# Appendix
# for
# DC_66A_n2A
# (1850-1910)

# Catalogue

# 1. Effective Isotropic Radiated Power

## 1.1. Test Results @ Ant4 (Antenna Gain=-1.90dBi)

| SCS | Bandwidth | Channel | Modulation | Conducted Result (dBm) | | | Max EIRP (dBm) | Limit (dBm) | Verdict |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Inner_1RB_Left | Inner_1RB_Right | Inner_Full | | | |
| 15KHz | 5MHz | LCH | DFT-Pi2BPSK | 22.45 | 22.50 | 22.52 | 20.62 | 30.00 | Pass |
| 15KHz | 5MHz | LCH | DFT-QPSK | 22.35 | 22.49 | 22.52 | 20.62 | 30.00 | Pass |
| 15KHz | 5MHz | LCH | DFT-16QAM | 21.56 | 21.69 | 21.56 | 19.79 | 30.00 | Pass |
| 15KHz | 5MHz | LCH | DFT-64QAM | 19.94 | 20.00 | 20.19 | 18.29 | 30.00 | Pass |
| 15KHz | 5MHz | LCH | DFT-256QAM | 17.63 | 17.71 | 18.09 | 16.19 | 30.00 | Pass |
| 15KHz | 5MHz | LCH | CP-QPSK | 20.95 | 21.11 | 21.00 | 19.21 | 30.00 | Pass |
| 15KHz | 5MHz | MCH | DFT-Pi2BPSK | 22.57 | 22.62 | 22.66 | 20.76 | 30.00 | Pass |
| 15KHz | 5MHz | MCH | DFT-QPSK | 22.44 | 22.59 | 22.64 | 20.74 | 30.00 | Pass |
| 15KHz | 5MHz | MCH | DFT-16QAM | 21.66 | 21.72 | 21.61 | 19.82 | 30.00 | Pass |
| 15KHz | 5MHz | MCH | DFT-64QAM | 20.05 | 20.14 | 20.26 | 18.36 | 30.00 | Pass |
| 15KHz | 5MHz | MCH | DFT-256QAM | 17.63 | 17.74 | 18.10 | 16.20 | 30.00 | Pass |
| 15KHz | 5MHz | MCH | CP-QPSK | 21.04 | 21.17 | 21.00 | 19.27 | 30.00 | Pass |
| 15KHz | 5MHz | HCH | DFT-Pi2BPSK | 22.58 | 22.60 | 22.80 | 20.90 | 30.00 | Pass |
| 15KHz | 5MHz | HCH | DFT-QPSK | 22.52 | 22.57 | 22.85 | 20.95 | 30.00 | Pass |
| 15KHz | 5MHz | HCH | DFT-16QAM | 21.84 | 21.87 | 21.91 | 20.01 | 30.00 | Pass |
| 15KHz | 5MHz | HCH | DFT-64QAM | 20.21 | 20.21 | 20.35 | 18.45 | 30.00 | Pass |
| 15KHz | 5MHz | HCH | DFT-256QAM | 17.84 | 17.88 | 18.38 | 16.48 | 30.00 | Pass |
| 15KHz | 5MHz | HCH | CP-QPSK | 21.17 | 21.34 | 21.30 | 19.44 | 30.00 | Pass |
| 15KHz | 10MHz | LCH | DFT-Pi2BPSK | 22.45 | 22.55 | 22.61 | 20.71 | 30.00 | Pass |
| 15KHz | 10MHz | LCH | DFT-QPSK | 22.40 | 22.54 | 22.51 | 20.64 | 30.00 | Pass |
| 15KHz | 10MHz | LCH | DFT-16QAM | 21.35 | 21.59 | 21.55 | 19.69 | 30.00 | Pass |
| 15KHz | 10MHz | LCH | DFT-64QAM | 19.95 | 20.01 | 20.05 | 18.15 | 30.00 | Pass |
| 15KHz | 10MHz | LCH | DFT-256QAM | 17.53 | 17.65 | 17.91 | 16.01 | 30.00 | Pass |
| 15KHz | 10MHz | LCH | CP-QPSK | 20.92 | 21.02 | 20.95 | 19.12 | 30.00 | Pass |
| 15KHz | 10MHz | MCH | DFT-Pi2BPSK | 22.58 | 22.56 | 22.66 | 20.76 | 30.00 | Pass |
| 15KHz | 10MHz | MCH | DFT-QPSK | 22.56 | 22.53 | 22.64 | 20.74 | 30.00 | Pass |
| 15KHz | 10MHz | MCH | DFT-16QAM | 21.70 | 21.75 | 21.63 | 19.85 | 30.00 | Pass |
| 15KHz | 10MHz | MCH | DFT-64QAM | 20.11 | 20.12 | 20.12 | 18.22 | 30.00 | Pass |
| 15KHz | 10MHz | MCH | DFT-256QAM | 17.74 | 17.75 | 18.10 | 16.20 | 30.00 | Pass |
| 15KHz | 10MHz | MCH | CP-QPSK | 21.09 | 21.07 | 21.21 | 19.31 | 30.00 | Pass |
| 15KHz | 10MHz | HCH | DFT-Pi2BPSK | 22.75 | 22.86 | 22.88 | 20.98 | 30.00 | Pass |
| 15KHz | 10MHz | HCH | DFT-QPSK | 22.81 | 22.64 | 22.87 | 20.97 | 30.00 | Pass |
| 15KHz | 10MHz | HCH | DFT-16QAM | 21.75 | 21.89 | 21.82 | 19.99 | 30.00 | Pass |
| 15KHz | 10MHz | HCH | DFT-64QAM | 20.30 | 20.31 | 20.34 | 18.44 | 30.00 | Pass |
| 15KHz | 10MHz | HCH | DFT-256QAM | 17.68 | 17.75 | 18.29 | 16.39 | 30.00 | Pass |
| 15KHz | 10MHz | HCH | CP-QPSK | 21.35 | 21.38 | 21.48 | 19.58 | 30.00 | Pass |
| 15KHz | 15MHz | LCH | DFT-Pi2BPSK | 22.36 | 22.64 | 22.54 | 20.74 | 30.00 | Pass |
| 15KHz | 15MHz | LCH | DFT-QPSK | 22.44 | 22.54 | 22.57 | 20.67 | 30.00 | Pass |
| 15KHz | 15MHz | LCH | DFT-16QAM | 21.53 | 21.70 | 21.58 | 19.80 | 30.00 | Pass |
| 15KHz | 15MHz | LCH | DFT-64QAM | 19.98 | 20.02 | 20.17 | 18.27 | 30.00 | Pass |
| 15KHz | 15MHz | LCH | DFT-256QAM | 17.60 | 17.82 | 18.02 | 16.12 | 30.00 | Pass |
| 15KHz | 15MHz | LCH | CP-QPSK | 20.94 | 21.14 | 21.13 | 19.24 | 30.00 | Pass |
| 15KHz | 15MHz | MCH | DFT-Pi2BPSK | 22.58 | 22.41 | 22.64 | 20.74 | 30.00 | Pass |
| 15KHz | 15MHz | MCH | DFT-QPSK | 22.61 | 22.48 | 22.69 | 20.79 | 30.00 | Pass |
| 15KHz | 15MHz | MCH | DFT-16QAM | 21.73 | 21.62 | 21.77 | 19.87 | 30.00 | Pass |
| 15KHz | 15MHz | MCH | DFT-64QAM | 20.08 | 19.97 | 20.24 | 18.34 | 30.00 | Pass |
| 15KHz | 15MHz | MCH | DFT-256QAM | 17.69 | 17.68 | 18.07 | 16.17 | 30.00 | Pass |
| 15KHz | 15MHz | MCH | CP-QPSK | 21.11 | 21.00 | 21.18 | 19.28 | 30.00 | Pass |
| 15KHz | 15MHz | HCH | DFT-Pi2BPSK | 22.41 | 22.31 | 22.48 | 20.58 | 30.00 | Pass |
| 15KHz | 15MHz | HCH | DFT-QPSK | 22.44 | 22.23 | 22.51 | 20.61 | 30.00 | Pass |
| 15KHz | 15MHz | HCH | DFT-16QAM | 21.51 | 21.72 | 21.51 | 19.82 | 30.00 | Pass |
| 15KHz | 15MHz | HCH | DFT-64QAM | 19.96 | 19.99 | 20.04 | 18.14 | 30.00 | Pass |
| 15KHz | 15MHz | HCH | DFT-256QAM | 17.67 | 17.70 | 17.98 | 16.08 | 30.00 | Pass |
| 15KHz | 15MHz | HCH | CP-QPSK | 20.94 | 20.96 | 21.01 | 19.11 | 30.00 | Pass |
| 15KHz | 20MHz | LCH | DFT-Pi2BPSK | 22.37 | 22.61 | 22.54 | 20.71 | 30.00 | Pass |
| 15KHz | 20MHz | LCH | DFT-QPSK | 22.40 | 22.59 | 22.57 | 20.69 | 30.00 | Pass |
| 15KHz | 20MHz | LCH | DFT-16QAM | 21.62 | 21.69 | 21.59 | 19.79 | 30.00 | Pass |
| 15KHz | 20MHz | LCH | DFT-64QAM | 19.91 | 20.04 | 20.17 | 18.27 | 30.00 | Pass |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 15KHz | 20MHz | LCH | DFT-256QAM | 17.52 | 17.70 | 18.04 | 16.14 | 30.00 | Pass |
| 15KHz | 20MHz | LCH | CP-QPSK | 20.96 | 21.11 | 21.11 | 19.21 | 30.00 | Pass |
| 15KHz | 20MHz | MCH | DFT-Pi2BPSK | 22.62 | 22.39 | 22.64 | 20.74 | 30.00 | Pass |
| 15KHz | 20MHz | MCH | DFT-QPSK | 22.61 | 22.38 | 22.70 | 20.80 | 30.00 | Pass |
| 15KHz | 20MHz | MCH | DFT-16QAM | 21.73 | 21.47 | 21.78 | 19.88 | 30.00 | Pass |
| 15KHz | 20MHz | MCH | DFT-64QAM | 20.07 | 19.90 | 20.23 | 18.33 | 30.00 | Pass |
| 15KHz | 20MHz | MCH | DFT-256QAM | 17.64 | 17.59 | 18.17 | 16.27 | 30.00 | Pass |
| 15KHz | 20MHz | MCH | CP-QPSK | 21.13 | 20.87 | 21.10 | 19.23 | 30.00 | Pass |
| 15KHz | 20MHz | HCH | DFT-Pi2BPSK | 22.31 | 22.47 | 22.50 | 20.60 | 30.00 | Pass |
| 15KHz | 20MHz | HCH | DFT-QPSK | 22.37 | 22.16 | 22.46 | 20.56 | 30.00 | Pass |
| 15KHz | 20MHz | HCH | DFT-16QAM | 21.41 | 21.59 | 21.55 | 19.69 | 30.00 | Pass |
| 15KHz | 20MHz | HCH | DFT-64QAM | 19.92 | 19.97 | 20.07 | 18.17 | 30.00 | Pass |
| 15KHz | 20MHz | HCH | DFT-256QAM | 17.51 | 17.52 | 17.96 | 16.06 | 30.00 | Pass |
| 15KHz | 20MHz | HCH | CP-QPSK | 20.90 | 20.86 | 21.05 | 19.15 | 30.00 | Pass |

# 2. Peak-to-Average Ratio

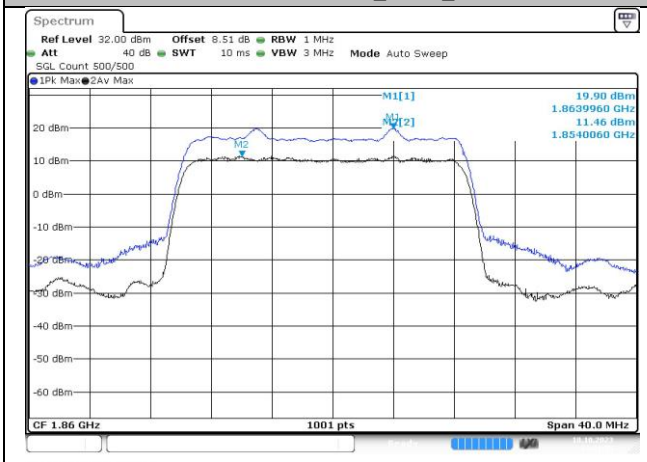
## 2.1. Test Results

| SCS | Bandwidth | Channel | Modulation | Result (dB) | | Limit (dB) | Verdict |
|---|---|---|---|---|---|---|---|
| | | | | DFT-Pi2BPSK | DFT-QPSK | | |
| 15KHz | 20MHz | LCH | Outer_Full | 8.44 | 7.33 | 13.00 | Pass |
| 15KHz | 20MHz | MCH | Outer_Full | 8.34 | 7.86 | 13.00 | Pass |
| 15KHz | 20MHz | HCH | Outer_Full | 8.52 | 7.07 | 13.00 | Pass |

