***n77(3700-3980) SCS=30kHz DFT_QAM256 BW=60MHz Channel=656000 RB=162@0***

***n77(3700-3980) SCS=30kHz DFT_QAM256 BW=90MHz Channel=656000 RB=240@0***

***n77(3700-3980) SCS=30kHz DFT_QAM64 BW=15MHz Channel=656000 RB=36@0***

***n77(3700-3980) SCS=30kHz DFT_QAM64 BW=20MHz Channel=656000 RB=50@0***

*n77(3700-3980) SCS=30kHz DFT_QAM64 BW=100MHz Channel=656000 RB=270@0*

*n77(3700-3980) SCS=30kHz DFT_QAM64 BW=10MHz Channel=656000 RB=24@0*

*n77(3700-3980) SCS=30kHz DFT_QAM64 BW=60MHz Channel=656000 RB=162@0*

*n77(3700-3980) SCS=30kHz DFT_QAM64 BW=80MHz Channel=656000 RB=216@0*

*n77(3700-3980) SCS=30kHz DFT_QAM64 BW=50MHz Channel=656000 RB=128@0*

*n77(3700-3980) SCS=30kHz DFT_QAM64 BW=30MHz Channel=656000 RB=75@0*

***n77(3700-3980) SCS=30kHz DFT_QAM64 BW=40MHz Channel=656000 RB=100@0***

***n77(3700-3980) SCS=30kHz DFT_QPSK BW=10MHz Channel=656000 RB=24@0***

***n77(3700-3980) SCS=30kHz DFT_QPSK BW=100MHz Channel=656000 RB=270@0***

***n77(3700-3980) SCS=30kHz DFT_QAM64 BW=90MHz Channel=656000 RB=240@0***

***n77(3700-3980) SCS=30kHz DFT_QPSK BW=30MHz Channel=656000 RB=75@0***

***n77(3700-3980) SCS=30kHz DFT_QPSK BW=20MHz Channel=656000 RB=50@0***

***n77(3700-3980) SCS=30kHz DFT_QPSK BW=15MHz Channel=656000 RB=36@0***

***n77(3700-3980) SCS=30kHz DFT_QPSK BW=60MHz Channel=656000 RB=162@0***

***n77(3700-3980) SCS=30kHz DFT_QPSK BW=50MHz Channel=656000 RB=128@0***

***n77(3700-3980) SCS=30kHz DFT_QPSK BW=40MHz Channel=656000 RB=100@0***

***n77(3700-3980) SCS=30kHz DFT_QPSK BW=90MHz Channel=656000 RB=240@0***

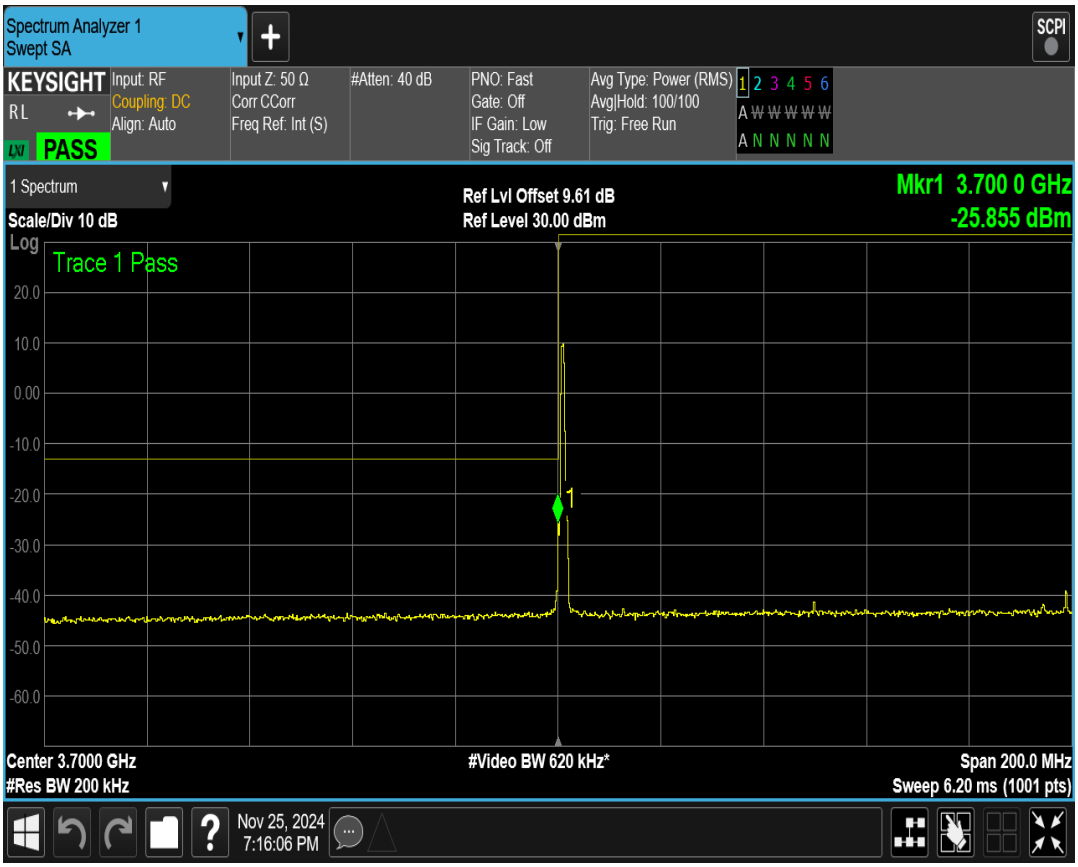
***n77(3700-3980) SCS=30kHz DFT_QPSK BW=80MHz Channel=656000 RB=216@0***

KEYSIGHT Keysight RF Application (3.5.134.12281)
NR1
CONNECTED
Band
N77
DL BW
80 MHz
Low
Mid
High
ARFCN/Freq
D: 656000
3840.00 MHz
U: 656000
3840.00 MHz
Cell Power
-43.73 dBm/BW
CLPC
All Up Bits
Test Case
6.2.1 FR1 NR UE Maximum Output Power
SA
NR1
NR2
Cell Quick Config
Measurement
BLER/Tput
UE Info.
Msg. Summary
NR UE Power: 25 dBm DL BLER: — %
Duplex: TDD
Port: RFI01
Freq: 3840 MHz
EIP: 28 dBm
Measuring
Acquiring
Avg: 2/2
Occupied Bandwidth
Amplitude (dBm)
0.00
-6.90
-13.81
-20.71
-27.61
-34.51
-41.42
-48.32
-55.22
-62.12
3.760
3.776
3.792
3.808
3.824
3.840
3.856
3.872
3.888
3.904
Frequency (GHz)
Pass/Fail Pass
OBW 76.919 MHz
Tx Freq Err 0.00 Hz
X dB BW 78.02 MHz
Total Power 24.93 dBm
Meas Cell NR1
Meas Mode Basic
Meas Select
Meas Channel PUSCH
Average Count 2
Continuous Off
Restart
NR1
Common
UL RMC Quick Config DFT-s-OFDM-QPSK
UL RB Allocation Type Contiguous
UL RB Allocation Custom
Start/Count 0 216
UL MCS/Type 2 - QPSK
MCS Table 64 QAM
UL Waveform DFT-s-OFDM
Pi/2 BPSK OFF
Additional Spectrum Emission ON NS_01
P-Max 26
p-NR-FR1 OFF
p-UE-FR1 OFF
MAC Padding DL Off UL On
Cell
DL Scheduler
UL Scheduler
Blind Handover
Channel
PRACH
Test Case Params
‹ Advanced
Connect
Disconnect
Aggregate
Load Configuration
Save Configuration
Preset
Local
Ready
BSE:MEASure:TX:NR5G:BASic:INITiate
Copy
Current Log
2024-11-25 21:06:29

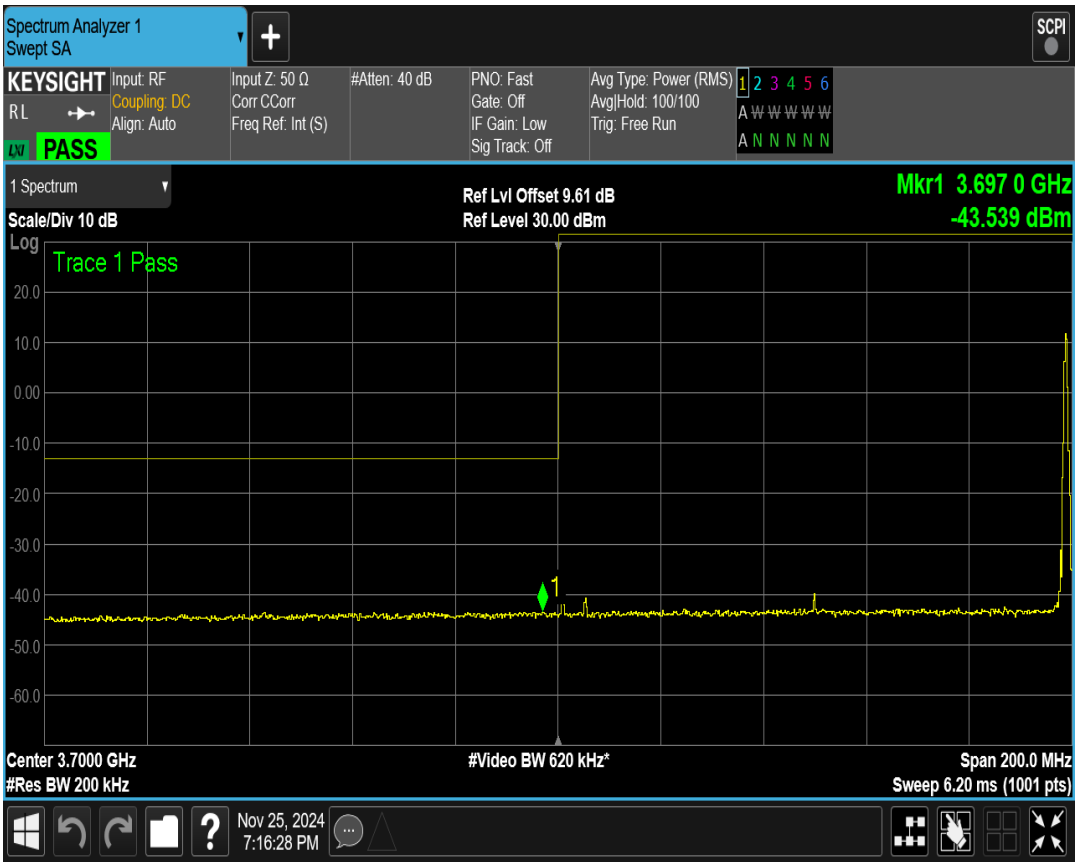
# 5 Band edge for NR FR1

| Band | SCS (kHz) | Bandwidth (MHz) | UL Channel | RB Allocation | Modulation | Spur Freq (MHz) | Spur Level (dBm) | Limit (dBm) | Verdict |
|---|---|---|---|---|---|---|---|---|---|
| n77(3700-3980) | 30 | 10 | 647000 | 24@0 | CP_QPSK | 3698.26 | -39.28 | -13 | PASS |
| n77(3700-3980) | 30 | 10 | 647000 | 1@0 | CP_QPSK | 3699.94 | -34.72 | -13 | PASS |
| n77(3700-3980) | 30 | 10 | 647000 | 1@23 | CP_QPSK | 3692.26 | -42.94 | -13 | PASS |
| n77(3700-3980) | 30 | 10 | 665000 | 24@0 | CP_QPSK | 3980.06 | -36.84 | -13 | PASS |
| n77(3700-3980) | 30 | 10 | 665000 | 1@0 | CP_QPSK | 3980.82 | -43.67 | -13 | PASS |
| n77(3700-3980) | 30 | 10 | 665000 | 1@23 | CP_QPSK | 3980.04 | -35.39 | -13 | PASS |
| n77(3700-3980) | 30 | 50 | 648334 | 133@0 | CP_QPSK | 3698.30 | -35.72 | -13 | PASS |
| n77(3700-3980) | 30 | 50 | 648334 | 1@0 | CP_QPSK | 3699.90 | -40.46 | -13 | PASS |
| n77(3700-3980) | 30 | 50 | 648334 | 1@132 | CP_QPSK | 3688.00 | -42.78 | -13 | PASS |
| n77(3700-3980) | 30 | 50 | 663666 | 133@0 | CP_QPSK | 3981.40 | -33.85 | -13 | PASS |
| n77(3700-3980) | 30 | 50 | 663666 | 1@0 | CP_QPSK | 3981.10 | -43.72 | -13 | PASS |
| n77(3700-3980) | 30 | 50 | 663666 | 1@132 | CP_QPSK | 3980.00 | -38.50 | -13 | PASS |
| n77(3700-3980) | 30 | 100 | 650000 | 273@0 | CP_QPSK | 3700.00 | -23.76 | -13 | PASS |
| n77(3700-3980) | 30 | 100 | 650000 | 1@0 | CP_QPSK | 3700.00 | -25.85 | -13 | PASS |
| n77(3700-3980) | 30 | 100 | 650000 | 1@272 | CP_QPSK | 3697.00 | -43.53 | -13 | PASS |
| n77(3700-3980) | 30 | 100 | 662000 | 273@0 | CP_QPSK | 3980.00 | -20.19 | -13 | PASS |
| n77(3700-3980) | 30 | 100 | 662000 | 1@0 | CP_QPSK | 3990.80 | -44.08 | -13 | PASS |
| n77(3700-3980) | 30 | 100 | 662000 | 1@272 | CP_QPSK | 3980.00 | -32.17 | -13 | PASS |

