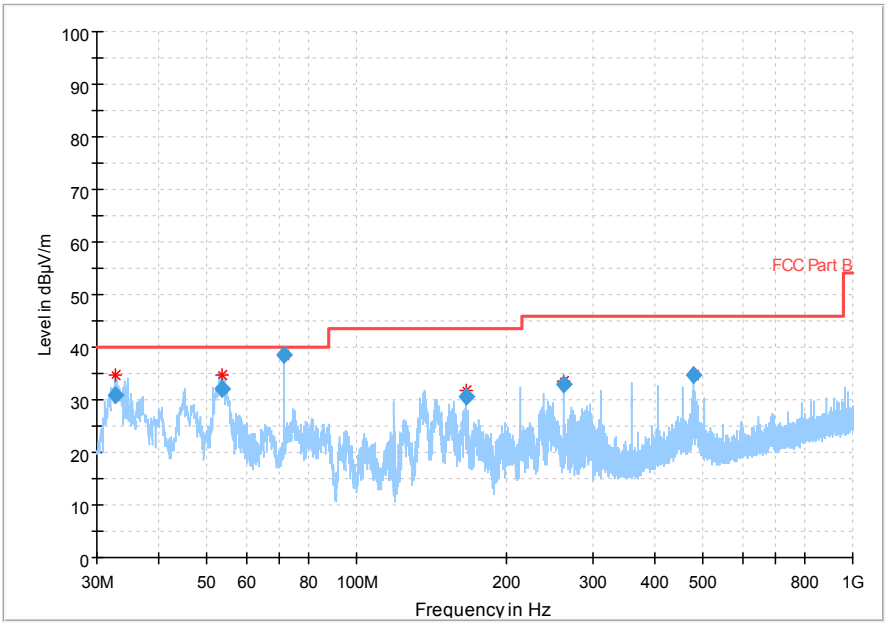



Fig.40 Radiated emission: GFSK, Ch78, 30MHz~1GHz

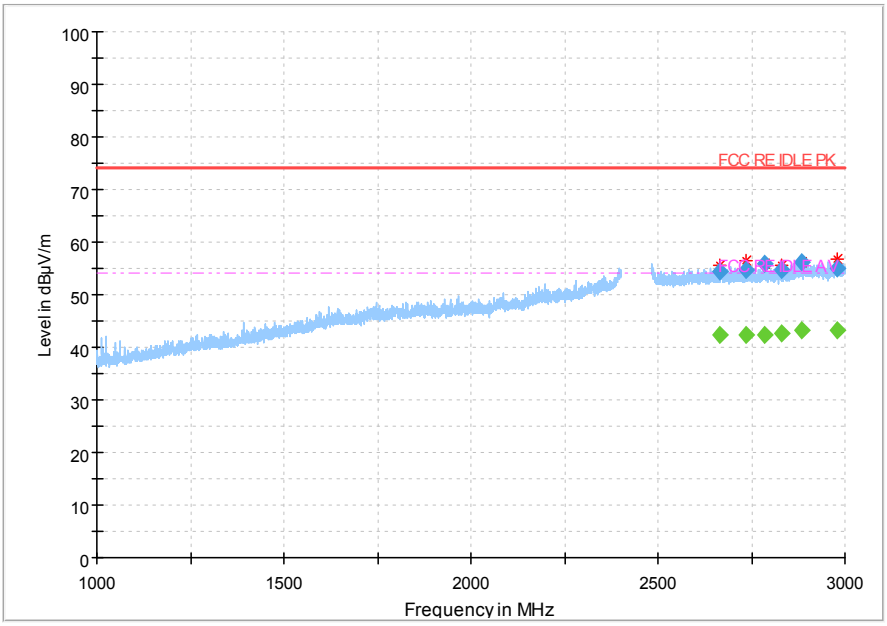



Fig.41 Radiated emission: GFSK, Ch78, 1GHz~3GHz

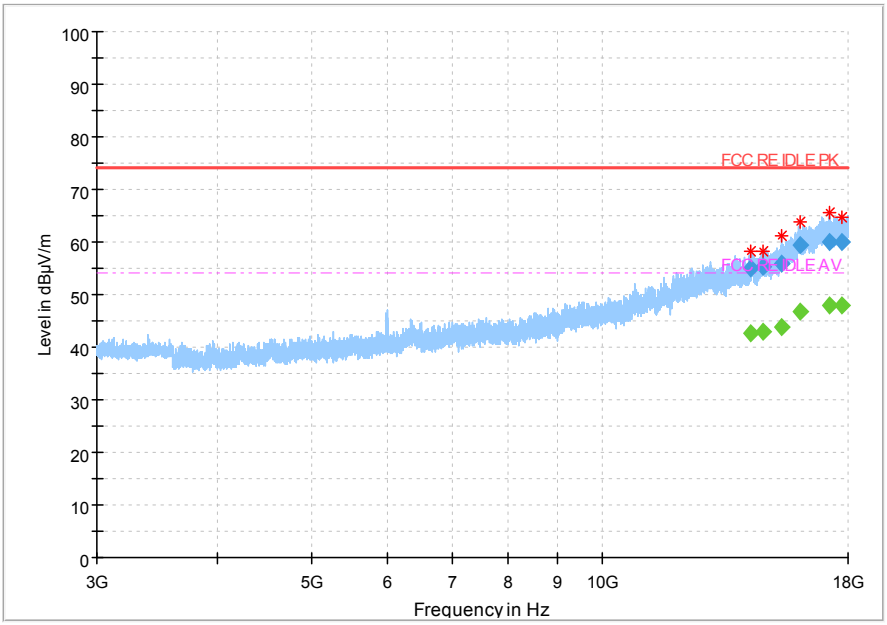
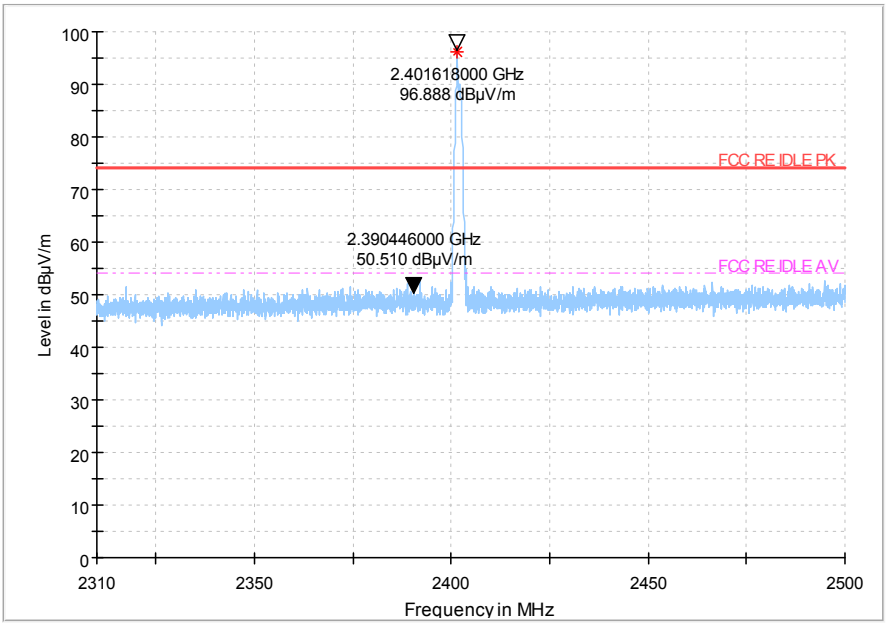



Fig.42 Radiated emission: GFSK, Ch78, 3GHz~18GHz



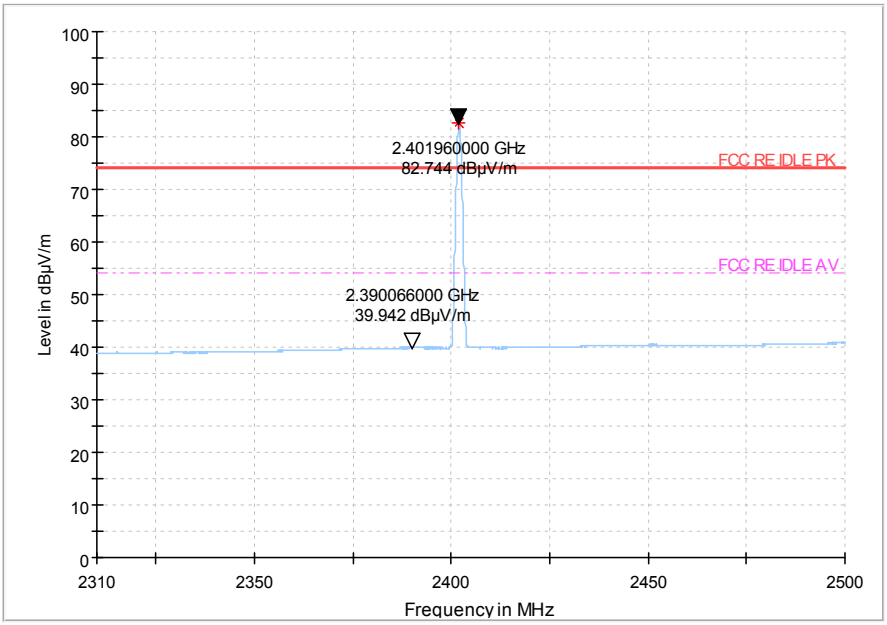
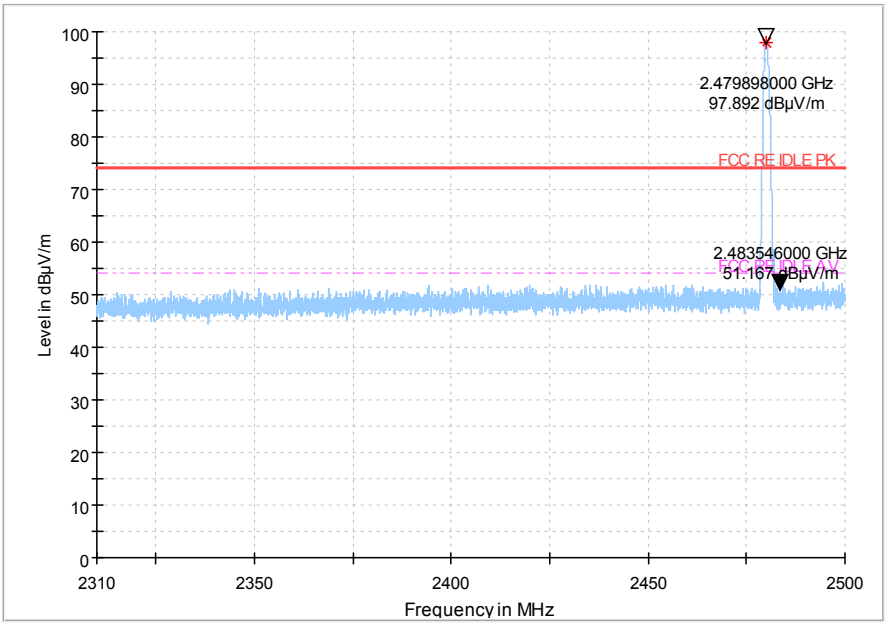



