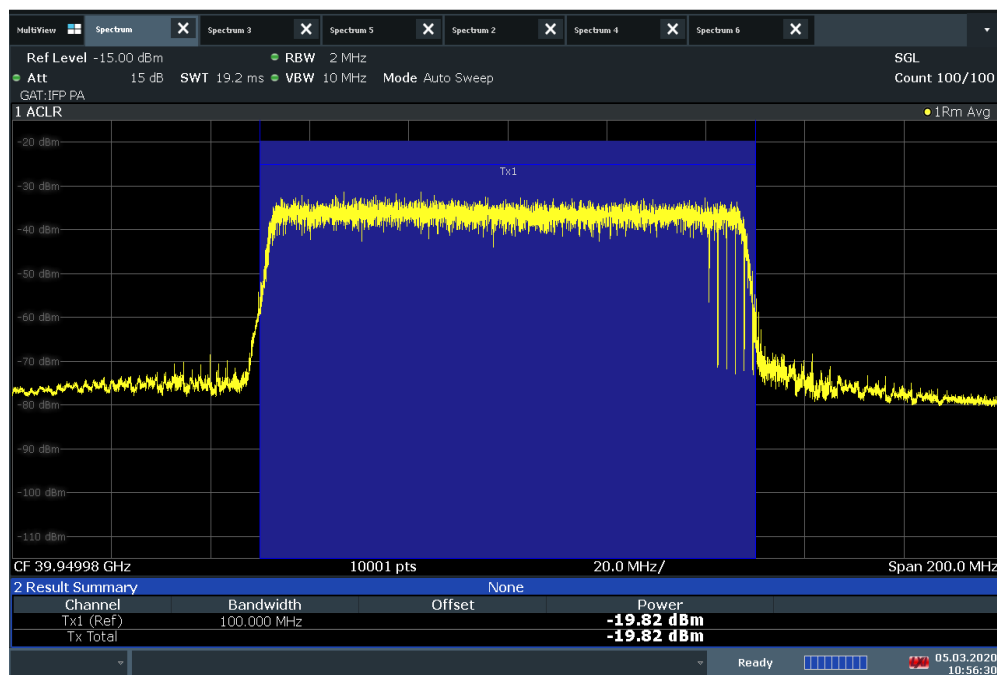


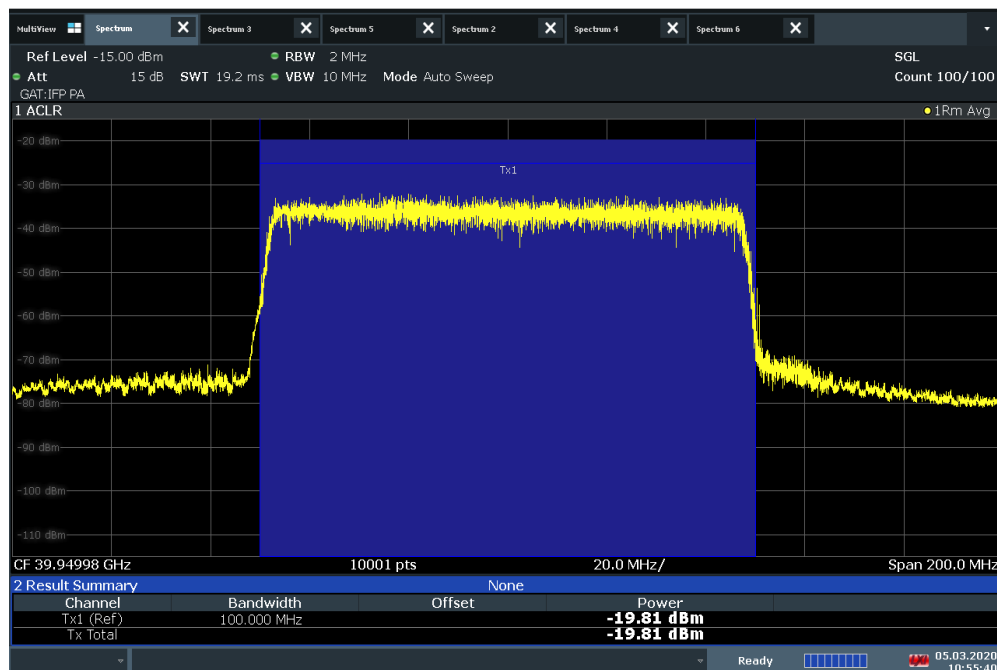
#### ACLRResults



10:56:31 05.03.2020

Plot 7-227. Antenna D EIRP Density Plot (100MHz BW 1CC 16QAM High Channel)

#### ACLRResults

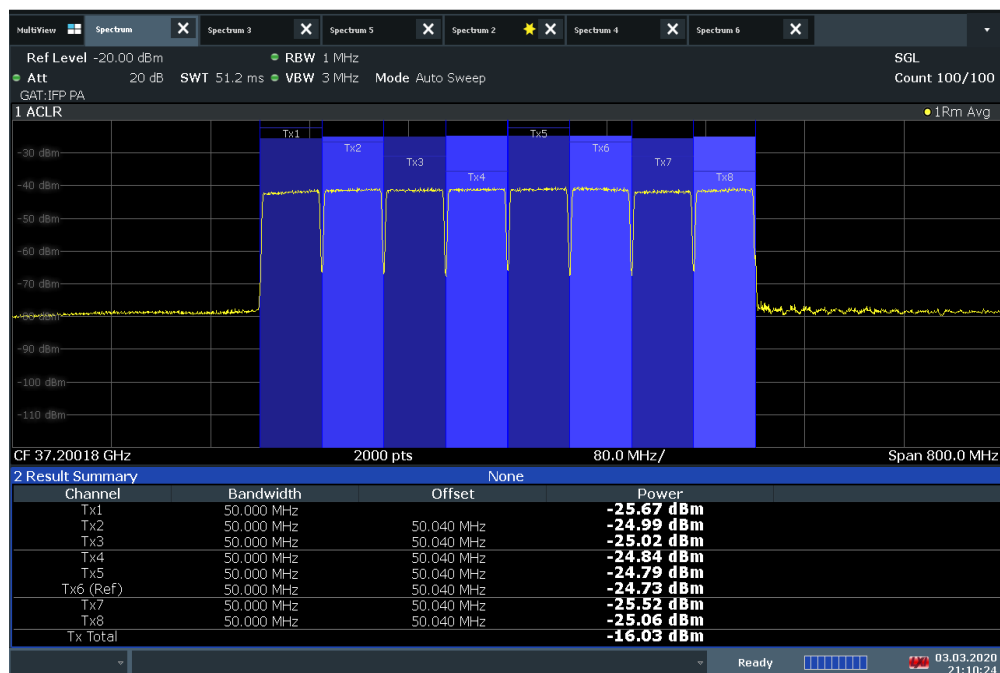


10:55:41 05.03.2020

Plot 7-228. Antenna D EIRP Density Plot (100MHz BW 1CC 64QAM High Channel)

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 143 of 360                 |

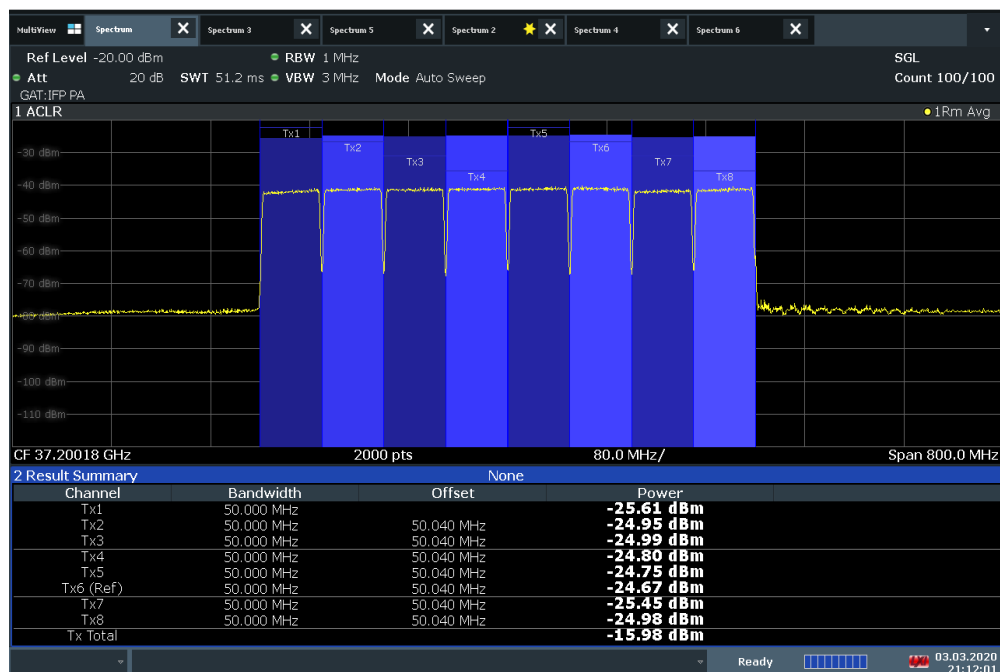
#### ACLRRResults



21:10:24 03.03.2020

**Plot 7-229. Antenna D EIRP Density Plot (50MHz BW 8CC QPSK Low Channel)**

#### ACLRRResults

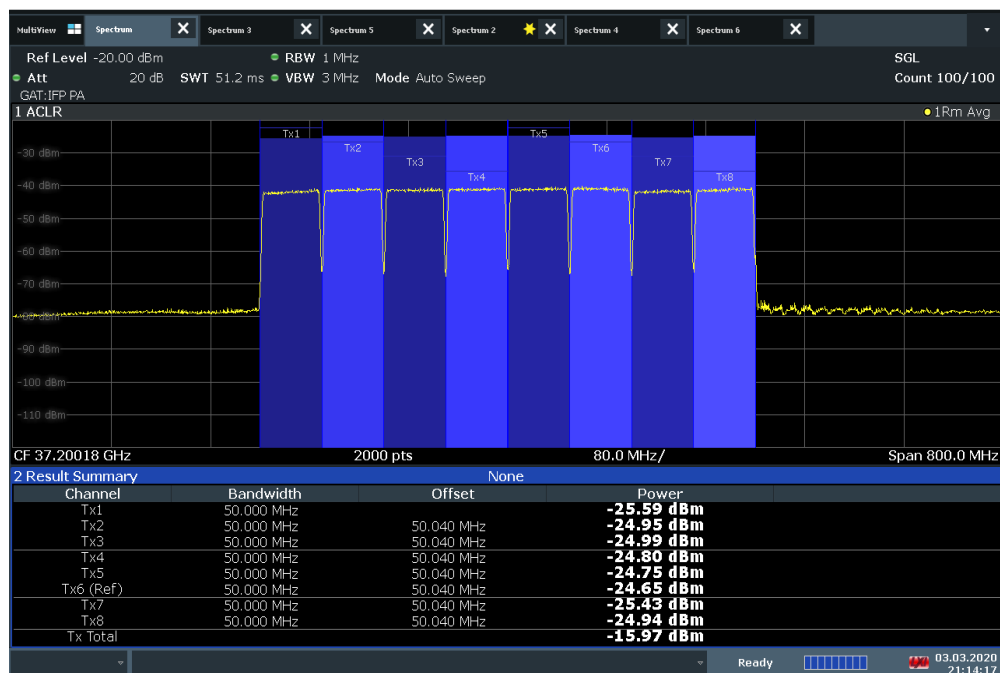


21:12:02 03.03.2020

**Plot 7-230. Antenna D EIRP Density Plot (50MHz BW 8CC 16QAM Low Channel)**

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 144 of 360                 |

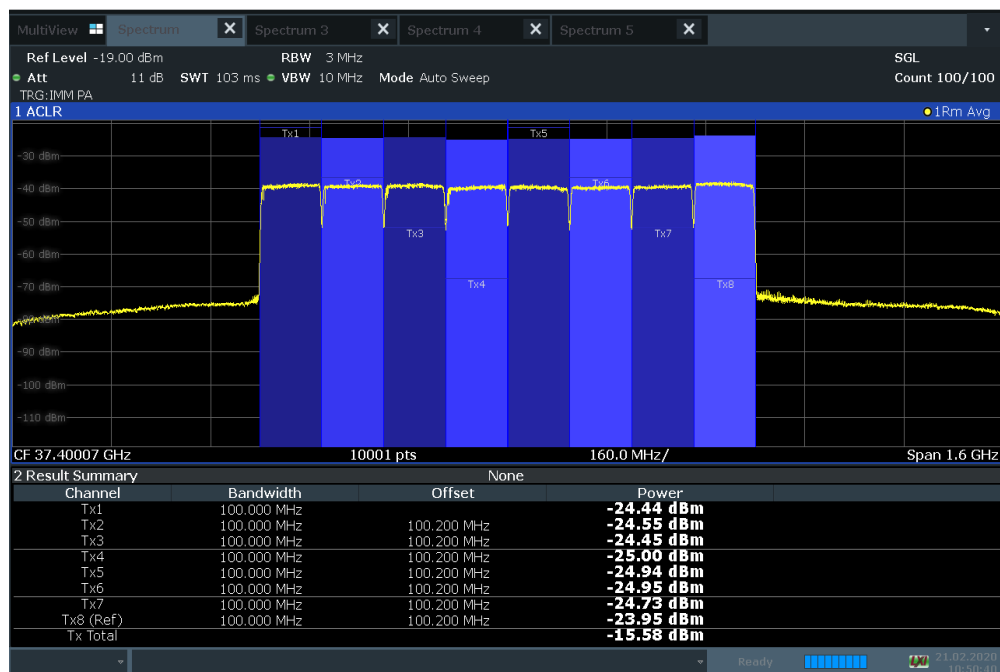
#### ACLRResults



21:14:17 03.03.2020

**Plot 7-231. Antenna D EIRP Density Plot (50MHz BW 8CC 64QAM Low Channel)**

#### ACLRResults

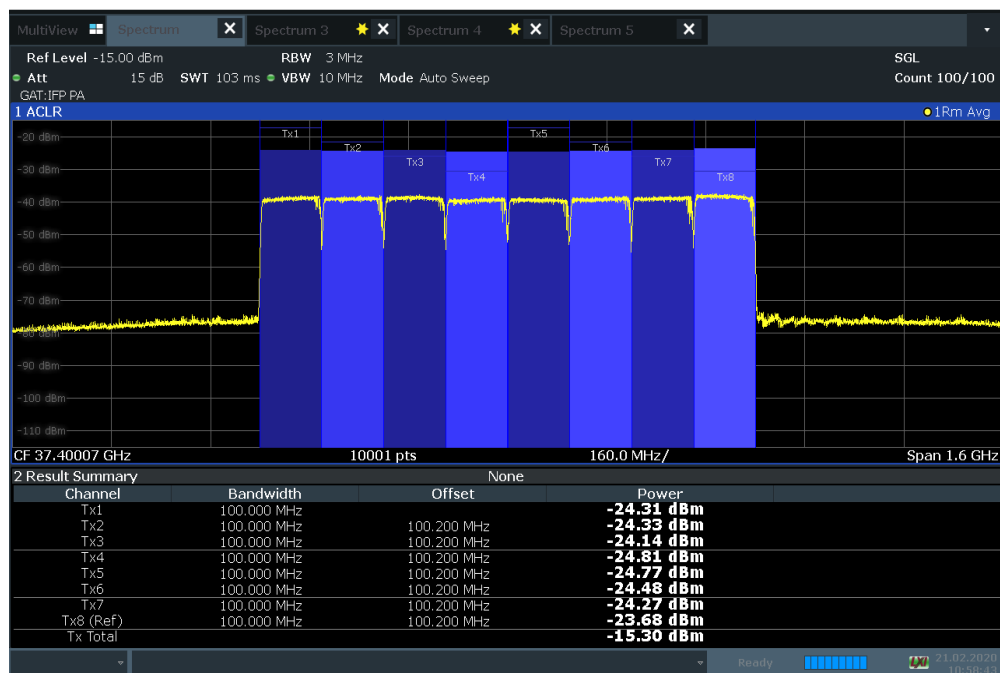


10:50:41 21.02.2020

**Plot 7-232. Antenna D EIRP Density Plot (100MHz BW 8CC QPSK Low Channel)**

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 145 of 360                 |

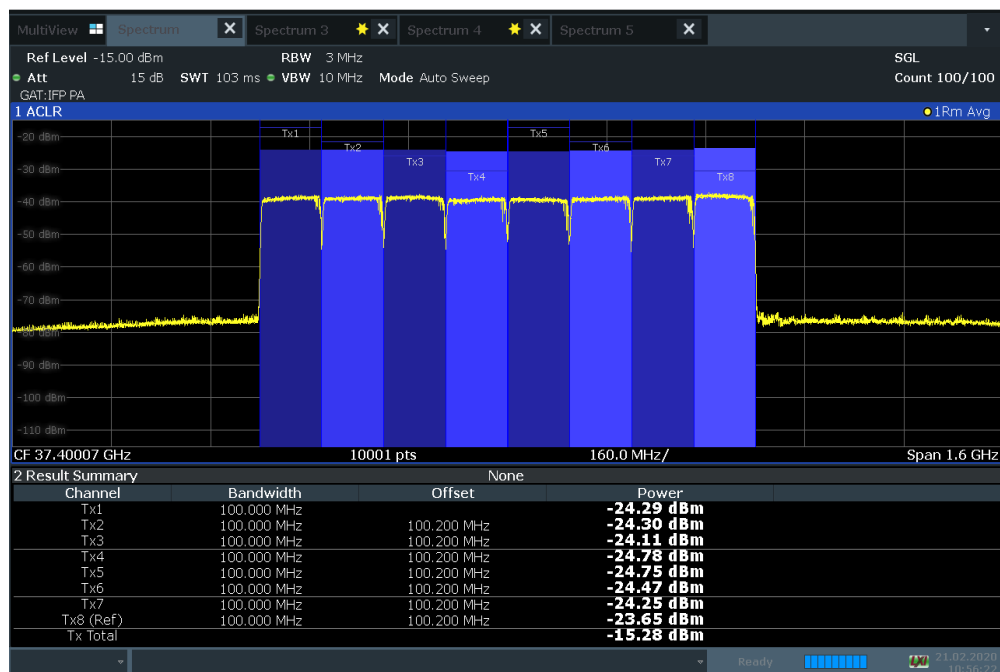
#### ACLRRResults



10:58:43 21.02.2020

Plot 7-233. Antenna D EIRP Density Plot (100MHz BW 8CC 16QAM Low Channel)

#### ACLRRResults

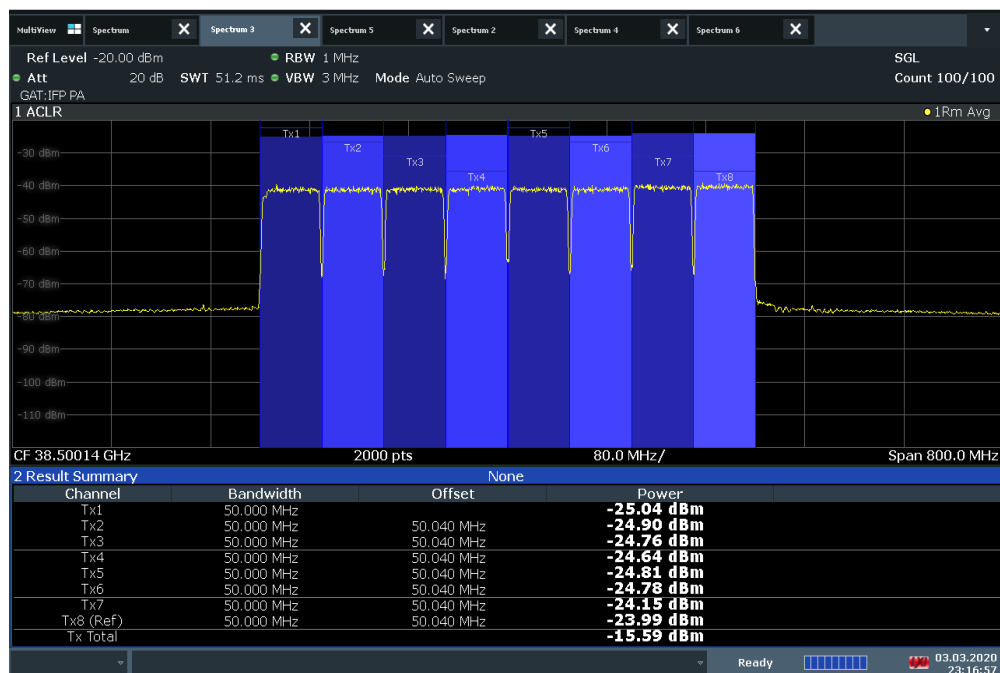


10:56:23 21.02.2020

Plot 7-234. Antenna D EIRP Density Plot (100MHz BW 8CC 64QAM Low Channel)

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 146 of 360                 |

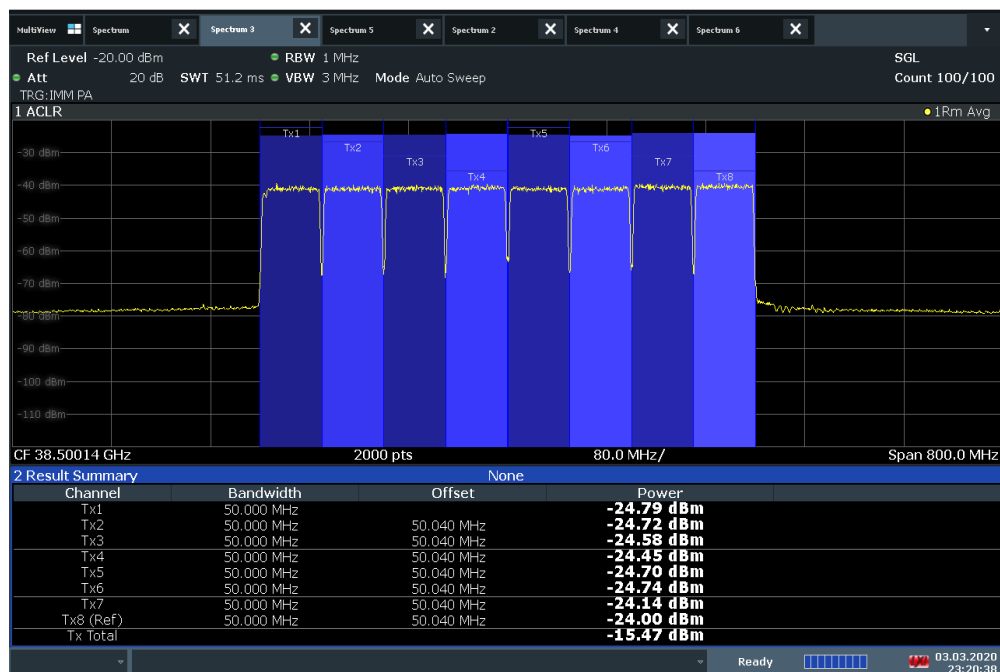
#### ACLRRResults



23:16:57 03.03.2020

**Plot 7-235. Antenna D EIRP Density Plot (50MHz BW 8CC QPSK Mid Channel)**

#### ACLRRResults

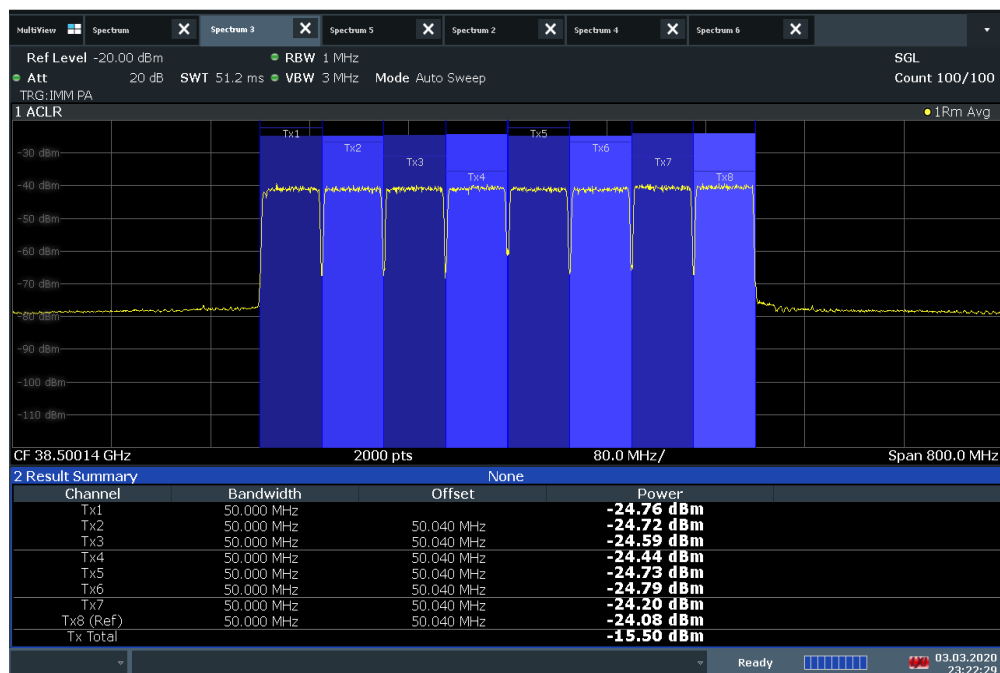


23:20:38 03.03.2020

**Plot 7-236. Antenna D EIRP Density Plot (50MHz BW 8CC 16QAM Mid Channel)**

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 147 of 360                 |

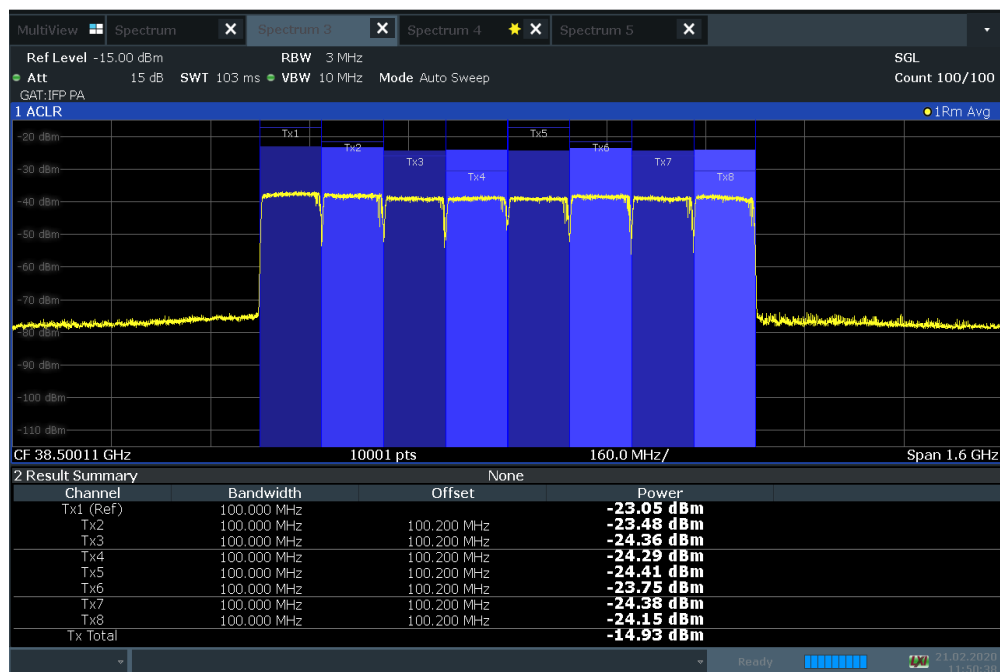
#### ACLRResults



23:22:30 03.03.2020

**Plot 7-237. Antenna D EIRP Density Plot (50MHz BW 8CC 64QAM Mid Channel)**

#### ACLRResults

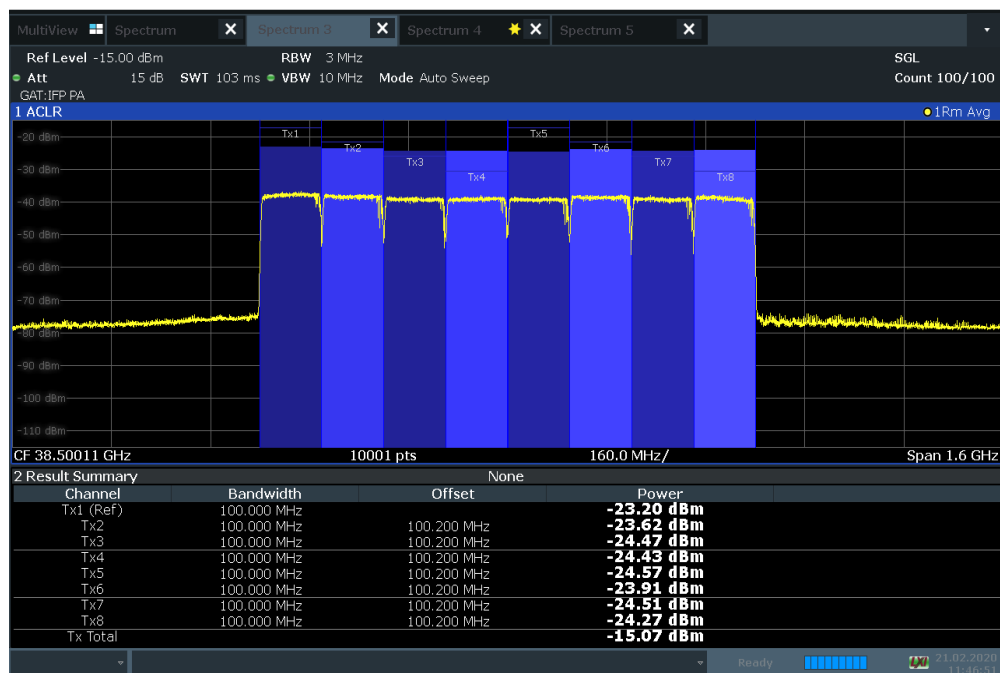


11:50:38 21.02.2020

**Plot 7-238. Antenna D EIRP Density Plot (100MHz BW 8CC QPSK Mid Channel)**

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 148 of 360                 |

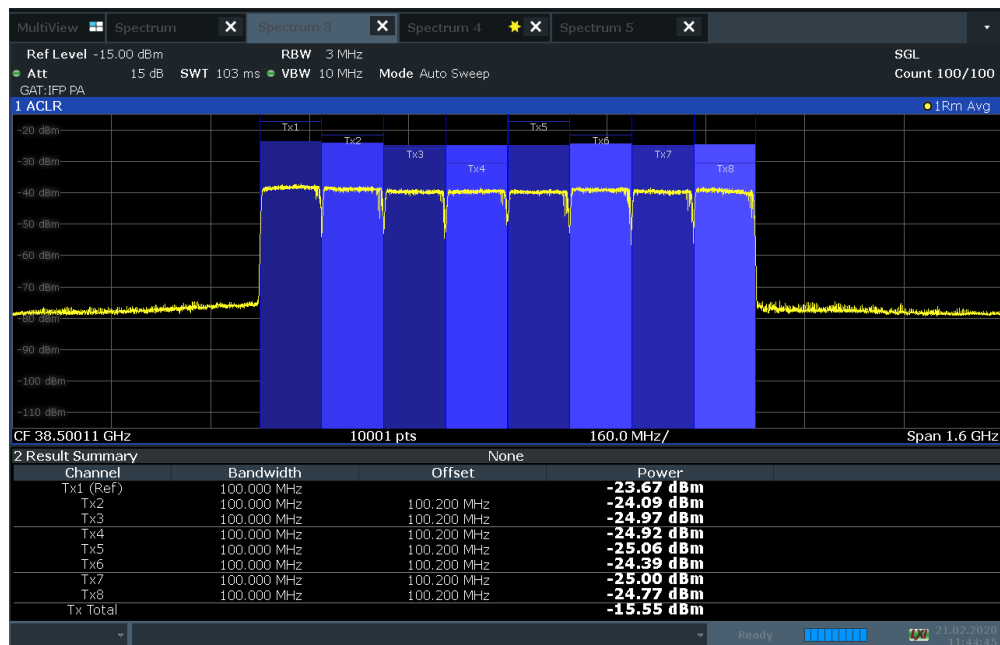
#### ACLRRResults



11:46:51 21.02.2020

**Plot 7-239. Antenna D EIRP Density Plot (100MHz BW 8CC 16QAM Mid Channel)**

#### ACLRRResults

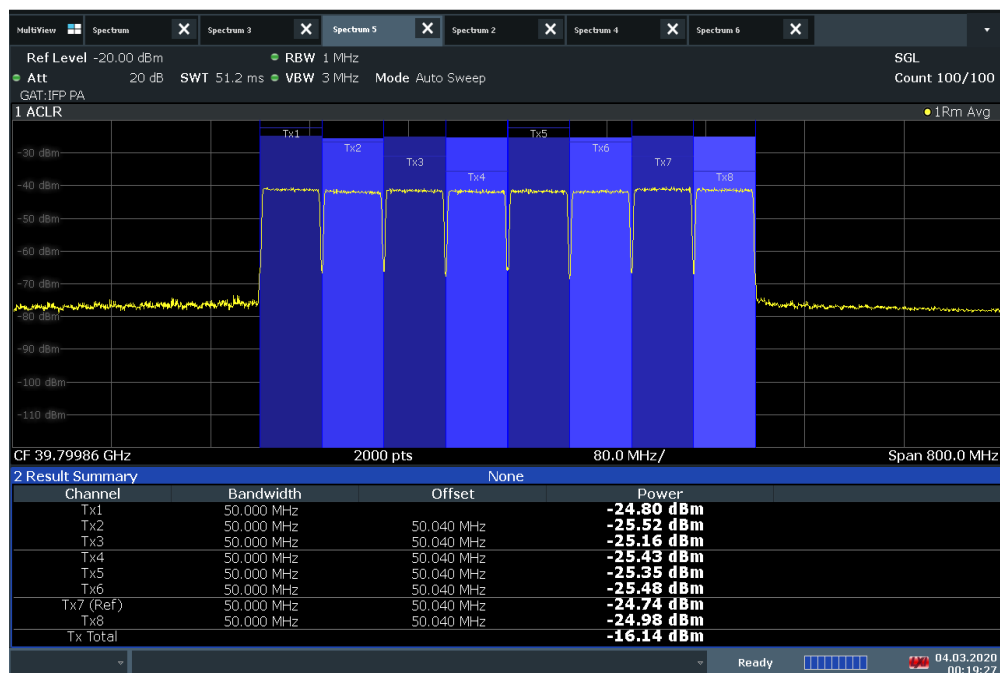


11:44:46 21.02.2020

**Plot 7-240. Antenna D EIRP Density Plot (100MHz BW 8CC 64QAM Mid Channel)**

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 149 of 360                 |

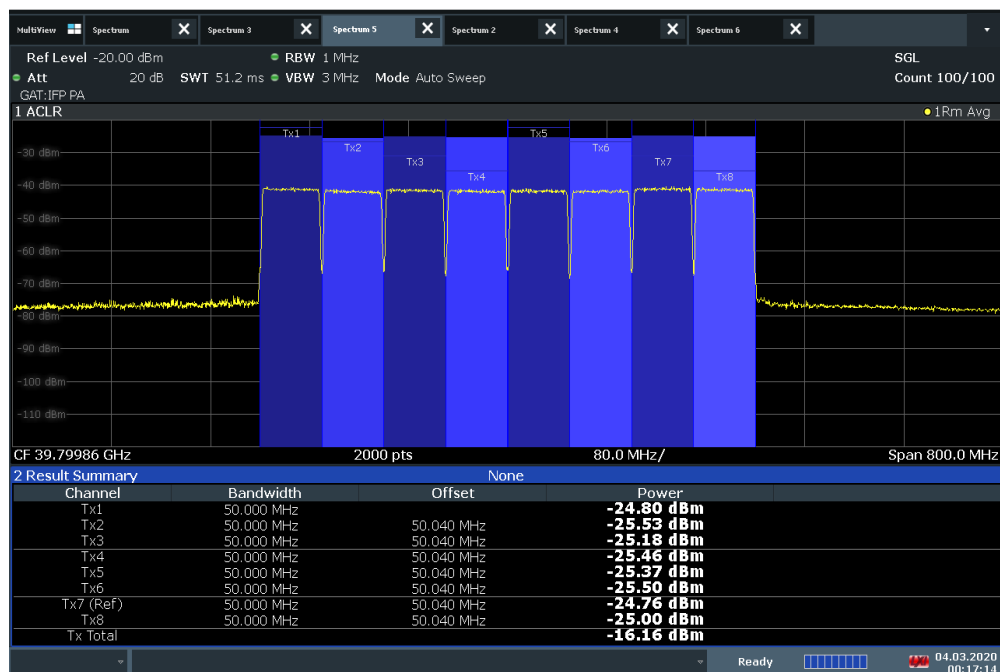
#### ACLRResults



00:19:28 04.03.2020

**Plot 7-241. Antenna D EIRP Density Plot (50MHz BW 8CC QPSK High Channel)**

#### ACLRResults

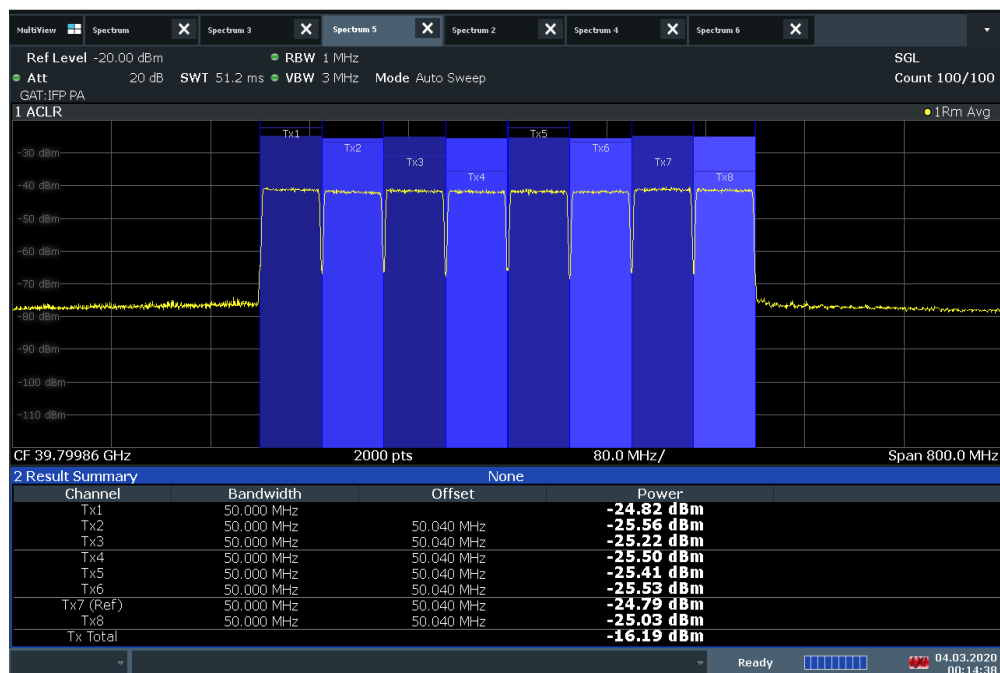


00:17:14 04.03.2020

**Plot 7-242. Antenna D EIRP Density Plot (50MHz BW 8CC 16QAM High Channel)**

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 150 of 360                 |