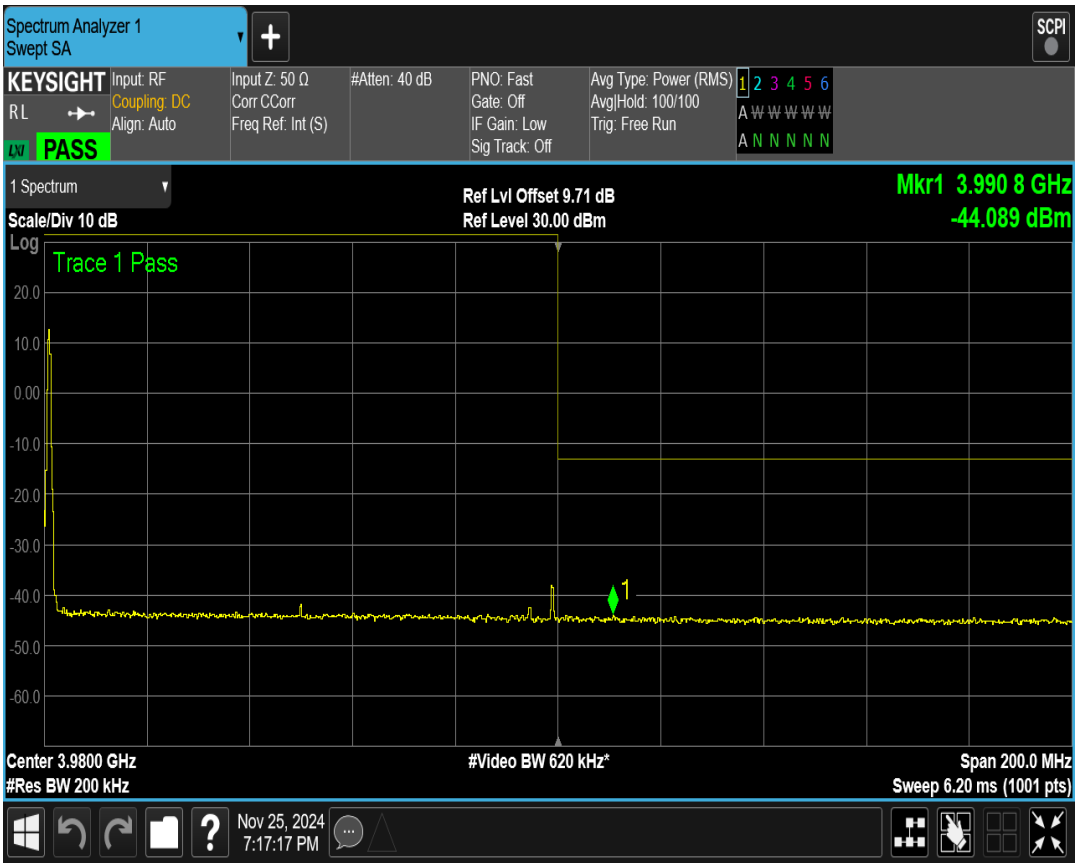
***n77(3700-3980) SCS=30kHz CP_QPSK BW=100MHz Channel=650000 RB=1@0***



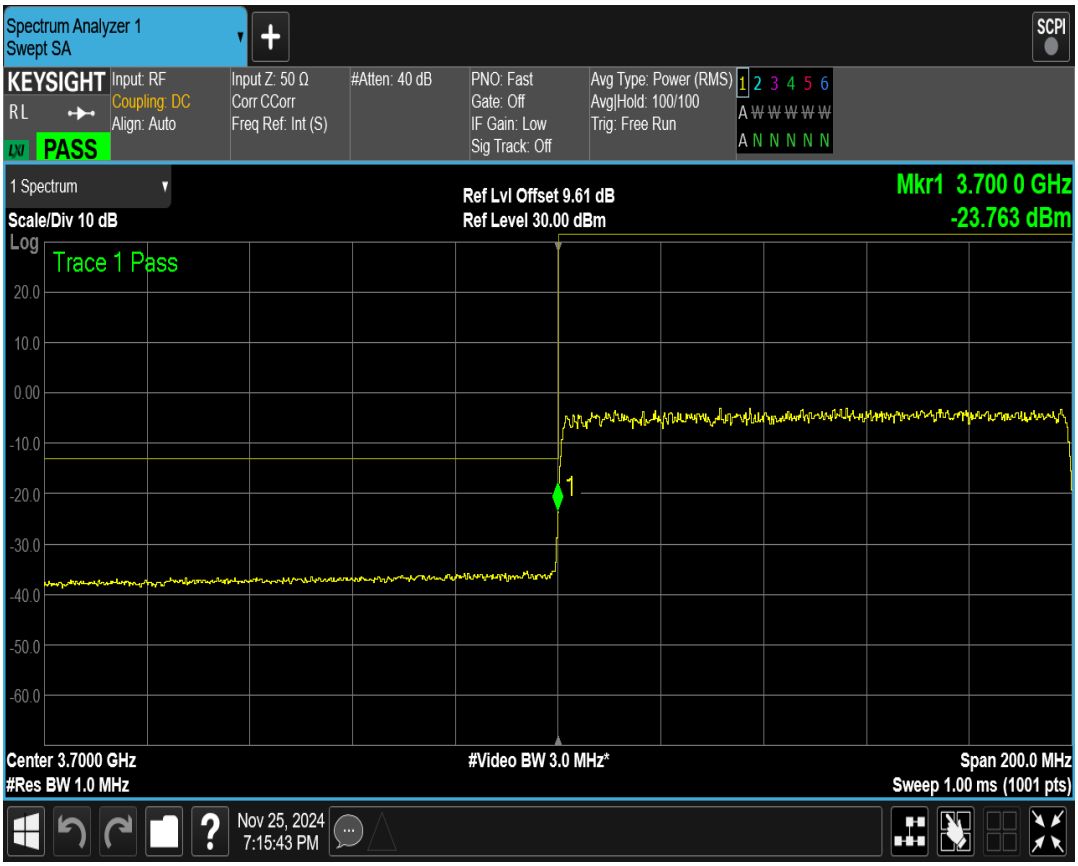

*n77(3700-3980) SCS=30kHz CP_QPSK BW=100MHz Channel=650000 RB=1@272*




*n77(3700-3980) SCS=30kHz CP_QPSK BW=100MHz Channel=662000 RB=1@0*

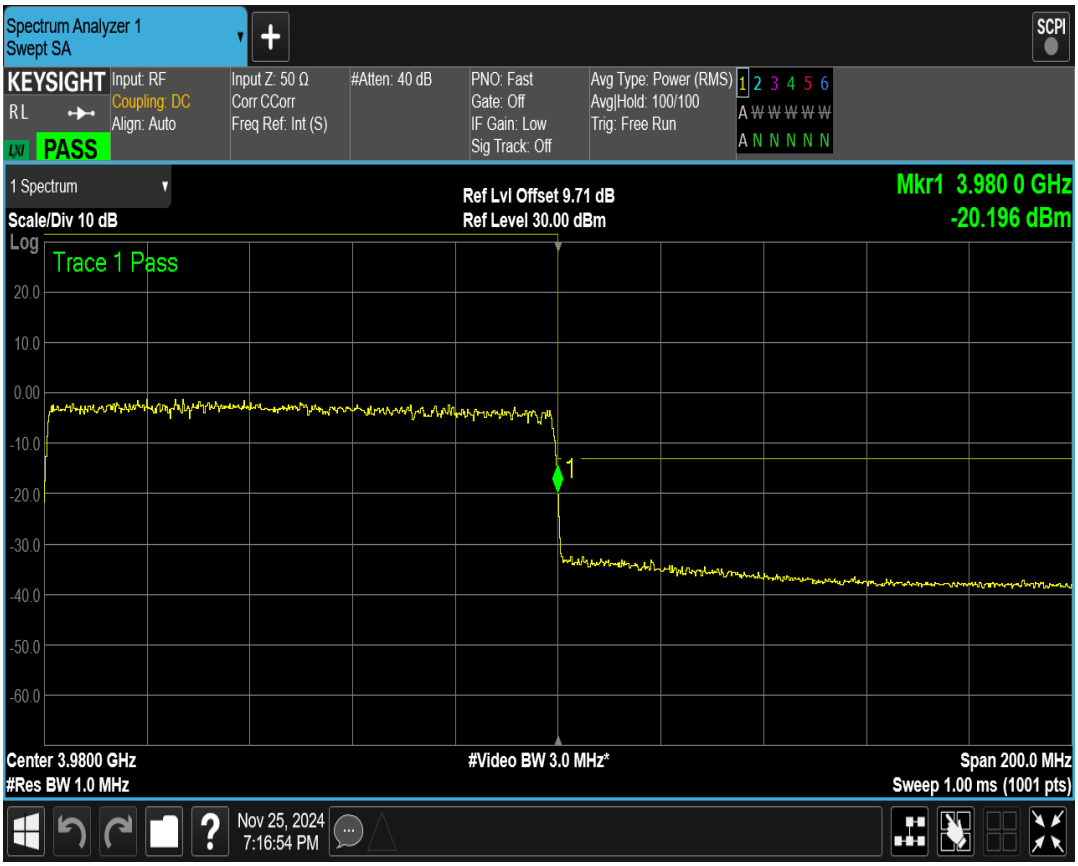



***n77(3700-3980) SCS=30kHz CP_QPSK BW=100MHz Channel=650000 RB=273@0***




***n77(3700-3980) SCS=30kHz CP_QPSK BW=10MHz Channel=647000 RB=1@0***

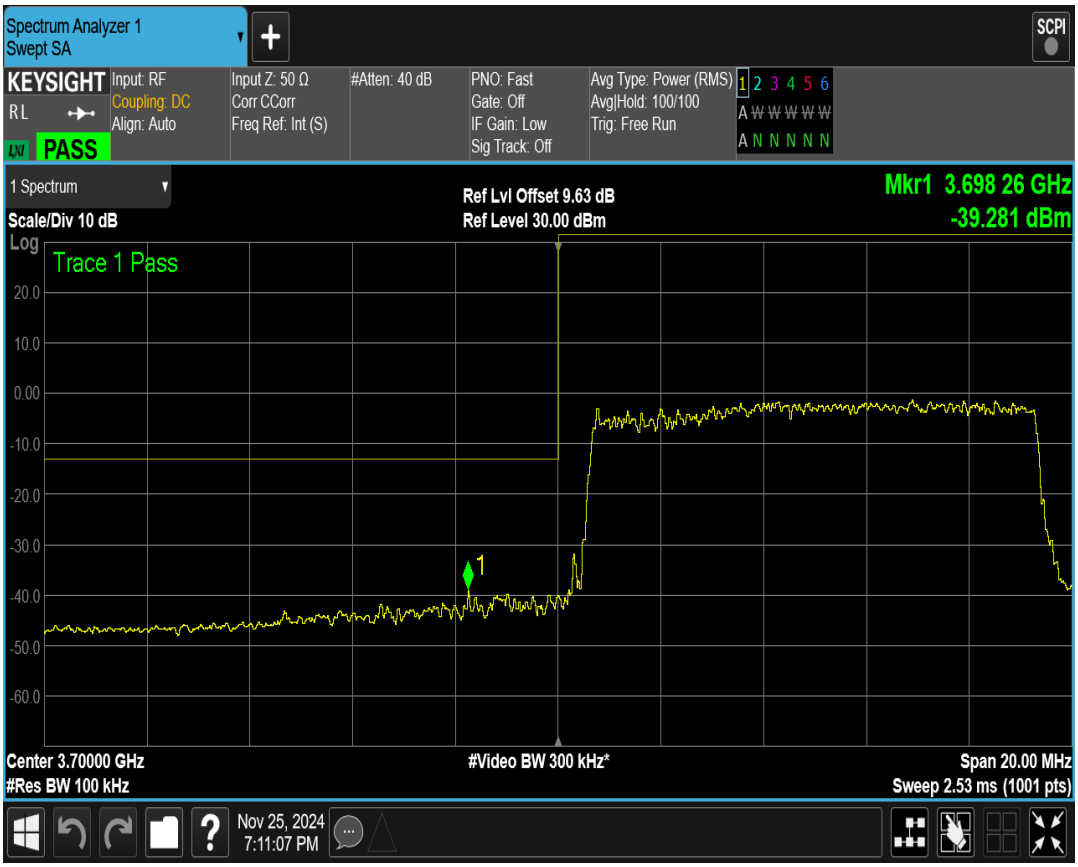
*n77(3700-3980) SCS=30kHz CP_QPSK BW=100MHz Channel=662000 RB=273@0*