Fig.43 Radiated emission (Low): GFSK, low channel



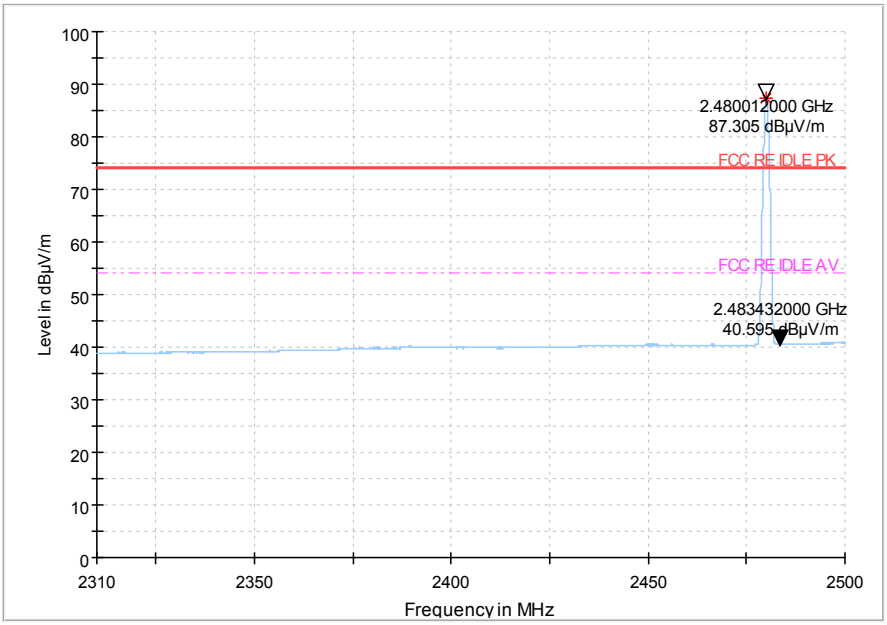



Fig.44 Radiated emission (High): GFSK, high channel

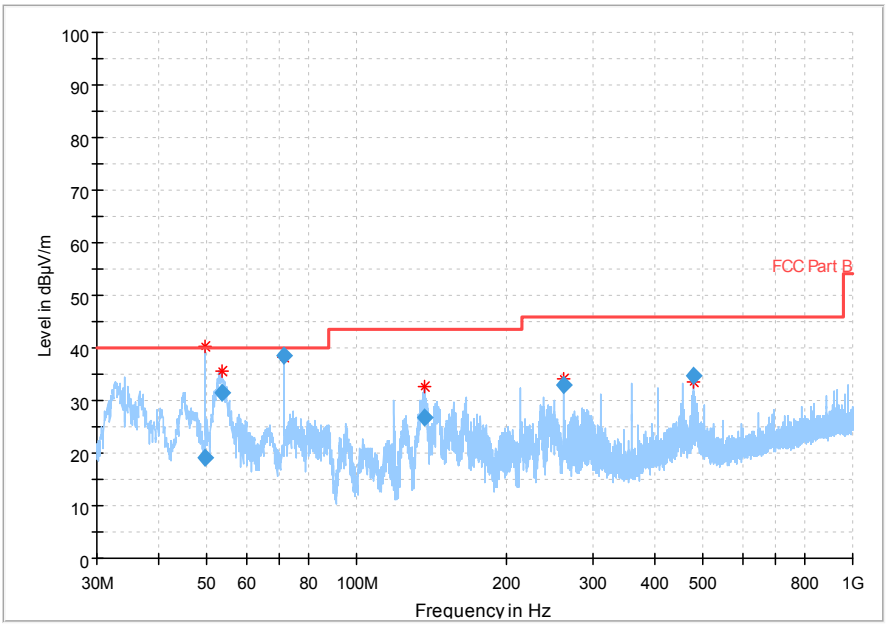



Fig.45 Radiated emission: π/4 DQPSK, Ch78, 30MHz~1GHz

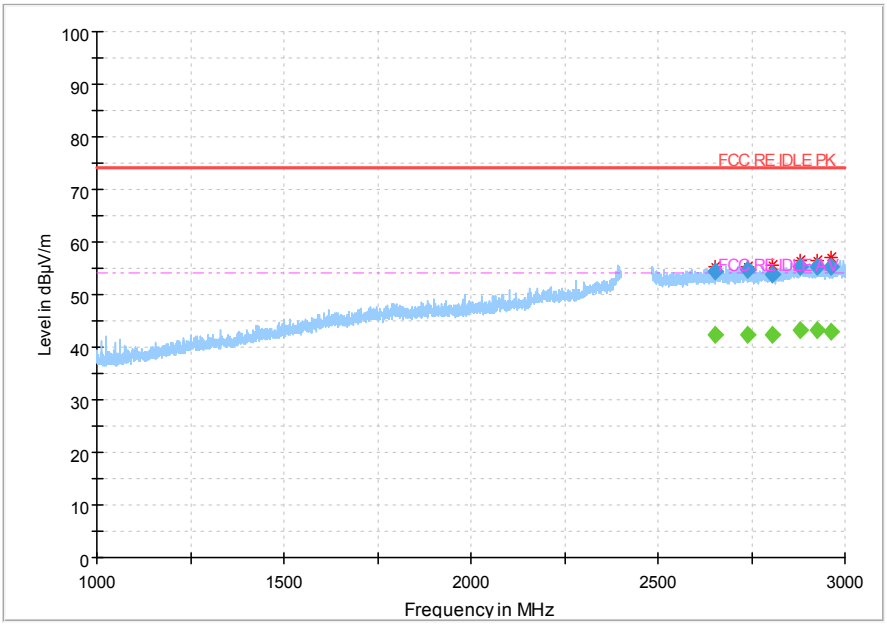



Fig.46 Radiated emission: π/4 DQPSK, Ch78, 1GHz~3GHz

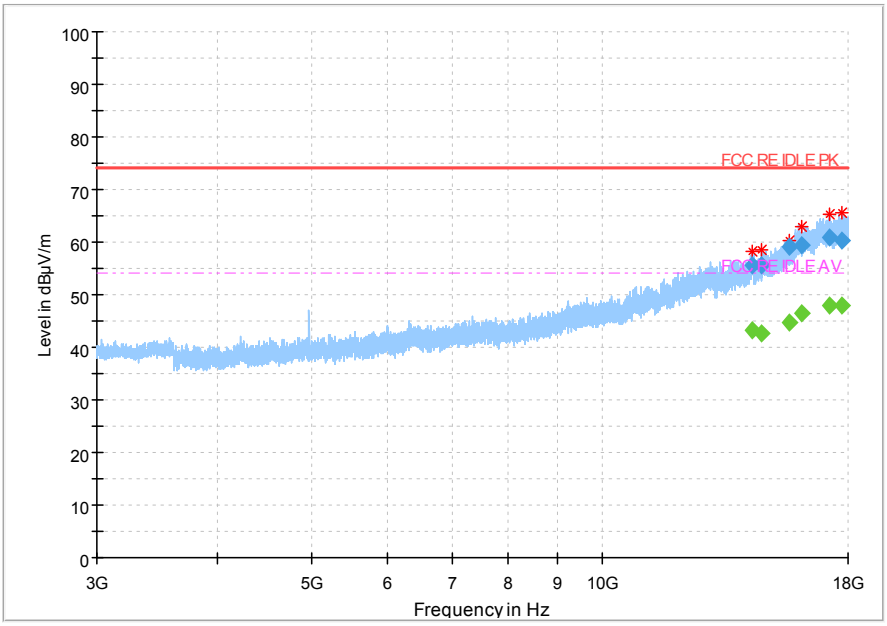
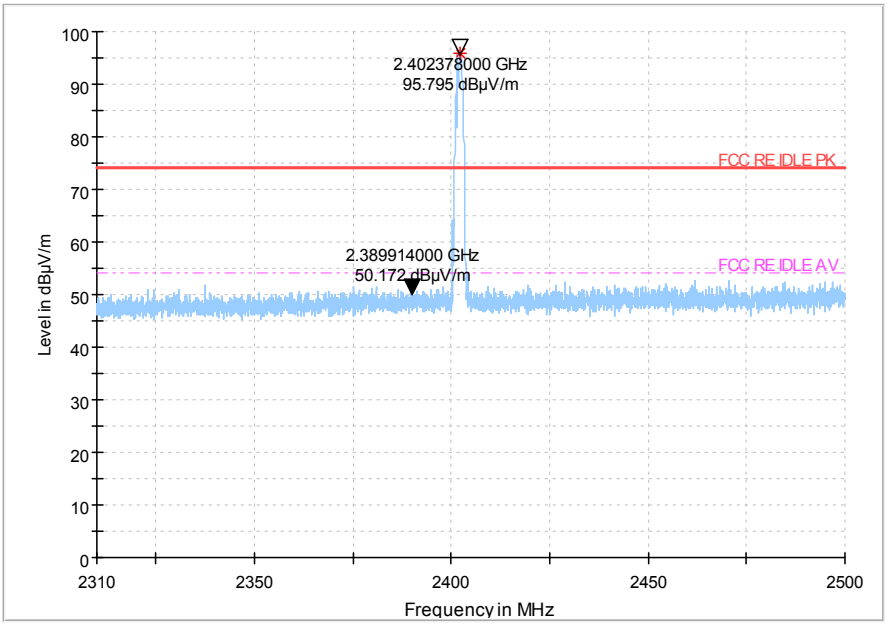



Fig.47 Radiated emission: π/4 DQPSK, Ch78, 3GHz~18GHz



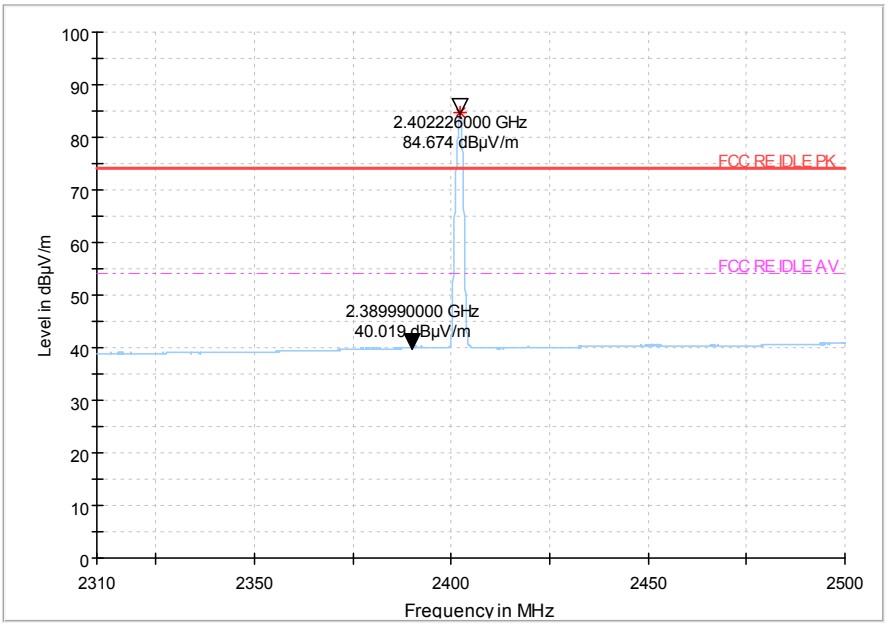
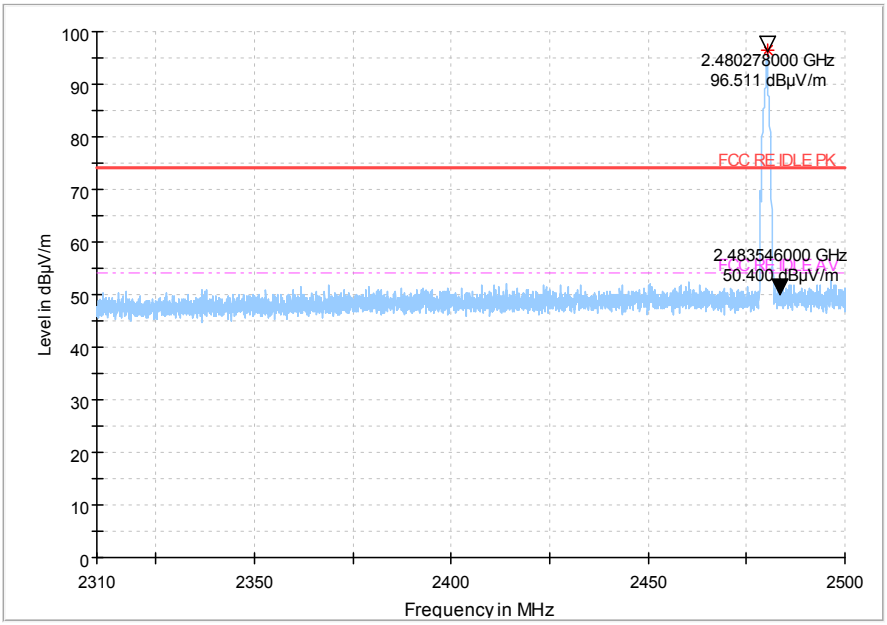




Fig.48 Radiated emission (Low): π/4 DQPSK, low channel



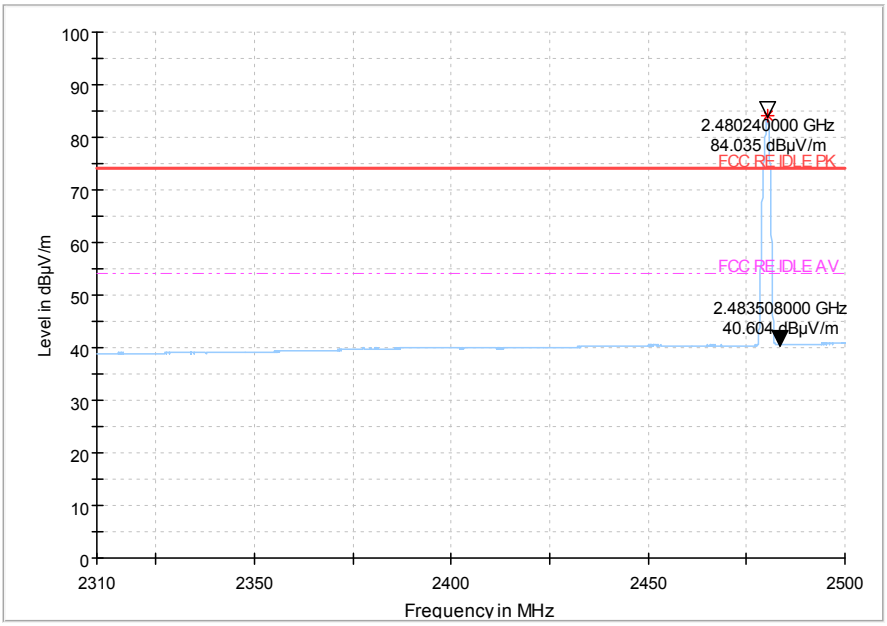




Fig.49 Radiated emission (High): π/4 DQPSK, high channel

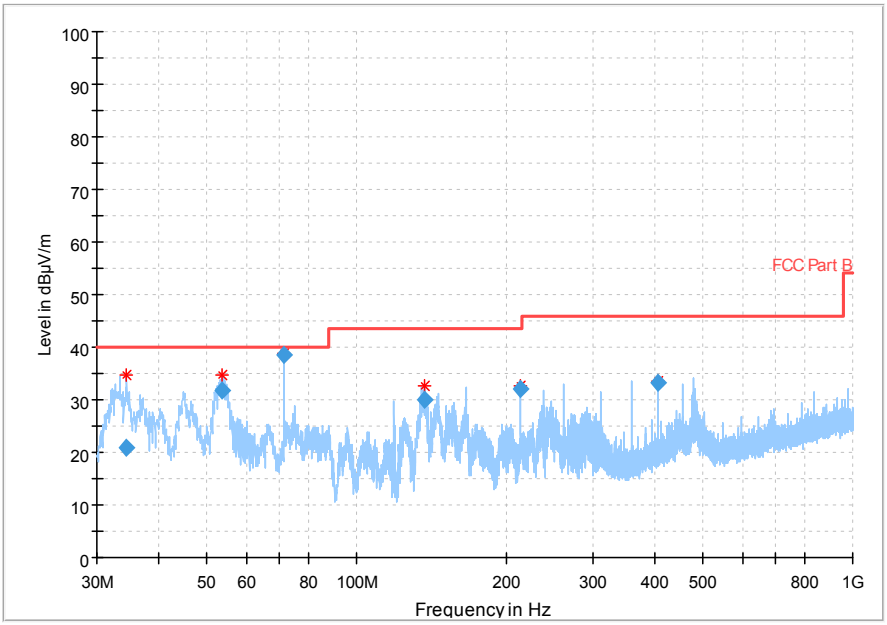



Fig.50 Radiated emission: 8DPSK, Ch78, 30MHz~1GHz

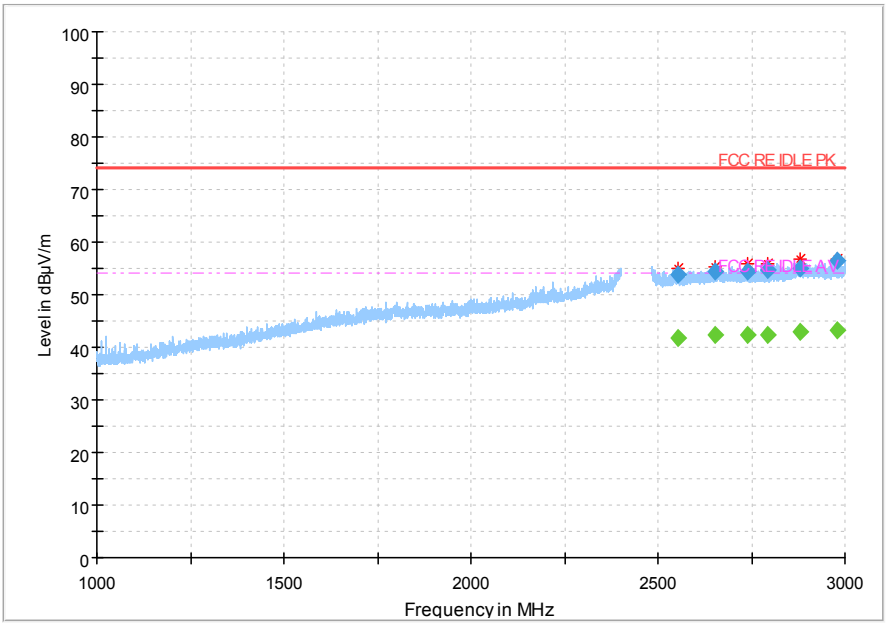



Fig.51 Radiated emission: 8DPSK, Ch78, 1GHz~3GHz

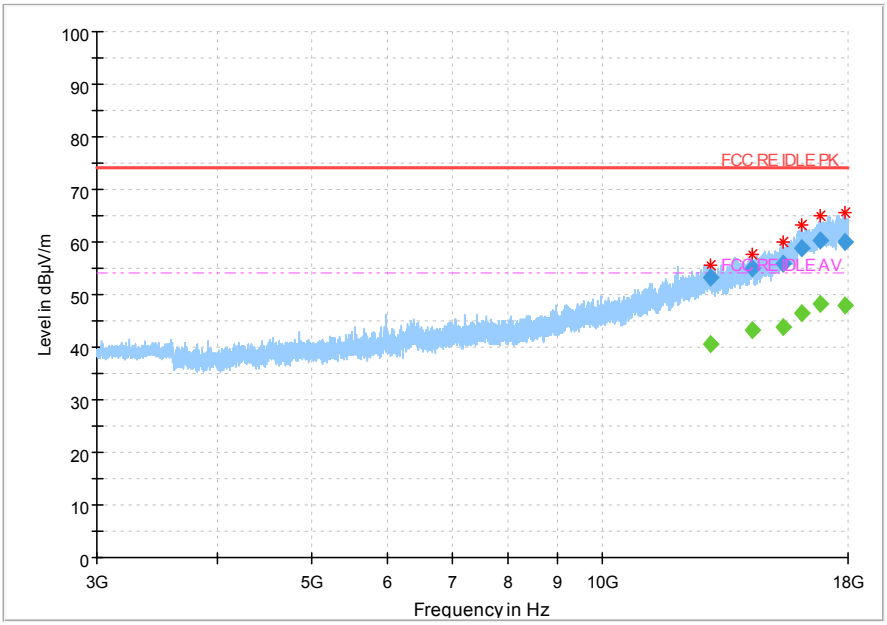
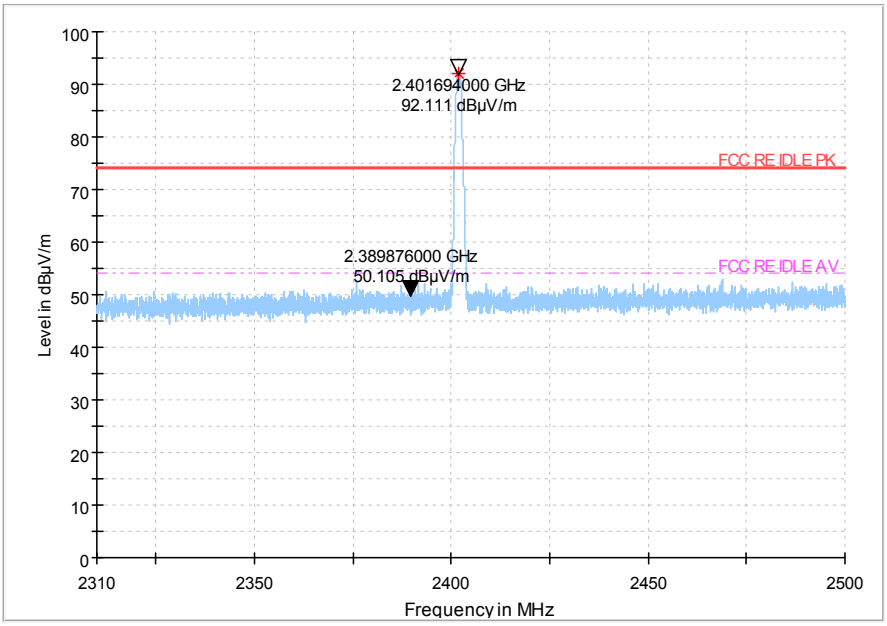