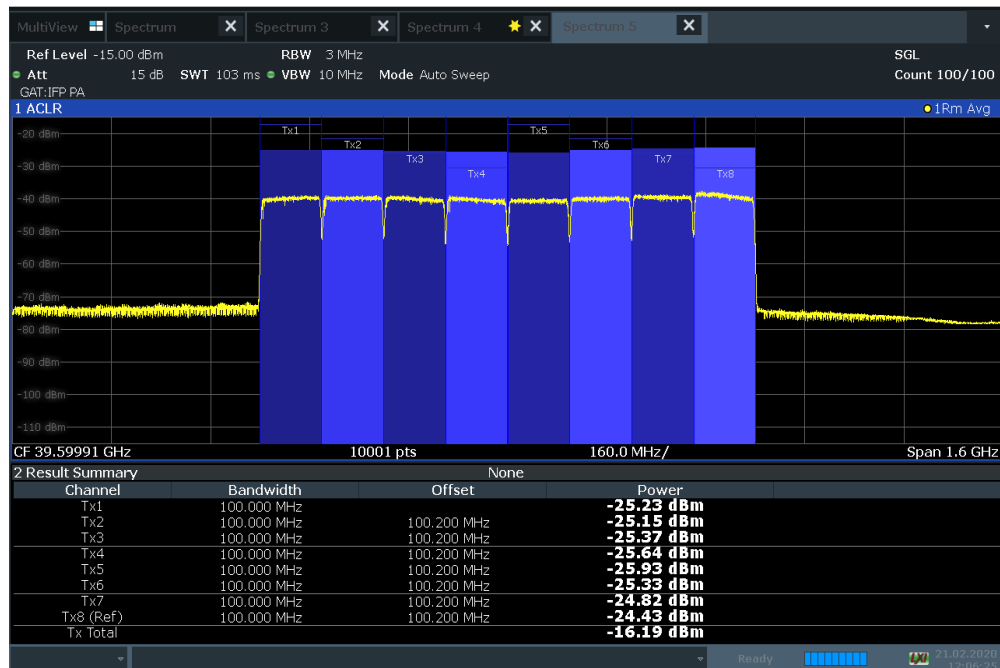
#### ACLRRResults



00:14:39 04.03.2020

**Plot 7-243. Antenna D EIRP Density Plot (50MHz BW 8CC 64QAM High Channel)**

#### ACLRRResults

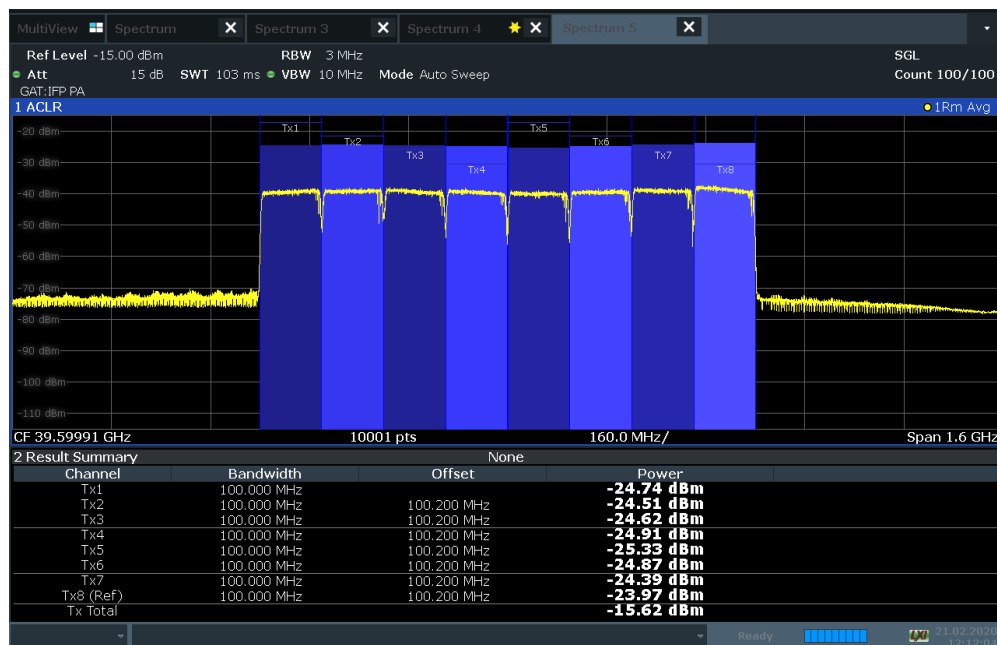


12:06:25 21.02.2020

**Plot 7-244. Antenna D EIRP Density Plot (100MHz BW 8CC QPSK High Channel)**

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 151 of 360                 |

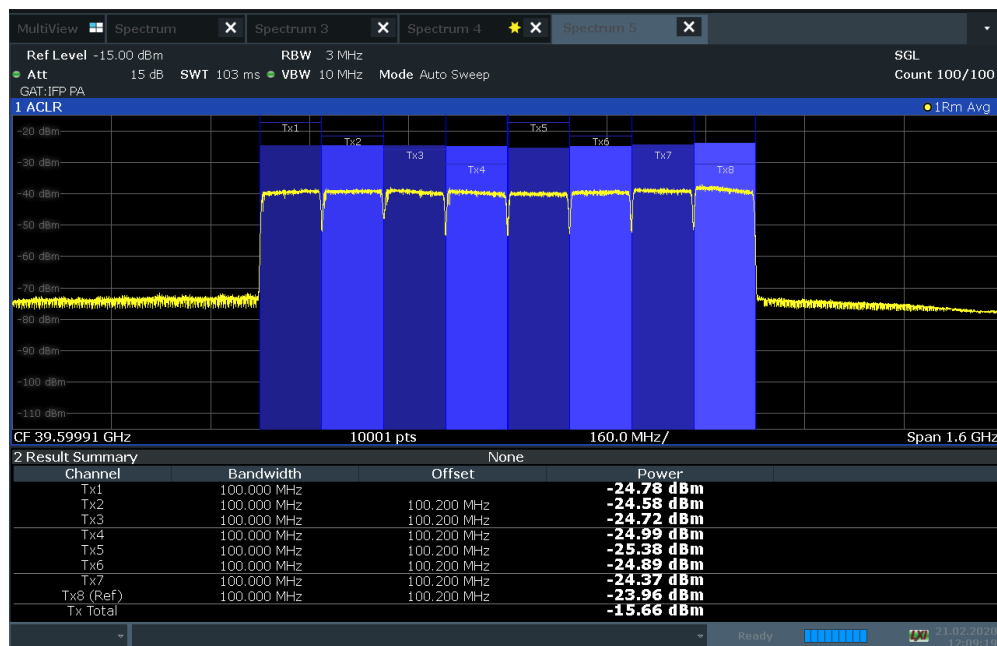
#### ACLRRResults



12:12:05 21.02.2020

**Plot 7-245. Antenna D EIRP Density Plot (100MHz BW 8CC 16QAM High Channel)**

#### ACLRRResults

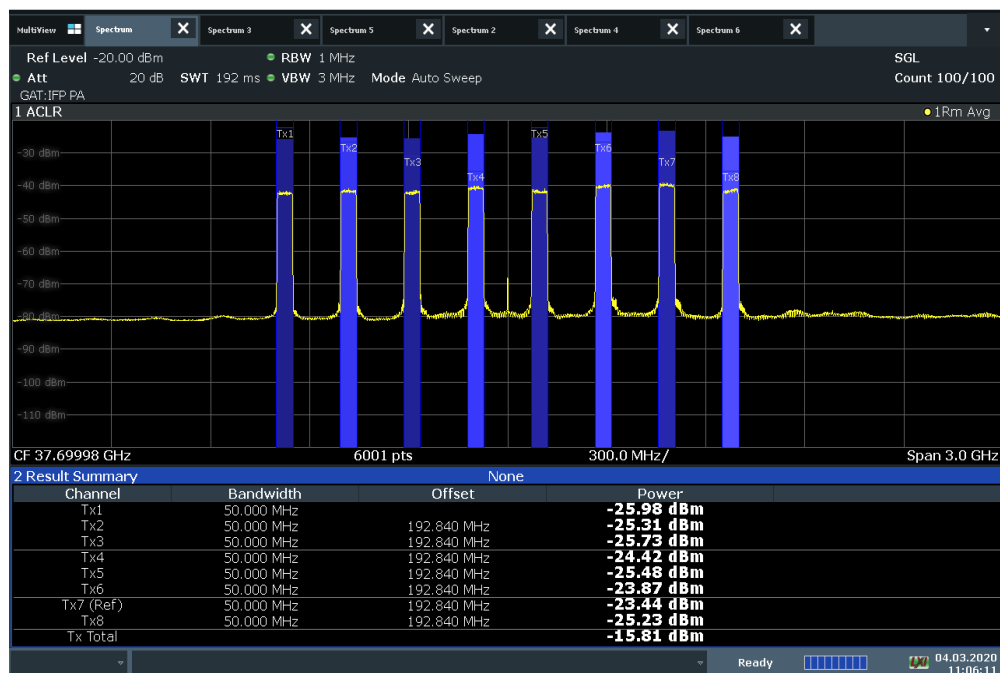


12:09:20 21.02.2020

**Plot 7-246. Antenna D EIRP Density Plot (100MHz BW 8CC 64QAM High Channel)**

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 152 of 360                 |

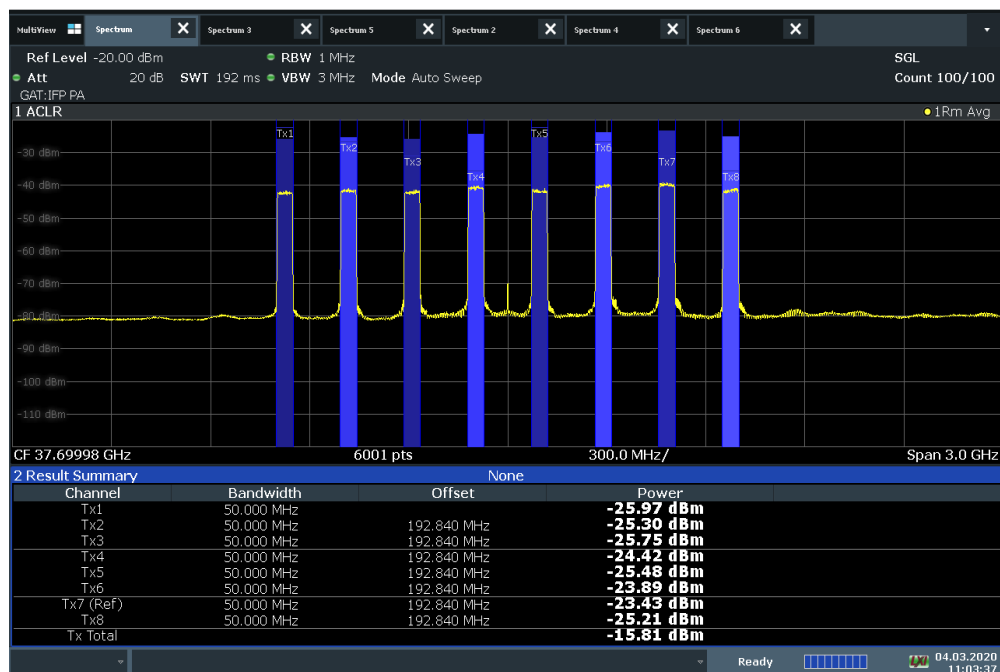
#### ACLRRResults



11:06:12 04.03.2020

Plot 7-247. Antenna C EIRP Density Plot (50MHz BW 8CC NC QPSK Low Channel)

#### ACLRRResults

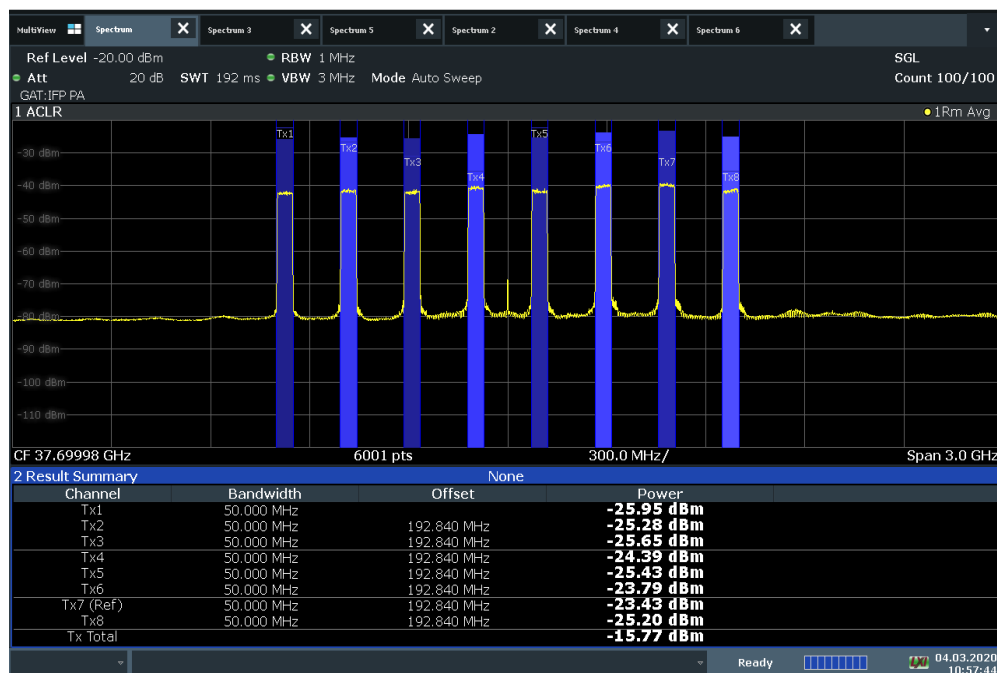


11:03:37 04.03.2020

Plot 7-248. Antenna C EIRP Density Plot (50MHz BW 8CC NC 16QAM Low Channel)

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 153 of 360                 |

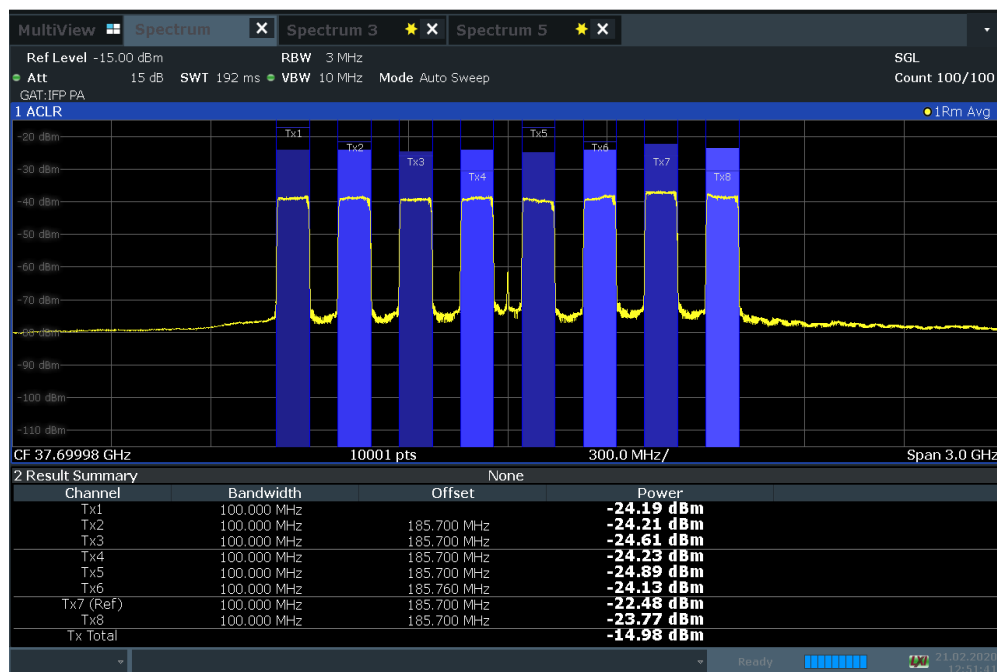
#### ACLRRResults



10:57:45 04.03.2020

Plot 7-249. Antenna C EIRP Density Plot (50MHz BW 8CC NC 64QAM Low Channel)

#### ACLRRResults

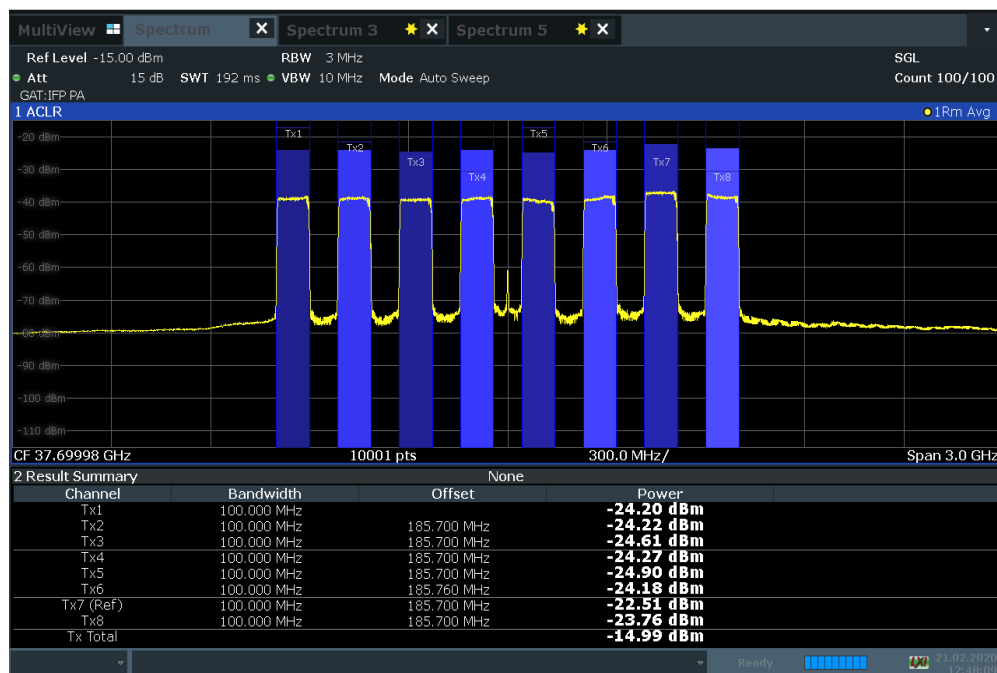


12:51:42 21.02.2020

Plot 7-250. Antenna C EIRP Density Plot (100MHz BW 8CC NC QPSK Low Channel)

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 154 of 360                 |

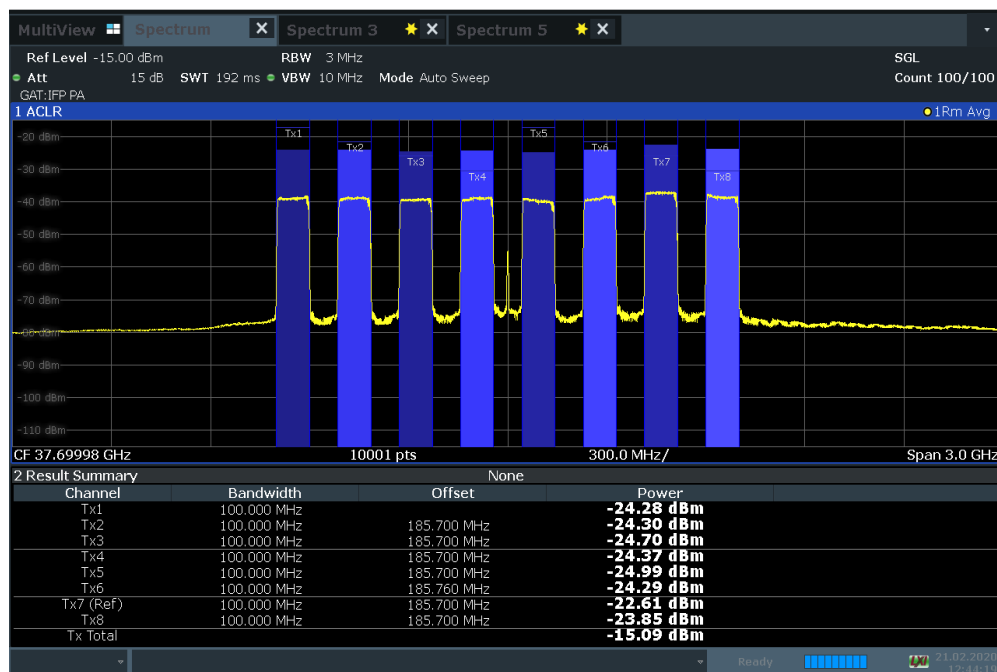
#### ACLRResults



12:48:10 21.02.2020

**Plot 7-251. Antenna C EIRP Density Plot (100MHz BW 8CC NC 16QAM Low Channel)**

#### ACLRResults

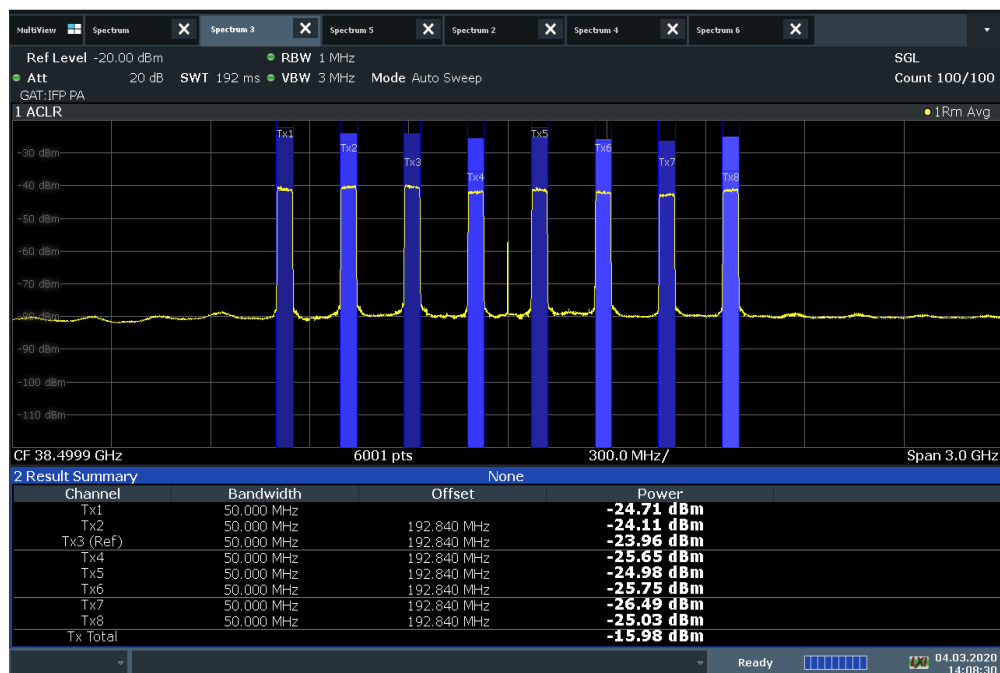


12:44:20 21.02.2020

**Plot 7-252. Antenna C EIRP Density Plot (100MHz BW 8CC NC 64QAM Low Channel)**

|                                       |                                              |                                               |                |                                 |
|---------------------------------------|----------------------------------------------|-----------------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit                   |                | Page 155 of 360                 |

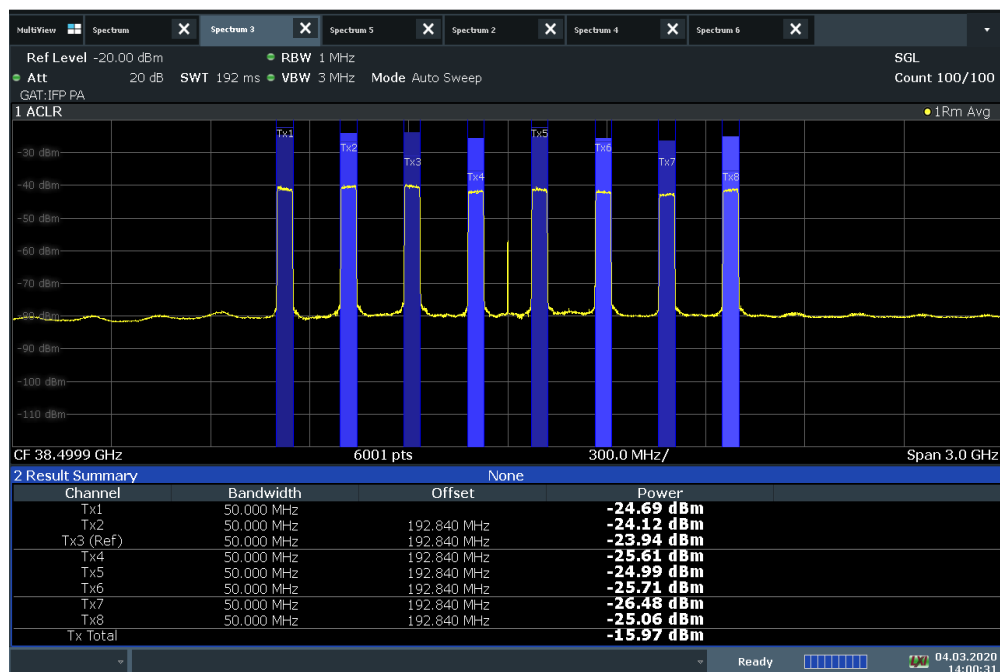
#### ACLRRResults



14:08:31 04.03.2020

**Plot 7-253. Antenna C EIRP Density Plot (50MHz BW 8CC NC QPSK Mid Channel)**

#### ACLRRResults

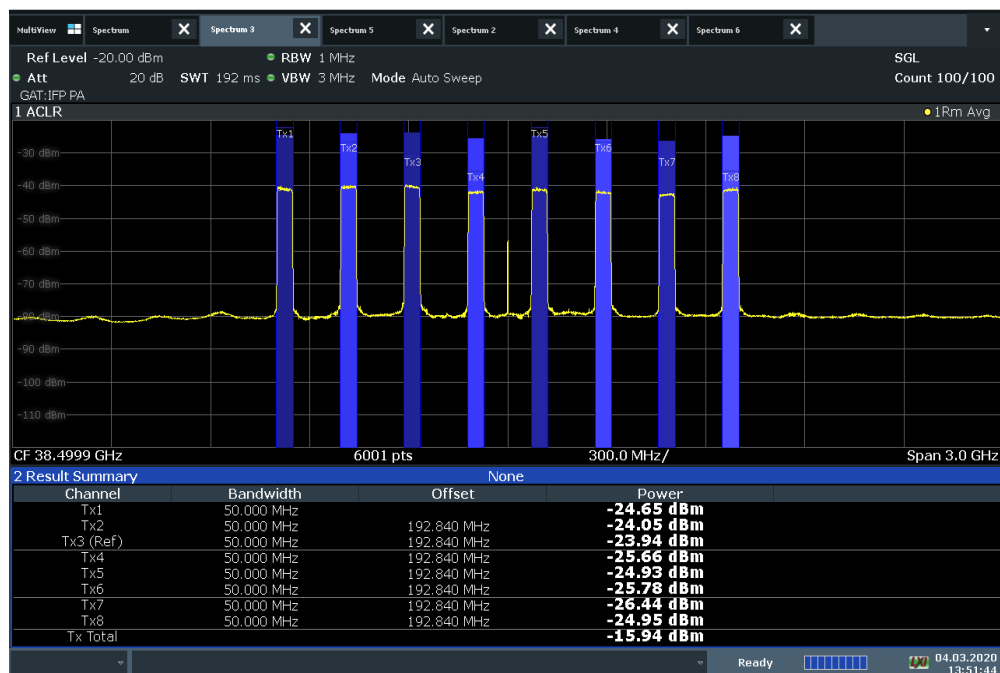


14:00:31 04.03.2020

**Plot 7-254. Antenna C EIRP Density Plot (50MHz BW 8CC NC 16QAM Mid Channel)**

|                                       |                                              |                                               |                |                                 |
|---------------------------------------|----------------------------------------------|-----------------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit                   |                | Page 156 of 360                 |

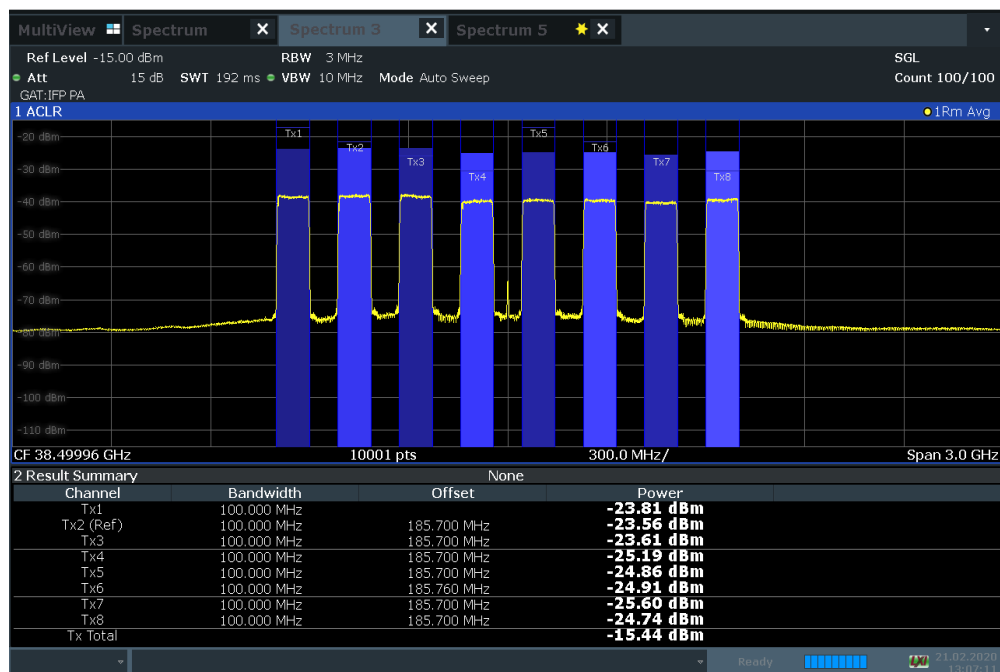
#### ACLRRResults



13:51:45 04.03.2020

**Plot 7-255. Antenna C EIRP Density Plot (50MHz BW 8CC NC 64QAM Mid Channel)**

#### ACLRRResults

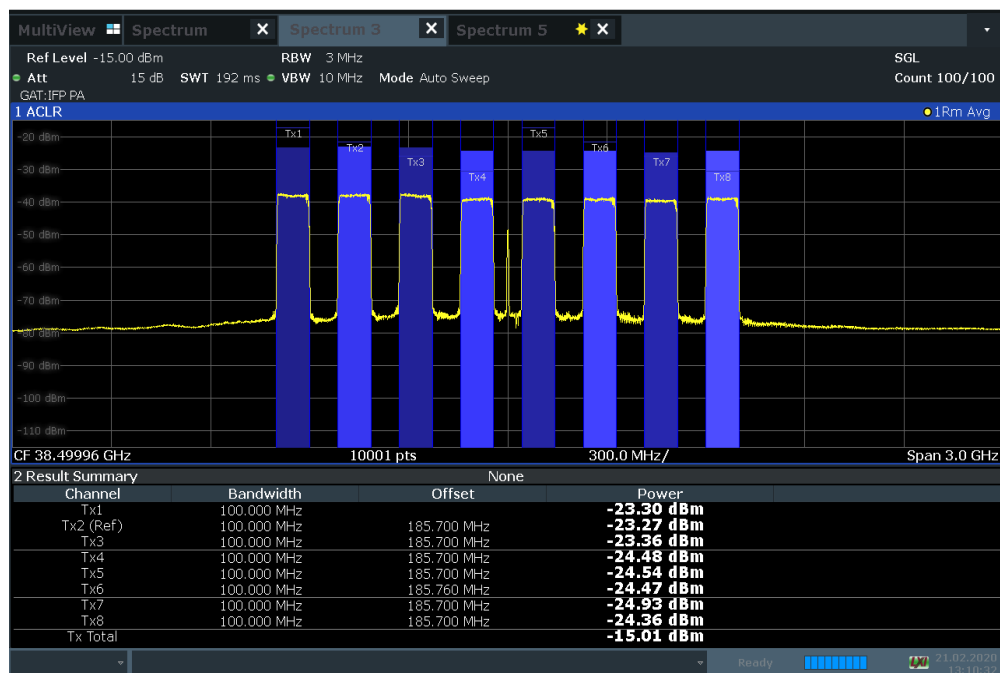


13:07:12 21.02.2020

**Plot 7-256. Antenna C EIRP Density Plot (100MHz BW 8CC NC QPSK Mid Channel)**

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 157 of 360                 |

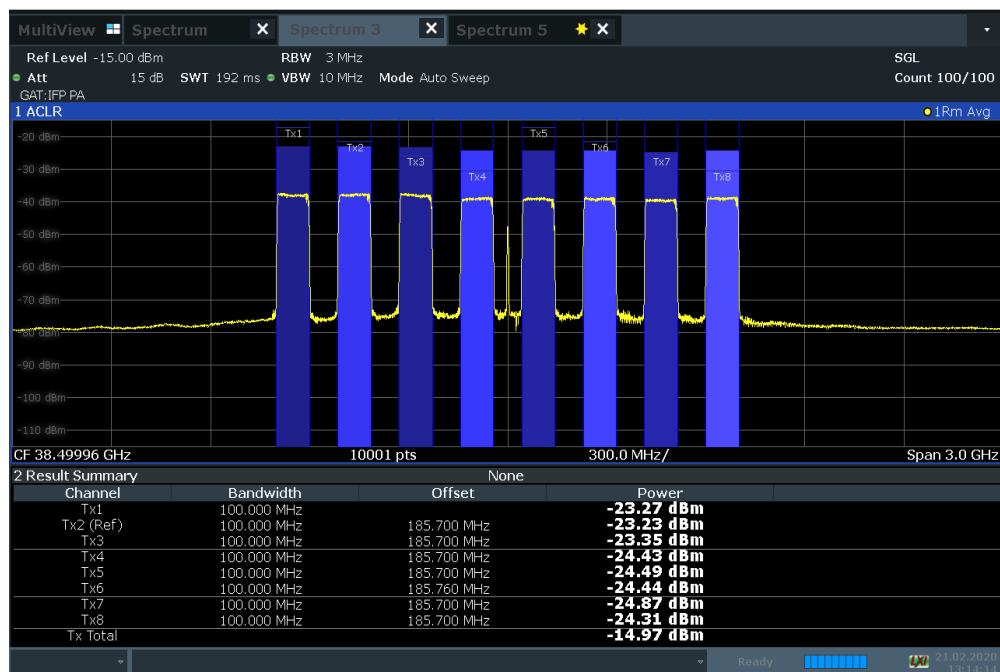
#### ACLRRResults



13:10:32 21.02.2020

Plot 7-257. Antenna C EIRP Density Plot (100MHz BW 8CC NC 16QAM Mid Channel)

#### ACLRRResults

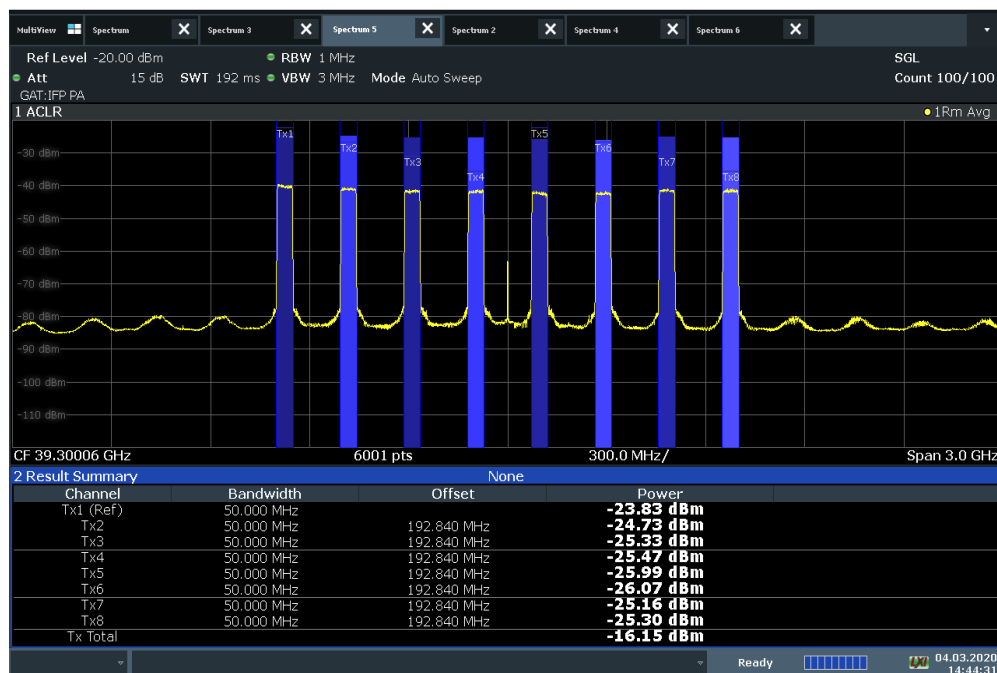


13:14:14 21.02.2020

Plot 7-258. Antenna C EIRP Density Plot (100MHz BW 8CC NC 64QAM Mid Channel)

