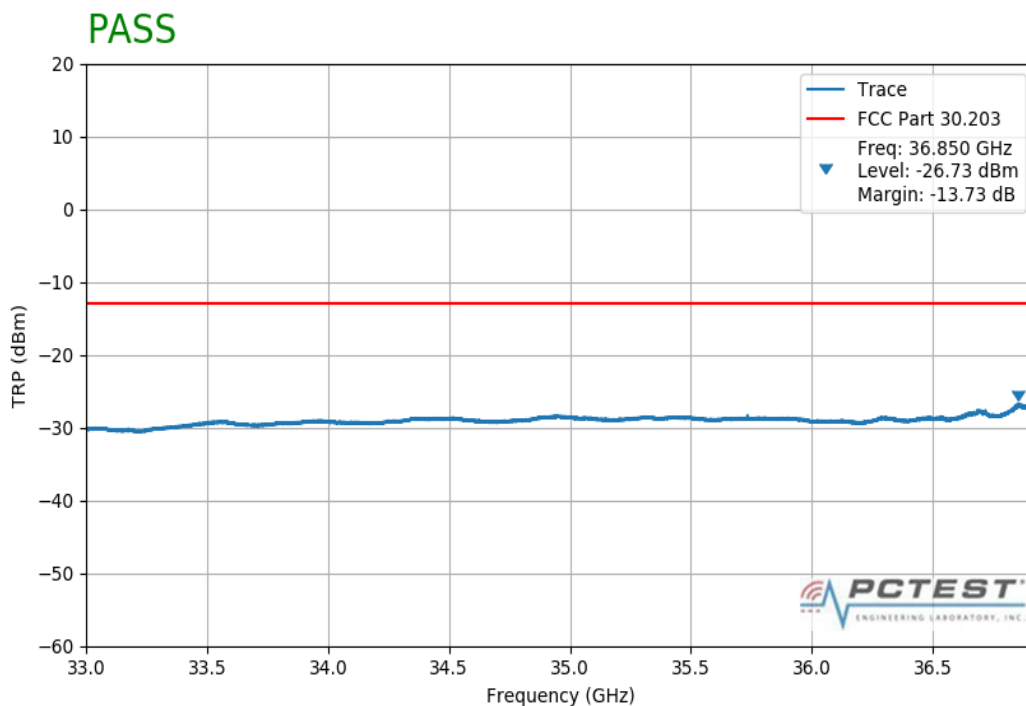
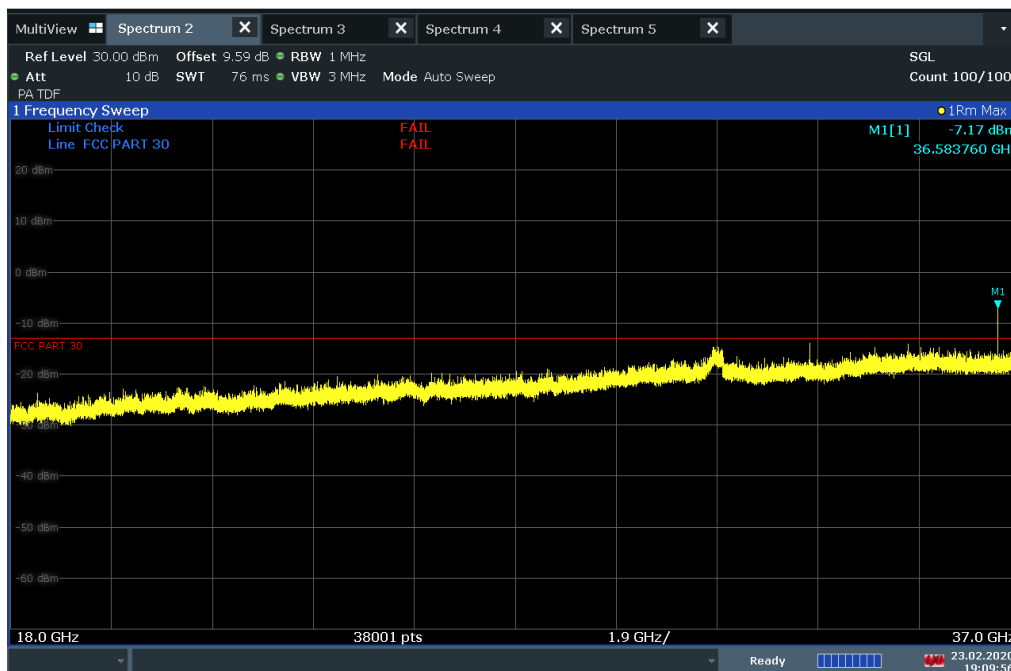




Plot 7-327. Radiated Spurious Plot 33-36.92 GHz (8CC NC QPSK Low Ch. TRP)

ACLRRResults

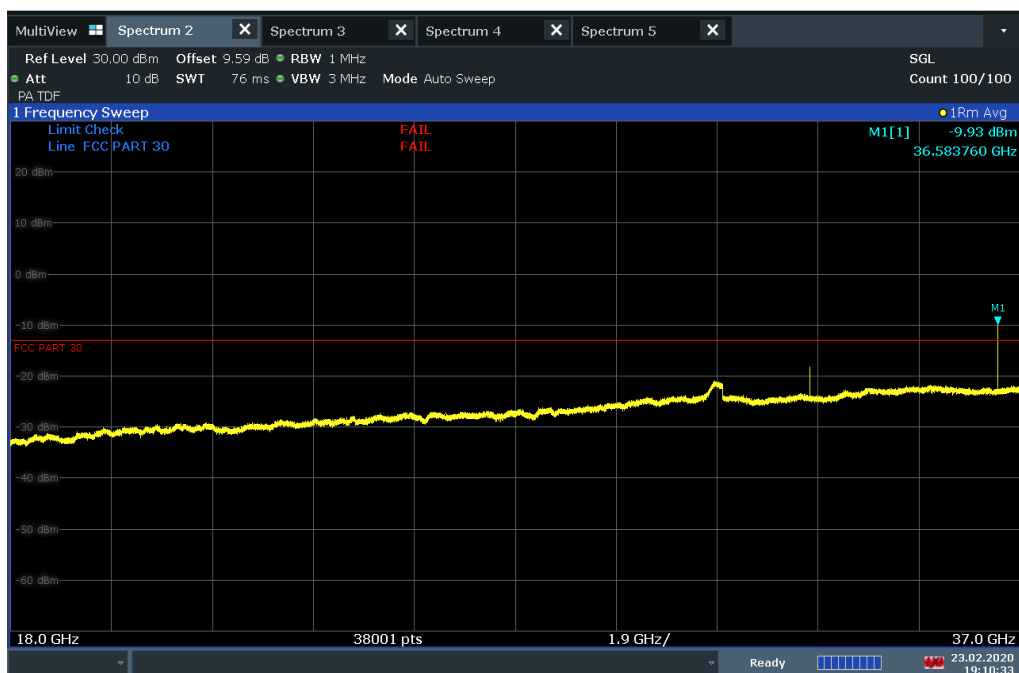


19:09:57 23.02.2020

Plot 7-328. Radiated Spurious Plot 18-37 GHz (1CC QPSK Mid Ch. Ant. Angle 135)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 200 of 360

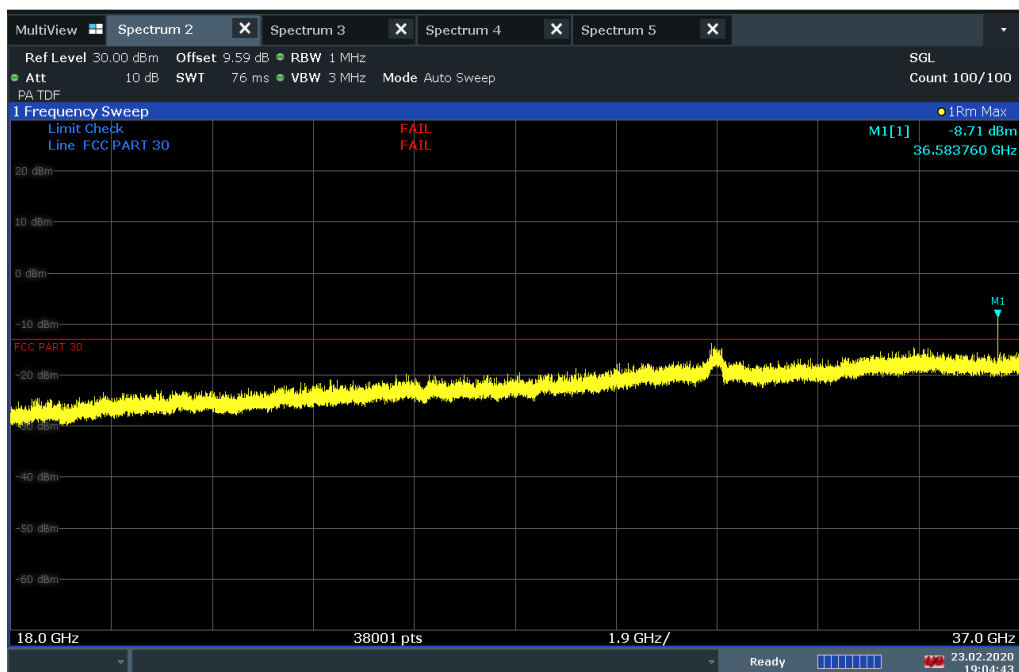
ACLRRResults



19:10:33 23.02.2020

Plot 7-329. Radiated Spurious Plot 18-37 GHz (1CC QPSK Mid Ch. Ant. Angle 135, Final)

ACLRRResults

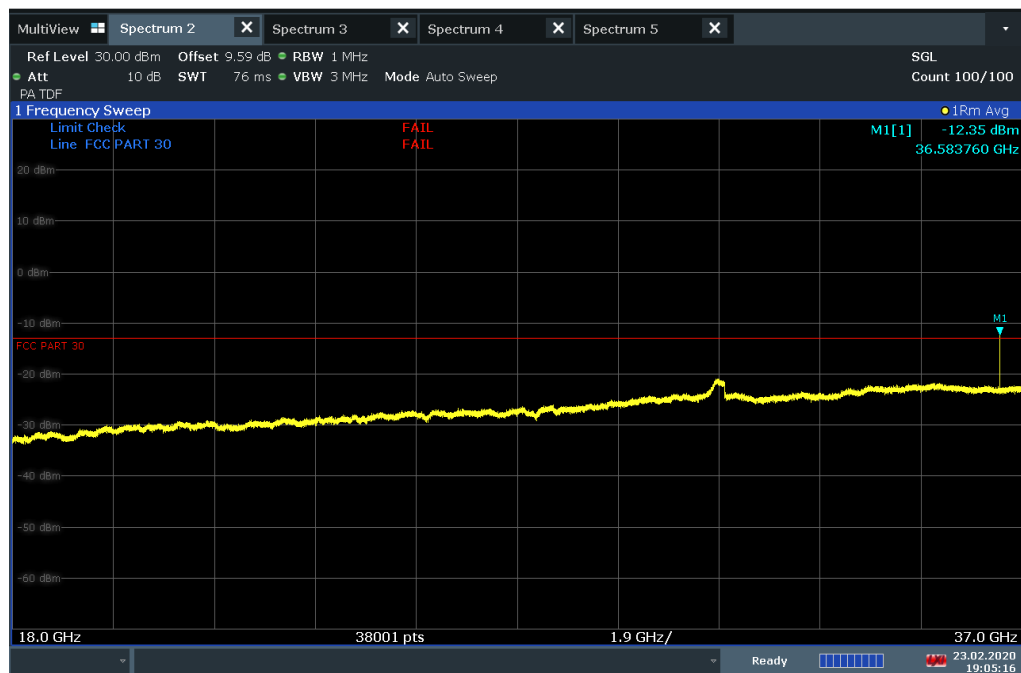


19:04:43 23.02.2020

Plot 7-330. Radiated Spurious Plot 18-37 GHz (1CC QPSK Mid Ch. Ant. Angle 45)

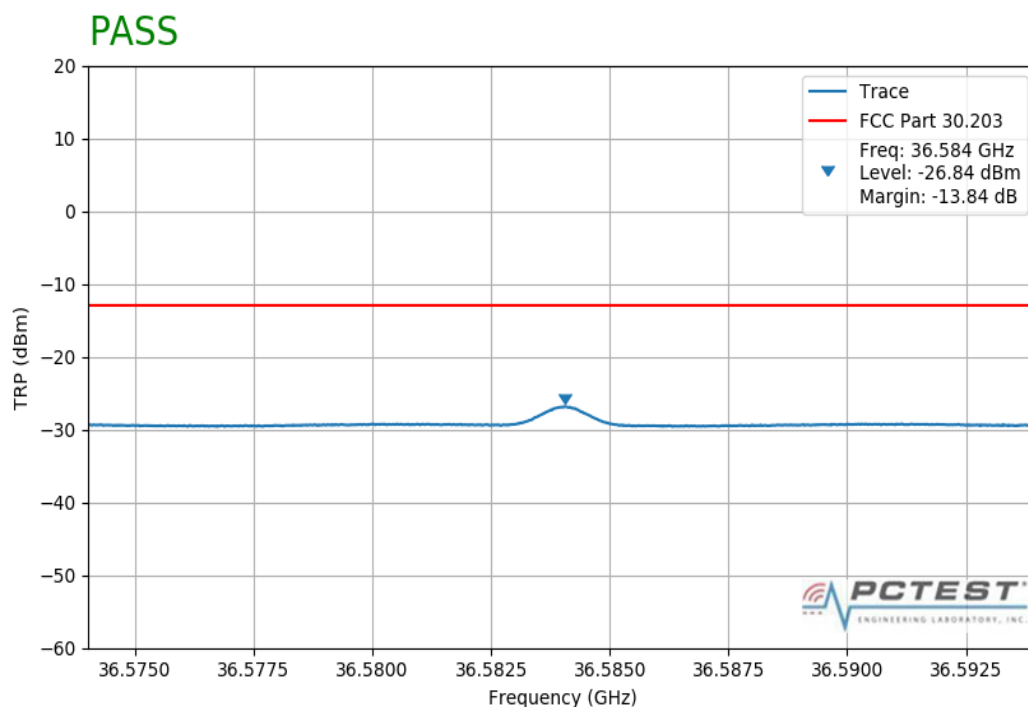
FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 201 of 360

ACLRRResults



19:05:17 23.02.2020

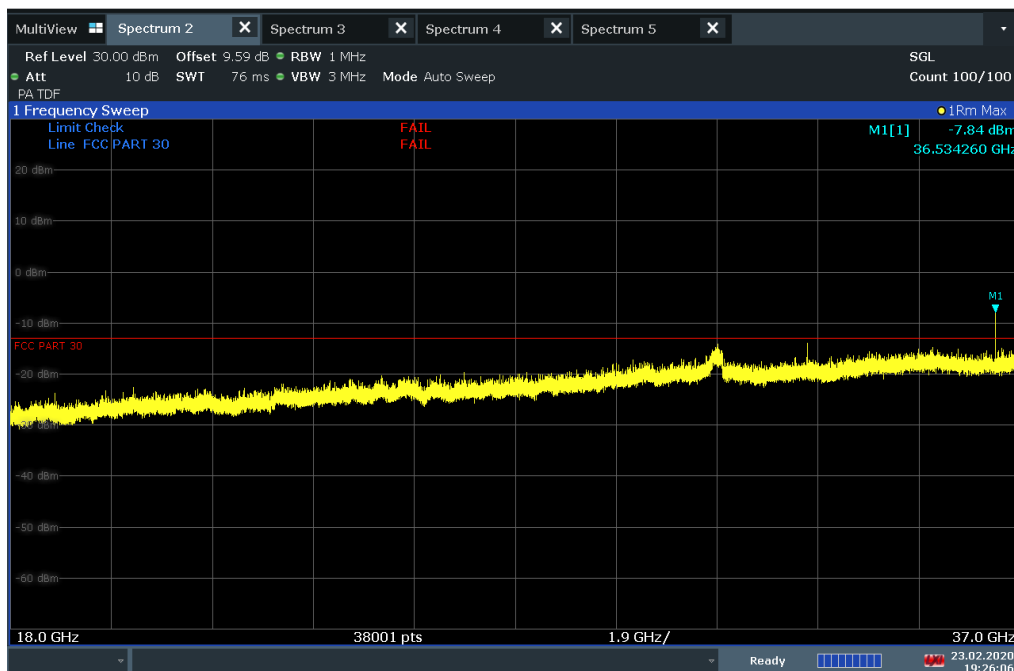
Plot 7-331. Radiated Spurious Plot 18-37 GHz (1CC QPSK Mid Ch. Ant. Angle 45, Final)



Plot 7-332. Radiated Spurious Plot 36.574-36.594 GHz (1CC QPSK Mid Ch. Ant. TRP)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 202 of 360

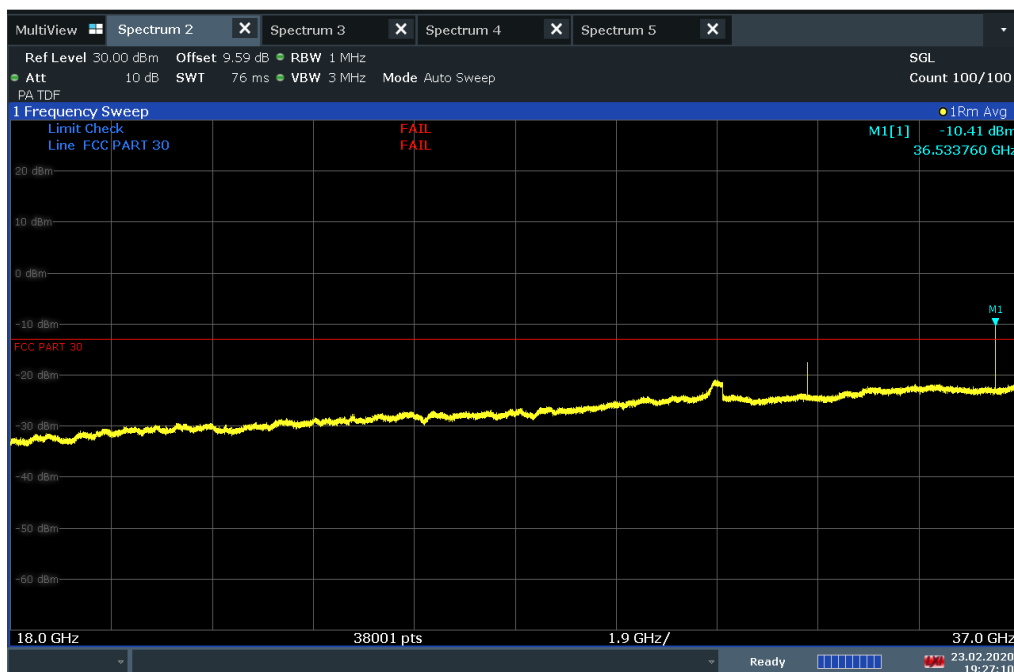
ACLRRResults



19:26:06 23.02.2020

Plot 7-333. Radiated Spurious Plot 18-37 GHz (8CC QPSK Mid Ch. Ant. Angle 135)

ACLRRResults

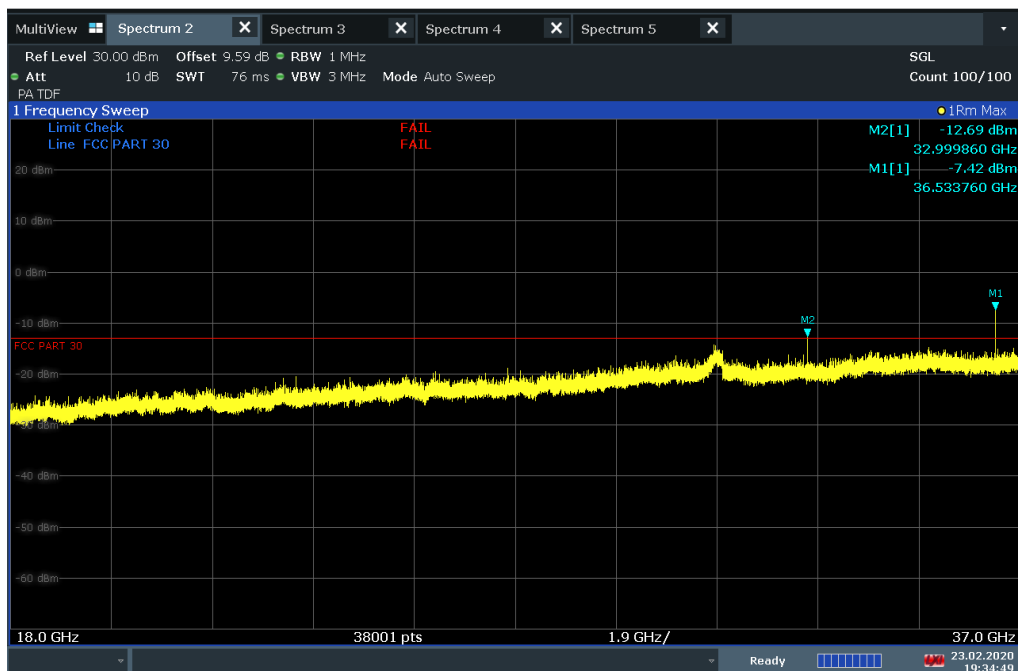


19:27:11 23.02.2020

Plot 7-334. Radiated Spurious Plot 18-37 GHz (8CC QPSK Mid Ch. Ant. Angle 135, Final)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 203 of 360

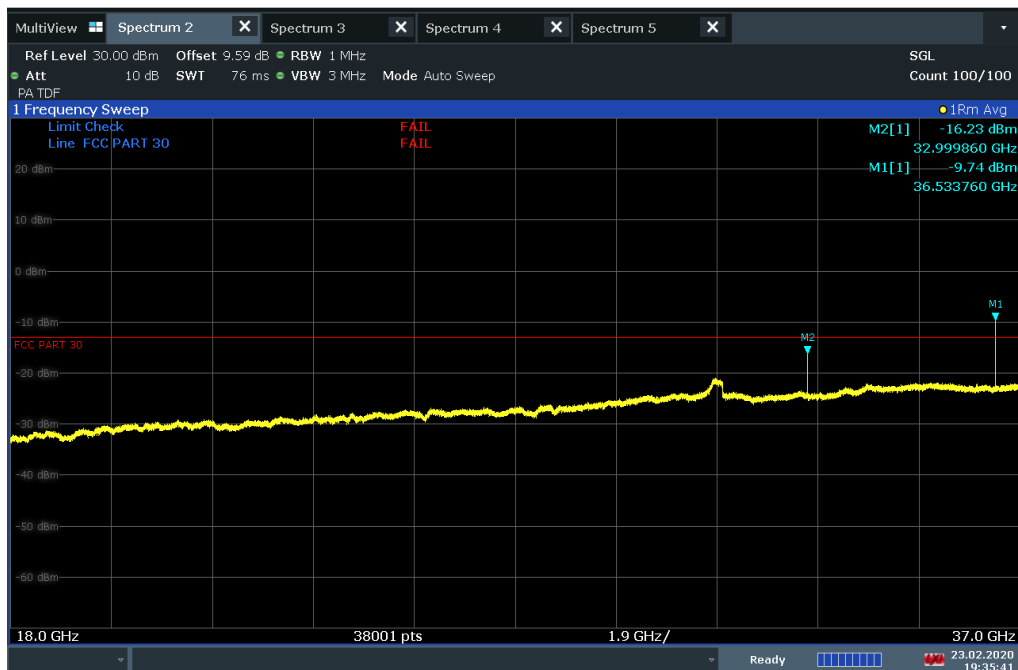
ACLRRResults



19:34:49 23.02.2020

Plot 7-335. Radiated Spurious Plot 18-37 GHz (8CC QPSK Mid Ch. Ant. Angle 45)

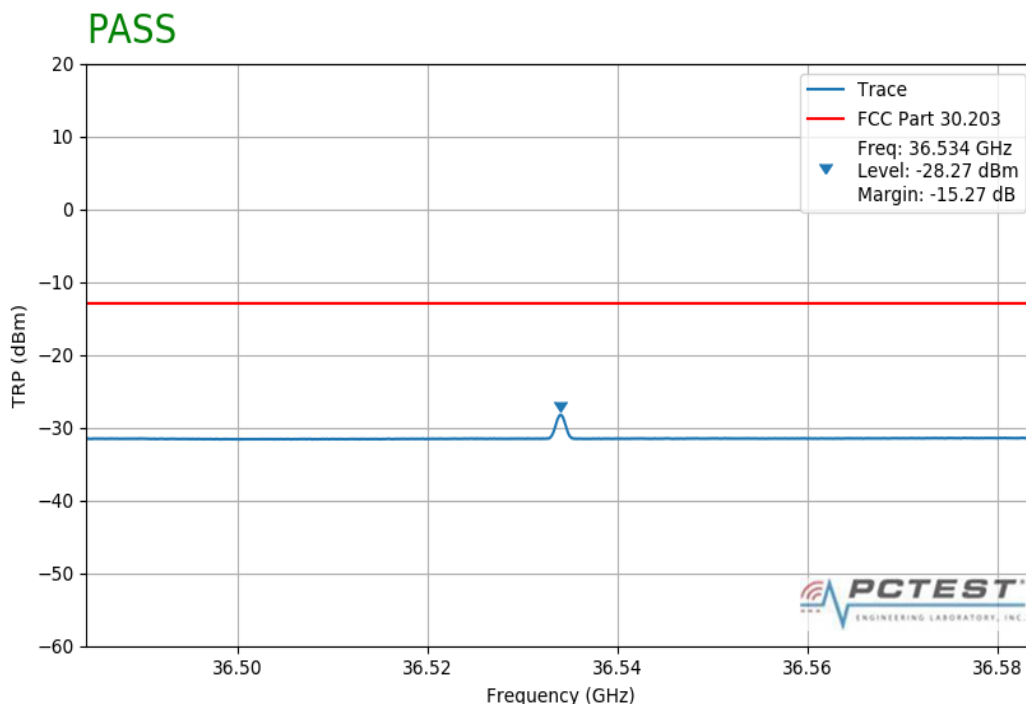
ACLRRResults



19:35:41 23.02.2020

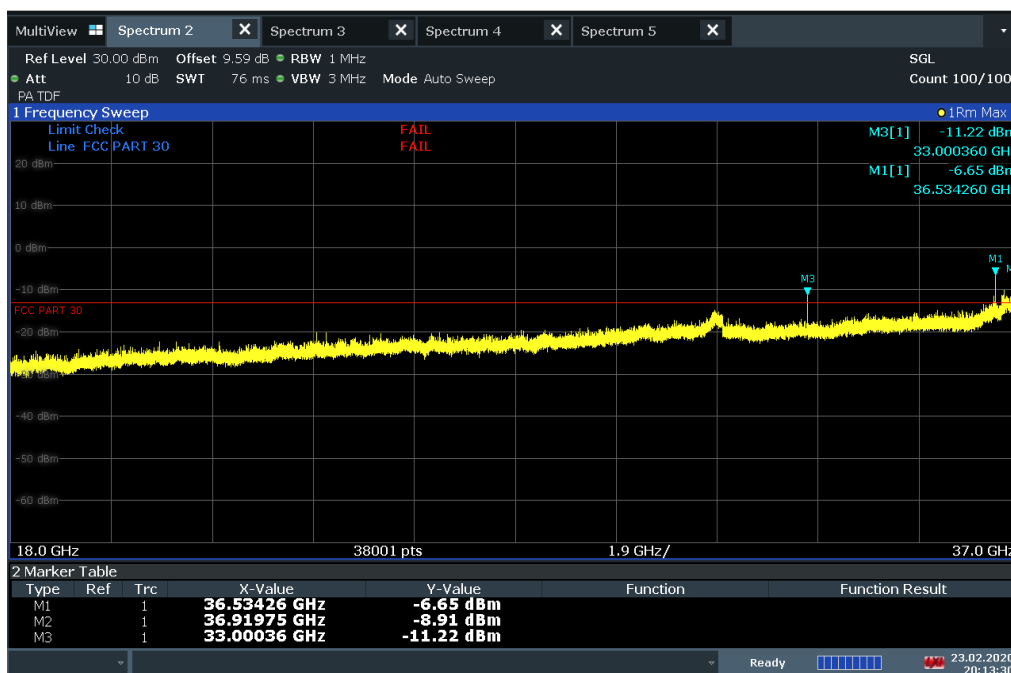
Plot 7-336. Radiated Spurious Plot 18-37 GHz (8CC QPSK Mid Ch. Ant. Angle 45, Final)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 204 of 360



Plot 7-337. Radiated Spurious Plot 36.48-36.594 GHz (8CC QPSK Mid Ch. Ant. TRP)

ACLRRResults



20:13:31 23.02.2020

Plot 7-338. Radiated Spurious Plot 18-37 GHz (8CC NC QPSK Mid Ch. Ant. Angle 135)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 205 of 360

