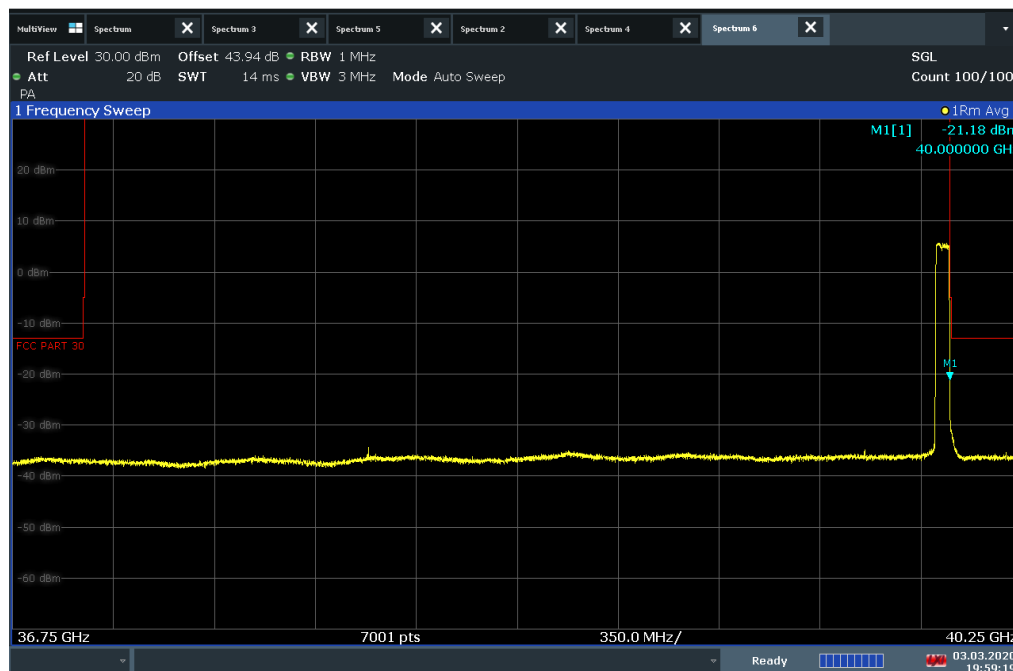


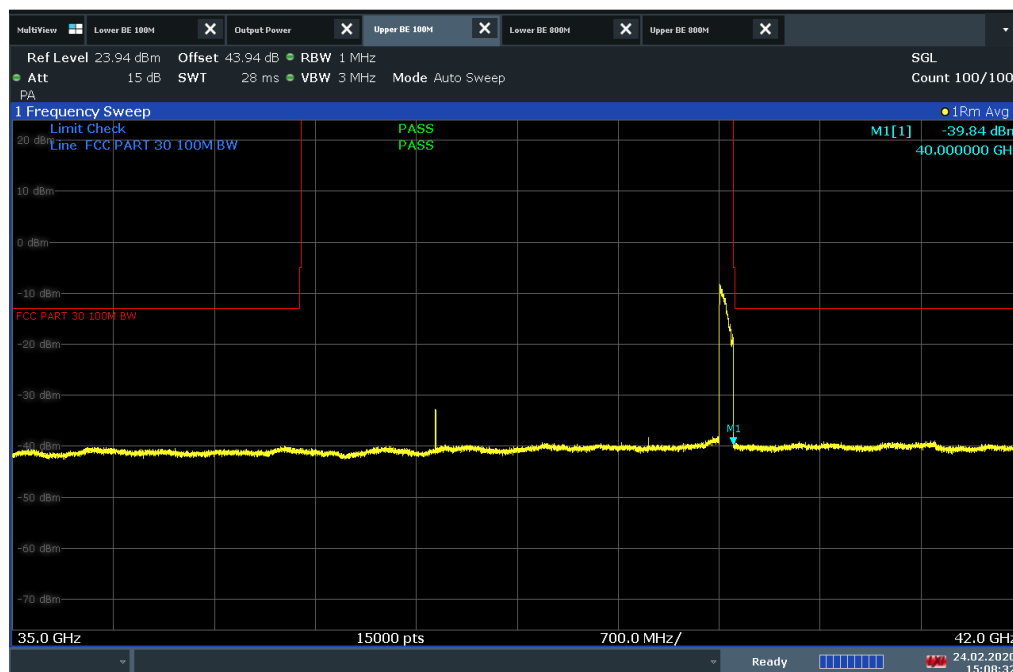
ACLRRResults



19:59:19 03.03.2020

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

ACLRRResults



15:08:33 24.02.2020

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

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 313 of 360

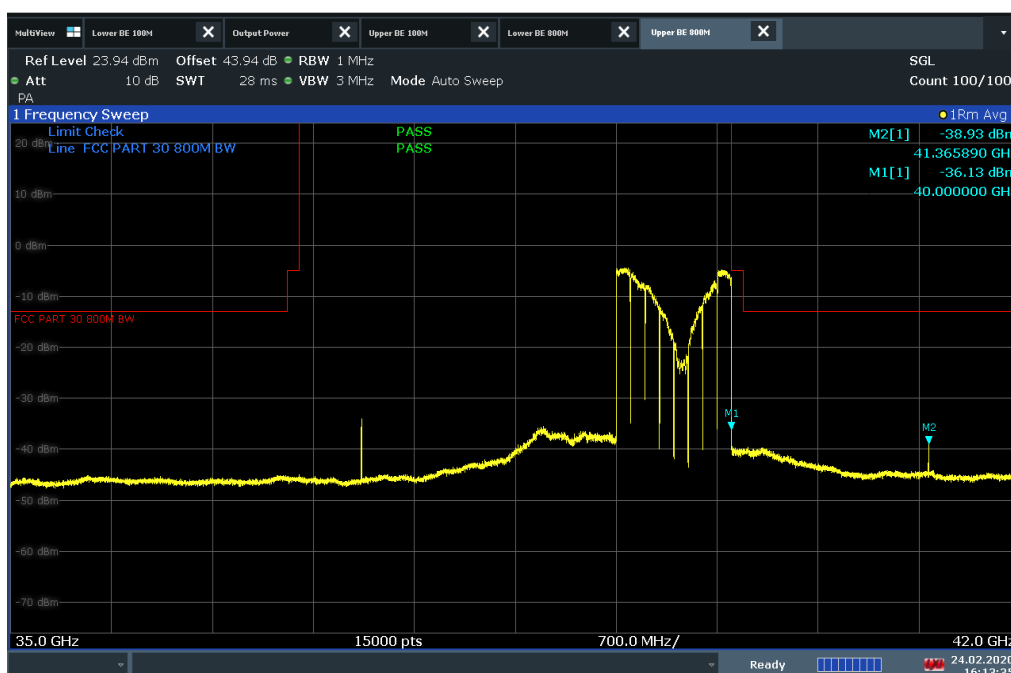
ACLRRResults



00:46:39 04.03.2020

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

ACLRRResults

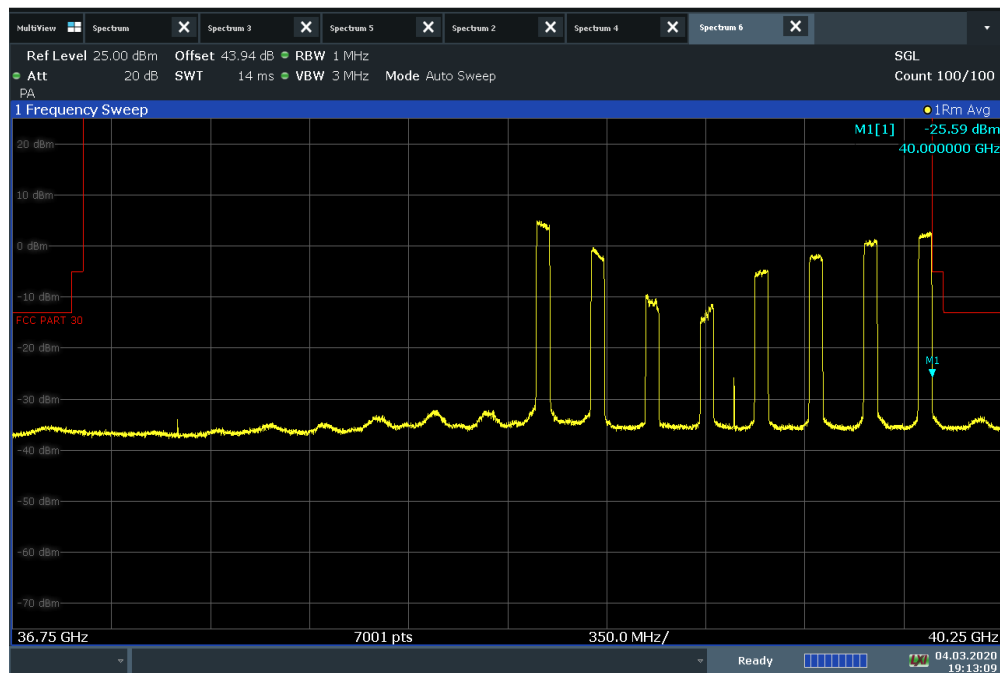


16:13:36 24.02.2020

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

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 314 of 360

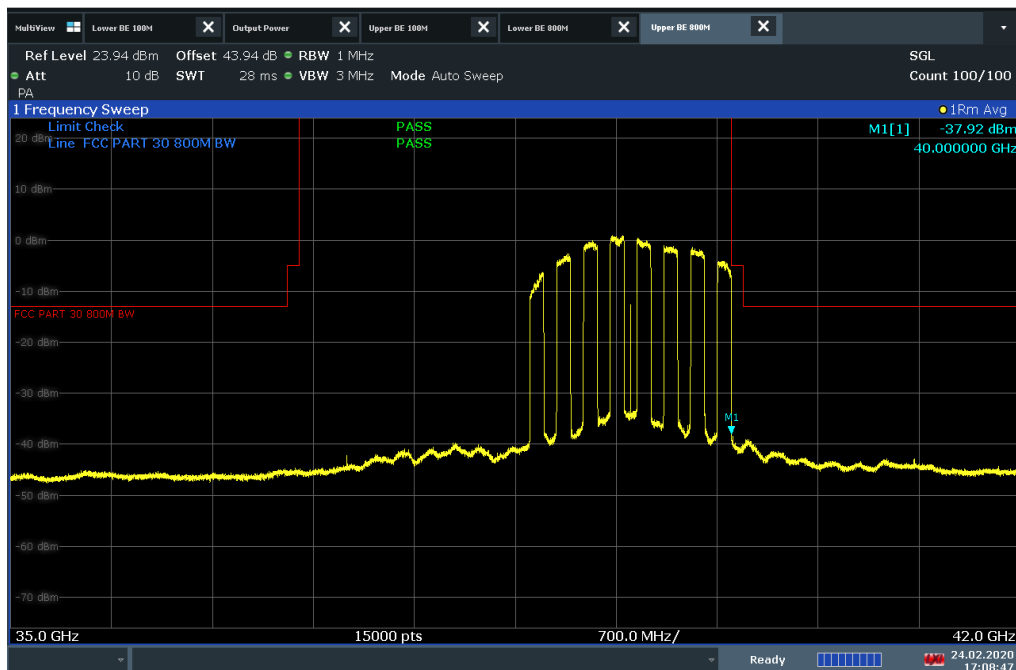
ACLRRResults



19:13:09 04.03.2020

Plot 7-535. Band Edge Plot (50MHz BW 8CC NC QPSK High Channel)

ACLRRResults

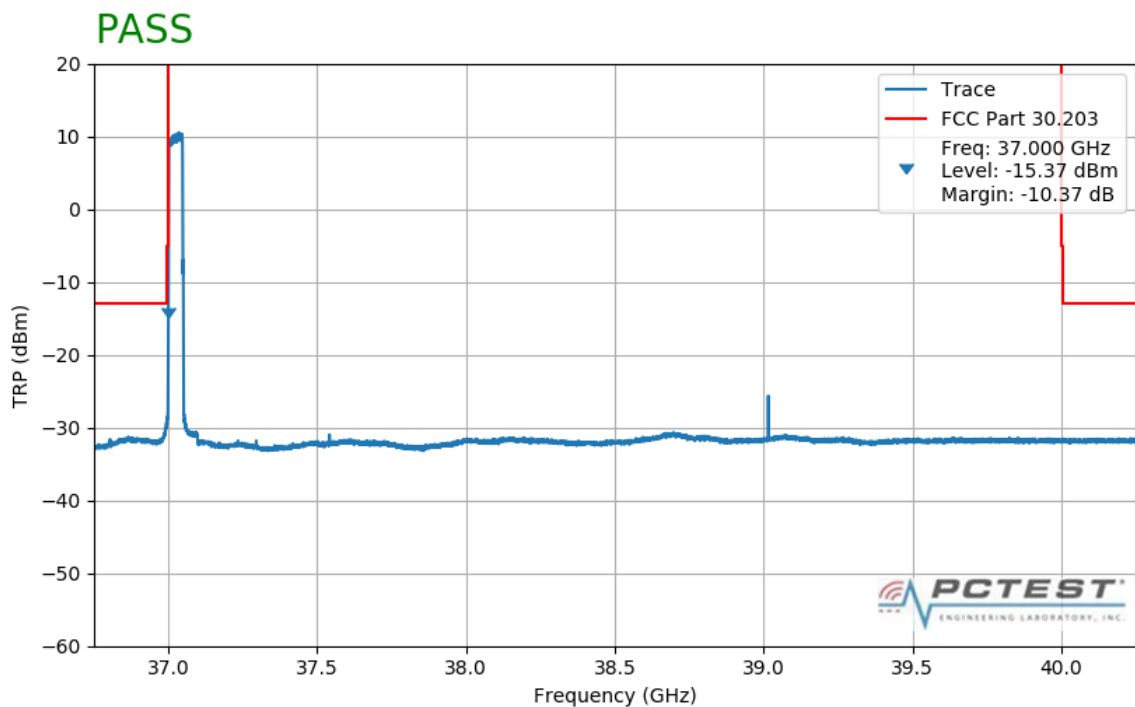


17:08:47 24.02.2020

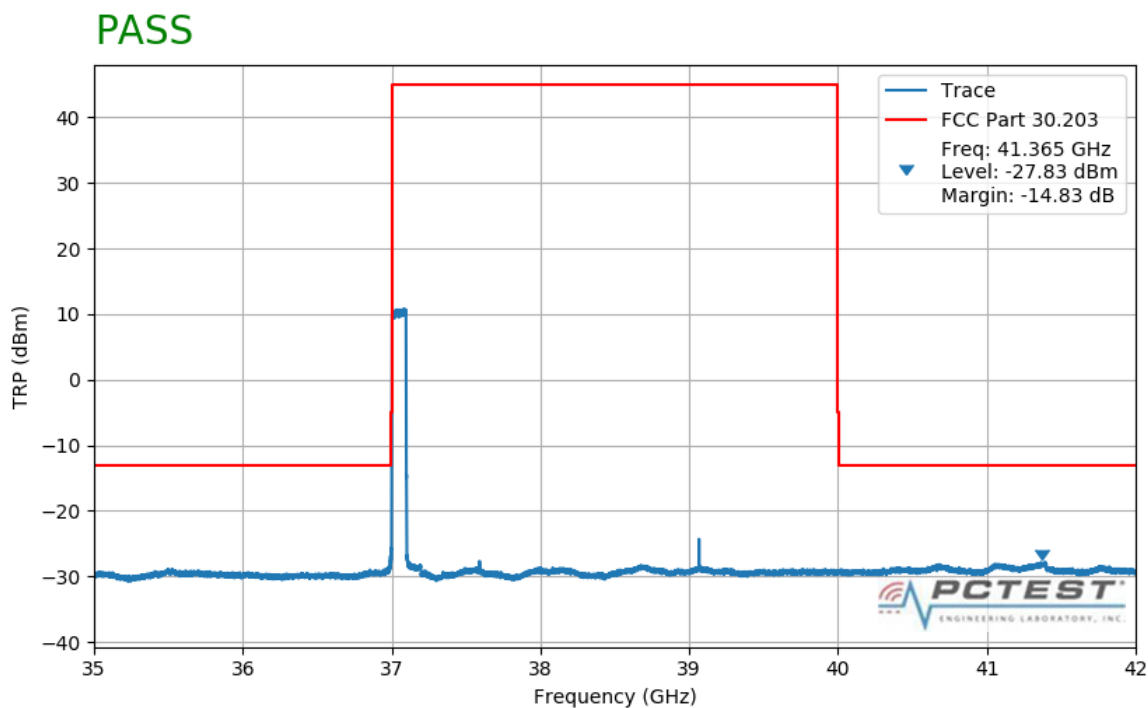
Plot 7-536. Band Edge Plot (100MHz BW 8CC NC QPSK High Channel)

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 315 of 360

7.6.6 MIMO Band Edge Maximized on Antenna A

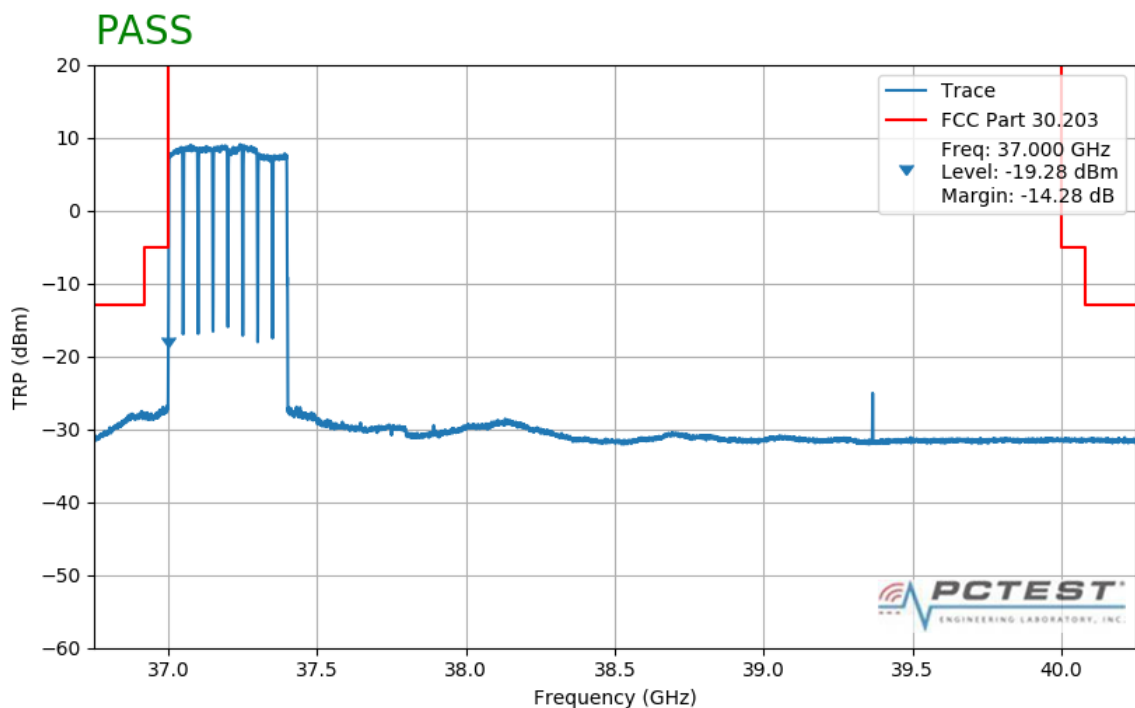


Plot 7-537. Band Edge Plot (50MHz BW 1CC QPSK Low Channel)

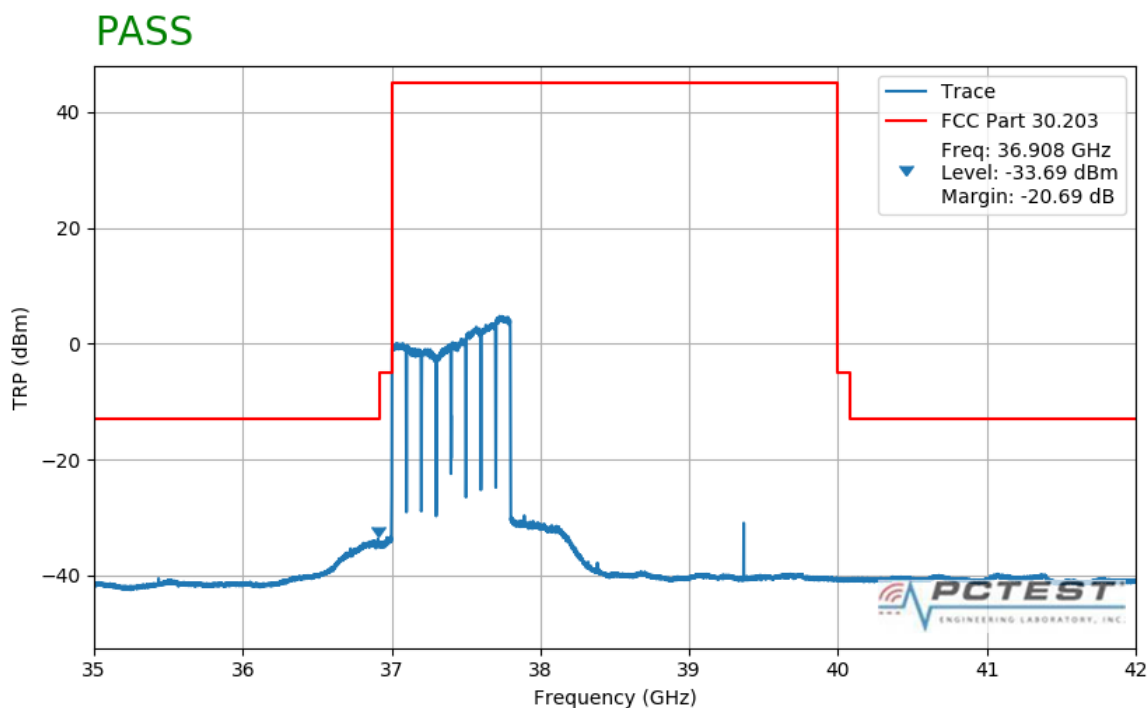


Plot 7-538. Band Edge Plot (100MHz BW 1CC QPSK Low Channel)

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 316 of 360

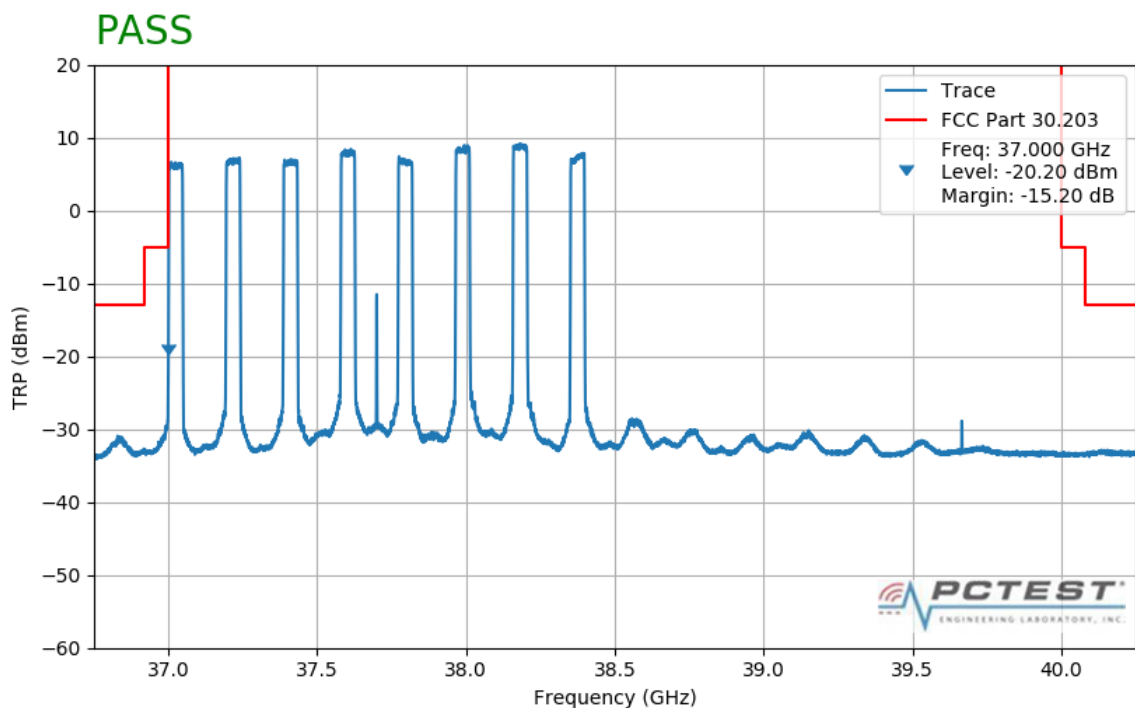


Plot 7-539. Band Edge Plot (50MHz BW 8CC QPSK Low Channel)

