Channel)

FCC ID: A3LAT1K02-A00	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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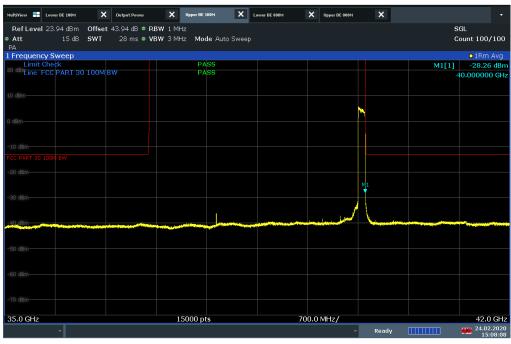
ACLRResults



19:58:28 03.03.2020

Plot 7-507. Band Edge Plot (50MHz BW 1CC QPSK High Channel)





15:08:09 24.02.2020

Plot 7-508. Band Edge Plot (100MHz BW 1CC QPSK High Channel)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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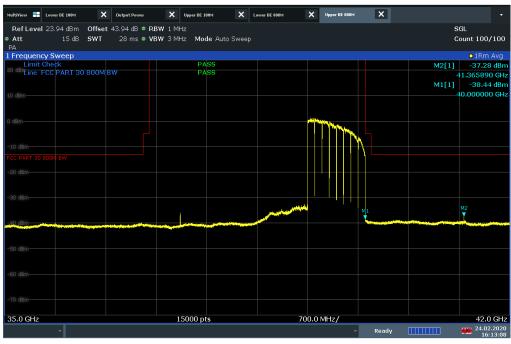




00:49:00 04.03.2020

Plot 7-509. Band Edge Plot (50MHz BW 8CC QPSK High Channel)

ACLRResults

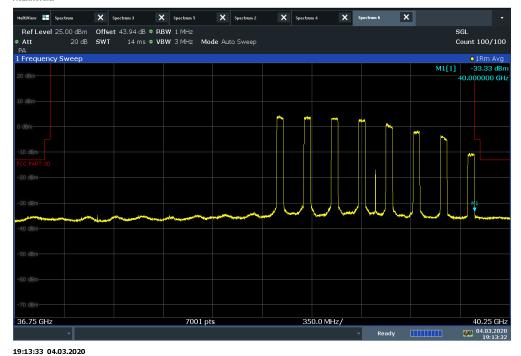


16:13:08 24.02.2020

Plot 7-510. Band Edge Plot (100MHz BW 8CC QPSK High Channel)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-511. Band Edge Plot (50MHz BW 8CC NC QPSK High Channel)

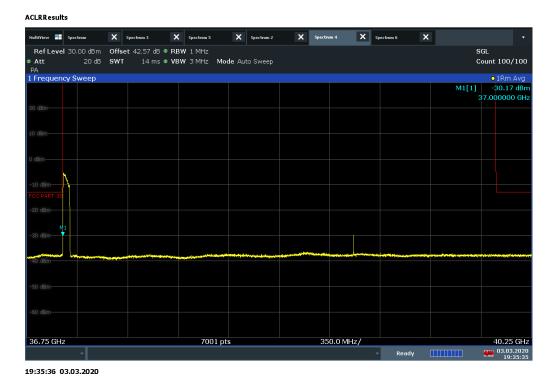


Plot 7-512. Band Edge Plot (100MHz BW 8CC NC QPSK High Channel)

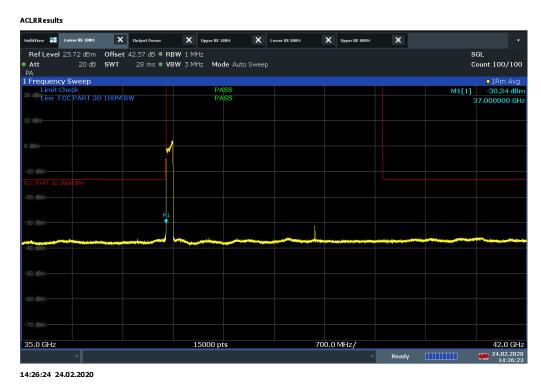
FCC ID: A3LAT1K02-A00	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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7.6.4 Antenna C Conducted Band Edge Maximized on Antenna A