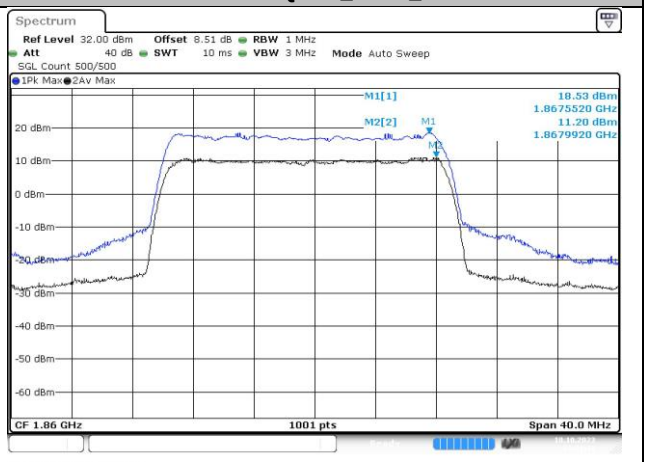
## 2.2. Test Plots

**DC_66A_n2A / 15KHz / 20MHz**

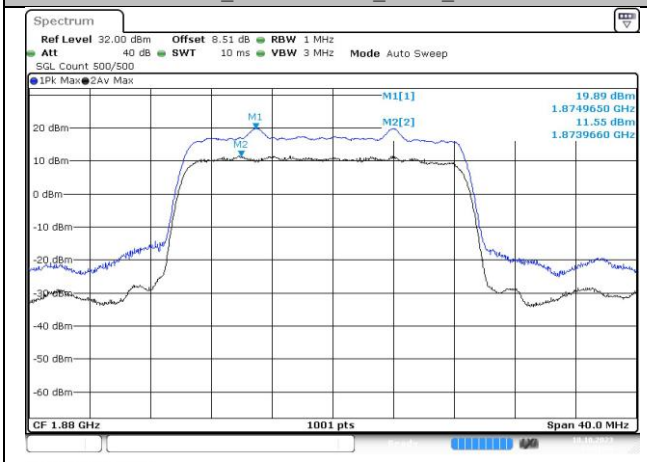
**LCH / DFT-Pi2BPSK_Outer_Full**



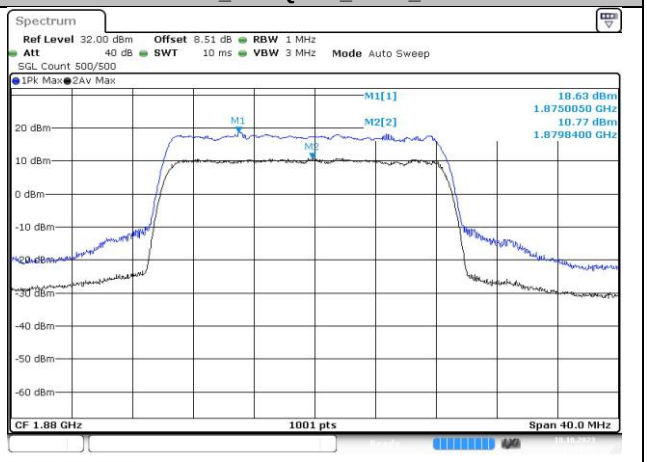

**LCH / DFT-QPSK_Outer_Full**



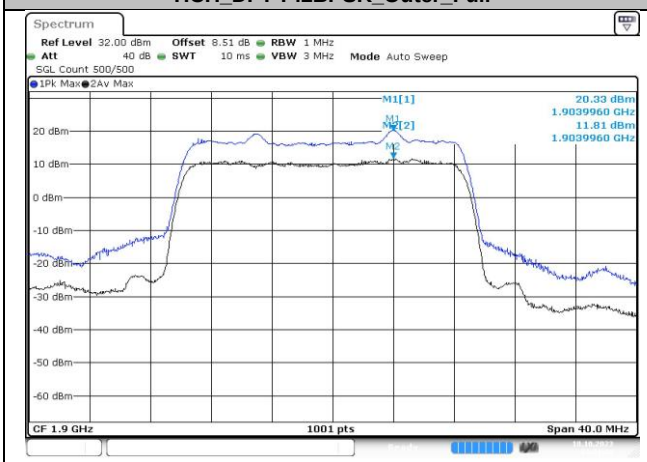

**MCH_DFT-Pi2BPSK_Outer_Full**



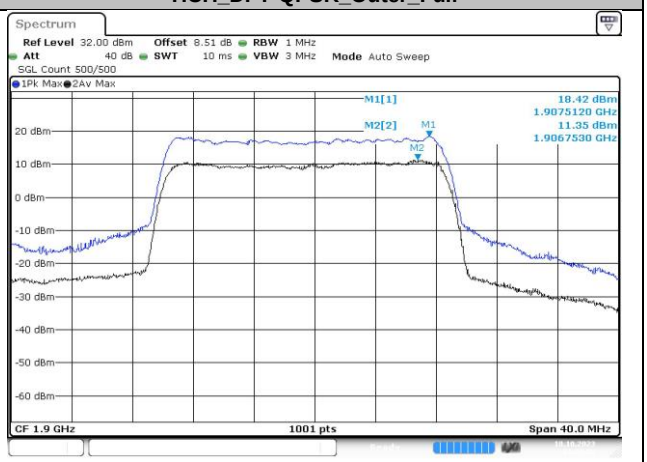

**MCH_DFT-QPSK_Outer_Full**




**HCH_DFT-Pi2BPSK_Outer_Full**

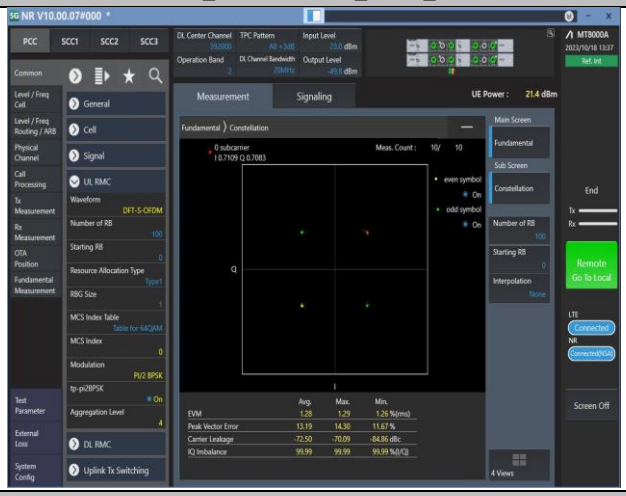
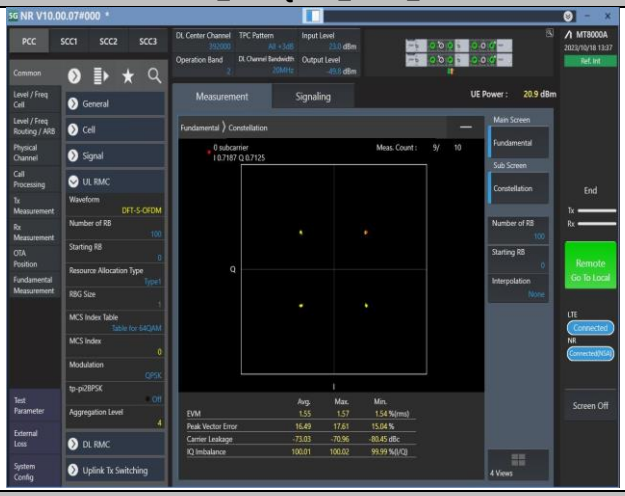
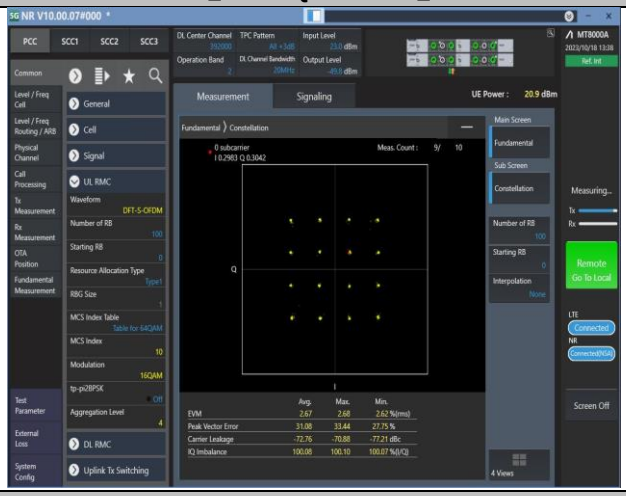
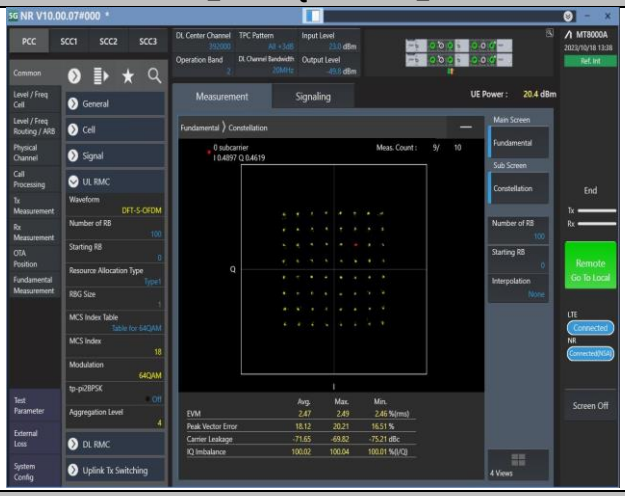
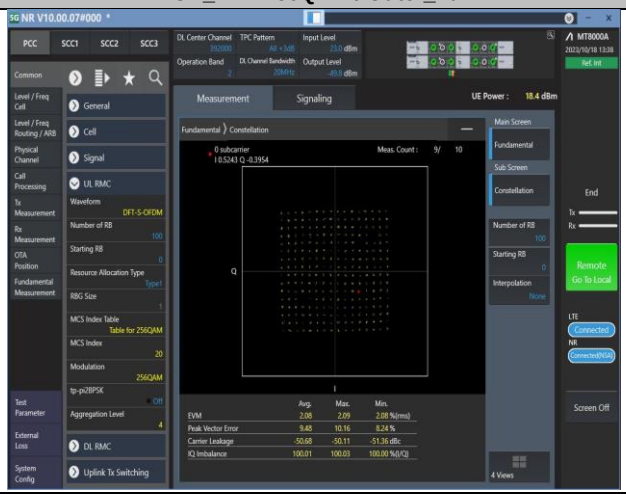
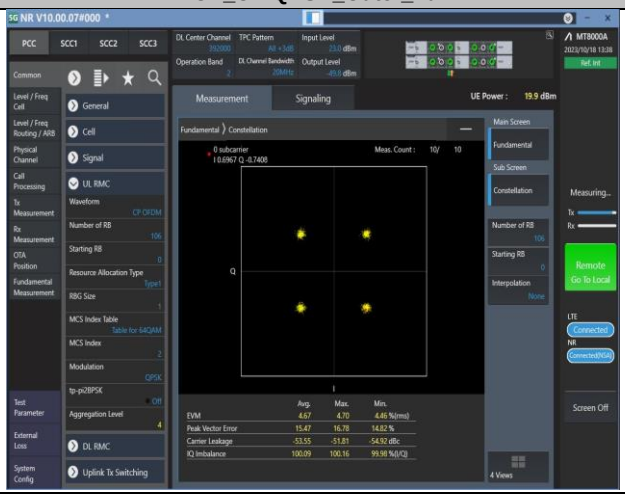


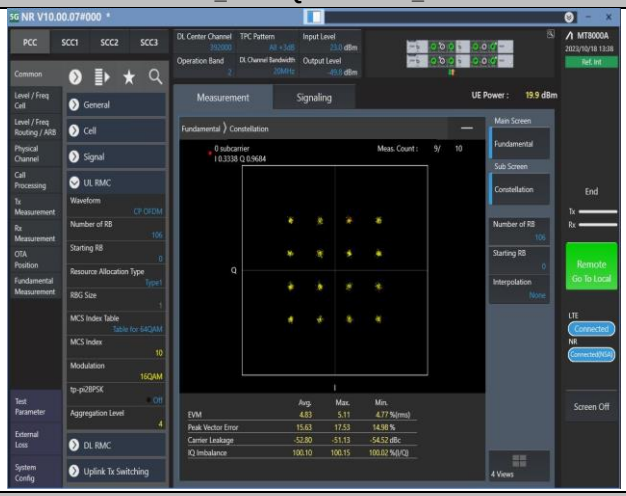
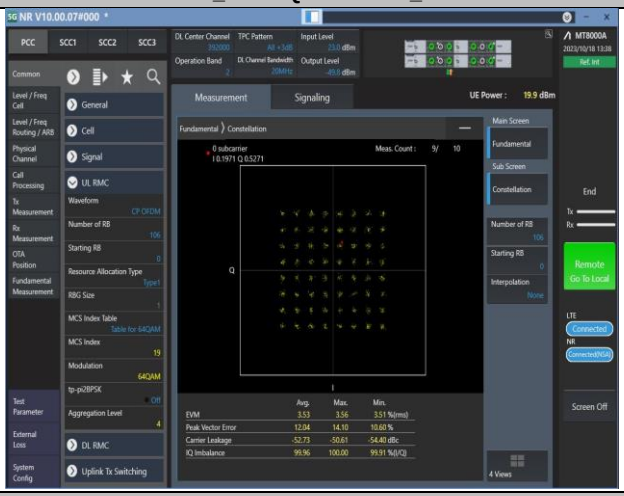
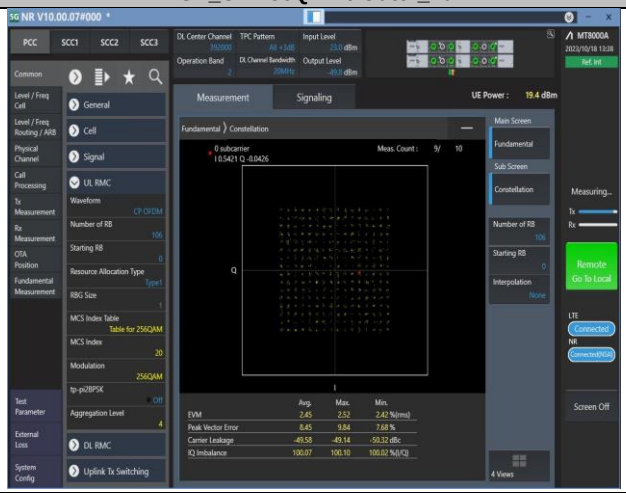

**HCH_DFT-QPSK_Outer_Full**



# 3. Modulation Characteristics

## 3.1. Test Plots

| DC_66A_n2A / 15KHz / 20MHz | |
|---|---|
| MCH_DFT-Pi2BPSK_Outer_Full | MCH_DFT-QPSK_Outer_Full |
|  |  |
| MCH_DFT-16QAM / Outer_Full | MCH_DFT-64QAM / Outer_Full |
|  |  |
| MCH_DFT-256QAM / Outer_Full | MCH_CP-QPSK_Outer_Full |
|  |  |

| MCH_CP-16QAM / Outer_Full | MCH_CP-64QAM / Outer_Full |
|---|---|
|  |  |
| **MCH_CP-256QAM / Outer_Full** | |
|  | ***Intentionally Blank*** |

# 4. 99% Occupied Bandwidth & 26dB Emission Bandwidth

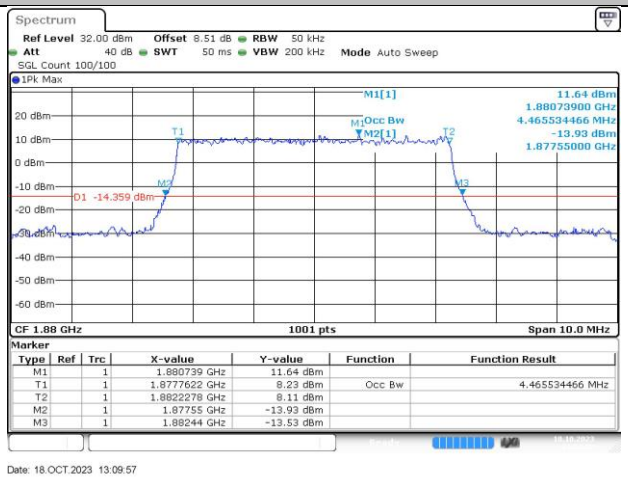
## 4.1. Test Results

| SCS | Bandwidth | Modulation | RB Config | 99% Occupied Bandwidth (MHz) | 26dB Emission Bandwidth (MHz) | Verdict |
|---|---|---|---|---|---|---|
| 15KHz | 5MHz | DFT-Pi2BPSK | Outer_Full | 4.47 | 4.89 | Pass |
| 15KHz | 5MHz | DFT-QPSK | Outer_Full | 4.48 | 4.91 | Pass |
| 15KHz | 5MHz | CP-QPSK | Outer_Full | 4.49 | 5.01 | Pass |
| 15KHz | 5MHz | CP-16QAM | Outer_Full | 4.48 | 4.94 | Pass |
| 15KHz | 5MHz | CP-64QAM | Outer_Full | 4.49 | 4.98 | Pass |
| 15KHz | 5MHz | CP-256QAM | Outer_Full | 4.48 | 4.91 | Pass |
| 15KHz | 10MHz | DFT-Pi2BPSK | Outer_Full | 8.91 | 9.44 | Pass |
| 15KHz | 10MHz | DFT-QPSK | Outer_Full | 8.93 | 9.48 | Pass |
| 15KHz | 10MHz | CP-QPSK | Outer_Full | 9.29 | 9.96 | Pass |
| 15KHz | 10MHz | CP-16QAM | Outer_Full | 9.27 | 9.96 | Pass |
| 15KHz | 10MHz | CP-64QAM | Outer_Full | 9.27 | 9.94 | Pass |
| 15KHz | 10MHz | CP-256QAM | Outer_Full | 9.31 | 10.00 | Pass |
| 15KHz | 15MHz | DFT-Pi2BPSK | Outer_Full | 13.40 | 14.28 | Pass |
| 15KHz | 15MHz | DFT-QPSK | Outer_Full | 13.40 | 14.28 | Pass |
| 15KHz | 15MHz | CP-QPSK | Outer_Full | 14.12 | 14.97 | Pass |
| 15KHz | 15MHz | CP-16QAM | Outer_Full | 14.09 | 14.97 | Pass |
| 15KHz | 15MHz | CP-64QAM | Outer_Full | 14.12 | 15.45 | Pass |
| 15KHz | 15MHz | CP-256QAM | Outer_Full | 14.06 | 14.94 | Pass |
| 15KHz | 20MHz | DFT-Pi2BPSK | Outer_Full | 17.78 | 18.76 | Pass |
| 15KHz | 20MHz | DFT-QPSK | Outer_Full | 17.82 | 18.84 | Pass |
| 15KHz | 20MHz | CP-QPSK | Outer_Full | 18.90 | 21.24 | Pass |
| 15KHz | 20MHz | CP-16QAM | Outer_Full | 18.98 | 22.04 | Pass |
| 15KHz | 20MHz | CP-64QAM | Outer_Full | 18.90 | 22.00 | Pass |
| 15KHz | 20MHz | CP-256QAM | Outer_Full | 18.94 | 19.80 | Pass |