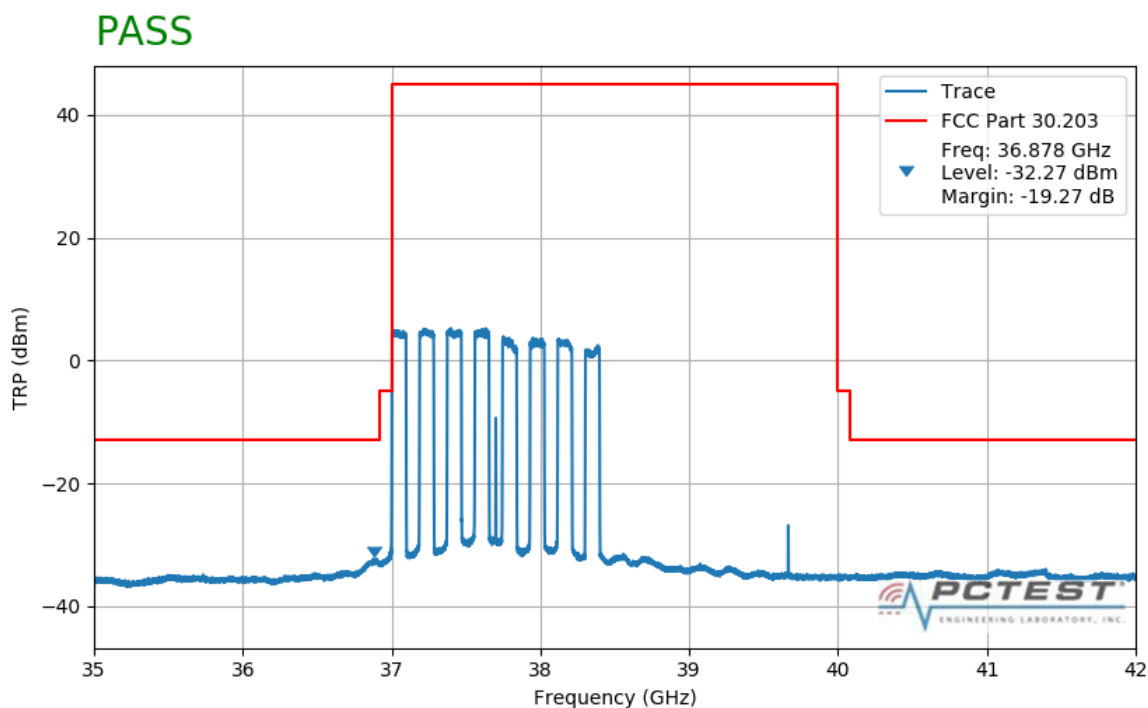


Plot 7-540. Band Edge Plot (100MHz BW 8CC QPSK Low Channel)

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 317 of 360

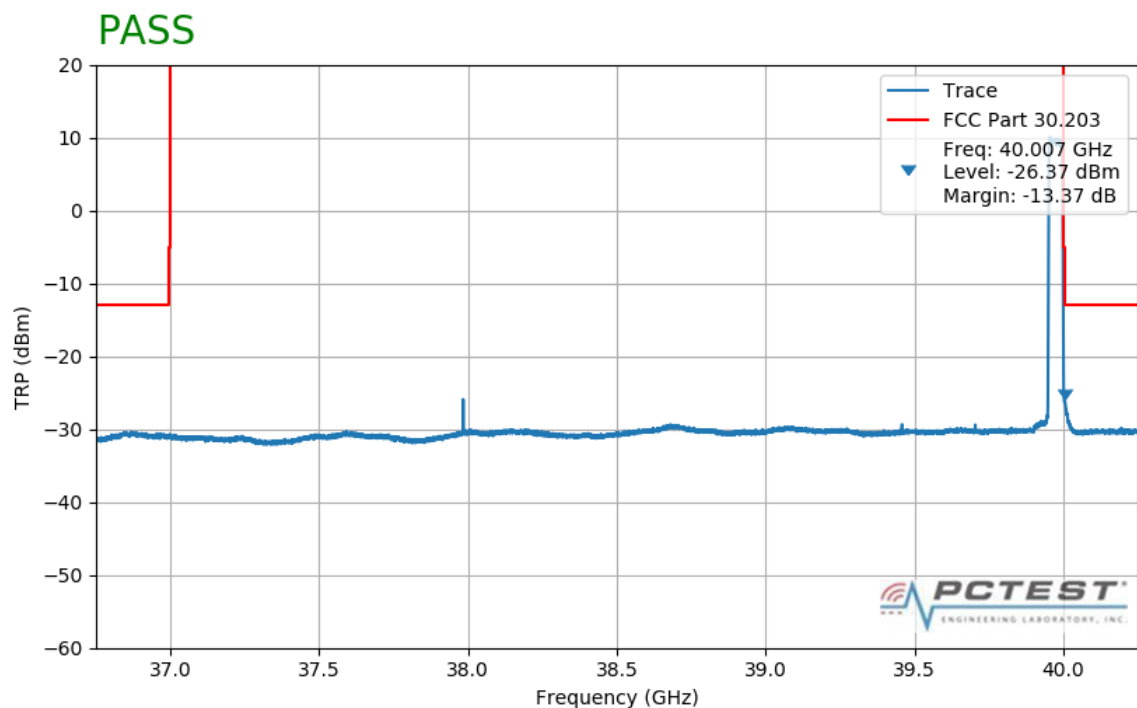


Plot 7-541. Band Edge Plot (50MHz BW 8CC NC QPSK Low Channel)

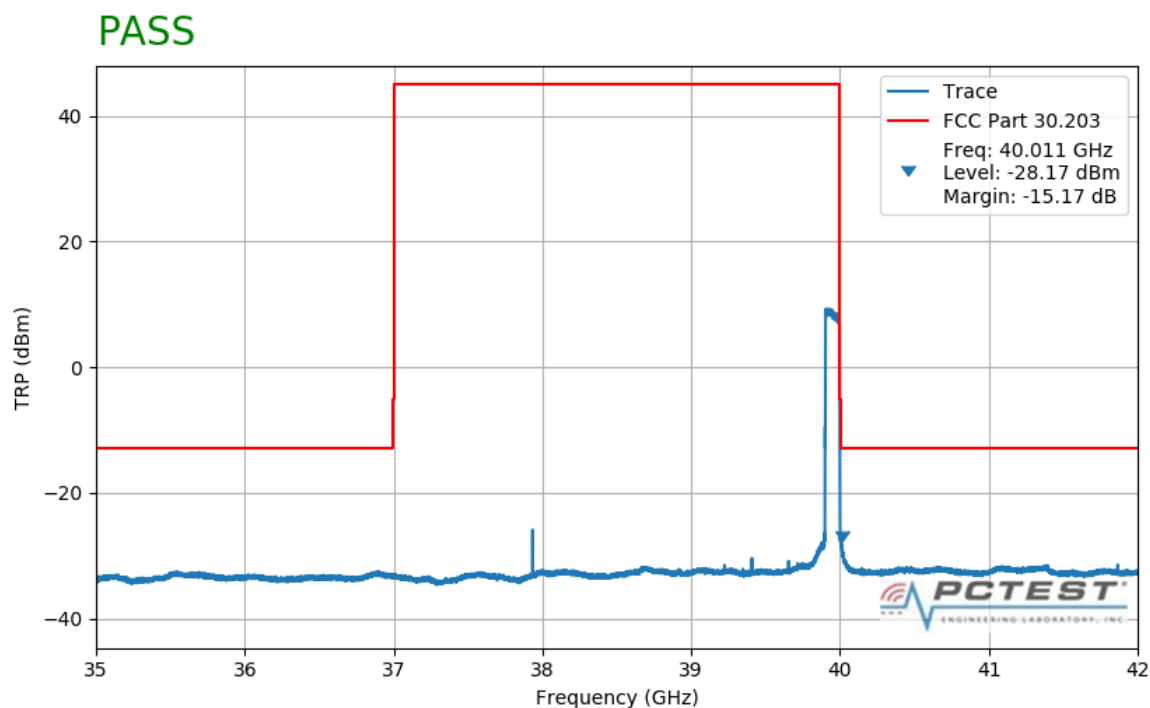


Plot 7-542. Band Edge Plot (100MHz BW 8CC NC QPSK Low Channel)

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 318 of 360

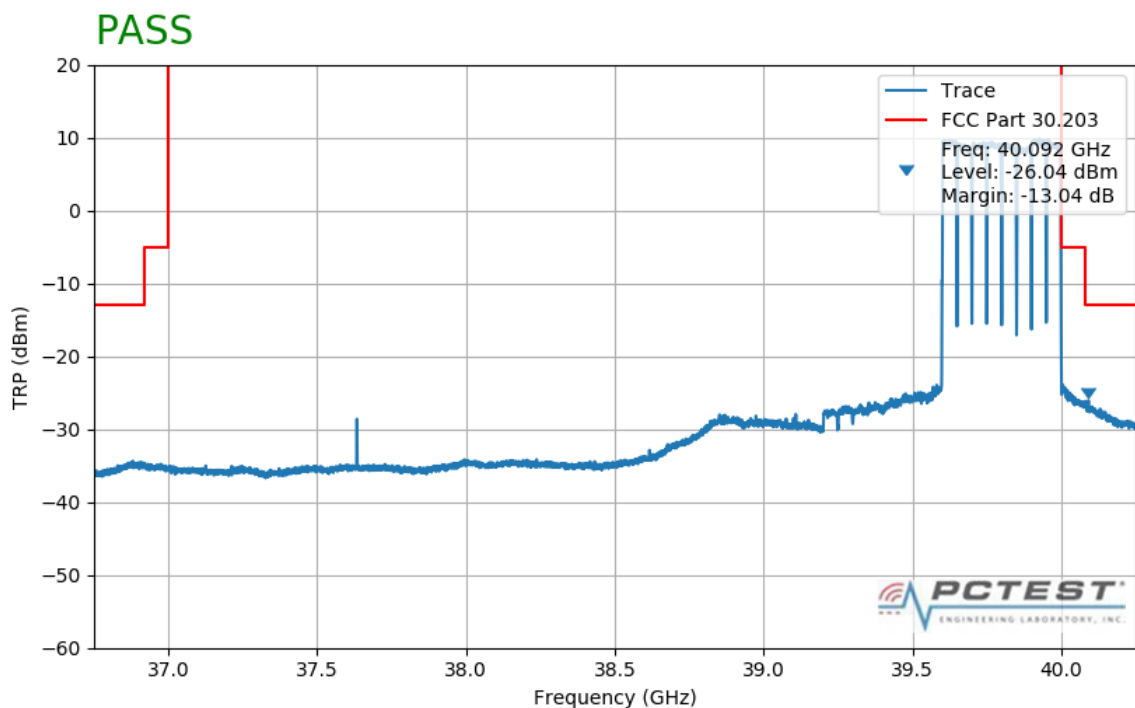


Plot 7-543. Band Edge Plot (50MHz BW 1CC QPSK High Channel)

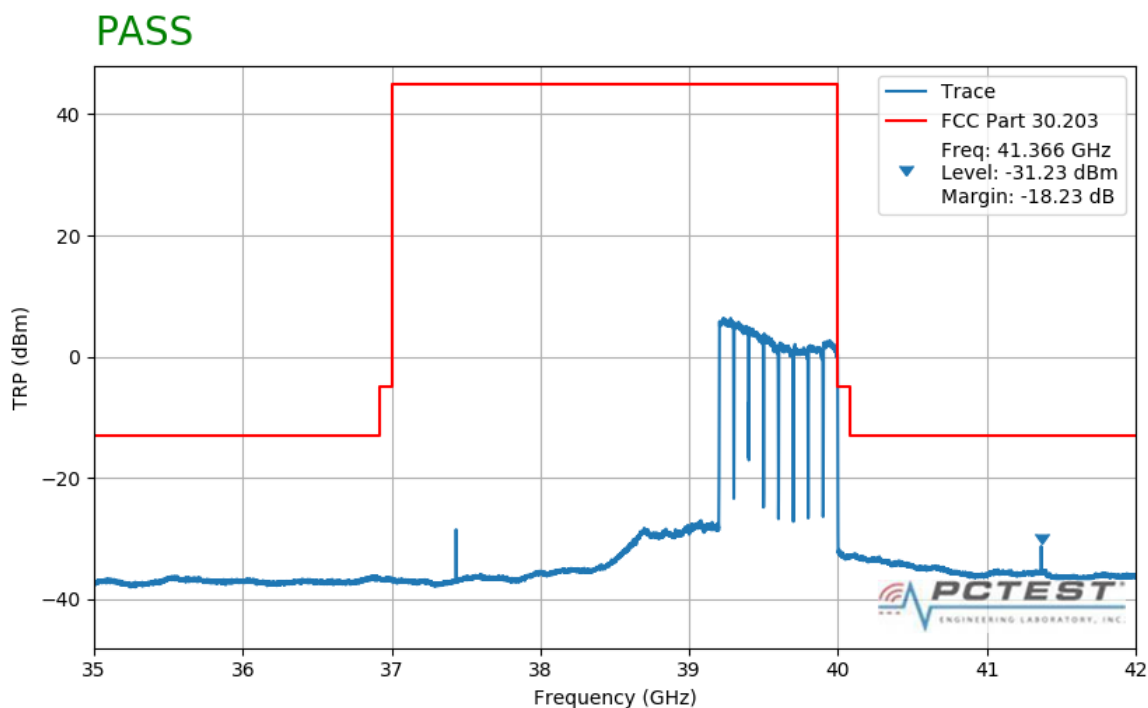


Plot 7-544. Band Edge Plot (100MHz BW 1CC QPSK High Channel)

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 319 of 360

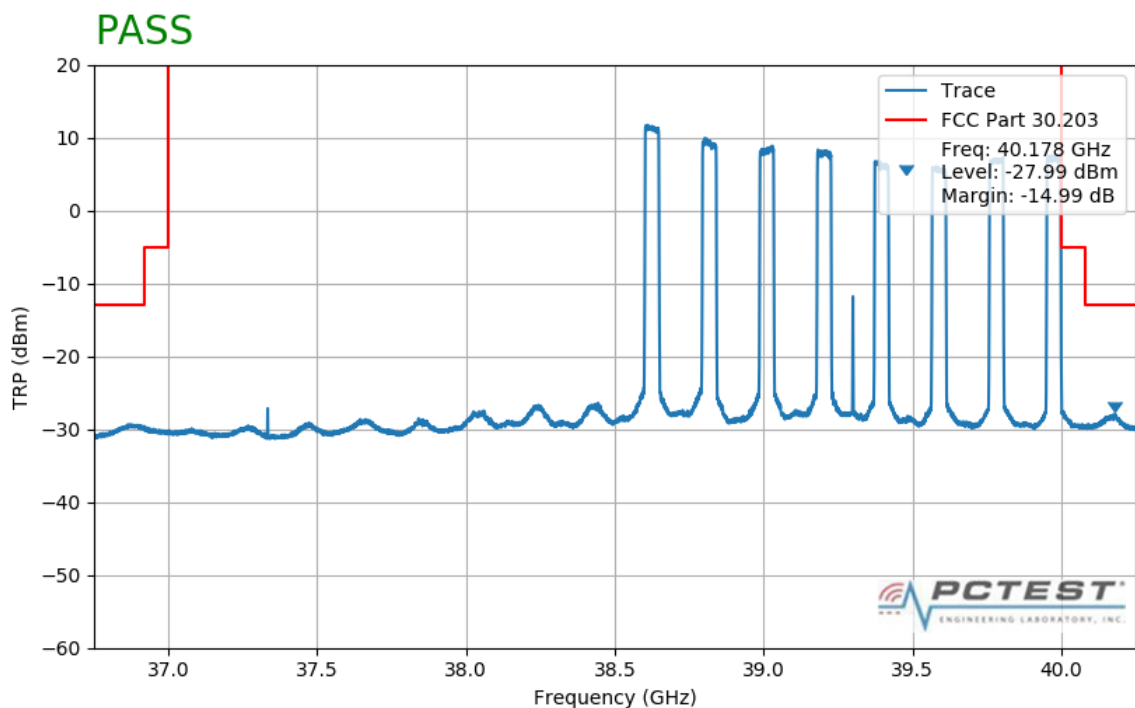


Plot 7-545. Band Edge Plot (50MHz BW 8CC QPSK High Channel)

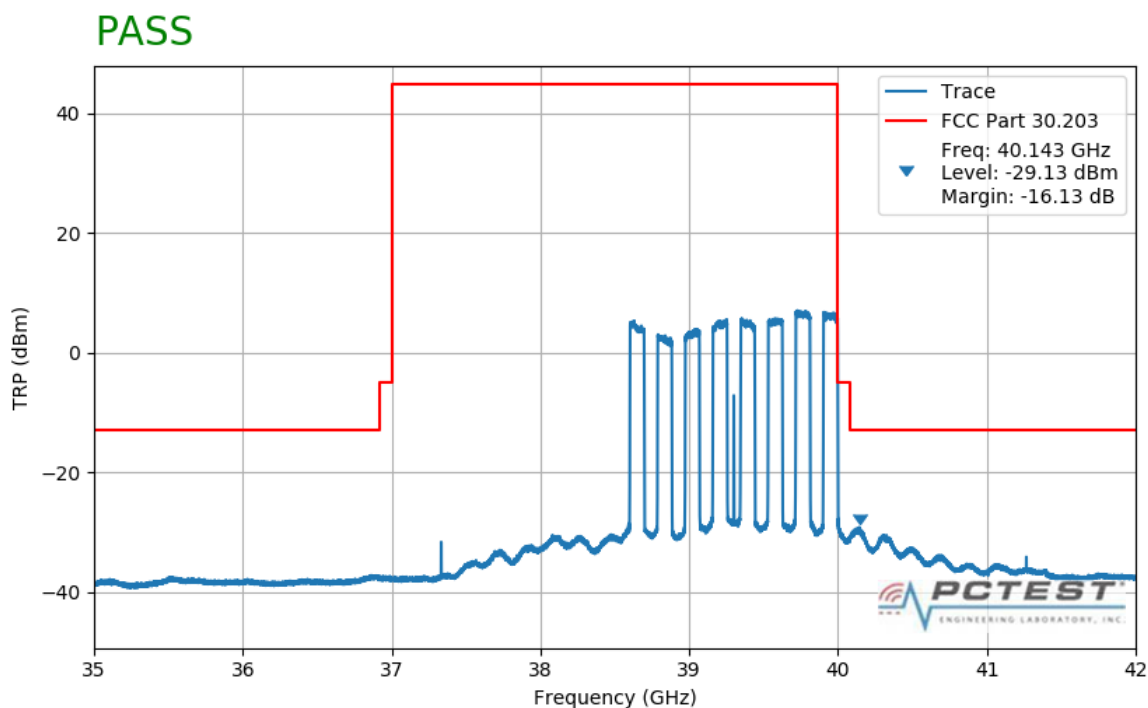


Plot 7-546. Band Edge Plot (100MHz BW 8CC QPSK High Channel)

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 320 of 360



Plot 7-547. Band Edge Plot (50MHz BW 8CC NC QPSK High Channel)

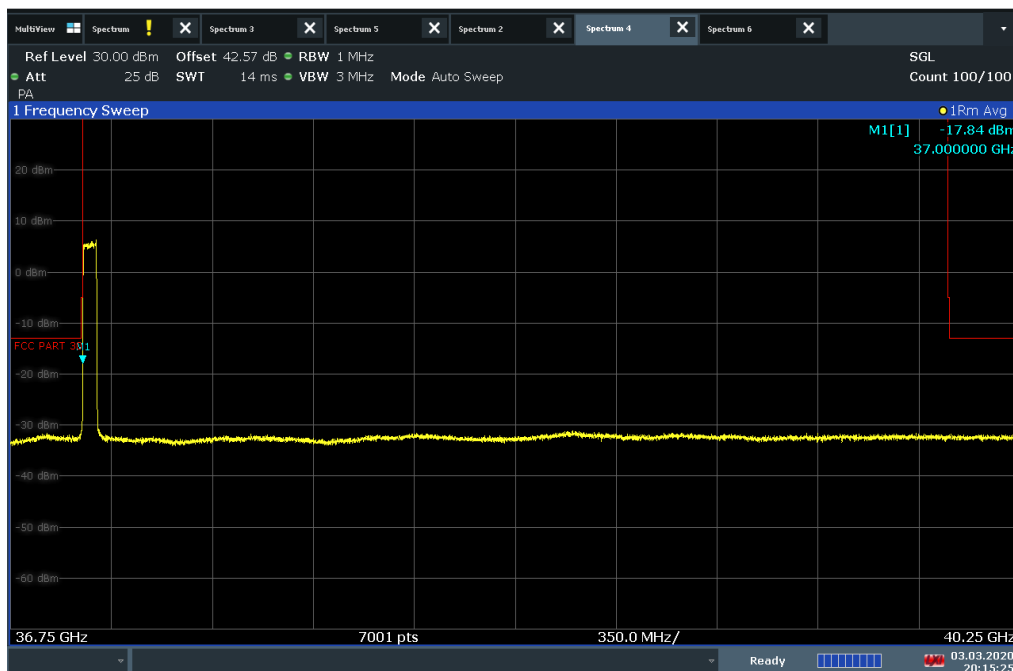


Plot 7-548. Band Edge Plot (100MHz BW 8CC NC QPSK High Channel)

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 321 of 360

7.6.7 Antenna A Conducted Band Edge Maximized on Antenna B

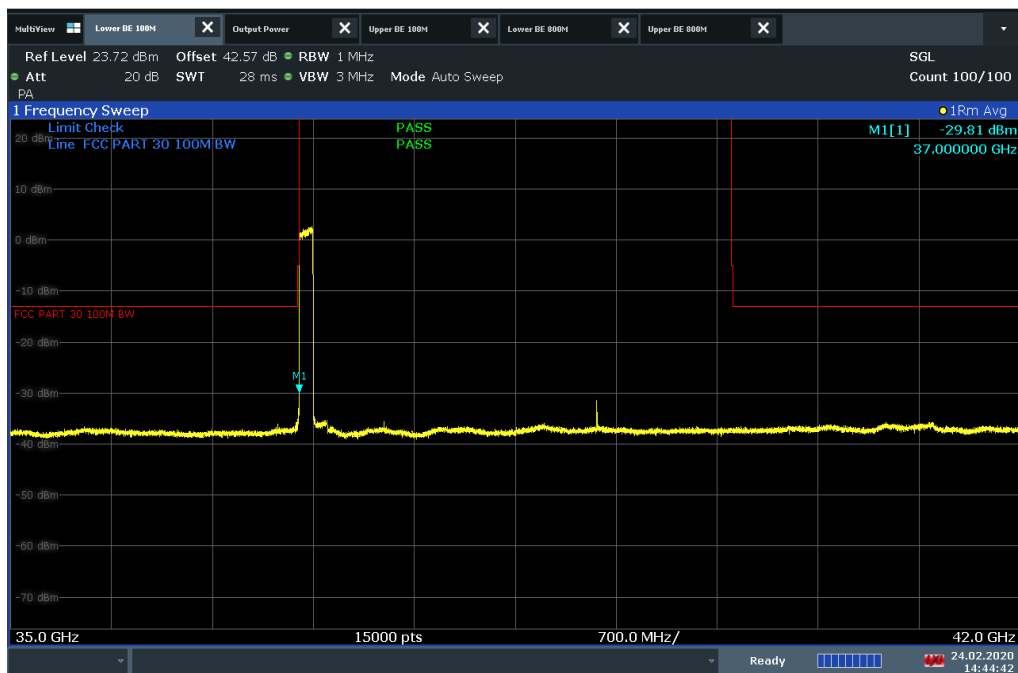
ACLRRResults



20:15:26 03.03.2020

Plot 7-549. Band Edge Plot (50MHz BW 1CC QPSK Low Channel)

