



A1. GSM

Peak-to-Average Ratio

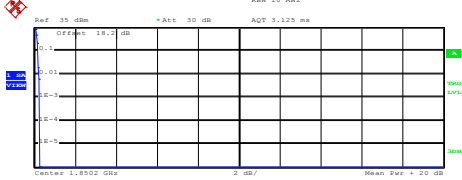
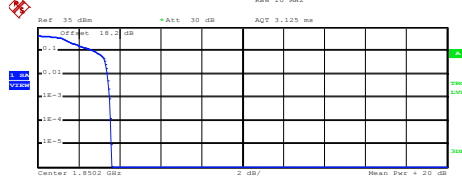
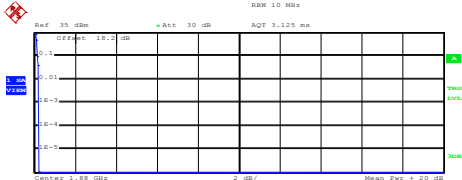
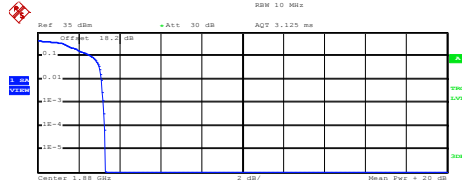
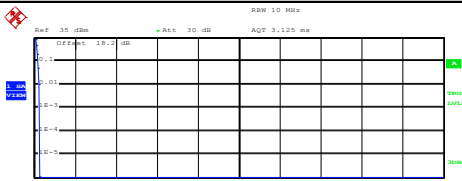
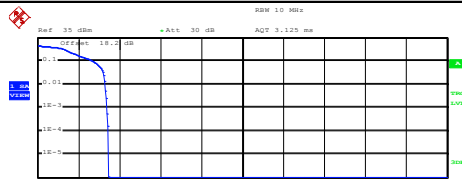
Mode	GSM850		Limit: 13dB
Mod.	GPRS class 8	EDGE class 8	Result
Lowest CH	0.28	3.40	PASS
Middle CH	0.28	3.32	
Highest CH	0.28	3.12	

Mode	GSM1900		Limit: 13dB
Mod.	GPRS class 8	EDGE class 8	Result
Lowest CH	0.28	3.52	PASS
Middle CH	0.24	3.20	
Highest CH	0.28	3.40	



GSM850 (GPRS class 8)		GSM850 (EDGE class 8)	
Lowest Channel		Lowest Channel	
Ref: 35 dBm Att: 30 dB AQT: 3.125 ms Center: 824.2 MHz 2 dB/ Mean Pwr: +20 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean: 31.81 dBm Peak: 32.08 dBm Crest: 0.27 dB 10 %: 0.20 dB 1 %: 0.24 dB .1 %: 0.28 dB .01 %: 0.28 dB Date: 7.SEP.2015 10:41:46		Ref: 35 dBm Att: 30 dB AQT: 3.125 ms Center: 824.2 MHz 2 dB/ Mean Pwr: +20 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean: 25.90 dBm Peak: 29.40 dBm Crest: 3.49 dB 10 %: 2.76 dB 1 %: 3.32 dB .1 %: 3.40 dB .01 %: 3.44 dB Date: 7.SEP.2015 11:19:20	
Middle Channel		Middle Channel	
Ref: 35 dBm Att: 30 dB AQT: 3.125 ms Center: 836.4 MHz 2 dB/ Mean Pwr: +20 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean: 31.89 dBm Peak: 32.22 dBm Crest: 0.33 dB 10 %: 0.20 dB 1 %: 0.28 dB .1 %: 0.28 dB .01 %: 0.28 dB Date: 7.SEP.2015 10:42:03		Ref: 35 dBm Att: 30 dB AQT: 3.125 ms Center: 836.4 MHz 2 dB/ Mean Pwr: +20 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean: 26.39 dBm Peak: 29.75 dBm Crest: 3.36 dB 10 %: 2.80 dB 1 %: 3.24 dB .1 %: 3.32 dB .01 %: 3.36 dB Date: 7.SEP.2015 11:20:28	
Highest Channel		Highest Channel	
Ref: 35 dBm Att: 30 dB AQT: 3.125 ms Center: 848.8 MHz 2 dB/ Mean Pwr: +20 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean: 32.20 dBm Peak: 32.50 dBm Crest: 0.30 dB 10 %: 0.16 dB 1 %: 0.24 dB .1 %: 0.28 dB .01 %: 0.32 dB Date: 7.SEP.2015 10:42:18		Ref: 35 dBm Att: 30 dB AQT: 3.125 ms Center: 848.8 MHz 2 dB/ Mean Pwr: +20 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean: 26.87 dBm Peak: 30.03 dBm Crest: 3.16 dB 10 %: 2.52 dB 1 %: 3.04 dB .1 %: 3.12 dB .01 %: 3.16 dB Date: 7.SEP.2015 11:21:01	