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 158 of 360                 |

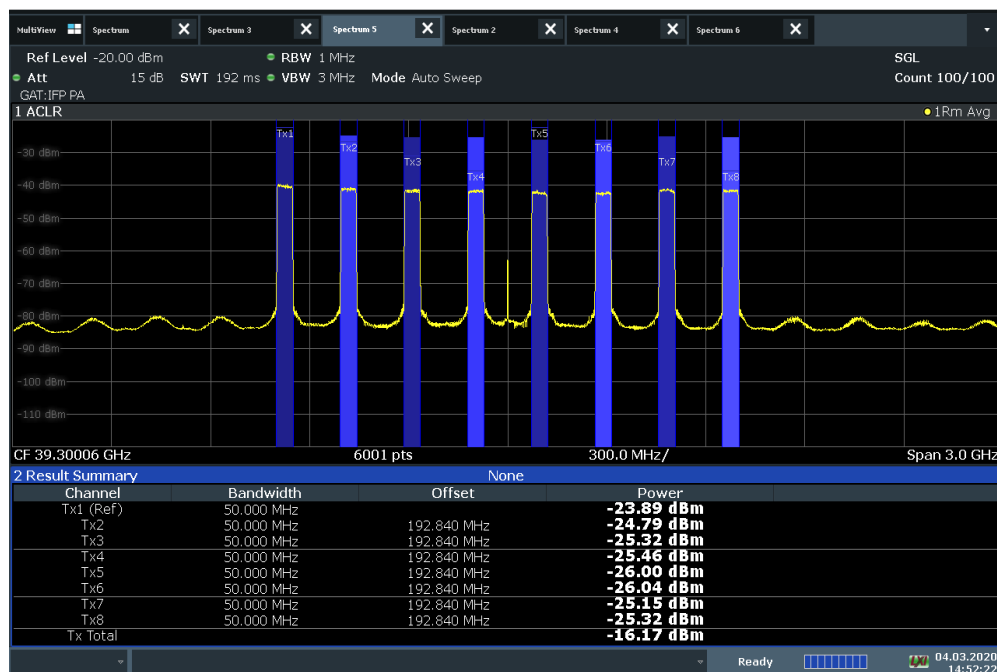
#### ACLRResults



14:44:32 04.03.2020

**Plot 7-259. Antenna C EIRP Density Plot (50MHz BW 8CC NC QPSK High Channel)**

#### ACLRResults

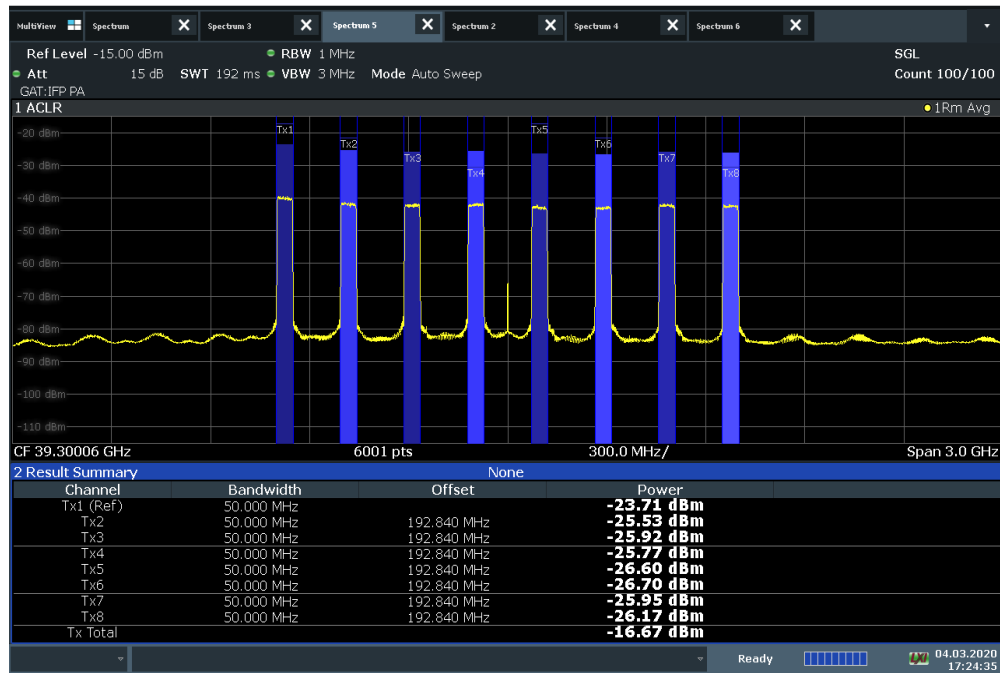


14:52:22 04.03.2020

**Plot 7-260. Antenna C EIRP Density Plot (50MHz BW 8CC NC 16QAM High Channel)**

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 159 of 360                 |

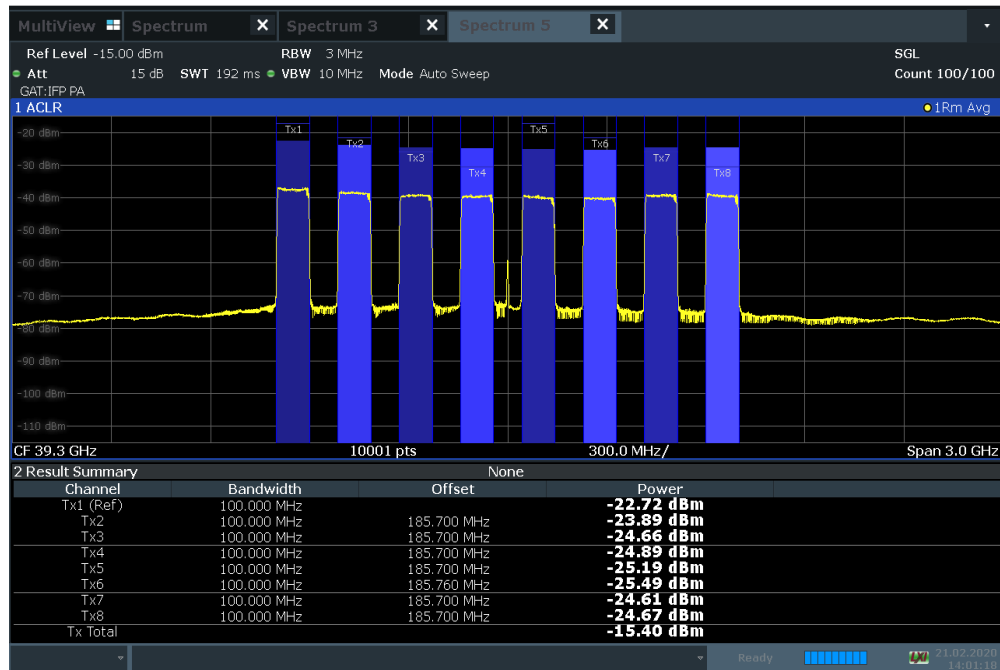
#### ACLRRResults



17:24:35 04.03.2020

**Plot 7-261. Antenna C EIRP Density Plot (50MHz BW 8CC NC 64QAM High Channel)**

#### ACLRRResults

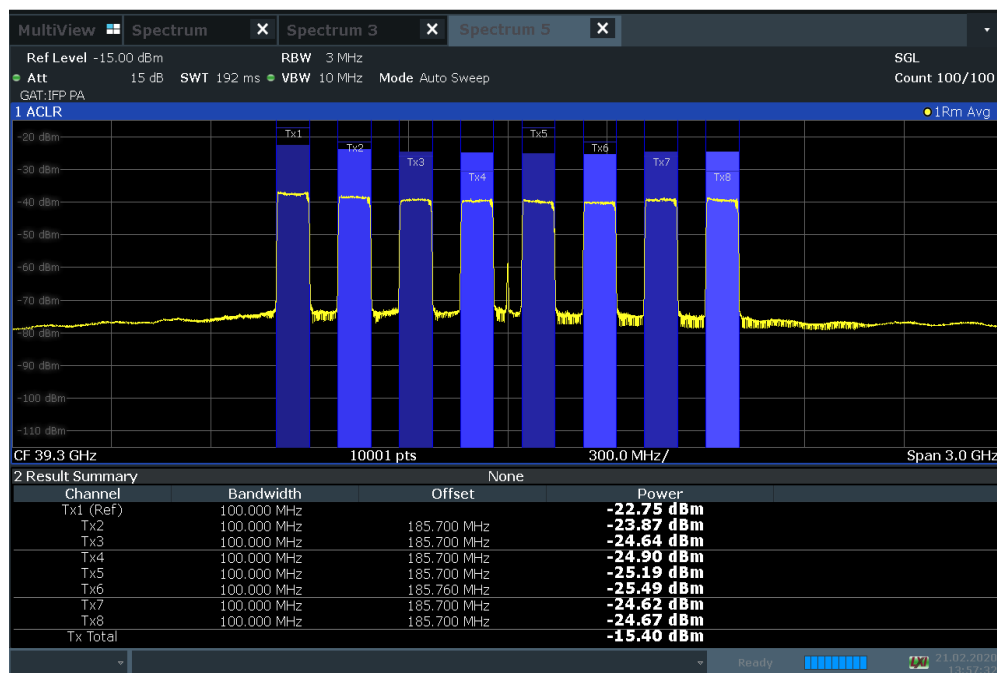


14:01:19 21.02.2020

**Plot 7-262. Antenna C EIRP Density Plot (100MHz BW 8CC NC QPSK High Channel)**

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 160 of 360                 |

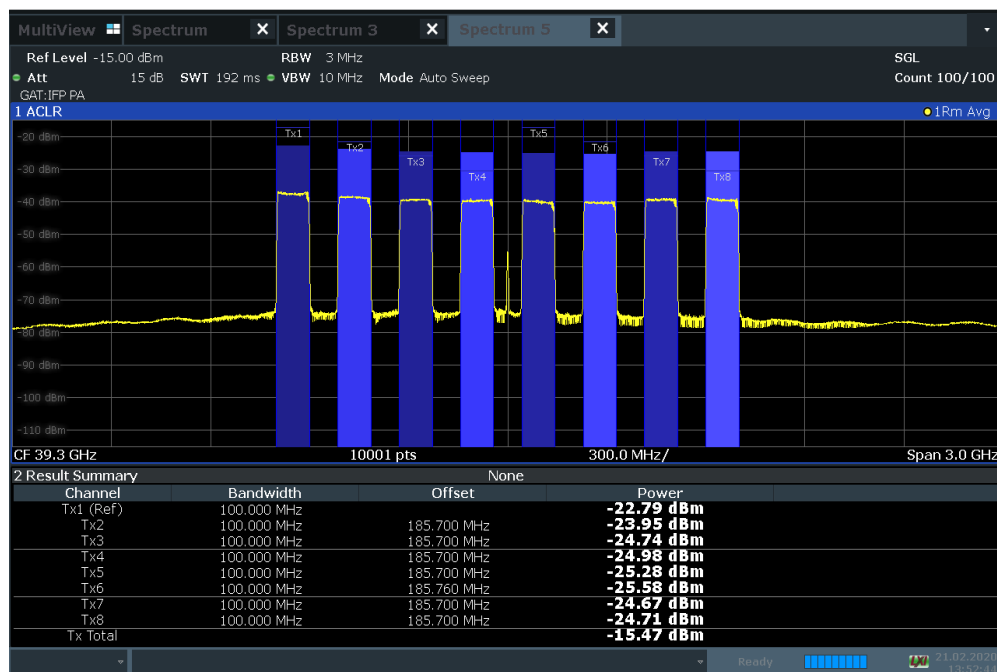
#### ACLRRResults



13:57:33 21.02.2020

Plot 7-263. Antenna C EIRP Density Plot (100MHz BW 8CC NC 16QAM High Channel)

#### ACLRRResults



13:52:45 21.02.2020

Plot 7-264. Antenna C EIRP Density Plot (100MHz BW 8CC NC 64QAM High Channel)

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 161 of 360                 |

### 7.3.5 MIMO EIRP Density

| Antenna | Bandwidth | Channel | CCs active | Modulation | Horn Angle | Horn Height | Turntable Azimuth | Analyzer Level | AFCL   | Average e.i.r.p. PSD | PSD Limit    | Margin |
|---------|-----------|---------|------------|------------|------------|-------------|-------------------|----------------|--------|----------------------|--------------|--------|
|         | [MHz]     |         |            |            | [degrees]  | [cm]        | [degrees]         | [dBm]          | [dB/m] | [dBm/100MHz]         | [dBm/100MHz] | [dB]   |
| A+C     | 50        | Low     | 0          | QPSK       | 135.0      | 155         | 7                 | -22.06         | 62.95  | 54.43                | 75.00        | -23.58 |
|         |           | Low     | 0          | 16QAM      | 135.0      | 155         | 7                 | -22.02         | 62.90  | 54.42                | 75.00        | -23.59 |
|         |           | Low     | 0          | 64QAM      | 135.0      | 155         | 7                 | -22.03         | 62.94  | 54.45                | 75.00        | -23.56 |
|         | 100       | Low     | 0          | QPSK       | 135.0      | 155         | 7                 | -18.81         | 60.16  | 51.88                | 75.00        | -23.12 |
|         |           | Low     | 0          | 16QAM      | 135.0      | 155         | 7                 | -18.81         | 60.14  | 51.86                | 75.00        | -23.14 |
|         |           | Low     | 0          | 64QAM      | 135.0      | 155         | 7                 | -18.81         | 60.12  | 51.84                | 75.00        | -23.16 |
|         | 50        | Mid     | 4          | QPSK       | 135.0      | 155         | 7                 | -22.01         | 62.86  | 54.39                | 75.00        | -23.62 |
|         |           | Mid     | 4          | 16QAM      | 135.0      | 155         | 7                 | -22.00         | 62.87  | 54.41                | 75.00        | -23.60 |
|         |           | Mid     | 4          | 64QAM      | 135.0      | 155         | 7                 | -21.99         | 62.87  | 54.42                | 75.00        | -23.59 |
|         | 100       | Mid     | 4          | QPSK       | 135.0      | 155         | 7                 | -19.30         | 60.24  | 51.47                | 75.00        | -23.53 |
|         |           | Mid     | 4          | 16QAM      | 135.0      | 155         | 7                 | -19.30         | 60.25  | 51.48                | 75.00        | -23.52 |
|         |           | Mid     | 4          | 64QAM      | 135.0      | 155         | 7                 | -19.30         | 60.25  | 51.48                | 75.00        | -23.52 |
|         | 50        | High    | 7          | QPSK       | 135.0      | 155         | 7                 | -22.86         | 64.66  | 55.34                | 75.00        | -22.67 |
|         |           | High    | 7          | 16QAM      | 135.0      | 155         | 7                 | -22.92         | 64.69  | 55.32                | 75.00        | -22.70 |
|         |           | High    | 7          | 64QAM      | 135.0      | 155         | 7                 | -22.97         | 64.72  | 55.29                | 75.00        | -22.72 |
|         | 100       | High    | 7          | QPSK       | 135.0      | 155         | 7                 | -19.55         | 61.87  | 52.85                | 75.00        | -22.15 |
|         |           | High    | 7          | 16QAM      | 135.0      | 155         | 7                 | -19.55         | 61.95  | 52.93                | 75.00        | -22.07 |
|         |           | High    | 7          | 64QAM      | 135.0      | 155         | 7                 | -19.67         | 62.01  | 52.87                | 75.00        | -22.13 |
|         | 50        | Low     | 0-7        | QPSK       | 135.0      | 155         | 7                 | -24.49         | 63.09  | 52.14                | 75.00        | -25.87 |
|         |           | Low     | 0-7        | 16QAM      | 135.0      | 155         | 7                 | -24.37         | 63.06  | 52.23                | 75.00        | -25.78 |
|         |           | Low     | 0-7        | 64QAM      | 135.0      | 155         | 7                 | -24.38         | 63.03  | 52.19                | 75.00        | -25.82 |
|         | 100       | Low     | 0-7        | QPSK       | 135.0      | 155         | 7                 | -24.51         | 60.48  | 46.50                | 75.00        | -28.50 |
|         |           | Low     | 0-7        | 16QAM      | 135.0      | 155         | 7                 | -24.49         | 60.47  | 46.51                | 75.00        | -28.49 |
|         |           | Low     | 0-7        | 64QAM      | 135.0      | 155         | 7                 | -24.47         | 60.45  | 46.51                | 75.00        | -28.49 |
|         | 50        | Mid     | 0-7        | QPSK       | 135.0      | 155         | 7                 | -23.93         | 63.10  | 52.71                | 75.00        | -25.30 |
|         |           | Mid     | 0-7        | 16QAM      | 135.0      | 155         | 7                 | -23.93         | 63.08  | 52.69                | 75.00        | -25.32 |
|         |           | Mid     | 0-7        | 64QAM      | 135.0      | 155         | 7                 | -23.95         | 63.09  | 52.68                | 75.00        | -25.33 |
|         | 100       | Mid     | 0-7        | QPSK       | 135.0      | 155         | 7                 | -23.46         | 60.36  | 47.43                | 75.00        | -27.57 |
|         |           | Mid     | 0-7        | 16QAM      | 135.0      | 155         | 7                 | -23.51         | 60.31  | 47.33                | 75.00        | -27.67 |
|         |           | Mid     | 0-7        | 64QAM      | 135.0      | 155         | 7                 | -23.55         | 60.34  | 47.32                | 75.00        | -27.68 |
|         | 50        | High    | 0-7        | QPSK       | 135.0      | 155         | 7                 | -24.56         | 64.64  | 53.62                | 75.00        | -24.39 |
|         |           | High    | 0-7        | 16QAM      | 135.0      | 155         | 7                 | -24.56         | 64.64  | 53.62                | 75.00        | -24.39 |
|         |           | High    | 0-7        | 64QAM      | 135.0      | 155         | 7                 | -24.60         | 64.66  | 53.60                | 75.00        | -24.41 |
|         | 100       | High    | 0-7        | QPSK       | 135.0      | 155         | 7                 | -24.30         | 62.20  | 48.43                | 75.00        | -26.57 |
|         |           | High    | 0-7        | 16QAM      | 135.0      | 155         | 7                 | -24.33         | 62.22  | 48.42                | 75.00        | -26.58 |
|         |           | High    | 0-7        | 64QAM      | 135.0      | 155         | 7                 | -24.36         | 62.24  | 48.41                | 75.00        | -26.59 |
|         | 50        | Low     | 0-7(NC)    | QPSK       | 135.0      | 155         | 7                 | -23.15         | 62.88  | 53.27                | 75.00        | -24.74 |
|         |           | Low     | 0-7(NC)    | 16QAM      | 135.0      | 155         | 7                 | -23.11         | 62.86  | 53.29                | 75.00        | -24.72 |
|         |           | Low     | 0-7(NC)    | 64QAM      | 135.0      | 155         | 7                 | -23.10         | 62.85  | 53.29                | 75.00        | -24.72 |
|         | 100       | Low     | 0-7(NC)    | QPSK       | 135.0      | 155         | 7                 | -24.19         | 60.55  | 46.89                | 75.00        | -28.11 |
|         |           | Low     | 0-7(NC)    | 16QAM      | 135.0      | 155         | 7                 | -24.32         | 60.64  | 46.85                | 75.00        | -28.15 |
|         |           | Low     | 0-7(NC)    | 64QAM      | 135.0      | 155         | 7                 | -24.33         | 60.61  | 46.81                | 75.00        | -28.19 |
|         | 50        | Mid     | 0-7(NC)    | QPSK       | 135.0      | 155         | 7                 | -23.51         | 62.96  | 52.99                | 75.00        | -25.02 |
|         |           | Mid     | 0-7(NC)    | 16QAM      | 135.0      | 155         | 7                 | -23.49         | 62.93  | 52.98                | 75.00        | -25.03 |
|         |           | Mid     | 0-7(NC)    | 64QAM      | 135.0      | 155         | 7                 | -23.44         | 62.90  | 53.00                | 75.00        | -25.01 |
|         | 100       | Mid     | 0-7(NC)    | QPSK       | 135.0      | 155         | 7                 | -24.41         | 60.35  | 46.47                | 75.00        | -28.53 |
|         |           | Mid     | 0-7(NC)    | 16QAM      | 135.0      | 155         | 7                 | -24.42         | 60.32  | 46.43                | 75.00        | -28.57 |
|         |           | Mid     | 0-7(NC)    | 64QAM      | 135.0      | 155         | 7                 | -24.31         | 60.26  | 46.48                | 75.00        | -28.52 |
|         | 50        | High    | 0-7(NC)    | QPSK       | 135.0      | 155         | 7                 | -22.96         | 64.61  | 55.19                | 75.00        | -22.82 |
|         |           | High    | 0-7(NC)    | 16QAM      | 135.0      | 155         | 7                 | -22.99         | 64.61  | 55.16                | 75.00        | -22.85 |
|         |           | High    | 0-7(NC)    | 64QAM      | 135.0      | 155         | 7                 | -22.96         | 64.60  | 55.18                | 75.00        | -22.83 |
|         | 100       | High    | 0-7(NC)    | QPSK       | 135.0      | 155         | 7                 | -24.17         | 62.49  | 48.85                | 75.00        | -26.15 |
|         |           | High    | 0-7(NC)    | 16QAM      | 135.0      | 155         | 7                 | -24.17         | 62.39  | 48.75                | 75.00        | -26.25 |
|         |           | High    | 0-7(NC)    | 64QAM      | 135.0      | 155         | 7                 | -24.16         | 62.38  | 48.75                | 75.00        | -26.25 |

**Table 7-11. MIMO EIRP Density Summary Data (Antenna A + Antenna C)**

|                                       |                                                                                                                                  |                                       |                                                                                       |                                 |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 |  <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020                                                                                             | EUT Type:<br>5G Access Unit           |                                                                                       | Page 162 of 360                 |

| Antenna | Bandwidth | Channel | CCs active | Modulation | Horn Angle | Horn Height | Turntable Azimuth | Analyzer Level | AFCL  | Average e.i.r.p. PSD | PSD Limit    | Margin        |
|---------|-----------|---------|------------|------------|------------|-------------|-------------------|----------------|-------|----------------------|--------------|---------------|
|         | [MHz]     |         |            |            | [degrees]  | [cm]        | [degrees]         | [dBm]          | [dBm] | [dBm/100MHz]         | [dBm/100MHz] | [dB]          |
| B+D     | 50        | Low     | 0          | QPSK       | 45.0       | 141         | 9                 | -21.90         | 62.89 | <b>54.53</b>         | 75.00        | <b>-23.48</b> |
|         |           | Low     | 0          | 16QAM      | 45.0       | 141         | 9                 | -21.85         | 62.87 | <b>54.56</b>         | 75.00        | <b>-23.45</b> |
|         |           | Low     | 0          | 64QAM      | 45.0       | 141         | 9                 | -21.85         | 62.86 | <b>54.55</b>         | 75.00        | <b>-23.46</b> |
|         | 100       | Low     | 0          | QPSK       | 45.0       | 141         | 9                 | -18.30         | 60.02 | <b>52.25</b>         | 75.00        | <b>-22.75</b> |
|         |           | Low     | 0          | 16QAM      | 45.0       | 141         | 9                 | -18.30         | 60.02 | <b>52.25</b>         | 75.00        | <b>-22.75</b> |
|         |           | Low     | 0          | 64QAM      | 45.0       | 141         | 9                 | -18.31         | 60.02 | <b>52.24</b>         | 75.00        | <b>-22.76</b> |
|         | 50        | Mid     | 4          | QPSK       | 45.0       | 141         | 9                 | -21.97         | 62.89 | <b>54.46</b>         | 75.00        | <b>-23.55</b> |
|         |           | Mid     | 4          | 16QAM      | 45.0       | 141         | 9                 | -22.01         | 62.91 | <b>54.44</b>         | 75.00        | <b>-23.57</b> |
|         |           | Mid     | 4          | 64QAM      | 45.0       | 141         | 9                 | -21.99         | 62.91 | <b>54.46</b>         | 75.00        | <b>-23.55</b> |
|         | 100       | Mid     | 4          | QPSK       | 45.0       | 141         | 9                 | -19.04         | 60.14 | <b>51.63</b>         | 75.00        | <b>-23.37</b> |
|         |           | Mid     | 4          | 16QAM      | 45.0       | 141         | 9                 | -19.08         | 60.16 | <b>51.61</b>         | 75.00        | <b>-23.39</b> |
|         |           | Mid     | 4          | 64QAM      | 45.0       | 141         | 9                 | -19.10         | 60.16 | <b>51.59</b>         | 75.00        | <b>-23.41</b> |
|         | 50        | High    | 7          | QPSK       | 45.0       | 141         | 9                 | -22.19         | 64.71 | <b>56.06</b>         | 75.00        | <b>-21.95</b> |
|         |           | High    | 7          | 16QAM      | 45.0       | 141         | 9                 | -22.21         | 64.71 | <b>56.04</b>         | 75.00        | <b>-21.97</b> |
|         |           | High    | 7          | 64QAM      | 45.0       | 141         | 9                 | -22.20         | 64.71 | <b>56.05</b>         | 75.00        | <b>-21.96</b> |
|         | 100       | High    | 7          | QPSK       | 45.0       | 141         | 9                 | -19.38         | 61.75 | <b>52.90</b>         | 75.00        | <b>-22.10</b> |
|         |           | High    | 7          | 16QAM      | 45.0       | 141         | 9                 | -19.24         | 61.68 | <b>52.97</b>         | 75.00        | <b>-22.03</b> |
|         |           | High    | 7          | 64QAM      | 45.0       | 141         | 9                 | -19.22         | 61.68 | <b>52.99</b>         | 75.00        | <b>-22.01</b> |
|         | 50        | Low     | 0-7        | QPSK       | 45.0       | 141         | 9                 | -24.04         | 62.91 | <b>52.41</b>         | 75.00        | <b>-25.60</b> |
|         |           | Low     | 0-7        | 16QAM      | 45.0       | 141         | 9                 | -24.07         | 62.95 | <b>52.42</b>         | 75.00        | <b>-25.59</b> |
|         |           | Low     | 0-7        | 64QAM      | 45.0       | 141         | 9                 | -24.14         | 63.00 | <b>52.40</b>         | 75.00        | <b>-25.61</b> |
|         | 100       | Low     | 0-7        | QPSK       | 45.0       | 141         | 9                 | -24.37         | 60.45 | <b>46.61</b>         | 75.00        | <b>-28.39</b> |
|         |           | Low     | 0-7        | 16QAM      | 45.0       | 141         | 9                 | -24.03         | 60.41 | <b>46.91</b>         | 75.00        | <b>-28.09</b> |
|         |           | Low     | 0-7        | 64QAM      | 45.0       | 141         | 9                 | -23.99         | 60.41 | <b>46.95</b>         | 75.00        | <b>-28.05</b> |
|         | 50        | Mid     | 0-7        | QPSK       | 45.0       | 141         | 9                 | -23.46         | 62.93 | <b>53.01</b>         | 75.00        | <b>-25.00</b> |
|         |           | Mid     | 0-7        | 16QAM      | 45.0       | 141         | 9                 | -23.46         | 62.93 | <b>53.01</b>         | 75.00        | <b>-25.00</b> |
|         |           | Mid     | 0-7        | 64QAM      | 45.0       | 141         | 9                 | -23.48         | 62.90 | <b>52.96</b>         | 75.00        | <b>-25.05</b> |
|         | 100       | Mid     | 0-7        | QPSK       | 45.0       | 141         | 9                 | -23.52         | 60.42 | <b>47.43</b>         | 75.00        | <b>-27.57</b> |
|         |           | Mid     | 0-7        | 16QAM      | 45.0       | 141         | 9                 | -23.61         | 60.39 | <b>47.31</b>         | 75.00        | <b>-27.69</b> |
|         |           | Mid     | 0-7        | 64QAM      | 45.0       | 141         | 9                 | -23.27         | 59.98 | <b>47.24</b>         | 75.00        | <b>-27.76</b> |
|         | 50        | High    | 0-7        | QPSK       | 45.0       | 141         | 9                 | -24.14         | 64.68 | <b>54.08</b>         | 75.00        | <b>-23.93</b> |
|         |           | High    | 0-7        | 16QAM      | 45.0       | 141         | 9                 | -24.25         | 64.72 | <b>54.01</b>         | 75.00        | <b>-24.00</b> |
|         |           | High    | 0-7        | 64QAM      | 45.0       | 141         | 9                 | -24.27         | 64.72 | <b>53.99</b>         | 75.00        | <b>-24.02</b> |
|         | 100       | High    | 0-7        | QPSK       | 45.0       | 141         | 9                 | -23.84         | 61.68 | <b>48.37</b>         | 75.00        | <b>-26.63</b> |
|         |           | High    | 0-7        | 16QAM      | 45.0       | 141         | 9                 | -24.03         | 61.99 | <b>48.49</b>         | 75.00        | <b>-26.51</b> |
|         |           | High    | 0-7        | 64QAM      | 45.0       | 141         | 9                 | -23.88         | 61.92 | <b>48.57</b>         | 75.00        | <b>-26.43</b> |
|         | 50        | Low     | 0-7(NC)    | QPSK       | 45.0       | 141         | 9                 | -23.09         | 63.07 | <b>53.52</b>         | 75.00        | <b>-24.49</b> |
|         |           | Low     | 0-7(NC)    | 16QAM      | 45.0       | 141         | 9                 | -23.26         | 63.16 | <b>53.44</b>         | 75.00        | <b>-24.57</b> |
|         |           | Low     | 0-7(NC)    | 64QAM      | 45.0       | 141         | 9                 | -23.29         | 63.17 | <b>53.42</b>         | 75.00        | <b>-24.59</b> |
|         | 100       | Low     | 0-7(NC)    | QPSK       | 45.0       | 141         | 9                 | -22.78         | 60.39 | <b>48.14</b>         | 75.00        | <b>-26.86</b> |
|         |           | Low     | 0-7(NC)    | 16QAM      | 45.0       | 141         | 9                 | -22.81         | 60.39 | <b>48.11</b>         | 75.00        | <b>-26.89</b> |
|         |           | Low     | 0-7(NC)    | 64QAM      | 45.0       | 141         | 9                 | -22.80         | 60.33 | <b>48.06</b>         | 75.00        | <b>-26.94</b> |
|         | 50        | Mid     | 0-7(NC)    | QPSK       | 45.0       | 141         | 9                 | -23.72         | 63.07 | <b>52.89</b>         | 75.00        | <b>-25.12</b> |
|         |           | Mid     | 0-7(NC)    | 16QAM      | 45.0       | 141         | 9                 | -23.70         | 63.07 | <b>52.91</b>         | 75.00        | <b>-25.10</b> |
|         |           | Mid     | 0-7(NC)    | 64QAM      | 45.0       | 141         | 9                 | -23.71         | 63.08 | <b>52.91</b>         | 75.00        | <b>-25.10</b> |
|         | 100       | Mid     | 0-7(NC)    | QPSK       | 45.0       | 141         | 9                 | -23.46         | 60.13 | <b>47.20</b>         | 75.00        | <b>-27.80</b> |
|         |           | Mid     | 0-7(NC)    | 16QAM      | 45.0       | 141         | 9                 | -23.48         | 60.29 | <b>47.34</b>         | 75.00        | <b>-27.66</b> |
|         |           | Mid     | 0-7(NC)    | 64QAM      | 45.0       | 141         | 9                 | -23.53         | 60.33 | <b>47.33</b>         | 75.00        | <b>-27.67</b> |
|         | 50        | High    | 0-7(NC)    | QPSK       | 45.0       | 141         | 9                 | -23.14         | 64.64 | <b>55.04</b>         | 75.00        | <b>-22.97</b> |
|         |           | High    | 0-7(NC)    | 16QAM      | 45.0       | 141         | 9                 | -23.11         | 64.60 | <b>55.03</b>         | 75.00        | <b>-22.98</b> |
|         |           | High    | 0-7(NC)    | 64QAM      | 45.0       | 141         | 9                 | -23.13         | 64.69 | <b>55.10</b>         | 75.00        | <b>-22.91</b> |
|         | 100       | High    | 0-7(NC)    | QPSK       | 45.0       | 141         | 9                 | -22.92         | 62.06 | <b>49.67</b>         | 75.00        | <b>-25.33</b> |
|         |           | High    | 0-7(NC)    | 16QAM      | 45.0       | 141         | 9                 | -22.99         | 62.08 | <b>49.62</b>         | 75.00        | <b>-25.38</b> |
|         |           | High    | 0-7(NC)    | 64QAM      | 45.0       | 141         | 9                 | -23.00         | 62.07 | <b>49.60</b>         | 75.00        | <b>-25.40</b> |

**Table 7-12. MIMO EIRP Density Summary Data (Antenna B + Antenna D)**

**Note:**

The EIRP measurements of the co-polarized antenna arrays (Antenna A/C and Antenna B/D) were added together to address radiated MIMO concerns referenced in ANSI C63.26-2015 Section 6.4.

|                                       |                                                                                     |                                       |                                                                                       |                                 |
|---------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020                                                | EUT Type:<br>5G Access Unit           |                                                                                       | Page 163 of 360                 |

## 7.4 RF Conducted Output Power

### \$2.1046

#### Test Overview

RF conducted output power measurements are performed using broadband horn antennas. The conducted power is determined by maximizing the full spectrum EIRP for all component carrier configurations and then subtracting the known antenna gain from the EIRP. All measurements are performed as RMS average measurements while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

#### Test Procedures Used

ANSI C63.26-2015 Section 5.2.4.4.1  
 ANSI C63.26-2015 Section 6.4

#### Test Settings

1. Radiated power measurements are performed using the signal analyzer's "channel power" measurement capability for signals with continuous operation.
2. RBW = 1 – 5% of the expected OBW
3. VBW  $\geq 3 \times$  RBW
4. Span = 2x to 3x the OBW
5. No. of sweep points  $\geq 2 \times$  span / RBW
6. Detector = RMS
7. The integration bandwidth was roughly set equal to the measured RF Conducted Output Power of the signal for signals with continuous operation. For signals with burst transmission, the "gating" function was enabled to ensure that measurements are performed during times in which the transmitter is operating at its maximum power
8. Trace mode = trace averaging (RMS) over 100 sweeps
9. The trace was allowed to stabilize

|                                              |                                                                                                                                   |                                               |                                                                                       |                                        |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|---------------------------------------------------------------------------------------|----------------------------------------|
| <b>FCC ID:</b> A3LAT1K02-A10                 | <br><small>Proud to be part of element</small> | <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |  | <b>Approved by:</b><br>Quality Manager |
| <b>Test Report S/N:</b><br>8K19110702-01.A3L | <b>Test Dates:</b><br>02/18/2020-03/06/2020                                                                                       | <b>EUT Type:</b><br>5G Access Unit            |                                                                                       | Page 164 of 360                        |

## Test Notes

- 1) The EUT was tested while positioned upright and mounted on a mast at 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) Elements within the same antenna array are correlated to produce beamforming array gain.
- 3) Measurements were taken in the far field of the mmWave signal based on the formula:  $R \geq 2D^2/\text{wavelength}$ .
- 4) The test case with 1 CC active, "CC0" representing the component carrier with the lowest frequency, was selected for the worst case emission testing as it created the highest EIRP within 50MHz and 100MHz bandwidth.
- 5) The average EIRP reported below is calculated per formula specified in d) of ANSI C63.26-2015 Section 5.2.7:

$\text{EIRP (dBm)} = E (\text{dB}\mu\text{V/m}) + 20\log(D) - 104.8$ ; where D is the measurement distance (in the far field region) in m.

