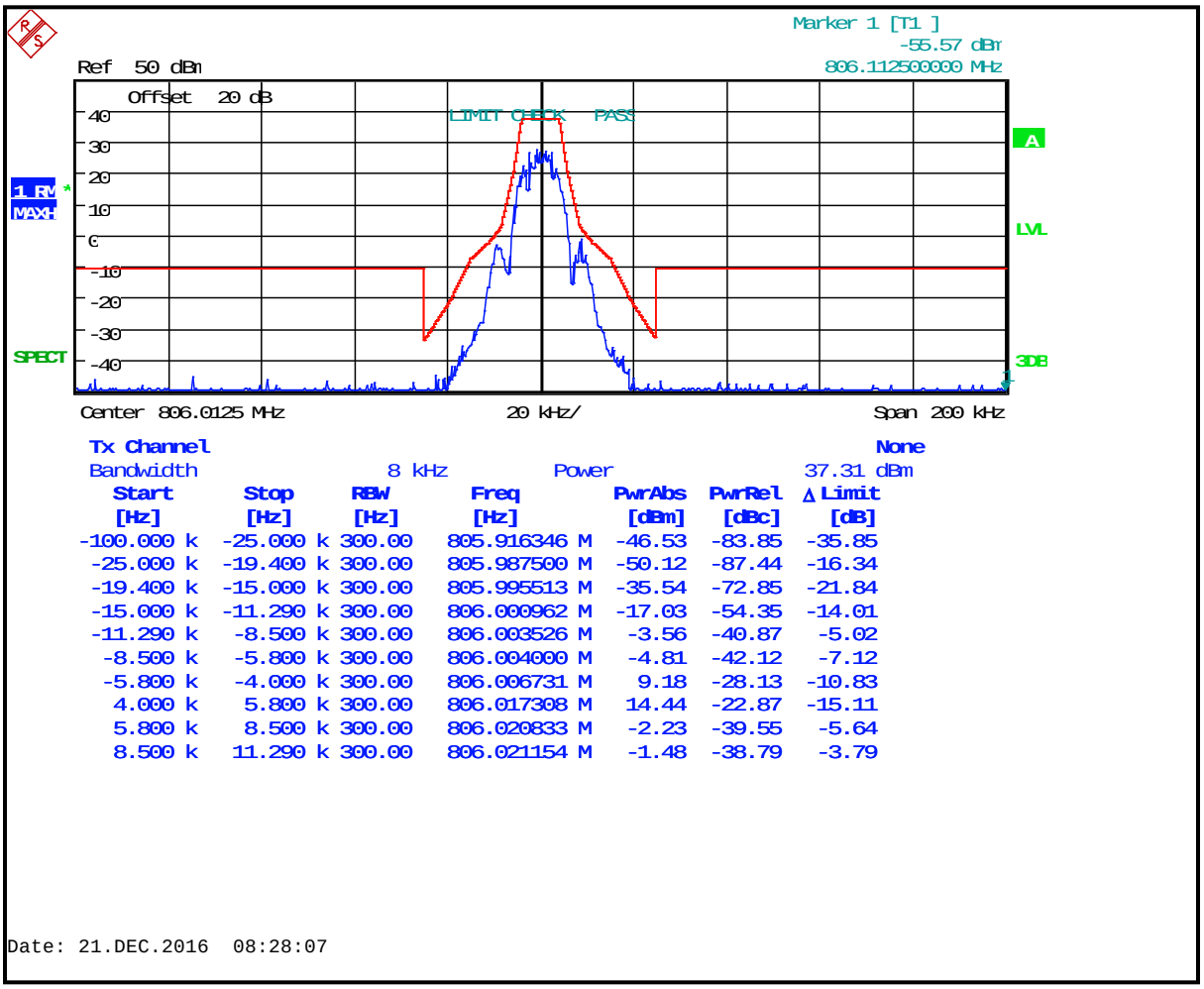
Plot 8-55: Occupied Bandwidth – 806.0125 MHz; 2-Level FSK 9600 NPSPAC; Mask H

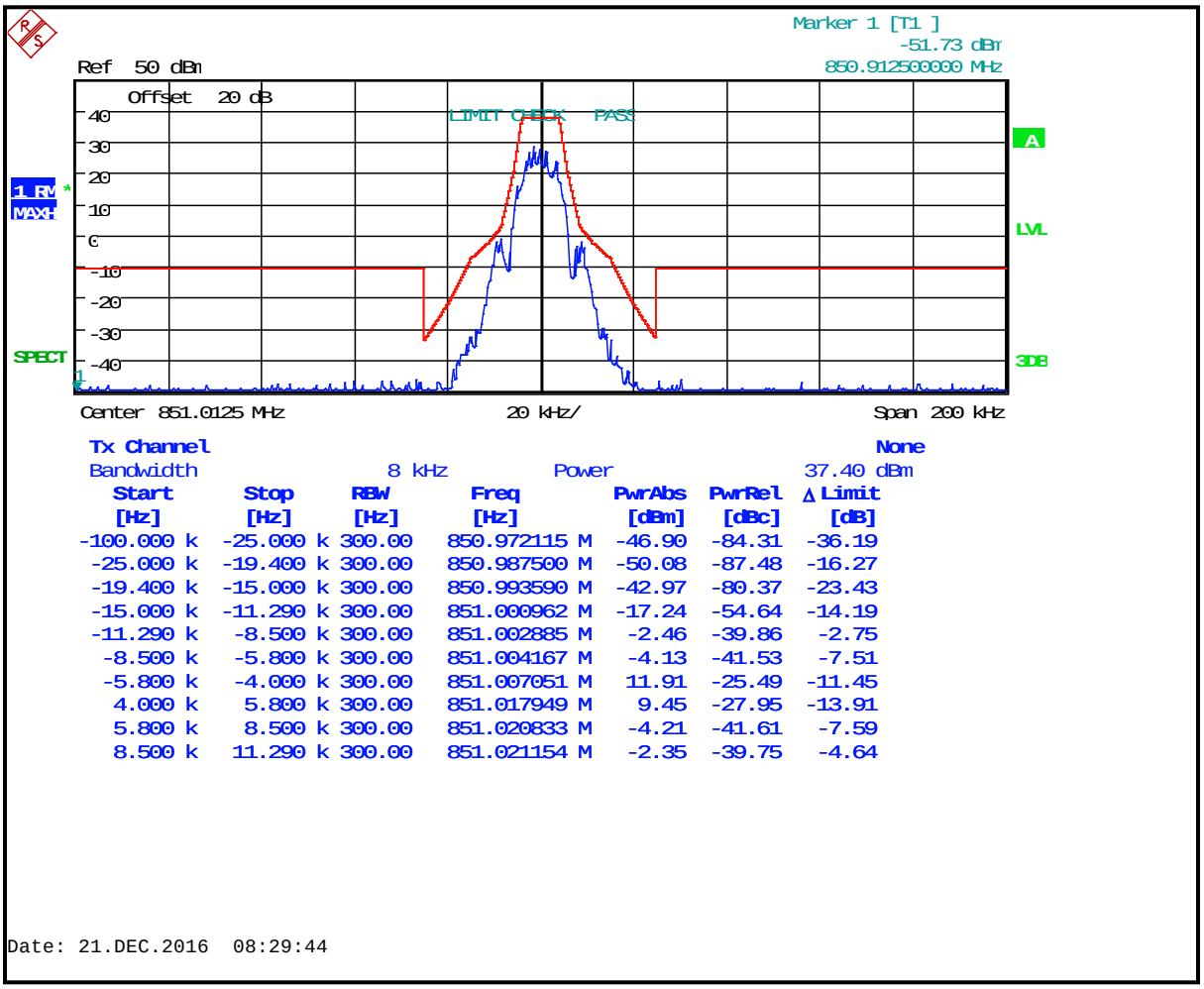


Tx Channel **None**
Bandwidth 8 kHz Power 37.31 dBm

Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	PwrRel [dBc]	Δ Limit [dB]
-100.000 k	-25.000 k	300.00	805.916346 M	-46.53	-83.85	-35.85
-25.000 k	-19.400 k	300.00	805.987500 M	-50.12	-87.44	-16.34
-19.400 k	-15.000 k	300.00	805.995513 M	-35.54	-72.85	-21.84
-15.000 k	-11.290 k	300.00	806.000962 M	-17.03	-54.35	-14.01
-11.290 k	-8.500 k	300.00	806.003526 M	-3.56	-40.87	-5.02
-8.500 k	-5.800 k	300.00	806.004000 M	-4.81	-42.12	-7.12
-5.800 k	-4.000 k	300.00	806.006731 M	9.18	-28.13	-10.83
4.000 k	5.800 k	300.00	806.017308 M	14.44	-22.87	-15.11
5.800 k	8.500 k	300.00	806.020833 M	-2.23	-39.55	-5.64
8.500 k	11.290 k	300.00	806.021154 M	-1.48	-38.79	-3.79

Date: 21.DEC.2016 08:28:07

Plot 8-56: Occupied Bandwidth – 851.0125 MHz; 2-Level FSK 9600 NPSPAC; Mask H

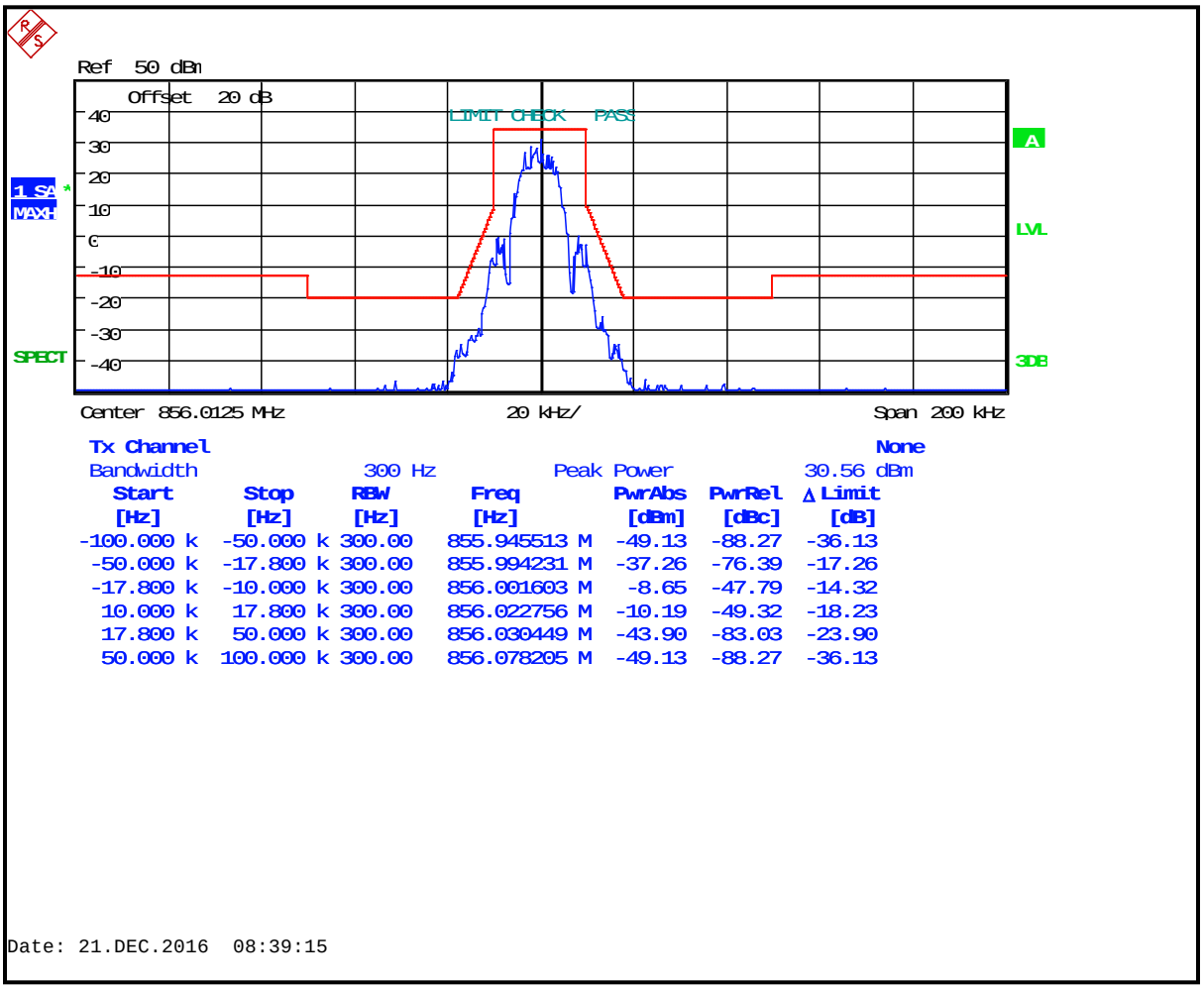


Tx Channel **None**
Bandwidth 8 kHz Power 37.40 dBm

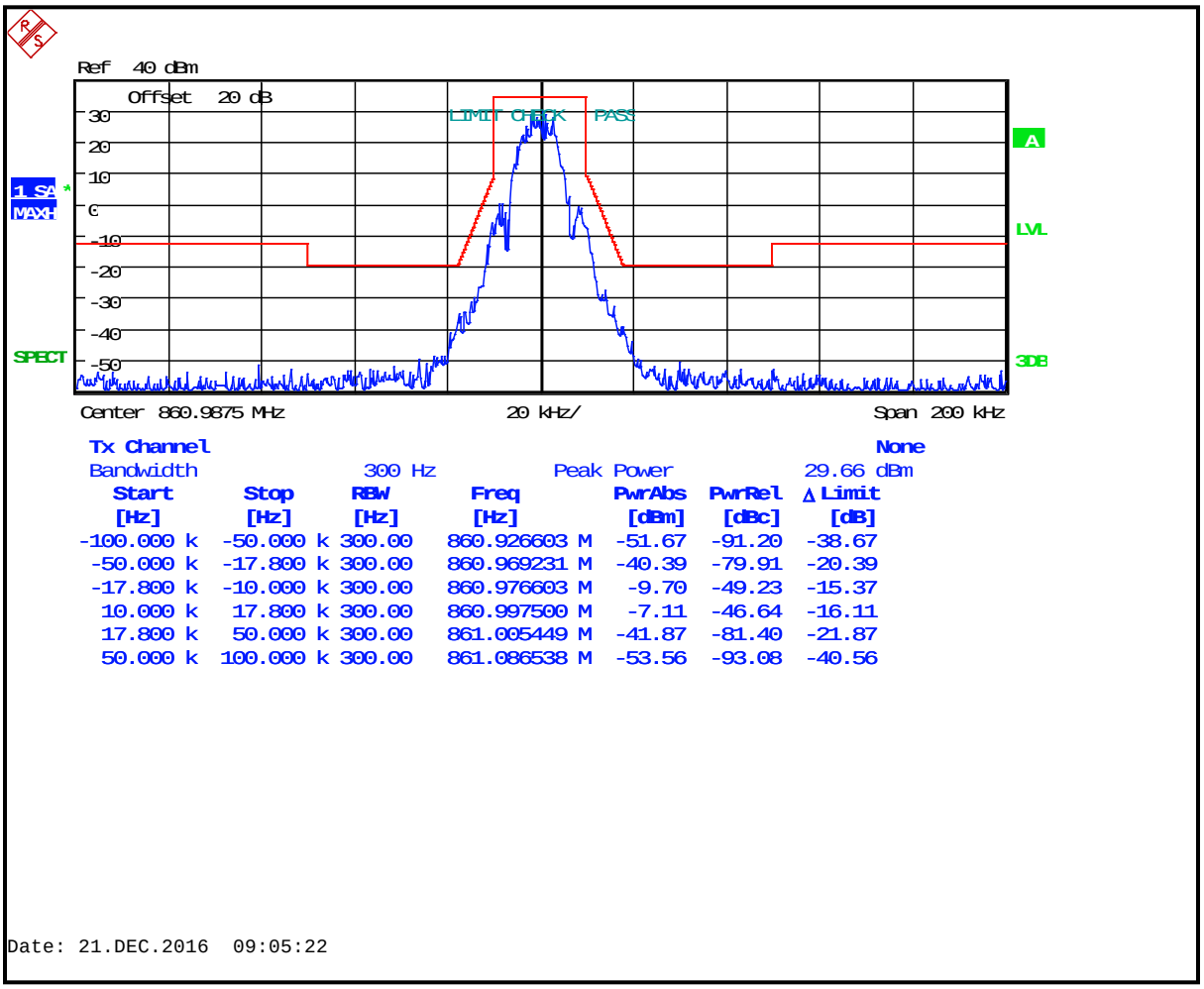
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	PwrRel [dBc]	Δ Limit [dB]
-100.000 k	-25.000 k	300.00	850.972115 M	-46.90	-84.31	-36.19
-25.000 k	-19.400 k	300.00	850.987500 M	-50.08	-87.48	-16.27
-19.400 k	-15.000 k	300.00	850.993590 M	-42.97	-80.37	-23.43
-15.000 k	-11.290 k	300.00	851.000962 M	-17.24	-54.64	-14.19
-11.290 k	-8.500 k	300.00	851.002885 M	-2.46	-39.86	-2.75
-8.500 k	-5.800 k	300.00	851.004167 M	-4.13	-41.53	-7.51
-5.800 k	-4.000 k	300.00	851.007051 M	11.91	-25.49	-11.45
4.000 k	5.800 k	300.00	851.017949 M	9.45	-27.95	-13.91
5.800 k	8.500 k	300.00	851.020833 M	-4.21	-41.61	-7.59
8.500 k	11.290 k	300.00	851.021154 M	-2.35	-39.75	-4.64

Date: 21.DEC.2016 08:29:44

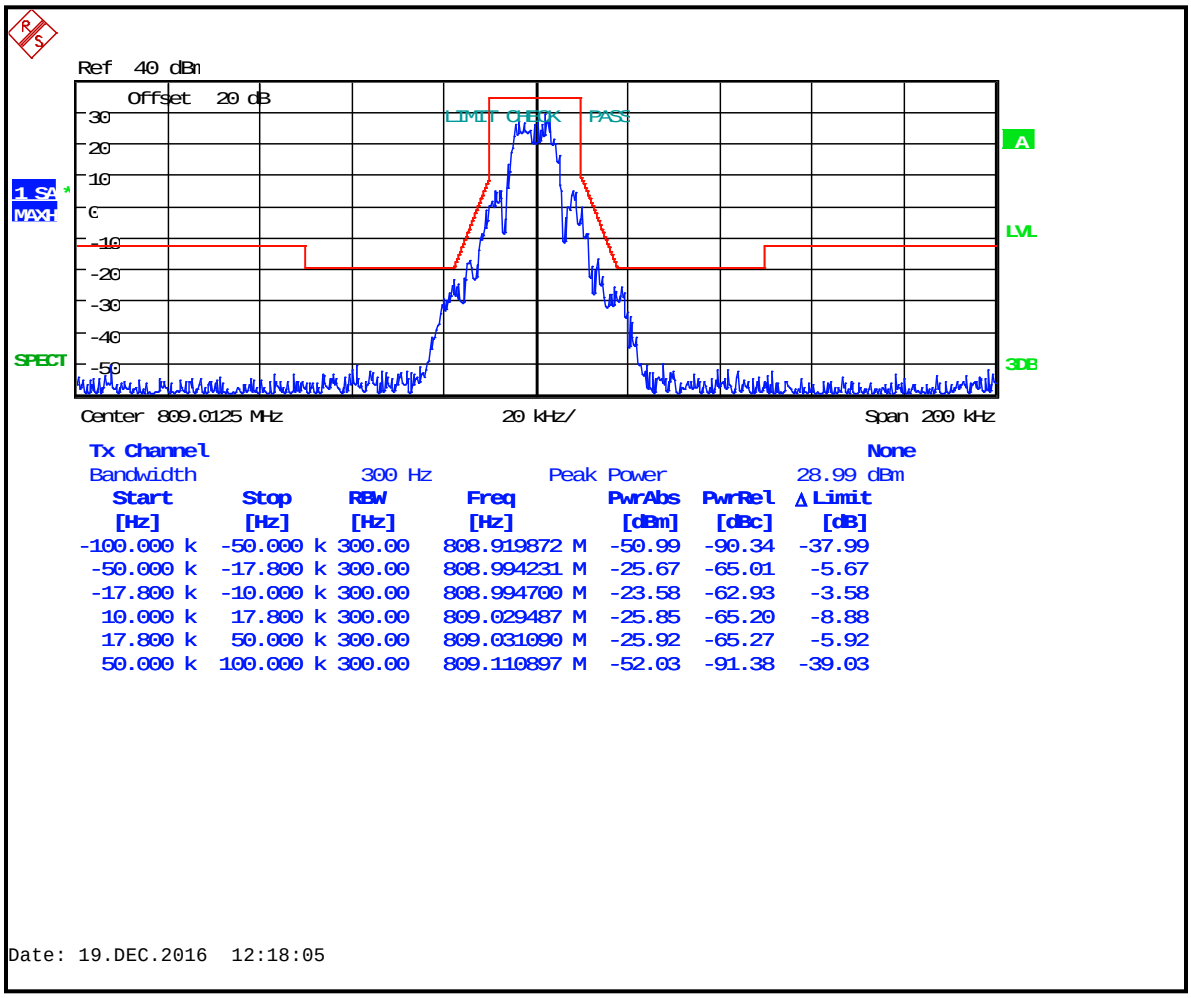
Plot 8-57: Occupied Bandwidth – 856.0125 MHz; 2-Level FSK 9600 NPSPAC; Mask G



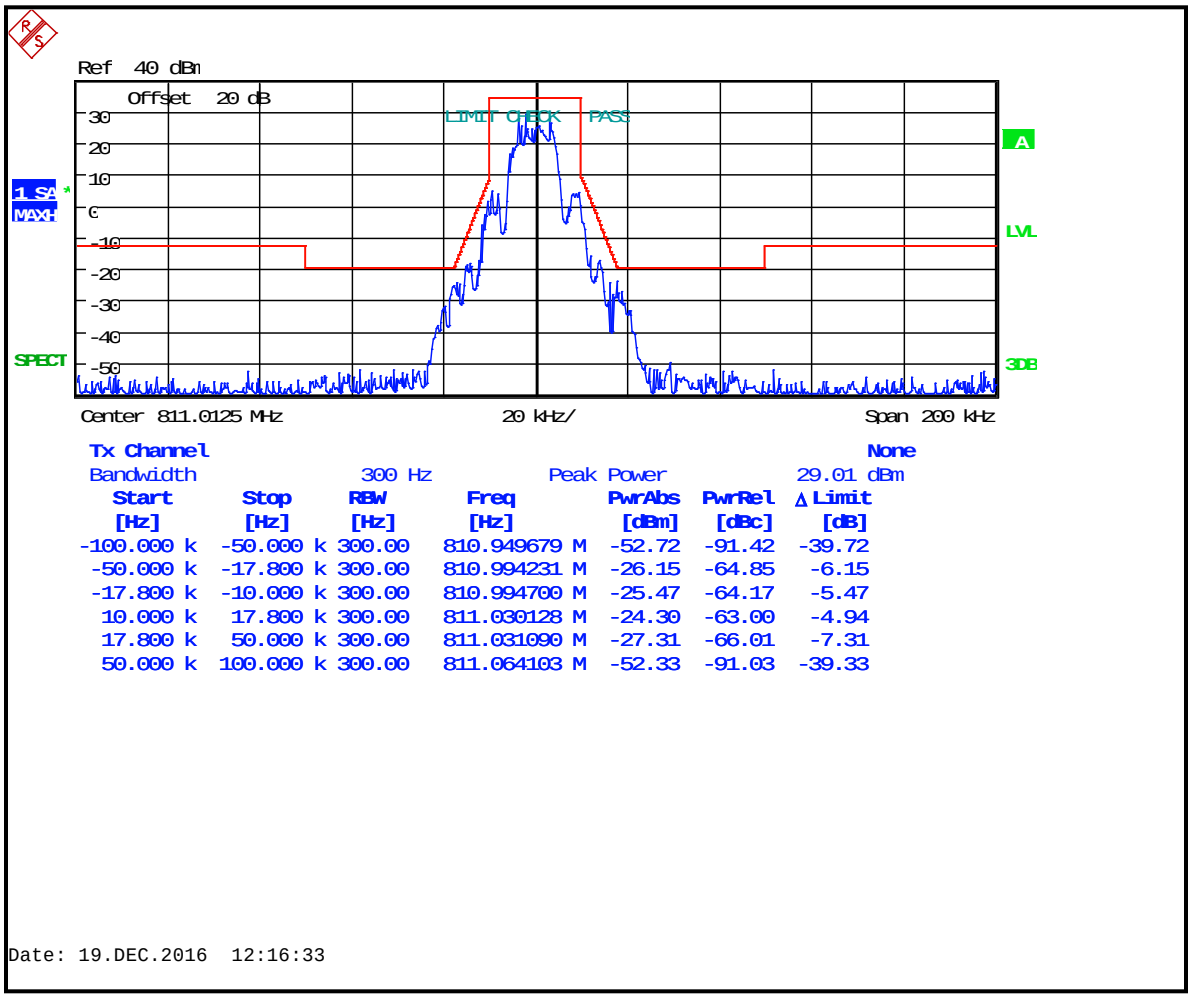
Plot 8-58: Occupied Bandwidth – 860.9875 MHz; 2-Level FSK 9600 NPSPAC; Mask G



Plot 8-59: Occupied Bandwidth – 809.0125 MHz; WB 2-Level FSK 9600; Mask G



Plot 8-60: Occupied Bandwidth – 811.0125 MHz; WB 2-Level FSK 9600; Mask G



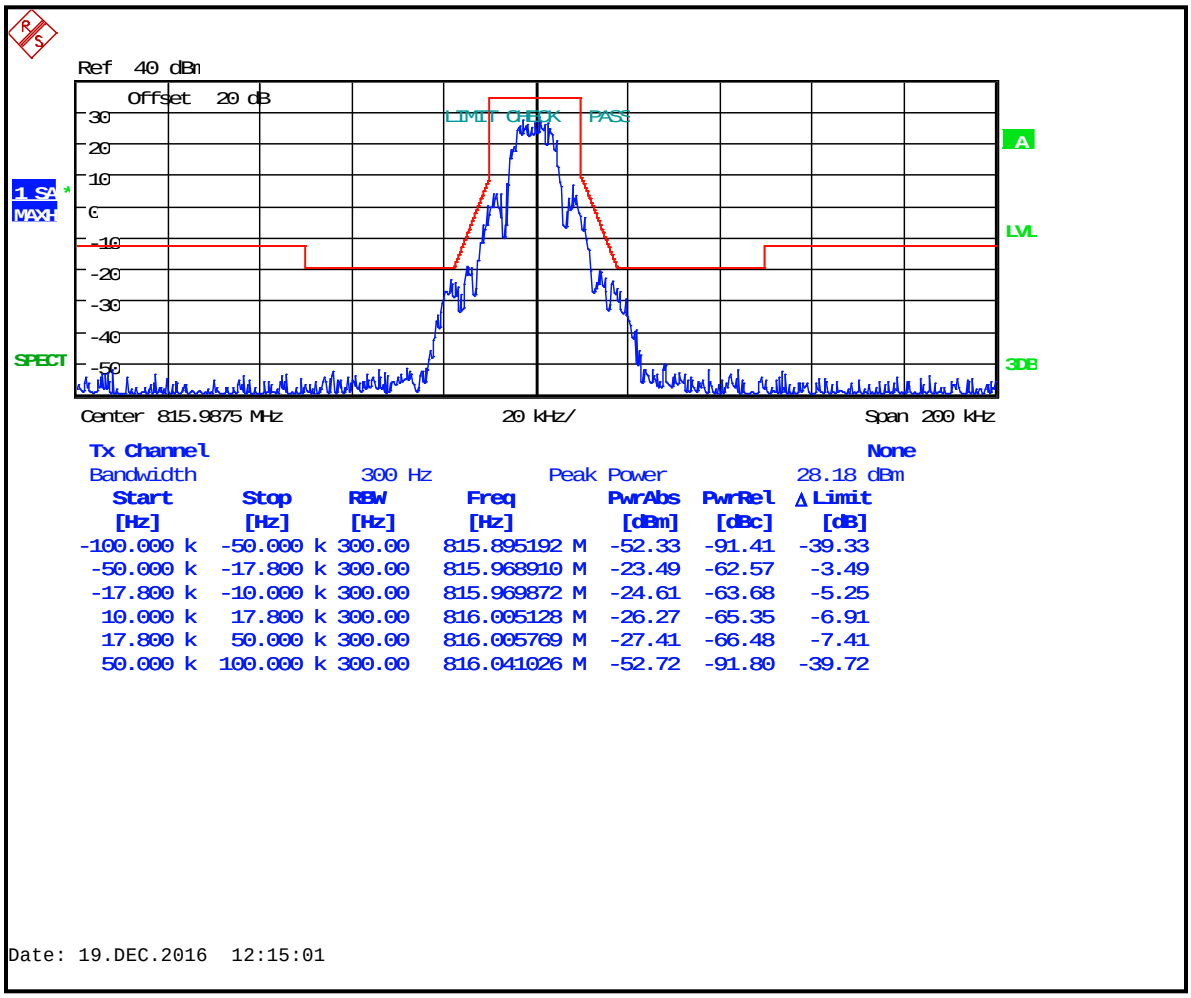
Tx Channel **None**

Bandwidth 300 Hz Peak Power 29.01 dBm

Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	PwrRel [dBc]	Δ Limit [dB]
-100.000 k	-50.000 k	300.00	810.949679 M	-52.72	-91.42	-39.72
-50.000 k	-17.800 k	300.00	810.994231 M	-26.15	-64.85	-6.15
-17.800 k	-10.000 k	300.00	810.994700 M	-25.47	-64.17	-5.47
10.000 k	17.800 k	300.00	811.030128 M	-24.30	-63.00	-4.94
17.800 k	50.000 k	300.00	811.031090 M	-27.31	-66.01	-7.31
50.000 k	100.000 k	300.00	811.064103 M	-52.33	-91.03	-39.33

Date: 19.DEC.2016 12:16:33

Plot 8-61: Occupied Bandwidth – 815.9875 MHz; WB 2-Level FSK 9600; Mask G

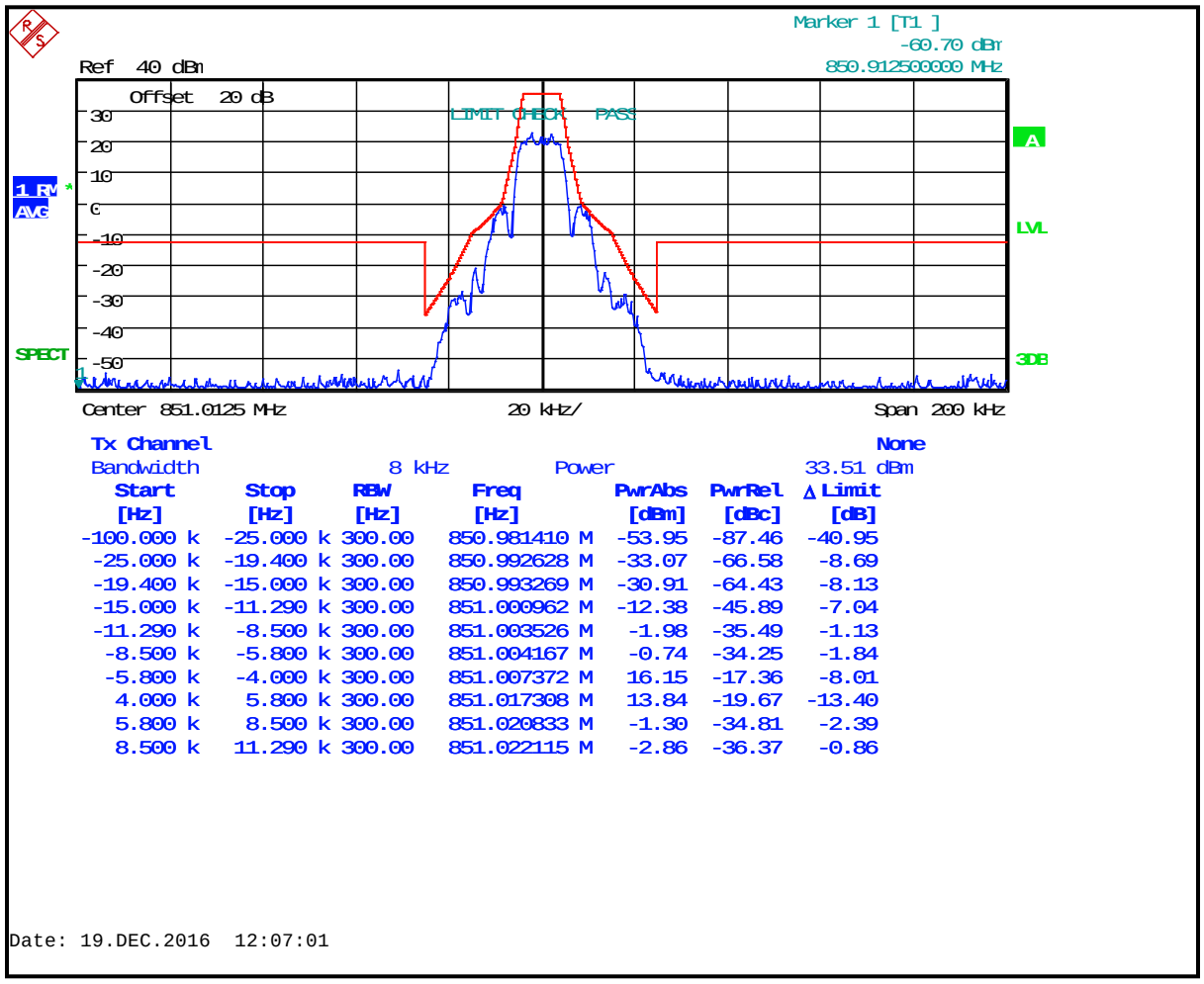


Tx Channel **None**
Bandwidth 300 Hz Peak Power 28.18 dBm

Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	PwrRel [dBc]	Δ Limit [dB]
-100.000 k	-50.000 k	300.00	815.895192 M	-52.33	-91.41	-39.33
-50.000 k	-17.800 k	300.00	815.968910 M	-23.49	-62.57	-3.49
-17.800 k	-10.000 k	300.00	815.969872 M	-24.61	-63.68	-5.25
10.000 k	17.800 k	300.00	816.005128 M	-26.27	-65.35	-6.91
17.800 k	50.000 k	300.00	816.005769 M	-27.41	-66.48	-7.41
50.000 k	100.000 k	300.00	816.041026 M	-52.72	-91.80	-39.72

Date: 19.DEC.2016 12:15:01

Plot 8-62: Occupied Bandwidth – 851.0125 MHz; WB 2-Level FSK 9600; Mask H

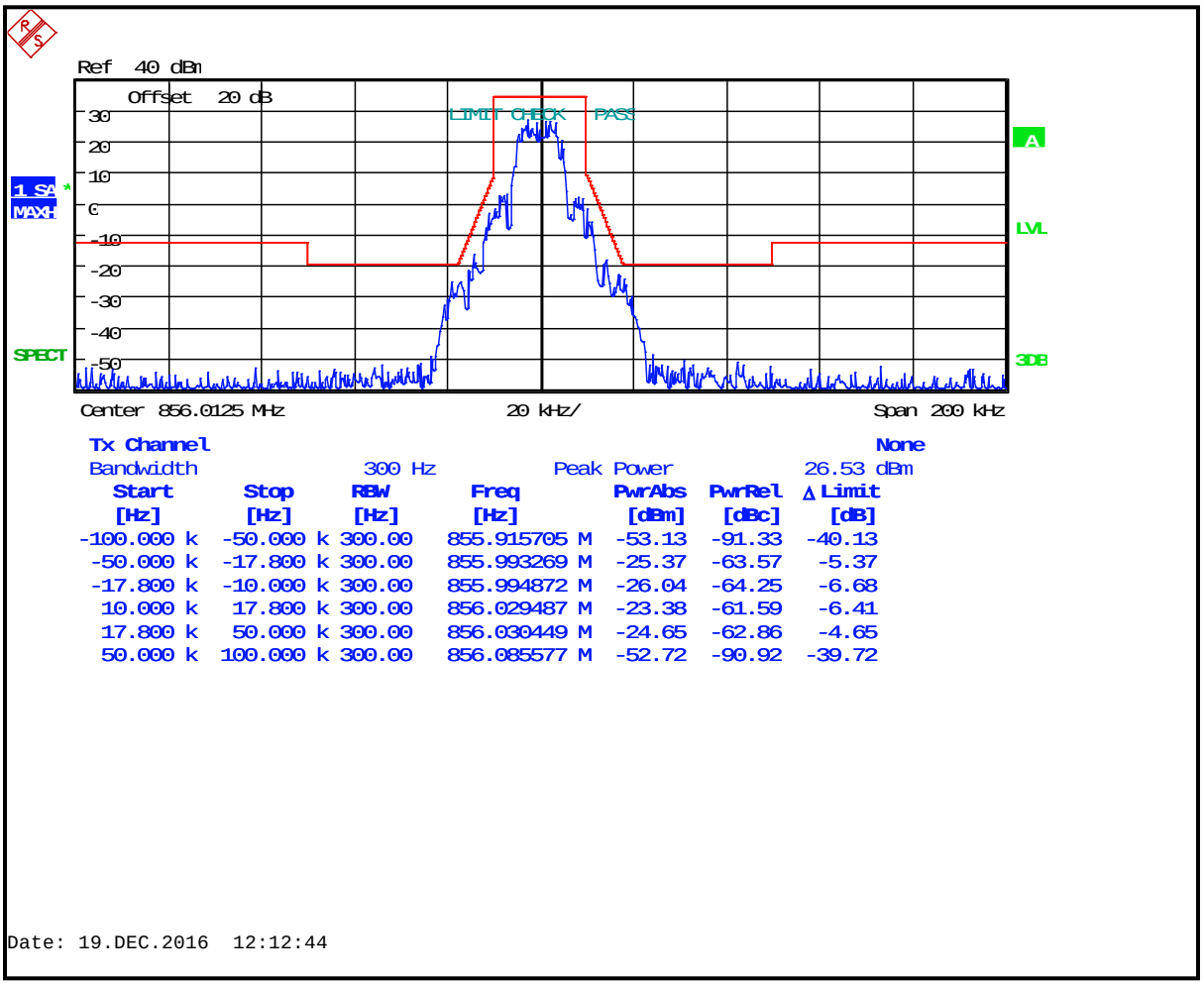


Tx Channel None
Bandwidth 8 kHz Power 33.51 dBm

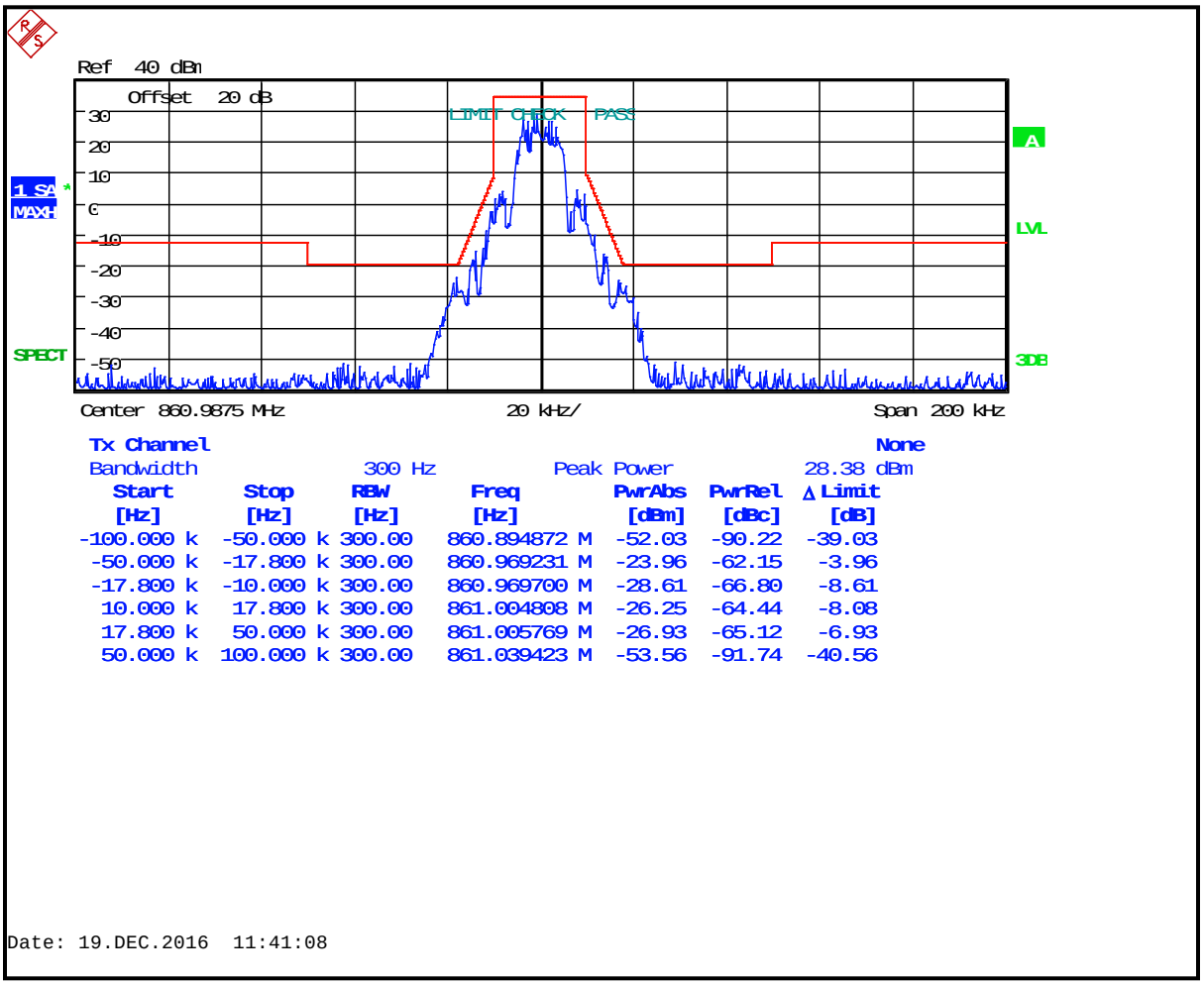
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	PwrRel [dBc]	Δ Limit [dB]
-100.000 k	-25.000 k	300.00	850.981410 M	-53.95	-87.46	-40.95
-25.000 k	-19.400 k	300.00	850.992628 M	-33.07	-66.58	-8.69
-19.400 k	-15.000 k	300.00	850.993269 M	-30.91	-64.43	-8.13
-15.000 k	-11.290 k	300.00	851.000962 M	-12.38	-45.89	-7.04
-11.290 k	-8.500 k	300.00	851.003526 M	-1.98	-35.49	-1.13
-8.500 k	-5.800 k	300.00	851.004167 M	-0.74	-34.25	-1.84
-5.800 k	-4.000 k	300.00	851.007372 M	16.15	-17.36	-8.01
4.000 k	5.800 k	300.00	851.017308 M	13.84	-19.67	-13.40
5.800 k	8.500 k	300.00	851.020833 M	-1.30	-34.81	-2.39
8.500 k	11.290 k	300.00	851.022115 M	-2.86	-36.37	-0.86