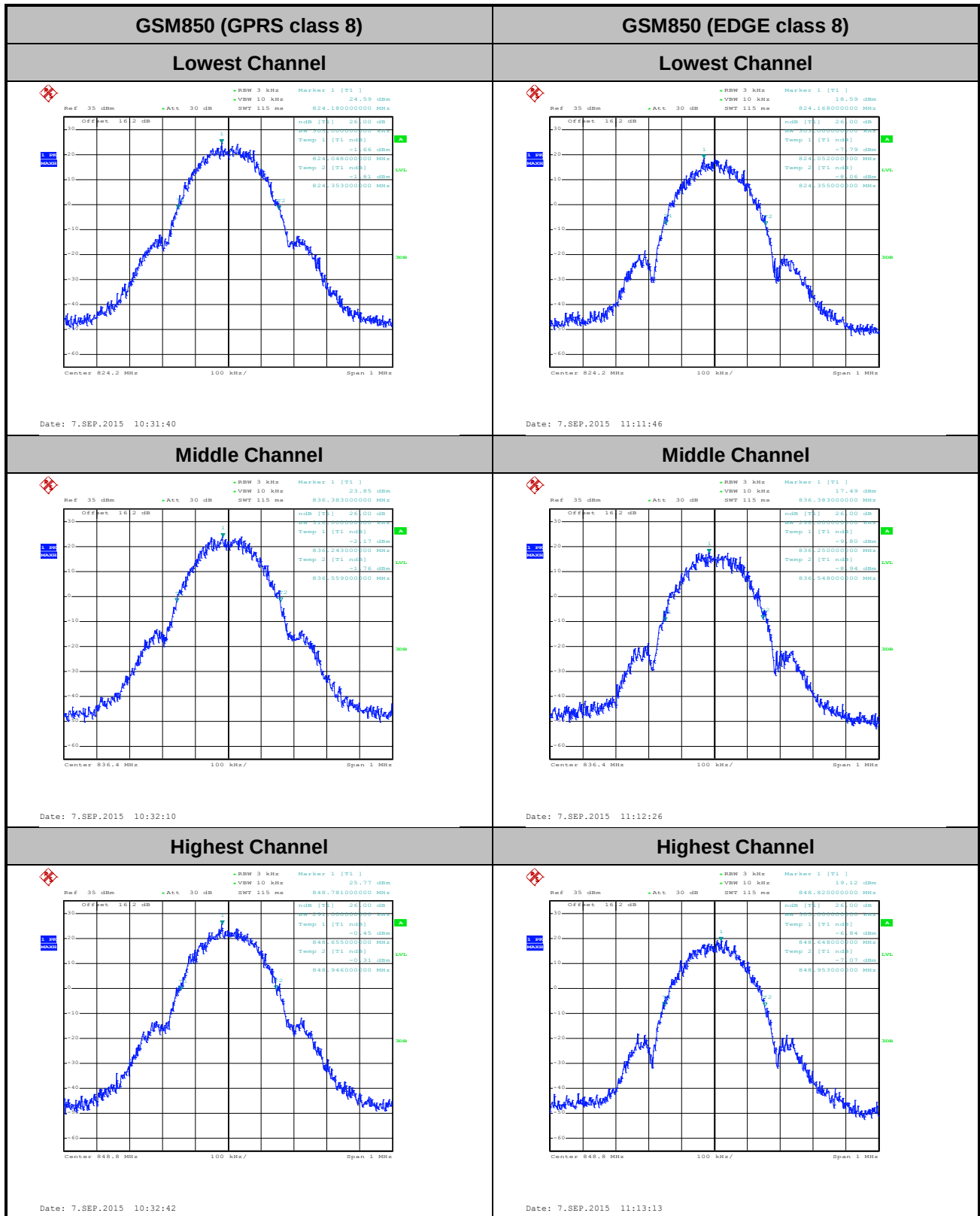


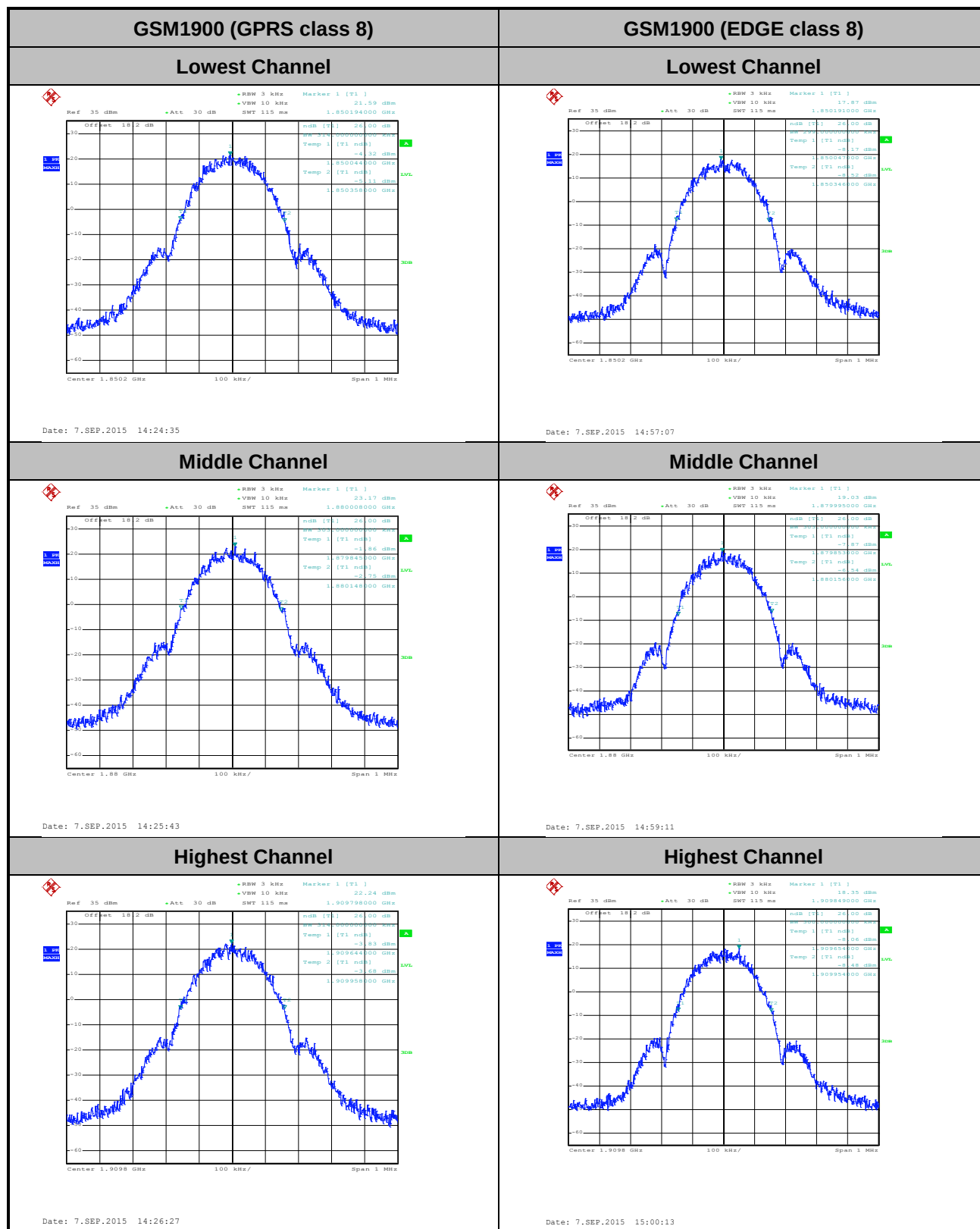
GSM1900 (GPRS class 8)		GSM1900 (EDGE class 8)	
Lowest Channel		Lowest Channel	
 Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 29.77 dBm Peak 30.03 dBm Crest 0.26 dB 10 % 0.20 dB 1 % 0.24 dB .1 % 0.28 dB .01 % 0.28 dB Date: 7.SEP.2015 14:37:40		 Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 25.77 dBm Peak 29.40 dBm Crest 3.63 dB 10 % 2.76 dB 1 % 3.40 dB .1 % 3.52 dB .01 % 3.56 dB Date: 7.SEP.2015 15:12:39	
Middle Channel		Middle Channel	
 Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 29.95 dBm Peak 30.17 dBm Crest 0.23 dB 10 % 0.16 dB 1 % 0.24 dB .1 % 0.24 dB .01 % 0.24 dB Date: 7.SEP.2015 14:39:02		 Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 26.32 dBm Peak 29.61 dBm Crest 3.28 dB 10 % 2.64 dB 1 % 3.12 dB .1 % 3.20 dB .01 % 3.28 dB Date: 7.SEP.2015 15:14:05	
Highest Channel		Highest Channel	
 Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 29.78 dBm Peak 30.03 dBm Crest 0.25 dB 10 % 0.20 dB 1 % 0.24 dB .1 % 0.28 dB .01 % 0.28 dB Date: 7.SEP.2015 14:40:04		 Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 25.88 dBm Peak 29.33 dBm Crest 3.45 dB 10 % 2.72 dB 1 % 3.32 dB .1 % 3.40 dB .01 % 3.44 dB Date: 7.SEP.2015 15:15:09	

**26dB Bandwidth**

Mode	GSM850	
Mod.	GPRS class 8	EDGE class 8
Lowest CH	0.305	0.303
Middle CH	0.316	0.298
Highest CH	0.291	0.305

Mode	GSM1900	
Mod.	GPRS class 8	EDGE class 8
Lowest CH	0.314	0.299
Middle CH	0.303	0.303
Highest CH	0.314	0.300