*n77(3700-3980) SCS=30kHz CP_QPSK BW=100MHz Channel=662000 RB=1@272*

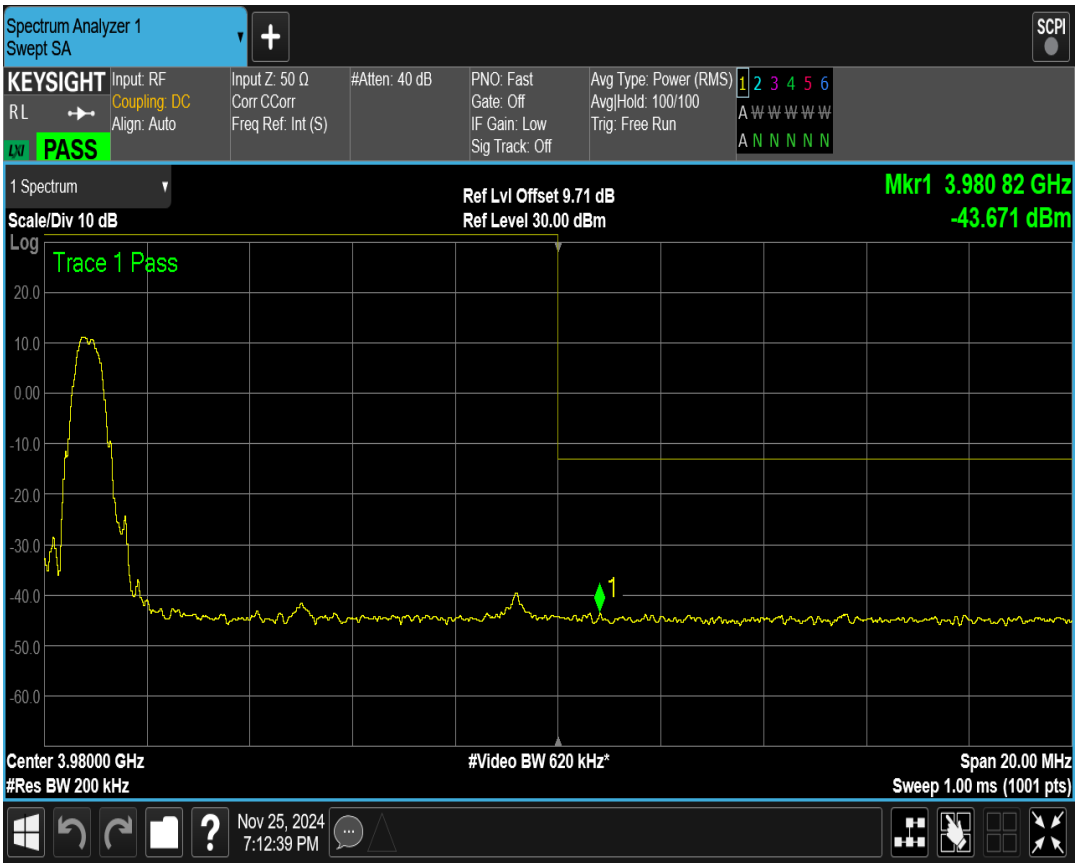
*n77(3700-3980) SCS=30kHz CP_QPSK BW=10MHz Channel=647000 RB=1@23*

*n77(3700-3980) SCS=30kHz CP_QPSK BW=10MHz Channel=647000 RB=24@0*

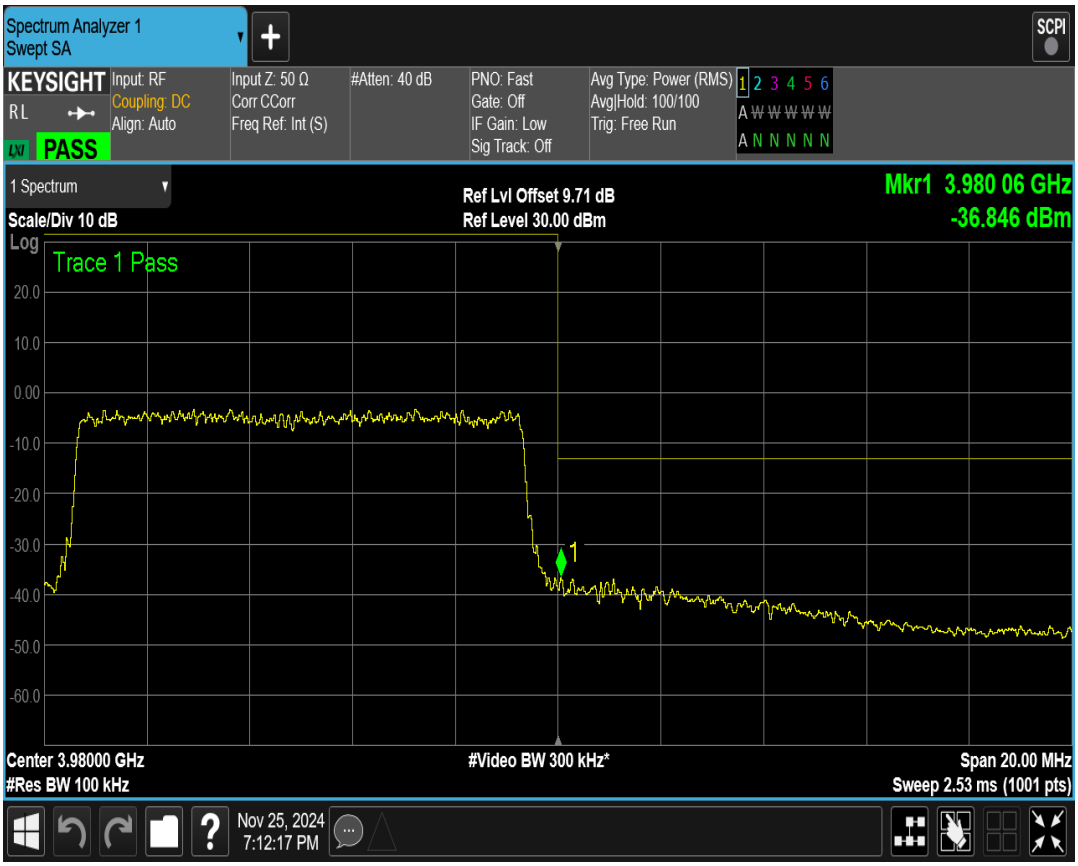



*n77(3700-3980) SCS=30kHz CP_QPSK BW=10MHz Channel=665000 RB=1@23*

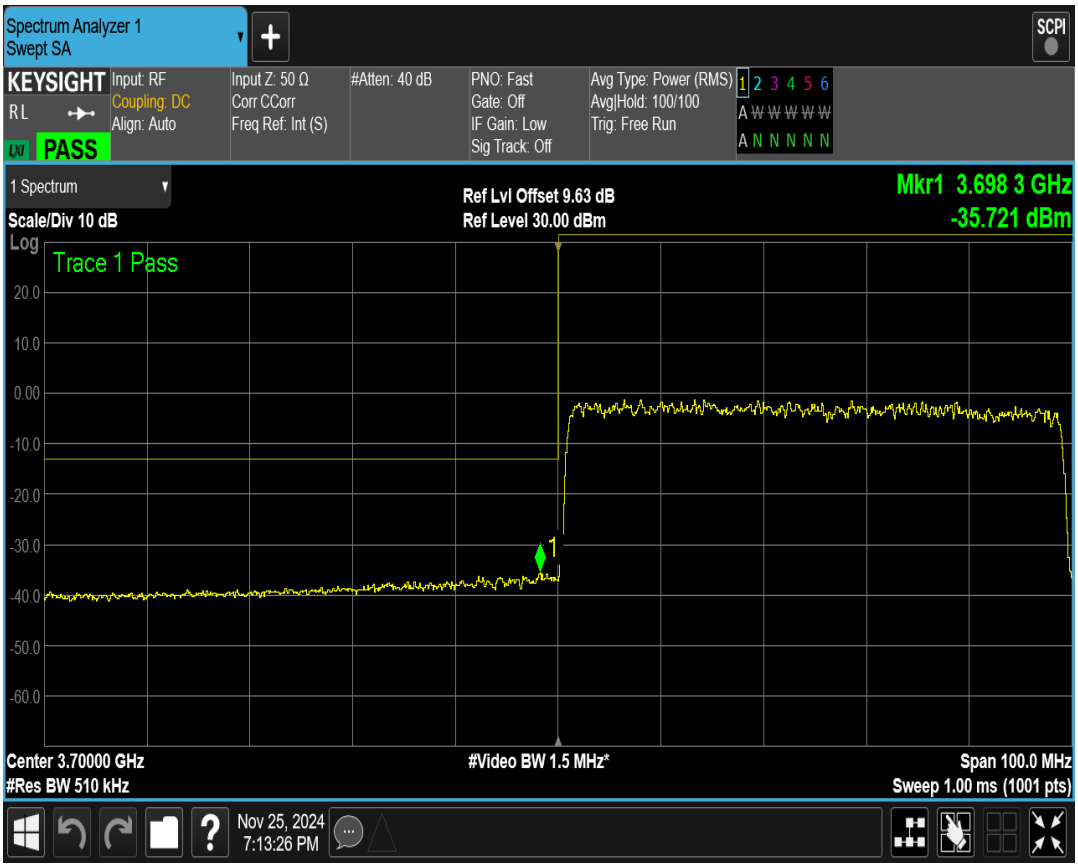
*n77(3700-3980) SCS=30kHz CP_QPSK BW=10MHz Channel=665000 RB=1@0*




*n77(3700-3980) SCS=30kHz CP_QPSK BW=10MHz Channel=665000 RB=24@0*

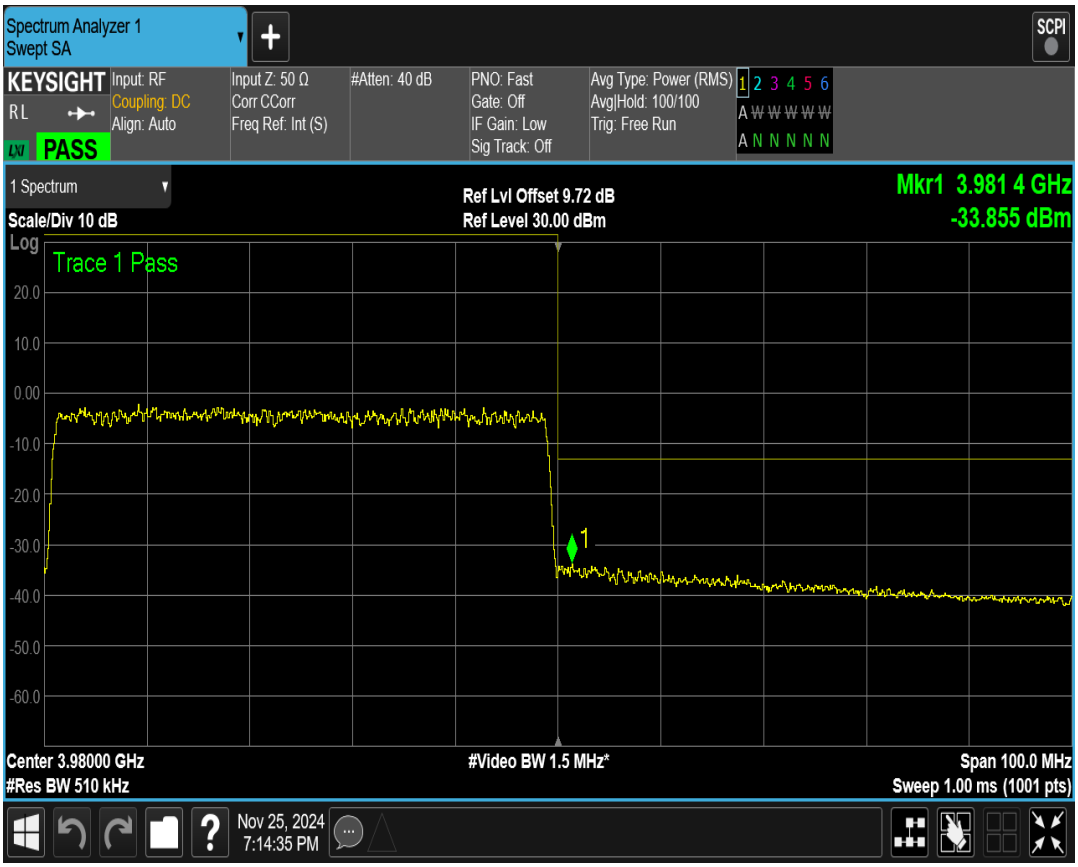



*n77(3700-3980) SCS=30kHz CP_QPSK BW=50MHz Channel=648334 RB=133@0*




*n77(3700-3980) SCS=30kHz CP_QPSK BW=50MHz Channel=648334 RB=1@0*

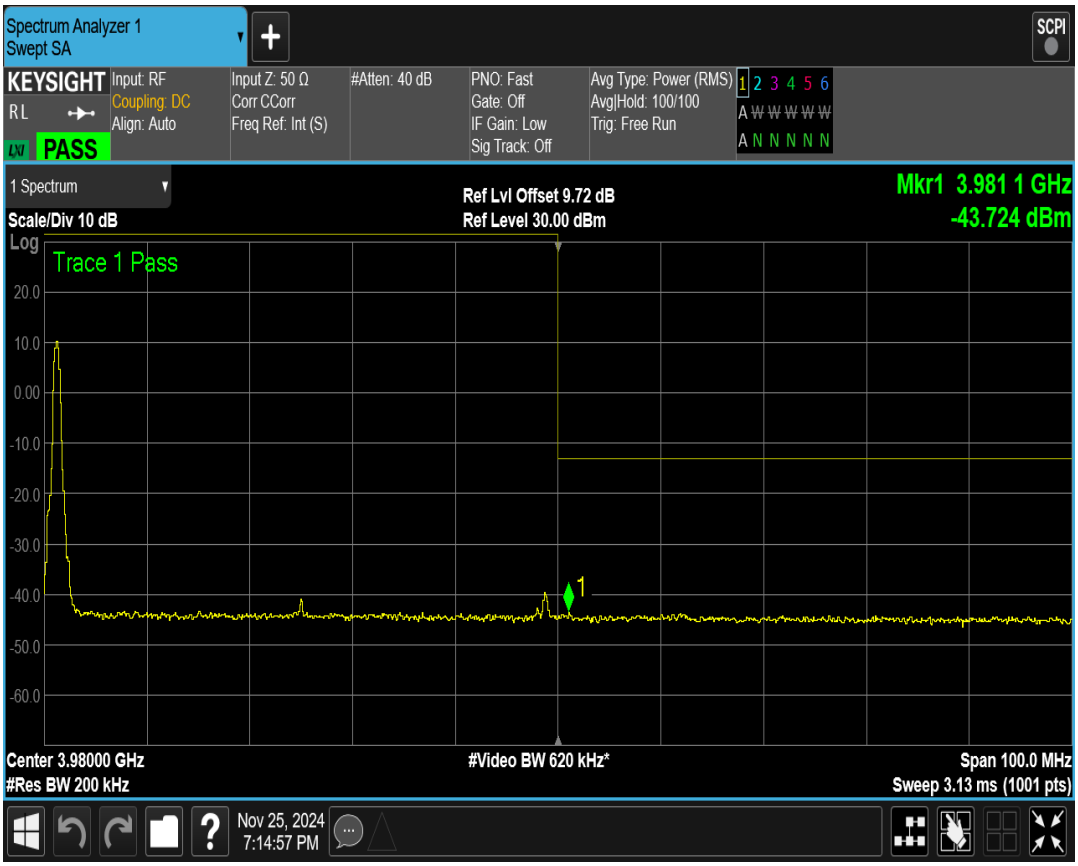
*n77(3700-3980) SCS=30kHz CP_QPSK BW=50MHz Channel=663666 RB=133@0*