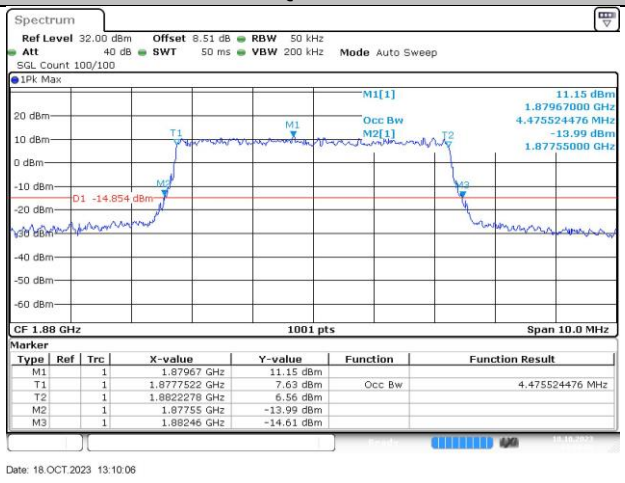
## 4.2. Test Plots

**DC_66A_n2A / 15KHz / 5MHz**

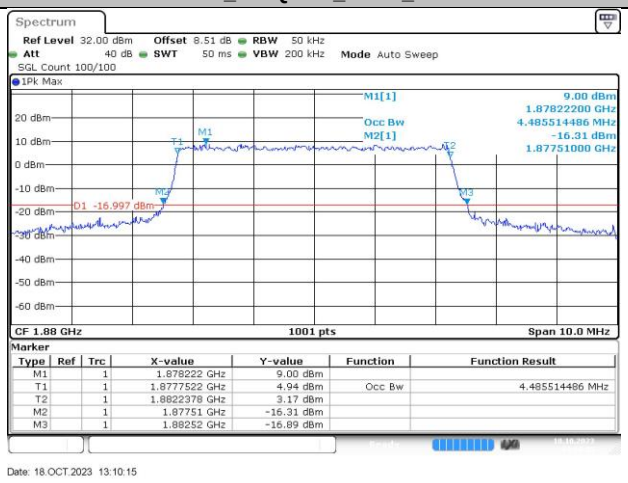
**MCH_DFT-Pi2BPSK_Outer_Full**



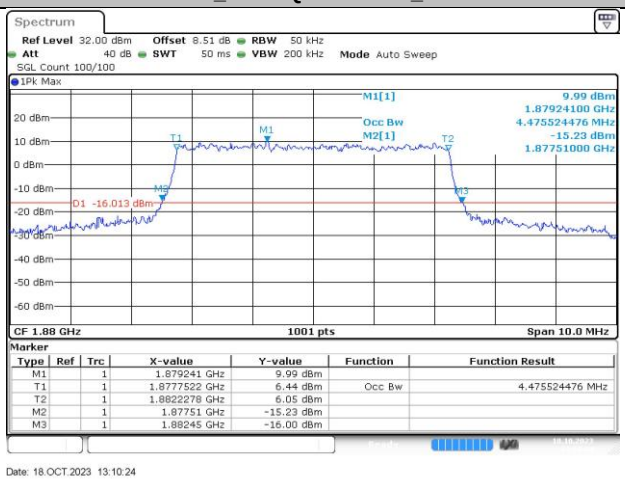

**MCH_DFT-QPSK_Outer_Full**



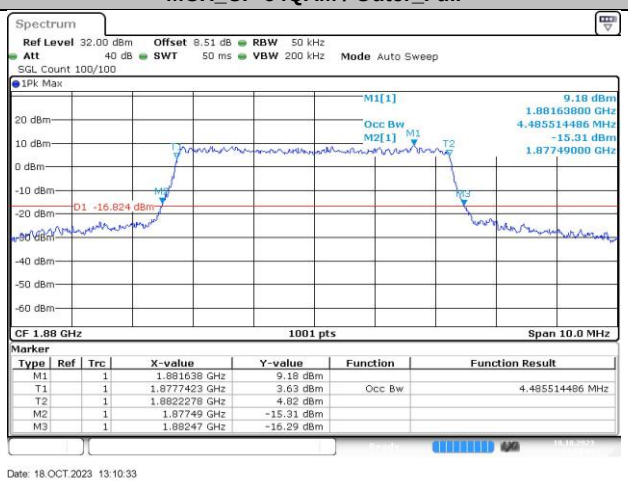

**MCH_CP-QPSK_Outer_Full**



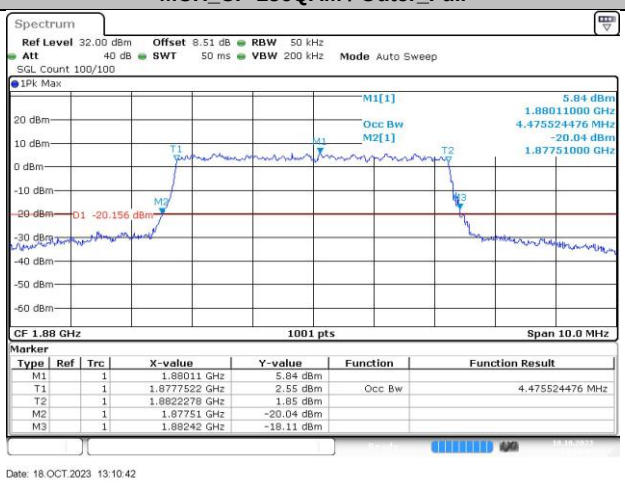

**MCH_CP-16QAM / Outer_Full**




**MCH_CP-64QAM / Outer_Full**

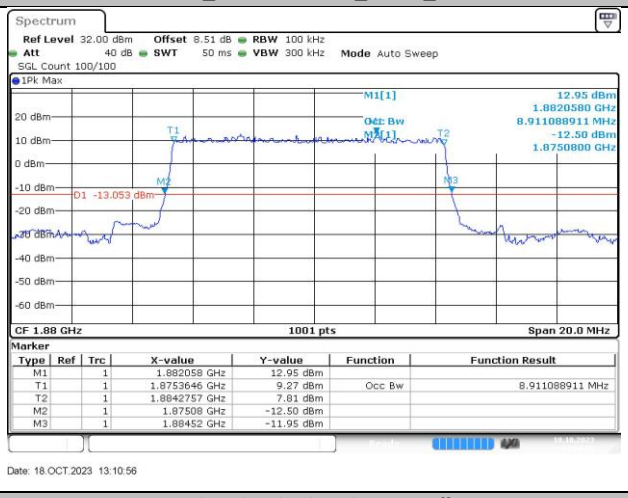



**MCH_CP-256QAM / Outer_Full**

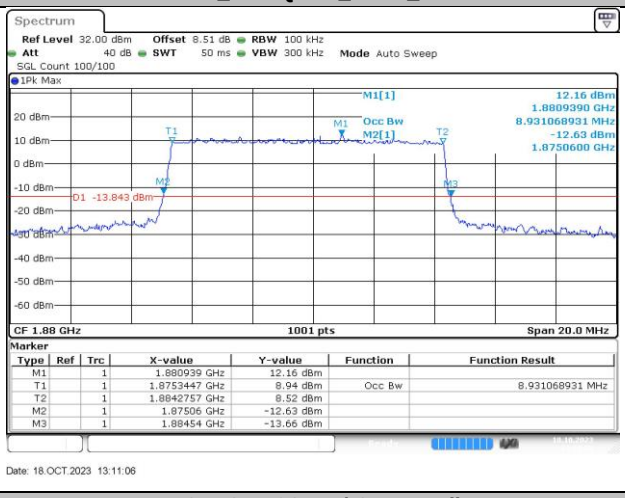


## DC_66A_n2A / 15KHz / 10MHz

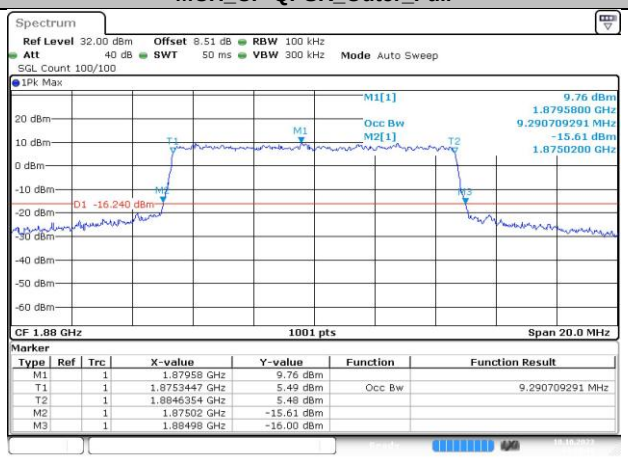
### MCH_DFT-Pi2BPSK_Outer_Full



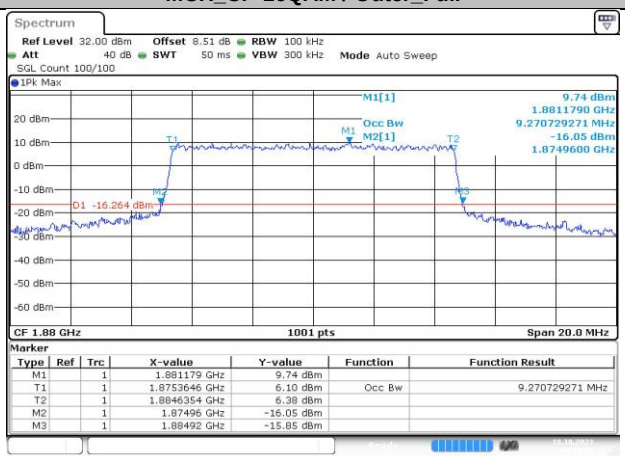

### MCH_DFT-QPSK_Outer_Full



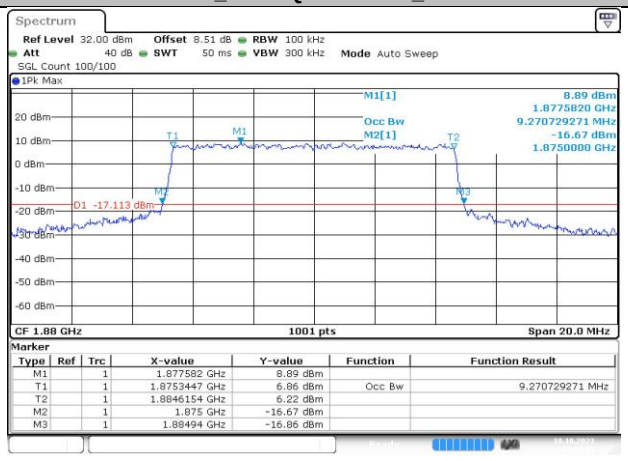

### MCH_CP-QPSK_Outer_Full



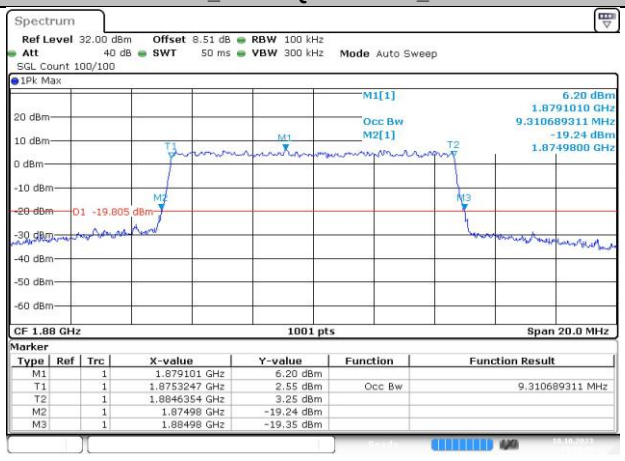

### MCH_CP-16QAM / Outer_Full




### MCH_CP-64QAM / Outer_Full

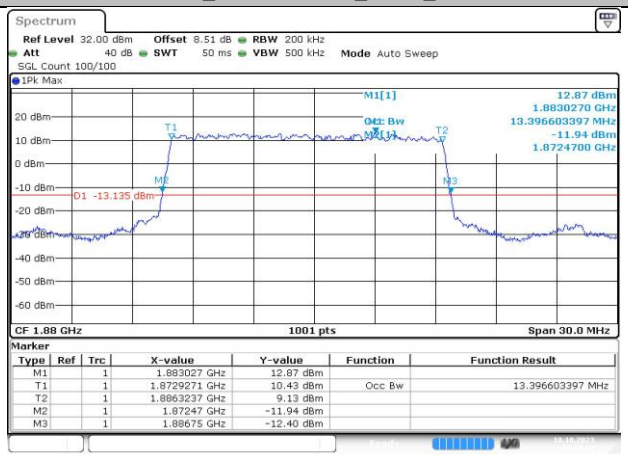



### MCH_CP-256QAM / Outer_Full

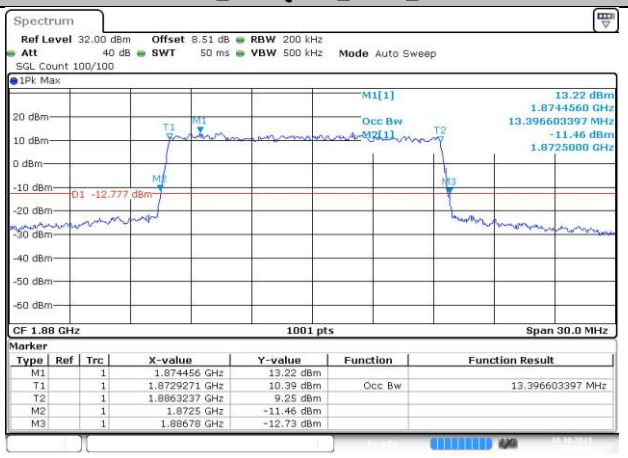


## DC_66A_n2A / 15KHz / 15MHz

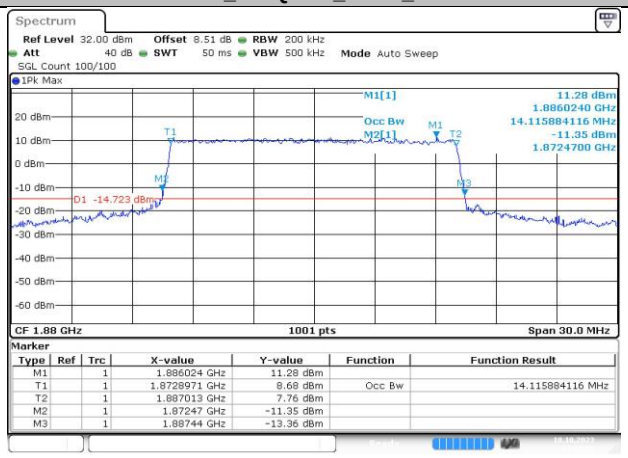
### MCH_DFT-Pi2BPSK_Outer_Full



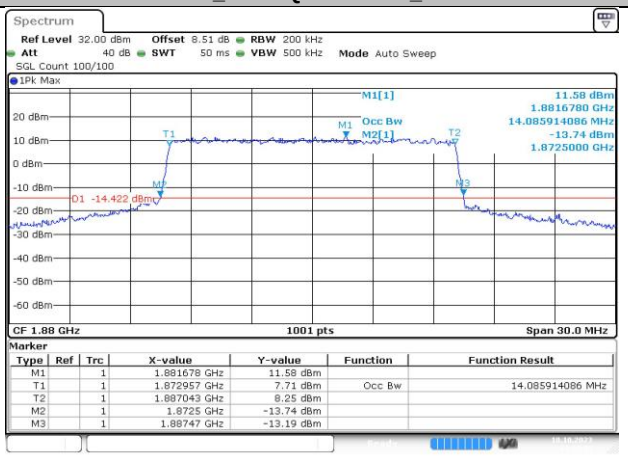