Date: 19.DEC.2016 12:07:01

Plot 8-63: Occupied Bandwidth – 856.0125 MHz; WB 2-Level FSK 9600; Mask G



Plot 8-64: Occupied Bandwidth – 860.9875 MHz; WB 2-Level FSK 9600; Mask G



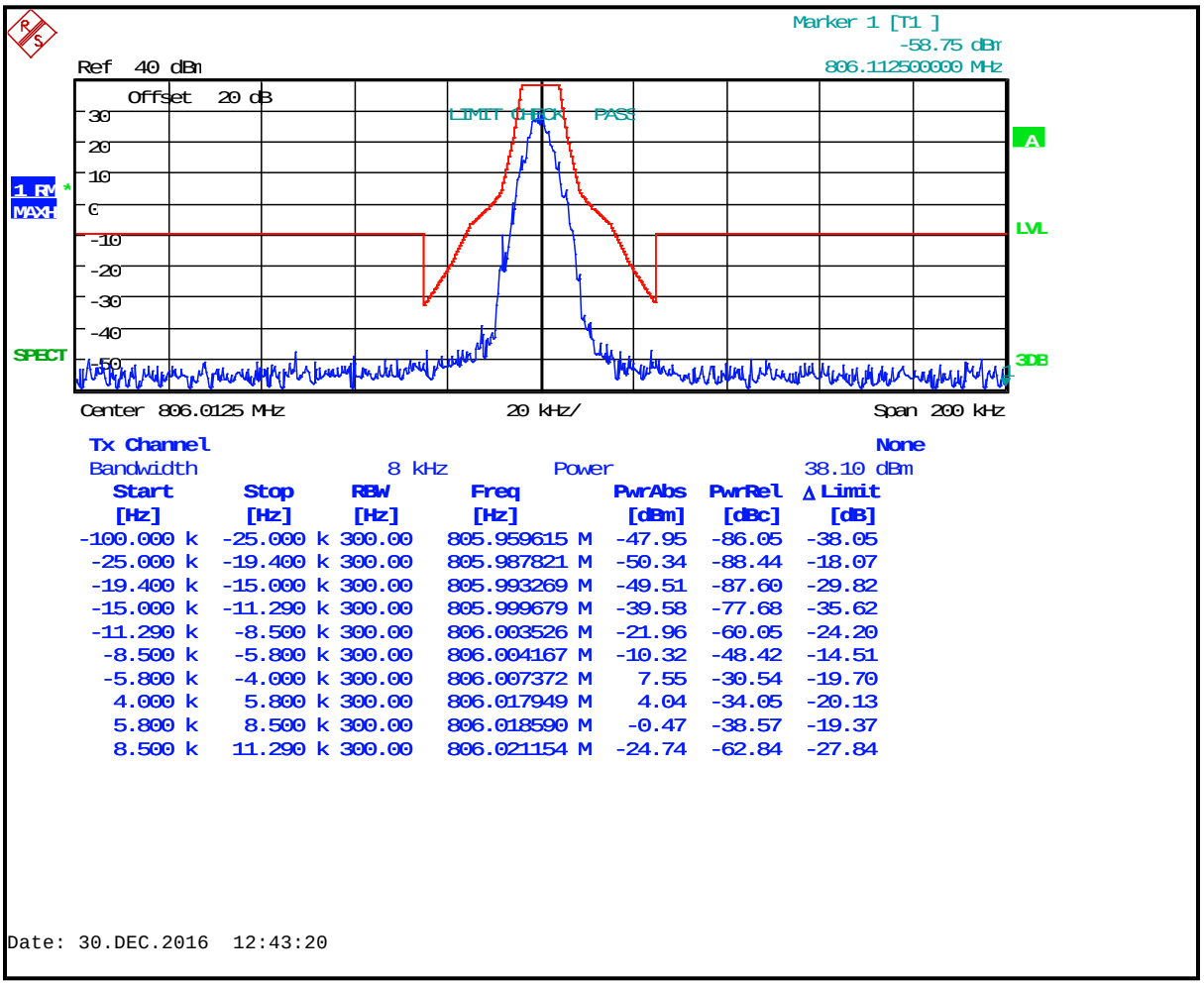
Tx Channel **None**

Bandwidth 300 Hz Peak Power 28.38 dBm

Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	PwrRel [dBc]	Δ Limit [dB]
-100.000 k	-50.000 k	300.00	860.894872 M	-52.03	-90.22	-39.03
-50.000 k	-17.800 k	300.00	860.969231 M	-23.96	-62.15	-3.96
-17.800 k	-10.000 k	300.00	860.969700 M	-28.61	-66.80	-8.61
10.000 k	17.800 k	300.00	861.004808 M	-26.25	-64.44	-8.08
17.800 k	50.000 k	300.00	861.005769 M	-26.93	-65.12	-6.93
50.000 k	100.000 k	300.00	861.039423 M	-53.56	-91.74	-40.56

Date: 19.DEC.2016 11:41:08

Plot 8-65: Occupied Bandwidth – 806.0125 MHz; P25; Mask H

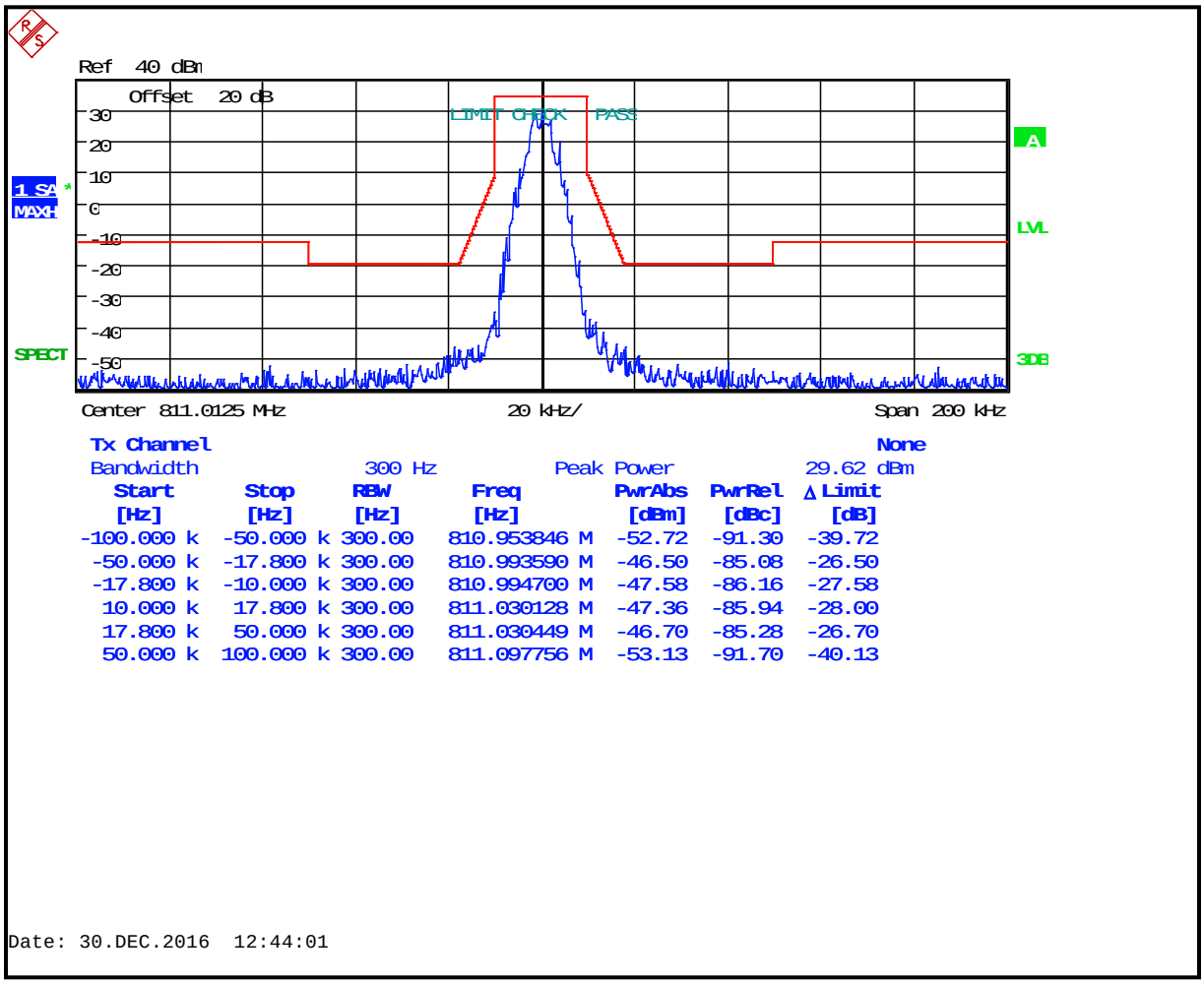


Tx Channel None
Bandwidth 8 kHz Power 38.10 dBm

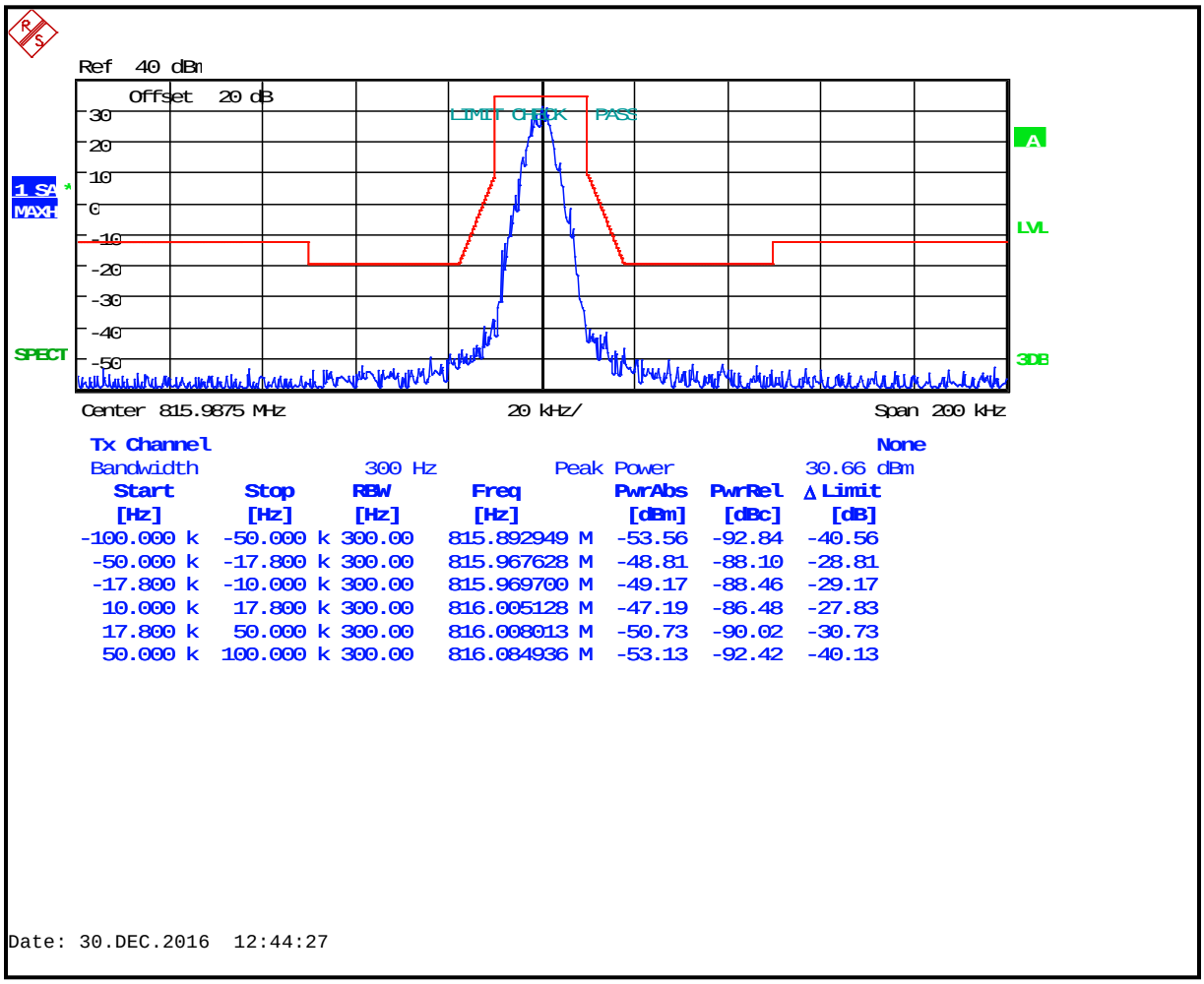
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	PwrRel [dBc]	Δ Limit [dB]
-100.000 k	-25.000 k	300.00	805.959615 M	-47.95	-86.05	-38.05
-25.000 k	-19.400 k	300.00	805.987821 M	-50.34	-88.44	-18.07
-19.400 k	-15.000 k	300.00	805.993269 M	-49.51	-87.60	-29.82
-15.000 k	-11.290 k	300.00	805.999679 M	-39.58	-77.68	-35.62
-11.290 k	-8.500 k	300.00	806.003526 M	-21.96	-60.05	-24.20
-8.500 k	-5.800 k	300.00	806.004167 M	-10.32	-48.42	-14.51
-5.800 k	-4.000 k	300.00	806.007372 M	7.55	-30.54	-19.70
4.000 k	5.800 k	300.00	806.017949 M	4.04	-34.05	-20.13
5.800 k	8.500 k	300.00	806.018590 M	-0.47	-38.57	-19.37
8.500 k	11.290 k	300.00	806.021154 M	-24.74	-62.84	-27.84

Date: 30.DEC.2016 12:43:20

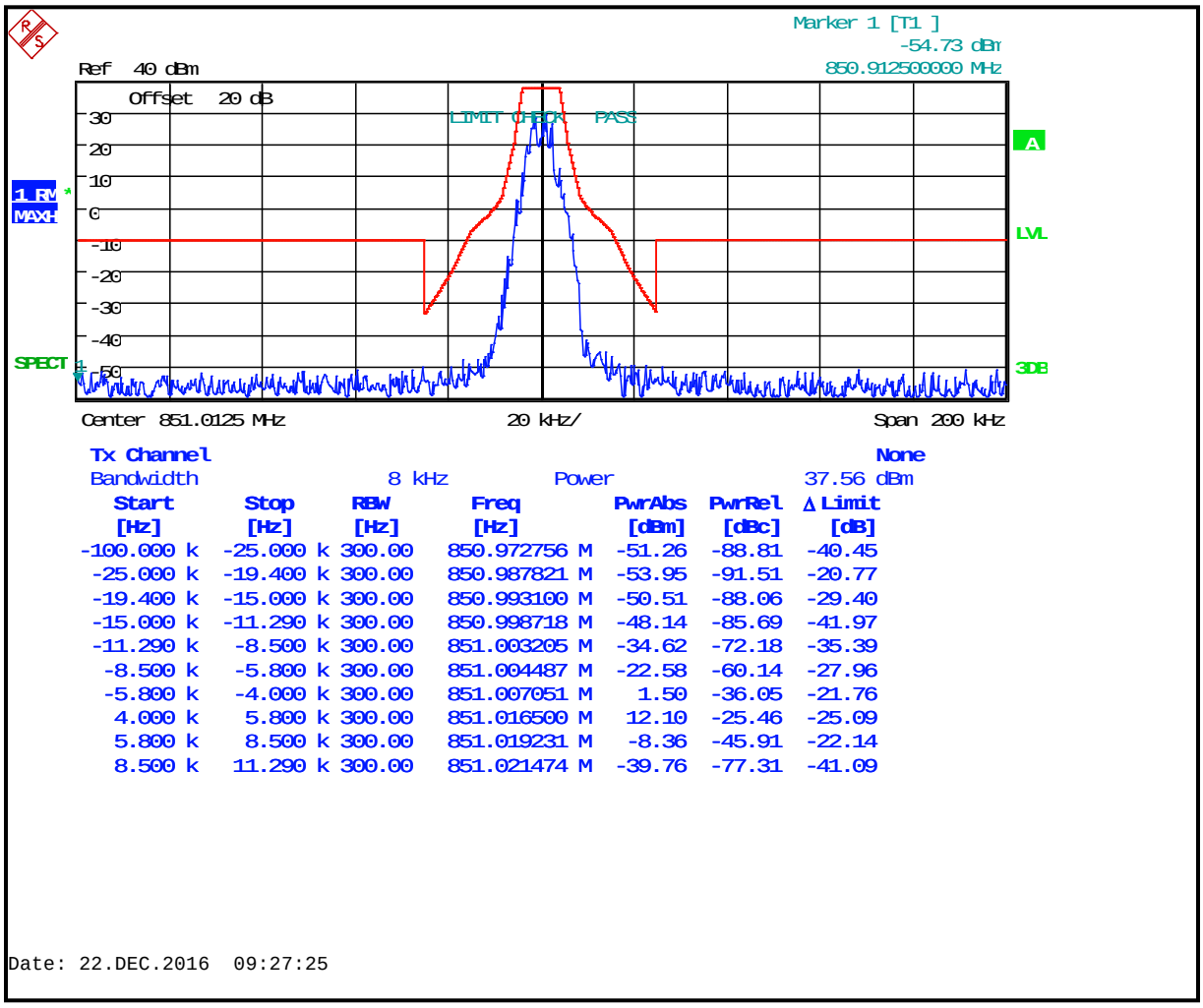
Plot 8-66: Occupied Bandwidth – 811.0125 MHz; P25; Mask G



Plot 8-67: Occupied Bandwidth – 815.9875 MHz; P25; Mask G



Plot 8-68: Occupied Bandwidth – 851.0125 MHz; P25; Mask H

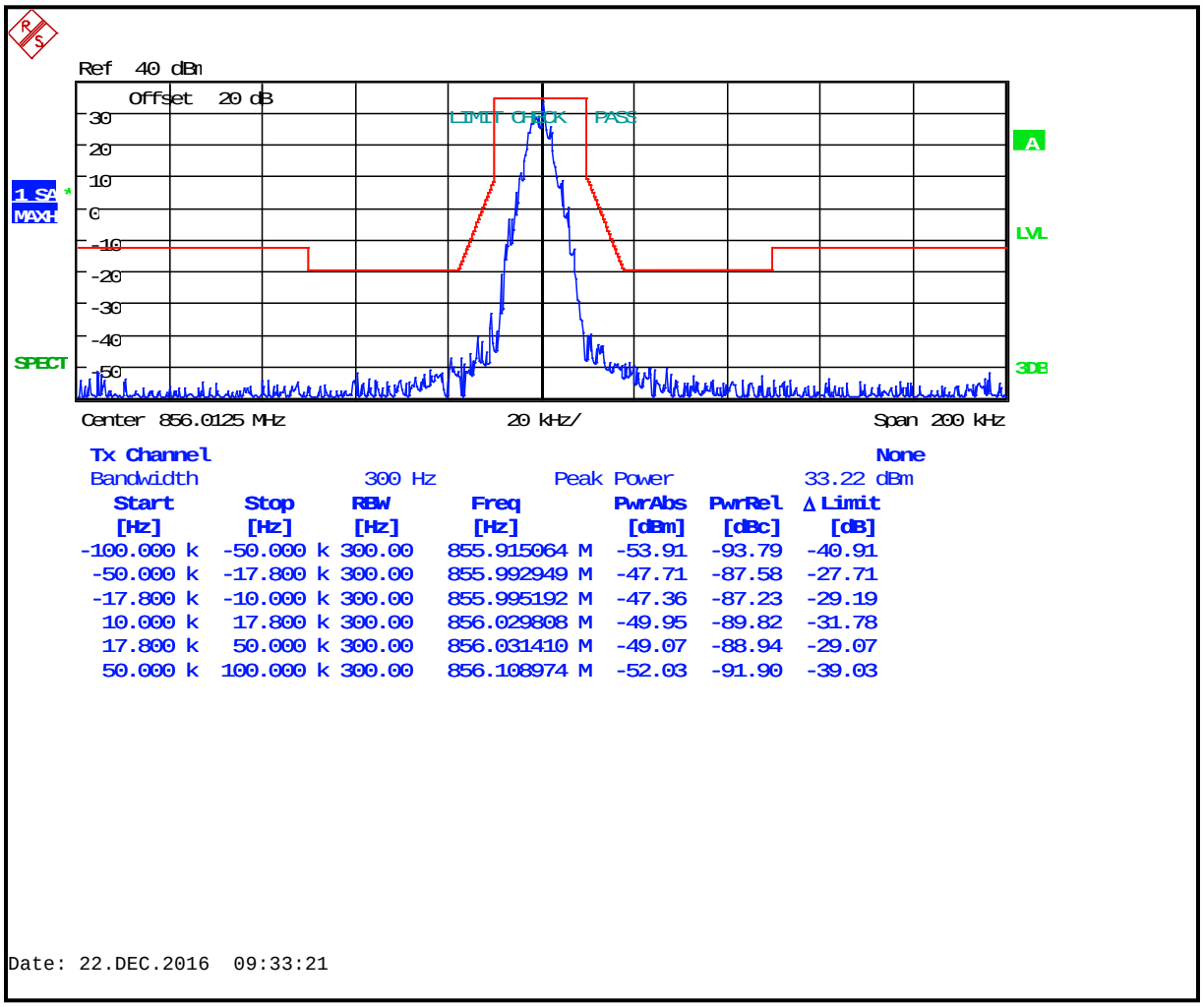


Tx Channel **None**
Bandwidth 8 kHz Power 37.56 dBm

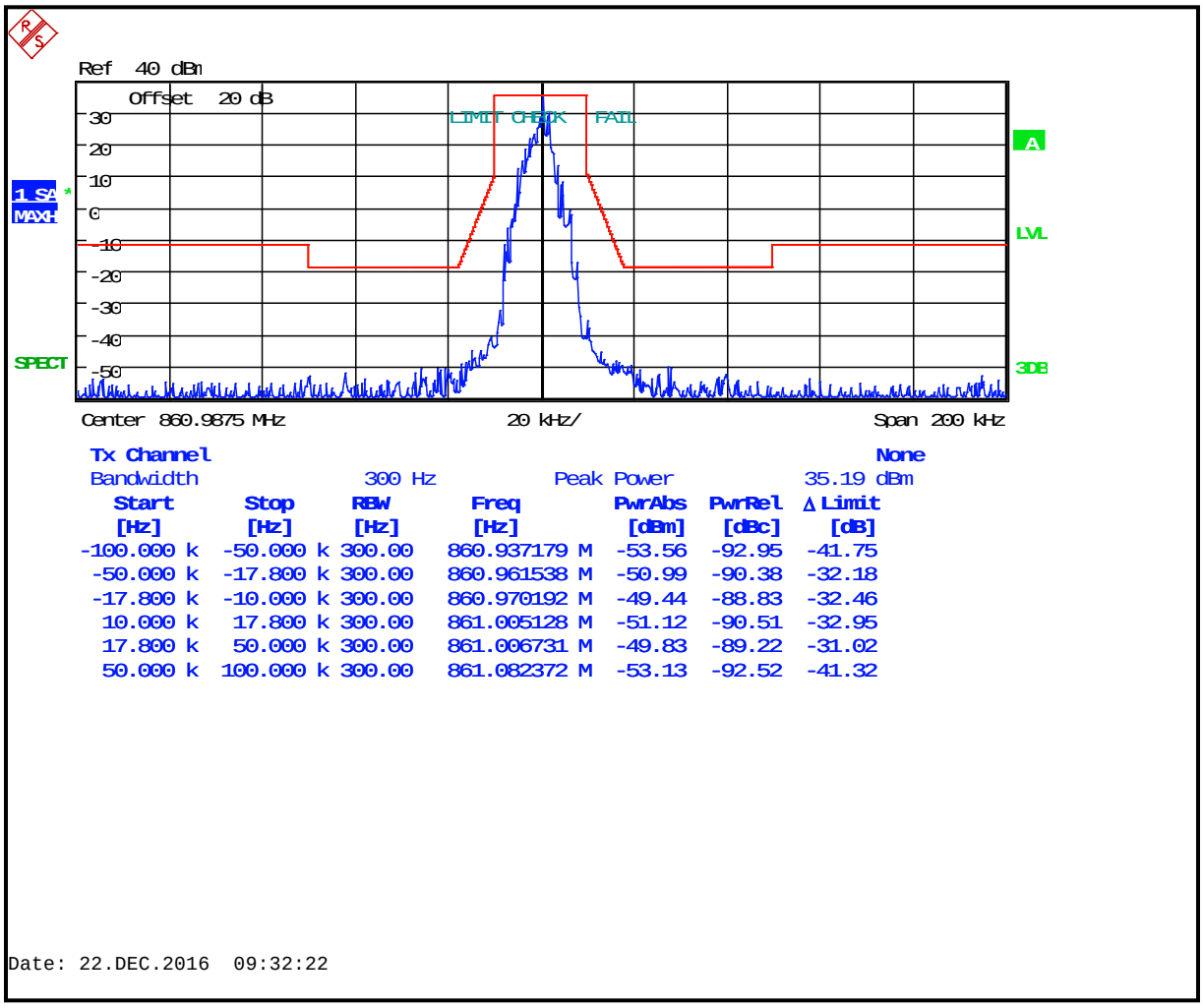
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	PwrRel [dBc]	Δ Limit [dB]
-100.000 k	-25.000 k	300.00	850.972756 M	-51.26	-88.81	-40.45
-25.000 k	-19.400 k	300.00	850.987821 M	-53.95	-91.51	-20.77
-19.400 k	-15.000 k	300.00	850.993100 M	-50.51	-88.06	-29.40
-15.000 k	-11.290 k	300.00	850.998718 M	-48.14	-85.69	-41.97
-11.290 k	-8.500 k	300.00	851.003205 M	-34.62	-72.18	-35.39
-8.500 k	-5.800 k	300.00	851.004487 M	-22.58	-60.14	-27.96
-5.800 k	-4.000 k	300.00	851.007051 M	1.50	-36.05	-21.76
4.000 k	5.800 k	300.00	851.016500 M	12.10	-25.46	-25.09
5.800 k	8.500 k	300.00	851.019231 M	-8.36	-45.91	-22.14
8.500 k	11.290 k	300.00	851.021474 M	-39.76	-77.31	-41.09

Date: 22.DEC.2016 09:27:25

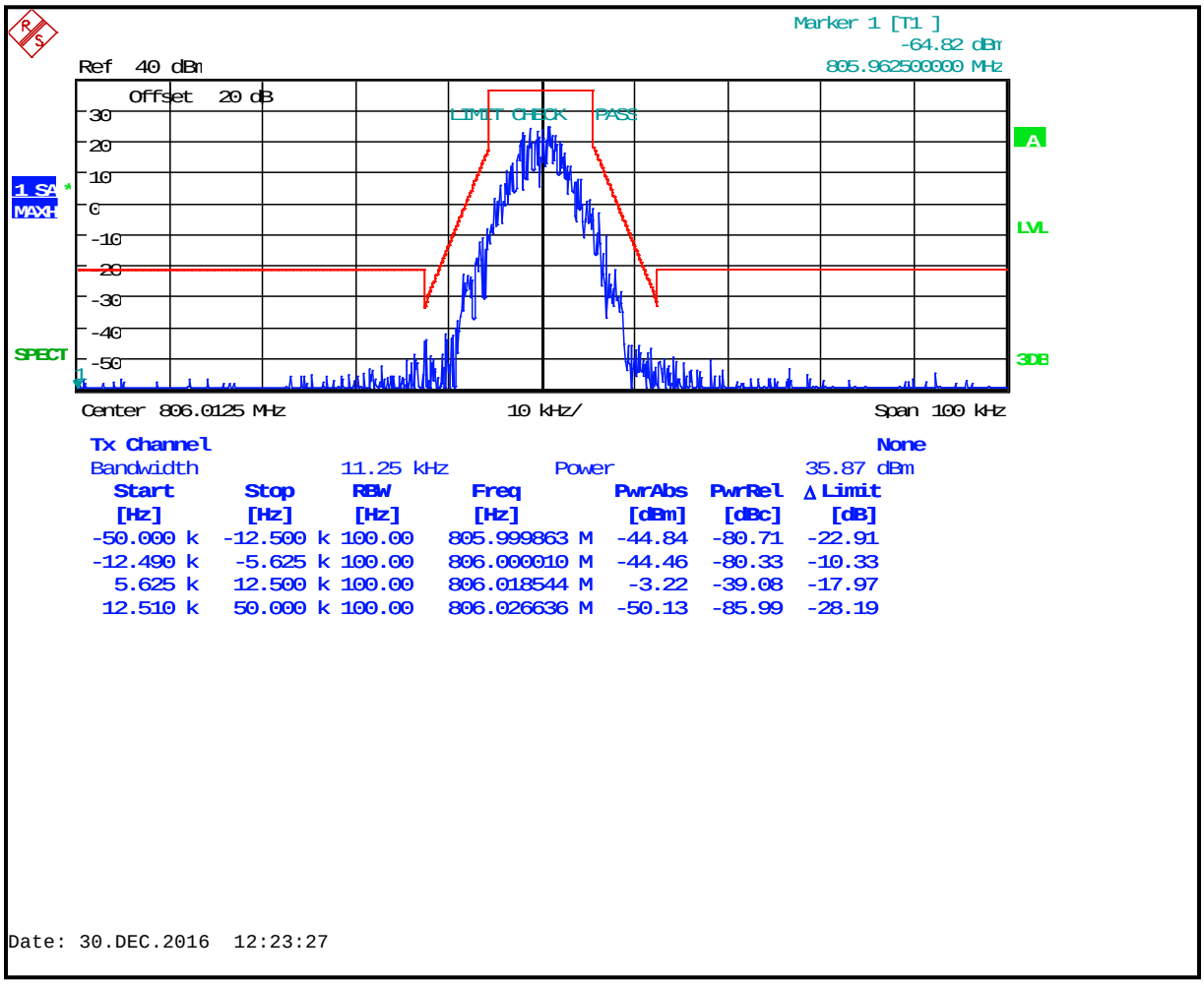
Plot 8-69: Occupied Bandwidth – 856.0125 MHz; P25; Mask G



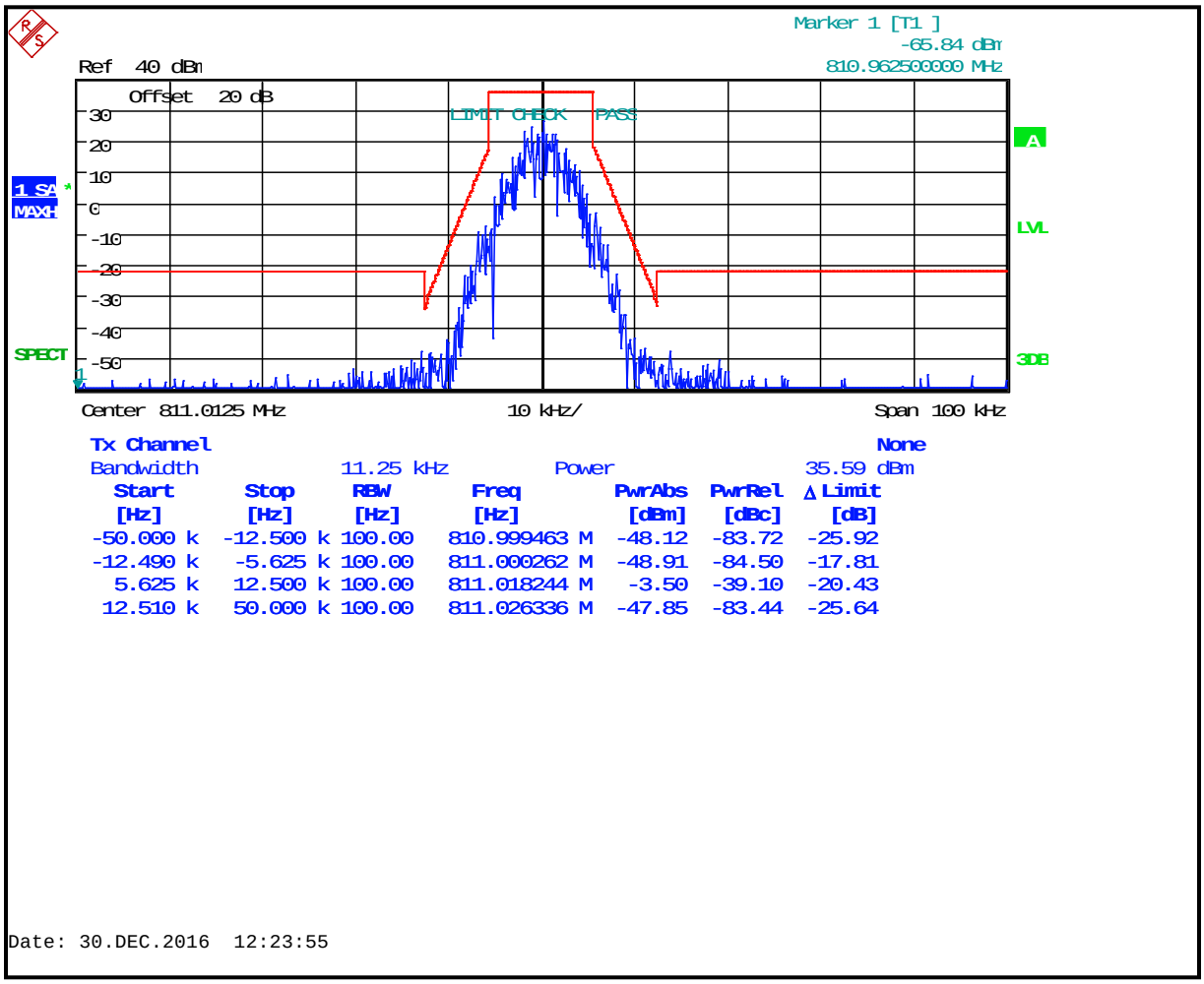
Plot 8-70: Occupied Bandwidth – 860.9875 MHz; P25; Mask G



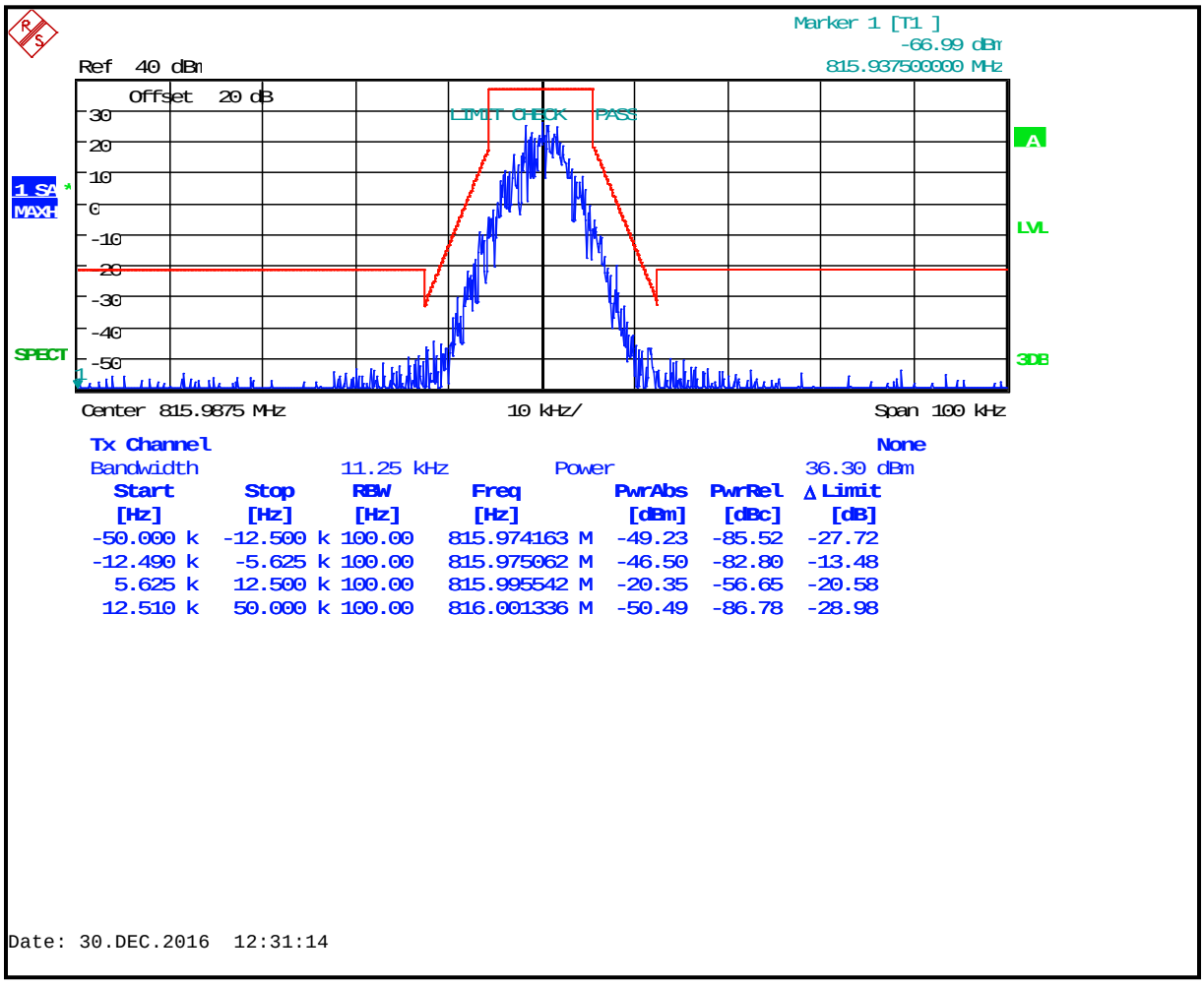
Plot 8-71: Occupied Bandwidth – 806.0125 MHz; P25; Mask D