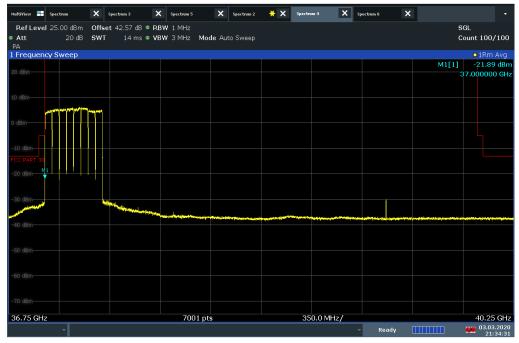
Plot 7-513. Band Edge Plot (50MHz BW 1CC QPSK Low Channel)



Plot 7-514. Band Edge Plot (100MHz BW 1CC QPSK Low Channel)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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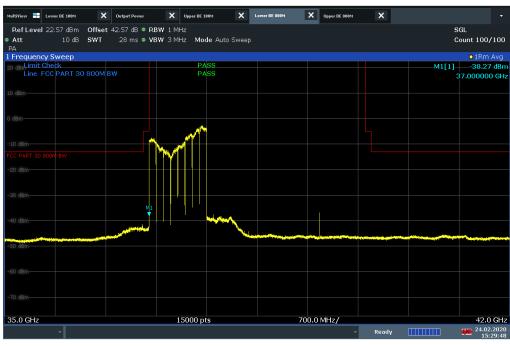




21:34:31 03.03.2020

Plot 7-515. Band Edge Plot (50MHz BW 8CC QPSK Low Channel)



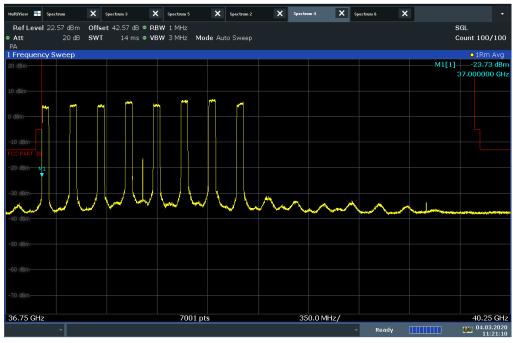


15:29:49 24.02.2020

Plot 7-516. Band Edge Plot (100MHz BW 8CC QPSK Low Channel)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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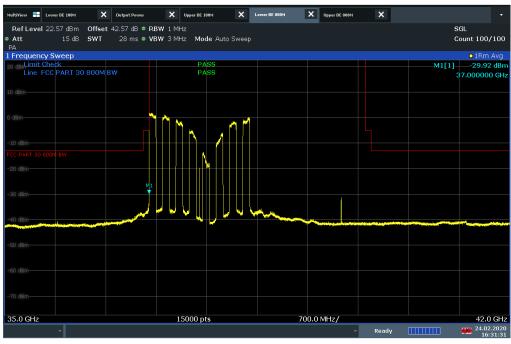




11:21:10 04.03.2020

Plot 7-517. Band Edge Plot (50MHz BW 8CC NC QPSK Low Channel)