*n77(3700-3980) SCS=30kHz CP_QPSK BW=50MHz Channel=648334 RB=1@132*

*n77(3700-3980) SCS=30kHz CP_QPSK BW=50MHz Channel=663666 RB=1@132*

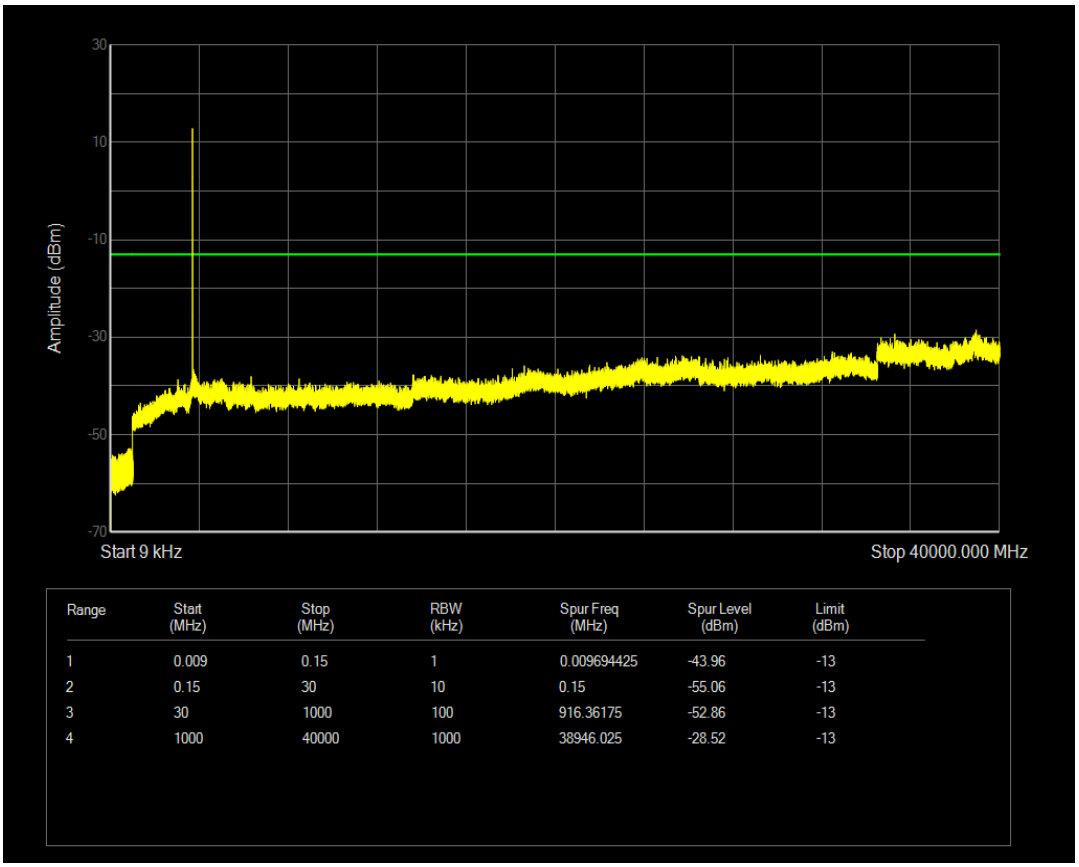
***n77(3700-3980) SCS=30kHz CP_QPSK BW=50MHz Channel=663666 RB=1@0***



# 6 Out-of-band emissions for NR FR1

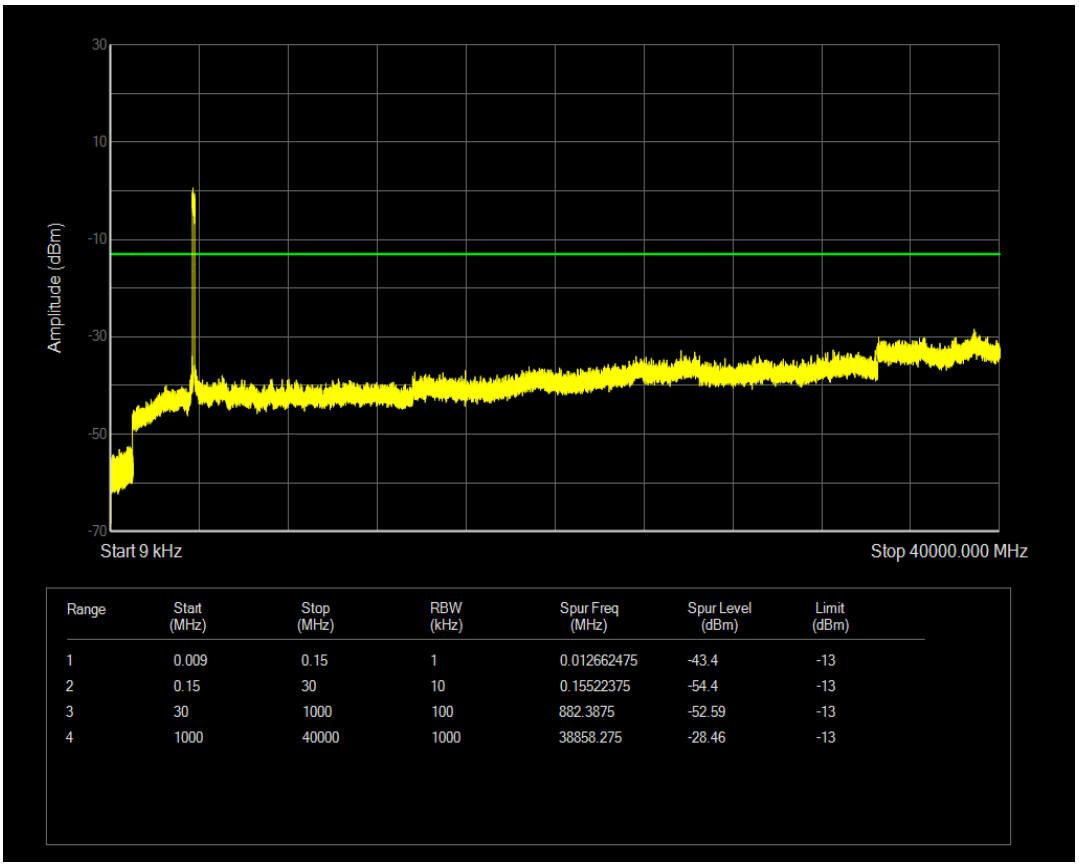
| Band | SCS (kHz) | Bandwidth (MHz) | UL Channel | RB Allocation | Modulation | Spur Freq (MHz) | Spur Level (dBm) | Limit (dBm) | Verdict |
|---|---|---|---|---|---|---|---|---|---|
| n77(3700-3980) | 30 | 10 | 647000 | 24@0 | CP_QPSK | 38791.98 | -28.67 | -13 | PASS |
| n77(3700-3980) | 30 | 10 | 647000 | 1@0 | CP_QPSK | 38957.73 | -28.96 | -13 | PASS |
| n77(3700-3980) | 30 | 10 | 647000 | 1@23 | CP_QPSK | 38787.10 | -29.31 | -13 | PASS |
| n77(3700-3980) | 30 | 10 | 665000 | 24@0 | CP_QPSK | 38999.65 | -28.69 | -13 | PASS |
| n77(3700-3980) | 30 | 10 | 665000 | 1@0 | CP_QPSK | 38906.05 | -28.25 | -13 | PASS |
| n77(3700-3980) | 30 | 10 | 665000 | 1@23 | CP_QPSK | 38937.25 | -29.09 | -13 | PASS |
| n77(3700-3980) | 30 | 50 | 648334 | 133@0 | CP_QPSK | 38842.68 | -29.65 | -13 | PASS |
| n77(3700-3980) | 30 | 50 | 648334 | 1@0 | CP_QPSK | 38844.63 | -28.93 | -13 | PASS |
| n77(3700-3980) | 30 | 50 | 648334 | 1@132 | CP_QPSK | 39135.18 | -28.32 | -13 | PASS |
| n77(3700-3980) | 30 | 50 | 663666 | 133@0 | CP_QPSK | 39097.15 | -28.77 | -13 | PASS |
| n77(3700-3980) | 30 | 50 | 663666 | 1@0 | CP_QPSK | 38914.83 | -28.84 | -13 | PASS |
| n77(3700-3980) | 30 | 50 | 663666 | 1@132 | CP_QPSK | 39374.05 | -29.09 | -13 | PASS |
| n77(3700-3980) | 30 | 100 | 650000 | 273@0 | CP_QPSK | 38858.28 | -28.46 | -13 | PASS |
| n77(3700-3980) | 30 | 100 | 650000 | 1@0 | CP_QPSK | 38946.03 | -28.52 | -13 | PASS |
| n77(3700-3980) | 30 | 100 | 650000 | 1@272 | CP_QPSK | 36620.65 | -28.77 | -13 | PASS |
| n77(3700-3980) | 30 | 100 | 662000 | 273@0 | CP_QPSK | 38808.55 | -28.11 | -13 | PASS |
| n77(3700-3980) | 30 | 100 | 662000 | 1@0 | CP_QPSK | 38962.60 | -28.59 | -13 | PASS |
| n77(3700-3980) | 30 | 100 | 662000 | 1@272 | CP_QPSK | 39165.40 | -28.16 | -13 | PASS |

***n77(3700-3980) SCS=30kHz CP_QPSK BW=100MHz Channel=650000 RB=1@0***



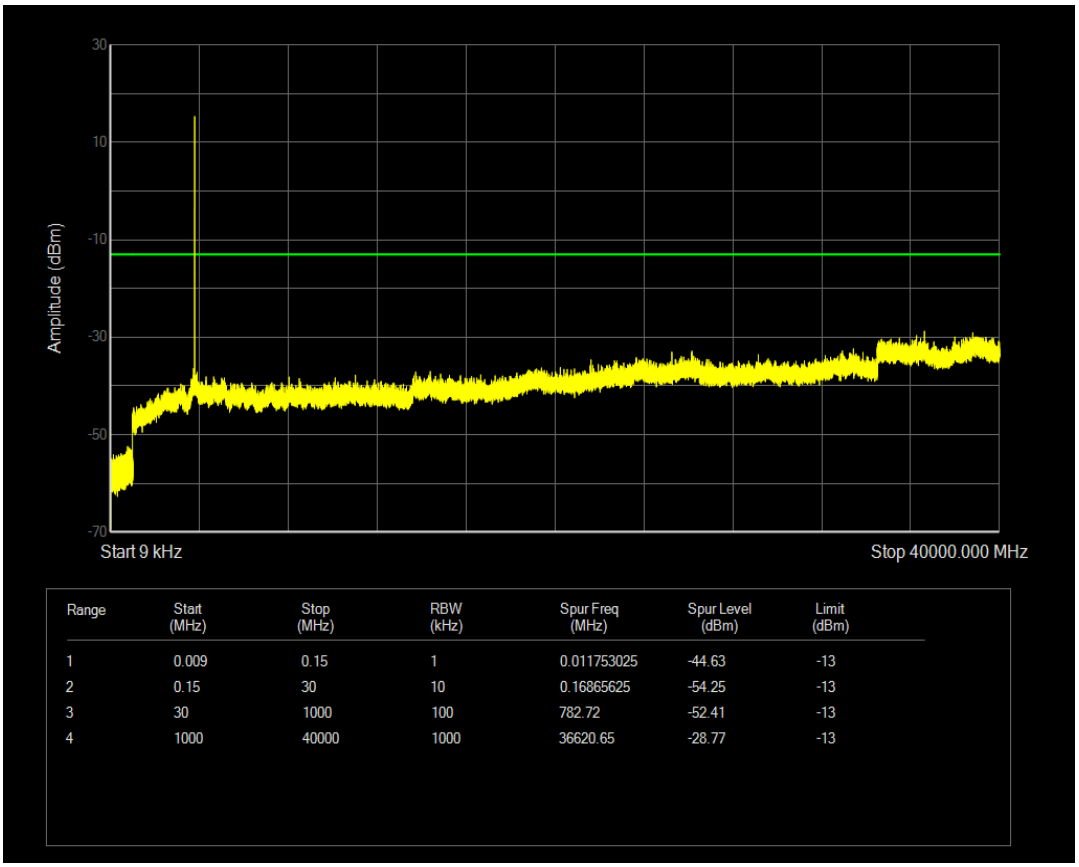

| Range | Start (MHz) | Stop (MHz) | RBW (kHz) | Spur Freq (MHz) | Spur Level (dBm) | Limit (dBm) |
|---|---|---|---|---|---|---|
| 1 | 0.009 | 0.15 | 1 | 0.009694425 | -43.96 | -13 |
| 2 | 0.15 | 30 | 10 | 0.15 | -55.06 | -13 |
| 3 | 30 | 1000 | 100 | 916.36175 | -52.86 | -13 |
| 4 | 1000 | 40000 | 1000 | 38946.025 | -28.52 | -13 |