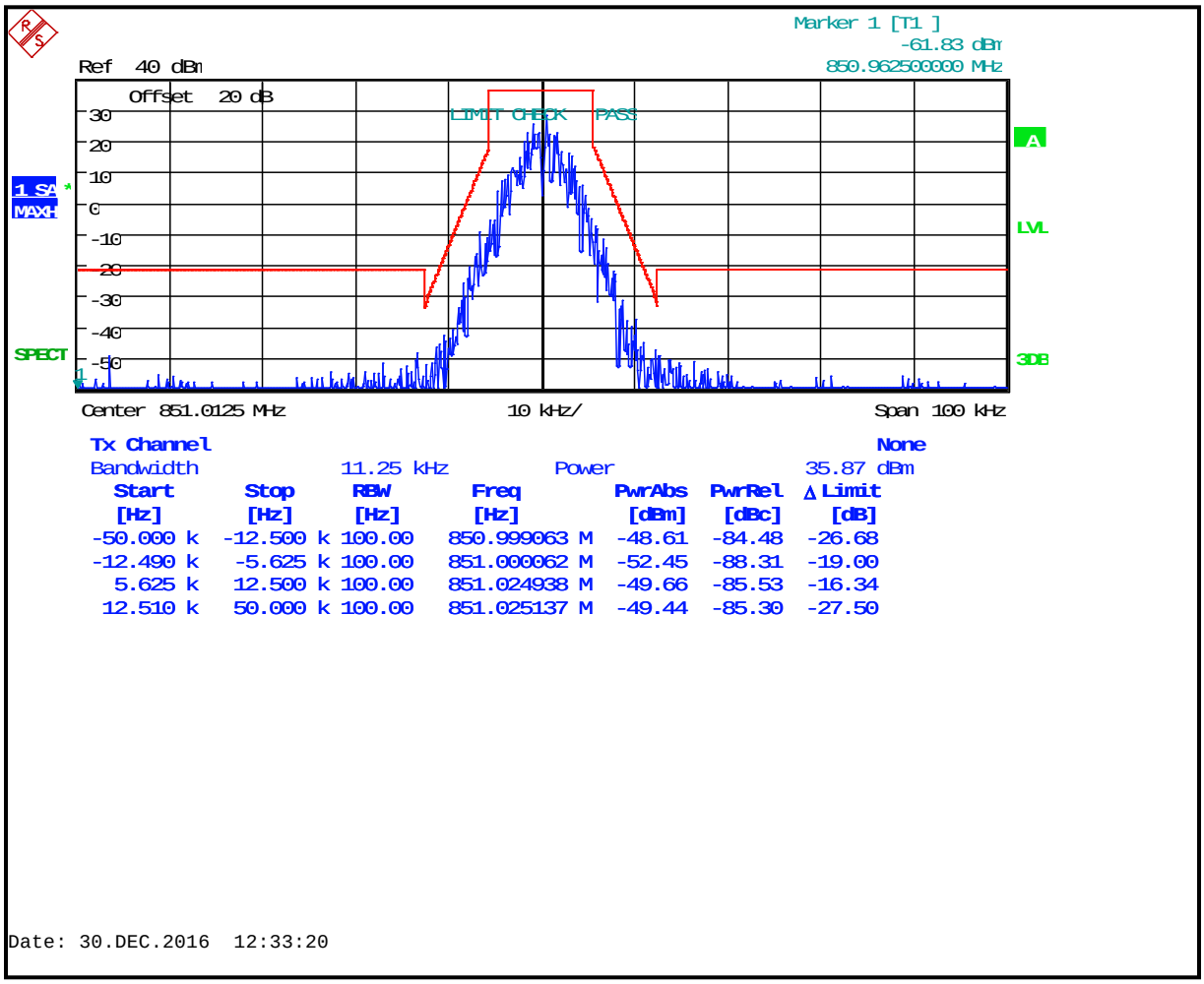
Plot 8-72: Occupied Bandwidth – 811.0125 MHz; P25; Mask D



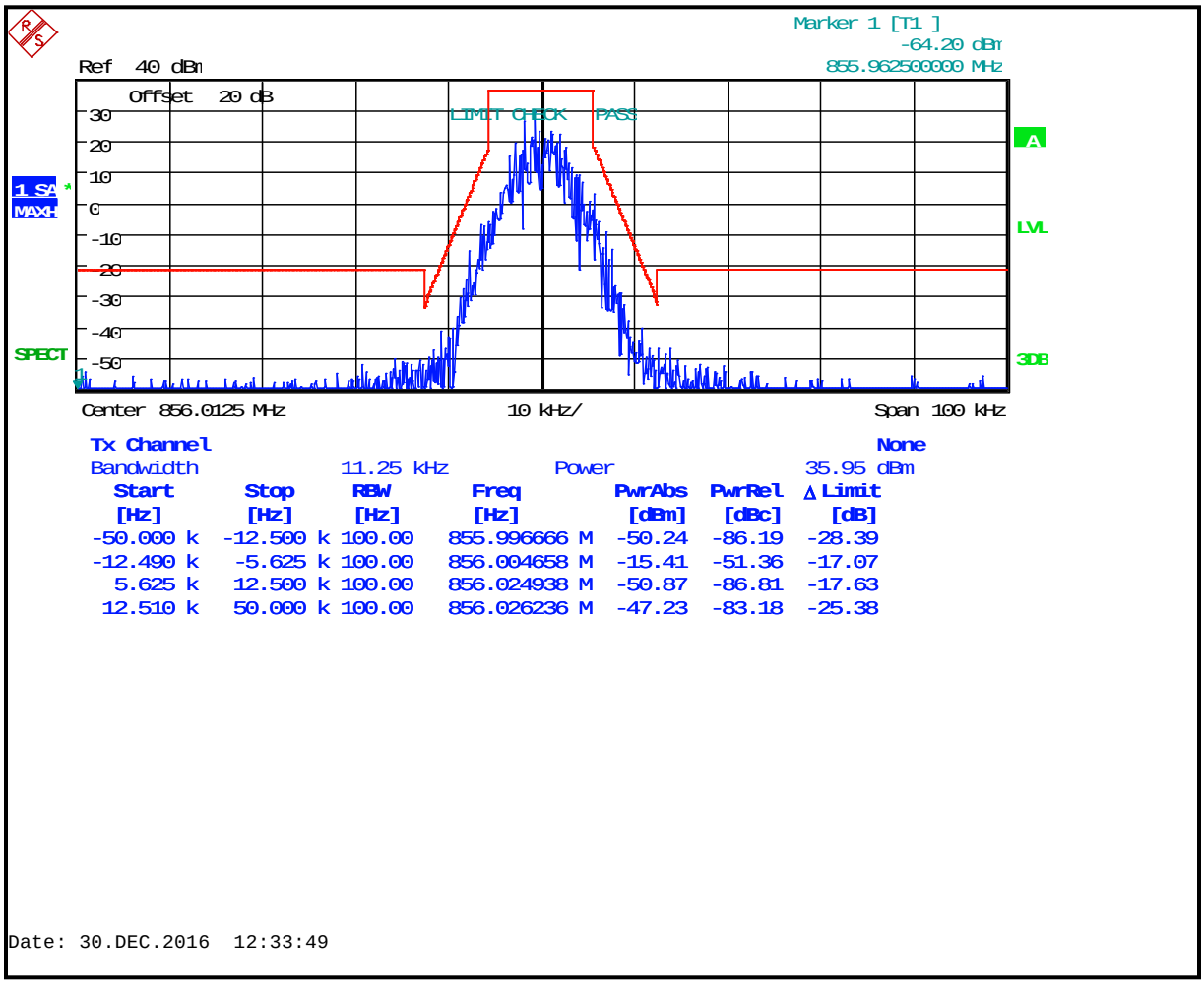
Plot 8-73: Occupied Bandwidth – 815.9875 MHz; P25; Mask D



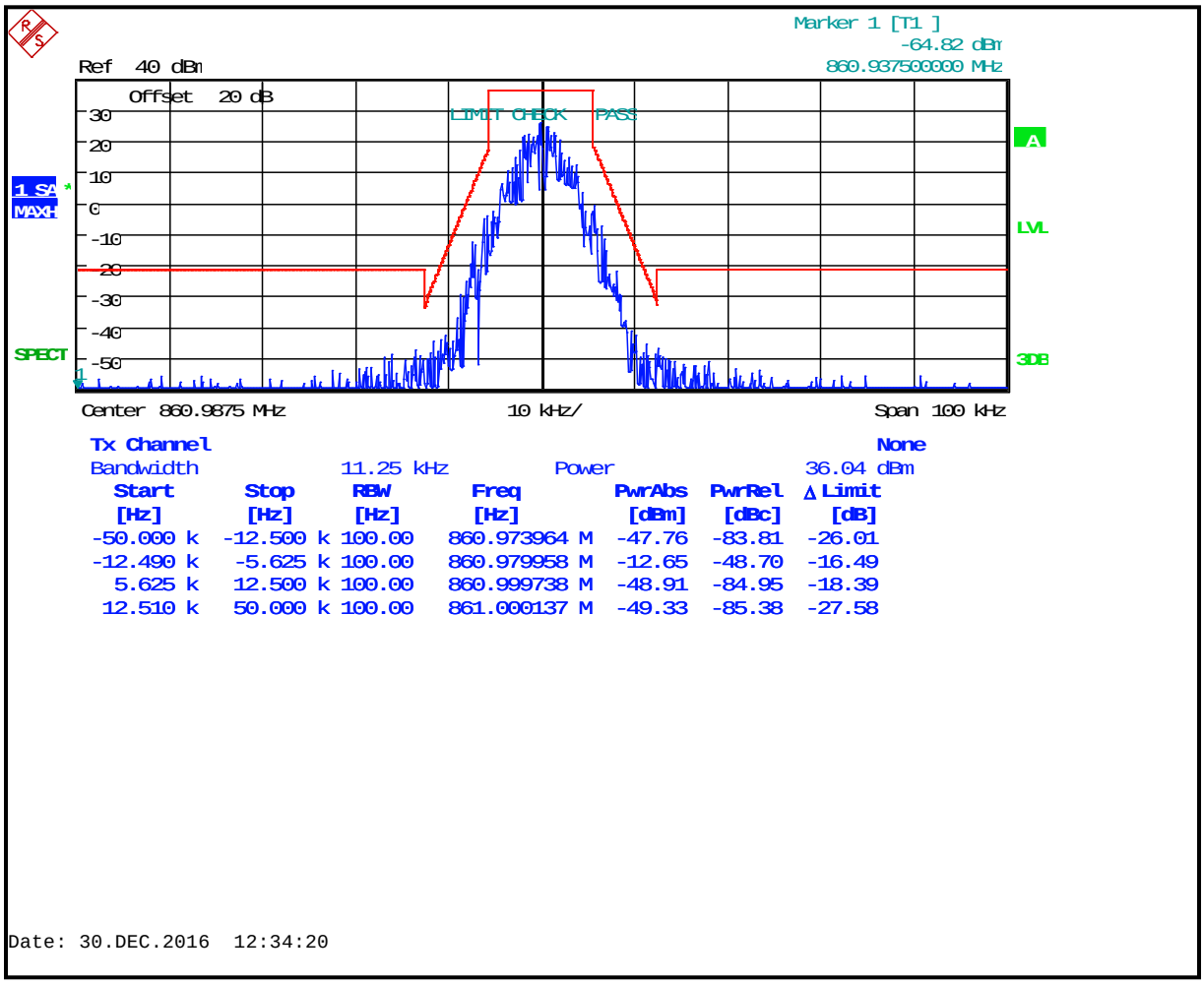
Plot 8-74: Occupied Bandwidth – 851.0125 MHz; P25; Mask D



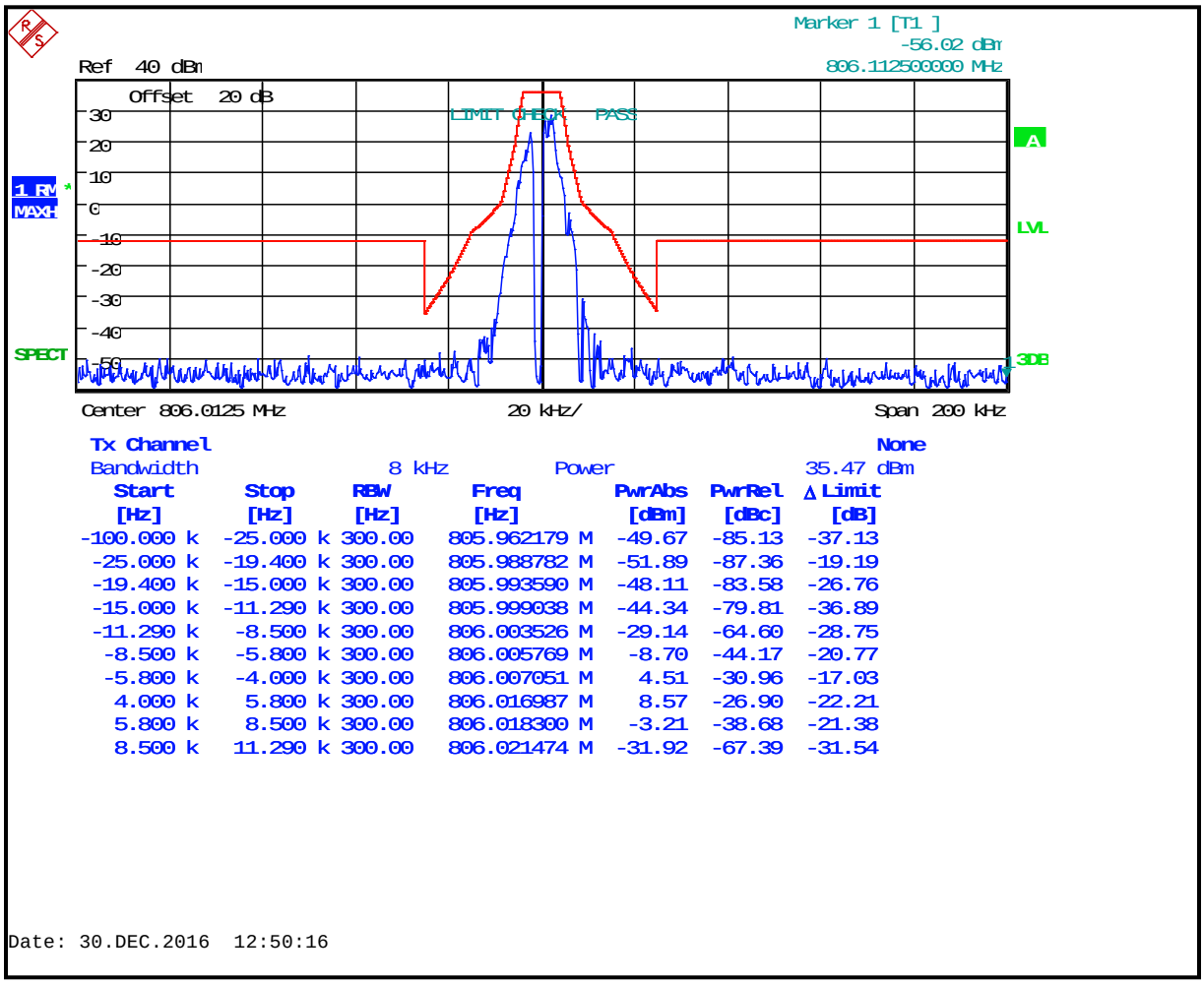
Plot 8-75: Occupied Bandwidth – 856.0125 MHz; P25; Mask D



Plot 8-76: Occupied Bandwidth – 860.9875 MHz; P25; Mask D



Plot 8-77: Occupied Bandwidth – 806.0125 MHz; P25 Phase 2; Mask H

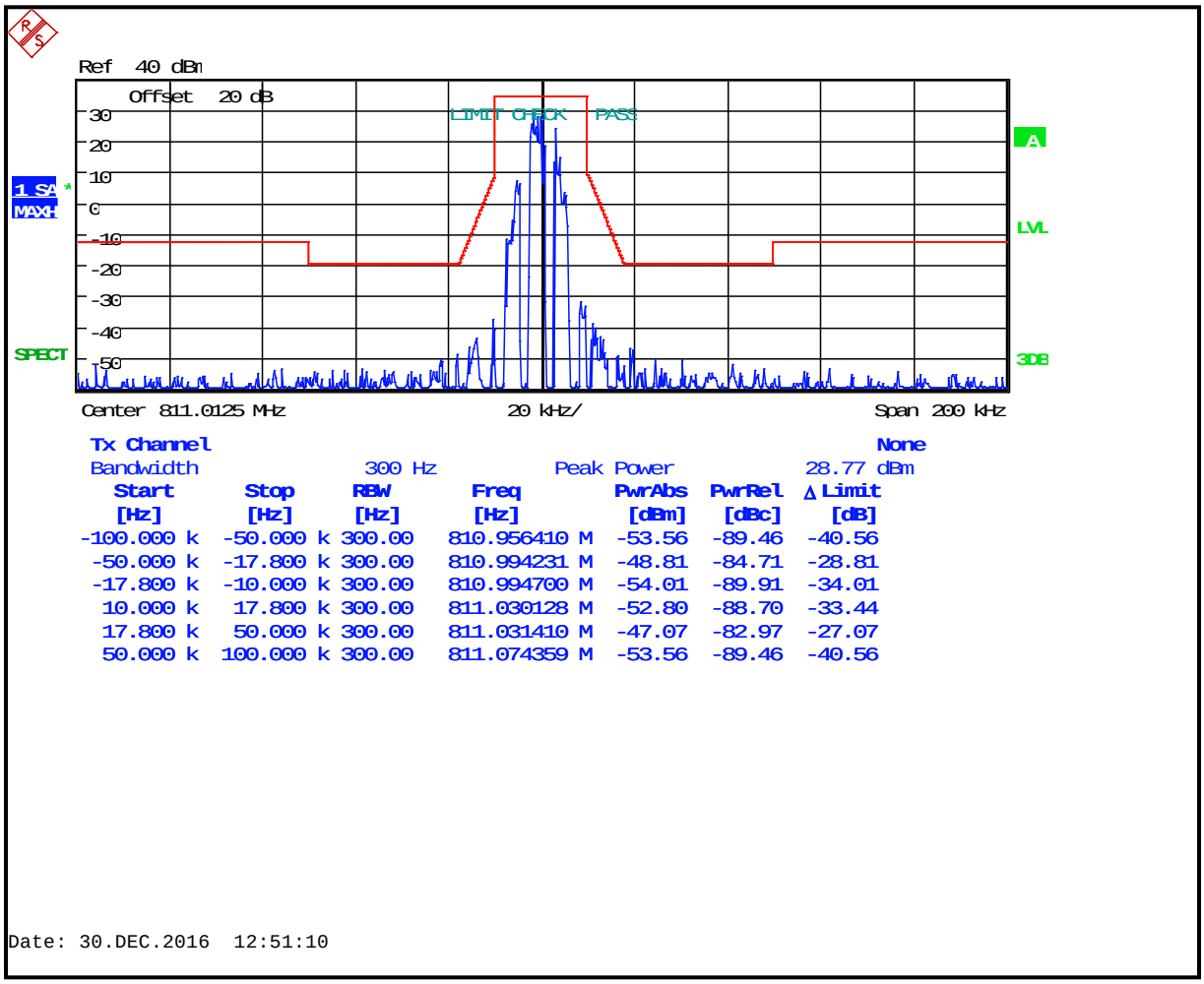


Tx Channel None
Bandwidth 8 kHz Power 35.47 dBm

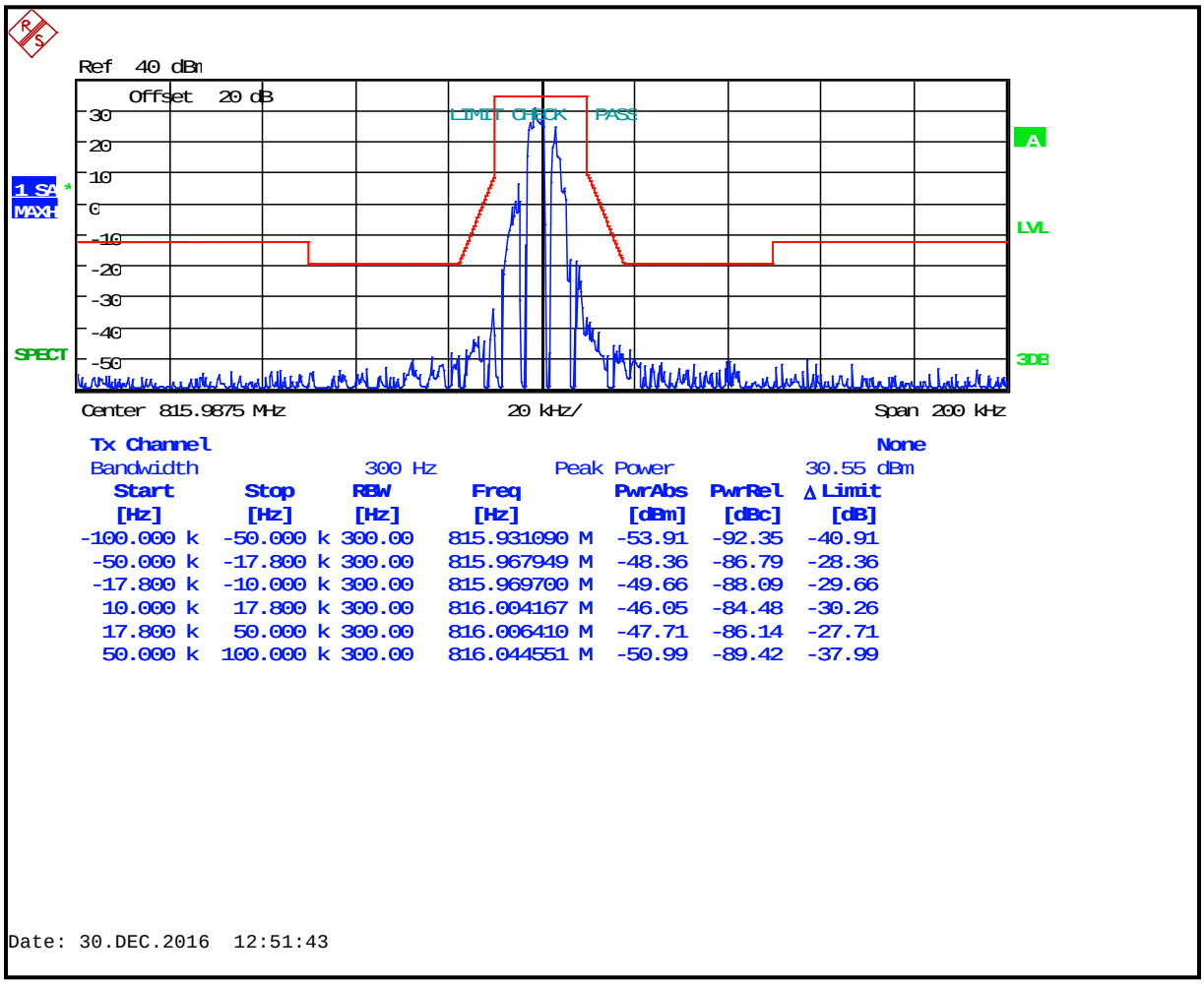
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	PwrRel [dBc]	Δ Limit [dB]
-100.000 k	-25.000 k	300.00	805.962179 M	-49.67	-85.13	-37.13
-25.000 k	-19.400 k	300.00	805.988782 M	-51.89	-87.36	-19.19
-19.400 k	-15.000 k	300.00	805.993590 M	-48.11	-83.58	-26.76
-15.000 k	-11.290 k	300.00	805.999038 M	-44.34	-79.81	-36.89
-11.290 k	-8.500 k	300.00	806.003526 M	-29.14	-64.60	-28.75
-8.500 k	-5.800 k	300.00	806.005769 M	-8.70	-44.17	-20.77
-5.800 k	-4.000 k	300.00	806.007051 M	4.51	-30.96	-17.03
4.000 k	5.800 k	300.00	806.016987 M	8.57	-26.90	-22.21
5.800 k	8.500 k	300.00	806.018300 M	-3.21	-38.68	-21.38
8.500 k	11.290 k	300.00	806.021474 M	-31.92	-67.39	-31.54

Date: 30.DEC.2016 12:50:16

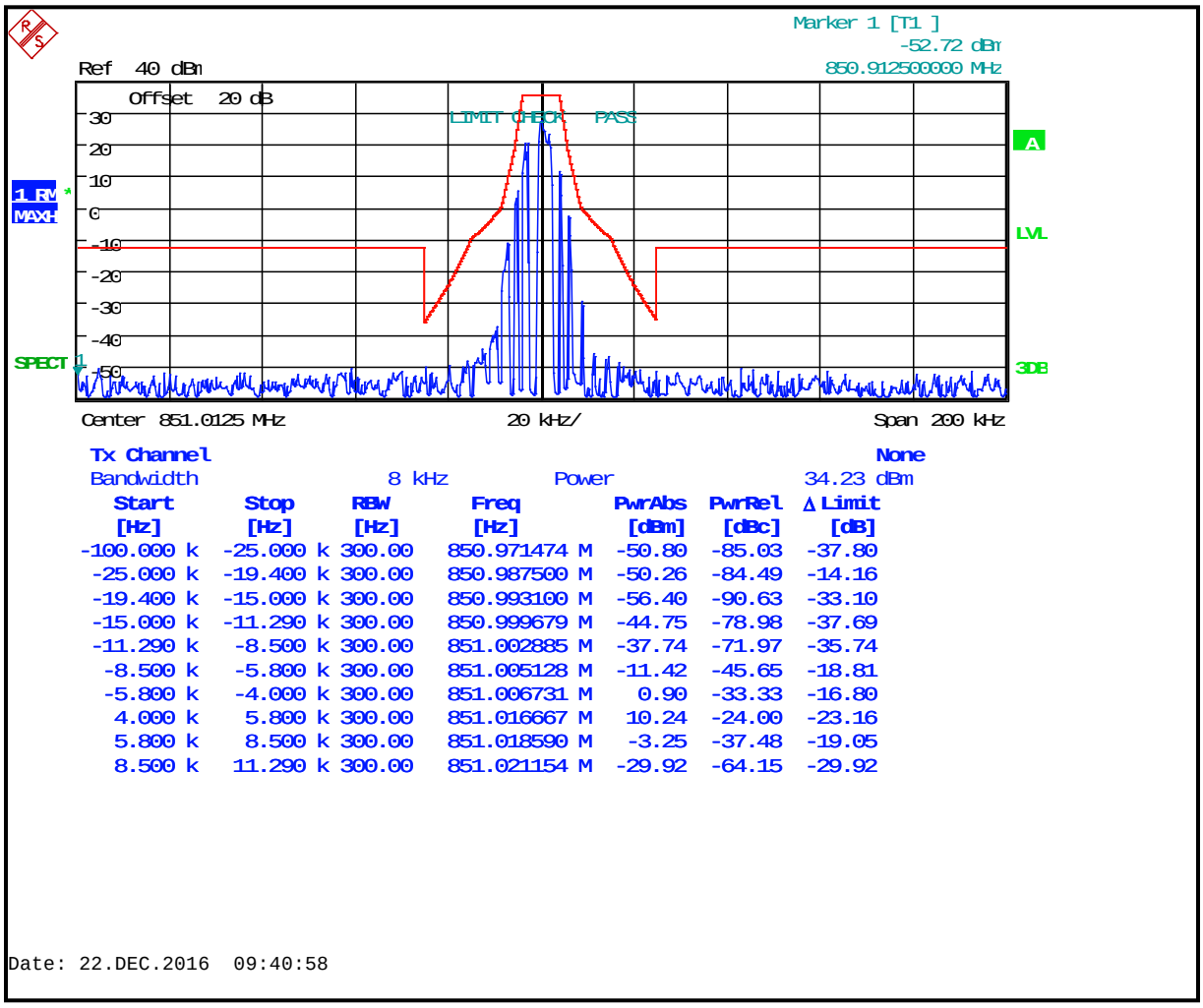
Plot 8-78: Occupied Bandwidth – 811.0125 MHz; P25 Phase 2; Mask G



Plot 8-79: Occupied Bandwidth – 815.9875 MHz; P25 Phase 2; Mask G



Plot 8-80: Occupied Bandwidth – 851.0125 MHz; P25 Phase 2; Mask H



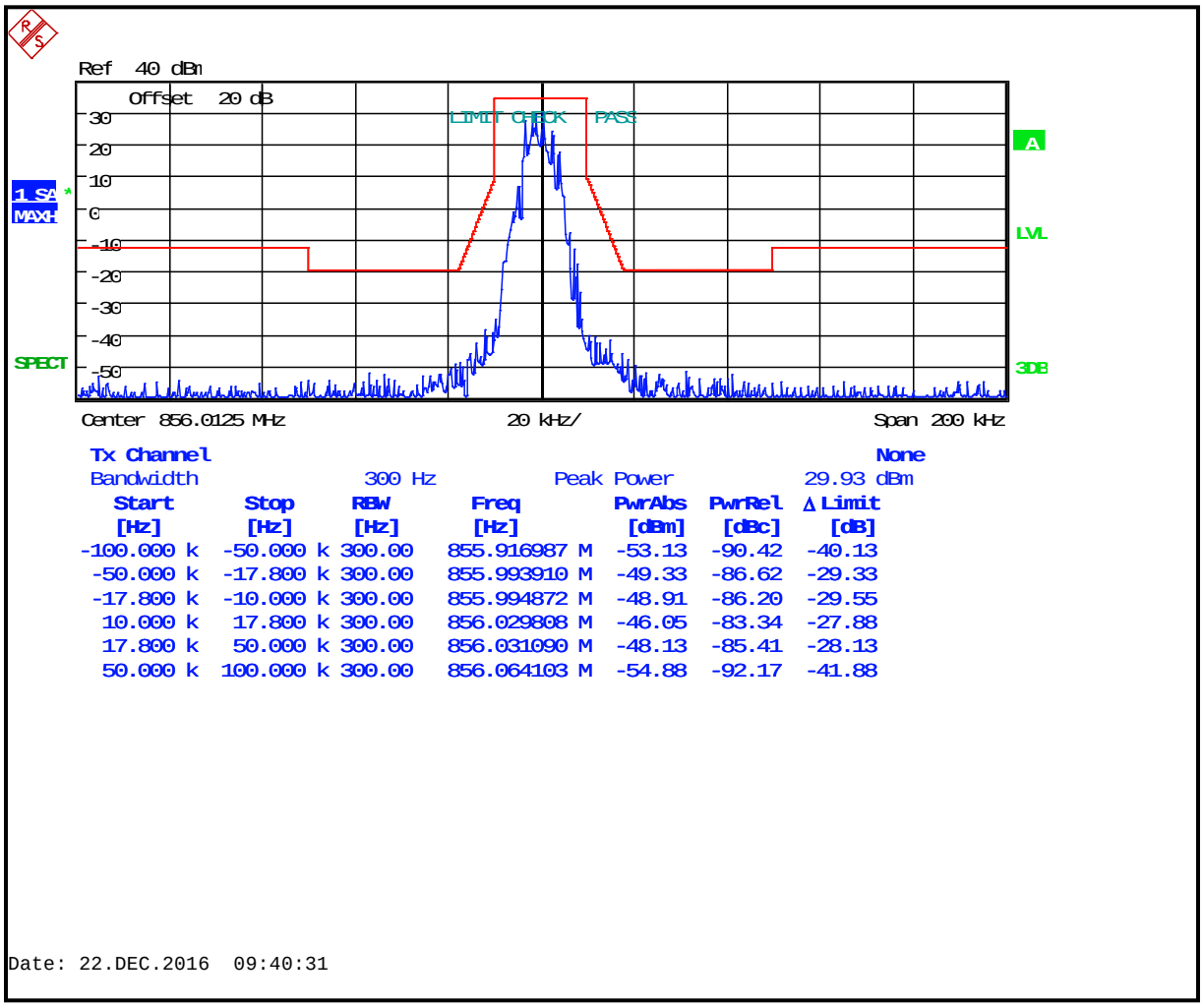
Tx Channel **None**

Bandwidth 8 kHz Power 34.23 dBm

Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	PwrRel [dBc]	Δ Limit [dB]
-100.000 k	-25.000 k	300.00	850.971474 M	-50.80	-85.03	-37.80
-25.000 k	-19.400 k	300.00	850.987500 M	-50.26	-84.49	-14.16
-19.400 k	-15.000 k	300.00	850.993100 M	-56.40	-90.63	-33.10
-15.000 k	-11.290 k	300.00	850.999679 M	-44.75	-78.98	-37.69
-11.290 k	-8.500 k	300.00	851.002885 M	-37.74	-71.97	-35.74
-8.500 k	-5.800 k	300.00	851.005128 M	-11.42	-45.65	-18.81
-5.800 k	-4.000 k	300.00	851.006731 M	0.90	-33.33	-16.80
4.000 k	5.800 k	300.00	851.016667 M	10.24	-24.00	-23.16
5.800 k	8.500 k	300.00	851.018590 M	-3.25	-37.48	-19.05
8.500 k	11.290 k	300.00	851.021154 M	-29.92	-64.15	-29.92

Date: 22.DEC.2016 09:40:58

Plot 8-81: Occupied Bandwidth – 856.0125 MHz; P25 Phase 2; Mask G



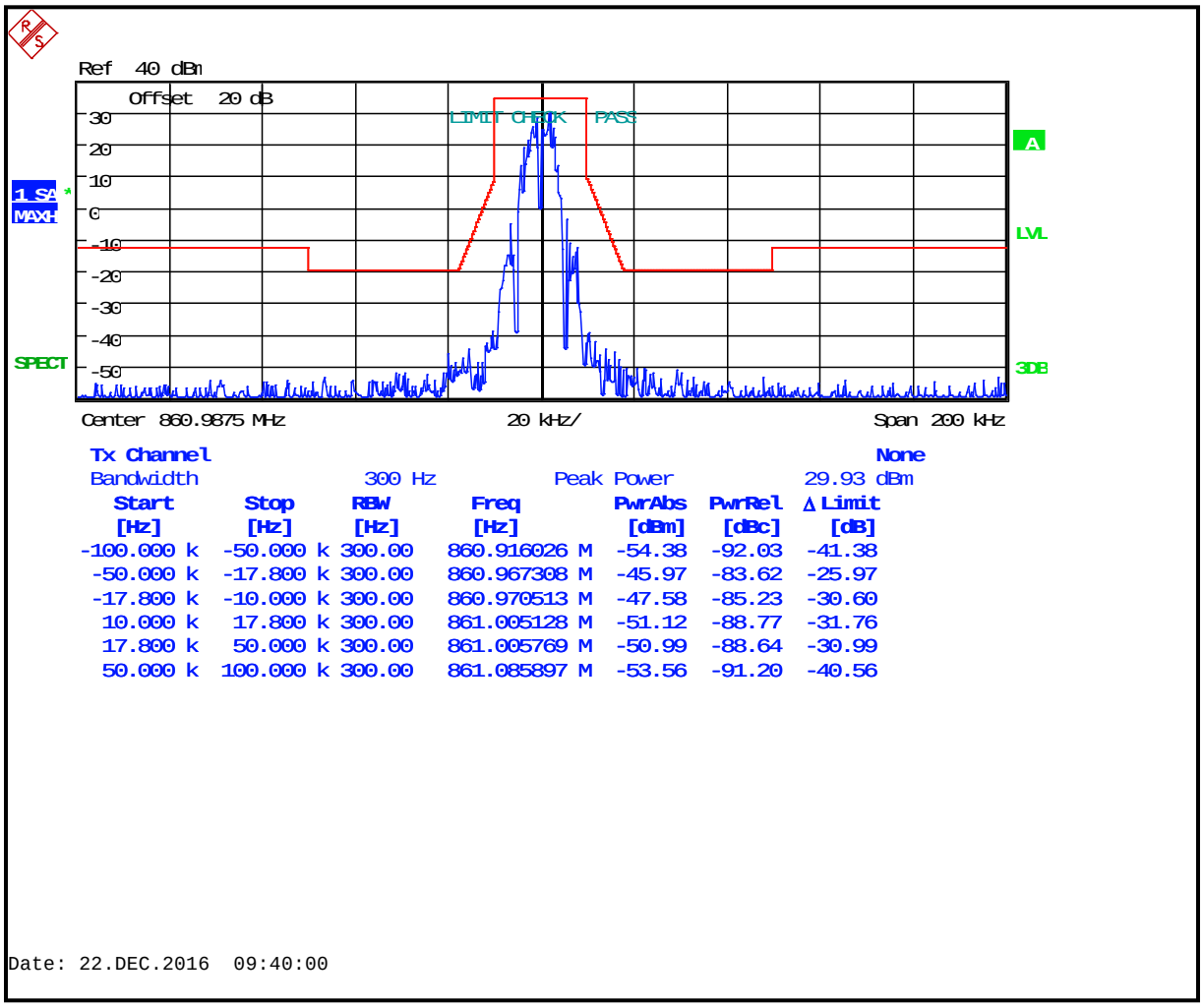
Tx Channel None

Bandwidth 300 Hz Peak Power 29.93 dBm

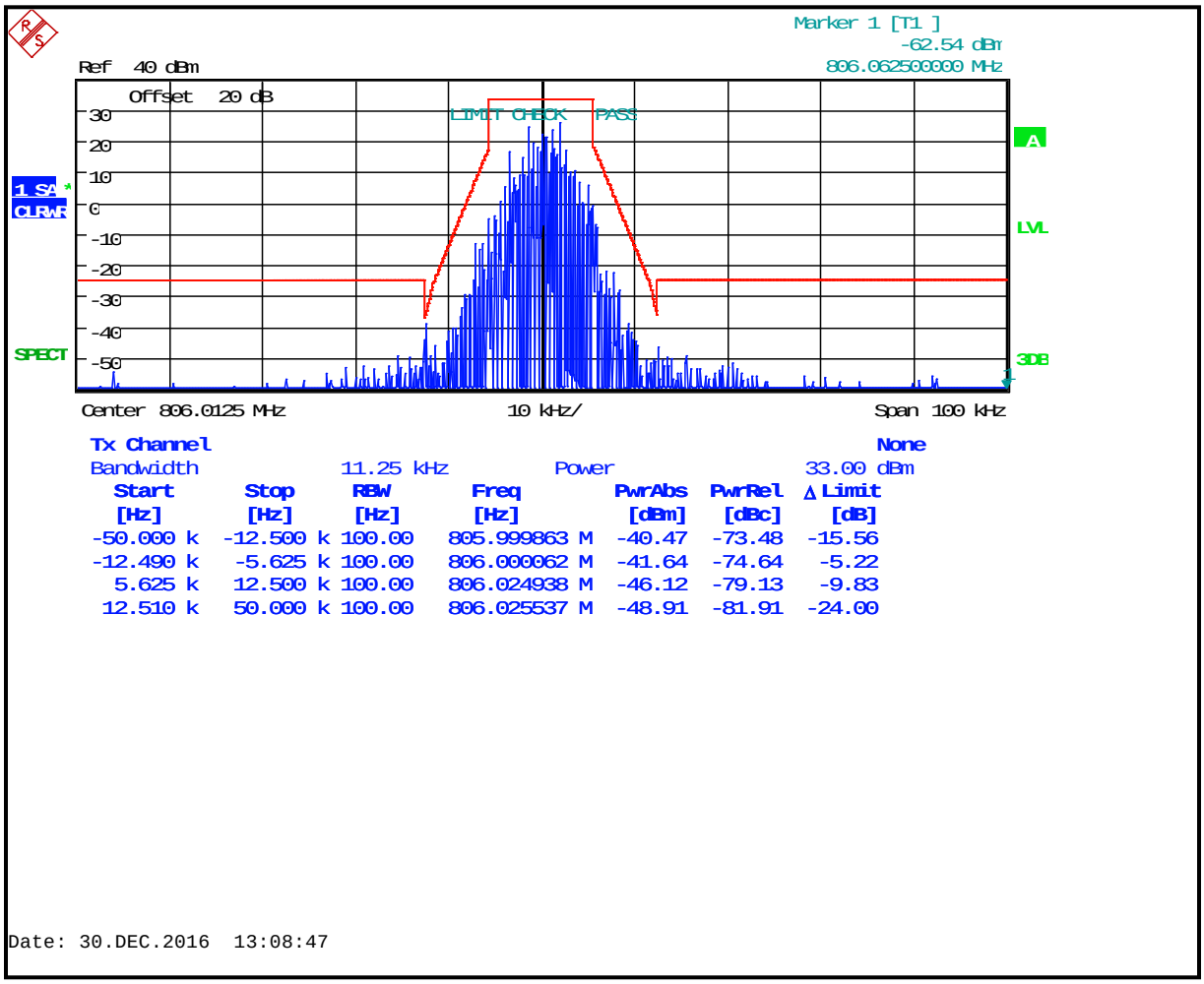
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	PwrRel [dBc]	Δ Limit [dB]
-100.000 k	-50.000 k	300.00	855.916987 M	-53.13	-90.42	-40.13
-50.000 k	-17.800 k	300.00	855.993910 M	-49.33	-86.62	-29.33
-17.800 k	-10.000 k	300.00	855.994872 M	-48.91	-86.20	-29.55
10.000 k	17.800 k	300.00	856.029808 M	-46.05	-83.34	-27.88
17.800 k	50.000 k	300.00	856.031090 M	-48.13	-85.41	-28.13
50.000 k	100.000 k	300.00	856.064103 M	-54.88	-92.17	-41.88

