

Config C ANT1 UNII-1 26 dB:

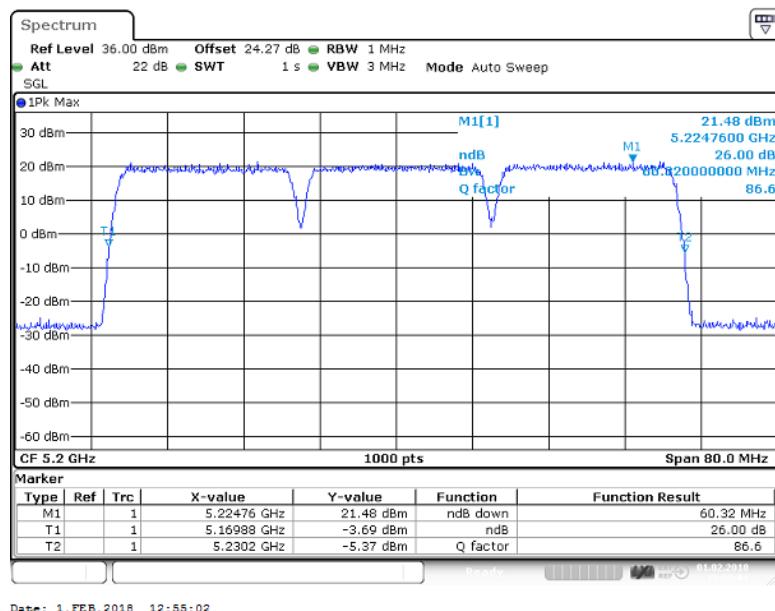


Figure 77 Occupied Bandwidth – QPSKQAM (5180/ 5200/5220 MHz) (2 X 20MHz Channel BW)

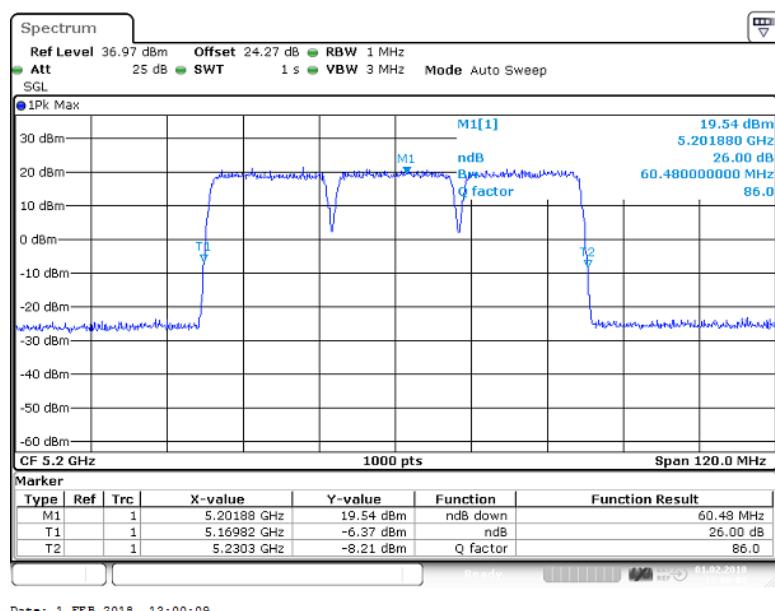


Figure 78 Occupied Bandwidth – 64QAM (5180/ 5200/5220 MHz) (2 X 20MHz Channel BW)

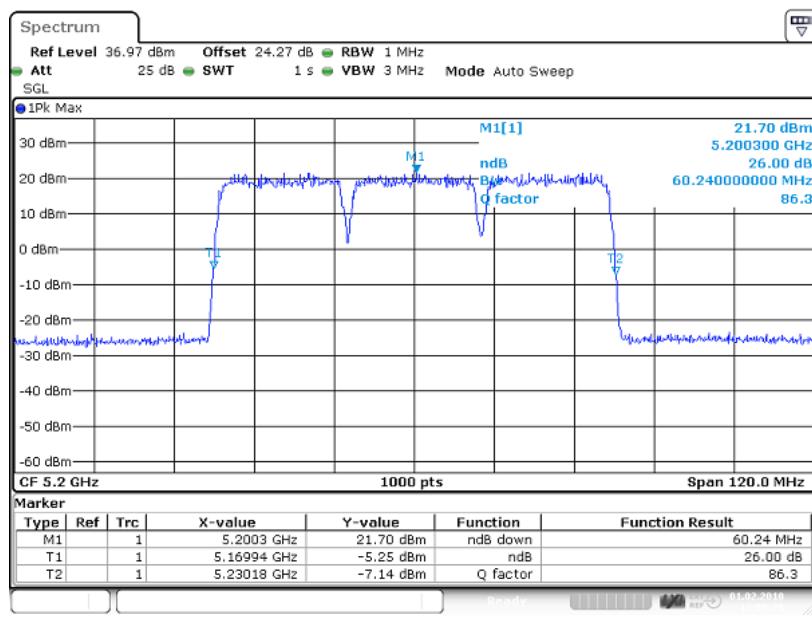


Figure 79 Occupied Bandwidth – 16QAM (5180/ 5200/5220 MHz) (2 X 20MHz Channel BW)

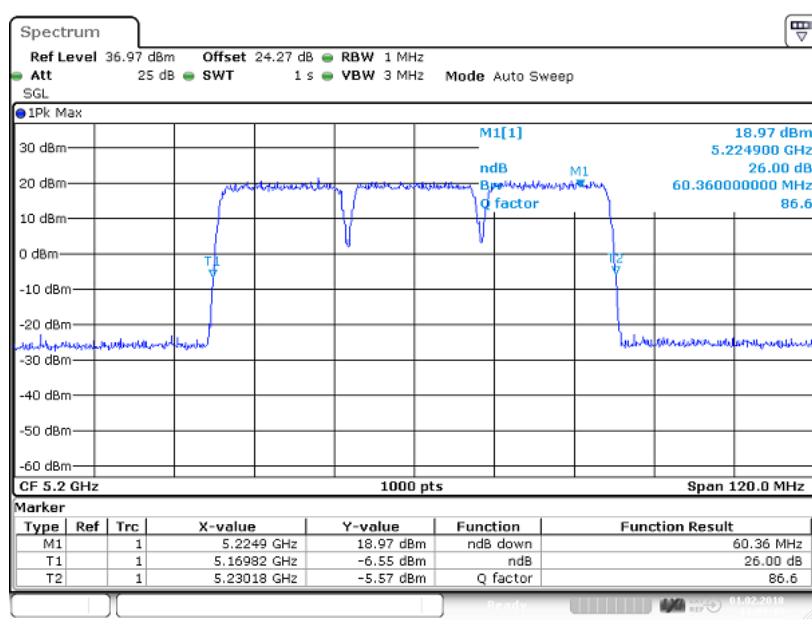


Figure 80 Occupied Bandwidth – 256QAM (5180/ 5200/5220 MHz) (2 X 20MHz Channel BW)

Config C ANT2 UNII-1 26 dB:

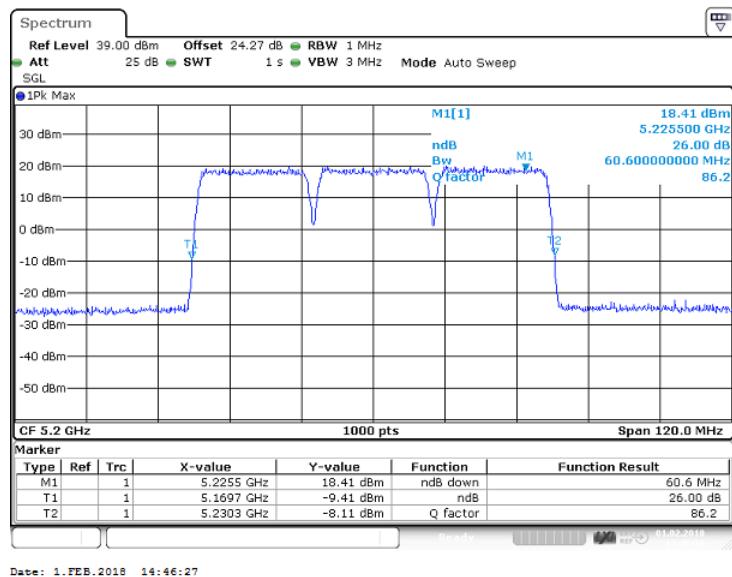


Figure 81 Occupied Bandwidth – QPSKQAM (5180/ 5200/5220 MHz) (2 X 20MHz Channel BW)

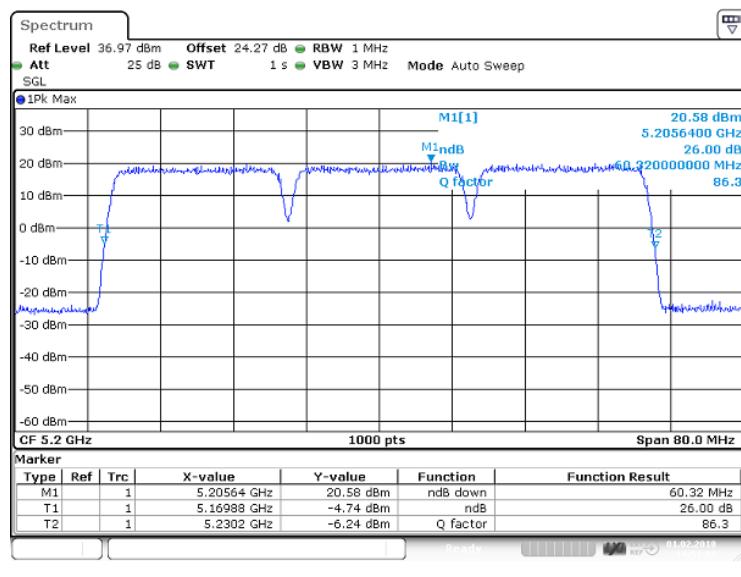
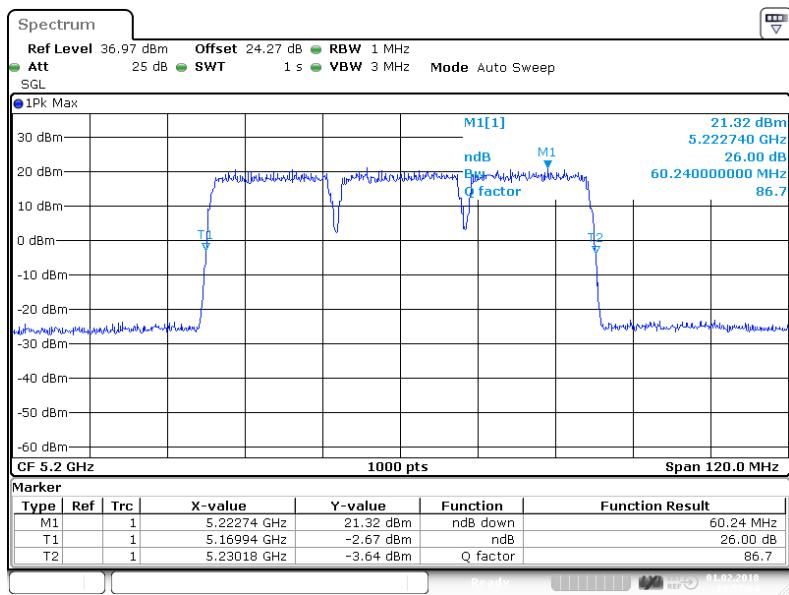
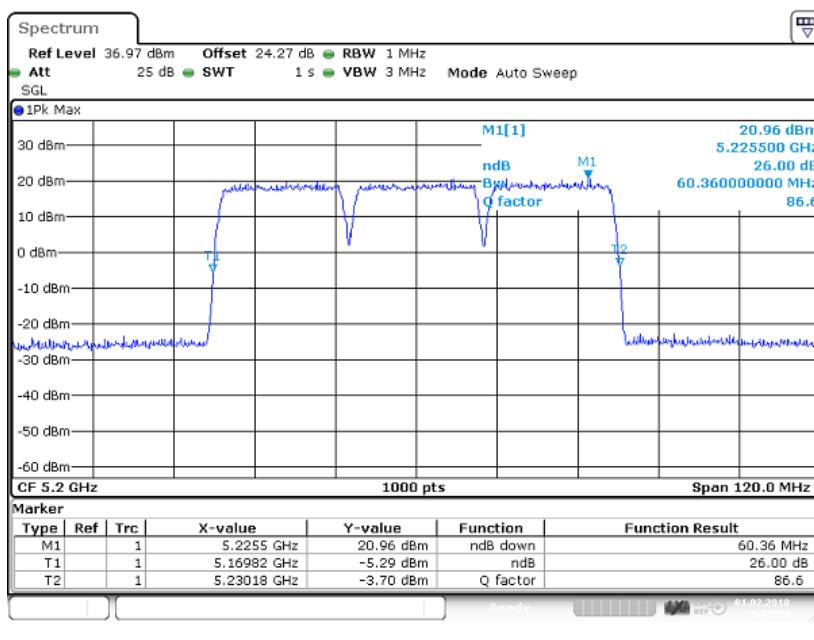


Figure 82 Occupied Bandwidth – 64QAM (5180/ 5200/5220 MHz) (2 X 20MHz Channel BW)



Date: 1.FEB.2018 14:53:05

Figure 83 Occupied Bandwidth – 16QAM (5180/ 5200/5220 MHz) (2 X 20MHz Channel BW)



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Figure 84 Occupied Bandwidth – 256QAM (5180/ 5200/5220 MHz) (2 X 20MHz Channel BW)

Config C ANT1 UNII-3 26 dB:

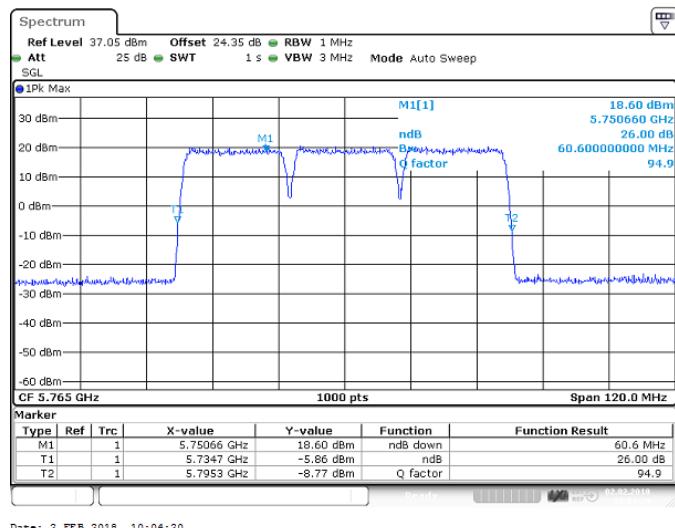


Figure 85 Occupied Bandwidth – QPSKQAM (5745.0/ 5765.0/ 5785.0 MHz) (20MHz Channel BW)

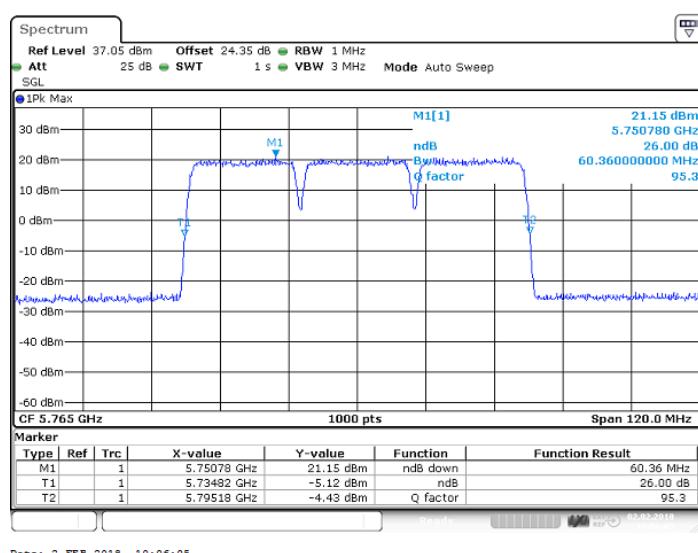


Figure 86 Occupied Bandwidth – 64QAM (5745.0/ 5765.0/ 5785.0 MHz) (20MHz Channel BW)

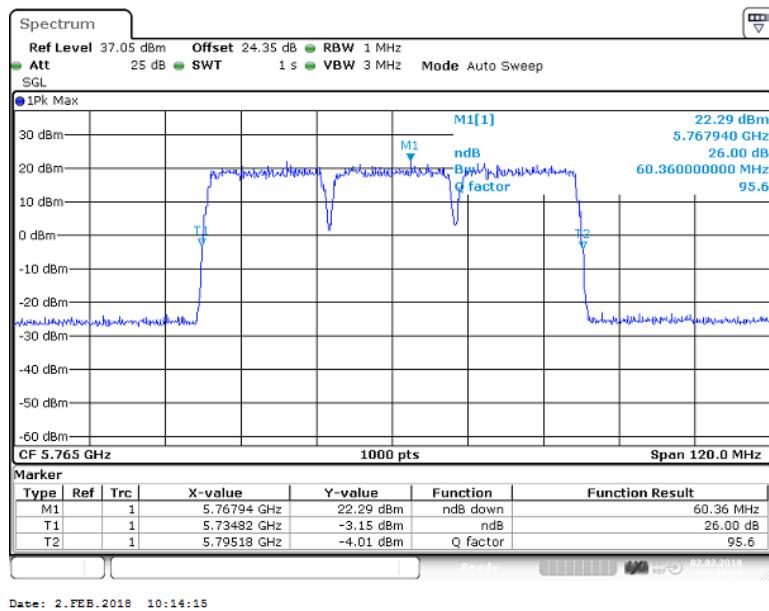


Figure 87 Occupied Bandwidth – 16QAM (5745.0/ 5765.0/ 5785.0 MHz) (20MHz Channel BW)

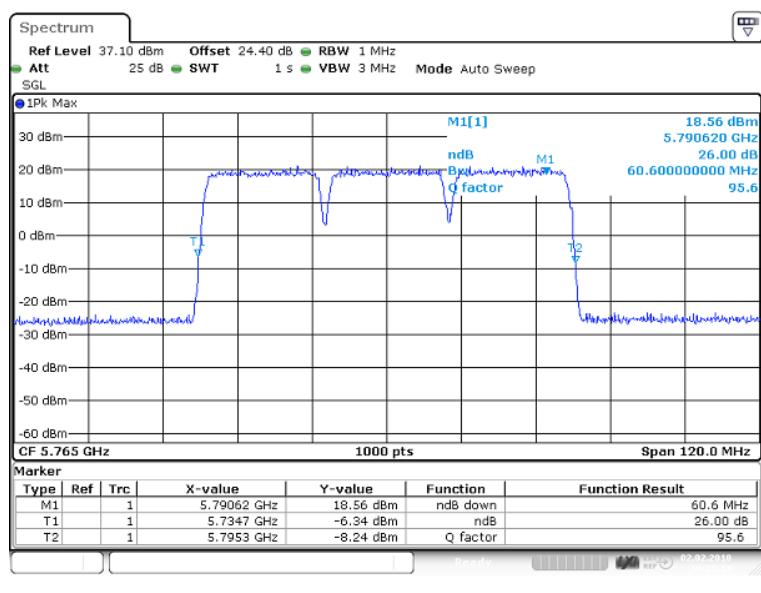


Figure 88 Occupied Bandwidth – 256QAM (5745.0/ 5765.0/ 5785.0 MHz) (20MHz Channel BW)

Config C ANT2 UNII-3 26 dB:

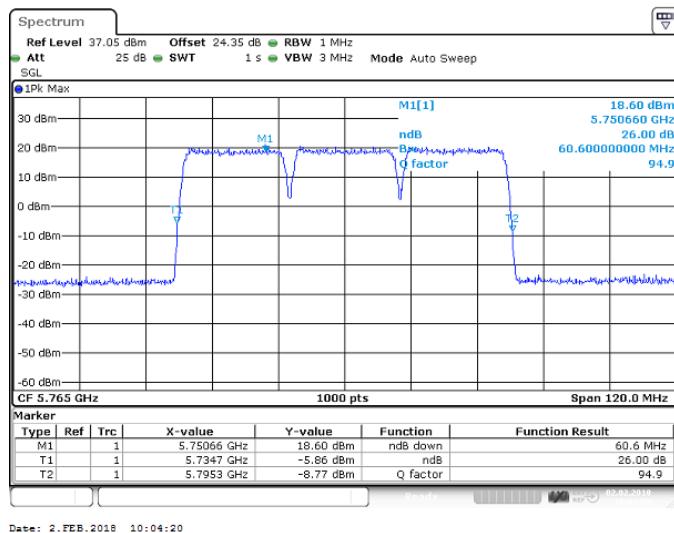


Figure 89 Occupied Bandwidth – QPSKQAM (5745.0/ 5765.0/ 5785 .0 MHz) (20MHz Channel BW)

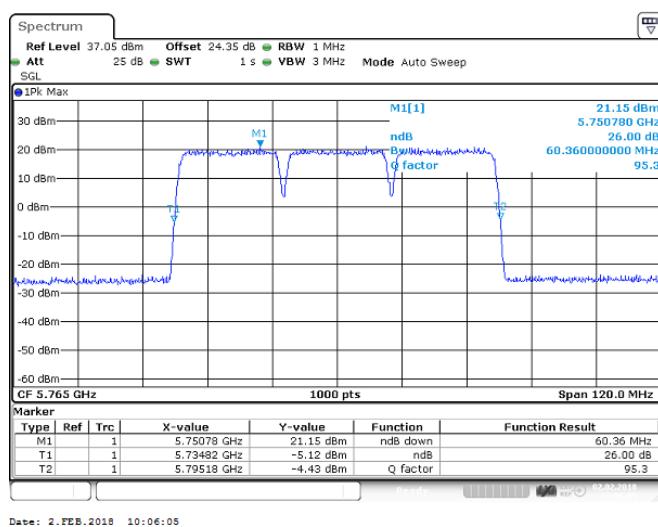
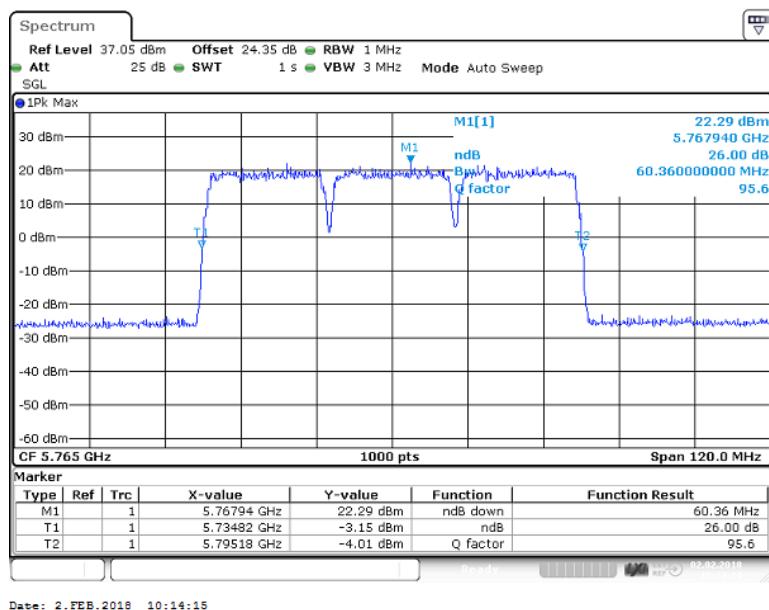
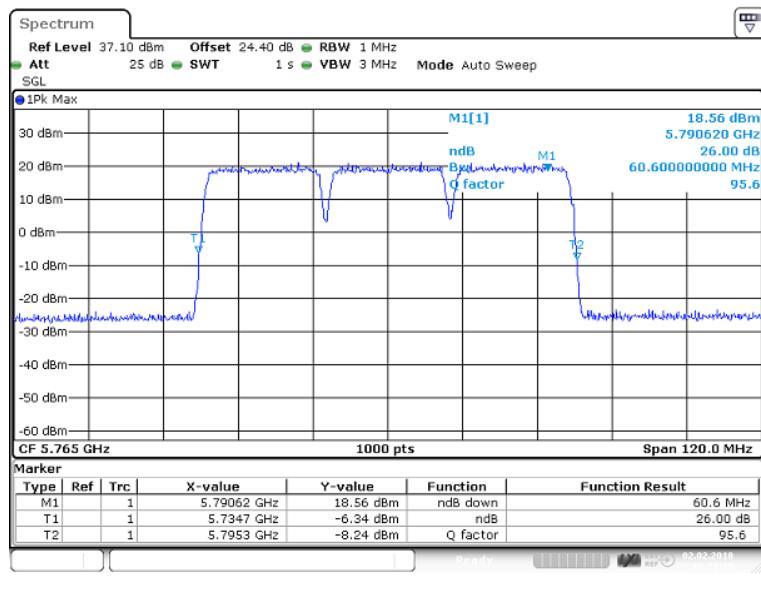


Figure 90 Occupied Bandwidth – 64QAM (5745.0/ 5765.0/ 5785.0 MHz) (20MHz Channel BW)



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Figure 91 Occupied Bandwidth – 16QAM (5745.0/ 5765.0/ 5785.0 MHz) (20MHz Channel BW)



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Figure 92 Occupied Bandwidth – 256QAM (5745.0/ 5765.0/ 5785.0 MHz) (20MHz Channel BW)

5.2.4. Test No. 4: Spurious Emissions at the Antenna Terminals

The external attenuation (cable loss of the setup) can be seen as the ‘Offset’ value in the screenshots. The external attenuation is frequency dependant. Thus the various ‘Offset’ values in the screenshots may differ.