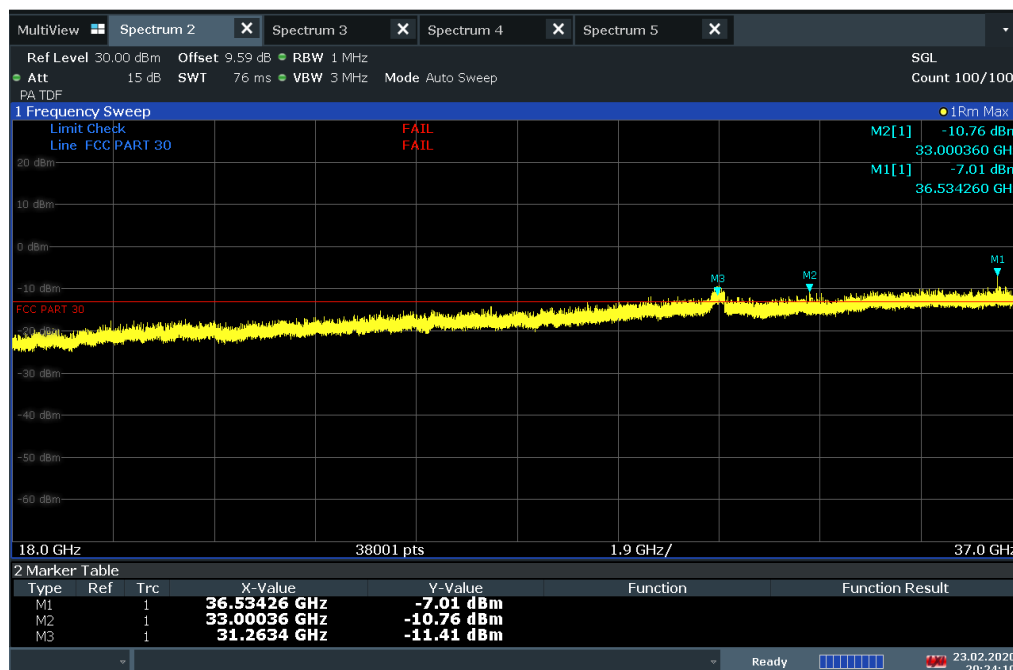
ACLRRResults



20:14:37 23.02.2020

Plot 7-339. Radiated Spurious Plot 18-37 GHz (8CC NC QPSK Mid Ch. Ant. Angle 135, Final)

ACLRRResults



20:24:10 23.02.2020

Plot 7-340. Radiated Spurious Plot 18-37 GHz (8CC NC QPSK Mid Ch. Ant. Angle 45)

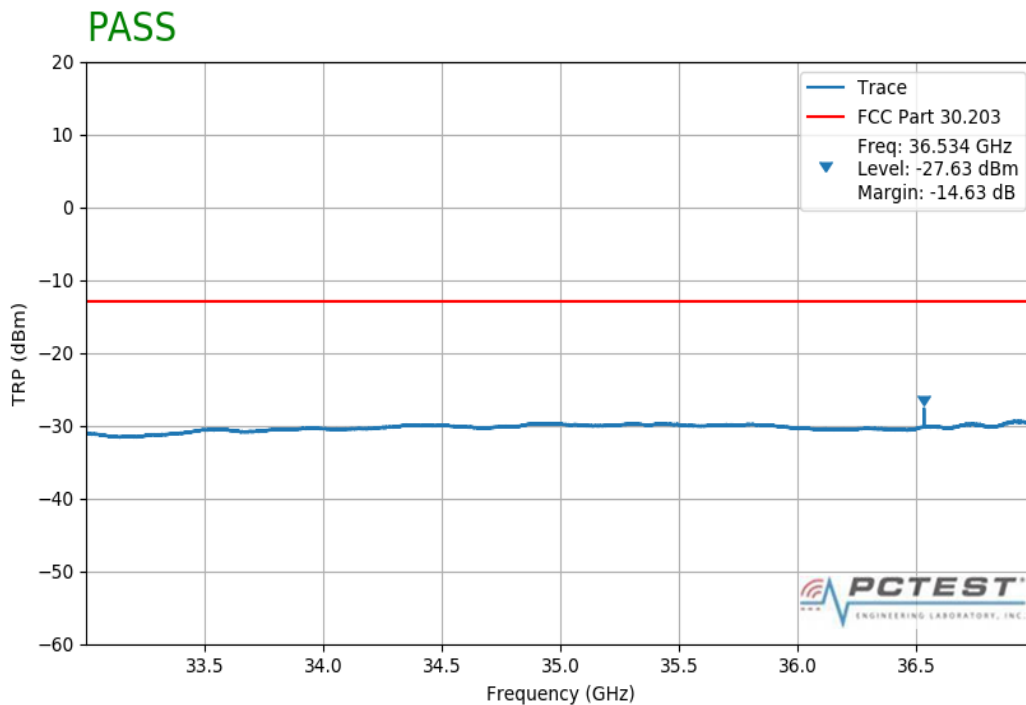
FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 206 of 360

ACLRRResults



20:22:46 23.02.2020

Plot 7-341. Radiated Spurious Plot 18-37 GHz (8CC NC QPSK Mid Ch. Ant. Angle 45, Final)



Plot 7-342. Radiated Spurious Plot 33-37 GHz (8CC NC QPSK Mid Ch. TRP)

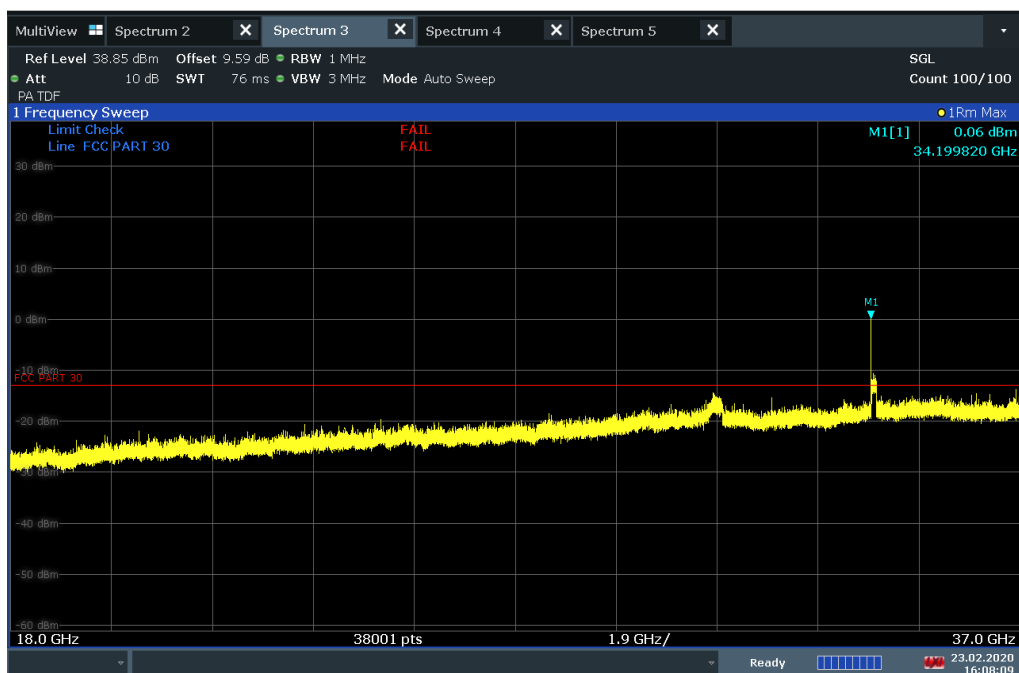
FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 207 of 360

© 2020 PCTEST

V9.0 02/01/2019

All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from PCTEST. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact INFO@PCTEST.COM.

ACLRRResults



16:08:10 23.02.2020

Plot 7-343. Radiated Spurious Plot 18-37 GHz (1CC QPSK High Ch. Ant. Angle 135)

ACLRRResults

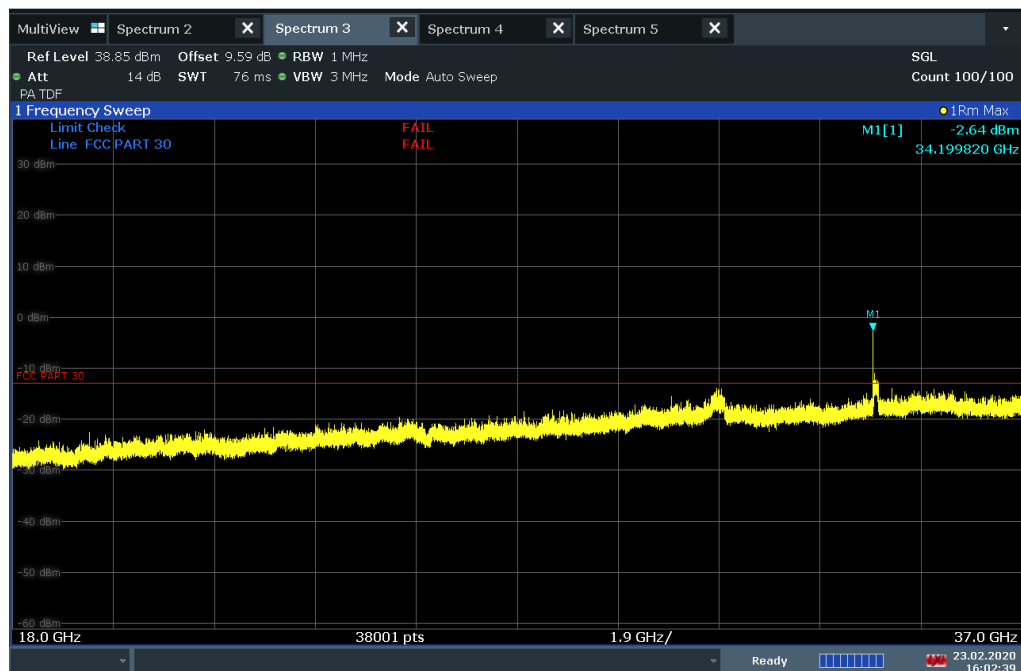


16:08:50 23.02.2020

Plot 7-344. Radiated Spurious Plot 18-37 GHz (1CC QPSK High Ch. Ant. Angle 135, Final)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 208 of 360

ACLRRResults



16:02:40 23.02.2020

Plot 7-345. Radiated Spurious Plot 18-37 GHz (1CC QPSK High Ch. Ant. Angle 45)

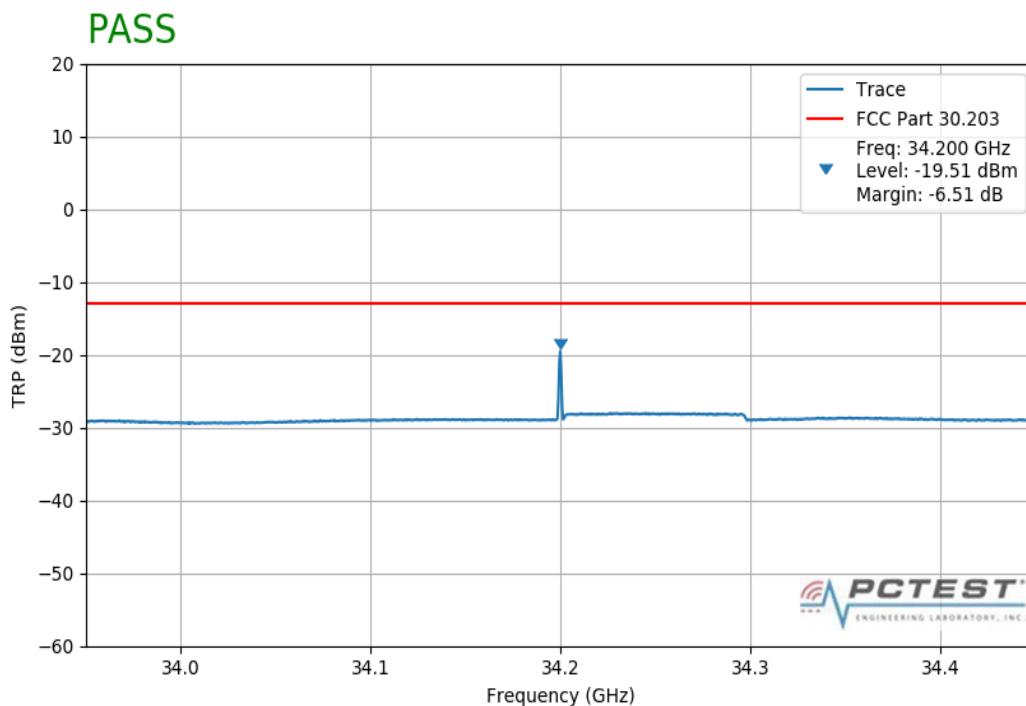
ACLRRResults



16:03:42 23.02.2020

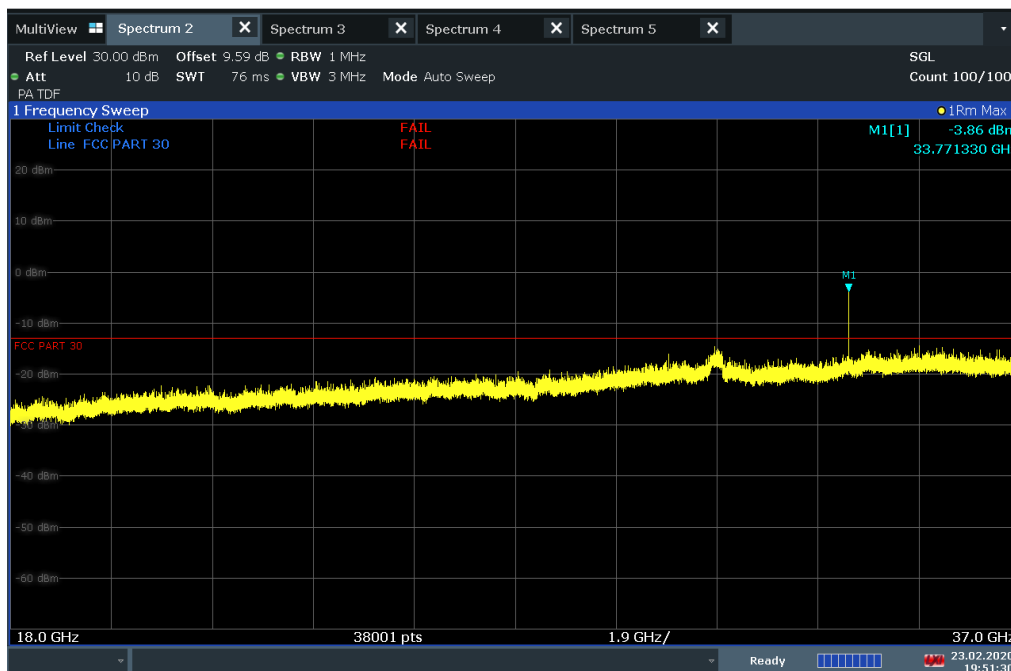
Plot 7-346. Radiated Spurious Plot 18-37 GHz (1CC QPSK High Ch. Ant. Angle 45, Final)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 209 of 360



Plot 7-347. Radiated Spurious Plot 33.95-34.45 GHz (1CC QPSK High Ch. TRP)

ACLRRResults

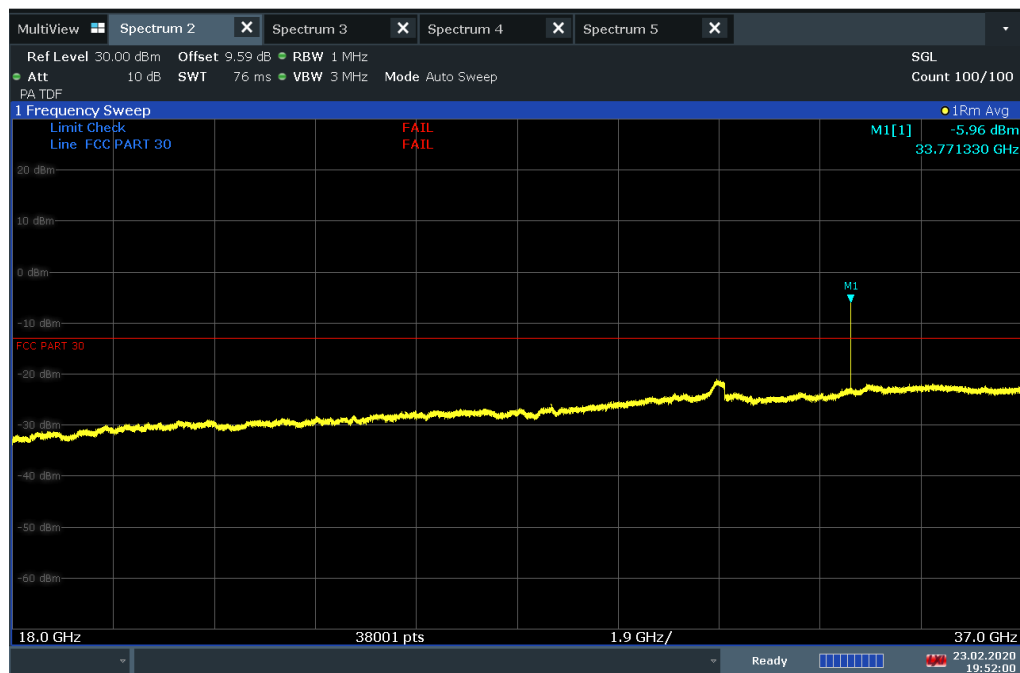


19:51:31 23.02.2020

Plot 7-348. Radiated Spurious Plot 18-37 GHz (8CC QPSK High Ch. Ant. Angle 135)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 210 of 360

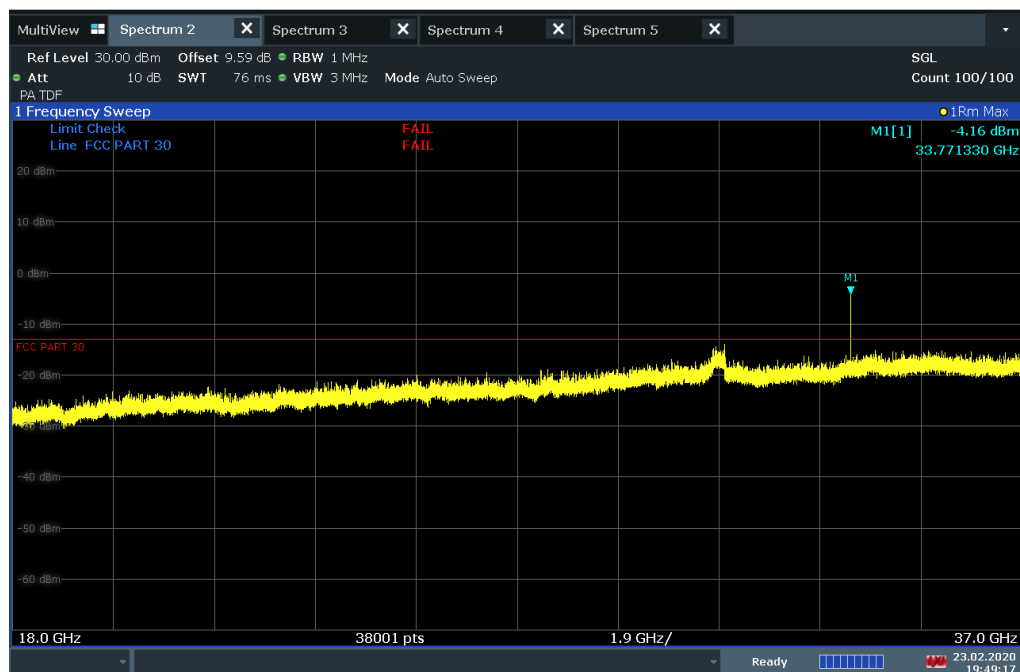
ACLRRResults



19:52:01 23.02.2020

Plot 7-349. Radiated Spurious Plot 18-37 GHz (8CC QPSK High Ch. Ant. Angle 135, Final)

ACLRRResults

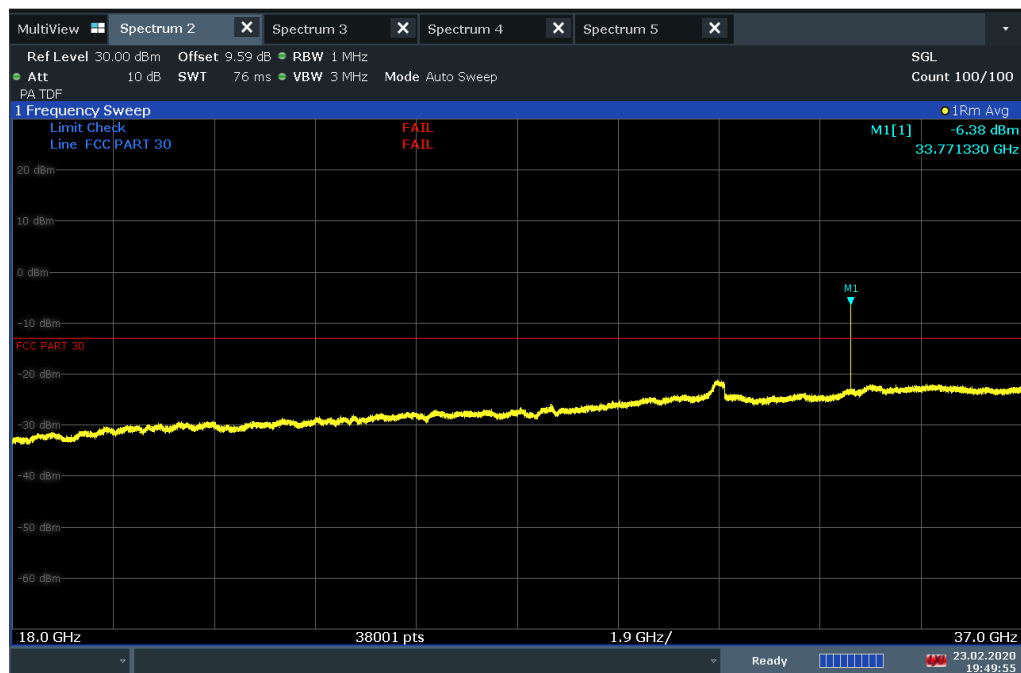


19:49:17 23.02.2020

Plot 7-350. Radiated Spurious Plot 18-37 GHz (8CC QPSK High Ch. Ant. Angle 45)

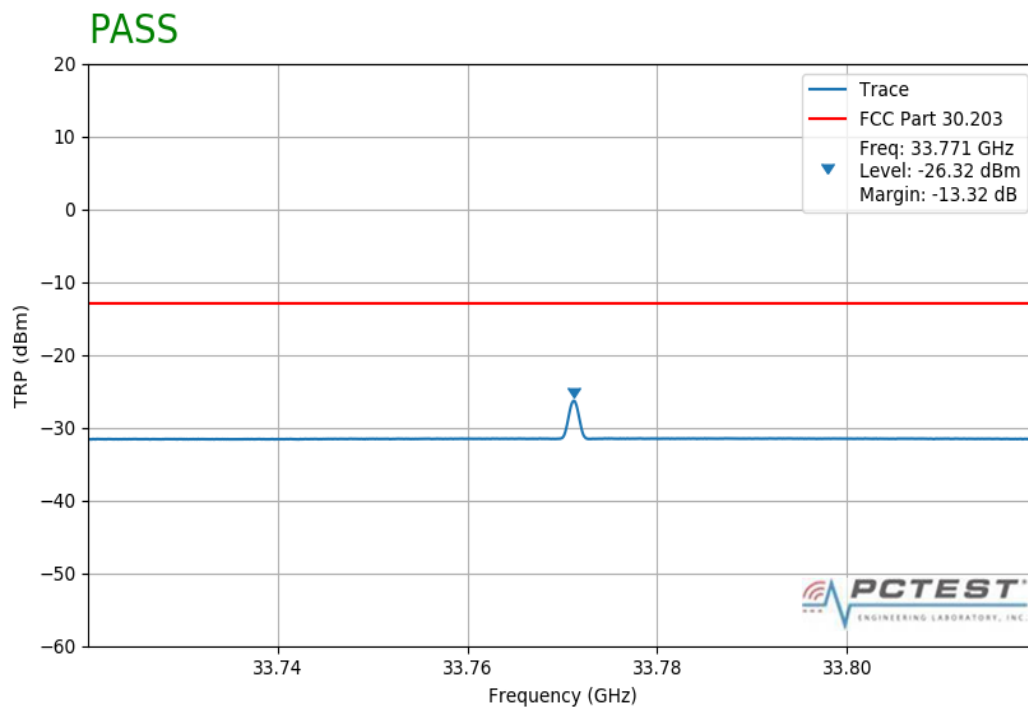
FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 211 of 360

ACLRRResults



19:49:56 23.02.2020

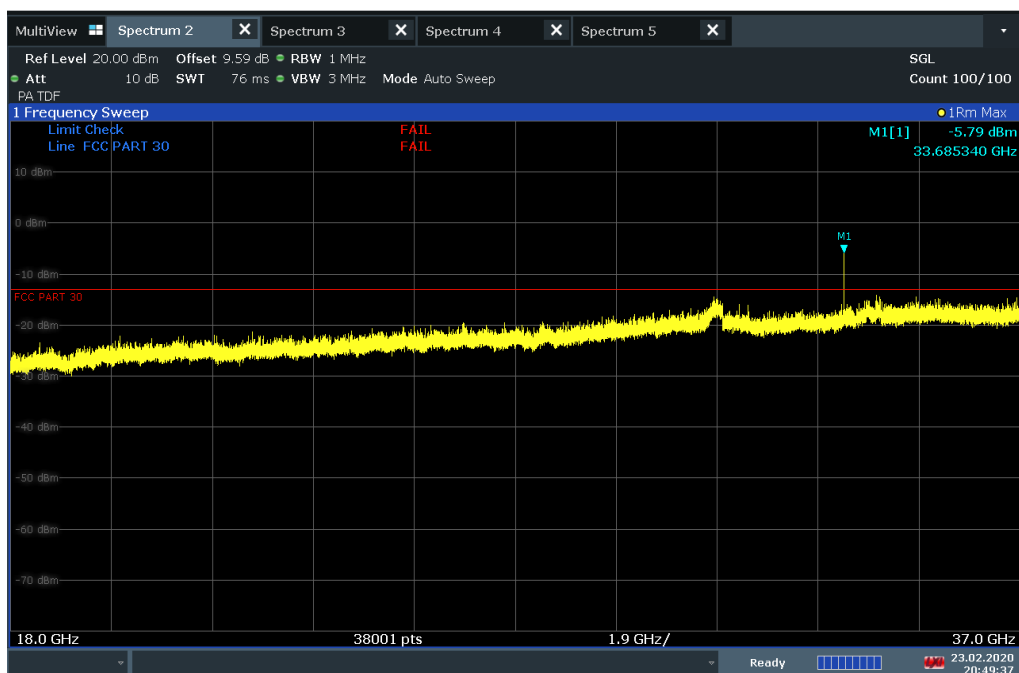
Plot 7-351. Radiated Spurious Plot 18-37 GHz (8CC QPSK High Ch. Ant. Angle 45, Final)



Plot 7-352. Radiated Spurious Plot 33.72-33.82 GHz (8CC QPSK High Ch. TRP)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 212 of 360

ACLRRResults



20:49:37 23.02.2020

Plot 7-353. Radiated Spurious Plot 18-37 GHz (8CC NC QPSK High Ch. Ant. Angle 135)

ACLRRResults

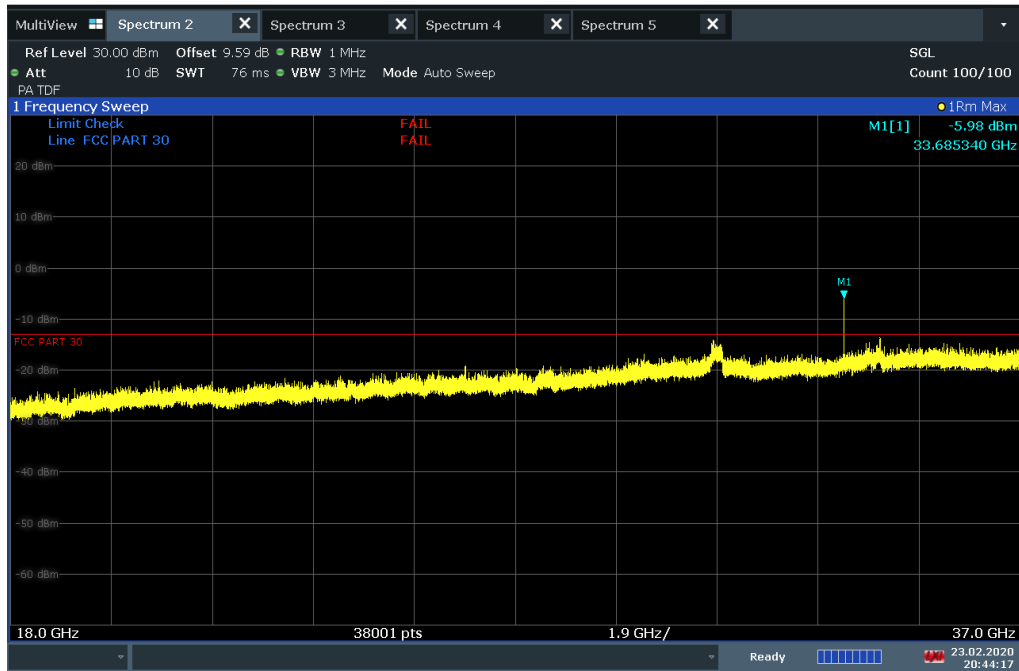


20:50:20 23.02.2020

Plot 7-354. Radiated Spurious Plot 18-37 GHz (8CC NC QPSK High Ch. Ant. Angle 135, Final)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 213 of 360