***n77(3700-3980) SCS=30kHz CP_QPSK BW=100MHz Channel=650000 RB=273@0***



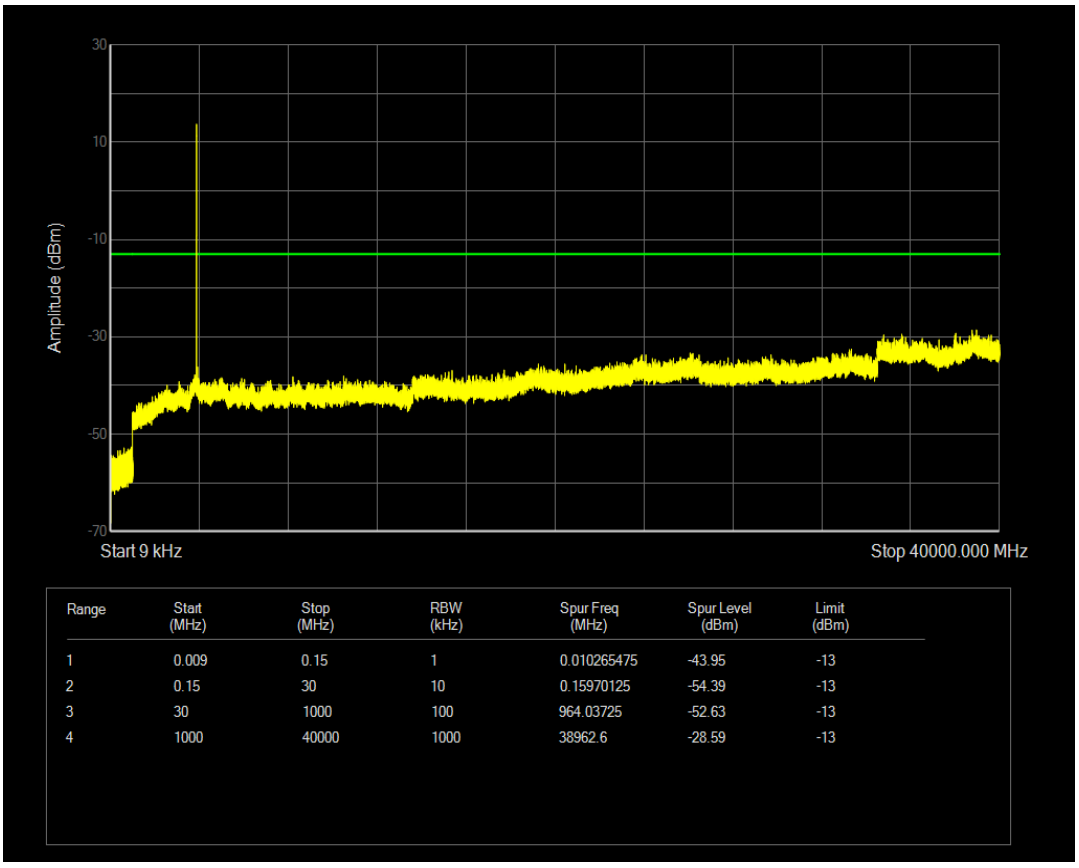

| Range | Start (MHz) | Stop (MHz) | RBW (kHz) | Spur Freq (MHz) | Spur Level (dBm) | Limit (dBm) |
|---|---|---|---|---|---|---|
| 1 | 0.009 | 0.15 | 1 | 0.012662475 | -43.4 | -13 |
| 2 | 0.15 | 30 | 10 | 0.15522375 | -54.4 | -13 |
| 3 | 30 | 1000 | 100 | 882.3875 | -52.59 | -13 |
| 4 | 1000 | 40000 | 1000 | 38858.275 | -28.46 | -13 |

***n77(3700-3980) SCS=30kHz CP_QPSK BW=100MHz Channel=650000 RB=1@272***



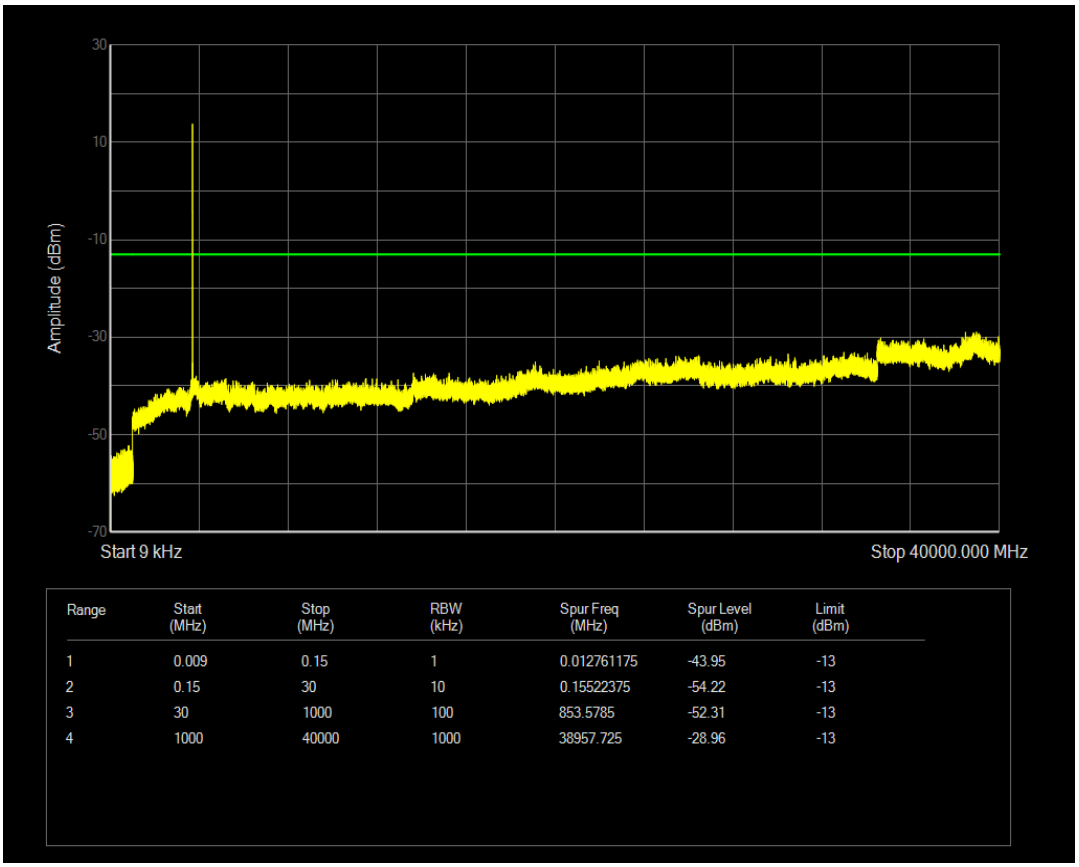

| Range | Start (MHz) | Stop (MHz) | RBW (kHz) | Spur Freq (MHz) | Spur Level (dBm) | Limit (dBm) |
|---|---|---|---|---|---|---|
| 1 | 0.009 | 0.15 | 1 | 0.011753025 | -44.63 | -13 |
| 2 | 0.15 | 30 | 10 | 0.16865625 | -54.25 | -13 |
| 3 | 30 | 1000 | 100 | 782.72 | -52.41 | -13 |
| 4 | 1000 | 40000 | 1000 | 36620.65 | -28.77 | -13 |

***n77(3700-3980) SCS=30kHz CP_QPSK BW=100MHz Channel=662000 RB=1@0***



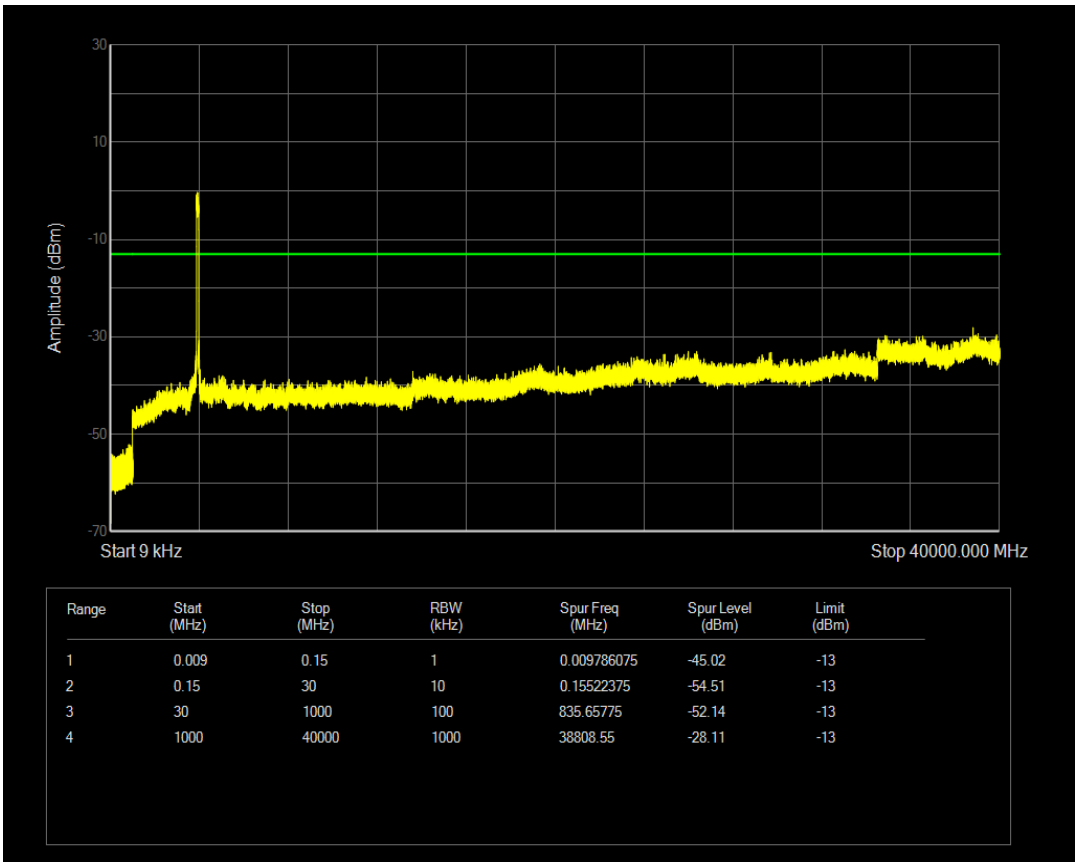

| Range | Start (MHz) | Stop (MHz) | RBW (kHz) | Spur Freq (MHz) | Spur Level (dBm) | Limit (dBm) |
|---|---|---|---|---|---|---|
| 1 | 0.009 | 0.15 | 1 | 0.010265475 | -43.95 | -13 |
| 2 | 0.15 | 30 | 10 | 0.15970125 | -54.39 | -13 |
| 3 | 30 | 1000 | 100 | 964.03725 | -52.63 | -13 |
| 4 | 1000 | 40000 | 1000 | 38962.6 | -28.59 | -13 |

***n77(3700-3980) SCS=30kHz CP_QPSK BW=10MHz Channel=647000 RB=1@0***



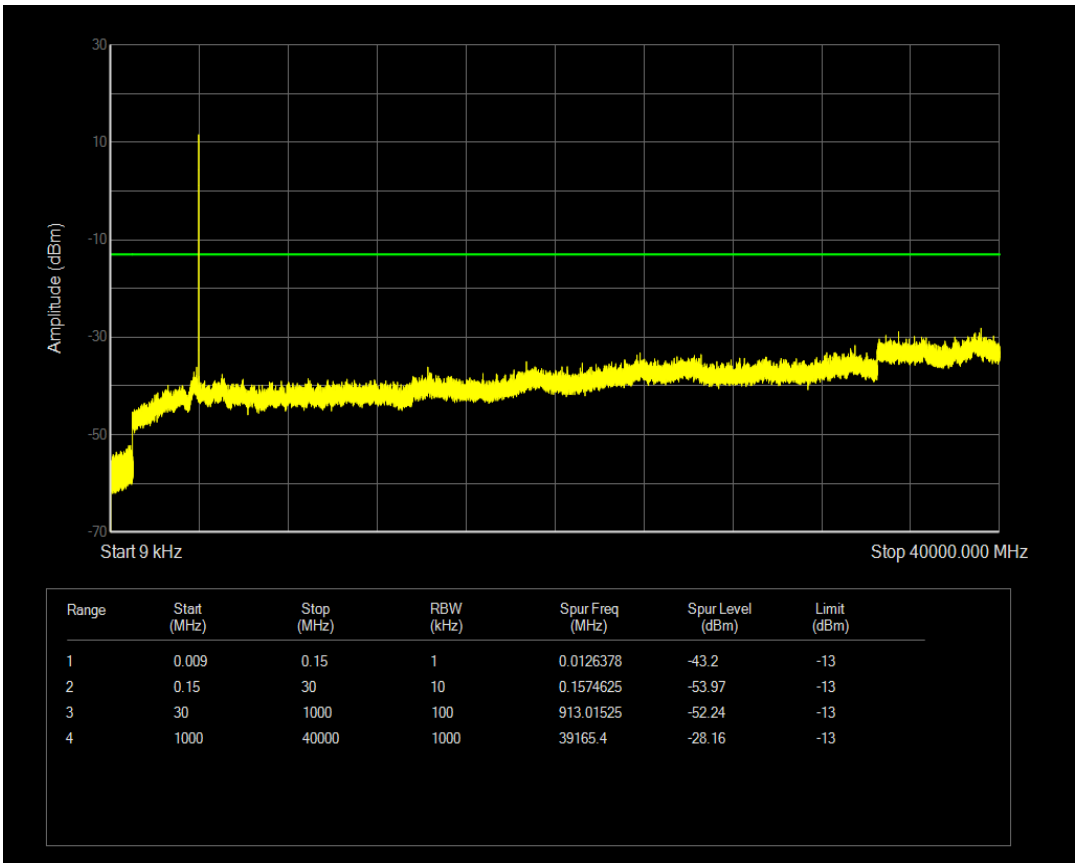

| Range | Start (MHz) | Stop (MHz) | RBW (kHz) | Spur Freq (MHz) | Spur Level (dBm) | Limit (dBm) |
|---|---|---|---|---|---|---|
| 1 | 0.009 | 0.15 | 1 | 0.012761175 | -43.95 | -13 |
| 2 | 0.15 | 30 | 10 | 0.15522375 | -54.22 | -13 |
| 3 | 30 | 1000 | 100 | 853.5785 | -52.31 | -13 |
| 4 | 1000 | 40000 | 1000 | 38957.725 | -28.96 | -13 |

