



A1. GSM

Peak-to-Average Ratio

Mode	GSM850		Limit: 13dB
Mod.	GPRS class 8	EDGE class 8	Result
Lowest CH	0.24	2.84	PASS
Middle CH	0.24	2.92	
Highest CH	0.20	2.92	

Mode	GSM1900		Limit: 13dB
Mod.	GPRS class 8	EDGE class 8	Result
Lowest CH	0.20	3.28	PASS
Middle CH	0.20	3.12	
Highest CH	0.24	3.36	



GSM850 (GPRS class 8)		GSM850 (EDGE class 8)	
Lowest Channel		Lowest Channel	
<p>Ref: 35 dBm, Att: 30 dB, AGT: 3.125 ms, RSW: 10 MHz, Center: 824.2 MHz, 2 dB/</p> <p>Complementary Cumulative Distribution Function (100000 samples)</p> <p>Trace 1</p> <p>Mean 31.92 dBm Peak 32.15 dBm Crest 0.23 dB</p> <p>10 % 0.16 dB 1 % 0.24 dB .1 % 0.24 dB .01 % 0.24 dB</p> <p>Date: 22.JUL.2015 10:19:34</p>		<p>Ref: 35 dBm, Att: 30 dB, AGT: 3.125 ms, RSW: 10 MHz, Center: 824.2 MHz, 2 dB/</p> <p>Complementary Cumulative Distribution Function (100000 samples)</p> <p>Trace 1</p> <p>Mean 26.22 dBm Peak 29.11 dBm Crest 2.89 dB</p> <p>10 % 2.36 dB 1 % 2.76 dB .1 % 2.84 dB .01 % 2.88 dB</p> <p>Date: 22.JUL.2015 10:33:11</p>	
Middle Channel		Middle Channel	
<p>Ref: 35 dBm, Att: 30 dB, AGT: 3.125 ms, RSW: 10 MHz, Center: 835.4 MHz, 2 dB/</p> <p>Complementary Cumulative Distribution Function (100000 samples)</p> <p>Trace 1</p> <p>Mean 31.84 dBm Peak 32.08 dBm Crest 0.24 dB</p> <p>10 % 0.16 dB 1 % 0.20 dB .1 % 0.24 dB .01 % 0.24 dB</p> <p>Date: 22.JUL.2015 10:19:47</p>		<p>Ref: 35 dBm, Att: 30 dB, AGT: 3.125 ms, RSW: 10 MHz, Center: 835.4 MHz, 2 dB/</p> <p>Complementary Cumulative Distribution Function (100000 samples)</p> <p>Trace 1</p> <p>Mean 26.08 dBm Peak 29.04 dBm Crest 2.96 dB</p> <p>10 % 2.40 dB 1 % 2.84 dB .1 % 2.92 dB .01 % 2.96 dB</p> <p>Date: 22.JUL.2015 10:33:25</p>	
Highest Channel		Highest Channel	
<p>Ref: 35 dBm, Att: 30 dB, AGT: 3.125 ms, RSW: 10 MHz, Center: 848.8 MHz, 2 dB/</p> <p>Complementary Cumulative Distribution Function (100000 samples)</p> <p>Trace 1</p> <p>Mean 32.04 dBm Peak 32.29 dBm Crest 0.25 dB</p> <p>10 % 0.20 dB 1 % 0.20 dB .1 % 0.20 dB .01 % 0.28 dB</p> <p>Date: 22.JUL.2015 10:20:03</p>		<p>Ref: 35 dBm, Att: 30 dB, AGT: 3.125 ms, RSW: 10 MHz, Center: 848.8 MHz, 2 dB/</p> <p>Complementary Cumulative Distribution Function (100000 samples)</p> <p>Trace 1</p> <p>Mean 26.36 dBm Peak 29.33 dBm Crest 2.96 dB</p> <p>10 % 2.40 dB 1 % 2.84 dB .1 % 2.92 dB .01 % 2.96 dB</p> <p>Date: 22.JUL.2015 10:33:53</p>	