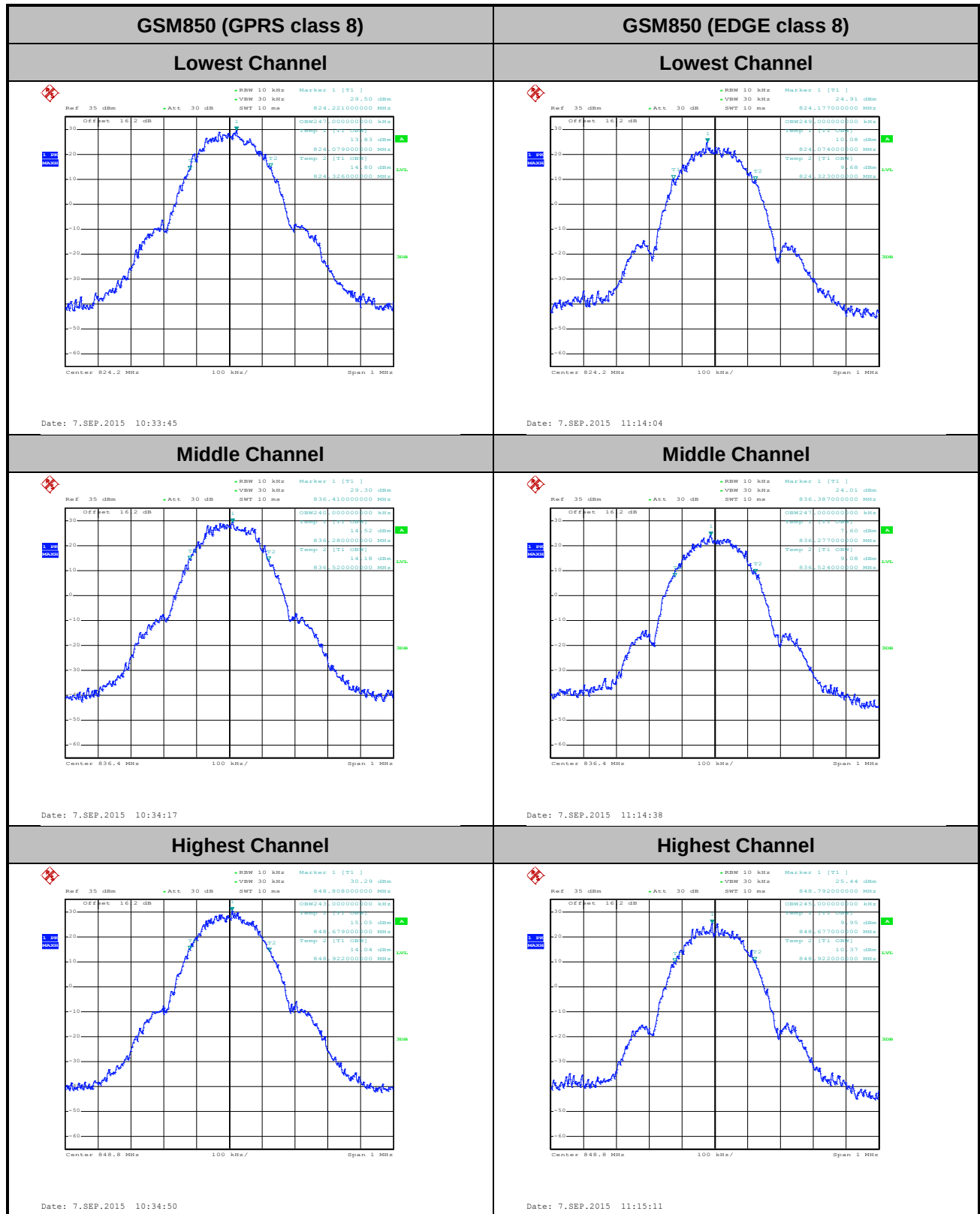


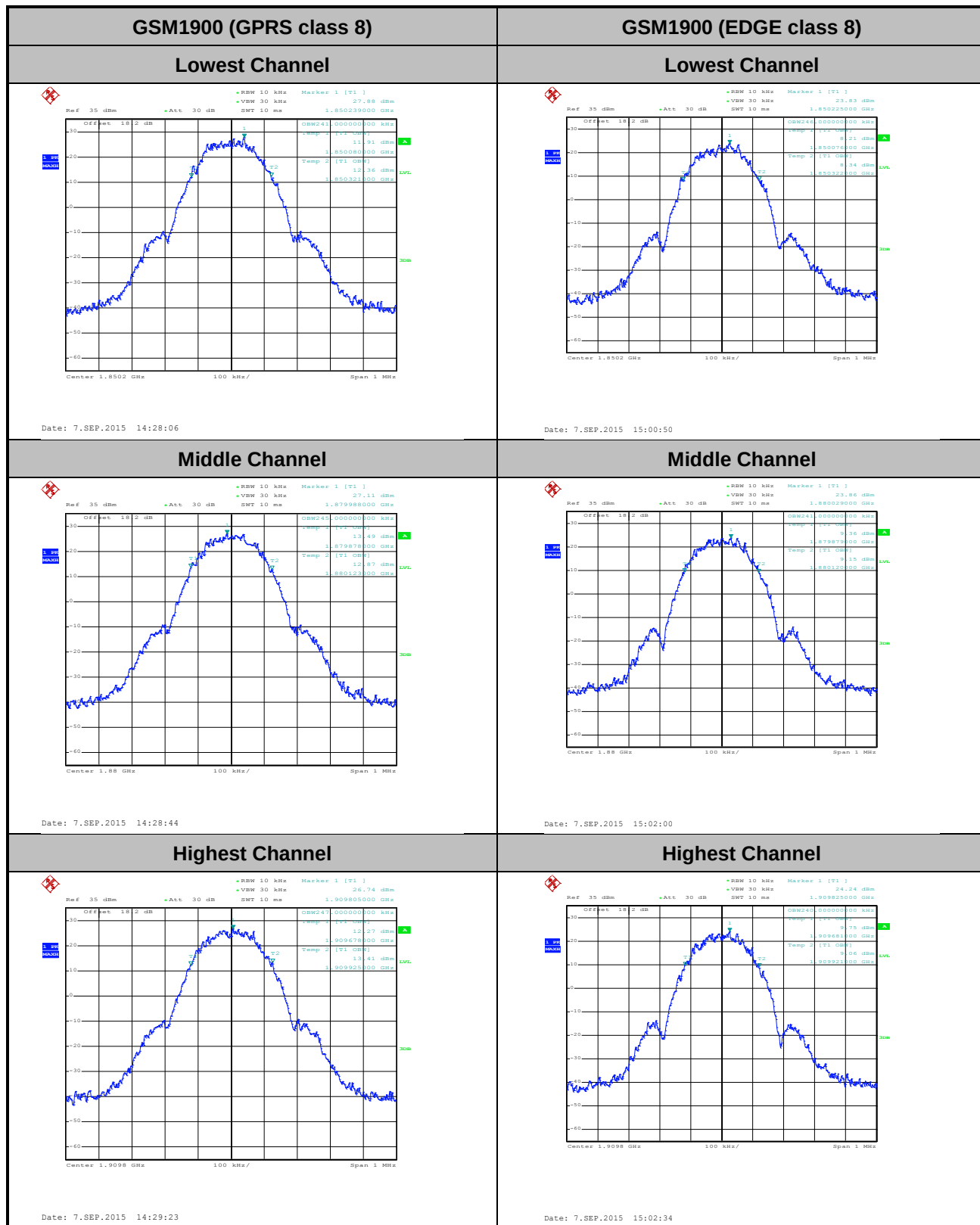


**Occupied Bandwidth**

Mode	GSM850	
Mod.	GPRS class 8	EDGE class 8
Lowest CH	0.247	0.249
Middle CH	0.240	0.247
Highest CH	0.243	0.245

Mode	GSM1900	
Mod.	GPRS class 8	EDGE class 8
Lowest CH	0.241	0.246
Middle CH	0.245	0.241
Highest CH	0.247	0.240



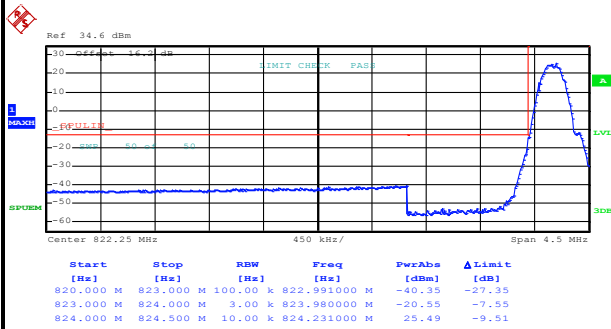




Conducted Band Edge

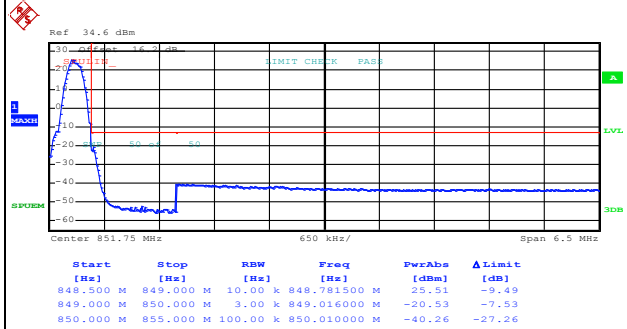