### MCH_DFT-QPSK_Outer_Full



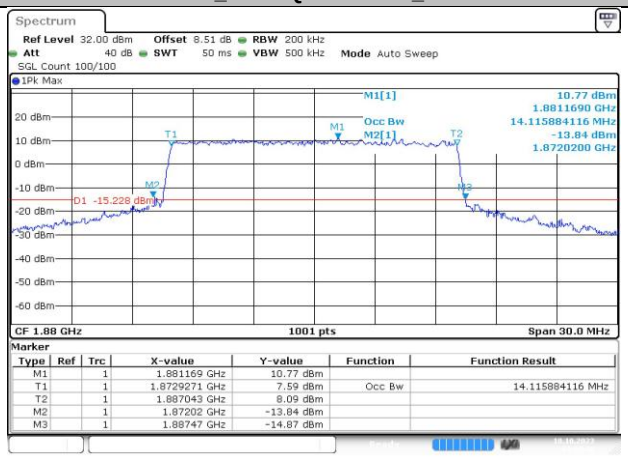

### MCH_CP-QPSK_Outer_Full



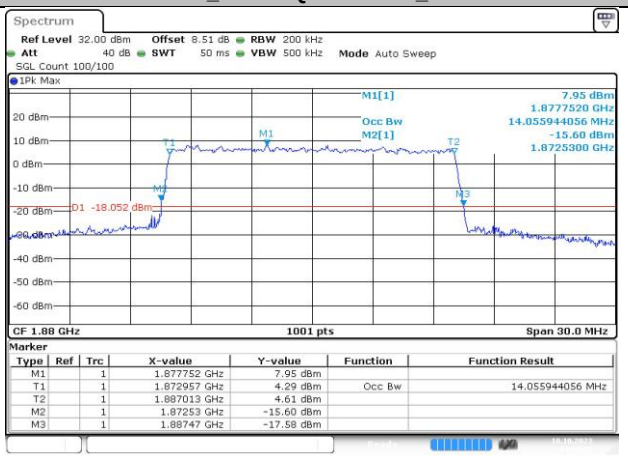

### MCH_CP-16QAM / Outer_Full




### MCH_CP-64QAM / Outer_Full

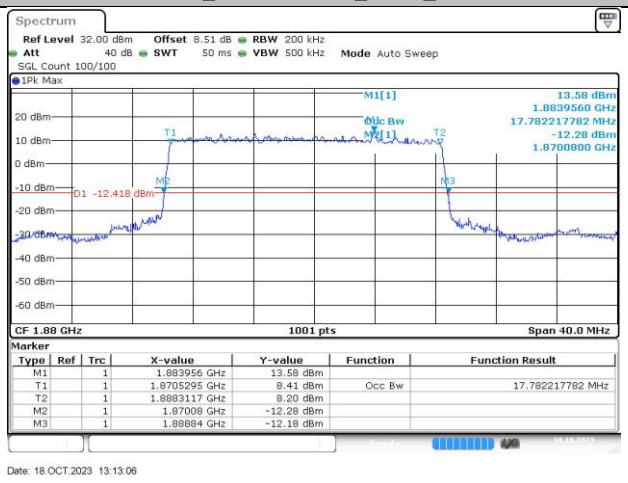



### MCH_CP-256QAM / Outer_Full

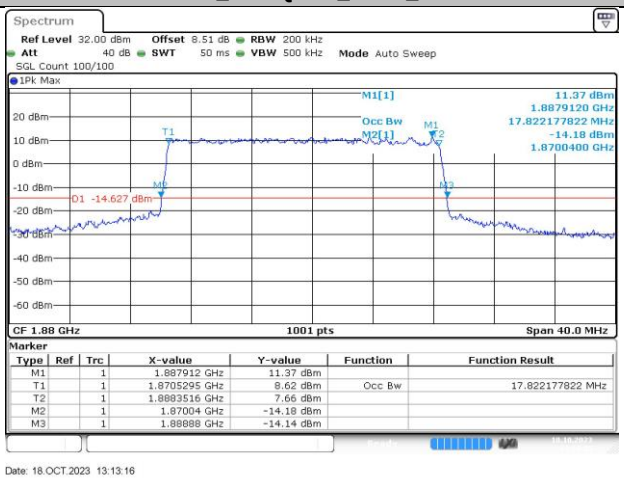


## DC_66A_n2A / 15KHz / 20MHz

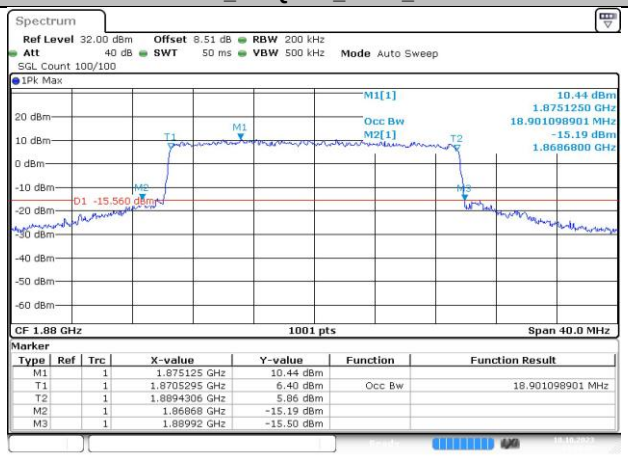
### MCH_DFT-Pi2BPSK_Outer_Full



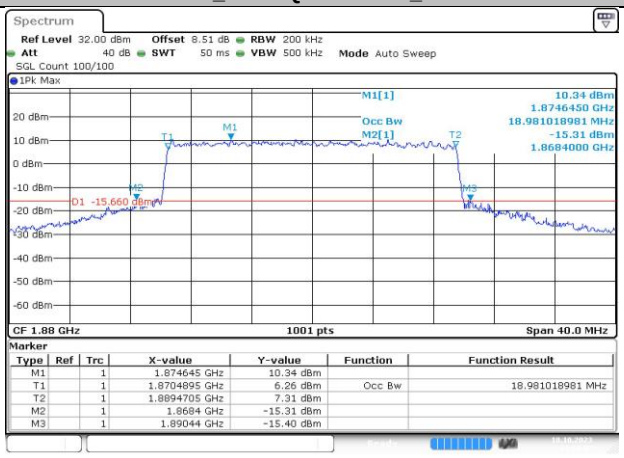

### MCH_DFT-QPSK_Outer_Full



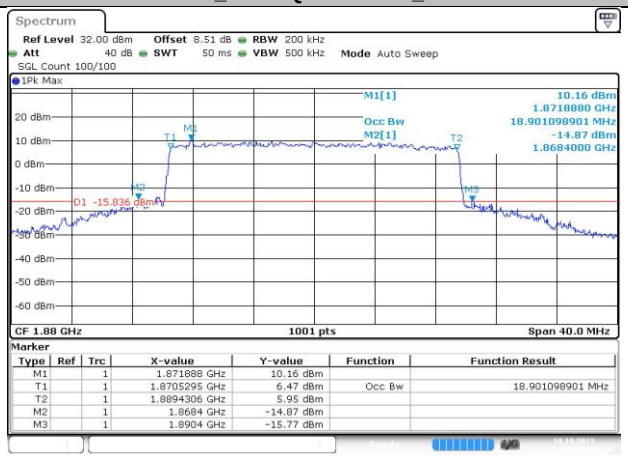

### MCH_CP-QPSK_Outer_Full



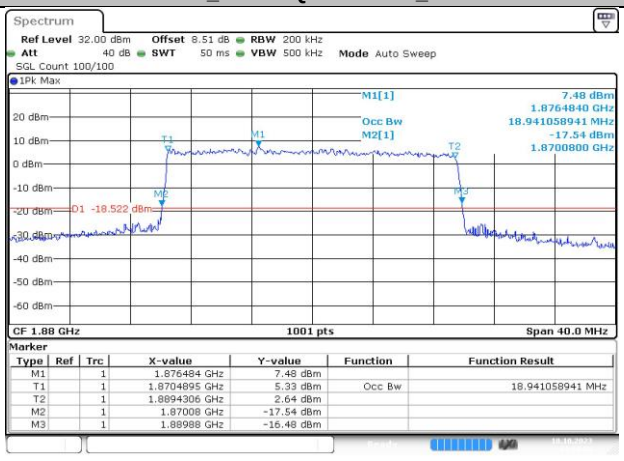

### MCH_CP-16QAM / Outer_Full




### MCH_CP-64QAM / Outer_Full




### MCH_CP-256QAM / Outer_Full

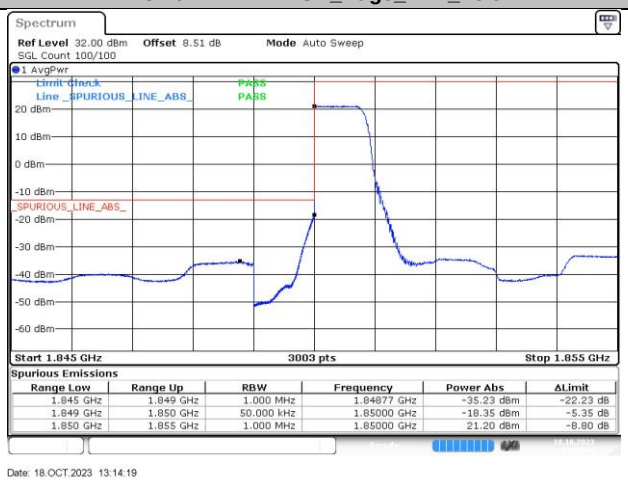


# 5. Conducted Band Edges

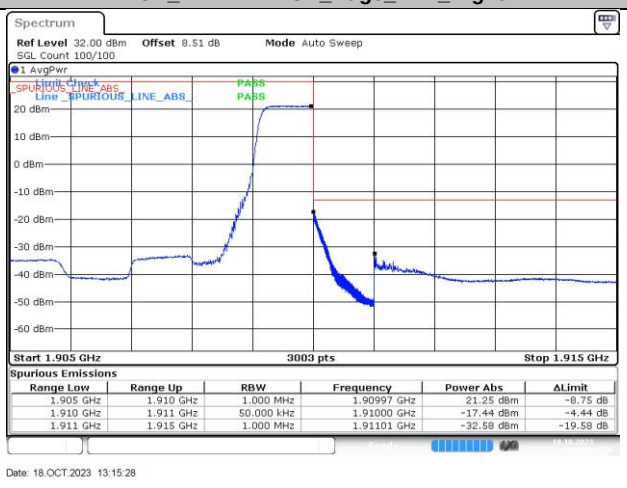
## 5.1. Test Plots

**DC_66A_n2A / 15KHz / 5MHz**

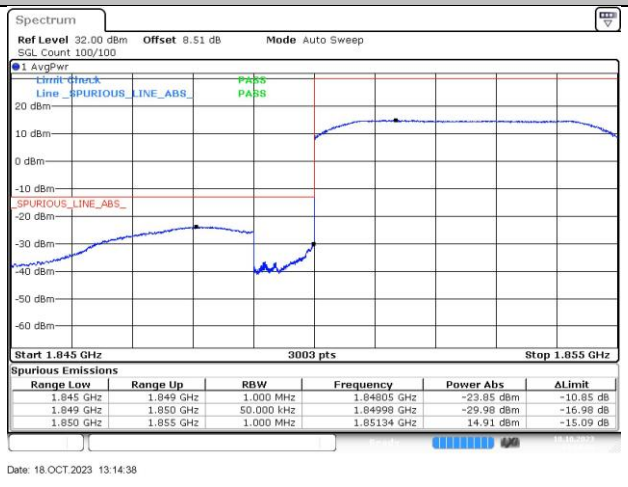
**LCH / DFT-Pi2BPSK_Edge_1RB_Left**



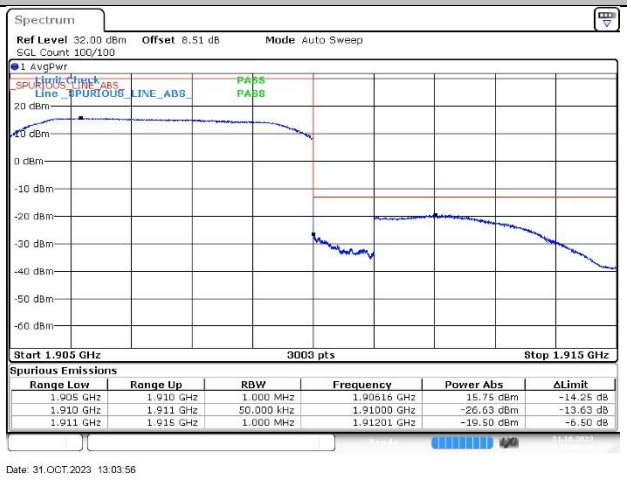

**HCH_DFT-Pi2BPSK_Edge_1RB_Right**



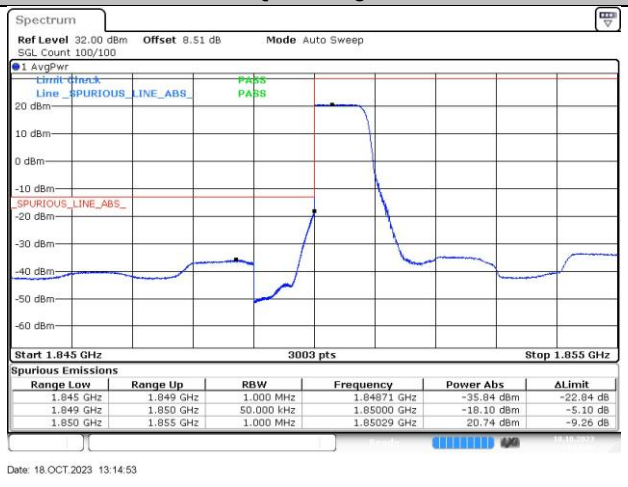