ACLRRResults

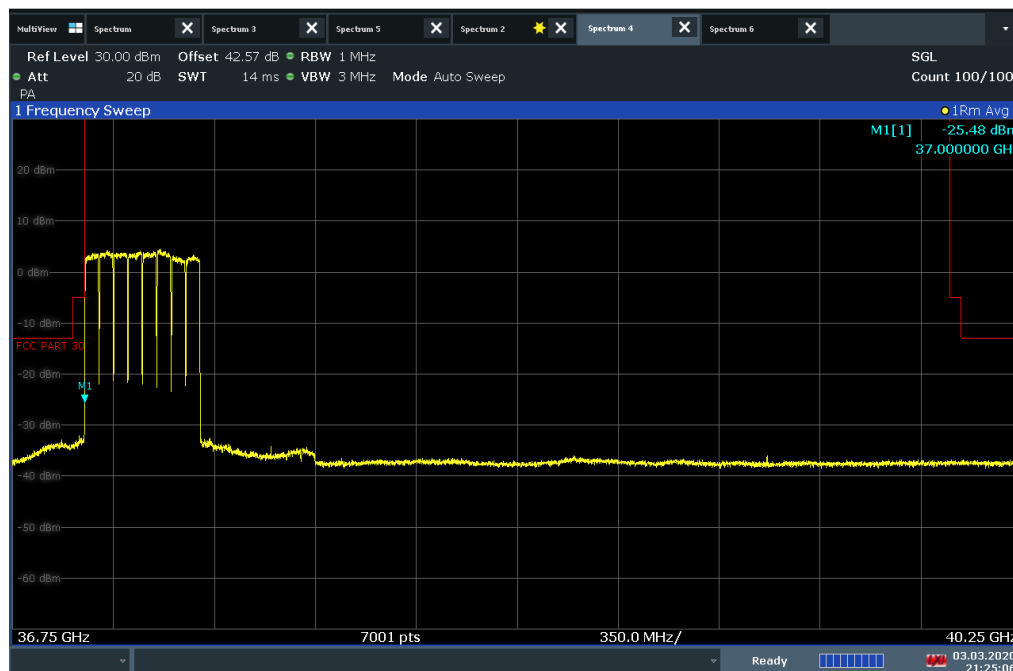


14:44:42 24.02.2020

Plot 7-550. Band Edge Plot (100MHz BW 1CC QPSK Low Channel)

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 322 of 360

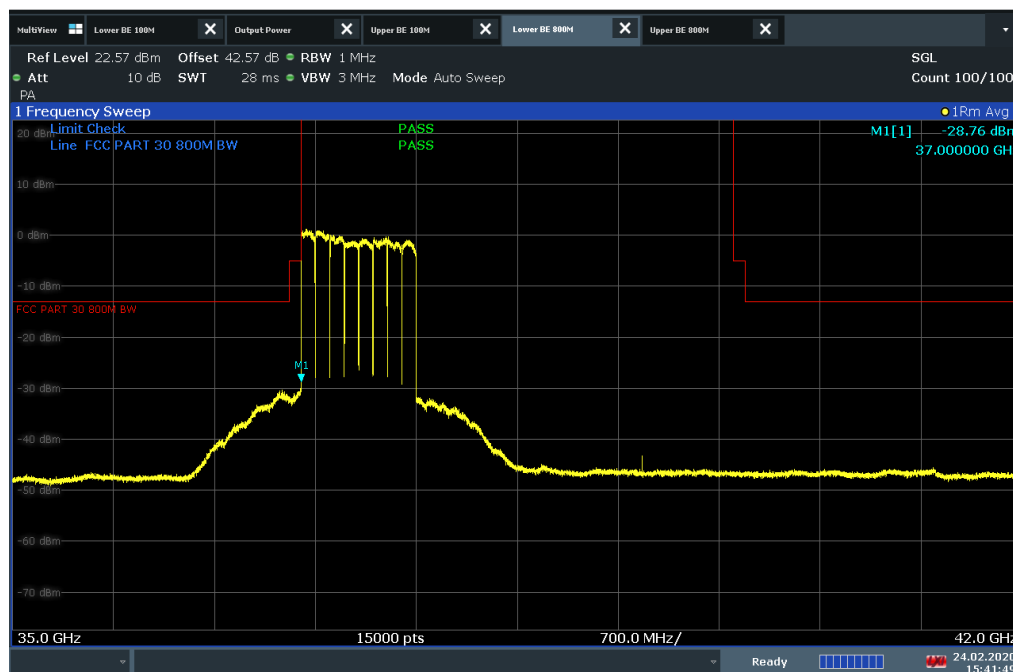
ACLRRResults



21:25:06 03.03.2020

Plot 7-551. Band Edge Plot (50MHz BW 8CC QPSK Low Channel)

ACLRRResults

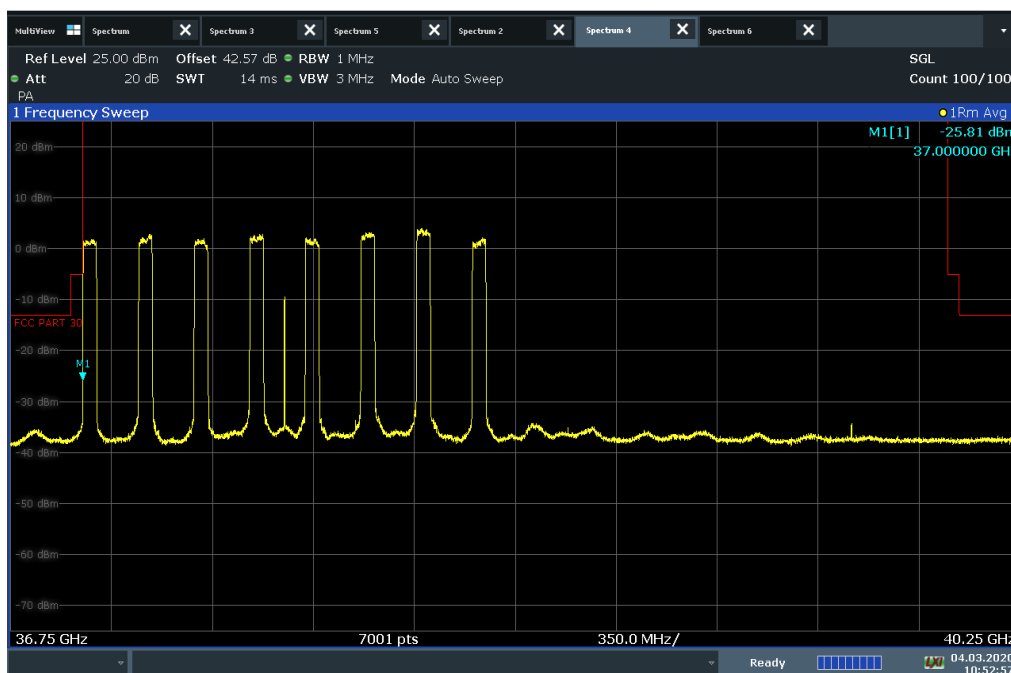


15:41:49 24.02.2020

Plot 7-552. Band Edge Plot (100MHz BW 8CC QPSK Low Channel)

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 323 of 360

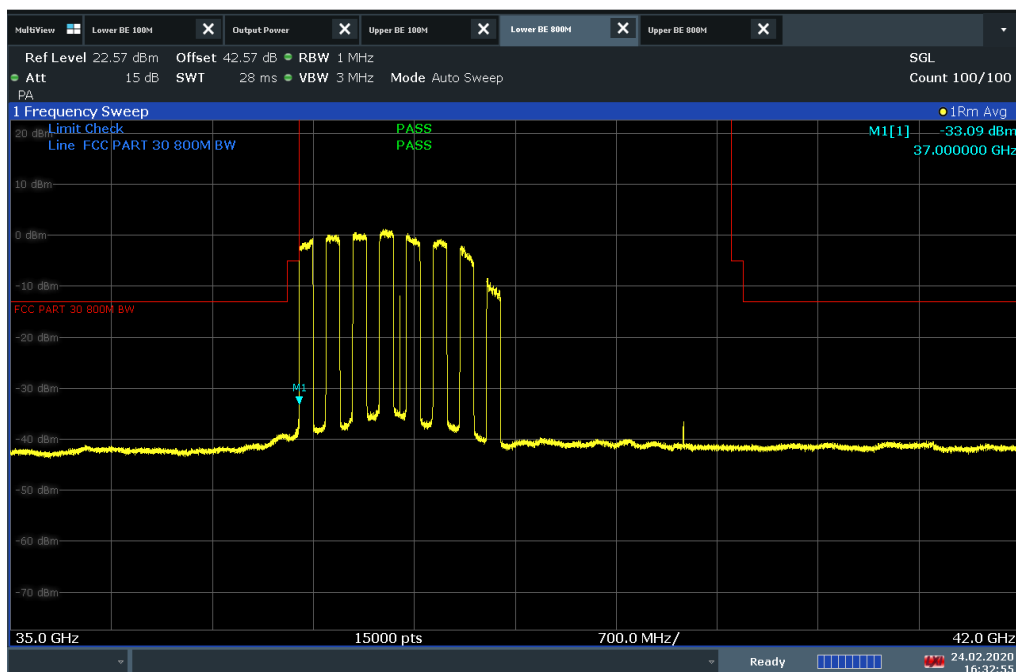
ACLRRResults



10:52:58 04.03.2020

Plot 7-553. Band Edge Plot (50MHz BW 8CC NC QPSK Low Channel)

ACLRRResults

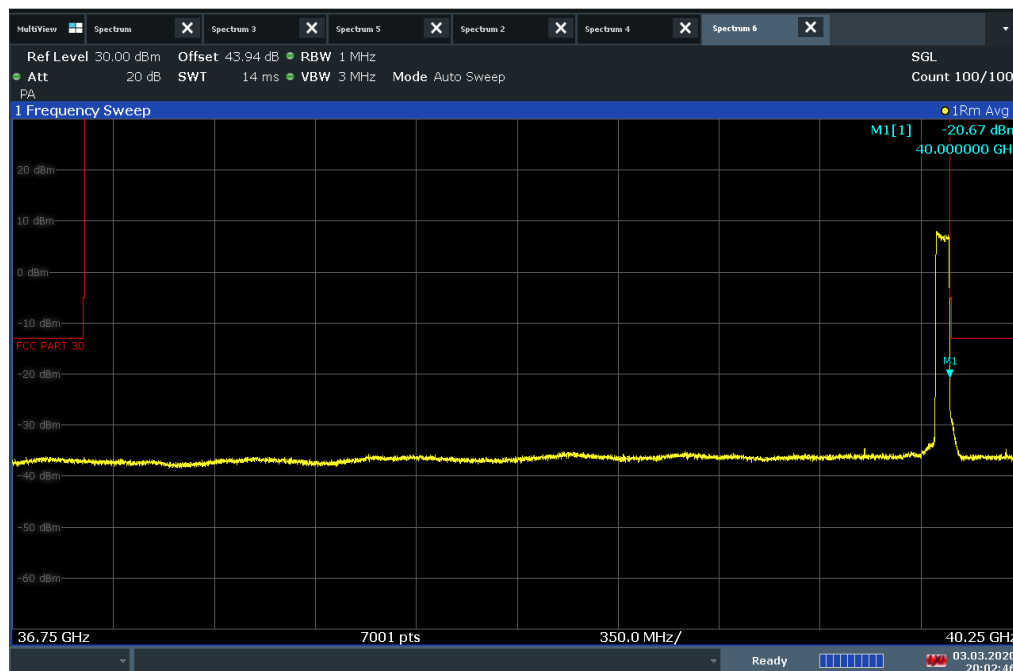


16:32:56 24.02.2020

Plot 7-554. Band Edge Plot (100MHz BW 8CC NC QPSK Low Channel)

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 324 of 360

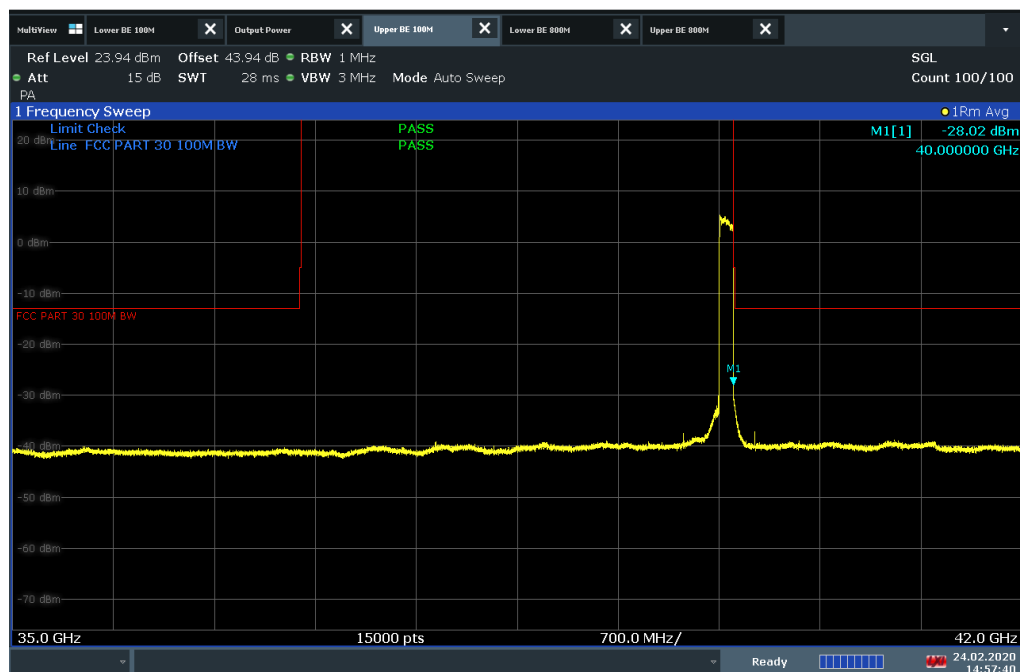
ACLRRResults



20:02:46 03.03.2020

Plot 7-555. Band Edge Plot (50MHz BW 1CC QPSK High Channel)

ACLRRResults



14:57:41 24.02.2020

Plot 7-556. Band Edge Plot (100MHz BW 1CC QPSK High Channel)

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 325 of 360

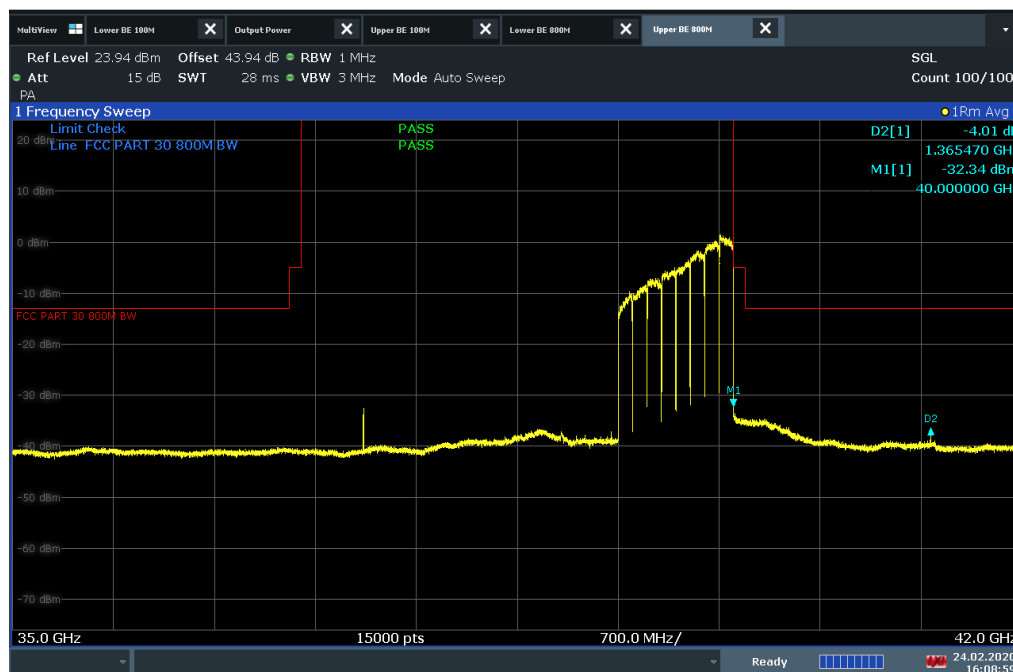
ACLRRResults



00:54:24 04.03.2020

Plot 7-557. Band Edge Plot (50MHz BW 8CC QPSK High Channel)

ACLRRResults

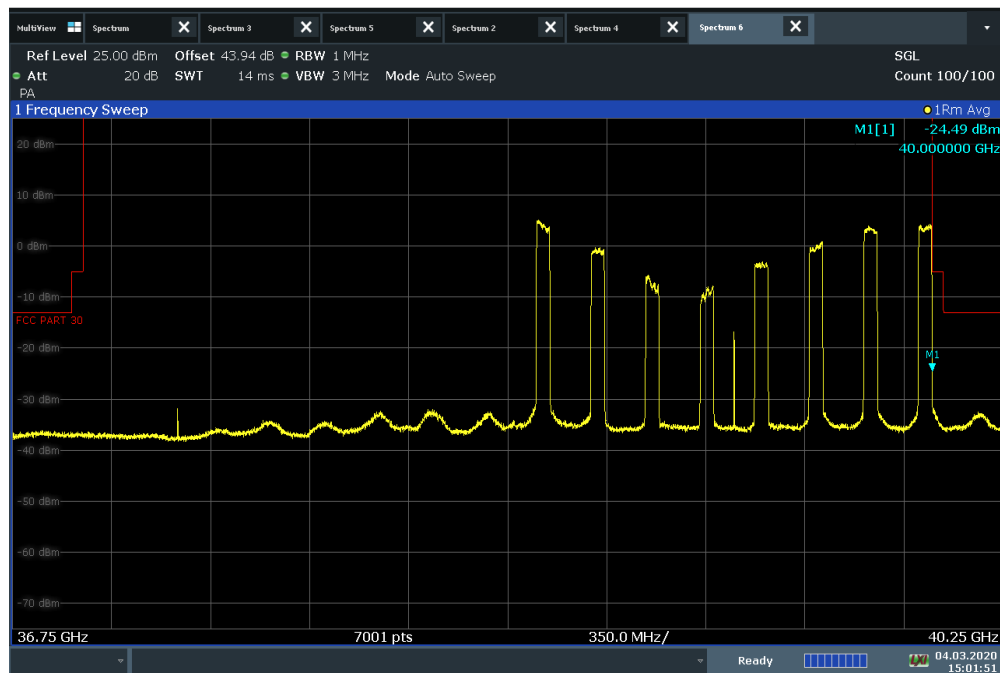


16:09:00 24.02.2020

Plot 7-558. Band Edge Plot (100MHz BW 8CC QPSK High Channel)

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 326 of 360

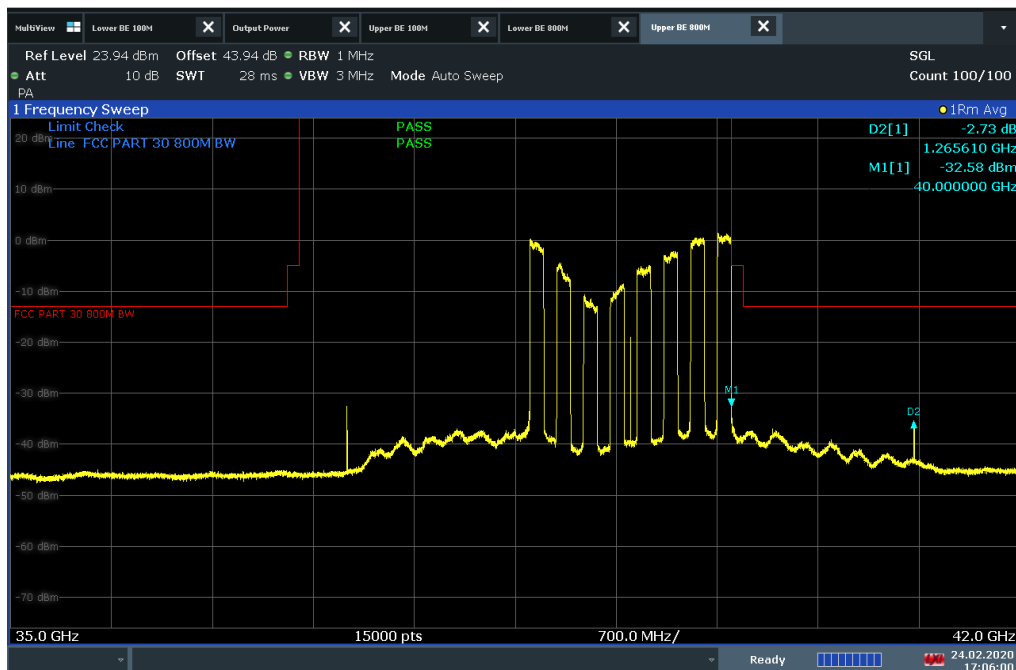
ACLRResults



15:01:51 04.03.2020

Plot 7-559. Band Edge Plot (50MHz BW 8CC NC QPSK High Channel)

ACLRResults



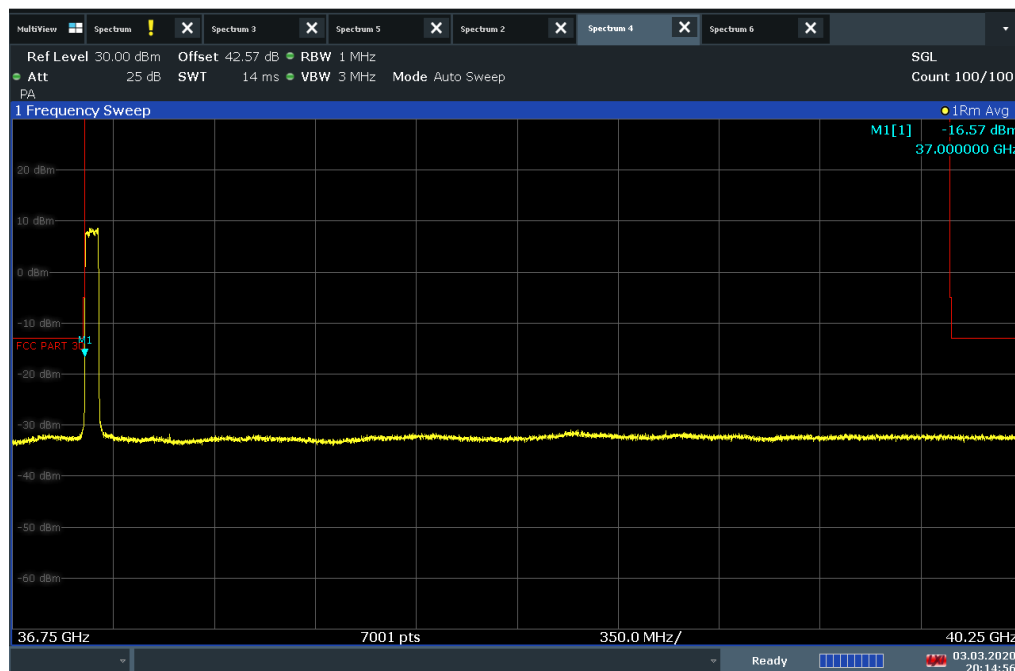
17:06:01 24.02.2020

Plot 7-560. Band Edge Plot (100MHz BW 8CC NC QPSK High Channel)

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 327 of 360

7.6.8 Antenna B Conducted Band Edge Maximized on Antenna B

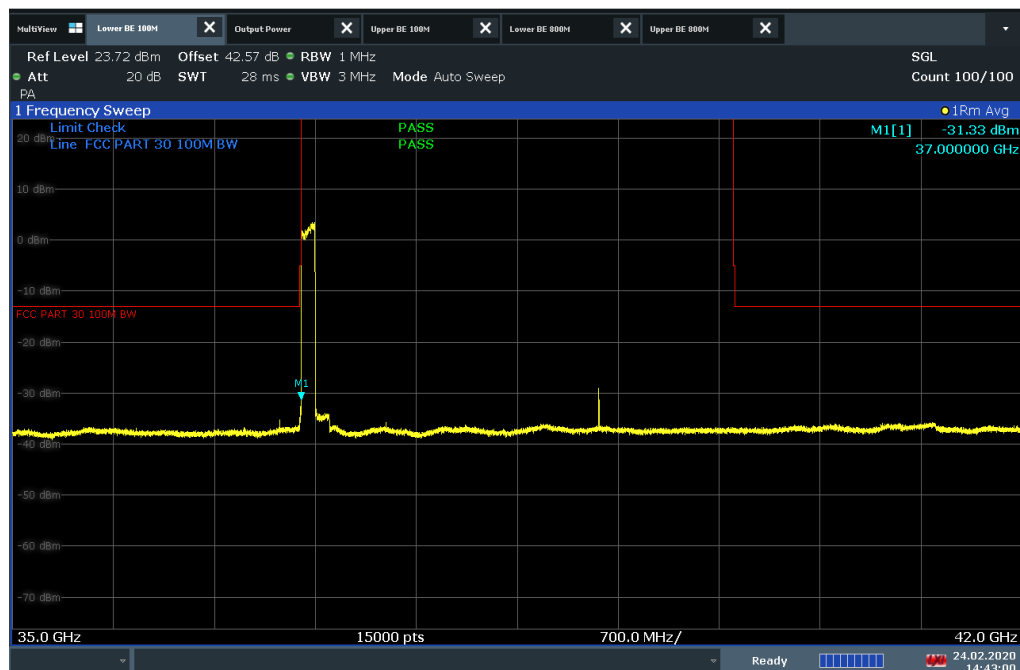
ACLRRResults



20:14:57 03.03.2020

Plot 7-561. Band Edge Plot (50MHz BW 1CC QPSK Low Channel)