Date: 22.DEC.2016 09:40:31

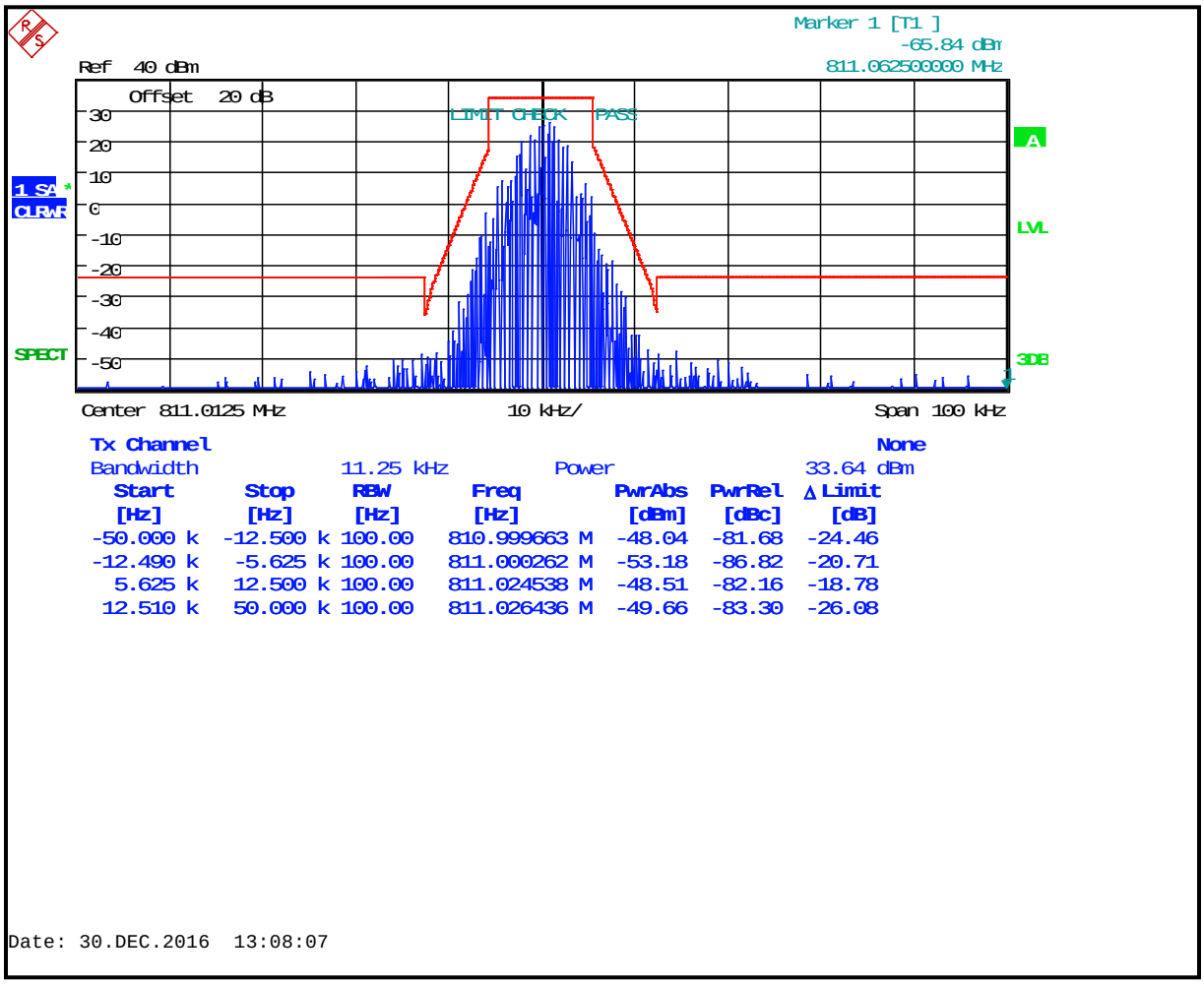
Plot 8-82: Occupied Bandwidth – 860.9875 MHz; P25 Phase 2; Mask G



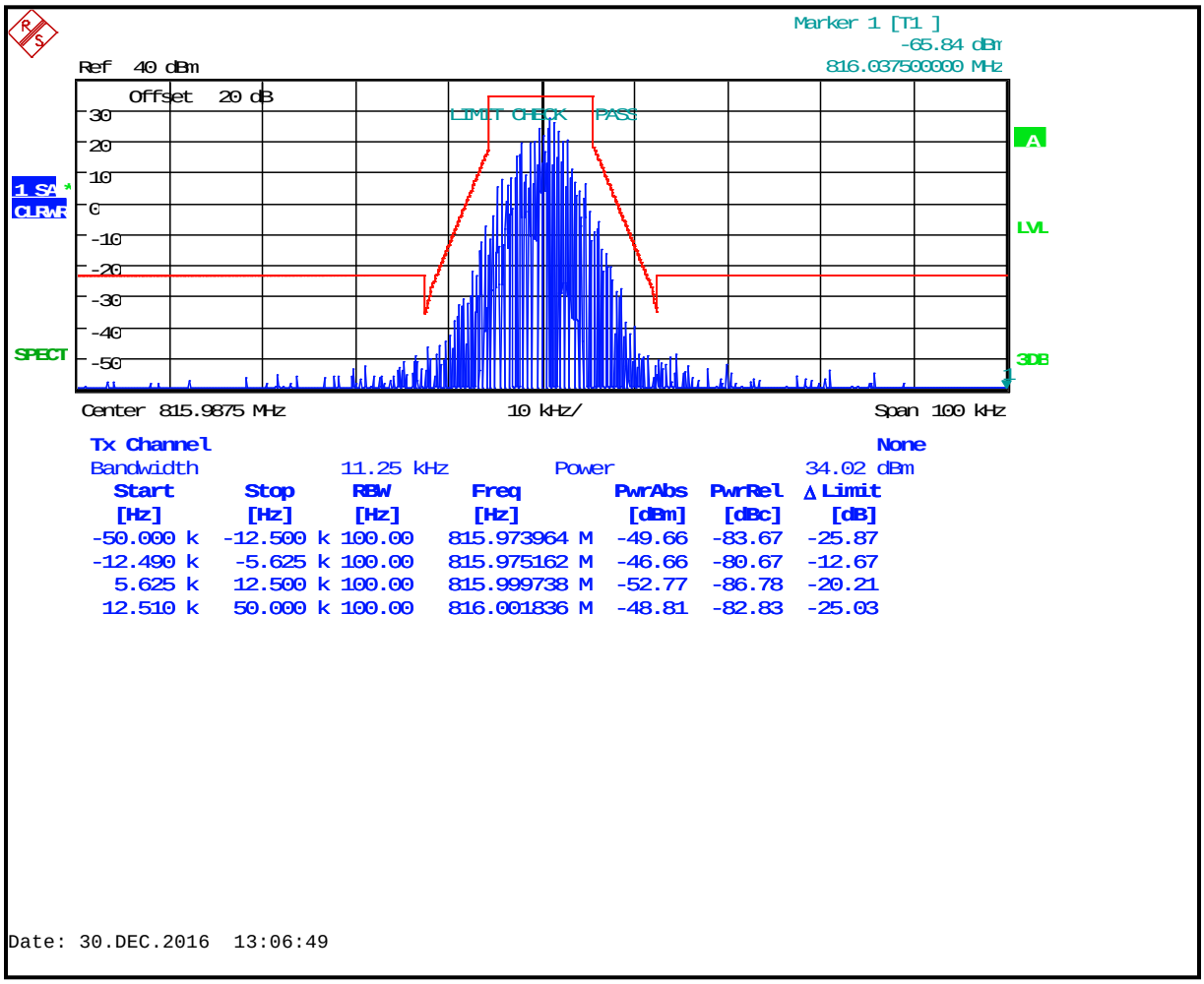
Plot 8-83: Occupied Bandwidth – 806.0125 MHz; P25 Phase 2; Mask D



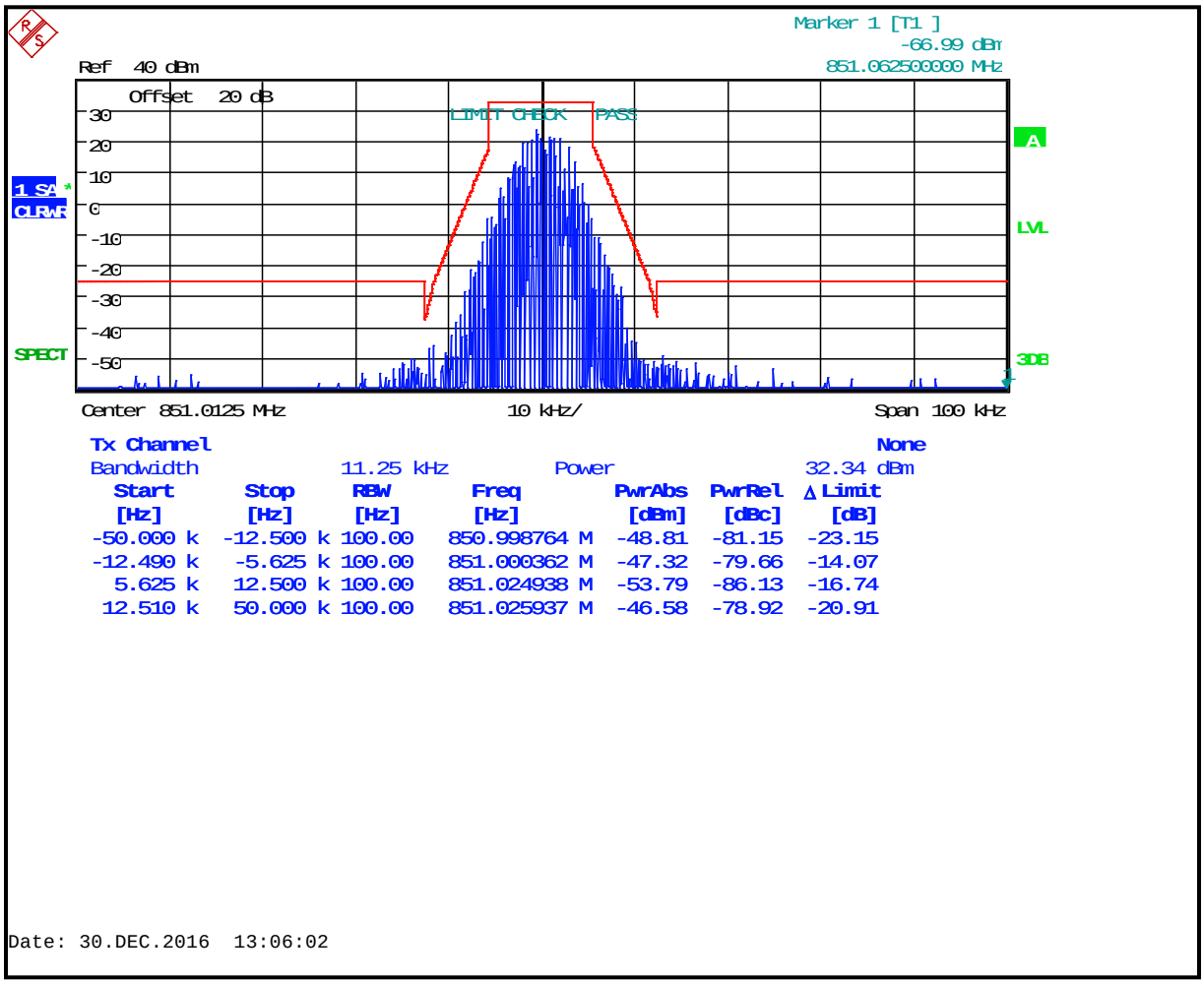
Plot 8-84: Occupied Bandwidth – 811.0125 MHz; P25 Phase 2; Mask D



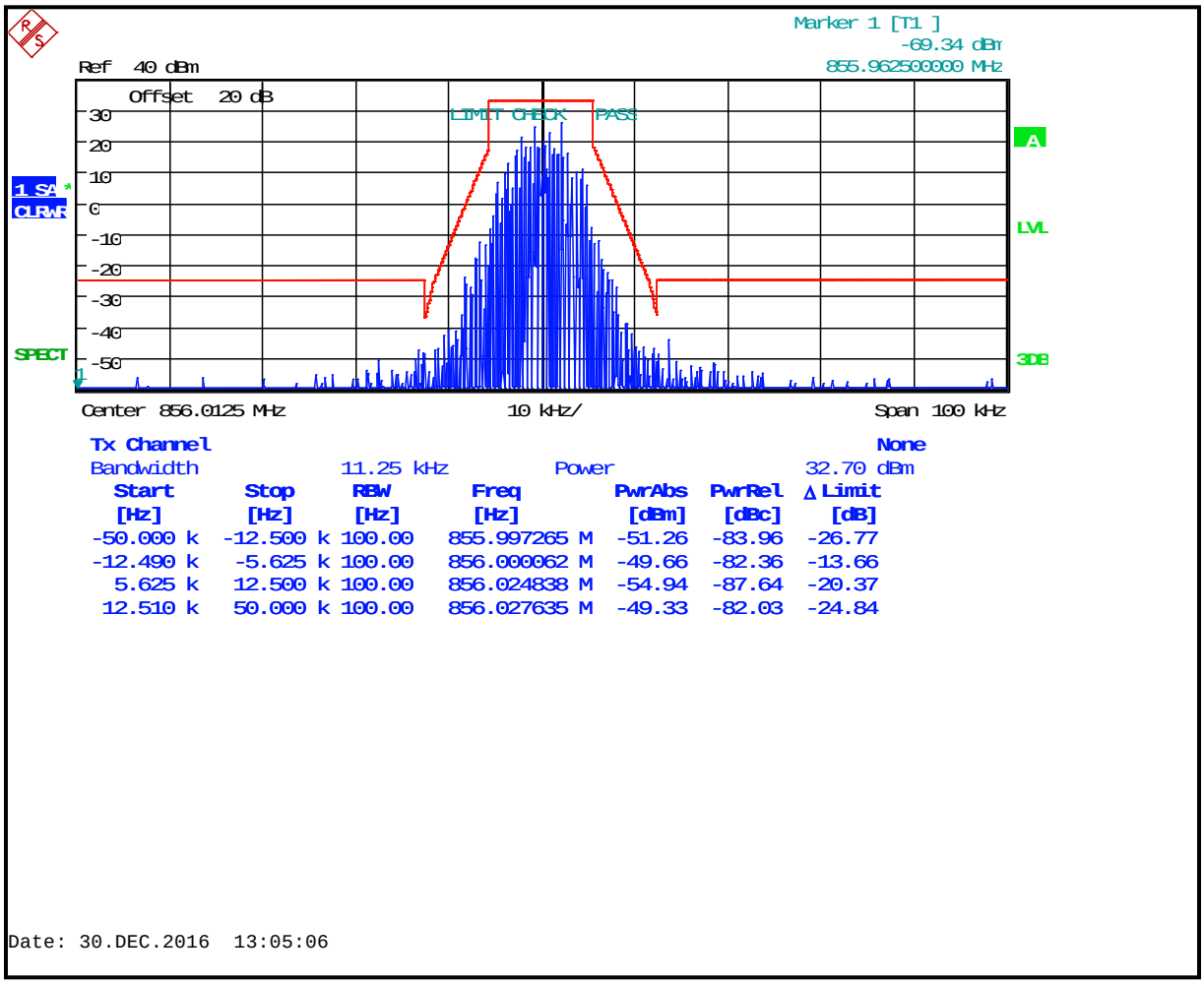
Plot 8-85: Occupied Bandwidth – 815.9875 MHz; P25 Phase 2; Mask D



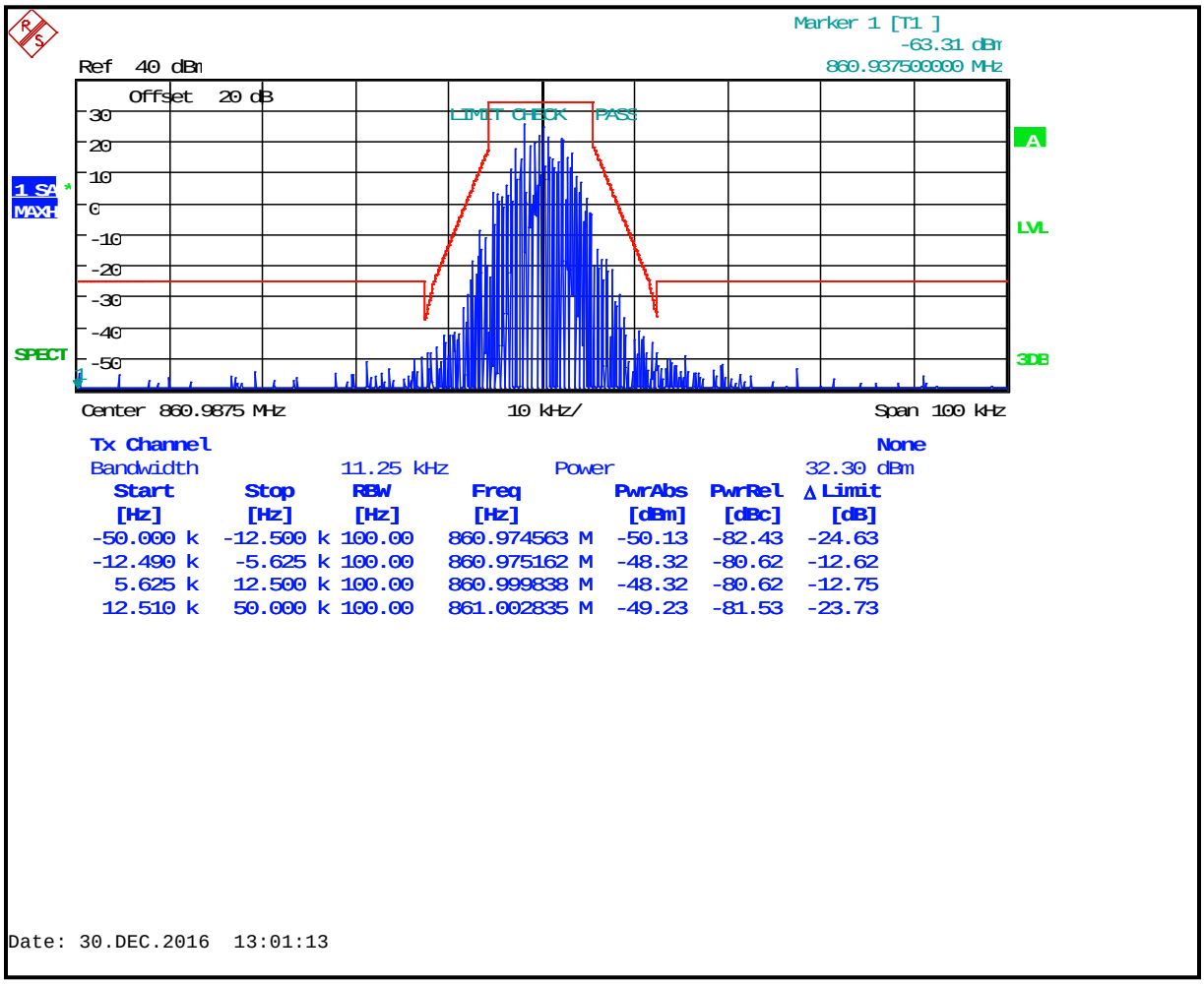
Plot 8-86: Occupied Bandwidth – 851.0125 MHz; P25 Phase 2; Mask D



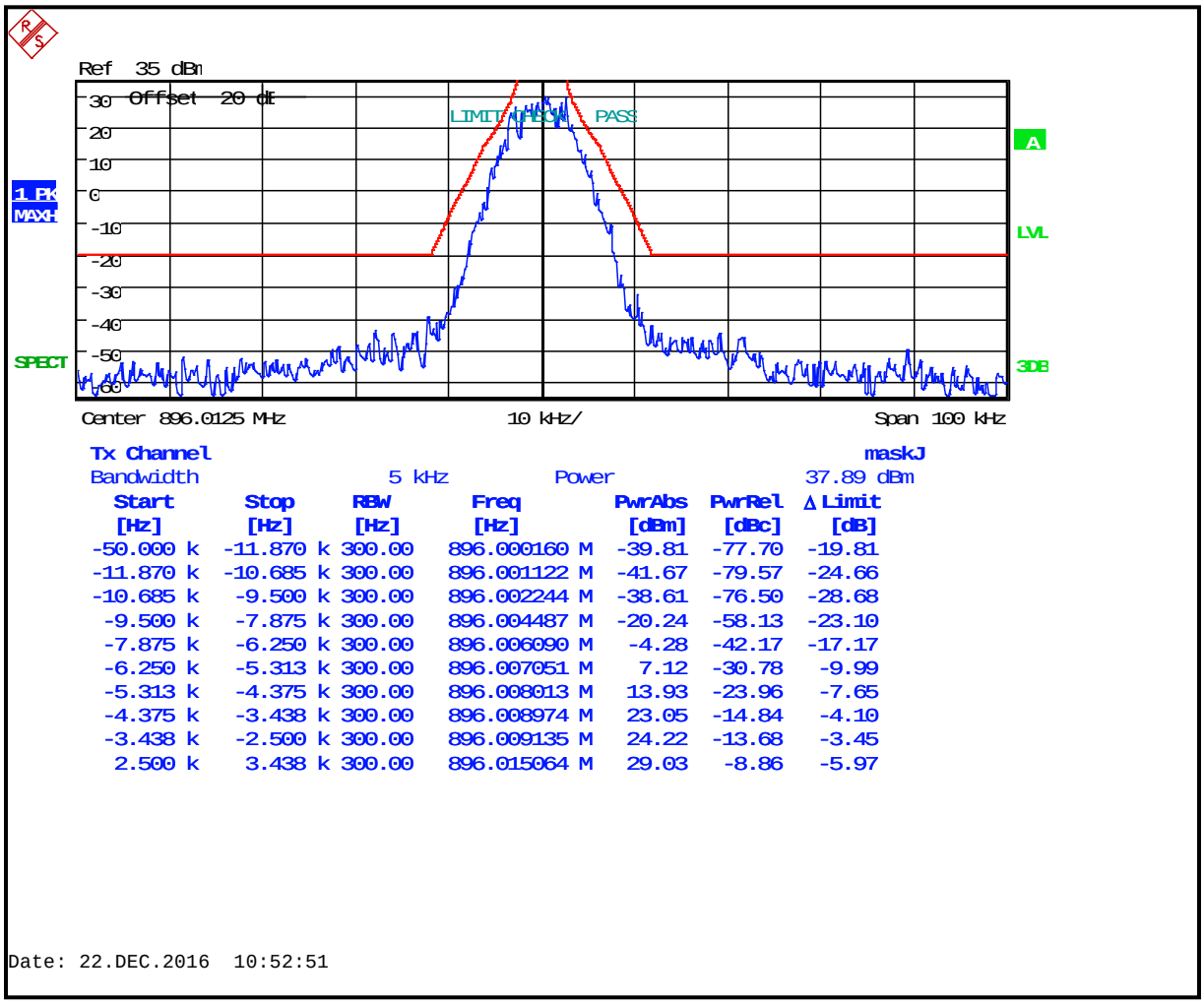
Plot 8-87: Occupied Bandwidth – 856.0125 MHz; P25 Phase 2; Mask D



Plot 8-88: Occupied Bandwidth – 860.9875 MHz; P25 Phase 2; Mask D



Plot 8-89: Occupied Bandwidth – 896.0125 MHz; P25 Phase 2; Mask J



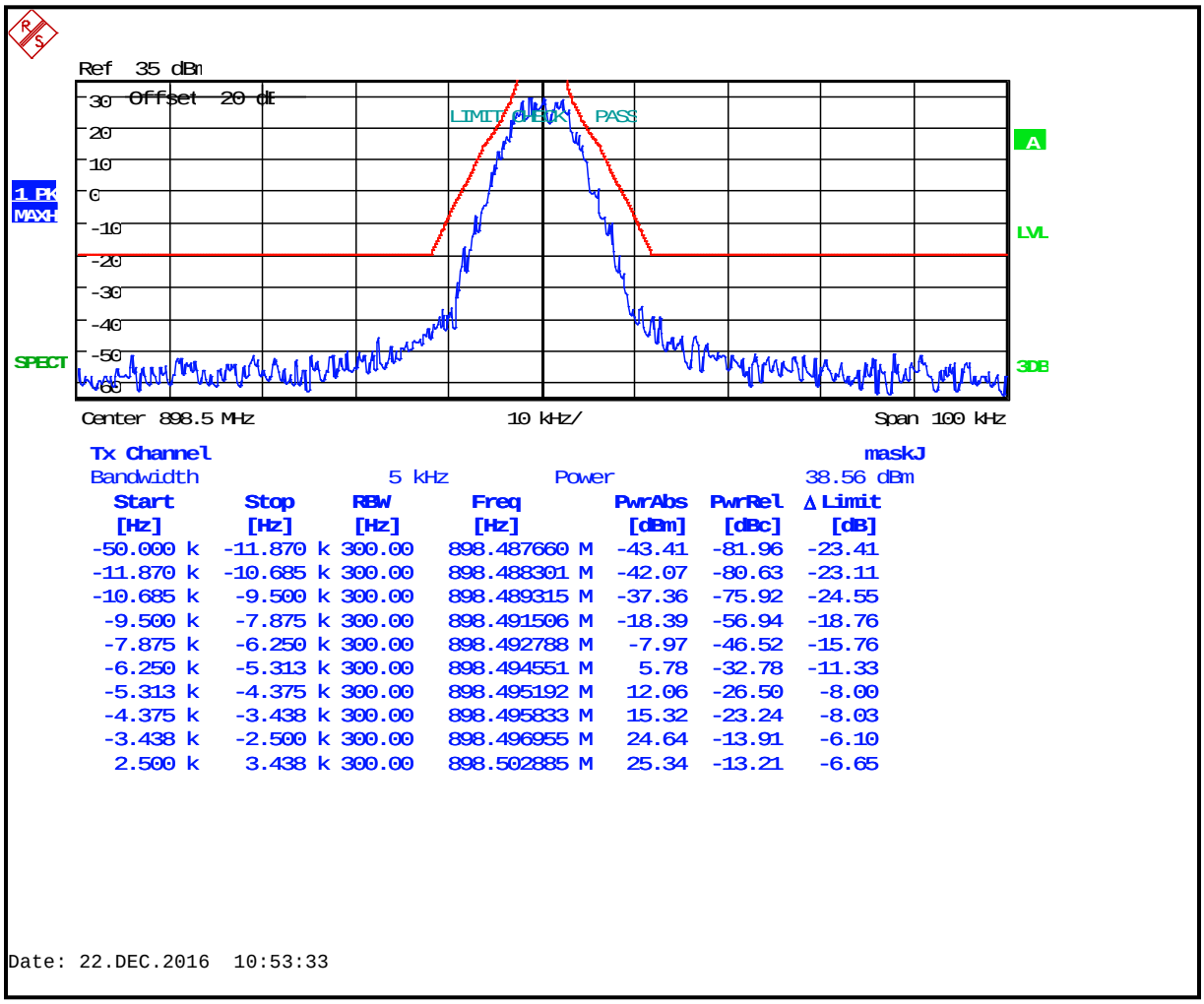
Tx Channel **maskJ**

Bandwidth 5 kHz Power 37.89 dBm

Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	PwrRel [dBc]	Δ Limit [dB]
-50.000 k	-11.870 k	300.00	896.000160 M	-39.81	-77.70	-19.81
-11.870 k	-10.685 k	300.00	896.001122 M	-41.67	-79.57	-24.66
-10.685 k	-9.500 k	300.00	896.002244 M	-38.61	-76.50	-28.68
-9.500 k	-7.875 k	300.00	896.004487 M	-20.24	-58.13	-23.10
-7.875 k	-6.250 k	300.00	896.006090 M	-4.28	-42.17	-17.17
-6.250 k	-5.313 k	300.00	896.007051 M	7.12	-30.78	-9.99
-5.313 k	-4.375 k	300.00	896.008013 M	13.93	-23.96	-7.65
-4.375 k	-3.438 k	300.00	896.008974 M	23.05	-14.84	-4.10
-3.438 k	-2.500 k	300.00	896.009135 M	24.22	-13.68	-3.45
2.500 k	3.438 k	300.00	896.015064 M	29.03	-8.86	-5.97

Date: 22.DEC.2016 10:52:51

Plot 8-90: Occupied Bandwidth – 898.5000 MHz; P25 Phase 2; Mask J



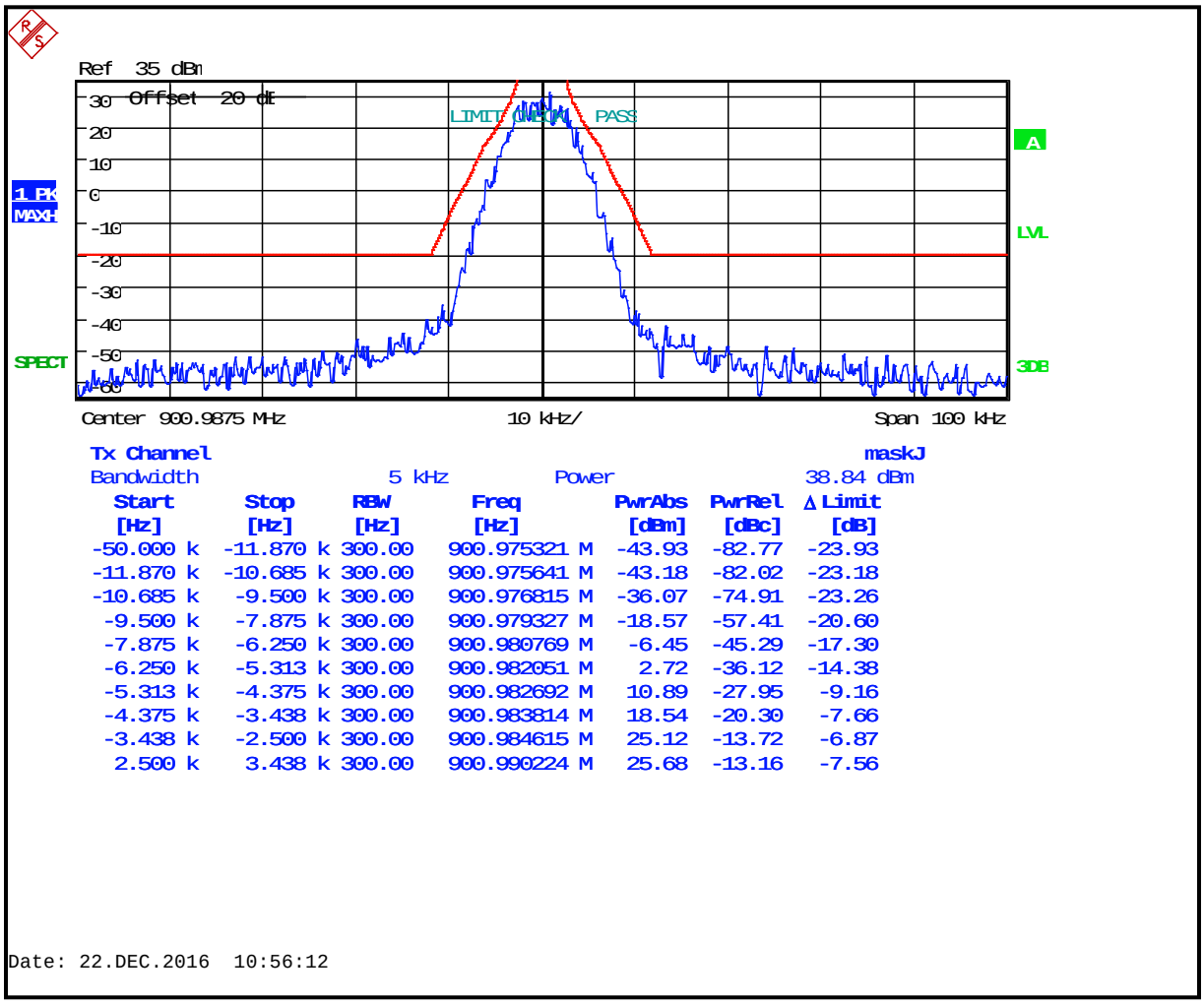
Tx Channel **maskJ**

Bandwidth 5 kHz Power 38.56 dBm

Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	PwrRel [dBc]	Δ Limit [dB]
-50.000 k	-11.870 k	300.00	898.487660 M	-43.41	-81.96	-23.41
-11.870 k	-10.685 k	300.00	898.488301 M	-42.07	-80.63	-23.11
-10.685 k	-9.500 k	300.00	898.489315 M	-37.36	-75.92	-24.55
-9.500 k	-7.875 k	300.00	898.491506 M	-18.39	-56.94	-18.76
-7.875 k	-6.250 k	300.00	898.492788 M	-7.97	-46.52	-15.76
-6.250 k	-5.313 k	300.00	898.494551 M	5.78	-32.78	-11.33
-5.313 k	-4.375 k	300.00	898.495192 M	12.06	-26.50	-8.00
-4.375 k	-3.438 k	300.00	898.495833 M	15.32	-23.24	-8.03
-3.438 k	-2.500 k	300.00	898.496955 M	24.64	-13.91	-6.10
2.500 k	3.438 k	300.00	898.502885 M	25.34	-13.21	-6.65

Date: 22.DEC.2016 10:53:33

Plot 8-91: Occupied Bandwidth – 900.9875 MHz; P25 Phase 2; Mask J



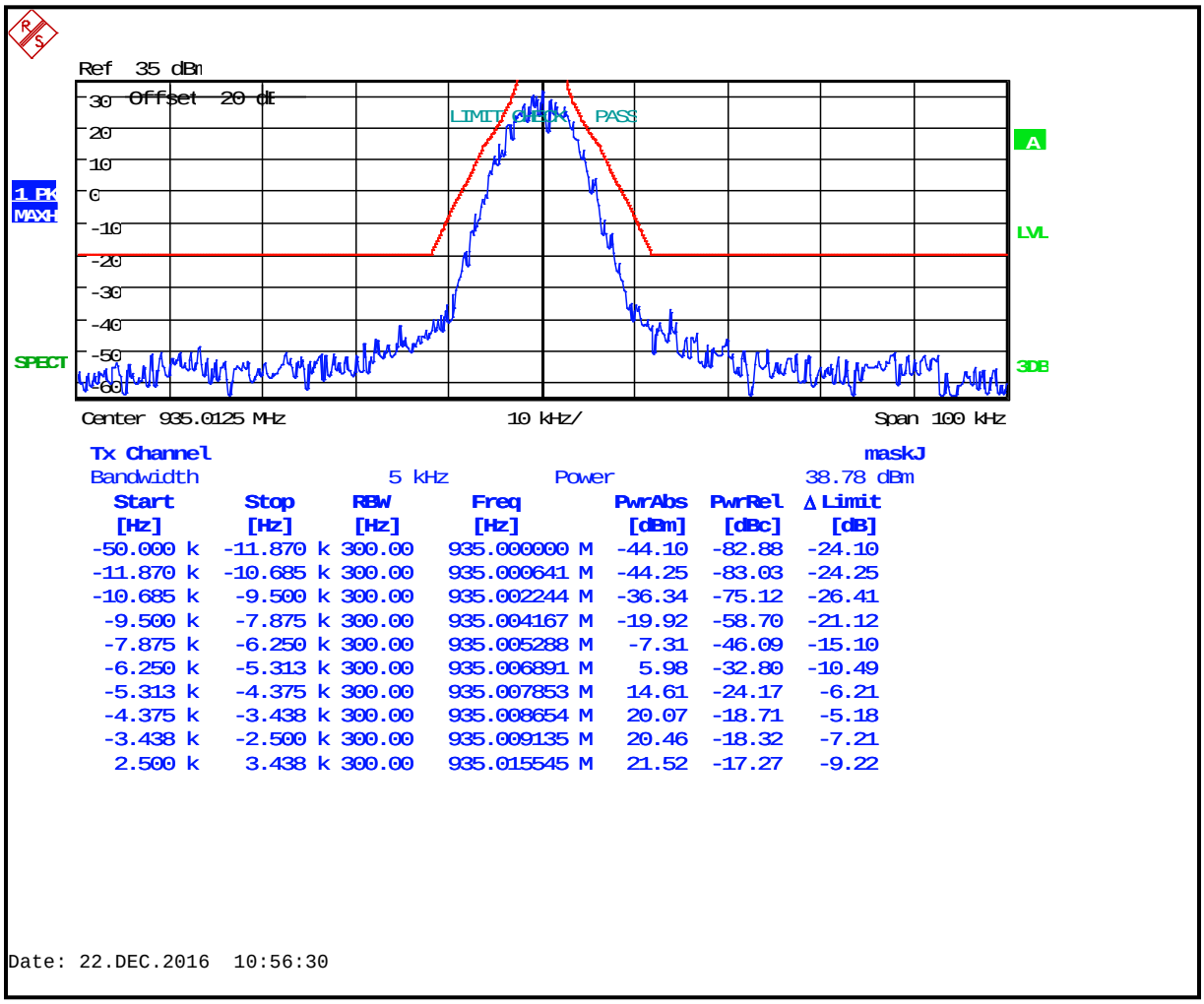
Tx Channel **maskJ**

Bandwidth 5 kHz Power 38.84 dBm

Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	PwrRel [dBc]	Δ Limit [dB]
-50.000 k	-11.870 k	300.00	900.975321 M	-43.93	-82.77	-23.93
-11.870 k	-10.685 k	300.00	900.975641 M	-43.18	-82.02	-23.18
-10.685 k	-9.500 k	300.00	900.976815 M	-36.07	-74.91	-23.26
-9.500 k	-7.875 k	300.00	900.979327 M	-18.57	-57.41	-20.60
-7.875 k	-6.250 k	300.00	900.980769 M	-6.45	-45.29	-17.30
-6.250 k	-5.313 k	300.00	900.982051 M	2.72	-36.12	-14.38
-5.313 k	-4.375 k	300.00	900.982692 M	10.89	-27.95	-9.16
-4.375 k	-3.438 k	300.00	900.983814 M	18.54	-20.30	-7.66
-3.438 k	-2.500 k	300.00	900.984615 M	25.12	-13.72	-6.87
2.500 k	3.438 k	300.00	900.990224 M	25.68	-13.16	-7.56