Fig.52 Radiated emission: 8DPSK, Ch78, 3GHz~18GHz



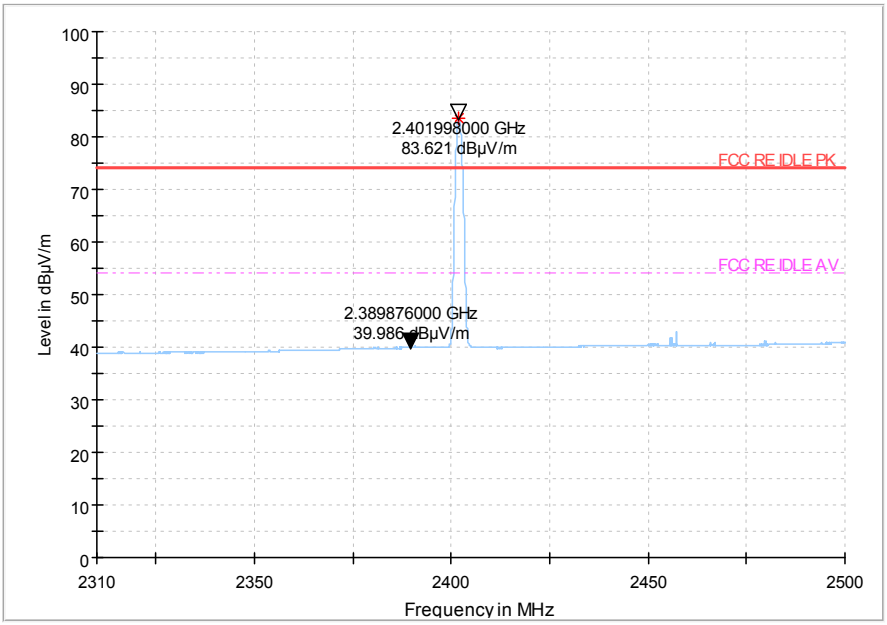
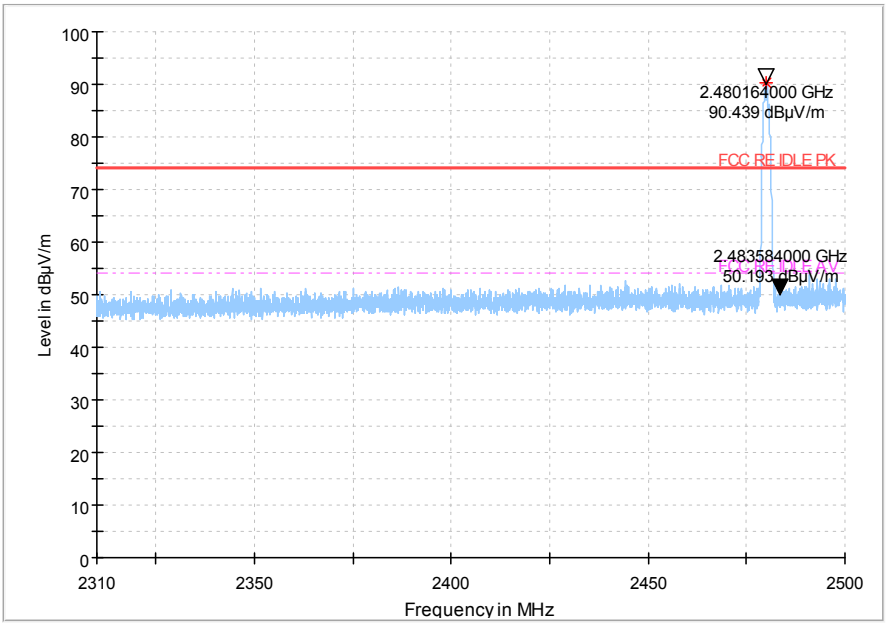



Fig.53 Radiated emission (Low): 8DPSK, low channel



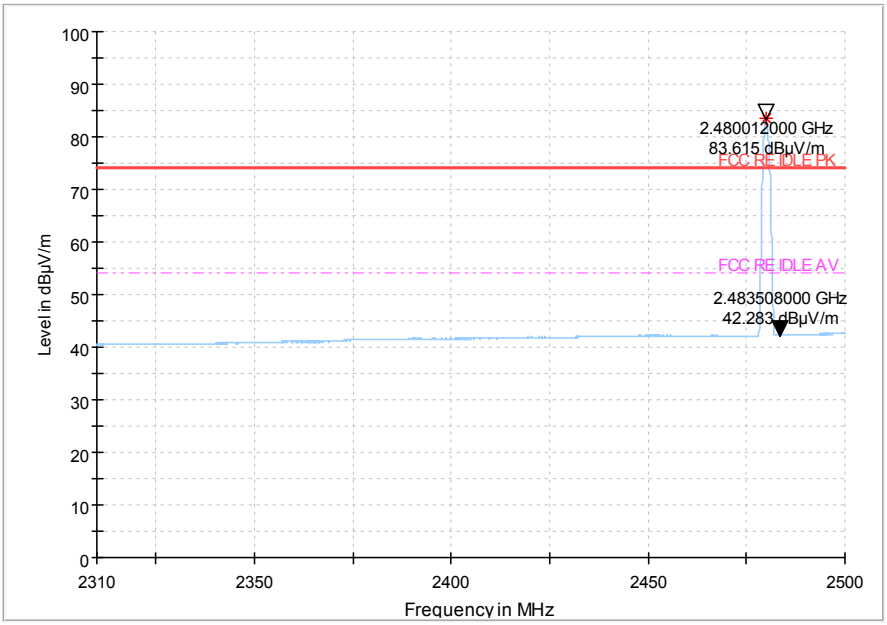



Fig.54 Radiated emission (High): 8DPSK, high channel

**L1323**

**For π/4 DQPSK**

| Channel | Frequency Range | Test Results | Conclusion |
|---|---|---|---|
| Ch78 2480MHz | 30MH~1GHz | Fig.55 | P |
| | 1GHz~3GHz | Fig.56 | P |
| | 3GHz~18GHz | Fig.57 | P |
| Power(low ) | 2.31GHz~2.5GHz | Fig.58 | P |
| Power(high) | 2.31GHz~2.5GHz | Fig.59 | P |

**π/4 DQPSK Ch78 30MHz-1GHz**

| Frequency(MHz) | Result(dBuV/m) | ARpl (dB) | PMea(dBuV/m) | Polarity |
|---|---|---|---|---|
| 34.6 | 19.44 | -22 | 41.44 | V |
| 40.7 | 24.49 | -20.6 | 45.09 | V |
| 52.6 | 21.13 | -20.5 | 41.63 | V |
| 151.7 | 25 | -27.8 | 52.8 | H |
| 181.9 | 28.39 | -25.1 | 53.49 | H |
| 258.2 | 24.77 | -22.7 | 47.47 | H |

**π/4 DQPSK Ch78 1GHz-3GHz (Peak)**

| Frequency(MHz) | Result(dBuV/m) | ARpl (dB) | PMea(dBuV/m) | Polarity |
|---|---|---|---|---|
| 2667.6 | 55.1 | 7.8 | 47.3 | V |
| 2722.7 | 54.17 | 7.8 | 46.37 | H |
| 2792.2 | 54.94 | 7.8 | 47.14 | V |
| 2870.7 | 55.55 | 8.5 | 47.05 | H |
| 2918.0 | 54.77 | 8.8 | 45.97 | V |
| 2997.4 | 59.8 | 9 | 50.8 | H |

**π/4 DQPSK Ch78 1GHz-3GHz (Average)**

| Frequency(MHz) | Result(dBuV/m) | ARpl (dB) | PMea(dBuV/m) | Polarity |
|---|---|---|---|---|
| 2667.6 | 42.4 | 7.8 | 34.6 | V |
| 2722.7 | 42.18 | 7.8 | 34.38 | H |
| 2792.2 | 42.38 | 7.8 | 34.58 | V |
| 2870.7 | 43.05 | 8.5 | 34.55 | H |
| 2918.0 | 43.12 | 8.8 | 34.32 | V |
| 2997.4 | 43.25 | 9 | 34.25 | H |

**π/4 DQPSK Ch78 3GHz-18GHz (Peak)**

| Frequency(MHz) | Result(dBuV/m) | ARpl (dB) | PMea(dBuV/m) | Polarity |
|---|---|---|---|---|
| 13095.2 | 51.92 | 16.5 | 35.42 | H |
| 14304.4 | 55.85 | 20.8 | 35.05 | H |
| 15461.6 | 56.31 | 22.7 | 33.61 | H |
| 16073.0 | 58.83 | 25 | 33.83 | H |
| 16938.6 | 60.31 | 27.3 | 33.01 | H |
| 17568.5 | 60.1 | 27.7 | 32.4 | H |

**π/4 DQPSK Ch78 3GHz-18GHz (Average)**

| Frequency(MHz) | Result(dBuV/m) | ARpl (dB) | PMea(dBuV/m) | Polarity |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| 14304.4 | 43.16 | 20.8 | 22.36 | H |
| 15461.6 | 43.66 | 22.7 | 20.96 | H |
| 16073.0 | 46.67 | 25 | 21.67 | H |
| 16938.6 | 48.17 | 27.3 | 20.87 | H |
| 17568.5 | 47.83 | 27.7 | 20.13 | H |

**Note: Only the worst case is written in the report.**

**Conclusion: PASS**

**Test graphs as below:**

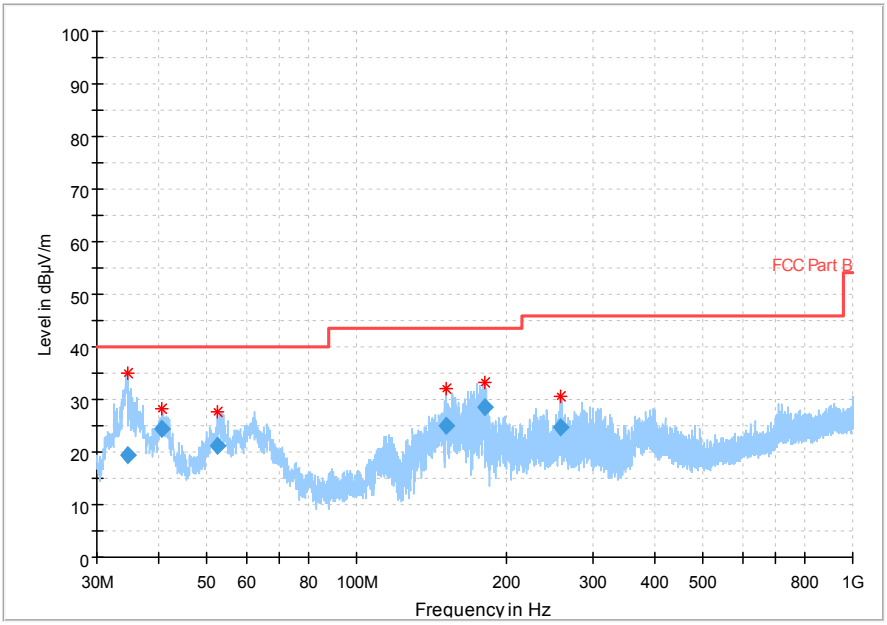



Fig.55 Radiated emission: π/4 DQPSK, Ch78, 30MHz~1GHz

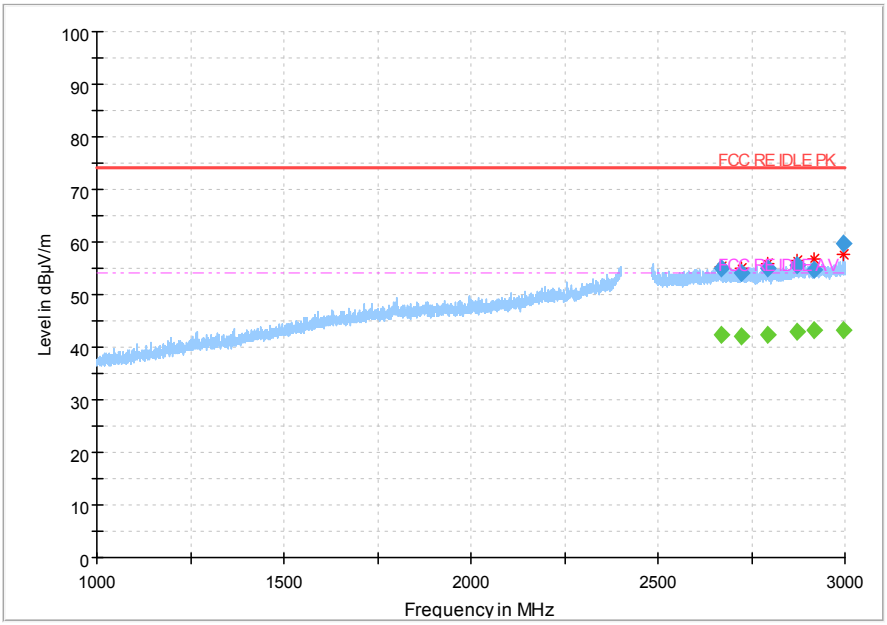



Fig.56 Radiated emission: π/4 DQPSK, Ch78, 1GHz~3GHz

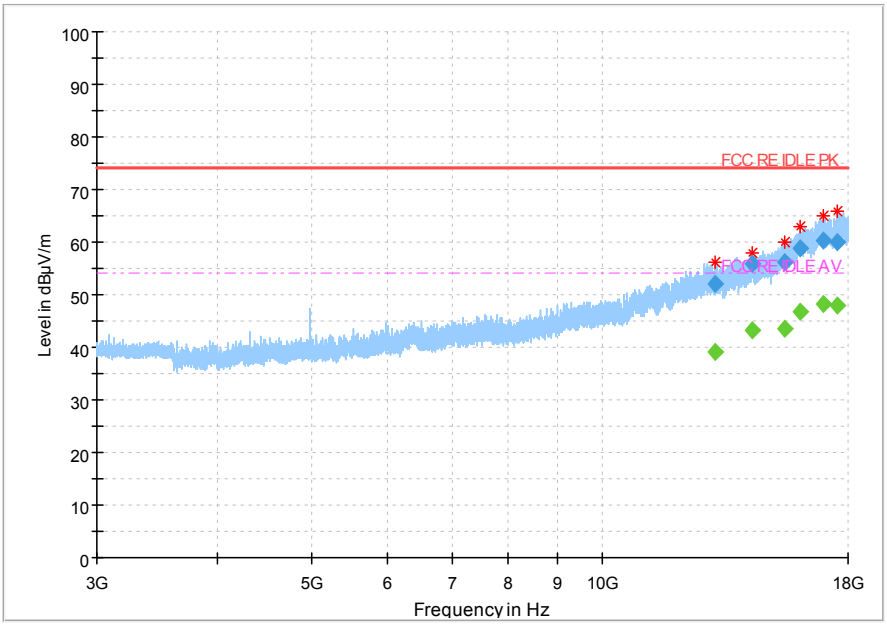
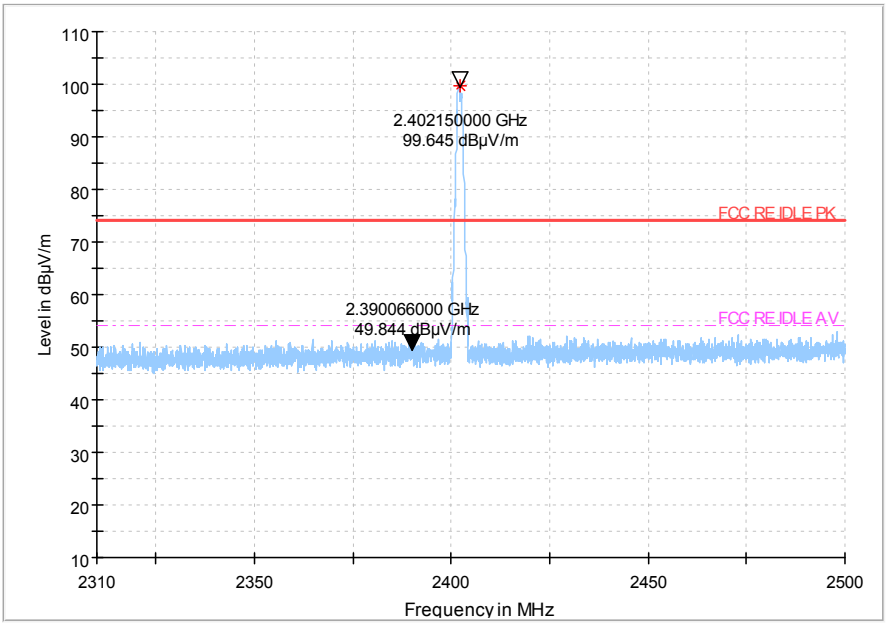