Config A ANT1 (UNII-1):

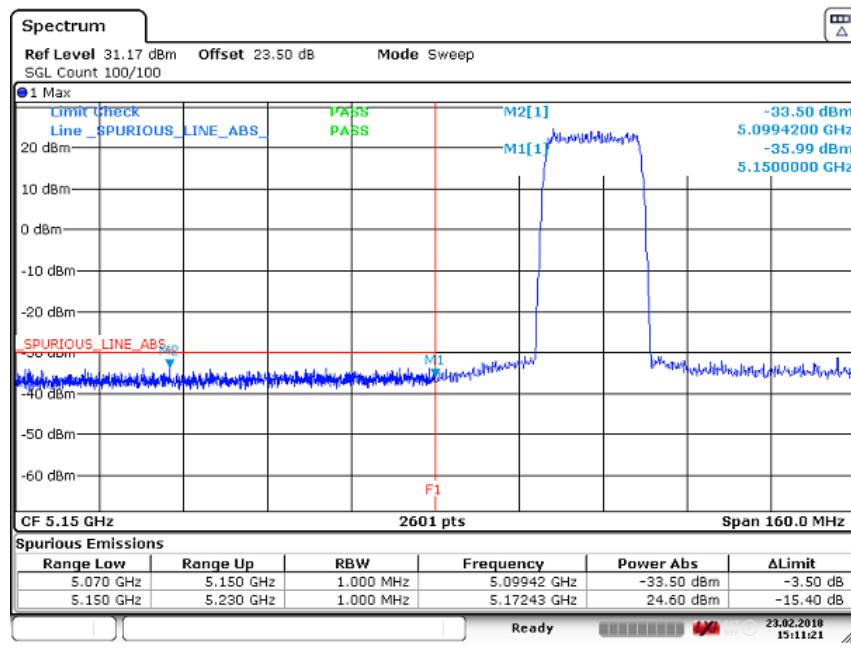
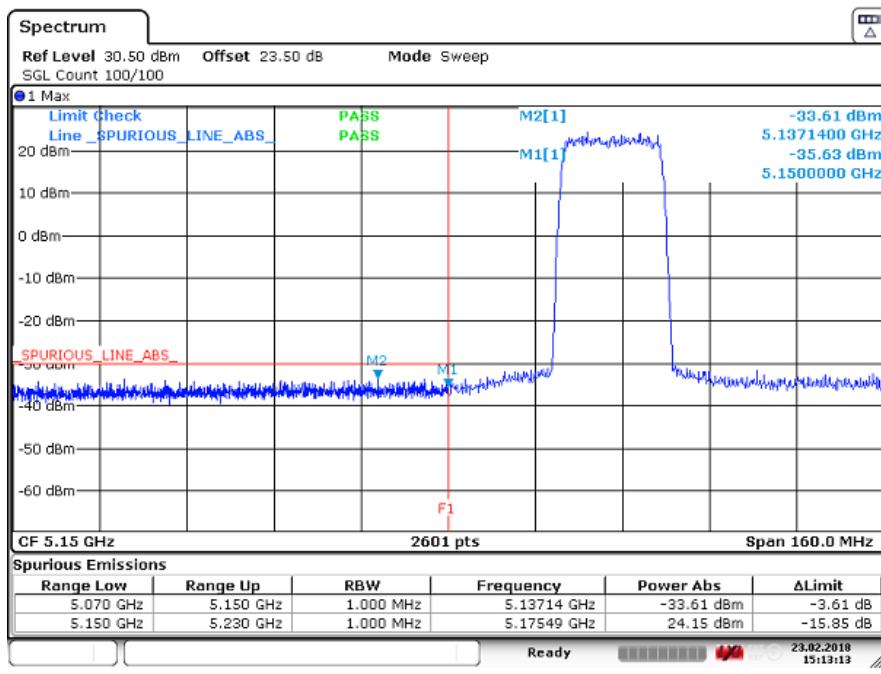
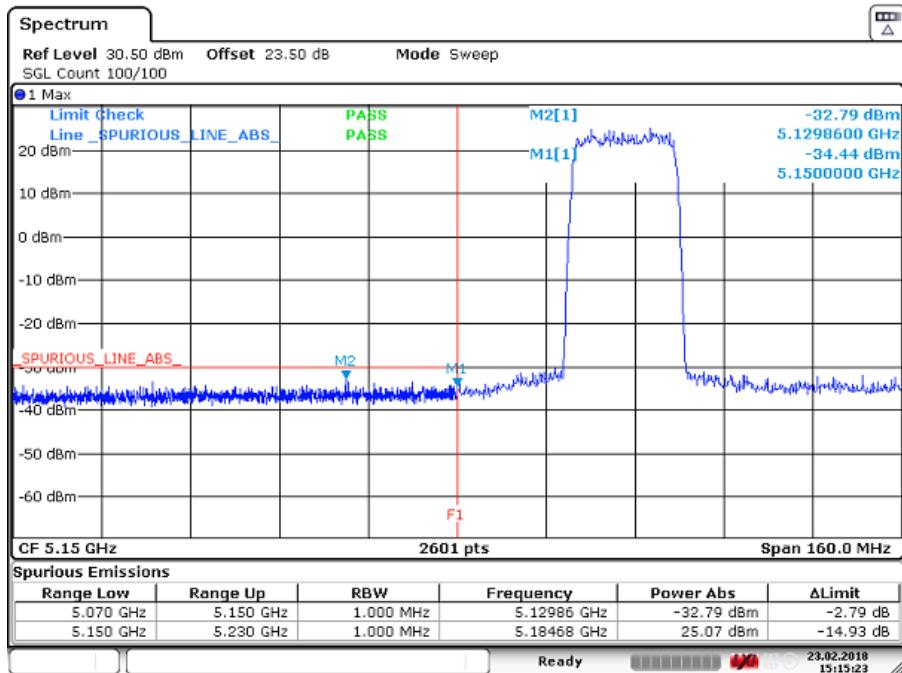


Figure 93 Spurious Emissions (Lower Band Edge) – QPSK (5180.0 MHz) (20MHz Channel BW)



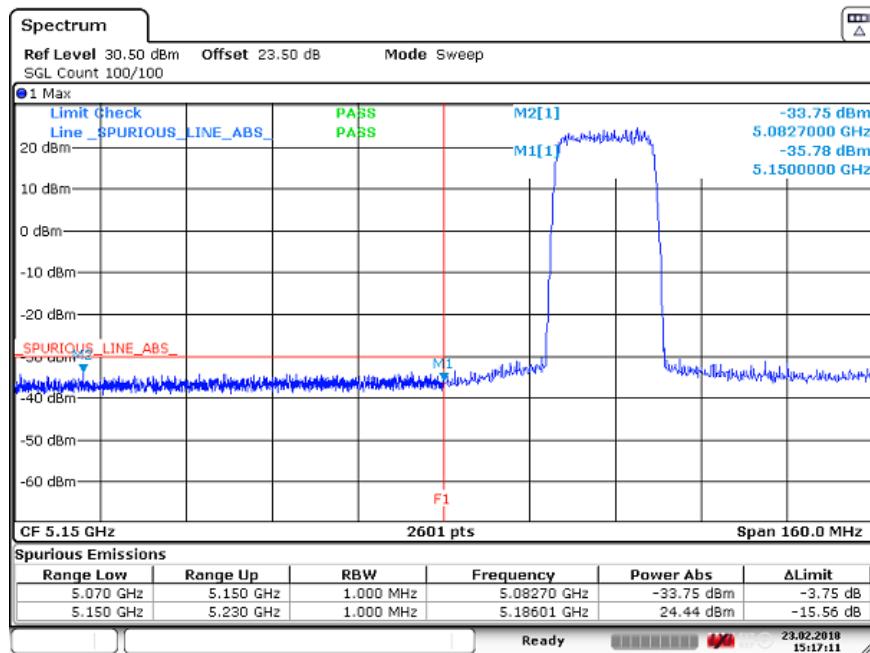
Date: 23.FEB.2018 15:13:14

Figure 6 Spurious Emissions (Lower Band Edge) – 64QAM (5180.0 MHz) (20MHz Channel BW)



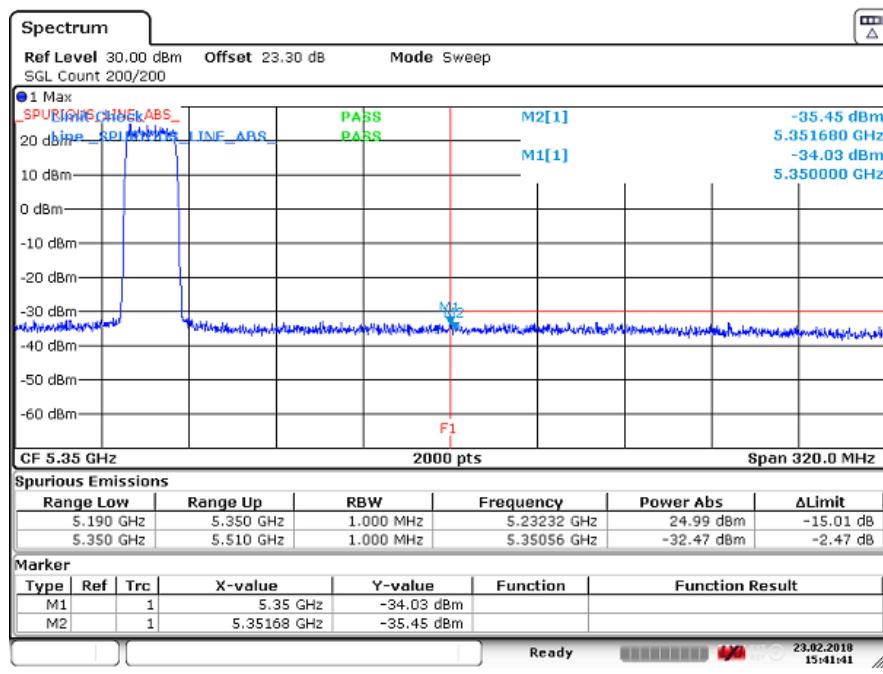
Date: 23.FEB.2018 15:15:23

Figure 37 Spurious Emissions (Lower Band Edge) – 16QAM (5180.0 MHz) (20MHz Channel BW)



Date: 23.FEB.2018 15:17:11

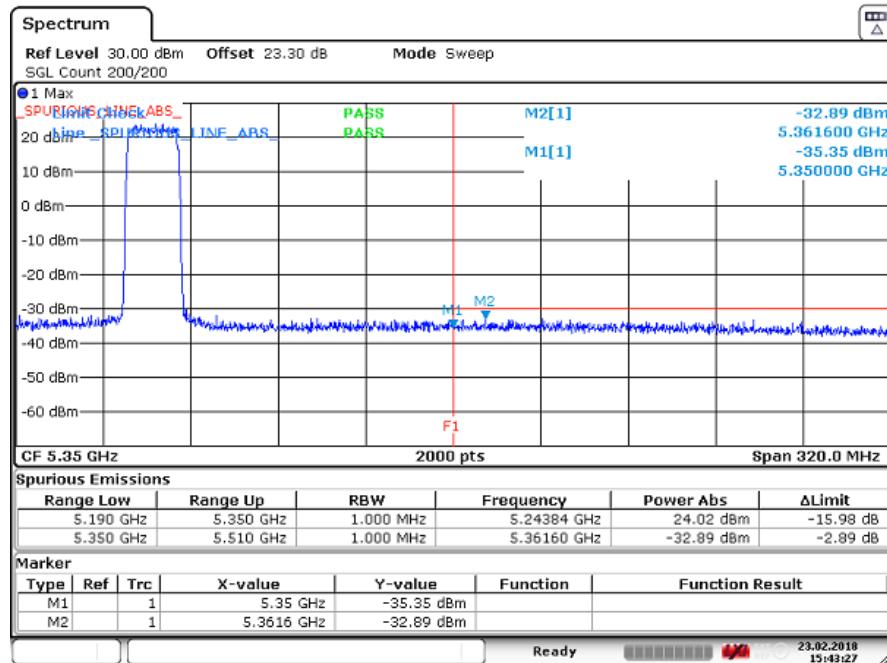
Figure 948 Spurious Emissions (Lower Band Edge) – 256QAM (5180.0 MHz) (20MHz Channel BW)



Date: 23.FEB.2018 15:41:42

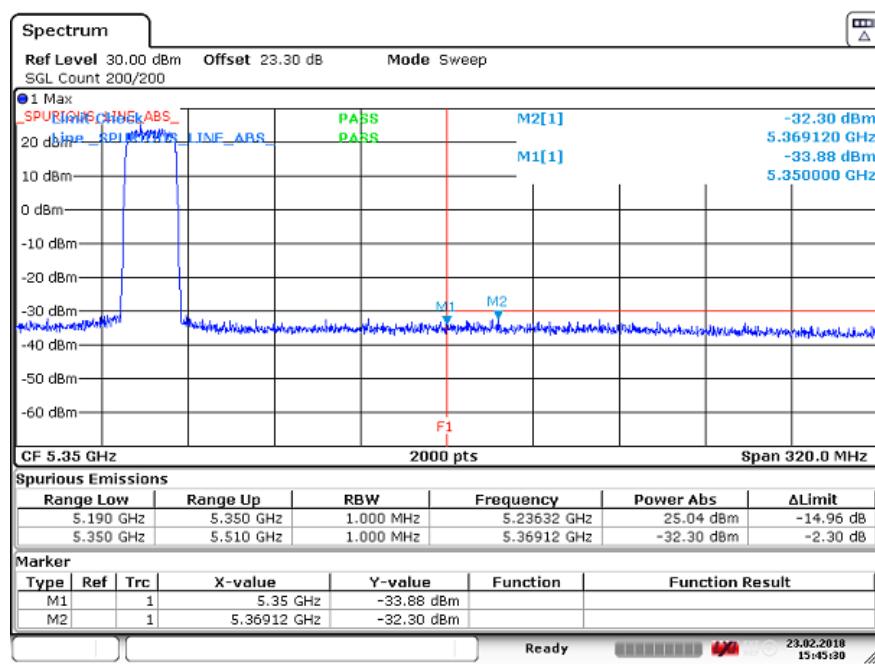
Figure 95 Spurious Emissions (Upper Band Edge) – QPSK (2680.0 MHz) (20MHz Channel BW)

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Date: 23.FEB.2018 15:43:28

Figure 9 Spurious Emissions (Upper Band Edge) – 64QAM (5240.0 MHz) (20MHz Channel BW)



Date: 23.FEB.2018 15:45:31

Figure 9 Spurious Emissions (Upper Band Edge) – 16QAM (5240.0 MHz) (20MHz Channel BW)

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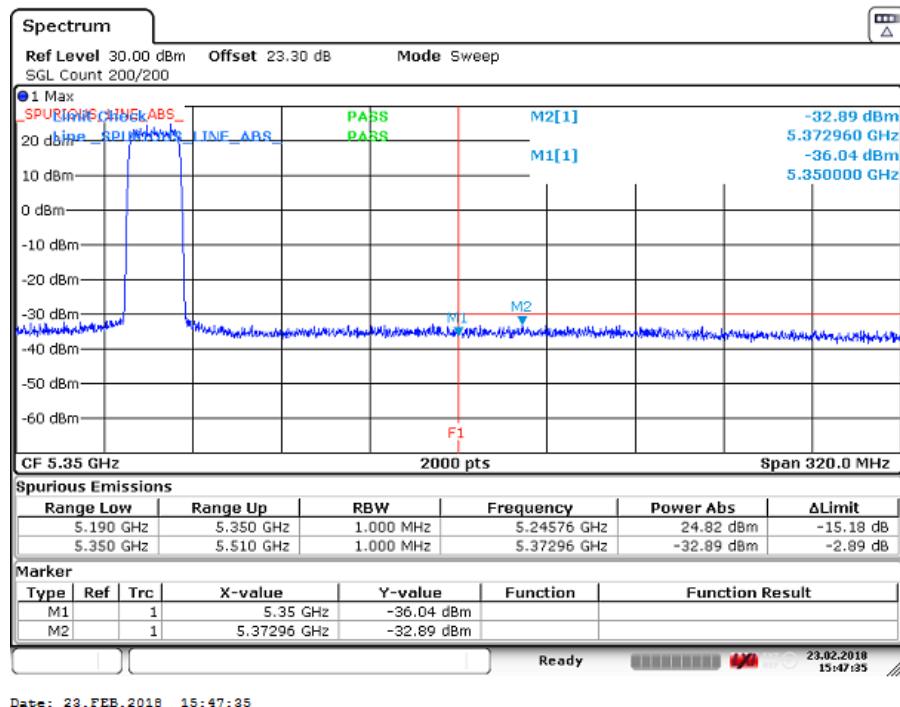


Figure 9 Spurious Emissions (Upper Band Edge) – 256QAM (5240.0 MHz) (20MHz Channel BW)

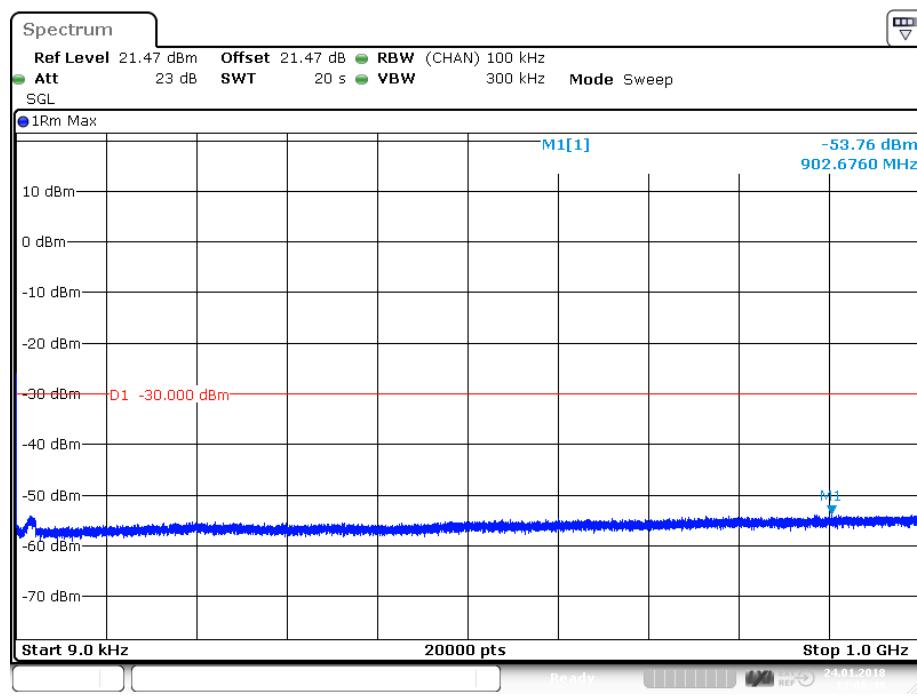
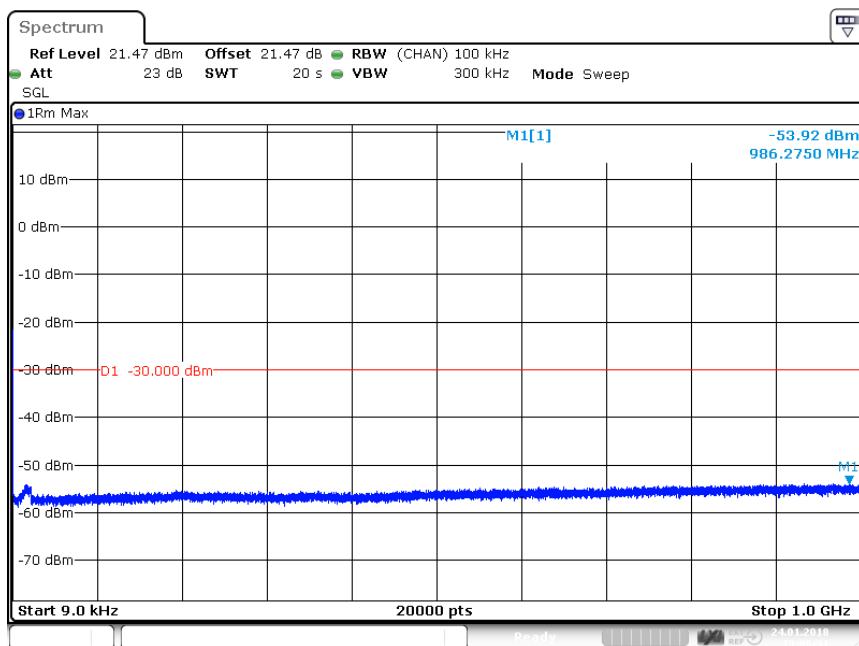
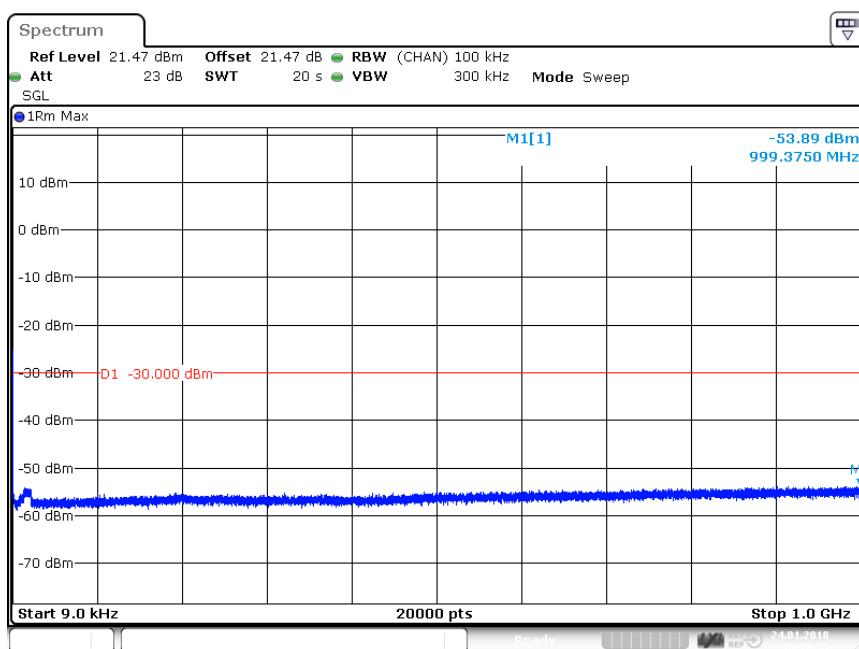


Figure 96 Spurious Emissions (9 kHz – 1 GHz) - QPSK (5220.0 MHz) (20MHz Channel BW)



Date: 24.JAN.2018 13:06:31

Figure 97 Spurious Emissions (9 kHz – 1 GHz) – 64QAM (5220.0 MHz) (20MHz Channel BW)



Date: 24.JAN.2018 13:10:33

Figure 98 Spurious Emissions (9 kHz – 1 GHz) – 16QAM (5220.0 MHz) (20MHz Channel BW)

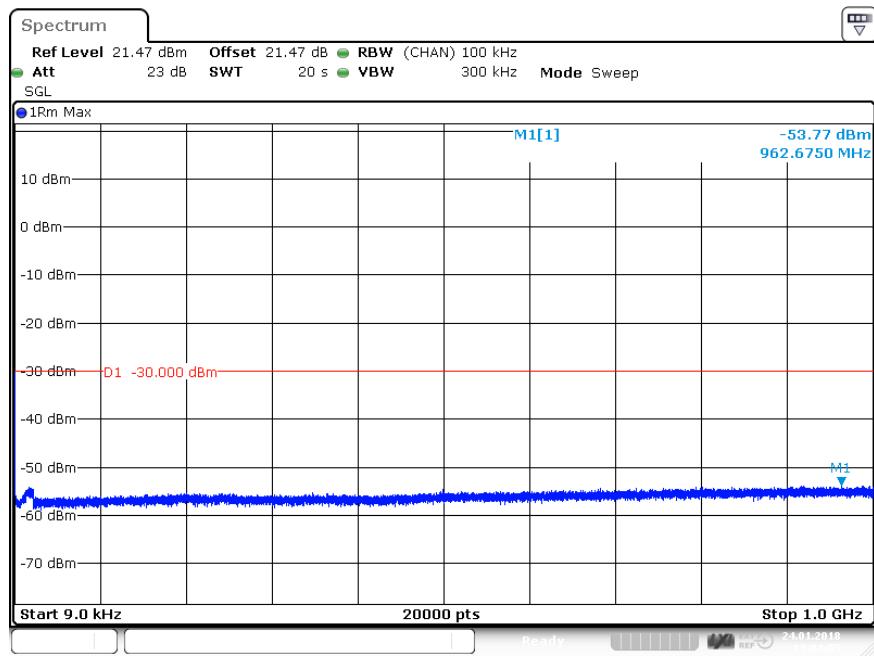


Figure 99 Spurious Emissions (9 kHz – 1 GHz) – 256QAM (5220.0 MHz) (20MHz Channel BW)

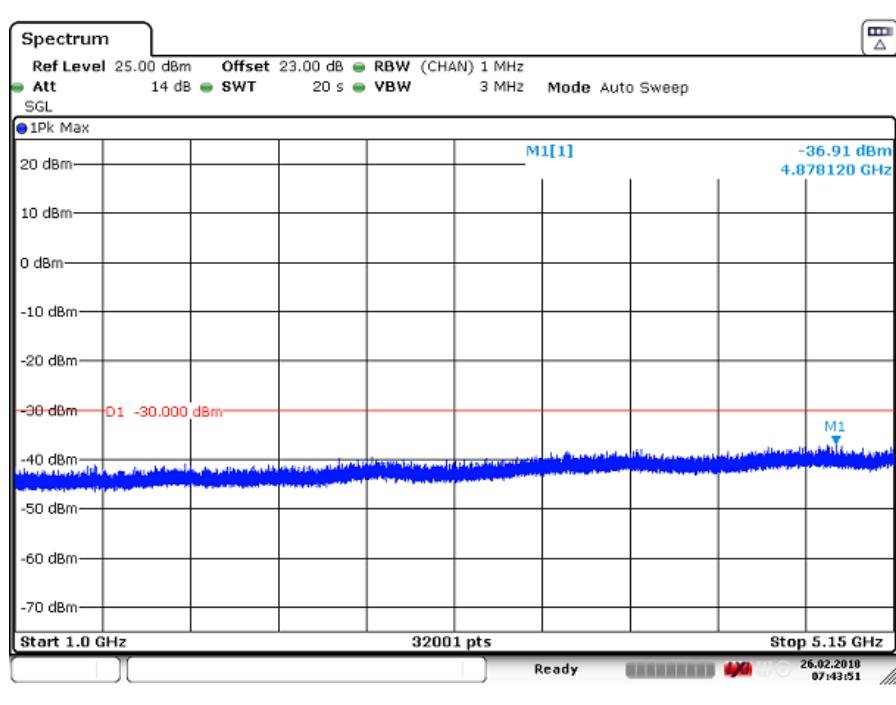


Figure 100 Spurious Emissions (1 GHz – 5.15 GHz) – QPSK (5220.0 MHz) (20MHz Channel BW)

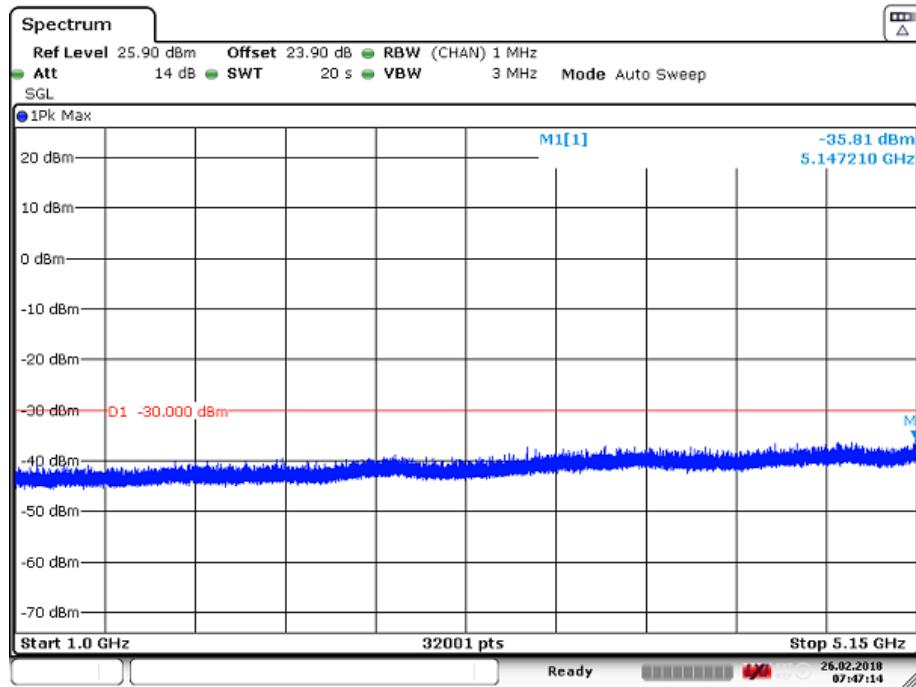


Figure 101 Spurious Emissions (1 GHz – 5.15 GHz) – 64QAM (5220.0 MHz) (20MHz Channel BW)

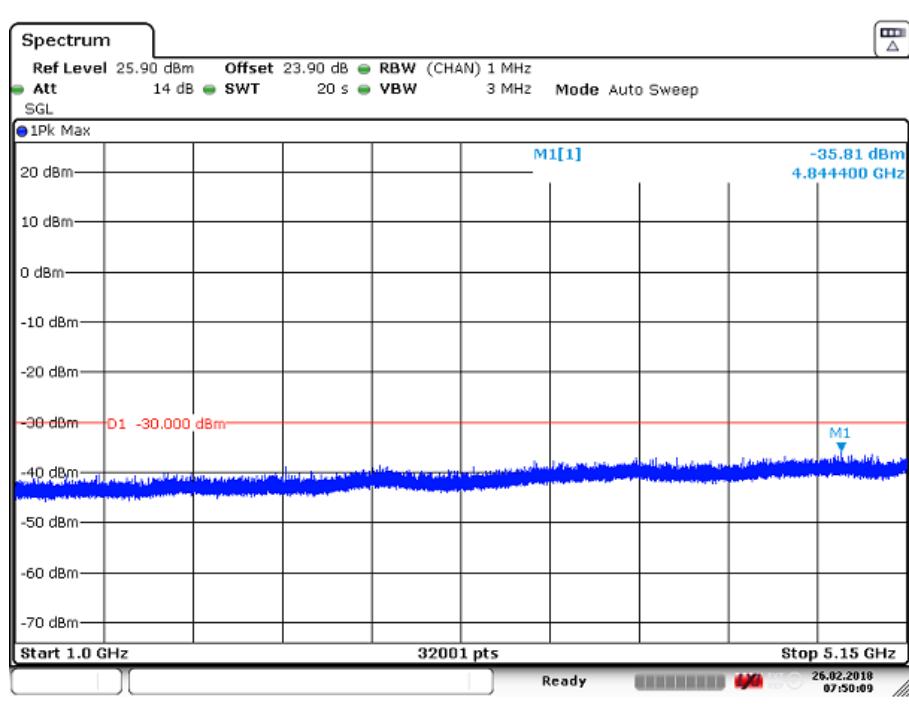


Figure 102 Spurious Emissions (1 GHz – 5.15 GHz) – 16QAM (5220.0 MHz) (20MHz Channel BW)