ACLRRResults



20:44:18 23.02.2020

Plot 7-355. Radiated Spurious Plot 18-37 GHz (8CC NC QPSK High Ch. Ant. Angle 45)

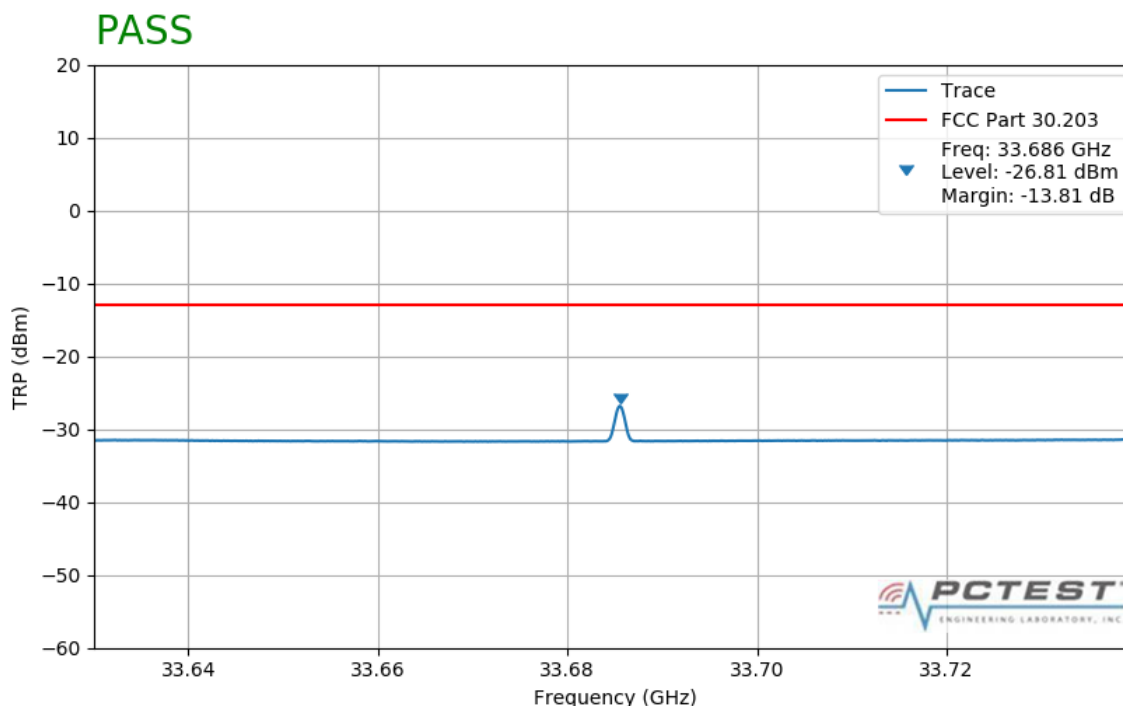
ACLRRResults



20:46:03 23.02.2020

Plot 7-356. Radiated Spurious Plot 18-37 GHz (8CC NC QPSK High Ch. Ant. Angle 45, Final)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 214 of 360



Plot 7-357. Radiated Spurious Plot 33.63-33.74 GHz (8CC NC QPSK High Ch. TRP)

Frequency [MHz]	Channel	CC Active	Mod.	Ant. Angle [degree]	Antenna Height [cm]	Turn Table Azimuth [degree]	Analyzer Level [dBm]	AFCL [dBm]	Field Strength [dBμV/m]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]	TRP [dBm]	Margin [dB]
36989.25	Low	CC0	QPSK	135	148	10	-81.62	57.57	82.96	-12.25	-13.00	0.75	-22.43	-9.43
36989.25	Low	CC0	QPSK	45	148	10	-80.80	57.57	83.78	-11.43	-13.00	1.57	-22.43	-9.43
36583.76	Mid	CC4	QPSK	135	148	10	-79.37	57.65	85.28	-9.93	-13.00	3.07	-26.84	-13.84
36583.76	Mid	CC4	QPSK	45	148	10	-81.79	57.65	82.86	-12.35	-13.00	0.65	-26.84	-13.84
34199.82	High	CC7	QPSK	135	148	10	-71.67	58.53	93.86	-1.35	-13.00	11.65	-19.51	-6.51
34199.82	High	CC7	QPSK	45	148	10	-74.55	58.53	90.98	-4.23	-13.00	8.77	-19.51	-6.51
36908.75	Low	CC0-CC7(C)	QPSK	135	148	10	-78.26	57.57	86.32	-8.89	-13.00	4.11	-23.54	-10.54
36912.25	Low	CC0-CC7(C)	QPSK	45	148	10	-78.94	57.57	85.64	-9.57	-13.00	3.43	-23.54	-10.54
36533.76	Mid	CC0-CC7(C)	QPSK	135	148	10	-79.85	57.65	84.80	-10.41	-13.00	2.59	-28.27	-15.27
36533.76	Mid	CC0-CC7(C)	QPSK	45	148	10	-79.18	57.65	85.47	-9.74	-13.00	3.26	-28.27	-15.27
33771.33	High	CC0-CC7(C)	QPSK	135	148	10	-76.13	58.38	89.25	-5.96	-13.00	7.04	-26.32	-13.32
33771.33	High	CC0-CC7(C)	QPSK	45	148	10	-76.55	58.38	88.83	-6.38	-13.00	6.62	-26.32	-13.32
36904.75	Low	CC0-CC7(NC)	QPSK	135	148	10	-83.09	57.57	81.49	-13.72	-13.00	-0.72	-26.73	-13.73
36853.26	Low	CC0-CC7(NC)	QPSK	45	148	10	-81.35	57.57	83.23	-11.98	-13.00	1.02	-26.73	-13.73
33000.36	Mid	CC0-CC7(NC)	QPSK	135	148	10	-84.00	57.75	80.75	-14.46	-13.00	-1.46	-29.64	-16.64
32999.86	Mid	CC0-CC7(NC)	QPSK	45	148	10	-85.21	57.77	79.57	-15.64	-13.00	-2.64	-29.64	-16.64
36534.26	Mid	CC0-CC7(NC)	QPSK	45	148	10	-80.21	57.65	84.44	-10.77	-13.00	2.23	-27.63	-14.63
36534.26	Mid	CC0-CC7(NC)	QPSK	135	148	10	-80.66	57.65	83.99	-11.22	-13.00	1.78	-27.63	-14.63
33685.34	High	CC0-CC7(NC)	QPSK	135	148	10	-78.44	58.22	86.79	-8.42	-13.00	4.58	-26.81	-13.81
33685.34	High	CC0-CC7(NC)	QPSK	45	148	10	-78.22	58.22	87.01	-8.20	-13.00	4.80	-26.81	-13.81

Table 7-20. Spurious Emissions (18 – 40GHz)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 215 of 360

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.

$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + \text{AFCL [dB/m]} + 107 + 20\text{Log}(D_m) - 104.8 + \text{Duty Corretion Factor}$$

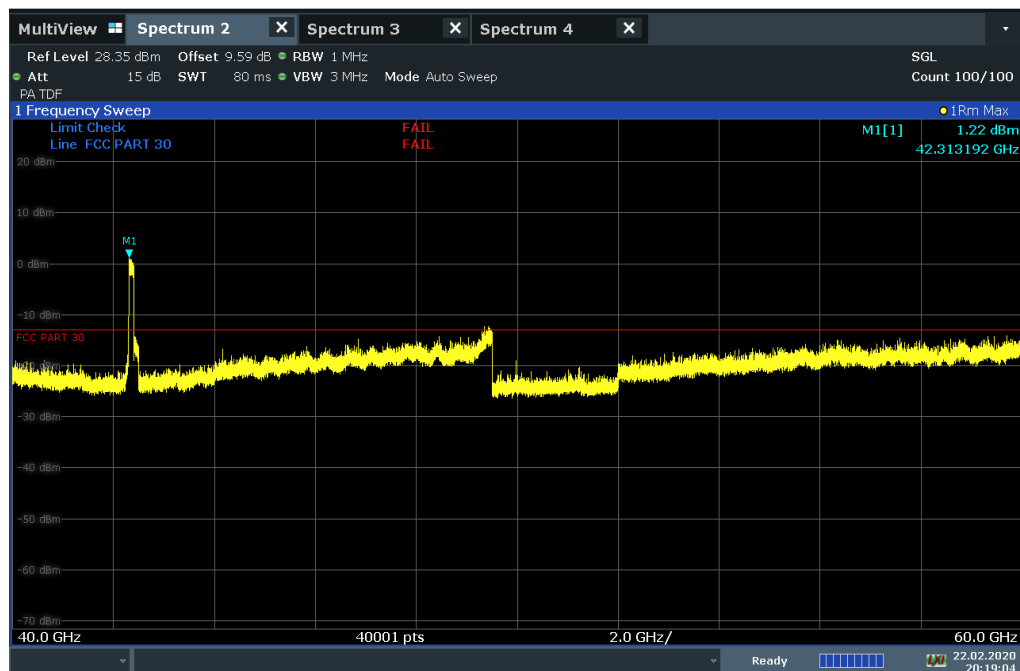
Duty Cycle Correction Factor Calculation

- 1 Cycle Time = 626 μs
 - Tx on Time = 468 μs
 - Duty Cycle = Tx on Time / 1 Cycle Time = 468 μs / 626 μs = 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-A10	 Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 216 of 360

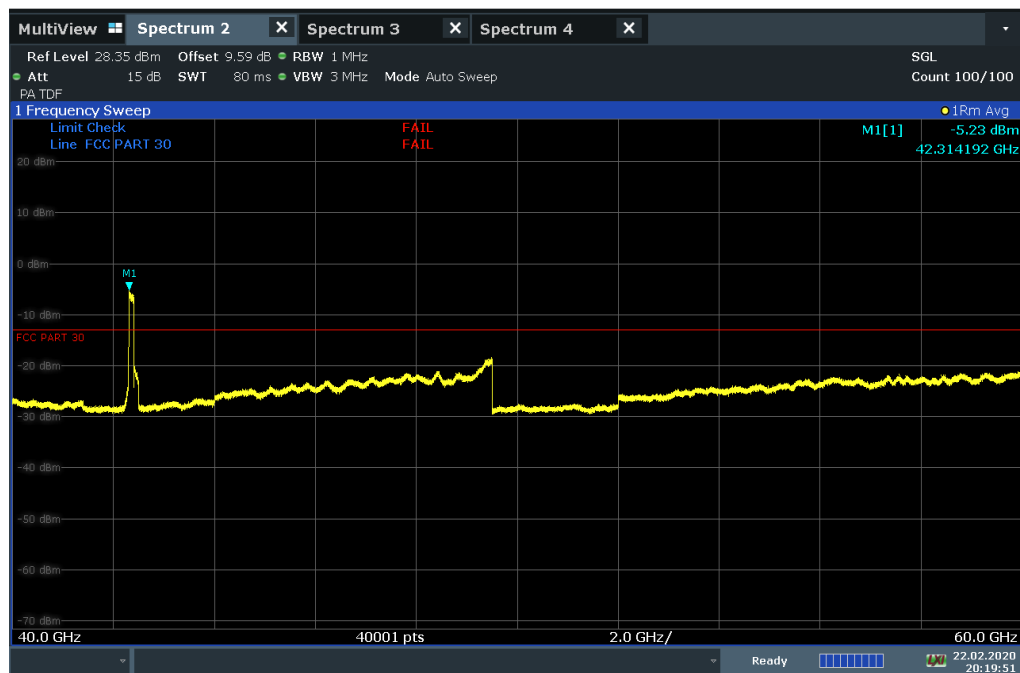
7.5.4 Radiated Spurious Emissions Plots (40 – 60GHz)

ACLRRResults



Plot 7-358. Radiated Spurious Plot 40-60 GHz (1CC QPSK Low Ch. Ant. Angle 135)

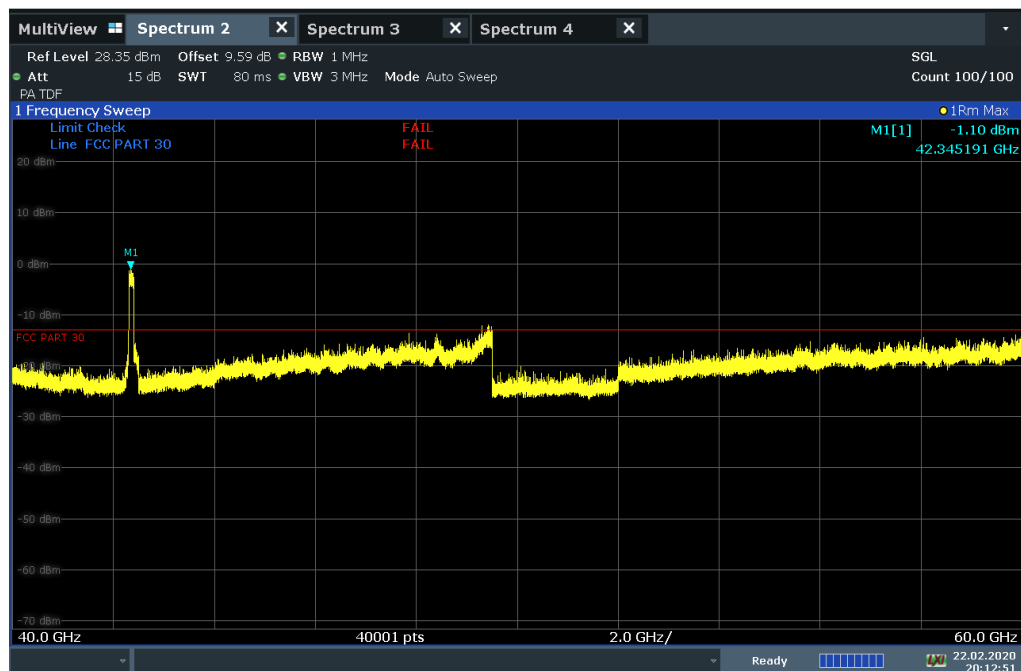
ACLRRResults



Plot 7-359. Radiated Spurious Plot 40-60 GHz (1CC QPSK Low Ch. Ant. Angle 135, Final)

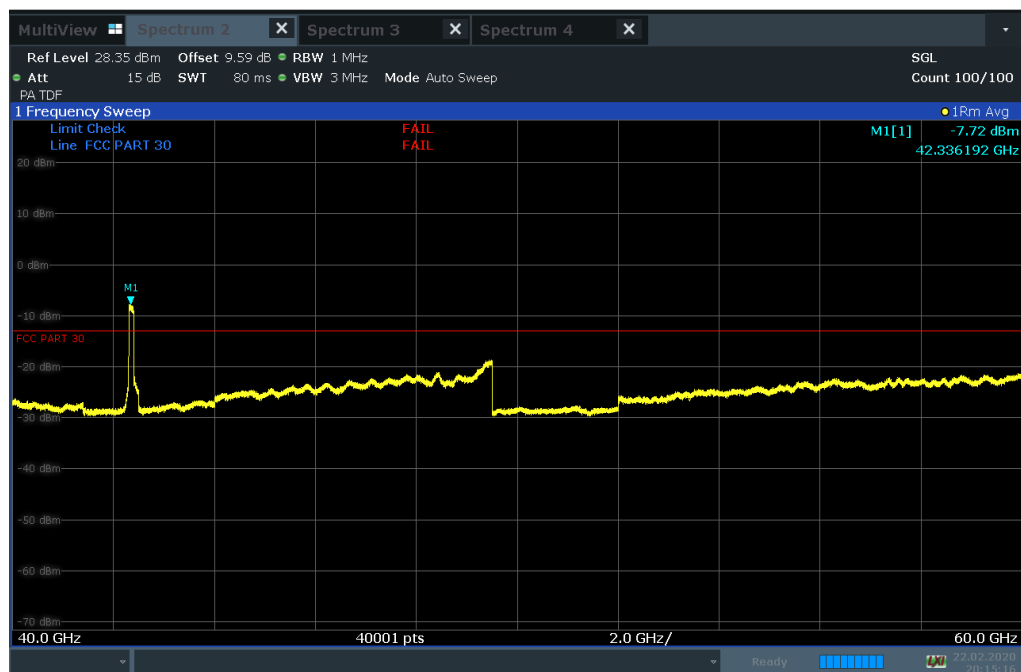
FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 217 of 360

ACLRRResults



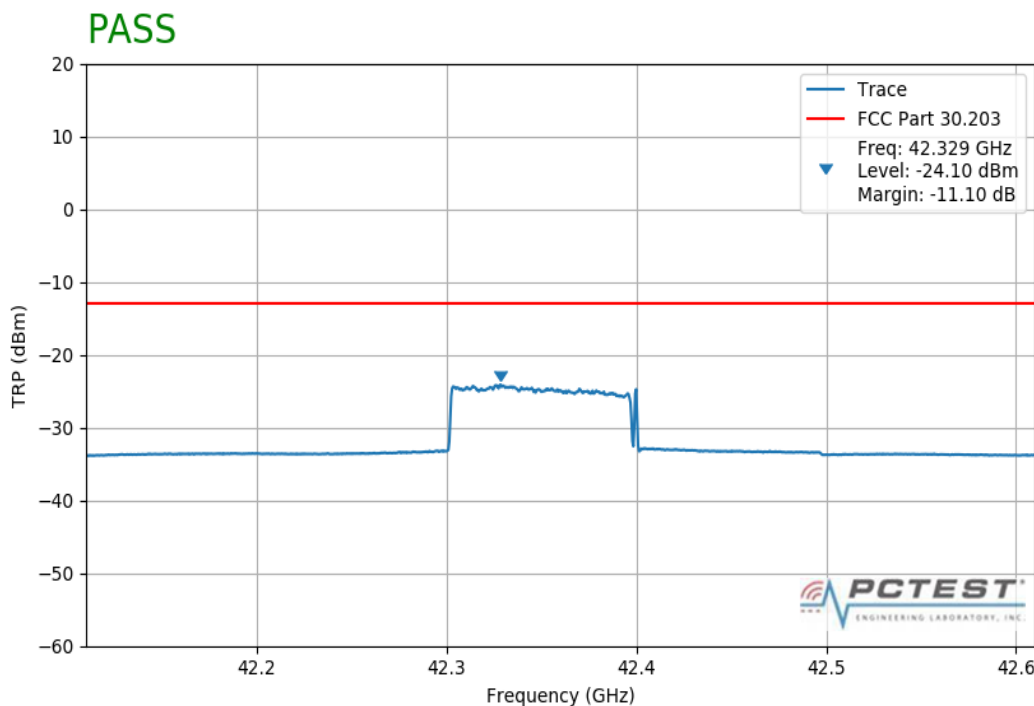
Plot 7-360. Radiated Spurious Plot 40-60 GHz (1CC QPSK Low Ch. Ant. Angle 45)

ACLRRResults



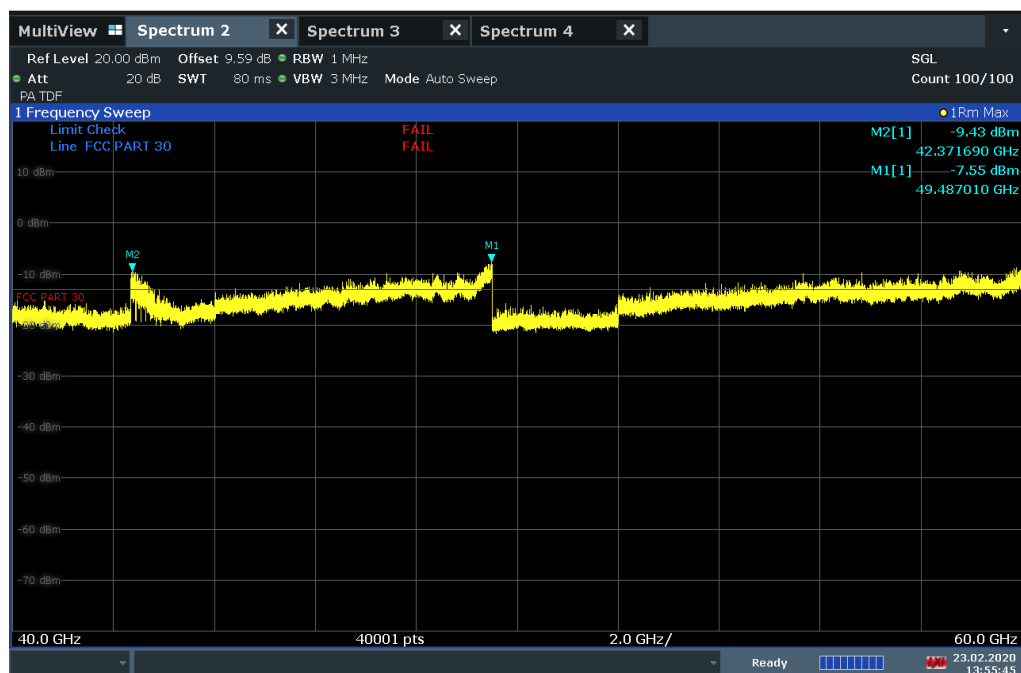
Plot 7-361. Radiated Spurious Plot 40-60 GHz (1CC QPSK Low Ch. Ant. Angle 45, Final)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 218 of 360



Plot 7-362. Radiated Spurious Plot 42.11-42.61 GHz (1CC QPSK Low Ch. Ant. TRP)

ACLRRResults



13:55:45 23.02.2020

Plot 7-363. Radiated Spurious Plot 40-60 GHz (8CC QPSK Low Ch. Ant. Angle 135)

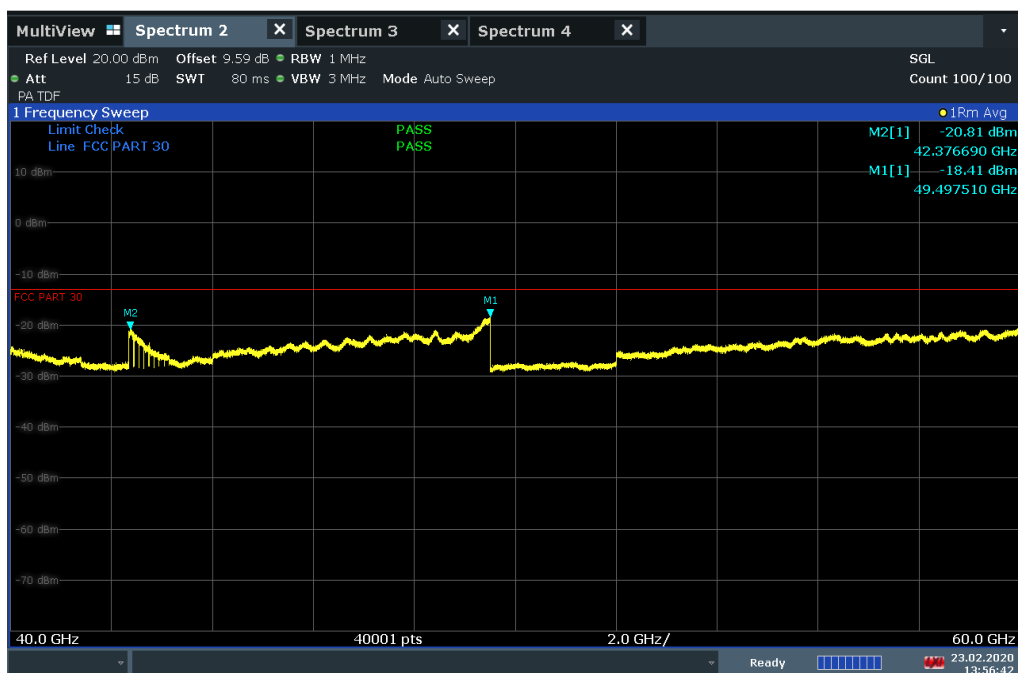
FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 219 of 360

© 2020 PCTEST

V9.0 02/01/2019

All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from PCTEST. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact INFO@PCTEST.COM.

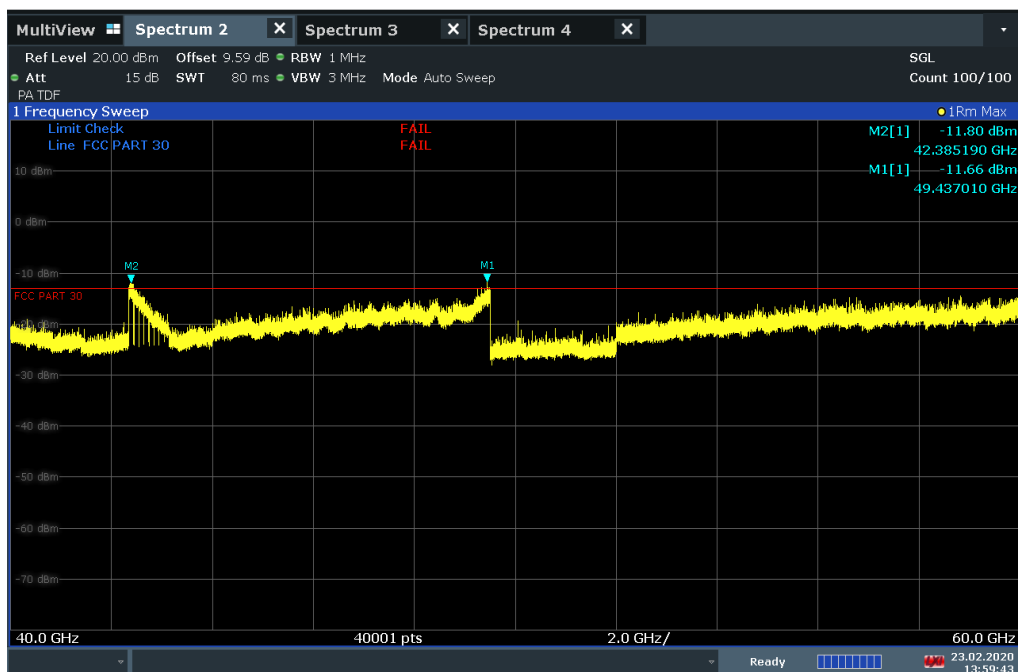
ACLRRResults



13:56:43 23.02.2020

Plot 7-364. Radiated Spurious Plot 40-60 GHz (8CC QPSK Low Ch. Ant. Angle 135, Final)

ACLRRResults

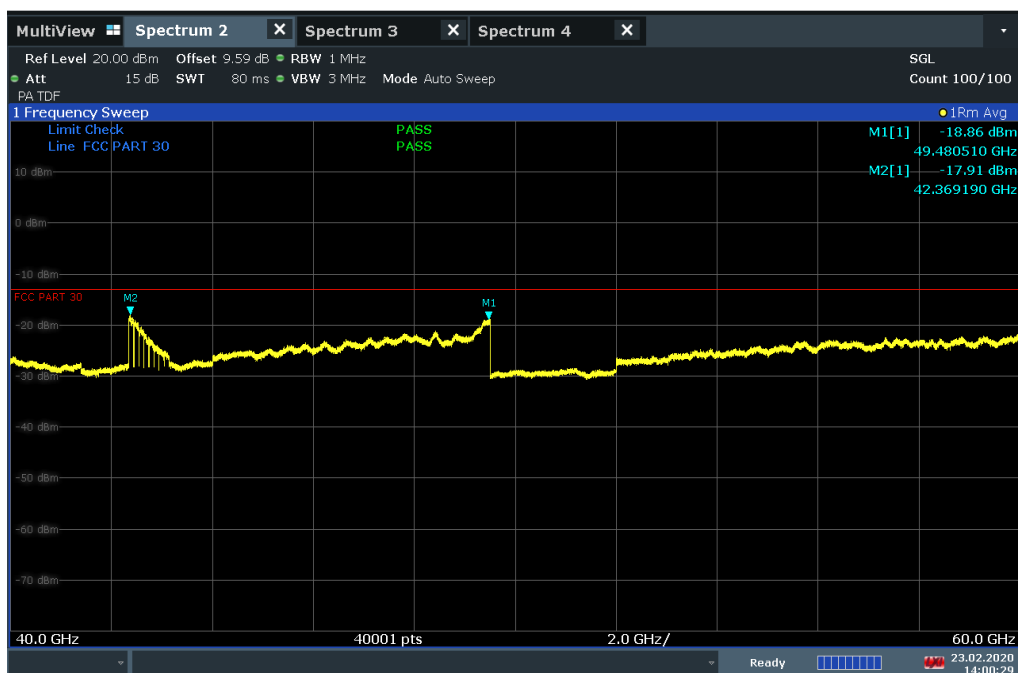


13:59:44 23.02.2020

Plot 7-365. Radiated Spurious Plot 40-60 GHz (8CC QPSK Low Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 220 of 360