Fig.57 Radiated emission: π/4 DQPSK, Ch78, 3GHz~18GHz



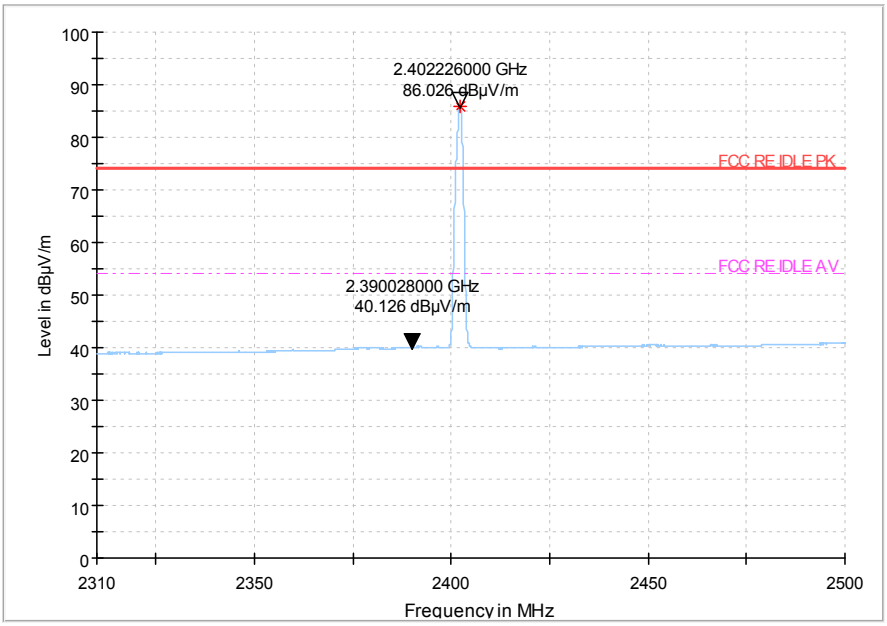
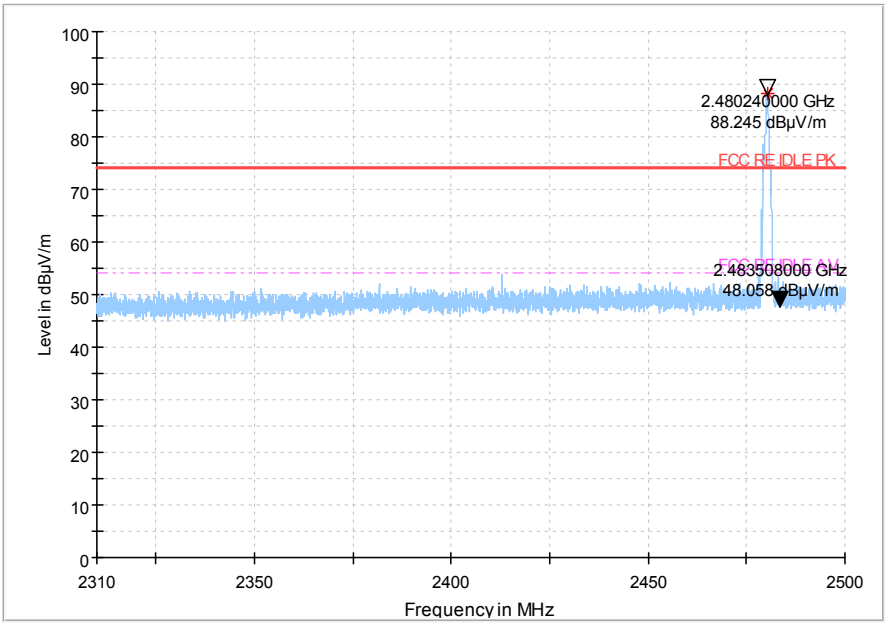




Fig.58 Radiated emission (Low): π/4 DQPSK, low channel



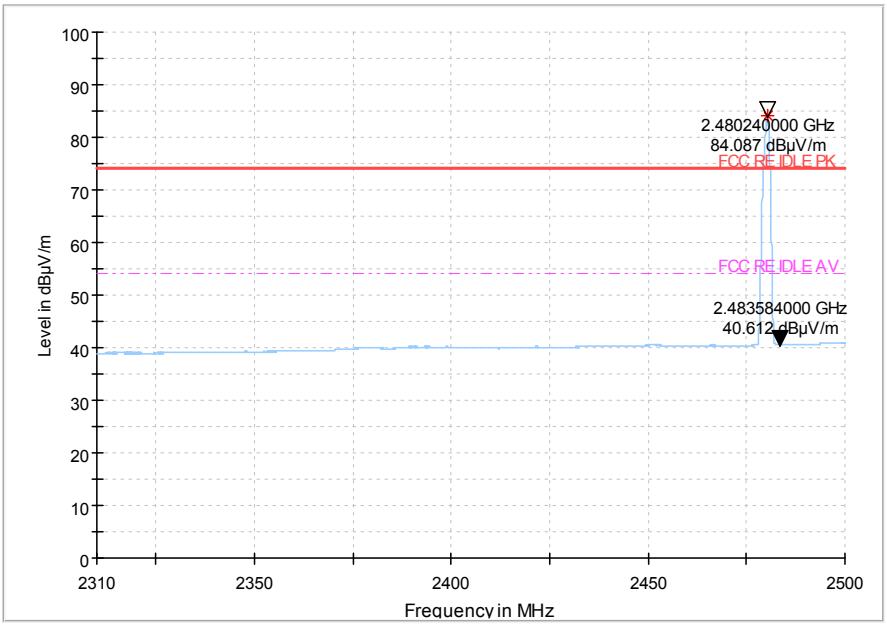
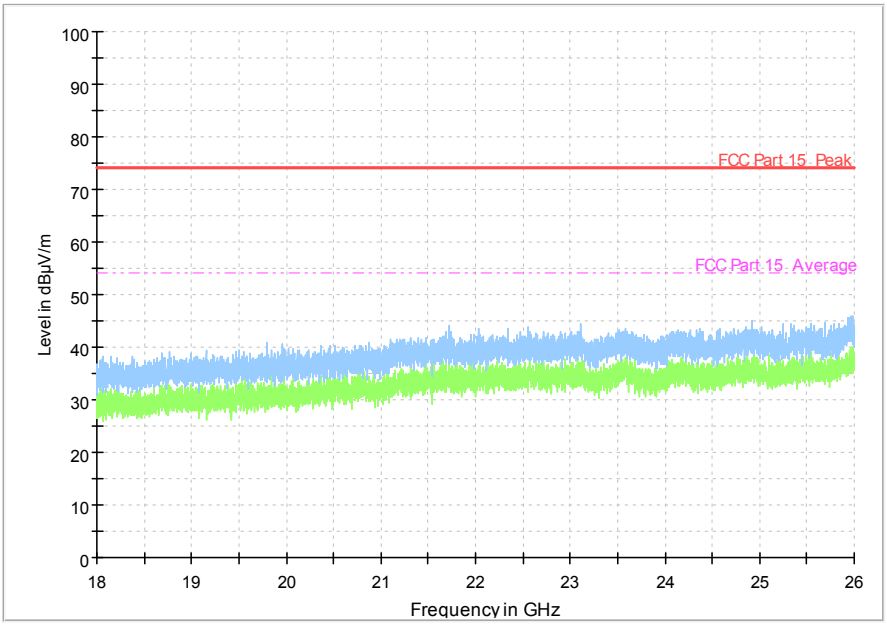




Fig.59 Radiated emission (High): π/4 DQPSK, high channel




ALL Channel 18GHz~26GHz

## 6.5. Time Of Occupancy (Dwell Time)

### 6.5.1 Measurement Limit:

| Standard | Limit (ms) |
|---|---|
| FCC 47CFR Part 15.247 (a) (1) (iii) | < 400 |

### 6.5.2 Test procedures

The measurement is according to ANSI C63.10 clause 7.8.4

1. Connect the EUT through cable and divide with CBT32 and spectrum analyzer.
2. Enable the EUT transmit maximum power.
3. Set the spectrum analyzer as step 4 to step 8.
4. Span: Zero span, centered on a hopping channel.
5. RBW shall be ≤ channel spacing and where possible RBW should be set >> 1 / T, where T is the expected dwell time per channel.
6. Sweep: As necessary to capture the entire dwell time per hopping channel; where possible use a video trigger and trigger delay so that the transmitted signal starts a little to the right of the start of the plot. The trigger level might need slight adjustment

to prevent triggering when the system hops on an adjacent channel; a second plot might be needed with a longer sweep time to showtwo successive hops on a channel.

7. Detector function: Peak.
8. Trace: Max hold.
9. Use the marker-delta function, and record it.

**Note**：For AFH mode, Test Period = 0.4 (second/ channel) x 20 Channel = 8 sec,
For FHSS mode, Test Period = 0.4 (second/ channel) x 79 Channel = 31.6 sec,
So the Time of Occupancy (Dwell Time) of AFH mode= Time of Occupancy (Dwell Time) of FHSS mode / 79 Channel x 20 Channel

| Modulation type | Frequency(MHz) | Dwell Time (ms) | Limit(ms) | Conclusion |
|---|---|---|---|---|
| AFH(GFSK DH5) | 2402-2421MHz | 61.25 | 400 | P |
| AFH(π/4 DQPSK DH5) | 2402-2421MHz | 60.52 | 400 | P |
| AFH(8DPSK DH5) | 2402-2421MHz | 70.72 | 400 | P |

### 6.5.3 Measurement Result

**For GFSK**

| Channel | Packet | Dwell Time (ms) | | Conclusion |
|---|---|---|---|---|
| 39 | DH1 | Fig.60 | 64.90 | P |
| | | Fig.61 | | |
| | DH3 | Fig.62 | 197.47 | P |
| | | Fig.63 | | |
| | DH5 | Fig.64 | 241.92 | P |
| | | Fig.65 | | |

**For π/4 DQPSK**

| Channel | Packet | Dwell Time (ms) | | Conclusion |
|---|---|---|---|---|
| 39 | 2DH1 | Fig.66 | 64.51 | P |

| | | | | |
|---|---|---|---|---|
| | | Fig.67 | | |
| | 2DH3 | Fig.68 | 200.74 | P |
| | | Fig.69 | | |
| | 2DH5 | Fig.70 | 239.04 | P |
| | | Fig.71 | | |

**For 8DPSK**

| Channel | Packet | Dwell Time (ms) | | Conclusion |
|---|---|---|---|---|
| 39 | 3DH1 | Fig.72 | 66.82 | P |
| | | Fig.73 | | |
| | 3DH3 | Fig.74 | 195.84 | P |
| | | Fig.75 | | |
| | 3DH5 | Fig.76 | 279.36 | P |
| | | Fig.77 | | |

