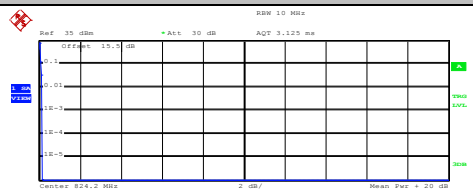
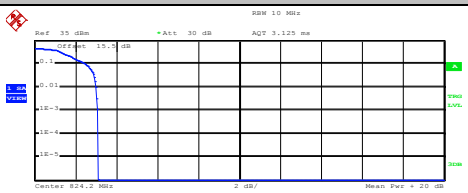
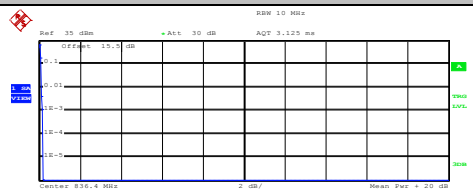
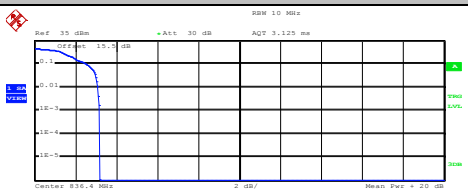
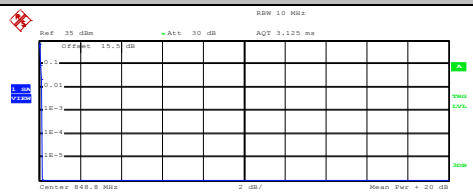
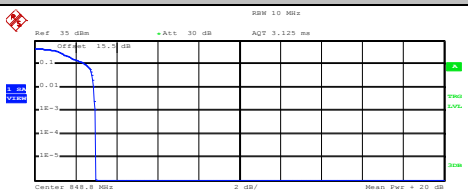
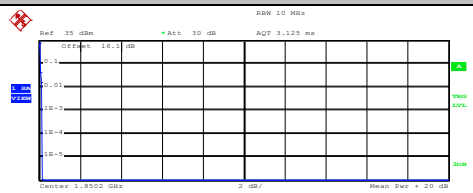
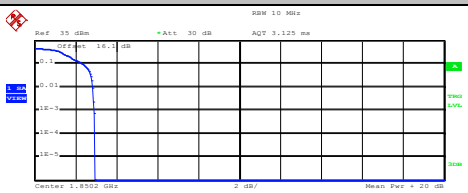
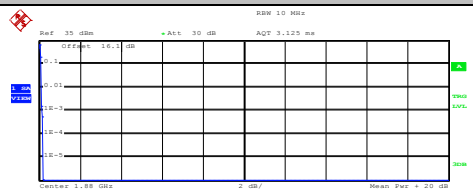
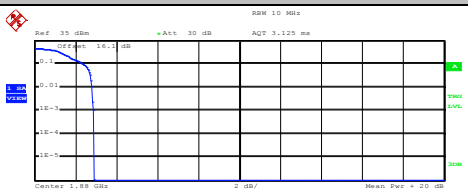
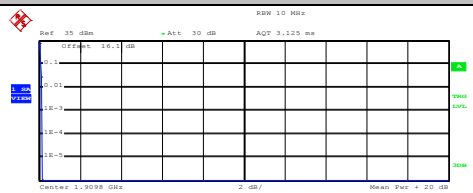
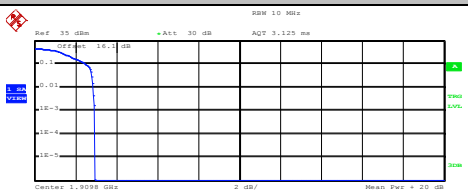
A2. GSM

Peak-to-Average Ratio

Mode	GSM850		Limit: 13dB
Mod.	GPRS class 8	EDGE class 8	Result
Lowest CH	0.16	3.08	PASS
Middle CH	0.16	3.16	
Highest CH	0.16	2.96	

Mode	GSM1900		Limit: 13dB
Mod.	GPRS class 8	EDGE class 8	Result
Lowest CH	0.16	2.92	PASS
Middle CH	0.16	2.88	
Highest CH	0.16	2.92	