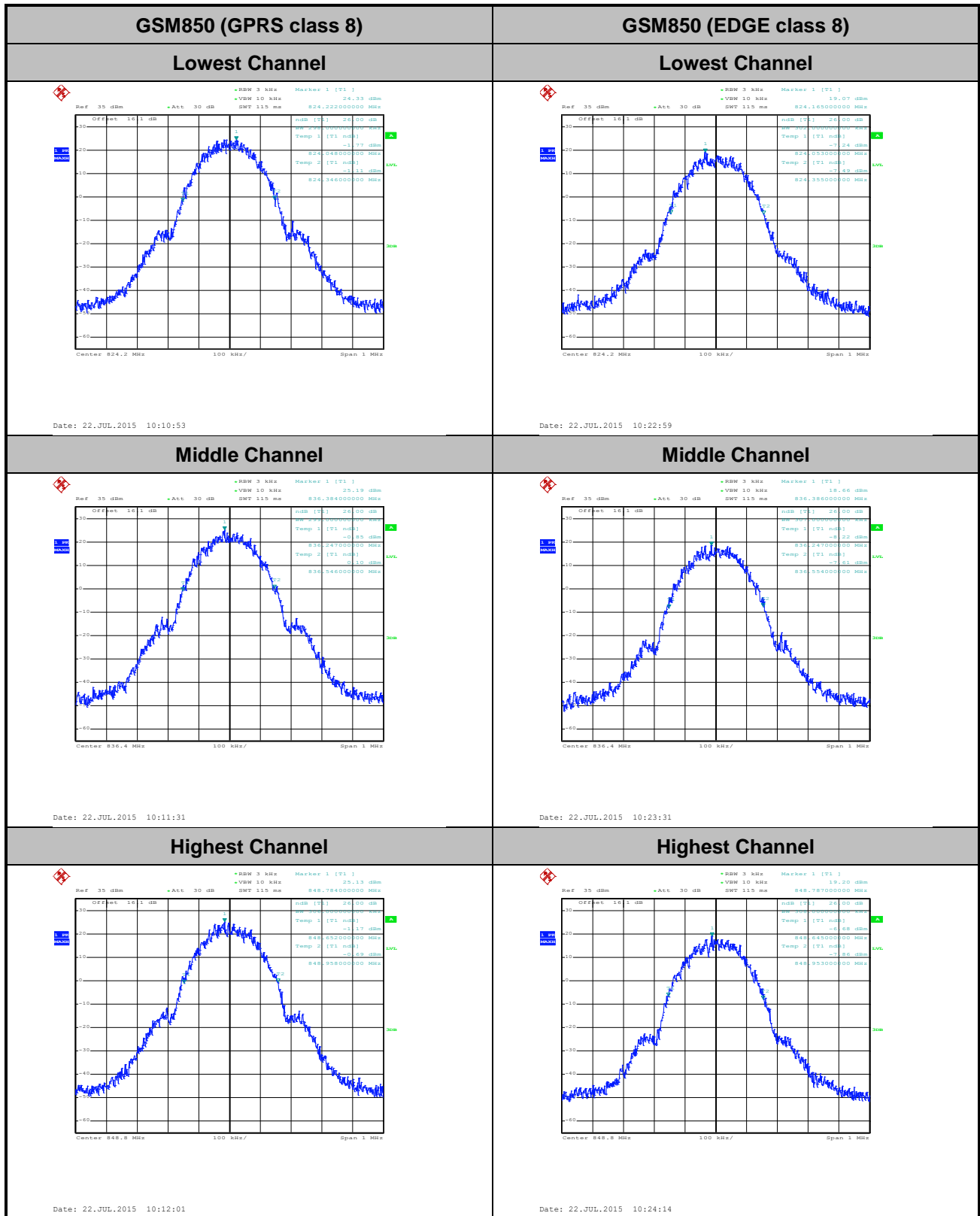


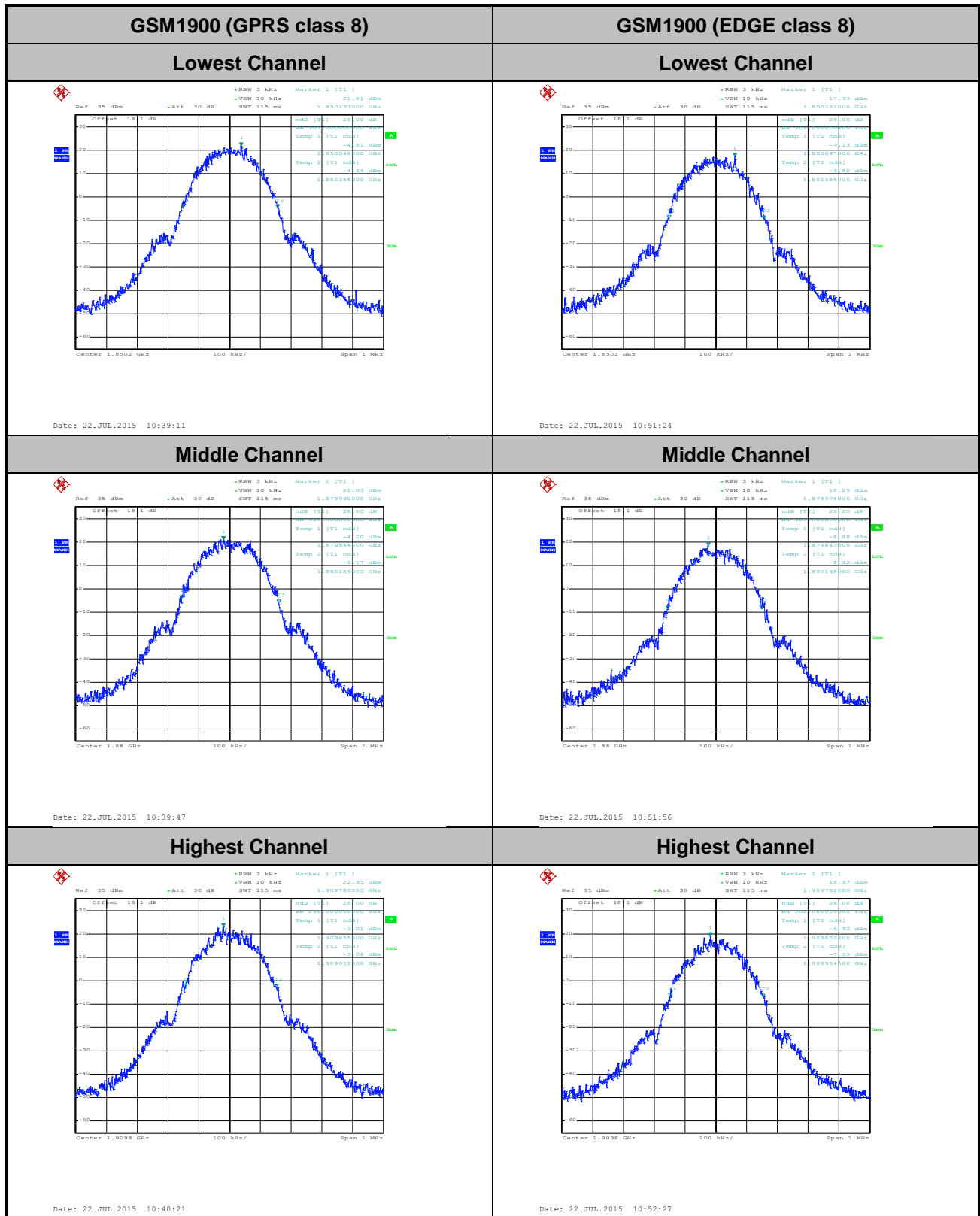
GSM1900 (GPRS class 8)		GSM1900 (EDGE class 8)	
Lowest Channel		Lowest Channel	
<p>Ref: 35 dBm, Att: 30 dB, AGT: 3.125 ms, RSW: 10 MHz, Center: 1.8502 GHz, 2 dB/</p> <p>Complementary Cumulative Distribution Function (100000 samples)</p> <p>Trace 1</p> <p>Mean 29.51 dBm Peak 29.75 dBm Crest 0.24 dB</p> <p>10 % 0.16 dB 1 % 0.20 dB .1 % 0.20 dB .01 % 0.24 dB</p> <p>Date: 22.JUL.2015 10:49:41</p>		<p>Ref: 35 dBm, Att: 30 dB, AGT: 3.125 ms, RSW: 10 MHz, Center: 1.8502 GHz, 2 dB/</p> <p>Complementary Cumulative Distribution Function (100000 samples)</p> <p>Trace 1</p> <p>Mean 25.52 dBm Peak 28.83 dBm Crest 3.31 dB</p> <p>10 % 2.48 dB 1 % 3.12 dB .1 % 3.28 dB .01 % 3.32 dB</p> <p>Date: 22.JUL.2015 11:00:06</p>	