For this section, all EIRP density measurements were performed at a distance of 2.61m, so the effective correction is:

$$\text{EIRP (dBm)} = E (\text{dB}\mu\text{V/m}) - 96.43\text{dB}$$

$$= \text{Analyzer Level (dBm)} + \text{AFCL (dB/m)} + 107 \text{ dB} - 96.43\text{dB}$$

$$= \text{Analyzer Level (dBm)} + \text{AFCL (dB/m)} + 10.53\text{dB}$$

- 6) The conducted average power over the full channel BW is calculated as follows:  
 $\text{Conducted Average Power (dBm)} = \text{Average EIRP (dBm)} - \text{Antenna Gain (dBi)}$
- 7) Per ANSI C63.26-2015 Section 6.4, individual EIRPs are also summed before compared to the limit.
- 8) The angle of the horn antenna was rotated to maximize and find the worst case emissions. Worst case EIRP is reported below.
- 9) 7.3 Equivalent Isotropic Radiated Power (EIRP) Density plots cover for 7.4 Conducted Output Power plot.
- 10) A3LAT1K02-A10 test result is referenced as A3LAT1K02-A00 result which only difference of power type as AC and DC which supply condition affect to RF specification.

|                                       |                                                                                                                    |                                       |                                                                                       |                                 |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020                                                                               | EUT Type:<br>5G Access Unit           |                                                                                       | Page 165 of 360                 |

## 7.4.1 Antenna A Conducted Power

| Antenna | Bandwidth | Chan. | CCs active | Modulation | Horn Angle | Horn Height | Turntable Azimuth | Analyzer Level(Total Pwr) | AFCL  | EUT Antenna Gain | Average e.i.r.p. | Conducted Average Power |
|---------|-----------|-------|------------|------------|------------|-------------|-------------------|---------------------------|-------|------------------|------------------|-------------------------|
|         | [MHz]     |       |            |            | [degrees]  | [cm]        | [degrees]         | [dBm]                     | [dBm] | [dBi]            | [dBm]            | [dBm]                   |
| A       | 50        | Low   | 0          | QPSK       | 135.0      | 155         | 7                 | -22.06                    | 57.22 | 27.04            | 45.69            | 18.65                   |
|         |           | Low   | 0          | 16QAM      | 135.0      | 155         | 7                 | -22.02                    | 57.22 | 27.04            | 45.73            | 18.69                   |
|         |           | Low   | 0          | 64QAM      | 135.0      | 155         | 7                 | -22.03                    | 57.22 | 27.04            | 45.72            | 18.68                   |
|         | 100       | Low   | 0          | QPSK       | 135.0      | 155         | 7                 | -18.81                    | 57.22 | 27.04            | 48.94            | 21.90                   |
|         |           | Low   | 0          | 16QAM      | 135.0      | 155         | 7                 | -18.86                    | 57.22 | 27.04            | 48.89            | 21.85                   |
|         |           | Low   | 0          | 64QAM      | 135.0      | 155         | 7                 | -18.89                    | 57.22 | 27.04            | 48.86            | 21.82                   |
|         | 50        | Mid   | 4          | QPSK       | 135.0      | 155         | 7                 | -22.01                    | 57.17 | 27.04            | 45.69            | 18.65                   |
|         |           | Mid   | 4          | 16QAM      | 135.0      | 155         | 7                 | -22.00                    | 57.17 | 27.04            | 45.70            | 18.66                   |
|         |           | Mid   | 4          | 64QAM      | 135.0      | 155         | 7                 | -21.99                    | 57.17 | 27.04            | 45.71            | 18.67                   |
|         | 100       | Mid   | 4          | QPSK       | 135.0      | 155         | 7                 | -19.30                    | 57.17 | 27.04            | 48.40            | 21.36                   |
|         |           | Mid   | 4          | 16QAM      | 135.0      | 155         | 7                 | -19.24                    | 57.17 | 27.04            | 48.46            | 21.42                   |
|         |           | Mid   | 4          | 64QAM      | 135.0      | 155         | 7                 | -19.21                    | 57.17 | 27.04            | 48.49            | 21.45                   |
|         | 50        | High  | 7          | QPSK       | 135.0      | 155         | 7                 | -22.86                    | 58.95 | 27.04            | 46.62            | 19.58                   |
|         |           | High  | 7          | 16QAM      | 135.0      | 155         | 7                 | -22.92                    | 58.95 | 27.04            | 46.56            | 19.52                   |
|         |           | High  | 7          | 64QAM      | 135.0      | 155         | 7                 | -22.97                    | 58.95 | 27.04            | 46.51            | 19.47                   |
|         | 100       | High  | 7          | QPSK       | 135.0      | 155         | 7                 | -19.55                    | 58.95 | 27.04            | 49.93            | 22.89                   |
|         |           | High  | 7          | 16QAM      | 135.0      | 155         | 7                 | -19.55                    | 58.95 | 27.04            | 49.93            | 22.89                   |
|         |           | High  | 7          | 64QAM      | 135.0      | 155         | 7                 | -19.67                    | 58.95 | 27.04            | 49.81            | 22.77                   |
|         | 50        | Low   | 0-7        | QPSK       | 135.0      | 155         | 7                 | -24.49                    | 57.22 | 27.04            | 43.26            | 16.22                   |
|         |           | Low   | 0-7        | 16QAM      | 135.0      | 155         | 7                 | -24.37                    | 57.22 | 27.04            | 43.38            | 16.34                   |
|         |           | Low   | 0-7        | 64QAM      | 135.0      | 155         | 7                 | -24.38                    | 57.22 | 27.04            | 43.37            | 16.33                   |
|         | 100       | Low   | 0-7        | QPSK       | 135.0      | 155         | 7                 | -24.51                    | 57.22 | 27.04            | 43.24            | 16.20                   |
|         |           | Low   | 0-7        | 16QAM      | 135.0      | 155         | 7                 | -24.49                    | 57.22 | 27.04            | 43.26            | 16.22                   |
|         |           | Low   | 0-7        | 64QAM      | 135.0      | 155         | 7                 | -24.47                    | 57.22 | 27.04            | 43.28            | 16.24                   |
|         | 50        | Mid   | 0-7        | QPSK       | 135.0      | 155         | 7                 | -23.93                    | 57.17 | 27.04            | 43.77            | 16.73                   |
|         |           | Mid   | 0-7        | 16QAM      | 135.0      | 155         | 7                 | -23.93                    | 57.17 | 27.04            | 43.77            | 16.73                   |
|         |           | Mid   | 0-7        | 64QAM      | 135.0      | 155         | 7                 | -23.95                    | 57.17 | 27.04            | 43.75            | 16.71                   |
|         | 100       | Mid   | 0-7        | QPSK       | 135.0      | 155         | 7                 | -23.46                    | 57.17 | 27.04            | 44.24            | 17.20                   |
|         |           | Mid   | 0-7        | 16QAM      | 135.0      | 155         | 7                 | -23.51                    | 57.17 | 27.04            | 44.19            | 17.15                   |
|         |           | Mid   | 0-7        | 64QAM      | 135.0      | 155         | 7                 | -23.55                    | 57.17 | 27.04            | 44.15            | 17.11                   |
|         | 50        | High  | 0-7        | QPSK       | 135.0      | 155         | 7                 | -24.56                    | 58.95 | 27.04            | 44.92            | 17.88                   |
|         |           | High  | 0-7        | 16QAM      | 135.0      | 155         | 7                 | -24.56                    | 58.95 | 27.04            | 44.92            | 17.88                   |
|         |           | High  | 0-7        | 64QAM      | 135.0      | 155         | 7                 | -24.60                    | 58.95 | 27.04            | 44.88            | 17.84                   |
|         | 100       | High  | 0-7        | QPSK       | 135.0      | 155         | 7                 | -24.30                    | 58.95 | 27.04            | 45.18            | 18.14                   |
|         |           | High  | 0-7        | 16QAM      | 135.0      | 155         | 7                 | -24.33                    | 58.95 | 27.04            | 45.15            | 18.11                   |
|         |           | High  | 0-7        | 64QAM      | 135.0      | 155         | 7                 | -24.36                    | 58.95 | 27.04            | 45.12            | 18.08                   |
|         | 50        | Low   | 0-7(NC)    | QPSK       | 135.0      | 155         | 7                 | -23.15                    | 57.22 | 27.04            | 44.60            | 17.56                   |
|         |           | Low   | 0-7(NC)    | 16QAM      | 135.0      | 155         | 7                 | -23.11                    | 57.22 | 27.04            | 44.64            | 17.60                   |
|         |           | Low   | 0-7(NC)    | 64QAM      | 135.0      | 155         | 7                 | -23.10                    | 57.22 | 27.04            | 44.65            | 17.61                   |
|         | 100       | Low   | 0-7(NC)    | QPSK       | 135.0      | 155         | 7                 | -24.19                    | 57.22 | 27.04            | 43.56            | 16.52                   |
|         |           | Low   | 0-7(NC)    | 16QAM      | 135.0      | 155         | 7                 | -24.32                    | 57.22 | 27.04            | 43.43            | 16.39                   |
|         |           | Low   | 0-7(NC)    | 64QAM      | 135.0      | 155         | 7                 | -24.33                    | 57.22 | 27.04            | 43.42            | 16.38                   |
|         | 50        | Mid   | 0-7(NC)    | QPSK       | 135.0      | 155         | 7                 | -23.51                    | 57.17 | 27.04            | 44.19            | 17.15                   |
|         |           | Mid   | 0-7(NC)    | 16QAM      | 135.0      | 155         | 7                 | -23.49                    | 57.17 | 27.04            | 44.21            | 17.17                   |
|         |           | Mid   | 0-7(NC)    | 64QAM      | 135.0      | 155         | 7                 | -23.44                    | 57.17 | 27.04            | 44.26            | 17.22                   |
|         | 100       | Mid   | 0-7(NC)    | QPSK       | 135.0      | 155         | 7                 | -24.41                    | 57.17 | 27.04            | 43.29            | 16.25                   |
|         |           | Mid   | 0-7(NC)    | 16QAM      | 135.0      | 155         | 7                 | -24.42                    | 57.17 | 27.04            | 43.28            | 16.24                   |
|         |           | Mid   | 0-7(NC)    | 64QAM      | 135.0      | 155         | 7                 | -24.31                    | 57.17 | 27.04            | 43.39            | 16.35                   |
|         | 50        | High  | 0-7(NC)    | QPSK       | 135.0      | 155         | 7                 | -22.96                    | 58.95 | 27.04            | 46.52            | 19.48                   |
|         |           | High  | 0-7(NC)    | 16QAM      | 135.0      | 155         | 7                 | -22.99                    | 58.95 | 27.04            | 46.49            | 19.45                   |
|         |           | High  | 0-7(NC)    | 64QAM      | 135.0      | 155         | 7                 | -22.96                    | 58.95 | 27.04            | 46.52            | 19.48                   |
|         | 100       | High  | 0-7(NC)    | QPSK       | 135.0      | 155         | 7                 | -24.17                    | 58.95 | 27.04            | 45.31            | 18.27                   |
|         |           | High  | 0-7(NC)    | 16QAM      | 135.0      | 155         | 7                 | -24.17                    | 58.95 | 27.04            | 45.31            | 18.27                   |
|         |           | High  | 0-7(NC)    | 64QAM      | 135.0      | 155         | 7                 | -24.16                    | 58.95 | 27.04            | 45.32            | 18.28                   |

**Table 7-13. Antenna A Conducted Power Summary Data**

|                                       |                                                                                                                                  |                                       |                                                                                       |                                 |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 |  <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020                                                                                             | EUT Type:<br>5G Access Unit           |                                                                                       | Page 166 of 360                 |

## 7.4.2 Antenna B Conducted Power

| Antenna | Bandwidth | Chan. | CCs active | Modulation | Horn Angle | Horn Height | Turntable Azimuth | Analyzer Level(Total Pwr) | AFCL  | EUT Antenna Gain | Average e.i.r.p. | Conducted Average Power |
|---------|-----------|-------|------------|------------|------------|-------------|-------------------|---------------------------|-------|------------------|------------------|-------------------------|
|         | [MHz]     |       |            |            | [degrees]  | [cm]        | [degrees]         | [dBm]                     | [dBm] | [dBi]            | [dBm]            | [dBm]                   |
| B       | 50        | Low   | 0          | QPSK       | 45.0       | 141         | 9                 | -21.89                    | 57.22 | 27.04            | 45.86            | 18.82                   |
|         |           | Low   | 0          | 16QAM      | 45.0       | 141         | 9                 | -21.85                    | 57.22 | 27.04            | 45.90            | 18.86                   |
|         |           | Low   | 0          | 64QAM      | 45.0       | 141         | 9                 | -21.85                    | 57.22 | 27.04            | 45.90            | 18.86                   |
|         | 100       | Low   | 0          | QPSK       | 45.0       | 141         | 9                 | -18.30                    | 57.22 | 27.04            | 49.45            | 22.41                   |
|         |           | Low   | 0          | 16QAM      | 45.0       | 141         | 9                 | -18.30                    | 57.22 | 27.04            | 49.45            | 22.41                   |
|         |           | Low   | 0          | 64QAM      | 45.0       | 141         | 9                 | -18.31                    | 57.22 | 27.04            | 49.44            | 22.40                   |
|         | 50        | Mid   | 4          | QPSK       | 45.0       | 141         | 9                 | -21.97                    | 57.17 | 27.04            | 45.73            | 18.69                   |
|         |           | Mid   | 4          | 16QAM      | 45.0       | 141         | 9                 | -22.01                    | 57.17 | 27.04            | 45.69            | 18.65                   |
|         |           | Mid   | 4          | 64QAM      | 45.0       | 141         | 9                 | -21.99                    | 57.17 | 27.04            | 45.71            | 18.67                   |
|         | 100       | Mid   | 4          | QPSK       | 45.0       | 141         | 9                 | -19.04                    | 57.17 | 27.04            | 48.66            | 21.62                   |
|         |           | Mid   | 4          | 16QAM      | 45.0       | 141         | 9                 | -19.08                    | 57.17 | 27.04            | 48.62            | 21.58                   |
|         |           | Mid   | 4          | 64QAM      | 45.0       | 141         | 9                 | -19.10                    | 57.17 | 27.04            | 48.60            | 21.56                   |
|         | 50        | High  | 7          | QPSK       | 45.0       | 141         | 9                 | -22.19                    | 58.95 | 27.04            | 47.29            | 20.25                   |
|         |           | High  | 7          | 16QAM      | 45.0       | 141         | 9                 | -22.21                    | 58.95 | 27.04            | 47.27            | 20.23                   |
|         |           | High  | 7          | 64QAM      | 45.0       | 141         | 9                 | -22.20                    | 58.95 | 27.04            | 47.28            | 20.24                   |
|         | 100       | High  | 7          | QPSK       | 45.0       | 141         | 9                 | -19.38                    | 58.95 | 27.04            | 50.10            | 23.06                   |
|         |           | High  | 7          | 16QAM      | 45.0       | 141         | 9                 | -19.24                    | 58.95 | 27.04            | 50.24            | 23.20                   |
|         |           | High  | 7          | 64QAM      | 45.0       | 141         | 9                 | -19.22                    | 58.95 | 27.04            | 50.26            | 23.22                   |
|         | 50        | Low   | 0-7        | QPSK       | 45.0       | 141         | 9                 | -24.04                    | 57.22 | 27.04            | 43.71            | 16.67                   |
|         |           | Low   | 0-7        | 16QAM      | 45.0       | 141         | 9                 | -24.07                    | 57.22 | 27.04            | 43.68            | 16.64                   |
|         |           | Low   | 0-7        | 64QAM      | 45.0       | 141         | 9                 | -24.14                    | 57.22 | 27.04            | 43.61            | 16.57                   |
|         | 100       | Low   | 0-7        | QPSK       | 45.0       | 141         | 9                 | -24.37                    | 57.22 | 27.04            | 43.38            | 16.34                   |
|         |           | Low   | 0-7        | 16QAM      | 45.0       | 141         | 9                 | -24.03                    | 57.22 | 27.04            | 43.72            | 16.68                   |
|         |           | Low   | 0-7        | 64QAM      | 45.0       | 141         | 9                 | -23.99                    | 57.22 | 27.04            | 43.76            | 16.72                   |
|         | 50        | Mid   | 0-7        | QPSK       | 45.0       | 141         | 9                 | -23.46                    | 57.17 | 27.04            | 44.24            | 17.20                   |
|         |           | Mid   | 0-7        | 16QAM      | 45.0       | 141         | 9                 | -23.46                    | 57.17 | 27.04            | 44.24            | 17.20                   |
|         |           | Mid   | 0-7        | 64QAM      | 45.0       | 141         | 9                 | -23.48                    | 57.17 | 27.04            | 44.22            | 17.18                   |
|         | 100       | Mid   | 0-7        | QPSK       | 45.0       | 141         | 9                 | -23.52                    | 57.17 | 27.04            | 44.18            | 17.14                   |
|         |           | Mid   | 0-7        | 16QAM      | 45.0       | 141         | 9                 | -23.61                    | 57.17 | 27.04            | 44.09            | 17.05                   |
|         |           | Mid   | 0-7        | 64QAM      | 45.0       | 141         | 9                 | -23.27                    | 57.17 | 27.04            | 44.43            | 17.39                   |
|         | 50        | High  | 0-7        | QPSK       | 45.0       | 141         | 9                 | -24.14                    | 58.95 | 27.04            | 45.34            | 18.30                   |
|         |           | High  | 0-7        | 16QAM      | 45.0       | 141         | 9                 | -24.25                    | 58.95 | 27.04            | 45.23            | 18.19                   |
|         |           | High  | 0-7        | 64QAM      | 45.0       | 141         | 9                 | -24.27                    | 58.95 | 27.04            | 45.21            | 18.17                   |
|         | 100       | High  | 0-7        | QPSK       | 45.0       | 141         | 9                 | -23.84                    | 58.95 | 27.04            | 45.64            | 18.60                   |
|         |           | High  | 0-7        | 16QAM      | 45.0       | 141         | 9                 | -24.03                    | 58.95 | 27.04            | 45.45            | 18.41                   |
|         |           | High  | 0-7        | 64QAM      | 45.0       | 141         | 9                 | -23.88                    | 58.95 | 27.04            | 45.60            | 18.56                   |
|         | 50        | Low   | 0-7(NC)    | QPSK       | 45.0       | 141         | 9                 | -23.09                    | 57.22 | 27.04            | 44.66            | 17.62                   |
|         |           | Low   | 0-7(NC)    | 16QAM      | 45.0       | 141         | 9                 | -23.26                    | 57.22 | 27.04            | 44.49            | 17.45                   |
|         |           | Low   | 0-7(NC)    | 64QAM      | 45.0       | 141         | 9                 | -23.29                    | 57.22 | 27.04            | 44.46            | 17.42                   |
|         | 100       | Low   | 0-7(NC)    | QPSK       | 45.0       | 141         | 9                 | -22.78                    | 57.22 | 27.04            | 44.97            | 17.93                   |
|         |           | Low   | 0-7(NC)    | 16QAM      | 45.0       | 141         | 9                 | -22.81                    | 57.22 | 27.04            | 44.94            | 17.90                   |
|         |           | Low   | 0-7(NC)    | 64QAM      | 45.0       | 141         | 9                 | -22.80                    | 57.22 | 27.04            | 44.95            | 17.91                   |
|         | 50        | Mid   | 0-7(NC)    | QPSK       | 45.0       | 141         | 9                 | -23.72                    | 57.17 | 27.04            | 43.98            | 16.94                   |
|         |           | Mid   | 0-7(NC)    | 16QAM      | 45.0       | 141         | 9                 | -23.70                    | 57.17 | 27.04            | 44.00            | 16.96                   |
|         |           | Mid   | 0-7(NC)    | 64QAM      | 45.0       | 141         | 9                 | -23.71                    | 57.17 | 27.04            | 43.99            | 16.95                   |
|         | 100       | Mid   | 0-7(NC)    | QPSK       | 45.0       | 141         | 9                 | -23.46                    | 57.17 | 27.04            | 44.24            | 17.20                   |
|         |           | Mid   | 0-7(NC)    | 16QAM      | 45.0       | 141         | 9                 | -23.48                    | 57.17 | 27.04            | 44.22            | 17.18                   |
|         |           | Mid   | 0-7(NC)    | 64QAM      | 45.0       | 141         | 9                 | -23.53                    | 57.17 | 27.04            | 44.17            | 17.13                   |
|         | 50        | High  | 0-7(NC)    | QPSK       | 45.0       | 141         | 9                 | -23.14                    | 58.95 | 27.04            | 46.34            | 19.30                   |
|         |           | High  | 0-7(NC)    | 16QAM      | 45.0       | 141         | 9                 | -23.11                    | 58.95 | 27.04            | 46.37            | 19.33                   |
|         |           | High  | 0-7(NC)    | 64QAM      | 45.0       | 141         | 9                 | -23.13                    | 58.95 | 27.04            | 46.35            | 19.31                   |
|         | 100       | High  | 0-7(NC)    | QPSK       | 45.0       | 141         | 9                 | -22.92                    | 58.95 | 27.04            | 46.56            | 19.52                   |
|         |           | High  | 0-7(NC)    | 16QAM      | 45.0       | 141         | 9                 | -22.99                    | 58.95 | 27.04            | 46.49            | 19.45                   |
|         |           | High  | 0-7(NC)    | 64QAM      | 45.0       | 141         | 9                 | -23.00                    | 58.95 | 27.04            | 46.48            | 19.44                   |

**Table 7-14. Antenna B Conducted Power Summary Data**

|                                       |                                                                                     |                                       |                                                                                       |                                 |
|---------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020                                                | EUT Type:<br>5G Access Unit           |                                                                                       | Page 167 of 360                 |

## 7.4.3 Antenna C Conducted Power

| Antenna | Bandwidth | Chan. | CCs active | Modulation | Horn Angle | Horn Height | Turntable Azimuth | Analyzer Level(Total Pwr) | AFCL   | EUT Antenna Gain | Average e.i.r.p. | Conducted Average Power |
|---------|-----------|-------|------------|------------|------------|-------------|-------------------|---------------------------|--------|------------------|------------------|-------------------------|
|         | [MHz]     |       |            |            | [degrees]  | [cm]        | [degrees]         | [dBm]                     | [dB/m] | [dBi]            | [dBm]            | [dBm]                   |
| C       | 50        | Low   | 0          | QPSK       | 135.0      | 155         | 9                 | -22.66                    | 57.22  | 27.04            | 45.09            | 18.05                   |
|         |           | Low   | 0          | 16QAM      | 135.0      | 155         | 9                 | -22.73                    | 57.22  | 27.04            | 45.02            | 17.98                   |
|         |           | Low   | 0          | 64QAM      | 135.0      | 155         | 9                 | -22.66                    | 57.22  | 27.04            | 45.09            | 18.05                   |
|         | 100       | Low   | 0          | QPSK       | 135.0      | 155         | 9                 | -18.95                    | 57.22  | 27.04            | 48.80            | 21.76                   |
|         |           | Low   | 0          | 16QAM      | 135.0      | 155         | 9                 | -18.94                    | 57.22  | 27.04            | 48.81            | 21.77                   |
|         |           | Low   | 0          | 64QAM      | 135.0      | 155         | 9                 | -18.95                    | 57.22  | 27.04            | 48.80            | 21.76                   |
|         | 50        | Mid   | 4          | QPSK       | 135.0      | 155         | 9                 | -22.69                    | 57.17  | 27.04            | 45.01            | 17.97                   |
|         |           | Mid   | 4          | 16QAM      | 135.0      | 155         | 9                 | -22.67                    | 57.17  | 27.04            | 45.03            | 17.99                   |
|         |           | Mid   | 4          | 64QAM      | 135.0      | 155         | 9                 | -22.65                    | 57.17  | 27.04            | 45.05            | 18.01                   |
|         | 100       | Mid   | 4          | QPSK       | 135.0      | 155         | 9                 | -19.19                    | 57.17  | 27.04            | 48.51            | 21.47                   |
|         |           | Mid   | 4          | 16QAM      | 135.0      | 155         | 9                 | -19.22                    | 57.17  | 27.04            | 48.48            | 21.44                   |
|         |           | Mid   | 4          | 64QAM      | 135.0      | 155         | 9                 | -19.25                    | 57.17  | 27.04            | 48.45            | 21.41                   |
|         | 50        | High  | 7          | QPSK       | 135.0      | 155         | 9                 | -23.50                    | 58.95  | 27.04            | 45.98            | 18.94                   |
|         |           | High  | 7          | 16QAM      | 135.0      | 155         | 9                 | -23.49                    | 58.95  | 27.04            | 45.99            | 18.95                   |
|         |           | High  | 7          | 64QAM      | 135.0      | 155         | 9                 | -23.49                    | 58.95  | 27.04            | 45.99            | 18.95                   |
|         | 100       | High  | 7          | QPSK       | 135.0      | 155         | 9                 | -19.73                    | 58.95  | 27.04            | 49.75            | 22.71                   |
|         |           | High  | 7          | 16QAM      | 135.0      | 155         | 9                 | -19.57                    | 58.95  | 27.04            | 49.91            | 22.87                   |
|         |           | High  | 7          | 64QAM      | 135.0      | 155         | 9                 | -19.57                    | 58.95  | 27.04            | 49.91            | 22.87                   |
|         | 50        | Low   | 0-7        | QPSK       | 135.0      | 155         | 9                 | -24.81                    | 57.22  | 27.04            | 42.94            | 15.90                   |
|         |           | Low   | 0-7        | 16QAM      | 135.0      | 155         | 9                 | -24.74                    | 57.22  | 27.04            | 43.01            | 15.97                   |
|         |           | Low   | 0-7        | 64QAM      | 135.0      | 155         | 9                 | -24.81                    | 57.22  | 27.04            | 42.94            | 15.90                   |
|         | 100       | Low   | 0-7        | QPSK       | 135.0      | 155         | 9                 | -24.03                    | 57.22  | 27.04            | 43.72            | 16.68                   |
|         |           | Low   | 0-7        | 16QAM      | 135.0      | 155         | 9                 | -24.02                    | 57.22  | 27.04            | 43.73            | 16.69                   |
|         |           | Low   | 0-7        | 64QAM      | 135.0      | 155         | 9                 | -24.04                    | 57.22  | 27.04            | 43.71            | 16.67                   |
|         | 50        | Mid   | 0-7        | QPSK       | 135.0      | 155         | 9                 | -24.12                    | 57.17  | 27.04            | 43.58            | 16.54                   |
|         |           | Mid   | 0-7        | 16QAM      | 135.0      | 155         | 9                 | -24.15                    | 57.17  | 27.04            | 43.55            | 16.51                   |
|         |           | Mid   | 0-7        | 64QAM      | 135.0      | 155         | 9                 | -24.16                    | 57.17  | 27.04            | 43.54            | 16.50                   |
|         | 100       | Mid   | 0-7        | QPSK       | 135.0      | 155         | 9                 | -23.11                    | 57.17  | 27.04            | 44.59            | 17.55                   |
|         |           | Mid   | 0-7        | 16QAM      | 135.0      | 155         | 9                 | -23.25                    | 57.17  | 27.04            | 44.45            | 17.41                   |
|         |           | Mid   | 0-7        | 64QAM      | 135.0      | 155         | 9                 | -23.24                    | 57.17  | 27.04            | 44.46            | 17.42                   |
|         | 50        | High  | 0-7        | QPSK       | 135.0      | 155         | 9                 | -25.25                    | 58.95  | 27.04            | 44.23            | 17.19                   |
|         |           | High  | 0-7        | 16QAM      | 135.0      | 155         | 9                 | -25.25                    | 58.95  | 27.04            | 44.23            | 17.19                   |
|         |           | High  | 0-7        | 64QAM      | 135.0      | 155         | 9                 | -25.25                    | 58.95  | 27.04            | 44.23            | 17.19                   |
|         | 100       | High  | 0-7        | QPSK       | 135.0      | 155         | 9                 | -23.83                    | 58.95  | 27.04            | 45.65            | 18.61                   |
|         |           | High  | 0-7        | 16QAM      | 135.0      | 155         | 9                 | -23.83                    | 58.95  | 27.04            | 45.65            | 18.61                   |
|         |           | High  | 0-7        | 64QAM      | 135.0      | 155         | 9                 | -23.81                    | 58.95  | 27.04            | 45.67            | 18.63                   |
|         | 50        | Low   | 0-7(NC)    | QPSK       | 135.0      | 155         | 9                 | -23.92                    | 57.22  | 27.04            | 43.83            | 16.79                   |
|         |           | Low   | 0-7(NC)    | 16QAM      | 135.0      | 155         | 9                 | -23.91                    | 57.22  | 27.04            | 43.84            | 16.80                   |
|         |           | Low   | 0-7(NC)    | 64QAM      | 135.0      | 155         | 9                 | -23.93                    | 57.22  | 27.04            | 43.82            | 16.78                   |
|         | 100       | Low   | 0-7(NC)    | QPSK       | 135.0      | 155         | 9                 | -23.57                    | 57.22  | 27.04            | 44.18            | 17.14                   |
|         |           | Low   | 0-7(NC)    | 16QAM      | 135.0      | 155         | 9                 | -23.55                    | 57.22  | 27.04            | 44.20            | 17.16                   |
|         |           | Low   | 0-7(NC)    | 64QAM      | 135.0      | 155         | 9                 | -23.61                    | 57.22  | 27.04            | 44.14            | 17.10                   |
|         | 50        | Mid   | 0-7(NC)    | QPSK       | 135.0      | 155         | 9                 | -23.98                    | 57.17  | 27.04            | 43.72            | 16.68                   |
|         |           | Mid   | 0-7(NC)    | 16QAM      | 135.0      | 155         | 9                 | -24.03                    | 57.17  | 27.04            | 43.67            | 16.63                   |
|         |           | Mid   | 0-7(NC)    | 64QAM      | 135.0      | 155         | 9                 | -24.05                    | 57.17  | 27.04            | 43.65            | 16.61                   |
|         | 100       | Mid   | 0-7(NC)    | QPSK       | 135.0      | 155         | 9                 | -24.07                    | 57.17  | 27.04            | 43.63            | 16.59                   |
|         |           | Mid   | 0-7(NC)    | 16QAM      | 135.0      | 155         | 9                 | -24.15                    | 57.17  | 27.04            | 43.55            | 16.51                   |
|         |           | Mid   | 0-7(NC)    | 64QAM      | 135.0      | 155         | 9                 | -24.15                    | 57.17  | 27.04            | 43.55            | 16.51                   |
|         | 50        | High  | 0-7(NC)    | QPSK       | 135.0      | 155         | 9                 | -23.72                    | 58.95  | 27.04            | 45.76            | 18.72                   |
|         |           | High  | 0-7(NC)    | 16QAM      | 135.0      | 155         | 9                 | -23.74                    | 58.95  | 27.04            | 45.74            | 18.70                   |
|         |           | High  | 0-7(NC)    | 64QAM      | 135.0      | 155         | 9                 | -23.73                    | 58.95  | 27.04            | 45.75            | 18.71                   |
|         | 100       | High  | 0-7(NC)    | QPSK       | 135.0      | 155         | 9                 | -23.17                    | 58.95  | 27.04            | 46.31            | 19.27                   |
|         |           | High  | 0-7(NC)    | 16QAM      | 135.0      | 155         | 9                 | -23.35                    | 58.95  | 27.04            | 46.13            | 19.09                   |
|         |           | High  | 0-7(NC)    | 64QAM      | 135.0      | 155         | 9                 | -23.36                    | 58.95  | 27.04            | 46.12            | 19.08                   |

**Table 7-15. Antenna C Conducted Power Summary Data**

|                                       |                                                                                                                                  |                                       |                                                                                       |                                 |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 |  <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020                                                                                             | EUT Type:<br>5G Access Unit           |                                                                                       | Page 168 of 360                 |

## 7.4.4 Antenna D Conducted Power

| Antenna | Bandwidth | Chan. | CCs active | Modulation | Horn Angle | Horn Height | Turntable Azimuth | Analyzer Level(Total Pwr) | AFCL  | EUT Antenna Gain | Average e.i.r.p. | Conducted Average Power |
|---------|-----------|-------|------------|------------|------------|-------------|-------------------|---------------------------|-------|------------------|------------------|-------------------------|
|         | [MHz]     |       |            |            | [degrees]  | [cm]        | [degrees]         | [dBm]                     | [dBm] | [dBi]            | [dBm]            | [dBm]                   |
| D       | 50        | Low   | 0          | QPSK       | 45.0       | 141         | 10                | -22.65                    | 57.22 | 27.04            | 45.10            | 18.06                   |
|         |           | Low   | 0          | 16QAM      | 45.0       | 141         | 10                | -22.63                    | 57.22 | 27.04            | 45.12            | 18.08                   |
|         |           | Low   | 0          | 64QAM      | 45.0       | 141         | 10                | -22.66                    | 57.22 | 27.04            | 45.09            | 18.05                   |
|         | 100       | Low   | 0          | QPSK       | 45.0       | 141         | 10                | -18.73                    | 57.22 | 27.04            | 49.02            | 21.98                   |
|         |           | Low   | 0          | 16QAM      | 45.0       | 141         | 10                | -18.74                    | 57.22 | 27.04            | 49.01            | 21.97                   |
|         |           | Low   | 0          | 64QAM      | 45.0       | 141         | 10                | -18.75                    | 57.22 | 27.04            | 49.00            | 21.96                   |
|         | 50        | Mid   | 4          | QPSK       | 45.0       | 141         | 10                | -22.59                    | 57.17 | 27.04            | 45.11            | 18.07                   |
|         |           | Mid   | 4          | 16QAM      | 45.0       | 141         | 10                | -22.60                    | 57.17 | 27.04            | 45.10            | 18.06                   |
|         |           | Mid   | 4          | 64QAM      | 45.0       | 141         | 10                | -22.58                    | 57.17 | 27.04            | 45.12            | 18.08                   |
|         | 100       | Mid   | 4          | QPSK       | 45.0       | 141         | 10                | -19.13                    | 57.17 | 27.04            | 48.57            | 21.53                   |
|         |           | Mid   | 4          | 16QAM      | 45.0       | 141         | 10                | -19.13                    | 57.17 | 27.04            | 48.57            | 21.53                   |
|         |           | Mid   | 4          | 64QAM      | 45.0       | 141         | 10                | -19.14                    | 57.17 | 27.04            | 48.56            | 21.52                   |
|         | 50        | High  | 7          | QPSK       | 45.0       | 141         | 10                | -22.73                    | 58.95 | 27.04            | 46.75            | 19.71                   |
|         |           | High  | 7          | 16QAM      | 45.0       | 141         | 10                | -22.75                    | 58.95 | 27.04            | 46.73            | 19.69                   |
|         |           | High  | 7          | 64QAM      | 45.0       | 141         | 10                | -22.74                    | 58.95 | 27.04            | 46.74            | 19.70                   |
|         | 100       | High  | 7          | QPSK       | 45.0       | 141         | 10                | -19.81                    | 58.95 | 27.04            | 49.67            | 22.63                   |
|         |           | High  | 7          | 16QAM      | 45.0       | 141         | 10                | -19.82                    | 58.95 | 27.04            | 49.66            | 22.62                   |
|         |           | High  | 7          | 64QAM      | 45.0       | 141         | 10                | -19.81                    | 58.95 | 27.04            | 49.67            | 22.63                   |
|         | 50        | Low   | 0-7        | QPSK       | 45.0       | 141         | 10                | -24.73                    | 57.22 | 27.04            | 43.02            | 15.98                   |
|         |           | Low   | 0-7        | 16QAM      | 45.0       | 141         | 10                | -24.67                    | 57.22 | 27.04            | 43.08            | 16.04                   |
|         |           | Low   | 0-7        | 64QAM      | 45.0       | 141         | 10                | -24.65                    | 57.22 | 27.04            | 43.10            | 16.06                   |
|         | 100       | Low   | 0-7        | QPSK       | 45.0       | 141         | 10                | -23.95                    | 57.22 | 27.04            | 43.80            | 16.76                   |
|         |           | Low   | 0-7        | 16QAM      | 45.0       | 141         | 10                | -23.68                    | 57.22 | 27.04            | 44.07            | 17.03                   |
|         |           | Low   | 0-7        | 64QAM      | 45.0       | 141         | 10                | -23.65                    | 57.22 | 27.04            | 44.10            | 17.06                   |
|         | 50        | Mid   | 0-7        | QPSK       | 45.0       | 141         | 10                | -23.99                    | 57.17 | 27.04            | 43.71            | 16.67                   |
|         |           | Mid   | 0-7        | 16QAM      | 45.0       | 141         | 10                | -24.00                    | 57.17 | 27.04            | 43.70            | 16.66                   |
|         |           | Mid   | 0-7        | 64QAM      | 45.0       | 141         | 10                | -24.08                    | 57.17 | 27.04            | 43.62            | 16.58                   |
|         | 100       | Mid   | 0-7        | QPSK       | 45.0       | 141         | 10                | -23.05                    | 57.17 | 27.04            | 44.65            | 17.61                   |
|         |           | Mid   | 0-7        | 16QAM      | 45.0       | 141         | 10                | -23.20                    | 57.17 | 27.04            | 44.50            | 17.46                   |
|         |           | Mid   | 0-7        | 64QAM      | 45.0       | 141         | 10                | -23.67                    | 57.17 | 27.04            | 44.03            | 16.99                   |
|         | 50        | High  | 0-7        | QPSK       | 45.0       | 141         | 10                | -24.74                    | 58.95 | 27.04            | 44.74            | 17.70                   |
|         |           | High  | 0-7        | 16QAM      | 45.0       | 141         | 10                | -24.76                    | 58.95 | 27.04            | 44.72            | 17.68                   |
|         |           | High  | 0-7        | 64QAM      | 45.0       | 141         | 10                | -24.79                    | 58.95 | 27.04            | 44.69            | 17.65                   |
|         | 100       | High  | 0-7        | QPSK       | 45.0       | 141         | 10                | -24.43                    | 58.95 | 27.04            | 45.05            | 18.01                   |
|         |           | High  | 0-7        | 16QAM      | 45.0       | 141         | 10                | -23.97                    | 58.95 | 27.04            | 45.51            | 18.47                   |
|         |           | High  | 0-7        | 64QAM      | 45.0       | 141         | 10                | -23.96                    | 58.95 | 27.04            | 45.52            | 18.48                   |
|         | 50        | Low   | 0-7(NC)    | QPSK       | 45.0       | 141         | 10                | -23.44                    | 57.22 | 27.04            | 44.31            | 17.27                   |
|         |           | Low   | 0-7(NC)    | 16QAM      | 45.0       | 141         | 10                | -23.43                    | 57.22 | 27.04            | 44.32            | 17.28                   |
|         |           | Low   | 0-7(NC)    | 64QAM      | 45.0       | 141         | 10                | -23.43                    | 57.22 | 27.04            | 44.32            | 17.28                   |
|         | 100       | Low   | 0-7(NC)    | QPSK       | 45.0       | 141         | 10                | -22.48                    | 57.22 | 27.04            | 45.27            | 18.23                   |
|         |           | Low   | 0-7(NC)    | 16QAM      | 45.0       | 141         | 10                | -22.51                    | 57.22 | 27.04            | 45.24            | 18.20                   |
|         |           | Low   | 0-7(NC)    | 64QAM      | 45.0       | 141         | 10                | -22.61                    | 57.22 | 27.04            | 45.14            | 18.10                   |
|         | 50        | Mid   | 0-7(NC)    | QPSK       | 45.0       | 141         | 10                | -23.96                    | 57.17 | 27.04            | 43.74            | 16.70                   |
|         |           | Mid   | 0-7(NC)    | 16QAM      | 45.0       | 141         | 10                | -23.94                    | 57.17 | 27.04            | 43.76            | 16.72                   |
|         |           | Mid   | 0-7(NC)    | 64QAM      | 45.0       | 141         | 10                | -23.94                    | 57.17 | 27.04            | 43.76            | 16.72                   |
|         | 100       | Mid   | 0-7(NC)    | QPSK       | 45.0       | 141         | 10                | -23.56                    | 57.17 | 27.04            | 44.14            | 17.10                   |
|         |           | Mid   | 0-7(NC)    | 16QAM      | 45.0       | 141         | 10                | -23.27                    | 57.17 | 27.04            | 44.43            | 17.39                   |
|         |           | Mid   | 0-7(NC)    | 64QAM      | 45.0       | 141         | 10                | -23.23                    | 57.17 | 27.04            | 44.47            | 17.43                   |
|         | 50        | High  | 0-7(NC)    | QPSK       | 45.0       | 141         | 10                | -23.83                    | 58.95 | 27.04            | 45.65            | 18.61                   |
|         |           | High  | 0-7(NC)    | 16QAM      | 45.0       | 141         | 10                | -23.89                    | 58.95 | 27.04            | 45.59            | 18.55                   |
|         |           | High  | 0-7(NC)    | 64QAM      | 45.0       | 141         | 10                | -23.71                    | 58.95 | 27.04            | 45.77            | 18.73                   |
|         | 100       | High  | 0-7(NC)    | QPSK       | 45.0       | 141         | 10                | -22.72                    | 58.95 | 27.04            | 46.76            | 19.72                   |
|         |           | High  | 0-7(NC)    | 16QAM      | 45.0       | 141         | 10                | -22.75                    | 58.95 | 27.04            | 46.73            | 19.69                   |
|         |           | High  | 0-7(NC)    | 64QAM      | 45.0       | 141         | 10                | -22.79                    | 58.95 | 27.04            | 46.69            | 19.65                   |