ACLRRResults

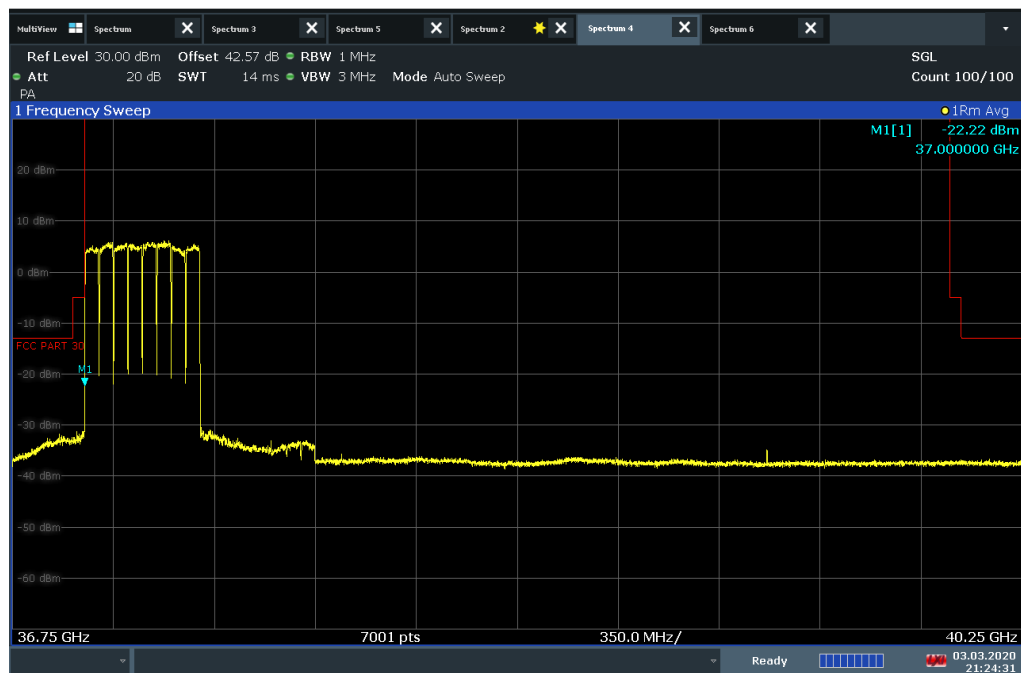


14:43:01 24.02.2020

Plot 7-562. Band Edge Plot (100MHz BW 1CC QPSK Low Channel)

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 328 of 360

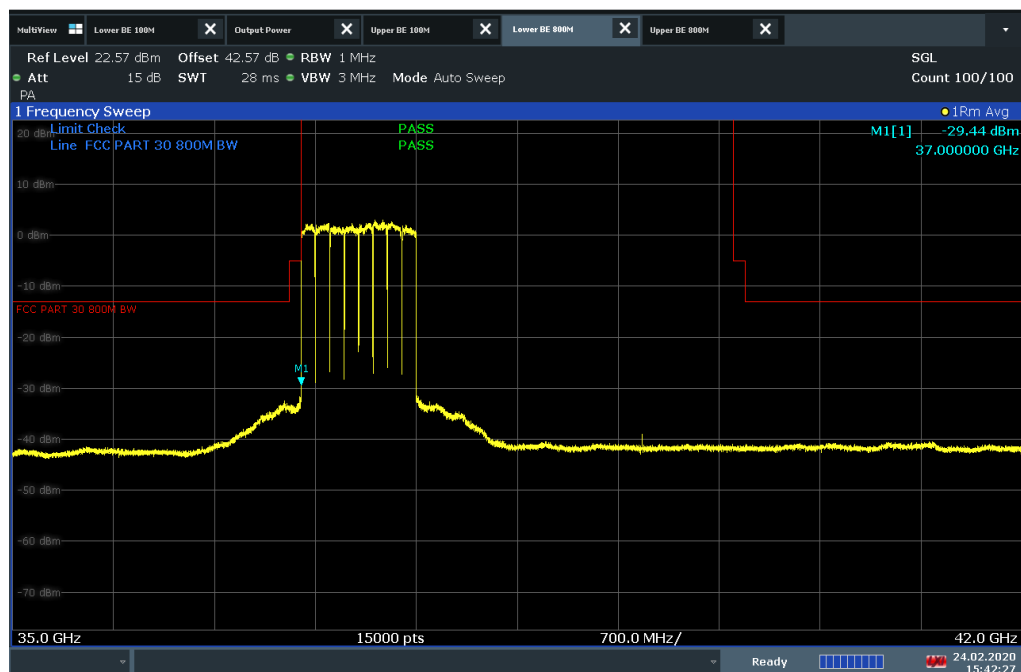
ACLRRResults



21:24:32 03.03.2020

Plot 7-563. Band Edge Plot (50MHz BW 8CC QPSK Low Channel)

ACLRRResults

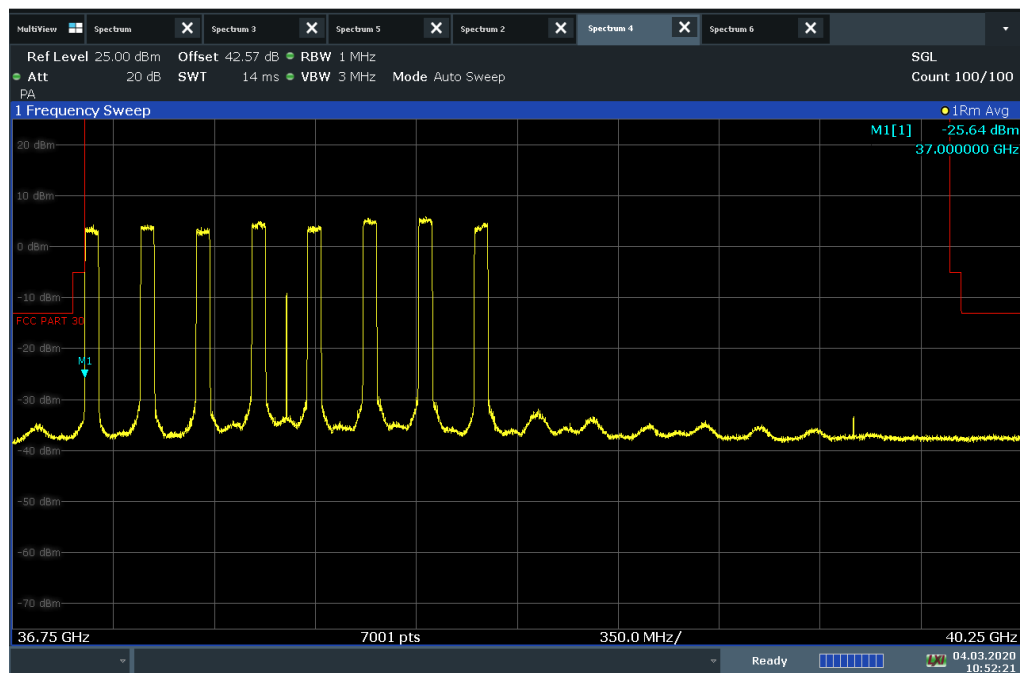


15:42:28 24.02.2020

Plot 7-564. Band Edge Plot (100MHz BW 8CC QPSK Low Channel)

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 329 of 360

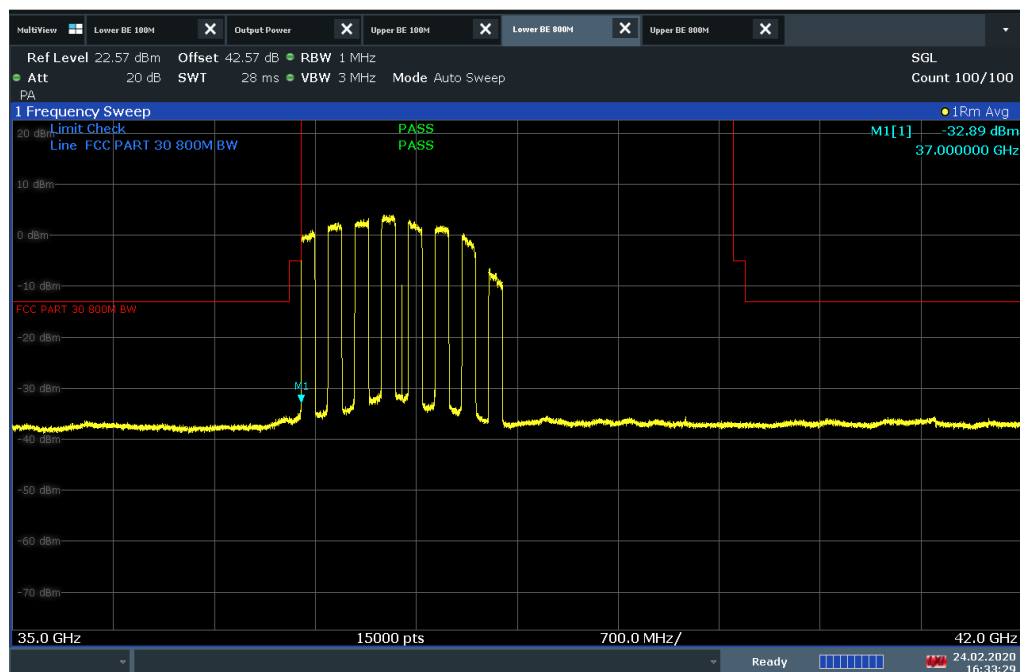
ACLRRResults



10:52:21 04.03.2020

Plot 7-565. Band Edge Plot (50MHz BW 8CC NC QPSK Low Channel)

ACLRRResults

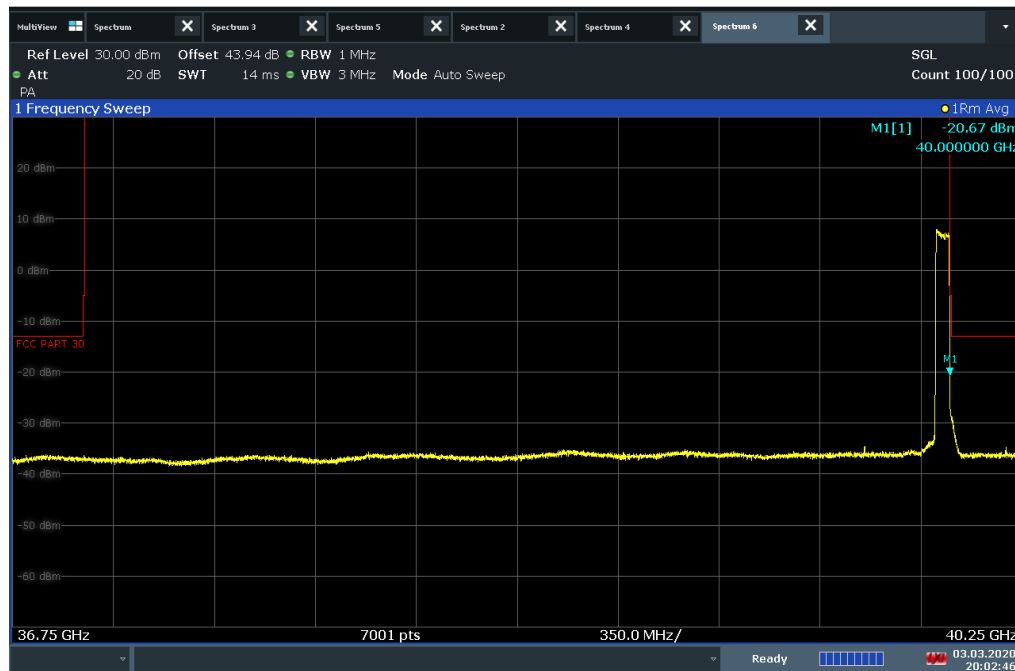


16:33:29 24.02.2020

Plot 7-566. Band Edge Plot (100MHz BW 8CC NC QPSK Low Channel)

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 330 of 360

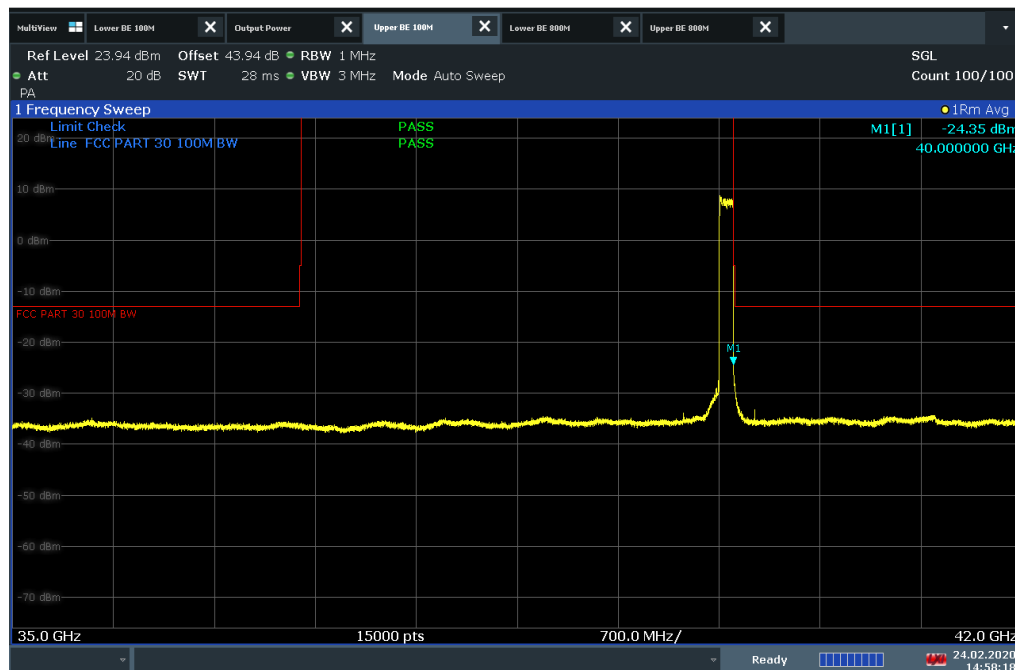
ACLRRResults



20:02:46 03.03.2020

Plot 7-567. Band Edge Plot (50MHz BW 1CC QPSK High Channel)

ACLRRResults



14:58:19 24.02.2020

Plot 7-568. Band Edge Plot (100MHz BW 1CC QPSK High Channel)

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 331 of 360

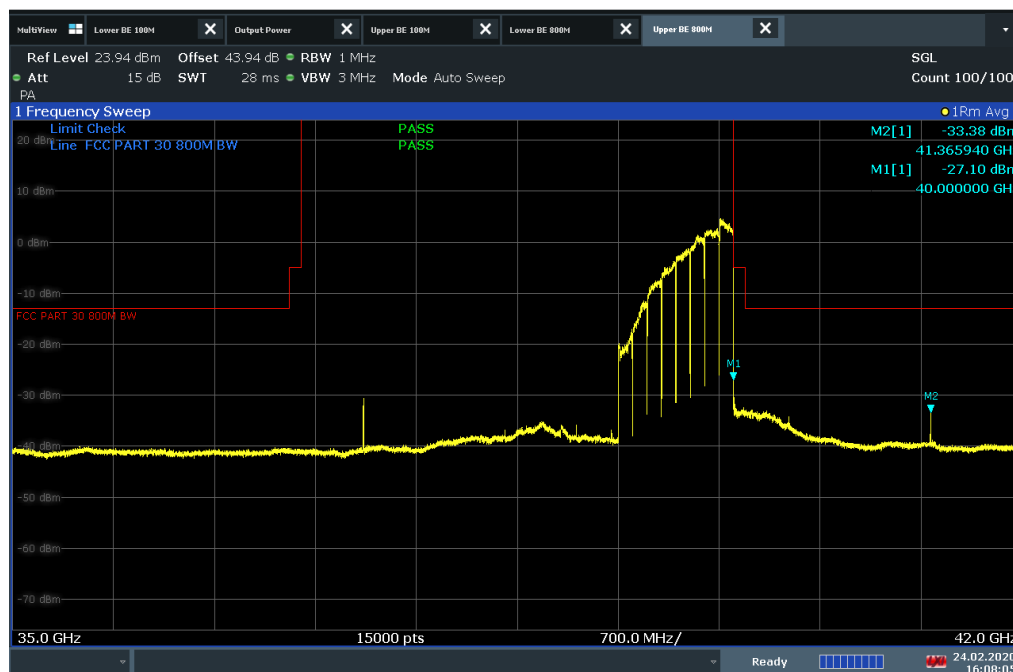
ACLRRResults



00:54:50 04.03.2020

Plot 7-569. Band Edge Plot (50MHz BW 8CC QPSK High Channel)

ACLRRResults

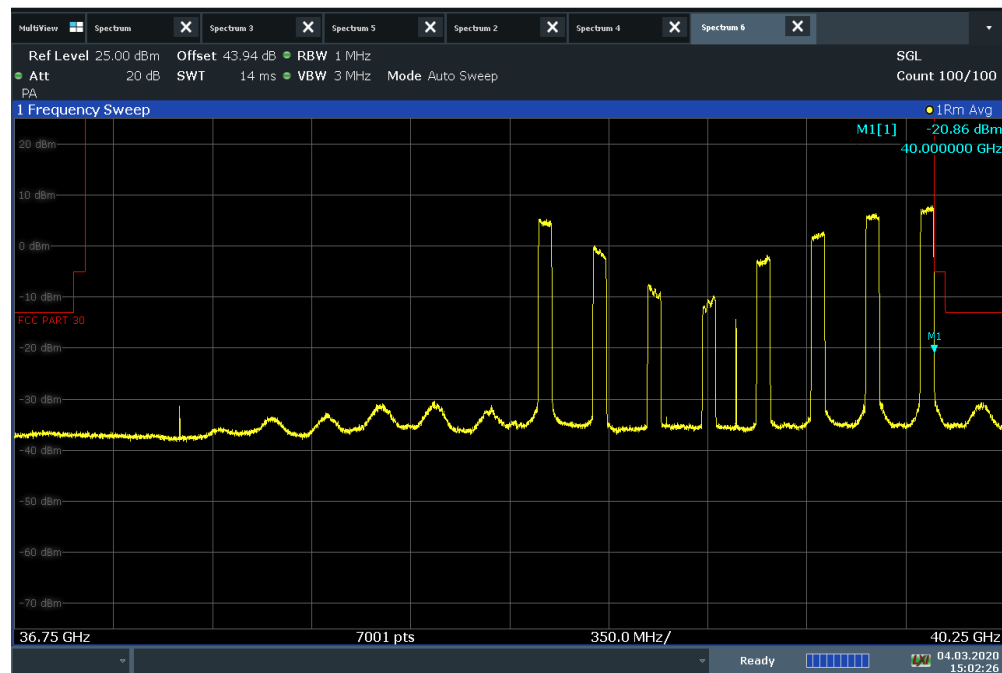


16:08:05 24.02.2020

Plot 7-570. Band Edge Plot (100MHz BW 8CC QPSK High Channel)

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 332 of 360

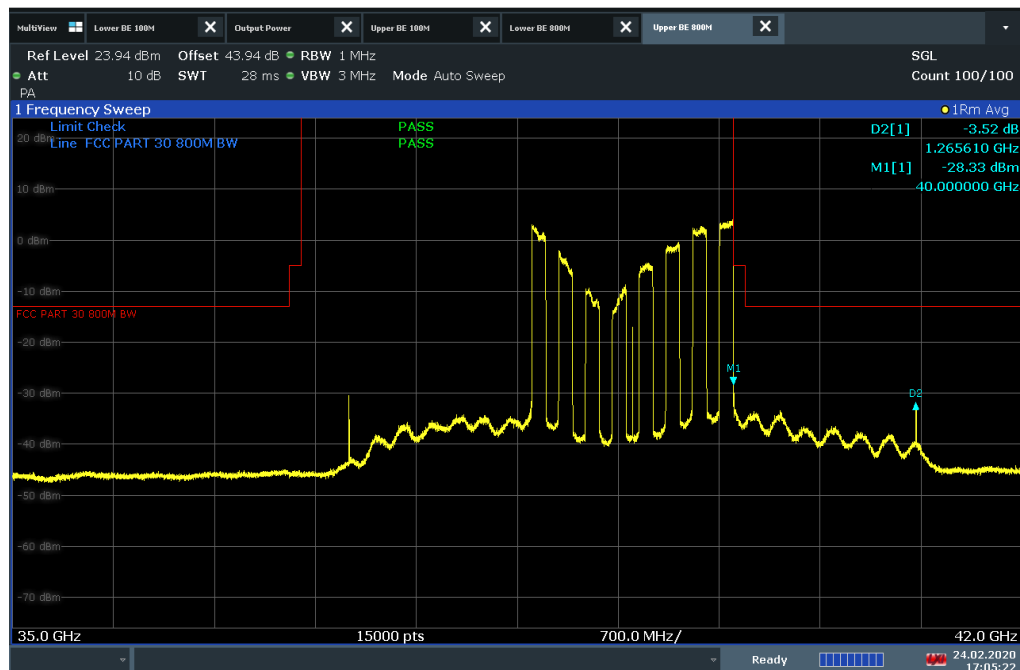
ACLRResults



15:02:26 04.03.2020

Plot 7-571. Band Edge Plot (50MHz BW 8CC NC QPSK High Channel)

ACLRResults



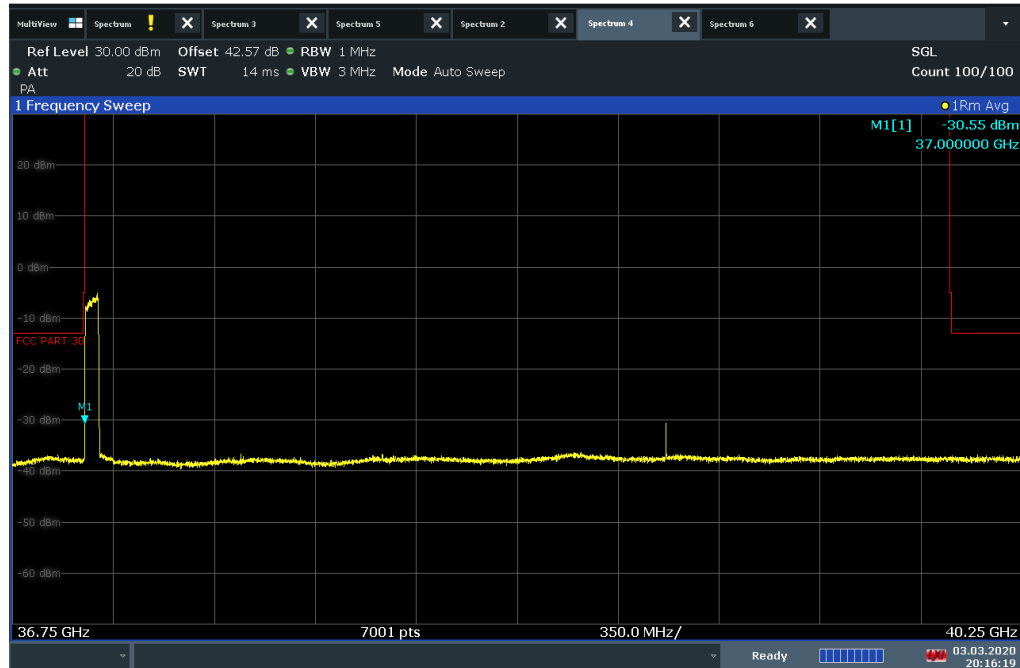
17:05:23 24.02.2020

Plot 7-572. Band Edge Plot (100MHz BW 8CC NC QPSK High Channel)