**LCH / DFT-Pi2BPSK_Outer_Full**



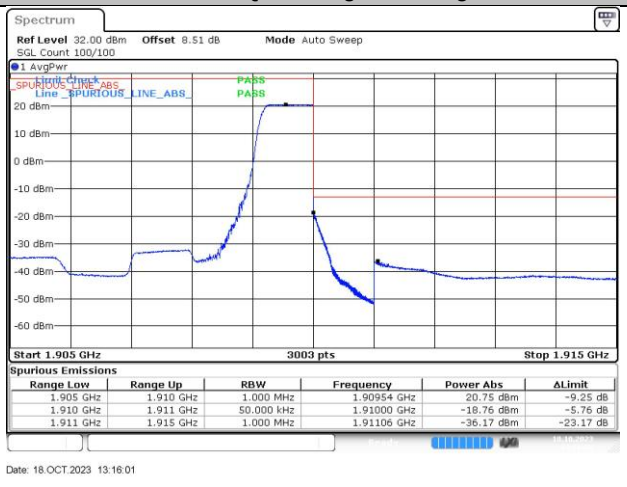

**HCH_DFT-Pi2BPSK_Outer_Full**



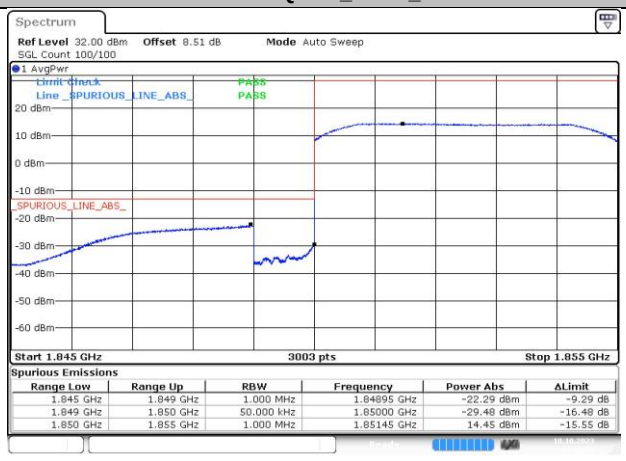

**LCH / DFT-QPSK_Edge_1RB_Left**




**HCH_DFT-QPSK_Edge_1RB_Right**



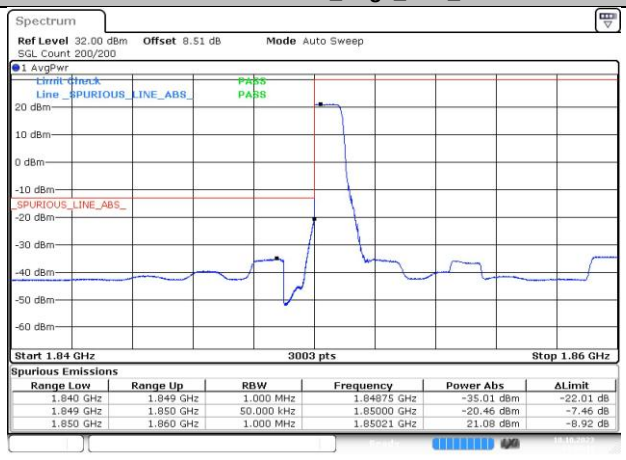
**LCH / DFT-QPSK_Outer_Full**



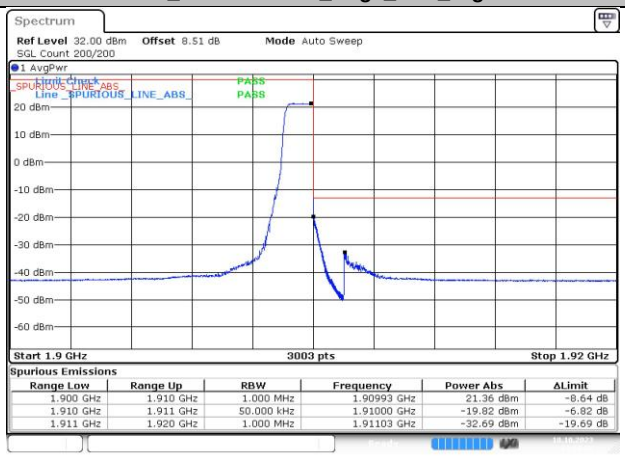

**HCH_DFT-QPSK_Outer_Full**


**DC_66A_n2A / 15KHz / 10MHz**

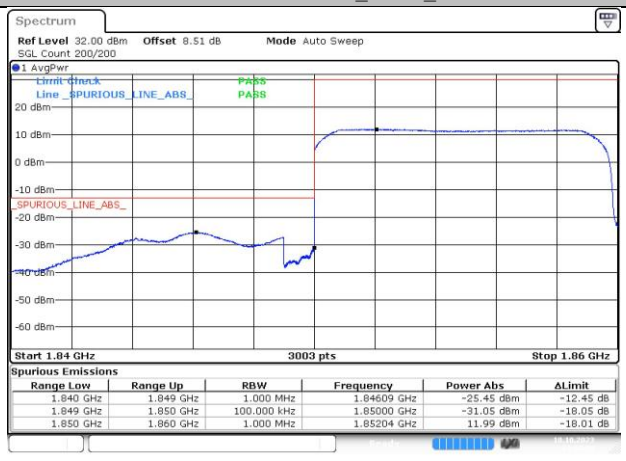
**LCH / DFT-Pi2BPSK_Edge_1RB_Left**




**HCH_DFT-Pi2BPSK_Edge_1RB_Right**

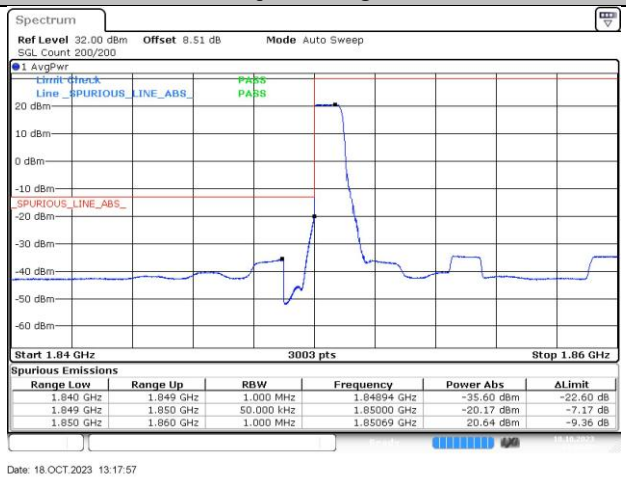


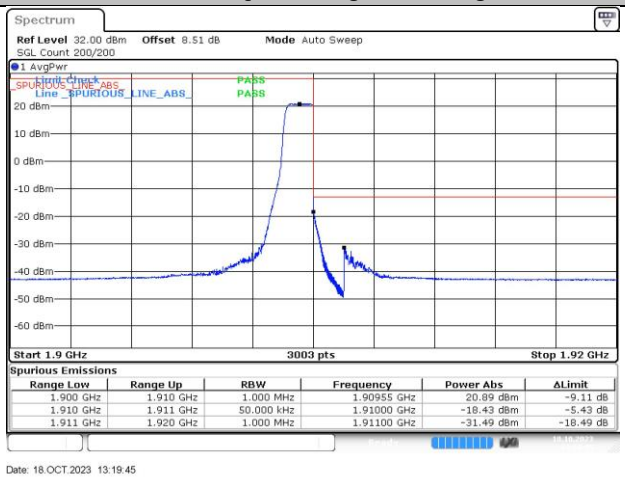

**LCH / DFT-Pi2BPSK_Outer_Full**



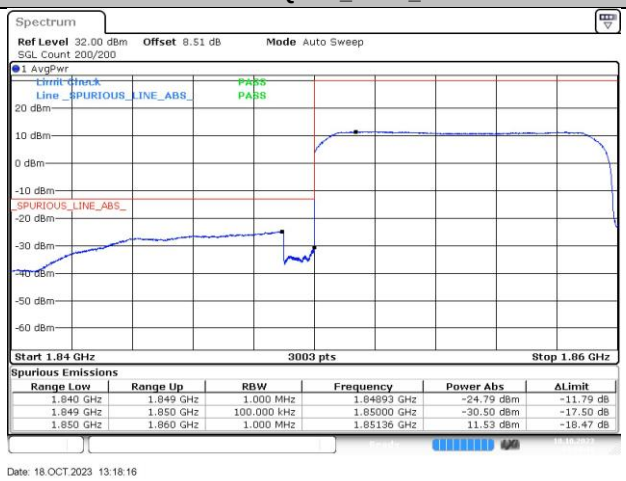

**HCH_DFT-Pi2BPSK_Outer_Full**

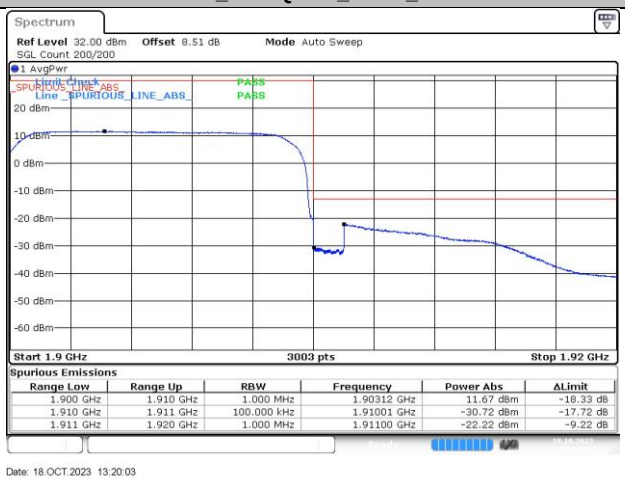
| LCH / DFT-QPSK_Edge_1RB_Left | HCH_DFT-QPSK_Edge_1RB_Right |
|---|---|



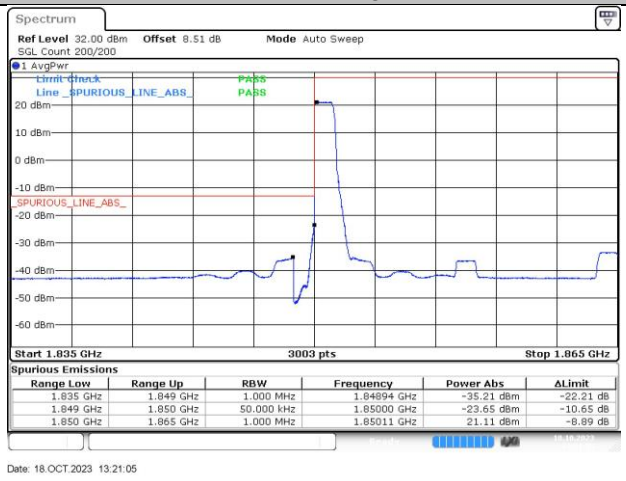



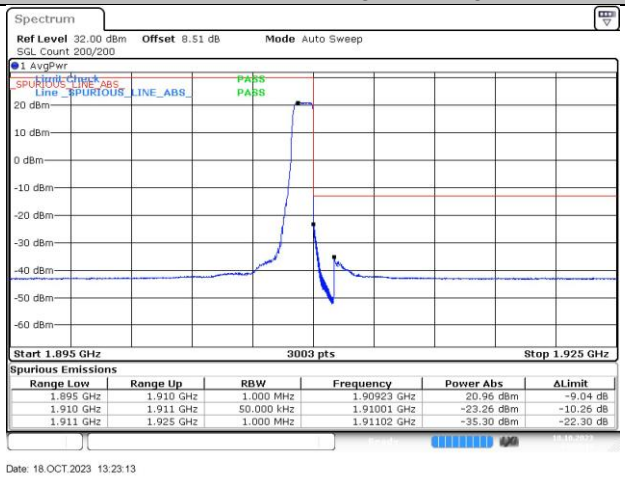

| LCH / DFT-QPSK_Outer_Full | HCH_DFT-QPSK_Outer_Full |
|---|---|



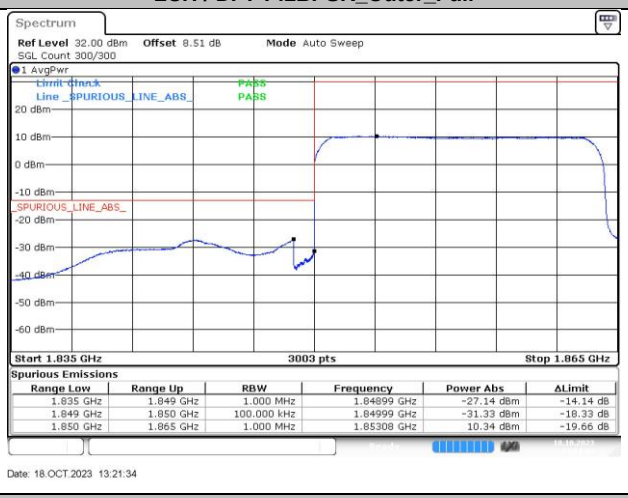




| DC_66A_n2A / 15KHz / 15MHz | |
|---|---|
| LCH / DFT-Pi2BPSK_Edge_1RB_Left | HCH_DFT-Pi2BPSK_Edge_1RB_Right |