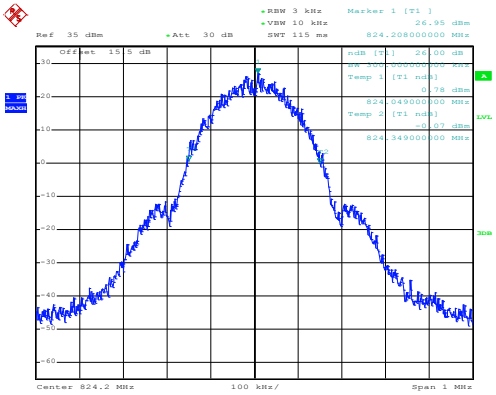
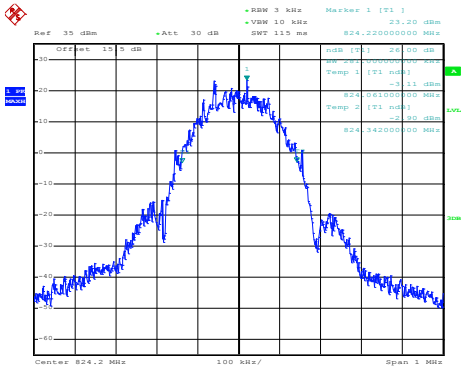
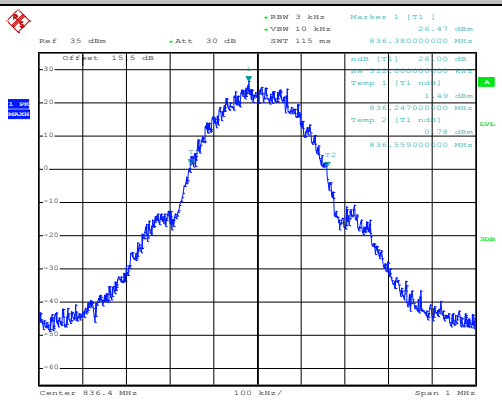
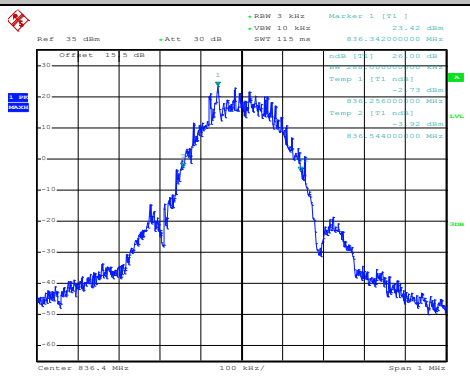
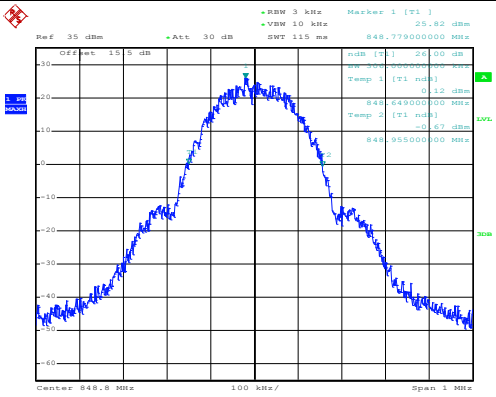
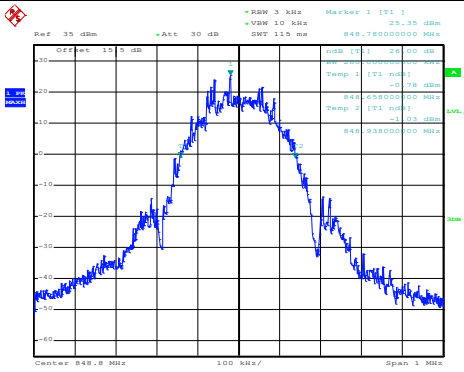
GSM850 (GPRS class 8)	GSM850 (EDGE class 8)
Lowest Channel	**Lowest Channel**
	
Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 33.50 dBm Peak 33.63 dBm Crest 0.14 dB 10 % 0.08 dB 1 % 0.16 dB .1 % 0.16 dB .01 % 0.16 dB	Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 27.71 dBm Peak 30.81 dBm Crest 3.10 dB 10 % 2.48 dB 1 % 3.00 dB .1 % 3.08 dB .01 % 3.12 dB
Date: 29.SEP.2016 17:01:16	Date: 29.SEP.2016 17:22:38
Middle Channel	**Middle Channel**
	
Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 33.39 dBm Peak 33.56 dBm Crest 0.17 dB 10 % 0.08 dB 1 % 0.12 dB .1 % 0.16 dB .01 % 0.20 dB	Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 27.56 dBm Peak 30.74 dBm Crest 3.18 dB 10 % 2.56 dB 1 % 3.08 dB .1 % 3.16 dB .01 % 3.20 dB
Date: 29.SEP.2016 17:04:04	Date: 29.SEP.2016 17:24:11
Highest Channel	**Highest Channel**
	
Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 33.41 dBm Peak 33.56 dBm Crest 0.16 dB 10 % 0.08 dB 1 % 0.16 dB .1 % 0.16 dB .01 % 0.16 dB	Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 27.83 dBm Peak 30.81 dBm Crest 2.98 dB 10 % 2.48 dB 1 % 2.88 dB .1 % 2.96 dB .01 % 3.00 dB
Date: 29.SEP.2016 17:07:24	Date: 29.SEP.2016 17:25:40