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 333 of 360

7.6.9 Antenna C Conducted Band Edge Maximized on Antenna B

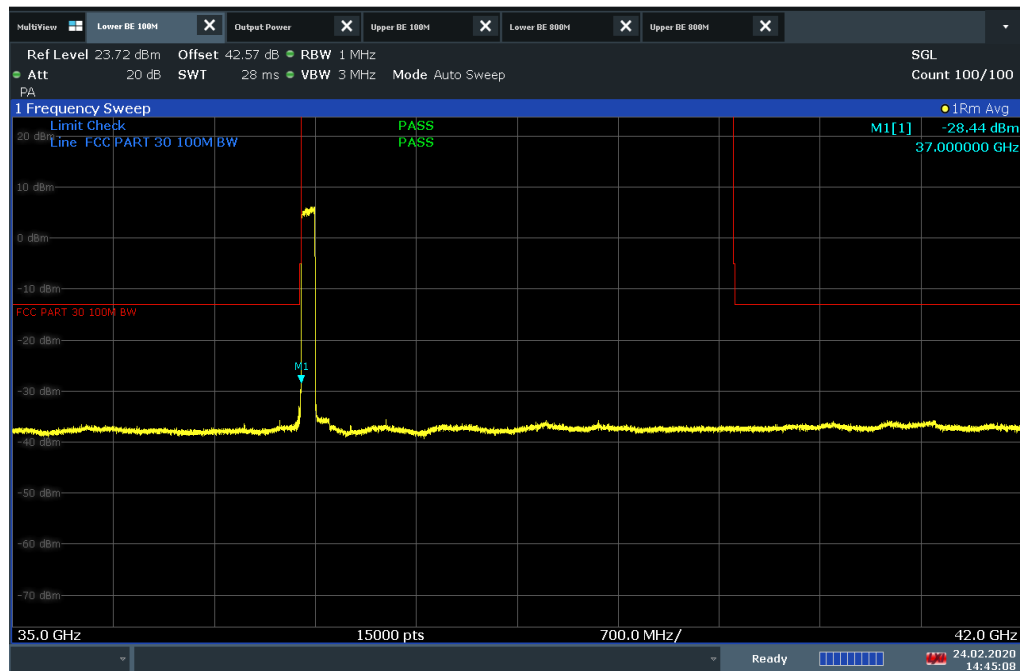
ACLRRResults



20:16:20 03.03.2020

Plot 7-573. Band Edge Plot (50MHz BW 1CC QPSK Low Channel)

ACLRRResults



14:45:08 24.02.2020

Plot 7-574. Band Edge Plot (100MHz BW 1CC QPSK Low Channel)

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 334 of 360

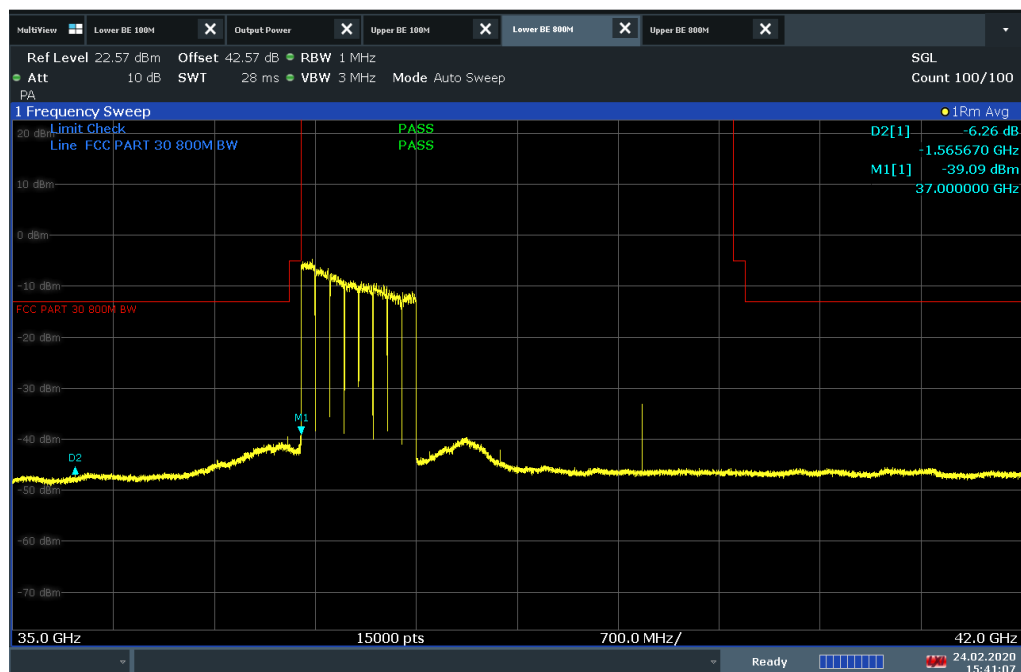
ACLRRResults



21:27:20 03.03.2020

Plot 7-575. Band Edge Plot (50MHz BW 8CC QPSK Low Channel)

ACLRRResults

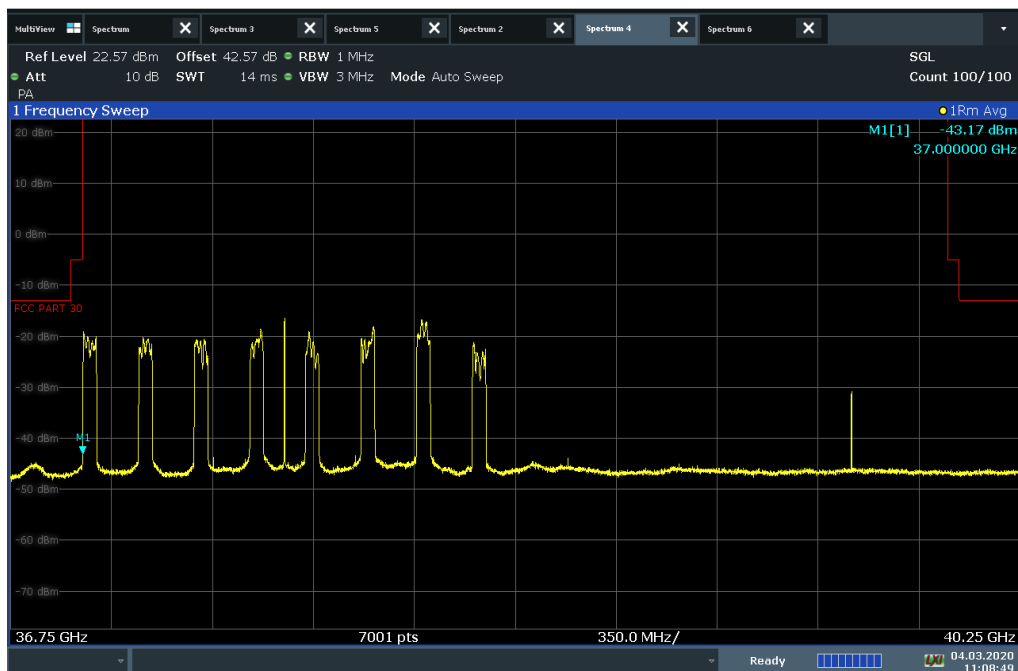


15:41:08 24.02.2020

Plot 7-576. Band Edge Plot (100MHz BW 8CC QPSK Low Channel)

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 335 of 360

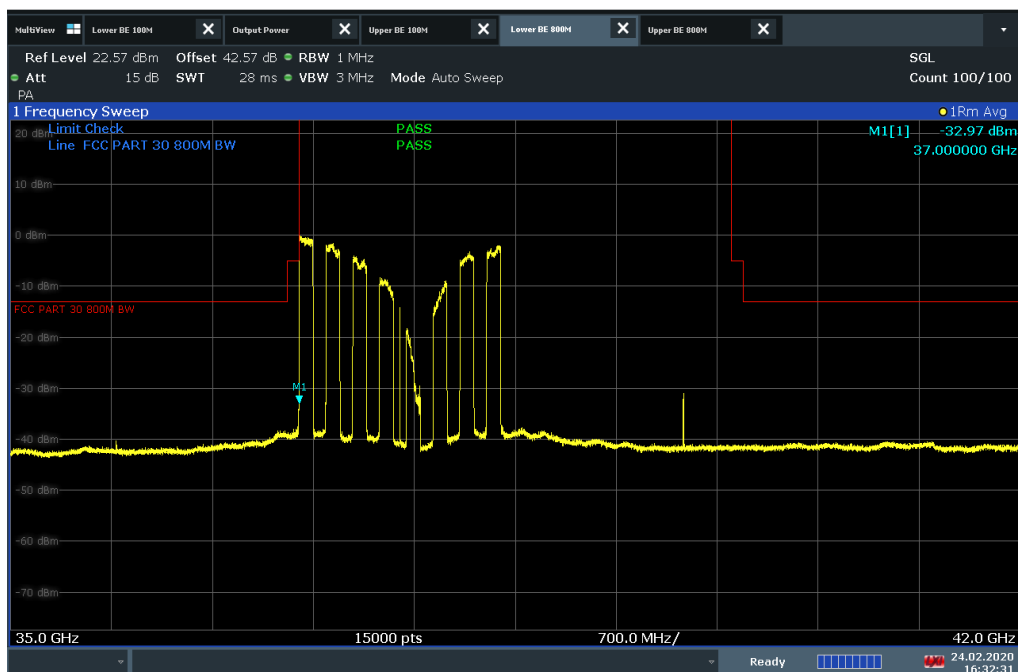
ACLRRResults



11:08:50 04.03.2020

Plot 7-577. Band Edge Plot (50MHz BW 8CC NC QPSK Low Channel)

ACLRRResults

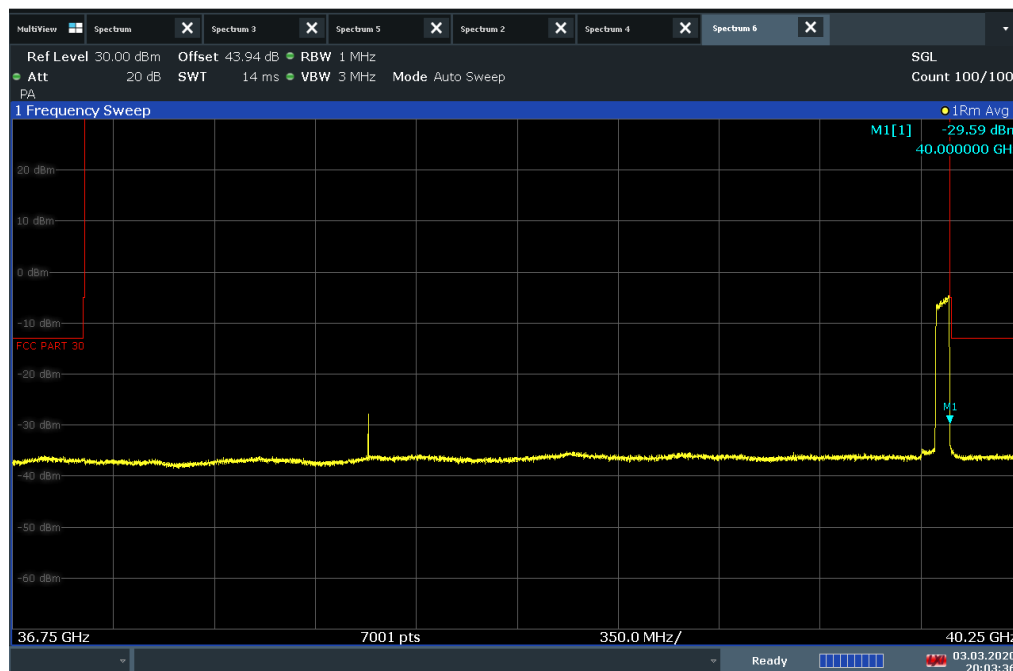


16:32:32 24.02.2020

Plot 7-578. Band Edge Plot (100MHz BW 8CC NC QPSK Low Channel)

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 336 of 360

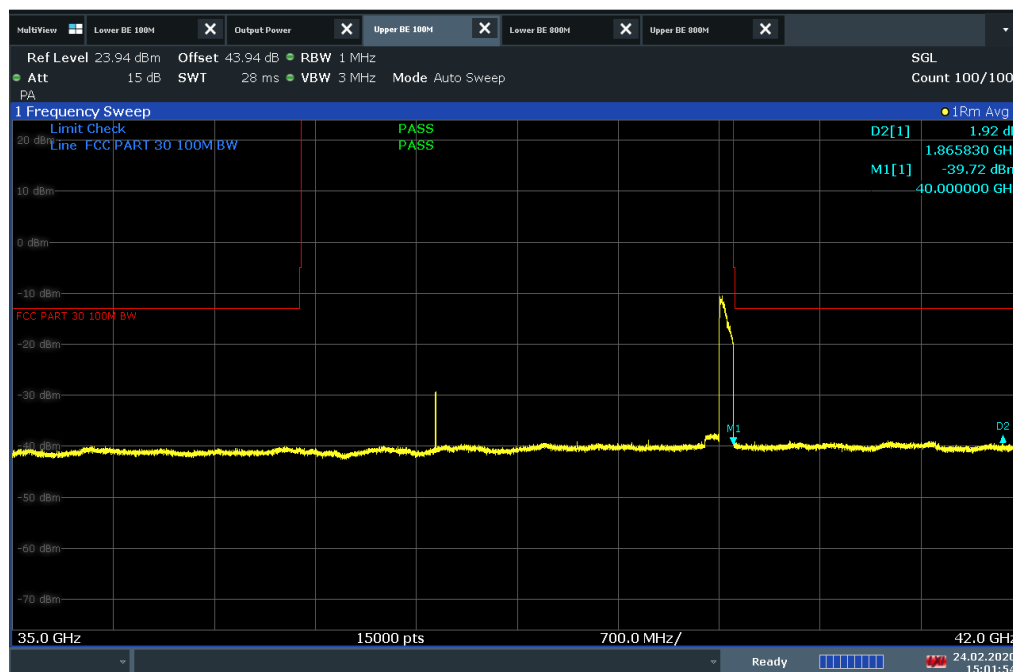
ACLRRResults



20:03:37 03.03.2020

Plot 7-579. Band Edge Plot (50MHz BW 1CC QPSK High Channel)

ACLRRResults

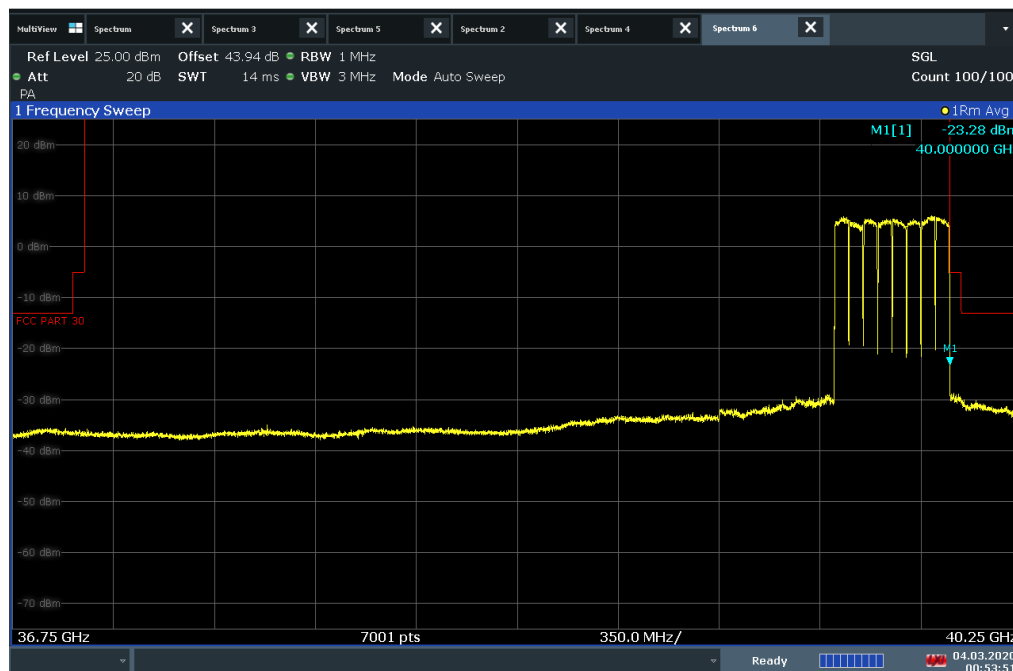


15:01:54 24.02.2020

Plot 7-580. Band Edge Plot (100MHz BW 1CC QPSK High Channel)

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 337 of 360

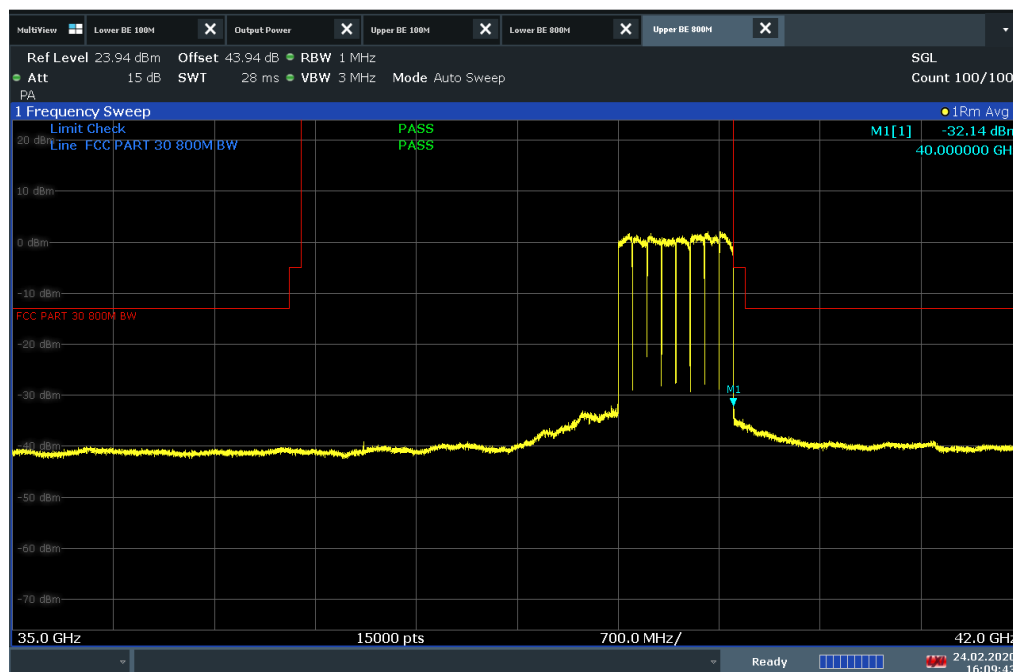
ACLRRResults



00:53:52 04.03.2020

Plot 7-581. Band Edge Plot (50MHz BW 8CC QPSK High Channel)

ACLRRResults

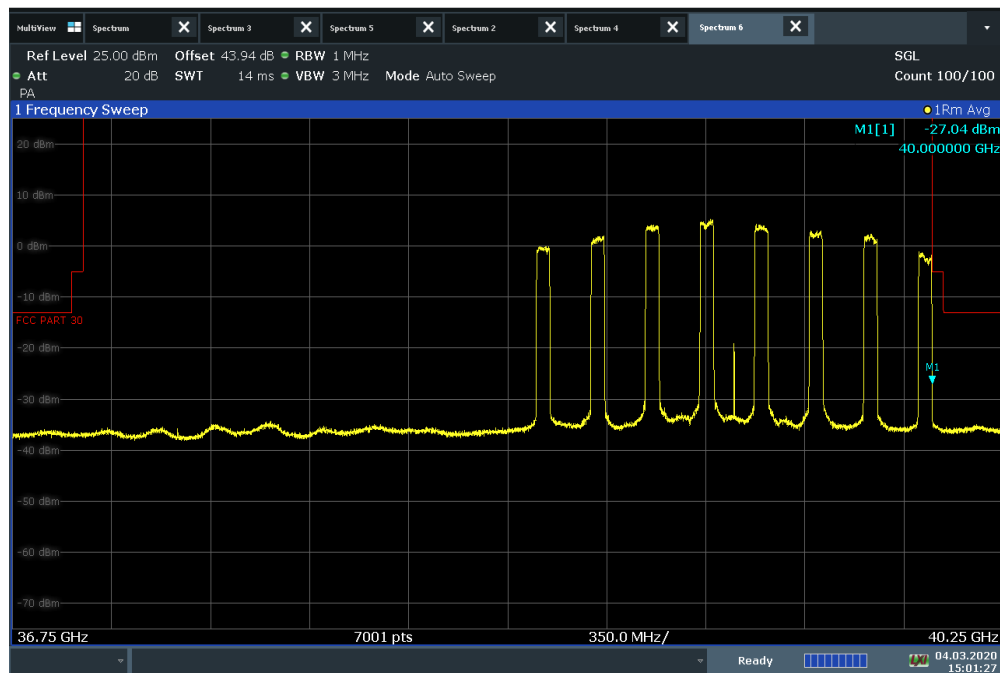


16:09:43 24.02.2020

Plot 7-582. Band Edge Plot (100MHz BW 8CC QPSK High Channel)

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 338 of 360

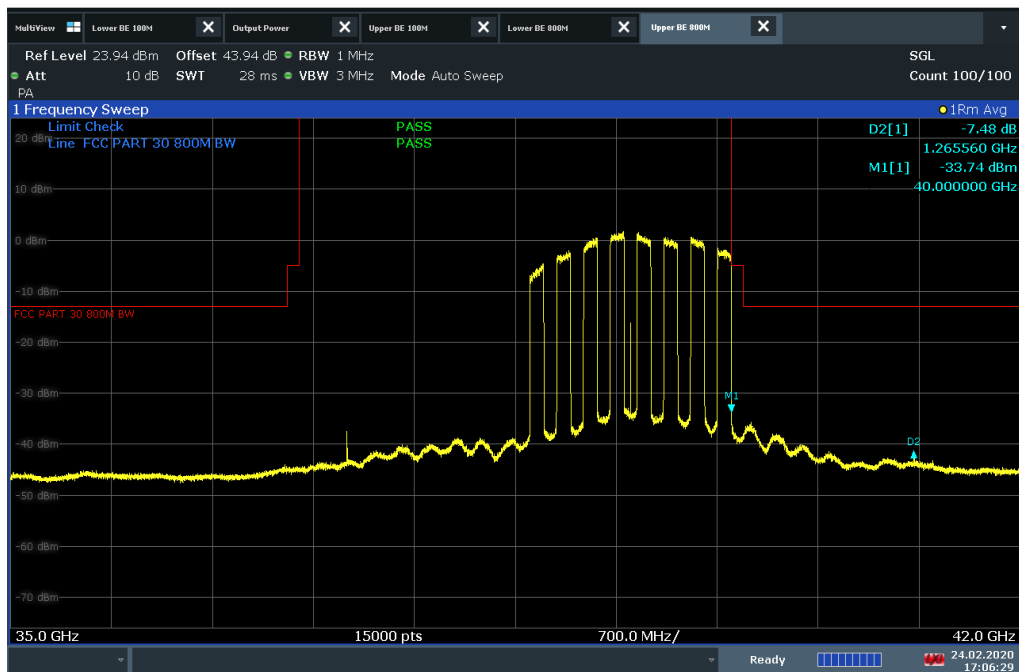
ACLRResults



15:01:28 04.03.2020

Plot 7-583. Band Edge Plot (50MHz BW 8CC NC QPSK High Channel)

ACLRResults



17:06:29 24.02.2020

Plot 7-584. Band Edge Plot (100MHz BW 8CC NC QPSK High Channel)

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 339 of 360

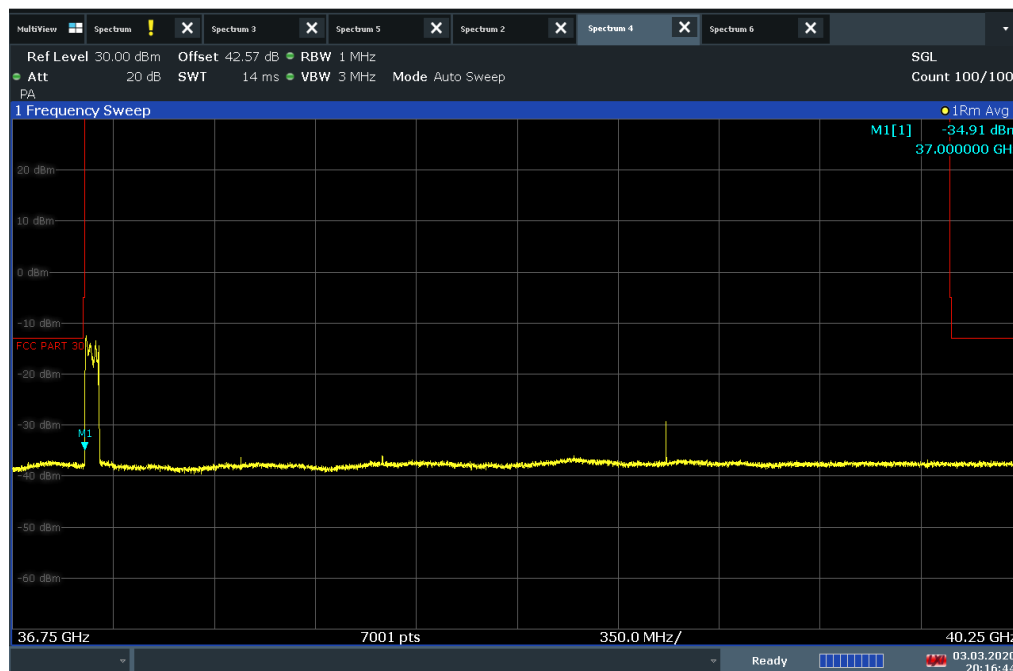
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V9.0 02/01/2019