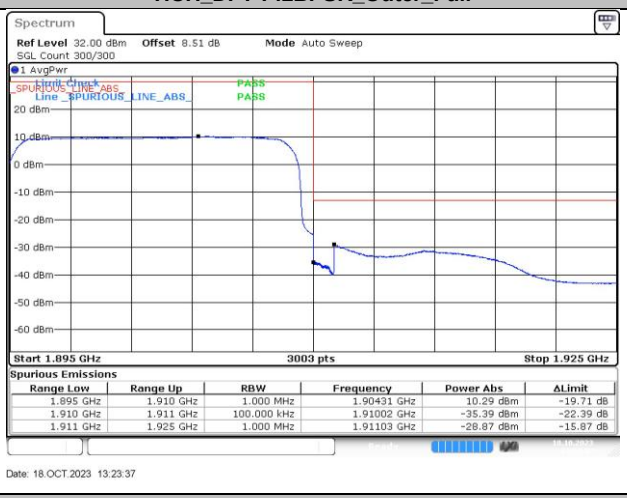


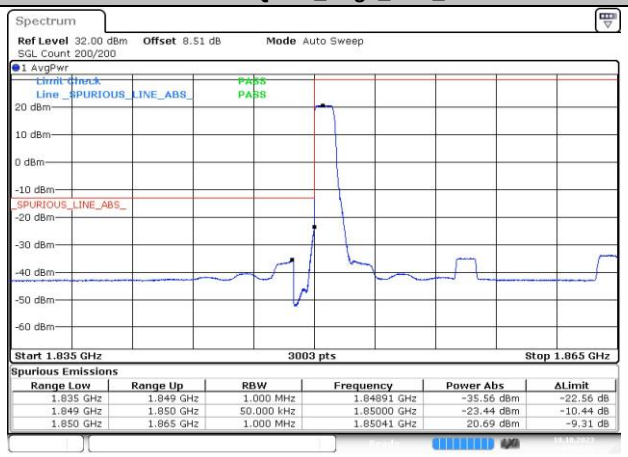
**LCH / DFT-Pi2BPSK_Outer_Full**



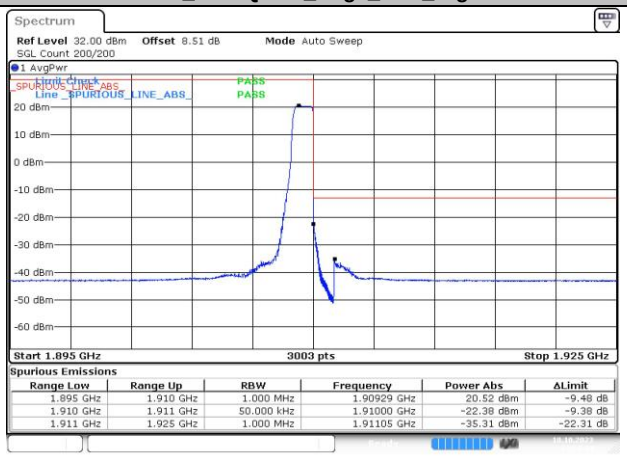

**HCH_DFT-Pi2BPSK_Outer_Full**



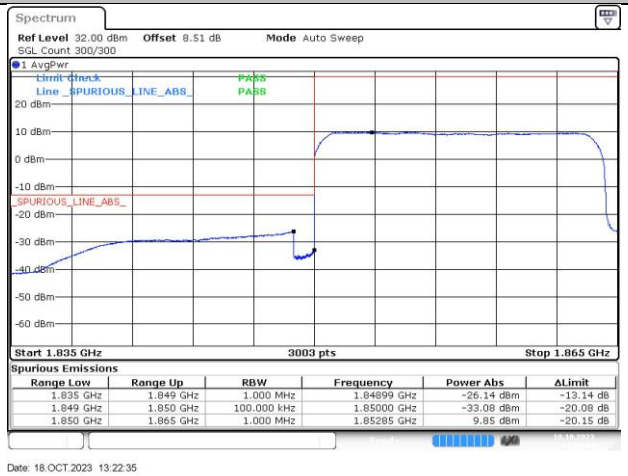

**LCH / DFT-QPSK_Edge_1RB_Left**



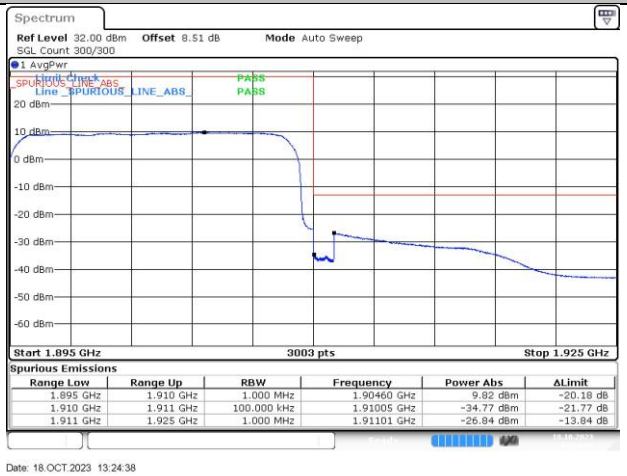

**HCH_DFT-QPSK_Edge_1RB_Right**




**LCH / DFT-QPSK_Outer_Full**

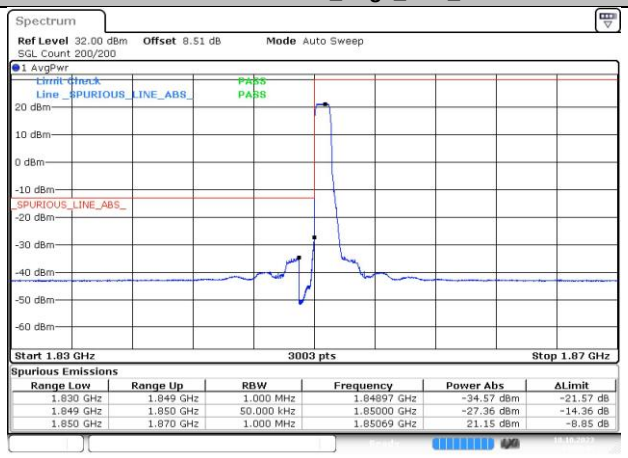



**HCH_DFT-QPSK_Outer_Full**

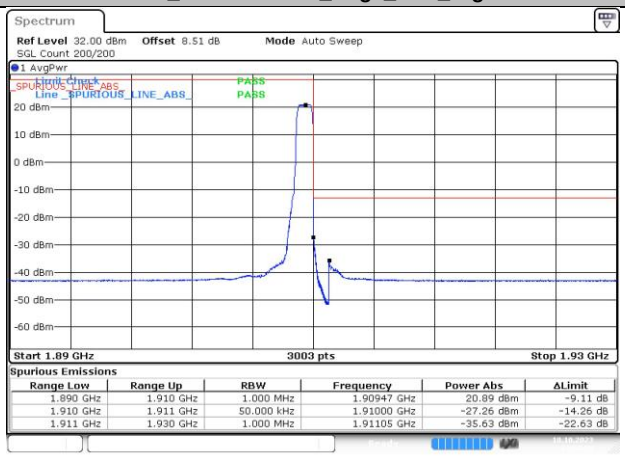


## DC_66A_n2A / 15KHz / 20MHz

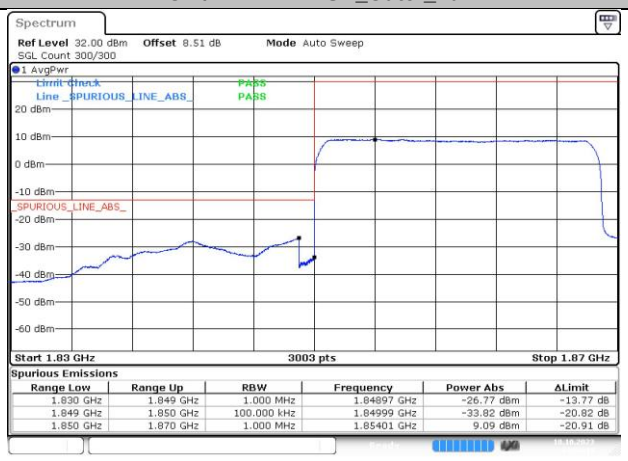
### LCH / DFT-Pi2BPSK_Edge_1RB_Left



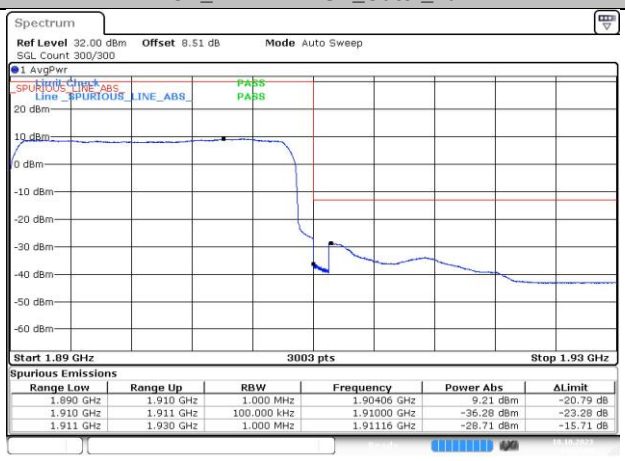

### HCH_DFT-Pi2BPSK_Edge_1RB_Right



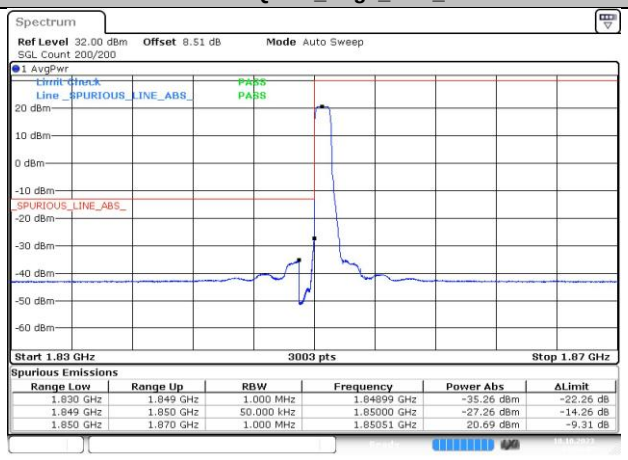

### LCH / DFT-Pi2BPSK_Outer_Full



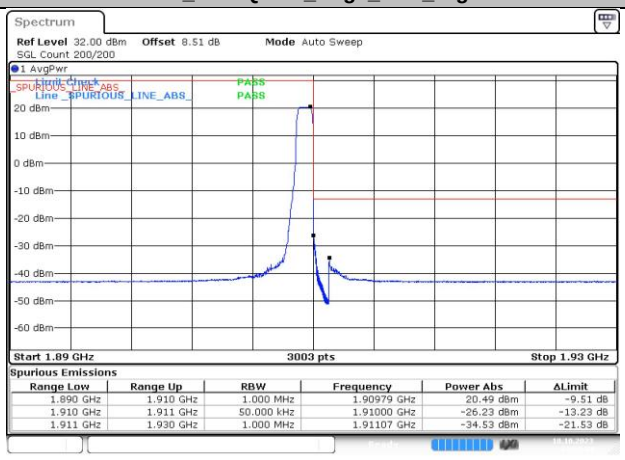

### HCH_DFT-Pi2BPSK_Outer_Full

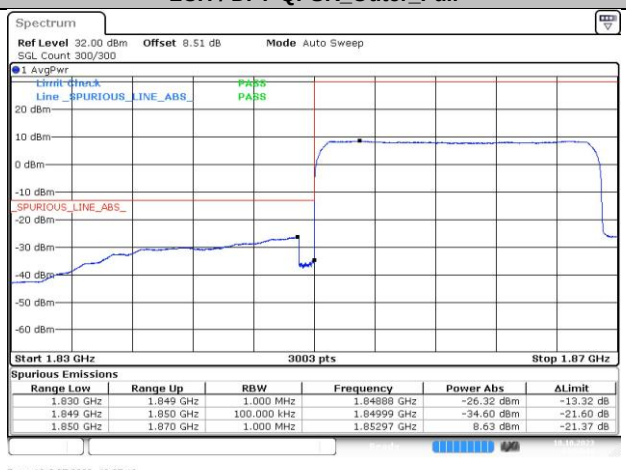
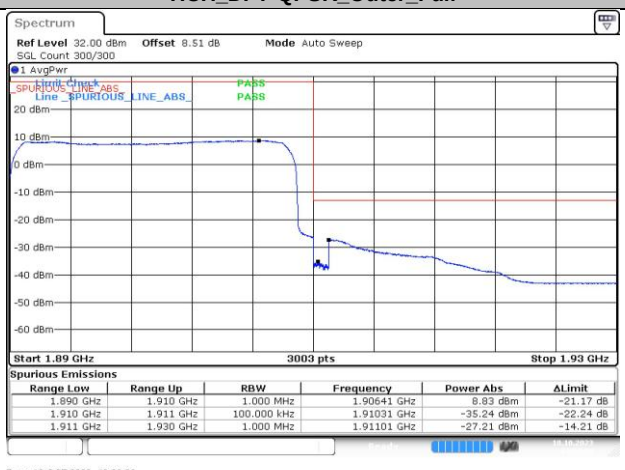



### LCH / DFT-QPSK_Edge_1RB_Left




### HCH_DFT-QPSK_Edge_1RB_Right



| LCH / DFT-QPSK_Outer_Full | HCH_DFT-QPSK_Outer_Full |
|---|---|
|  |  |

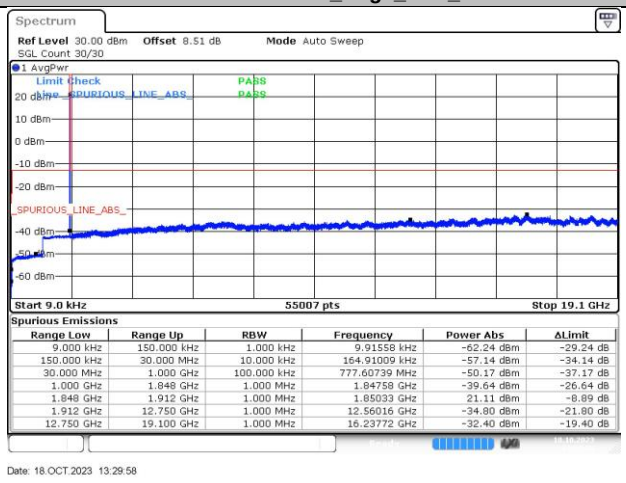
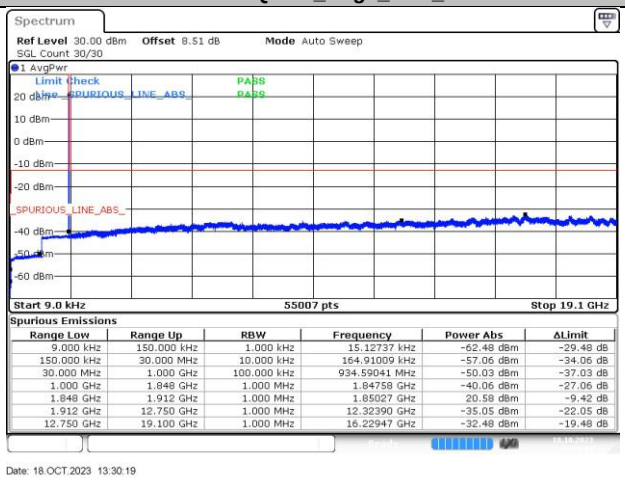




# 6. Conducted Spurious Emission

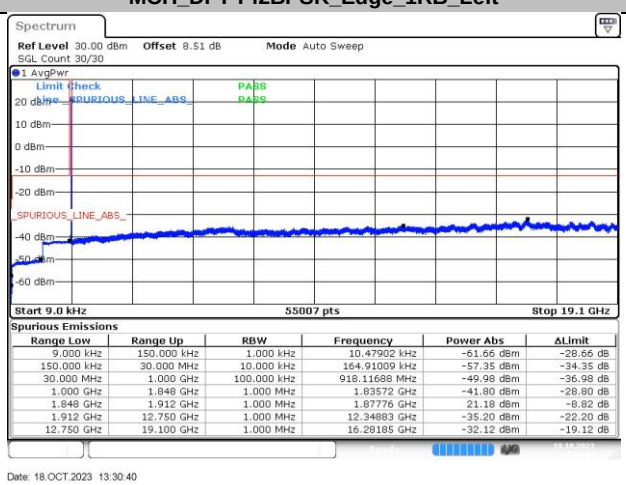
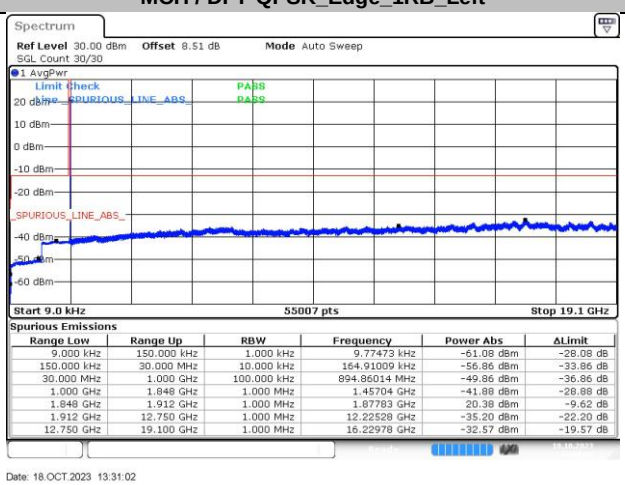
## 6.1. Test Plots

**DC_66A_n2A / 15KHz / 5MHz**

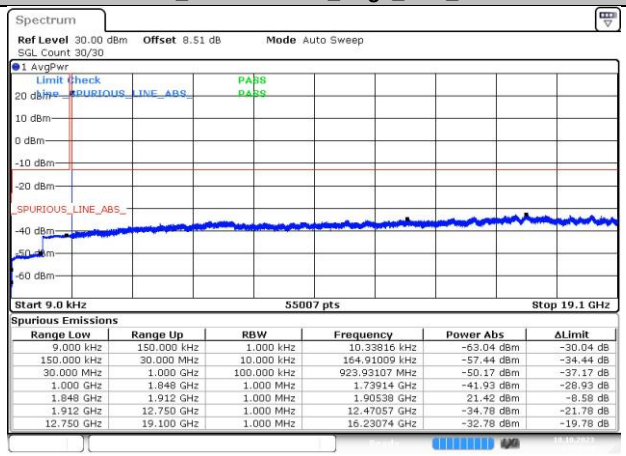
| LCH / DFT-Pi2BPSK_Edge_1RB_Left | LCH / DFT-QPSK_Edge_1RB_Left |
|---|---|
|  |  |





| MCH_DFT-Pi2BPSK_Edge_1RB_Left | MCH / DFT-QPSK_Edge_1RB_Left |
|---|---|
|  |  |

## HCH_DFT-Pi2BPSK_Edge_1RB_Left

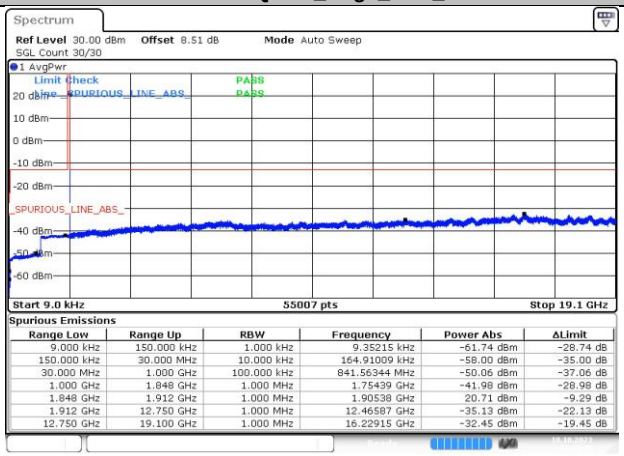



Spurious Emissions

| Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit |
|---|---|---|---|---|---|
| 9.000 kHz | 150.000 kHz | 1.000 kHz | 10.33816 kHz | -63.04 dBm | -30.04 dB |
| 150.000 kHz | 30.000 MHz | 10.000 kHz | 164.91009 kHz | -57.44 dBm | -34.44 dB |
| 30.000 MHz | 1.000 GHz | 100.000 kHz | 923.93107 MHz | -50.17 dBm | -37.17 dB |
| 1.000 GHz | 1.848 GHz | 1.000 MHz | 1.73914 GHz | -41.93 dBm | -28.93 dB |
| 1.848 GHz | 1.912 GHz | 1.000 MHz | 1.90538 GHz | 21.42 dBm | -8.58 dB |
| 1.912 GHz | 12.750 GHz | 1.000 MHz | 12.47057 GHz | -34.78 dBm | -21.78 dB |
| 12.750 GHz | 19.100 GHz | 1.000 MHz | 16.23074 GHz | -32.78 dBm | -19.78 dB |