**Conclusion: PASS**

**Test graphs as below:**

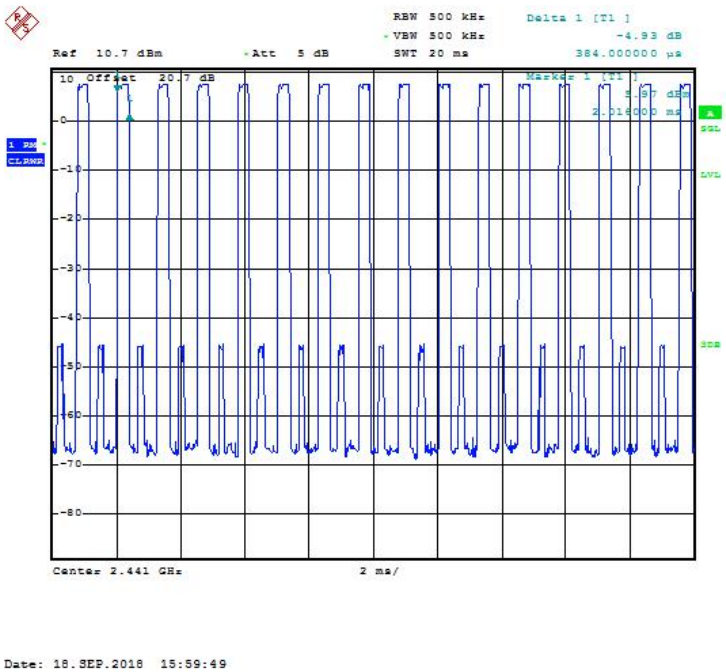



Fig.60 Time of occupancy (Dwell Time): Ch39, Packet DH1

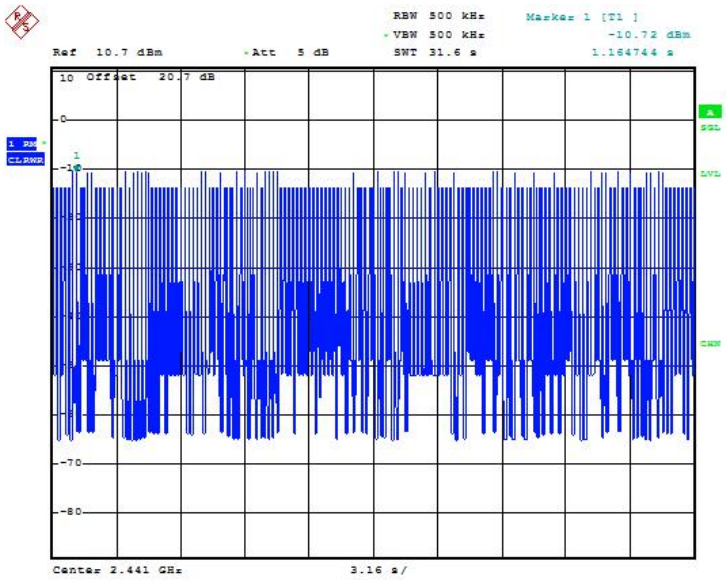



Fig.61 Number of Transmissions Measurement: Ch39, Packet DH1

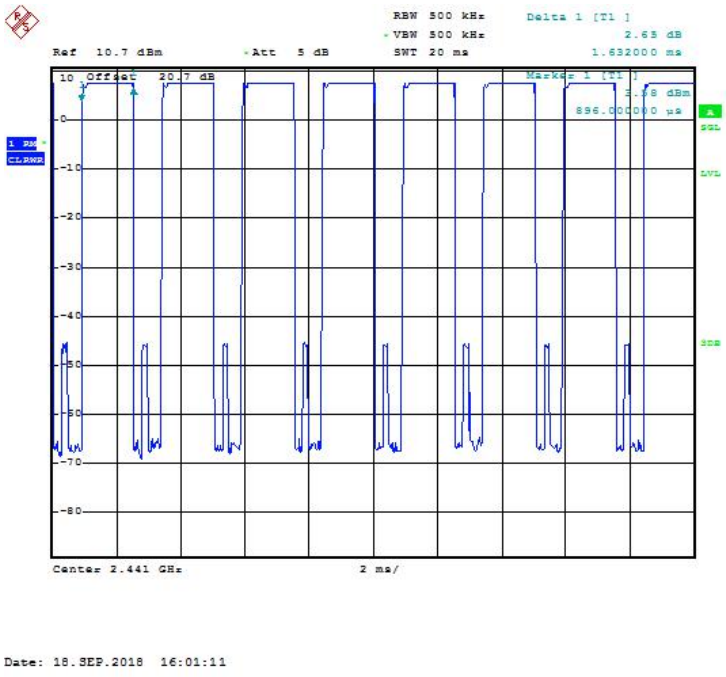



Fig.62 Time of occupancy (Dwell Time): Ch39, Packet DH3

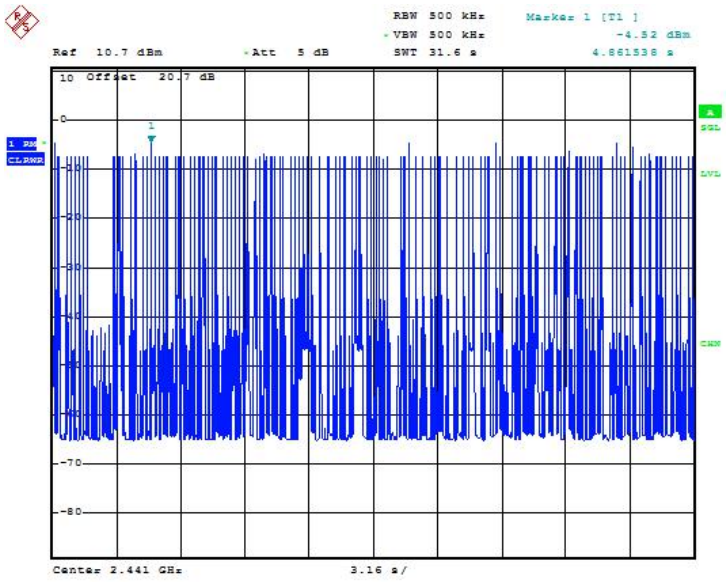



Fig.63 Number of Transmissions Measurement: Ch39, Packet DH3

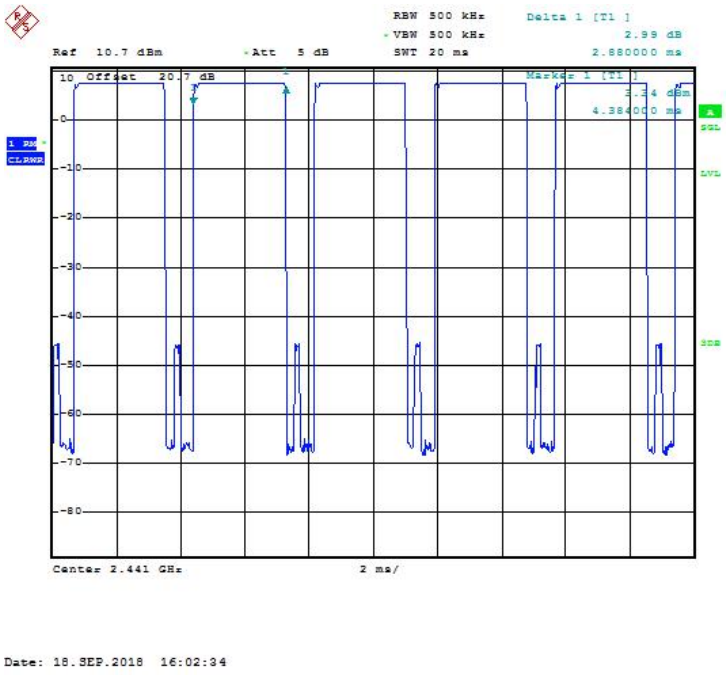



Fig.64 Time of occupancy (Dwell Time): Ch39,Packet DH5

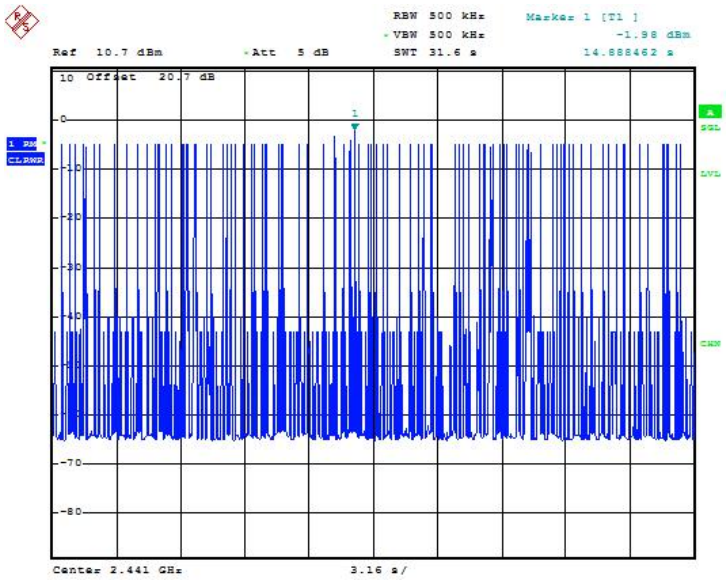



Fig.65 Number of Transmissions Measurement: Ch39, Packet DH5

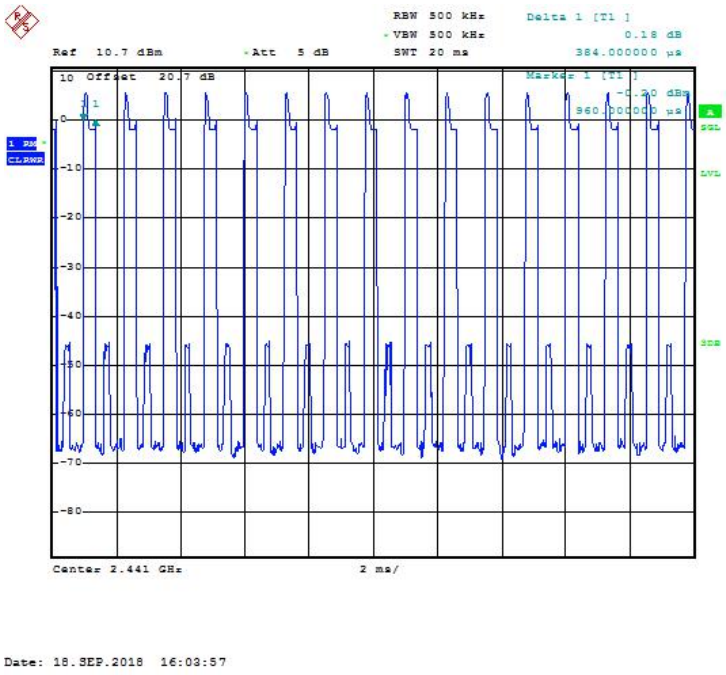



Fig.66 Time of occupancy (Dwell Time): Ch39, Packet 2-DH1

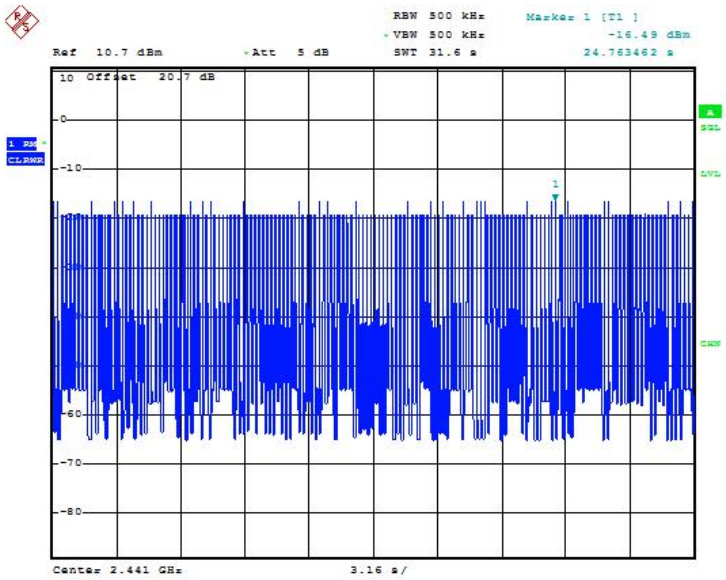



Fig.67 Number of Transmissions Measurement: Ch39, Packet 2-DH1

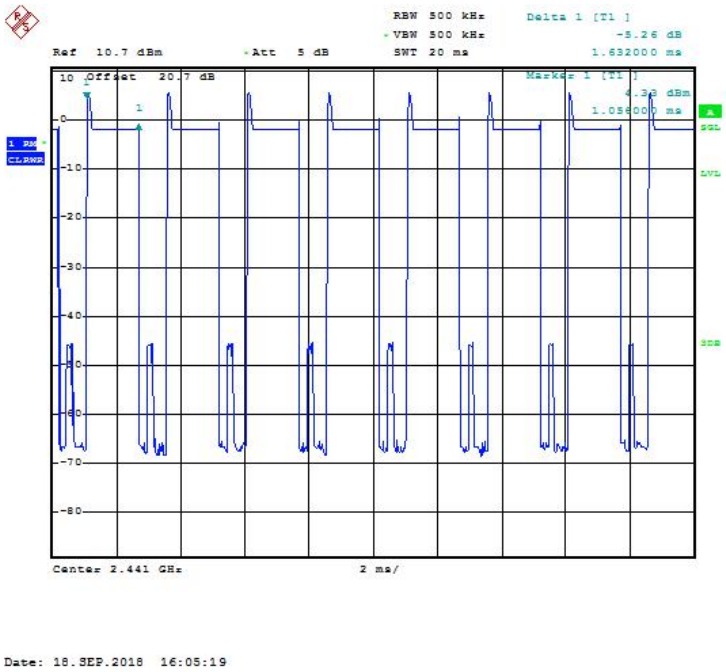



Fig.68 Time of occupancy (Dwell Time): Ch39,Packet 2-DH3

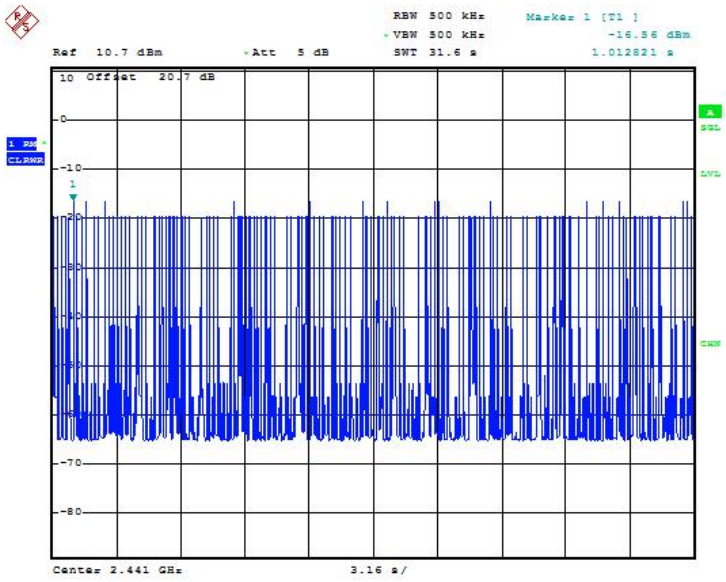



Fig.69 Number of Transmissions Measurement: Ch39, Packet 2-DH3

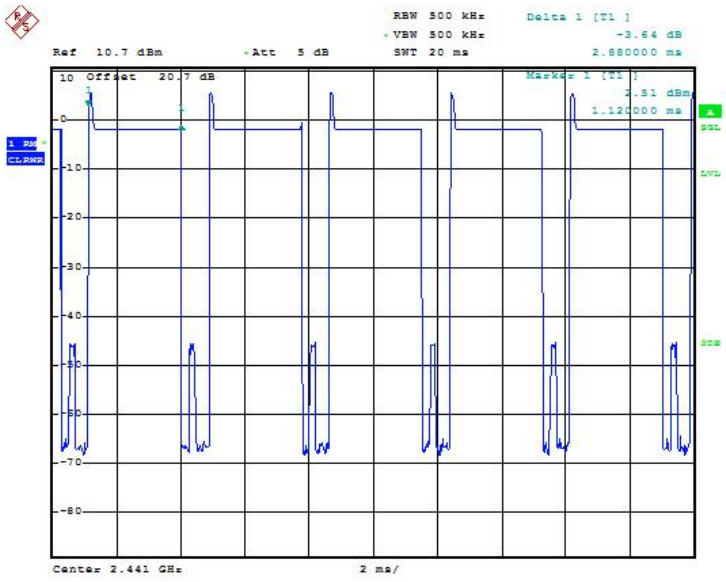



Fig.70 Time of occupancy (Dwell Time): Ch39, Packet 2-DH5

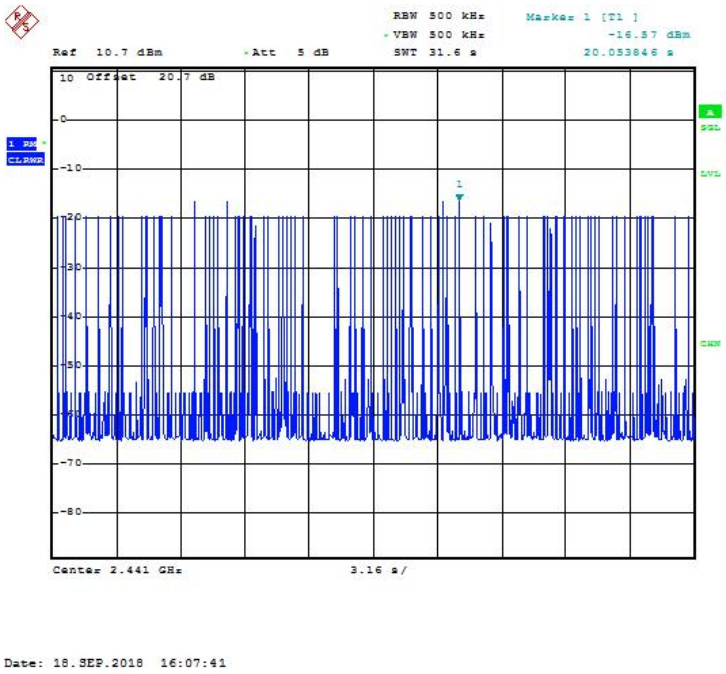



Fig.71 Number of Transmissions Measurement: Ch39, Packet 2-DH5

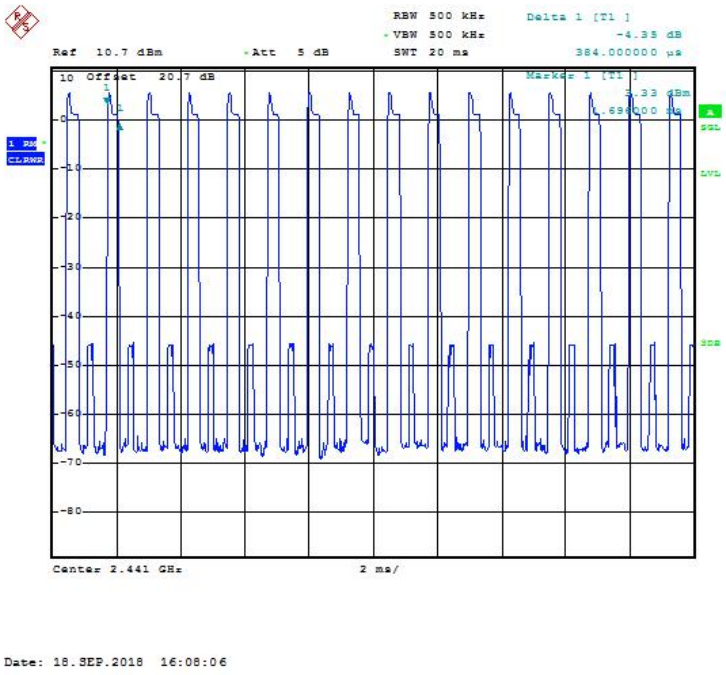



Fig.72 Time of occupancy (Dwell Time): Ch39,Packet 3-DH1

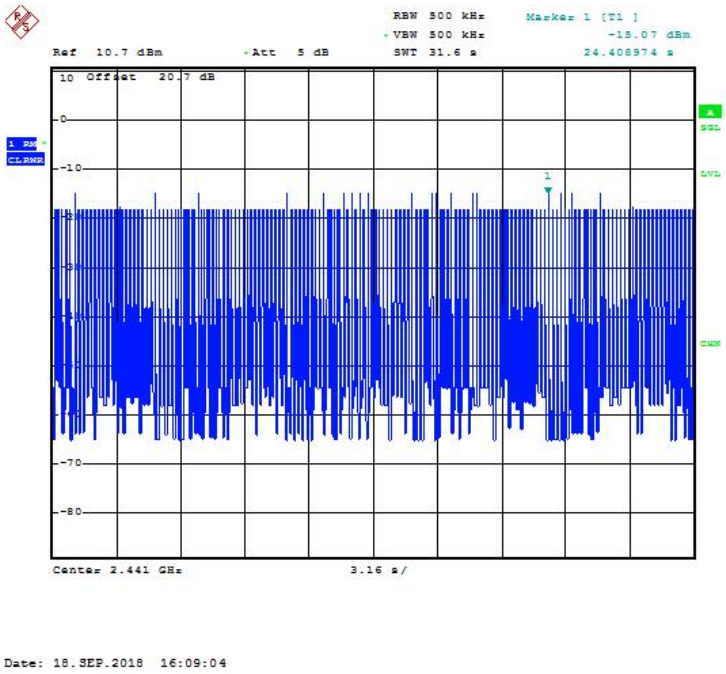



Fig.73 Number of Transmissions Measurement: Ch39, Packet 3-DH1

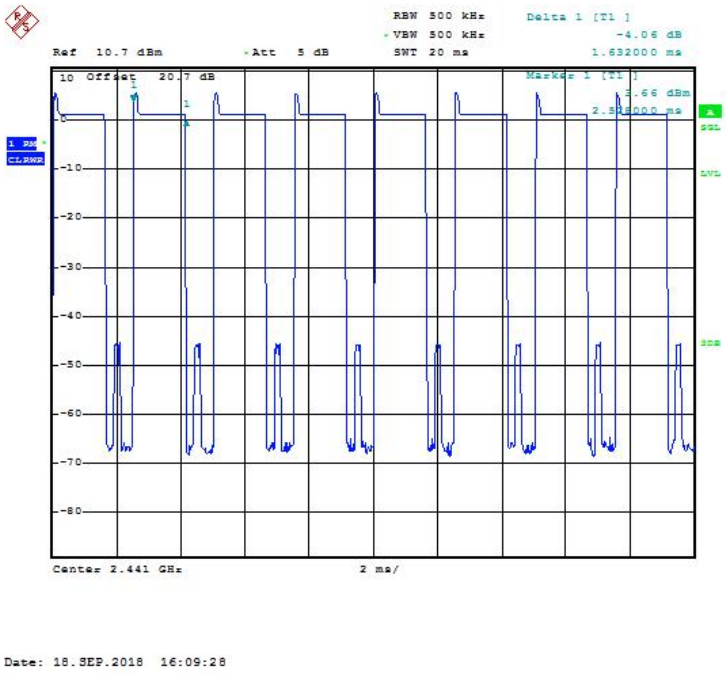