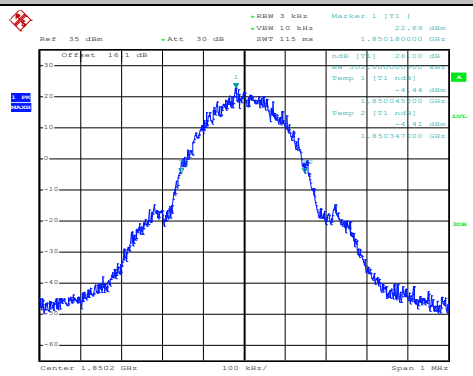
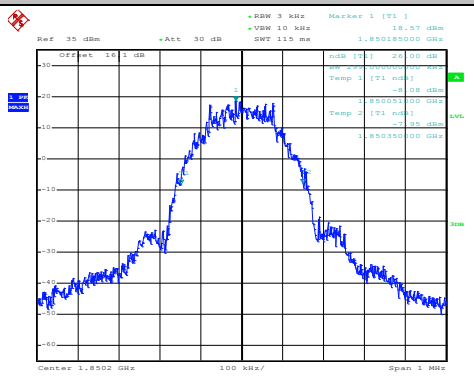
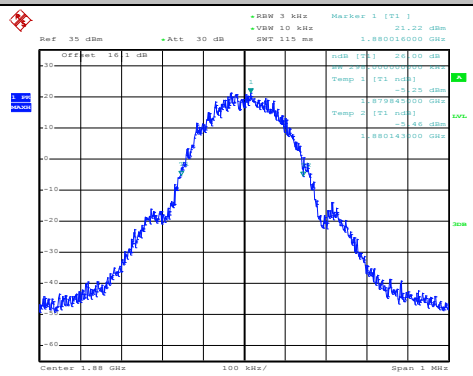
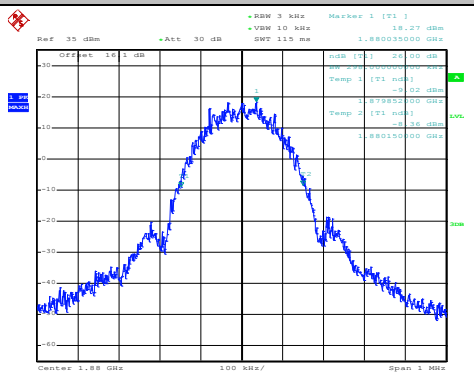
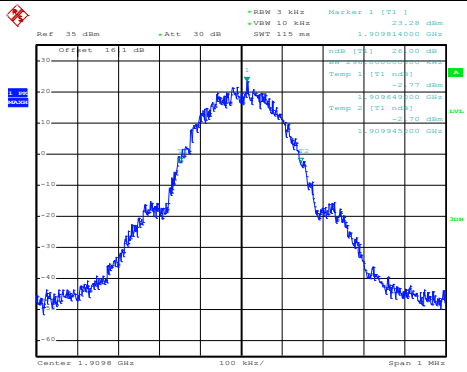
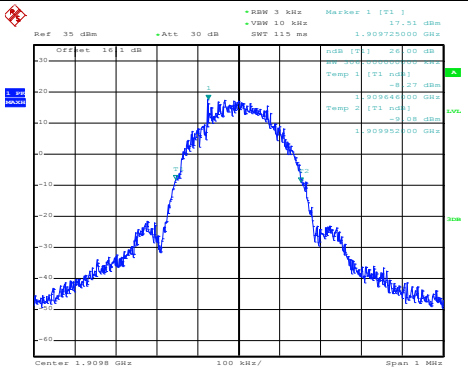
GSM1900 (GPRS class 8)	GSM1900 (EDGE class 8)
Lowest Channel	**Lowest Channel**
	
Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 29.54 dBm Peak 29.68 dBm Crest 0.15 dB 10 % 0.08 dB 1 % 0.12 dB .1 % 0.16 dB .01 % 0.16 dB	Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 25.62 dBm Peak 28.55 dBm Crest 2.93 dB 10 % 2.36 dB 1 % 2.84 dB .1 % 2.92 dB .01 % 2.96 dB
Date: 29.SEP.2016 17:52:51	Date: 29.SEP.2016 18:14:18
Middle Channel	**Middle Channel**
	
Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 29.43 dBm Peak 29.61 dBm Crest 0.18 dB 10 % 0.12 dB 1 % 0.12 dB .1 % 0.16 dB .01 % 0.20 dB	Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 25.58 dBm Peak 28.48 dBm Crest 2.90 dB 10 % 2.36 dB 1 % 2.80 dB .1 % 2.88 dB .01 % 2.92 dB
Date: 29.SEP.2016 17:53:52	Date: 29.SEP.2016 18:14:59
Highest Channel	**Highest Channel**
	
Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 29.55 dBm Peak 29.68 dBm Crest 0.13 dB 10 % 0.08 dB 1 % 0.16 dB .1 % 0.16 dB .01 % 0.16 dB	Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 25.46 dBm Peak 28.41 dBm Crest 2.95 dB 10 % 2.52 dB 1 % 2.84 dB .1 % 2.92 dB .01 % 2.96 dB
Date: 29.SEP.2016 17:54:57	Date: 29.SEP.2016 18:16:03

26dB Bandwidth

Mode	GSM850	
Mod.	GPRS class 8	EDGE class 8
Lowest CH	0.300	0.281
Middle CH	0.312	0.288
Highest CH	0.306	0.280

Mode	GSM1900	
Mod.	GPRS class 8	EDGE class 8
Lowest CH	0.302	0.299
Middle CH	0.298	0.298
Highest CH	0.296	0.306