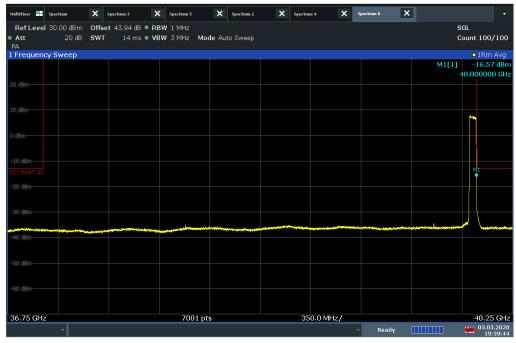
16:31:32 24.02.2020

Plot 7-518. Band Edge Plot (100MHz BW 8CC NC QPSK Low Channel)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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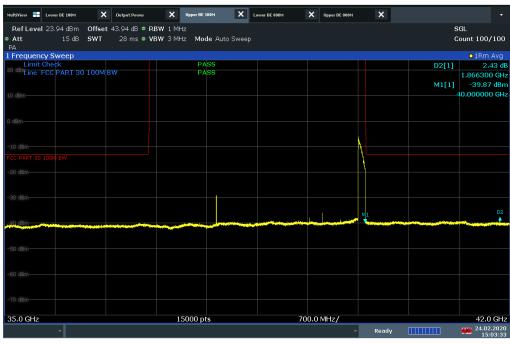




19:59:45 03.03.2020

Plot 7-519. Band Edge Plot (50MHz BW 1CC QPSK High Channel)

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15:03:34 24.02.2020

Plot 7-520. Band Edge Plot (100MHz BW 1CC QPSK High Channel)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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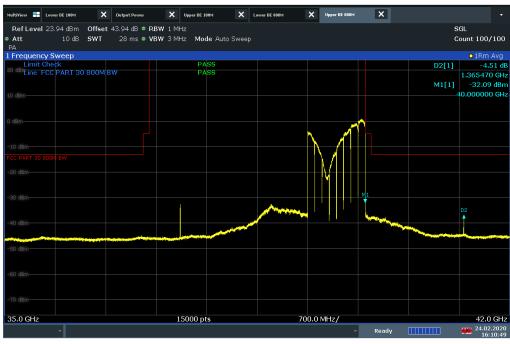




00:47:56 04.03.2020

Plot 7-521. Band Edge Plot (50MHz BW 8CC QPSK High Channel)

ACLRResults



16:10:49 24.02.2020

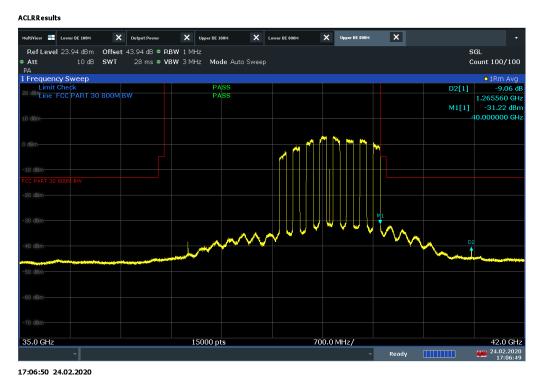
Plot 7-522. Band Edge Plot (100MHz BW 8CC QPSK High Channel)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 206 of 256
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Plot 7-523. Band Edge Plot (50MHz BW 8CC NC QPSK High Channel)

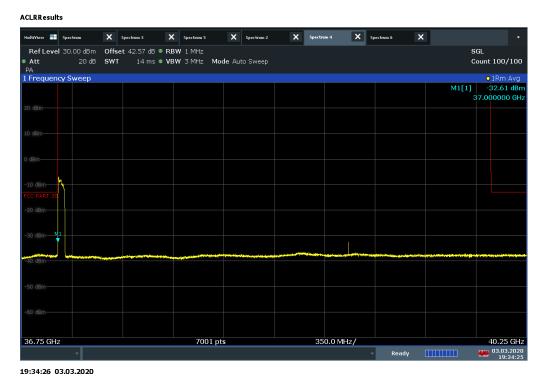


Plot 7-524. Band Edge Plot (100MHz BW 8CC NC QPSK High Channel)

FCC ID: A3LAT1K02-A00	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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7.6.5 Antenna D Conducted Band Edge Maximized on Antenna A