Table 7-16. Antenna D Conducted Power Summary Data

|                                       |                                                                                                                                  |                                       |                                                                                       |                                 |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 |  <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020                                                                                             | EUT Type:<br>5G Access Unit           |                                                                                       | Page 169 of 360                 |

## 7.4.5 Total Conducted Power (Summed Across All Antennas)

| Antenna | Bandwidth | Chan. | CCs active | Modulation | Ant A | Ant B | Ant C | Ant D | Conducted Average Power |
|---------|-----------|-------|------------|------------|-------|-------|-------|-------|-------------------------|
|         | [MHz]     |       |            |            | [dBm] | [dBm] | [dBm] | [dBm] | [dBm]                   |
| A+B+C+D | 50        | Low   | 0          | QPSK       | 18.7  | 18.8  | 18.1  | 18.1  | 24.43                   |
|         |           | Low   | 0          | 16QAM      | 18.7  | 18.9  | 18.0  | 18.1  | 24.44                   |
|         |           | Low   | 0          | 64QAM      | 18.7  | 18.9  | 18.1  | 18.1  | 24.45                   |
|         | 100       | Low   | 0          | QPSK       | 21.9  | 22.4  | 21.8  | 22.0  | 28.04                   |
|         |           | Low   | 0          | 16QAM      | 21.9  | 22.4  | 21.8  | 22.0  | 28.03                   |
|         |           | Low   | 0          | 64QAM      | 21.8  | 22.4  | 21.8  | 22.0  | 28.02                   |
|         | 50        | Mid   | 4          | QPSK       | 18.7  | 18.7  | 18.0  | 18.1  | 24.38                   |
|         |           | Mid   | 4          | 16QAM      | 18.7  | 18.7  | 18.0  | 18.1  | 24.37                   |
|         |           | Mid   | 4          | 64QAM      | 18.7  | 18.7  | 18.0  | 18.1  | 24.39                   |
|         | 100       | Mid   | 4          | QPSK       | 21.4  | 21.6  | 21.5  | 21.5  | 27.52                   |
|         |           | Mid   | 4          | 16QAM      | 21.4  | 21.6  | 21.4  | 21.5  | 27.51                   |
|         |           | Mid   | 4          | 64QAM      | 21.5  | 21.6  | 21.4  | 21.5  | 27.51                   |
|         | 50        | High  | 7          | QPSK       | 19.6  | 20.3  | 18.9  | 19.7  | 25.67                   |
|         |           | High  | 7          | 16QAM      | 19.5  | 20.2  | 19.0  | 19.7  | 25.64                   |
|         |           | High  | 7          | 64QAM      | 19.5  | 20.2  | 19.0  | 19.7  | 25.64                   |
|         | 100       | High  | 7          | QPSK       | 22.9  | 23.1  | 22.7  | 22.6  | 28.85                   |
|         |           | High  | 7          | 16QAM      | 22.9  | 23.2  | 22.9  | 22.6  | 28.92                   |
|         |           | High  | 7          | 64QAM      | 22.8  | 23.2  | 22.9  | 22.6  | 28.90                   |
|         | 50        | Low   | 0-7        | QPSK       | 16.2  | 16.7  | 15.9  | 16.0  | 22.23                   |
|         |           | Low   | 0-7        | 16QAM      | 16.3  | 16.6  | 16.0  | 16.0  | 22.28                   |
|         |           | Low   | 0-7        | 64QAM      | 16.3  | 16.6  | 15.9  | 16.1  | 22.25                   |
|         | 100       | Low   | 0-7        | QPSK       | 16.2  | 16.3  | 16.7  | 16.8  | 22.52                   |
|         |           | Low   | 0-7        | 16QAM      | 16.2  | 16.7  | 16.7  | 17.0  | 22.69                   |
|         |           | Low   | 0-7        | 64QAM      | 16.2  | 16.7  | 16.7  | 17.1  | 22.71                   |
|         | 50        | Mid   | 0-7        | QPSK       | 16.7  | 17.2  | 16.5  | 16.7  | 22.81                   |
|         |           | Mid   | 0-7        | 16QAM      | 16.7  | 17.2  | 16.5  | 16.7  | 22.80                   |
|         |           | Mid   | 0-7        | 64QAM      | 16.7  | 17.2  | 16.5  | 16.6  | 22.77                   |
|         | 100       | Mid   | 0-7        | QPSK       | 17.2  | 17.1  | 17.6  | 17.6  | 23.40                   |
|         |           | Mid   | 0-7        | 16QAM      | 17.2  | 17.1  | 17.4  | 17.5  | 23.29                   |
|         |           | Mid   | 0-7        | 64QAM      | 17.1  | 17.4  | 17.4  | 17.0  | 23.25                   |
|         | 50        | High  | 0-7        | QPSK       | 17.9  | 18.3  | 17.2  | 17.7  | 23.81                   |
|         |           | High  | 0-7        | 16QAM      | 17.9  | 18.2  | 17.2  | 17.7  | 23.77                   |
|         |           | High  | 0-7        | 64QAM      | 17.8  | 18.2  | 17.2  | 17.7  | 23.75                   |
|         | 100       | High  | 0-7        | QPSK       | 18.1  | 18.6  | 18.6  | 18.0  | 24.37                   |
|         |           | High  | 0-7        | 16QAM      | 18.1  | 18.4  | 18.6  | 18.5  | 24.42                   |
|         |           | High  | 0-7        | 64QAM      | 18.1  | 18.6  | 18.6  | 18.5  | 24.46                   |
|         | 50        | Low   | 0-7(NC)    | QPSK       | 17.6  | 17.6  | 16.8  | 17.3  | 23.35                   |
|         |           | Low   | 0-7(NC)    | 16QAM      | 17.6  | 17.5  | 16.8  | 17.3  | 23.32                   |
|         |           | Low   | 0-7(NC)    | 64QAM      | 17.6  | 17.4  | 16.8  | 17.3  | 23.31                   |
|         | 100       | Low   | 0-7(NC)    | QPSK       | 16.5  | 17.9  | 17.1  | 18.2  | 23.53                   |
|         |           | Low   | 0-7(NC)    | 16QAM      | 16.4  | 17.9  | 17.2  | 18.2  | 23.49                   |
|         |           | Low   | 0-7(NC)    | 64QAM      | 16.4  | 17.9  | 17.1  | 18.1  | 23.45                   |
|         | 50        | Mid   | 0-7(NC)    | QPSK       | 17.2  | 16.9  | 16.7  | 16.7  | 22.89                   |
|         |           | Mid   | 0-7(NC)    | 16QAM      | 17.2  | 17.0  | 16.6  | 16.7  | 22.90                   |
|         |           | Mid   | 0-7(NC)    | 64QAM      | 17.2  | 17.0  | 16.6  | 16.7  | 22.90                   |
|         | 100       | Mid   | 0-7(NC)    | QPSK       | 16.3  | 17.2  | 16.6  | 17.1  | 22.82                   |
|         |           | Mid   | 0-7(NC)    | 16QAM      | 16.2  | 17.2  | 16.5  | 17.4  | 22.88                   |
|         |           | Mid   | 0-7(NC)    | 64QAM      | 16.4  | 17.1  | 16.5  | 17.4  | 22.90                   |
|         | 50        | High  | 0-7(NC)    | QPSK       | 19.5  | 19.3  | 18.7  | 18.6  | 25.06                   |
|         |           | High  | 0-7(NC)    | 16QAM      | 19.5  | 19.3  | 18.7  | 18.6  | 25.05                   |
|         |           | High  | 0-7(NC)    | 64QAM      | 19.5  | 19.3  | 18.7  | 18.7  | 25.09                   |
|         | 100       | High  | 0-7(NC)    | QPSK       | 18.3  | 19.5  | 19.3  | 19.7  | 25.25                   |
|         |           | High  | 0-7(NC)    | 16QAM      | 18.3  | 19.5  | 19.1  | 19.7  | 25.18                   |
|         |           | High  | 0-7(NC)    | 64QAM      | 18.3  | 19.4  | 19.1  | 19.7  | 25.16                   |

**Table 7-17. Total Conducted Power Summary Data**

|                                       |                                                                                                                                  |                                       |                                                                                       |                                 |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 |  <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020                                                                                             | EUT Type:<br>5G Access Unit           |                                                                                       | Page 170 of 360                 |

## 7.5 Radiated Spurious and Harmonic Emissions

**\$2.1051 \$30.203**

### Test Overview

Out of band emissions were scanned from 30MHz to 100GHz in a radiated test setup with the EUT operating at maximum duty cycle and power. Spurious emission plots were obtained for Low, Mid, and High operating channels. All modulations and applicable CC settings were investigated to determine worst case condition.

***The conductive power or total radiated power of any emissions outside a licensee's frequency block shall be -13dBm/1MHz.***

### Test Procedure Used

ANSI C63.26-2015 Section 5.7.4

ANSI C63.26-2015 Section 6.4

KDB 842590 D01 v01 Section 4.4.3

### Test Settings

1. Start frequency was set to 30MHz and stop frequency was set to 100 GHz. Several plots are used to show investigations in this entire span.
2. Detector = RMS
3. Trace mode = trace average
4. Sweep time = auto couple
5. Number of sweep points  $\geq 2 \times \text{Span/RBW}$
6. The trace was allowed to stabilize
7. RBW = 1MHz, VBW = 1MHz

### 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) Emissions below 18GHz were measured at a 3 meter test distance, while emissions above 18GHz were measured at the appropriate far field distance. See Table 3-1 for distances used for measurements based on theoretical far field distance.
- 3) All appropriate Antenna Factors, Cable Losses, and Mixer Conversion Losses have been applied as an offset in the spectrum analyzer for each measurement.
- 4) The angle of the horn antenna was rotated to maximize and find the worst case emissions. The worst case is reported in this section.
- 5) Spurious emissions were measured with all EUT antennas transmitting simultaneously.
- 6) Some frequency points exceed the limit which requires to investigate with TRP method for this spurious emission evaluation according to 4.4 Unwanted Emission Measurements of KDB 842590 D01.
- 7) A3LAT1K02-A10 test result is referenced as A3LAT1K02-A00 result which only difference of power type as AC and DC which supply condition affect to RF specification.
- 8) No emissions were found below 1GHz.

|                                       |                                                                                                                                                 |                                       |                                                                                       |                                 |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 |  <b>PCTEST</b><br><small>Proud to be part of element</small> | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020                                                                                                            | EUT Type:<br>5G Access Unit           |                                                                                       | Page 171 of 360                 |

## TRP Measurement Procedure

If the recorded EIRP value was close or above the TRP limit, a Two Cut TRP measurement was done according to KDB 842590 D01 v01 Section 4.4.3.3.2

- a) Align the EUT with a chosen xy-plane and the xz-plane of the antenna measurement coordinate system.  
 NOTE 1 For harmonics and spurious emission frequencies which are beamforming as identified in exploratory scan, it may be required to align the orthogonal cuts to include the peak based on exploratory scans.

- b) Measure the EUT dimensions, i.e., depth (d), width (w), and height (h); see Figure A.1 in Appendix A.

- c) Calculate the spherical and cylindrical diameters (D and D<sub>cyl</sub>) using Equations (A.1) and (A.2) (see Appendix A).

$$D = \sqrt{d^2 + w^2 + h^2} \quad (\text{A.1})$$

$$D_{\text{cyl}} = \sqrt{d^2 + w^2} \quad (\text{A.2})$$

- d) For the highest frequency (smallest wavelength) of the frequency band measured, calculate the reference angular steps  $\Delta\theta_{\text{ref}}$  and  $\Delta\phi_{\text{ref}}$  using Equations (A.3) and (A.4).

$$\Delta\theta_{\text{ref}} = \min(15^\circ, 180^\circ / (\pi D / \lambda)) \quad (\text{A.3})$$

$$\Delta\phi_{\text{ref}} = \min(15^\circ, 180^\circ / (\pi D_{\text{cyl}} / \lambda)) \quad (\text{A.4})$$

- e) Set the grid spatial sampling step  $\Delta\theta \leq \Delta\theta_{\text{ref}}$  for the vertical angle and  $\Delta\phi \leq \Delta\phi_{\text{ref}}$  for the horizontal cut.

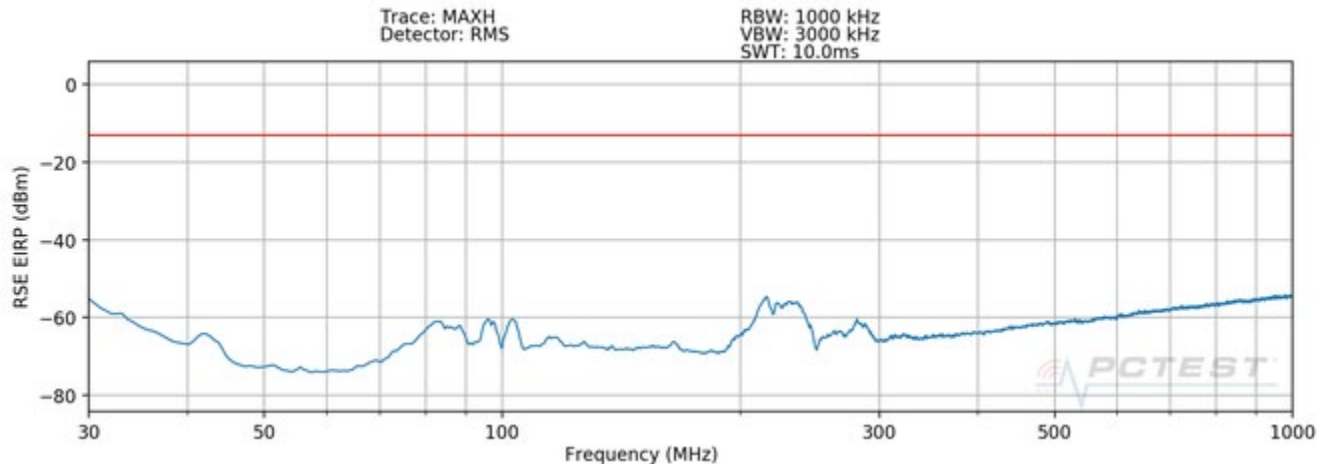
- f) For each emission frequency, measure the EIRP (as a sum of two orthogonal polarizations) at each spatial sampling step on the selected grid.

- g) For each emission frequency, calculate the average EIRP for both the cuts separately, and then take the average of these two average values.

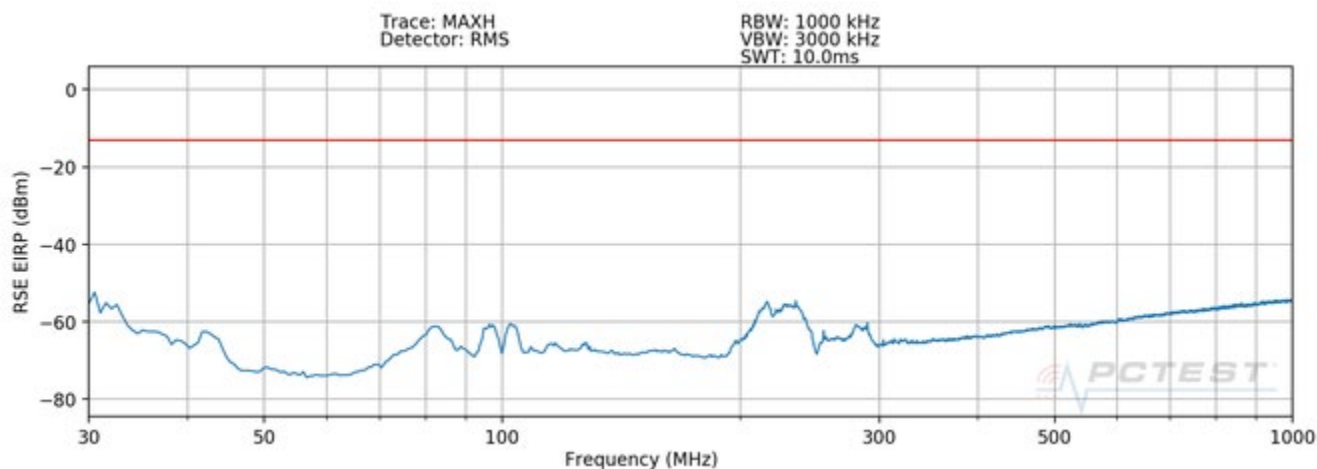
- h) Add 2 dB as a correction factor to the averaged value computed in step g).

|                                       |                                                                                                                                   |                                       |                                                                                       |                                 |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <br><small>Proud to be part of element</small> | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020                                                                                              | EUT Type:<br>5G Access Unit           |                                                                                       | Page 172 of 360                 |

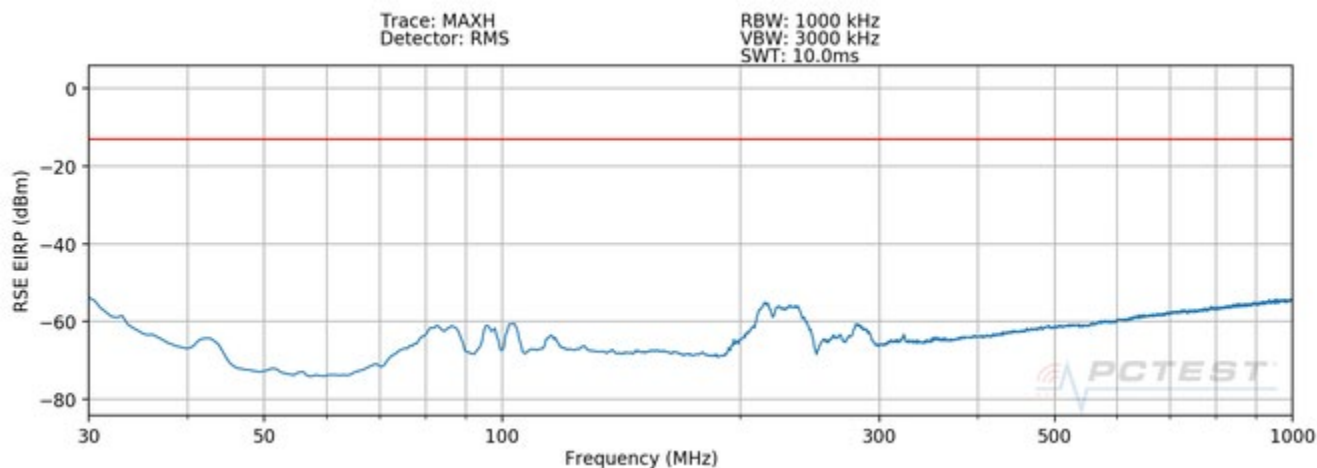
## 7.5.1 Radiated Spurious Emissions Plots (30MHz – 1GHz)



Plot 7-265. Radiated Spurious Plot 30 MHz-1 GHz (1CC QPSK Low Ch. Ant. Pol. H)

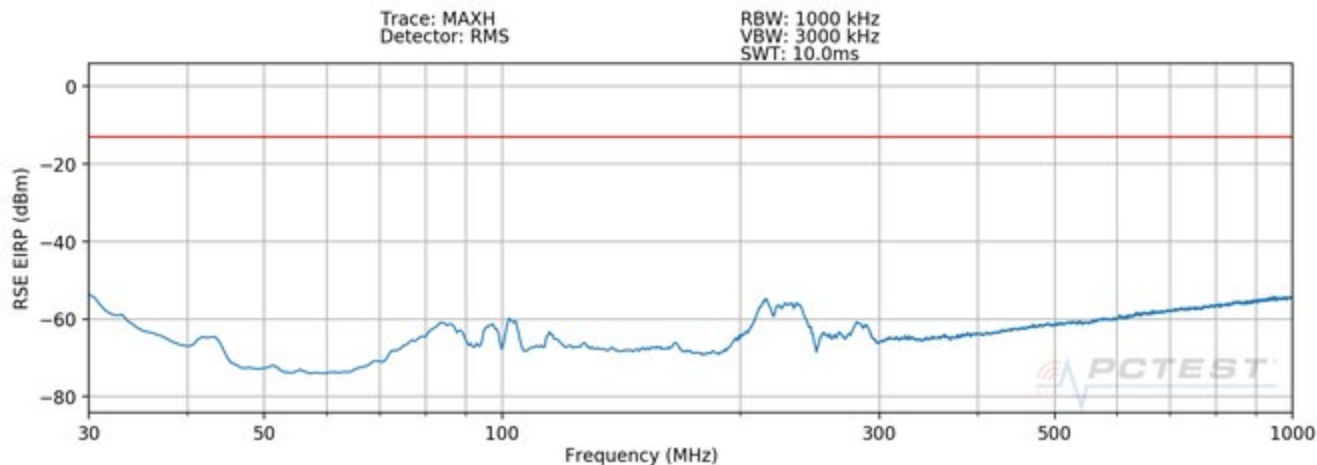


Plot 7-266. Radiated Spurious Plot 30 MHz-1 GHz (1CC QPSK Low Ch. Ant. Pol. V)

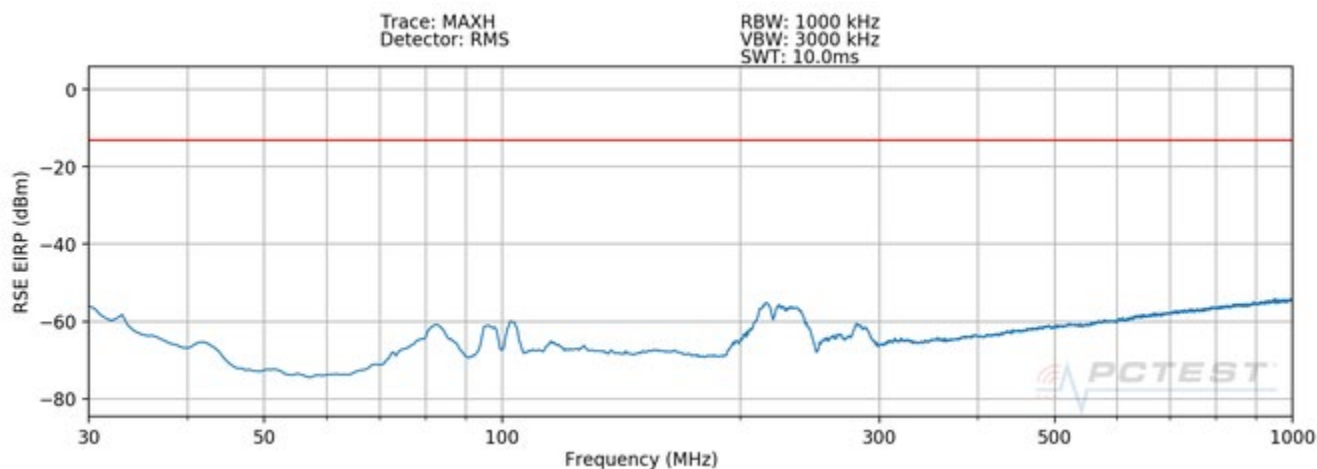


Plot 7-267. Radiated Spurious Plot 30 MHz-1 GHz (8CC QPSK Low Ch. Ant. Pol. H)

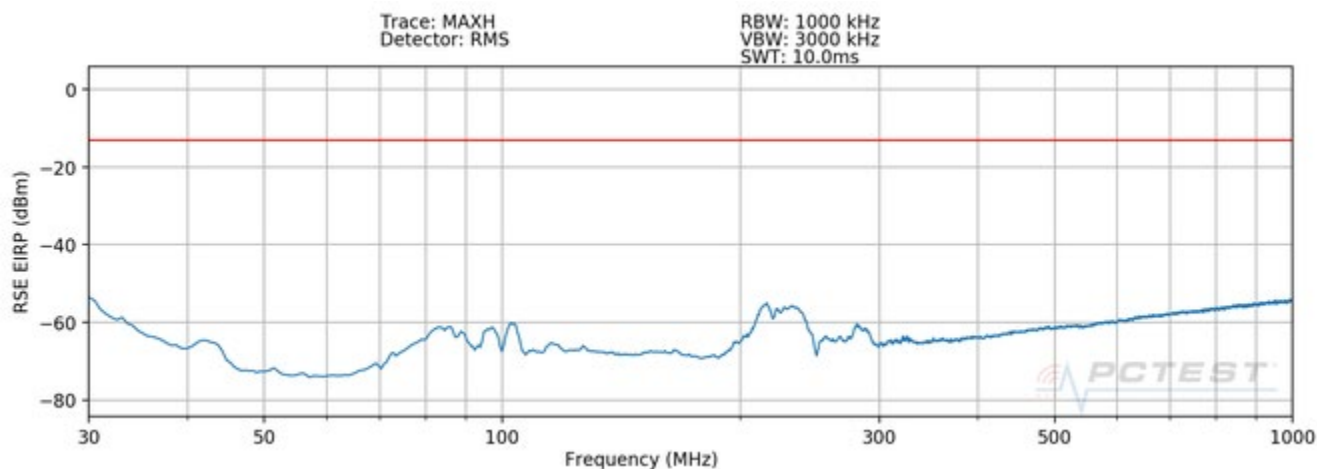
|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 173 of 360                 |



**Plot 7-268. Radiated Spurious Plot 30 MHz-1 GHz (8CC QPSK Low Ch. Ant. Pol. V)**

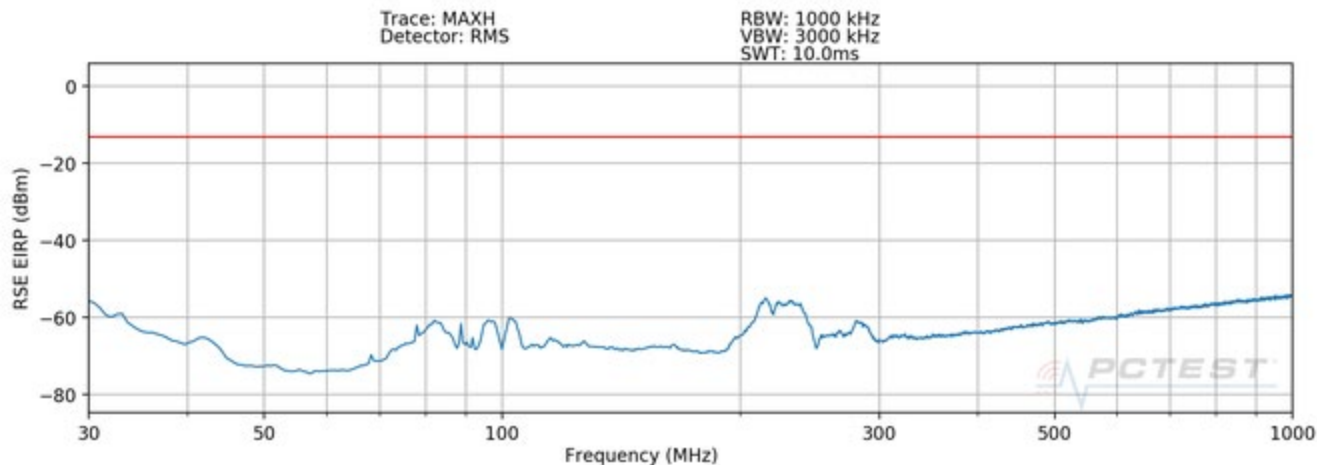


**Plot 7-269. Radiated Spurious Plot 30 MHz-1 GHz (8CC NC QPSK Low Ch. Ant. Pol. H)**

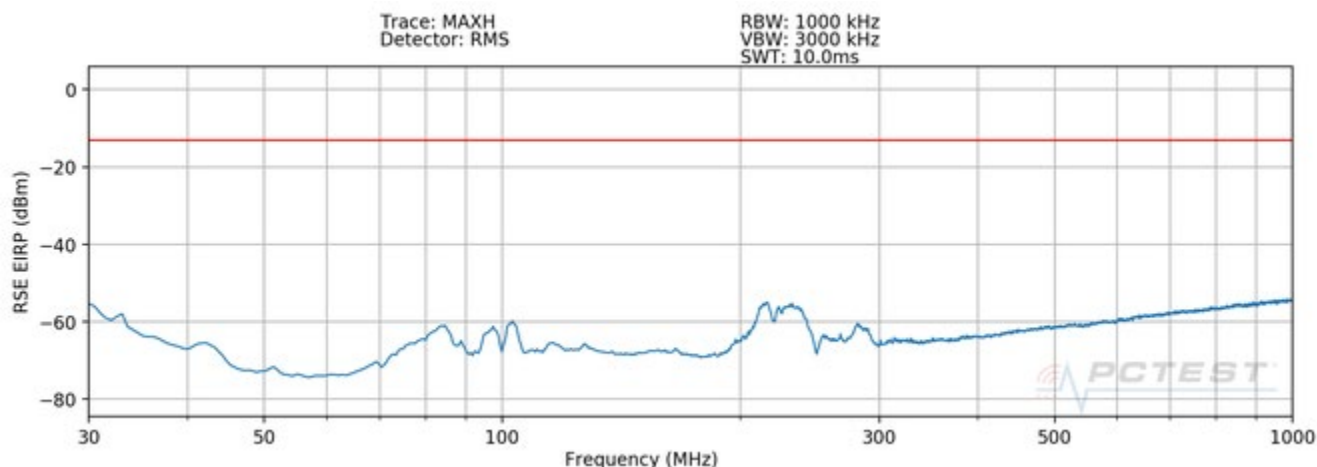


**Plot 7-270. Radiated Spurious Plot 30 MHz-1 GHz (8CC NC QPSK Low Ch. Ant. Pol. V)**

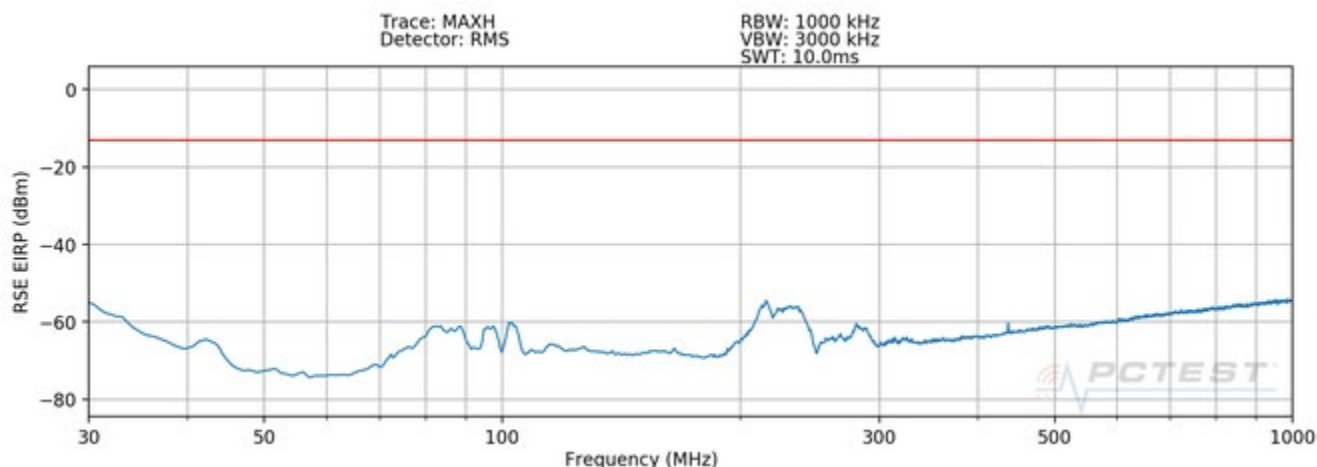
|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 174 of 360                 |



**Plot 7-271. Radiated Spurious Plot 30 MHz-1 GHz (1CC QPSK Mid Ch. Ant. Pol. H)**

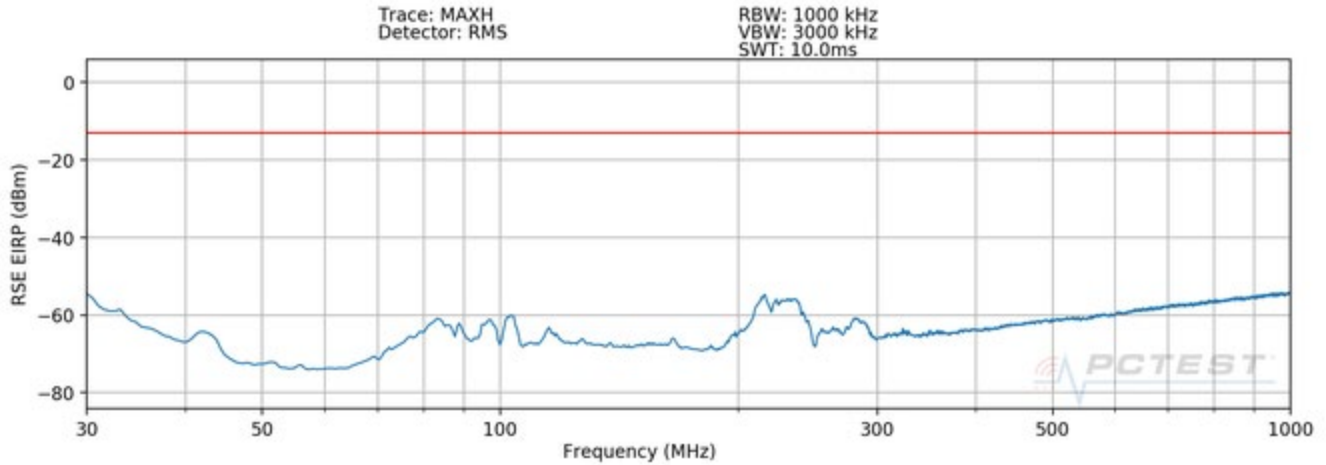


**Plot 7-272. Radiated Spurious Plot 30 MHz-1 GHz (1CC QPSK Mid Ch. Ant. Pol. V)**

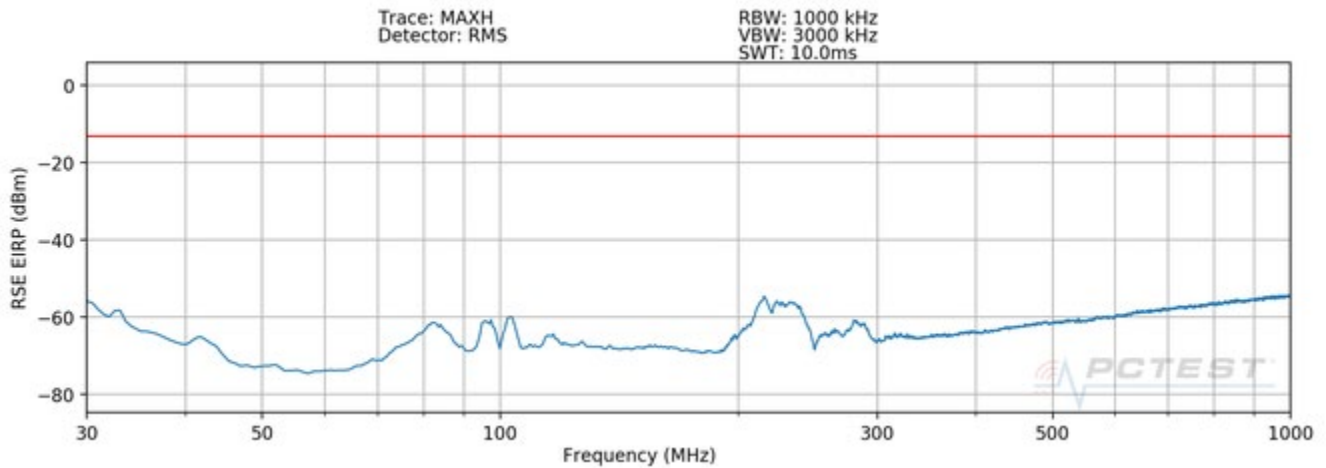


**Plot 7-273. Radiated Spurious Plot 30 MHz-1 GHz (8CC QPSK Mid Ch. Ant. Pol. H)**

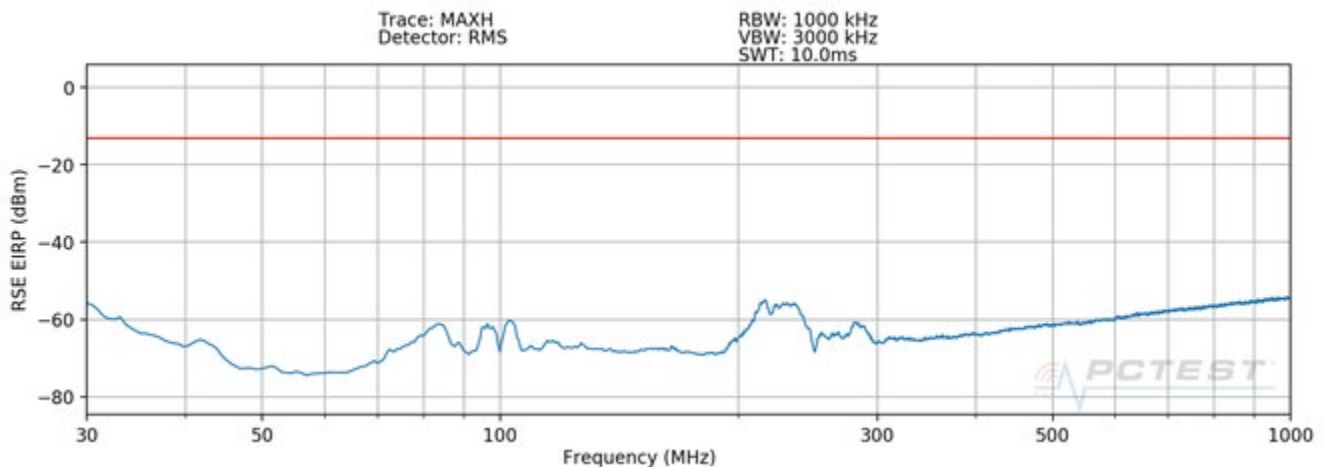
|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 175 of 360                 |