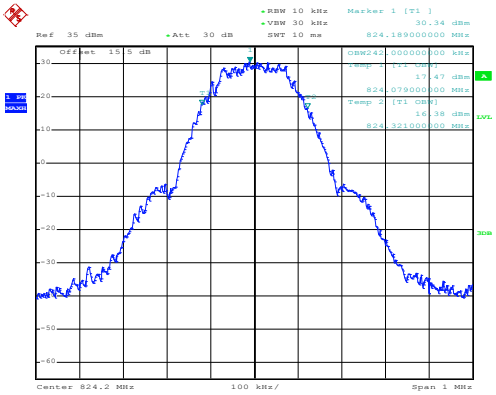
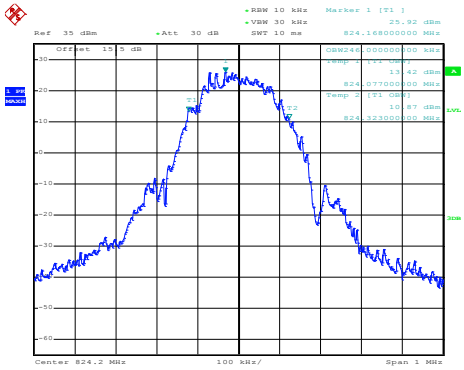
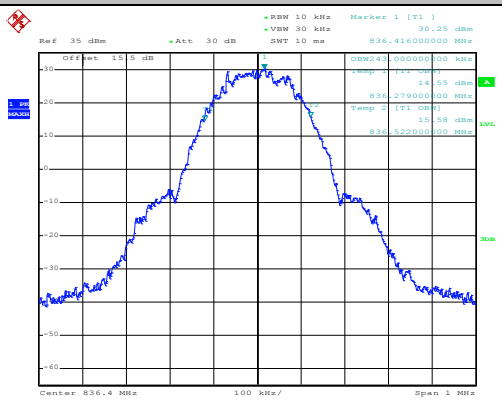
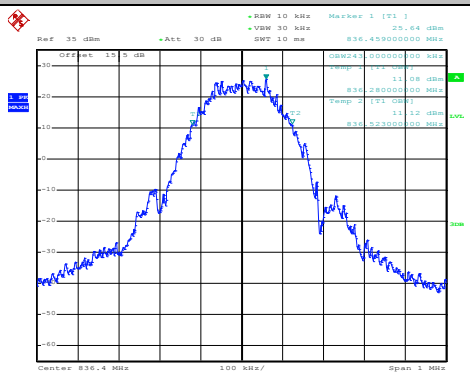
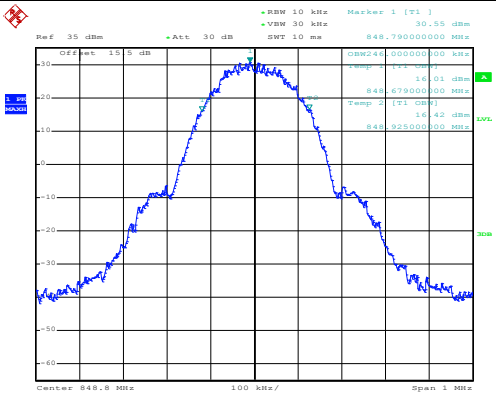
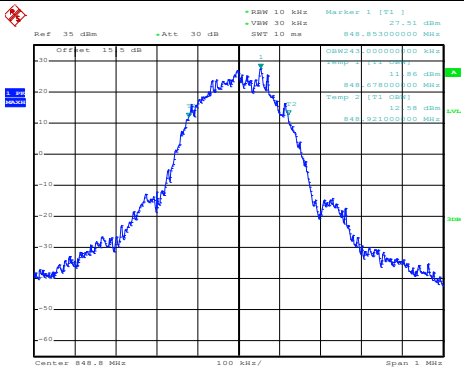
GSM850 (GPRS class 8)	GSM850 (EDGE class 8)
Lowest Channel	**Lowest Channel**
	
Date: 29.SEP.2016 16:43:24	Date: 29.SEP.2016 17:11:13
Middle Channel	**Middle Channel**
	
Date: 29.SEP.2016 16:43:53	Date: 29.SEP.2016 17:11:42
Highest Channel	**Highest Channel**
	
Date: 29.SEP.2016 16:44:21	Date: 29.SEP.2016 17:12:10

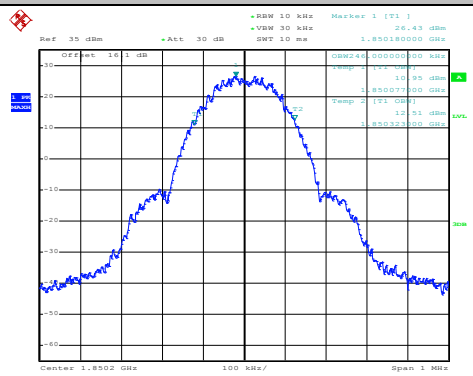
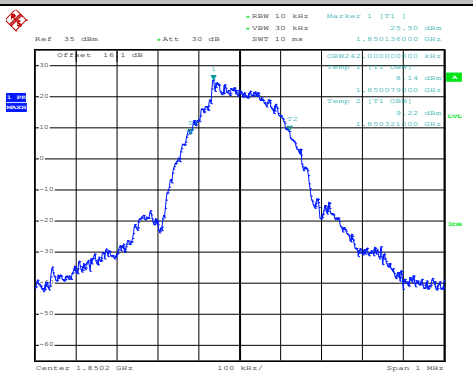
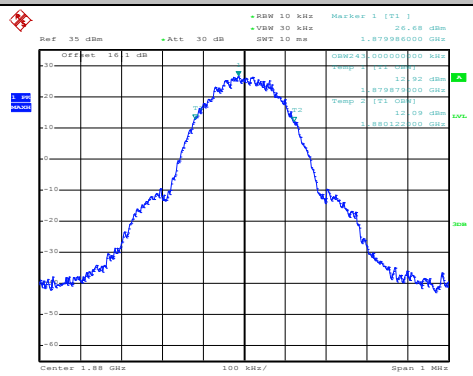
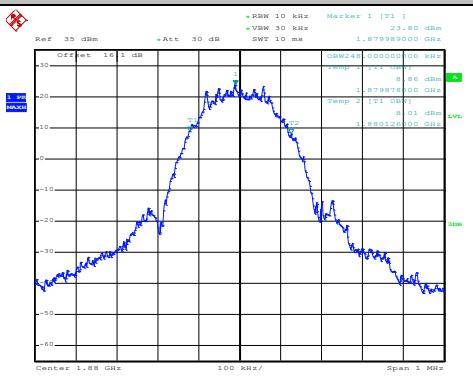
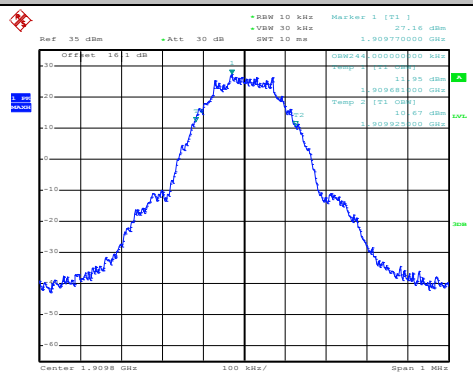
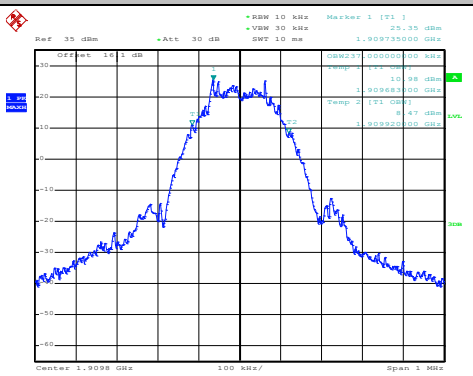
GSM1900 (GPRS class 8)	GSM1900 (EDGE class 8)
Lowest Channel	**Lowest Channel**
	