Date: 18.OCT.2023 13:31:23

## HCH / DFT-QPSK_Edge_1RB_Left



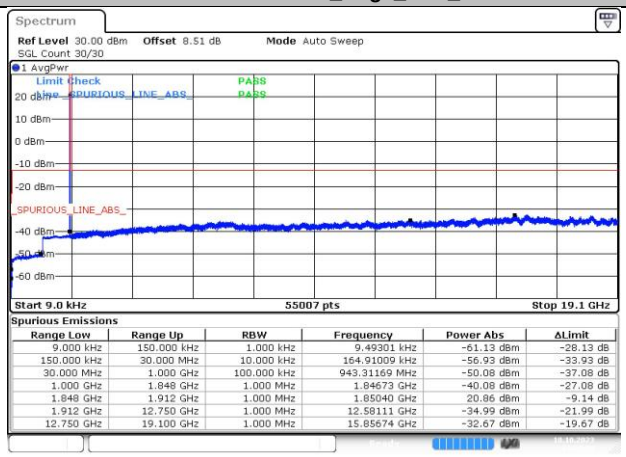

Spurious Emissions

| Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit |
|---|---|---|---|---|---|
| 9.000 kHz | 150.000 kHz | 1.000 kHz | 9.35215 kHz | -61.74 dBm | -28.74 dB |
| 150.000 kHz | 30.000 MHz | 10.000 kHz | 164.91009 kHz | -58.00 dBm | -35.00 dB |
| 30.000 MHz | 1.000 GHz | 100.000 kHz | 841.56344 MHz | -50.06 dBm | -37.06 dB |
| 1.000 GHz | 1.848 GHz | 1.000 MHz | 1.75439 GHz | -41.98 dBm | -28.98 dB |
| 1.848 GHz | 1.912 GHz | 1.000 MHz | 1.90538 GHz | 20.71 dBm | -9.29 dB |
| 1.912 GHz | 12.750 GHz | 1.000 MHz | 12.46587 GHz | -35.13 dBm | -22.13 dB |
| 12.750 GHz | 19.100 GHz | 1.000 MHz | 16.22915 GHz | -32.45 dBm | -19.45 dB |

Date: 18.OCT.2023 13:31:45

## DC_66A_n2A / 15KHz / 10MHz

## LCH / DFT-Pi2BPSK_Edge_1RB_Left




Spurious Emissions

| Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit |
|---|---|---|---|---|---|
| 9.000 kHz | 150.000 kHz | 1.000 kHz | 9.49301 kHz | -61.13 dBm | -28.13 dB |
| 150.000 kHz | 30.000 MHz | 10.000 kHz | 164.91009 kHz | -56.93 dBm | -33.93 dB |
| 30.000 MHz | 1.000 GHz | 100.000 kHz | 943.31169 MHz | -50.08 dBm | -37.08 dB |
| 1.000 GHz | 1.848 GHz | 1.000 MHz | 1.84673 GHz | -40.08 dBm | -27.08 dB |
| 1.848 GHz | 1.912 GHz | 1.000 MHz | 1.85040 GHz | 20.86 dBm | -9.14 dB |
| 1.912 GHz | 12.750 GHz | 1.000 MHz | 12.58111 GHz | -34.99 dBm | -21.99 dB |
| 12.750 GHz | 19.100 GHz | 1.000 MHz | 15.85674 GHz | -32.67 dBm | -19.67 dB |

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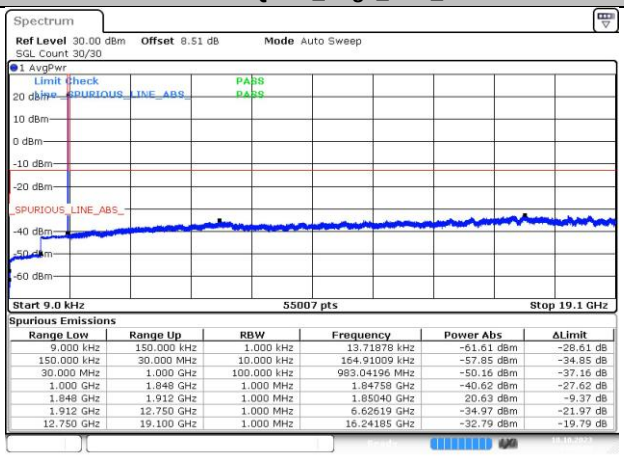
## LCH / DFT-QPSK_Edge_1RB_Left

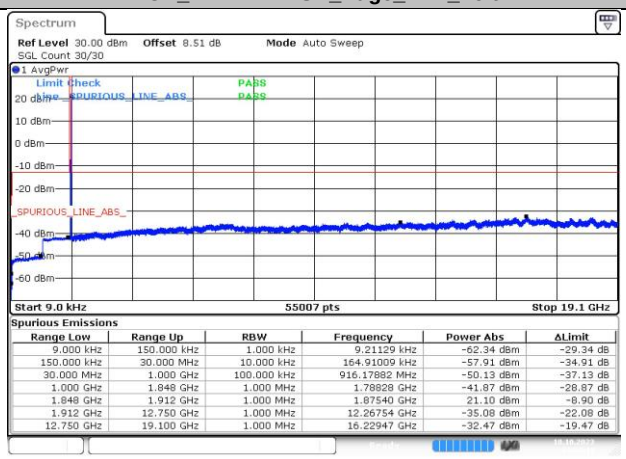



Spurious Emissions

| Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit |
|---|---|---|---|---|---|
| 9.000 kHz | 150.000 kHz | 1.000 kHz | 13.71878 kHz | -61.61 dBm | -28.61 dB |
| 150.000 kHz | 30.000 MHz | 10.000 kHz | 164.91009 kHz | -57.85 dBm | -34.85 dB |
| 30.000 MHz | 1.000 GHz | 100.000 kHz | 983.04196 MHz | -50.16 dBm | -37.16 dB |
| 1.000 GHz | 1.848 GHz | 1.000 MHz | 1.84758 GHz | -40.62 dBm | -27.62 dB |
| 1.848 GHz | 1.912 GHz | 1.000 MHz | 1.85040 GHz | 20.63 dBm | -9.37 dB |
| 1.912 GHz | 12.750 GHz | 1.000 MHz | 6.62619 GHz | -34.97 dBm | -21.97 dB |
| 12.750 GHz | 19.100 GHz | 1.000 MHz | 16.24185 GHz | -32.79 dBm | -19.79 dB |

Date: 18.OCT.2023 13:32:59

## MCH_DFT-Pi2BPSK_Edge_1RB_Left

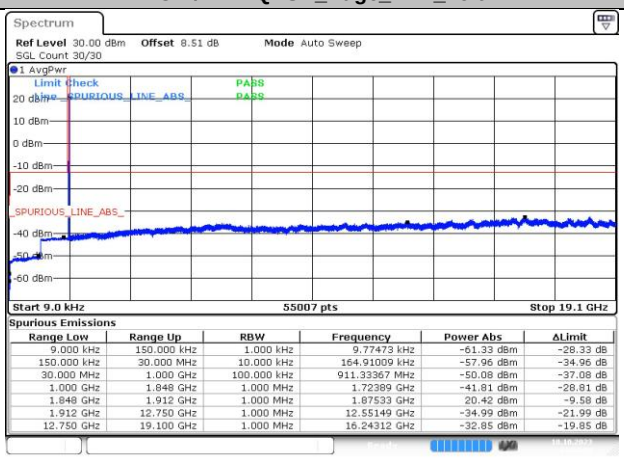



Spurious Emissions

| Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit |
|---|---|---|---|---|---|
| 9.000 kHz | 150.000 kHz | 1.000 kHz | 9.21129 kHz | -62.34 dBm | -29.34 dB |
| 150.000 kHz | 30.000 MHz | 10.000 kHz | 164.91009 kHz | -57.91 dBm | -34.91 dB |
| 30.000 MHz | 1.000 GHz | 100.000 kHz | 916.17882 MHz | -50.13 dBm | -37.13 dB |
| 1.000 GHz | 1.848 GHz | 1.000 MHz | 1.78828 GHz | -41.87 dBm | -28.87 dB |
| 1.848 GHz | 1.912 GHz | 1.000 MHz | 1.87540 GHz | 21.10 dBm | -8.90 dB |
| 1.912 GHz | 12.750 GHz | 1.000 MHz | 12.26754 GHz | -35.08 dBm | -22.08 dB |
| 12.750 GHz | 19.100 GHz | 1.000 MHz | 16.22947 GHz | -32.47 dBm | -19.47 dB |

Date: 18.OCT.2023 13:33:19

## MCH / DFT-QPSK_Edge_1RB_Left

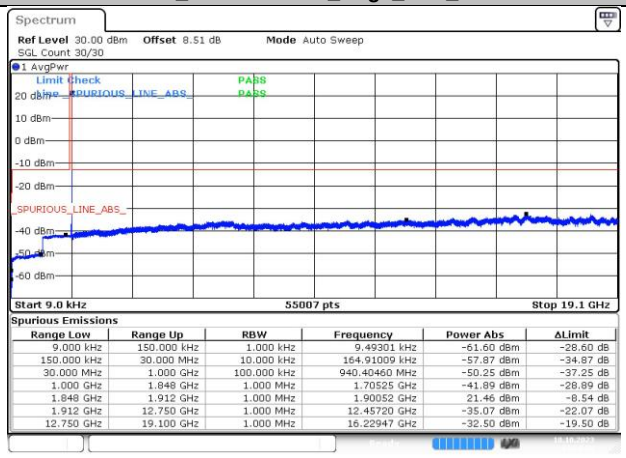



Spurious Emissions

| Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit |
|---|---|---|---|---|---|
| 9.000 kHz | 150.000 kHz | 1.000 kHz | 9.77473 kHz | -61.33 dBm | -28.33 dB |
| 150.000 kHz | 30.000 MHz | 10.000 kHz | 164.91009 kHz | -57.96 dBm | -34.96 dB |
| 30.000 MHz | 1.000 GHz | 100.000 kHz | 911.33367 MHz | -50.08 dBm | -37.08 dB |
| 1.000 GHz | 1.848 GHz | 1.000 MHz | 1.72389 GHz | -41.81 dBm | -28.81 dB |
| 1.848 GHz | 1.912 GHz | 1.000 MHz | 1.87533 GHz | 20.42 dBm | -9.58 dB |
| 1.912 GHz | 12.750 GHz | 1.000 MHz | 12.55149 GHz | -34.99 dBm | -21.99 dB |
| 12.750 GHz | 19.100 GHz | 1.000 MHz | 16.24312 GHz | -32.85 dBm | -19.85 dB |

Date: 18.OCT.2023 13:33:39

**HCH_DFT-Pi2BPSK_Edge_1RB_Left**




Spurious Emissions

| Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit |
|---|---|---|---|---|---|
| 9.000 kHz | 150.000 kHz | 1.000 kHz | 9.49301 kHz | -61.60 dBm | -28.60 dB |
| 150.000 kHz | 30.000 MHz | 10.000 kHz | 164.91009 kHz | -57.87 dBm | -34.87 dB |
| 30.000 MHz | 1.000 GHz | 100.000 kHz | 940.40460 MHz | -50.25 dBm | -37.25 dB |
| 1.000 GHz | 1.848 GHz | 1.000 MHz | 1.70525 GHz | -41.89 dBm | -28.89 dB |
| 1.848 GHz | 1.912 GHz | 1.000 MHz | 1.90052 GHz | 21.46 dBm | -8.54 dB |
| 1.912 GHz | 12.750 GHz | 1.000 MHz | 12.45720 GHz | -35.07 dBm | -22.07 dB |
| 12.750 GHz | 19.100 GHz | 1.000 MHz | 16.22947 GHz | -32.50 dBm | -19.50 dB |

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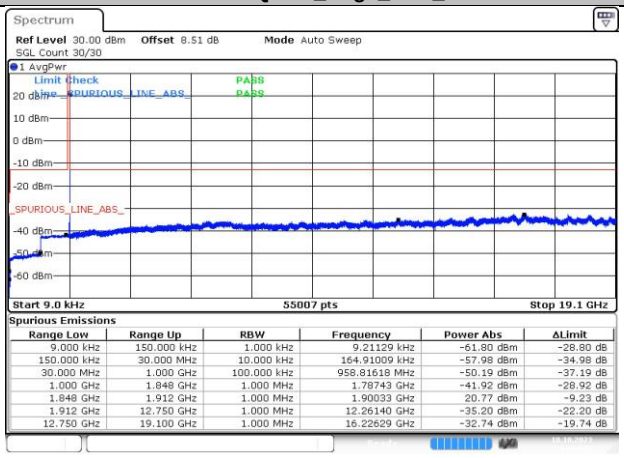
**HCH / DFT-QPSK_Edge_1RB_Left**



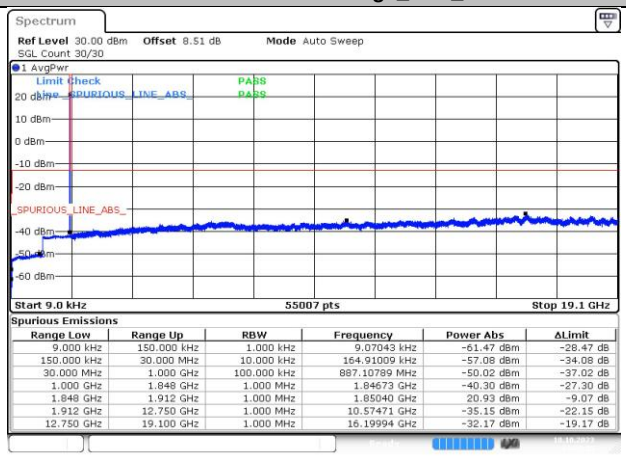

Spurious Emissions

| Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit |
|---|---|---|---|---|---|
| 9.000 kHz | 150.000 kHz | 1.000 kHz | 9.21129 kHz | -61.80 dBm | -28.80 dB |
| 150.000 kHz | 30.000 MHz | 10.000 kHz | 164.91009 kHz | -57.98 dBm | -34.98 dB |
| 30.000 MHz | 1.000 GHz | 100.000 kHz | 958.81618 MHz | -50.19 dBm | -37.19 dB |
| 1.000 GHz | 1.848 GHz | 1.000 MHz | 1.78743 GHz | -41.92 dBm | -28.92 dB |
| 1.848 GHz | 1.912 GHz | 1.000 MHz | 1.90033 GHz | 20.77 dBm | -9.23 dB |
| 1.912 GHz | 12.750 GHz | 1.000 MHz | 12.26140 GHz | -35.20 dBm | -22.20 dB |
| 12.750 GHz | 19.100 GHz | 1.000 MHz | 16.22629 GHz | -32.74 dBm | -19.74 dB |

Date: 18.OCT.2023 13:34:20

**DC_66A_n2A / 15KHz / 15MHz**

**LCH / DFT-Pi2BPSK / Edge_1RB_Left**

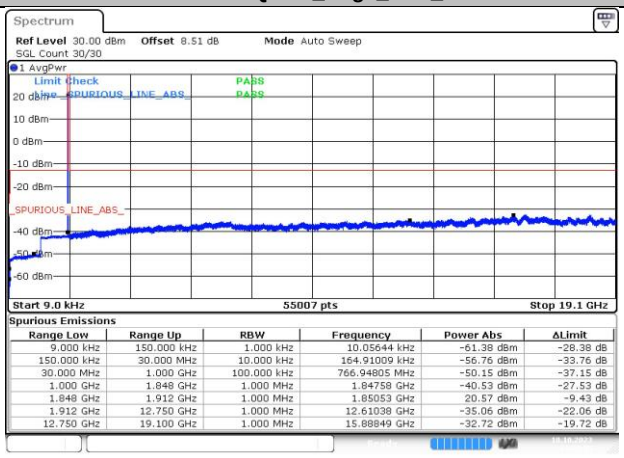



Spurious Emissions

| Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit |
|---|---|---|---|---|---|
| 9.000 kHz | 150.000 kHz | 1.000 kHz | 9.07043 kHz | -61.47 dBm | -28.47 dB |
| 150.000 kHz | 30.000 MHz | 10.000 kHz | 164.91009 kHz | -57.08 dBm | -34.08 dB |
| 30.000 MHz | 1.000 GHz | 100.000 kHz | 887.10789 MHz | -50.02 dBm | -37.02 dB |
| 1.000 GHz | 1.848 GHz | 1.000 MHz | 1.84673 GHz | -40.30 dBm | -27.30 dB |
| 1.848 GHz | 1.912 GHz | 1.000 MHz | 1.85040 GHz | 20.93 dBm | -9.07 dB |
| 1.912 GHz | 12.750 GHz | 1.000 MHz | 10.57471 GHz | -35.15 dBm | -22.15 dB |
| 12.750 GHz | 19.100 GHz | 1.000 MHz | 16.19994 GHz | -32.17 dBm | -19.17 dB |