Fig.74 Time of occupancy (Dwell Time): Ch39,Packet 3-DH3

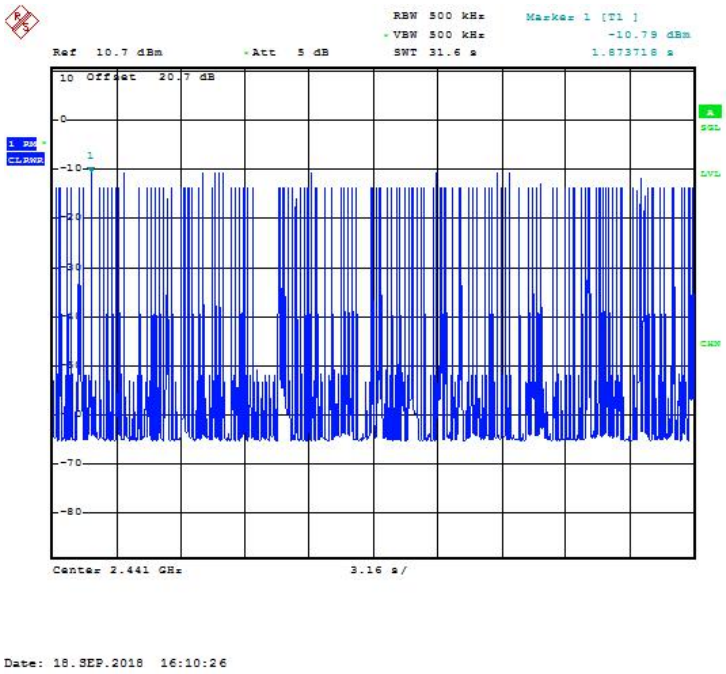



Fig.75 Number of Transmissions Measurement: Ch39, Packet 3-DH3

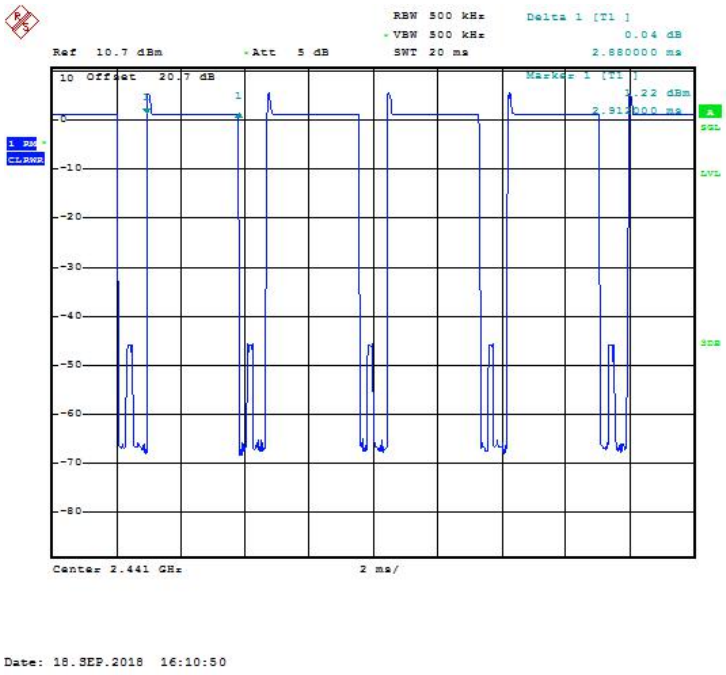



Fig.76 Time of occupancy (Dwell Time): Ch39,Packet 3-DH5

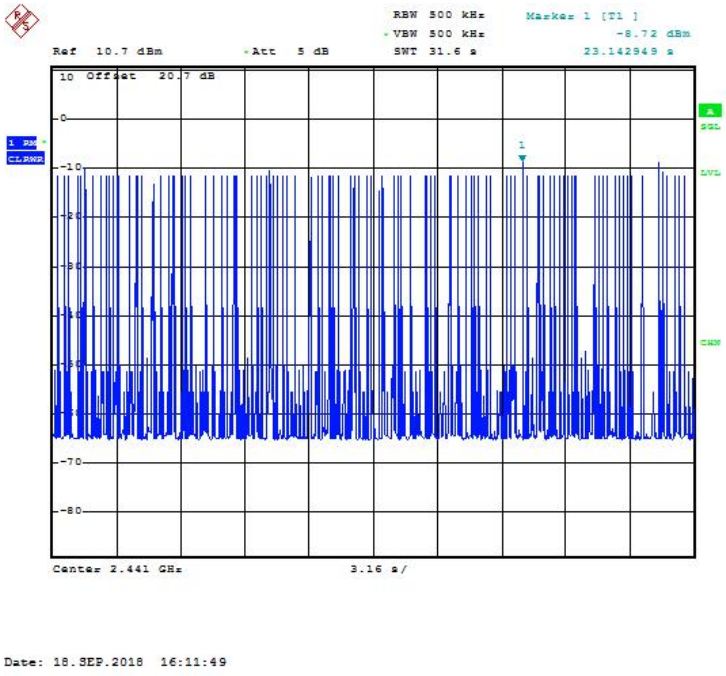



Fig.77 Number of Transmissions Measurement: Ch39, Packet 3-DH5

## 6.6. 20dB Bandwidth

### 6.6.1 Measurement Limit:

| Standard | Limit |
|---|---|
| FCC 47 CFR Part 15.247 (a) (1) | N/A |

### 6.6.2 Test procedures

The measurement is according to ANSI C63.10 clause 7.8.7

1. Connect the EUT through cable and divide with CBT32 and spectrum analyzer.
2. Enable the EUT transmit maximum power.
3. Set the spectrum analyzer as step 4 to step 7.
4. Span: two or five times of OBW
5. RBW= 1% to 5% of the OBW; VBW is approximately three times of RBW; Max Hold.
6. Select the max peak, and N DB DOWN=20dB.
7. Record the results.

### 6.6.3 Measurement Uncertainty:

| | |
|---|---|
| Measurement Uncertainty | ±0.0031MHz |

**Measurement Result:**

**For GFSK**

| Channel | 20dB Bandwidth (MHz) | Conclusion |
|---|---|---|

| | | | |
|---|---|---|---|
| 0 | Fig.78 | 1.034 | P |
| 39 | Fig.79 | 1.029 | P |
| 78 | Fig.80 | 1.034 | P |

**For π/4 DQPSK**

| Channel | 20dB Bandwidth (MHz) | | Conclusion |
|---|---|---|---|
| 0 | Fig.81 | 1.178 | P |
| 39 | Fig.82 | 1.183 | P |
| 78 | Fig.83 | 1.188 | P |

**For 8DPSK**

| Channel | 20dB Bandwidth (MHz) | | Conclusion |
|---|---|---|---|
| 0 | Fig.84 | 1.168 | P |
| 39 | Fig.85 | 1.173 | P |
| 78 | Fig.86 | 1.173 | P |