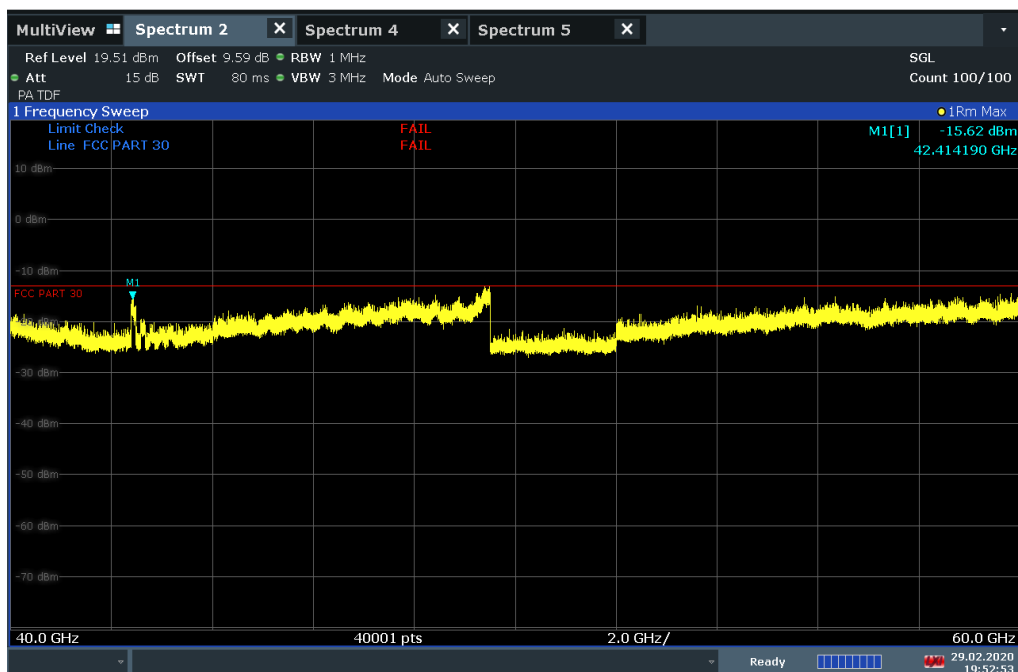
ACLRRResults



14:00:29 23.02.2020

Plot 7-366. Radiated Spurious Plot 40-60 GHz (8CC QPSK Low Ch. Ant. Angle 45, Final)

ACLRRResults

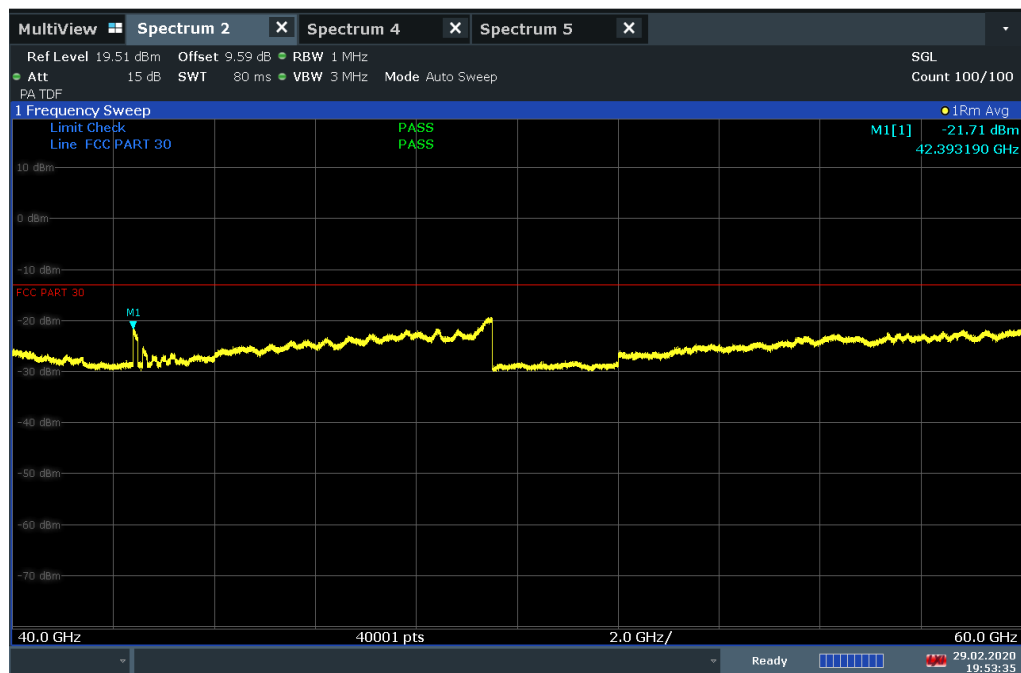


19:52:54 29.02.2020

Plot 7-367. Radiated Spurious Plot 40-60 GHz (8CC NC QPSK Low Ch. Ant. Angle 135)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 221 of 360

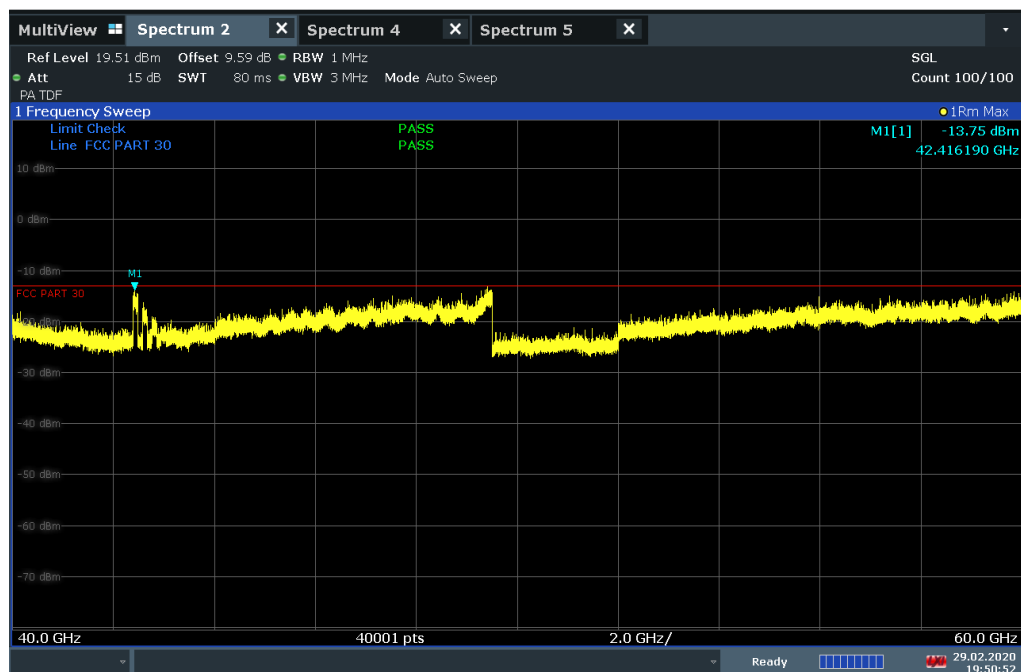
ACLRRResults



19:53:35 29.02.2020

Plot 7-368. Radiated Spurious Plot 40-60 GHz (8CC NC QPSK Low Ch. Ant. Angle 135, Final)

ACLRRResults

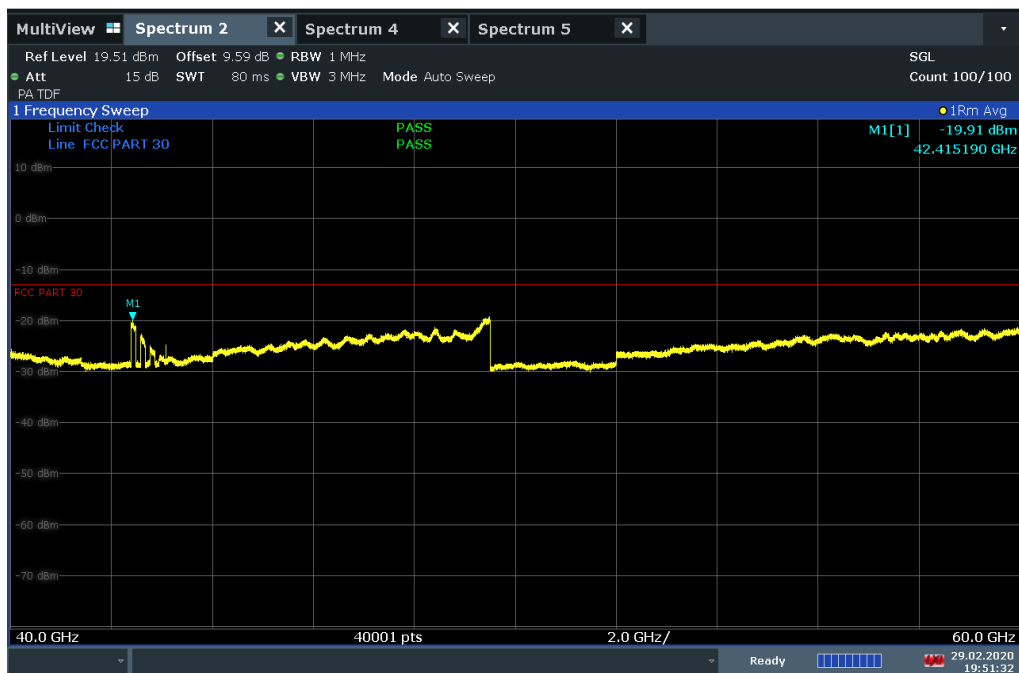


19:50:52 29.02.2020

Plot 7-369. Radiated Spurious Plot 40-60 GHz (8CC NC QPSK Low Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 222 of 360

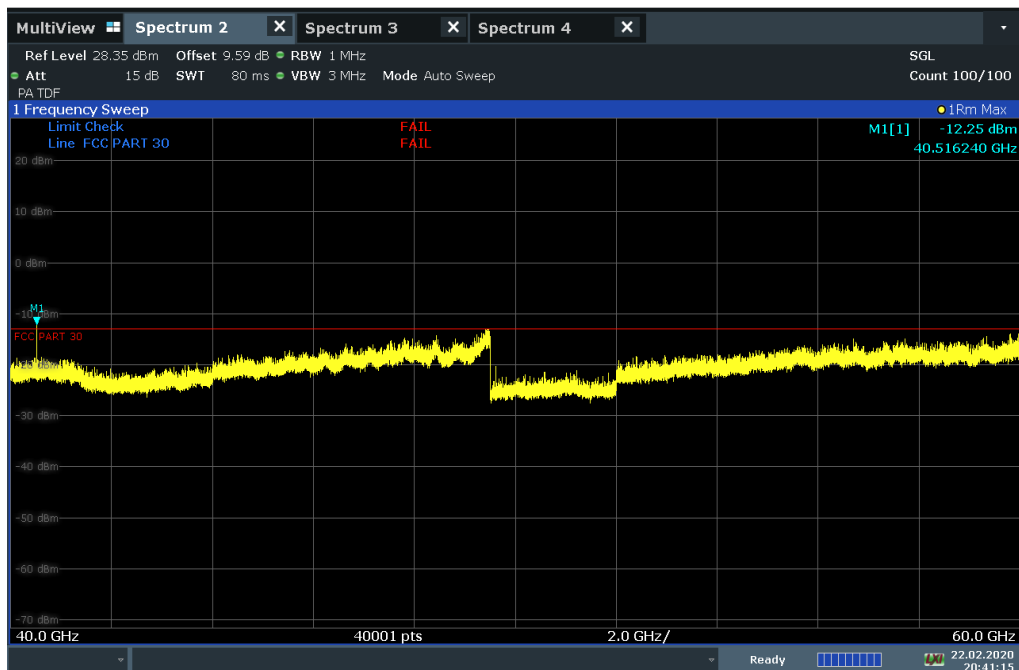
ACLRRResults



19:51:33 29.02.2020

Plot 7-370. Radiated Spurious Plot 40-60 GHz (8CC NC QPSK Low Ch. Ant. Angle 45, Final)

ACLRRResults

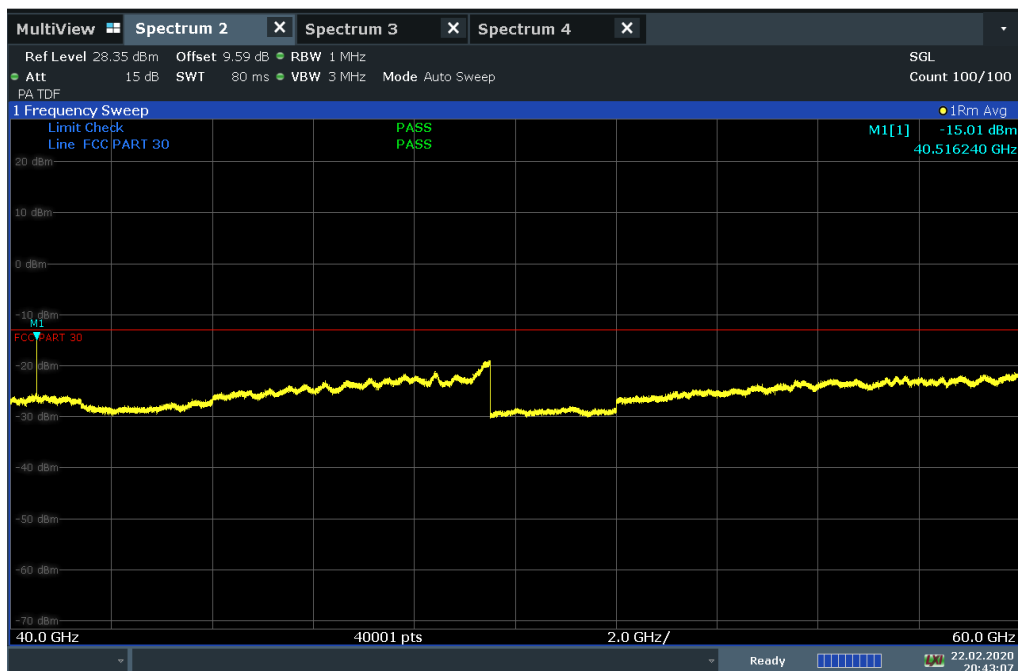


20:41:15 22.02.2020

Plot 7-371. Radiated Spurious Plot 40-60 GHz (1CC QPSK Mid Ch. Ant. Angle 135)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 223 of 360

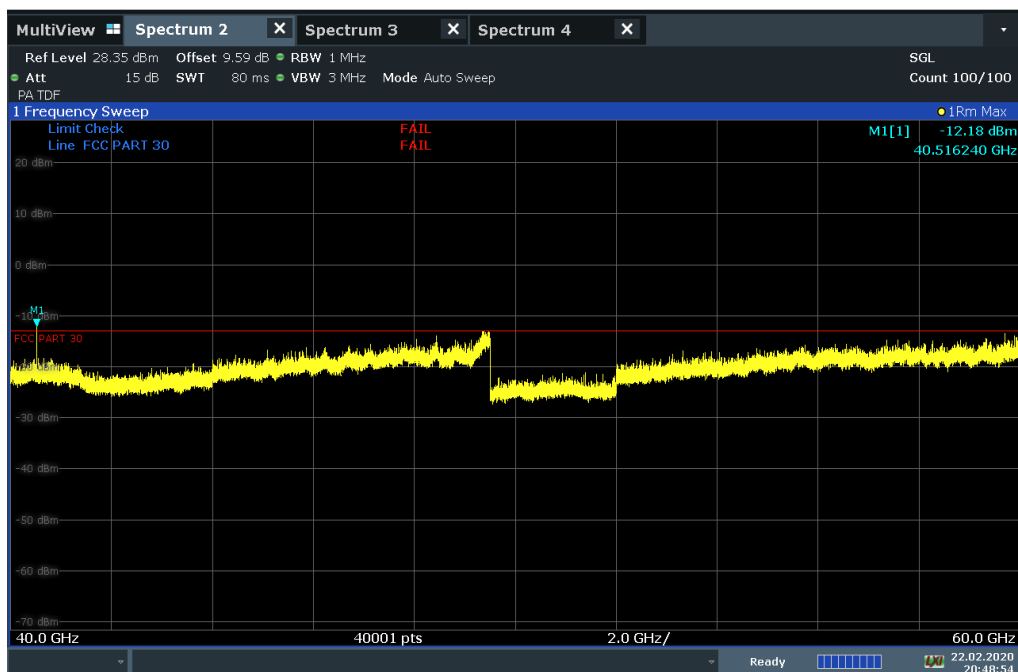
ACLRRResults



20:43:08 22.02.2020

Plot 7-372. Radiated Spurious Plot 40-60 GHz (1CC QPSK Mid Ch. Ant. Angle 135, Final)

ACLRRResults

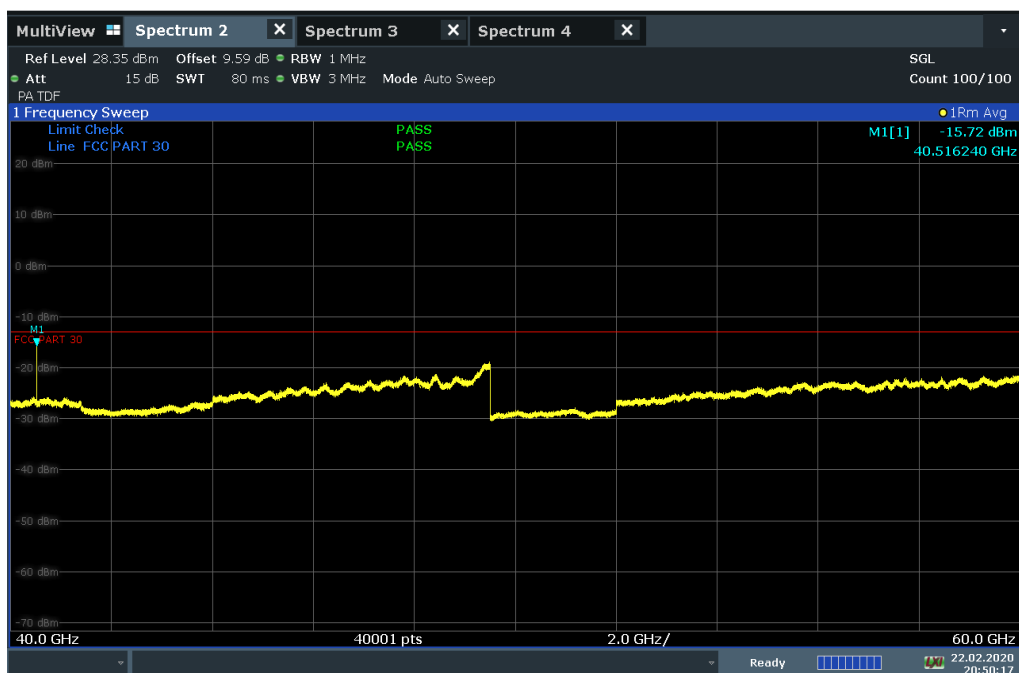


20:48:54 22.02.2020

Plot 7-373. Radiated Spurious Plot 40-60 GHz (1CC QPSK Mid Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 224 of 360

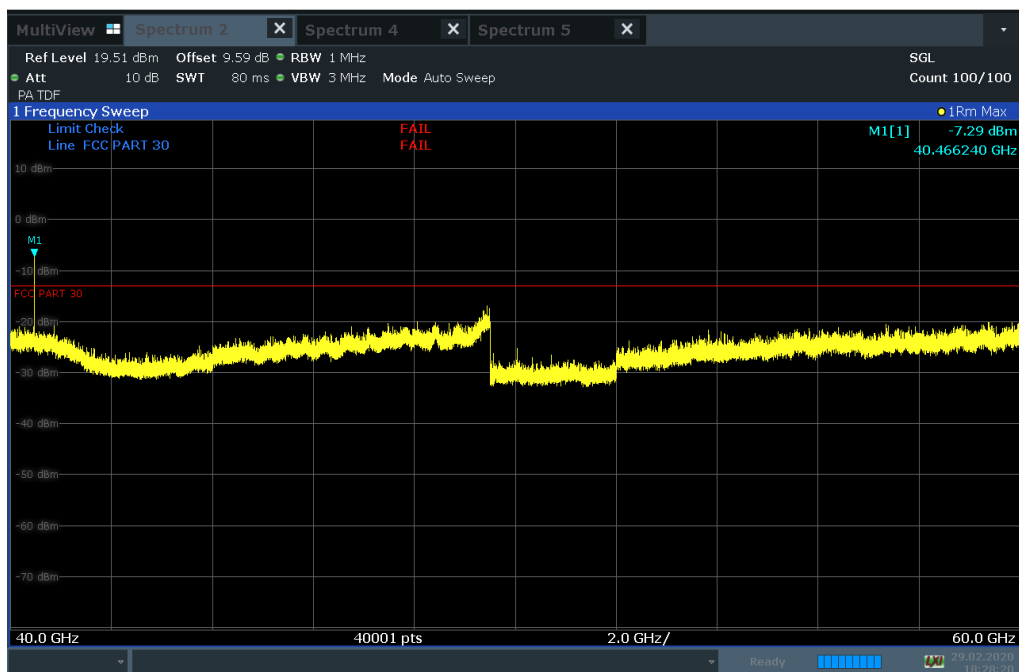
ACLRRResults



20:50:18 22.02.2020

Plot 7-374. Radiated Spurious Plot 40-60 GHz (1CC QPSK Mid Ch. Ant. Angle 45, Final)

ACLRRResults

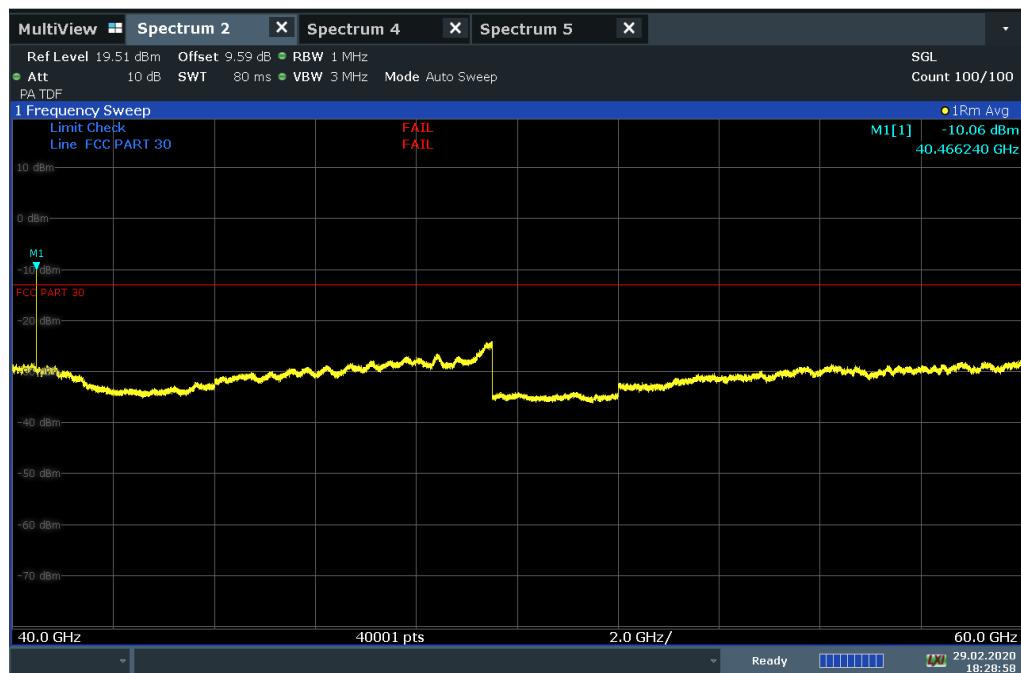


18:28:20 29.02.2020

Plot 7-375. Radiated Spurious Plot 40-60 GHz (8CC QPSK Mid Ch. Ant. Angle 135)

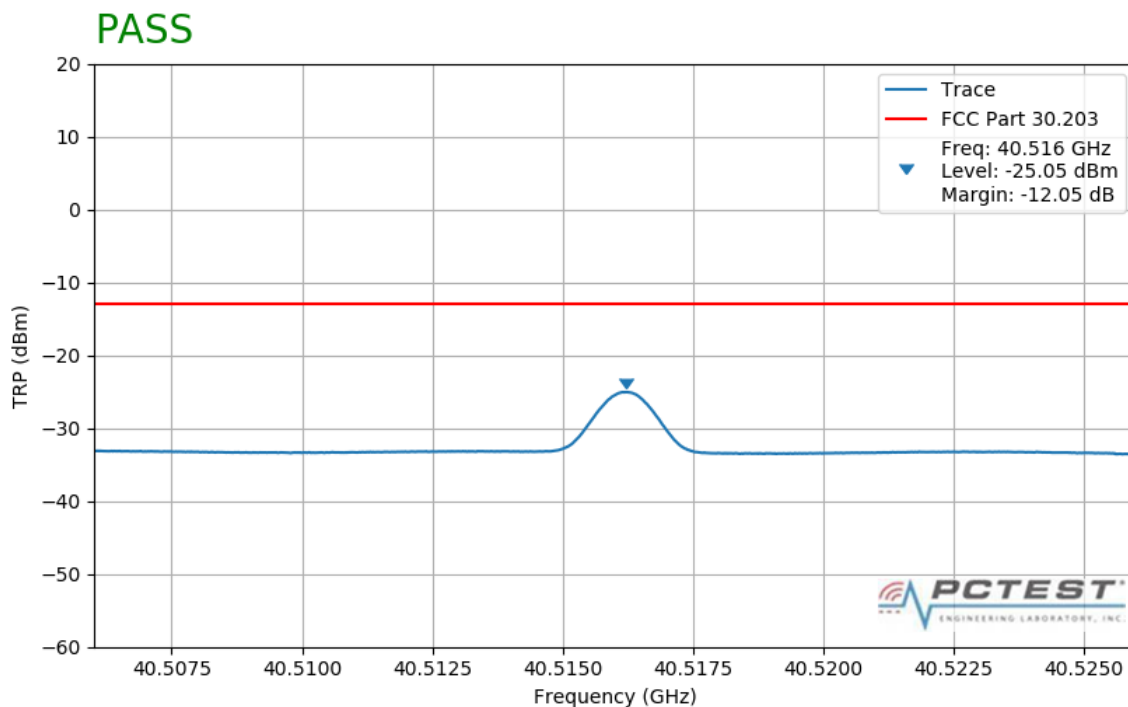
FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 225 of 360

ACLRRResults



18:28:58 29.02.2020

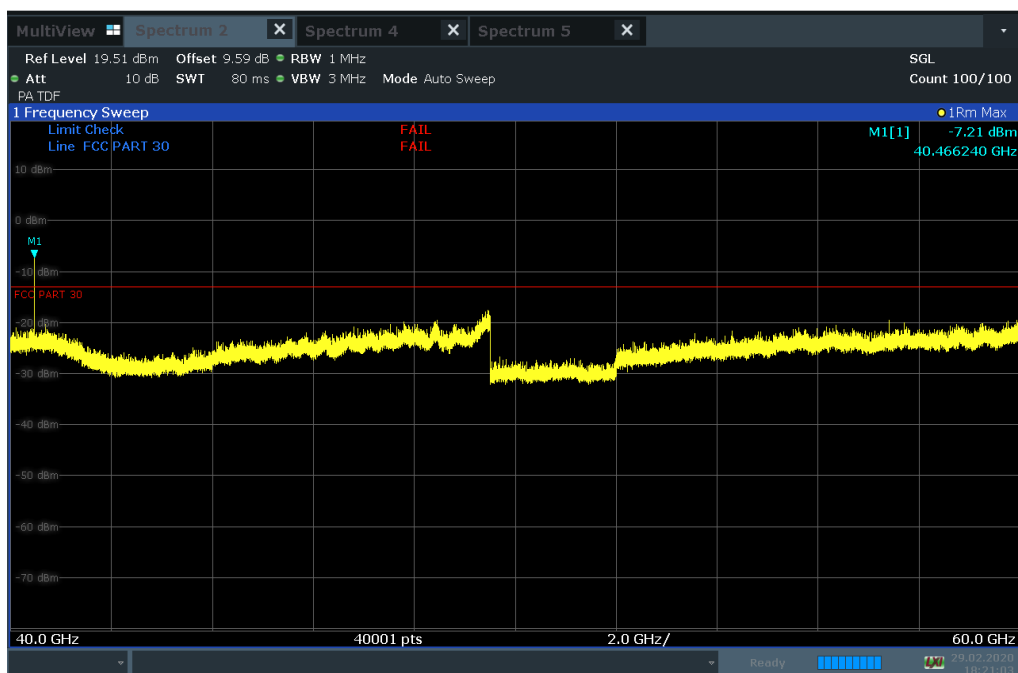
Plot 7-376. Radiated Spurious Plot 40-60 GHz (8CC QPSK Mid Ch. Ant. Angle 135, Final)



Plot 7-377. Radiated Spurious Plot 40.506-40.526 GHz (1CC QPSK Mid Ch. Ant. TRP)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 226 of 360