Date: 29.SEP.2016 17:38:39	Date: 29.SEP.2016 18:01:44
Middle Channel	**Middle Channel**
	
Date: 29.SEP.2016 17:39:08	Date: 29.SEP.2016 18:02:12
Highest Channel	**Highest Channel**
	
Date: 29.SEP.2016 17:39:36	Date: 29.SEP.2016 18:02:40

Occupied Bandwidth

Mode	GSM850	
Mod.	GPRS class 8	EDGE class 8
Lowest CH	0.242	0.246
Middle CH	0.243	0.243
Highest CH	0.246	0.243

Mode	GSM1900	
Mod.	GPRS class 8	EDGE class 8
Lowest CH	0.246	0.242
Middle CH	0.243	0.248
Highest CH	0.244	0.237

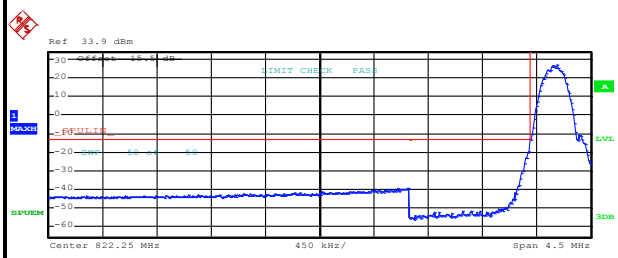
GSM850 (GPRS class 8)	GSM850 (EDGE class 8)
Lowest Channel	**Lowest Channel**
	
Date: 29.SEP.2016 16:44:56	Date: 29.SEP.2016 17:14:16
Middle Channel	**Middle Channel**
	
Date: 29.SEP.2016 16:45:24	Date: 29.SEP.2016 17:14:44
Highest Channel	**Highest Channel**
	
Date: 29.SEP.2016 16:45:52	Date: 29.SEP.2016 17:15:12

GSM1900 (GPRS class 8)	GSM1900 (EDGE class 8)
Lowest Channel	**Lowest Channel**
	
Date: 29.SEP.2016 17:40:31	Date: 29.SEP.2016 18:05:35
Middle Channel	**Middle Channel**
	
Date: 29.SEP.2016 17:41:00	Date: 29.SEP.2016 18:06:04
Highest Channel	**Highest Channel**
	
Date: 29.SEP.2016 17:41:28	Date: 29.SEP.2016 18:06:32

Conducted Band Edge

GSM850 (GPRS class 8)

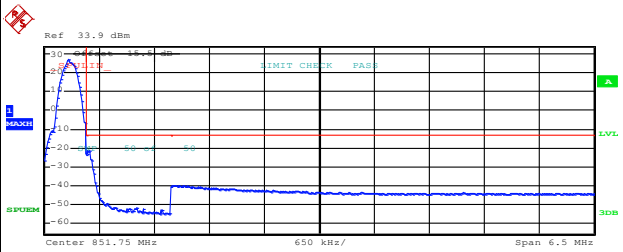
Lowest Band Edge



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
820.000 M	823.000 M	100.00 k	822.976000 M	-39.36	-26.36
823.000 M	824.000 M	3.00 k	823.980000 M	-19.74	-6.74
824.000 M	824.500 M	10.00 k	824.220500 M	27.06	-7.94

Date: 29.SEP.2016 16:47:22

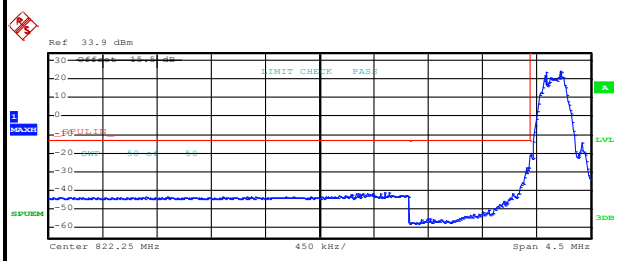
Highest Band Edge



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
848.500 M	849.000 M	10.00 k	848.784000 M	27.22	-7.78
849.000 M	850.000 M	3.00 k	849.028000 M	-21.32	-8.32
850.000 M	855.000 M	100.00 k	850.020000 M	-39.80	-26.80

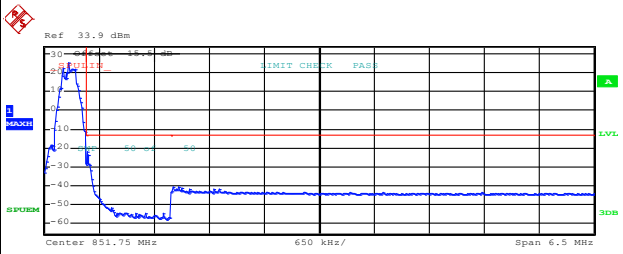
Date: 29.SEP.2016 16:48:49

GSM850 (EDGE class 8)	
Lowest Band Edge	**Highest Band Edge**



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
820.000 M	823.000 M	100.00 k	822.823000 M	-40.96	-27.96
823.000 M	824.000 M	3.00 k	823.968000 M	-27.64	-14.64
824.000 M	824.500 M	10.00 k	824.252000 M	24.14	-10.86

Date: 29.SEP.2016 17:16:57



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
848.500 M	849.000 M	10.00 k	848.780500 M	25.24	-9.76
849.000 M	850.000 M	3.00 k	849.008000 M	-22.21	-9.21
850.000 M	855.000 M	100.00 k	850.020000 M	-40.44	-27.44