GSM850 (GPRS class 8)

Lowest Band Edge



Date: 7.SEP.2015 10:36:27

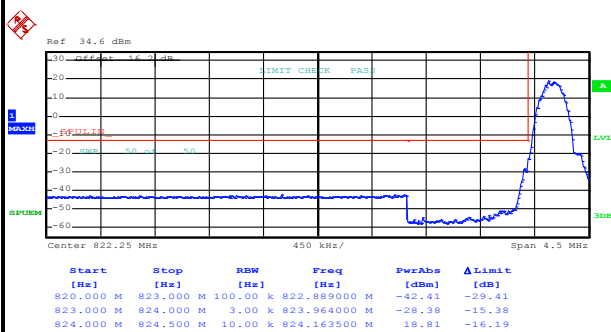
Highest Band Edge



Date: 7.SEP.2015 10:38:02

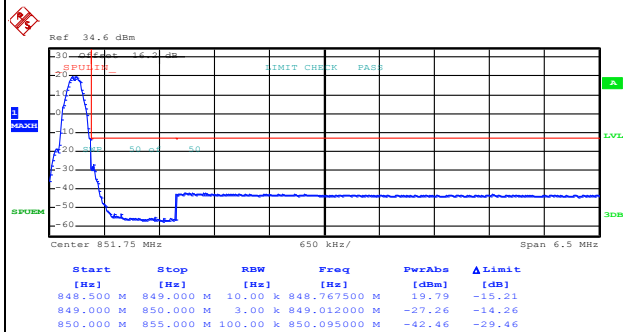
GSM850 (EDGE class 8)

Lowest Band Edge



Date: 7.SEP.2015 11:16:47

Highest Band Edge

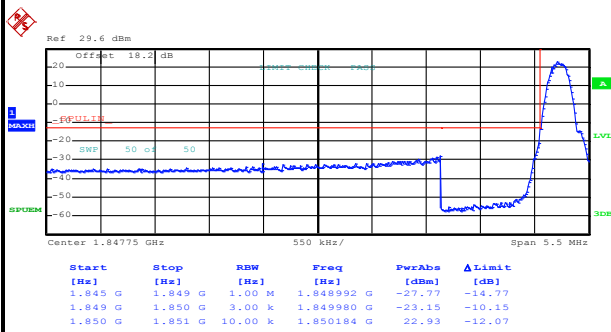


Date: 7.SEP.2015 11:18:39



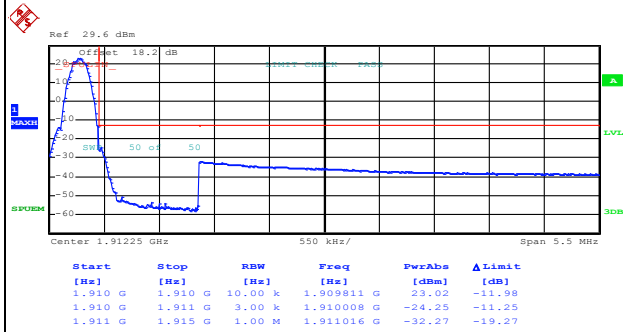
GSM1900 (GPRS class 8)