**Conclusion: PASS**

**Test graphs as below:**

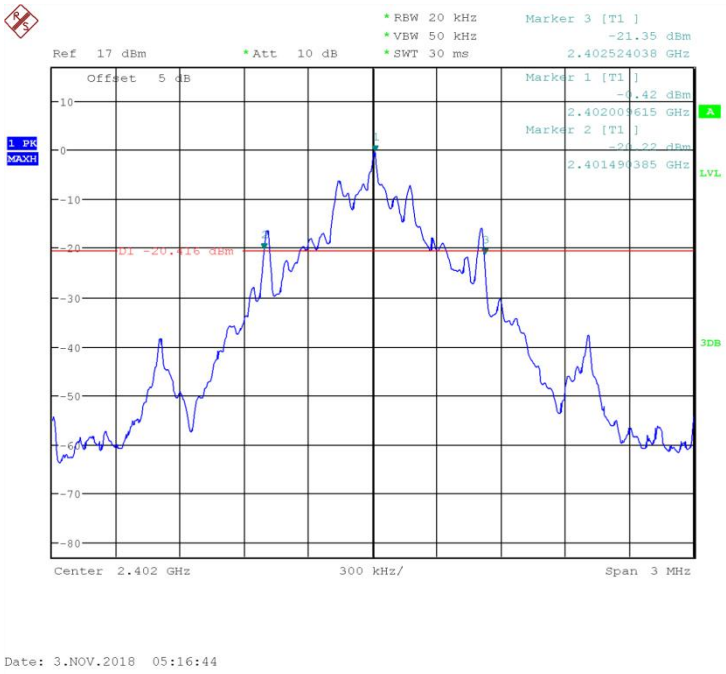



Fig.78 20dB Bandwidth: GFSK, Ch0

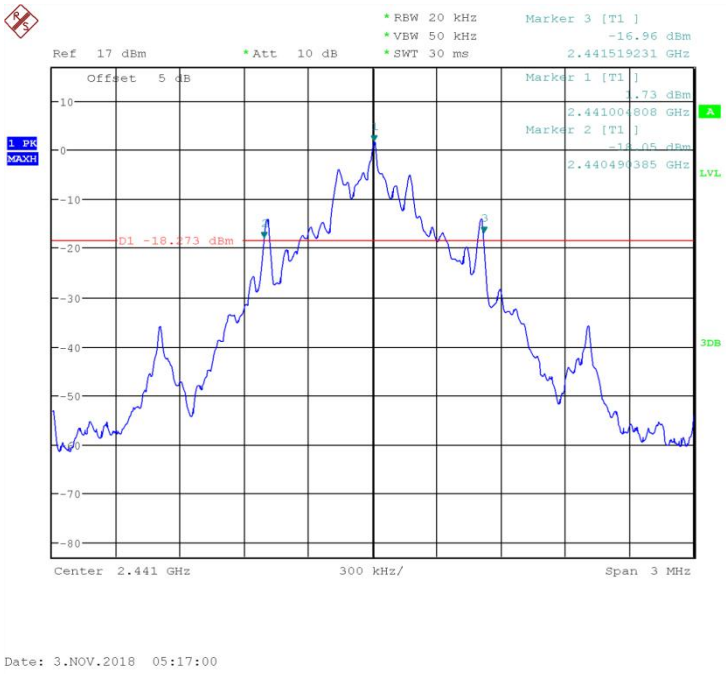



Fig.79 20dB Bandwidth: GFSK, Ch39

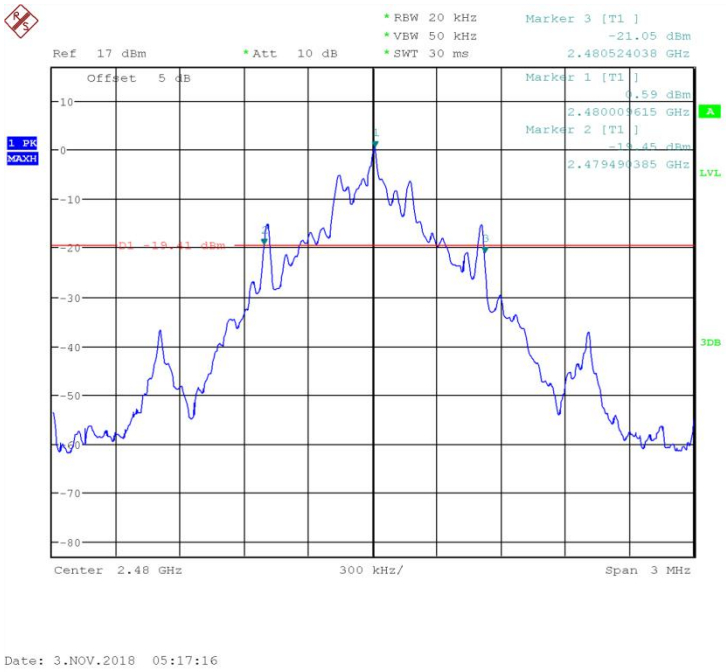



Fig.80 20dB Bandwidth: GFSK, Ch78

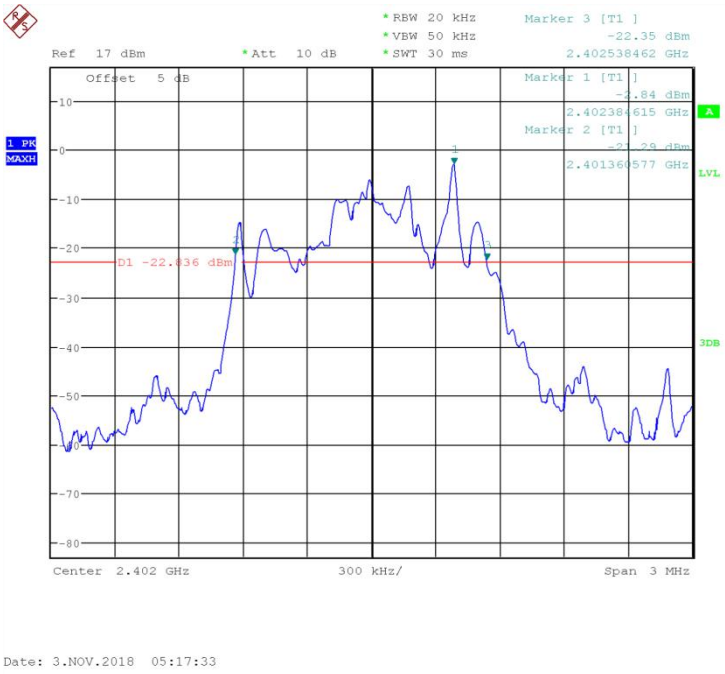



Fig.81 20dB Bandwidth: π/4 DQPSK, Ch0

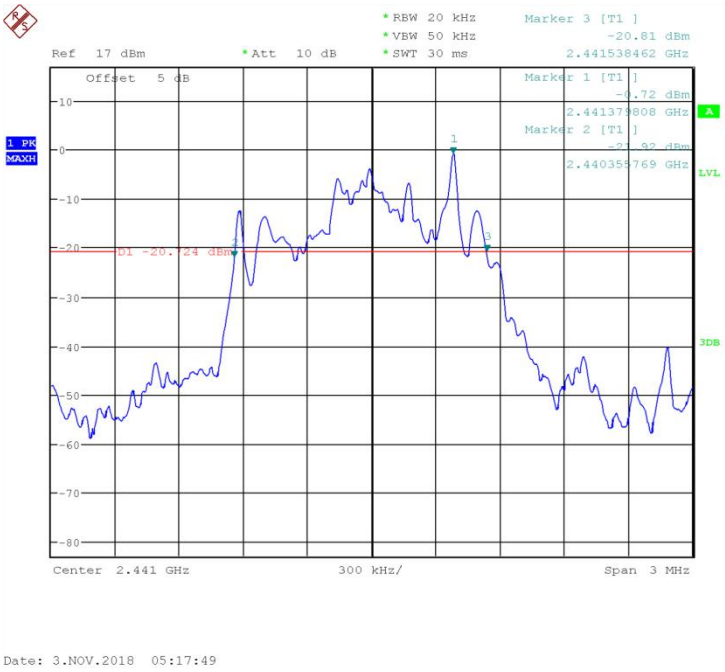



Fig.82 20dB Bandwidth: π/4 DQPSK, Ch39

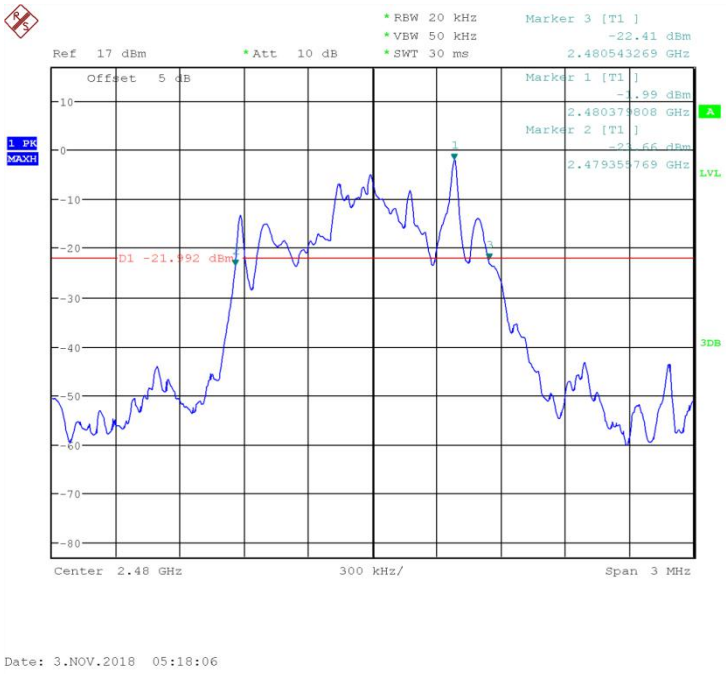



Fig.83 20dB Bandwidth: π/4 DQPSK, Ch78

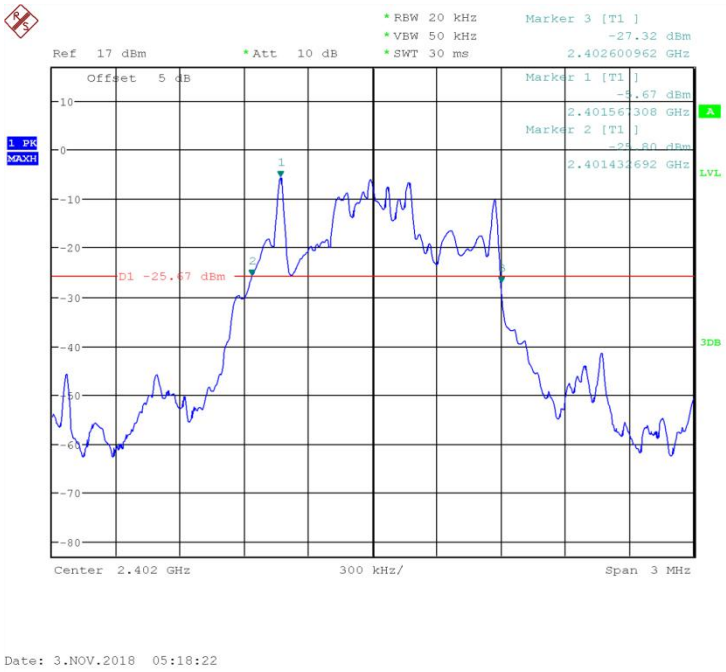



Fig.84 20dB Bandwidth: 8DPSK, Ch0

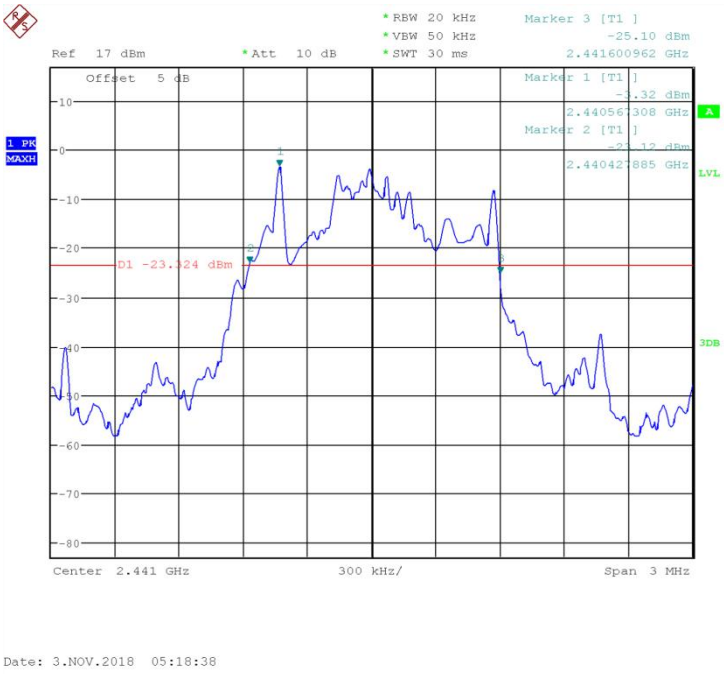



Fig.85 20dB Bandwidth: 8DPSK, Ch39

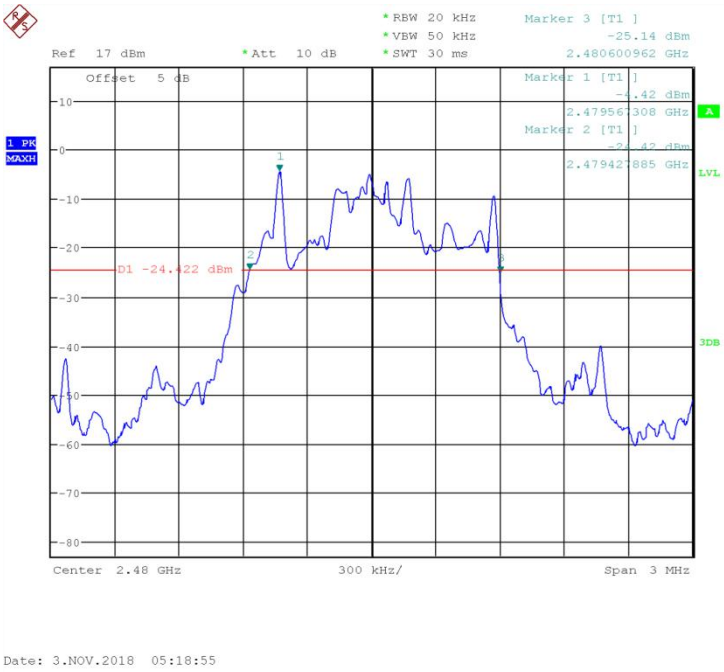



Fig.86 20dB Bandwidth: 8DPSK, Ch78

## 6.7. Carrier Frequency Separation

### 6.7.1 Measurement Limit:

| Standard | Limit (KHz) |
|---|---|

| | |
|---|---|
| FCC 47 CFR Part 15.247 (a) (1) | Over 25KHz or (2/3)*20dB bandwidth |

**6.7.2 Test procedures**

The measurement is according to ANSI C63.10 clause 7.8.2.

1. Connect the EUT through cable and divide with CBT32 and spectrum analyzer.
2. Enable the EUT transmit in hopping mode.
3. Span: Wide enough to capture the peaks of two adjacent channels.
4. RBW: Start with the RBW set to approximately 30% of the channel spacing; adjust as necessary to best identify the center of each individual channel.
5. Video (or average) bandwidth (VBW) ≥ RBW.
6. Sweep: Auto.
7. Detector function: Peak.
8. Trace: Max hold.
9. Allow the trace to stabilize.

**6.7.3 Measurement Result:**

**For GFSK**

| Channel | Carrier separation (KHz) | | Conclusion |
|---|---|---|---|
| 39 | Fig.87 | 1004.8077 | P |

**For π/4 DQPSK**

| Channel | Carrier separation (KHz) | | Conclusion |
|---|---|---|---|
| 39 | Fig.88 | 990.3846 | P |

**For 8DPSK**

| Channel | Carrier separation (KHz) | | Conclusion |
|---|---|---|---|
| 39 | Fig.89 | 995.1923 | P |

**Conclusion: PASS**

**Test graphs as below:**

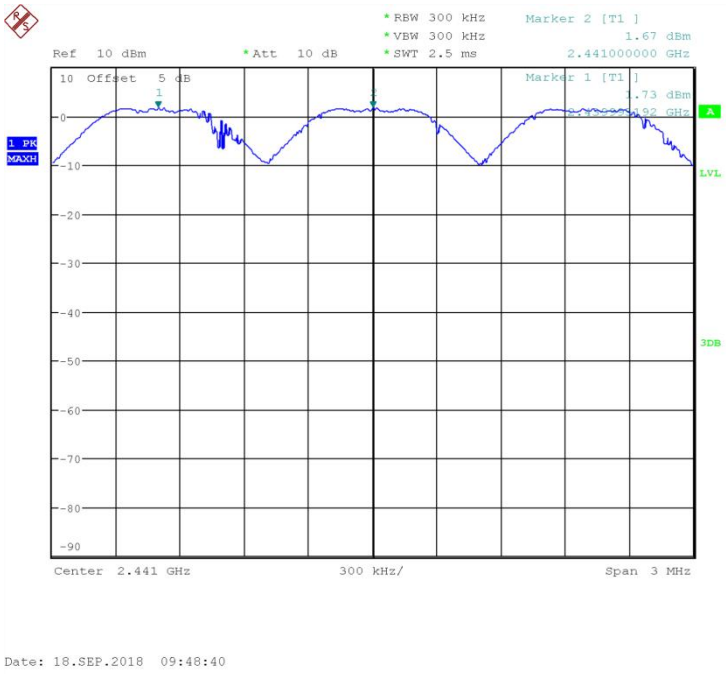



Fig.87 Carrier separation measurement: GFSK, Ch39

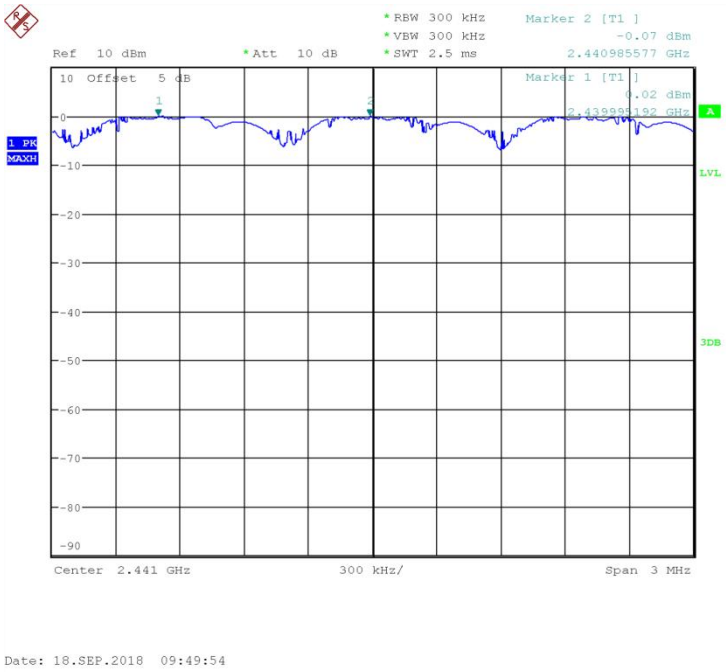



Fig.88 Carrier separation measurement: π/4 DQPSK, Ch39

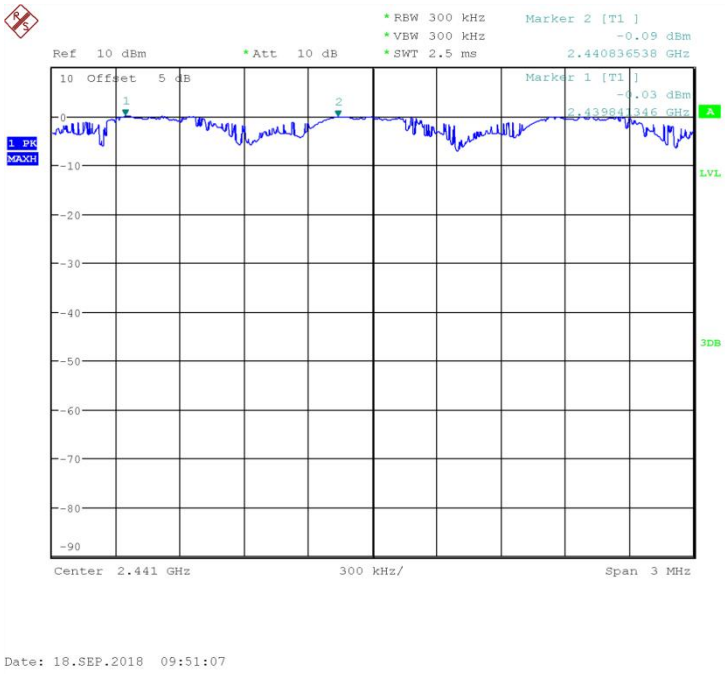



Fig.89 Carrier separation measurement: 8DPSK, Ch39

## 6.8. Number Of Hopping Channels

### 6.8.1 Measurement Limit:

| Standard | Limit |
|---|---|
| FCC 47 CFR Part 15.247 (a)(1)(iii) | At least 15 non-overlapping channels |

### 6.8.2 Test procedure

The measurement is according to ANSI C63.10 clause 7.8.3.

1. Connect the EUT through cable and divide with CBT32 and spectrum analyzer.
2. Enable the EUT transmit in hopping mode.
3. Span: The frequency band of operation. Depending on the number of channels the device supports, it may be necessary to divide the frequency range of operation across multiple spans, to allow the individual channels to be clearly seen.
4. RBW: To identify clearly the individual channels, set the RBW to less than 30% of the channel spacing or the 20 dB bandwidth, whichever is smaller.
5. VBW ⩾ RBW.
6. Sweep: Auto.
7. Detector function: Peak.
8. Trace: Max hold.
9. Allow the trace to stabilize.
10. Record the test rsults.

### 6.8.3 Measurement Result:

**For GFSK**

| Channel | Number of hopping channels | | Conclusion |
|---|---|---|---|
| 0~39 | Fig.90 | 79 | P |
| 40~78 | Fig.91 | | P |

**For π/4 DQPSK**

| Channel | Number of hopping channels | | Conclusion |
|---|---|---|---|
| 0~39 | Fig.92 | 79 | P |
| 40~78 | Fig.93 | | P |

**For 8DPSK**

| Channel | Number of hopping channels | | Conclusion |
|---|---|---|---|
| 0~39 | Fig.94 | 79 | P |
| 40~78 | Fig.95 | | P |