Date: 22.DEC.2016 10:56:12

Plot 8-92: Occupied Bandwidth – 935.0125 MHz; P25 Phase 2; Mask J



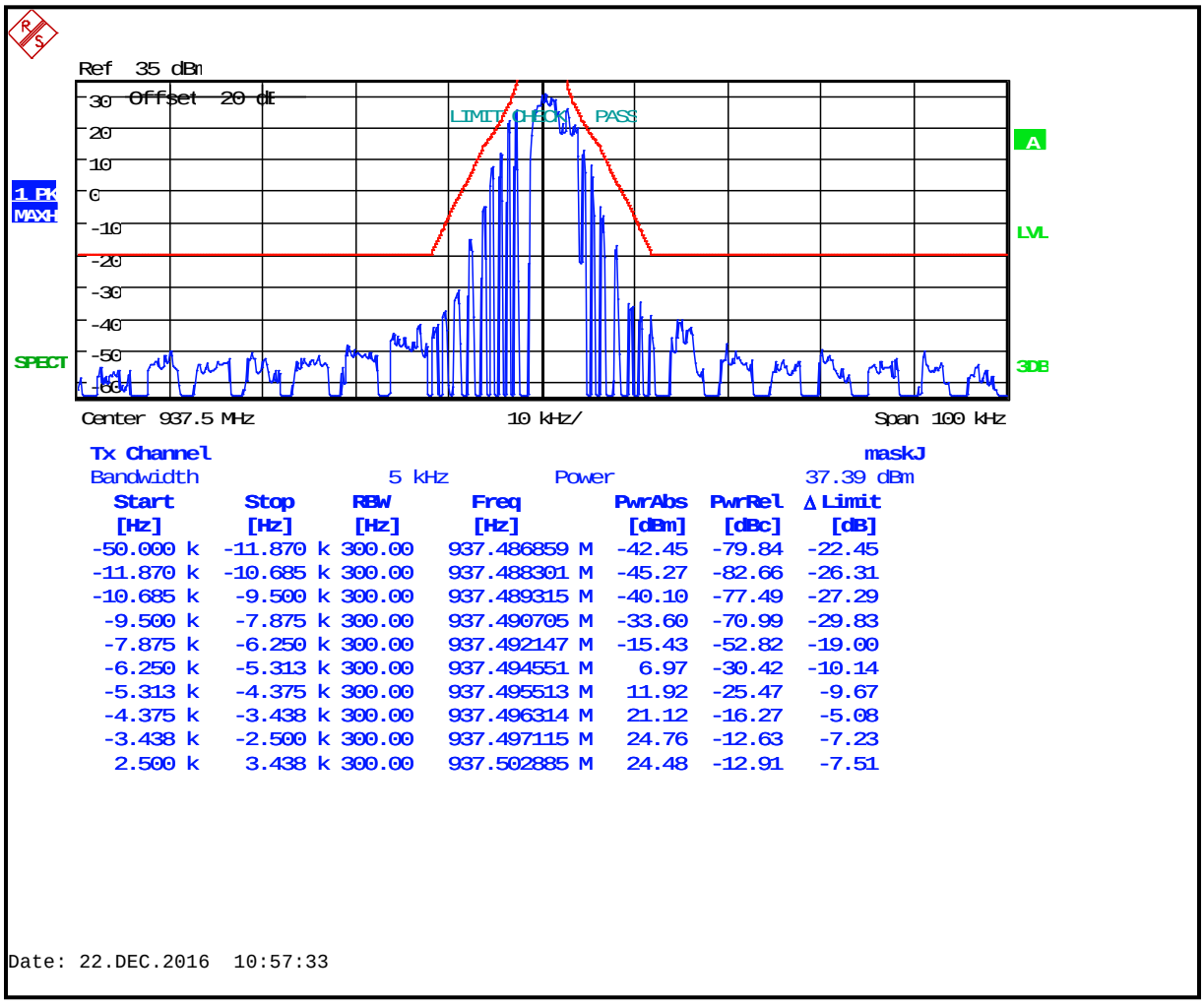
Tx Channel **maskJ**

Bandwidth 5 kHz Power 38.78 dBm

Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	PwrRel [dBc]	Δ Limit [dB]
-50.000 k	-11.870 k	300.00	935.000000 M	-44.10	-82.88	-24.10
-11.870 k	-10.685 k	300.00	935.000641 M	-44.25	-83.03	-24.25
-10.685 k	-9.500 k	300.00	935.002244 M	-36.34	-75.12	-26.41
-9.500 k	-7.875 k	300.00	935.004167 M	-19.92	-58.70	-21.12
-7.875 k	-6.250 k	300.00	935.005288 M	-7.31	-46.09	-15.10
-6.250 k	-5.313 k	300.00	935.006891 M	5.98	-32.80	-10.49
-5.313 k	-4.375 k	300.00	935.007853 M	14.61	-24.17	-6.21
-4.375 k	-3.438 k	300.00	935.008654 M	20.07	-18.71	-5.18
-3.438 k	-2.500 k	300.00	935.009135 M	20.46	-18.32	-7.21
2.500 k	3.438 k	300.00	935.015545 M	21.52	-17.27	-9.22

Date: 22.DEC.2016 10:56:30

Plot 8-93: Occupied Bandwidth – 937.5000 MHz; P25 Phase 2; Mask J



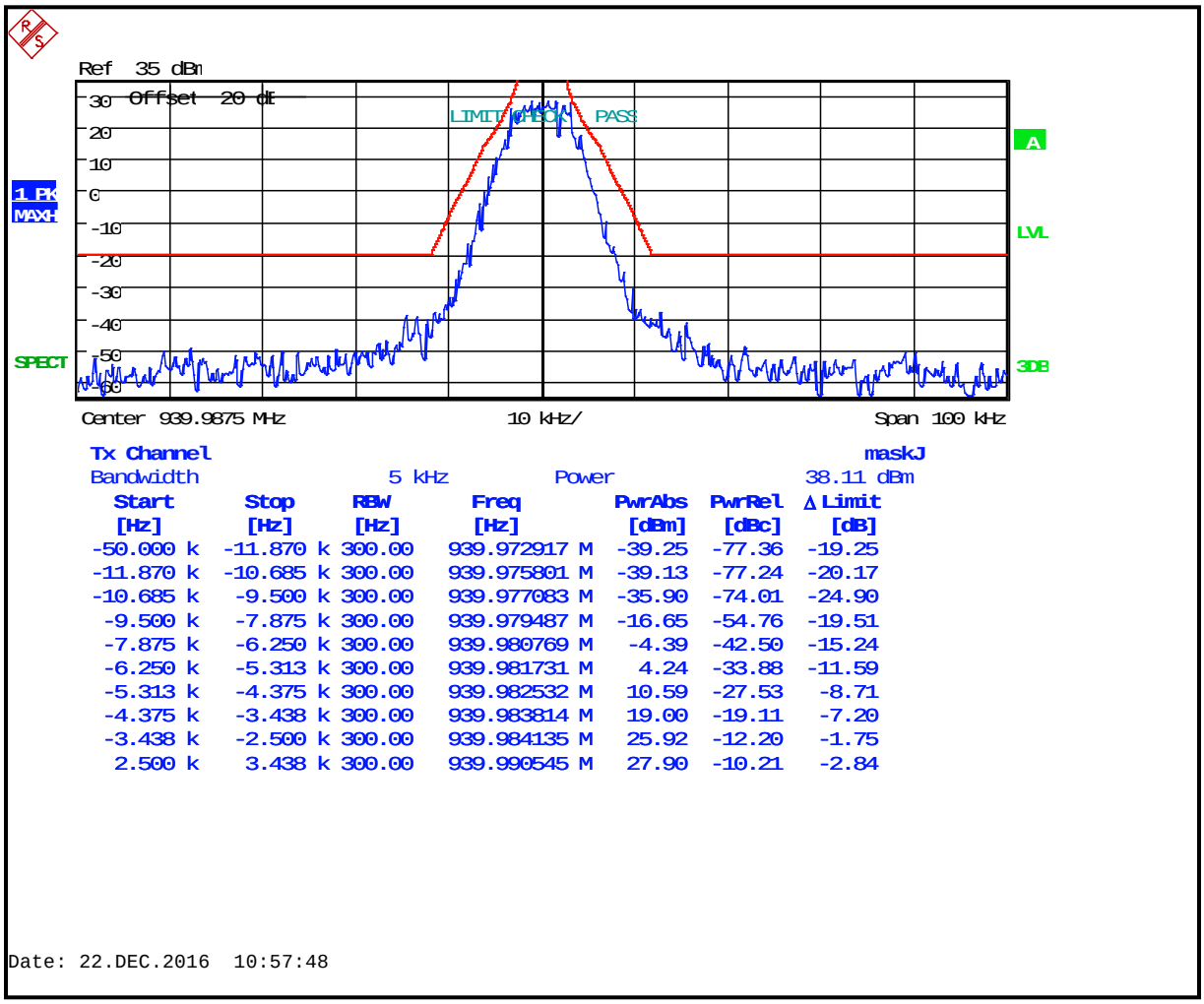
Tx Channel **maskJ**

Bandwidth 5 kHz Power 37.39 dBm

Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	PwrRel [dBc]	Δ Limit [dB]
-50.000 k	-11.870 k	300.00	937.486859 M	-42.45	-79.84	-22.45
-11.870 k	-10.685 k	300.00	937.488301 M	-45.27	-82.66	-26.31
-10.685 k	-9.500 k	300.00	937.489315 M	-40.10	-77.49	-27.29
-9.500 k	-7.875 k	300.00	937.490705 M	-33.60	-70.99	-29.83
-7.875 k	-6.250 k	300.00	937.492147 M	-15.43	-52.82	-19.00
-6.250 k	-5.313 k	300.00	937.494551 M	6.97	-30.42	-10.14
-5.313 k	-4.375 k	300.00	937.495513 M	11.92	-25.47	-9.67
-4.375 k	-3.438 k	300.00	937.496314 M	21.12	-16.27	-5.08
-3.438 k	-2.500 k	300.00	937.497115 M	24.76	-12.63	-7.23
2.500 k	3.438 k	300.00	937.502885 M	24.48	-12.91	-7.51

Date: 22.DEC.2016 10:57:33

Plot 8-94: Occupied Bandwidth – 939.9875 MHz; P25 Phase 2; Mask J



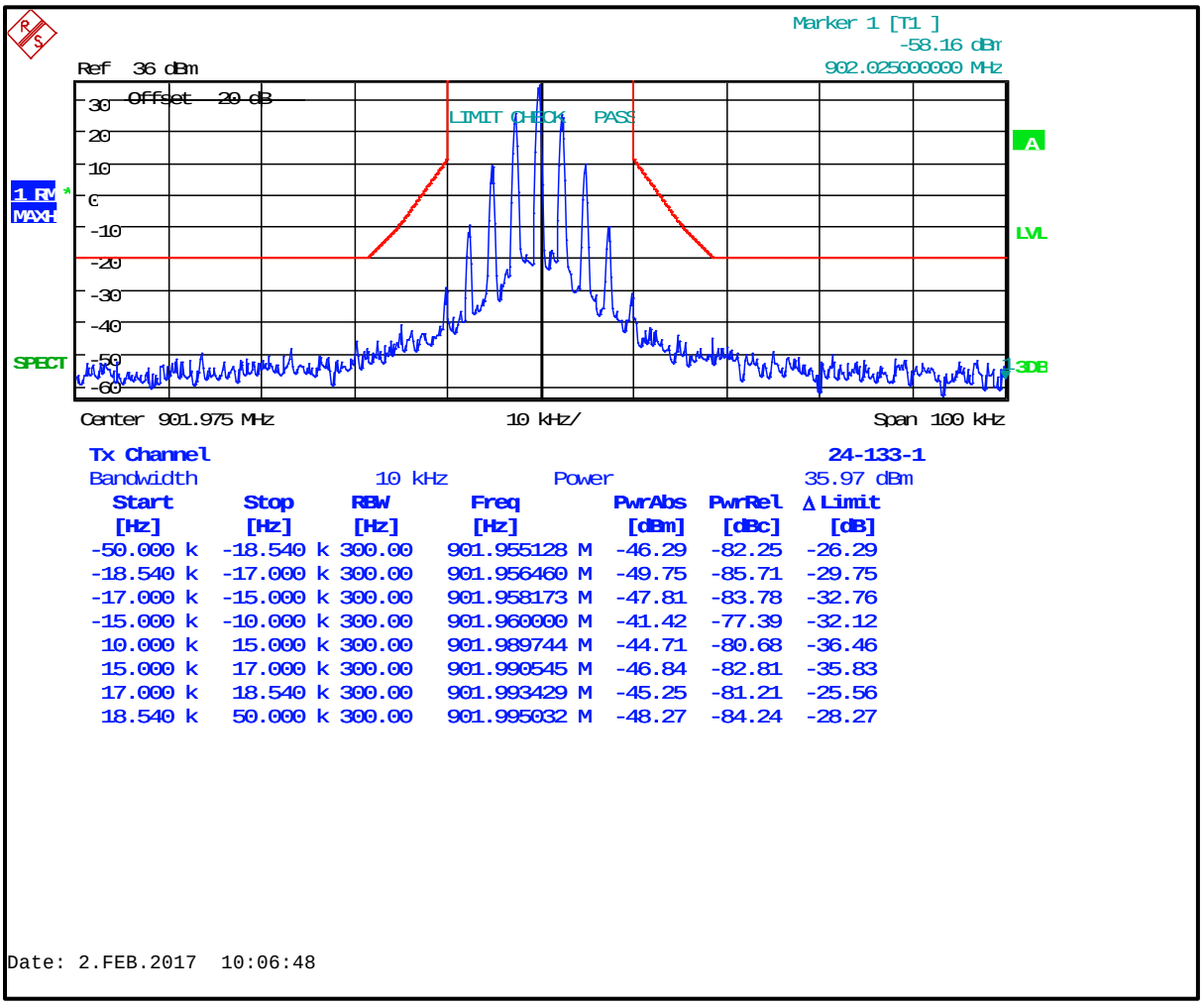
Tx Channel **maskJ**

Bandwidth 5 kHz Power 38.11 dBm

Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	PwrRel [dBc]	Δ Limit [dB]
-50.000 k	-11.870 k	300.00	939.972917 M	-39.25	-77.36	-19.25
-11.870 k	-10.685 k	300.00	939.975801 M	-39.13	-77.24	-20.17
-10.685 k	-9.500 k	300.00	939.977083 M	-35.90	-74.01	-24.90
-9.500 k	-7.875 k	300.00	939.979487 M	-16.65	-54.76	-19.51
-7.875 k	-6.250 k	300.00	939.980769 M	-4.39	-42.50	-15.24
-6.250 k	-5.313 k	300.00	939.981731 M	4.24	-33.88	-11.59
-5.313 k	-4.375 k	300.00	939.982532 M	10.59	-27.53	-8.71
-4.375 k	-3.438 k	300.00	939.983814 M	19.00	-19.11	-7.20
-3.438 k	-2.500 k	300.00	939.984135 M	25.92	-12.20	-1.75
2.500 k	3.438 k	300.00	939.990545 M	27.90	-10.21	-2.84

Date: 22.DEC.2016 10:57:48

Plot 8-95: Occupied Bandwidth – 901.9750 MHz; NB Analog; Mask 24.133(1)

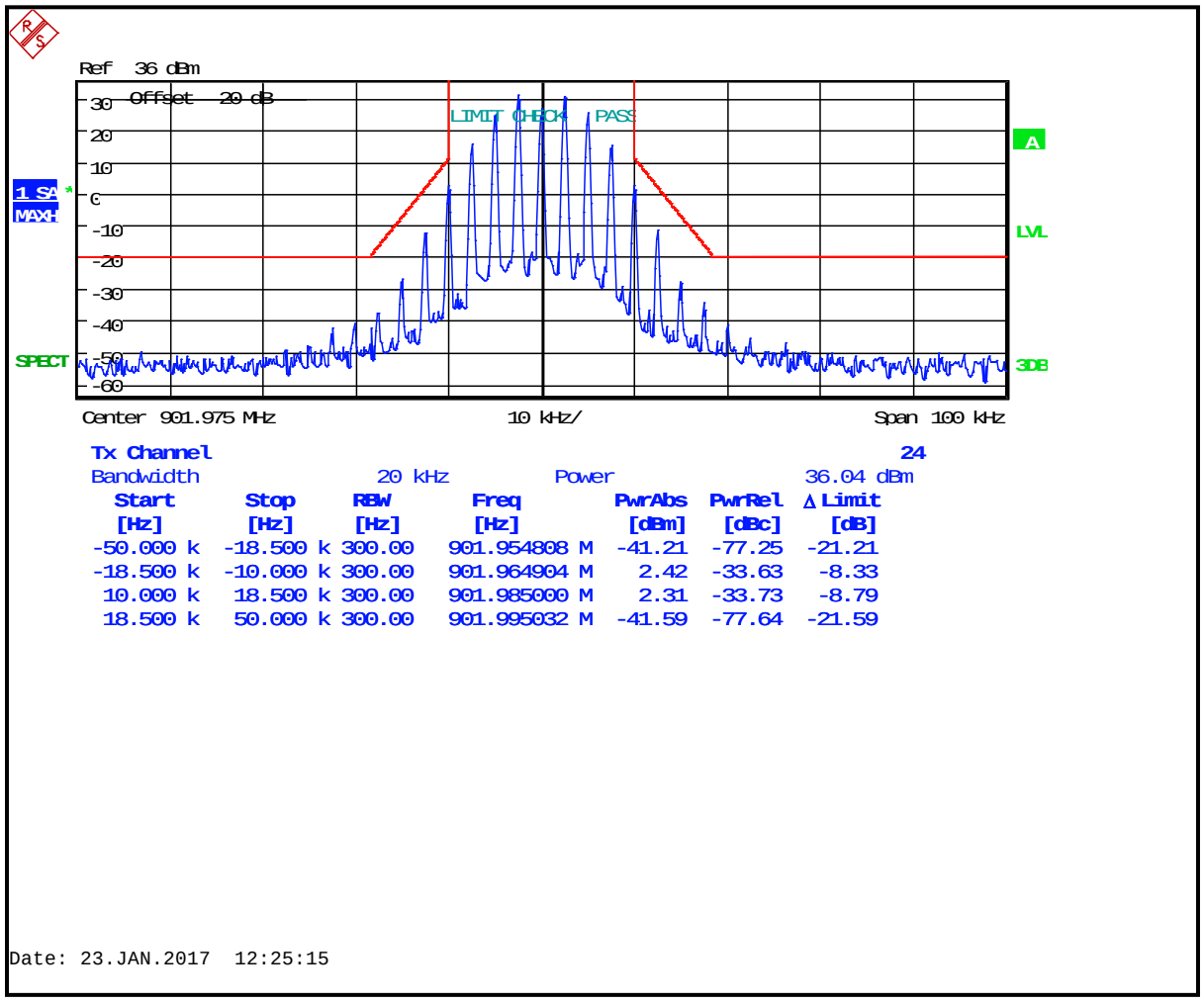


Tx Channel **24-133-1**
Bandwidth 10 kHz Power 35.97 dBm

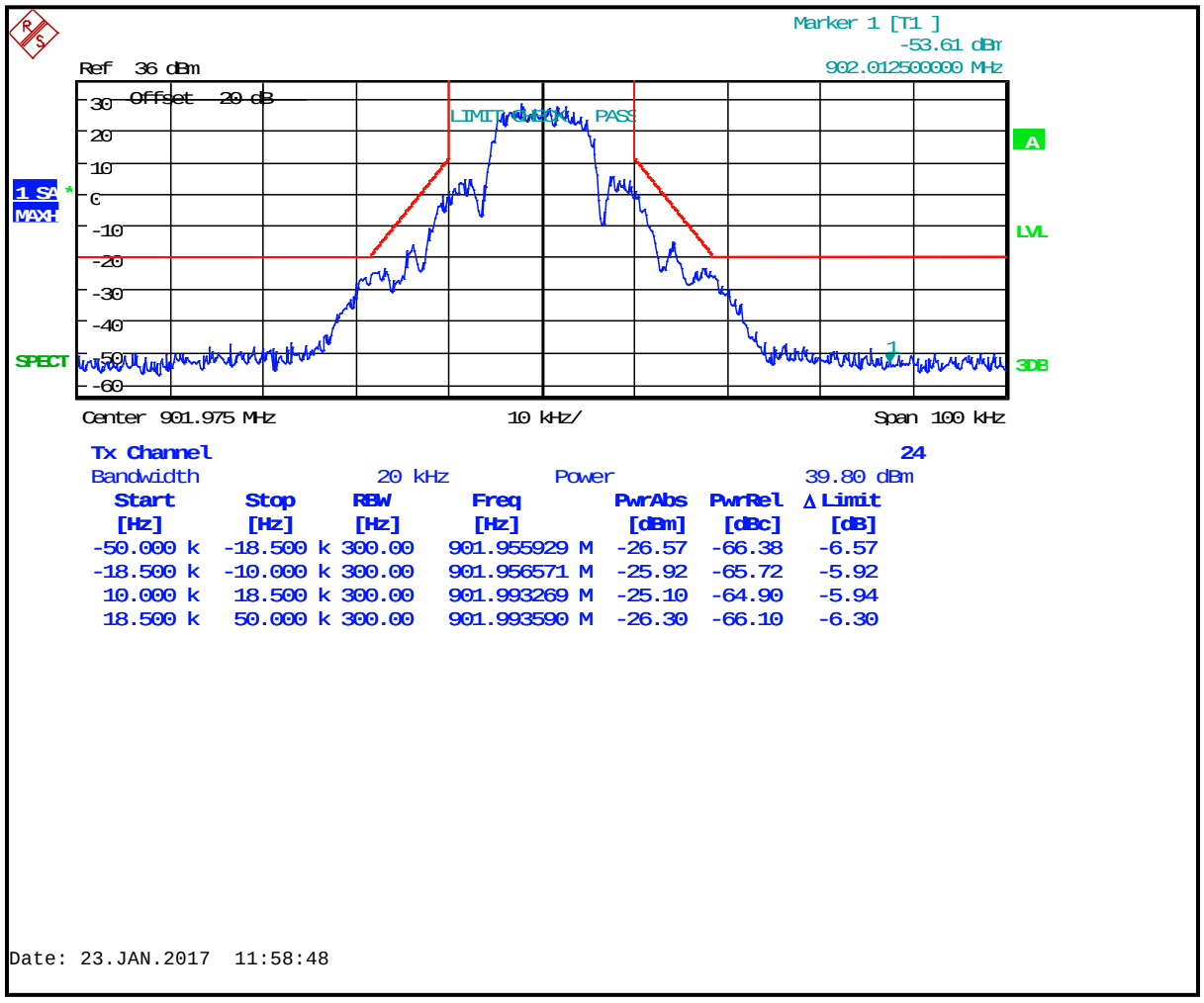
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	PwrRel [dBc]	Δ Limit [dB]
-50.000 k	-18.540 k	300.00	901.955128 M	-46.29	-82.25	-26.29
-18.540 k	-17.000 k	300.00	901.956460 M	-49.75	-85.71	-29.75
-17.000 k	-15.000 k	300.00	901.958173 M	-47.81	-83.78	-32.76
-15.000 k	-10.000 k	300.00	901.960000 M	-41.42	-77.39	-32.12
10.000 k	15.000 k	300.00	901.989744 M	-44.71	-80.68	-36.46
15.000 k	17.000 k	300.00	901.990545 M	-46.84	-82.81	-35.83
17.000 k	18.540 k	300.00	901.993429 M	-45.25	-81.21	-25.56
18.540 k	50.000 k	300.00	901.995032 M	-48.27	-84.24	-28.27

Date: 2.FEB.2017 10:06:48

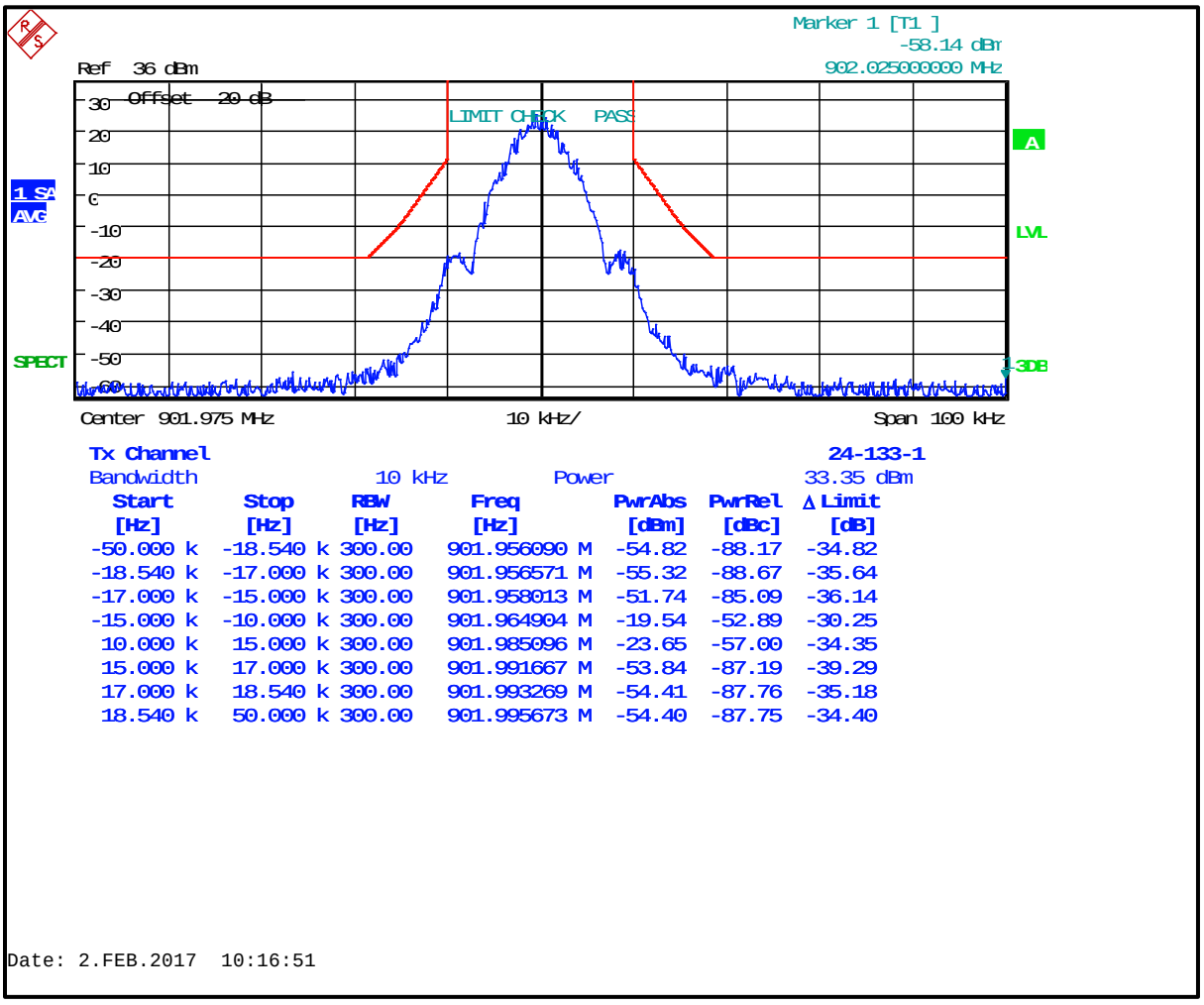
Plot 8-96: Occupied Bandwidth – 901.9750 MHz; WB Analog; Mask 24.133(1)



Plot 8-97: Occupied Bandwidth – 901.9750 MHz; 2-Level FSK 9600 WB; Mask 24.133(1)



Plot 8-98: Occupied Bandwidth – 901.9750 MHz; 2-Level FSK 9600 NB; Mask 24.133(1)



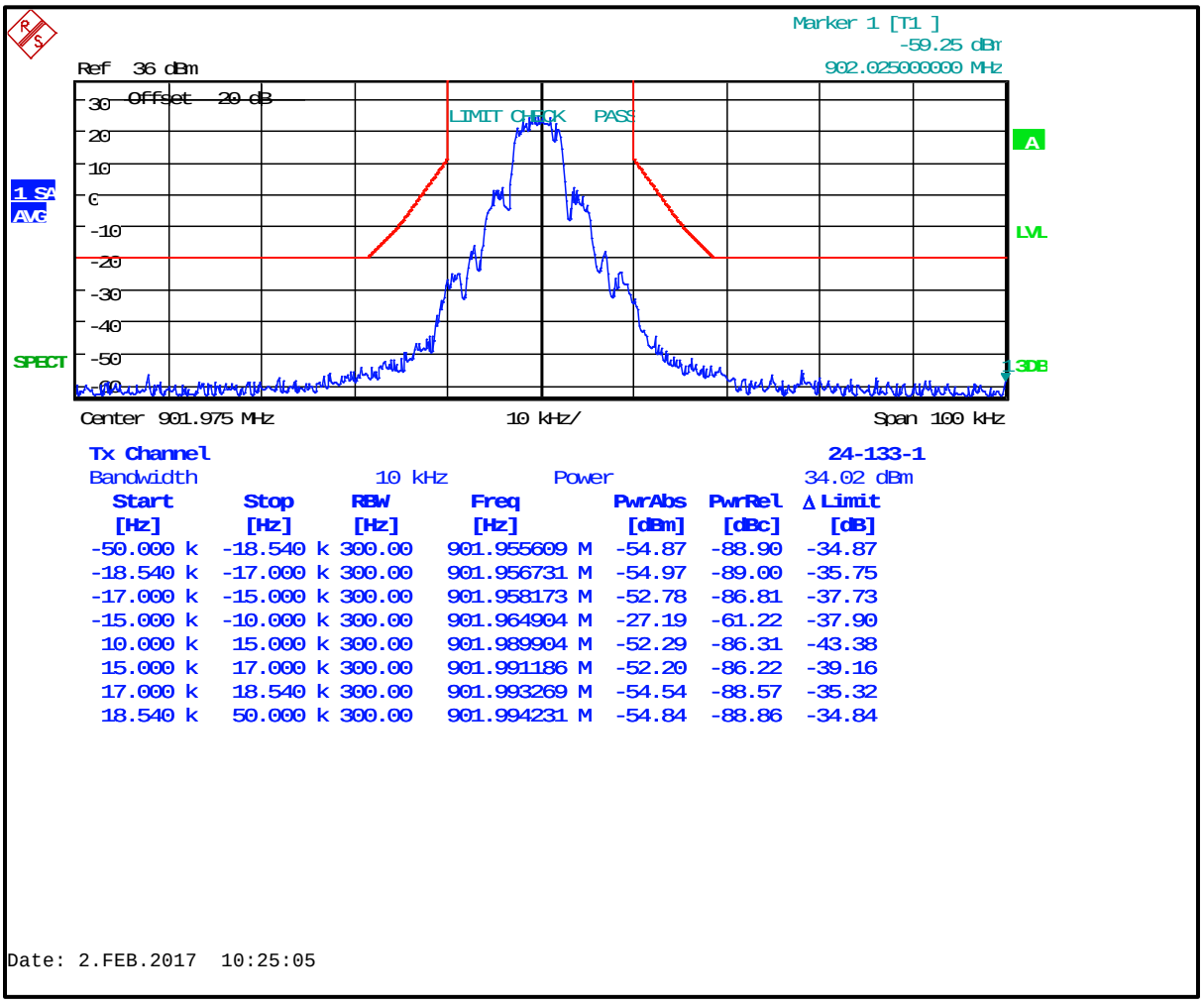
Tx Channel **24-133-1**

Bandwidth 10 kHz Power 33.35 dBm

Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	PwrRel [dBc]	Δ Limit [dB]
-50.000 k	-18.540 k	300.00	901.956090 M	-54.82	-88.17	-34.82
-18.540 k	-17.000 k	300.00	901.956571 M	-55.32	-88.67	-35.64
-17.000 k	-15.000 k	300.00	901.958013 M	-51.74	-85.09	-36.14
-15.000 k	-10.000 k	300.00	901.964904 M	-19.54	-52.89	-30.25
10.000 k	15.000 k	300.00	901.985096 M	-23.65	-57.00	-34.35
15.000 k	17.000 k	300.00	901.991667 M	-53.84	-87.19	-39.29
17.000 k	18.540 k	300.00	901.993269 M	-54.41	-87.76	-35.18
18.540 k	50.000 k	300.00	901.995673 M	-54.40	-87.75	-34.40

Date: 2.FEB.2017 10:16:51

Plot 8-99: Occupied Bandwidth – 901.9750 MHz; 2-Level FSK 4800 XNB; Mask 24.133(1)



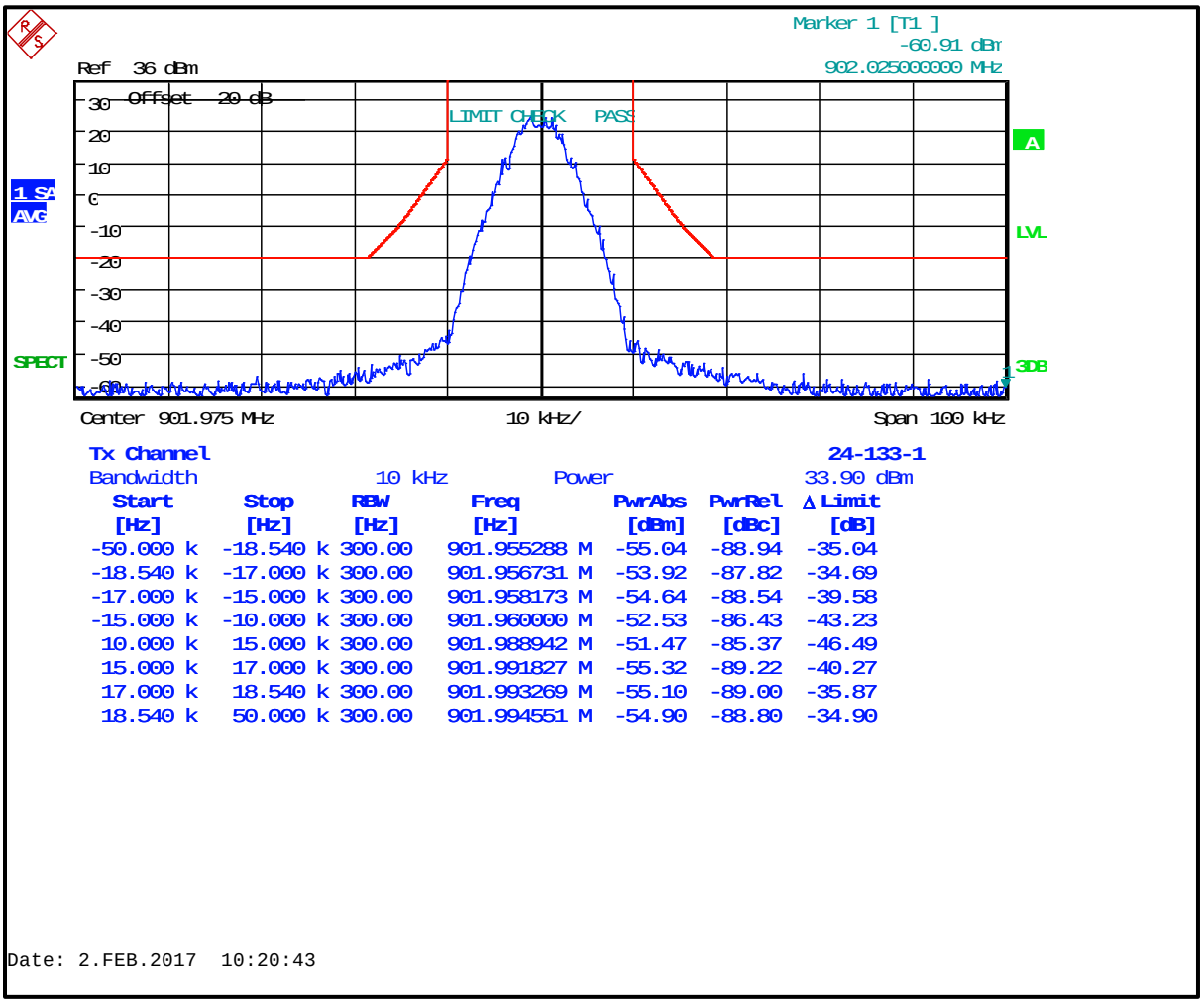
Tx Channel **24-133-1**

Bandwidth 10 kHz Power 34.02 dBm

Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	PwrRel [dBc]	Δ Limit [dB]
-50.000 k	-18.540 k	300.00	901.955609 M	-54.87	-88.90	-34.87
-18.540 k	-17.000 k	300.00	901.956731 M	-54.97	-89.00	-35.75
-17.000 k	-15.000 k	300.00	901.958173 M	-52.78	-86.81	-37.73
-15.000 k	-10.000 k	300.00	901.964904 M	-27.19	-61.22	-37.90
10.000 k	15.000 k	300.00	901.989904 M	-52.29	-86.31	-43.38
15.000 k	17.000 k	300.00	901.991186 M	-52.20	-86.22	-39.16
17.000 k	18.540 k	300.00	901.993269 M	-54.54	-88.57	-35.32
18.540 k	50.000 k	300.00	901.994231 M	-54.84	-88.86	-34.84

Date: 2.FEB.2017 10:25:05

Plot 8-100: Occupied Bandwidth – 901.9750 MHz; P25; Mask 24.133(1)