Lowest Band Edge



Date: 7.SEP.2015 14:31:10

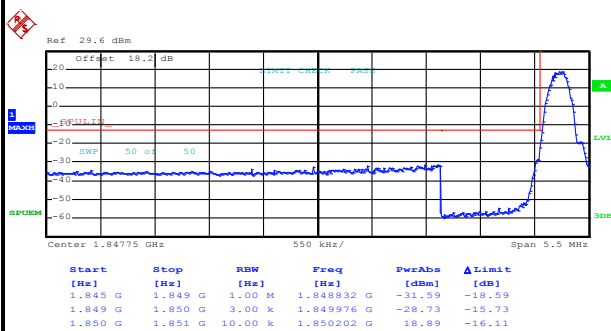
Highest Band Edge



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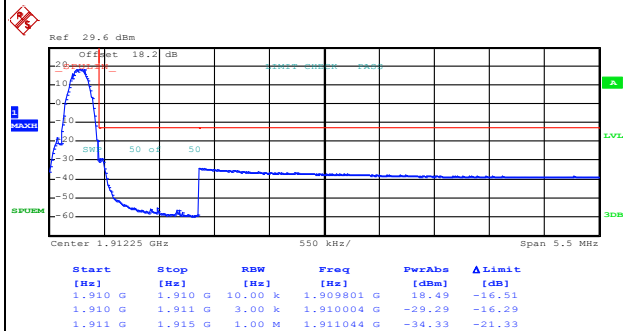
GSM1900 (EDGE class 8)

Lowest Band Edge



Date: 7.SEP.2015 15:04:12

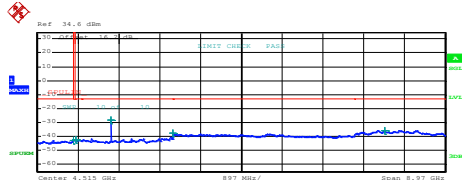
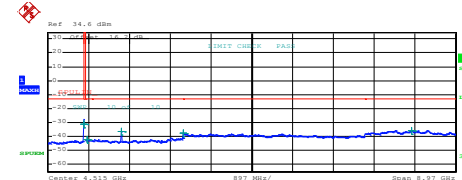
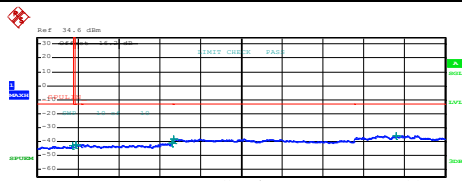
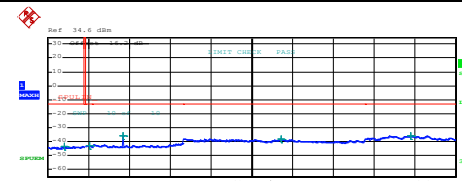
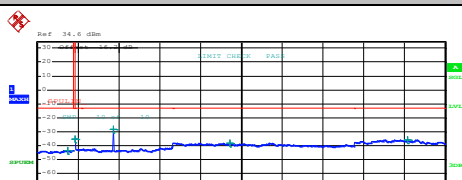
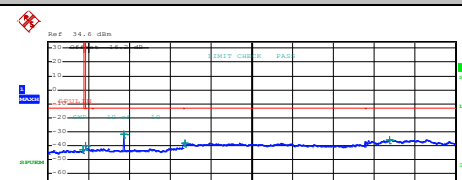
Highest Band Edge