***n77(3700-3980) SCS=30kHz CP_QPSK BW=100MHz Channel=662000 RB=273@0***



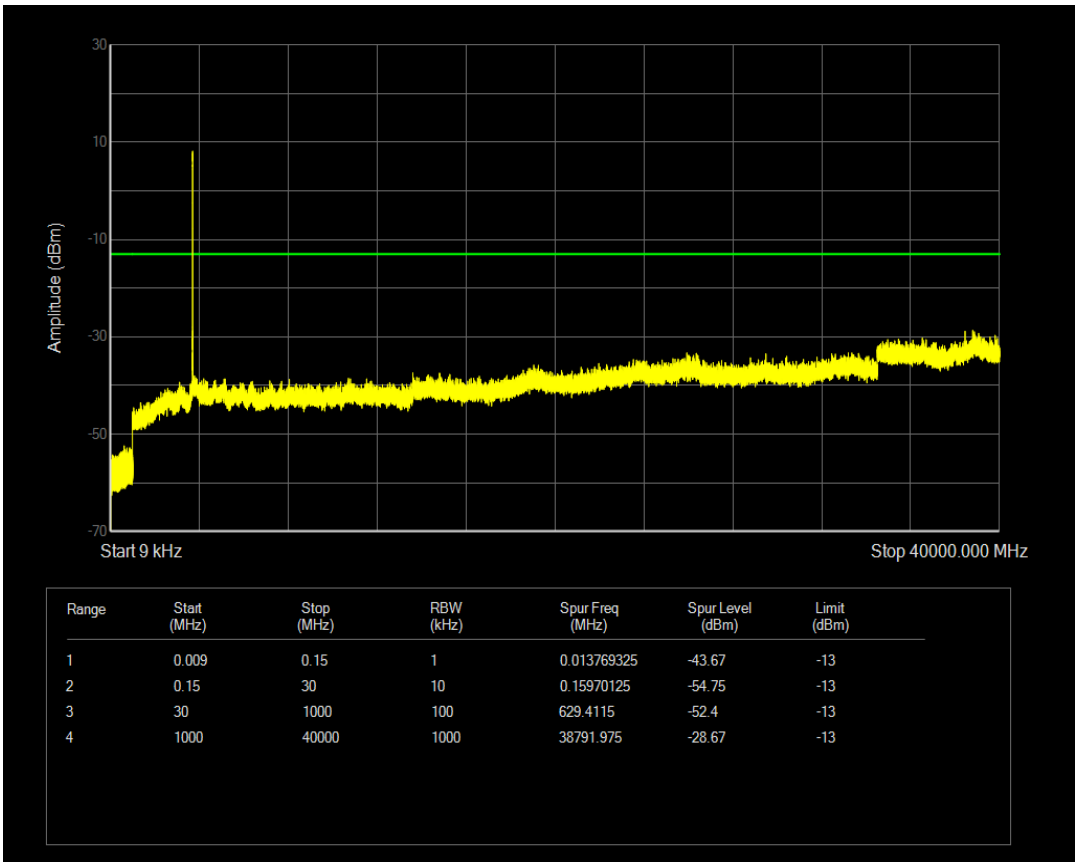

| Range | Start (MHz) | Stop (MHz) | RBW (kHz) | Spur Freq (MHz) | Spur Level (dBm) | Limit (dBm) |
|---|---|---|---|---|---|---|
| 1 | 0.009 | 0.15 | 1 | 0.009786075 | -45.02 | -13 |
| 2 | 0.15 | 30 | 10 | 0.15522375 | -54.51 | -13 |
| 3 | 30 | 1000 | 100 | 835.65775 | -52.14 | -13 |
| 4 | 1000 | 40000 | 1000 | 38808.55 | -28.11 | -13 |

***n77(3700-3980) SCS=30kHz CP_QPSK BW=100MHz Channel=662000 RB=1@272***



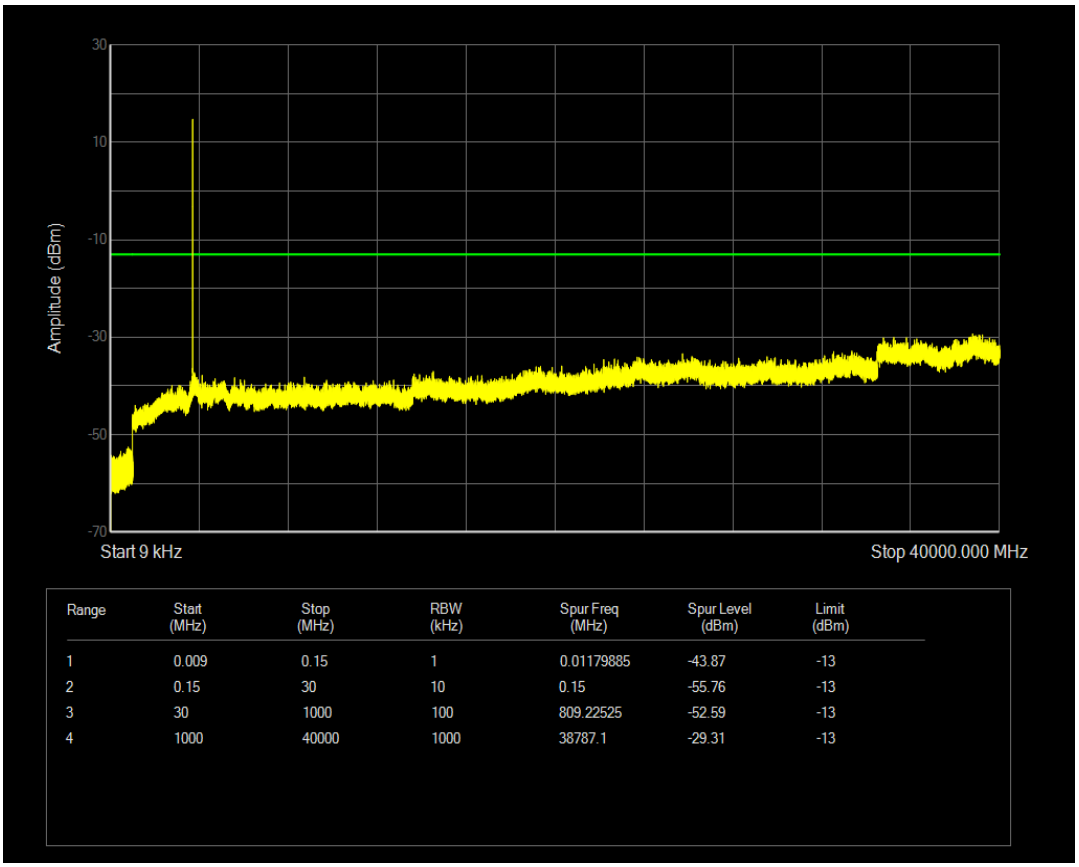

| Range | Start (MHz) | Stop (MHz) | RBW (kHz) | Spur Freq (MHz) | Spur Level (dBm) | Limit (dBm) |
|---|---|---|---|---|---|---|
| 1 | 0.009 | 0.15 | 1 | 0.0126378 | -43.2 | -13 |
| 2 | 0.15 | 30 | 10 | 0.1574625 | -53.97 | -13 |
| 3 | 30 | 1000 | 100 | 913.01525 | -52.24 | -13 |
| 4 | 1000 | 40000 | 1000 | 39165.4 | -28.16 | -13 |

***n77(3700-3980) SCS=30kHz CP_QPSK BW=10MHz Channel=647000 RB=24@0***



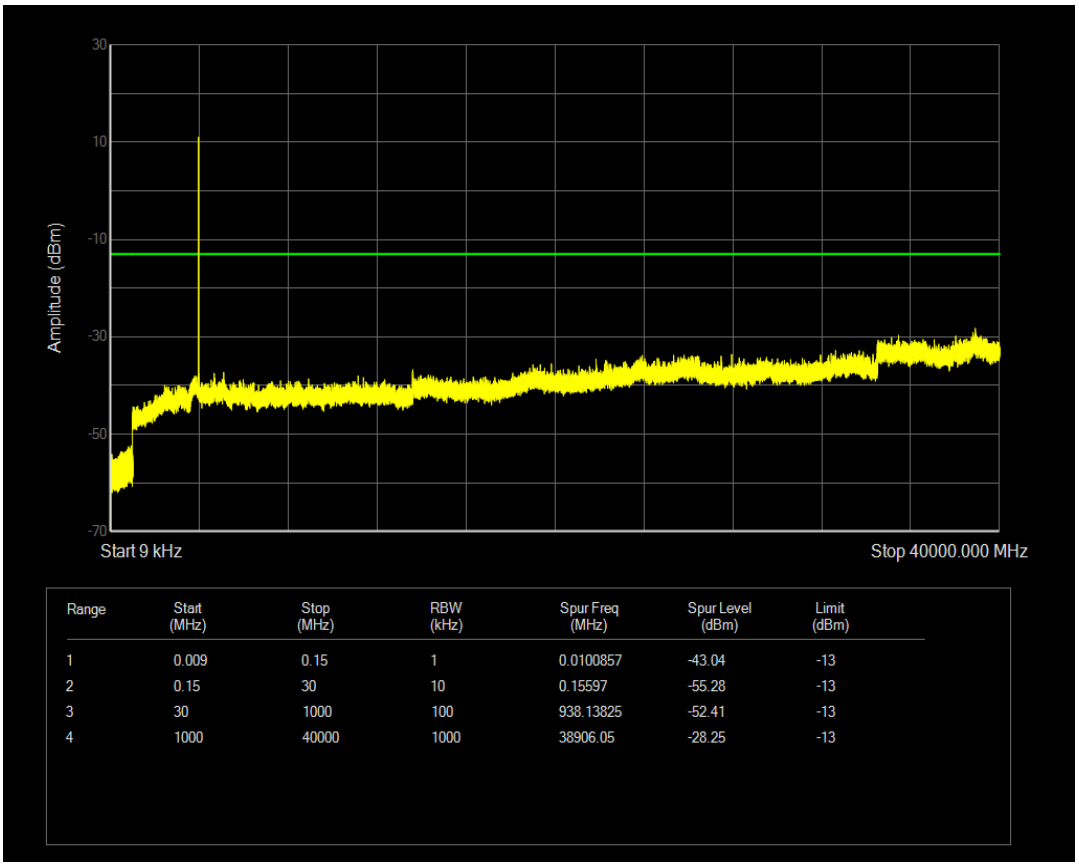

| Range | Start (MHz) | Stop (MHz) | RBW (kHz) | Spur Freq (MHz) | Spur Level (dBm) | Limit (dBm) |
|---|---|---|---|---|---|---|
| 1 | 0.009 | 0.15 | 1 | 0.013769325 | -43.67 | -13 |
| 2 | 0.15 | 30 | 10 | 0.15970125 | -54.75 | -13 |
| 3 | 30 | 1000 | 100 | 629.4115 | -52.4 | -13 |
| 4 | 1000 | 40000 | 1000 | 38791.975 | -28.67 | -13 |