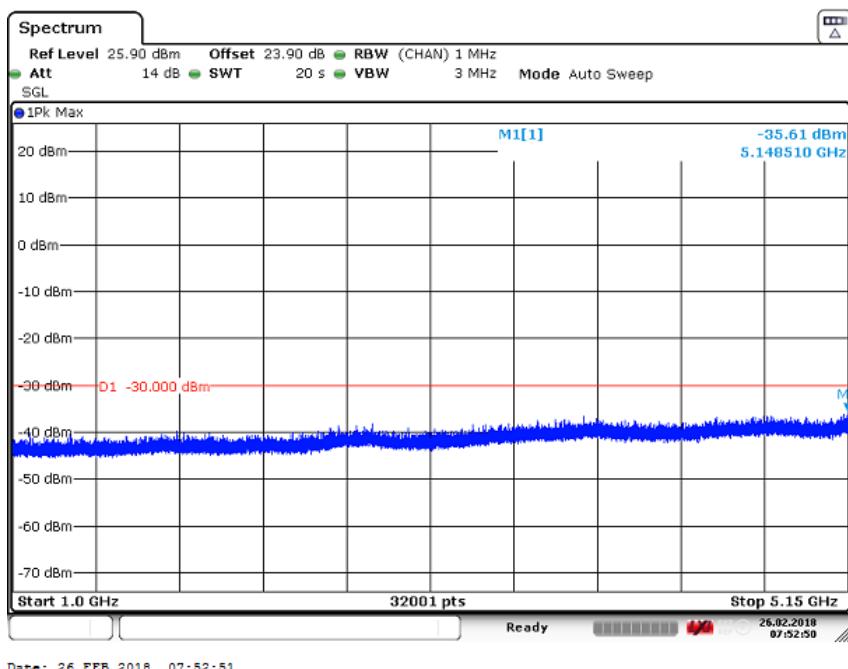


Figure 103 Spurious Emissions (1 GHz – 5.15 GHz) – 256QAM (5220.0 MHz) (20MHz Channel BW)

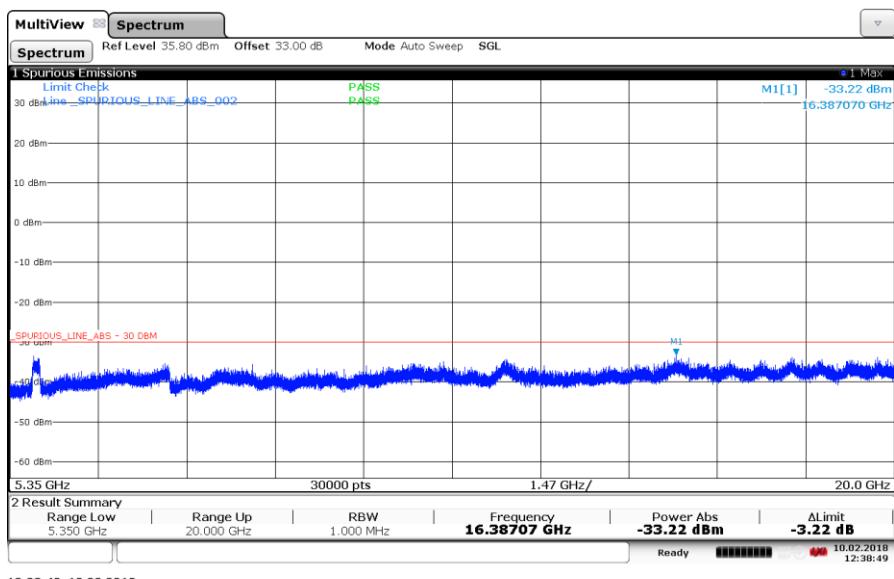


Figure 104 Spurious Emissions (5.35 GHz – 20 GHz) – QPSK (5220.0 MHz) (20MHz Channel BW)

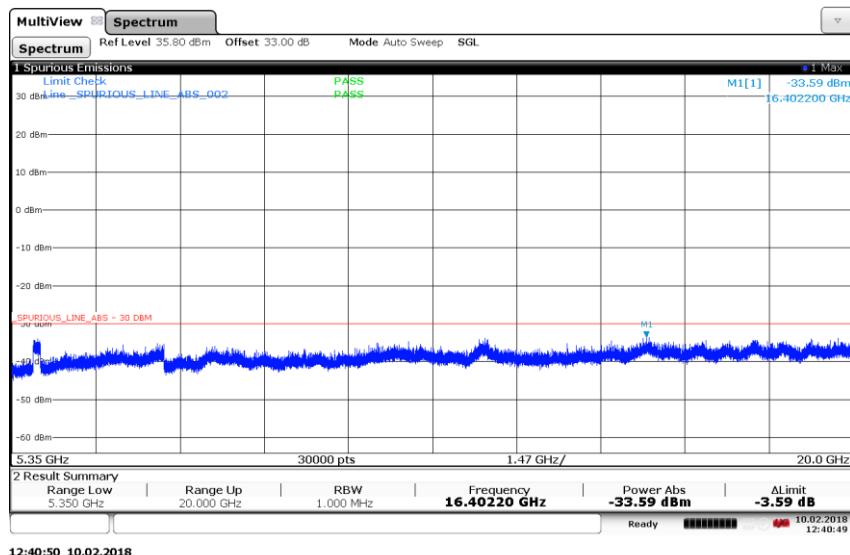


Figure 105 Spurious Emissions (5.35 GHz – 20 GHz) – 64QAM (5220.0 MHz) (20MHz Channel BW)

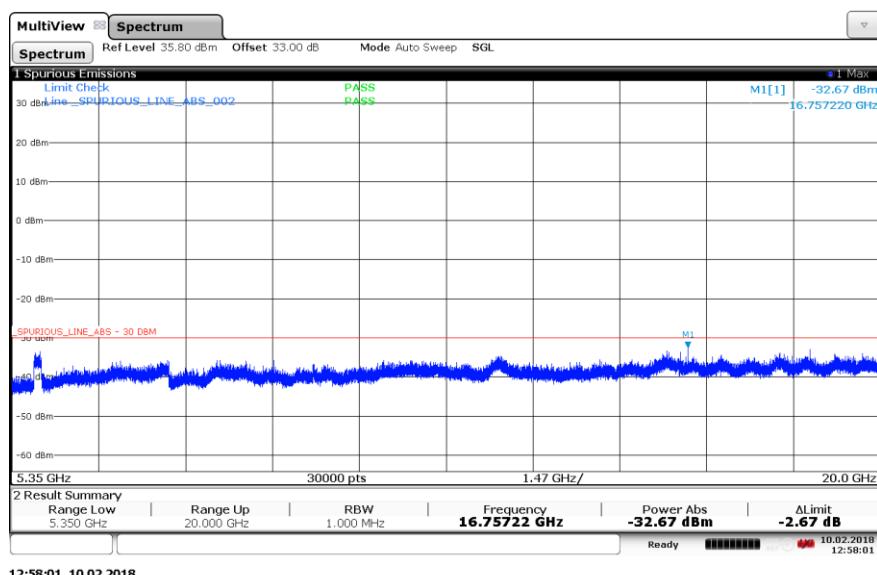


Figure 106 Spurious Emissions (5.35 GHz – 20 GHz) – 16QAM (5220.0 MHz) (20MHz Channel BW)

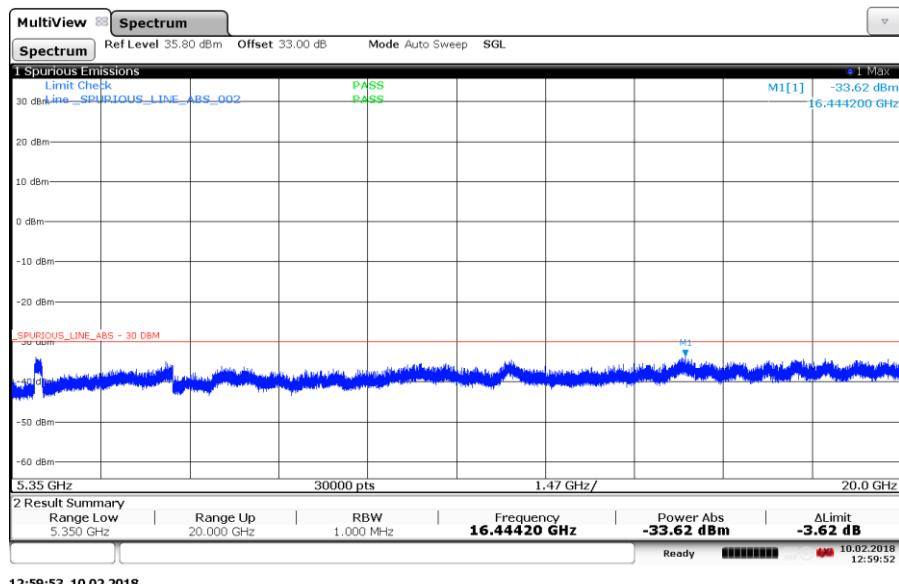


Figure 107 Spurious Emissions (5.35 GHz – 20 GHz) – 256QAM (5220.0 MHz) (20MHz Channel BW)

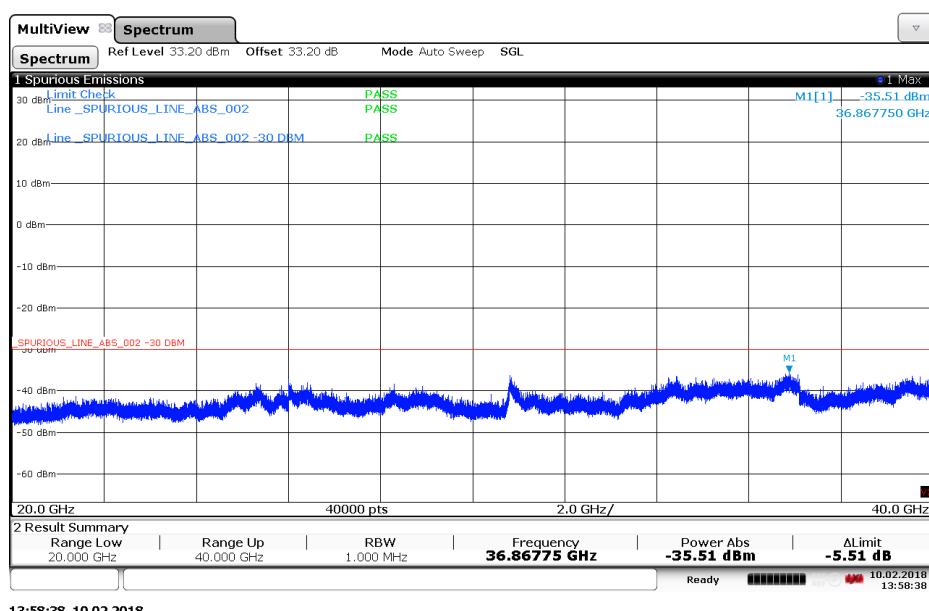


Figure 108 Spurious Emissions (20 GHz – 40 GHz) – QPSK (5220.0 MHz) (20MHz Channel BW)

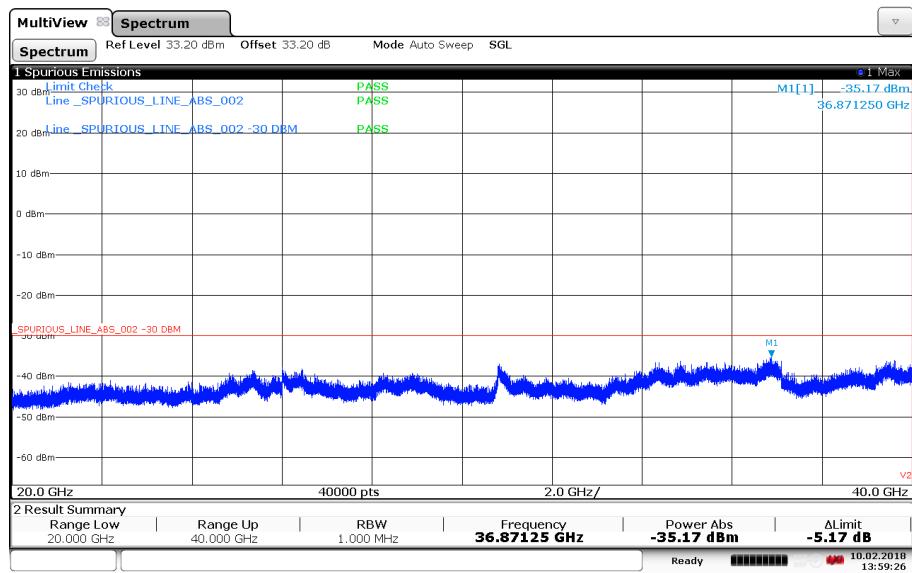


Figure 109 Spurious Emissions (20 GHz – 40 GHz) – 64QAM (5220.0 MHz) (20MHz Channel BW)

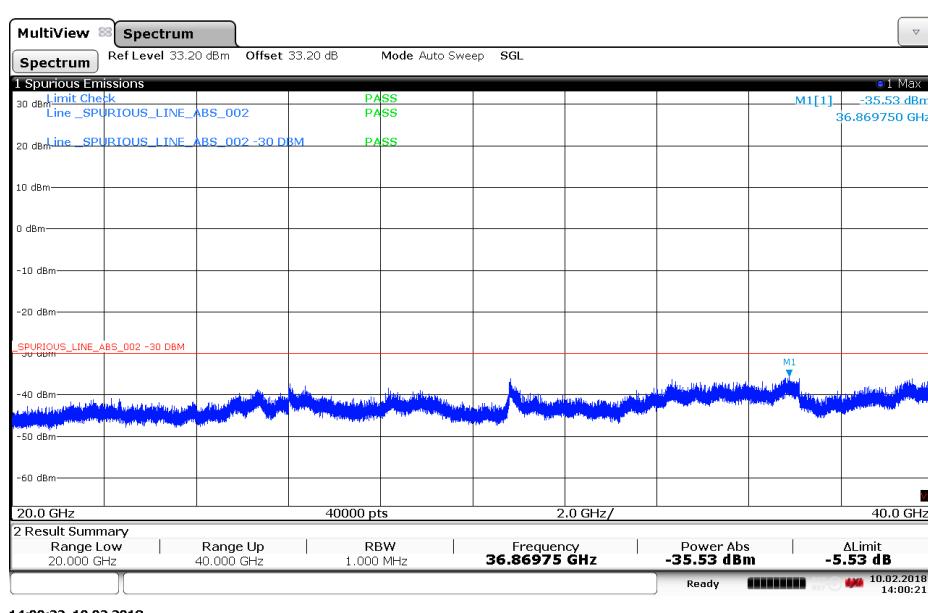
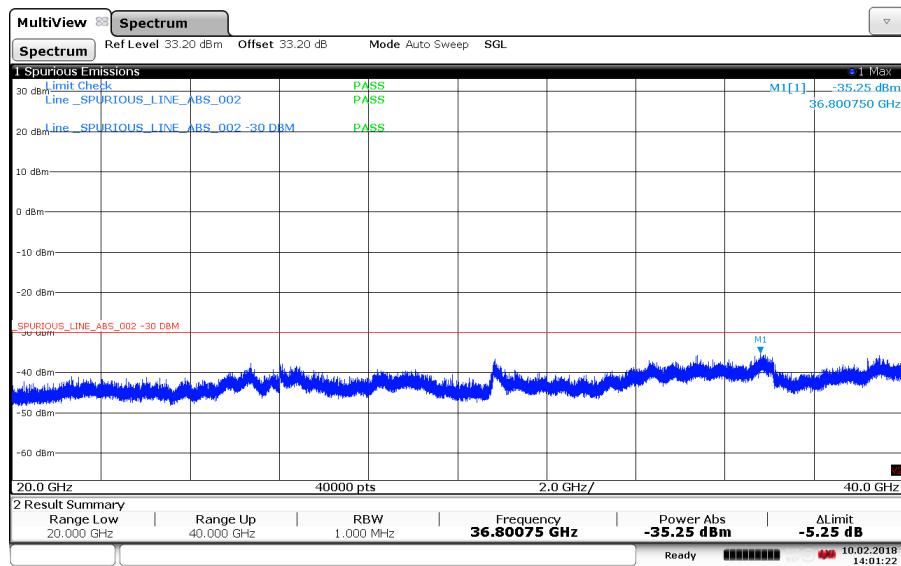
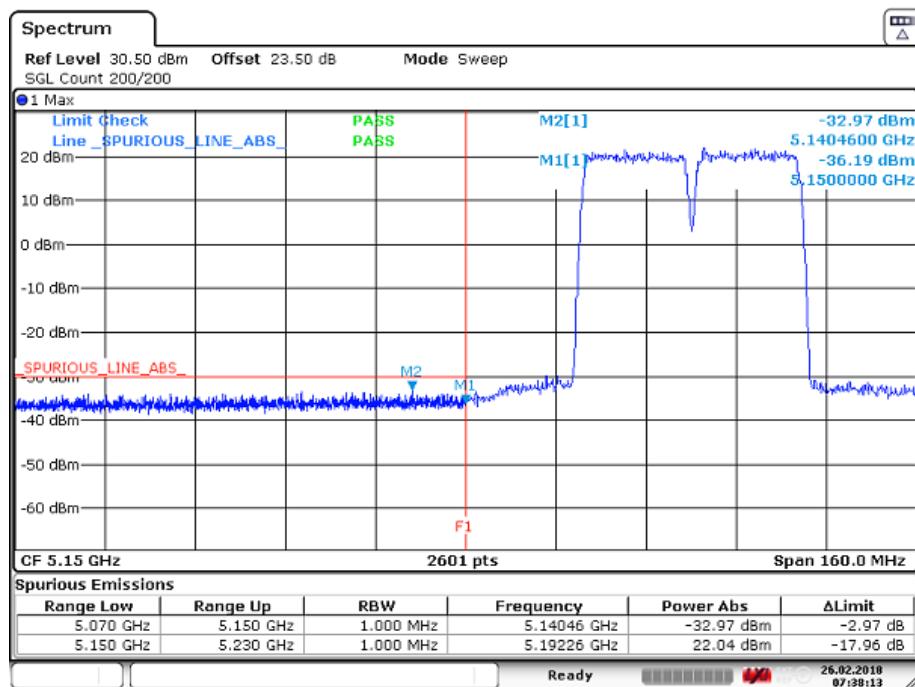


Figure 110 Spurious Emissions (20 GHz – 40 GHz) – 16QAM (5220.0 MHz) (20MHz Channel BW)



14:01:22 10.02.2018

Figure 111 Spurious Emissions (20 GHz – 40 GHz) – 256QAM (5220.0 MHz) (20MHz Channel BW)



Date: 26.FEB.2018 07:38:13

Figure 112 Spurious Emissions (Lower Band Edge) – QPSK (5180.0/ 5200.0 MHz) (2 X 20MHz Channel BW)

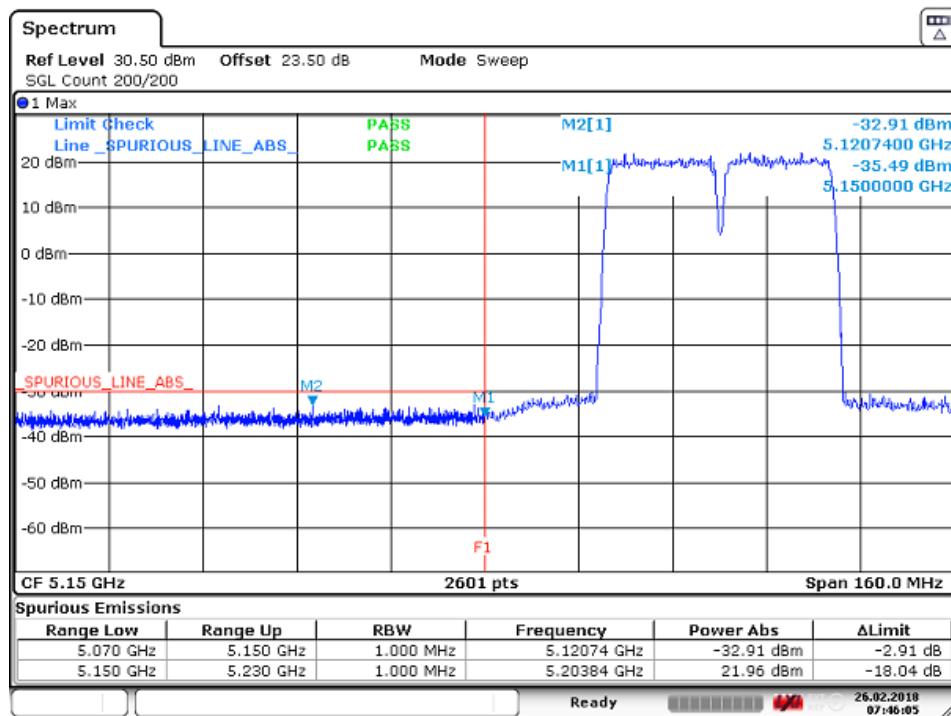


Figure 113 Spurious Emissions (Lower Band Edge) – 64QAM (5180.0/ 5200.0 MHz) (2 X 20MHz Channel BW)

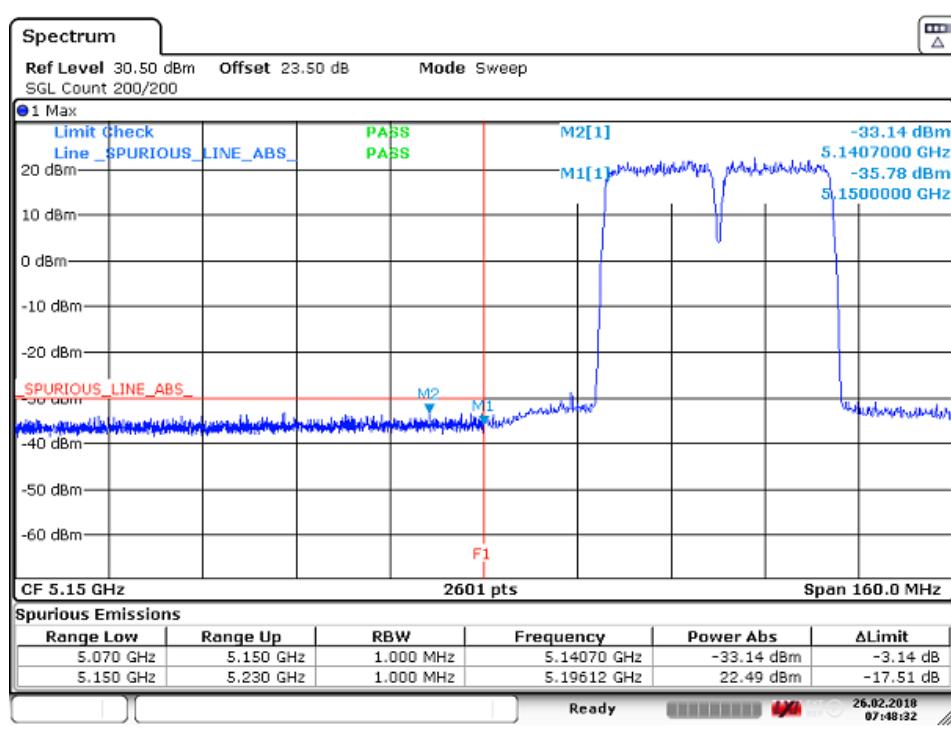


Figure 114 Spurious Emissions (Lower Band Edge) – 16QAM (5180.0/ 5200.0 MHz) (2 X 20MHz Channel BW)

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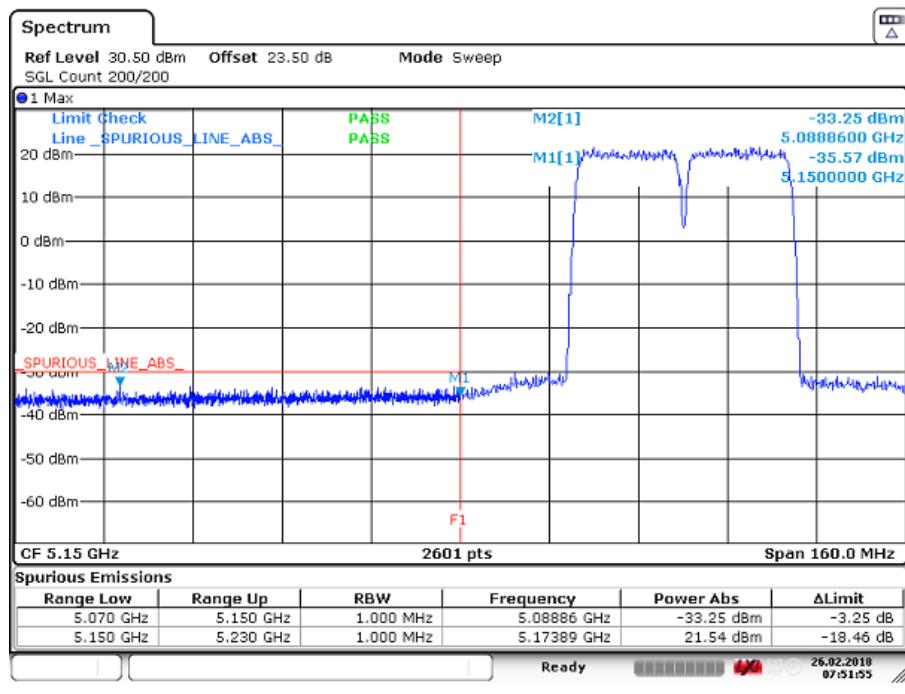


Figure 115 Spurious Emissions (Lower Band Edge) – 256QAM (5180.0/ 5200.0 MHz) (2 X 20MHz Channel BW)

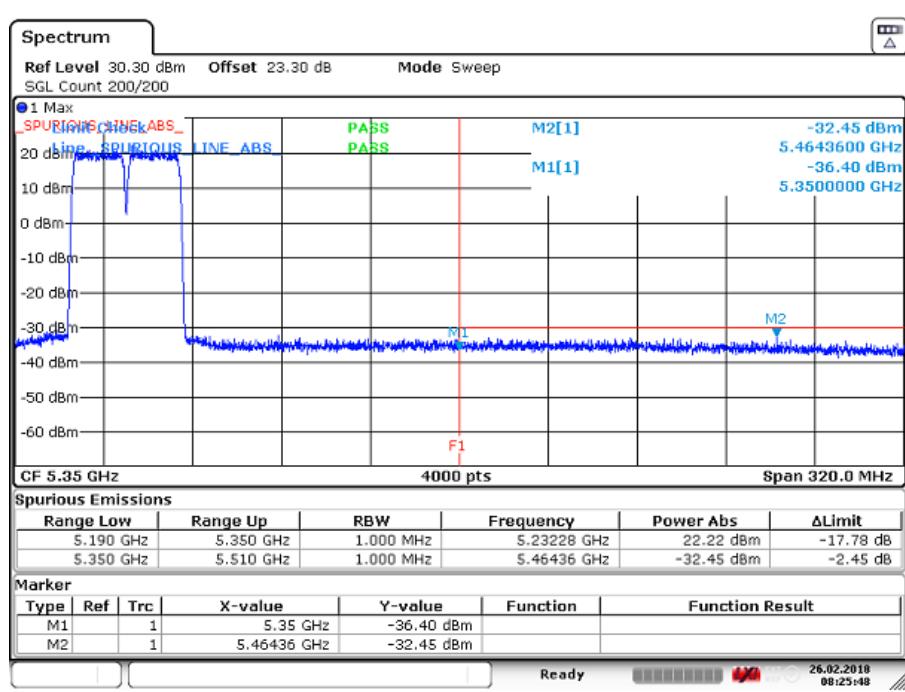


Figure 116 Spurious Emissions (Upper Band Edge) – QPSK (5220.0/ 5240.0 MHz) (2 X 20MHz Channel BW)

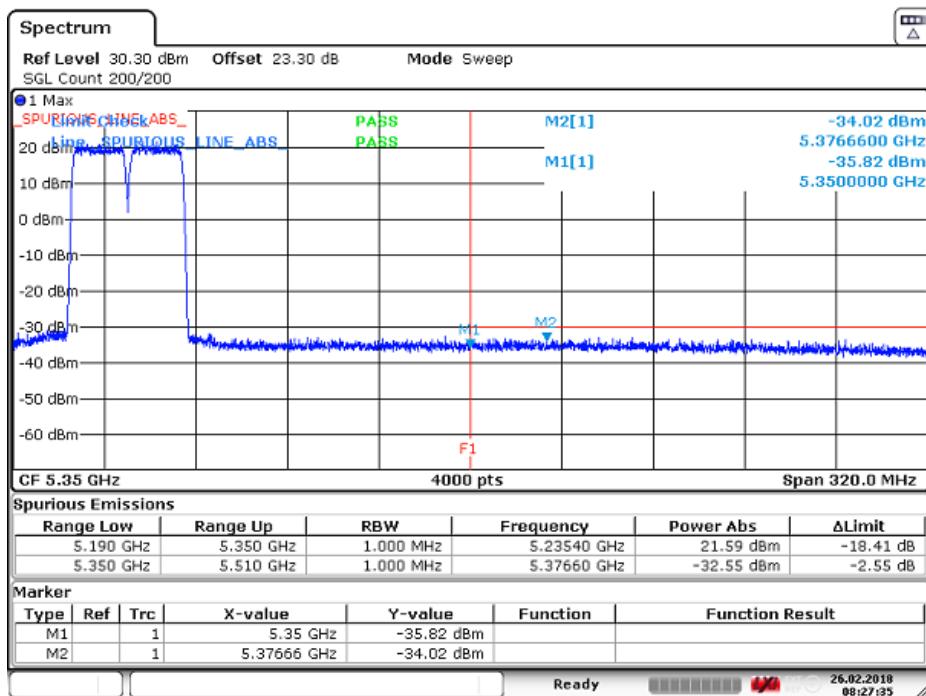


Figure 117 Spurious Emissions (Upper Band Edge) – 64QAM (5220.0/ 5240.0 MHz) (2 X 20MHz Channel BW)