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7.6.10 Antenna D Conducted Band Edge Maximized on Antenna B

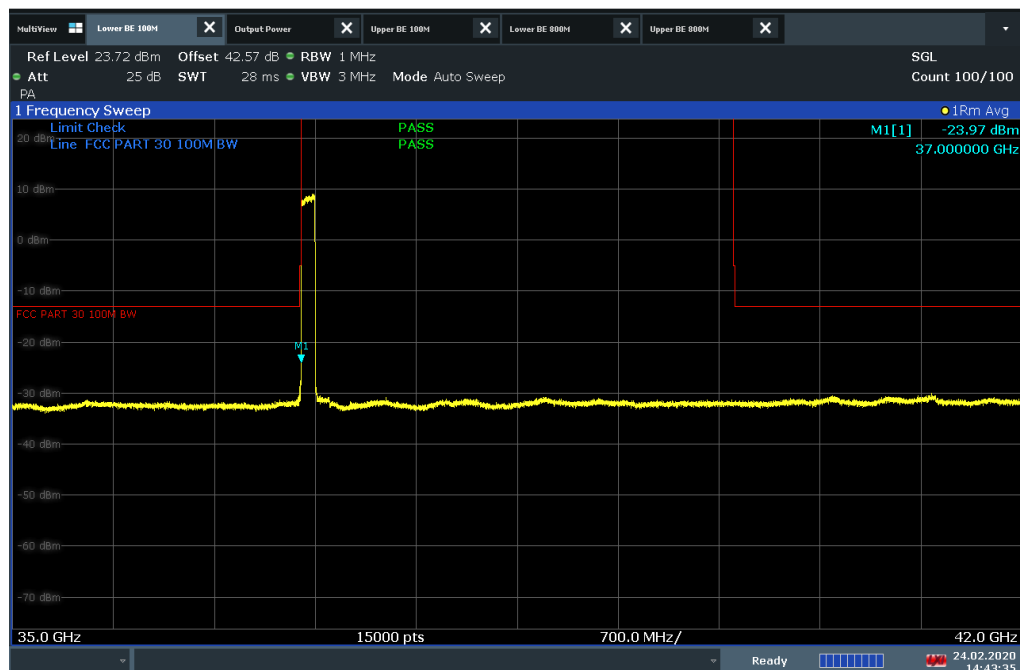
ACLRRResults



20:16:45 03.03.2020

Plot 7-585. Band Edge Plot (50MHz BW 1CC QPSK Low Channel)

ACLRRResults

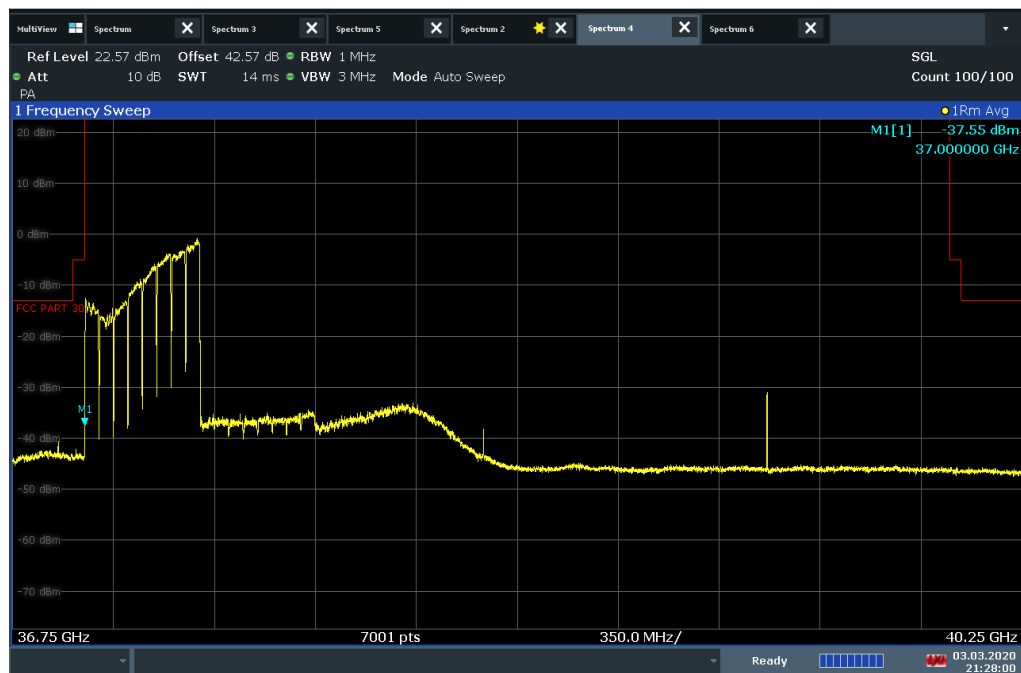


14:43:35 24.02.2020

Plot 7-586. Band Edge Plot (100MHz BW 1CC QPSK Low Channel)

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 340 of 360

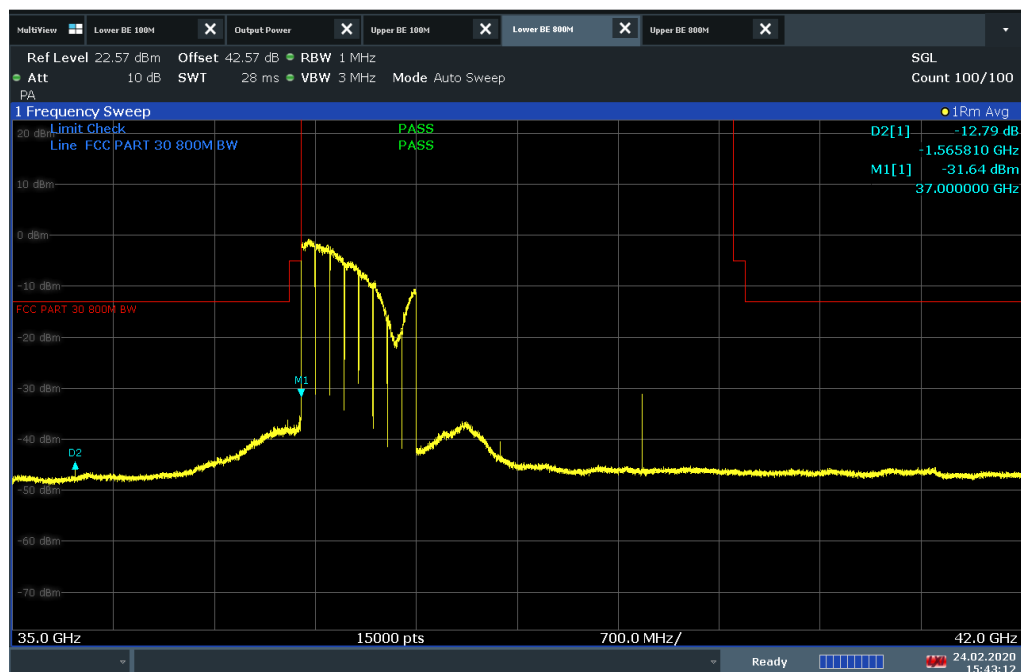
ACLRRResults



21:28:00 03.03.2020

Plot 7-587. Band Edge Plot (50MHz BW 8CC QPSK Low Channel)

ACLRRResults

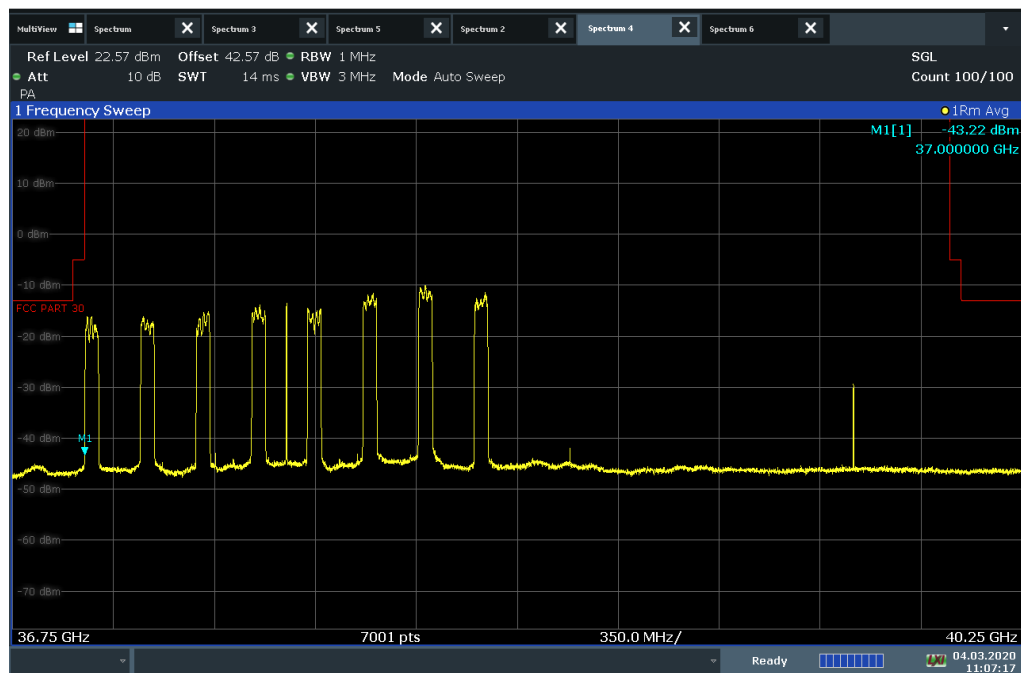


15:43:13 24.02.2020

Plot 7-588. Band Edge Plot (100MHz BW 8CC QPSK Low Channel)

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 341 of 360

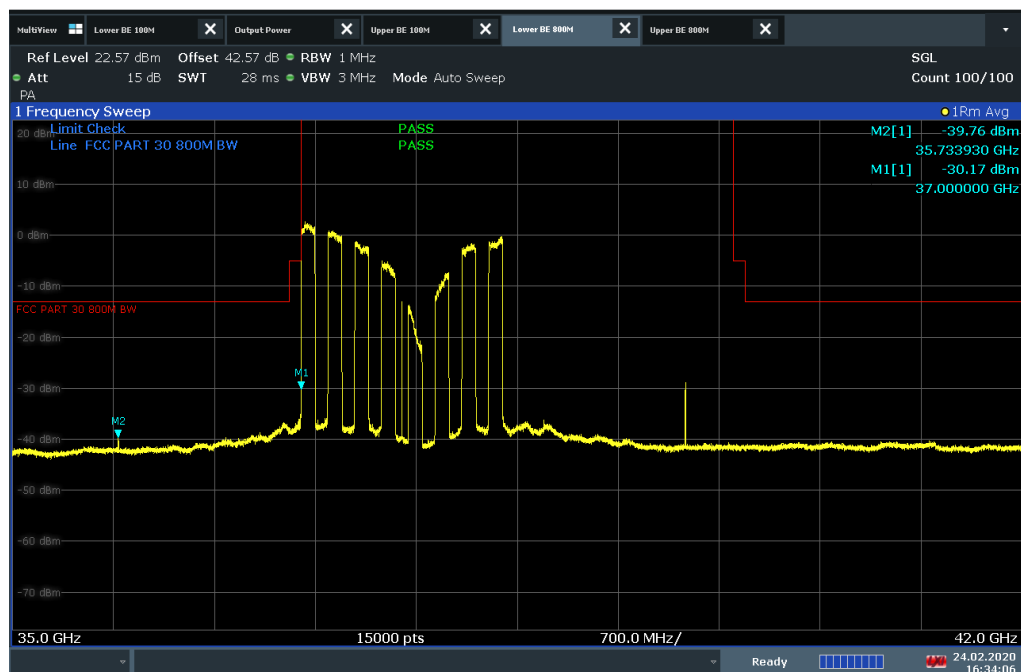
ACLRRResults



11:07:18 04.03.2020

Plot 7-589. Band Edge Plot (50MHz BW 8CC NC QPSK Low Channel)

ACLRRResults

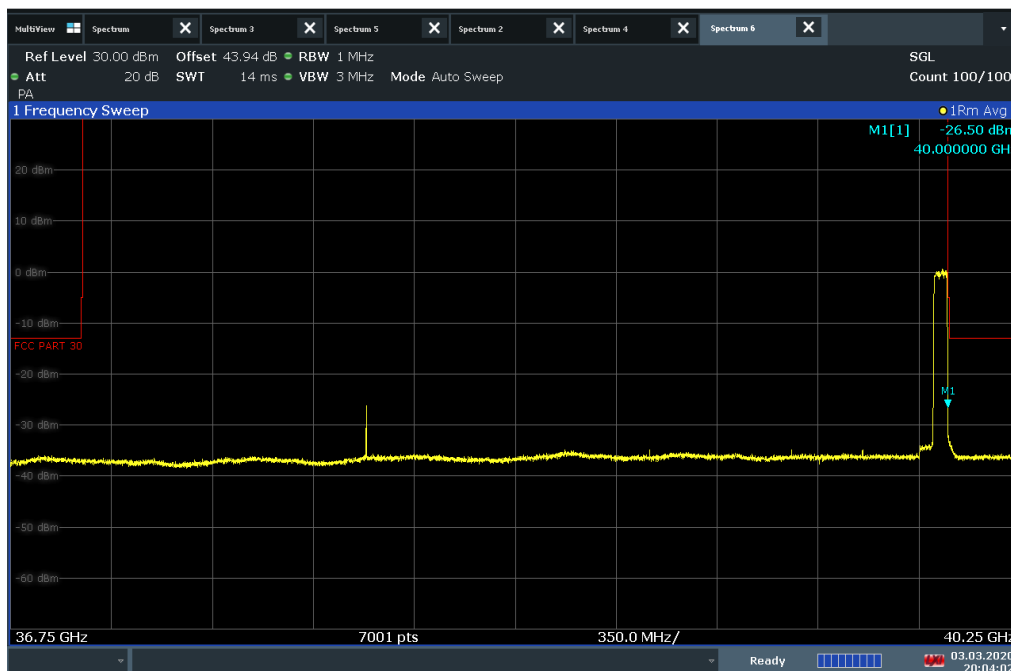


16:34:07 24.02.2020

Plot 7-590. Band Edge Plot (100MHz BW 8CC NC QPSK Low Channel)

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 342 of 360

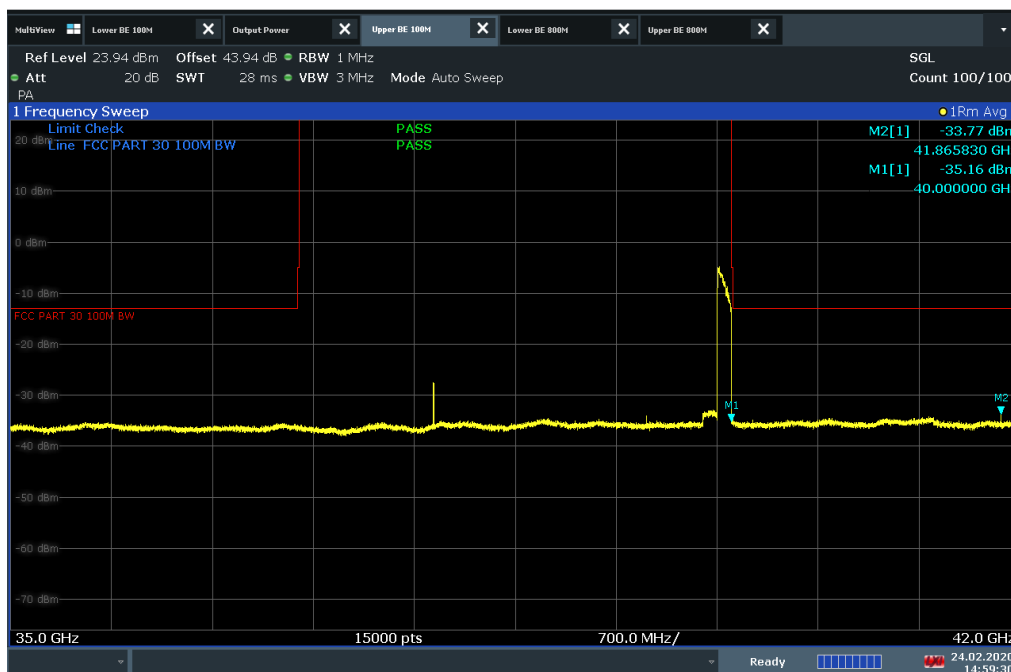
ACLRRResults



20:04:02 03.03.2020

Plot 7-591. Band Edge Plot (50MHz BW 1CC QPSK High Channel)

ACLRRResults

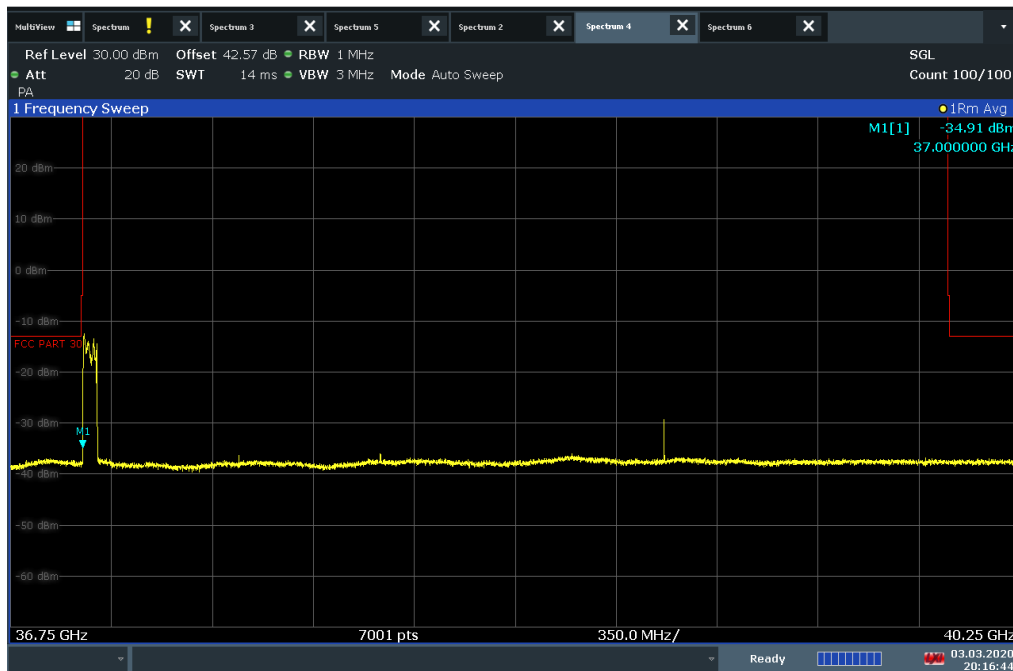


14:59:31 24.02.2020

Plot 7-592. Band Edge Plot (100MHz BW 1CC QPSK High Channel)

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 343 of 360

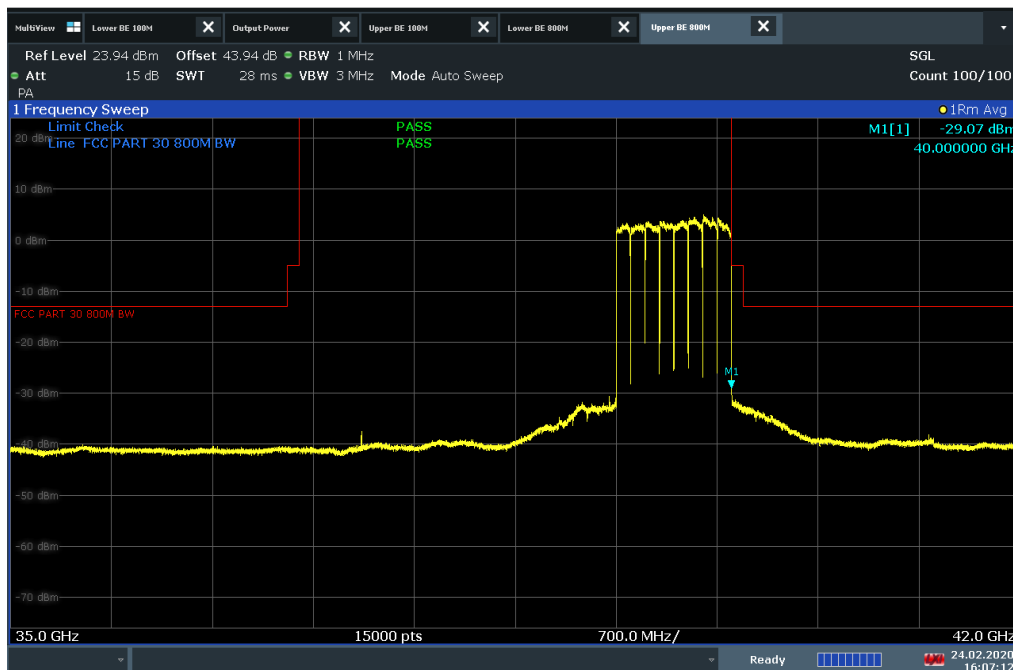
ACLRRResults



20:16:45 03.03.2020

Plot 7-593. Band Edge Plot (50MHz BW 8CC QPSK High Channel)

ACLRRResults

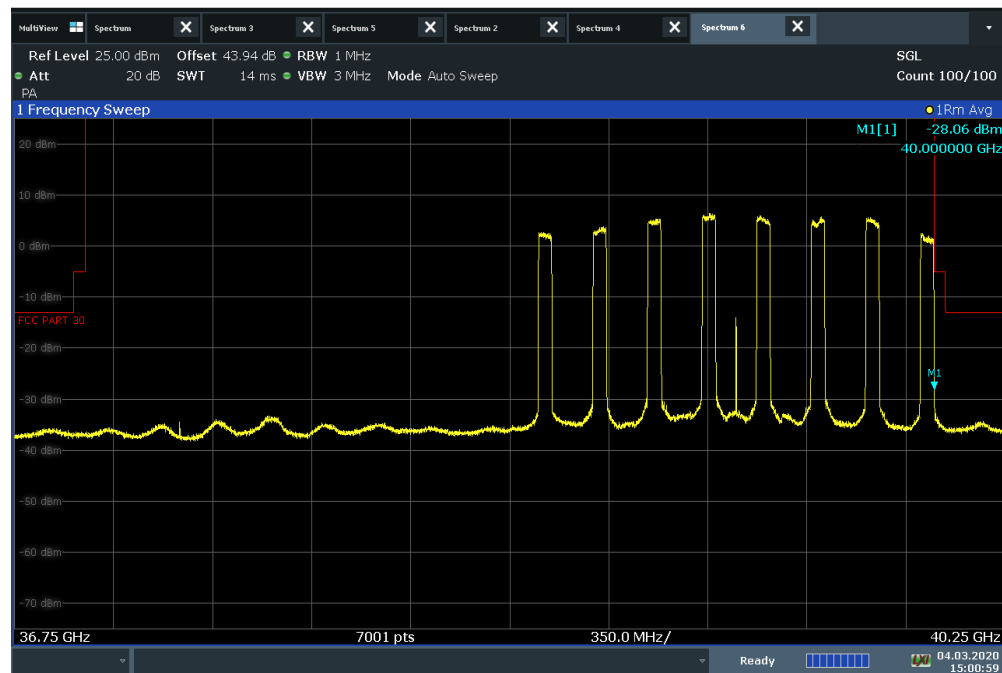


16:07:12 24.02.2020

Plot 7-594. Band Edge Plot (100MHz BW 8CC QPSK High Channel)

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 344 of 360

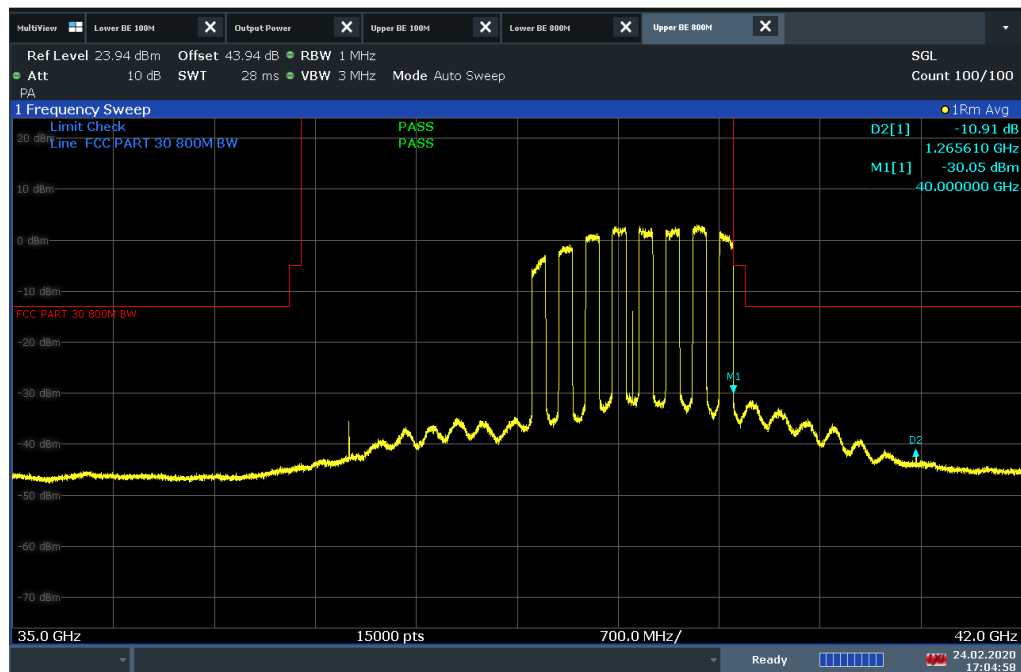
ACLRRResults



15:00:59 04.03.2020

Plot 7-595. Band Edge Plot (50MHz BW 8CC NC QPSK High Channel)