***n77(3700-3980) SCS=30kHz CP_QPSK BW=10MHz Channel=647000 RB=1@23***



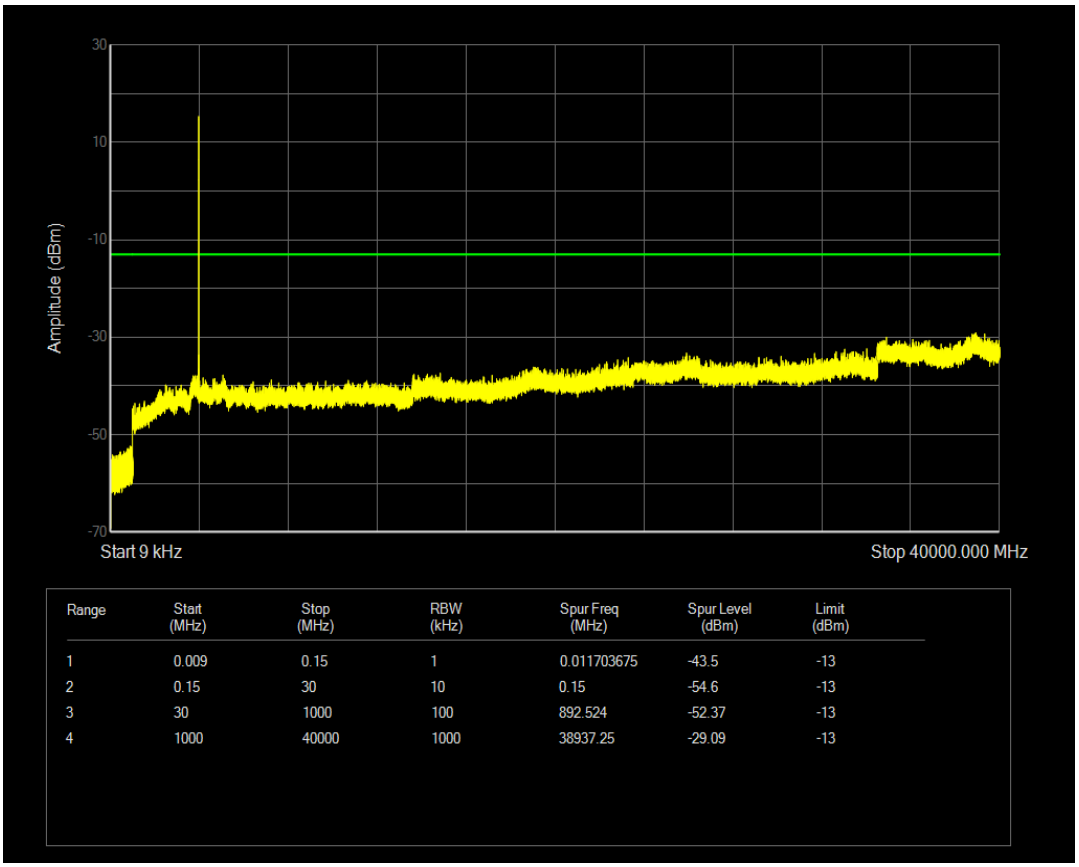

| Range | Start (MHz) | Stop (MHz) | RBW (kHz) | Spur Freq (MHz) | Spur Level (dBm) | Limit (dBm) |
|---|---|---|---|---|---|---|
| 1 | 0.009 | 0.15 | 1 | 0.01179885 | -43.87 | -13 |
| 2 | 0.15 | 30 | 10 | 0.15 | -55.76 | -13 |
| 3 | 30 | 1000 | 100 | 809.22525 | -52.59 | -13 |
| 4 | 1000 | 40000 | 1000 | 38787.1 | -29.31 | -13 |

***n77(3700-3980) SCS=30kHz CP_QPSK BW=10MHz Channel=665000 RB=1@0***



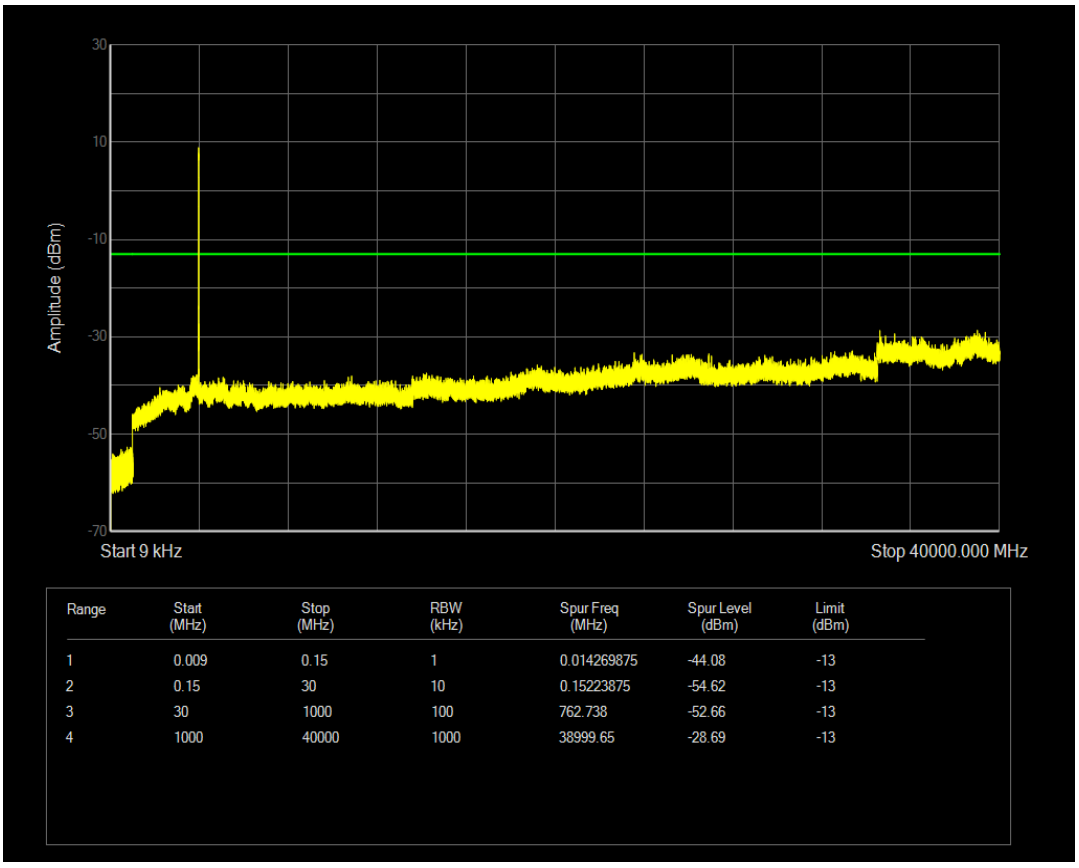

| Range | Start (MHz) | Stop (MHz) | RBW (kHz) | Spur Freq (MHz) | Spur Level (dBm) | Limit (dBm) |
|---|---|---|---|---|---|---|
| 1 | 0.009 | 0.15 | 1 | 0.0100857 | -43.04 | -13 |
| 2 | 0.15 | 30 | 10 | 0.15597 | -55.28 | -13 |
| 3 | 30 | 1000 | 100 | 938.13825 | -52.41 | -13 |
| 4 | 1000 | 40000 | 1000 | 38906.05 | -28.25 | -13 |

***n77(3700-3980) SCS=30kHz CP_QPSK BW=10MHz Channel=665000 RB=1@23***



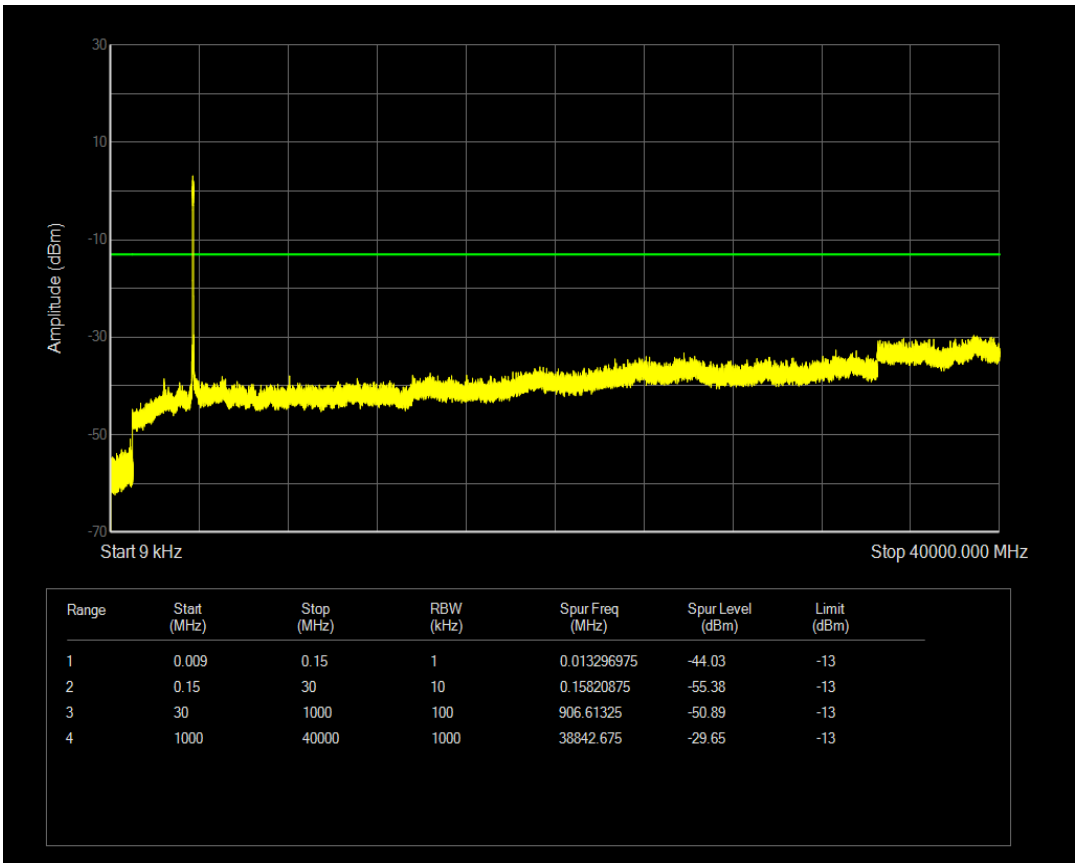

| Range | Start (MHz) | Stop (MHz) | RBW (kHz) | Spur Freq (MHz) | Spur Level (dBm) | Limit (dBm) |
|---|---|---|---|---|---|---|
| 1 | 0.009 | 0.15 | 1 | 0.011703675 | -43.5 | -13 |
| 2 | 0.15 | 30 | 10 | 0.15 | -54.6 | -13 |
| 3 | 30 | 1000 | 100 | 892.524 | -52.37 | -13 |
| 4 | 1000 | 40000 | 1000 | 38937.25 | -29.09 | -13 |

***n77(3700-3980) SCS=30kHz CP_QPSK BW=10MHz Channel=665000 RB=24@0***



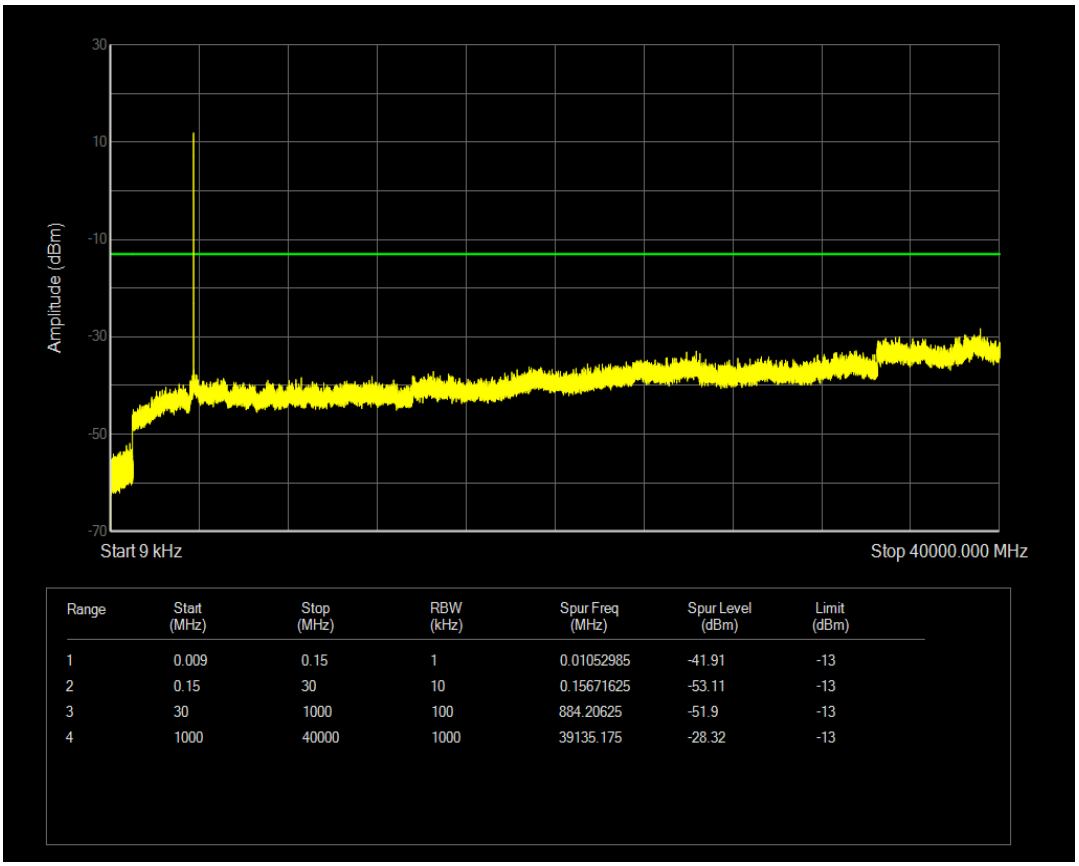

| Range | Start (MHz) | Stop (MHz) | RBW (kHz) | Spur Freq (MHz) | Spur Level (dBm) | Limit (dBm) |
|---|---|---|---|---|---|---|
| 1 | 0.009 | 0.15 | 1 | 0.014269875 | -44.08 | -13 |
| 2 | 0.15 | 30 | 10 | 0.15223875 | -54.62 | -13 |
| 3 | 30 | 1000 | 100 | 762.738 | -52.66 | -13 |
| 4 | 1000 | 40000 | 1000 | 38999.65 | -28.69 | -13 |