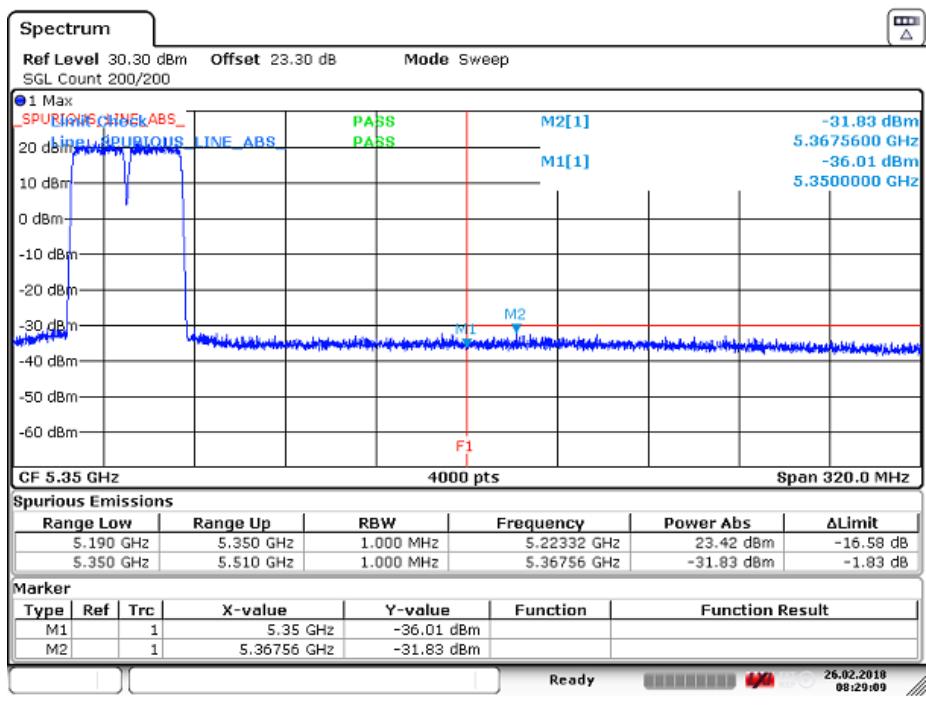


Figure 118 Spurious Emissions (Upper Band Edge) – 16QAM (5220.0/ 5240.0 MHz) (2 X 20MHz Channel BW)

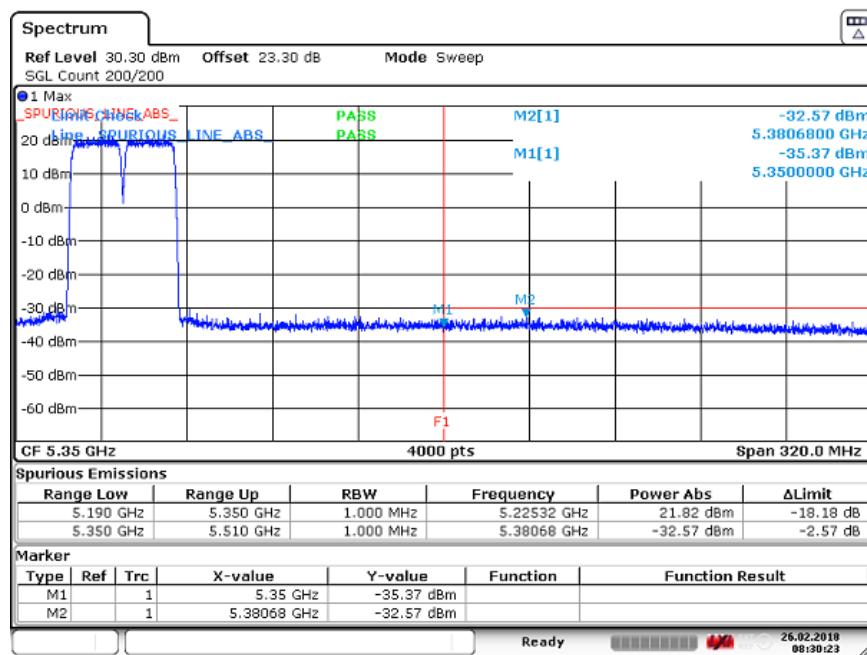


Figure 119 Spurious Emissions (Upper Band Edge) – 256QAM (5220.0/ 5240.0 MHz) (2 X 20MHz Channel BW)

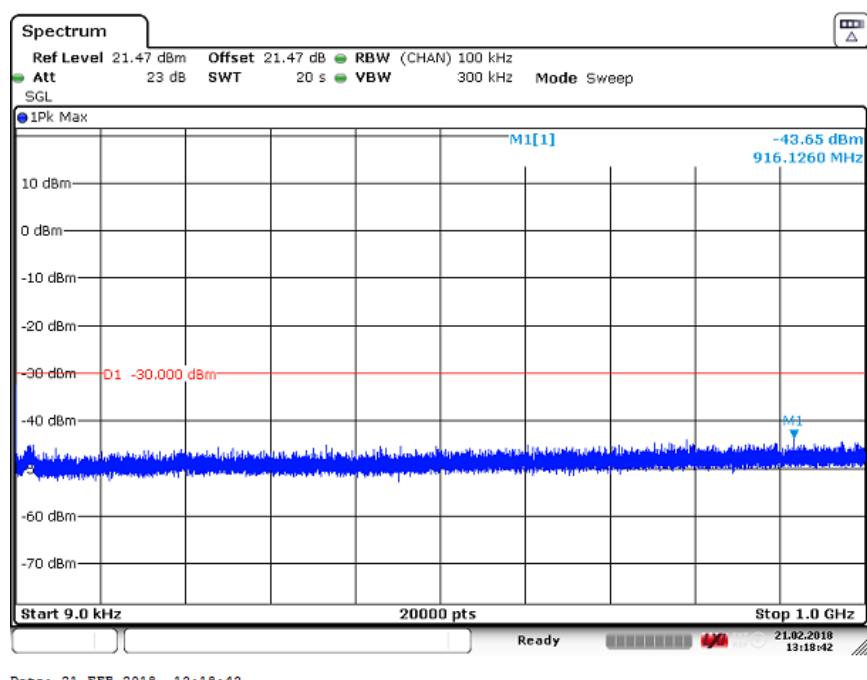


Figure 120 Spurious Emissions (9 kHz – 1 GHz) - QPSK (5200.0/ 5220.0 MHz) (2 X 20MHz Channel BW)

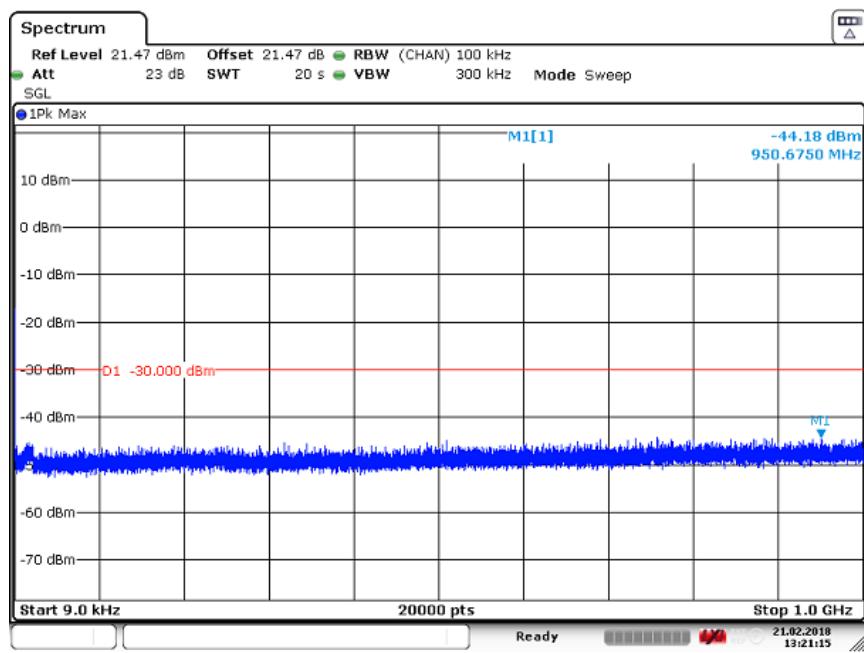


Figure 121 Spurious Emissions (9 kHz – 1 GHz) – 64QAM (5200.0/ 5220.0 MHz) (2 X 20MHz Channel BW)

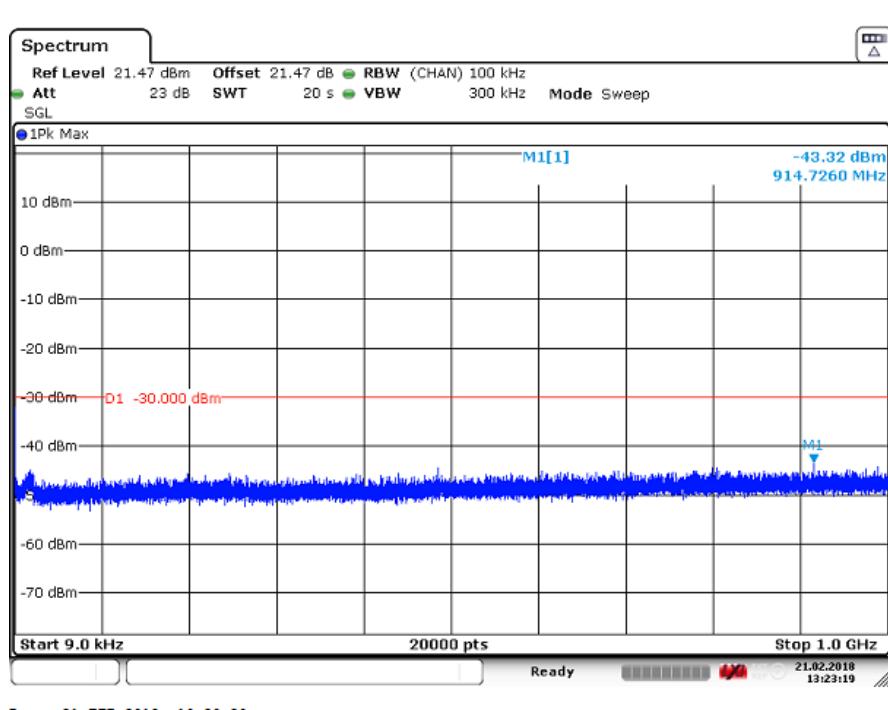


Figure 122 Spurious Emissions (9 kHz – 1 GHz) – 16QAM (5200.0/ 5220.0 MHz) (2 X 20MHz Channel BW)

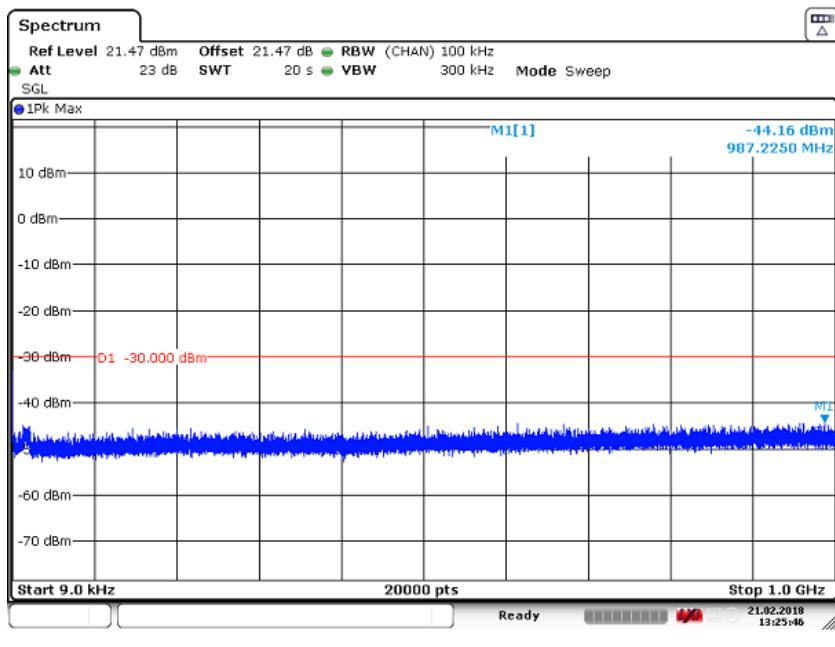


Figure 123 Spurious Emissions (9 kHz – 1 GHz) – 256QAM (5200.0/ 5220.0 MHz) (2 X 20MHz Channel BW)

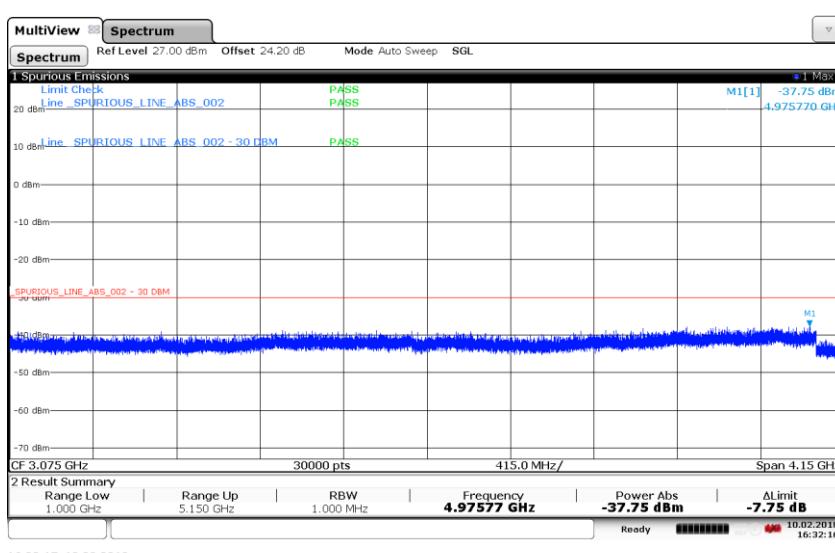


Figure 124 Spurious Emissions (1 GHz – 5.15 GHz) - QPSK (5200.0/ 5220.0 MHz) (2 X 20MHz Channel BW)

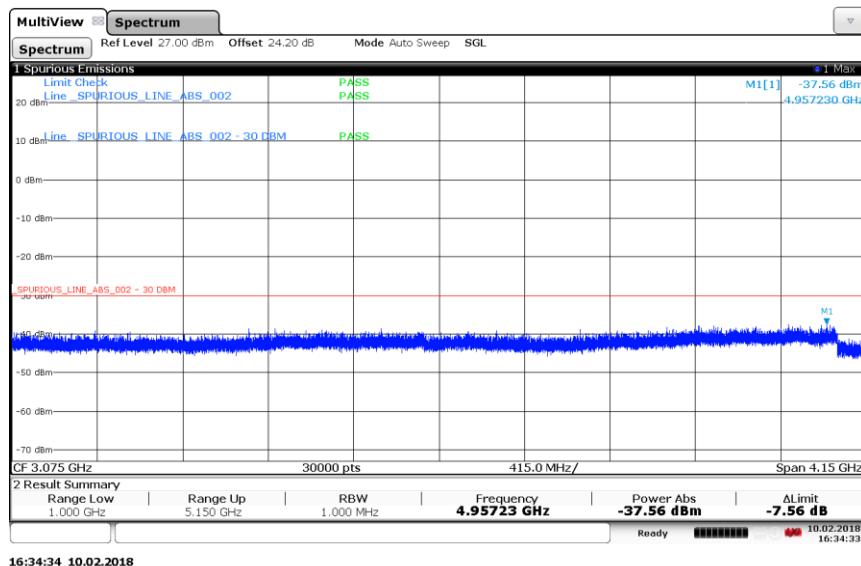


Figure 125 Spurious Emissions (1 GHz – 5.15 GHz) – 64QAM (5200.0/ 5220.0 MHz) (2 X 20MHz Channel BW)

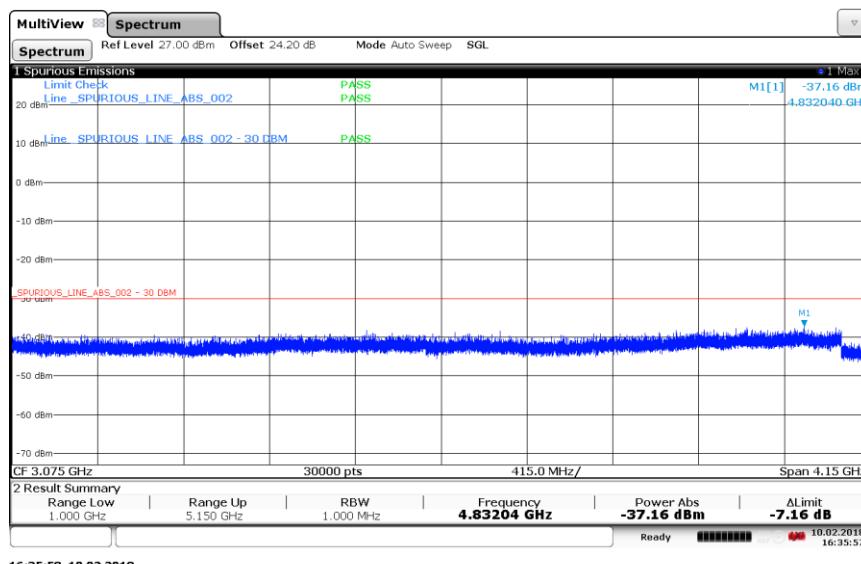


Figure 126 Spurious Emissions (1 GHz – 5.15 GHz) – 16QAM (5200.0/ 5220.0 MHz) (2 X 20MHz Channel BW)

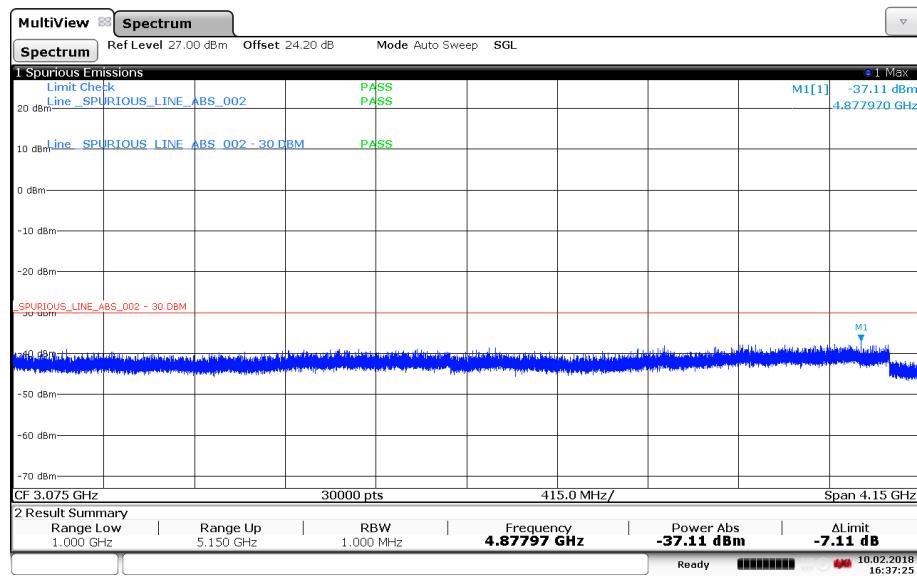


Figure 127 Spurious Emissions (1 GHz – 5.15 GHz) – 256QAM (5200.0/ 5220.0 MHz) (2 X 20MHz Channel BW)

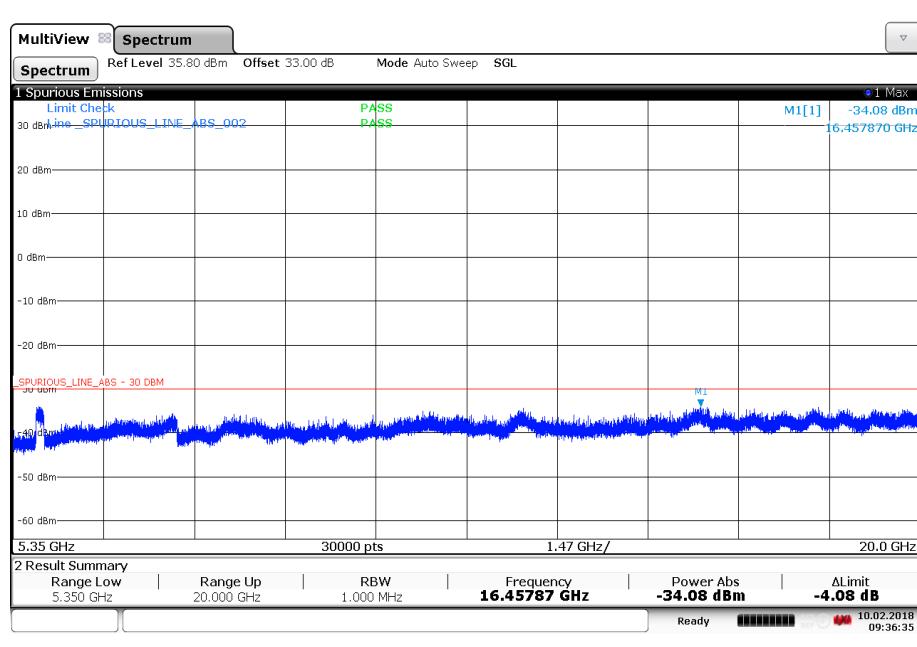
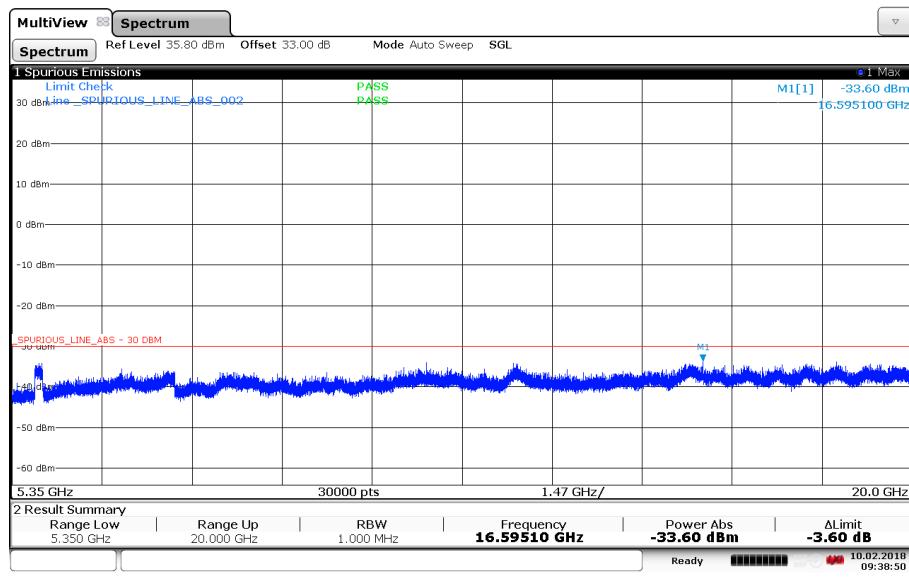
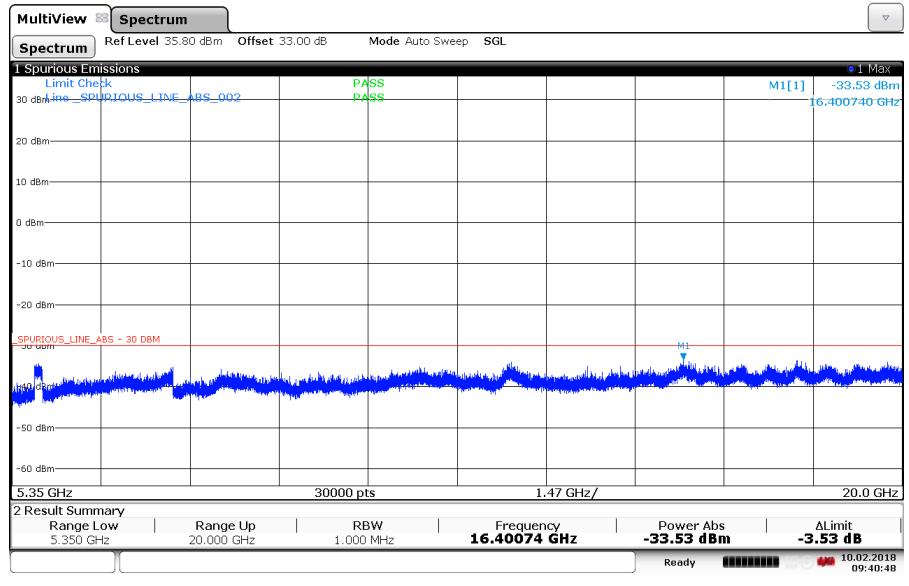


Figure 128 Spurious Emissions (5.35 – 20 GHz) - QPSK (5200.0/ 5220.0 MHz) (2 X 20MHz Channel BW)



09:38:50 10.02.2018

Figure 129 Spurious Emissions (5.35 – 20 GHz) – 64QAM (5200.0/ 5220.0 MHz) (2 X 20MHz Channel BW)



09:40:49 10.02.2018

Figure 130 Spurious Emissions (5.35 – 20 GHz) - 16QAM (5200.0/ 5220.0 MHz) (2 X 20MHz Channel BW)

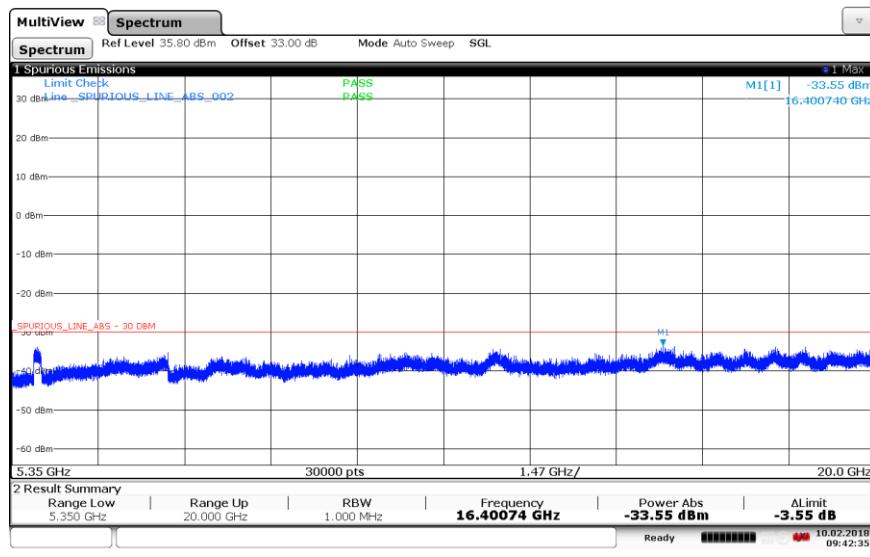


Figure 131 Spurious Emissions (5.15 – 20 GHz) – 256QAM (5200.0/ 5220.0 MHz) (2 X 20MHz Channel BW)

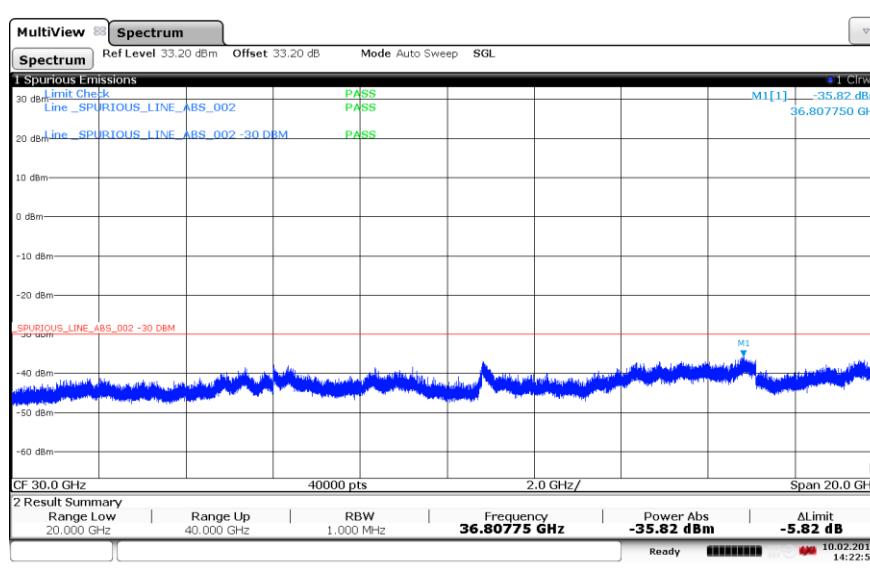


Figure 132 Spurious Emissions (20 GHz – 40 GHz) – QPSK (5200.0/ 5220.0 MHz) (2 X 20MHz Channel BW)