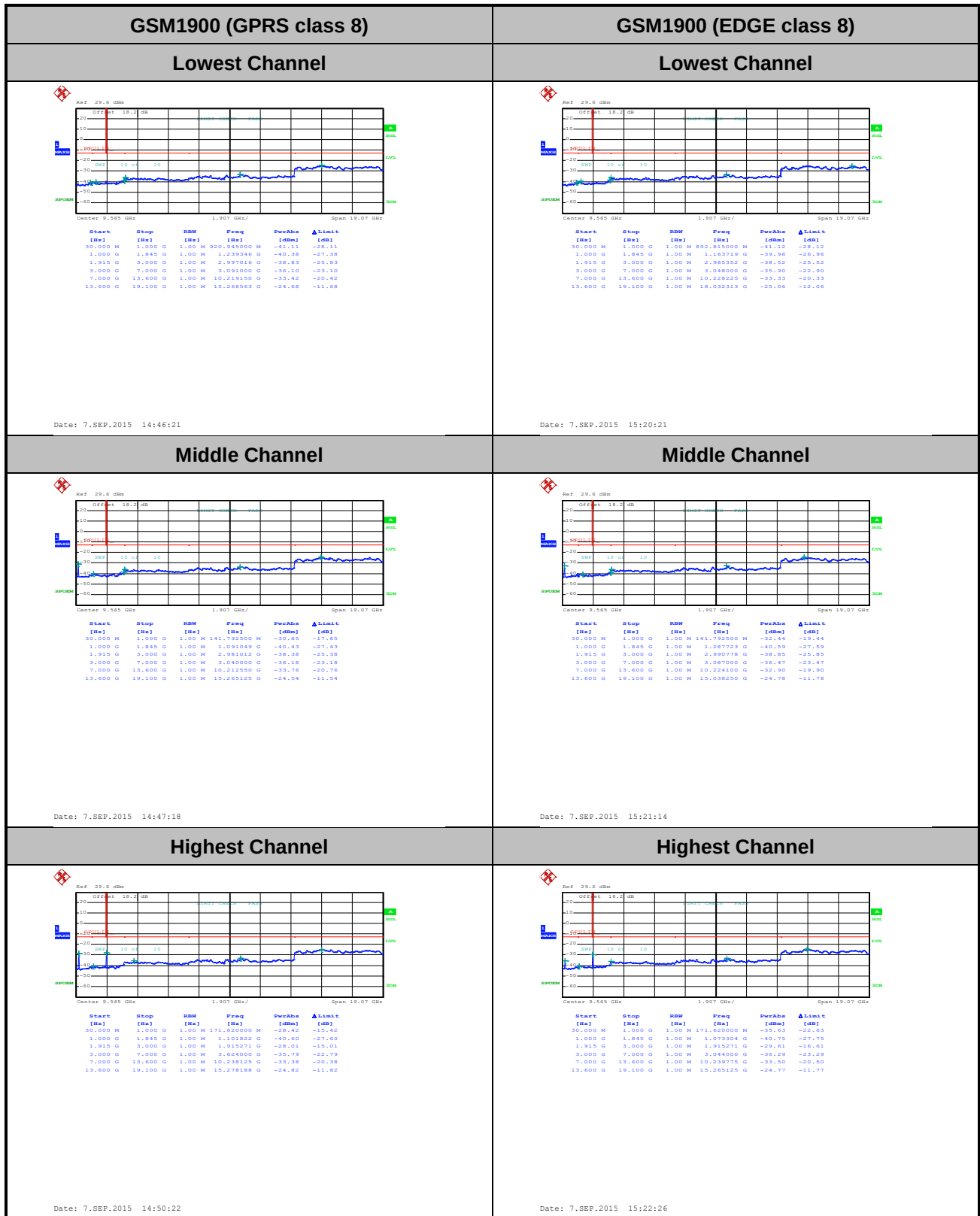


Date: 7.SEP.2015 15:05:55



Conducted Spurious Emission

GSM850 (GPRS class 8)		GSM850 (EDGE class 8)																																																																																					
Lowest Channel		Lowest Channel																																																																																					
<table><tr><th>Start</th><th>Stop</th><th>RBW</th><th>Freq</th><th>PerAbn</th><th>ΔLimit</th></tr><tr><th>[Hz]</th><th>[Hz]</th><th>[Hz]</th><th>[Hz]</th><th>[dBm]</th><th>[dB]</th></tr><tr><td>30,000 M</td><td>820,000 M</td><td>1,00 M</td><td>814,607500 M</td><td>-42.84</td><td>-29.84</td></tr><tr><td>850,000 M</td><td>1,000 G</td><td>1,00 M</td><td>872,146251 M</td><td>-42.27</td><td>-29.27</td></tr><tr><td>1,000 G</td><td>3,000 G</td><td>1,00 M</td><td>1,648500 G</td><td>-28.07</td><td>-25.07</td></tr><tr><td>3,000 G</td><td>7,000 G</td><td>1,00 M</td><td>3,006000 G</td><td>-37.82</td><td>-24.82</td></tr><tr><td>7,000 G</td><td>9,000 G</td><td>1,00 M</td><td>7,668500 G</td><td>-35.69</td><td>-22.69</td></tr></table> Date: 7.SEP.2015 10:47:14		Start	Stop	RBW	Freq	PerAbn	ΔLimit	[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]	30,000 M	820,000 M	1,00 M	814,607500 M	-42.84	-29.84	850,000 M	1,000 G	1,00 M	872,146251 M	-42.27	-29.27	1,000 G	3,000 G	1,00 M	1,648500 G	-28.07	-25.07	3,000 G	7,000 G	1,00 M	3,006000 G	-37.82	-24.82	7,000 G	9,000 G	1,00 M	7,668500 G	-35.69	-22.69	<table><tr><th>Start</th><th>Stop</th><th>RBW</th><th>Freq</th><th>PerAbn</th><th>ΔLimit</th></tr><tr><th>[Hz]</th><th>[Hz]</th><th>[Hz]</th><th>[Hz]</th><th>[dBm]</th><th>[dB]</th></tr><tr><td>30,000 M</td><td>820,000 M</td><td>1,00 M</td><td>819,802500 M</td><td>-31.02</td><td>-18.02</td></tr><tr><td>850,000 M</td><td>1,000 G</td><td>1,00 M</td><td>882,260002 M</td><td>-42.54</td><td>-29.54</td></tr><tr><td>1,000 G</td><td>3,000 G</td><td>1,00 M</td><td>1,648500 G</td><td>-28.33</td><td>-23.33</td></tr><tr><td>3,000 G</td><td>7,000 G</td><td>1,00 M</td><td>3,006000 G</td><td>-37.90</td><td>-24.90</td></tr><tr><td>7,000 G</td><td>9,000 G</td><td>1,00 M</td><td>8,023500 G</td><td>-35.67</td><td>-22.67</td></tr></table> Date: 7.SEP.2015 11:24:02		Start	Stop	RBW	Freq	PerAbn	ΔLimit	[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]	30,000 M	820,000 M	1,00 M	819,802500 M	-31.02	-18.02	850,000 M	1,000 G	1,00 M	882,260002 M	-42.54	-29.54	1,000 G	3,000 G	1,00 M	1,648500 G	-28.33	-23.33	3,000 G	7,000 G	1,00 M	3,006000 G	-37.90	-24.90	7,000 G	9,000 G	1,00 M	8,023500 G	-35.67	-22.67