**Plot 7-274. Radiated Spurious Plot 30 MHz-1 GHz (8CC QPSK Mid Ch. Ant. Pol. V)**

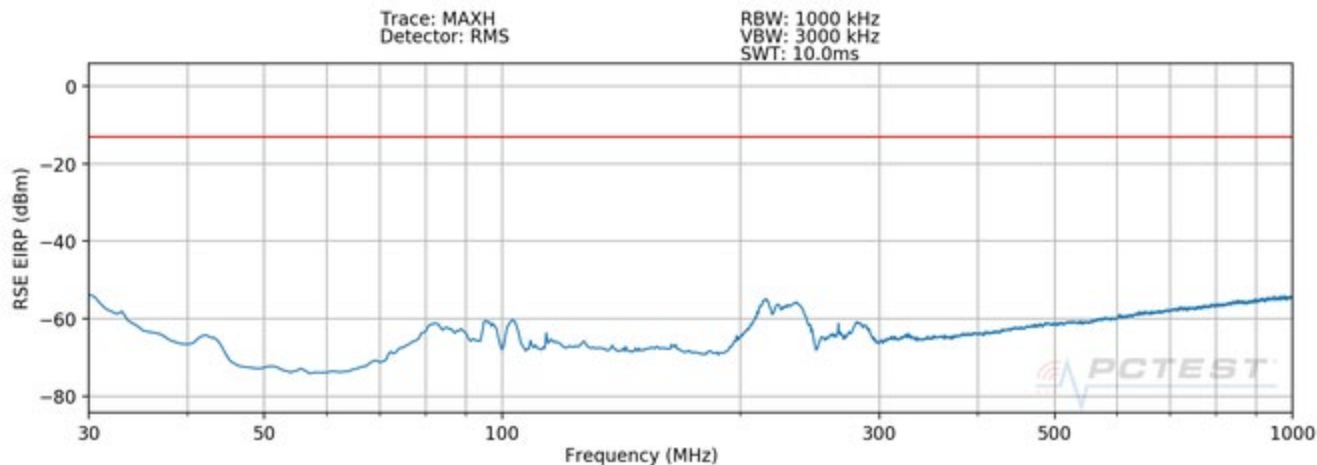


**Plot 7-275. Radiated Spurious Plot 30 MHz-1 GHz (8CC NC QPSK Mid Ch. Ant. Pol. H)**

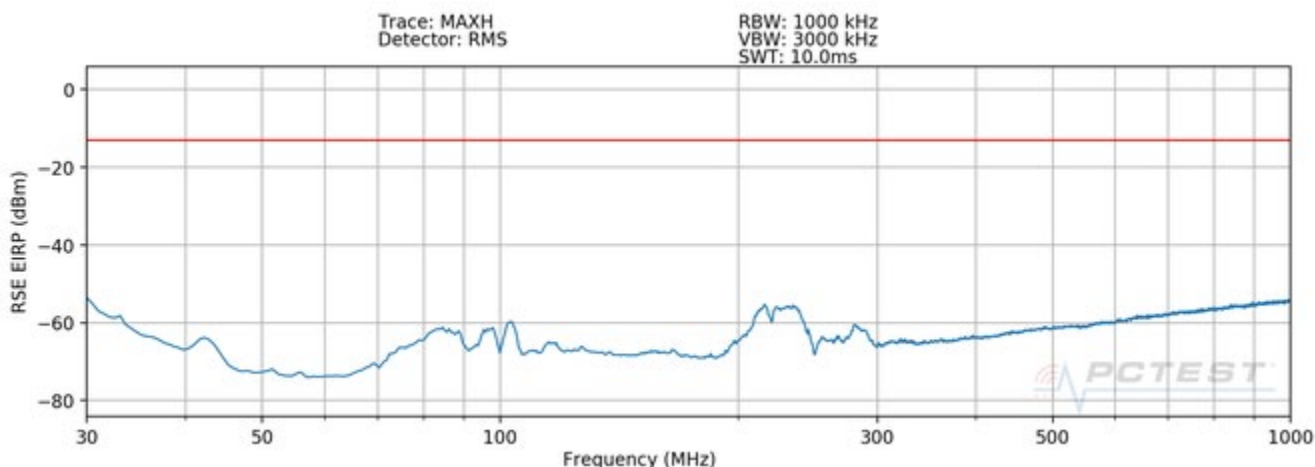


**Plot 7-276. Radiated Spurious Plot 30 MHz-1 GHz (8CC NC QPSK Mid Ch. Ant. Pol. V)**

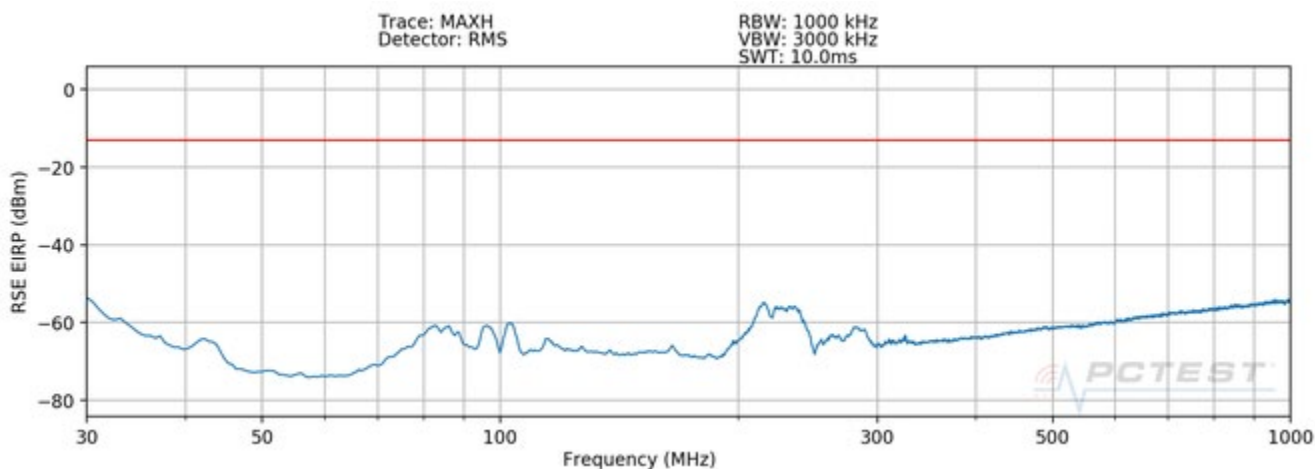
|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 176 of 360                 |



**Plot 7-277. Radiated Spurious Plot 30 MHz-1 GHz (1CC QPSK High Ch. Ant. Pol. H)**

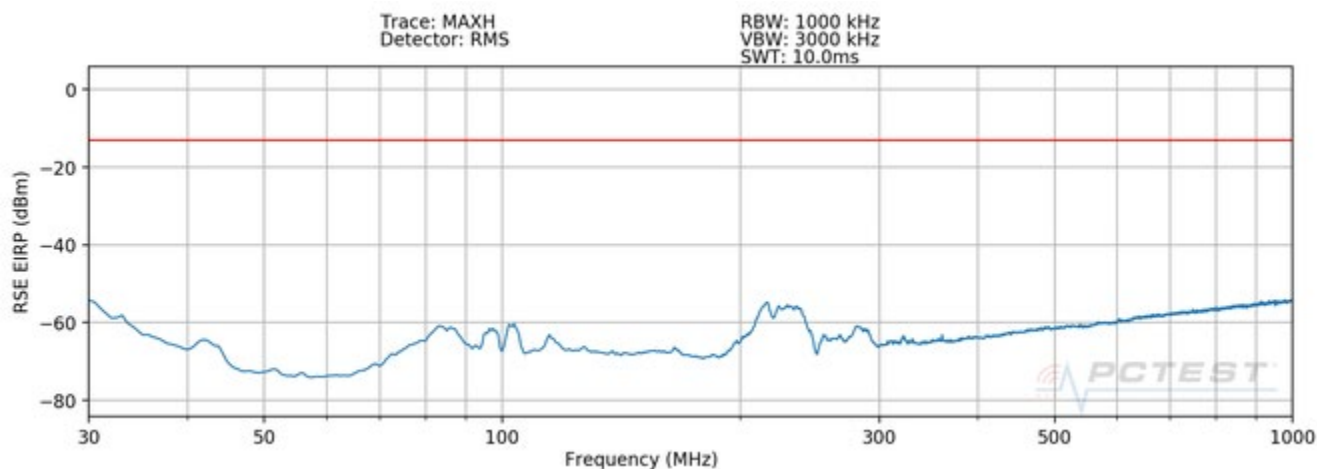


**Plot 7-278. Radiated Spurious Plot 30 MHz-1 GHz (1CC QPSK High Ch. Ant. Pol. V)**

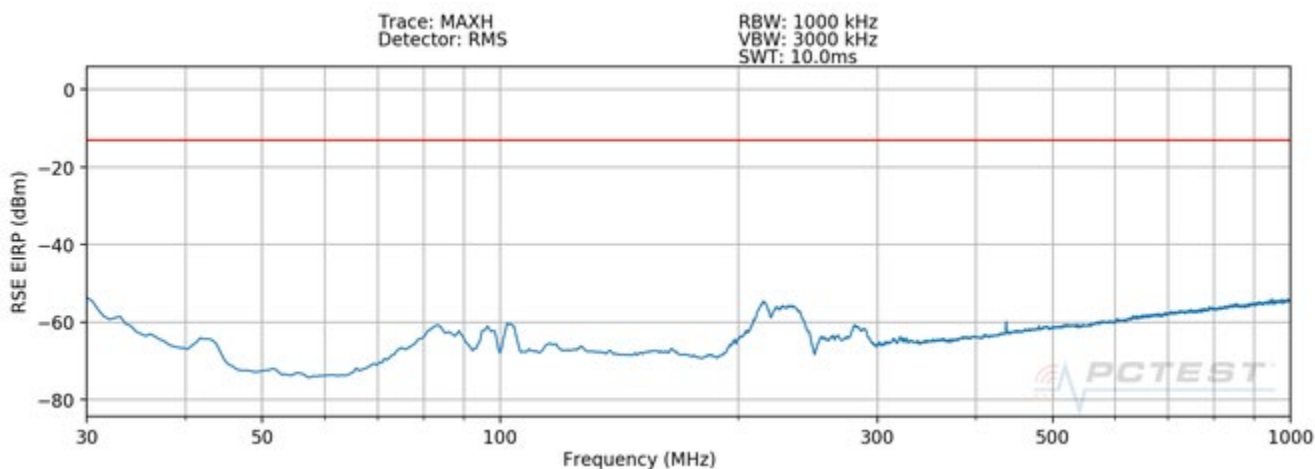


**Plot 7-279. Radiated Spurious Plot 30 MHz-1 GHz (8CC QPSK High Ch. Ant. Pol. H)**

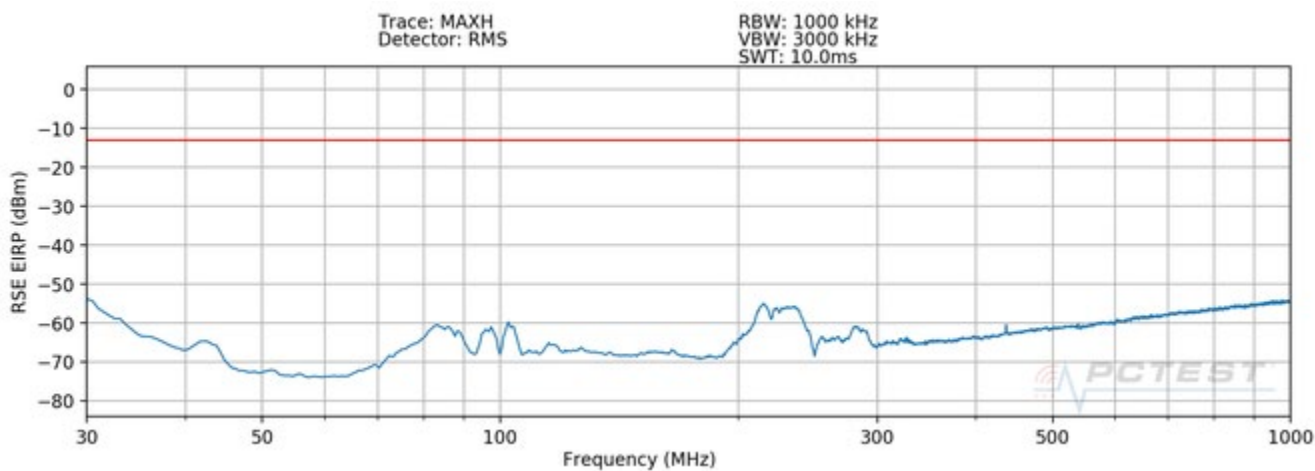
|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 177 of 360                 |



**Plot 7-280. Radiated Spurious Plot 30 MHz-1 GHz (8CC QPSK High Ch. Ant. Pol. V)**



**Plot 7-281. Radiated Spurious Plot 30 MHz-1 GHz (8CC NC QPSK High Ch. Ant. Pol. H)**



**Plot 7-282. Radiated Spurious Plot 30 MHz-1 GHz (8CC NC QPSK High Ch. Ant. Pol. V)**

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 178 of 360                 |

| Frequency [MHz] | Channel | CC Active  | Mod. | Ant. Pol. [H/V] | Antenna Height [cm] | Turn Table Azimuth [degree] | Analyzer Level [dBm] | AFCL [dBm] | Field Strength [dBμV/m] | RSE EIRP [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|---------|------------|------|-----------------|---------------------|-----------------------------|----------------------|------------|-------------------------|----------------|-------------|-------------|
| 208.76          | Mid     | CC0-CC7(C) | QPSK | H               | 208                 | 253                         | -85.00               | 18.27      | 40.27                   | -54.99         | -13.00      | -41.99      |

**Table 7-18. Spurious Emissions (30MHz – 1GHz)**

## Spurious Emissions EIRP Sample Calculation

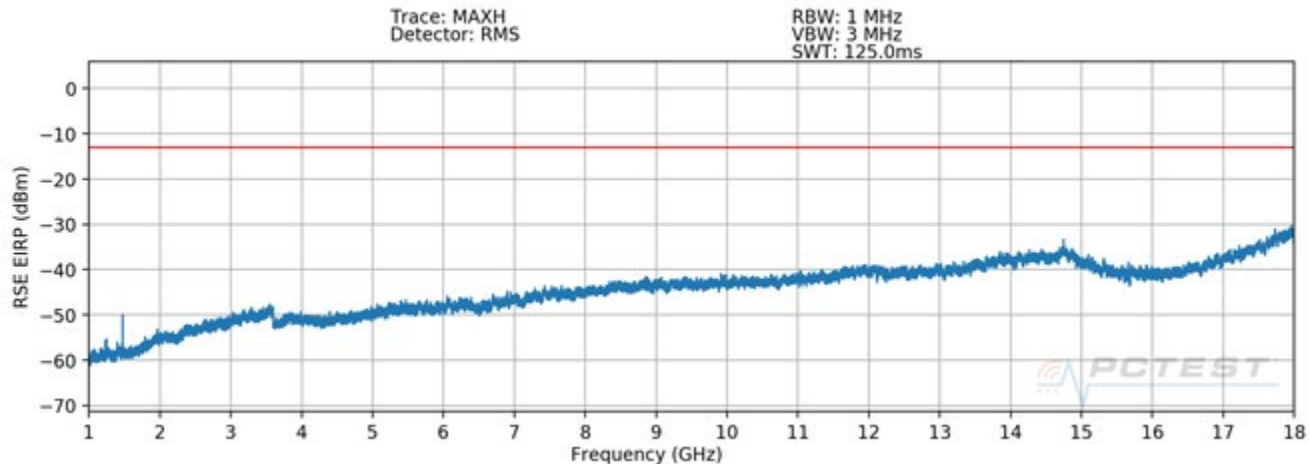
The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 3 meters.

$$\begin{aligned}
 \text{Spurious Level [dBμV/m]} &= \text{Analyzer Level [dBm]} + \text{AFCL [dB/m]} + 107 \\
 &= -56.01 \text{ dBm} - 22.64 \text{ dB/m} + 107 \\
 &= 28.35 \text{ dBμV/m}
 \end{aligned}$$

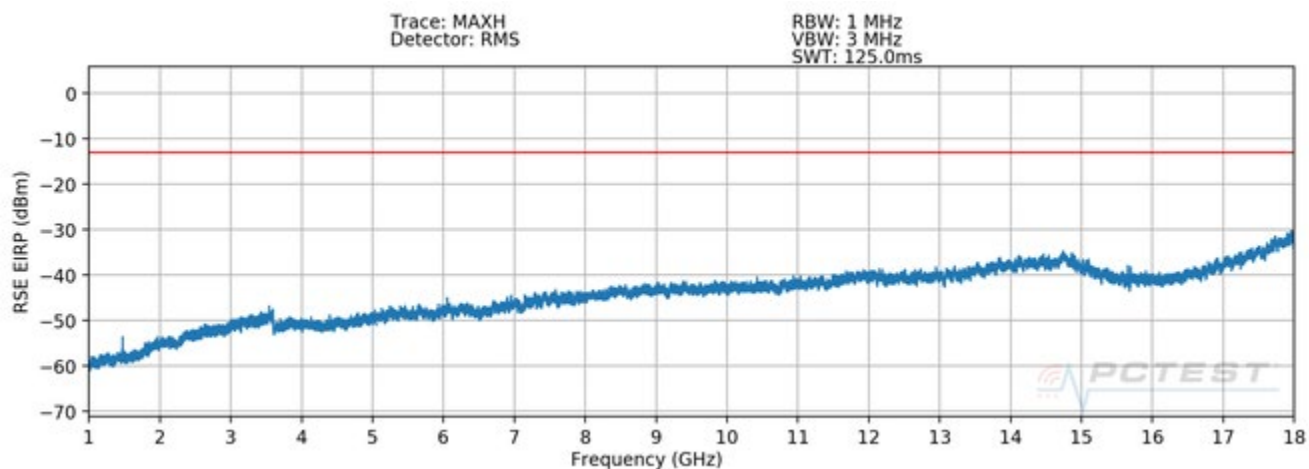
$$\begin{aligned}
 \text{RSE EIRP [dBm]} &= \text{Field Strength} + 20\text{Log}(D_m) - 104.8 \\
 &= 28.35 \text{ dBμV/m} + 20\text{Log}(3) - 104.8 \\
 &= -95.06 \text{ dBm}
 \end{aligned}$$

|                                       |                                                                                     |                                       |                                                                                       |                                 |
|---------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020                                                | EUT Type:<br>5G Access Unit           |                                                                                       | Page 179 of 360                 |

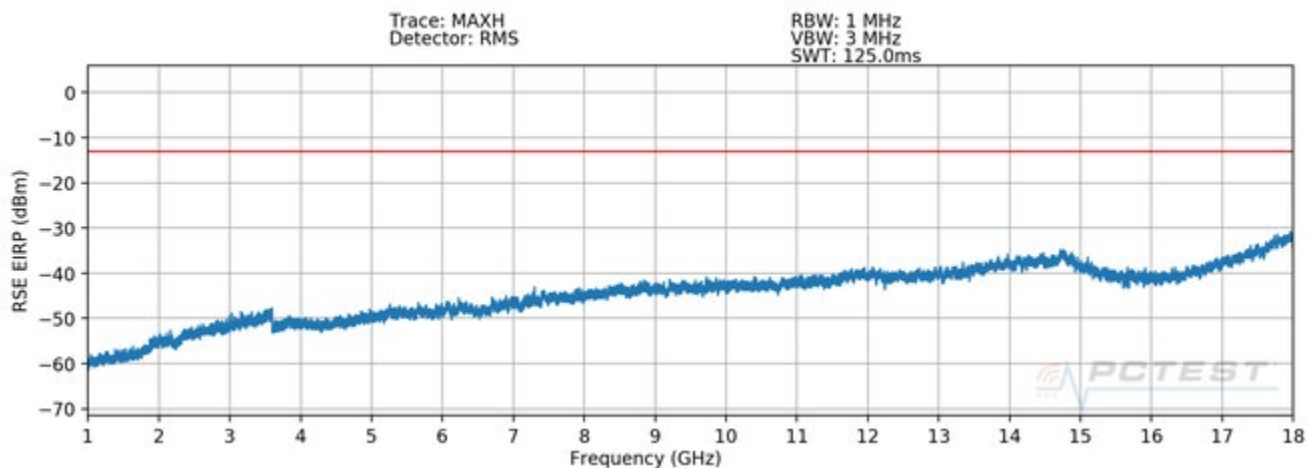
## 7.5.2 Radiated Spurious Emissions Plots (1 – 18GHz)



Plot 7-283. Radiated Spurious Plot 1-18 GHz (1CC QPSK Low Ch. Ant. Pol. H)

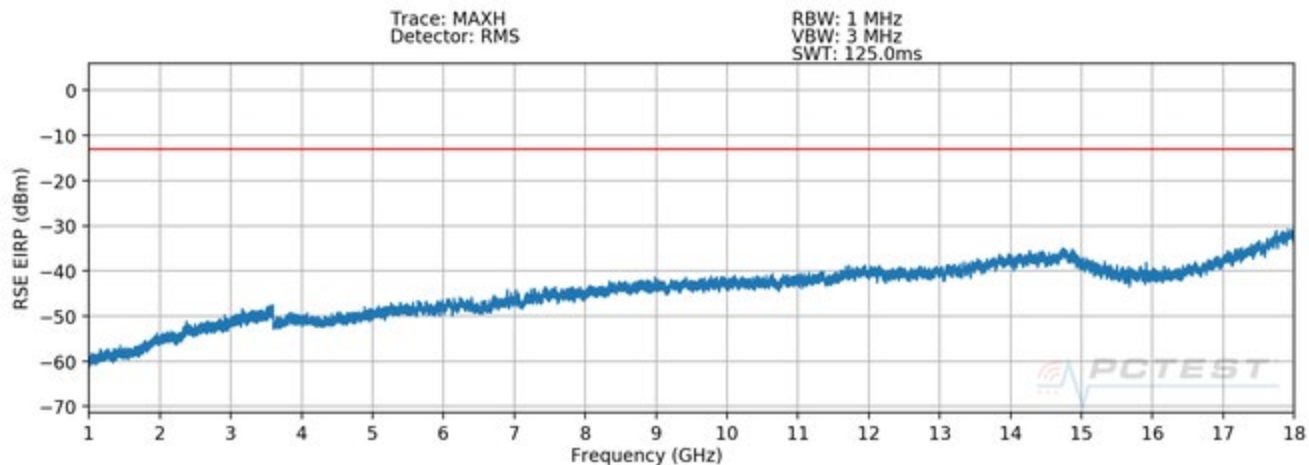


Plot 7-284. Radiated Spurious Plot 1-18 GHz (1CC QPSK Low Ch. Ant. Pol. V)

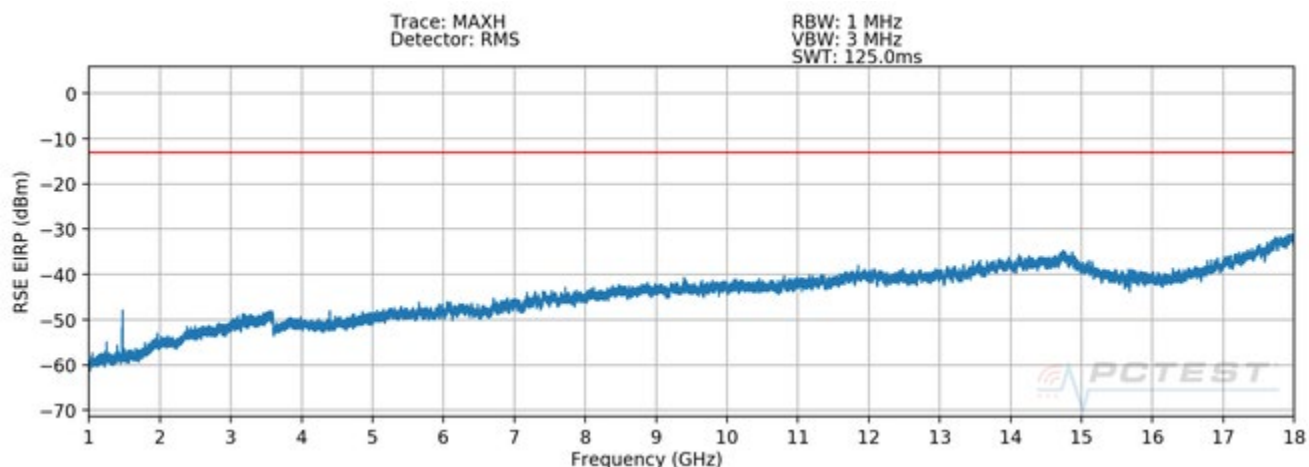


Plot 7-285. Radiated Spurious Plot 1-18 GHz (8CC QPSK Low Ch. Ant. Pol. H)

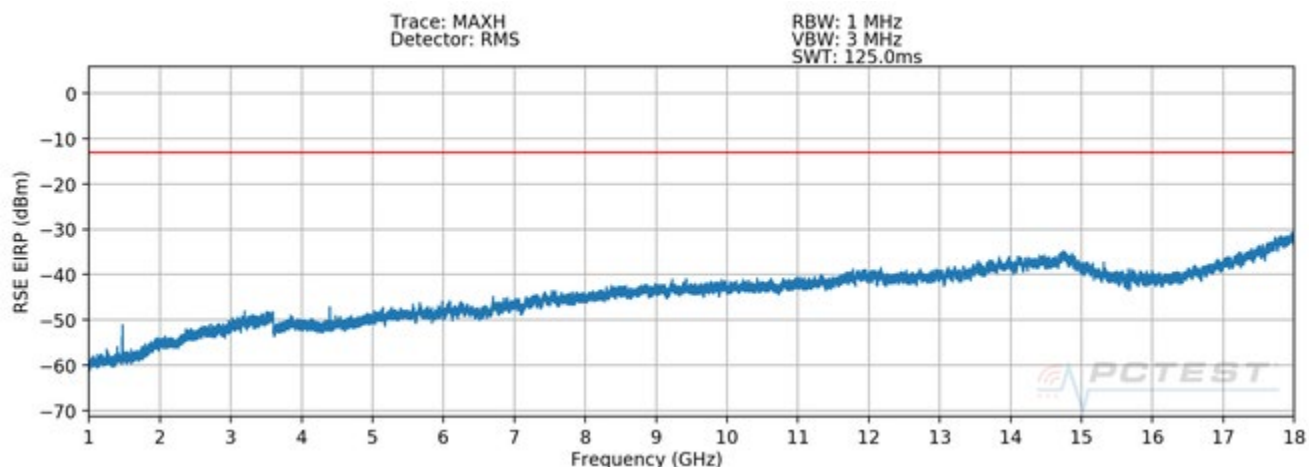
|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 180 of 360                 |



**Plot 7-286. Radiated Spurious Plot 1-18 GHz (8CC QPSK Low Ch. Ant. Pol. V)**

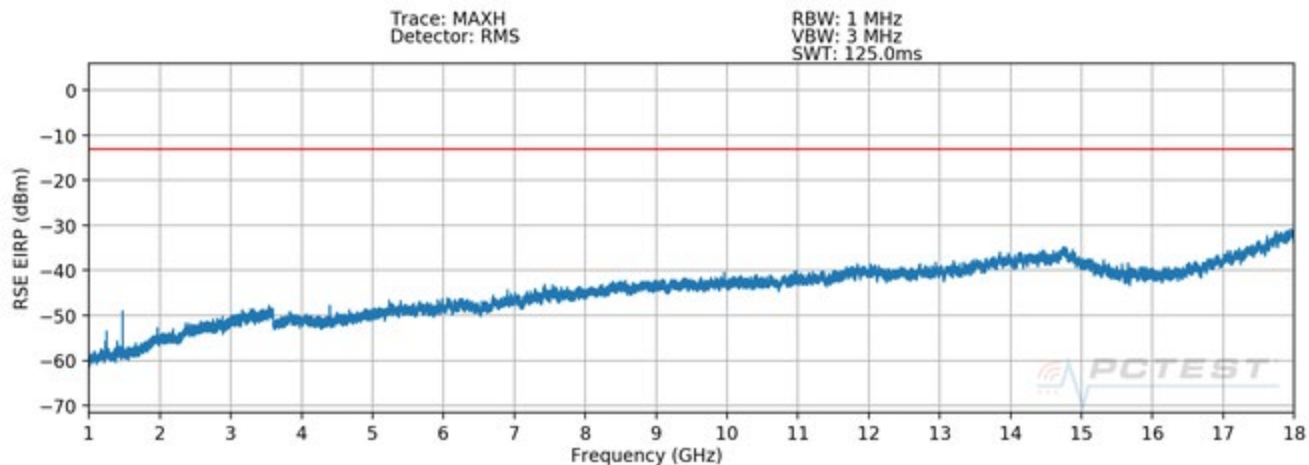


**Plot 7-287. Radiated Spurious Plot 1-18 GHz (8CC NC QPSK Low Ch. Ant. Pol. H)**

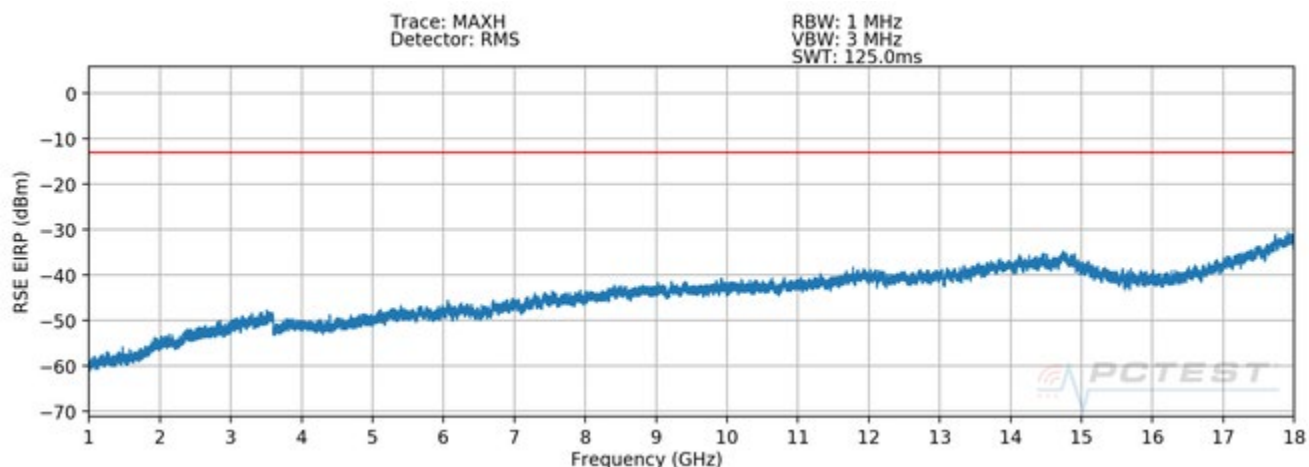


**Plot 7-288. Radiated Spurious Plot 1-18 GHz (8CC NC QPSK Low Ch. Ant. Pol. V)**

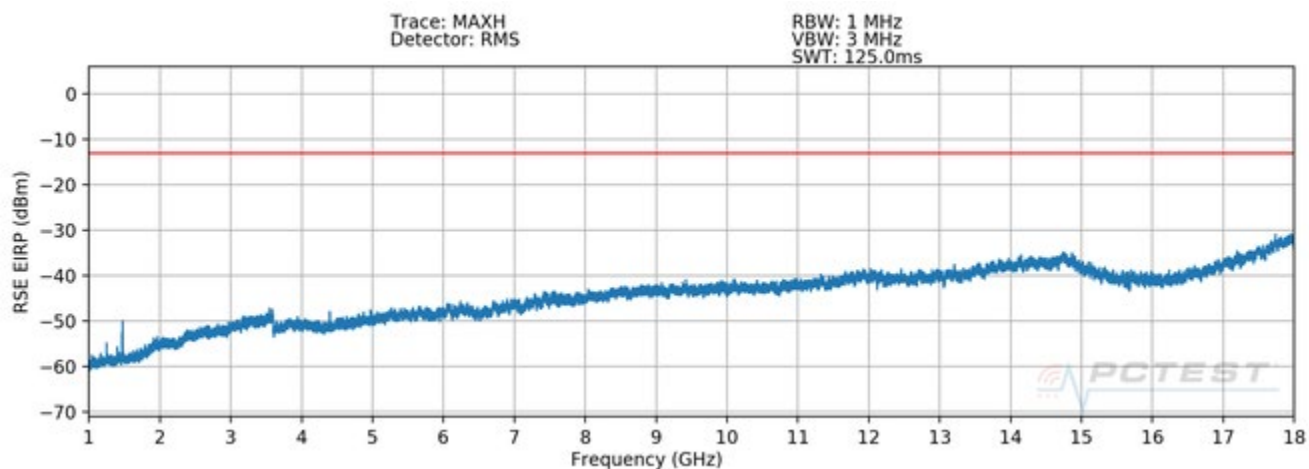
|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 181 of 360                 |



**Plot 7-289. Radiated Spurious Plot 1-18 GHz (1CC QPSK Mid Ch. Ant. Pol. H)**

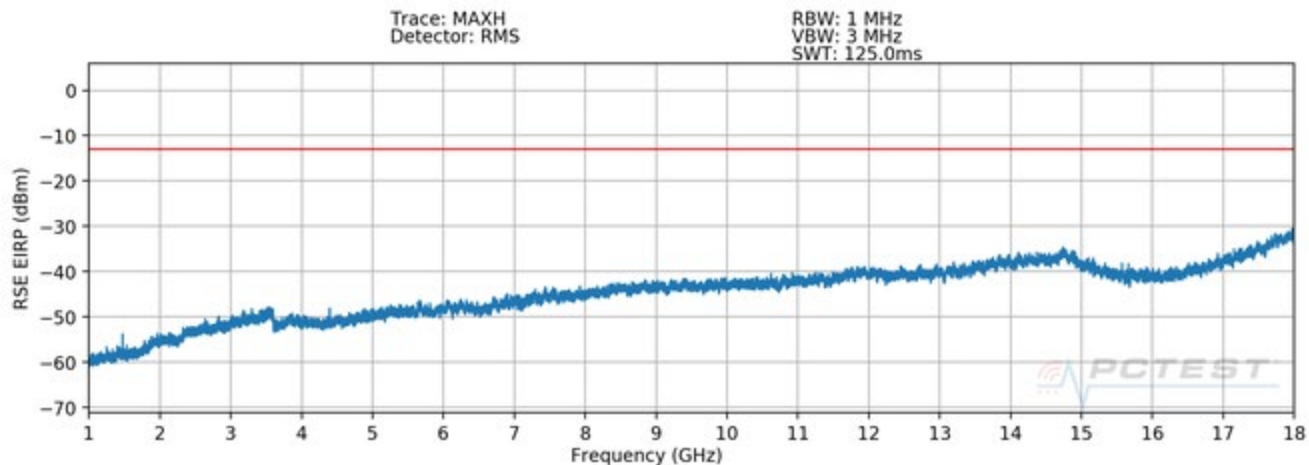


**Plot 7-290. Radiated Spurious Plot 1-18 GHz (1CC QPSK Mid Ch. Ant. Pol. V)**

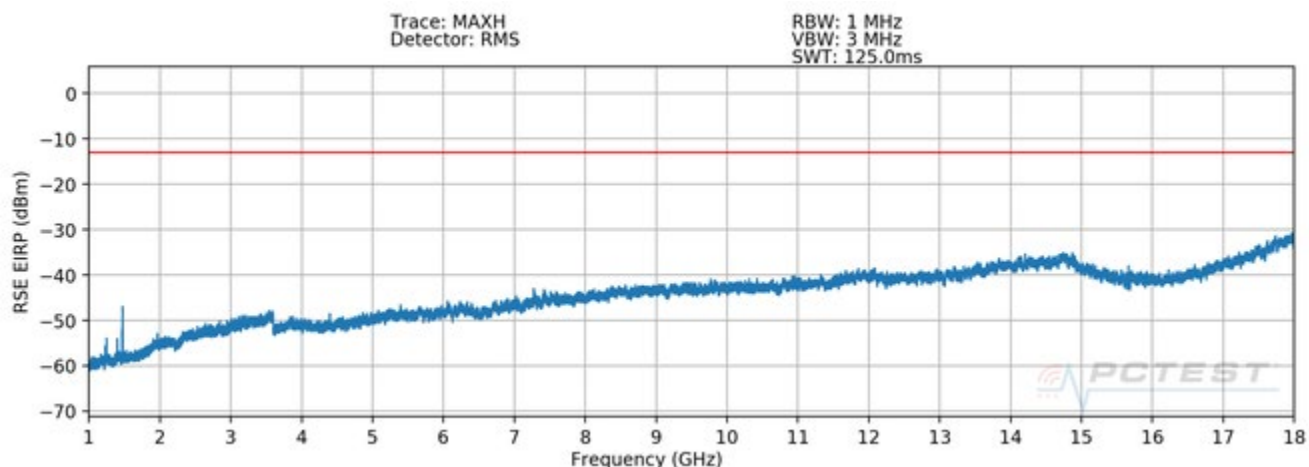


**Plot 7-291. Radiated Spurious Plot 1-18 GHz (8CC QPSK Mid Ch. Ant. Pol. H)**

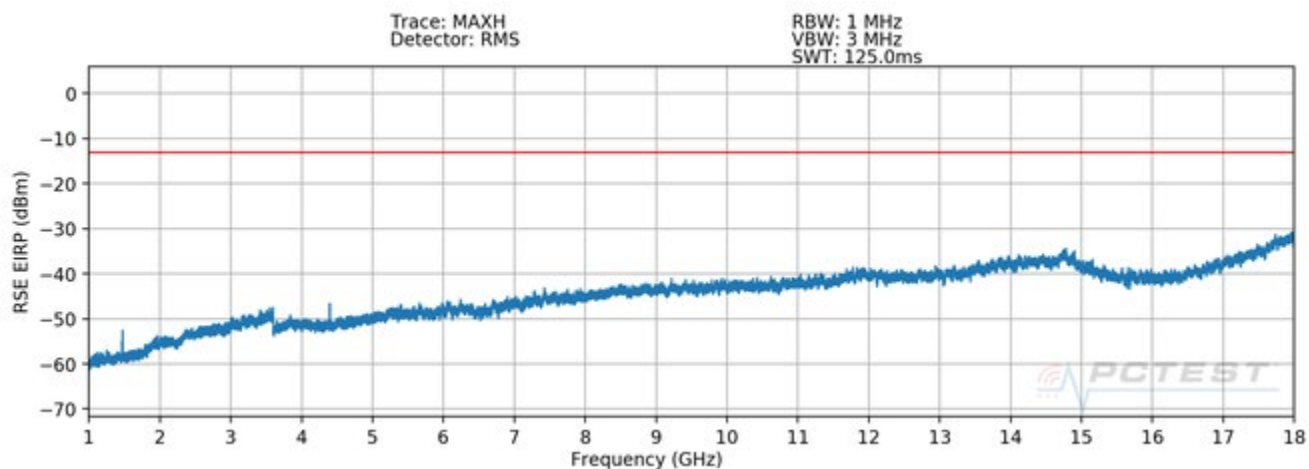
|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 182 of 360                 |