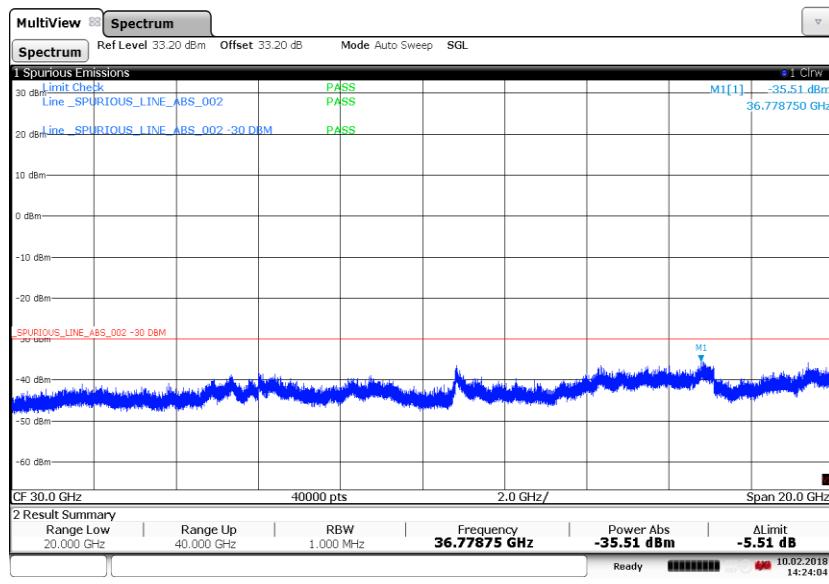


Figure 133 Spurious Emissions (20 GHz – 40 GHz) – 64QAM (5200.0/ 5220.0 MHz) (2 X 20MHz Channel BW)

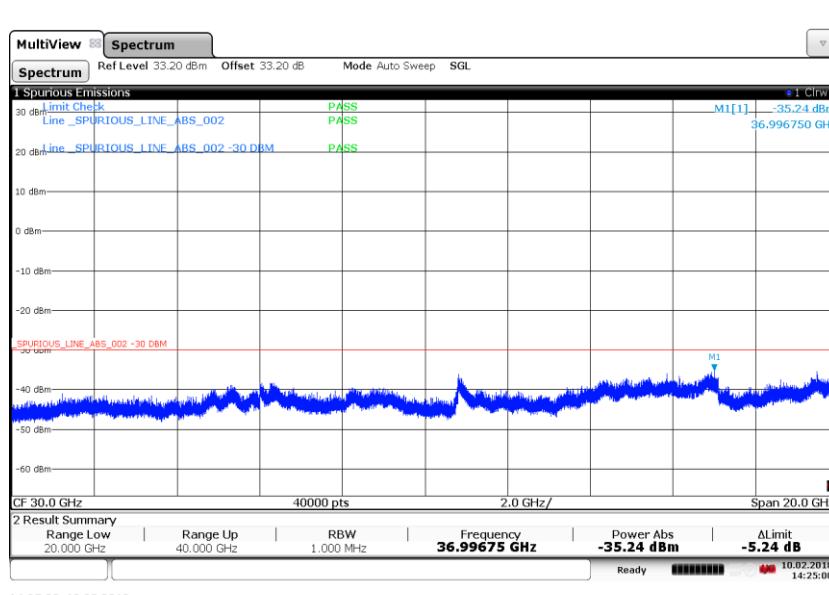
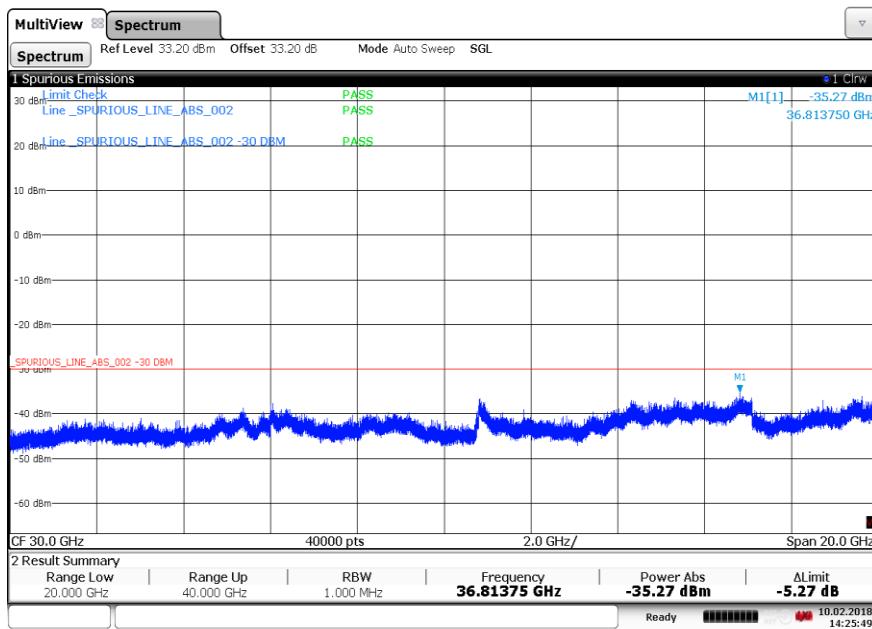
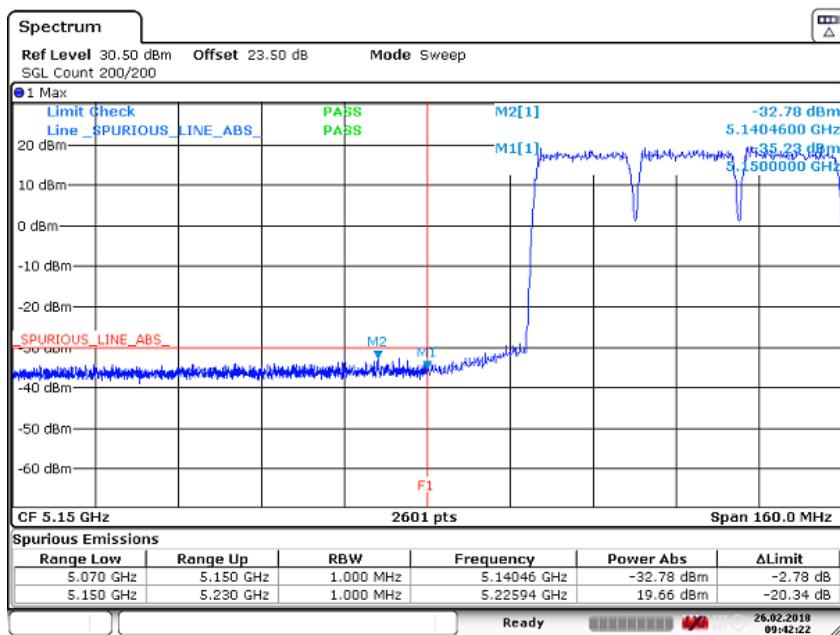


Figure 134 Spurious Emissions (20 GHz – 40 GHz) – 16QAM (5200.0/ 5220.0 MHz) (2 X 20MHz Channel BW)



14:25:50 10.02.2018

Figure 135 Spurious Emissions (20 GHz – 40 GHz) – 256QAM (5200.0/ 5220.0 MHz) (2 X 20MHz Channel BW)



Date: 26.FEB.2018 09:42:22

Figure 136 Spurious Emissions (Lower Band Edge) – QPSK (5180.0/ 5200.0/ 5220 MHz) (3 X 20MHz Channel BW)

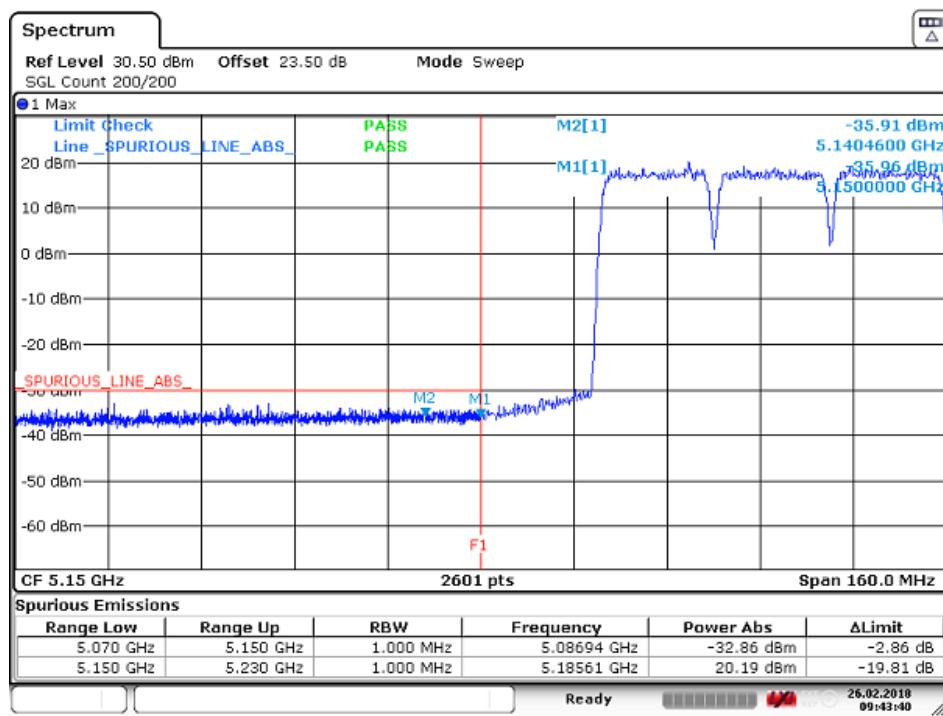


Figure 137 Spurious Emissions (Lower Band Edge) – 64QAM (5180.0/ 5200.0/ 5220 MHz) (3 X 20MHz Channel BW)

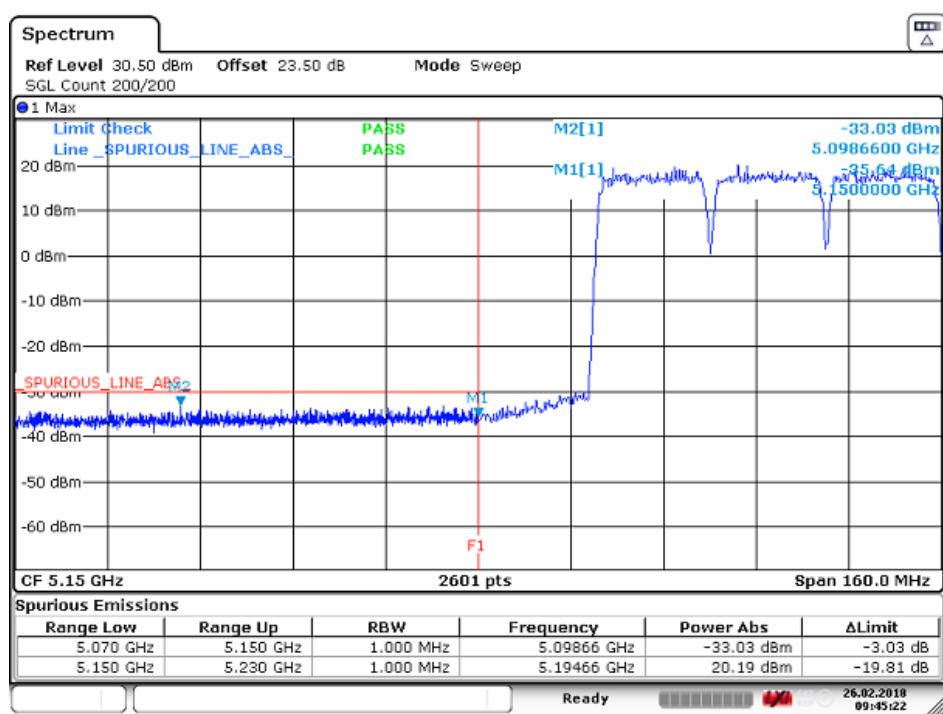


Figure 138 Spurious Emissions (Lower Band Edge) – 16QAM (5180.0/ 5200.0/ 5220 MHz) (3 X 20MHz Channel BW)

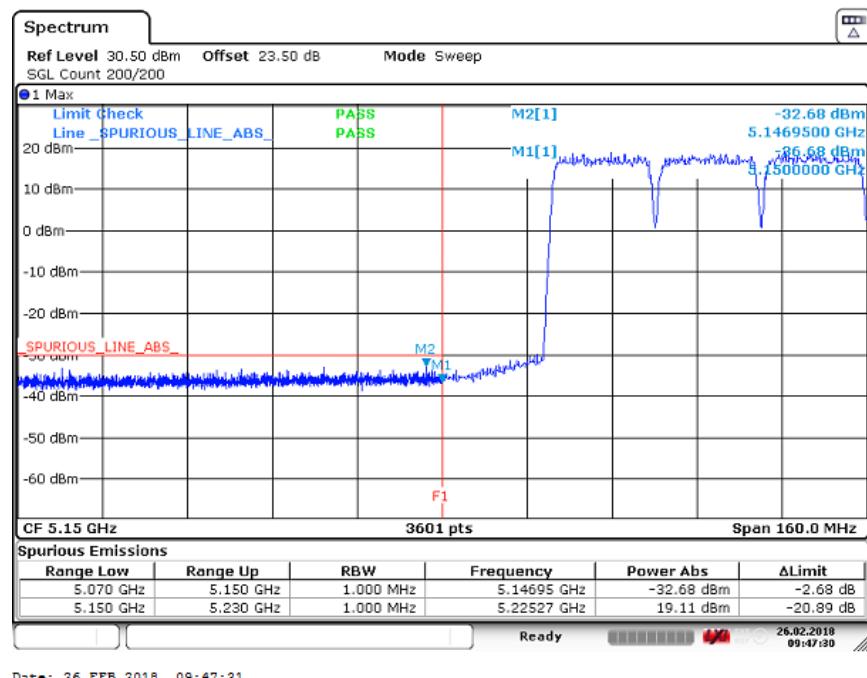


Figure 139 Spurious Emissions (Lower Band Edge) – 256QAM (5180.0/ 5200.0/ 5220 MHz) (3 X 20MHz Channel BW)

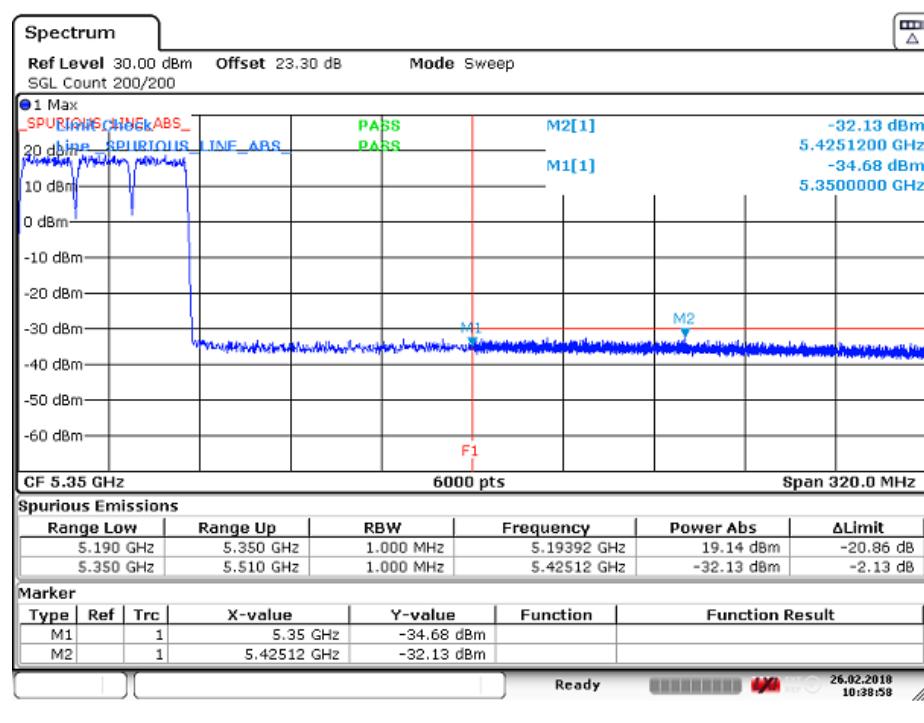


Figure 140 Spurious Emissions (Upper Band Edge) – QPSK (5200.0/ 5220.0/ 5240 MHz) (3 X 20MHz Channel BW)

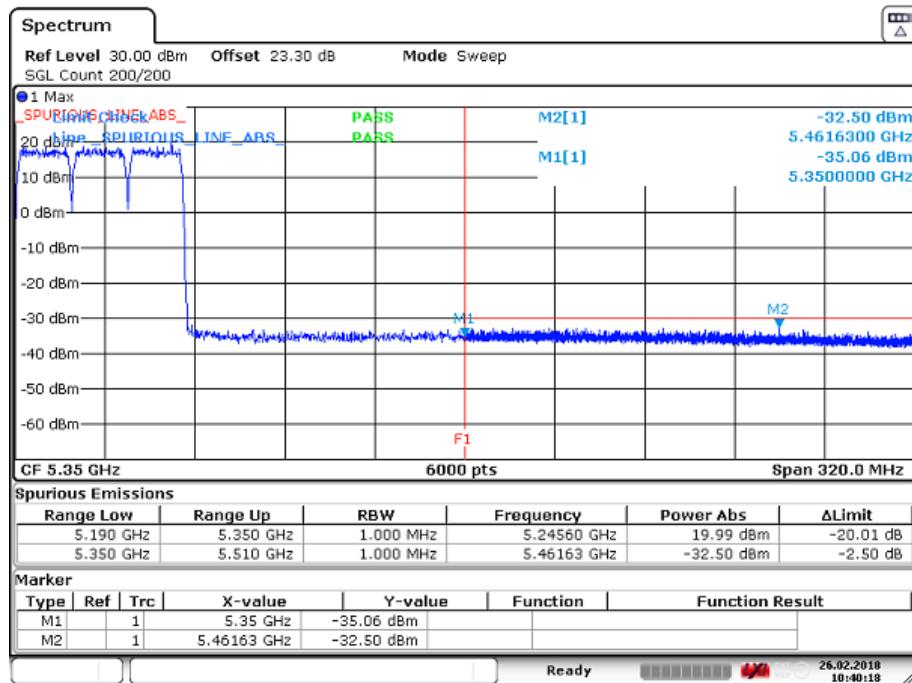


Figure 141 Spurious Emissions (Upper Band Edge) – 64QAM (5200.0/ 5220.0/ 5240 MHz) (3 X 20MHz Channel BW)

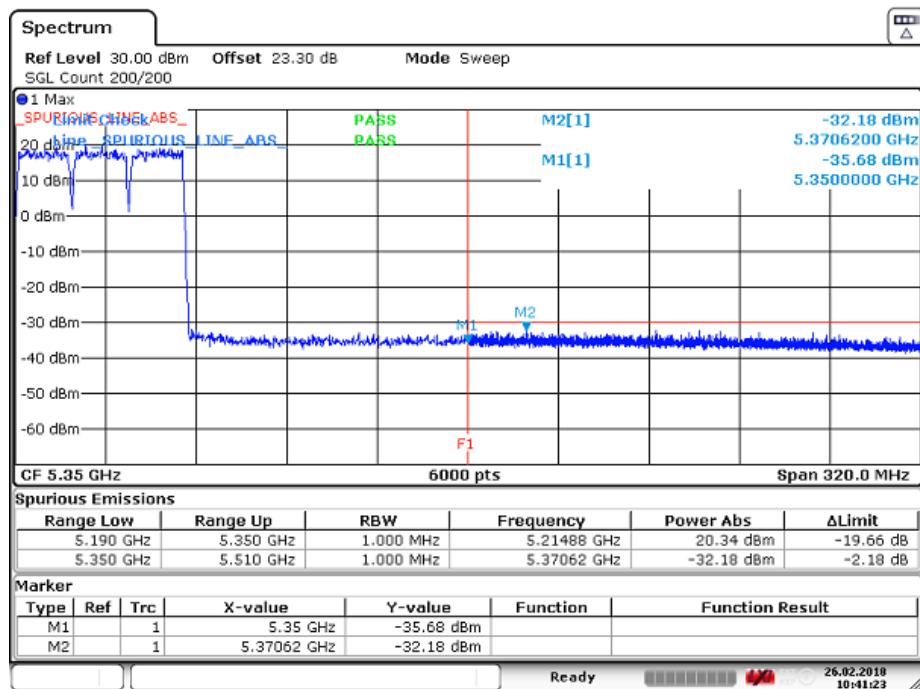


Figure 142 Spurious Emissions (Upper Band Edge) – 16QAM (5200.0/ 5220.0/ 5240 MHz) (3 X 20MHz Channel BW)

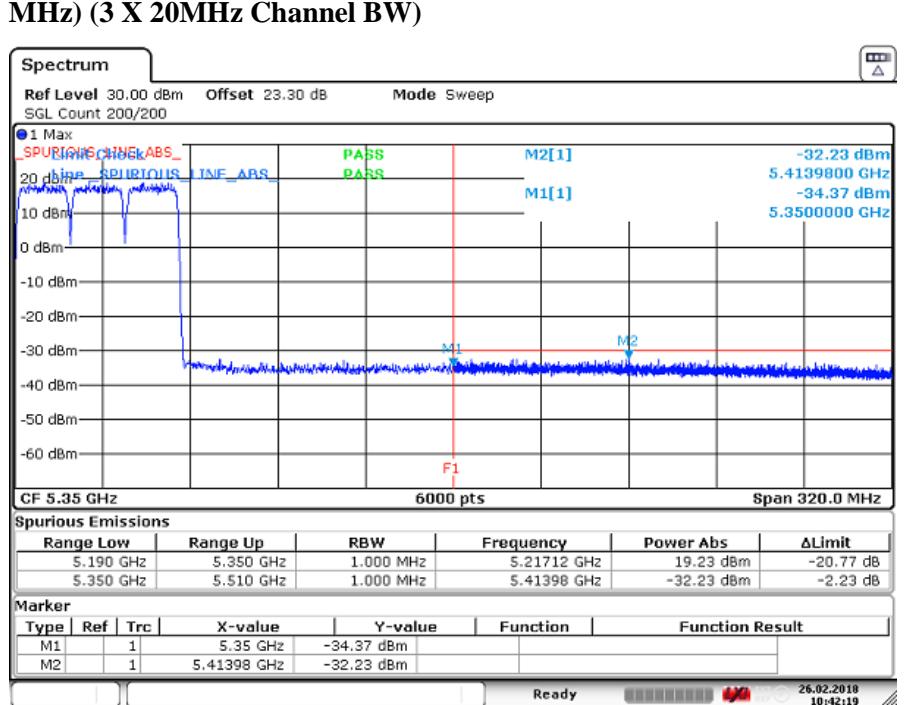
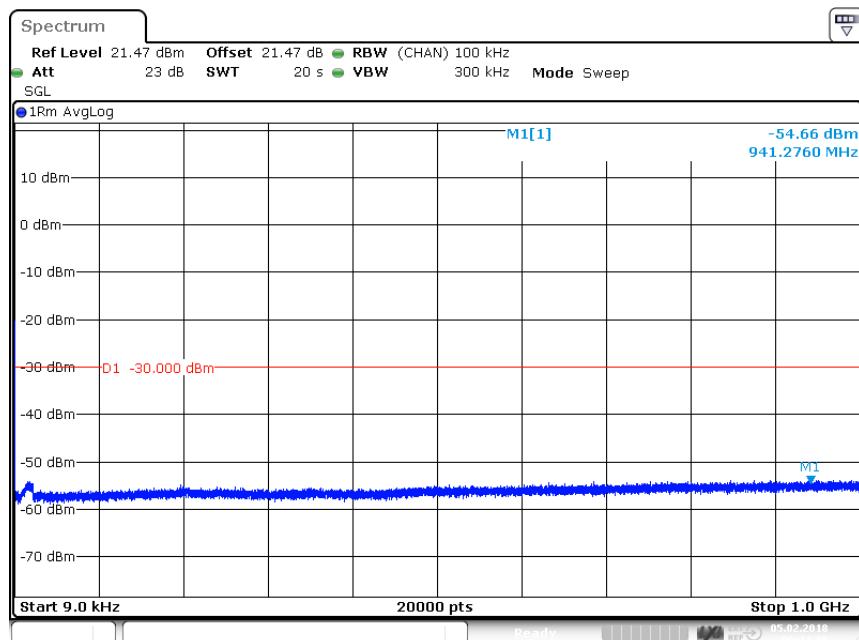
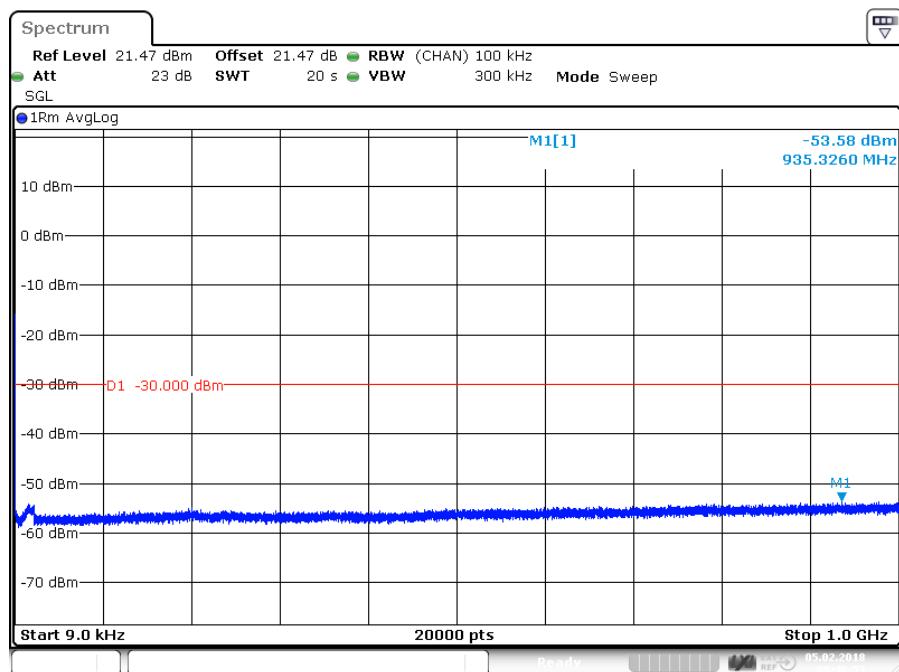


Figure 143 Spurious Emissions (Upper Band Edge) – 256QAM (5200.0/ 5220.0/ 5240 MHz) (3 X 20MHz Channel BW)



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Figure 144 Spurious Emissions (9 kHz – 1 GHz) – QPSK (5200.0/ 5200/ 5220 MHz) (3 X 20MHz Channel BW)



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Figure 145 Spurious Emissions (9 kHz – 1 GHz) – 64QAM (5200.0/ 5200/ 5220 MHz) (3 X 20MHz Channel BW)

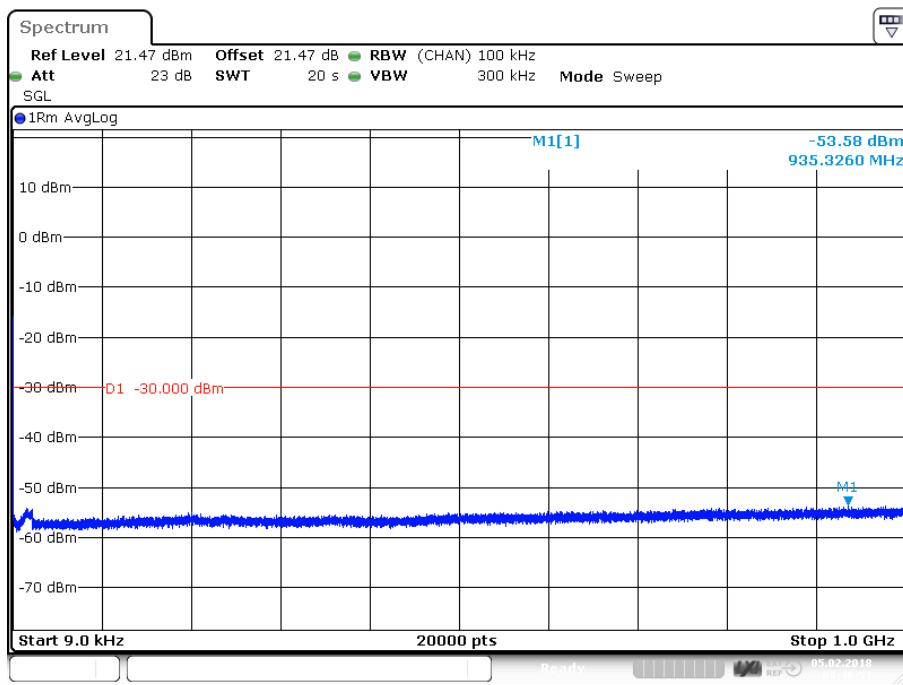


Figure 146 Spurious Emissions (9 kHz – 1 GHz) – 16QAM (5200.0/ 5200/ 5220 MHz) (3 X 20MHz Channel BW)