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<table><tr><th>Start</th><th>Stop</th><th>RBW</th><th>Freq</th><th>PerAbn</th><th>ΔLimit</th></tr><tr><th>[Hz]</th><th>[Hz]</th><th>[Hz]</th><th>[Hz]</th><th>[dBm]</th><th>[dB]</th></tr><tr><td>30,000 M</td><td>820,000 M</td><td>1,00 M</td><td>698,142500 M</td><td>-43.19</td><td>-30.19</td></tr><tr><td>850,000 M</td><td>1,000 G</td><td>1,00 M</td><td>855,036250 M</td><td>-35.35</td><td>-22.35</td></tr><tr><td>1,000 G</td><td>3,000 G</td><td>1,00 M</td><td>1,697500 G</td><td>-28.19</td><td>-25.19</td></tr><tr><td>3,000 G</td><td>7,000 G</td><td>1,00 M</td><td>4,260000 G</td><td>-37.92</td><td>-24.92</td></tr><tr><td>7,000 G</td><td>9,000 G</td><td>1,00 M</td><td>8,168500 G</td><td>-35.78</td><td>-22.78</td></tr></table> Date: 7.SEP.2015 10:48:09		Start	Stop	RBW	Freq	PerAbn	ΔLimit	[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]	30,000 M	820,000 M	1,00 M	698,142500 M	-43.19	-30.19	850,000 M	1,000 G	1,00 M	855,036250 M	-35.35	-22.35	1,000 G	3,000 G	1,00 M	1,697500 G	-28.19	-25.19	3,000 G	7,000 G	1,00 M	4,260000 G	-37.92	-24.92	7,000 G	9,000 G	1,00 M	8,168500 G	-35.78	-22.78	<table><tr><th>Start</th><th>Stop</th><th>RBW</th><th>Freq</th><th>PerAbn</th><th>ΔLimit</th></tr><tr><th>[Hz]</th><th>[Hz]</th><th>[Hz]</th><th>[Hz]</th><th>[dBm]</th><th>[dB]</th></tr><tr><td>30,000 M</td><td>820,000 M</td><td>1,00 M</td><td>794,127500 M</td><td>-43.15</td><td>-30.15</td></tr><tr><td>850,000 M</td><td>1,000 G</td><td>1,00 M</td><td>855,036250 M</td><td>-40.23</td><td>-27.23</td></tr><tr><td>1,000 G</td><td>3,000 G</td><td>1,00 M</td><td>1,697500 G</td><td>-31.99</td><td>-18.99</td></tr><tr><td>3,000 G</td><td>7,000 G</td><td>1,00 M</td><td>3,042000 G</td><td>-38.11</td><td>-25.11</td></tr><tr><td>7,000 G</td><td>9,000 G</td><td>1,00 M</td><td>7,547000 G</td><td>-35.75</td><td>-22.75</td></tr></table> Date: 7.SEP.2015 11:29:03		Start	Stop	RBW	Freq	PerAbn	ΔLimit	[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]	30,000 M	820,000 M	1,00 M	794,127500 M	-43.15	-30.15	850,000 M	1,000 G	1,00 M	855,036250 M	-40.23	-27.23	1,000 G	3,000 G	1,00 M	1,697500 G	-31.99	-18.99	3,000 G	7,000 G	1,00 M	3,042000 G	-38.11	-25.11	7,000 G	9,000 G	1,00 M	7,547000 G	-35.75	-22.75
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**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	0.0036	0.0084	PASS
40	Normal Voltage	0.0024	0.0084	
30	Normal Voltage	0.0383	0.0048	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0538	0.0179	
0	Normal Voltage	0.0658	0.1040	
-10	Normal Voltage	0.0562	0.0849	
-20	Normal Voltage	0.0514	0.0227	
-30	Normal Voltage	0.0610	0.0203	
20	Maximum Voltage	0.0442	0.0096	
20	Normal Voltage	0.0012	0.0012	
20	Battery End Point	0.0490	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	0.0085	0.0016	PASS
40	Normal Voltage	0.0122	0.0011	
30	Normal Voltage	0.0059	0.0287	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0059	0.0011	
0	Normal Voltage	0.0043	0.0314	
-10	Normal Voltage	0.0064	0.0271	
-20	Normal Voltage	0.0016	0.0303	
-30	Normal Voltage	0.0021	0.0255	
20	Maximum Voltage	0.0043	0.0287	
20	Normal Voltage	0.0016	0.0016	
20	Battery End Point	0.0048	0.0277	

Note:

1. Normal Voltage = 3.7V. ; Battery End Point (BEP) = 3.4 V. ; Maximum Voltage =4.2 V
2. The frequency fundamental emissions stay within the authorized frequency block.