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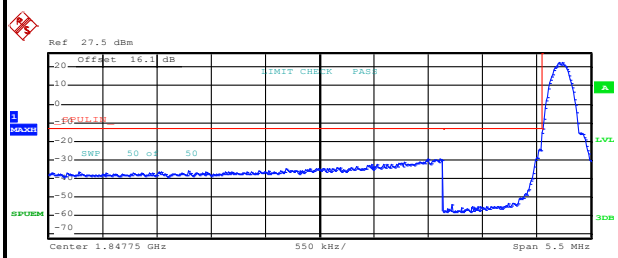
GSM1900 (GPRS class 8)	
Lowest Band Edge	**Highest Band Edge**



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.845 G	1.849 G	1.00 M	1.848844 G	-29.49	-16.49
1.849 G	1.850 G	3.00 k	1.849984 G	-24.47	-11.47
1.850 G	1.851 G	10.00 k	1.850209 G	22.61	-12.39

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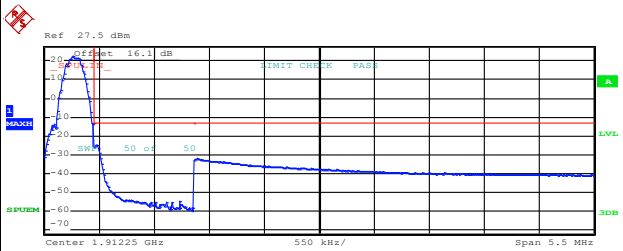

Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.910 G	1.910 G	10.00 k	1.909785 G	22.41	-12.59
1.910 G	1.911 G	3.00 k	1.910020 G	-24.68	-11.68
1.911 G	1.915 G	1.00 M	1.911020 G	-32.11	-19.11

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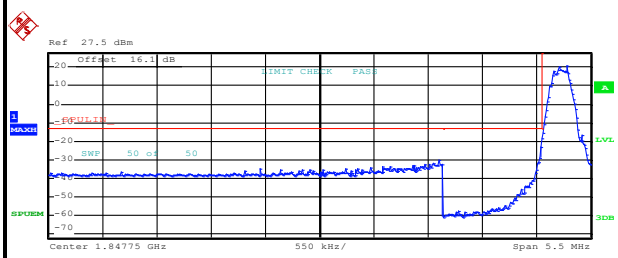
GSM1900 (EDGE class 8)	
Lowest Band Edge	**Highest Band Edge**



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.845 G	1.849 G	1.00 M	1.848952 G	-30.39	-17.39
1.849 G	1.850 G	3.00 k	1.849988 G	-22.88	-9.88
1.850 G	1.851 G	10.00 k	1.850258 G	20.72	-14.28

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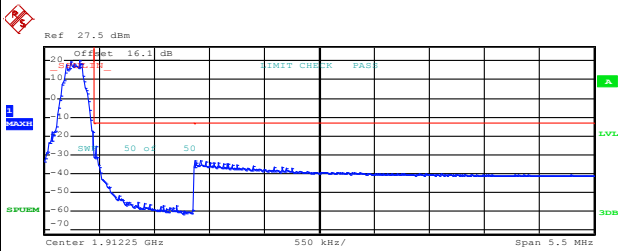
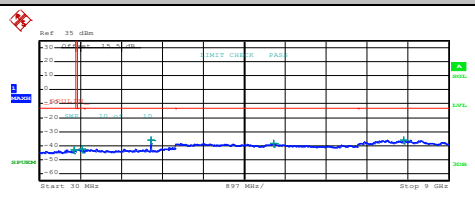
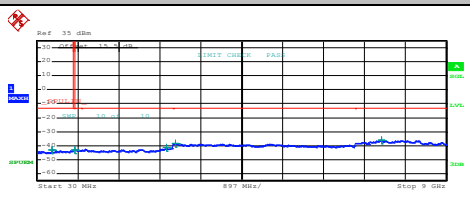
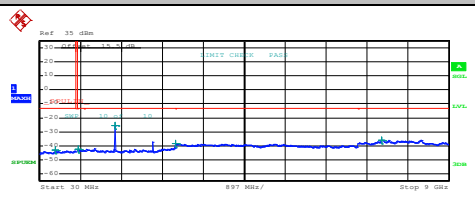
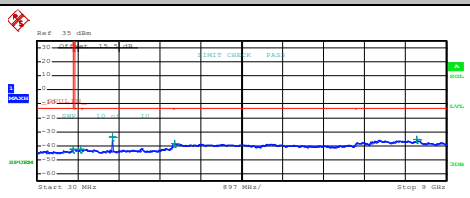
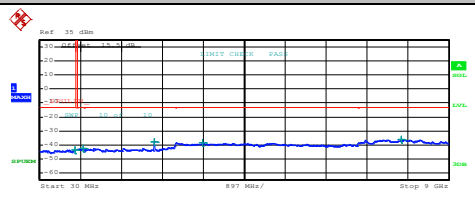
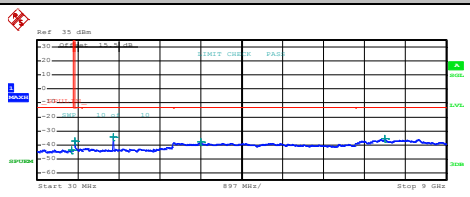
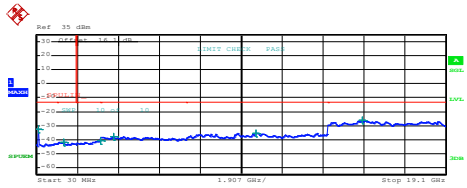
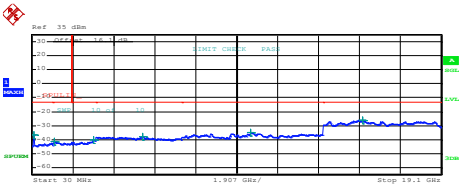
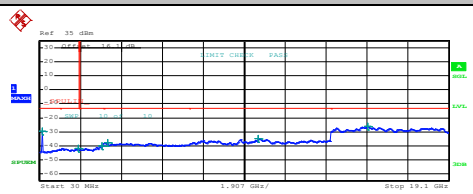
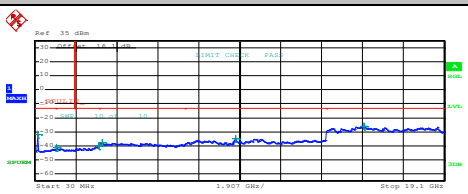
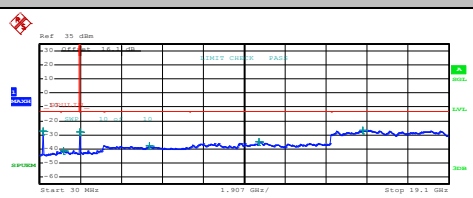
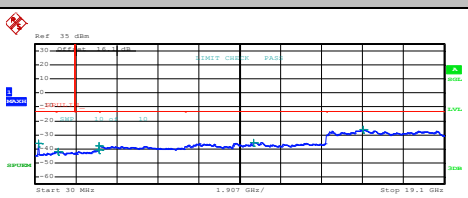