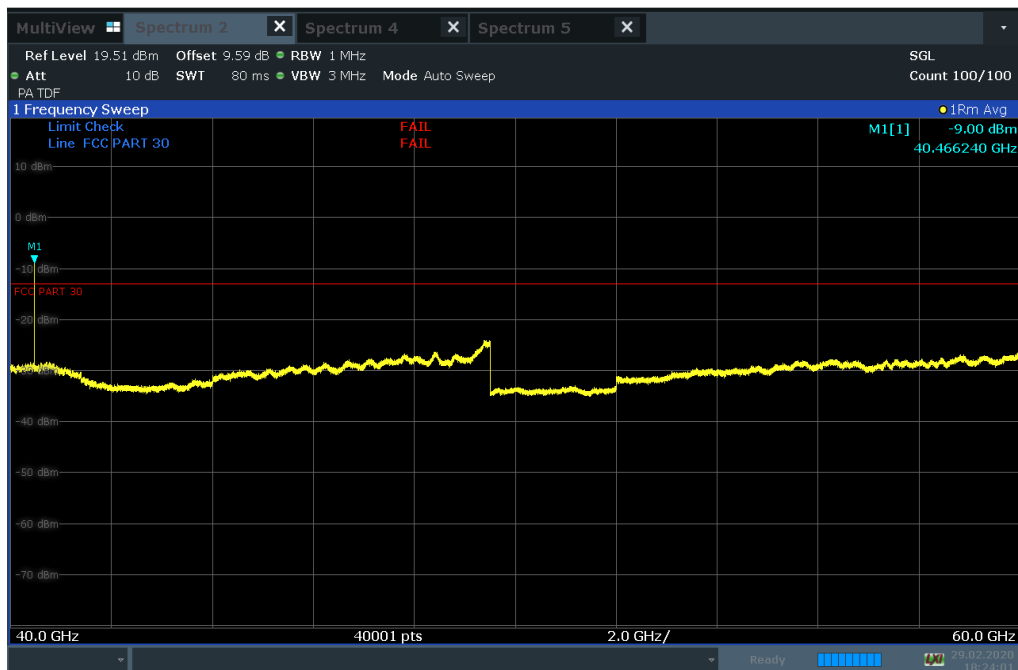
ACLRRResults



18:21:04 29.02.2020

Plot 7-378. Radiated Spurious Plot 40-60 GHz (8CC QPSK Mid Ch. Ant. Angle 45)

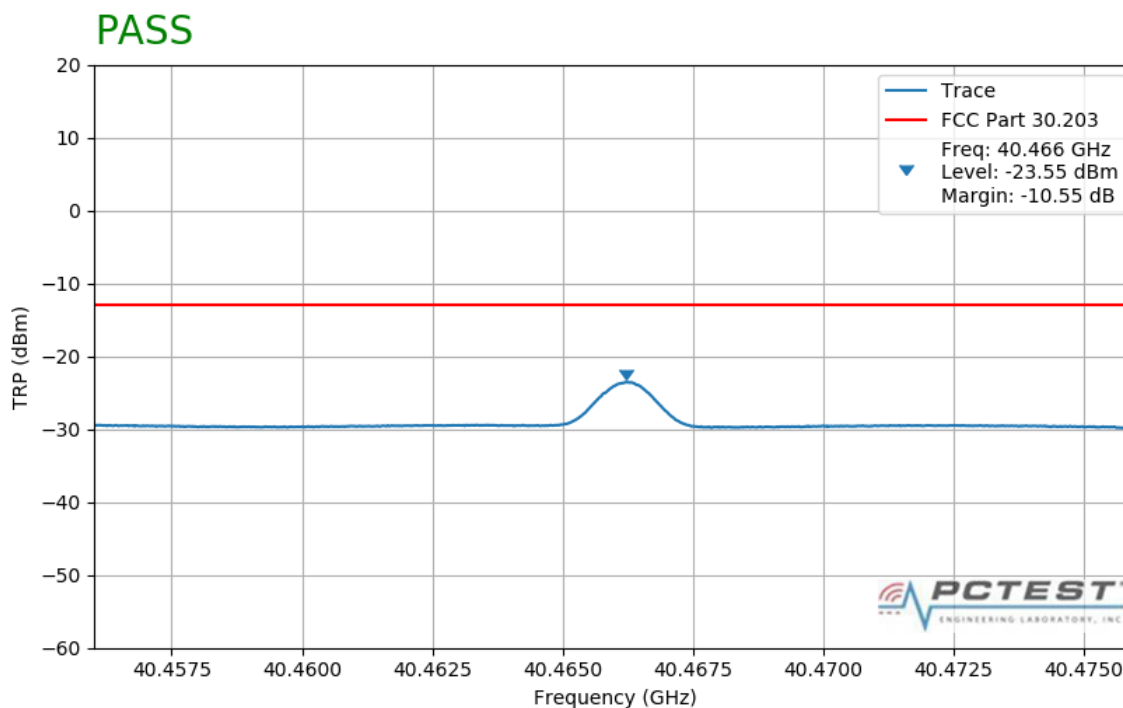
ACLRRResults



18:24:01 29.02.2020

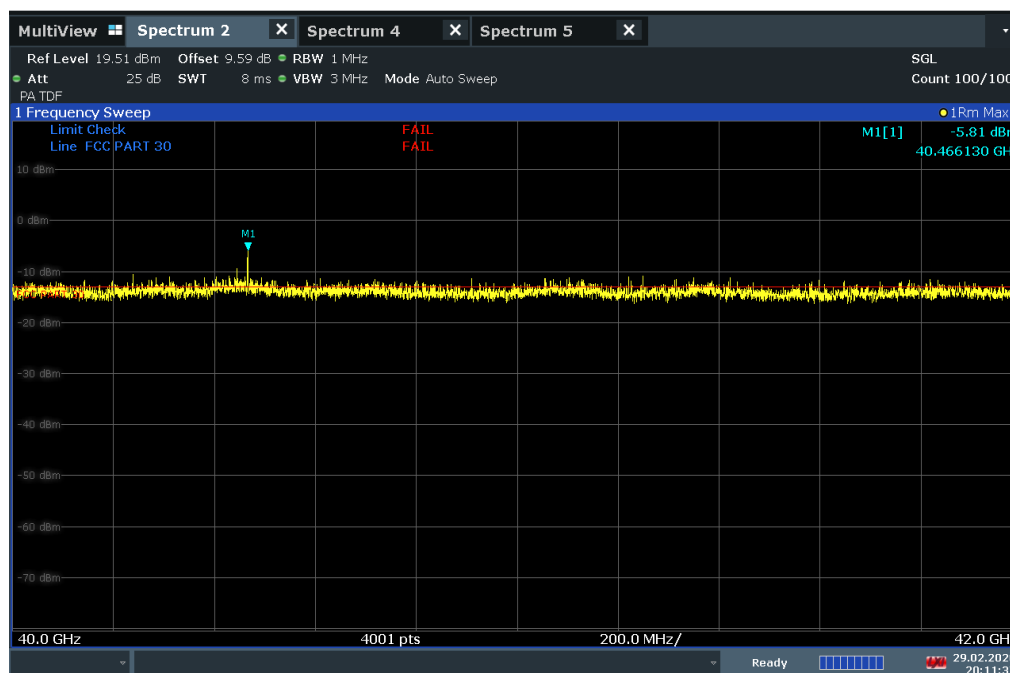
Plot 7-379. Radiated Spurious Plot 40-60 GHz (8CC QPSK Mid Ch. Ant. Angle 45, Final)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 227 of 360



Plot 7-380. Radiated Spurious Plot 40.456-40.476 GHz (8CC QPSK Mid Ch. TRP)

ACLRRResults



20:11:38 29.02.2020

Plot 7-381. Radiated Spurious Plot 40-42 GHz (8CC NC QPSK Mid Ch. Ant. Angle 135)

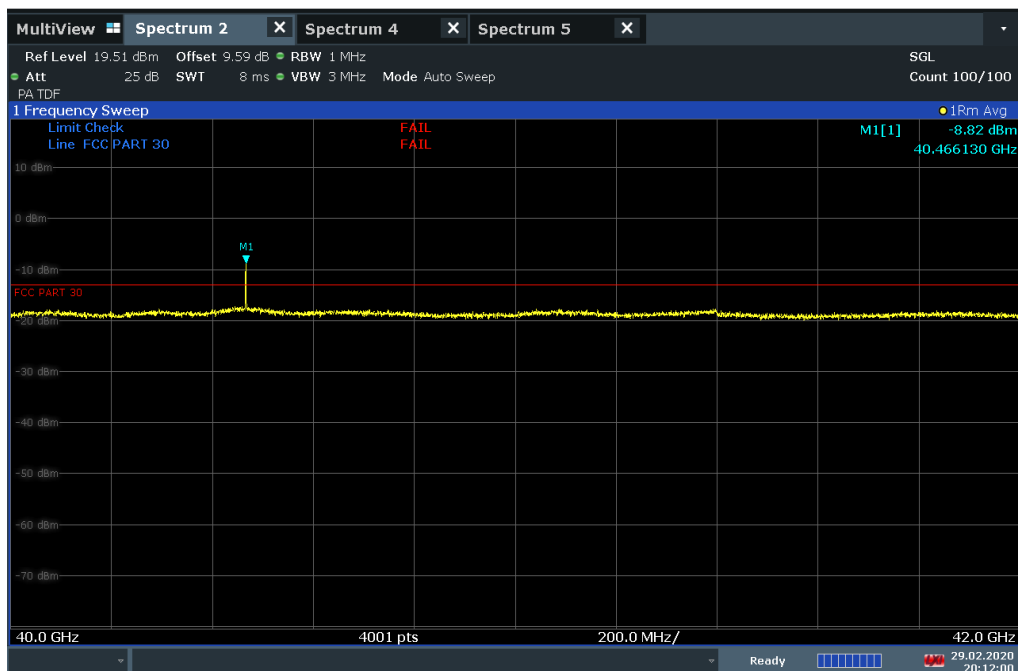
FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 228 of 360

© 2020 PCTEST

V9.0 02/01/2019

All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from PCTEST. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact INFO@PCTEST.COM.

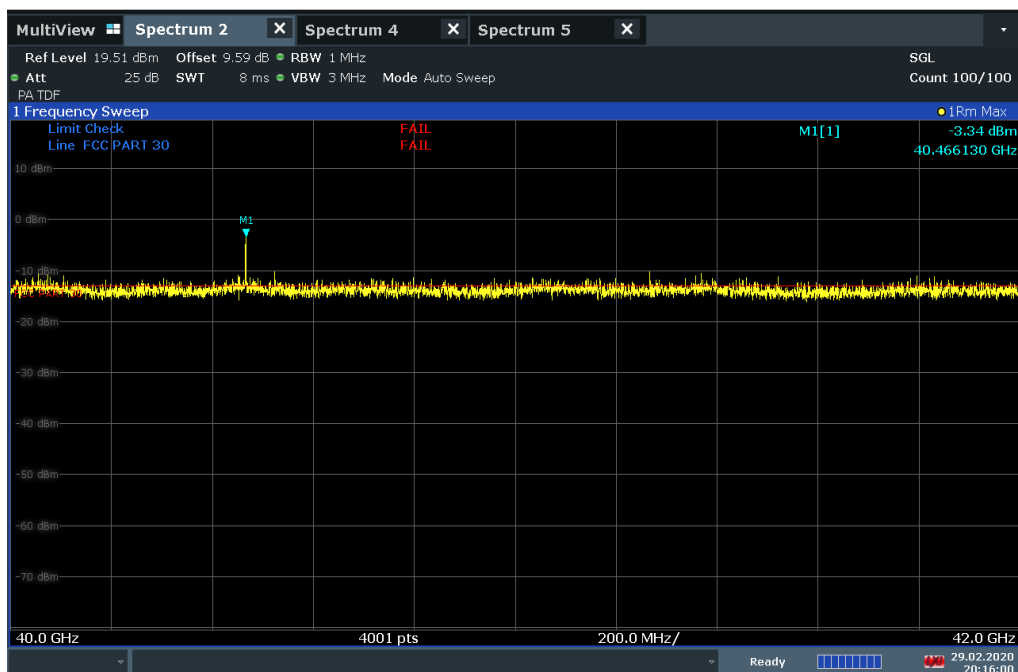
ACLRRResults



20:12:01 29.02.2020

Plot 7-382. Radiated Spurious Plot 40-42 GHz (8CC NC QPSK Mid Ch. Ant. Angle 135, Final)

ACLRRResults

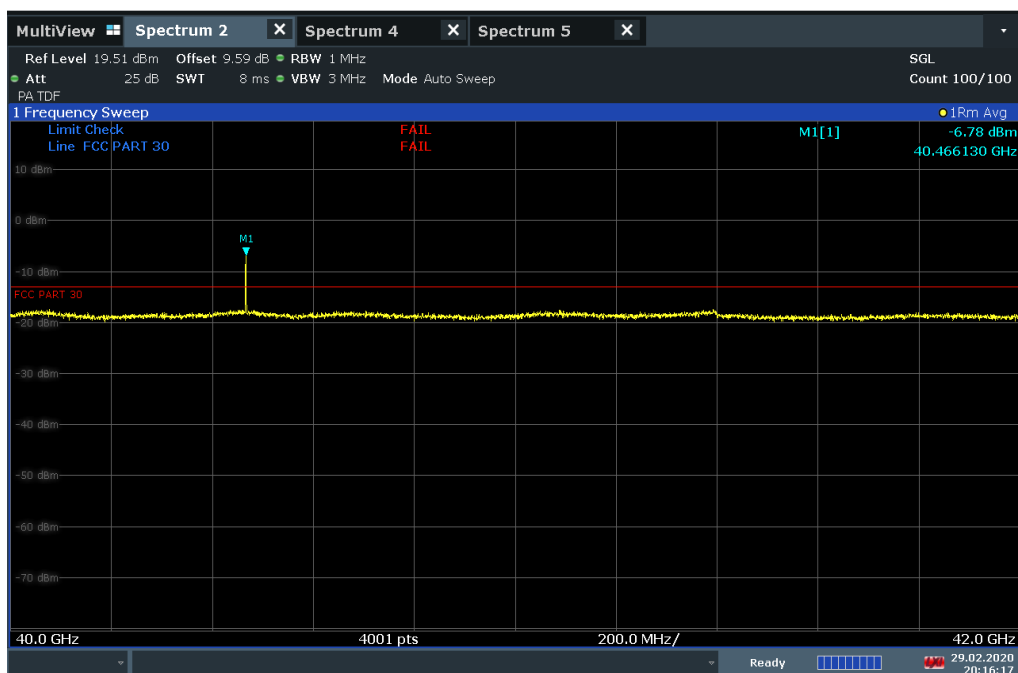


20:16:00 29.02.2020

Plot 7-383. Radiated Spurious Plot 40-42 GHz (8CC NC QPSK Mid Ch. Ant. Angle 45)

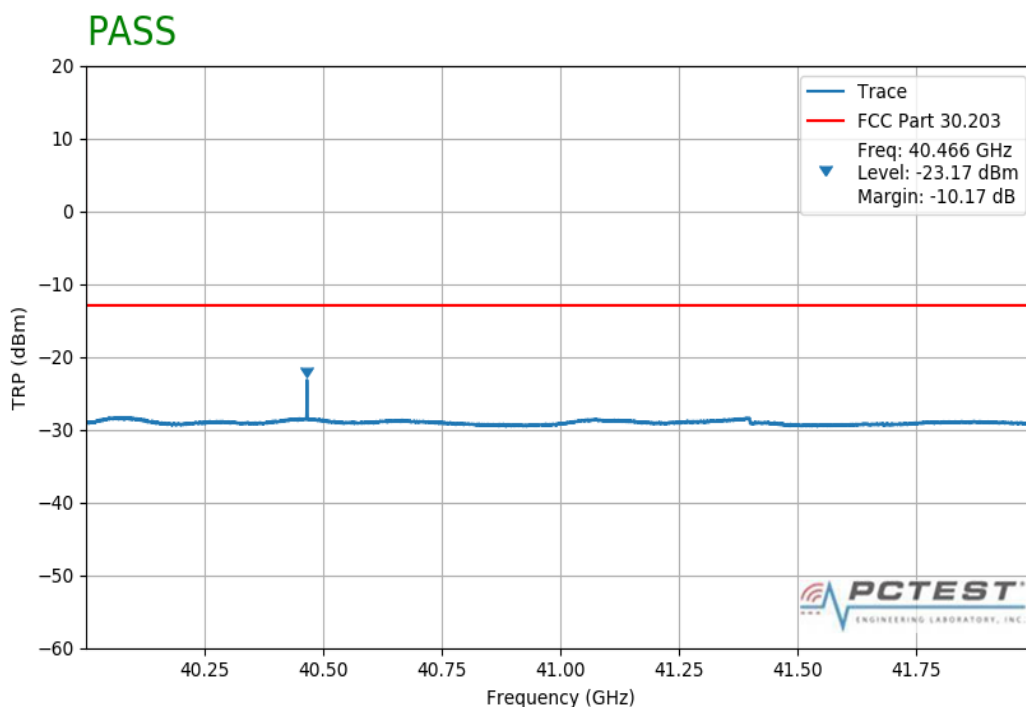
FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 229 of 360

ACLRRResults



20:16:17 29.02.2020

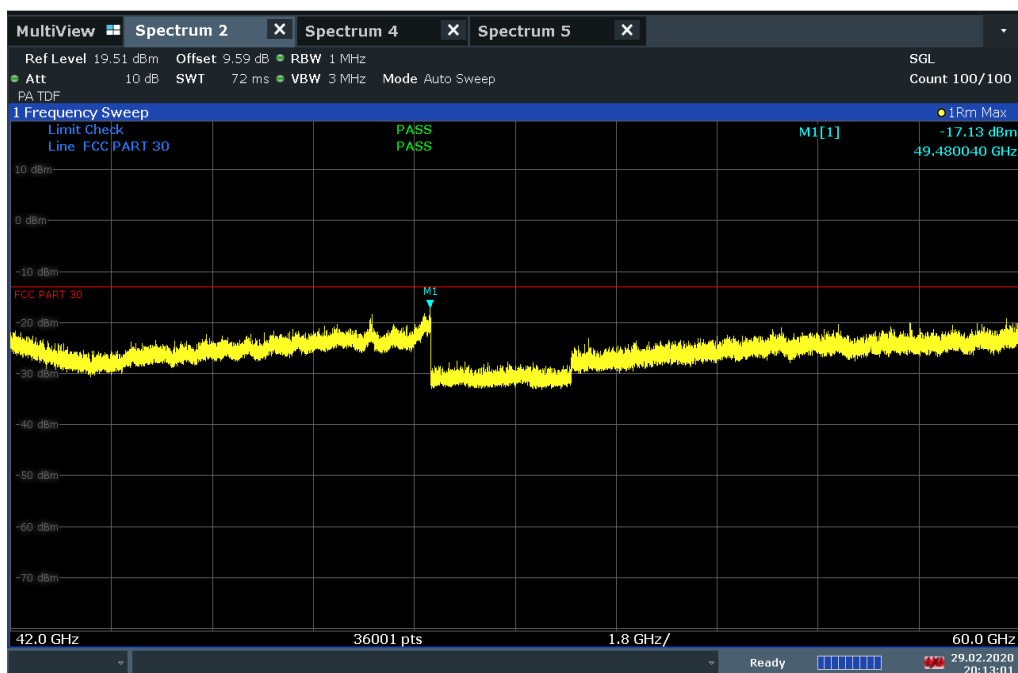
Plot 7-384. Radiated Spurious Plot 40-42 GHz (8CC NC QPSK Mid Ch. Ant. Angle 45, Final)



Plot 7-385. Radiated Spurious Plot 40-42 GHz (8CC NC QPSK Mid Ch. TRP)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 230 of 360

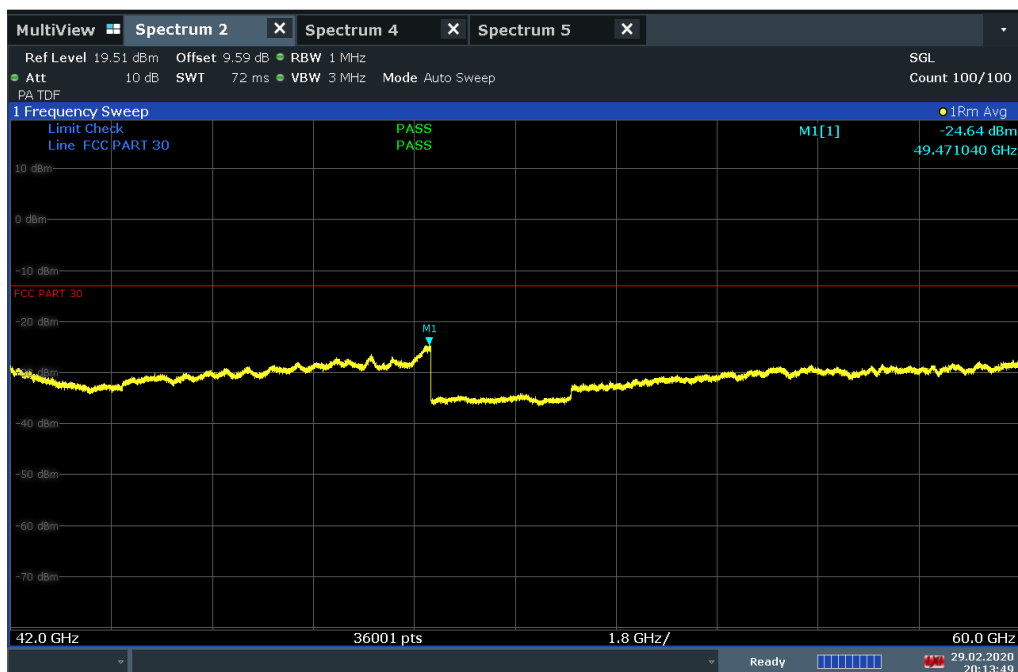
ACLRRResults



20:13:02 29.02.2020

Plot 7-386. Radiated Spurious Plot 42-60 GHz (8CC NC QPSK Mid Ch. Ant. Angle 135)

ACLRRResults

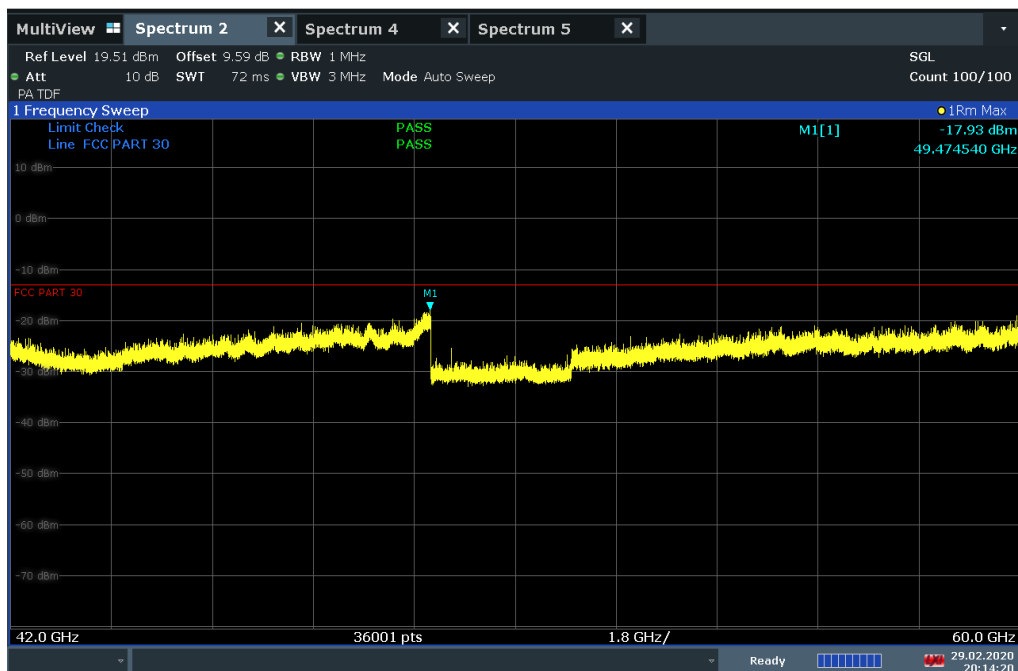


20:13:49 29.02.2020

Plot 7-387. Radiated Spurious Plot 42-60 GHz (8CC NC QPSK Mid Ch. Ant. Angle 135, Final)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 231 of 360

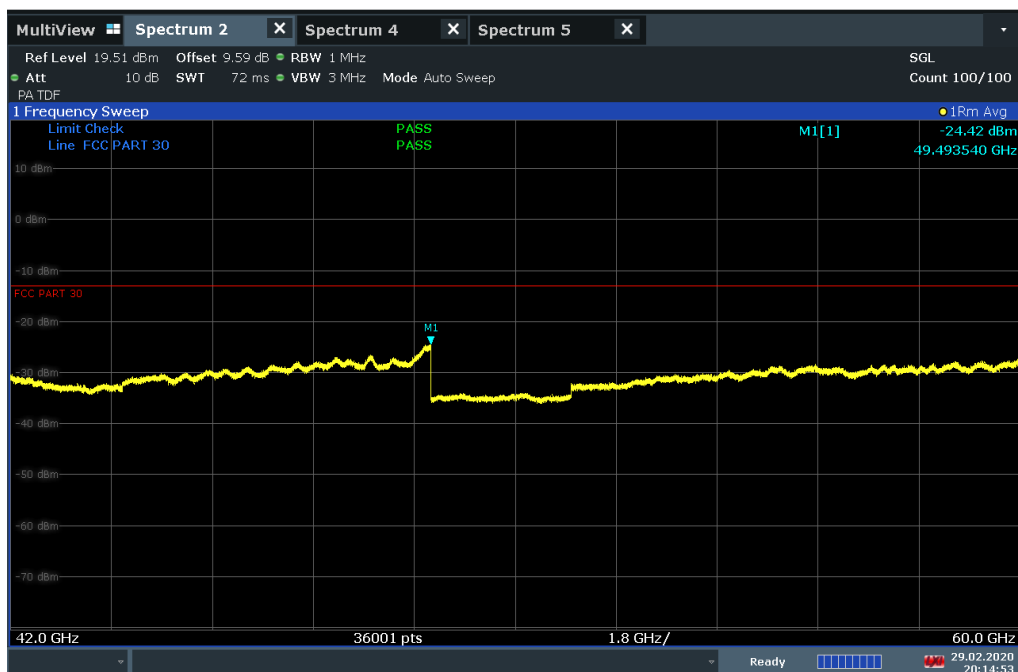
ACLRRResults



20:14:21 29.02.2020

Plot 7-388. Radiated Spurious Plot 42-60 GHz (8CC NC QPSK Mid Ch. Ant. Angle 45)

ACLRRResults

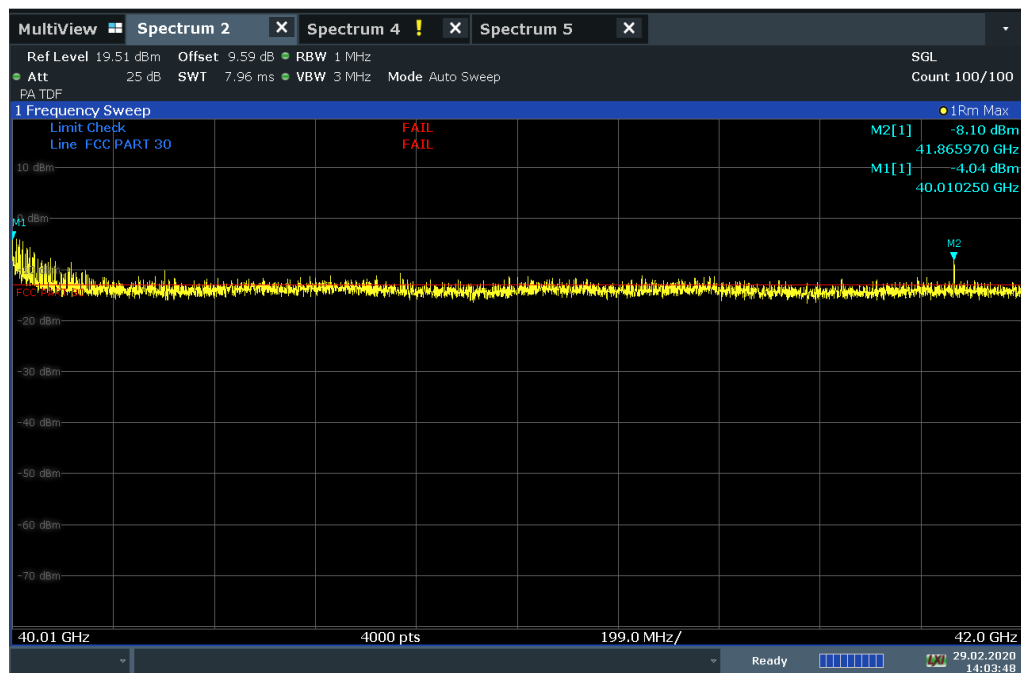


20:14:53 29.02.2020

Plot 7-389. Radiated Spurious Plot 42-60 GHz (8CC NC QPSK Mid Ch. Ant. Angle 45, Final)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 232 of 360