ACLRRResults

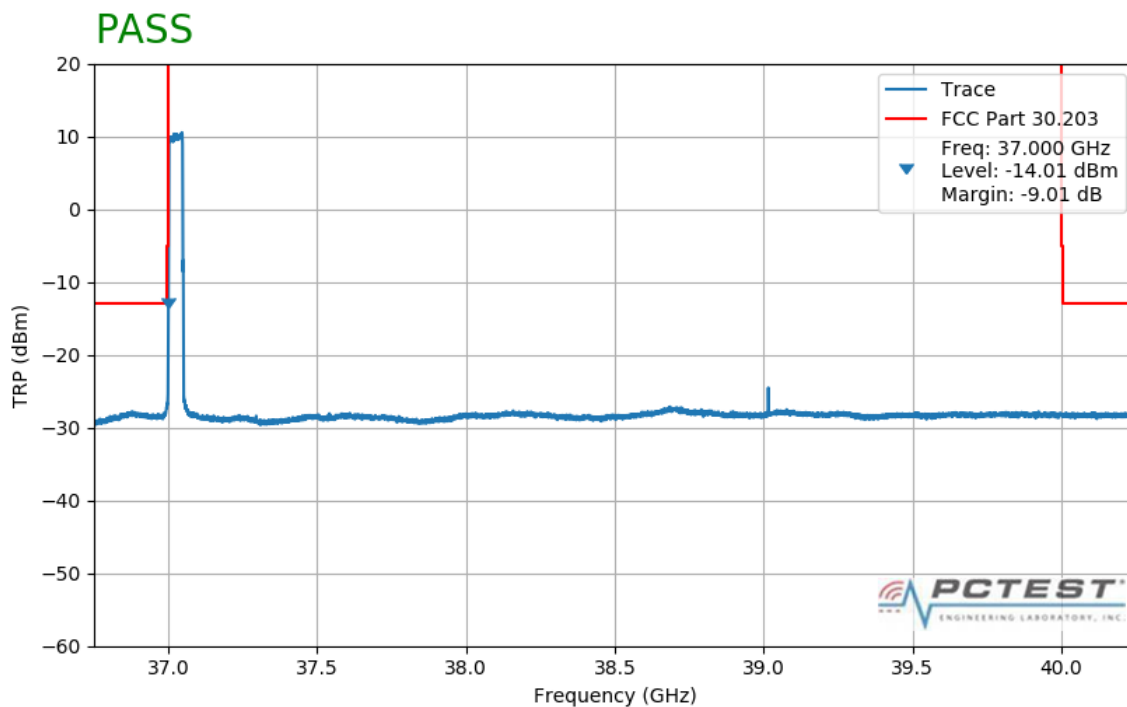


17:04:59 24.02.2020

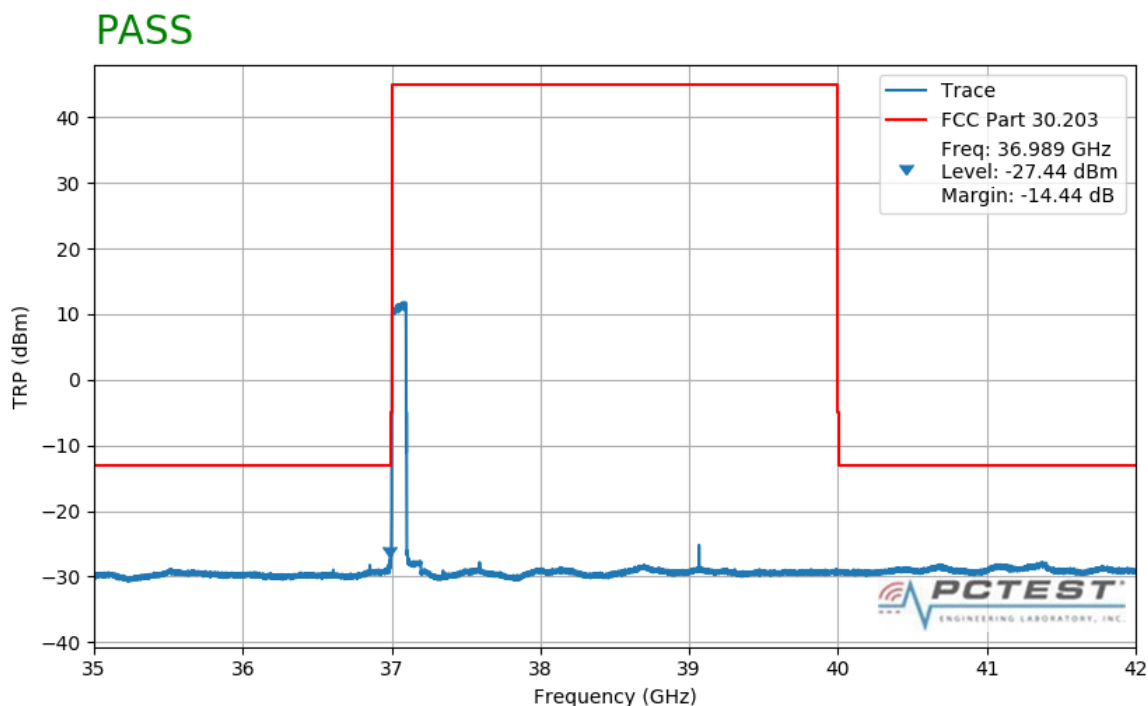
Plot 7-596. Band Edge Plot (100MHz BW 8CC NC QPSK High Channel)

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 345 of 360

7.6.11 MIMO Band Edge Maximized on Antenna B

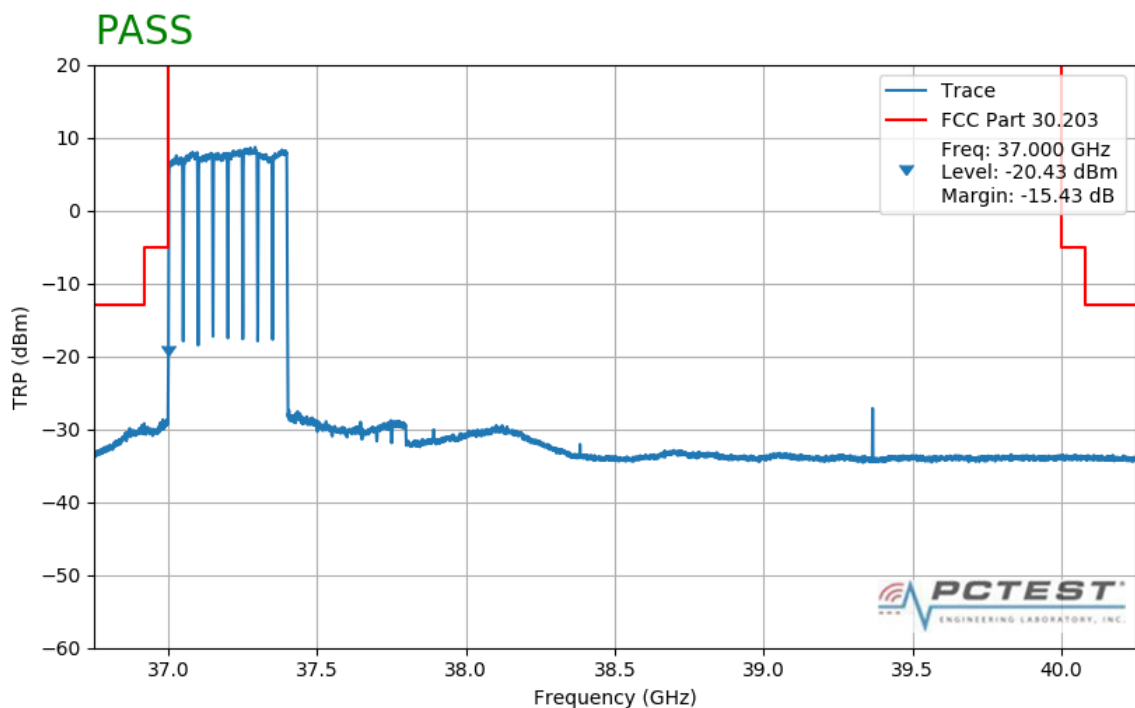


Plot 7-597. Band Edge Plot (50MHz BW 1CC QPSK Low Channel)

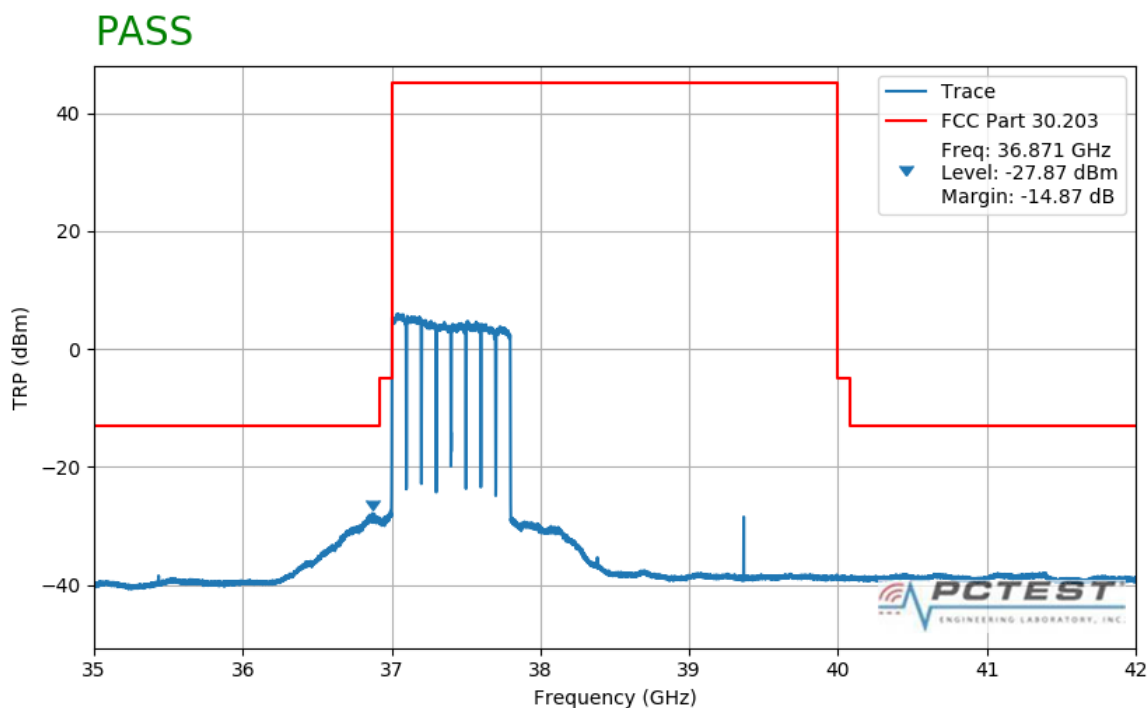


Plot 7-598. Band Edge Plot (100MHz BW 1CC QPSK Low Channel)

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 346 of 360

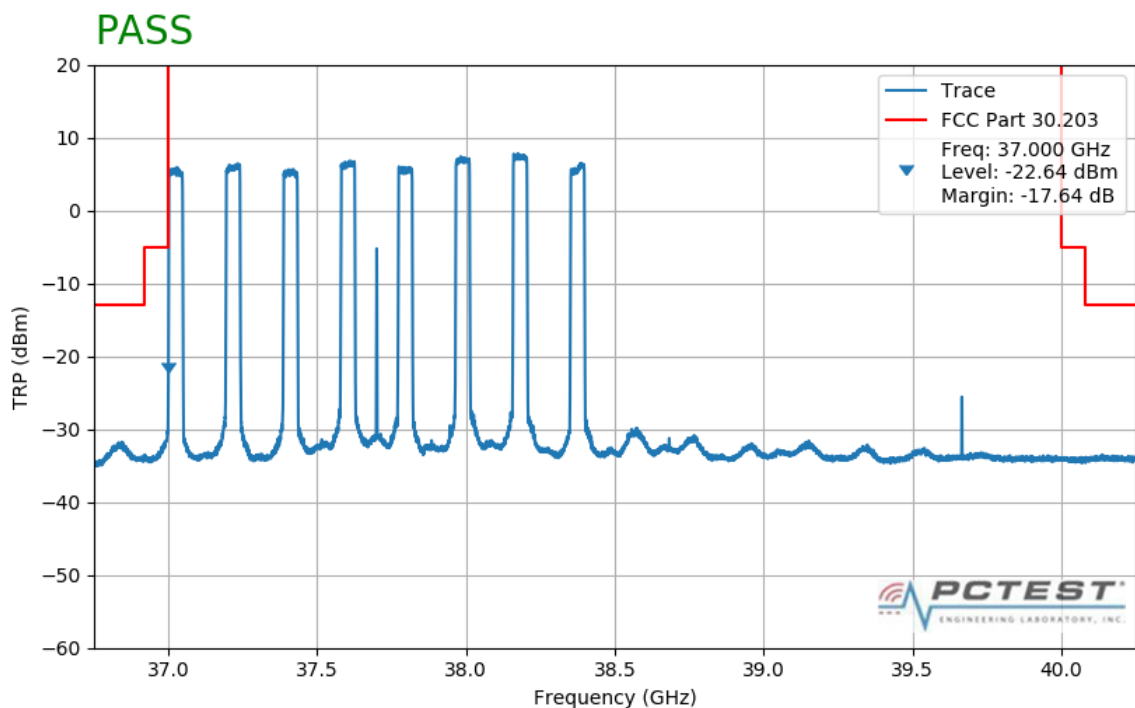


Plot 7-599. Band Edge Plot (50MHz BW 8CC QPSK Low Channel)

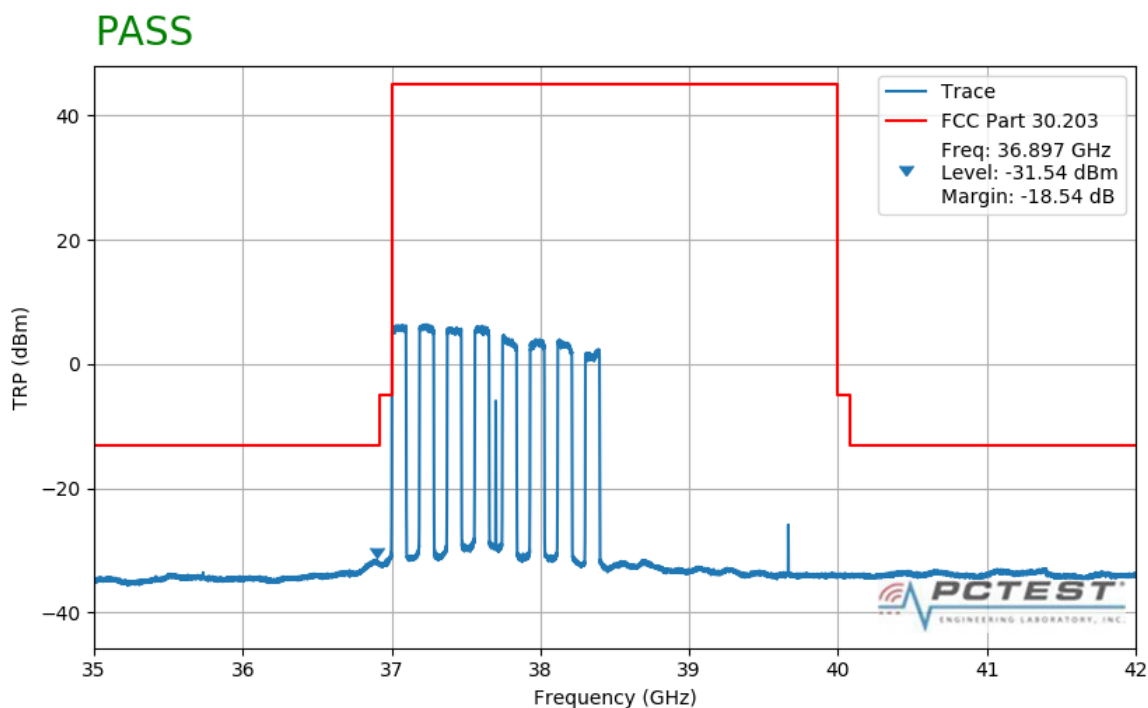


Plot 7-600. Band Edge Plot (100MHz BW 8CC QPSK Low Channel)

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 347 of 360

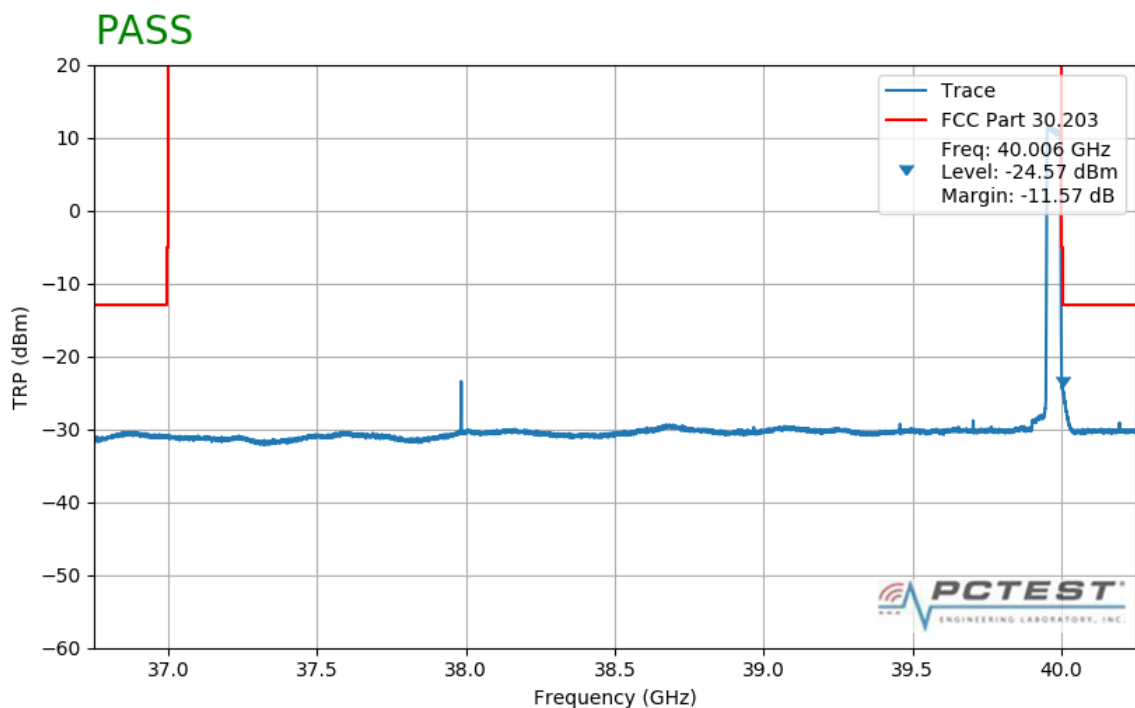


Plot 7-601. Band Edge Plot (50MHz BW 8CC NC QPSK Low Channel)

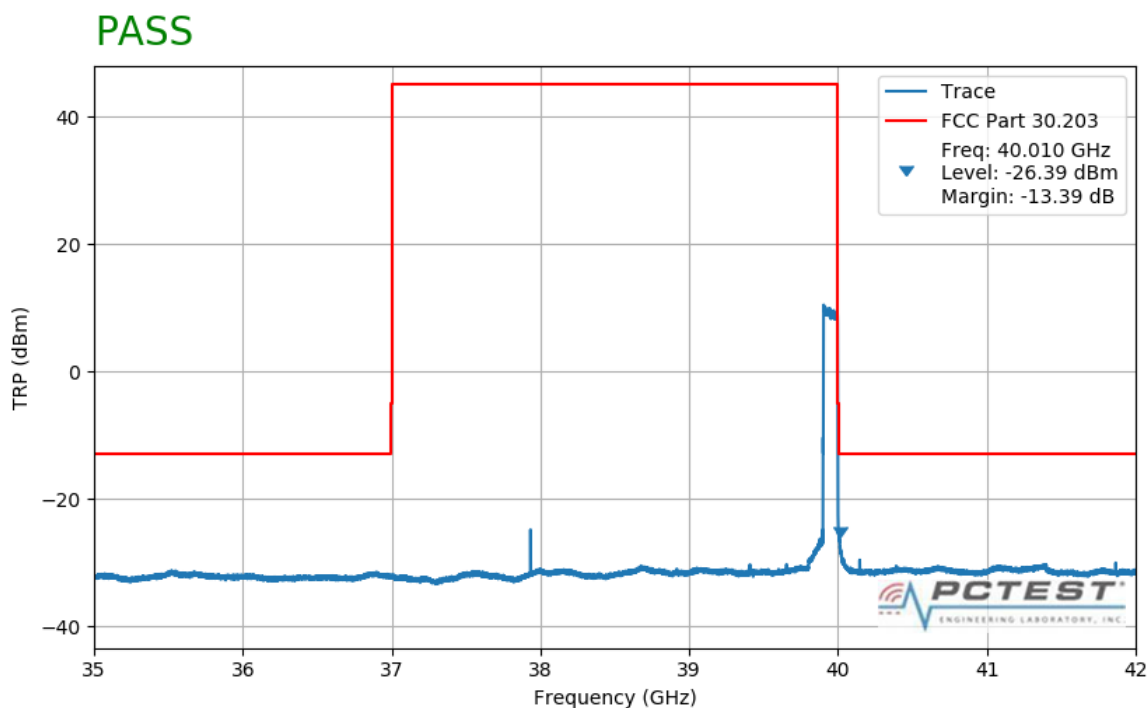


Plot 7-602. Band Edge Plot (100MHz BW 8CC NC QPSK Low Channel)

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 348 of 360

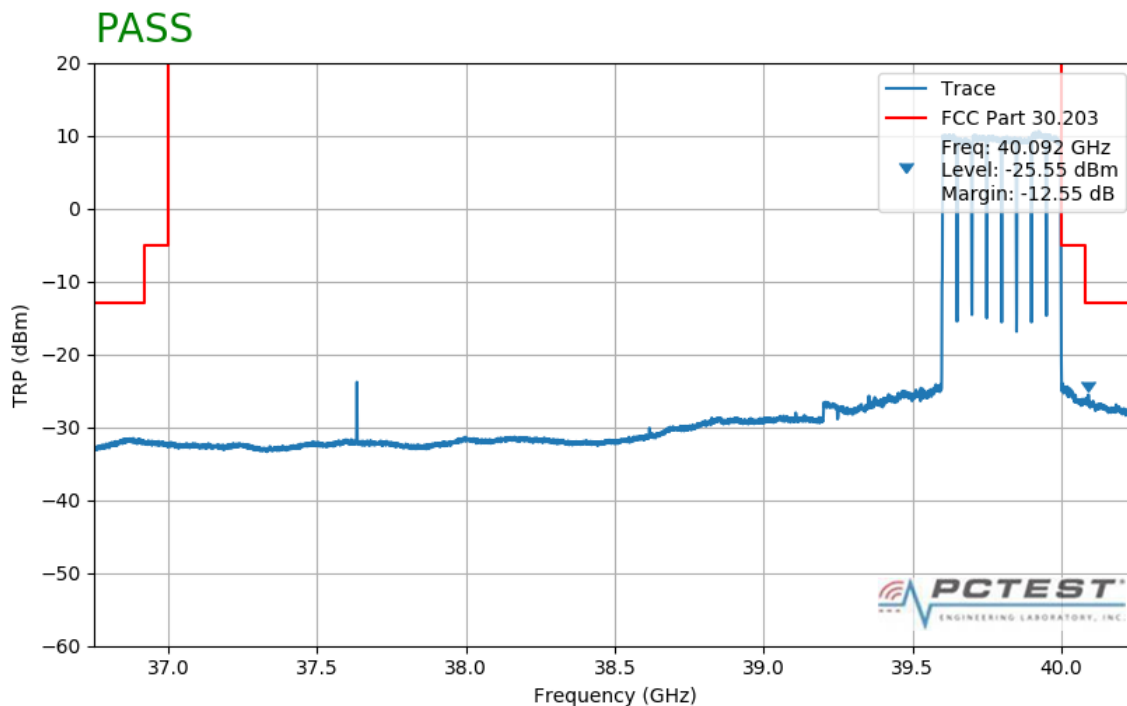


Plot 7-603. Band Edge Plot (50MHz BW 1CC QPSK High Channel)