**Plot 7-292. Radiated Spurious Plot 1-18 GHz (8CC QPSK Mid Ch. Ant. Pol. V)**

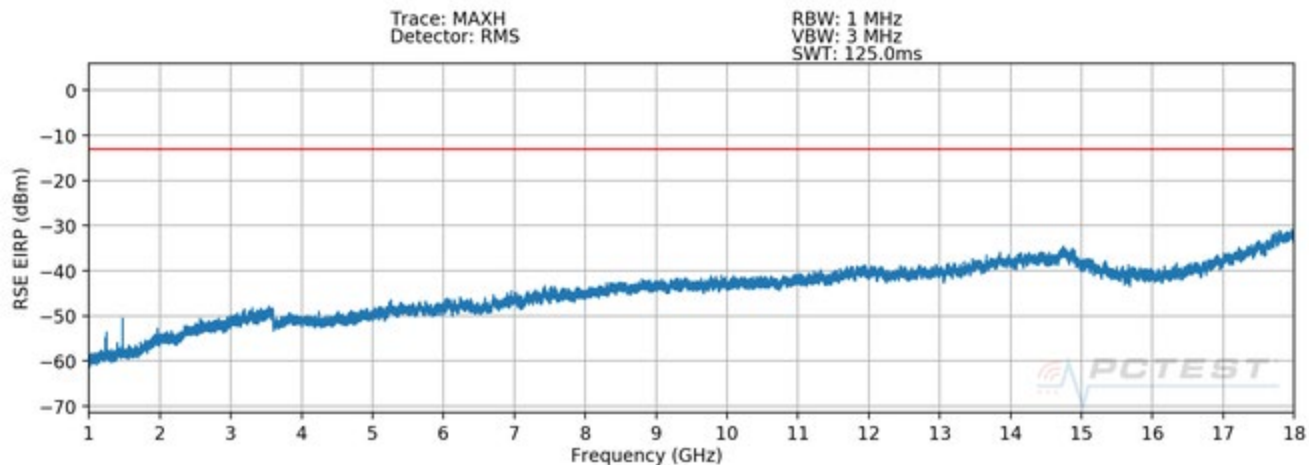


**Plot 7-293. Radiated Spurious Plot 1-18 GHz (8CC NC QPSK Mid Ch. Ant. Pol. H)**

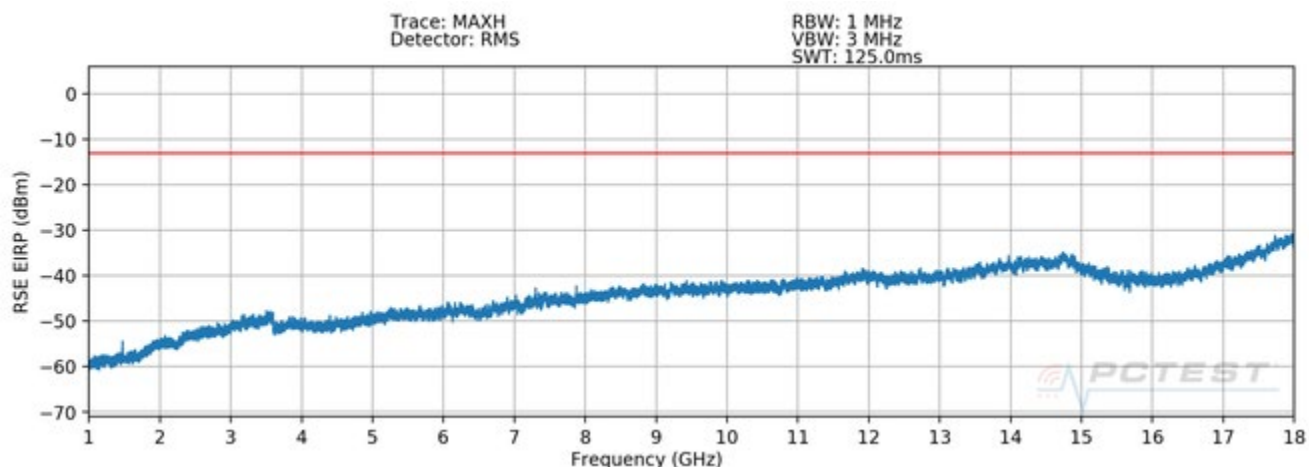


**Plot 7-294. Radiated Spurious Plot 1-18 GHz (8CC NC QPSK Mid Ch. Ant. Pol. V)**

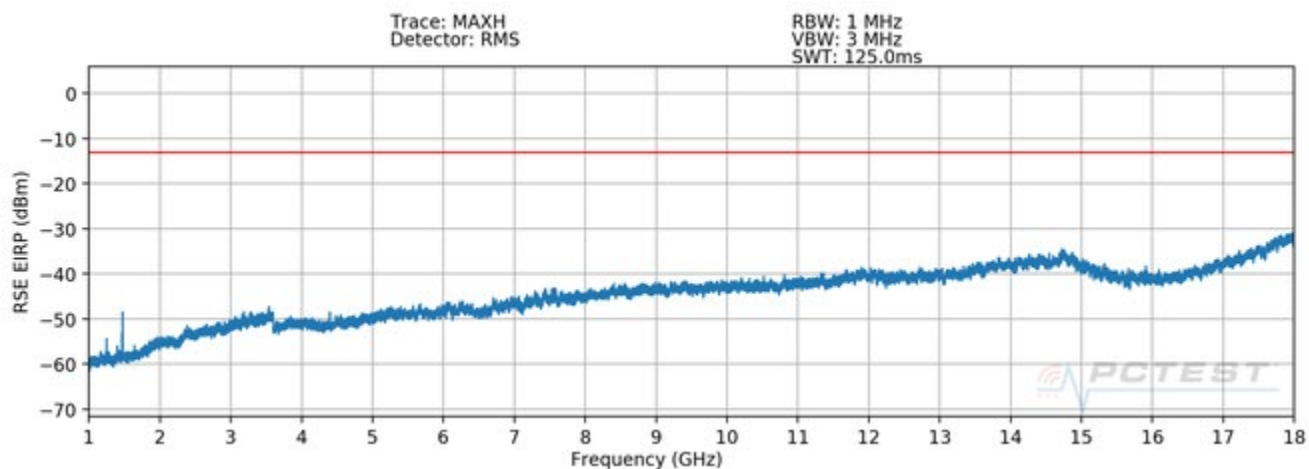
|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 183 of 360                 |



**Plot 7-295. Radiated Spurious Plot 1-18 GHz (1CC QPSK High Ch. Ant. Pol. H)**

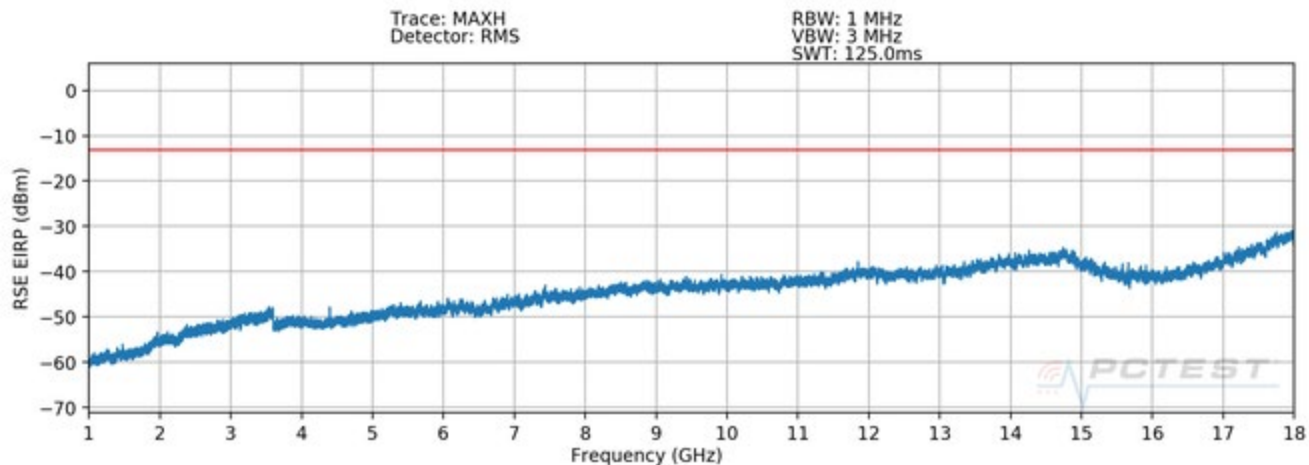


**Plot 7-296. Radiated Spurious Plot 1-18 GHz (1CC QPSK High Ch. Ant. Pol. V)**

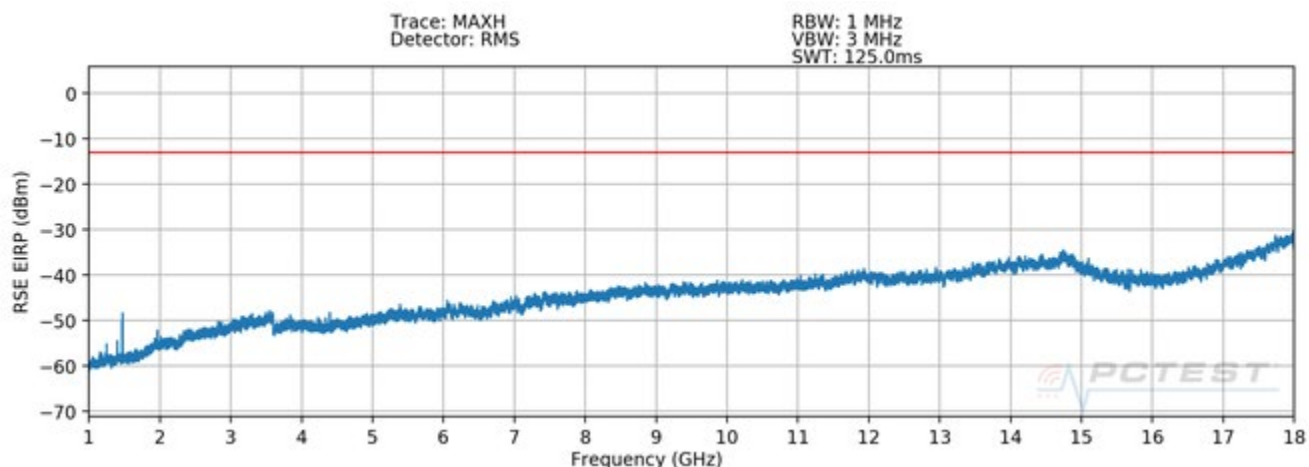


**Plot 7-297. Radiated Spurious Plot 1-18 GHz (8CC QPSK High Ch. Ant. Pol. H)**

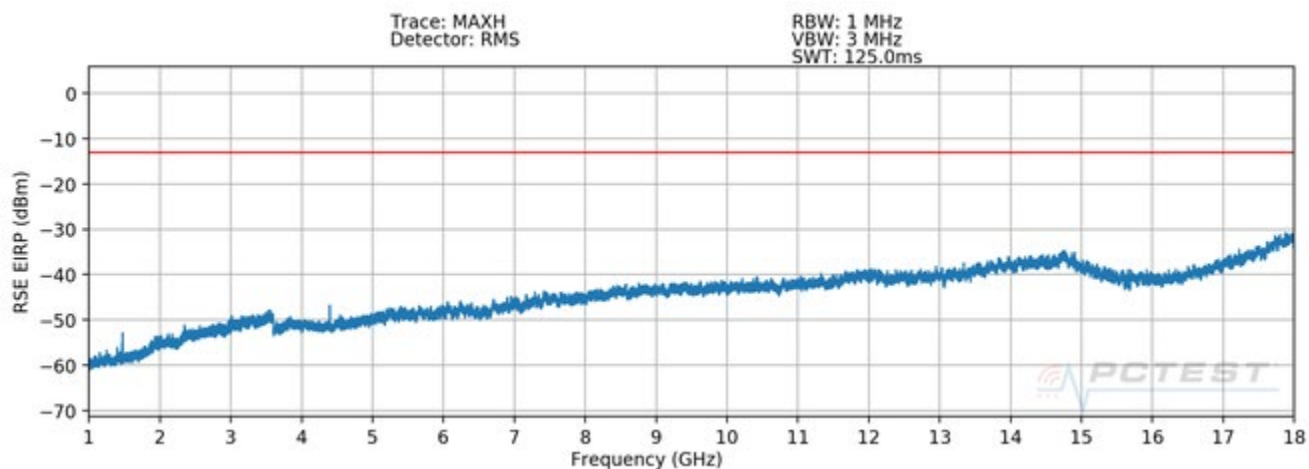
|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 184 of 360                 |



**Plot 7-298. Radiated Spurious Plot 1-18 GHz (8CC QPSK High Ch. Ant. Pol. V)**



**Plot 7-299. Radiated Spurious Plot 1-18 GHz (8CC NC QPSK High Ch. Ant. Pol. H)**



**Plot 7-300. Radiated Spurious Plot 1-18 GHz (8CC NC QPSK High Ch. Ant. Pol. V)**

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 185 of 360                 |

| Frequency [MHz] | Channel | CC Active  | Mod. | Ant. Pol. [H/V] | Antenna Height [cm] | Turn Table Azimuth [degree] | Analyzer Level [dBm] | AFCL [dBm] | Field Strength [dBμV/m] | RSE EIRP [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|---------|------------|------|-----------------|---------------------|-----------------------------|----------------------|------------|-------------------------|----------------|-------------|-------------|
| 18000.00        | Mid     | CC0-CC7(C) | QPSK | H               | 162                 | 154                         | -74.97               | 30.30      | 62.33                   | -32.93         | -13.00      | -19.93      |

**Table 7-19. Spurious Emissions (1 – 18GHz)**

**Note:**

The 1.575GHz emission is known GPS L1 band signal what requires for DUT operation. Otherwise, no peak search founded during test.

**Spurious Emissions EIRP Sample Calculation**

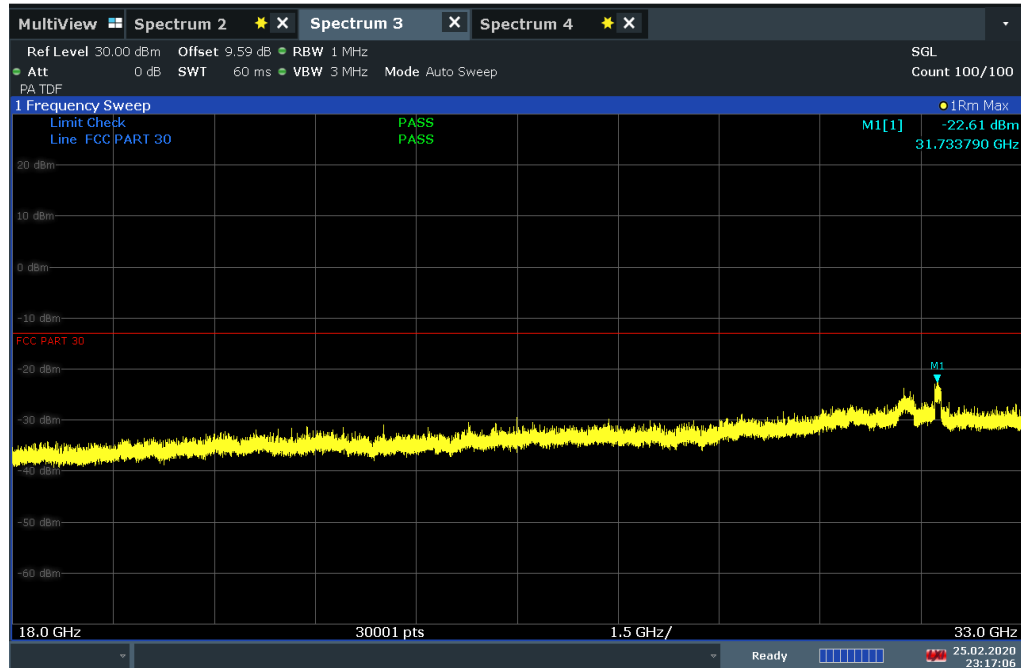
The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 3 meters.

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

|                                              |                                                                                                                                   |                                               |                                                                                       |                                        |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|---------------------------------------------------------------------------------------|----------------------------------------|
| <b>FCC ID:</b> A3LAT1K02-A10                 | <br><small>Proud to be part of element</small> | <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |  | <b>Approved by:</b><br>Quality Manager |
| <b>Test Report S/N:</b><br>8K19110702-01.A3L | <b>Test Dates:</b><br>02/18/2020-03/06/2020                                                                                       | <b>EUT Type:</b><br>5G Access Unit            |                                                                                       | Page 186 of 360                        |

## 7.5.3 Radiated Spurious Emissions Plots (18 – 40GHz)

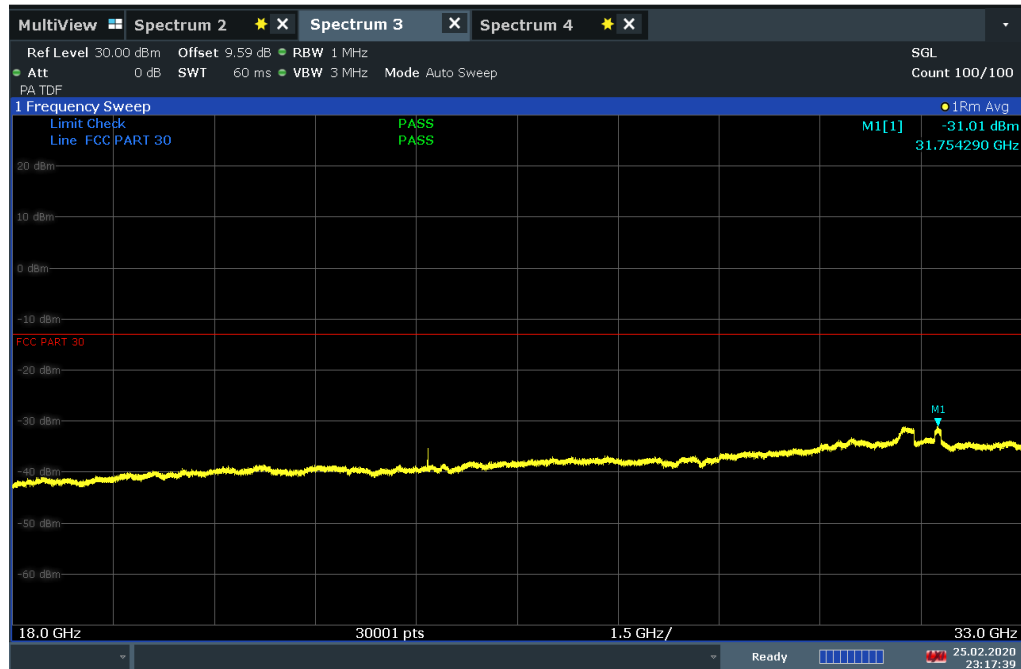
ACLRRResults



23:17:06 25.02.2020

Plot 7-301. Radiated Spurious Plot 18-33 GHz (1CC QPSK Low Ch. Ant. Angle 135)

ACLRRResults

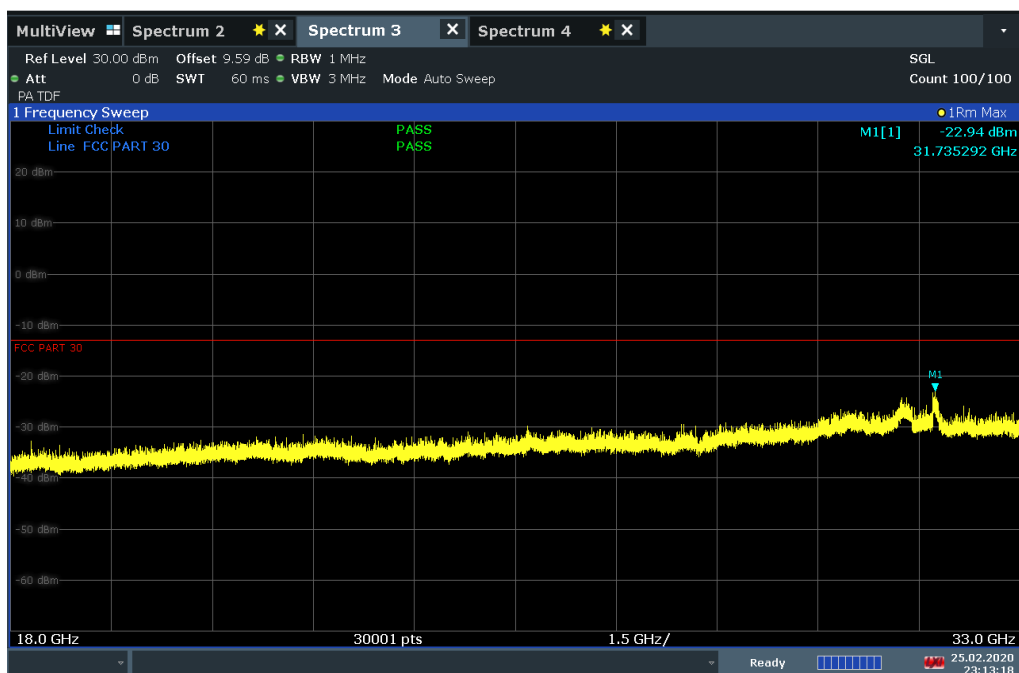


23:17:40 25.02.2020

Plot 7-302. Radiated Spurious Plot 18-33 GHz (1CC QPSK Low Ch. Ant. Angle 135, Final)

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 187 of 360                 |

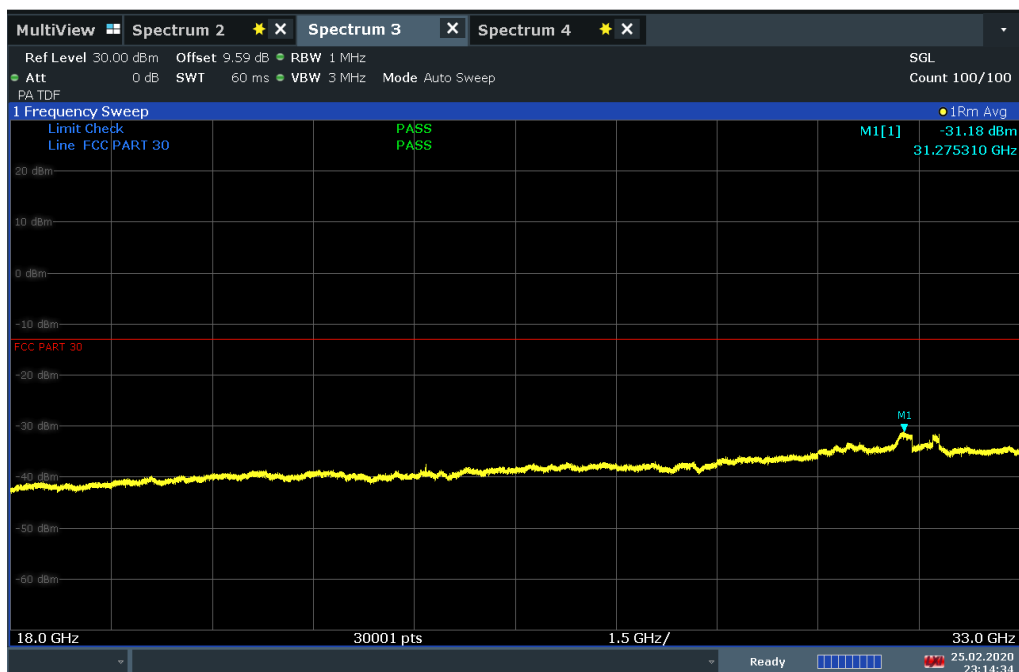
ACLRRResults



23:13:18 25.02.2020

Plot 7-303. Radiated Spurious Plot 18-33 GHz (1CC QPSK Low Ch. Ant. Angle 45)

ACLRRResults

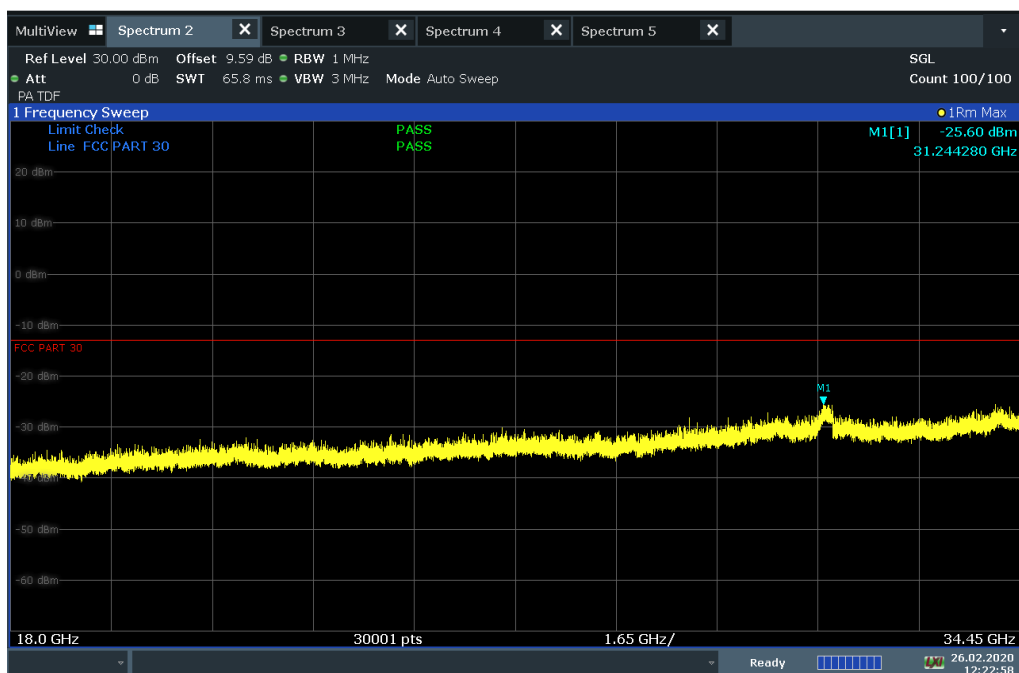


23:14:34 25.02.2020

Plot 7-304. Radiated Spurious Plot 18-33 GHz (1CC QPSK Low Ch. Ant. Angle 45, Final)

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 188 of 360                 |

ACLRRResults



12:22:59 26.02.2020

Plot 7-305. Radiated Spurious Plot 18-33 GHz (8CC QPSK Low Ch. Ant. Angle 135)

ACLRRResults

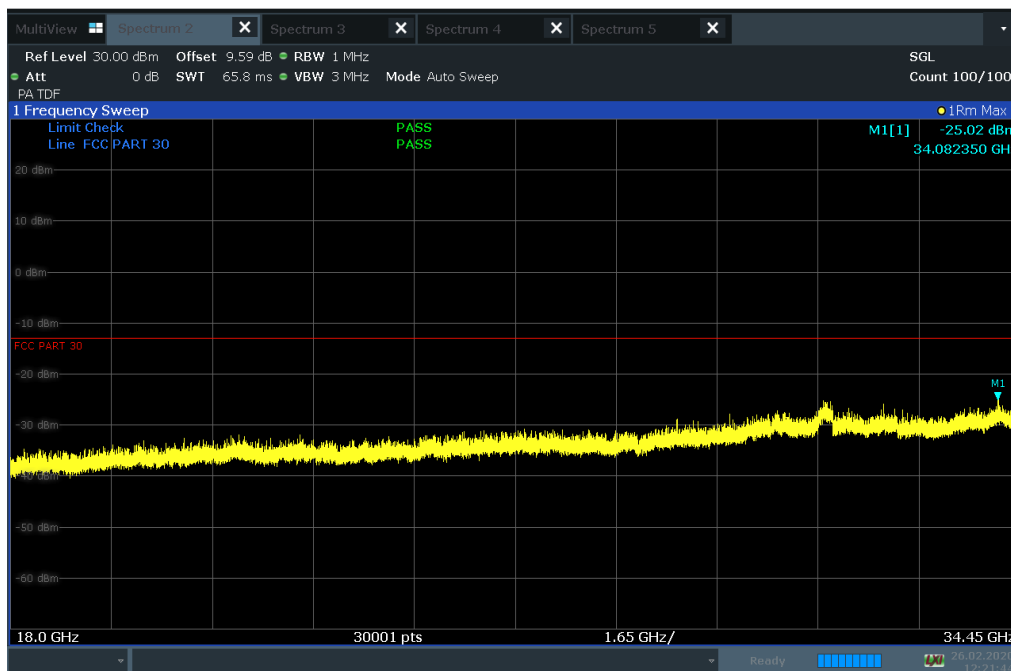


12:23:31 26.02.2020

Plot 7-306. Radiated Spurious Plot 18-33 GHz (8CC QPSK Low Ch. Ant. Angle 135, Final)

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 189 of 360                 |

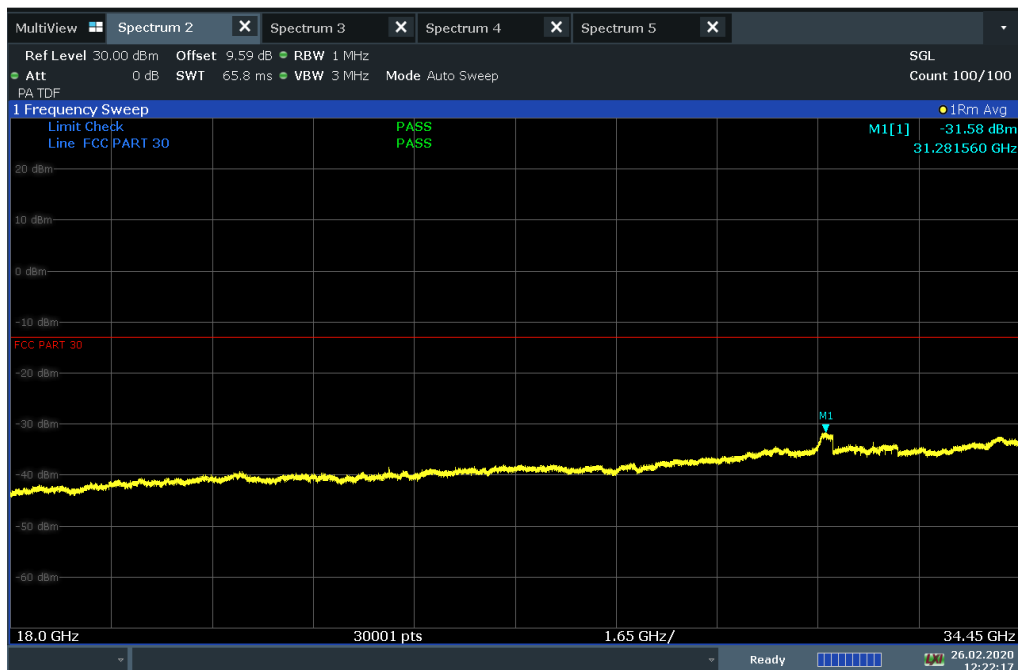
ACLRRResults



12:21:45 26.02.2020

Plot 7-307. Radiated Spurious Plot 18-33 GHz (8CC QPSK Low Ch. Ant. Angle 45)

ACLRRResults

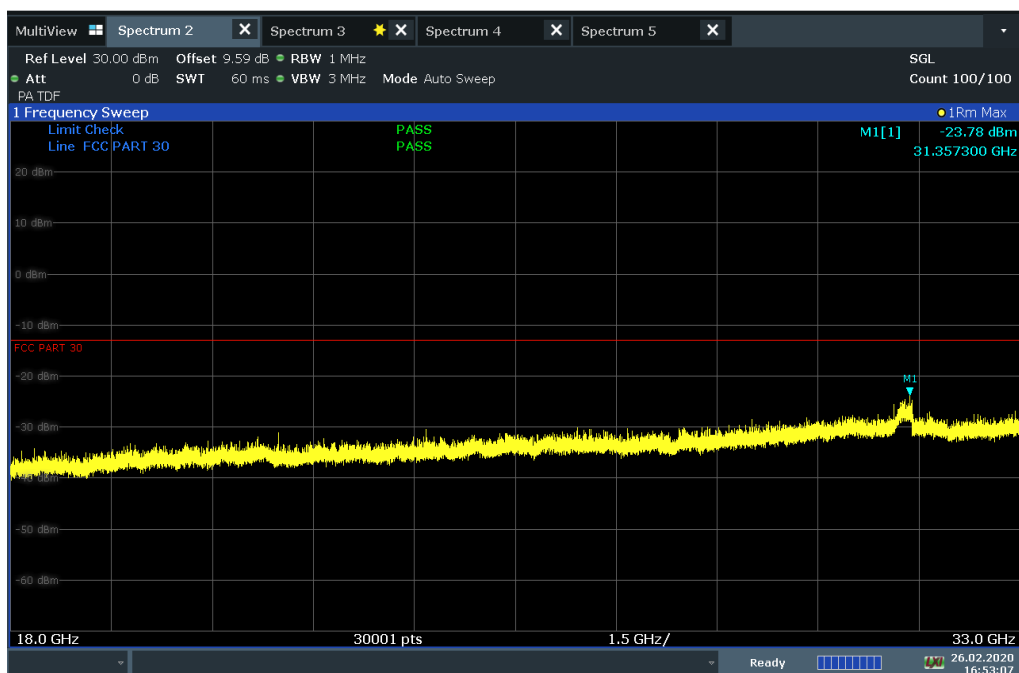


12:22:17 26.02.2020

Plot 7-308. Radiated Spurious Plot 18-33 GHz (8CC QPSK Low Ch. Ant. Angle 45, Final)

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 190 of 360                 |

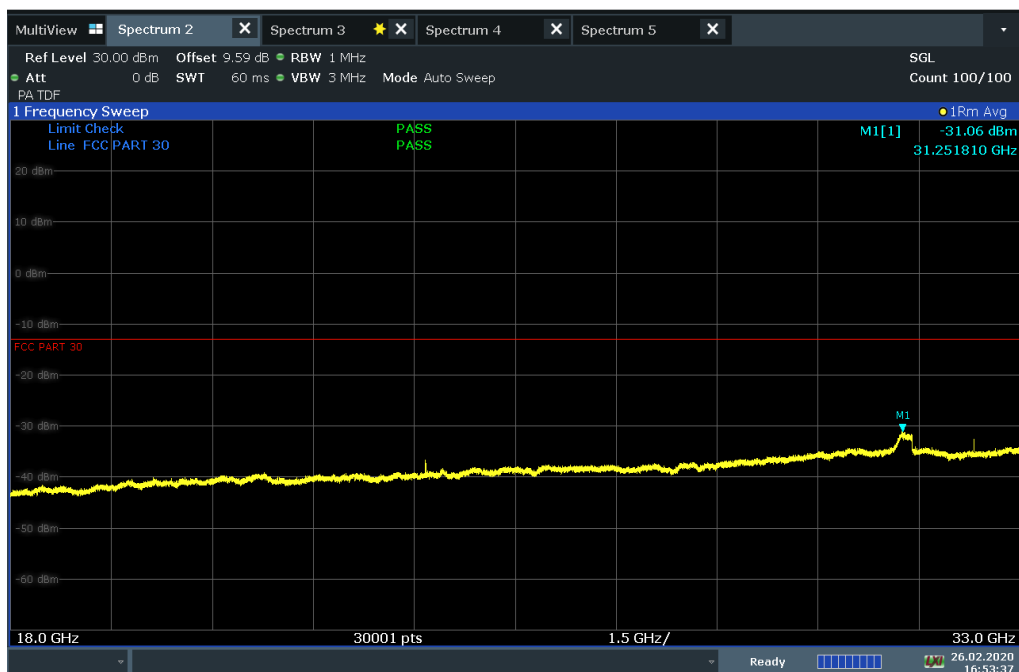
ACLRRResults



16:53:08 26.02.2020

Plot 7-309. Radiated Spurious Plot 18-33 GHz (8CC NC QPSK Low Ch. Ant. Angle 135)