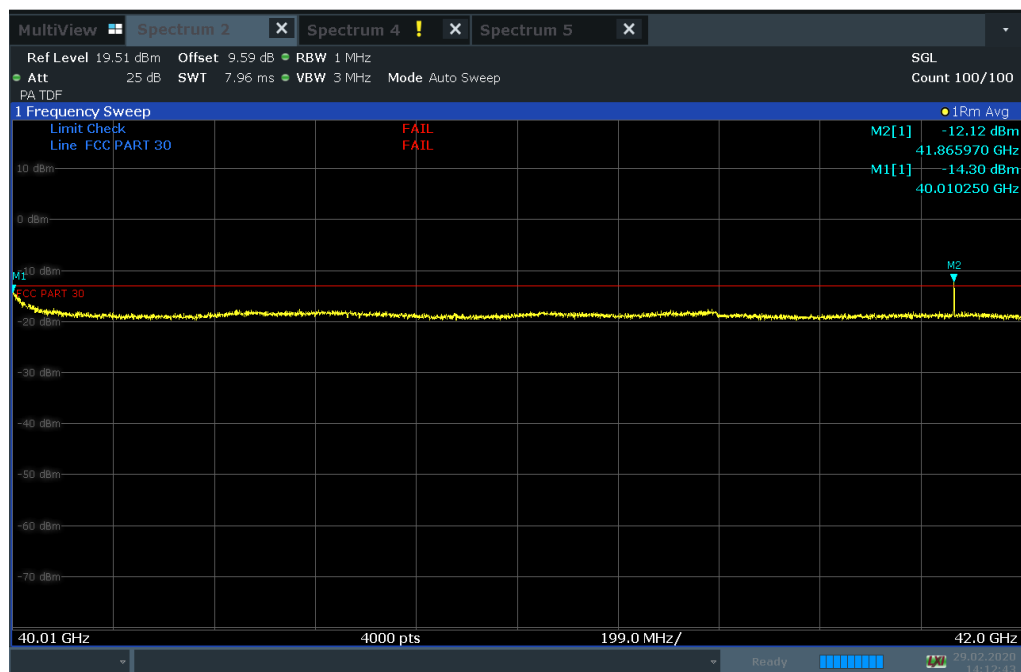
ACLRRResults



14:03:49 29.02.2020

Plot 7-390. Radiated Spurious Plot 40.01-42 GHz (1CC QPSK High Ch. Ant. Angle 135)

ACLRRResults

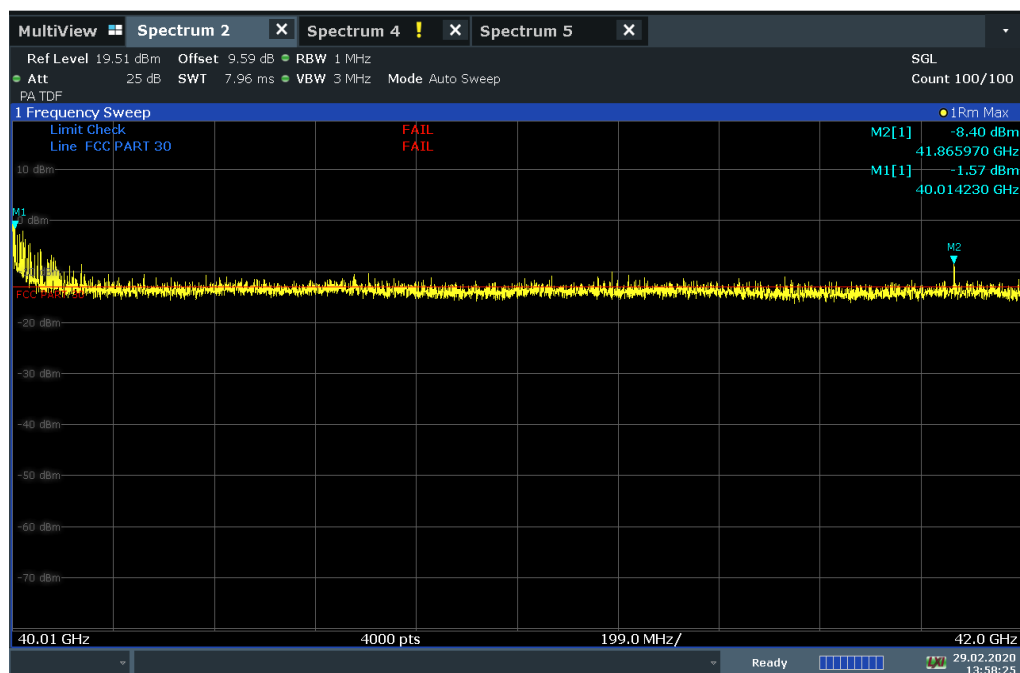


14:12:44 29.02.2020

Plot 7-391. Radiated Spurious Plot 40.01-42 GHz (1CC QPSK High Ch. Ant. Angle 135, Final)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 233 of 360

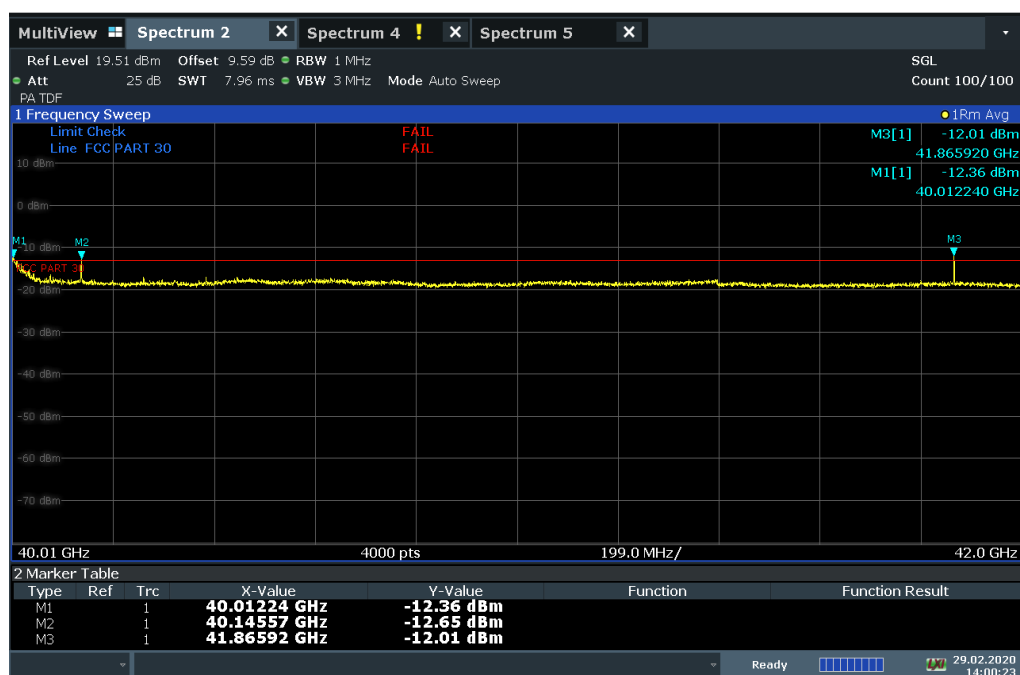
ACLRRResults



13:58:26 29.02.2020

Plot 7-392. Radiated Spurious Plot 40.01-42 GHz (1CC QPSK High Ch. Ant. Angle 45)

ACLRRResults



14:00:24 29.02.2020

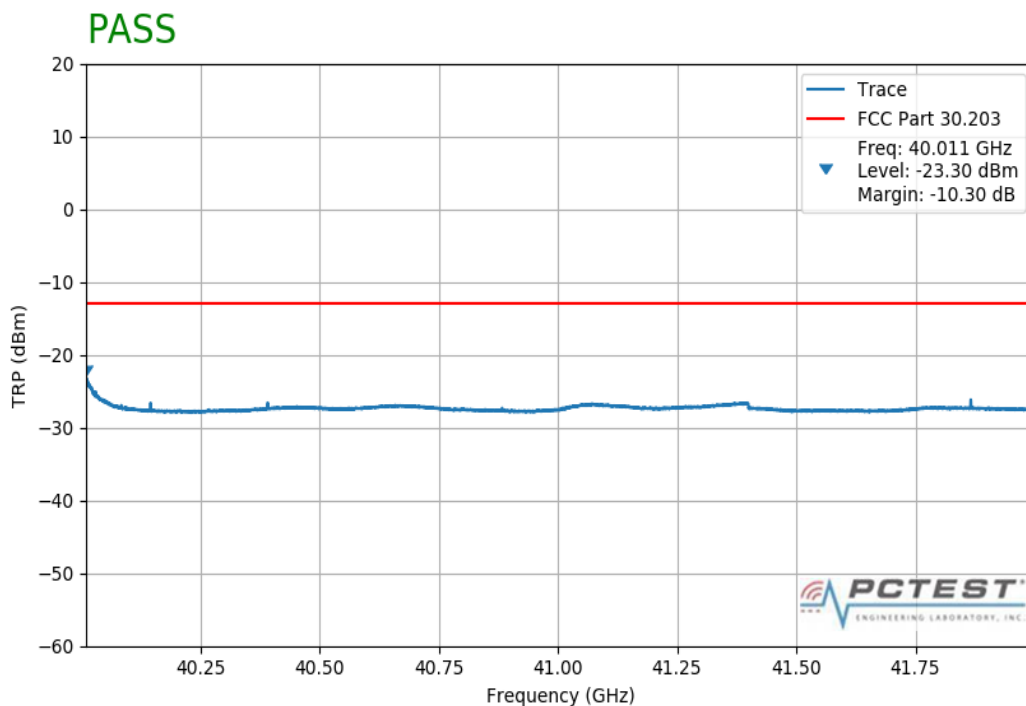
Plot 7-393. Radiated Spurious Plot 40.01-42 GHz (1CC QPSK High Ch. Ant. Angle 45, Final)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 234 of 360

© 2020 PCTEST

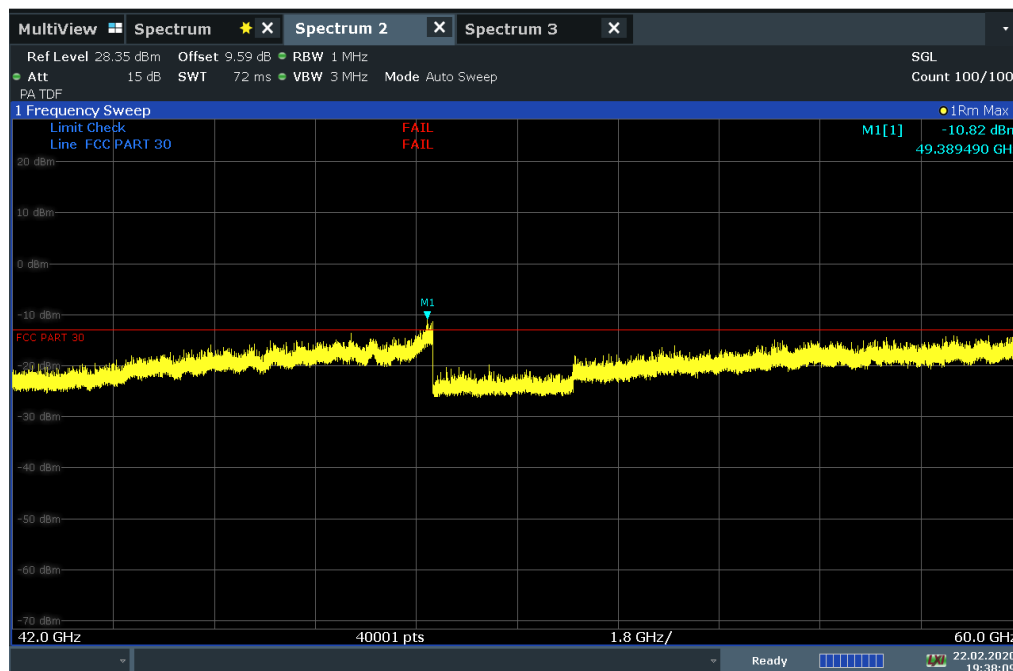
V9.0 02/01/2019

All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from PCTEST. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact INFO@PCTEST.COM.



Plot 7-394. Radiated Spurious Plot 40.01-42 GHz (1CC QPSK High Ch. TRP)

ACLRRResults

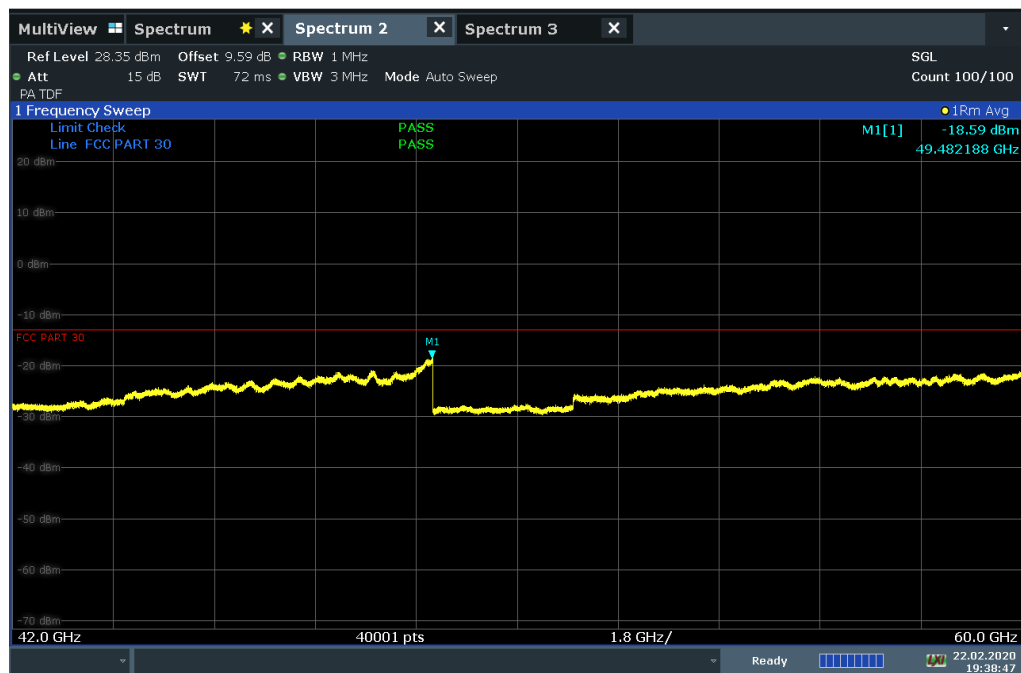


19:38:09 22.02.2020

Plot 7-395. Radiated Spurious Plot 42-60 GHz (1CC QPSK High Ch. Ant. Angle 135)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 235 of 360

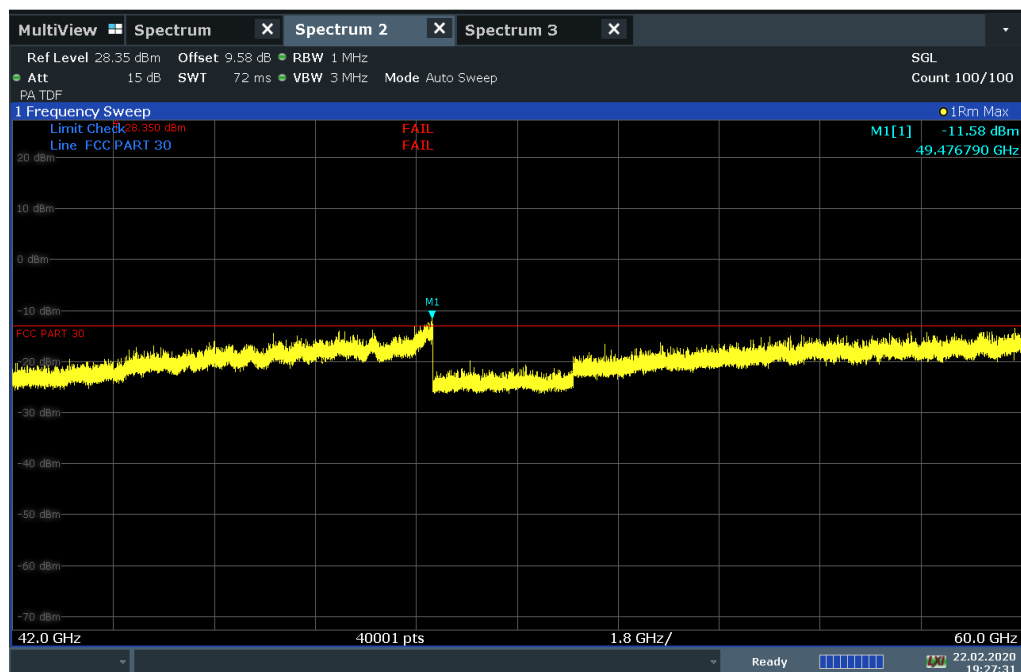
ACLRRResults



19:38:48 22.02.2020

Plot 7-396. Radiated Spurious Plot 42-60 GHz (1CC QPSK High Ch. Ant. Angle 135, Final)

ACLRRResults

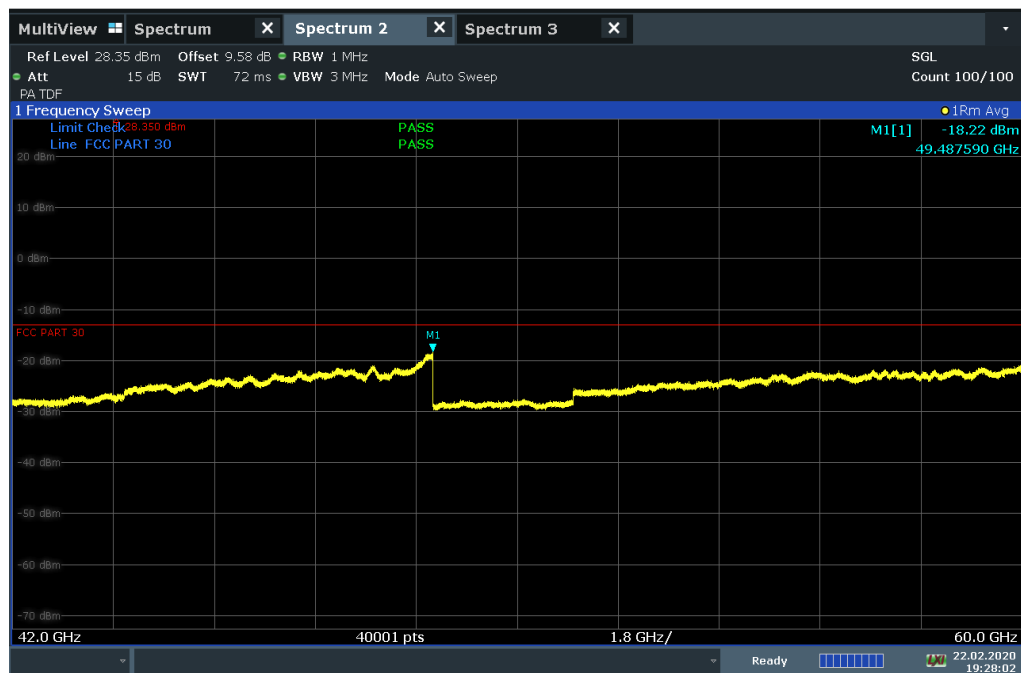


19:27:32 22.02.2020

Plot 7-397. Radiated Spurious Plot 42-60 GHz (1CC QPSK High Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 236 of 360

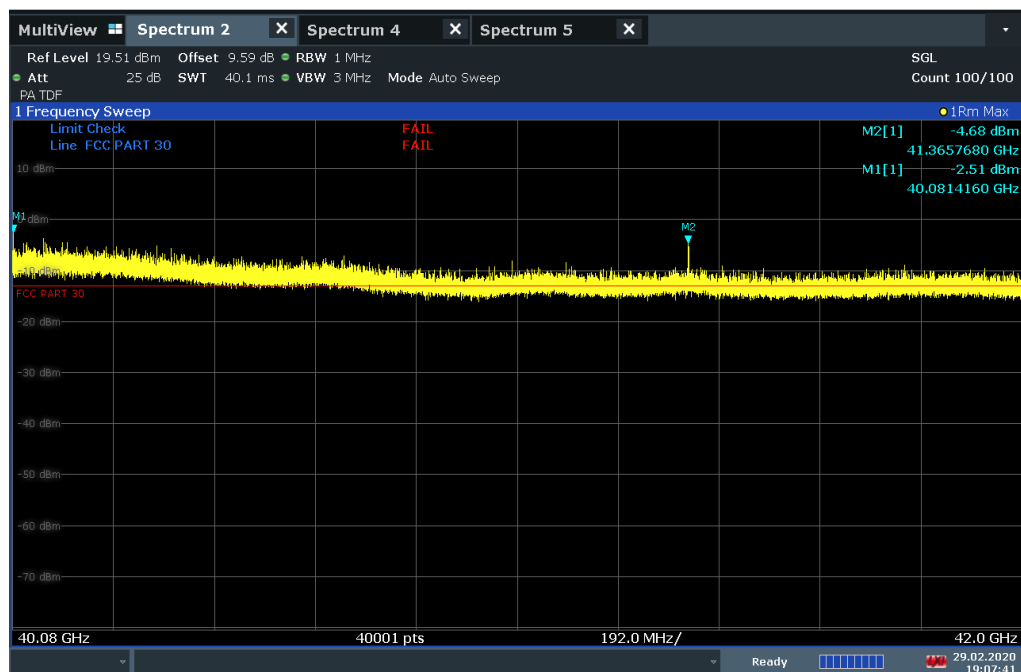
ACLRRResults



19:28:03 22.02.2020

Plot 7-398. Radiated Spurious Plot 42-60 GHz (1CC QPSK High Ch. Ant. Angle 45, Final)

ACLRRResults

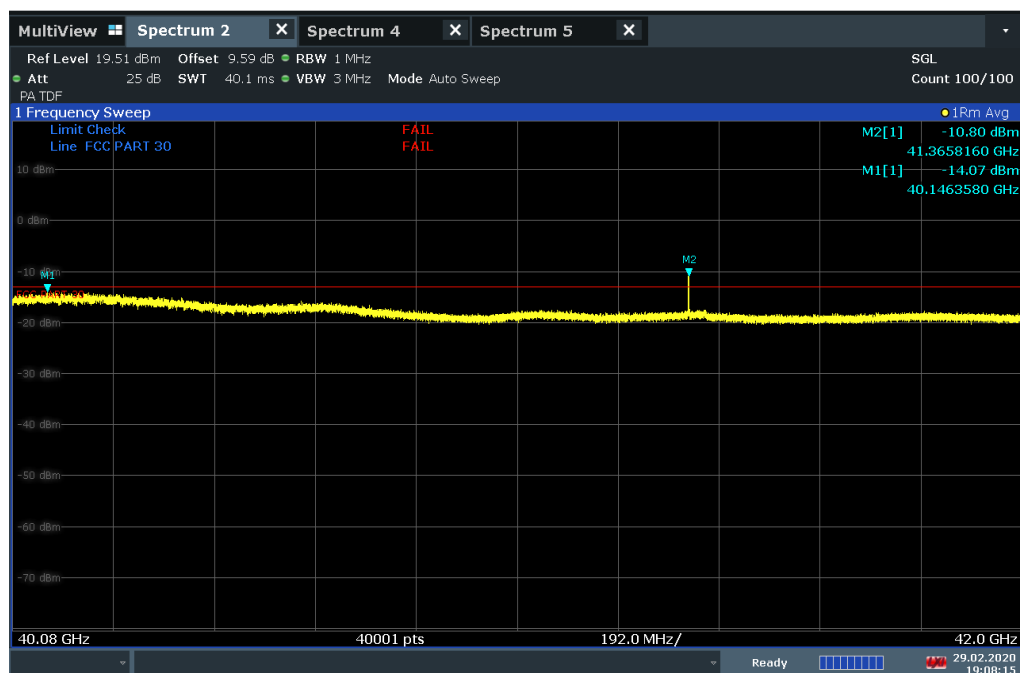


19:07:41 29.02.2020

Plot 7-399. Radiated Spurious Plot 40.08-42 GHz (8CC QPSK High Ch. Ant. Angle 135)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 237 of 360

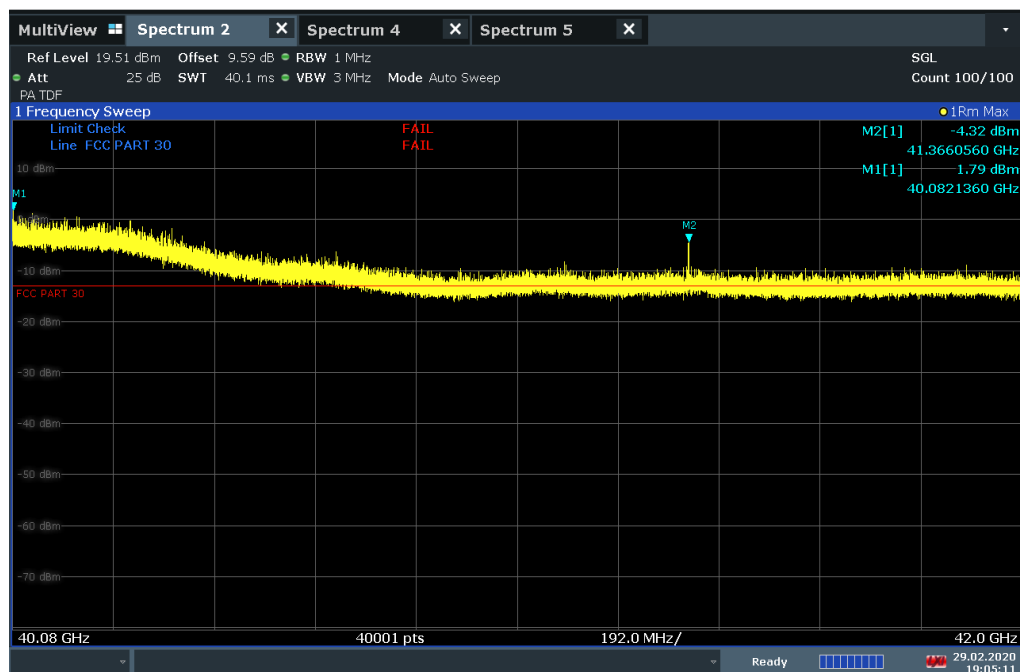
ACLRRResults



19:08:15 29.02.2020

Plot 7-400. Radiated Spurious Plot 40.08-42 GHz (8CC QPSK High Ch. Ant. Angle 135, Final)

ACLRRResults

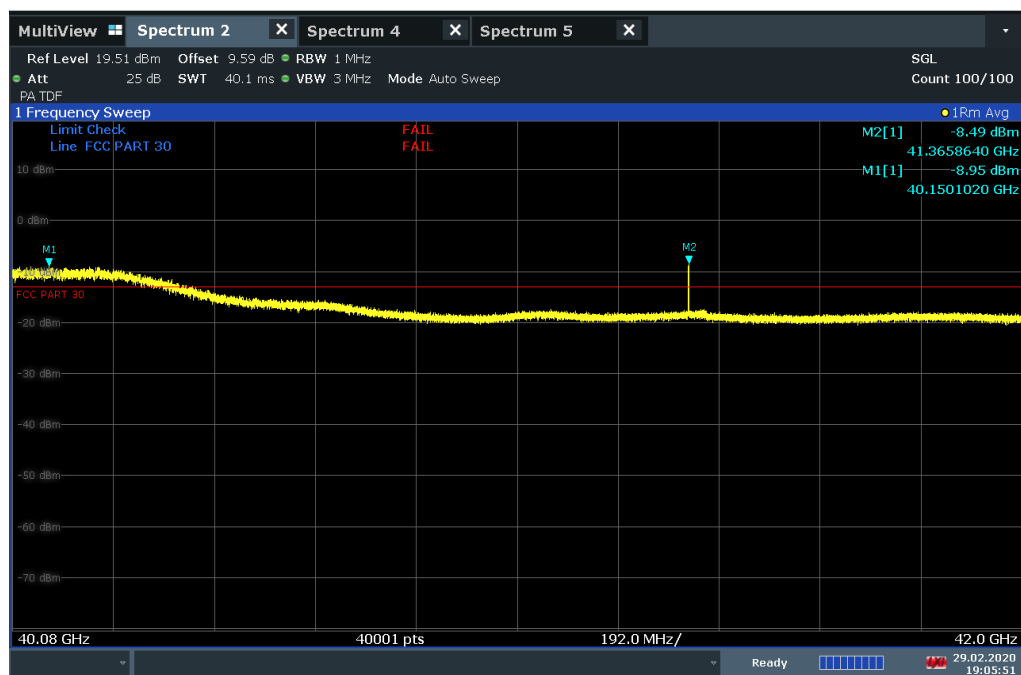


19:05:12 29.02.2020

Plot 7-401. Radiated Spurious Plot 40.08-42 GHz (8CC QPSK High Ch. Ant. Angle 45)

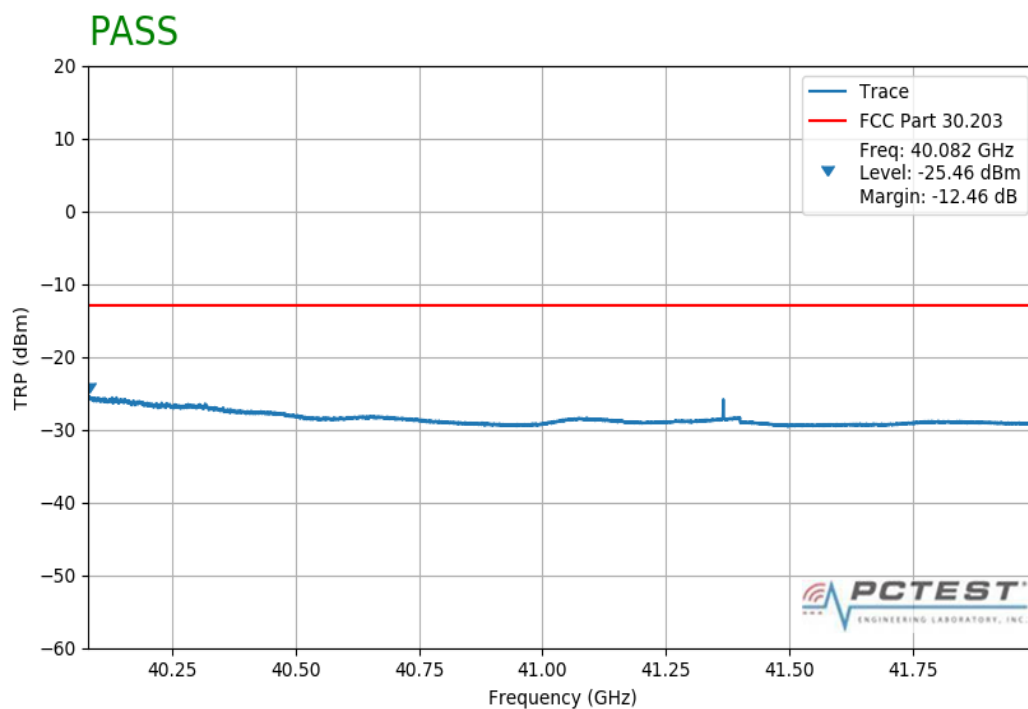
FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 238 of 360

ACLRRResults



19:05:52 29.02.2020

Plot 7-402. Radiated Spurious Plot 40.08-42 GHz (8CC QPSK High Ch. Ant. Angle 45, Final)



Plot 7-403. Radiated Spurious Plot 40.08-42 GHz (8CC QPSK High Ch. TRP)

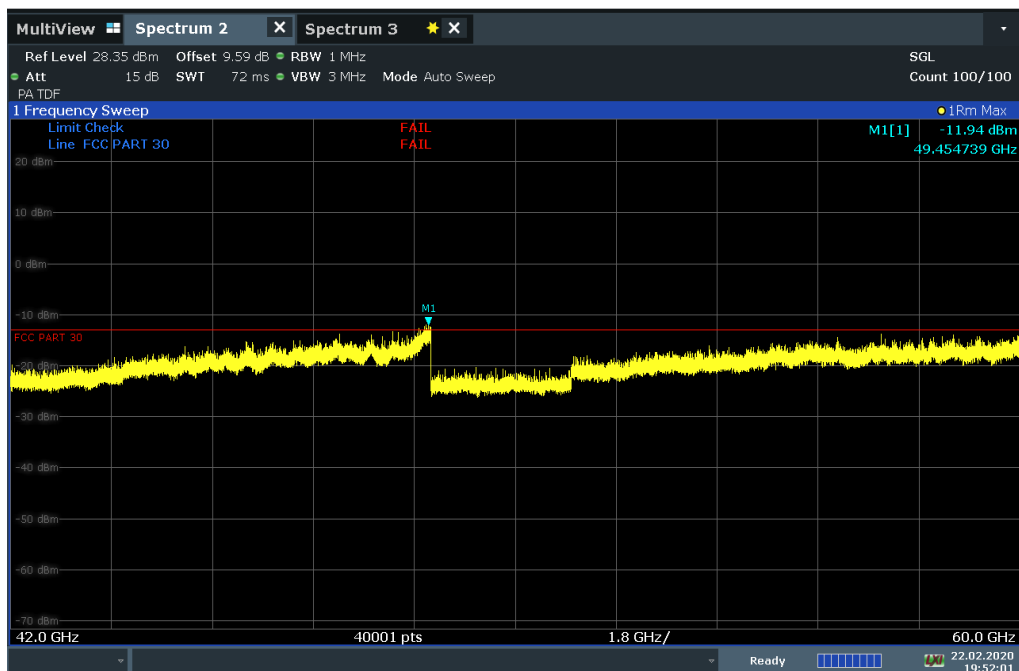
FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 239 of 360

© 2020 PCTEST

V9.0 02/01/2019

All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from PCTEST. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact INFO@PCTEST.COM.