Plot 7-525. Band Edge Plot (50MHz BW 1CC QPSK Low Channel)



Plot 7-526. Band Edge Plot (100MHz BW 1CC QPSK Low Channel)



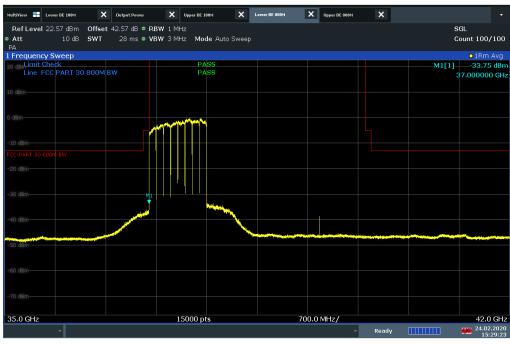




21:35:06 03.03.2020

Plot 7-527. Band Edge Plot (50MHz BW 8CC QPSK Low Channel)

ACLRResults



15:29:23 24.02.2020

Plot 7-528. Band Edge Plot (100MHz BW 8CC QPSK Low Channel)

FCC ID: A3LAT1K02-A00	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 200 of 256
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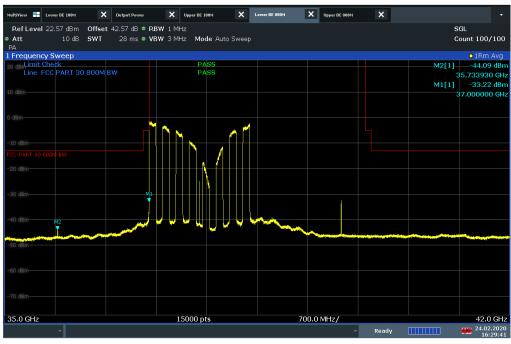




11:20:46 04.03.2020

Plot 7-529. Band Edge Plot (50MHz BW 8CC NC QPSK Low Channel)



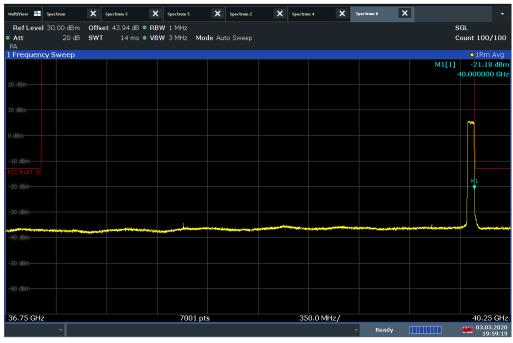


16:29:41 24.02.2020

Plot 7-530. Band Edge Plot (100MHz BW 8CC NC QPSK Low Channel)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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19:59:19 03.03.2020

Plot 7-531. Band Edge Plot (50MHz BW 1CC QPSK High Channel)

ACLRResults



15:08:33 24.02.2020

Plot 7-532. Band Edge Plot (100MHz BW 1CC QPSK High Channel)

FCC ID: A3LAT1K02-A00	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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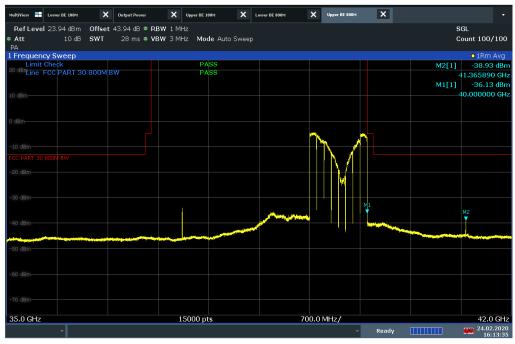
ACLRResults



00:46:39 04.03.2020

Plot 7-533. Band Edge Plot (50MHz BW 8CC QPSK High Channel)





Plot 7-534. Band Edge Plot (100MHz BW 8CC QPSK High Channel)

FCC ID: A3LAT1K02-A00	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 212 of 256
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