ACLRRResults

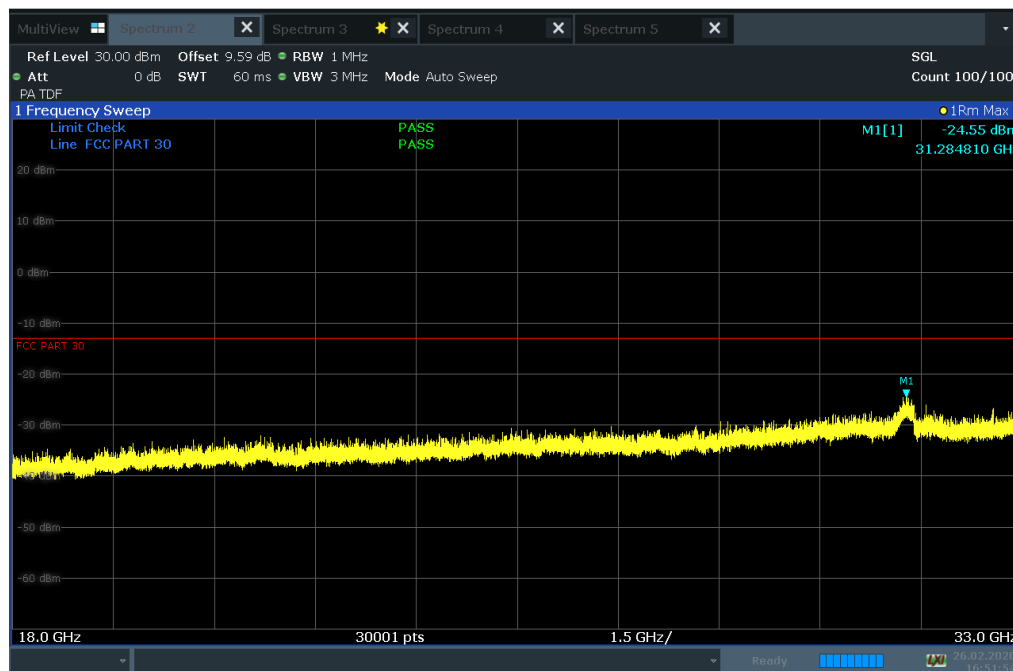


16:53:37 26.02.2020

Plot 7-310. Radiated Spurious Plot 18-33 GHz (8CC NC QPSK Low Ch. Ant. Angle 135, Final)

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 191 of 360                 |

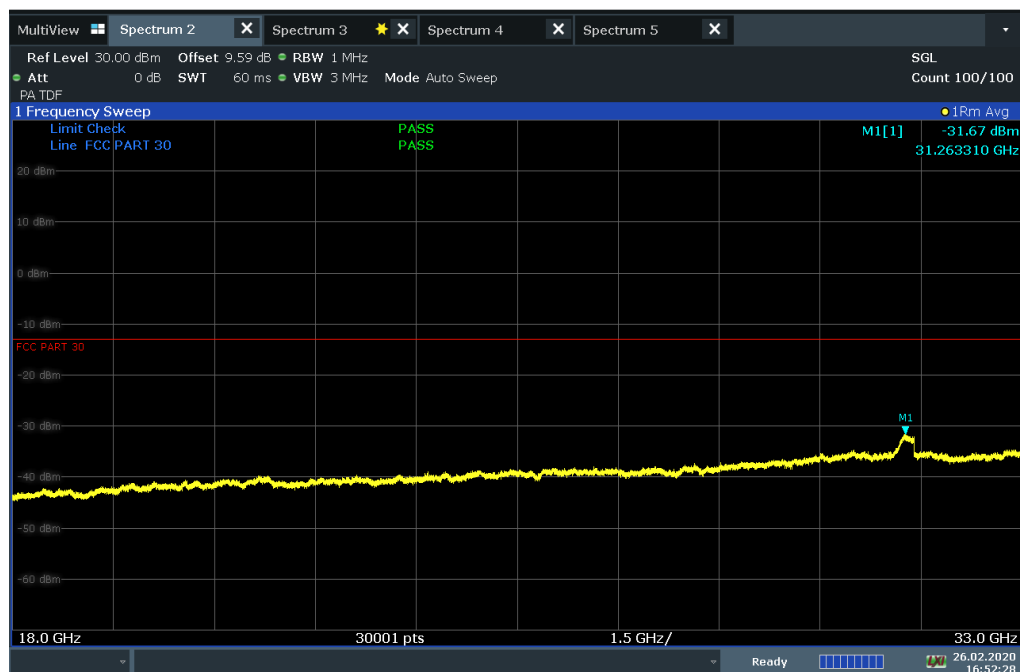
ACLRRResults



16:51:55 26.02.2020

Plot 7-311. Radiated Spurious Plot 18-33 GHz (8CC NC QPSK Low Ch. Ant. Angle 45)

ACLRRResults

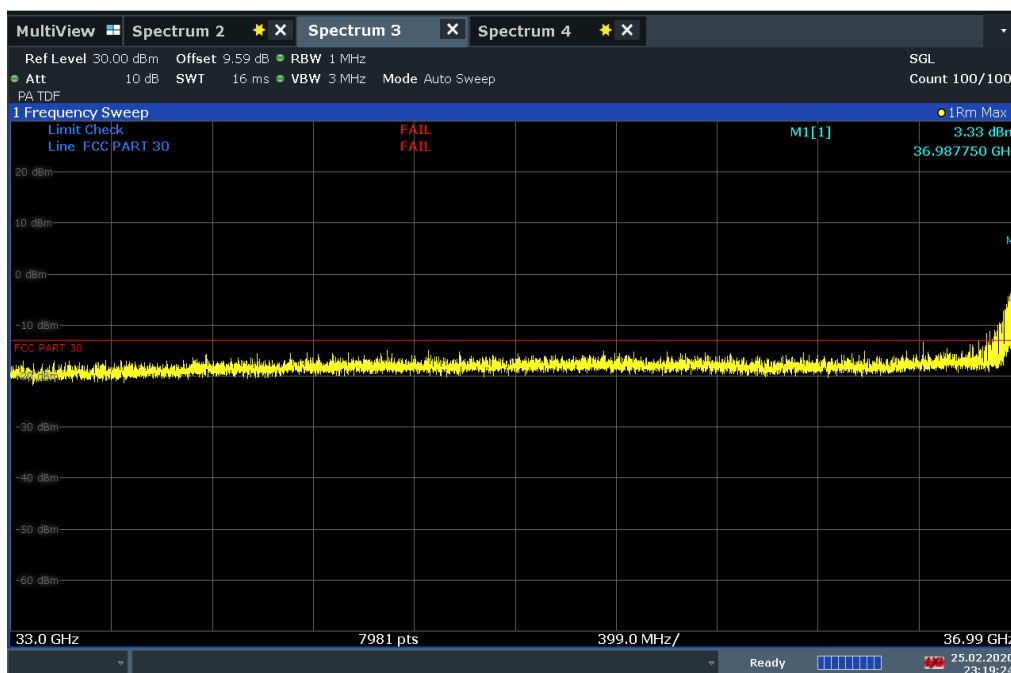


16:52:29 26.02.2020

Plot 7-312. Radiated Spurious Plot 18-33 GHz (8CC NC QPSK Low Ch. Ant. Angle 45, Final)

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 192 of 360                 |

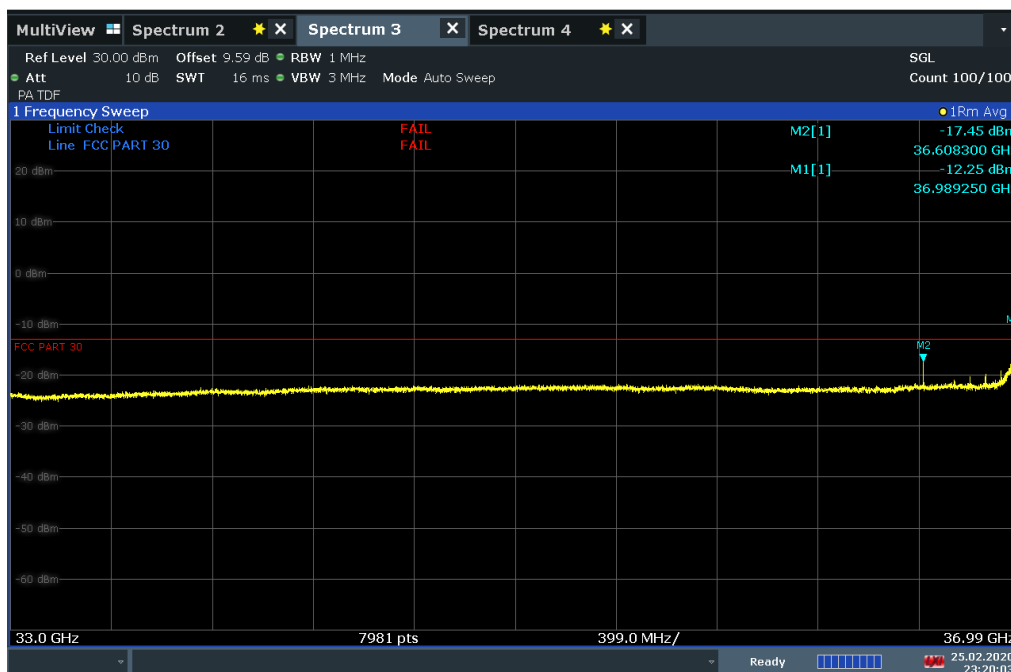
ACLRRResults



23:19:24 25.02.2020

Plot 7-313. Radiated Spurious Plot 33-36.99 GHz (1CC QPSK Low Ch. Ant. Angle 135)

ACLRRResults

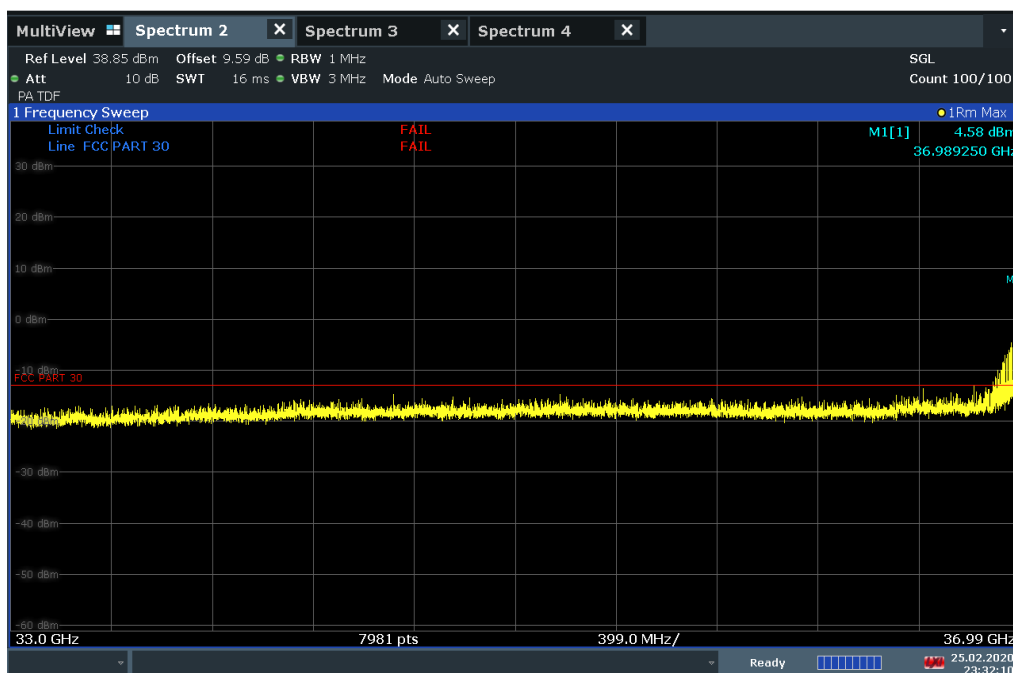


23:20:03 25.02.2020

Plot 7-314. Radiated Spurious Plot 33-36.99 GHz (1CC QPSK Low Ch. Ant. Angle 135, Final)

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 193 of 360                 |

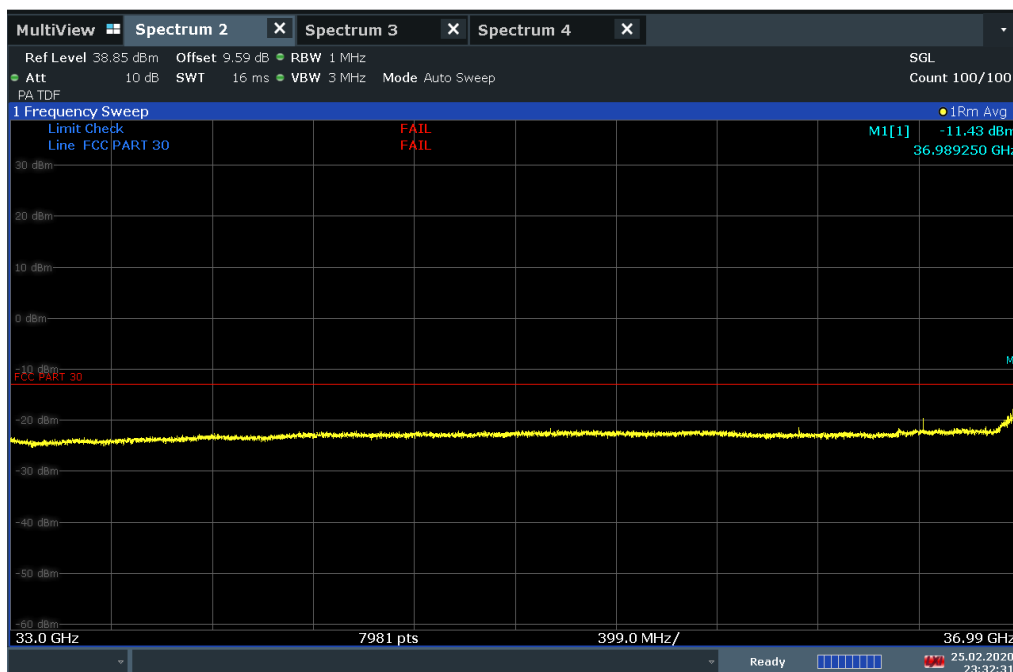
ACLRRResults



23:32:11 25.02.2020

Plot 7-315. Radiated Spurious Plot 33-36.99 GHz (1CC QPSK Low Ch. Ant. Angle 45)

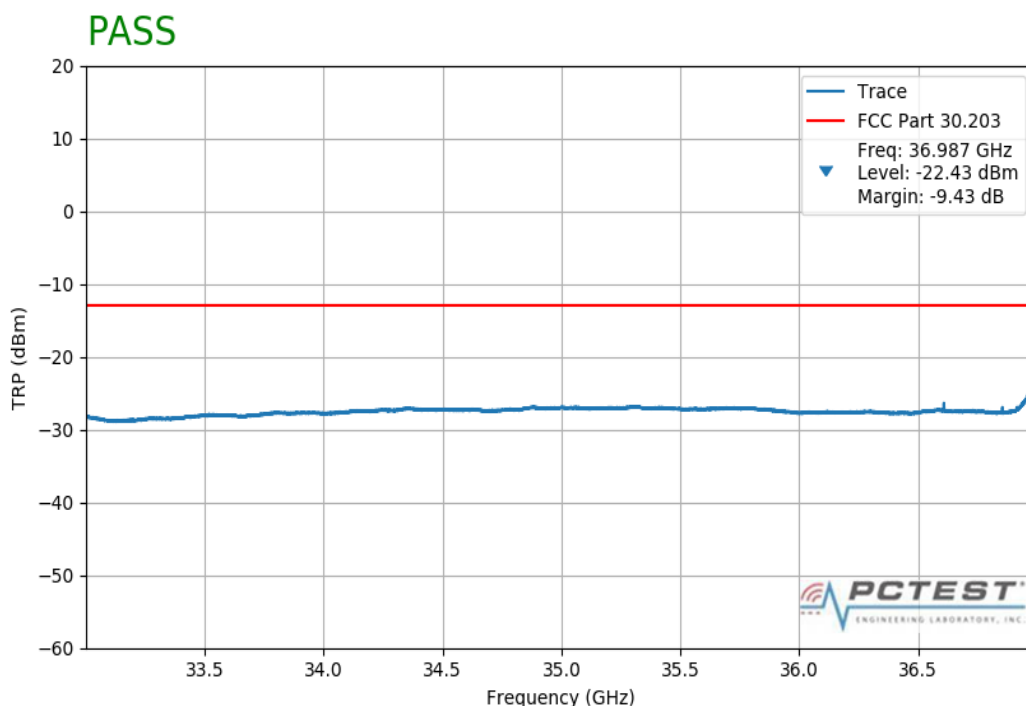
ACLRRResults



23:32:31 25.02.2020

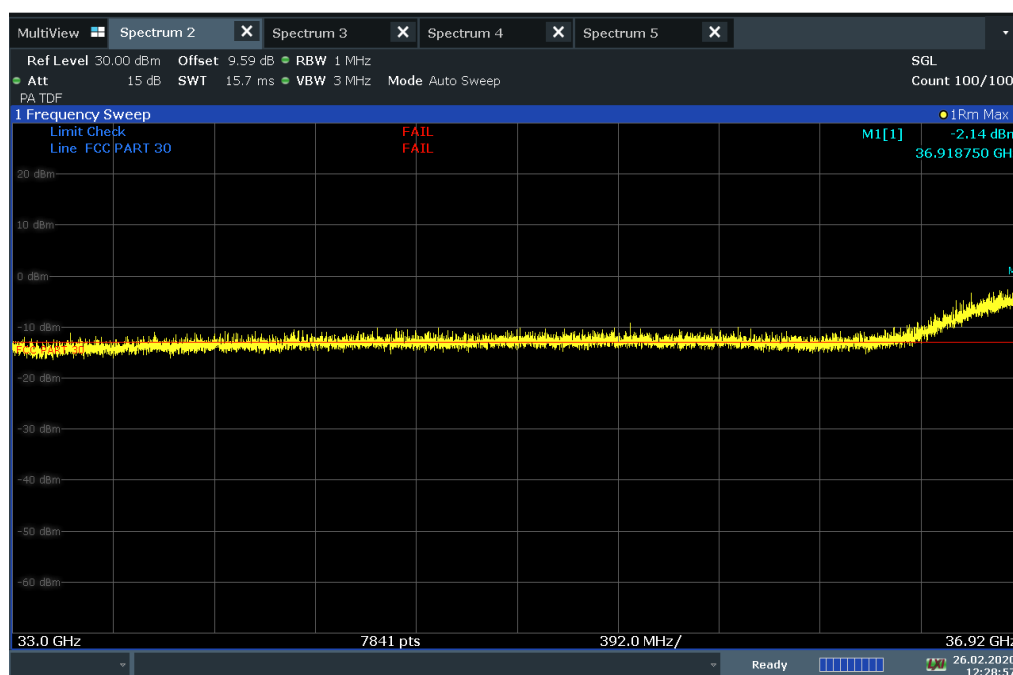
Plot 7-316. Radiated Spurious Plot 33-36.99 GHz (1CC QPSK Low Ch. Ant. Angle 45, Final)

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 194 of 360                 |



**Plot 7-317. Radiated Spurious Plot 33-36.99 GHz (1CC QPSK Low Ch. TRP)**

**ACLRRResults**

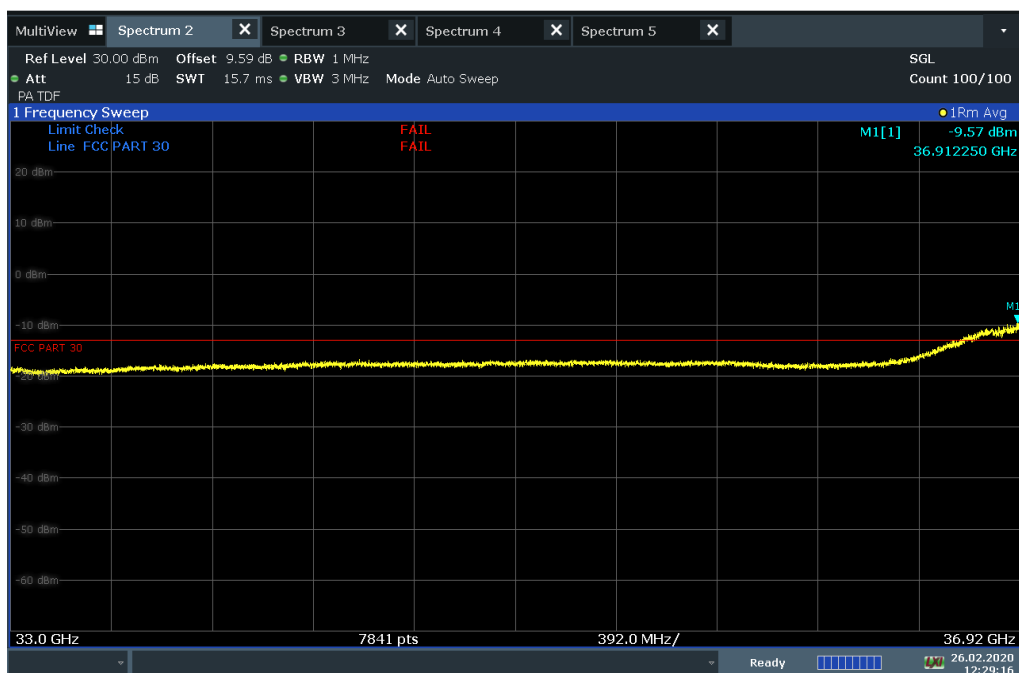


12:28:58 26.02.2020

**Plot 7-318. Radiated Spurious Plot 33-36.92 GHz (8CC QPSK Low Ch. Ant. Angle 135)**

|                                       |                                              |                                               |                |                                 |
|---------------------------------------|----------------------------------------------|-----------------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit                   |                | Page 195 of 360                 |

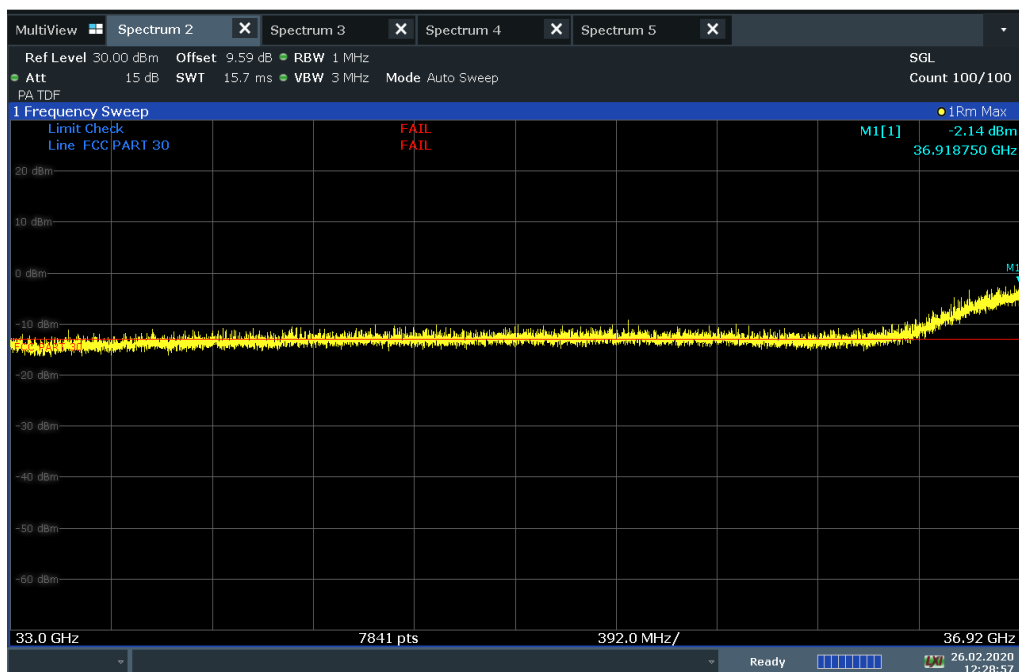
ACLRRResults



12:29:16 26.02.2020

Plot 7-319. Radiated Spurious Plot 33-36.92 GHz (8CC QPSK Low Ch. Ant. Angle 135, Final)

ACLRRResults

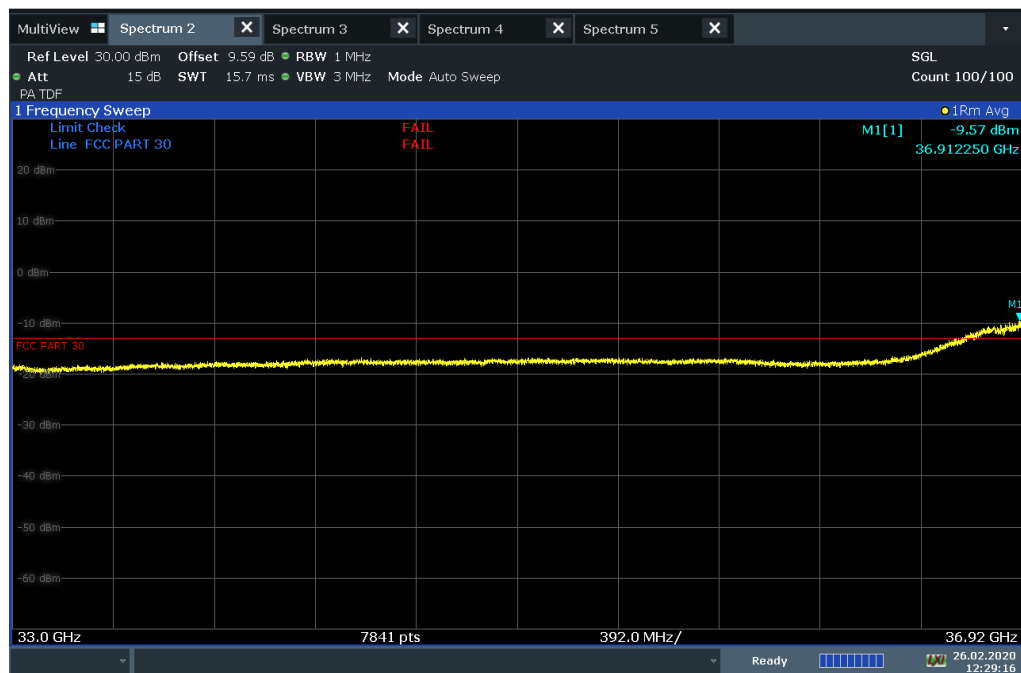


12:28:58 26.02.2020

Plot 7-320. Radiated Spurious Plot 33-36.92 GHz (8CC QPSK Low Ch. Ant. Angle 45)

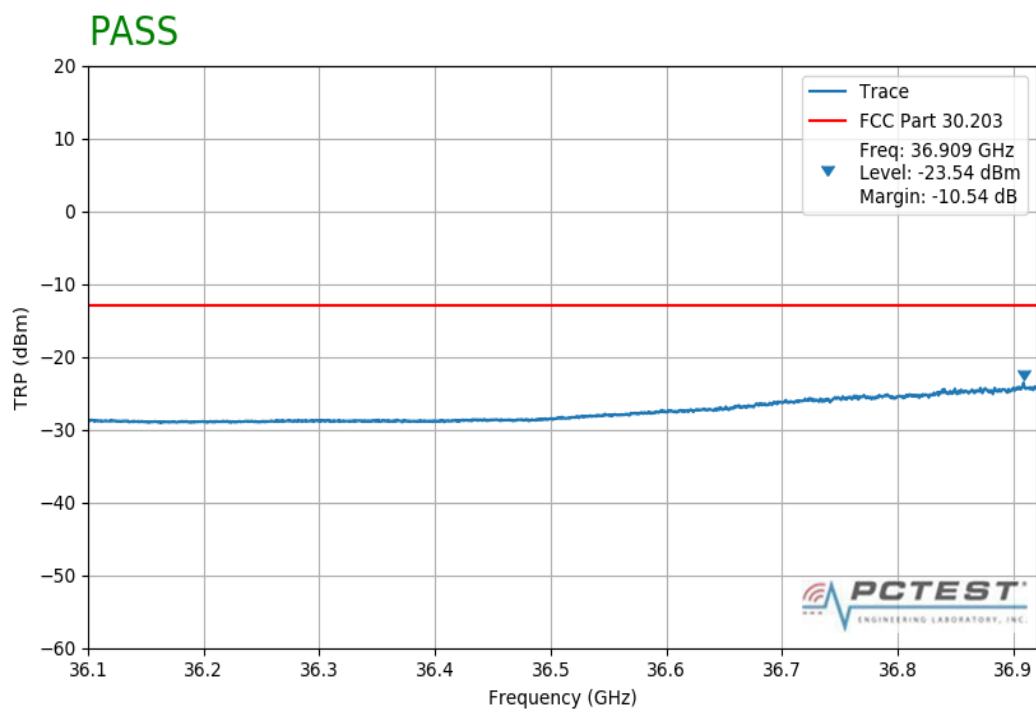
|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 196 of 360                 |

ACLRRResults



12:29:16 26.02.2020

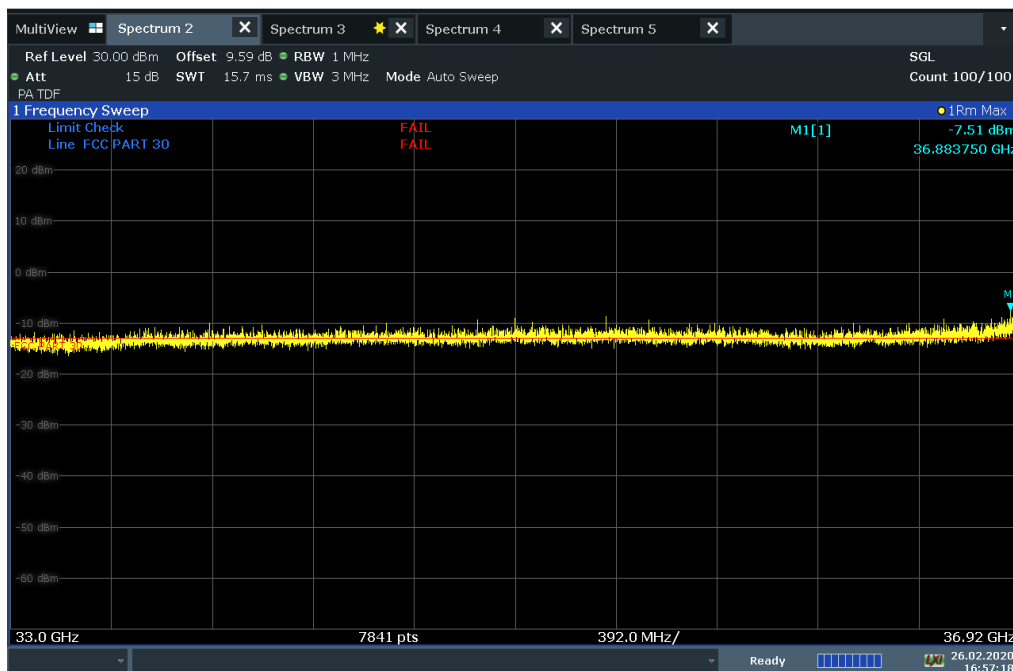
Plot 7-321. Radiated Spurious Plot 33-36.92 GHz (8CC QPSK Low Ch. Ant. Angle 45, Final)



Plot 7-322. Radiated Spurious Plot 36.1-36.92 GHz (8CC QPSK Low Ch. TRP)

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 197 of 360                 |

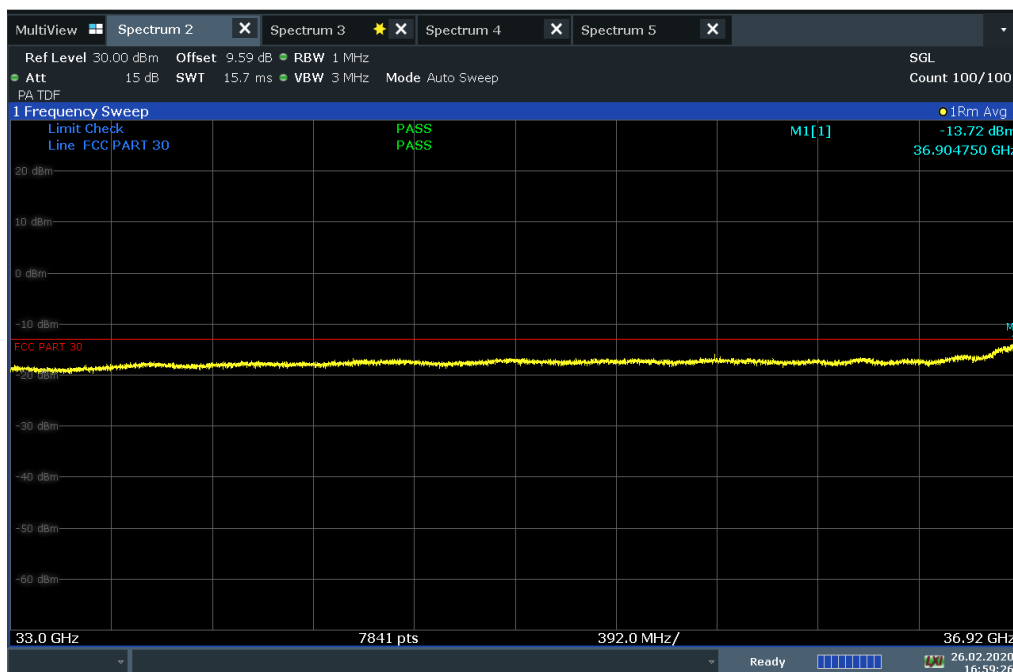
ACLRRResults



16:57:18 26.02.2020

Plot 7-323. Radiated Spurious Plot 33-36.92 GHz (8CC NC QPSK Low Ch. Ant. Angle 135)

ACLRRResults

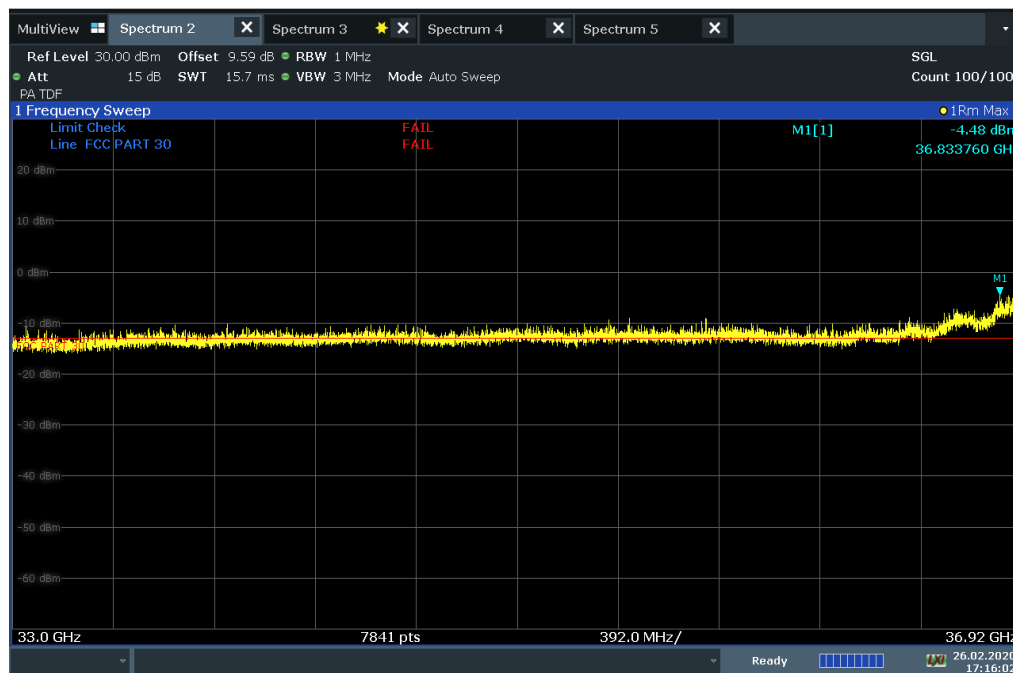


16:59:27 26.02.2020

Plot 7-324. Radiated Spurious Plot 33-36.92 GHz (8CC NC QPSK Low Ch. Ant. Angle 135, Final)

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 198 of 360                 |

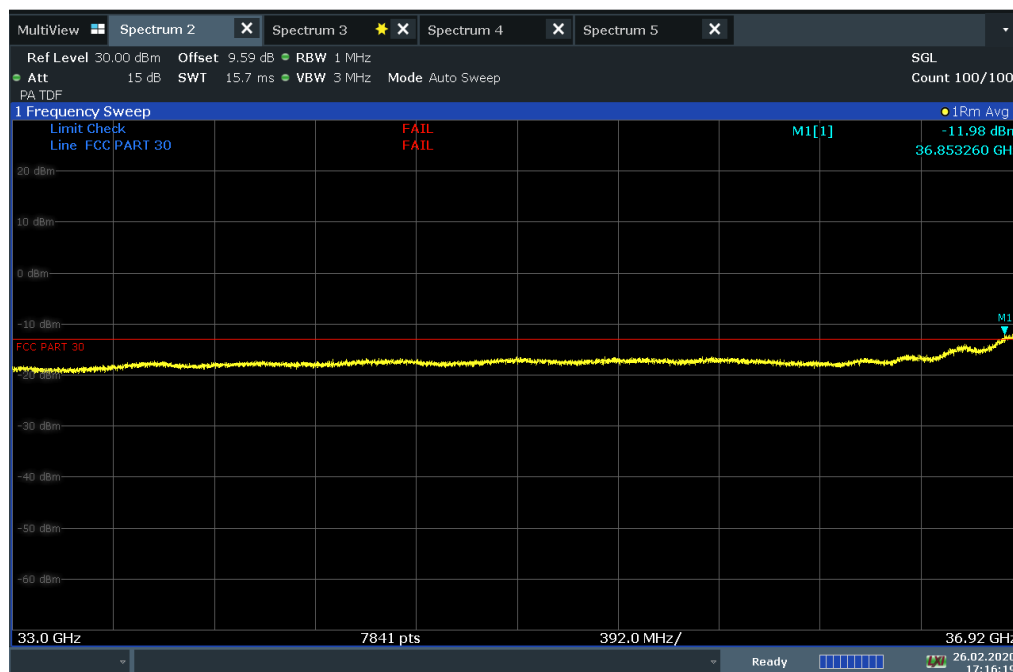
ACLRRResults



17:16:03 26.02.2020

Plot 7-325. Radiated Spurious Plot 33-36.92 GHz (8CC NC QPSK Low Ch. Ant. Angle 45)

ACLRRResults



17:16:19 26.02.2020

Plot 7-326. Radiated Spurious Plot 33-36.92 GHz (8CC NC QPSK Low Ch. Ant. Angle 45, Final)

|                                       |                                              |                                       |                |                                 |
|---------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LAT1K02-A10                 | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>8K19110702-01.A3L | Test Dates:<br>02/18/2020-03/06/2020         | EUT Type:<br>5G Access Unit           |                | Page 199 of 360                 |