***n77(3700-3980) SCS=30kHz CP_QPSK BW=50MHz Channel=648334 RB=133@0***



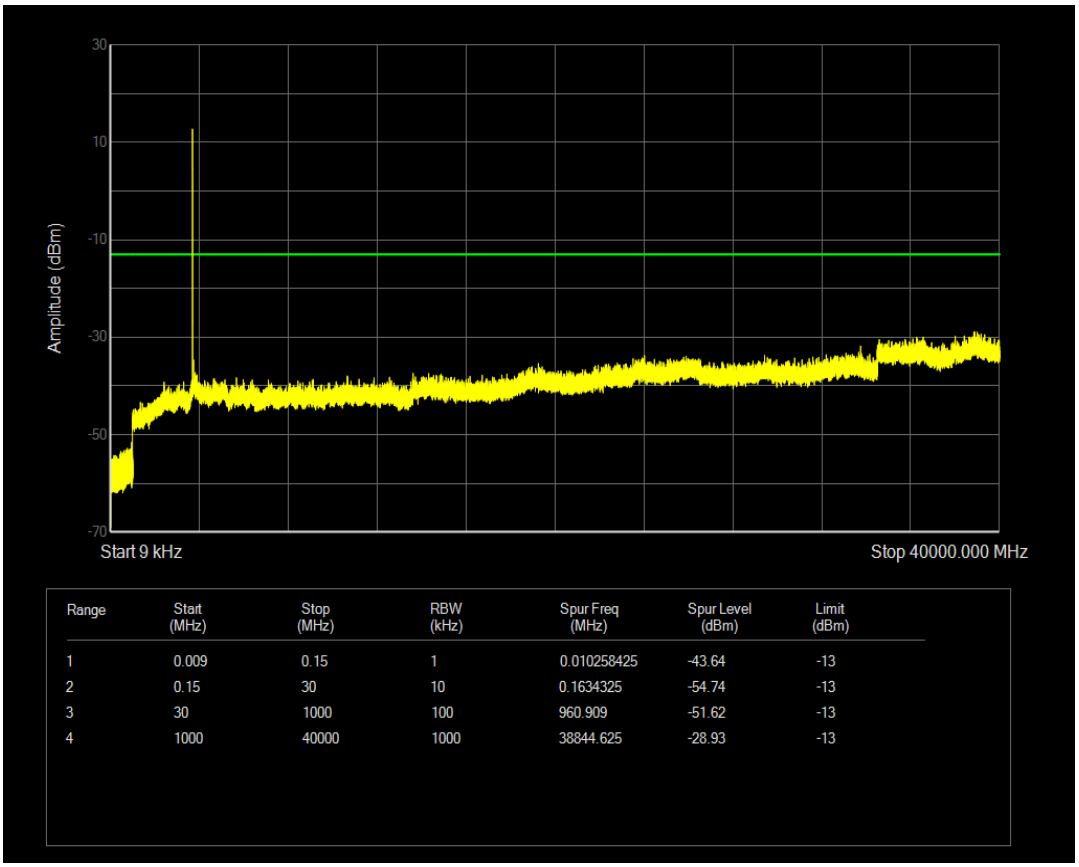

| Range | Start (MHz) | Stop (MHz) | RBW (kHz) | Spur Freq (MHz) | Spur Level (dBm) | Limit (dBm) |
|---|---|---|---|---|---|---|
| 1 | 0.009 | 0.15 | 1 | 0.013296975 | -44.03 | -13 |
| 2 | 0.15 | 30 | 10 | 0.15820875 | -55.38 | -13 |
| 3 | 30 | 1000 | 100 | 906.61325 | -50.89 | -13 |
| 4 | 1000 | 40000 | 1000 | 38842.675 | -29.65 | -13 |

***n77(3700-3980) SCS=30kHz CP_QPSK BW=50MHz Channel=648334 RB=1@132***



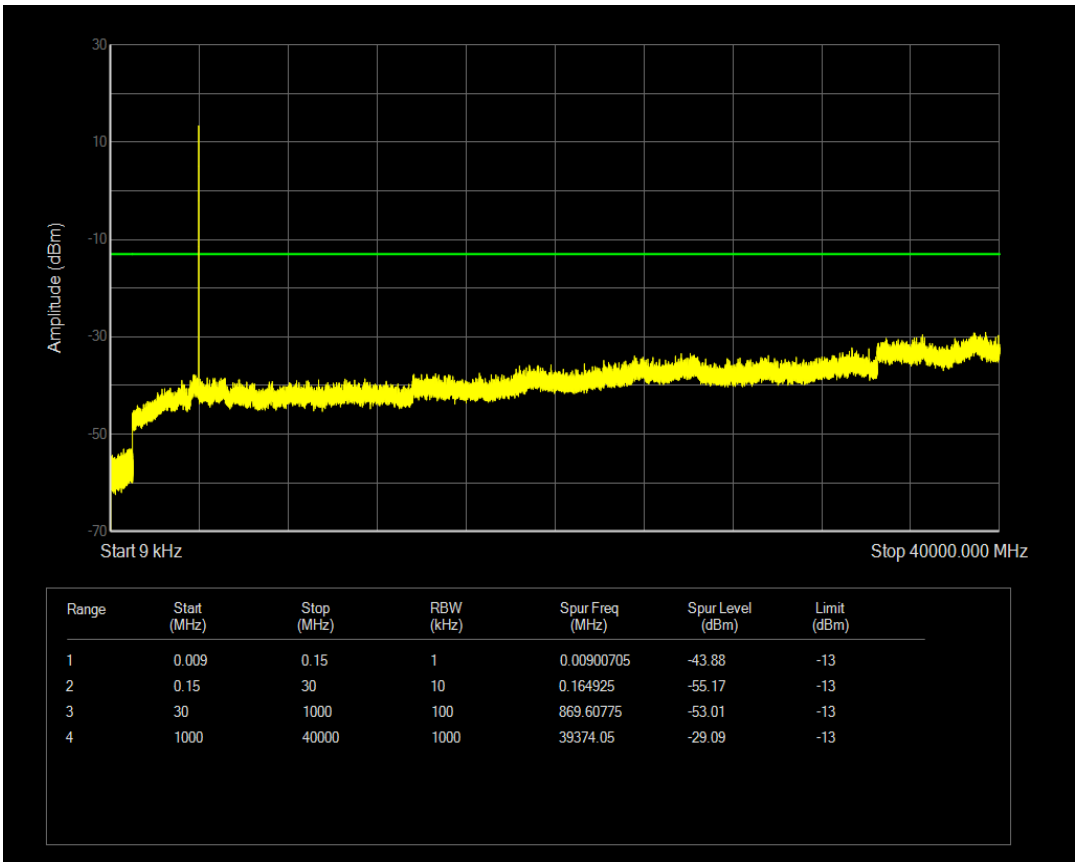

| Range | Start (MHz) | Stop (MHz) | RBW (kHz) | Spur Freq (MHz) | Spur Level (dBm) | Limit (dBm) |
|---|---|---|---|---|---|---|
| 1 | 0.009 | 0.15 | 1 | 0.01052985 | -41.91 | -13 |
| 2 | 0.15 | 30 | 10 | 0.15671625 | -53.11 | -13 |
| 3 | 30 | 1000 | 100 | 884.20625 | -51.9 | -13 |
| 4 | 1000 | 40000 | 1000 | 39135.175 | -28.32 | -13 |

***n77(3700-3980) SCS=30kHz CP_QPSK BW=50MHz Channel=648334 RB=1@0***



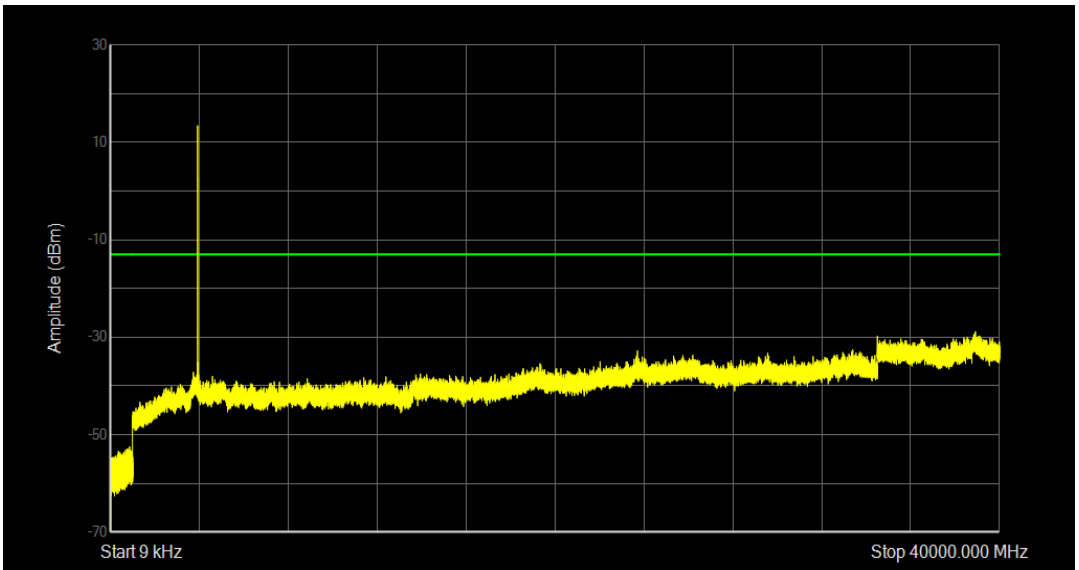

| Range | Start (MHz) | Stop (MHz) | RBW (kHz) | Spur Freq (MHz) | Spur Level (dBm) | Limit (dBm) |
|---|---|---|---|---|---|---|
| 1 | 0.009 | 0.15 | 1 | 0.010258425 | -43.64 | -13 |
| 2 | 0.15 | 30 | 10 | 0.1634325 | -54.74 | -13 |
| 3 | 30 | 1000 | 100 | 960.909 | -51.62 | -13 |
| 4 | 1000 | 40000 | 1000 | 38844.625 | -28.93 | -13 |

***n77(3700-3980) SCS=30kHz CP_QPSK BW=50MHz Channel=663666 RB=1@132***



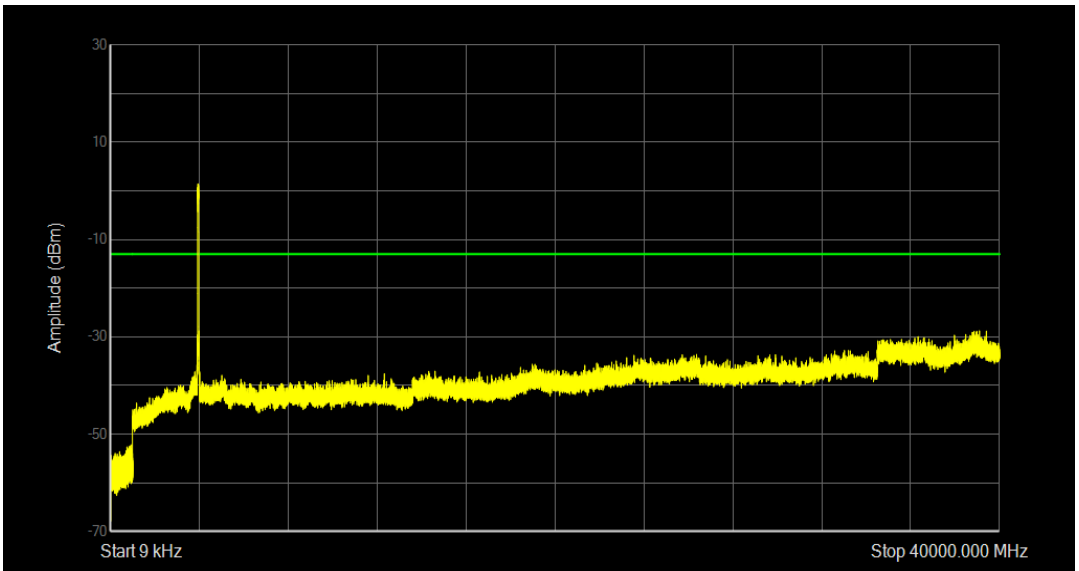

| Range | Start (MHz) | Stop (MHz) | RBW (kHz) | Spur Freq (MHz) | Spur Level (dBm) | Limit (dBm) |
|---|---|---|---|---|---|---|
| 1 | 0.009 | 0.15 | 1 | 0.00900705 | -43.88 | -13 |
| 2 | 0.15 | 30 | 10 | 0.164925 | -55.17 | -13 |
| 3 | 30 | 1000 | 100 | 869.60775 | -53.01 | -13 |
| 4 | 1000 | 40000 | 1000 | 39374.05 | -29.09 | -13 |

***n77(3700-3980) SCS=30kHz CP_QPSK BW=50MHz Channel=663666 RB=1@0***




| Range | Start (MHz) | Stop (MHz) | RBW (kHz) | Spur Freq (MHz) | Spur Level (dBm) | Limit (dBm) |
|---|---|---|---|---|---|---|
| 1 | 0.009 | 0.15 | 1 | 0.01074135 | -43.76 | -13 |
| 2 | 0.15 | 30 | 10 | 0.15820875 | -53.44 | -13 |
| 3 | 30 | 1000 | 100 | 874.79725 | -52.5 | -13 |
| 4 | 1000 | 40000 | 1000 | 38914.825 | -28.84 | -13 |

***n77(3700-3980) SCS=30kHz CP_QPSK BW=50MHz Channel=663666 RB=133@0***




| Range | Start (MHz) | Stop (MHz) | RBW (kHz) | Spur Freq (MHz) | Spur Level (dBm) | Limit (dBm) |
|---|---|---|---|---|---|---|
| 1 | 0.009 | 0.15 | 1 | 0.0120174 | -43.67 | -13 |
| 2 | 0.15 | 30 | 10 | 0.15373125 | -55.07 | -13 |
| 3 | 30 | 1000 | 100 | 965.0315 | -52.17 | -13 |
| 4 | 1000 | 40000 | 1000 | 39097.15 | -28.77 | -13 |