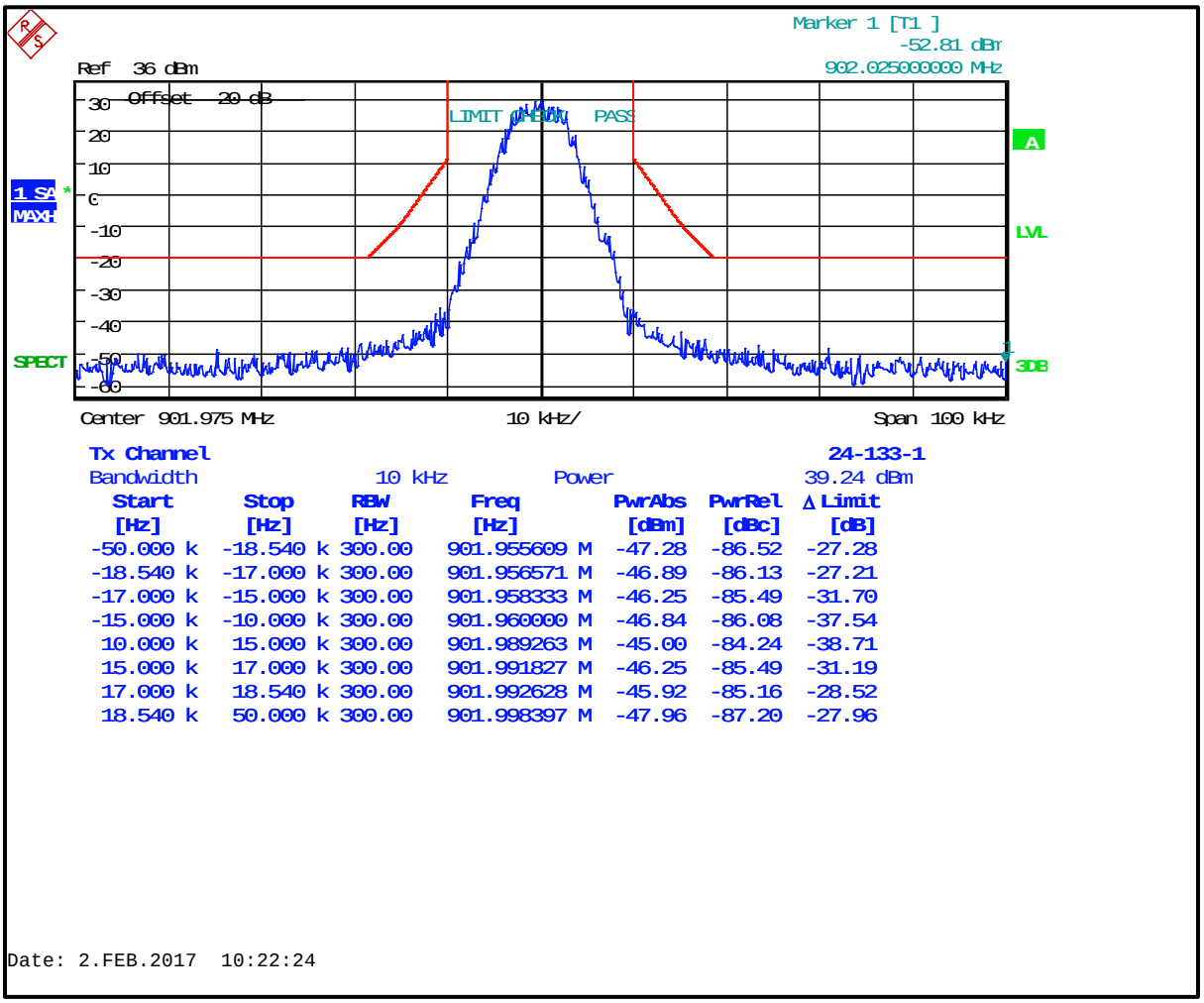
Tx Channel **24-133-1**

Bandwidth 10 kHz Power 33.90 dBm

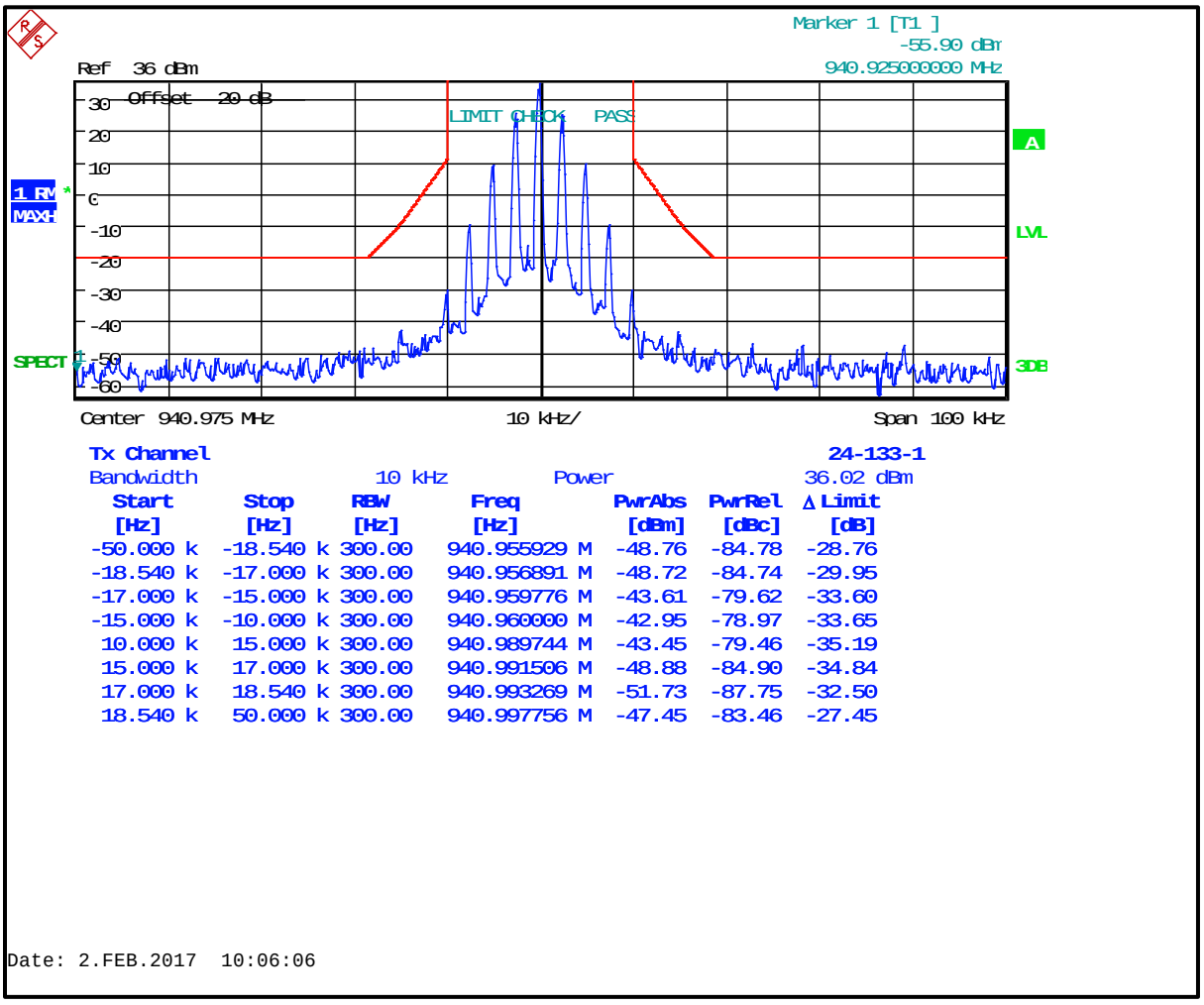
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	PwrRel [dBc]	Δ Limit [dB]
-50.000 k	-18.540 k	300.00	901.955288 M	-55.04	-88.94	-35.04
-18.540 k	-17.000 k	300.00	901.956731 M	-53.92	-87.82	-34.69
-17.000 k	-15.000 k	300.00	901.958173 M	-54.64	-88.54	-39.58
-15.000 k	-10.000 k	300.00	901.960000 M	-52.53	-86.43	-43.23
10.000 k	15.000 k	300.00	901.988942 M	-51.47	-85.37	-46.49
15.000 k	17.000 k	300.00	901.991827 M	-55.32	-89.22	-40.27
17.000 k	18.540 k	300.00	901.993269 M	-55.10	-89.00	-35.87
18.540 k	50.000 k	300.00	901.994551 M	-54.90	-88.80	-34.90

Date: 2.FEB.2017 10:20:43

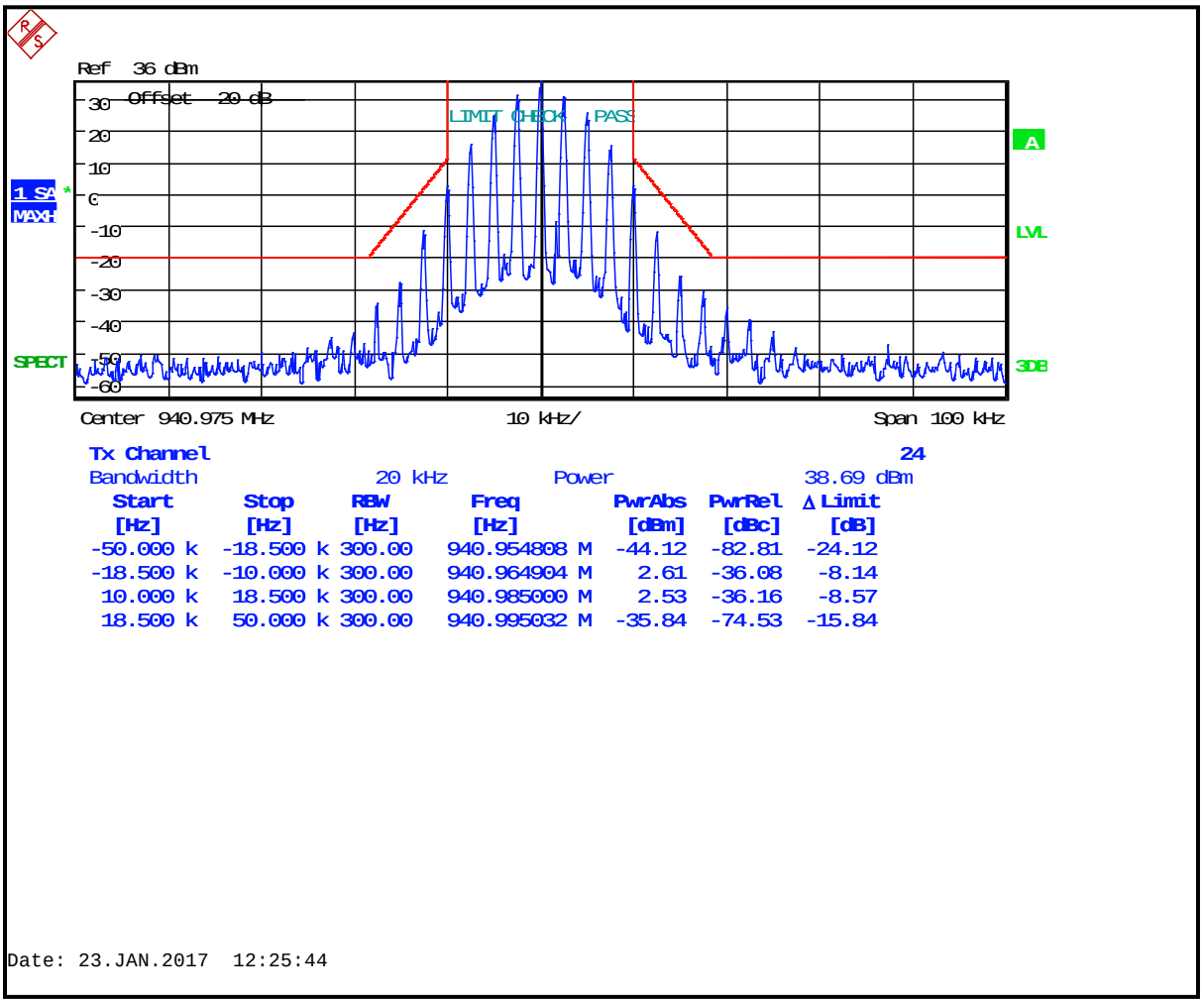
Plot 8-101: Occupied Bandwidth – 901.9750 MHz; P25 Phase 2; Mask 24.133(1)



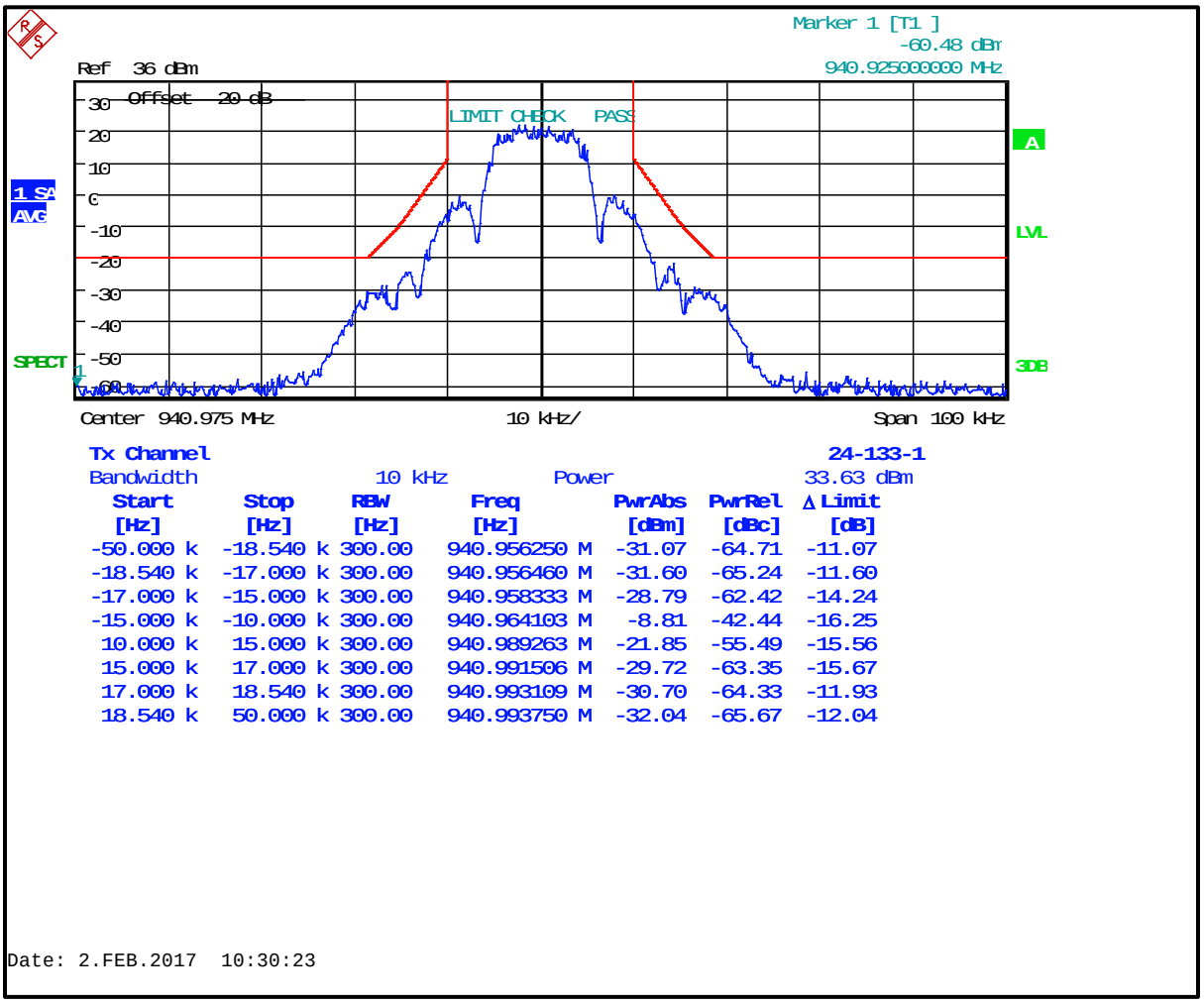
Plot 8-102: Occupied Bandwidth – 940.9750 MHz; NB Analog; Mask 24.133(1)



Plot 8-103: Occupied Bandwidth – 940.9750 MHz; WB Analog; Mask 24.133(1)



Plot 8-104: Occupied Bandwidth – 940.9750 MHz; 2-Level FSK 9600 WB; Mask 24.133(1)



Tx Channel **24-133-1**

Bandwidth 10 kHz Power 33.63 dBm

Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	PwrRel [dBc]	Δ Limit [dB]
-50.000 k	-18.540 k	300.00	940.956250 M	-31.07	-64.71	-11.07
-18.540 k	-17.000 k	300.00	940.956460 M	-31.60	-65.24	-11.60
-17.000 k	-15.000 k	300.00	940.958333 M	-28.79	-62.42	-14.24
-15.000 k	-10.000 k	300.00	940.964103 M	-8.81	-42.44	-16.25
10.000 k	15.000 k	300.00	940.989263 M	-21.85	-55.49	-15.56
15.000 k	17.000 k	300.00	940.991506 M	-29.72	-63.35	-15.67
17.000 k	18.540 k	300.00	940.993109 M	-30.70	-64.33	-11.93
18.540 k	50.000 k	300.00	940.993750 M	-32.04	-65.67	-12.04

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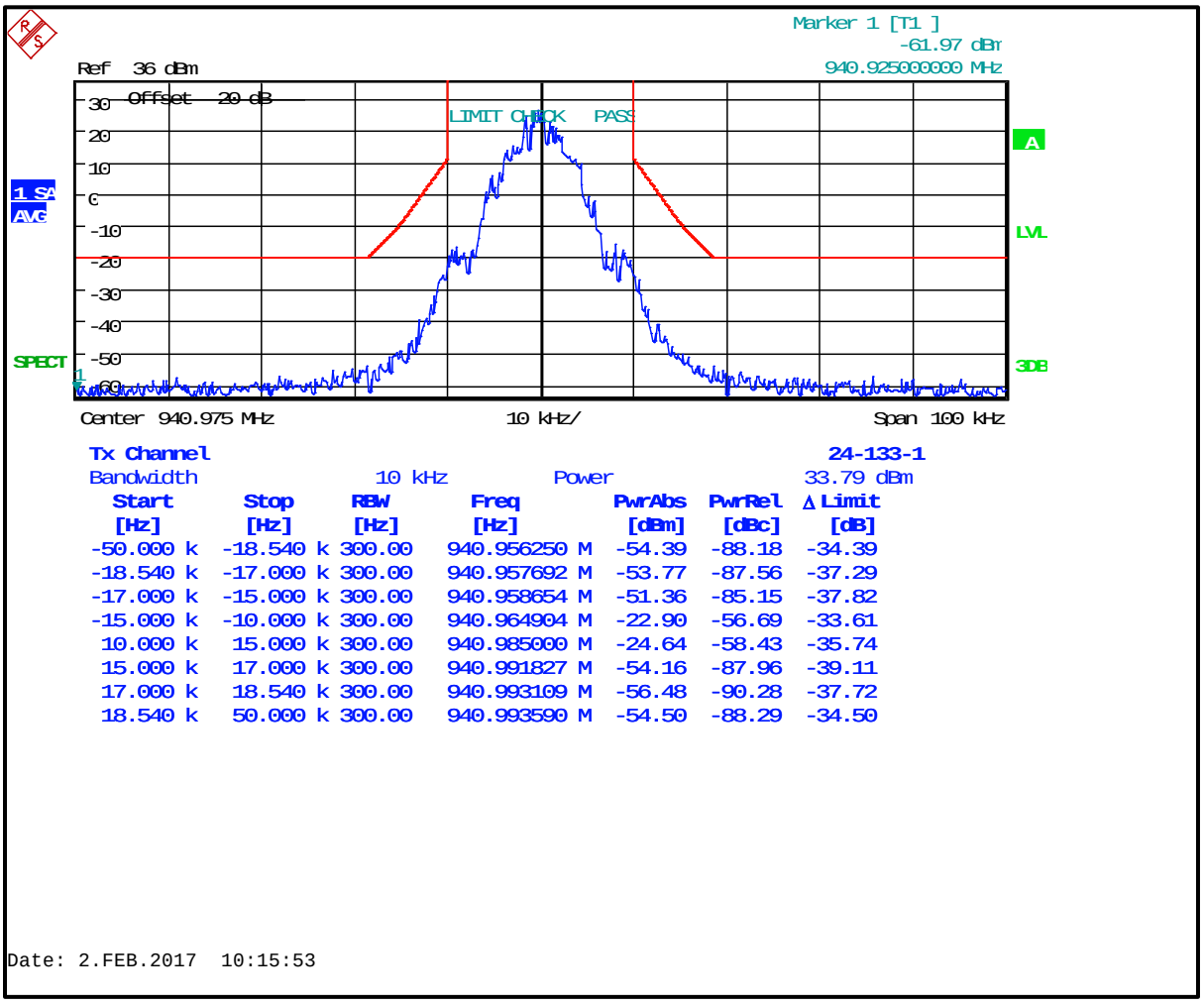
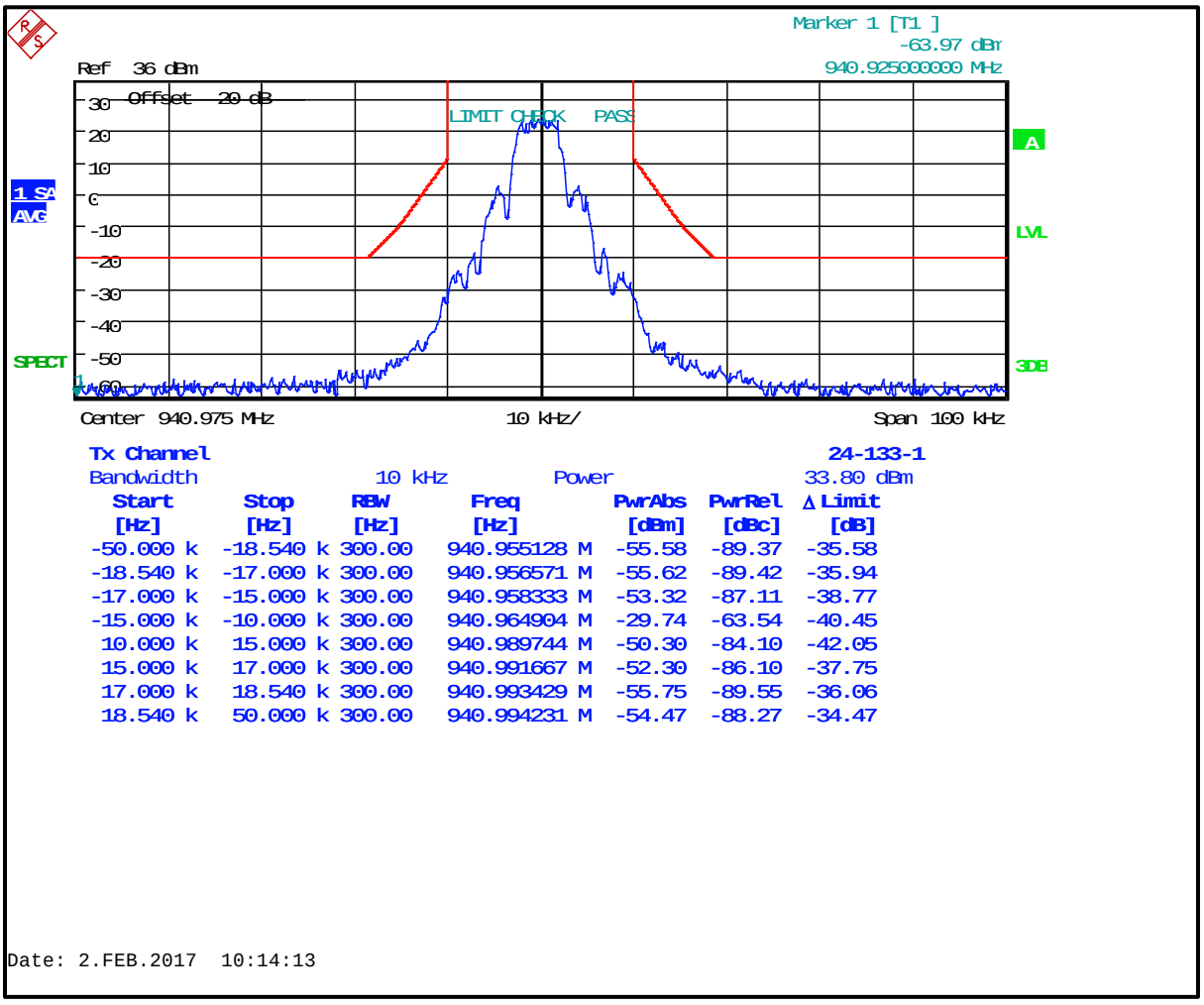
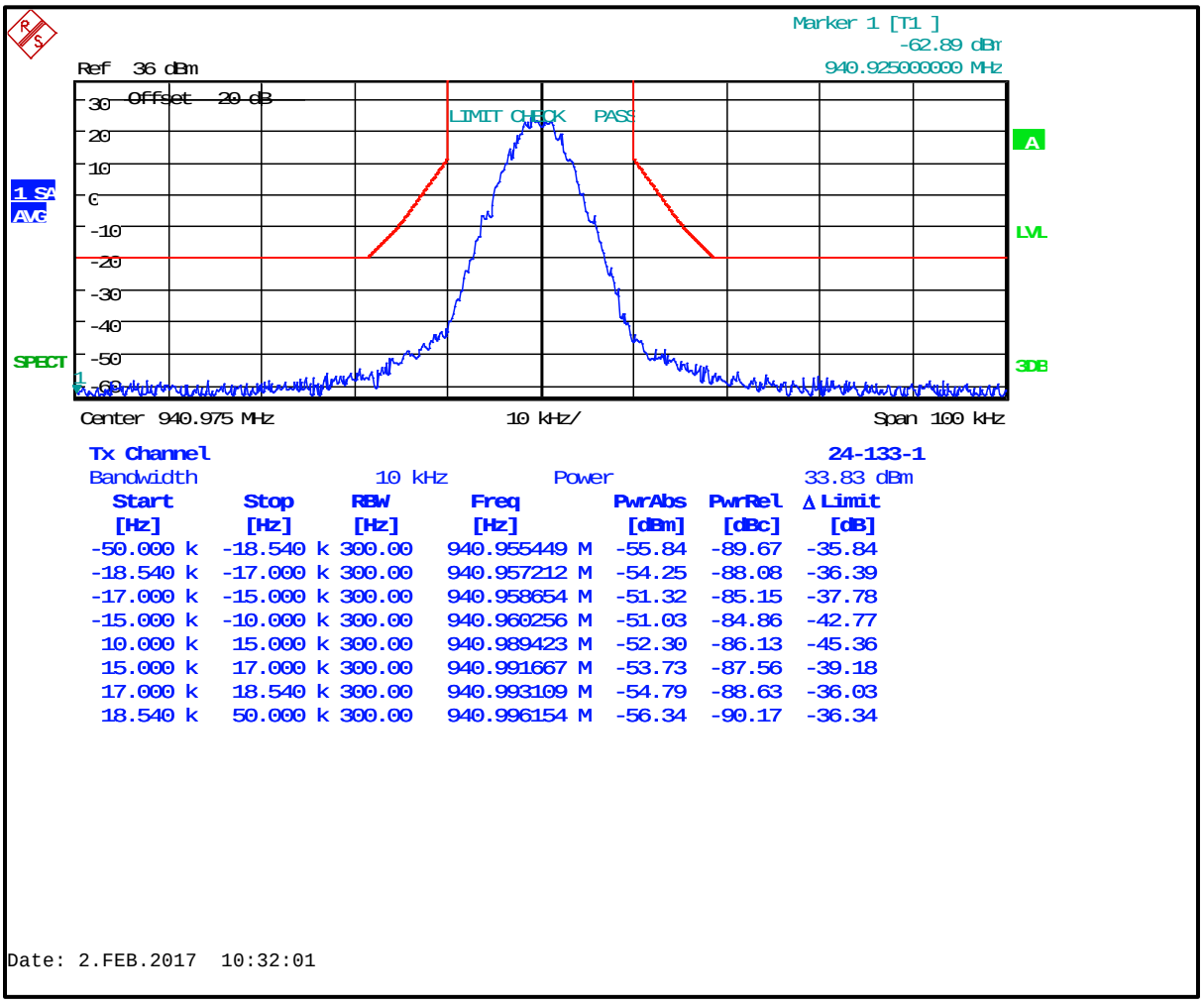
Plot 8-105: Occupied Bandwidth – 940.9750 MHz; 2-Level FSK 9600 NB; Mask 24.133(1)



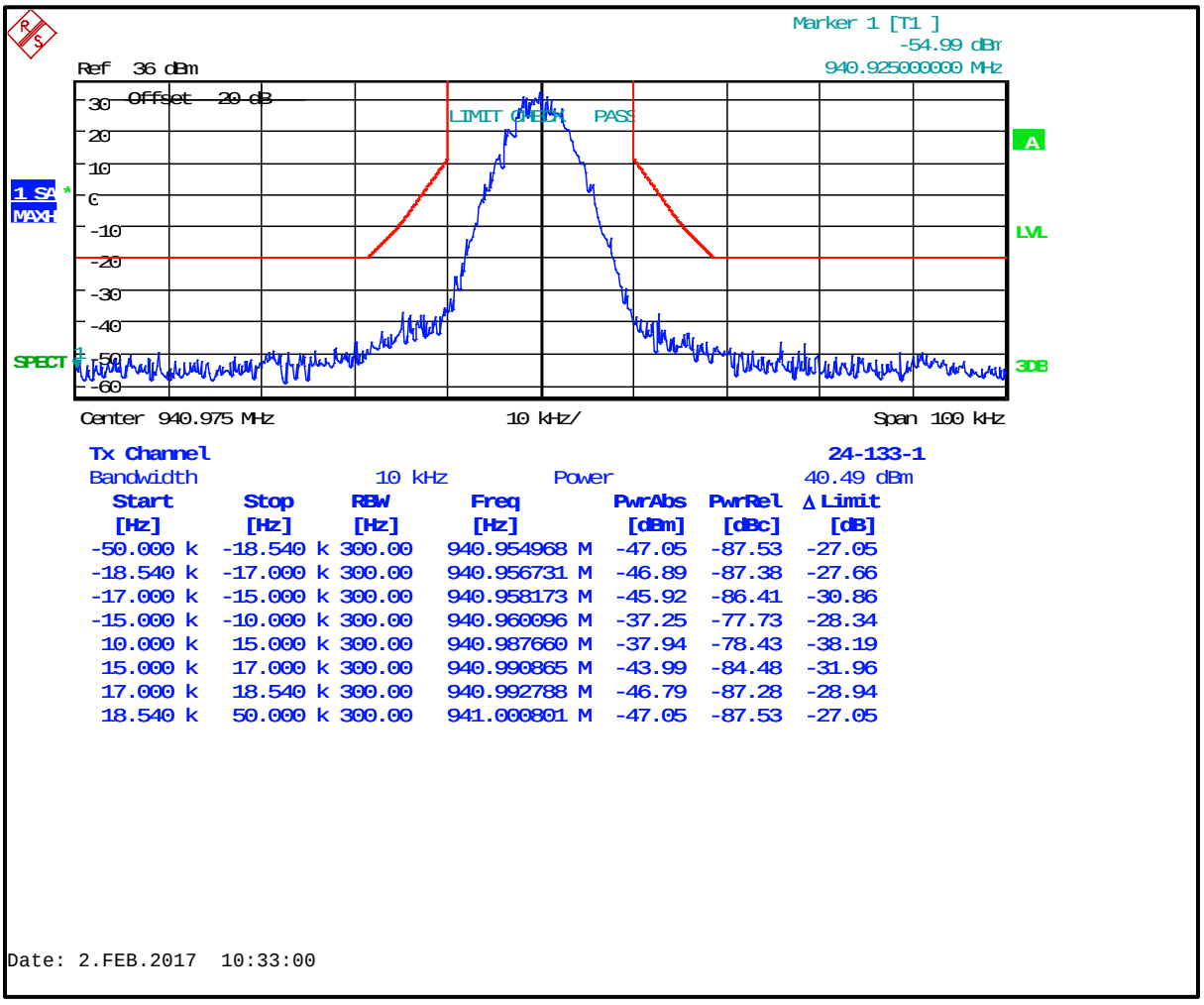
Plot 8-106: Occupied Bandwidth – 940.9750 MHz; 2-Level FSK 4800 XNB; Mask 24.133(1)



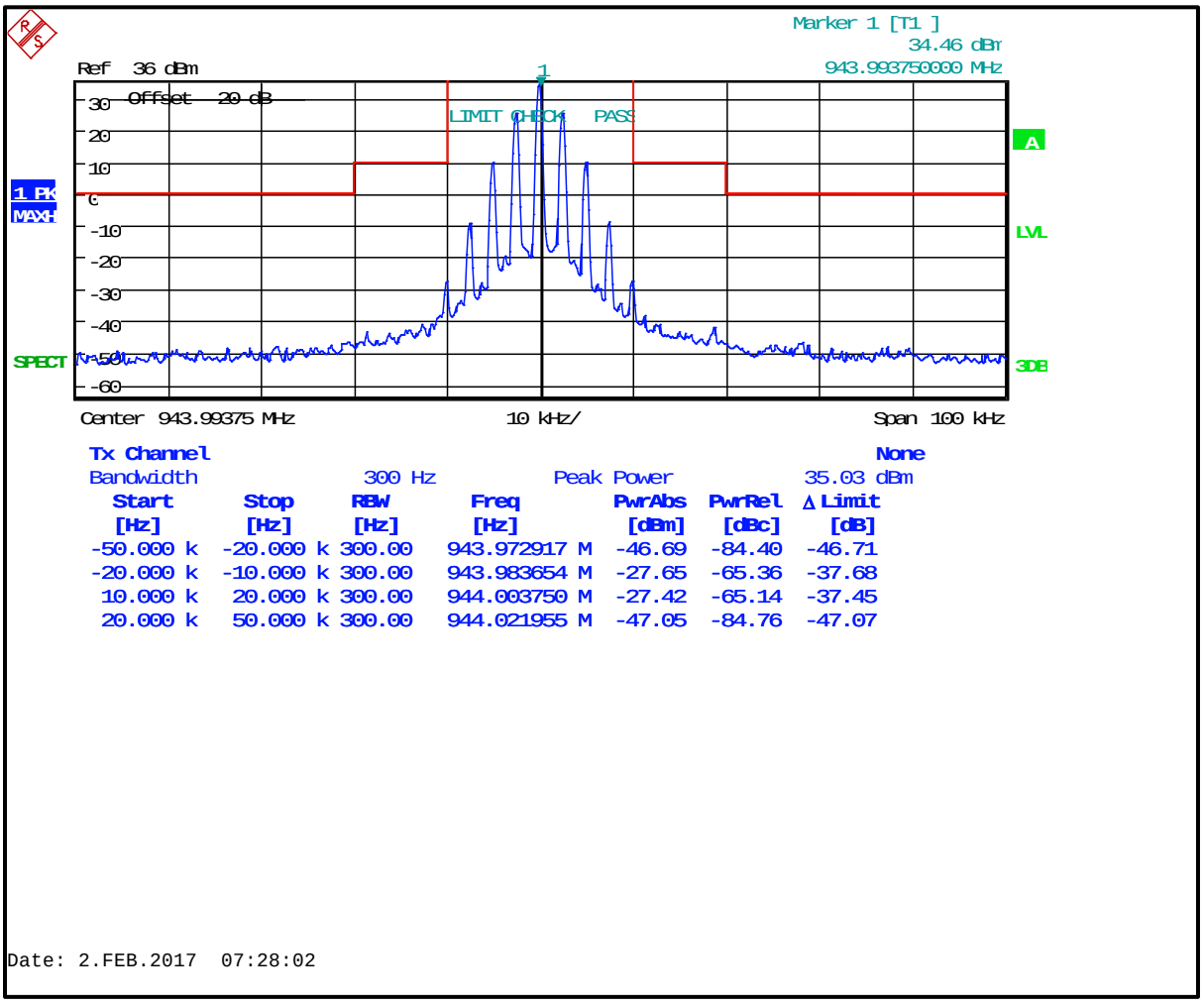
Plot 8-107: Occupied Bandwidth – 940.9750 MHz; P25; Mask 24.133(1)



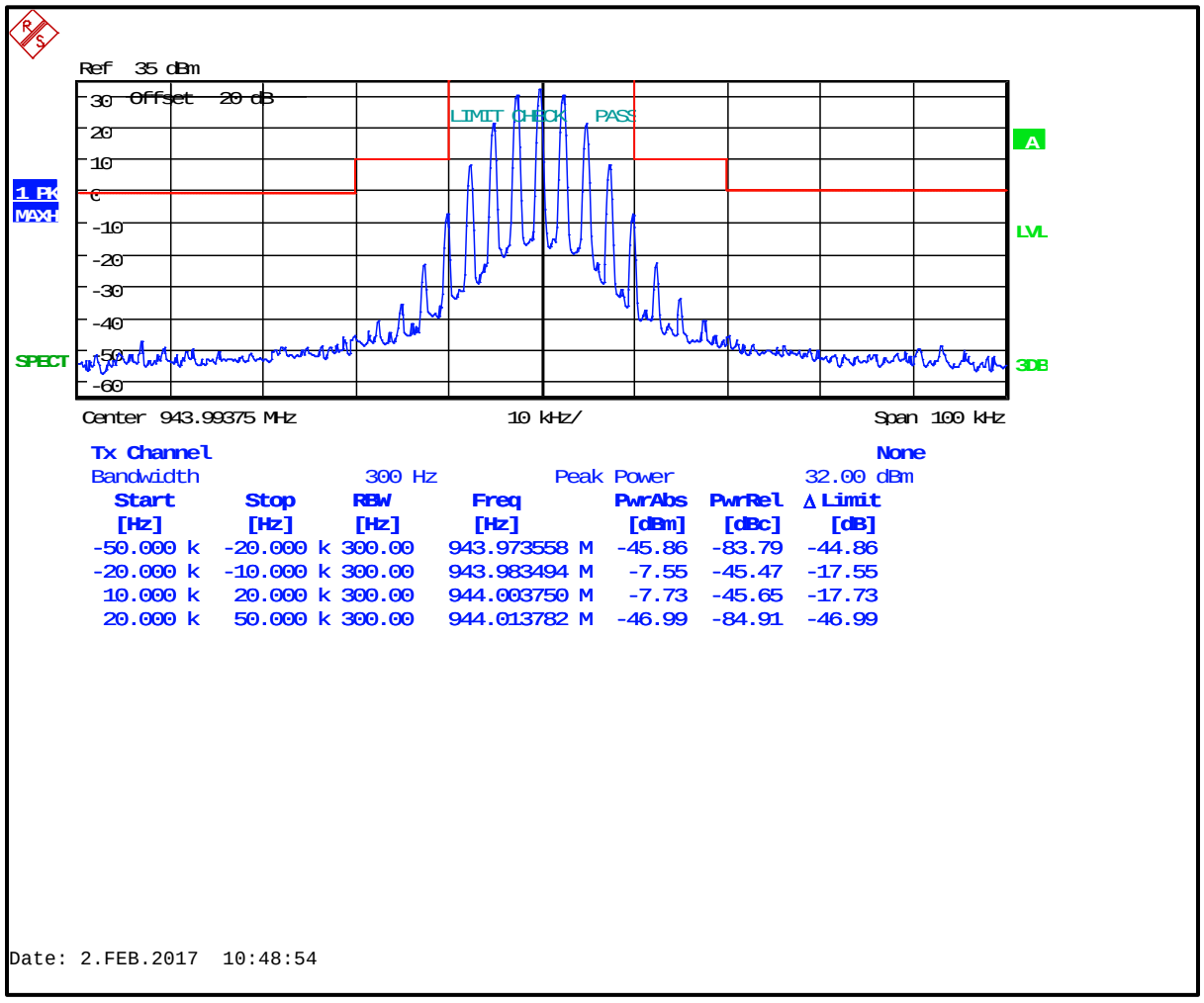
Plot 8-108: Occupied Bandwidth – 940.9750 MHz; P25 Phase 2; Mask 24.133(1)