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.910 G	1.910 G	10.00 k	1.909857 G	20.42	-14.58
1.910 G	1.911 G	3.00 k	1.910008 G	-25.29	-12.29
1.911 G	1.915 G	1.00 M	1.911008 G	-33.10	-20.10

Date: 29.SEP.2016 18:09:40

Conducted Spurious Emission

GSM850 (GPRS class 8)	GSM850 (EDGE class 8)
Lowest Channel	**Lowest Channel**
	
Start Stop RBW Freq PwrAbs ΔLimit [Hz] [Hz] [Hz] [Hz] [dBm] [dB] 30.000 M 820.000 M 1.00 M 783.285000 M -42.86 -29.86 855.000 M 1.000 G 1.00 M 958.276257 M -42.77 -29.77 1.000 G 3.000 G 1.00 M 2.473000 G -35.96 -22.96 3.000 G 7.000 G 1.00 M 5.153000 G -38.35 -25.35 7.000 G 9.000 G 1.00 M 8.005000 G -36.24 -23.24	Start Stop RBW Freq PwrAbs ΔLimit [Hz] [Hz] [Hz] [Hz] [dBm] [dB] 30.000 M 820.000 M 1.00 M 352.517500 M -43.14 -30.14 855.000 M 1.000 G 1.00 M 863.011251 M -42.84 -29.84 1.000 G 3.000 G 1.00 M 2.866500 G -41.21 -28.21 3.000 G 7.000 G 1.00 M 3.060000 G -38.60 -25.60 7.000 G 9.000 G 1.00 M 7.589000 G -36.03 -23.03
Date: 29.SEP.2016 16:49:40	Date: 29.SEP.2016 17:19:29
Middle Channel	**Middle Channel**
	
Start Stop RBW Freq PwrAbs ΔLimit [Hz] [Hz] [Hz] [Hz] [dBm] [dB] 30.000 M 820.000 M 1.00 M 367.330000 M -43.22 -30.22 855.000 M 1.000 G 1.00 M 868.738751 M -42.48 -29.48 1.000 G 3.000 G 1.00 M 1.673000 G -25.49 -12.49 3.000 G 7.000 G 1.00 M 3.015000 G -38.63 -25.63 7.000 G 9.000 G 1.00 M 7.530500 G -35.85 -22.85	Start Stop RBW Freq PwrAbs ΔLimit [Hz] [Hz] [Hz] [Hz] [dBm] [dB] 30.000 M 820.000 M 1.00 M 819.210000 M -42.72 -29.72 855.000 M 1.000 G 1.00 M 989.617509 M -42.51 -29.51 1.000 G 3.000 G 1.00 M 1.673000 G -33.65 -20.65 3.000 G 7.000 G 1.00 M 3.039000 G -38.36 -25.36 7.000 G 9.000 G 1.00 M 8.354000 G -35.75 -22.75
Date: 29.SEP.2016 16:50:26	Date: 29.SEP.2016 17:20:15
Highest Channel	**Highest Channel**
	
Start Stop RBW Freq PwrAbs ΔLimit [Hz] [Hz] [Hz] [Hz] [dBm] [dB] 30.000 M 820.000 M 1.00 M 796.497500 M -43.42 -30.42 855.000 M 1.000 G 1.00 M 977.633758 M -42.75 -29.75 1.000 G 3.000 G 1.00 M 2.546500 G -37.72 -24.72 3.000 G 7.000 G 1.00 M 3.596000 G -38.39 -25.39 7.000 G 9.000 G 1.00 M 7.957000 G -36.31 -23.31	Start Stop RBW Freq PwrAbs ΔLimit [Hz] [Hz] [Hz] [Hz] [dBm] [dB] 30.000 M 820.000 M 1.00 M 784.845000 M -43.52 -30.52 855.000 M 1.000 G 1.00 M 855.036250 M -37.07 -24.07 1.000 G 3.000 G 1.00 M 1.698000 G -34.38 -21.38 3.000 G 7.000 G 1.00 M 3.611000 G -37.88 -24.88 7.000 G 9.000 G 1.00 M 7.646500 G -35.31 -22.31
Date: 29.SEP.2016 16:51:11	Date: 29.SEP.2016 17:21:01