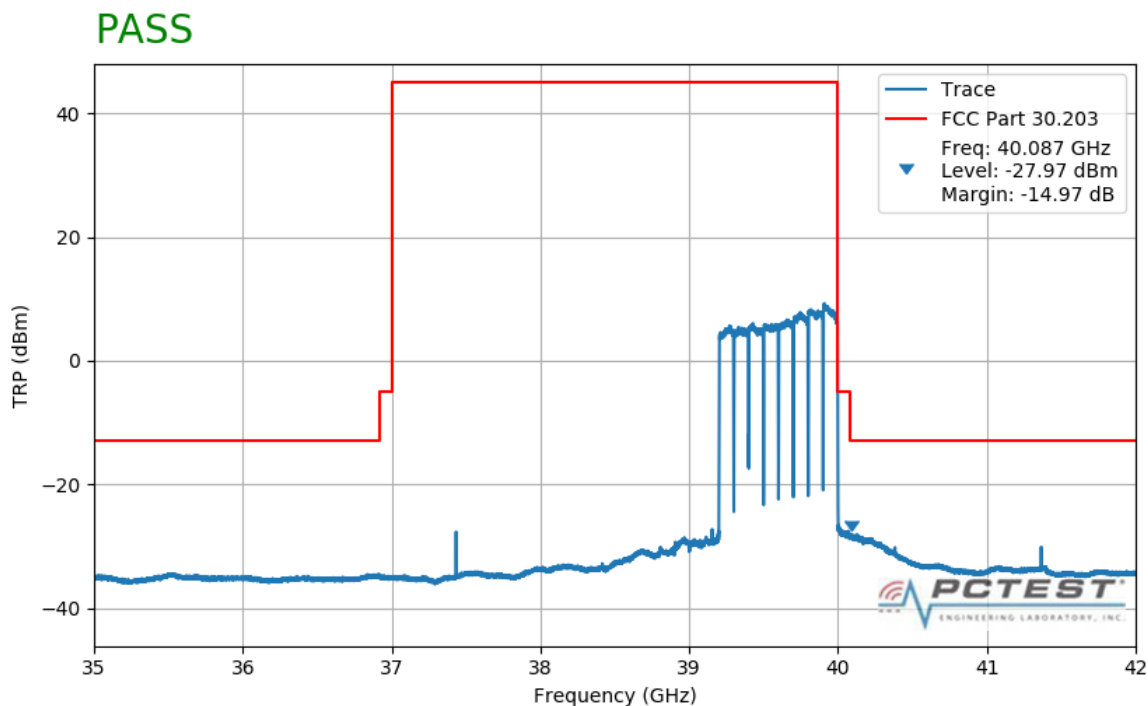


Plot 7-604. Band Edge Plot (100MHz BW 1CC QPSK High Channel)

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 349 of 360

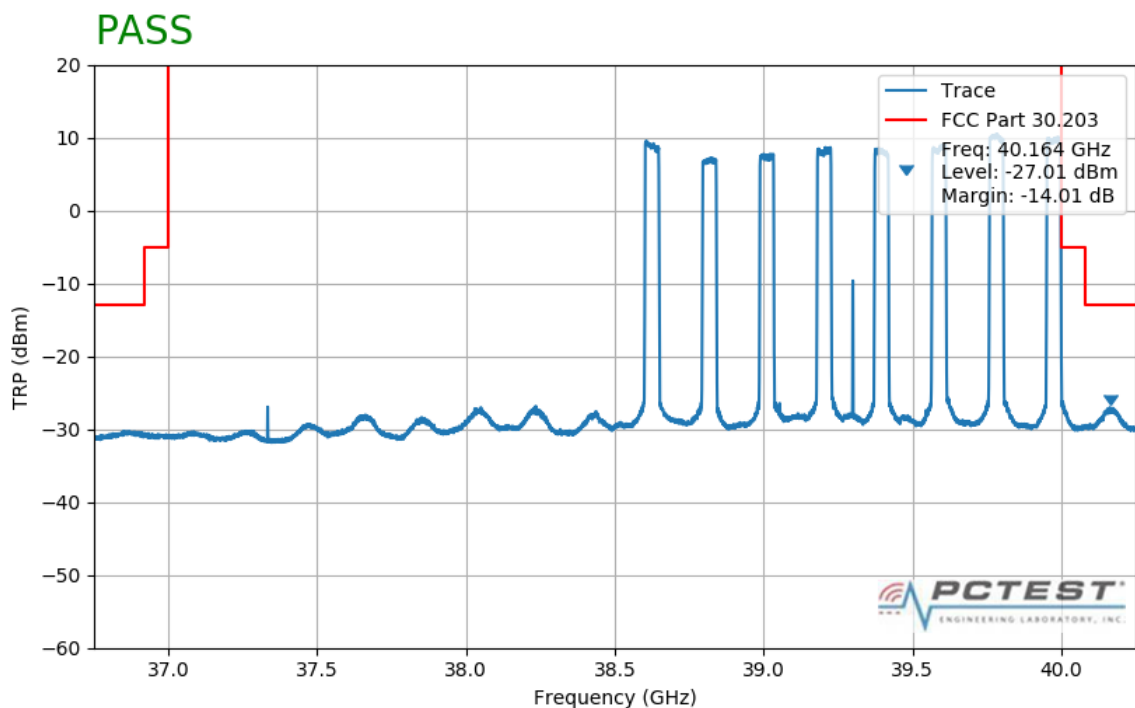


Plot 7-605. Band Edge Plot (50MHz BW 8CC QPSK High Channel)

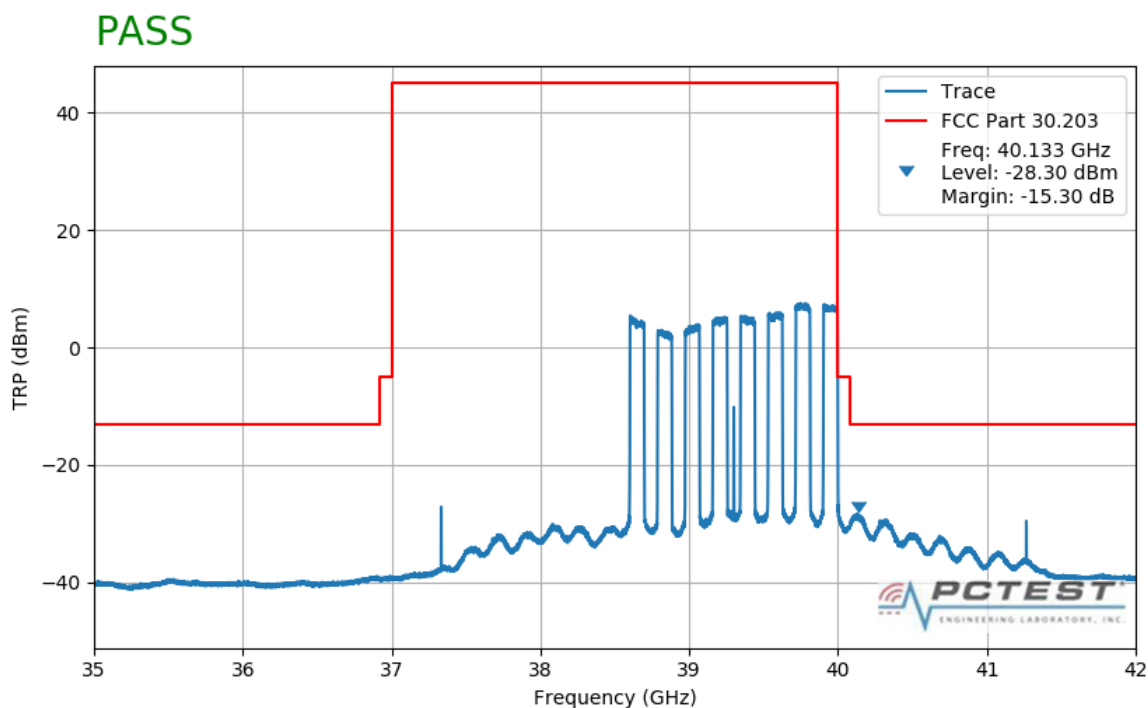


Plot 7-606. Band Edge Plot (100MHz BW 8CC QPSK High Channel)

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 350 of 360



Plot 7-607. Band Edge Plot (50MHz BW 8CC NC QPSK High Channel)



Plot 7-608. Band Edge Plot (100MHz BW 8CC NC QPSK High Channel)

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 351 of 360

7.7 Frequency Stability / Temperature Variation

\$2.1055

Test Overview and Limit

Frequency stability testing is performed in accordance with the guidelines of ANSI C63.26-2015. The frequency stability of the transmitter is measured by:

- Temperature:** The temperature is varied from -30°C to +50°C in 10°C increments using an environmental chamber.
- Primary Supply Voltage:** The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

Test Procedure Used

ANSI C63.26-2015 Section 5.6

Test Settings

- The carrier frequency of the transmitter is measured at room temperature (20°C to provide a reference).
- The equipment is turned on in a “standby” condition for fifteen minutes before applying power to the transmitter. Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.
- Frequency measurements are made at 10°C intervals ranging from -30°C to +50°C. A period of at least one hour is provided to allow stabilization of the equipment at each temperature level.

Test Setup

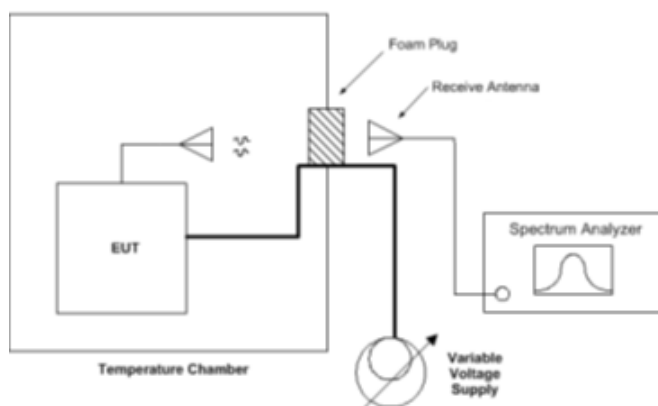


Figure 7-1. Test Instrument & Measurement Setup

The EUT was measured using horn antenna connected to a spectrum analyzer. The EUT was placed inside an environmental chamber.

Test Notes

None

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 352 of 360

Frequency Stability Measurements

\$2.1055

OPERATING FREQUENCY: 38,499,960,000 Hz

REFERENCE VOLTAGE: -48.00 VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	-48.00	+ 20 (Ref)	38,500,145,689	0	0.0000000
100 %		- 30	38,500,145,690	1	0.0000000
100 %		- 20	38,500,145,688	-1	0.0000000
100 %		- 10	38,500,145,686	-3	0.0000000
100 %		0	38,500,145,689	0	0.0000000
100 %		+ 10	38,500,145,684	-5	0.0000000
100 %		+ 20	38,500,145,689	0	0.0000000
100 %		+ 30	38,500,145,690	1	0.0000000
100 %		+ 40	38,500,145,681	-8	0.0000000
100 %		+ 50	38,500,145,687	-2	0.0000000
85 %	-40.80	+ 20	38,500,145,688	-1	0.0000000
115 %	-55.20	+ 20	38,500,145,686	-3	0.0000000

Table 7-27. Frequency Stability Data

Note:

Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

FCC ID: A3LAT1K02-A10	 PCTEST 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 353 of 360	

Frequency Stability Measurements

\$2.1055

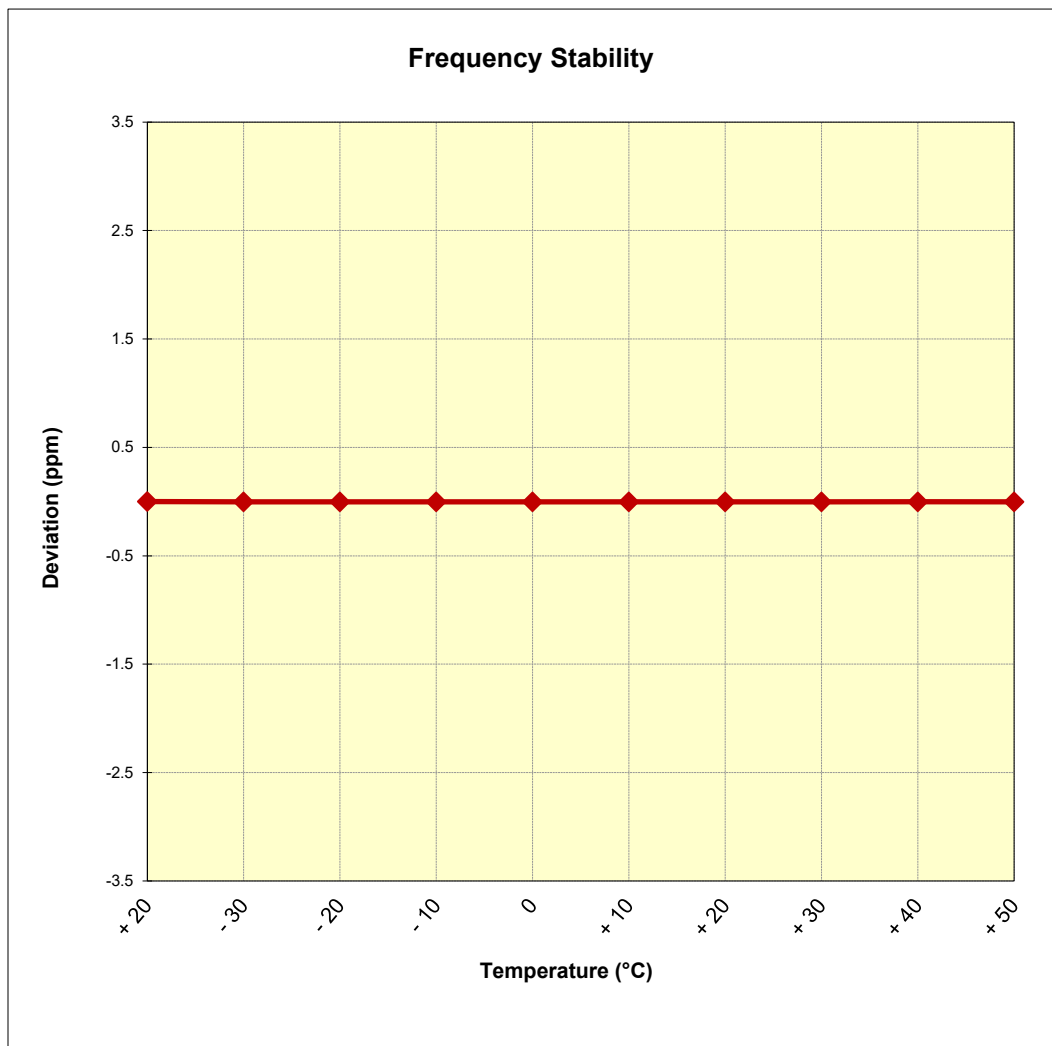


Figure 7-2. Frequency Stability Graph

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 354 of 360

8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **Samsung 5G Access Uni Model: AT1K02-A10** complies with all the requirements of Part 30.

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 355 of 360

9.0 APPENDIX A

9.1 VDI Mixer Verification Certificate



Virginia Diodes, Inc
979 2nd St. SE
Suite 309
Charlottesville, VA 22902
Phone: 434-297-3257
Fax: 434-297-3258

Certificate of Conformance

To: PCTEST Engineering Laboratory
6660-B Dobbin Road
Columbia, MD 21045
United States

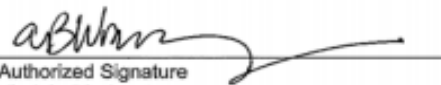
From: Virginia Diodes, Inc
979 2nd St. SE
Suite 309
Charlottesville, VA 22902

Shipping Date: 05/14/18

Today's Date: 05/14/18

Quantity	Shipped	Unit	Description
1	EA		VDIWR12.0SAX WR12SAX - Spectrum Analyzer Extension Module / SN: SAX 252

The VDI product(s) in this shipment meet(s) the guidelines for performance specifications established in accordance with the corresponding Purchase Order. Data presented in the User Guide, where applicable, has been obtained in accordance with VDI's Quality Management System. All instruments, used to obtain data, which require calibration have been calibrated with equipment traceable to the National Institute of Standards and Technology (NIST) and through NIST to the International System of Units (SI).


Authorized Signature
Virginia Diodes, Inc

Page 1 of 1

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 356 of 360



Virginia Diodes, Inc
979 2nd St. SE
Suite 309
Charlottesville, VA 22902
Phone: 434-297-3257
Fax: 434-297-3258

Certificate of Conformance

To: PCTEST Engineering Laboratory
6660-B Dobbin Road
Columbia, MD 21045
United States

From: Virginia Diodes, Inc
979 2nd St. SE
Suite 309
Charlottesville, VA 22902

Shipping Date: 05/08/18

Today's Date: 05/08/18

Quantity	Shipped	Unit	Description
1	EA	VDIWR8.0SAX	WR8.0SAX - Spectrum Analyzer Extension Module; SN: SAX 253.

The VDI product(s) in this shipment meet(s) the guidelines for performance specifications established in accordance with the corresponding Purchase Order. Data presented in the User Guide, where applicable, has been obtained in accordance with VDI's Quality Management System. All instruments, used to obtain data, which require calibration have been calibrated with equipment traceable to the National Institute of Standards and Technology (NIST) and through NIST to the International System of Units (SI).


Authorized Signature
Virginia Diodes, Inc

Page 1 of 1

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 357 of 360



Virginia Diodes, Inc
979 2nd St. SE
Suite 309
Charlottesville, VA 22902
Phone: 434-297-3257
Fax: 434-297-3258

Certificate of Conformance

To: PCTEST Engineering Laboratory
6660-B Dobbin Road
Columbia, MD 21045
United States

From: Virginia Diodes, Inc
979 2nd St. SE
Suite 309
Charlottesville, VA 22902

Shipping Date: 05/21/18

Today's Date: 05/22/18

Quantity	Shipped	Unit	Description
1	EA	VDIWR5.1SAX	WR5.1SAX - Spectrum Analyzer Extension Module; SN: SAX 254.

The VDI product(s) in this shipment meet(s) the guidelines for performance specifications established in accordance with the corresponding Purchase Order. Data presented in the User Guide, where applicable, has been obtained in accordance with VDI's Quality Management System. All instruments, used to obtain data, which require calibration have been calibrated with equipment traceable to the National Institute of Standards and Technology (NIST) and through NIST to the International System of Units (SI).


Authorized Signature
Virginia Diodes, Inc

Page 1 of 1

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 358 of 360

10.0 APPENDIX B

10.1 Introduction (KDB 484596 Section 3 a)

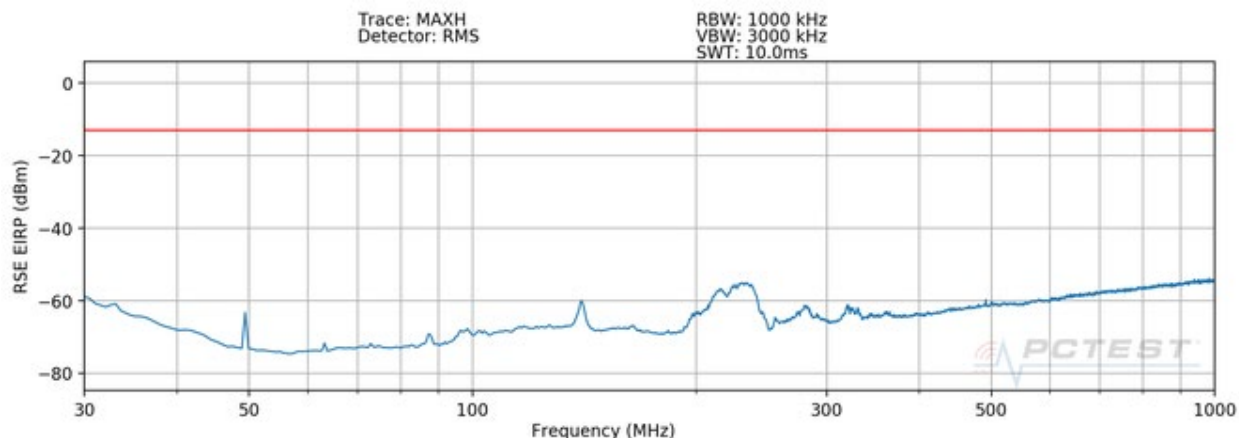
The applicant takes full responsibility that the test data as referenced FCC ID: A3LAT1K02-A00 represents compliance for FCC ID: A3LAT1K02-A10.

10.2 Explain the Differences (KDB 484596 Section 3 b)

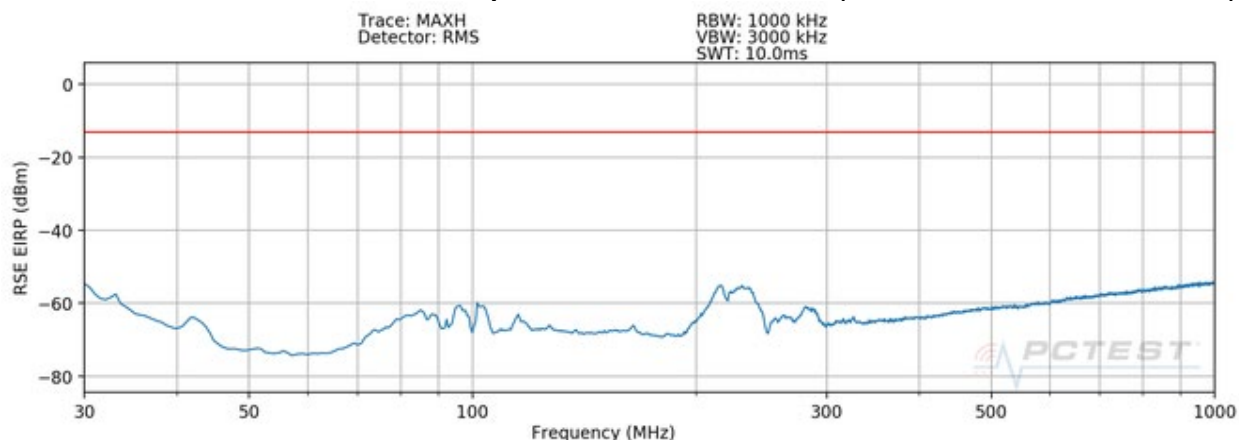
FCC ID A3LAT1K02-A00 is powered by AC voltage source. For FCC ID A3LAT1K02-A10 is powered by DC voltage source which is only different power supply condition that no affect to RF parameters because other components are identical except for power supply.

10.3 Spot Check Verfication Data (KDB 484596 Section 3 c)

Spot check verification is adopted to below 1GHz Raidiated emission test case which only affect to emission changing due to power supply difference. However, there is no emission detected. Thus, FCC ID A3LAT1K02-A00 and FCC ID A3LAT1K02-A10 test result can be identical because both are using same RF components.



Plot 10-1. A3LAT1K02-A10 Radiated Spurious Plot 30 MHz-1 GHz (8CC QPSK Mid Ch. Ant. Pol. H)



Plot 10-2. A3LAT1K02-A10 Radiated Spurious Plot 30 MHz-1 GHz (8CC QPSK Mid Ch. Ant. Pol. V)

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 359 of 360

10.4 Reference Section (KDB 484596 Section 3 d)

A matrix has been provided the source data for rule part, frequency range, and emission designator as required by KDB 484596:

Rule Part	Frequency Range(MHz)	Emission designator	Source Data FCC ID	Exhibit Name(s)
30	37000 - 40000	46M4G7D 46M3W7D 94M7G7D 94M7W7D 393MG7D 393MW7D 788MG7D 788MW7D	A3LAT1K02-A00	04. Operational Description_rev01 05. User's Manual (Installation Manual) 06. Parts List and Tune Up Procedure 08. Block diagram_rev01 09. Internal Photos_rev01 10. External Photos_rev01 12. Schematics_rev01 14. RF mmWave Test Report_rev03 15. MPE Test Report_rev01 17. RF mmWave Test Setup Photos_rev02

FCC ID: A3LAT1K02-A10	 PCTEST 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 360 of 360