**Conclusion: PASS**

**Test graphs as below:**

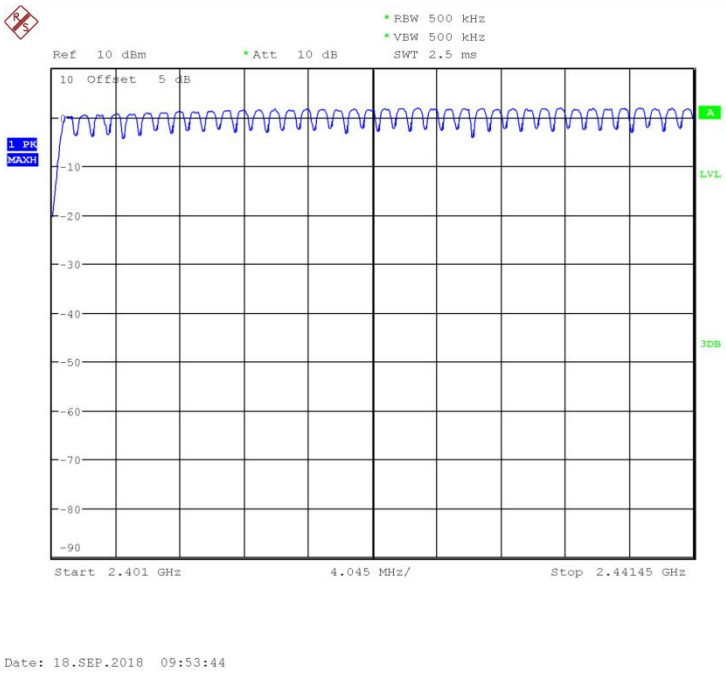



Fig.90 Number of hopping frequency: GFSK, Ch0~39

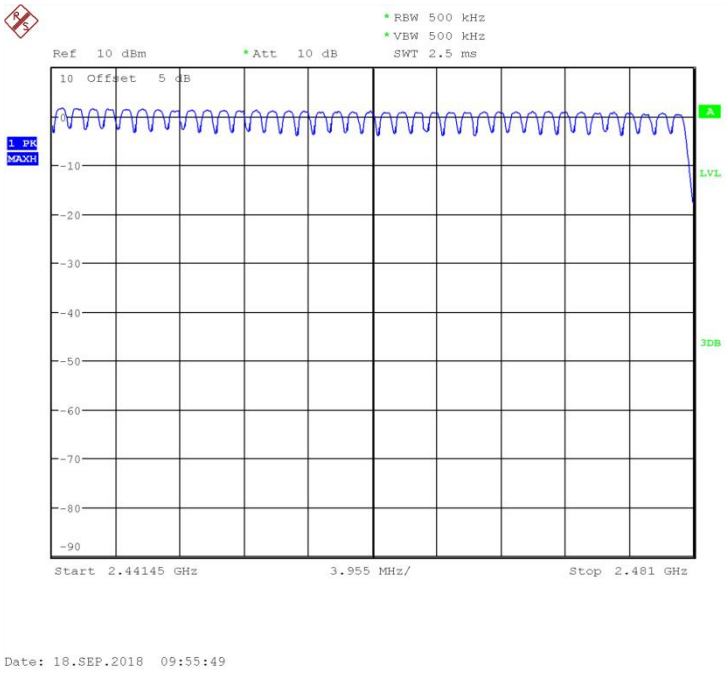



Fig.91 Number of hopping frequency: GFSK, Ch40~78

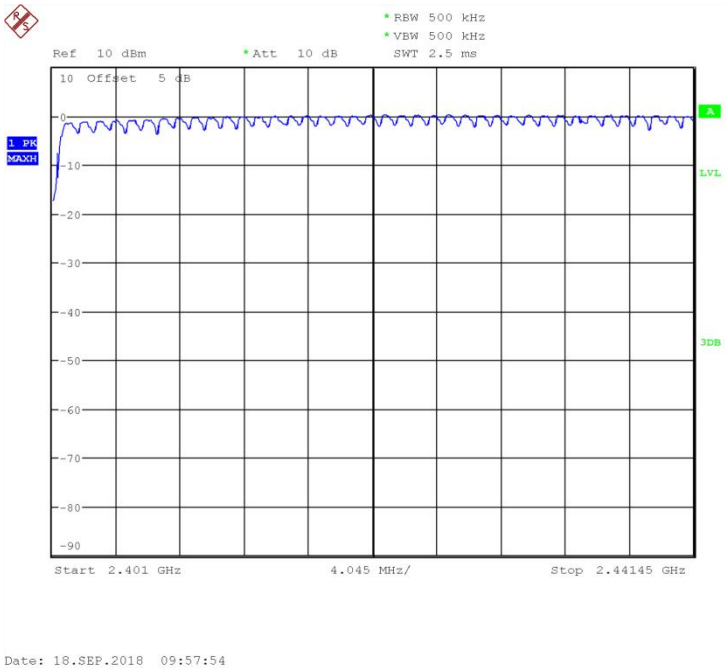



Fig.92 Number of hopping frequency: π/4 DQPSK, Ch0~39

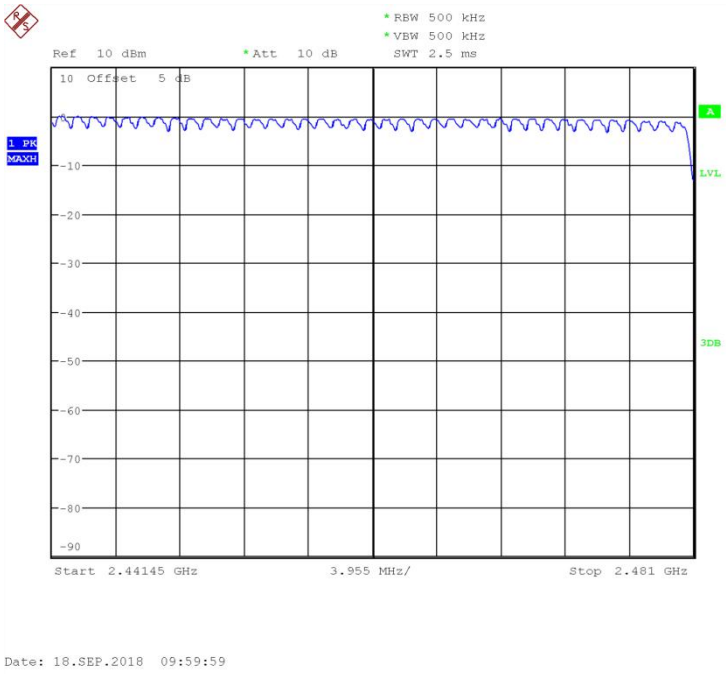



Fig.93 Number of hopping frequency: π/4 DQPSK, Ch40~78

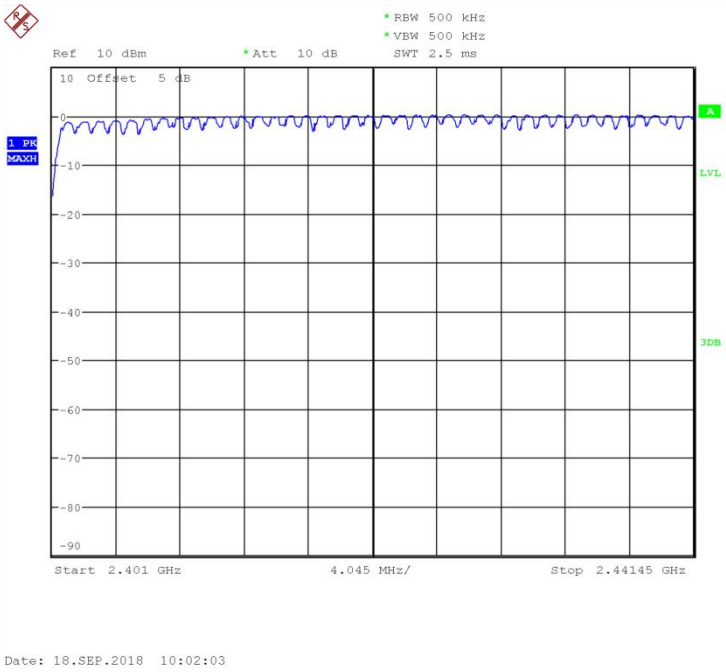



Fig.94 Number of hopping frequency: 8DPSK, Ch0~39

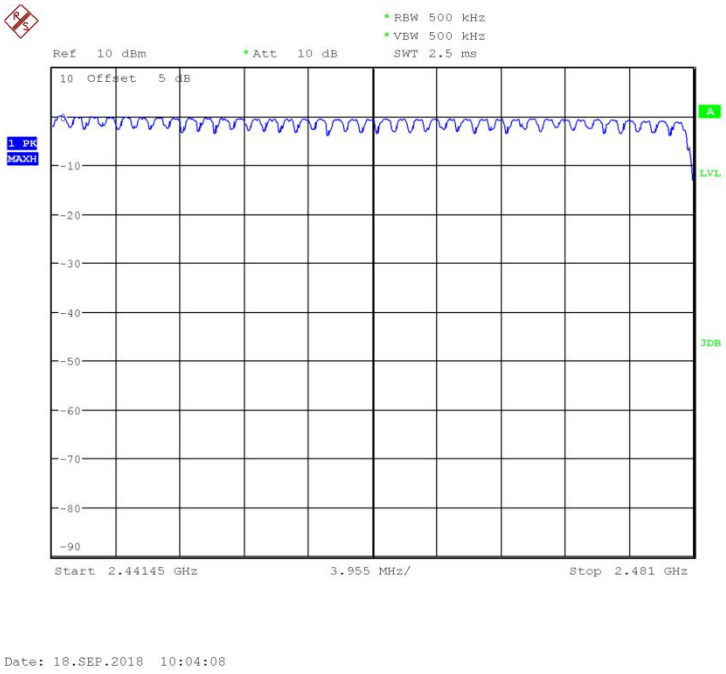



Fig.95 Number of hopping frequency: 8DPSK, Ch40~78

## 6.9. AC Powerline Conducted Emission

**Method of Measurement: See ANSI C63.10-2013-clause 6.2**

1 The one EUT cable configuration and arrangement and mode of operation that produced the emission with the highest amplitude relative to the limit is selected for the final measurement, while applying the appropriate modulating signal to the EUT.

2 If the EUT is relocated from an exploratory test site to a final test site, the highest emissions shall be remaximized at the final test location before final ac power-line conducted emission measurements are performed.

3 The final test on all current-carrying conductors of all of the power cords to the equipment that comprises the EUT (but not the cords associated with other non-EUT equipment in the system) is then performed for the full frequency range for which the EUT is being tested for compliance without further variation of the EUT arrangement, cable positions, or EUT mode of operation.

4 If the EUT is comprised of equipment units that have their own separate ac power connections, e.g., floor-standing equipment with independent power cords for each shelf that are able to connect directly to the ac power network, each current-carrying conductor of one unit is measured while the other units are connected to a second (or more) LISN(s). All units shall be separately measured. If a power strip is provided by the manufacturer, to supply all of the units making up the EUT, only the conductors in the power cord of the power strip shall be measured.

If the EUT uses a detachable antenna, these measurements shall be made with a suitable dummy load connected to the antenna output terminals; otherwise, the tests shall be made with the antenna connected and, if adjustable, fully extended. When measuring the ac conducted emissions from a device that operates between 150 kHz and 30 MHz a

non-detachable antenna may be replaced with a dummy load for the measurements within the fundamental emission band of the transmitter, but only for those measurements.36 Record the six highest EUT emissions relative to the limit of each of the current-carrying conductors of the power cords of the equipment that comprises the EUT over the frequency range specified by the procuring or regulatory agency. Diagram or photograph the test setup that was used. See Clause 8 for full reporting requirements.

**Test Condition:**

| Voltage（V） | Frequency（Hz） |
|---|---|
| 120 | 60 |

**Measurement Uncertainty**

| Measurement Items | Range | Confidence Level | Calculated Uncertainty |
|---|---|---|---|
| AC Power line Conducted Emission | 0.15MHz-30MHz | 95% | ±5.66 db |

**Measurement Result and limit:**

(Quasi-peak-average Limit)

**L1321**

| Frequency range (MHz) | Quasi-peak Limit (dBμV) | Average Limit (dBμV) | Result (dBμV) With charger BT | Conclusion |
|---|---|---|---|---|
| 0.15 to 0.5 | 66 to 56 | 56 to 46 | Fig.96 | P |
| 0.5 to 5 | 56 | 46 | | |
| 5 to 30 | 60 | 50 | | |
| NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz. | | | | |

**Conclusion: Pass**

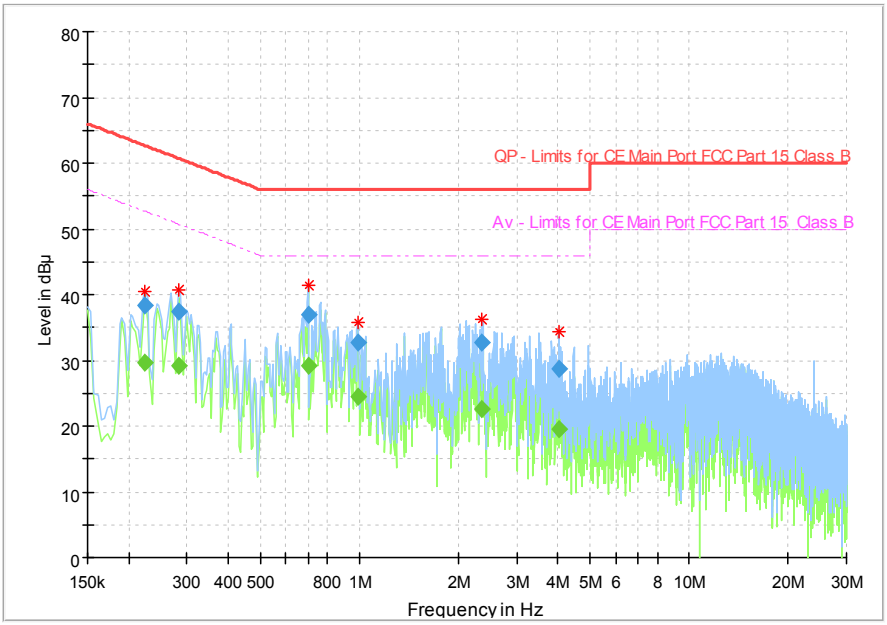



Fig.96 AC Powerline Conducted Emission

| Frequency (MHz) | QuasiPeak (dB µ V) | Average (dB µ V) | Limit (dB µ | Margin (dB) | Meas. Time | Bandwidth (kHz) | Line | Filter | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|
| 0.224625 | --- | 29.60 | 52.65 | 23.05 | 1000.0 | 9.000 | N | ON | 9.7 |
| 0.224625 | 38.36 | --- | 62.65 | 24.29 | 1000.0 | 9.000 | N | ON | 9.7 |
| 0.284325 | 37.51 | --- | 60.69 | 23.18 | 1000.0 | 9.000 | L1 | ON | 9.7 |
| 0.284325 | --- | 29.14 | 50.69 | 21.55 | 1000.0 | 9.000 | L1 | ON | 9.7 |
| 0.698494 | --- | 29.28 | 46.00 | 16.72 | 1000.0 | 9.000 | L1 | ON | 9.7 |
| 0.698494 | 36.96 | --- | 56.00 | 19.04 | 1000.0 | 9.000 | L1 | ON | 9.7 |
| 0.989531 | --- | 24.50 | 46.00 | 21.50 | 1000.0 | 9.000 | N | ON | 9.7 |
| 0.989531 | 32.78 | --- | 56.00 | 23.22 | 1000.0 | 9.000 | N | ON | 9.7 |
| 2.347706 | 32.61 | --- | 56.00 | 23.39 | 1000.0 | 9.000 | L1 | ON | 9.7 |
| 2.347706 | --- | 22.48 | 46.00 | 23.52 | 1000.0 | 9.000 | L1 | ON | 9.7 |
| 4.019306 | --- | 19.62 | 46.00 | 26.38 | 1000.0 | 9.000 | N | ON | 9.8 |
| 4.019306 | 28.82 | --- | 56.00 | 27.18 | 1000.0 | 9.000 | N | ON | 9.8 |

**L1323**

| Frequency range (MHz) | Quasi-peak Limit (dBµV) | Average Limit (dBµV) | Result (dBµV) With charger BT | Conclusion |
|---|---|---|---|---|
| 0.15 to 0.5 | 67 to 56 | 56 to 46 | Fig.97 | P |
| 0.5 to 5 | 56 | 46 | | |
| 5 to 30 | 60 | 50 | | |
| NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz. | | | | |

**Conclusion: Pass**

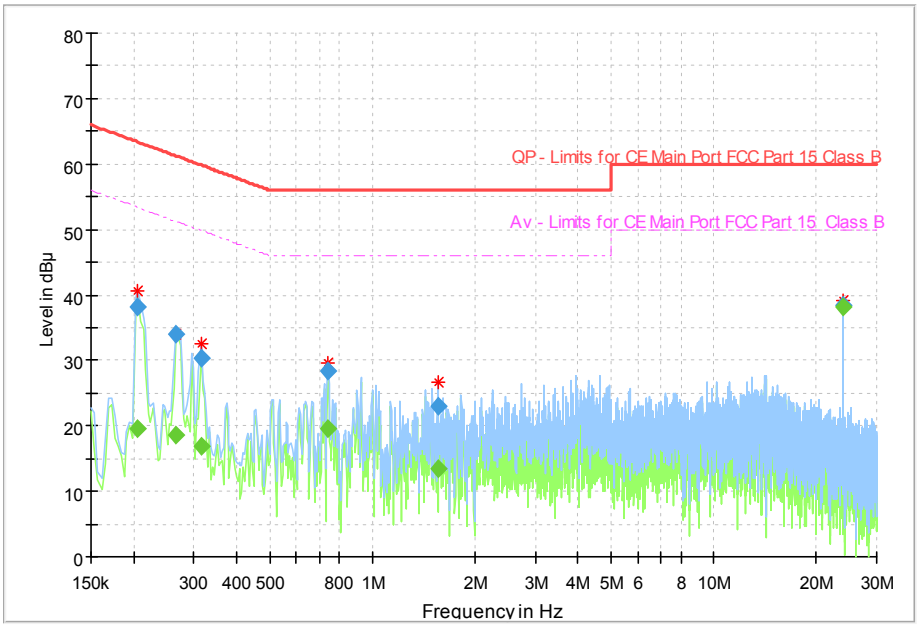



Fig.97 AC Powerline Conducted Emission

| Frequency (MHz) | QuasiPeak (dB µ V) | Average (dB µ V) | Limit (dB µ | Margin (dB) | Meas. Time | Bandwidth (kHz) | Line | Filter | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|
| 0.205969 | 38.11 | --- | 63.37 | 25.26 | 1000.0 | 9.000 | N | ON | 9.7 |
| 0.205969 | --- | 19.46 | 53.37 | 33.91 | 1000.0 | 9.000 | N | ON | 9.7 |
| 0.265669 | 34.13 | --- | 61.25 | 27.12 | 1000.0 | 9.000 | L1 | ON | 9.7 |
| 0.265669 | --- | 18.55 | 51.25 | 32.70 | 1000.0 | 9.000 | L1 | ON | 9.7 |
| 0.314175 | --- | 16.84 | 49.86 | 33.02 | 1000.0 | 9.000 | L1 | ON | 9.7 |
| 0.314175 | 30.38 | --- | 59.86 | 29.48 | 1000.0 | 9.000 | L1 | ON | 9.7 |
| 0.743269 | --- | 19.65 | 46.00 | 26.35 | 1000.0 | 9.000 | N | ON | 9.7 |
| 0.743269 | 28.42 | --- | 56.00 | 27.58 | 1000.0 | 9.000 | N | ON | 9.7 |
| 1.552950 | --- | 13.53 | 46.00 | 32.47 | 1000.0 | 9.000 | L1 | ON | 9.7 |
| 1.552950 | 22.98 | --- | 56.00 | 33.02 | 1000.0 | 9.000 | L1 | ON | 9.7 |
| 24.000150 | --- | 38.16 | 50.00 | 11.84 | 1000.0 | 9.000 | L1 | ON | 9.9 |
| 24.000150 | 38.52 | --- | 60.00 | 21.48 | 1000.0 | 9.000 | L1 | ON | 9.9 |

# 7. Test Equipment and Ancillaries Used For Tests

The test equipments and ancillaries used are as follows.

**Conducted test system**

| No. | Equipment | Model | Serial Number | Manufacturer | Calibration date | Cal.interval |
|---|---|---|---|---|---|---|
| 1 | Vector Signal | FSQ26 | 101091 | Rohde&Schwarz | 2018-05-11 | 1 Year |
| 2 | DC Power Supply | ZUP60-14 | LOC-220Z006 | TDL-Lambda | 2018-05-11 | 1 Year |
| 3 | Bluetooth Tester | CBT32 | 100785 | Rohde&Schwarz | 2018-05-11 | 1 Year |

**Radiated emission test system**

| No. | Equipment | Model | Serial Number | Manufacturer | Calibration date | Cal.interval |
|---|---|---|---|---|---|---|
| 1 | Universal Radio Communication Tester | CMU200 | 123123 | R&S | 2018-05-11 | 1 Year |
| 2 | EMI Test Receiver | ESU40 | 100307 | R&S | 2018-05-11 | 1 Year |
| 3 | TRILOG Broadband Antenna | VULB9163 | VULB9163-515 | Schwarzbeck | 2017-02-25 | 3 Year |
| 4 | Double- ridged Waveguide Antenna | ETS-3117 | 00135890 | ETS | 2017-01-11 | 3 Year |
| 5 | 2-Line V-Network | ENV216 | 101380 | R&S | 2018-05-11 | 1 Year |

**Anechoic chamber**

Fully anechoic chamber by Frankonia German.

## 8. Test Environment

**Shielding Room1** (6.0 meters×3.0 meters×2.7 meters) did not exceed following limits along the conducted RF performance testing:

| | |
|---|---|
| Temperature | Min. = 15 ℃, Max. = 35 ℃ |
| Relative humidity | Min. = 20 %, Max. = 75 % |
| Shielding effectiveness | > 100 dB |
| Ground system resistance | < 0.5 |

**Control room** did not exceed following limits along the EMC testing:

| | |
|---|---|
| Temperature | Min. = 15 ℃, Max. = 35 ℃ |
| Relative humidity | Min. =30 %, Max. = 60 % |
| Shielding effectiveness | > 100 dB |
| Electrical insulation | > 10 k |
| Ground system resistance | < 0.5 |

**Fully-anechoic chamber1** (6.9 meters×10.9 meters×5.4 meters) did not exceed following limits along the EMC testing:

| | |
|---|---|
| Temperature | Min. = 15 ℃, Max. = 35 ℃ |
| Relative humidity | Min. = 25 %, Max. = 75 % |
| Shielding effectiveness | > 100 dB |
| Electrical insulation | > 10 k |
| Ground system resistance | < 0.5 |
| VSWR | Between 0 and 6 dB, from 1GHz to 18GHz |
| Site Attenuation Deviation | Between -4 and 4 dB,30MHz to 1GHz |
| Uniformity of field strength | Between 0 and 6 dB, from 80MHz to 3000 MHz |

# ANNEX A. Deviations from Prescribed Test Methods

No deviation from Prescribed Test Methods.

# ANNEX B. Accreditation Certificate

Accredited Laboratory

A2LA has accredited

EAST CHINA INSTITUTE OF TELECOMMUNICATIONS

Shanghai, People's Republic of China

for technical competence in the field of

Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009*).

Presented this 15th day of March 2017.

President and CEO
For the Accreditation Council
Certificate Number 3682.01
Valid to February 28, 2019

*For the tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.*

************END OF REPORT************