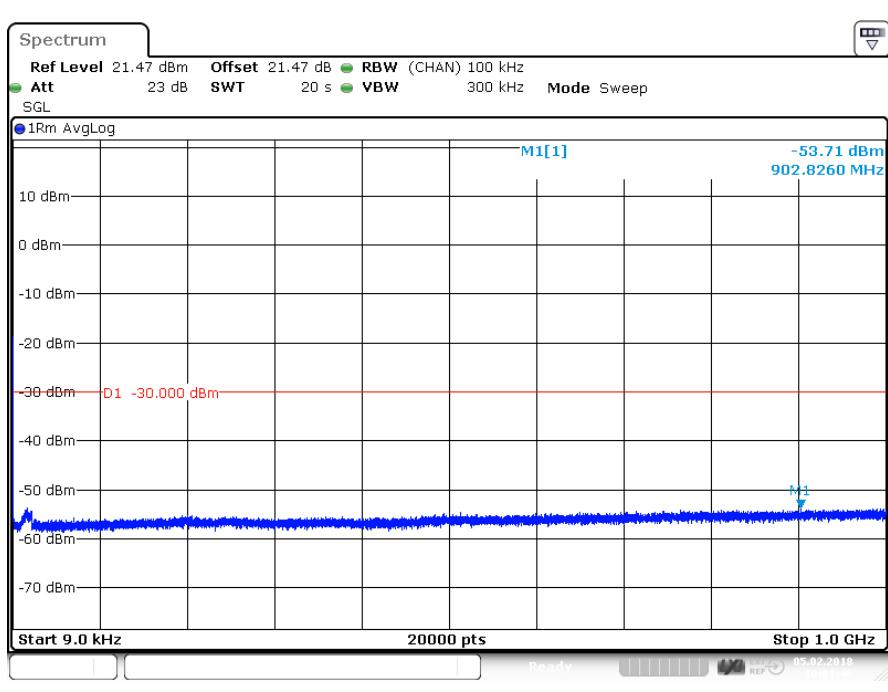


Figure 147 Spurious Emissions (9 kHz – 1 GHz) – 256QAM (5200.0/ 5200/ 5220 MHz) (3 X 20MHz Channel BW)

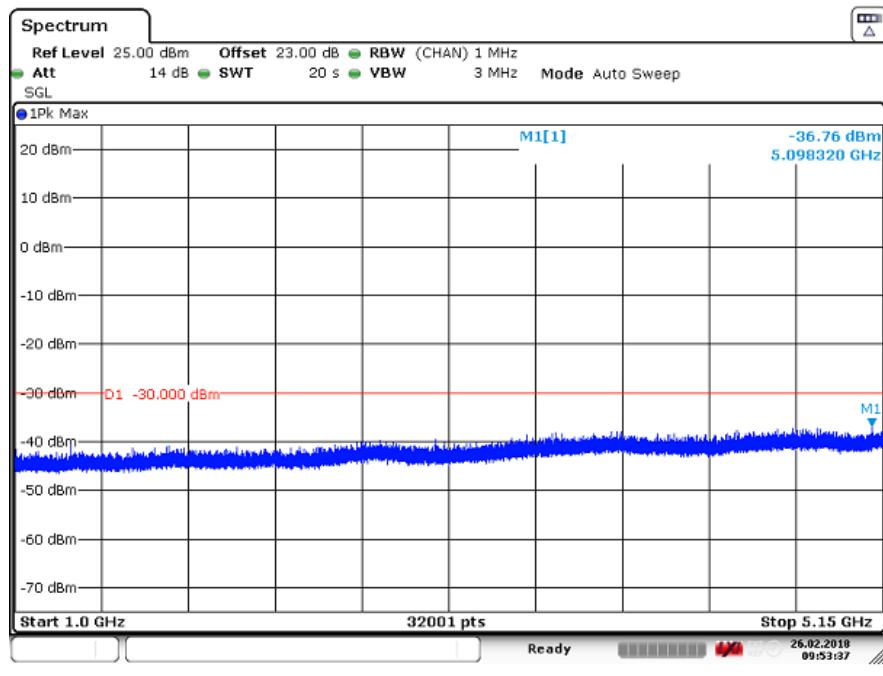


Figure 148 Spurious Emissions (1 GHz – 5.15 GHz) – QPSK (5200.0/ 5200/ 5220 MHz) (3 X 20MHz Channel BW)

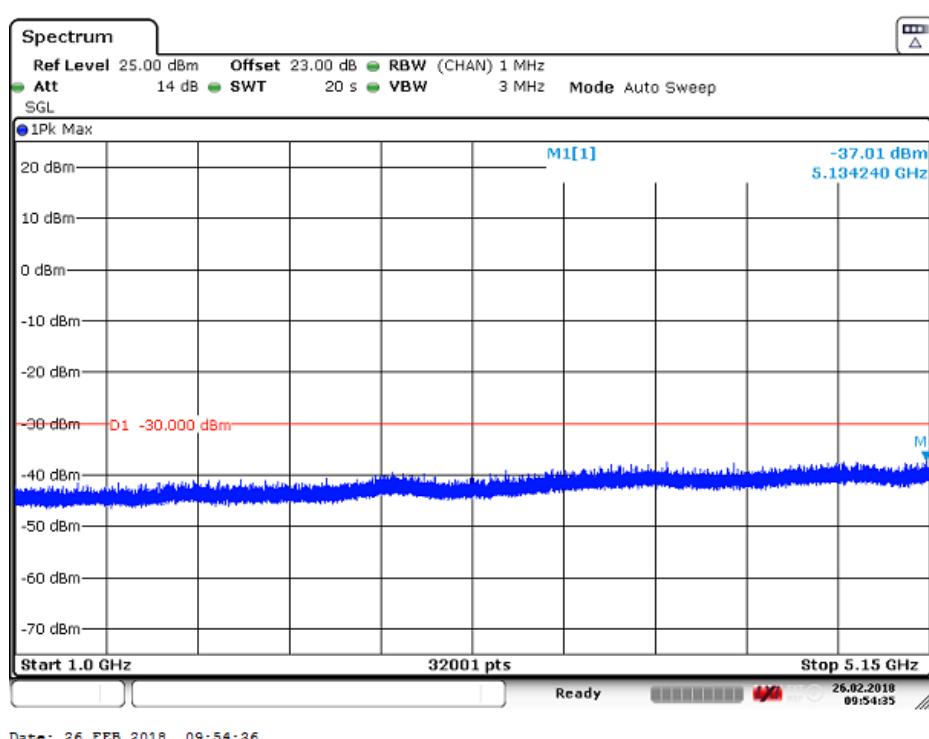


Figure 149 Spurious Emissions (1 GHz – 5.15 GHz) – 64QAM (5200.0/ 5200/ 5220 MHz) (3 X 20MHz Channel BW)

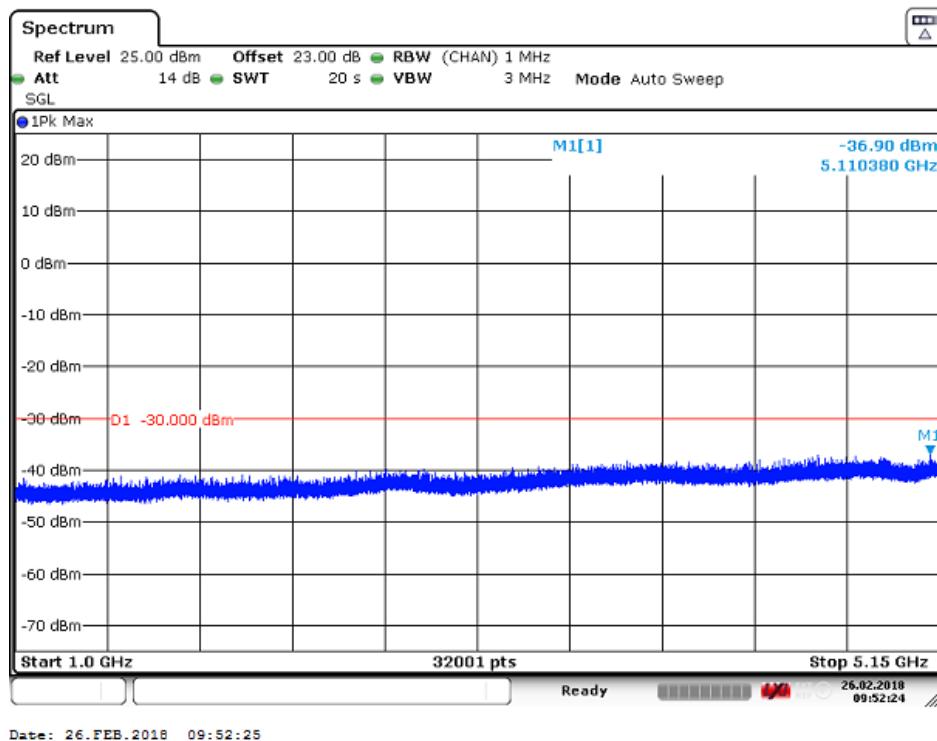


Figure 150 Spurious Emissions (1 GHz – 5.15 GHz) – 16QAM (5200.0/ 5200/ 5220 MHz) (3 X 20MHz Channel BW)

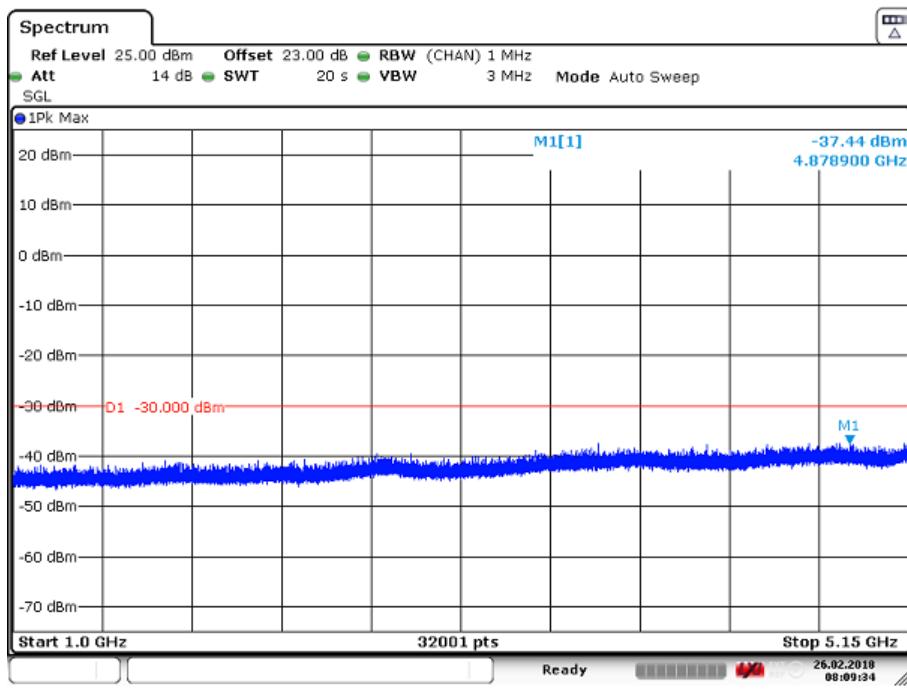


Figure 151 Spurious Emissions (1 GHz – 5.15 GHz) – 256QAM (5200.0/ 5200/ 5220 MHz) (3 X 20MHz Channel BW)

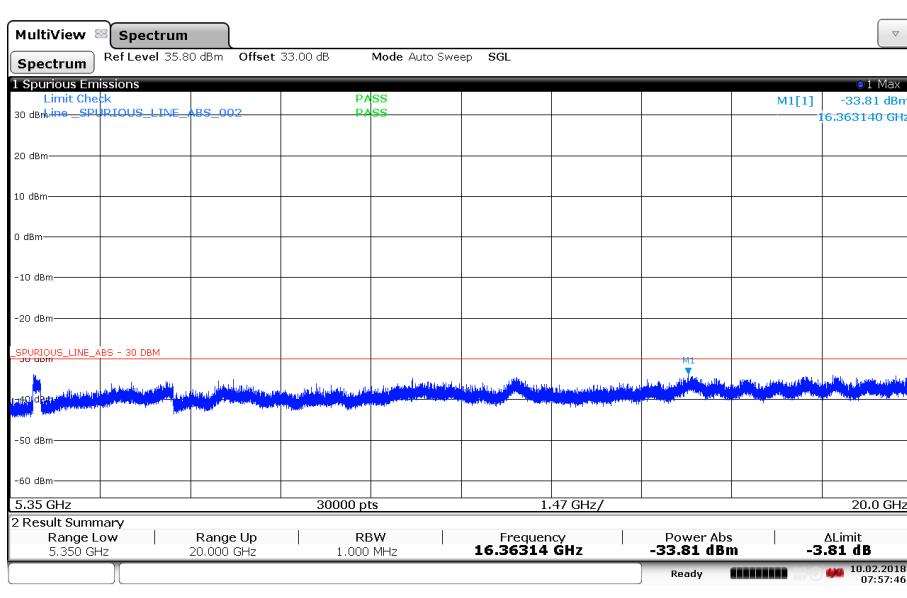


Figure 152 Spurious Emissions (5.35 GHz – 20 GHz) – QPSK (5200.0/ 5200/ 5220 MHz) (3 X 20MHz Channel BW)

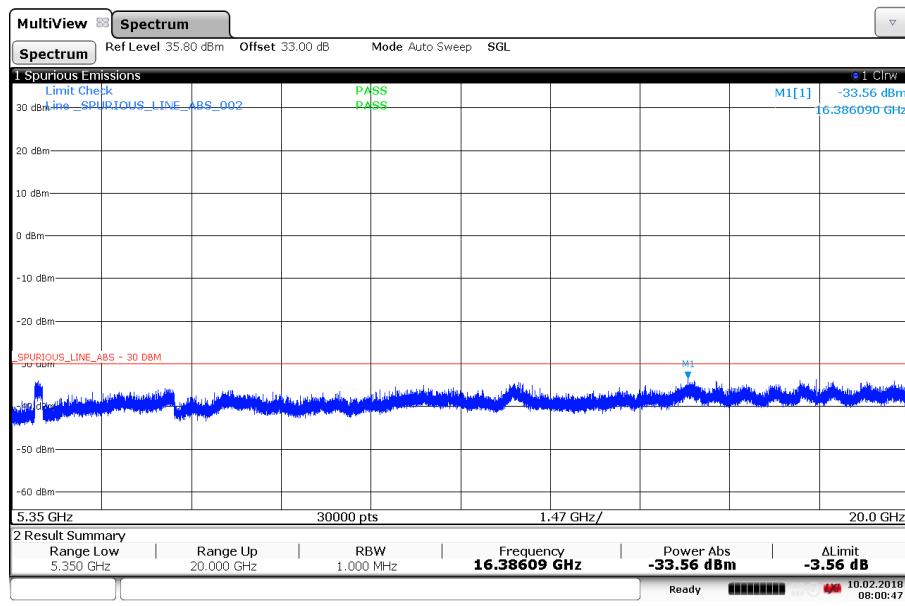


Figure 153 Spurious Emissions (5.35 GHz – 20 GHz) – 64QAM (5200.0/ 5200/ 5220 MHz) (3 X 20MHz Channel BW)

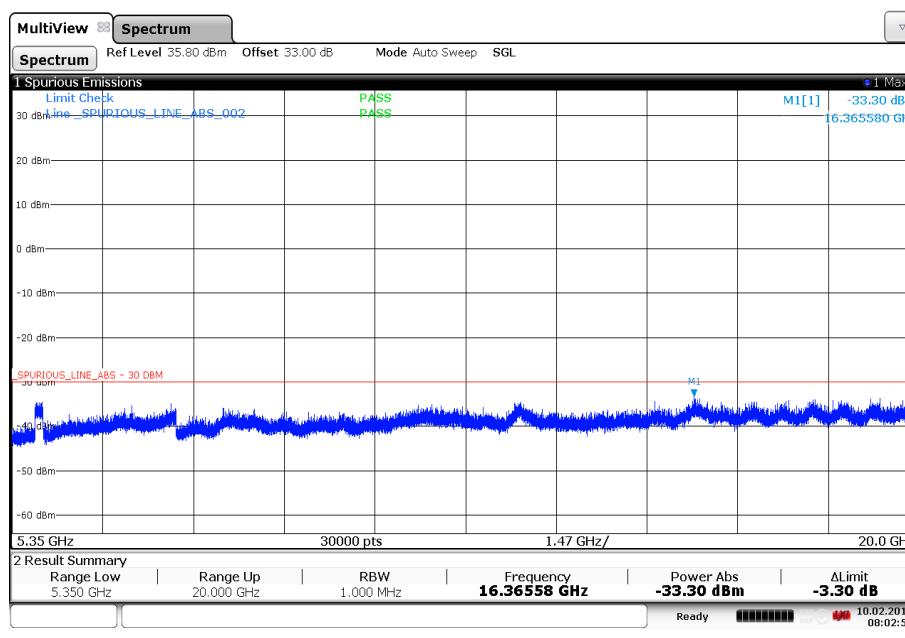


Figure 154 Spurious Emissions (5.35 GHz – 20 GHz) – 16QAM (5200.0/ 5200/ 5220 MHz) (3 X 20MHz Channel BW)

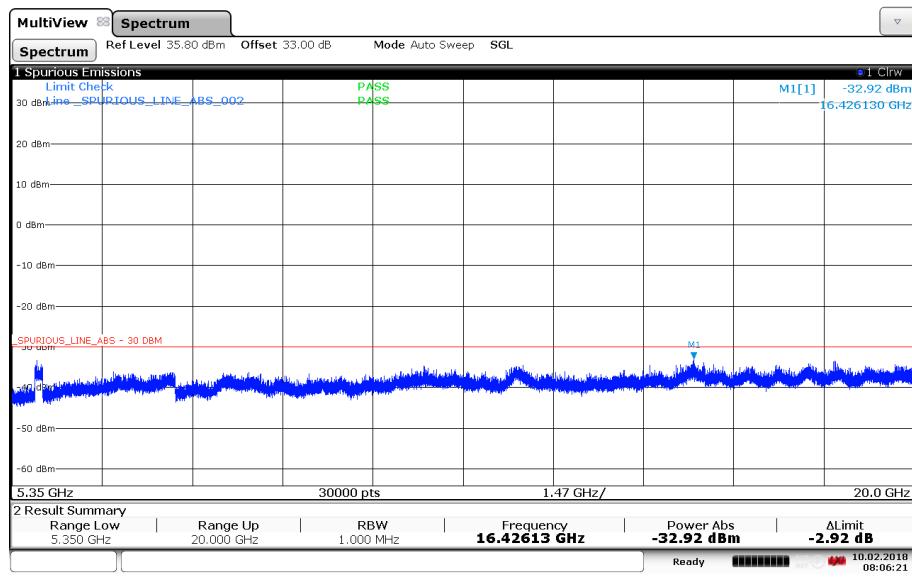


Figure 155 Spurious Emissions (5.35 GHz – 20 GHz) – 256QAM (5200.0/ 5200/ 5220 MHz) (3 X 20MHz Channel BW)

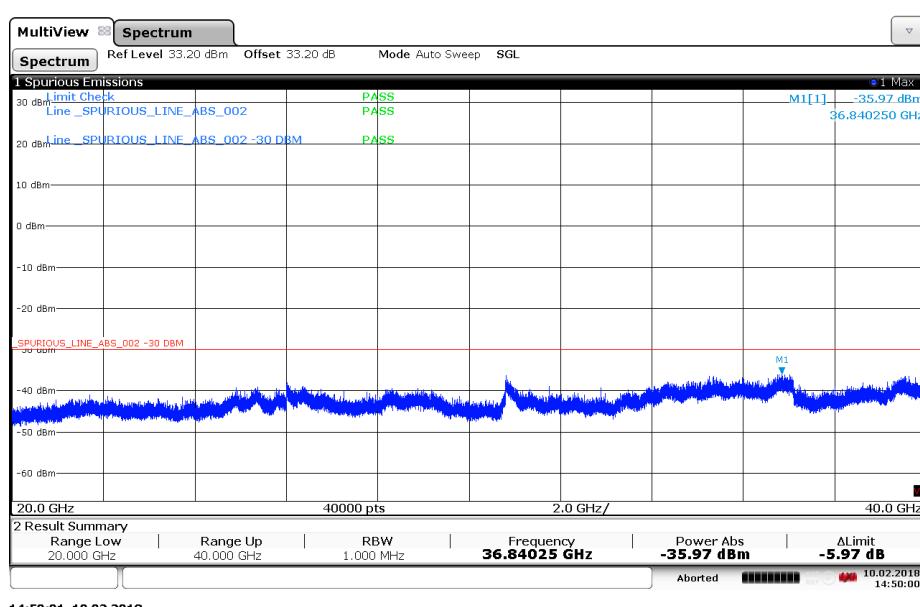


Figure 156 Spurious Emissions (20 GHz – 40 GHz) – QPSK (5200.0/ 5200/ 5220 MHz) (3 X 20MHz Channel BW)

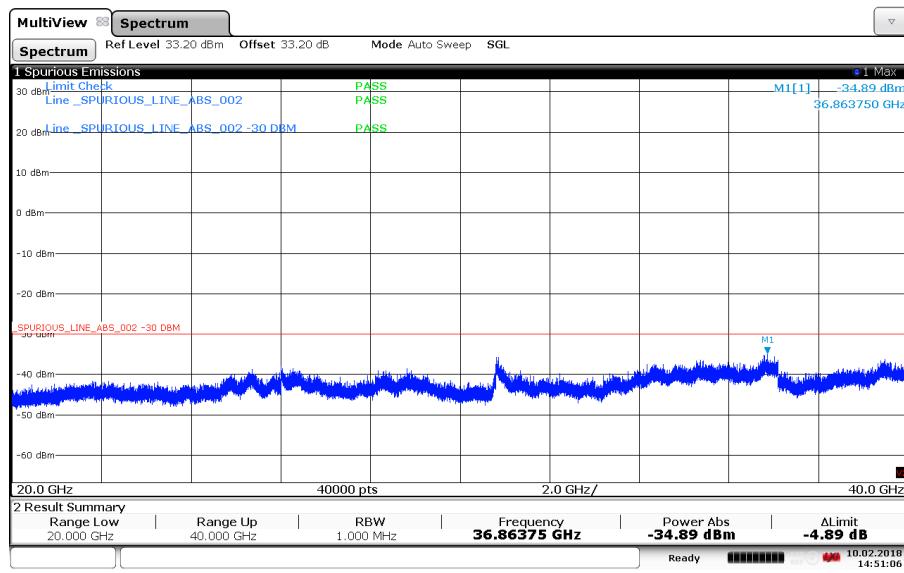


Figure 157 Spurious Emissions (20 GHz – 40 GHz) – 64QAM (5200.0/ 5200/ 5220 MHz) (3 X 20MHz Channel BW)

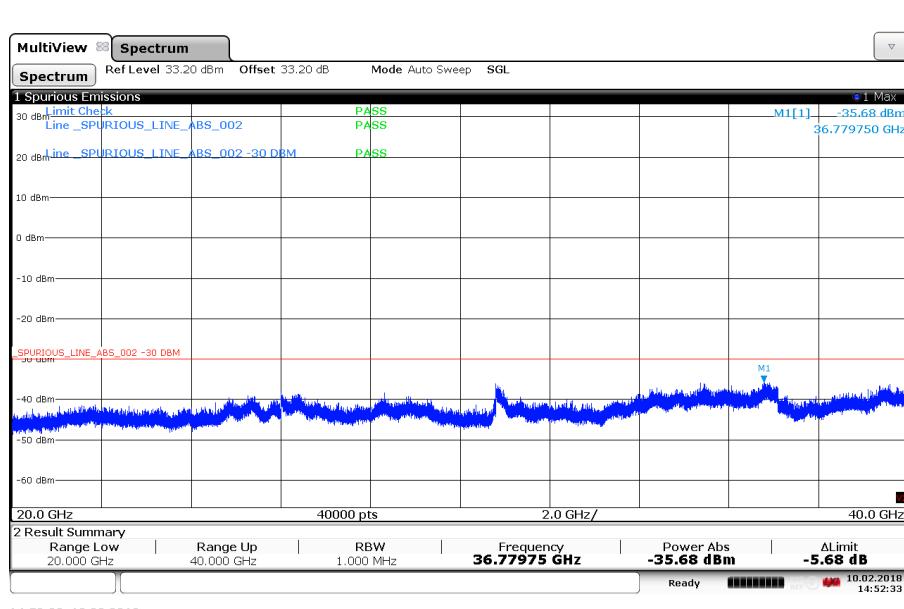


Figure 158 Spurious Emissions (20 GHz – 40 GHz) – 16QAM (5200.0/ 5200/ 5220 MHz) (3 X 20MHz Channel BW)

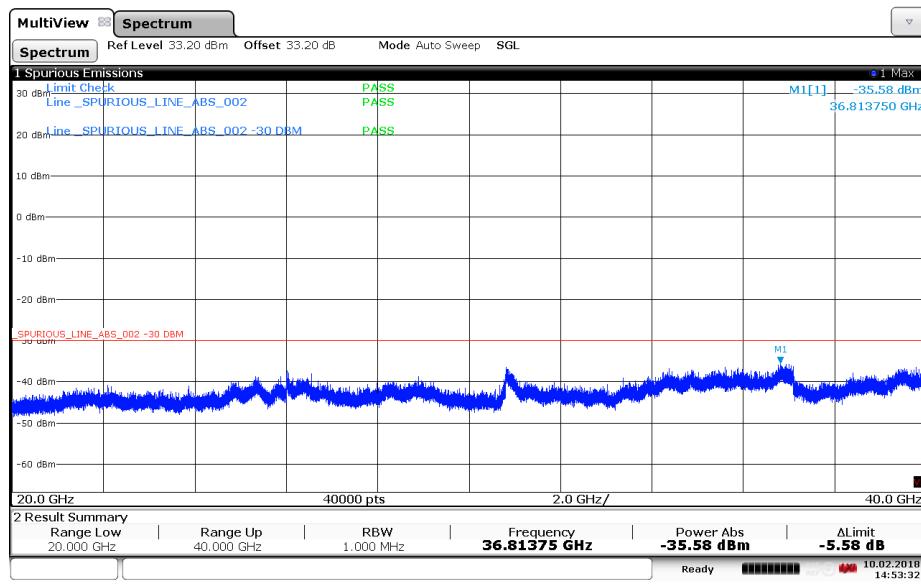
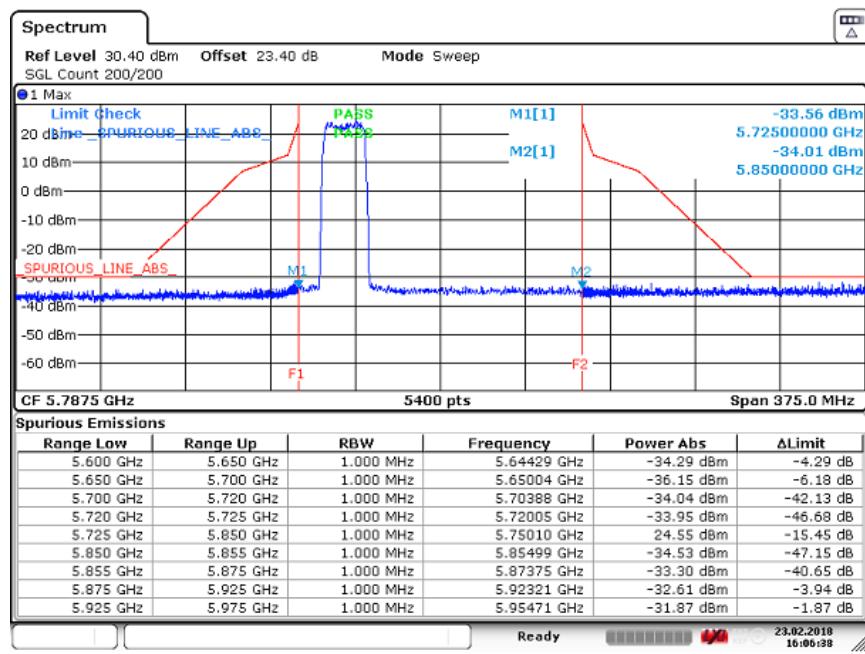