GSM1900 (GPRS class 8)	GSM1900 (EDGE class 8)
Lowest Channel	**Lowest Channel**
	
Start [Hz] 30.000 M / 1.000 G / 1.915 G / 3.000 G / 7.000 G / 13.600 G; Stop [Hz] 1.000 G / 1.845 G / 3.000 G / 7.000 G / 13.600 G / 19.100 G; RBW [Hz] 1.00 M; Freq [Hz] 111.965000 M / 1.302299 G / 2.997288 G / 3.609000 G / 10.248850 G / 15.192250 G; PwrAbs [dBm] -32.67 / -41.76 / -40.52 / -38.07 / -35.23 / -26.19; ΔLimit [dB] -19.67 / -28.76 / -27.52 / -25.07 / -22.23 / -13.19	Start [Hz] 30.000 M / 1.000 G / 1.915 G / 3.000 G / 7.000 G / 13.600 G; Stop [Hz] 1.000 G / 1.845 G / 3.000 G / 7.000 G / 13.600 G / 19.100 G; RBW [Hz] 1.00 M; Freq [Hz] 111.965000 M / 1.042672 G / 2.873869 G / 5.167000 G / 10.221625 G / 15.454875 G; PwrAbs [dBm] -36.37 / -41.31 / -40.15 / -37.69 / -34.86 / -26.13; ΔLimit [dB] -23.37 / -28.31 / -27.15 / -24.69 / -21.86 / -13.13
Date: 29.SEP.2016 17:49:35	Date: 29.SEP.2016 18:11:50
Middle Channel	**Middle Channel**
	
Start [Hz] 30.000 M / 1.000 G / 1.915 G / 3.000 G / 7.000 G / 13.600 G; Stop [Hz] 1.000 G / 1.845 G / 3.000 G / 7.000 G / 13.600 G / 19.100 G; RBW [Hz] 1.00 M; Freq [Hz] 141.792500 M / 1.834015 G / 2.930560 G / 3.207000 G / 10.210075 G / 15.320125 G; PwrAbs [dBm] -29.37 / -41.78 / -40.03 / -37.93 / -35.06 / -26.34; ΔLimit [dB] -16.37 / -28.78 / -27.03 / -24.93 / -22.06 / -13.34	Start [Hz] 30.000 M / 1.000 G / 1.915 G / 3.000 G / 7.000 G / 13.600 G; Stop [Hz] 1.000 G / 1.845 G / 3.000 G / 7.000 G / 13.600 G / 19.100 G; RBW [Hz] 1.00 M; Freq [Hz] 141.792500 M / 1.017111 G / 2.996202 G / 3.165000 G / 9.392500 G / 15.351062 G; PwrAbs [dBm] -32.23 / -41.34 / -40.15 / -38.08 / -35.17 / -26.28; ΔLimit [dB] -19.23 / -28.34 / -27.15 / -25.08 / -22.17 / -13.28
Date: 29.SEP.2016 17:50:22	Date: 29.SEP.2016 18:12:36
Highest Channel	**Highest Channel**
	
Start [Hz] 30.000 M / 1.000 G / 1.915 G / 3.000 G / 7.000 G / 13.600 G; Stop [Hz] 1.000 G / 1.845 G / 3.000 G / 7.000 G / 13.600 G / 19.100 G; RBW [Hz] 1.00 M; Freq [Hz] 171.620000 M / 1.118934 G / 1.915271 G / 5.156000 G / 10.268650 G / 15.085688 G; PwrAbs [dBm] -27.49 / -41.33 / -27.76 / -37.77 / -35.14 / -26.50; ΔLimit [dB] -14.49 / -28.33 / -14.76 / -24.77 / -22.14 / -13.50	Start [Hz] 30.000 M / 1.000 G / 1.915 G / 3.000 G / 7.000 G / 13.600 G; Stop [Hz] 1.000 G / 1.845 G / 3.000 G / 7.000 G / 13.600 G / 19.100 G; RBW [Hz] 1.00 M; Freq [Hz] 171.862500 M / 1.086824 G / 2.987794 G / 3.003000 G / 10.223275 G / 15.319437 G; PwrAbs [dBm] -36.12 / -41.68 / -40.81 / -37.73 / -35.26 / -26.23; ΔLimit [dB] -23.12 / -28.68 / -27.81 / -24.73 / -22.26 / -13.23
Date: 29.SEP.2016 17:51:08	Date: 29.SEP.2016 18:13:22

Frequency Stability

Test Conditions	Middle Channel	GSM850 (GPRS class 8)	GSM850 (EDGE class 8)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0012	0.0024	PASS
40	Normal Voltage	0.0036	0.0012	
30	Normal Voltage	0.0012	0.0024	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0048	0.0036	
0	Normal Voltage	0.0072	0.0024	
-10	Normal Voltage	0.0036	0.0012	
-20	Normal Voltage	0.0012	0.0012	
-30	Normal Voltage	0.0036	0.0000	
20	Maximum Voltage	0.0000	0.0012	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0036	0.0024	

Test Conditions	Middle Channel	GSM1900 (GPRS class 8)	GSM1900 (EDGE class 8)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0027	0.0011	PASS
40	Normal Voltage	0.0027	0.0005	
30	Normal Voltage	0.0032	0.0005	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0000	0.0011	
0	Normal Voltage	0.0085	0.0016	
-10	Normal Voltage	0.0074	0.0016	
-20	Normal Voltage	0.0096	0.0048	
-30	Normal Voltage	0.0080	0.0021	
20	Maximum Voltage	0.0016	0.0005	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0011	0.0011	

Note:

1. Normal Voltage = 3.85V. ；Battery End Point (BEP) = 3.6 V.；Maximum Voltage =4.4 V

2. The frequency fundamental emissions stay within the authorized frequency block based.