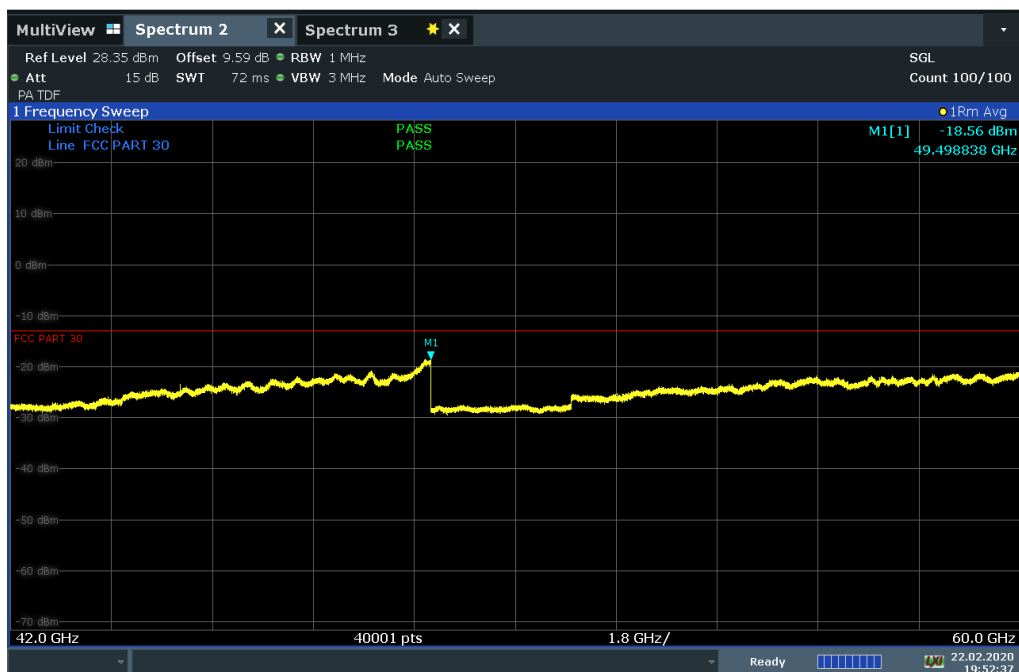
ACLRRResults



19:52:01 22.02.2020

Plot 7-404. Radiated Spurious Plot 42-60 GHz (8CC QPSK High Ch. Ant. Angle 135)

ACLRRResults

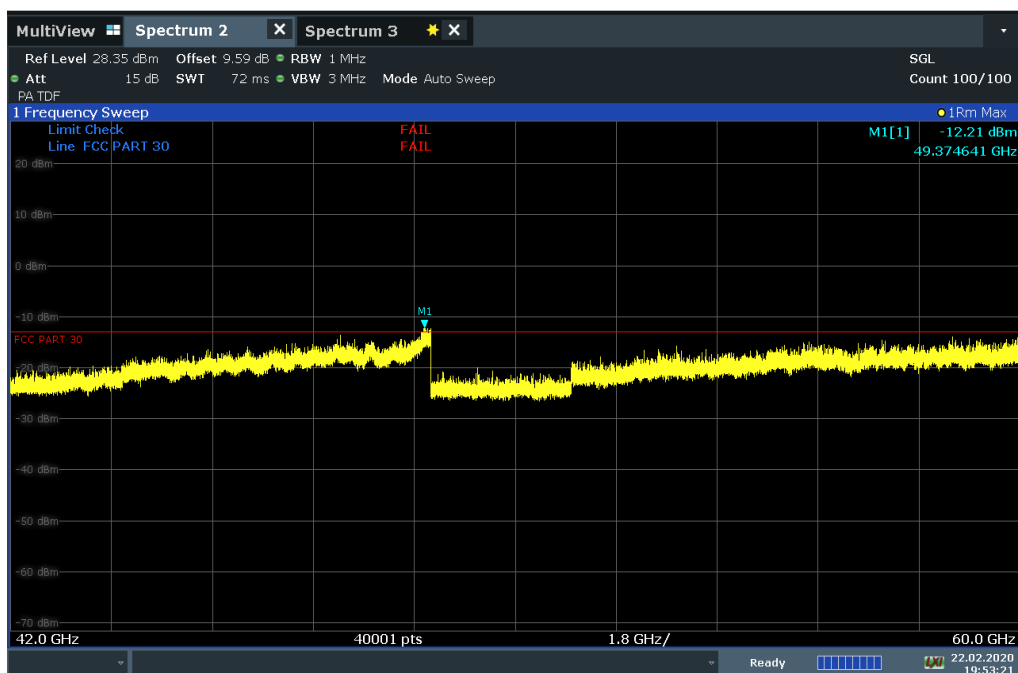


19:52:37 22.02.2020

Plot 7-405. Radiated Spurious Plot 42-60 GHz (8CC QPSK High Ch. Ant. Angle 135, Final)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 240 of 360

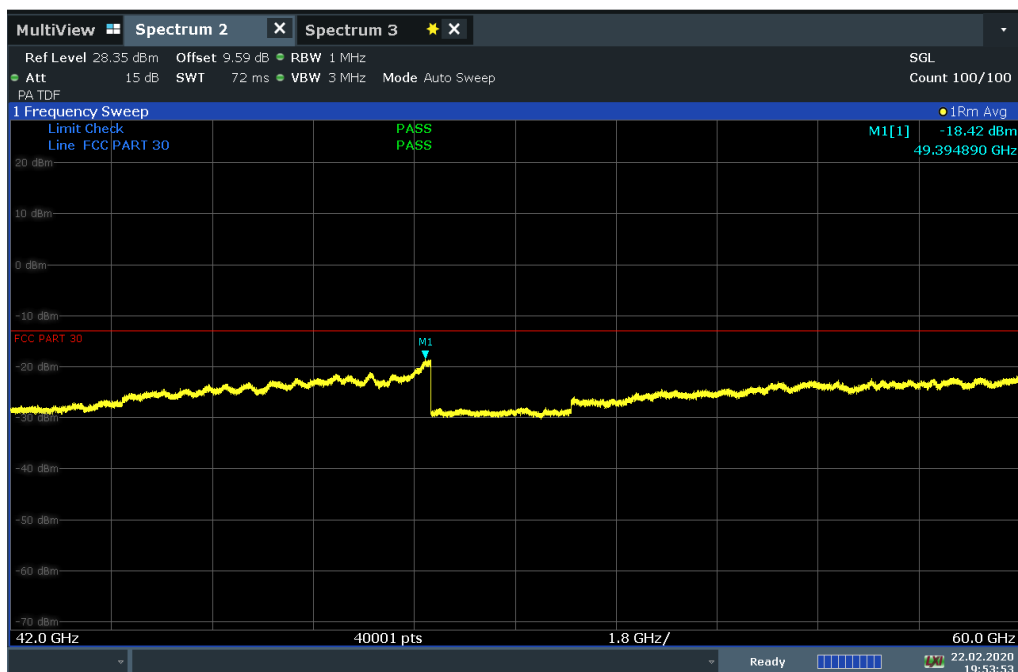
ACLRRResults



19:53:22 22.02.2020

Plot 7-406. Radiated Spurious Plot 42-60 GHz (8CC QPSK High Ch. Ant. Angle 45)

ACLRRResults

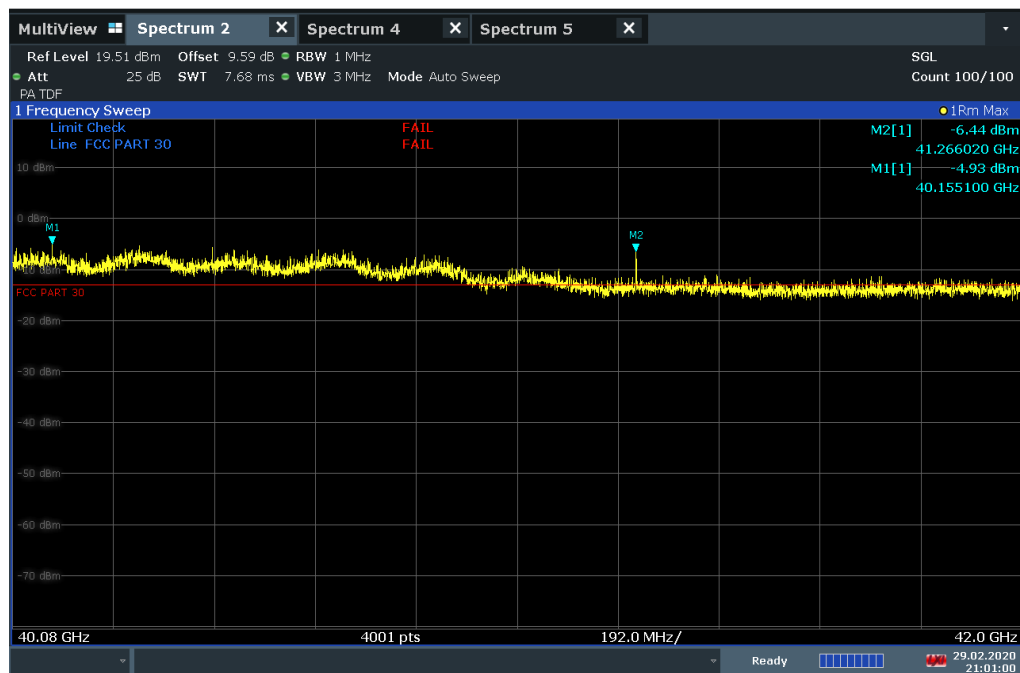


19:53:54 22.02.2020

Plot 7-407. Radiated Spurious Plot 42-60 GHz (8CC QPSK High Ch. Ant. Angle 45, Final)

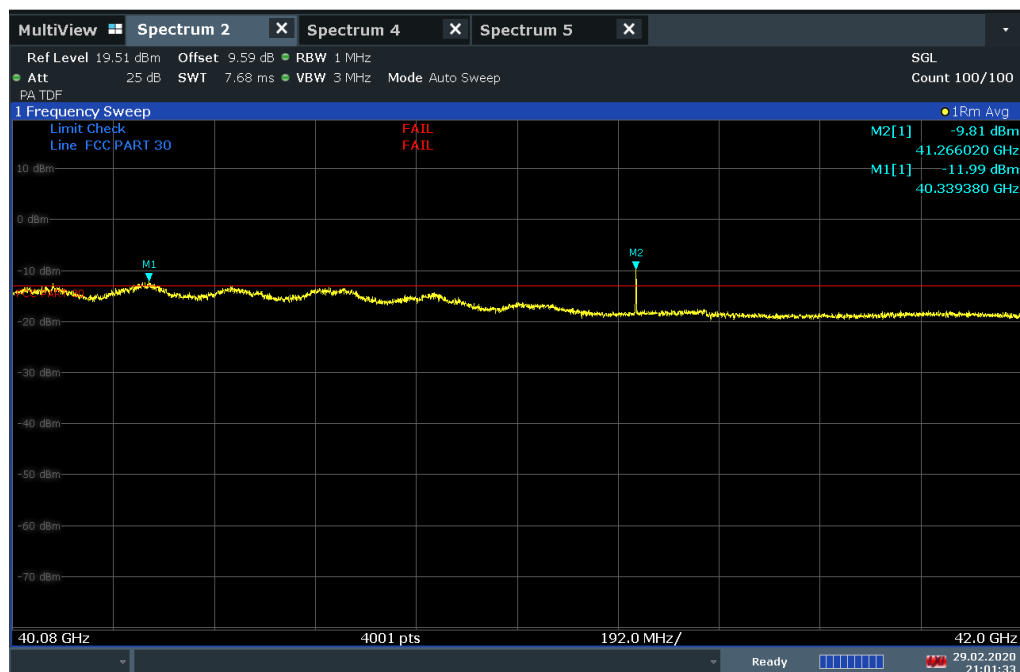
FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 241 of 360

ACLRRResults



Plot 7-408. Radiated Spurious Plot 40.08-42 GHz (8CC NC QPSK High Ch. Ant. Angle 135)

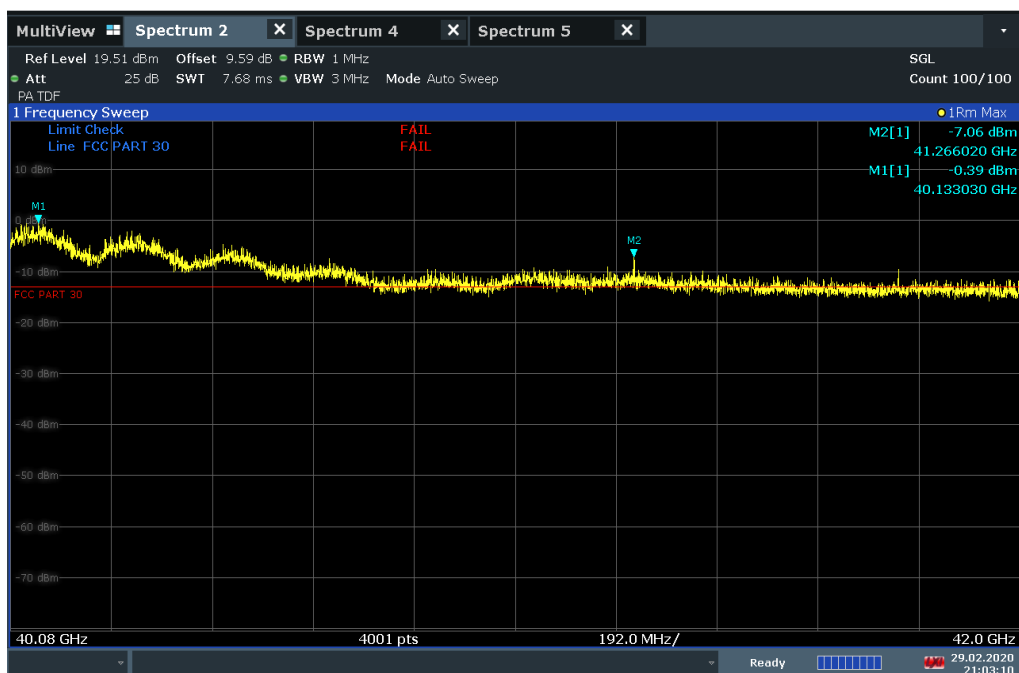
ACLRRResults



Plot 7-409. Radiated Spurious Plot 40.08-42 GHz (8CC NC QPSK High Ch. Ant. Angle 135, Final)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 242 of 360

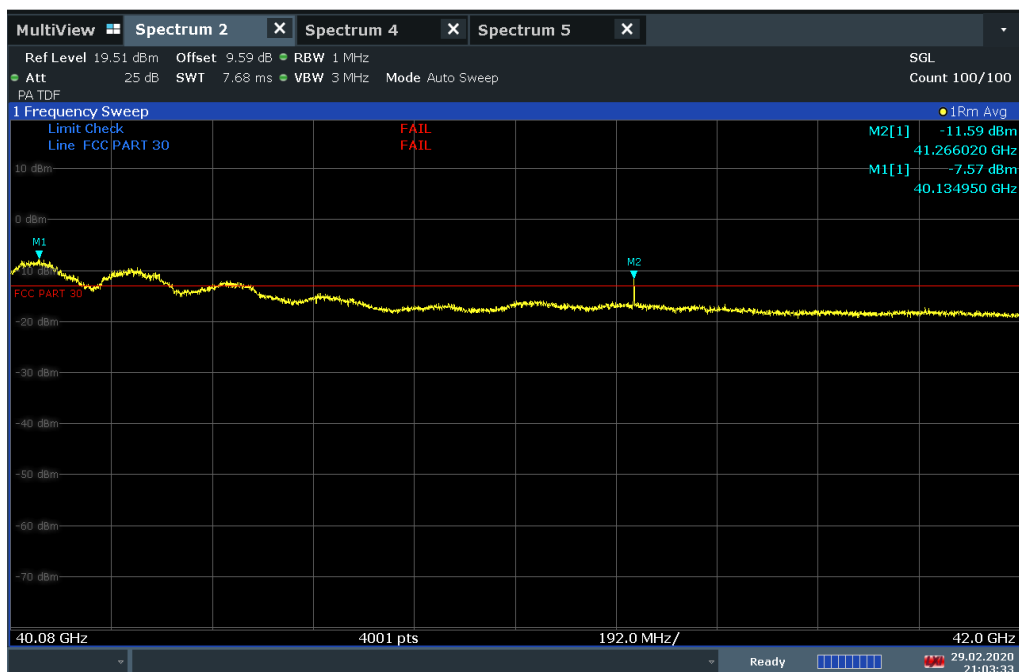
ACLRRResults



21:03:10 29.02.2020

Plot 7-410. Radiated Spurious Plot 40.08-42 GHz (8CC NC QPSK High Ch. Ant. Angle 45)

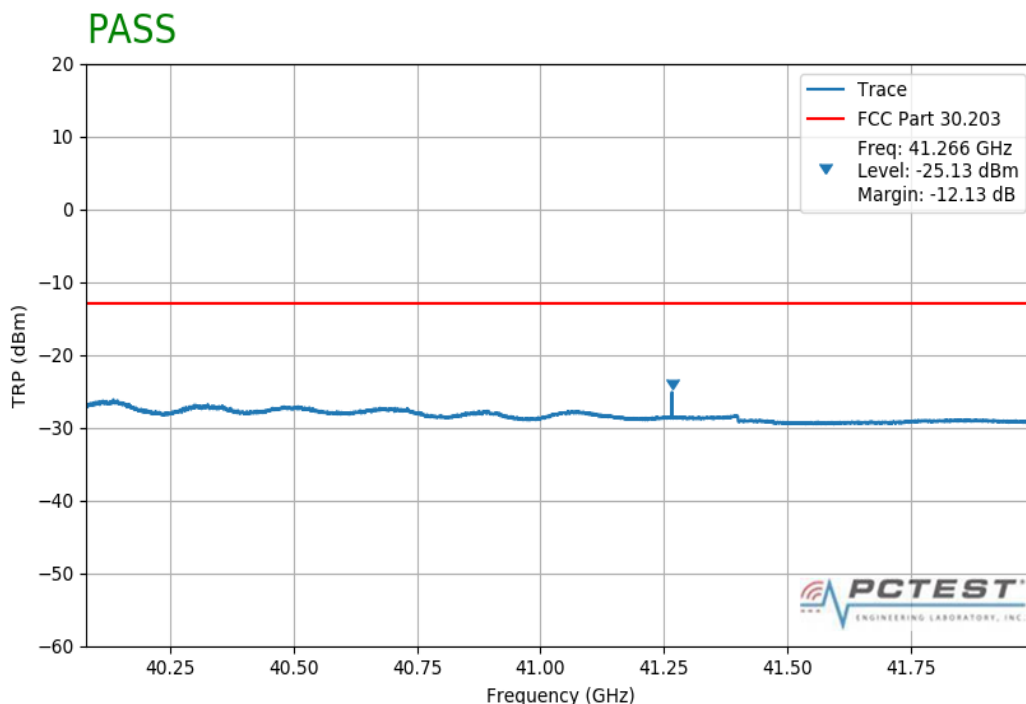
ACLRRResults



21:03:34 29.02.2020

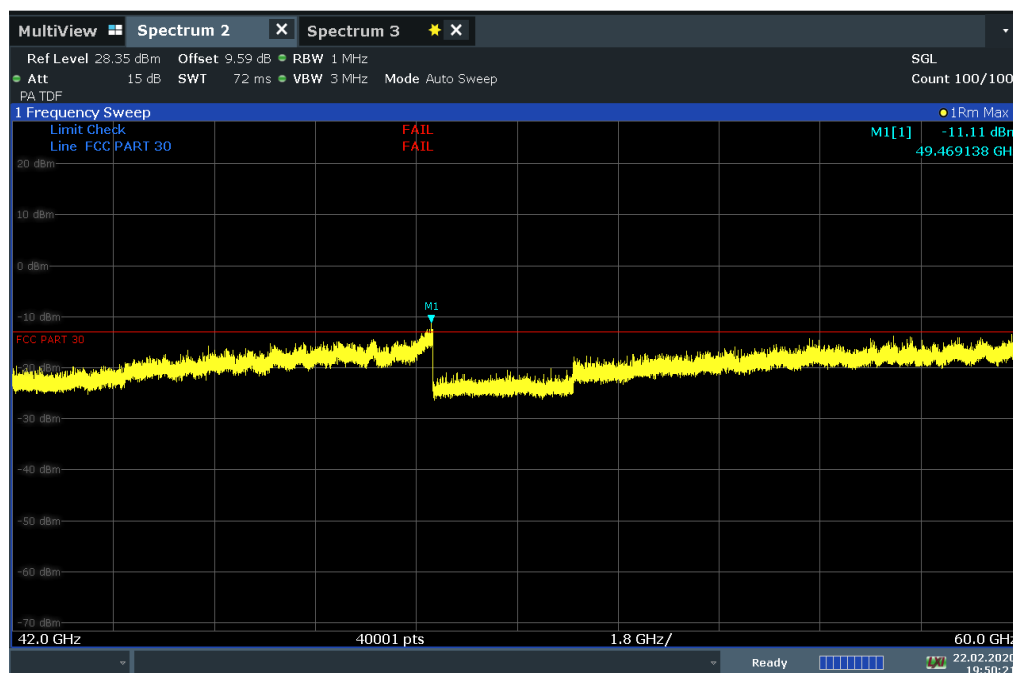
Plot 7-411. Radiated Spurious Plot 40.08-42 GHz (8CC NC QPSK High Ch. Ant. Angle 45, Final)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 243 of 360



Plot 7-412. Radiated Spurious Plot 40.08-42 GHz (8CC NC QPSK High Ch. TRP)

ACLRRResults



19:50:22 22.02.2020

Plot 7-413. Radiated Spurious Plot 42-60 GHz (8CC NC QPSK High Ch. Ant. Angle 135)

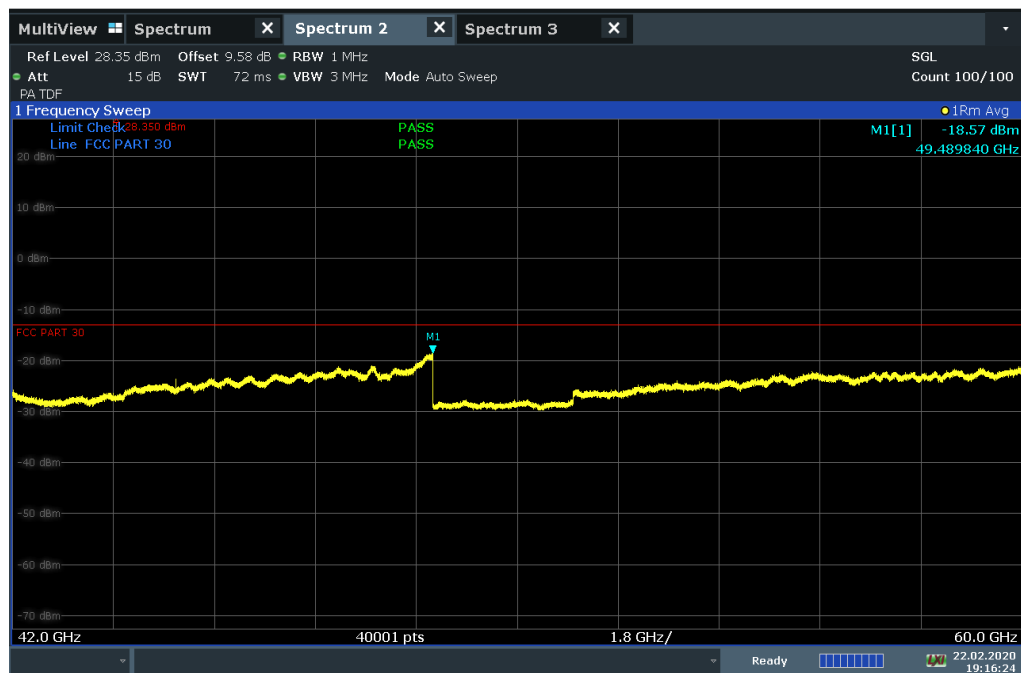
FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 244 of 360

© 2020 PCTEST

V9.0 02/01/2019

All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from PCTEST. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact INFO@PCTEST.COM.