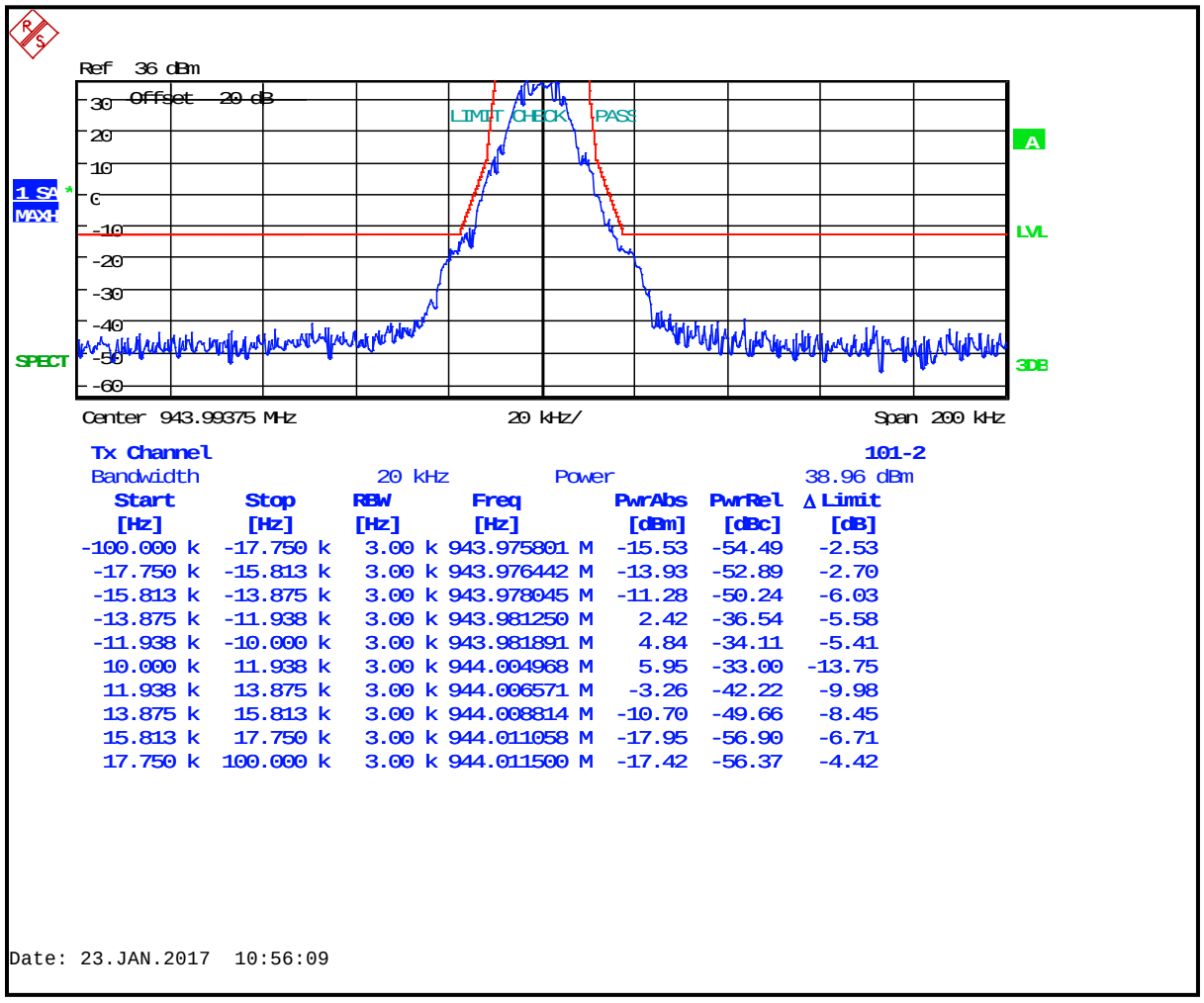
Plot 8-109: Occupied Bandwidth – 943.99375 MHz; NB Analog; Mask 101.111(1)



Plot 8-110: Occupied Bandwidth – 943.99375 MHz; WB Analog; Mask 101.111(1)



Plot 8-111: Occupied Bandwidth – 943.99375 MHz; 2-Level FSK 9600 WB; Mask 101.111(2)



Tx Channel **101-2**
Bandwidth 20 kHz Power 38.96 dBm

Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	PwrRel [dBc]	Δ Limit [dB]
-100.000 k	-17.750 k	3.00 k	943.975801 M	-15.53	-54.49	-2.53
-17.750 k	-15.813 k	3.00 k	943.976442 M	-13.93	-52.89	-2.70
-15.813 k	-13.875 k	3.00 k	943.978045 M	-11.28	-50.24	-6.03
-13.875 k	-11.938 k	3.00 k	943.981250 M	2.42	-36.54	-5.58
-11.938 k	-10.000 k	3.00 k	943.981891 M	4.84	-34.11	-5.41
10.000 k	11.938 k	3.00 k	944.004968 M	5.95	-33.00	-13.75
11.938 k	13.875 k	3.00 k	944.006571 M	-3.26	-42.22	-9.98
13.875 k	15.813 k	3.00 k	944.008814 M	-10.70	-49.66	-8.45
15.813 k	17.750 k	3.00 k	944.011058 M	-17.95	-56.90	-6.71
17.750 k	100.000 k	3.00 k	944.011500 M	-17.42	-56.37	-4.42

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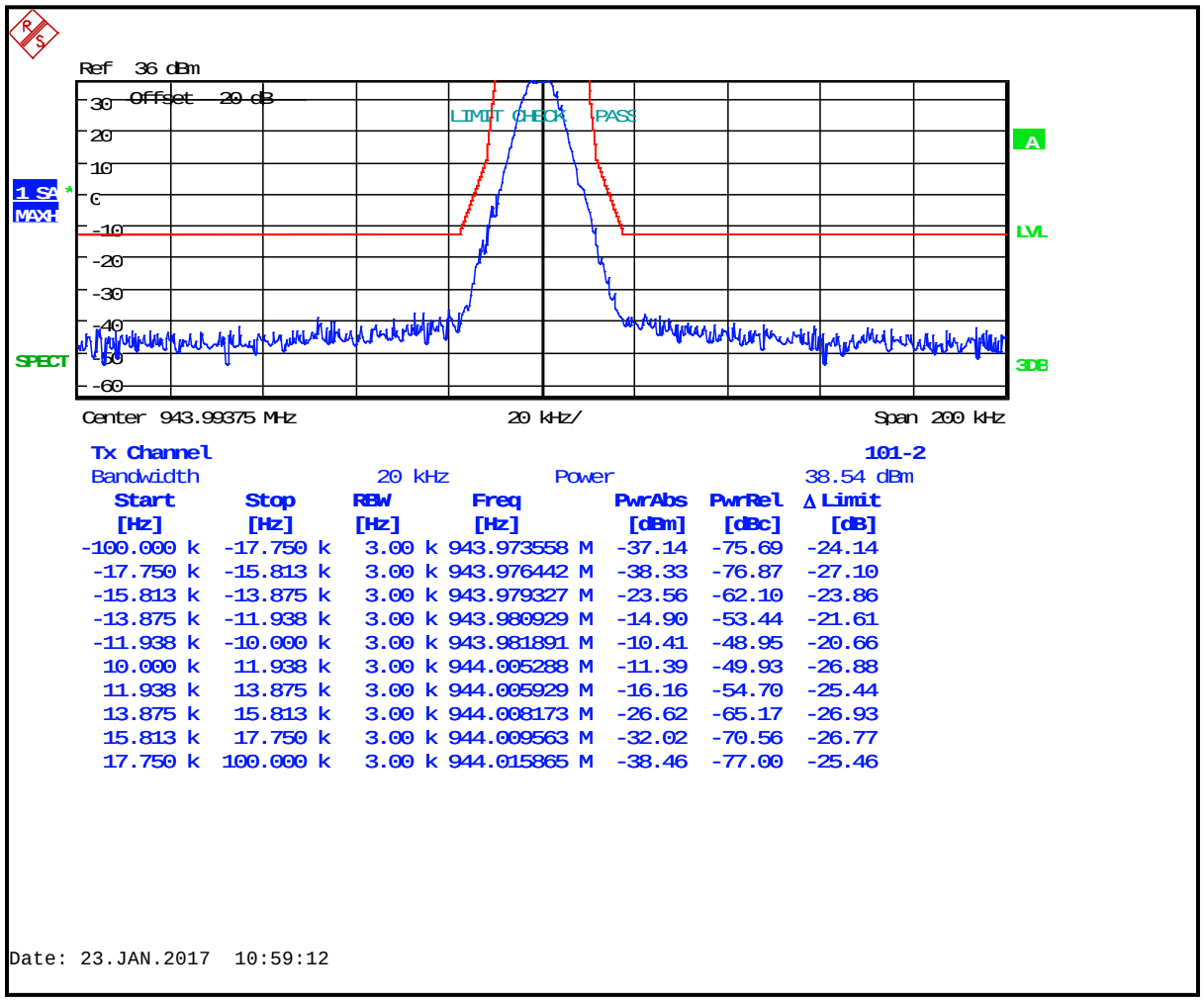
Plot 8-112: Occupied Bandwidth – 943.99375 MHz; 2-Level FSK 9600 NB; Mask 101.111(2)



Tx Channel **101-2**

Bandwidth 20 kHz Power 38.54 dBm

Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	PwrRel [dBc]	Δ Limit [dB]
-100.000 k	-17.750 k	3.00 k	943.973558 M	-37.14	-75.69	-24.14
-17.750 k	-15.813 k	3.00 k	943.976442 M	-38.33	-76.87	-27.10
-15.813 k	-13.875 k	3.00 k	943.979327 M	-23.56	-62.10	-23.86
-13.875 k	-11.938 k	3.00 k	943.980929 M	-14.90	-53.44	-21.61
-11.938 k	-10.000 k	3.00 k	943.981891 M	-10.41	-48.95	-20.66
10.000 k	11.938 k	3.00 k	944.005288 M	-11.39	-49.93	-26.88
11.938 k	13.875 k	3.00 k	944.005929 M	-16.16	-54.70	-25.44
13.875 k	15.813 k	3.00 k	944.008173 M	-26.62	-65.17	-26.93
15.813 k	17.750 k	3.00 k	944.009563 M	-32.02	-70.56	-26.77
17.750 k	100.000 k	3.00 k	944.015865 M	-38.46	-77.00	-25.46

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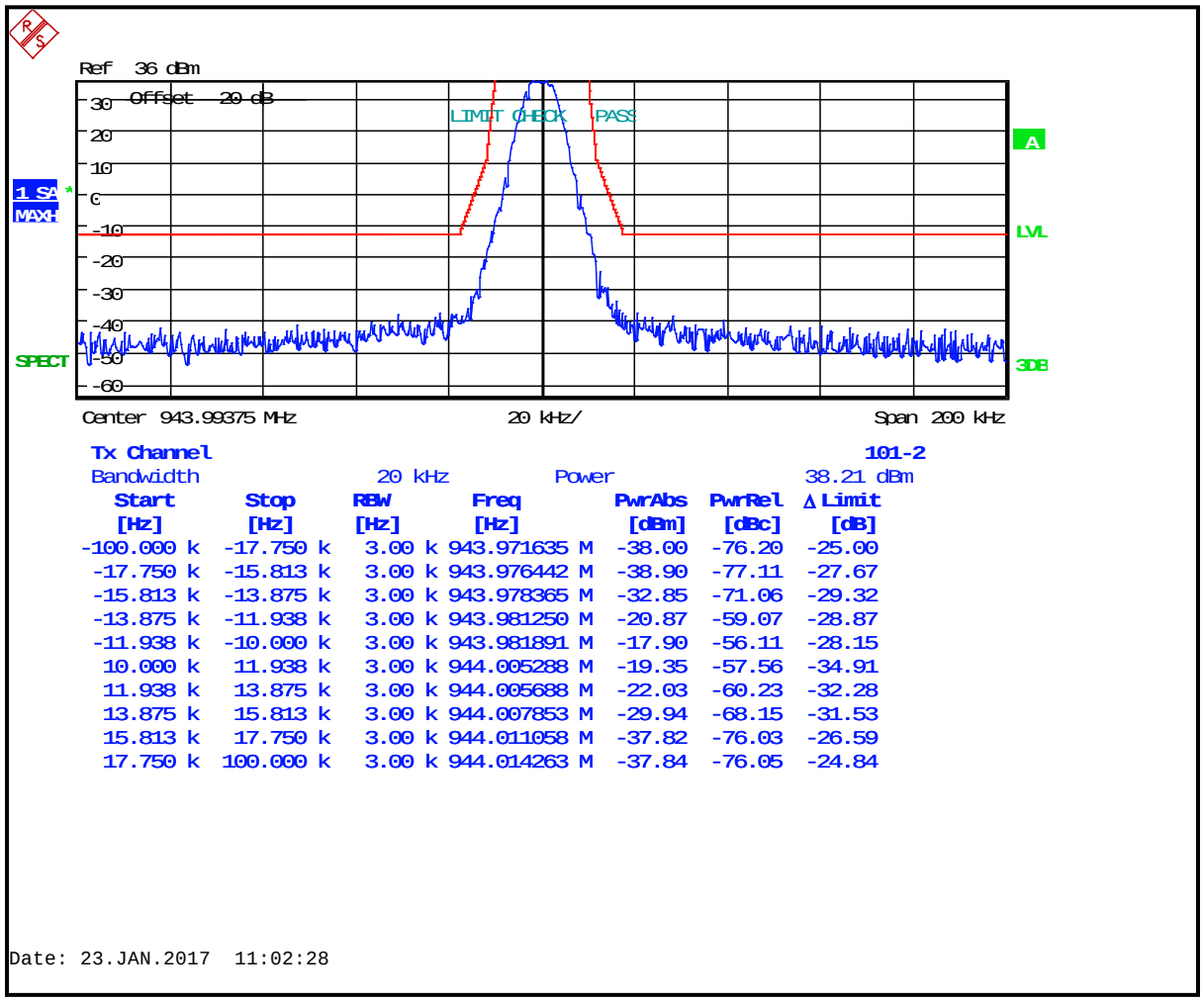
Plot 8-113: Occupied Bandwidth – 943.99375 MHz; 2-Level FSK 4800 XNB; Mask 101.111(2)



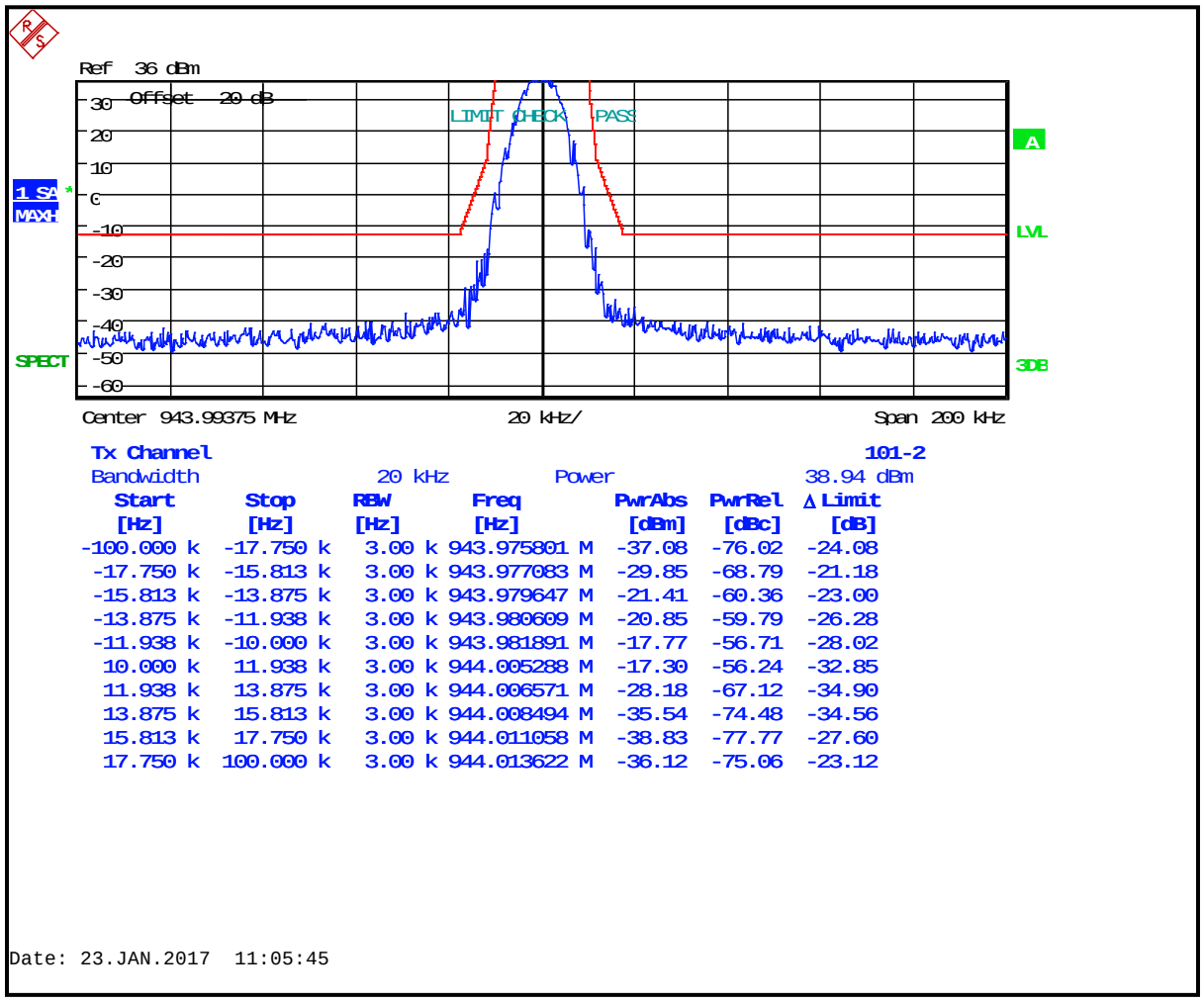
Tx Channel **101-2**

Bandwidth 20 kHz Power 38.21 dBm

Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	PwrRel [dBc]	Δ Limit [dB]
-100.000 k	-17.750 k	3.00 k	943.971635 M	-38.00	-76.20	-25.00
-17.750 k	-15.813 k	3.00 k	943.976442 M	-38.90	-77.11	-27.67
-15.813 k	-13.875 k	3.00 k	943.978365 M	-32.85	-71.06	-29.32
-13.875 k	-11.938 k	3.00 k	943.981250 M	-20.87	-59.07	-28.87
-11.938 k	-10.000 k	3.00 k	943.981891 M	-17.90	-56.11	-28.15
10.000 k	11.938 k	3.00 k	944.005288 M	-19.35	-57.56	-34.91
11.938 k	13.875 k	3.00 k	944.005688 M	-22.03	-60.23	-32.28
13.875 k	15.813 k	3.00 k	944.007853 M	-29.94	-68.15	-31.53
15.813 k	17.750 k	3.00 k	944.011058 M	-37.82	-76.03	-26.59
17.750 k	100.000 k	3.00 k	944.014263 M	-37.84	-76.05	-24.84

Date: 23.JAN.2017 11:02:28

Plot 8-114: Occupied Bandwidth – 943.99375 MHz; P25; Mask 101.111(2)



Plot 8-115: Occupied Bandwidth – 943.99375 MHz; P25 Phase 2; Mask 101.111(2)

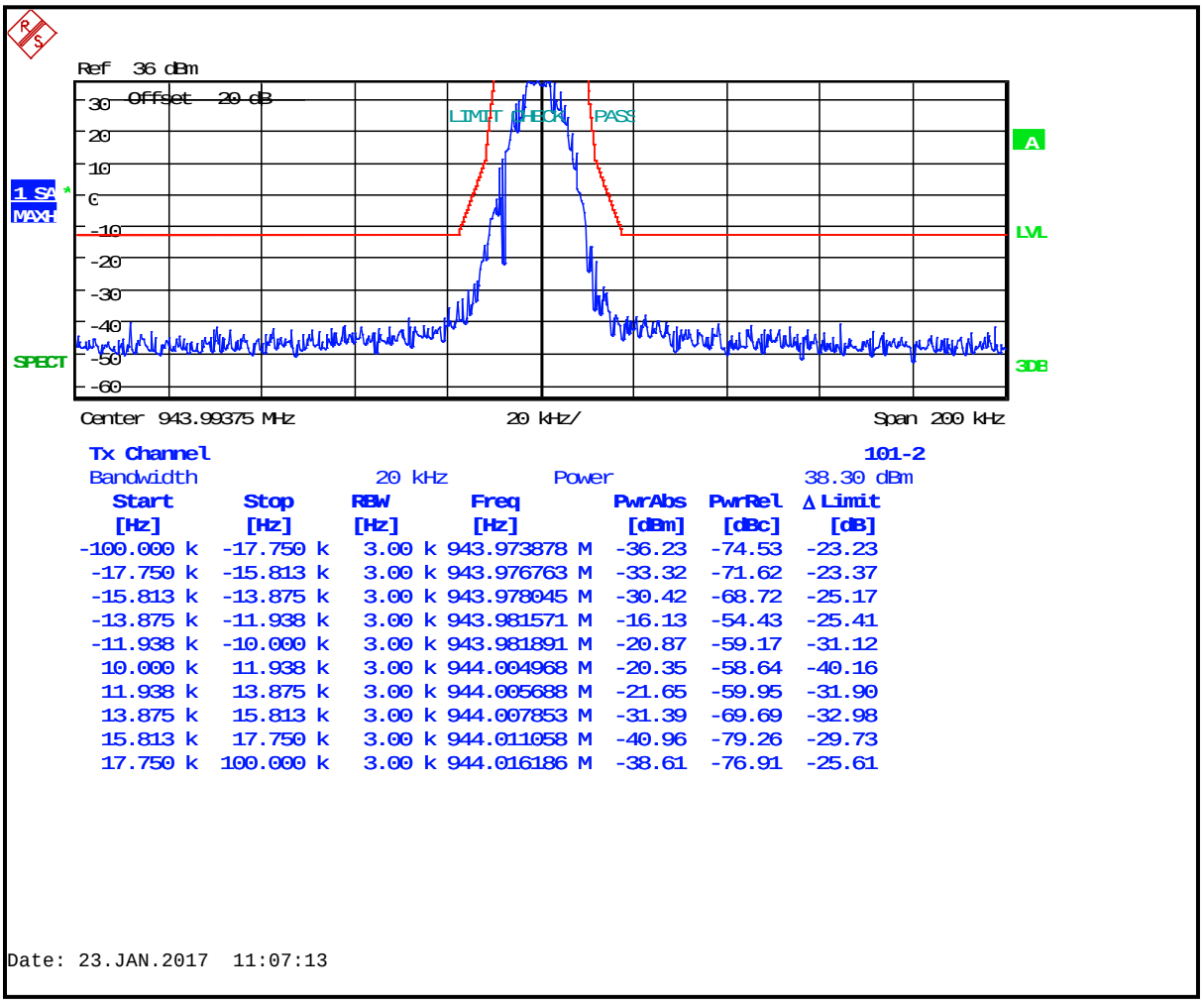


Table 8-1: Test Equipment Used For Testing Occupied Bandwidth

RTL Asset #	Manufacturer	Model	Part Type	Serial Number	Calibration Due Date
901581	Rohde & Schwarz	FSU	Spectrum Analyzer	1166.1660.50	3/22/18
901139	Weinschel Corp.	48-20-34 DC-18GHz	Attenuator, 100W 20dB	BK5859	3/30/18
901057	Hewlett Packard	3336B	Synthesizer/Level Generator	2514A02585	4/13/17

Test Personnel:

Daniel Baltzell	Daniel W. Baltzell	December 18, 2016- February 2, 2017
EMC Test Engineer	Signature	Dates of Test

9 FCC Part 2.1055: Frequency Stability; Part 24.135: Frequency Stability; Part 90.213, Part 90.539: Frequency Stability; Part101.107: Frequency Tolerance; IC RSS-119 5.3 Transmitter Frequency Stability

9.1 Test Procedure

ANSI/TIA-603-D 2010, section 2.2.2

The carrier frequency stability is the ability of the transmitter to maintain an assigned carrier frequency.

The EUT was evaluated over the temperature range -30°C to +60°C. The AFC was not locked to the base station.

The temperature was initially set to -30°C and a 1-hour period was observed for stabilization of the EUT. The frequency stability was measured within one minute after application of primary power to the transmitter. The temperature was raised at intervals of 10 degrees centigrade through the range. A ½-hour period was observed to stabilize the EUT at each measurement step and the frequency stability was measured within one minute after application of primary power to the transmitter. Additionally, the power supply voltage of the EUT was varied +/-15% nominal input voltage.

Part 24.135: Frequency Stability

(a) The frequency stability of the transmitter shall be maintained within ±0.0001 percent (±1 ppm) of the center frequency over a temperature variation of -30° Celsius to +50° Celsius at normal supply voltage, and over a variation in the primary supply voltage of 85 percent to 115 percent of the rated supply voltage at a temperature of 20° Celsius.
(b) For battery operated equipment, the equipment tests shall be performed using a new battery without any further requirement to vary supply voltage.
(c) It is acceptable for a transmitter to meet this frequency stability requirement over a narrower temperature range provided the transmitter ceases to function before it exceeds these frequency stability limits.

Part 90.213: Mobile stations over 2 W operating power - 1.5 ppm

Part 90.213 Frequency Stability

(a) Unless noted elsewhere, transmitters used in the services governed by this part must have a minimum frequency stability as specified in the following table.

MINIMUM FREQUENCY STABILITY
[Parts per million (ppm)]

Frequency range (MHz)	Fixed and base stations	Mobile stations	
		Over 2 watts output power	2 watts or less output power
Below 25	[1,2,3] 100	100	200
25–50	20	20	50
72–76	5	.....	50
150–174	[5,11] 5	[6] 5	[4,6] 50
216–220	1.0	.....	1.0
220–222 [12]	0.1	1.5	1.5
421–512	[7,11,14] 2.5	[8] 5	[8] 5
806–809	[14] 1.0	1.5	1.5
809–824	[14] 1.5	2.5	2.5
851–854	1.0	1.5	1.5
854–869	1.5	2.5	2.5
896–901	[14] 0.1	1.5	1.5
902–928	2.5	2.5	2.5
902–928 [13]	2.5	2.5	2.5
929–930	1.5	.....	.....
935–940	0.1	1.5	1.5
1427–1435	[9] 300	300	300
Above 2450 [10]	.....	.....	.....

Part 90.539 Frequency Stability

Transmitters designed to operate in 769–775 MHz and 799–805 MHz frequency bands must meet the frequency stability requirements in this section.

(a) Mobile, portable and control transmitters must normally use automatic frequency control (AFC) to lock on to the base station signal.
(b) The frequency stability of base transmitters operating in the narrowband segment must be 100 parts per billion or better.
(c) The frequency stability of mobile, portable and control transmitters operating in the narrowband segment must be 400 parts per billion or better when AFC is locked to the base station. When AFC is not locked to the base station, the frequency stability must be at least 1.0 ppm for 6.25 kHz, 1.5 ppm for 12.5 kHz (2 channel aggregate), and 2.5 ppm for 25 kHz (4 channel aggregate).
(d) The frequency stability of base transmitters operating in the wideband segment must be 1 part per million or better.
(e) The frequency stability of mobile, portable and control transmitters operating in the wideband segment must be 1.25 parts per million or better when AFC is locked to a base station, and 5 parts per million or better when AFC is not locked.

The EUT was tested while the AFC was not locked, therefore, the limit is 1.5 ppm. The worst-case deviation was found to be -0.46 ppm.

Part 101.107 Frequency tolerance

(a) The carrier frequency of each transmitter authorized in these services must be maintained within the following percentage of the reference frequency except as otherwise provided in paragraph (b) of this section or in the applicable subpart of this part (unless otherwise specified in the instrument of station authorization the reference frequency will be deemed to be the assigned frequency):

Frequency (MHz)	Frequency Tolerance (percent)
941.5 to 944	0 .00025

9.2 Test Data

Table 9-1: Temperature Frequency Stability – 776 MHz

Temperature (°C)	Measured Frequency (Hz)	ppm
-30	775.999878	-0.16
-20	775.999877	-0.16
-10	775.999878	-0.16
0	775.999902	-0.13
10	776.000000	0.00
20 (reference)	776.000000	0.00
30	776.000000	0.00
40	776.000024	0.03
50	775.999645	-0.46
60	775.999926	-0.10

Table 9-2: Temperature Frequency Stability – 851 MHz

Temperature (°C)	Measured Frequency (Hz)	ppm
-30	850.999878	-0.14
-20	850.999878	-0.14
-10	850.999853	-0.17
0	850.999902	-0.12
10	851.000000	0.00
20 (reference)	851.000000	0.00
30	851.000000	0.00
40	851.000000	0.00
50	850.999645	-0.42
60	850.999902	-0.12

Table 9-3: Temperature Frequency Stability – 898.5 MHz

Temperature (°C)	Measured Frequency (Hz)	ppm
-30	898.499846	-0.17
-20	898.499853	-0.16
-10	898.499853	-0.16
0	898.499902	-0.11
10	898.499975	-0.03
20 (reference)	898.500000	0.00
30	898.499975	-0.03
40	898.500000	0.00
50	898.499645	-0.40
60	898.499926	-0.08

Results: The EUT is compliant.

Table 9-4: Test Equipment Used For Testing Frequency Stability

RTL Asset #	Manufacturer	Model	Part Type	Serial Number	Calibration Due Date
901350	Meterman	33XR	Multimeter	040402802	4/14/17
901672	Rohde & Schwarz	FSEM30	Spectrum Analyzer	FSEM30	4/17/19
901521	MA/COM	2082-6174-20	20 dB Attenuator (2W, DC-4GHz)	N/A	9/1/18
901525	MA/COM	2082-6174-20	20 dB Attenuator (2W, DC-4GHz)	N/A	9/1/18
901699	Hewlett Packard	E3610A	Power Supply	KR72917306	Not Required

Test Personnel:

Daniel Baltzell		December 13, 2016
EMC Test Engineer	Signature	Date of Test

9.2.1 Frequency Stability/Voltage Variation

Table 9-5: Frequency Stability/Voltage Variation – 776 MHz

Voltage (VDC)	Measured Frequency (Hz)	ppm
6 (end of battery)	775.999993	-0.01
6.375	775.999990	-0.01
7.5 (reference)	775.999990	-0.01
8.625	775.999990	-0.01

Table 9-6: Frequency Stability/Voltage Variation – 851 MHz

Voltage (VDC)	Measured Frequency (Hz)	ppm
6 (end of battery)	850.999992	-0.01
6.375	850.999992	-0.01
7.5 (reference)	850.999991	-0.01
8.625	850.999988	-0.01

Table 9-7: Frequency Stability/Voltage Variation – 898.5 MHz

Voltage (VDC)	Measured Frequency (Hz)	ppm
6 (end of battery)	898.499991	-0.01
6.375	898.499994	-0.01
7.5 (reference)	898.499995	-0.01
8.625	898.499993	-0.01

Table 9-8: Test Equipment Used For Testing Frequency Stability

RTL Asset #	Manufacturer	Model	Part Type	Serial Number	Calibration Due Date
901350	Meterman	33XR	Multimeter	040402802	4/14/17
901672	Rohde & Schwarz	FSEM30	Spectrum Analyzer	FSEM30	4/17/19
901521	MA/COM	2082-6174-20	20 dB Attenuator (2W, DC-4GHz)	N/A	9/1/18
901525	MA/COM	2082-6174-20	20 dB Attenuator (2W, DC-4GHz)	N/A	9/1/18
901699	Hewlett Packard	E3610A	Power Supply	KR72917306	Not Required

Test Personnel:

Daniel Baltzell		December 13, 2016
EMC Test Engineer	Signature	Date of Test

10 FCC Part 2.1047: Modulation Characteristics; IC RSS-119 5.8 Types of Modulation

10.1 Test Procedures

10.1.1 Audio Frequency Response

ANSI/TIA-603-D 2010, section 2.2.6

The audio frequency response is the degree of closeness to which the frequency deviation of the transmitter follows a prescribed characteristic.

The input audio level at 1000 Hz was set to produce 20% of the rated system deviation. This point is shown as the 0 dB reference level, noted DEVref. The audio signal generator was varied from 100 Hz to 5 kHz with the input level held constant. The deviation in kHz was recorded using a modulation analyzer as DEVfreq. The response in dB relative to 1 kHz was calculated as follows:

Audio Frequency Response = 20 LOG (DEVfreq/DEVref)

10.1.2 Audio Low Pass Filter Response

ANSI/TIA-603-D 2010, 2.2.15

The Audio Low Pass Filter Response is the frequency response of the post limiter low pass filter circuit above 3000 Hz.

10.1.3 Modulation Limiting

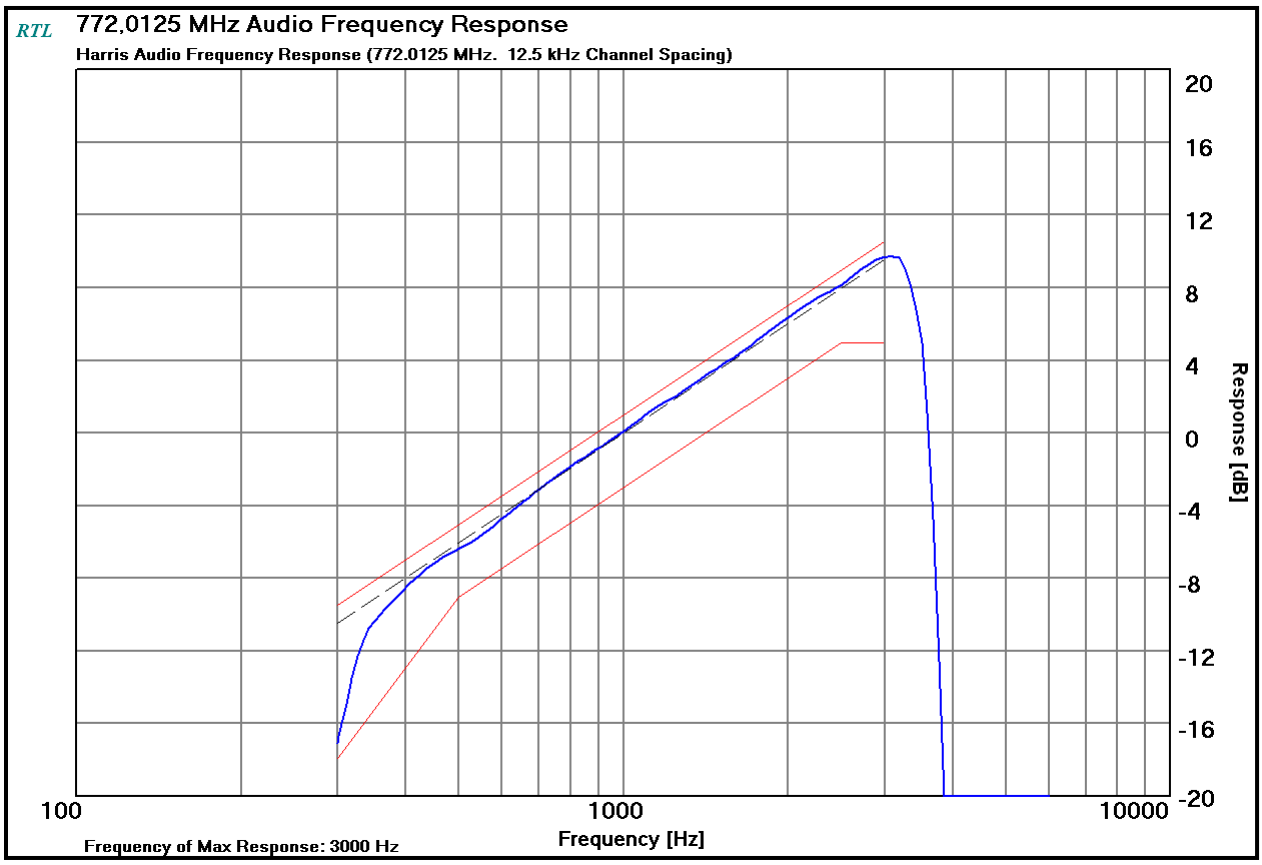
ANSI/TIA-603-D 2010, section 2.2.3

The transmitter was adjusted for full rated system deviation. The audio input level was adjusted for 60% of rated system deviation at 1000 Hz. Using this level (0 dB) as a reference, the audio input level was varied from the reference +/-20 dB for modulation frequencies of 300 Hz, 1,000 Hz, and 2,500 Hz. The system deviation obtained as a function of the input level was recorded. Both positive and negative peak deviations were recorded.