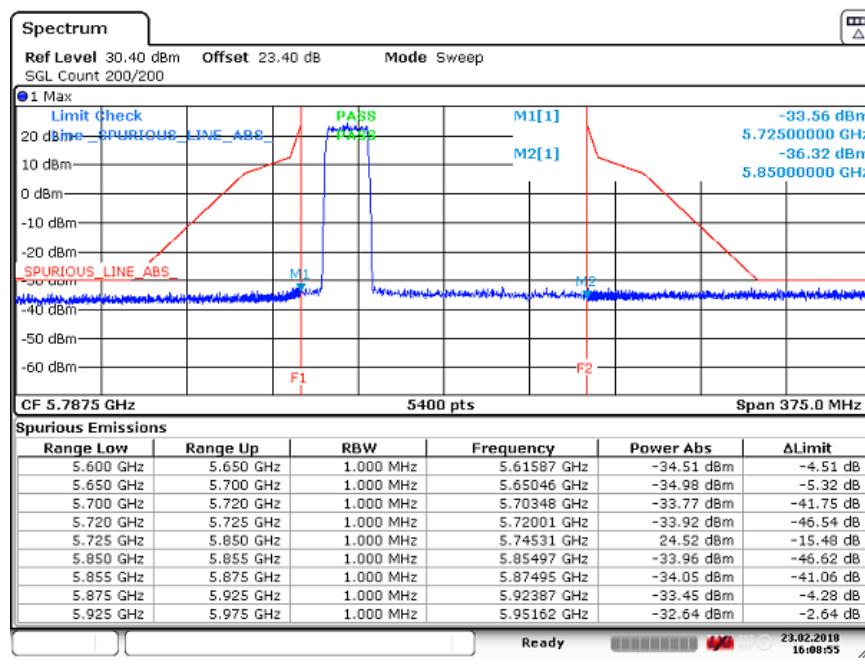
Figure 159 Spurious Emissions (20 GHz – 40 GHz) – 256QAM (5200.0/ 5200/ 5220 MHz) (3 X 20MHz Channel BW)

Config A ANT1 (UNII-3):



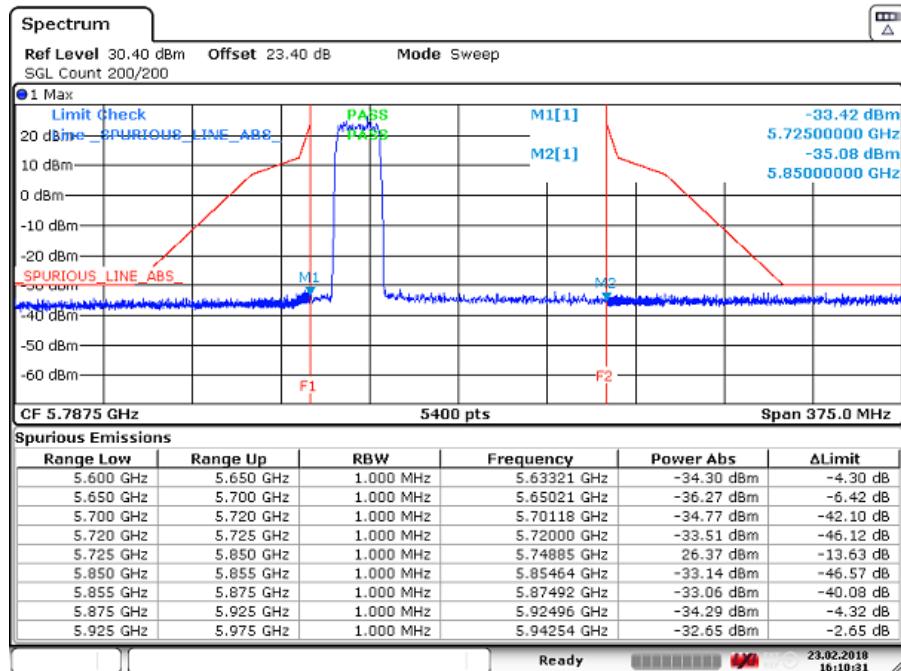
Date: 23.FEB.2018 16:06:38

Figure 160 Spurious Emissions (Lower Band Edge) – QPSK (5745.0 MHz) (20MHz Channel BW)



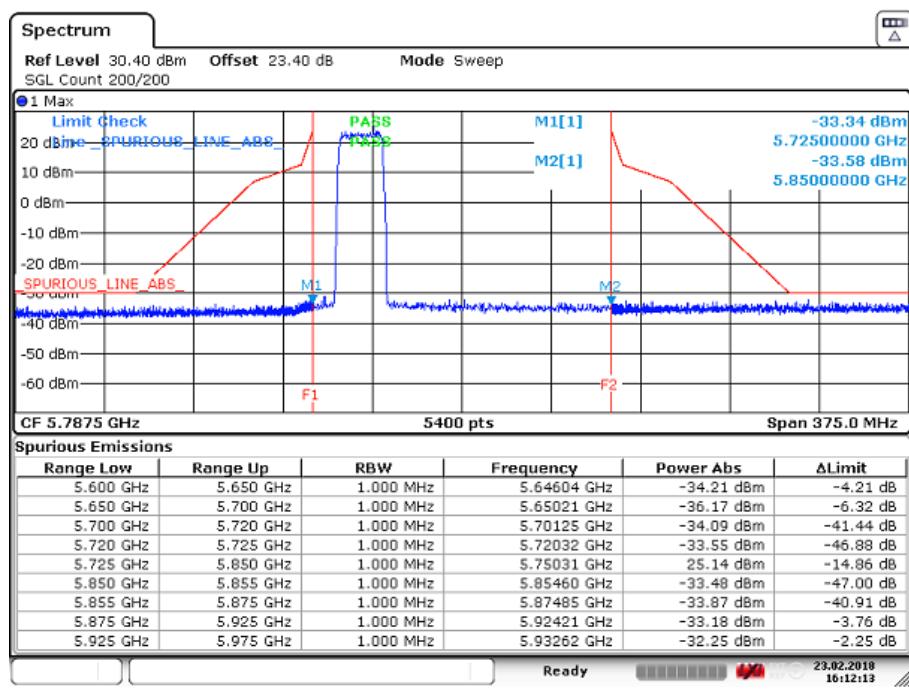
Date: 23.FEB.2018 16:08:56

Figure 161 Spurious Emissions (Lower Band Edge) – 64QAM (5745.0 MHz) (20MHz Channel BW)



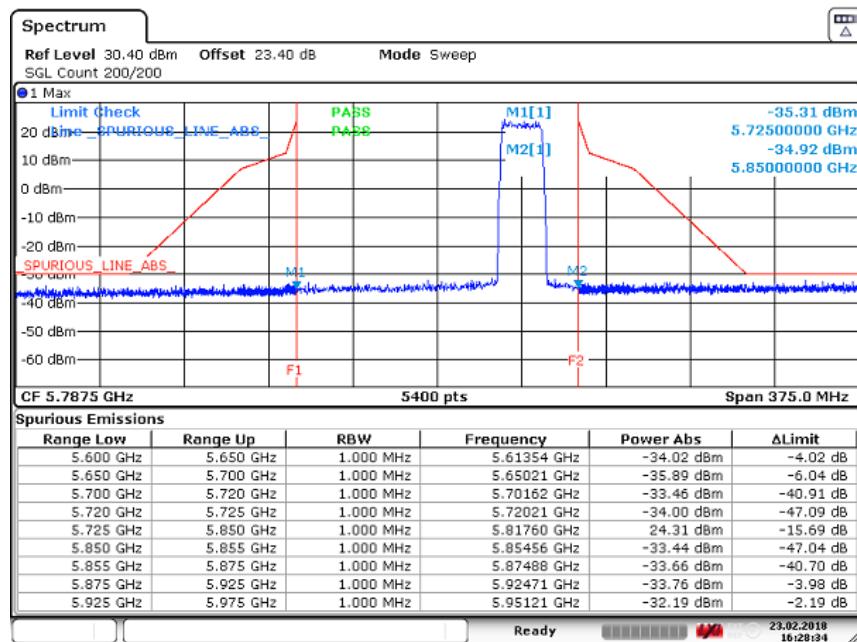
Date: 23.FEB.2018 16:10:31

Figure 162 Spurious Emissions (Lower Band Edge) – 16QAM (5745.0 MHz) (20MHz Channel BW)



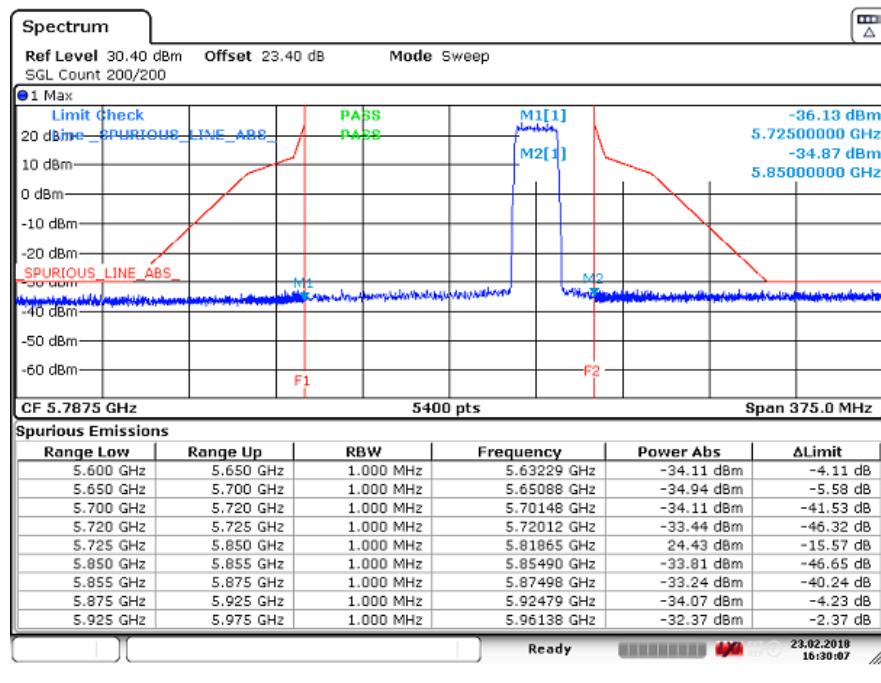
Date: 23.FEB.2018 16:12:14

Figure 163 Spurious Emissions (Lower Band Edge) – 256QAM (5745.0 MHz) (20MHz Channel BW)



Date: 23.FEB.2018 16:28:34

Figure 164 Spurious Emissions (Upper Band Edge) – QPSK (5825.0 MHz) (20MHz Channel BW)



Date: 23.FEB.2018 16:30:07

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Figure 165 Spurious Emissions (Upper Band Edge) – 64QAM (5825.0 MHz) (20MHz Channel BW)

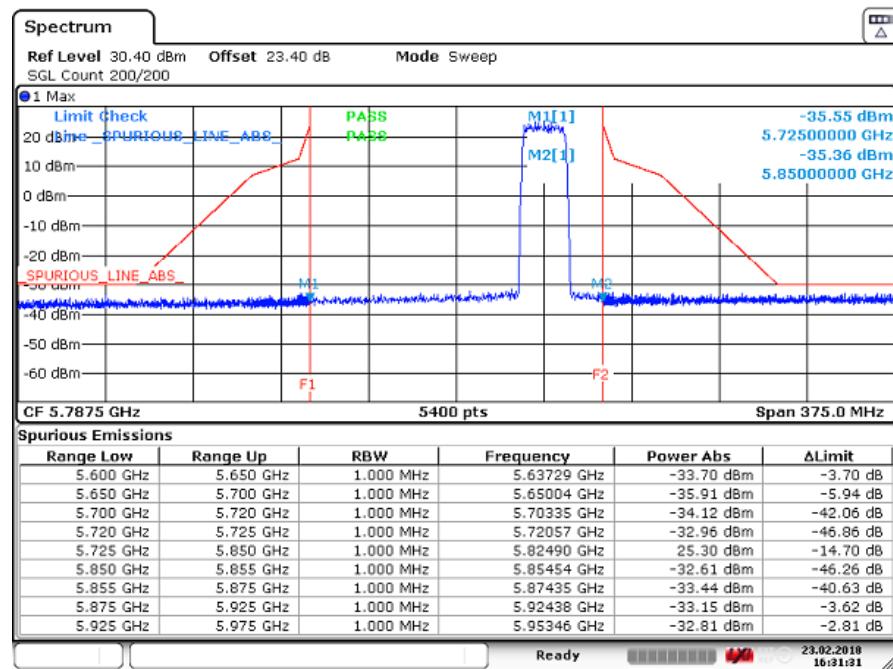
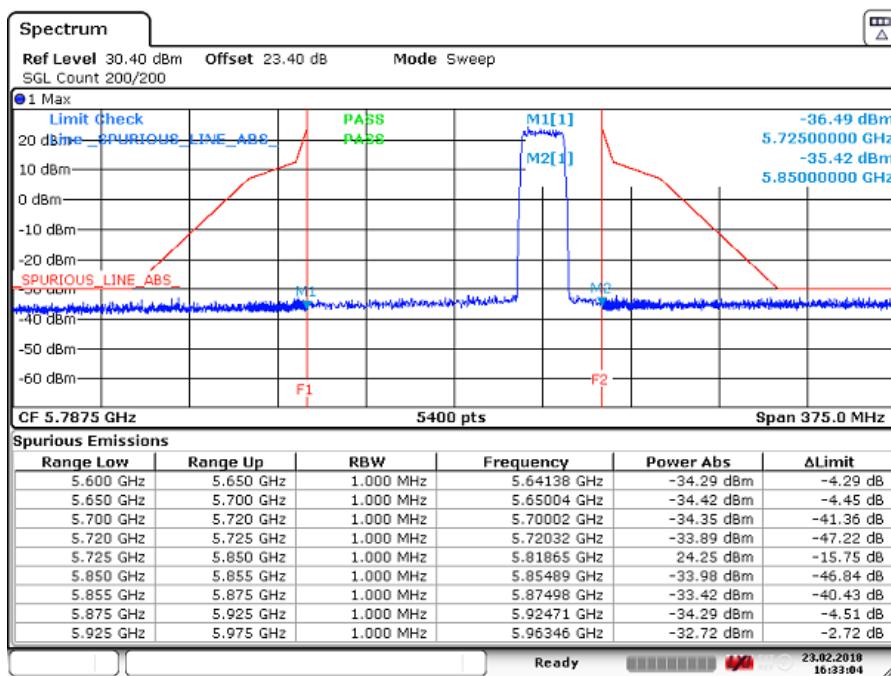
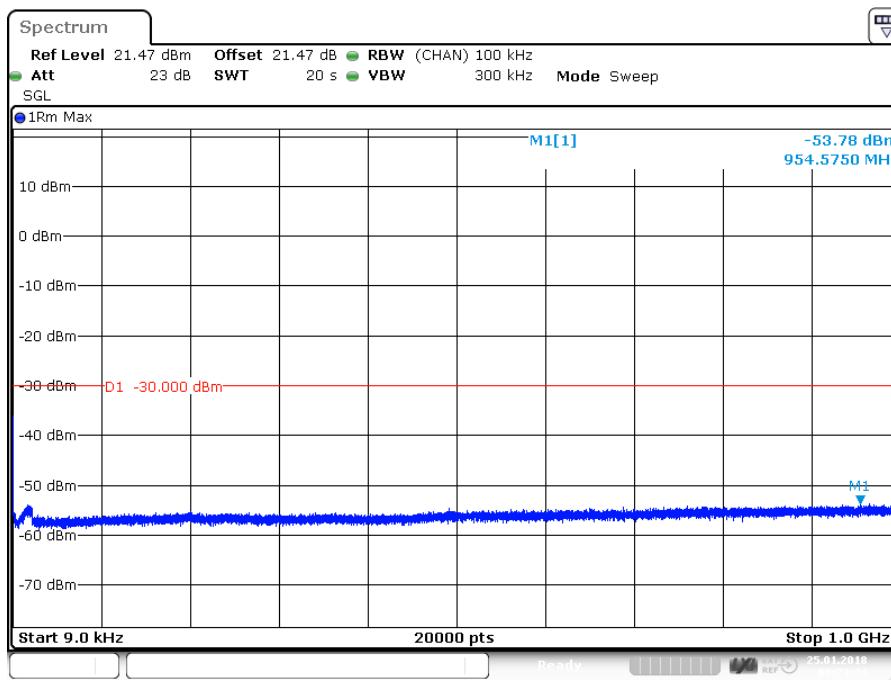


Figure 166 Spurious Emissions (Upper Band Edge) – 16QAM (5825.0 MHz) (20MHz Channel BW)



Date: 23.FEB.2018 16:33:04

Figure 167 Spurious Emissions (Upper Band Edge) – 256QAM (5825.0 MHz) (20MHz Channel BW)



Date: 25.JAN.2018 09:23:24

Figure 168 Spurious Emissions (9 kHz – 1 GHz) – QPSK (5785.0 MHz) (20MHz Channel BW)

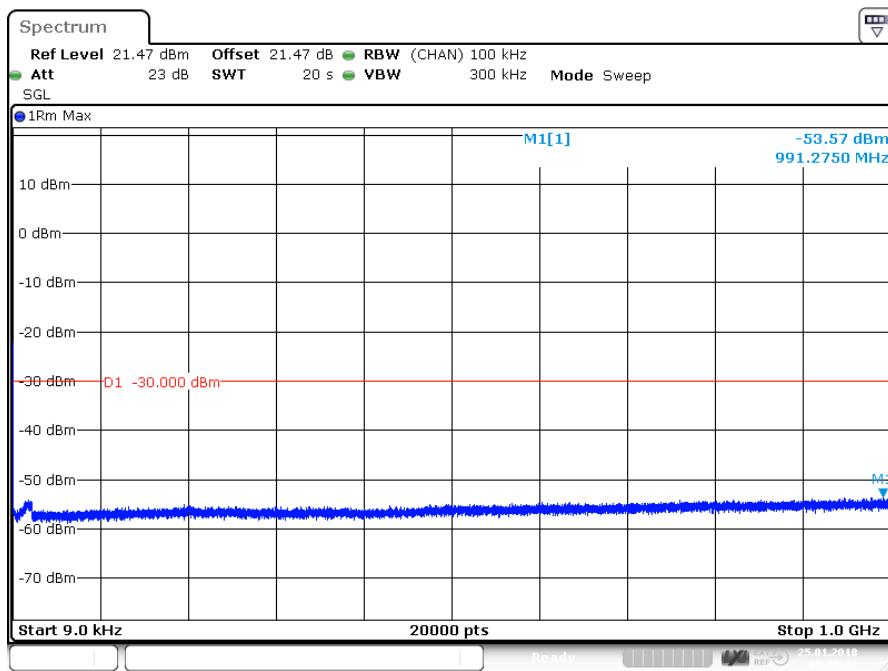


Figure 169 Spurious Emissions (9 kHz – 1 GHz) – 64QAM (5785.0 MHz) (20MHz Channel BW)

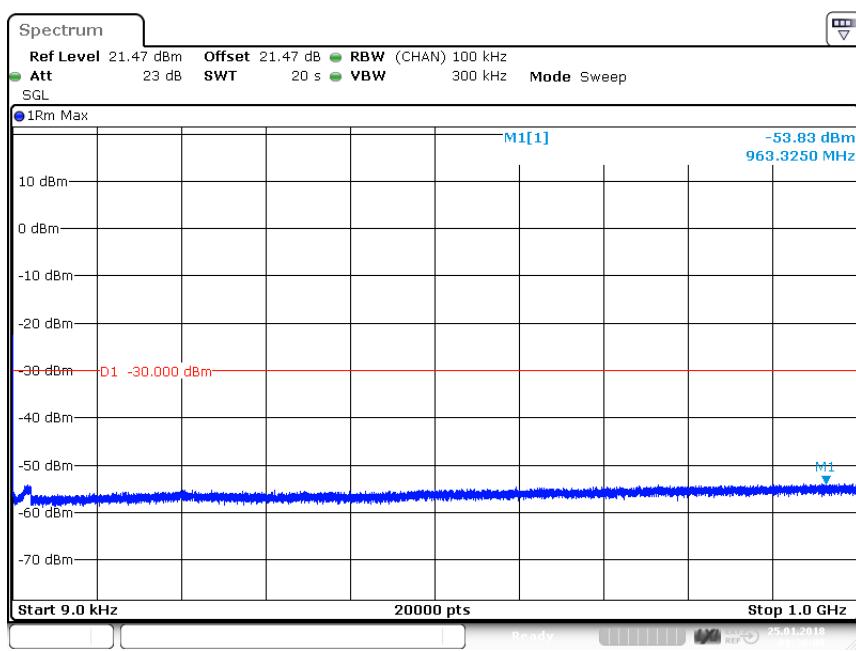
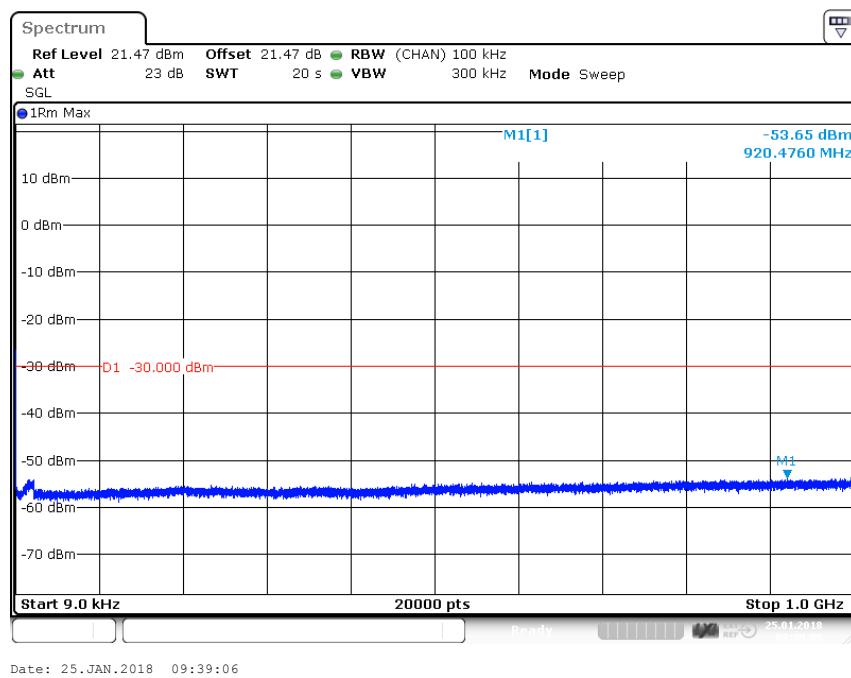
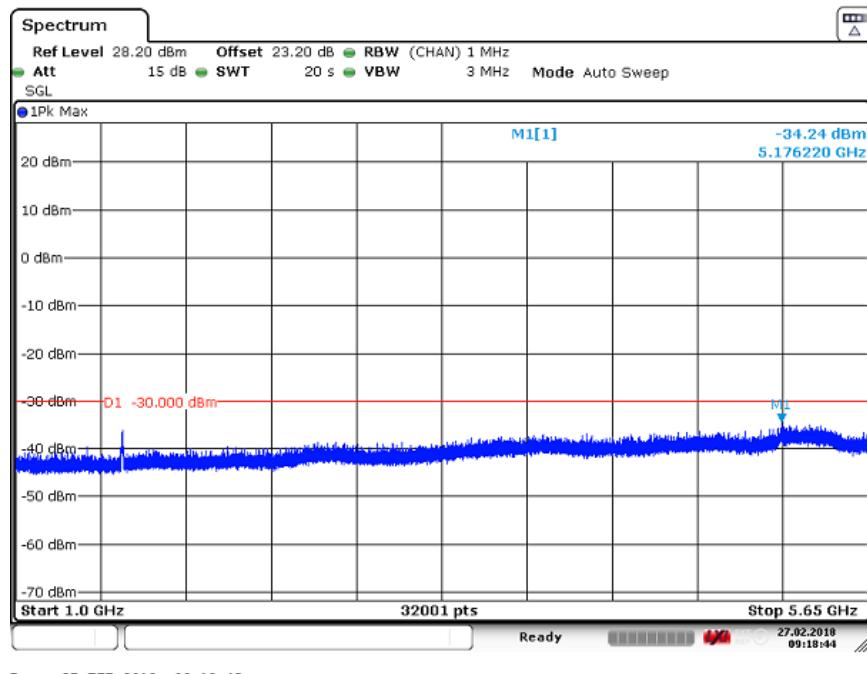


Figure 170 Spurious Emissions (9 kHz – 1 GHz) – 16QAM (5785.0 MHz) (20MHz Channel BW)



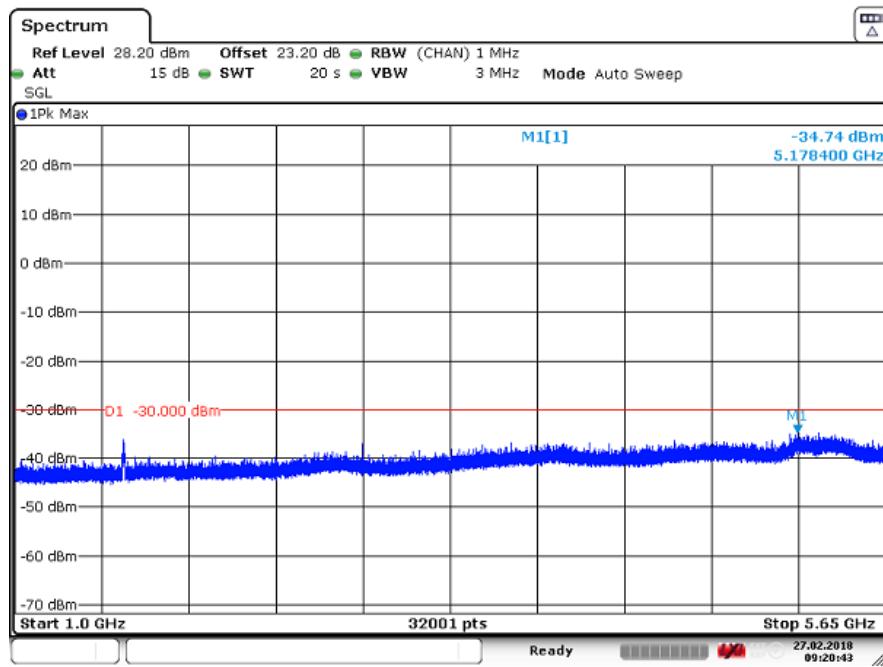
Date: 25.JAN.2018 09:39:06

Figure 171 Spurious Emissions (9 kHz – 1 GHz) – 256QAM (5785.0 MHz) (20MHz Channel BW)



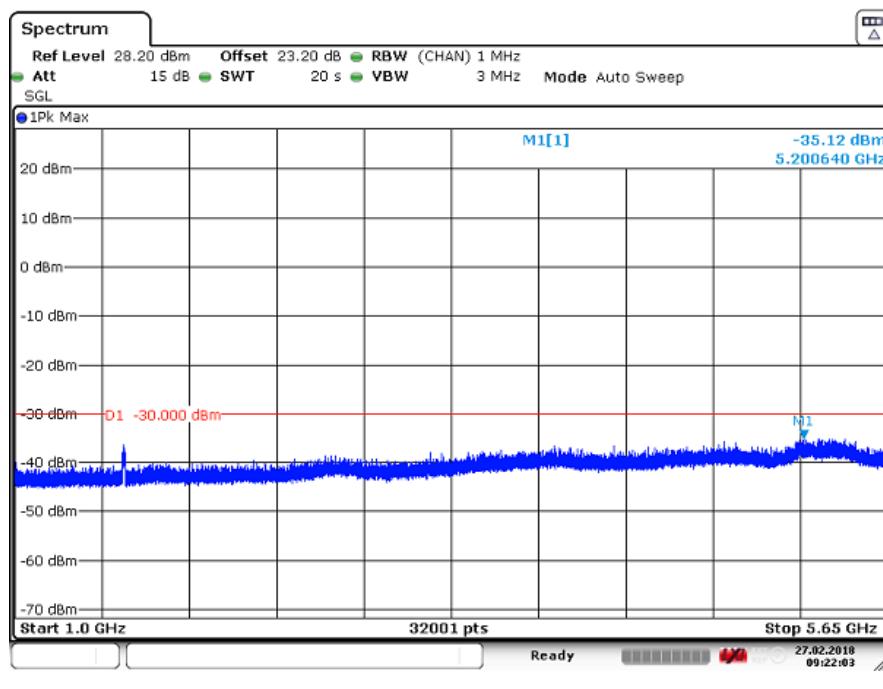
Date: 27.FEB.2018 09:18:45

Figure 172 Spurious Emissions (1 GHz – 5.65 GHz) – QPSK (5785.0 MHz) (20MHz Channel BW)



Date: 27.FEB.2018 09:20:44

Figure 173 Spurious Emissions (1 GHz – 5.65 GHz) – 64QAM (5785.0 MHz) (20MHz Channel BW)