Date: 18.OCT.2023 13:35:14

**LCH / DFT-QPSK_Edge_1RB_Left**




Spurious Emissions

| Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit |
|---|---|---|---|---|---|
| 9.000 kHz | 150.000 kHz | 1.000 kHz | 10.05644 kHz | -61.38 dBm | -28.38 dB |
| 150.000 kHz | 30.000 MHz | 10.000 kHz | 164.91009 kHz | -56.76 dBm | -33.76 dB |
| 30.000 MHz | 1.000 GHz | 100.000 kHz | 766.94805 MHz | -50.15 dBm | -37.15 dB |
| 1.000 GHz | 1.848 GHz | 1.000 MHz | 1.84758 GHz | -40.53 dBm | -27.53 dB |
| 1.848 GHz | 1.912 GHz | 1.000 MHz | 1.85053 GHz | 20.57 dBm | -9.43 dB |
| 1.912 GHz | 12.750 GHz | 1.000 MHz | 12.61038 GHz | -35.06 dBm | -22.06 dB |
| 12.750 GHz | 19.100 GHz | 1.000 MHz | 15.88849 GHz | -32.72 dBm | -19.72 dB |

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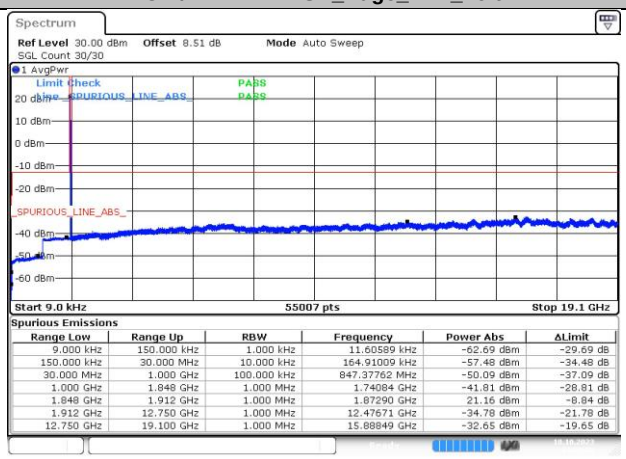
**MCH / DFT-Pi2BPSK_Edge_1RB_Left**

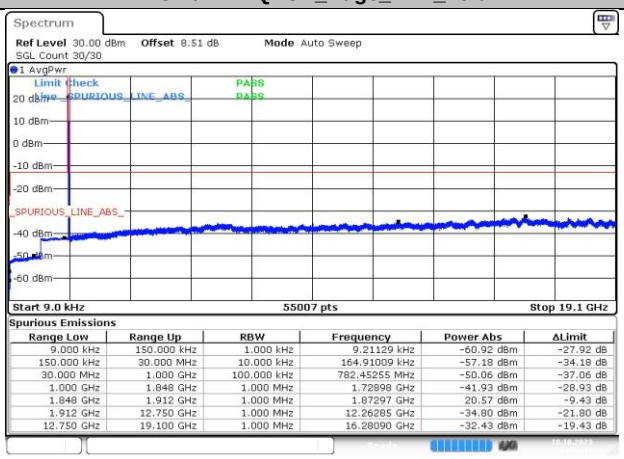



Spurious Emissions

| Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit |
|---|---|---|---|---|---|
| 9.000 kHz | 150.000 kHz | 1.000 kHz | 11.60589 kHz | -62.69 dBm | -29.69 dB |
| 150.000 kHz | 30.000 MHz | 10.000 kHz | 164.91009 kHz | -57.48 dBm | -34.48 dB |
| 30.000 MHz | 1.000 GHz | 100.000 kHz | 847.37762 MHz | -50.09 dBm | -37.09 dB |
| 1.000 GHz | 1.848 GHz | 1.000 MHz | 1.74084 GHz | -41.81 dBm | -28.81 dB |
| 1.848 GHz | 1.912 GHz | 1.000 MHz | 1.87290 GHz | 21.16 dBm | -8.84 dB |
| 1.912 GHz | 12.750 GHz | 1.000 MHz | 12.47671 GHz | -34.78 dBm | -21.78 dB |
| 12.750 GHz | 19.100 GHz | 1.000 MHz | 15.88849 GHz | -32.65 dBm | -19.65 dB |

Date: 18.OCT.2023 13:35:57

**MCH / DFT-QPSK_Edge_1RB_Left**

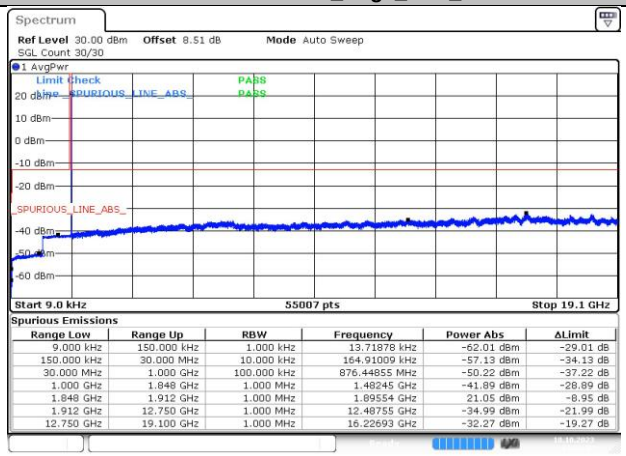


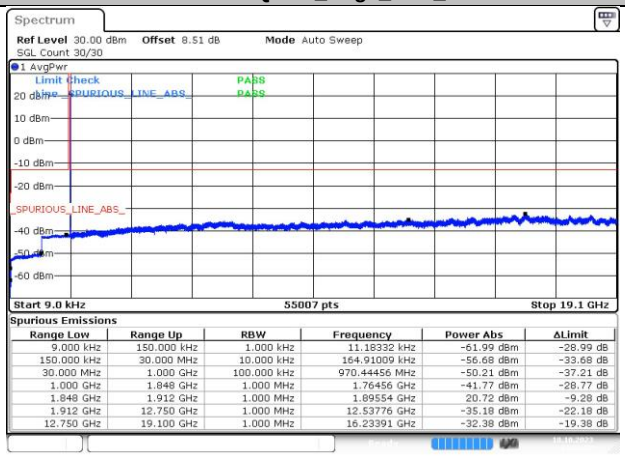

Spurious Emissions

| Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit |
|---|---|---|---|---|---|
| 9.000 kHz | 150.000 kHz | 1.000 kHz | 9.21129 kHz | -60.92 dBm | -27.92 dB |
| 150.000 kHz | 30.000 MHz | 10.000 kHz | 164.91009 kHz | -57.18 dBm | -34.18 dB |
| 30.000 MHz | 1.000 GHz | 100.000 kHz | 782.45255 MHz | -50.06 dBm | -37.06 dB |
| 1.000 GHz | 1.848 GHz | 1.000 MHz | 1.72898 GHz | -41.93 dBm | -28.93 dB |
| 1.848 GHz | 1.912 GHz | 1.000 MHz | 1.87297 GHz | 20.57 dBm | -9.43 dB |
| 1.912 GHz | 12.750 GHz | 1.000 MHz | 12.26285 GHz | -34.80 dBm | -21.80 dB |
| 12.750 GHz | 19.100 GHz | 1.000 MHz | 16.28090 GHz | -32.43 dBm | -19.43 dB |

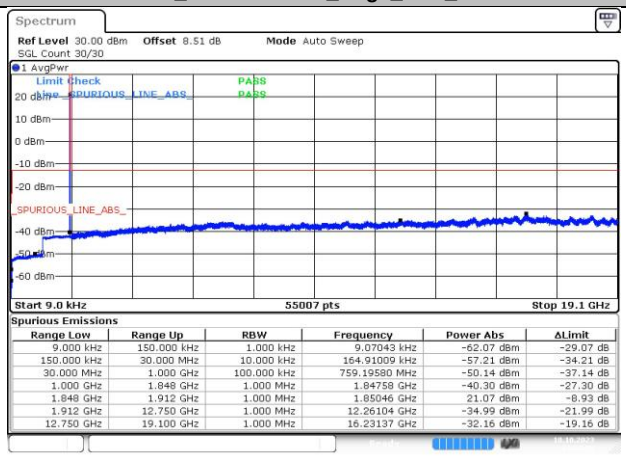
Date: 18.OCT.2023 13:36:16

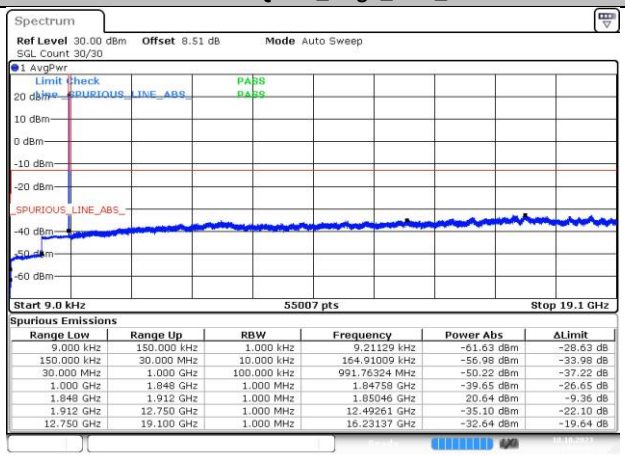
| HCH / DFT-Pi2BPSK_Edge_1RB_Left | HCH / DFT-QPSK_Edge_1RB_Left |
|---|---|



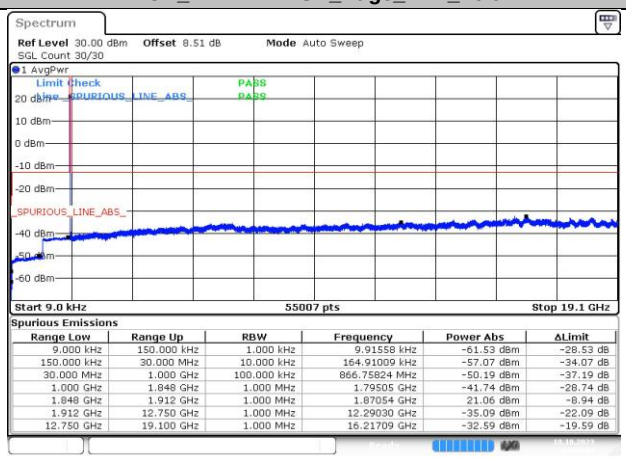



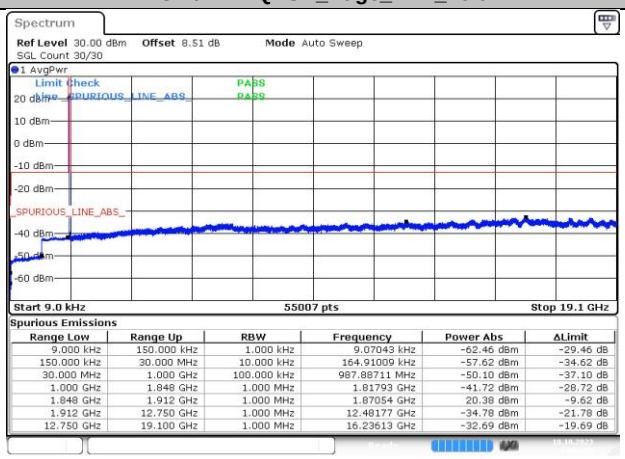

| DC_66A_n2A / 15KHz / 20MHz | |
|---|---|
| LCH_DFT-Pi2BPSK_Edge_1RB_Left | LCH / DFT-QPSK_Edge_1RB_Left |



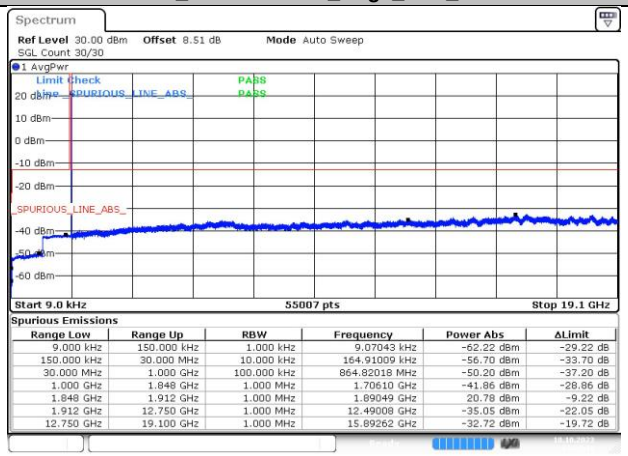



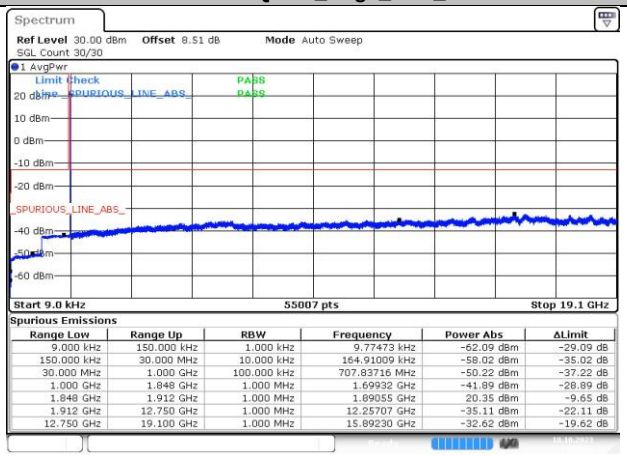

| MCH_DFT-Pi2BPSK_Edge_1RB_Left | MCH / DFT-QPSK_Edge_1RB_Left |
|---|---|



| HCH_DFT-Pi2BPSK_Edge_1RB_Left | HCH / DFT-QPSK_Edge_1RB_Left |
|---|---|




# 7. Frequency Stability

## 7.1. Test Results

### 7.1.1. Frequency Error Vs Voltage

| SCS | Bandwidth | Channel | RB Config | Modulation | Temperature | Voltage | Deviation Result | | Verdict |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | (Hz) | (ppm) | |
| 15KHz | 20MHz | MCH | Outer_Full | DFT-QPSK | NT | LV | 3.20 | 0.001702 | Pass |
| 15KHz | 20MHz | MCH | Outer_Full | DFT-QPSK | NT | NV | 4.80 | 0.002553 | Pass |
| 15KHz | 20MHz | MCH | Outer_Full | DFT-QPSK | NT | HV | 5.40 | 0.002872 | Pass |

### 7.1.2. Frequency Error Vs Temperature

| SCS | Bandwidth | Channel | RB Config | Modulation | Temperature | Voltage | Deviation Result | | Verdict |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | (Hz) | (ppm) | |
| 15KHz | 20MHz | MCH | Outer_Full | DFT-QPSK | -30℃ | NV | 3.40 | 0.001809 | Pass |
| 15KHz | 20MHz | MCH | Outer_Full | DFT-QPSK | -20℃ | NV | 3.40 | 0.001809 | Pass |
| 15KHz | 20MHz | MCH | Outer_Full | DFT-QPSK | -10℃ | NV | 1.60 | 0.000851 | Pass |
| 15KHz | 20MHz | MCH | Outer_Full | DFT-QPSK | 0℃ | NV | 3.30 | 0.001755 | Pass |
| 15KHz | 20MHz | MCH | Outer_Full | DFT-QPSK | 10℃ | NV | 8.60 | 0.004574 | Pass |
| 15KHz | 20MHz | MCH | Outer_Full | DFT-QPSK | 20℃ | NV | 7.40 | 0.003936 | Pass |
| 15KHz | 20MHz | MCH | Outer_Full | DFT-QPSK | 30℃ | NV | 4.60 | 0.002447 | Pass |
| 15KHz | 20MHz | MCH | Outer_Full | DFT-QPSK | 40℃ | NV | 2.20 | 0.001170 | Pass |
| 15KHz | 20MHz | MCH | Outer_Full | DFT-QPSK | 50℃ | NV | 5.00 | 0.002660 | Pass |

The End