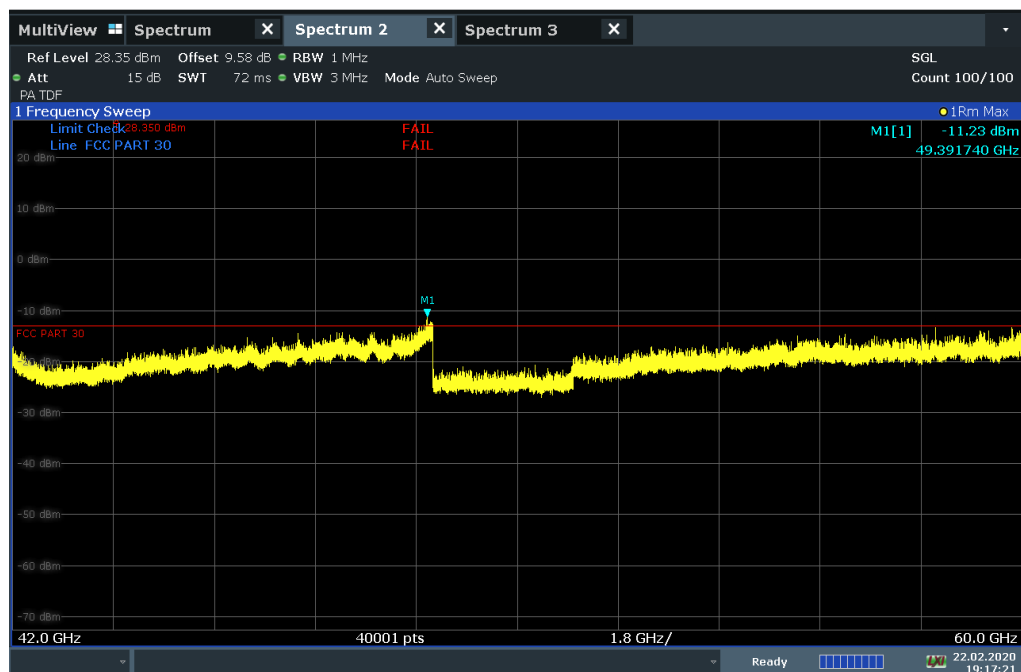
ACLRRResults



19:16:24 22.02.2020

Plot 7-414. Radiated Spurious Plot 42-60 GHz (8CC NC QPSK High Ch. Ant. Angle 135, Final)

ACLRRResults

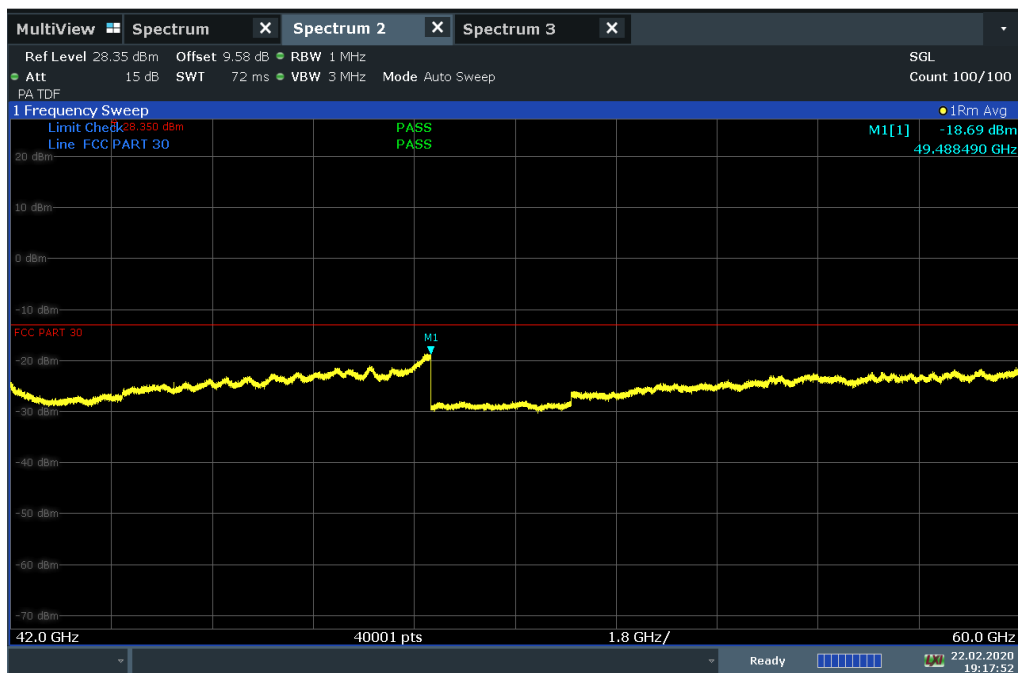


19:17:21 22.02.2020

Plot 7-415. Radiated Spurious Plot 42-60 GHz (8CC NC QPSK High Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 245 of 360

ACLRRResults



19:17:53 22.02.2020

Plot 7-416. Radiated Spurious Plot 42-60 GHz (8CC NC QPSK High Ch. Ant. Angle 45, Final)

Frequency [MHz]	Channel	CC Active	Mod.	Ant. Pol. [degree]	Antenna Height [cm]	Turn Table Azimuth [degree]	Analyzer Level [dBm]	AFCL [dBm]	Field Strength [dBμV/m]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]	TRP [dBm]	Margin [dB]
42314.19	Low	CC0	QPSK	135	148	10	-62.57	45.55	89.98	-5.23	-13.00	7.77	-24.10	-11.10
42336.19	Low	CC0	QPSK	45	154	10	-65.06	45.55	87.49	-7.72	-13.00	5.28		
40516.24	Mid	CC4	QPSK	135	147	11	-72.15	45.35	80.20	-15.01	-13.00	-2.01	-24.05	-11.05
40516.24	Mid	CC4	QPSK	45	154	11	-72.86	45.35	79.49	-15.72	-13.00	-2.72		
40010.25	High	CC7	QPSK	135	149	10	-71.44	45.35	80.91	-14.30	-13.00	-1.30	-23.30	-10.30
40012.24	High	CC7	QPSK	45	155	10	-69.50	45.35	82.85	-12.36	-13.00	0.64		
40145.57	High	CC7	QPSK	45	155	10	-69.79	45.35	82.56	-12.65	-13.00	0.35	-26.60	-13.60
41865.97	High	CC7	QPSK	135	146	10	-69.36	45.45	83.09	-12.12	-13.00	0.88		
41865.92	High	CC7	QPSK	45	155	10	-69.25	45.45	83.20	-12.01	-13.00	0.99	-26.16	-13.16
42376.69	Low	CC0-CC7(C)	QPSK	135	148	10	-78.15	45.55	74.40	-20.81	-13.00	-7.81		
42369.19	Low	CC0-CC7(C)	QPSK	45	154	9	-75.25	45.55	77.30	-17.91	-13.00	-4.91	-23.55	-10.55
40466.24	Mid	CC0-CC7(C)	QPSK	135	148	11	-67.20	45.35	85.15	-10.06	-13.00	2.94		
40466.24	Mid	CC0-CC7(C)	QPSK	45	154	10	-66.14	45.35	86.21	-9.00	-13.00	4.00	-25.46	-12.46
40146.35	High	CC0-CC7(C)	QPSK	135	148	10	-71.21	45.35	81.14	-14.07	-13.00	-1.07		
40150.10	High	CC0-CC7(C)	QPSK	45	155	10	-66.09	45.35	86.26	-8.95	-13.00	4.05	-25.84	-12.84
41365.81	High	CC0-CC7(C)	QPSK	135	148	10	-68.04	45.45	84.41	-10.80	-13.00	2.20		
41365.86	High	CC0-CC7(C)	QPSK	45	155	10	-65.73	45.45	86.72	-8.49	-13.00	4.51	-23.17	-10.17
42393.19	Low	CC0-CC7(NC)	QPSK	135	148	10	-79.05	45.55	73.50	-21.71	-13.00	-8.71		
42515.19	Low	CC0-CC7(NC)	QPSK	45	153	10	-77.25	45.55	75.30	-19.91	-13.00	-6.91	-26.14	-13.14
40466.13	Mid	CC0-CC7(NC)	QPSK	135	148	10	-65.96	45.35	86.39	-8.82	-13.00	4.18		
40466.13	Mid	CC0-CC7(NC)	QPSK	45	154	10	-63.92	45.35	88.43	-6.78	-13.00	6.22	-25.13	-12.13
40339.38	High	CC0-CC7(NC)	QPSK	135	146	11	-69.13	45.35	83.22	-11.99	-13.00	1.01		
40134.95	High	CC0-CC7(NC)	QPSK	45	155	11	-68.73	45.35	83.62	-11.59	-13.00	1.41	-25.13	-12.13
41266.02	High	CC0-CC7(NC)	QPSK	135	146	11	-67.05	45.45	85.40	-9.81	-13.00	3.19		
41266.02	High	CC0-CC7(NC)	QPSK	45	155	11	-64.81	45.45	87.64	-7.57	-13.00	5.43		

Table 7-21. Spurious Emissions (40 – 60GHz)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit	Page 246 of 360	

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.

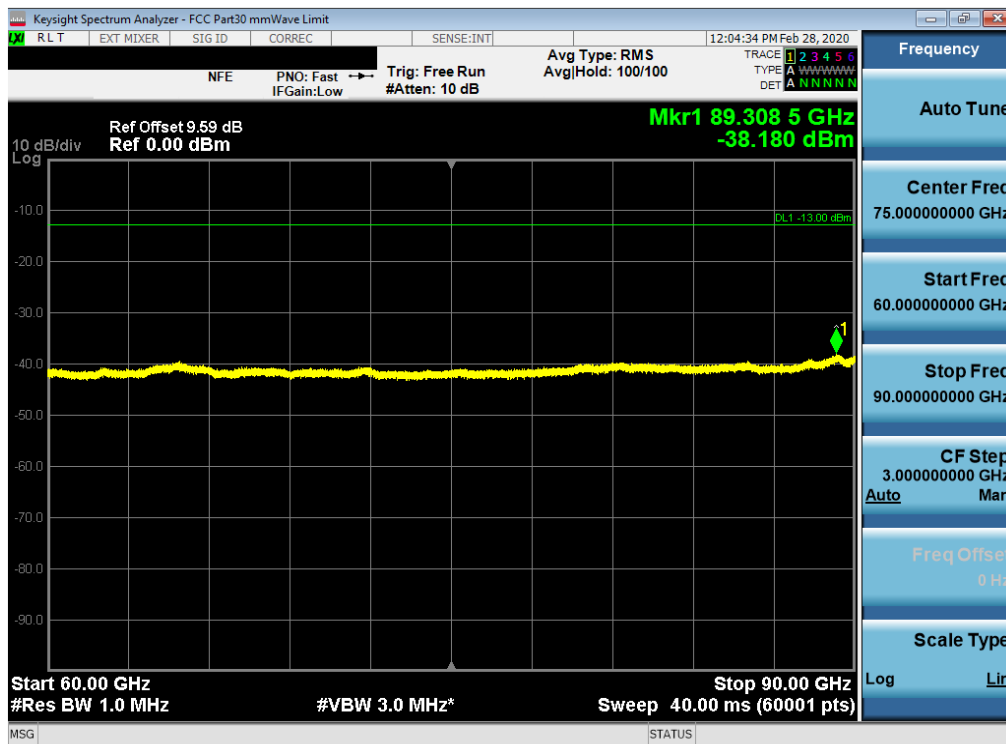
$$\text{RSE EIRP [dBm]} = \text{Analyzer Level [dBm]} + \text{AFCL [dB/m]} + 107 + 20\text{Log}(D_m) - 104.8 + \text{Duty Corretion Factor}$$

Duty Cycle Correction Factor Calculation

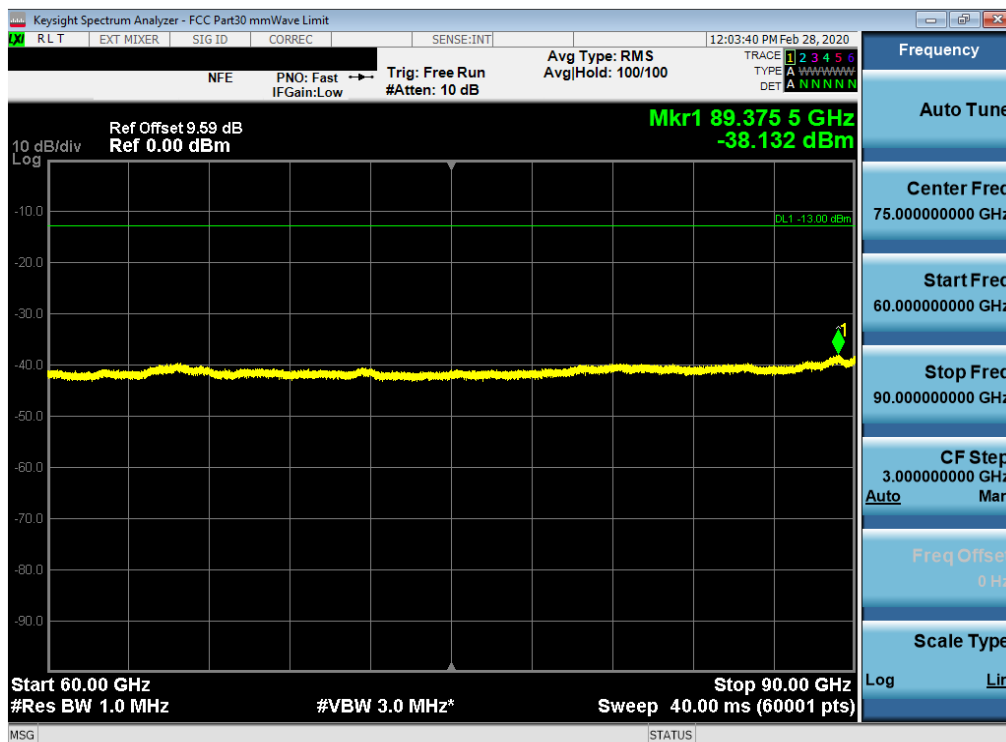
- 1 Cycle Time = 626 μs
- Tx on Time = 468 μs
- Duty Cycle = Tx on Time / 1 Cycle Time = 468 μs / 626 μs = 0.75
 Duty cycle correction factor = $10\log_{10}(1/\text{Duty Cycle}) = 10\log_{10}(1/0.75) = 1.26 \text{ dB}$

FCC ID: A3LAT1K02-A10	 Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 247 of 360

7.5.5 Radiated Spurious Emissions Plots (60 – 90GHz)

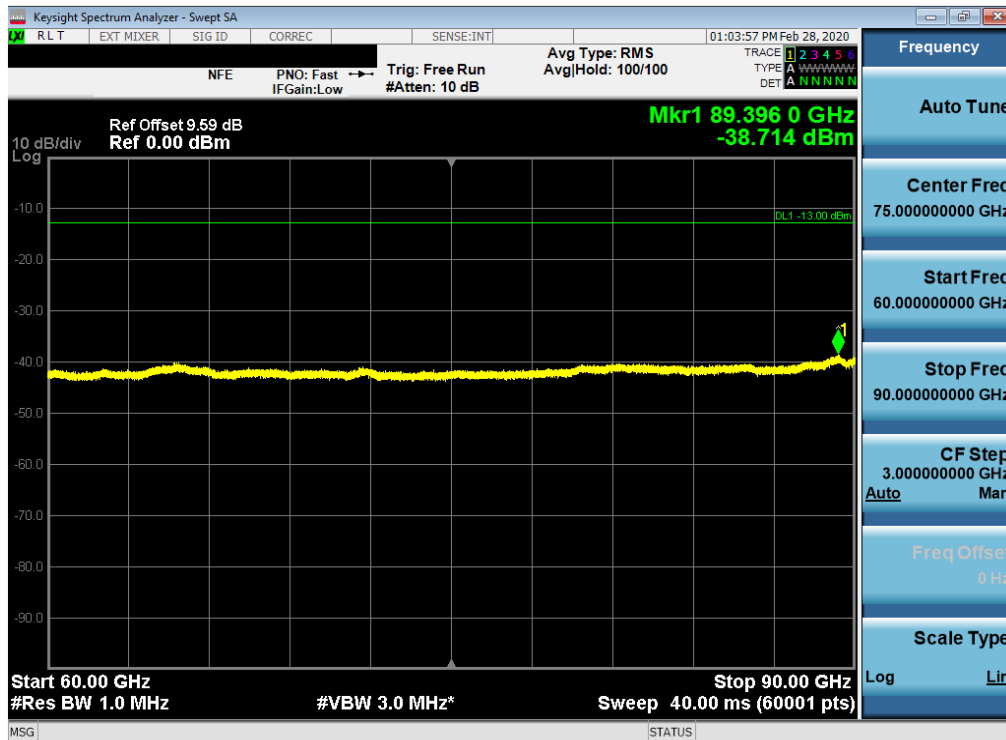


Plot 7-417. Radiated Spurious Plot 60-90 GHz (1CC QPSK Low Ch. Ant. Angle 135)

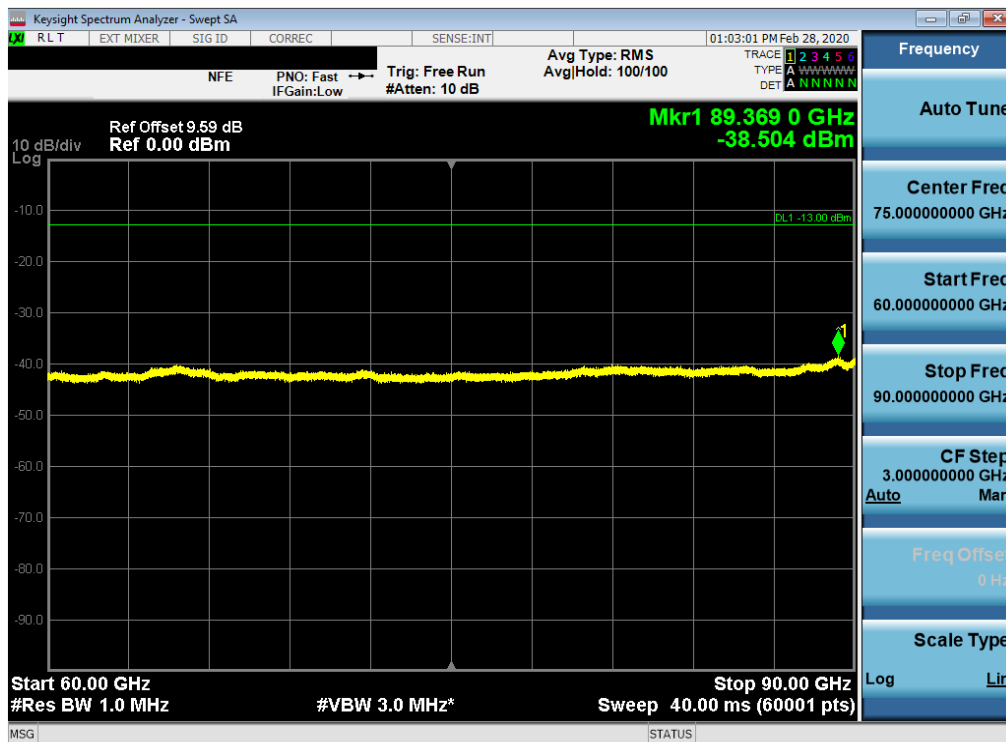


Plot 7-418. Radiated Spurious Plot 60-90 GHz (1CC QPSK Low Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A10	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit	Page 248 of 360

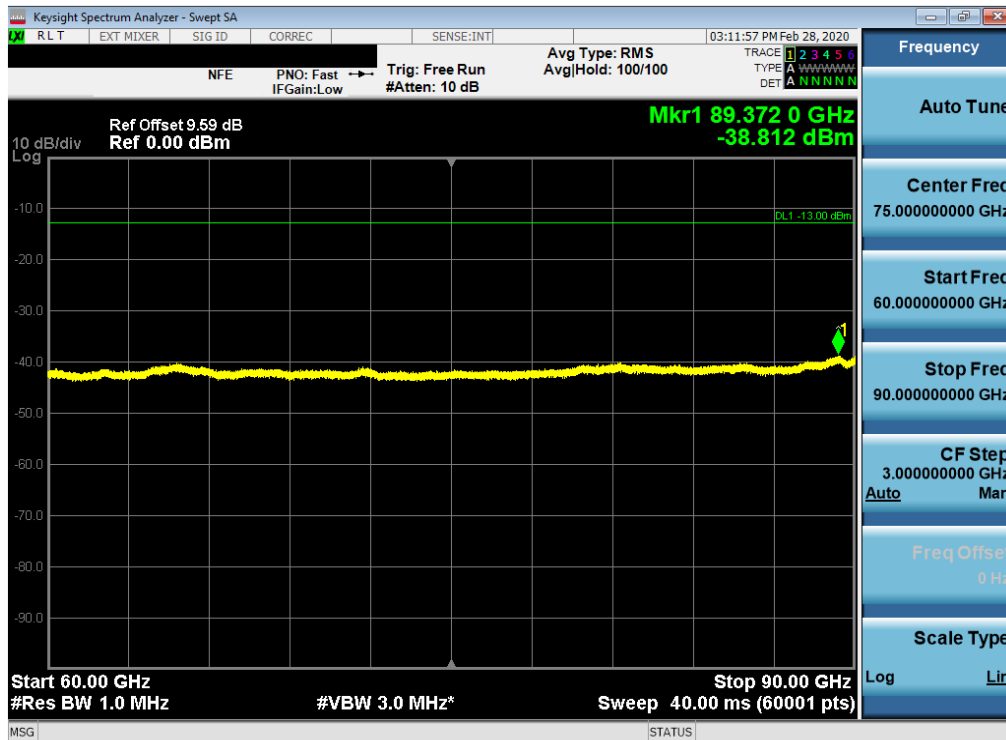


Plot 7-419. Radiated Spurious Plot 60-90 GHz (8CC QPSK Low Ch. Ant. Angle 135)

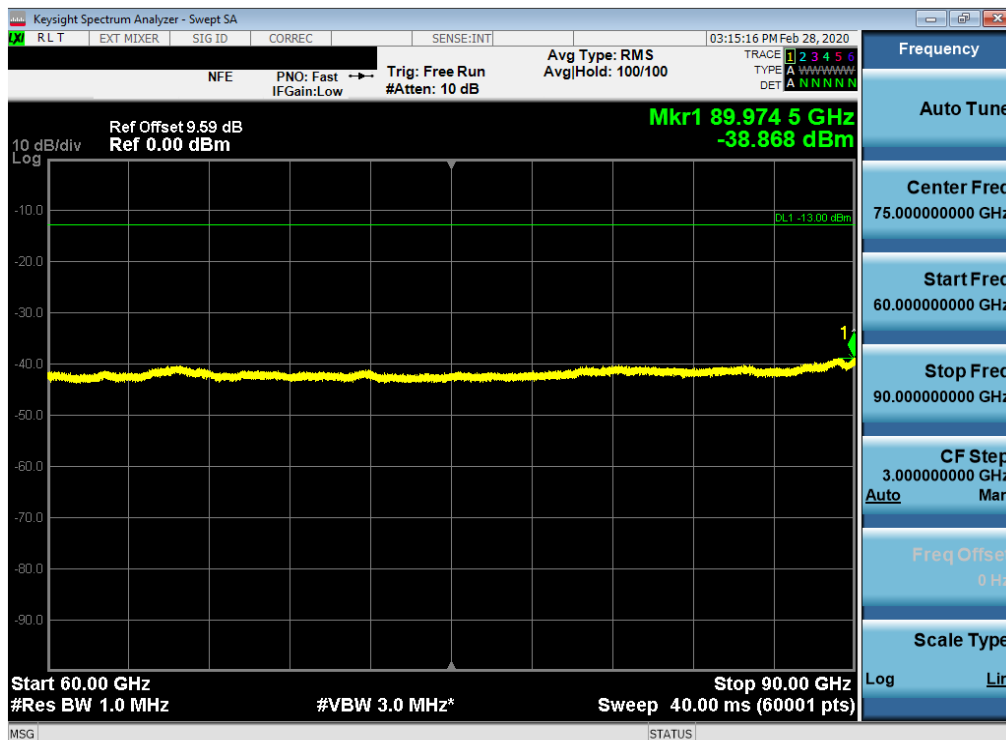


Plot 7-420. Radiated Spurious Plot 60-90 GHz (8CC QPSK Low Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 249 of 360

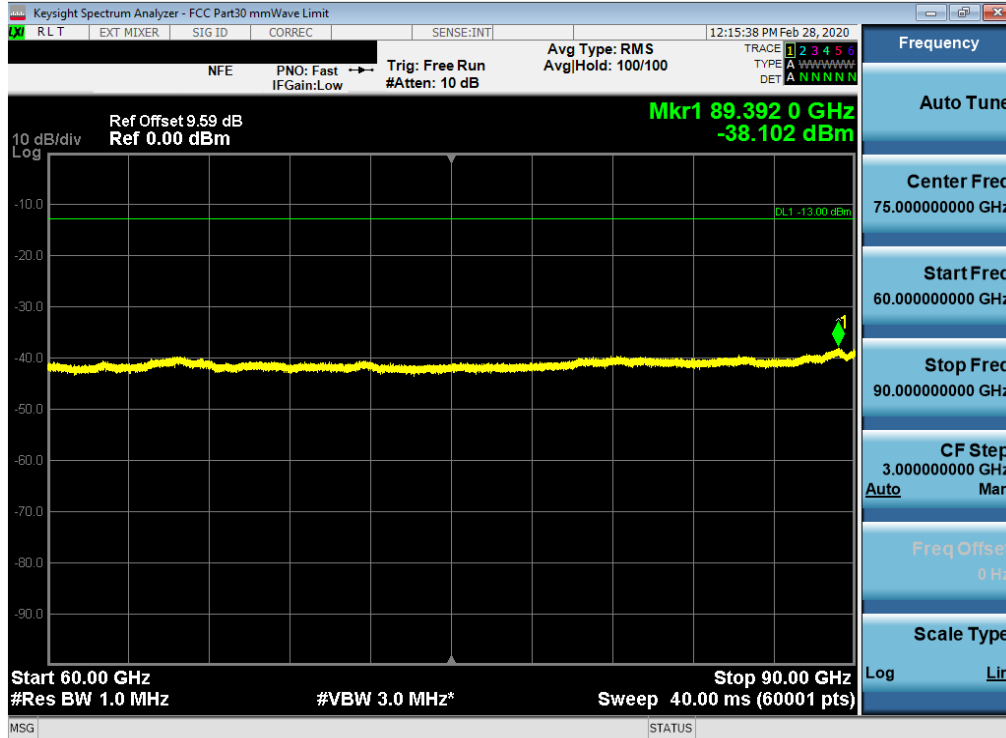


Plot 7-421. Radiated Spurious Plot 60-90 GHz (8CC NC QPSK Low Ch. Ant. Angle 135)

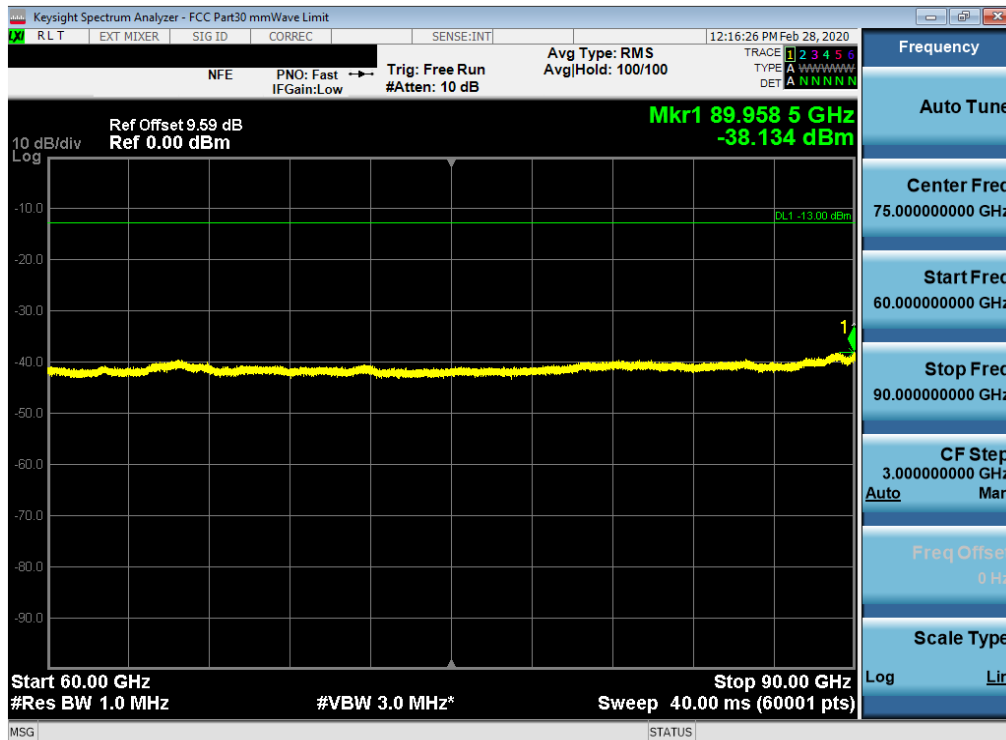


Plot 7-422. Radiated Spurious Plot 60-90 GHz (8CC NC QPSK Low Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 250 of 360



Plot 7-423. Radiated Spurious Plot 60-90 GHz (1CC QPSK Mid Ch. Ant. Angle 135)



Plot 7-424. Radiated Spurious Plot 60-90 GHz (1CC QPSK Mid Ch. Ant. Angle 45)

FCC ID: A3LAT1K02-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K19110702-01-R1.A3L	Test Dates: 02/18/2020-03/06/2020	EUT Type: 5G Access Unit		Page 251 of 360