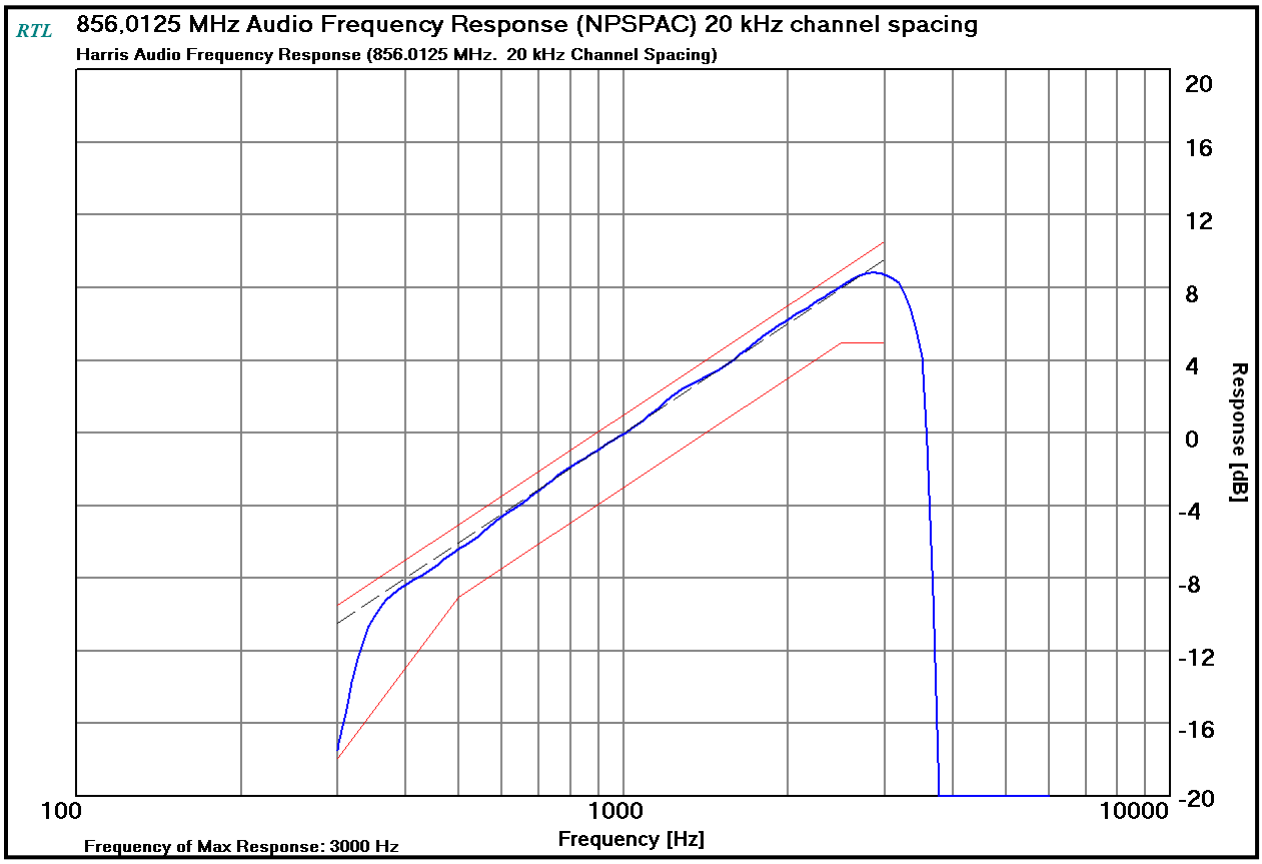
10.2 Test Data

10.2.1 Audio Frequency Response

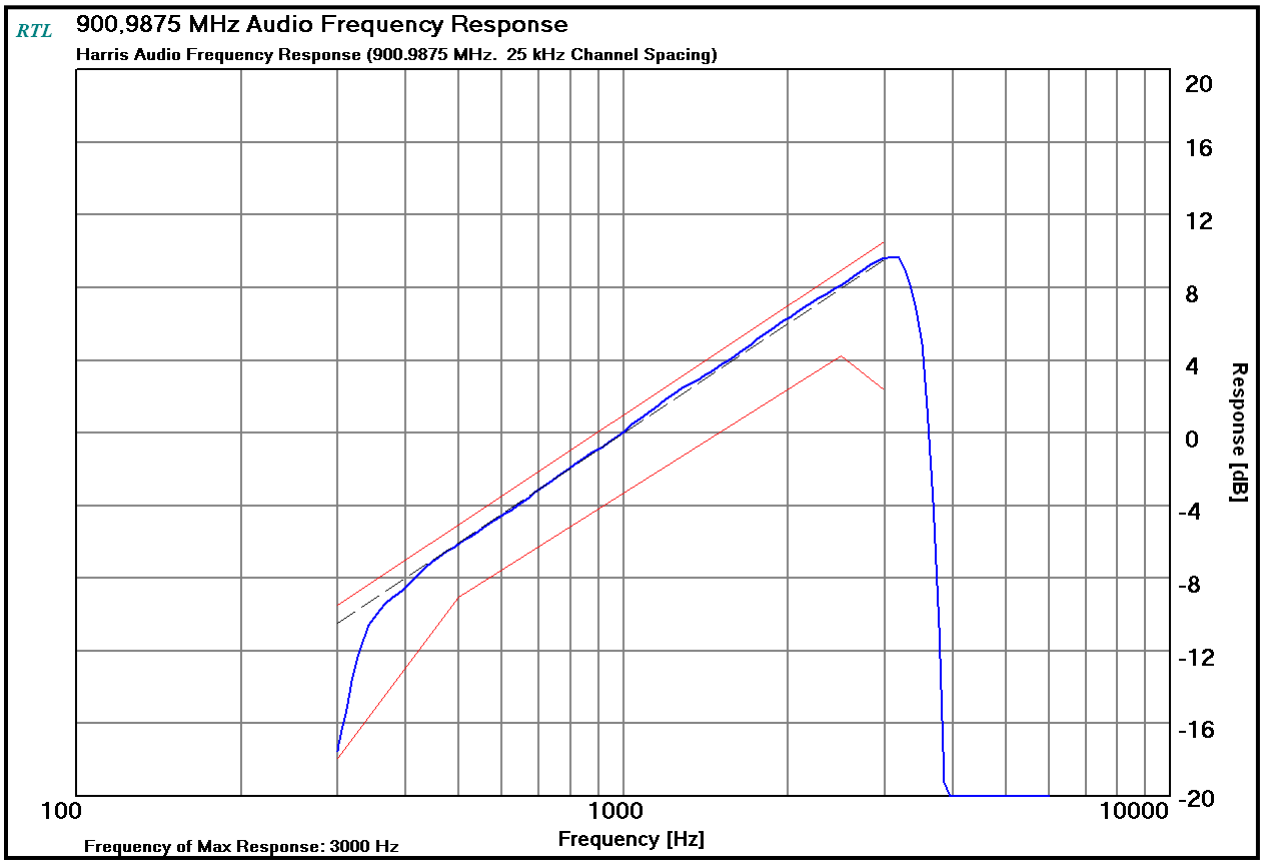
Plot 10-1: Modulation Characteristics - Audio Frequency Response – 772.0125 MHz (NB)



Plot 10-2: Modulation Characteristics - Audio Frequency Response – 856.0125 MHz (NPSPAC)

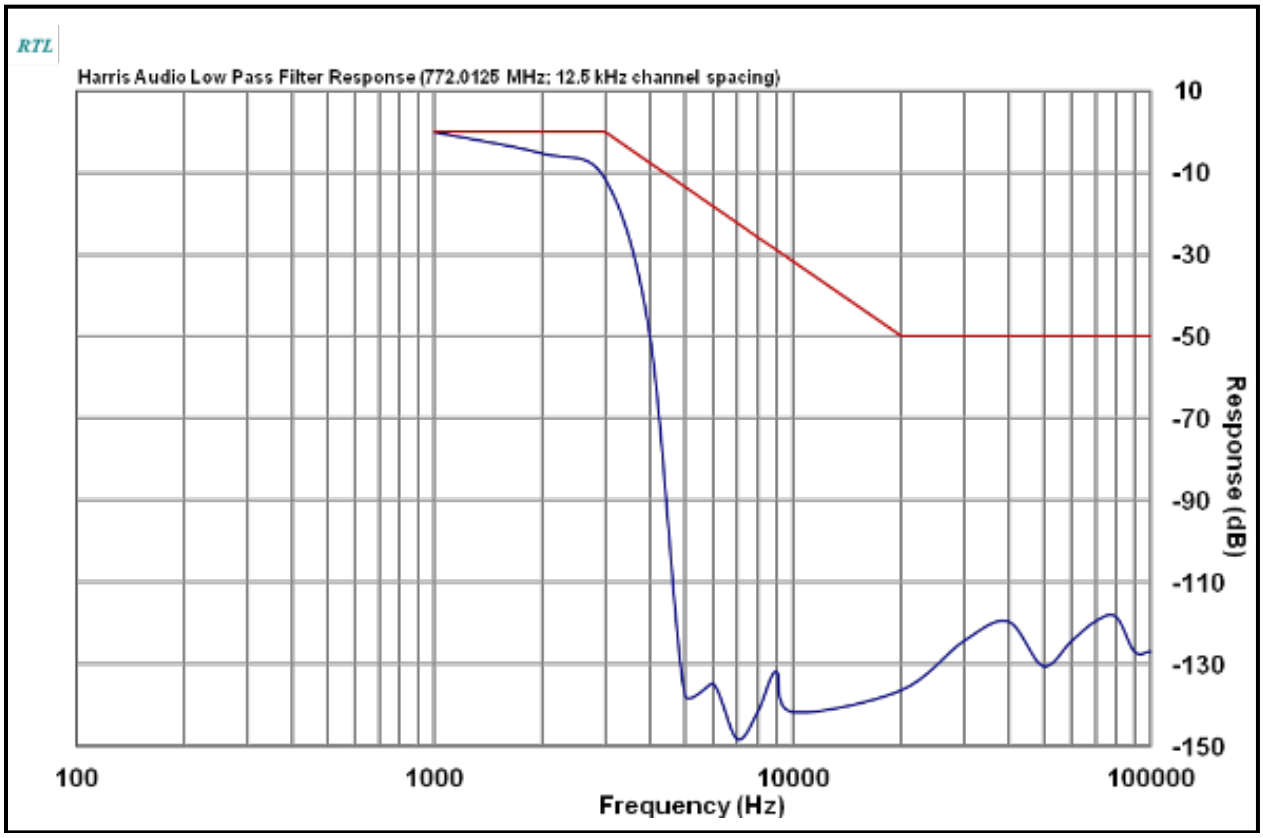


Plot 10-3: Modulation Characteristics - Audio Frequency Response – 900.9875 MHz (WB)

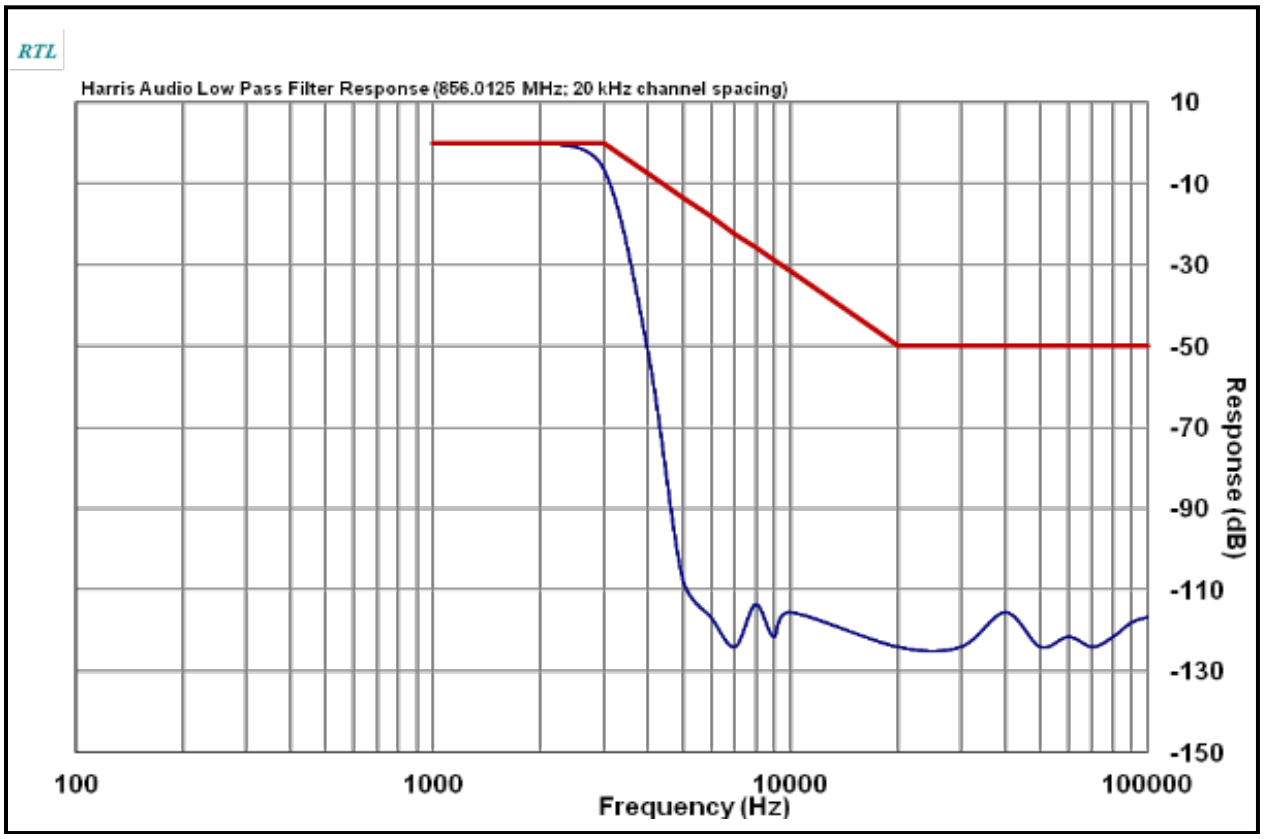


10.2.2 Audio Low Pass Filter Response

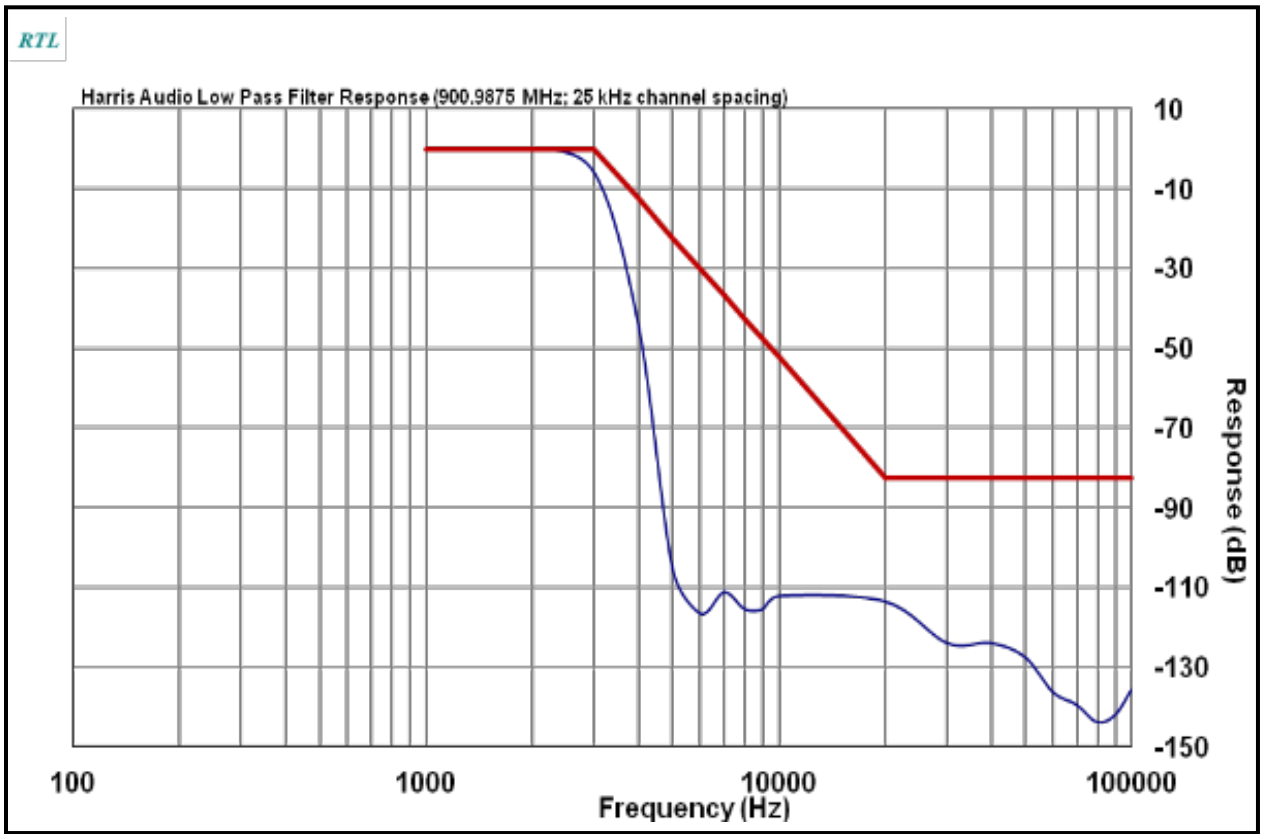
Plot 10-4: Modulation Characteristics – Audio Low Pass Filter – 772.0125 MHz (NB)



Plot 10-5: Modulation Characteristics – Audio Low Pass Filter – 856.0125 MHz (NPSPAC)

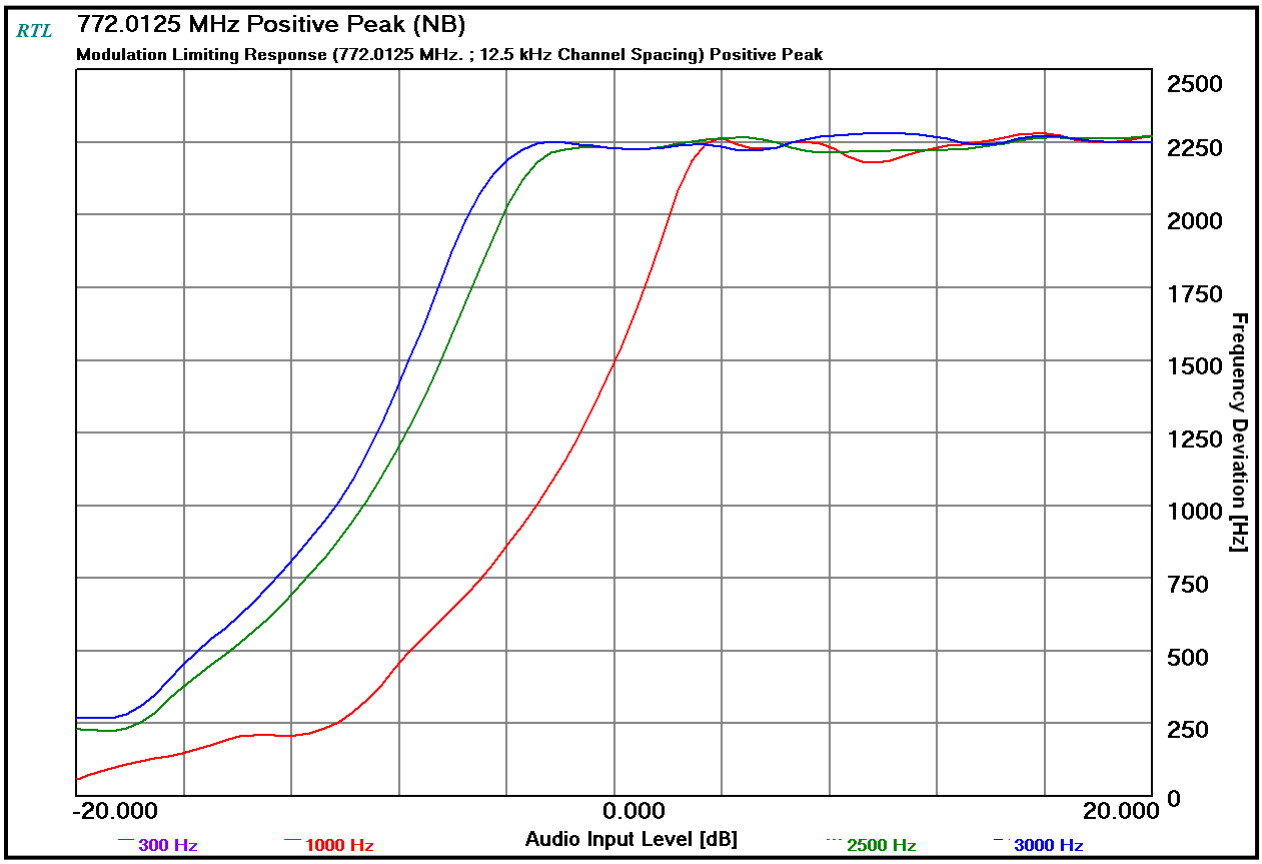


Plot 10-6: Modulation Characteristics – Audio Low Pass Filter – 900.9875 MHz (WB)

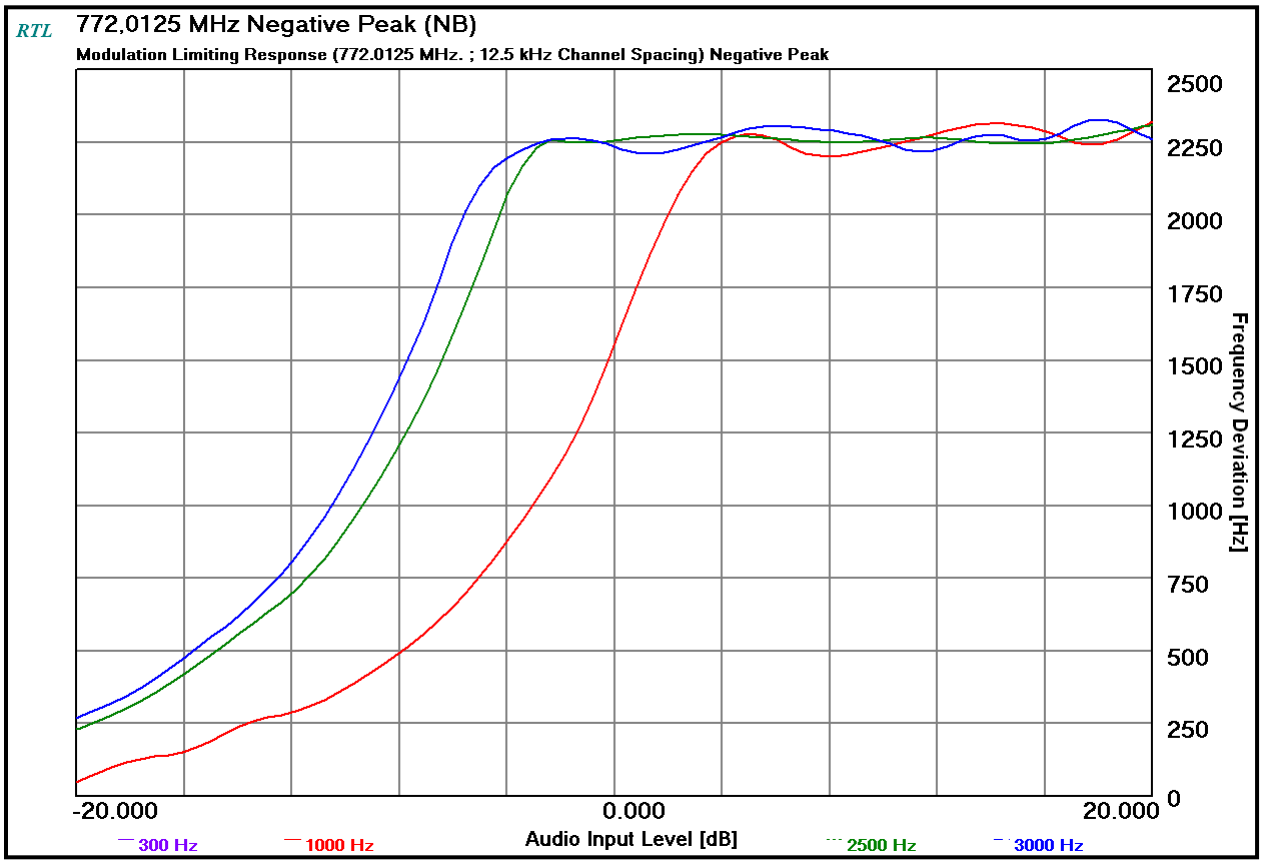


10.2.3 Modulation Limiting

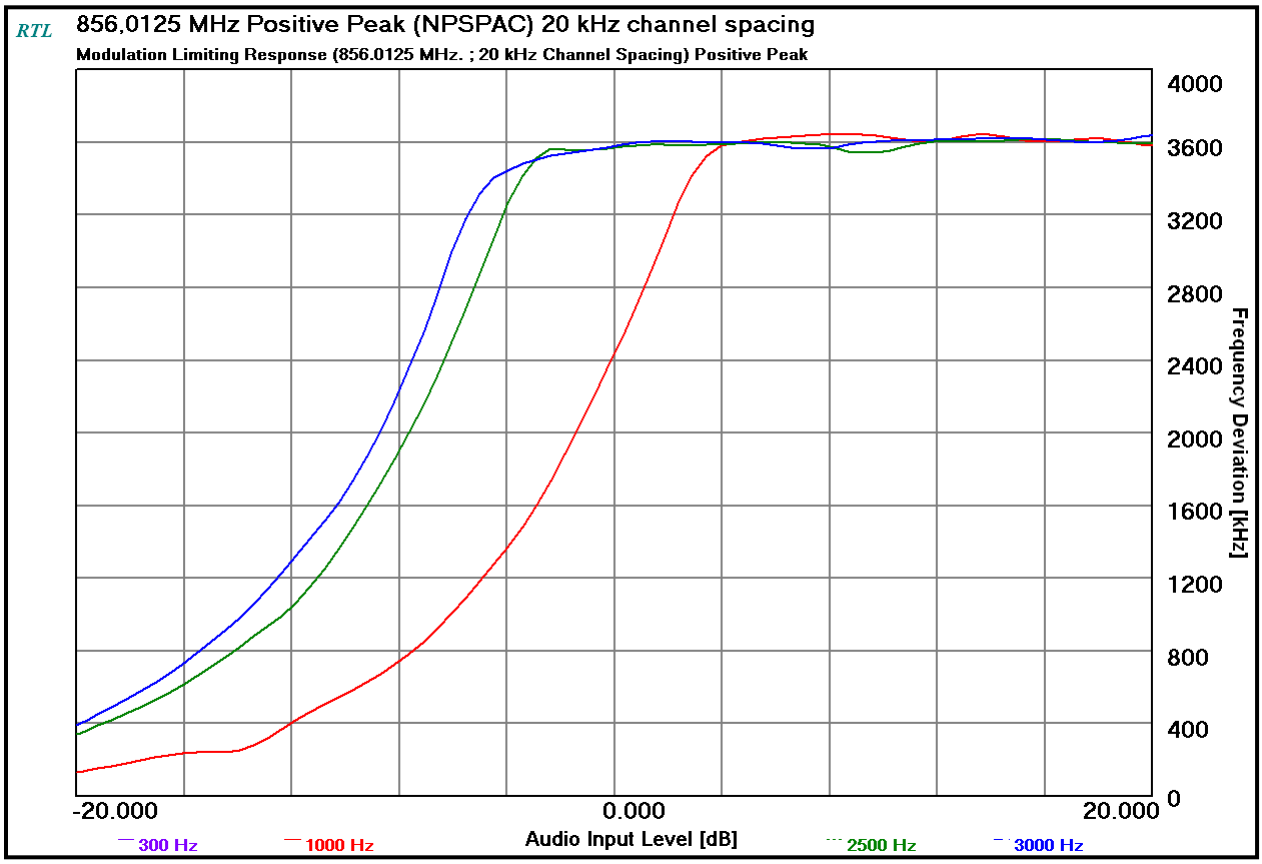
Plot 10-7: Modulation Characteristics – Modulation Limiting – 772.0125 MHz; (NB); Positive Peak



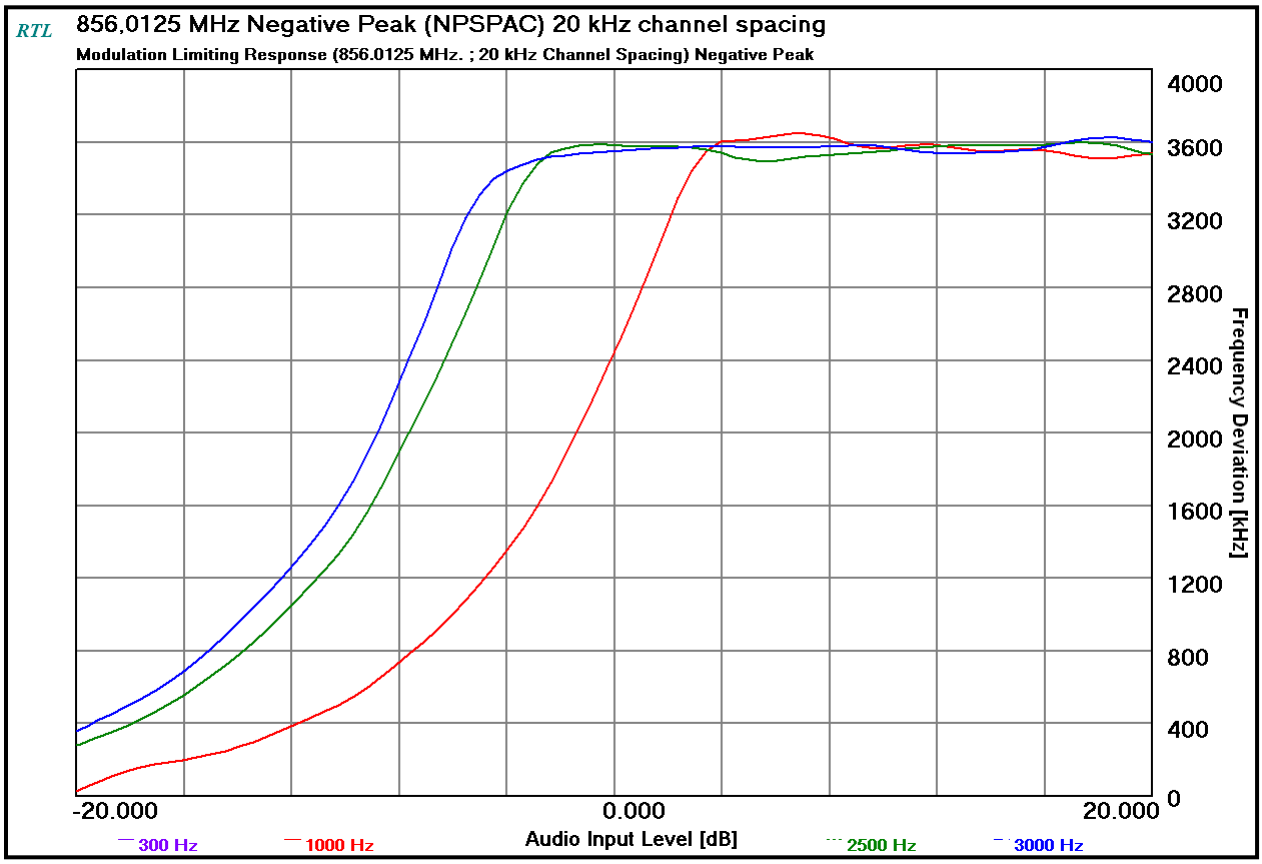
Plot 10-8: Modulation Characteristics – Modulation Limiting - 772.0125 MHz; (NB) Negative Peak



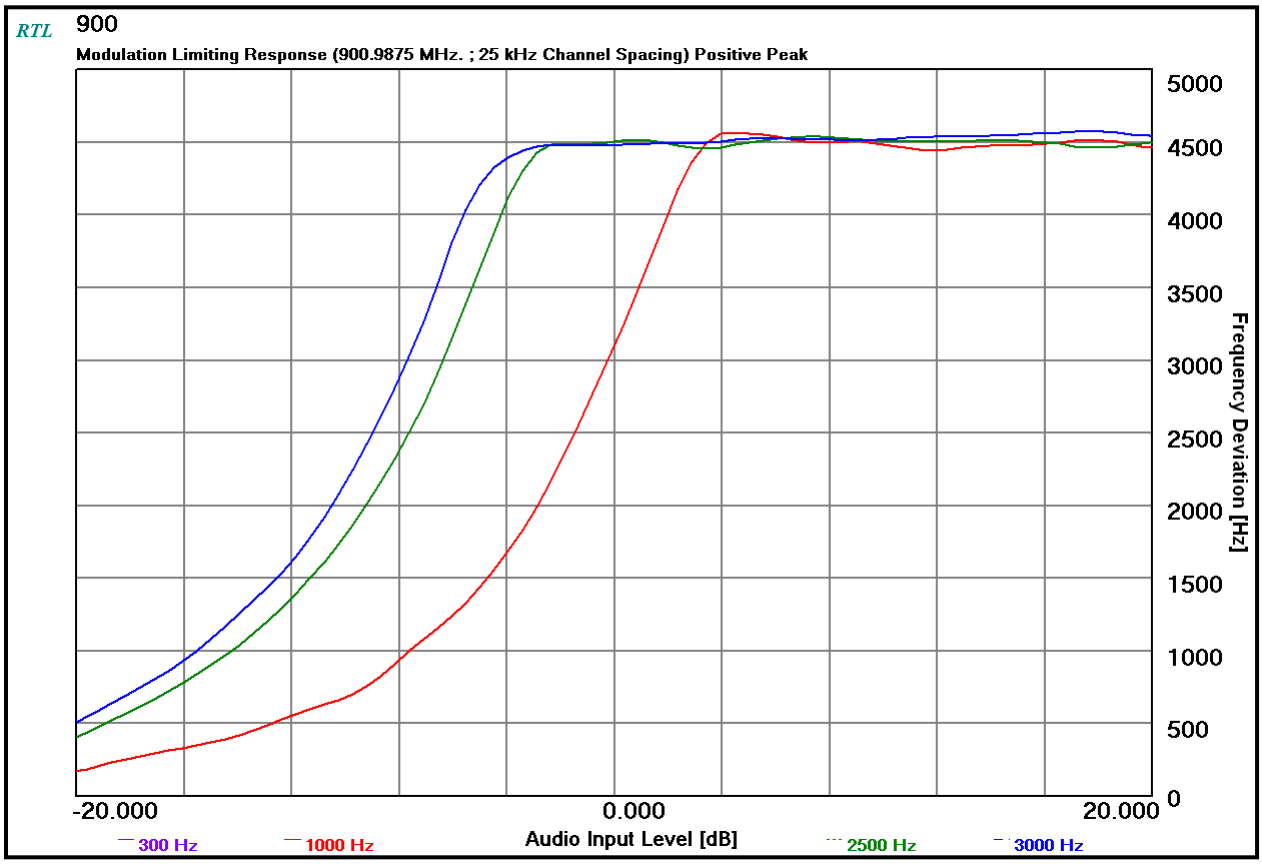
Plot 10-9: Modulation Characteristics – Modulation Limiting – 856.0125 MHz; (NPSPAC); Positive Peak



Plot 10-10: Modulation Characteristics – Modulation Limiting – 856.0125 MHz; (NPSPAC); Negative Peak



Plot 10-11: Modulation Characteristics – Modulation Limiting – 900.9875 MHz; (WB); Positive Peak



Plot 10-12: Modulation Characteristics – Modulation Limiting – 900.9875 MHz; (WB); Negative Peak

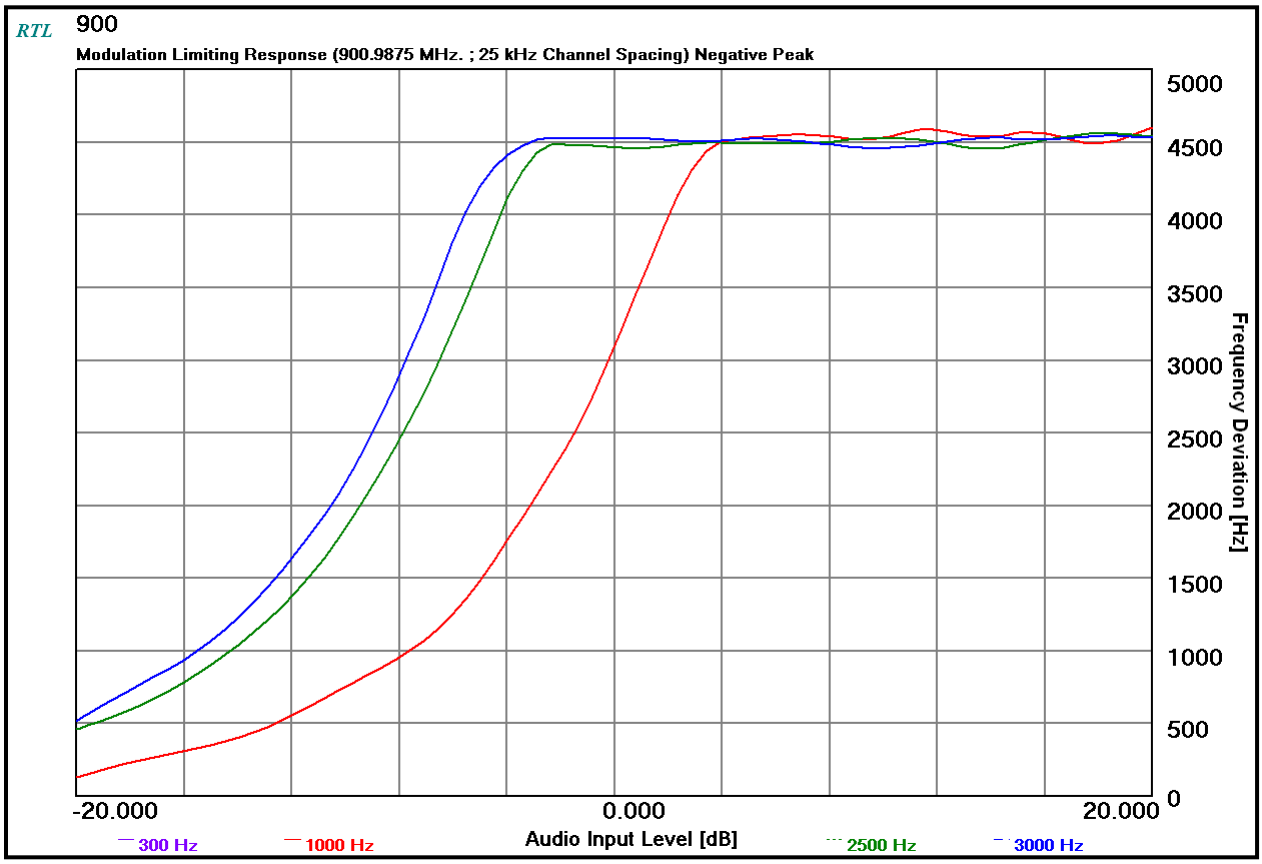


Table 10-1: Test Equipment Used For Testing Modulation Requirements

RTL Asset #	Manufacturer	Model	Part Type	Serial Number	Calibration Due Date
901057	Hewlett Packard	3336B	Synthesizer/ Level Generator	2514A02585	4/13/17
901118	Hewlett Packard	8901A Opt. 002-003	Modulation Analyzer	2406A00178	4/14/17
901139	Weinschel Corporation	47-20-34	Attenuator DC-18 GHz 20 dB 100W	BK5859	3/30/18

Test Personnel:

Daniel Baltzell		December 28, 2016
EMC Test Engineer	Signature	Date of Test

11 FCC Part 2.202: Necessary Bandwidth and Emission Bandwidth

Voice – 12.5 kHz channel separation
Calculation:
Max modulation (M) in kHz: 3.0
Max deviation (D) in kHz: 2.5
Constant factor (K): 1 (assumed)
Bn = 2xM+2xDK = 11.0 kHz
Emission designator: 11K0F3E

Voice – 25 kHz channel separation (NPSPAC)
Calculation:
Max modulation (M) in kHz: 3.0
Max deviation (D) in kHz: 4
Constant factor (K): 1 (assumed)
Bn = 2xM+2xDK = 14.0 kHz
Emission designator: 14K0F3E

Voice – 25 kHz channel separation
Calculation:
Max modulation (M) in kHz: 3.0
Max deviation (D) in kHz: 5
Constant factor (K): 1 (assumed)
Bn = 2M+2DK = 16.0 kHz
Emission designator: 16K0F3E

P25 – 9600 bps
Calculation:
Data rate in bps (R) = 9600
Peak deviation of carrier (D) = 1800
Bn = $[9600/\log_2(4) + 2 (1800) (1) = 8.400$ kHz
Emission designator: 8K40F1D, 8K40F1E

P25 Phase 2 Data/Voice (H-CPM TDMA)
Calculation:
Data rate in bps (R) =12000
Peak deviation of carrier (D) = 1050
Bn = $[12000/\log_2(4) + 2 (1050) (1) = 8.1$ kHz
Emission designator: 8K10DXW

2-level FSK 9600 Data/Digital Voice (NB)
Calculation:
Data rate in bps (R) = 9600
Peak deviation of carrier (D) = 3450
Bn = [9600/log2(4) + 2 (3450) (1) = 11.700 kHz
Emission designator: 11K7F1D, 11K7F1E

2-level FSK 9600 Data/Digital Voice (WB)
Calculation:
Data rate in bps (R) = 9600
Peak deviation of carrier (D) = 5600
Bn = [9600/log2(4) + 2 (5600) (1) = 16.000 kHz
Emission designator: 16K0F1D, 16K0F1E

2-level FSK 9600 Data/Digital Voice (NPSPAC)
Calculation:
Data rate in bps (R) = 9600
Peak deviation of carrier (D) = 4600
Bn = [9600/log2(4) + 2 (4600) (1) = 14.000 kHz
Emission designator: 14K0F1D, 14K0F1E

2-level FSK 4800 Data/Digital Voice (XNB)
Calculation:
Data rate in bps (R) = 4800
Peak deviation of carrier (D) = 1800
Bn = [4800/log2(4) + 2 (2350) (1) = 7.100 kHz
Emission designator: 7K10F1D, 7K10F1E

12 Conclusion

The data in this measurement report shows that the Harris Corporation XL-185P 7/8/900 MHz Radio, FCC ID: OWDTR-0143-E, IC: 3636B-0143, complies with all the applicable requirements of Parts 2, 24, 90 and 101 of the FCC Rules and Industry Canada RSS-119.