Date: 27.FEB.2018 09:22:04

Figure 174 Spurious Emissions (1 GHz – 5.65 GHz) – 16QAM (5785.0 MHz) (20MHz Channel BW)

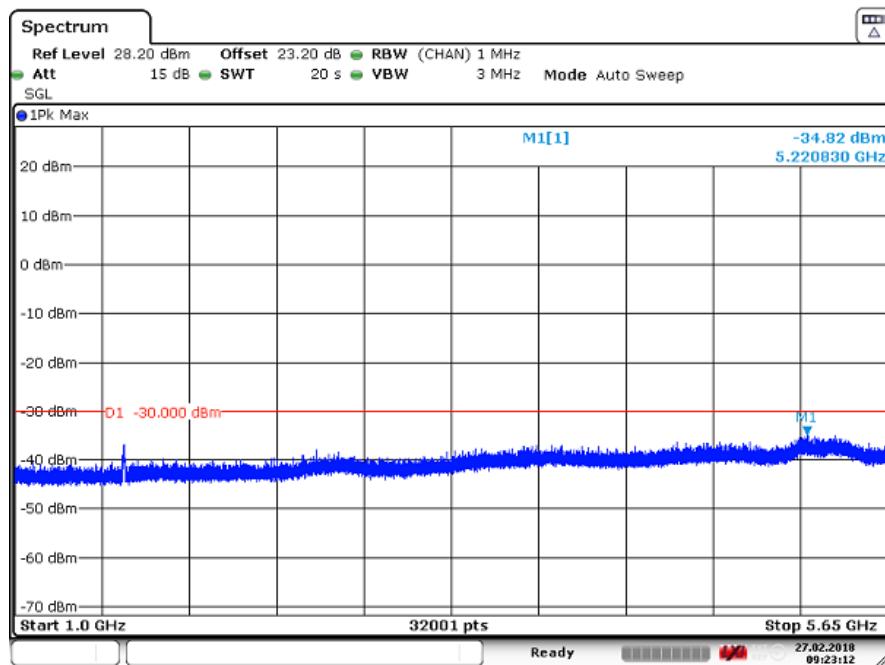


Figure 175 Spurious Emissions (1 GHz – 5.65 GHz) – 256QAM (5785.0 MHz) (20MHz Channel BW)

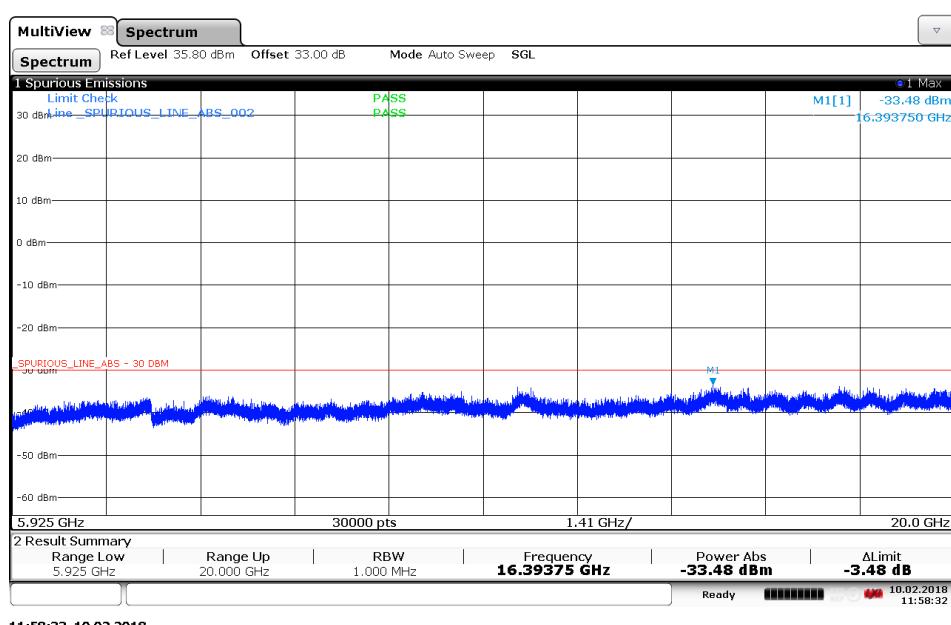


Figure 176 Spurious Emissions (5.925 GHz – 20 GHz) – QPSK (5785.0 MHz) (20MHz Channel BW)

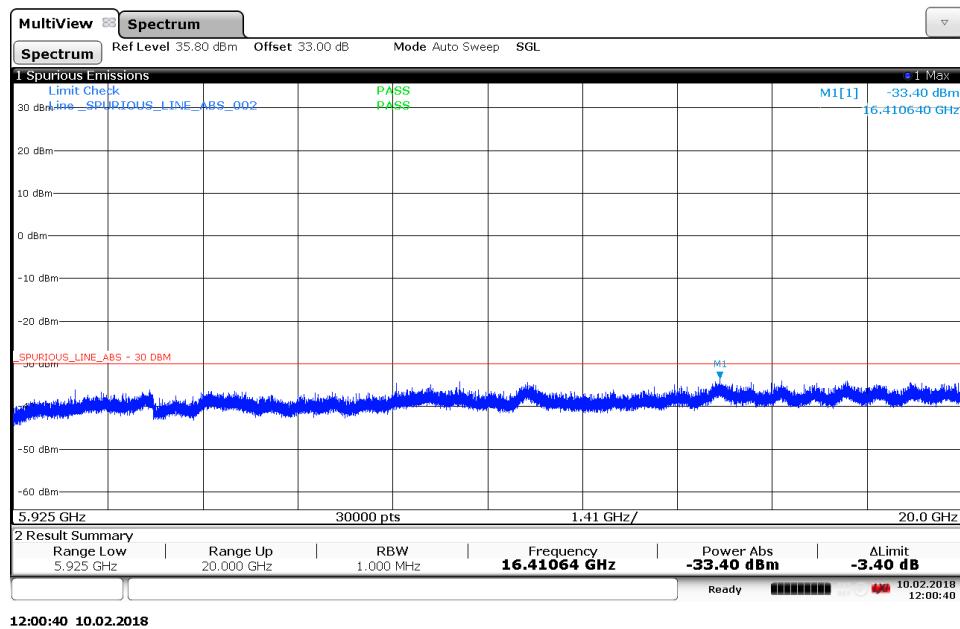


Figure 177 Spurious Emissions (5.925 GHz – 20 GHz) – 64QAM (5785.0 MHz) (20MHz Channel BW)

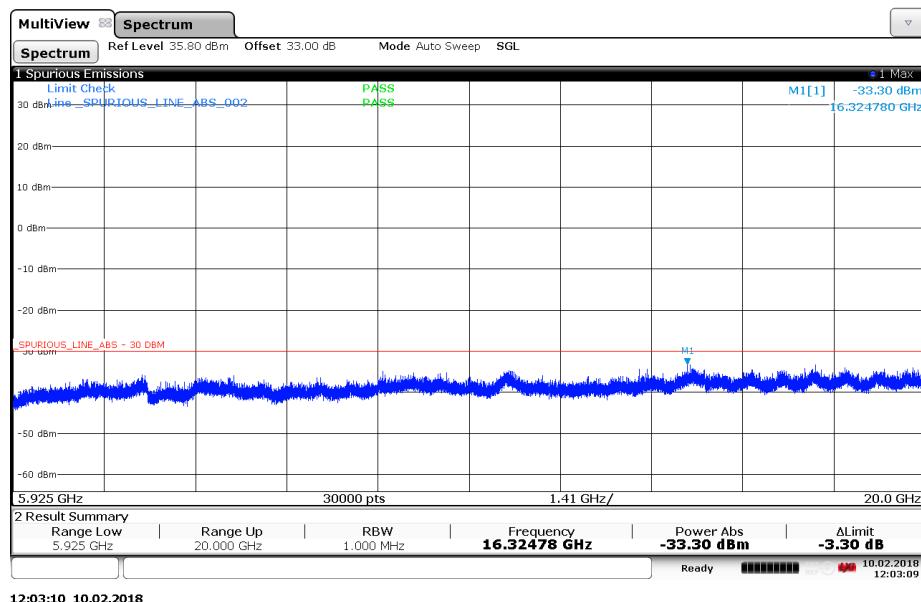


Figure 178 Spurious Emissions (5.925 GHz – 20 GHz) – 16QAM (5785.0 MHz) (20MHz Channel BW)

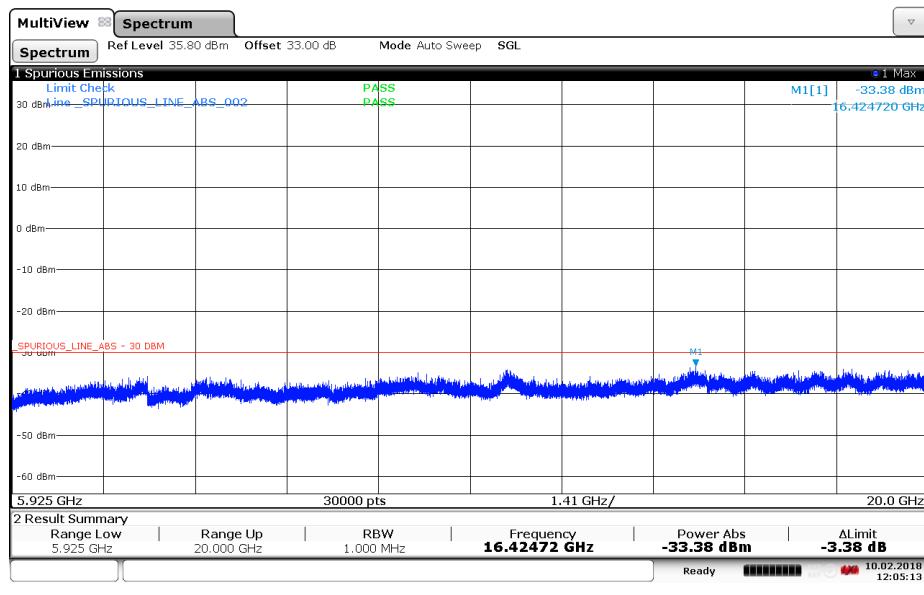


Figure 179 Spurious Emissions (5.925 GHz – 20 GHz) – 256QAM (5785.0 MHz) (20MHz Channel BW)

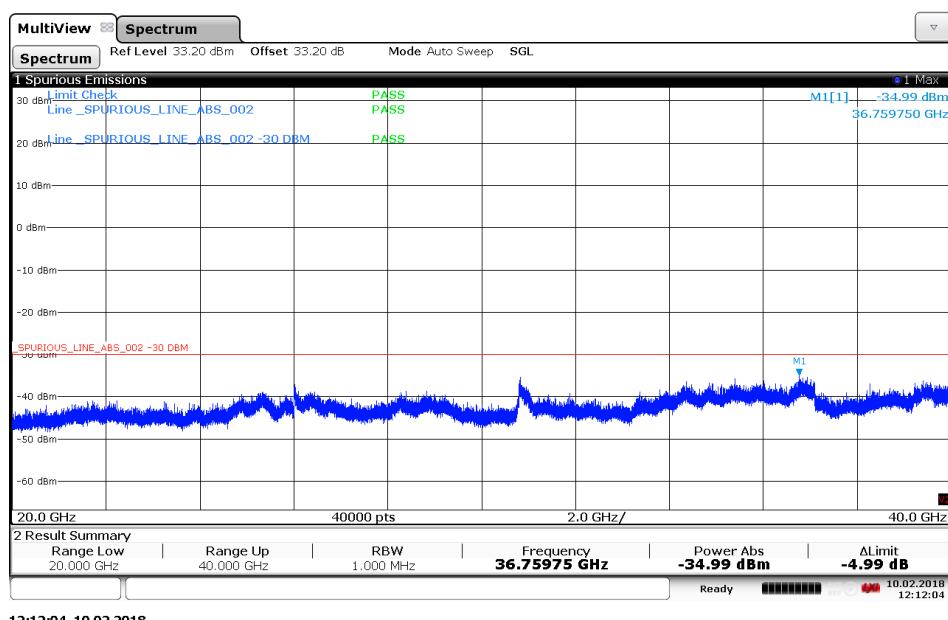


Figure 180 Spurious Emissions (20 GHz – 40 GHz) – QPSK (5785.0 MHz) (20MHz Channel BW)

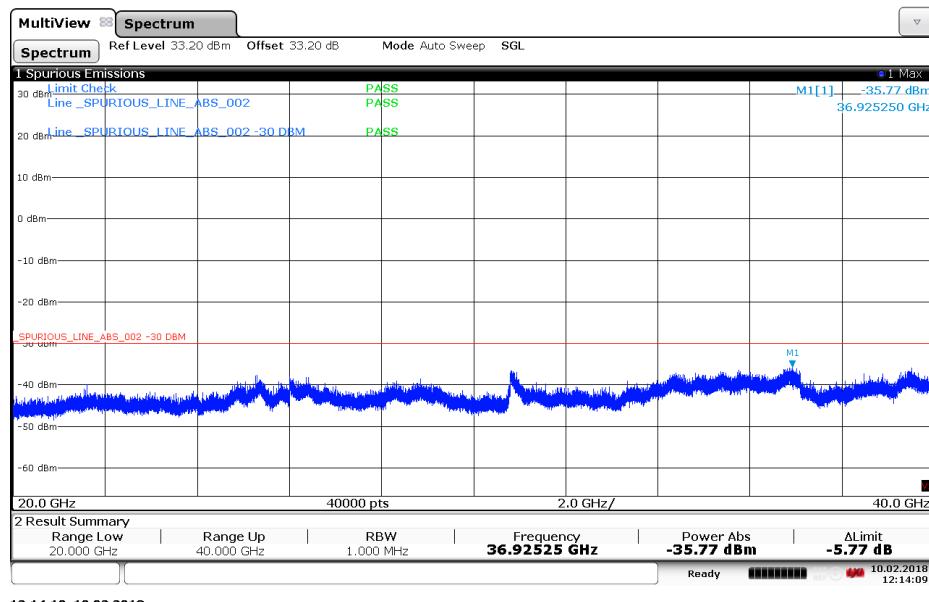


Figure 181 Spurious Emissions (20 GHz – 40 GHz) – 64QAM (5785.0 MHz) (20MHz Channel BW)

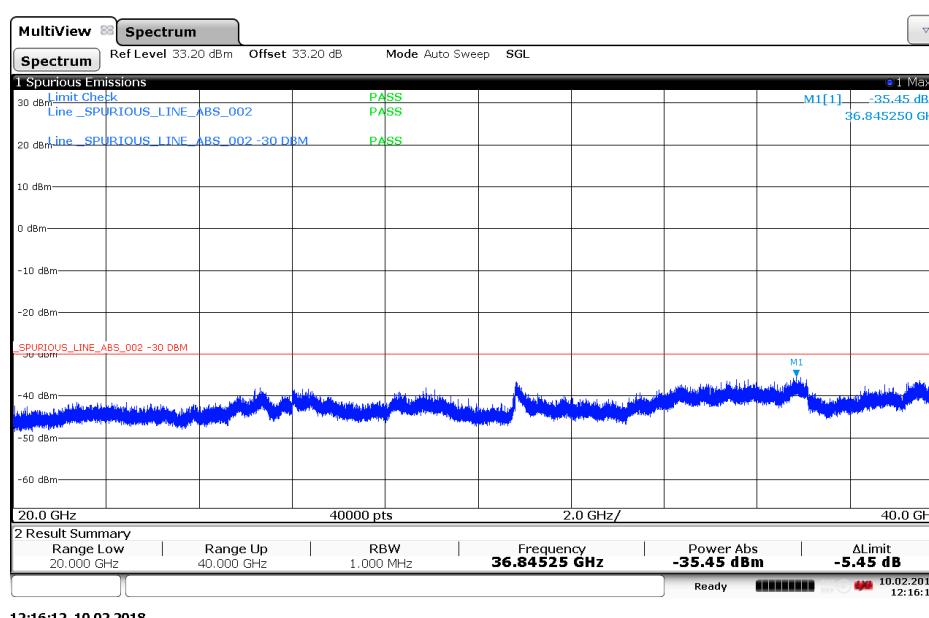


Figure 182 Spurious Emissions (20 GHz – 40 GHz) – 16QAM (5785.0 MHz) (20MHz Channel BW)

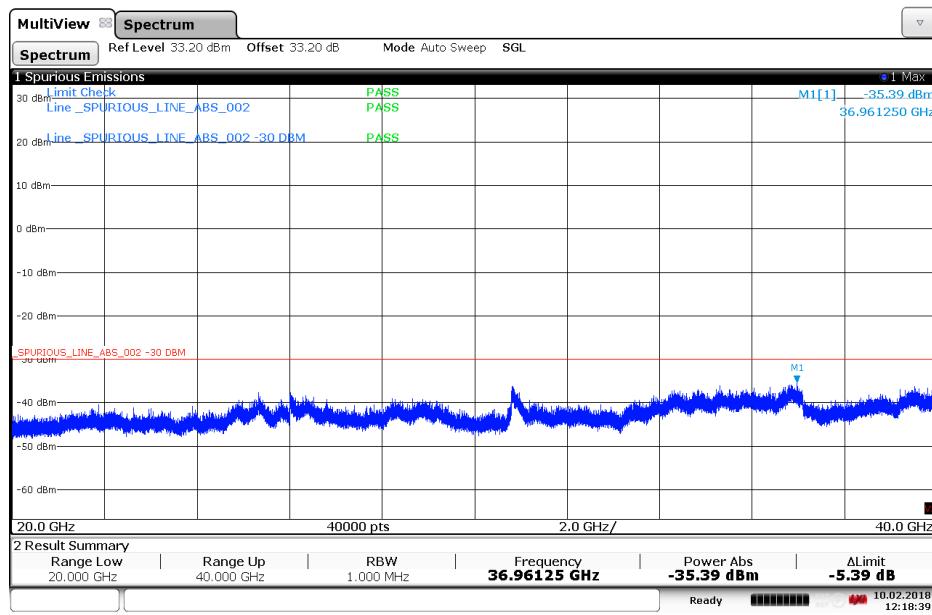


Figure 183 Spurious Emissions (20 GHz – 40 GHz) – 256QAM (5785.0 MHz) (20MHz Channel BW)

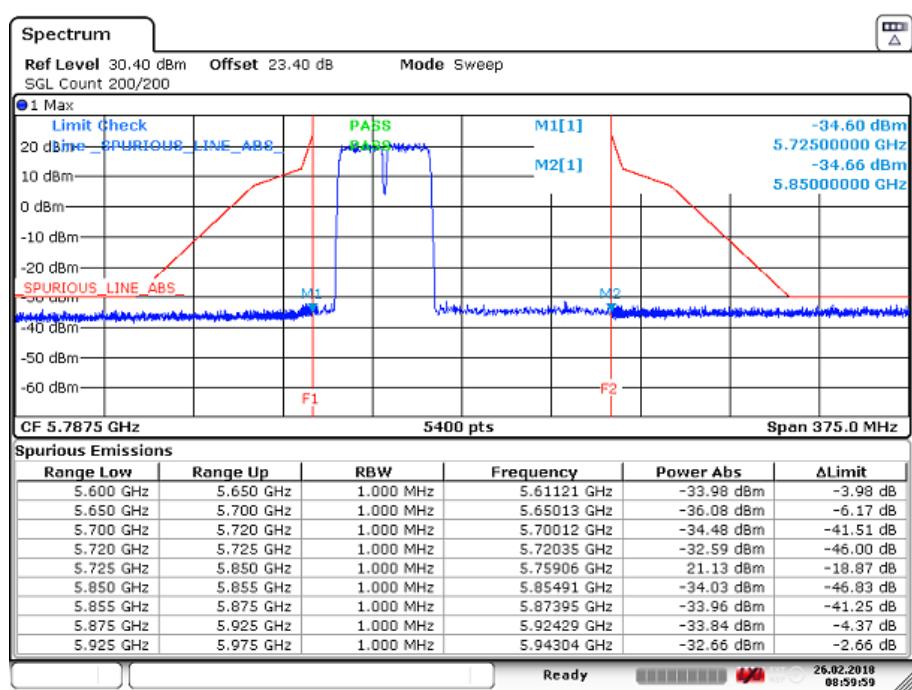
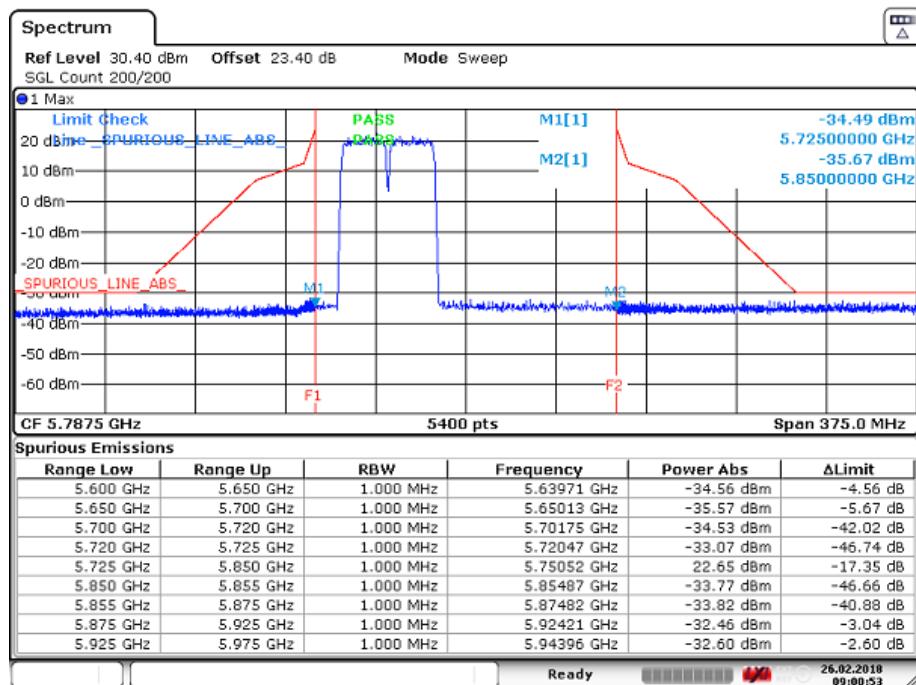
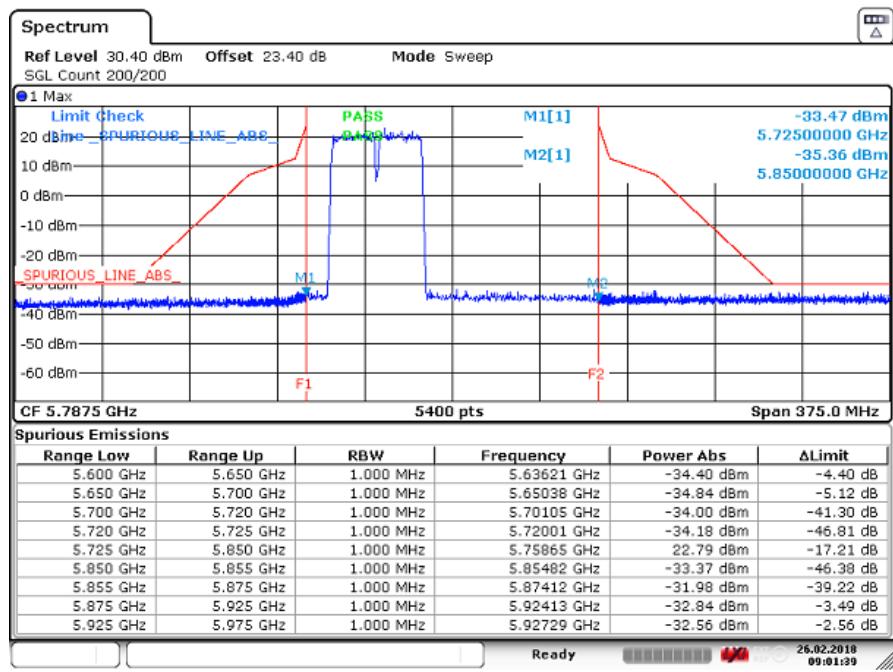


Figure 184 Spurious Emissions (Lower Band Edge) – QPSK (5745.0/ 5765.0 MHz) (2 X 20MHz Channel BW)



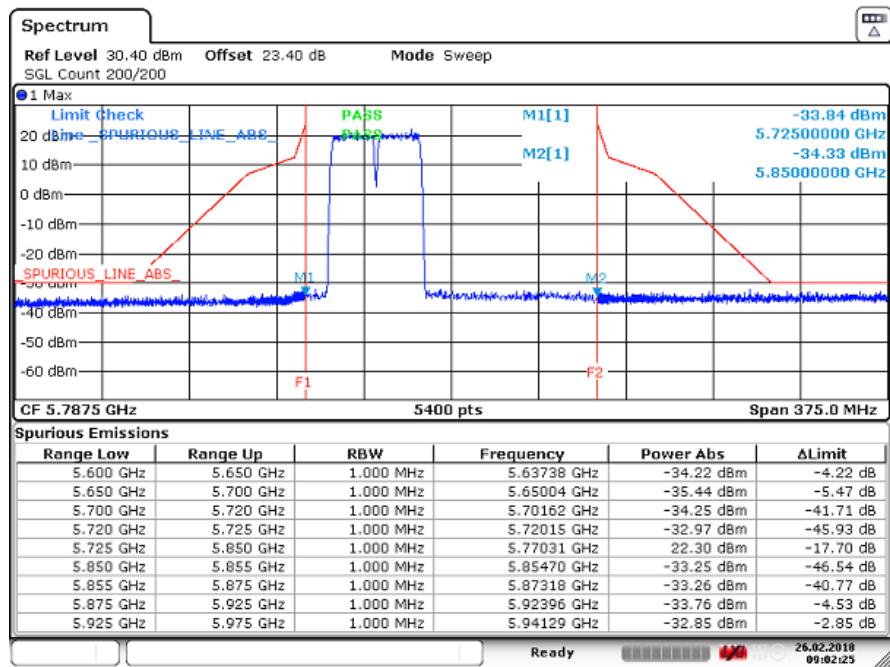
Date: 26.FEB.2018 09:00:53

Figure 185 Spurious Emissions (Lower Band Edge) – 64QAM (5745.0/ 5765.0 MHz) (2 X 20MHz Channel BW)



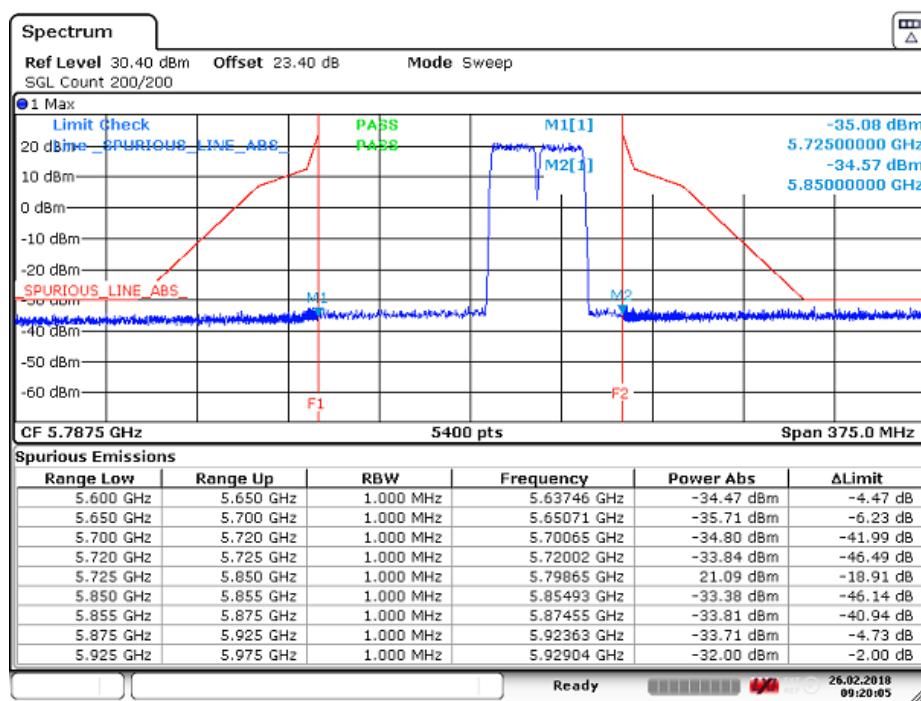
Date: 26.FEB.2018 09:01:40

Figure 186 Spurious Emissions (Lower Band Edge) – 16QAM (5745.0/ 5765.0 MHz) (2 X 20MHz Channel BW)



Date: 26.FEB.2018 09:02:26

Figure 187 Spurious Emissions (Lower Band Edge) – 256QAM (5745.0/ 5765.0 MHz) (2 X 20MHz Channel BW)



Date: 26.FEB.2018 09:20:03