Middle Channel		Middle Channel	
<p>Ref: 35 dBm, Att: 30 dB, AGT: 3.125 ms, RSW: 10 MHz, Center: 1.85 GHz, 2 dB/</p> <p>Complementary Cumulative Distribution Function (100000 samples)</p> <p>Trace 1</p> <p>Mean 29.79 dBm Peak 30.03 dBm Crest 0.24 dB</p> <p>10 % 0.16 dB 1 % 0.20 dB .1 % 0.20 dB .01 % 0.24 dB</p> <p>Date: 22.JUL.2015 10:49:54</p>		<p>Ref: 35 dBm, Att: 30 dB, AGT: 3.125 ms, RSW: 10 MHz, Center: 1.85 GHz, 2 dB/</p> <p>Complementary Cumulative Distribution Function (100000 samples)</p> <p>Trace 1</p> <p>Mean 25.94 dBm Peak 29.11 dBm Crest 3.17 dB</p> <p>10 % 2.40 dB 1 % 2.96 dB .1 % 3.12 dB .01 % 3.16 dB</p> <p>Date: 22.JUL.2015 11:00:20</p>	
Highest Channel		Highest Channel	
<p>Ref: 35 dBm, Att: 30 dB, AGT: 3.125 ms, RSW: 10 MHz, Center: 1.9098 GHz, 2 dB/</p> <p>Complementary Cumulative Distribution Function (100000 samples)</p> <p>Trace 1</p> <p>Mean 29.52 dBm Peak 29.75 dBm Crest 0.23 dB</p> <p>10 % 0.16 dB 1 % 0.24 dB .1 % 0.24 dB .01 % 0.24 dB</p> <p>Date: 22.JUL.2015 10:50:05</p>		<p>Ref: 35 dBm, Att: 30 dB, AGT: 3.125 ms, RSW: 10 MHz, Center: 1.9098 GHz, 2 dB/</p> <p>Complementary Cumulative Distribution Function (100000 samples)</p> <p>Trace 1</p> <p>Mean 25.47 dBm Peak 28.90 dBm Crest 3.43 dB</p> <p>10 % 2.64 dB 1 % 3.24 dB .1 % 3.36 dB .01 % 3.44 dB</p> <p>Date: 22.JUL.2015 11:00:35</p>	

**26dB Bandwidth**

Mode	GSM850	
Mod.	GPRS class 8	EDGE class 8
Lowest CH	0.298	0.302
Middle CH	0.299	0.307
Highest CH	0.306	0.308

Mode	GSM1900	
Mod.	GPRS class 8	EDGE class 8
Lowest CH	0.307	0.308
Middle CH	0.315	0.305
Highest CH	0.296	0.302

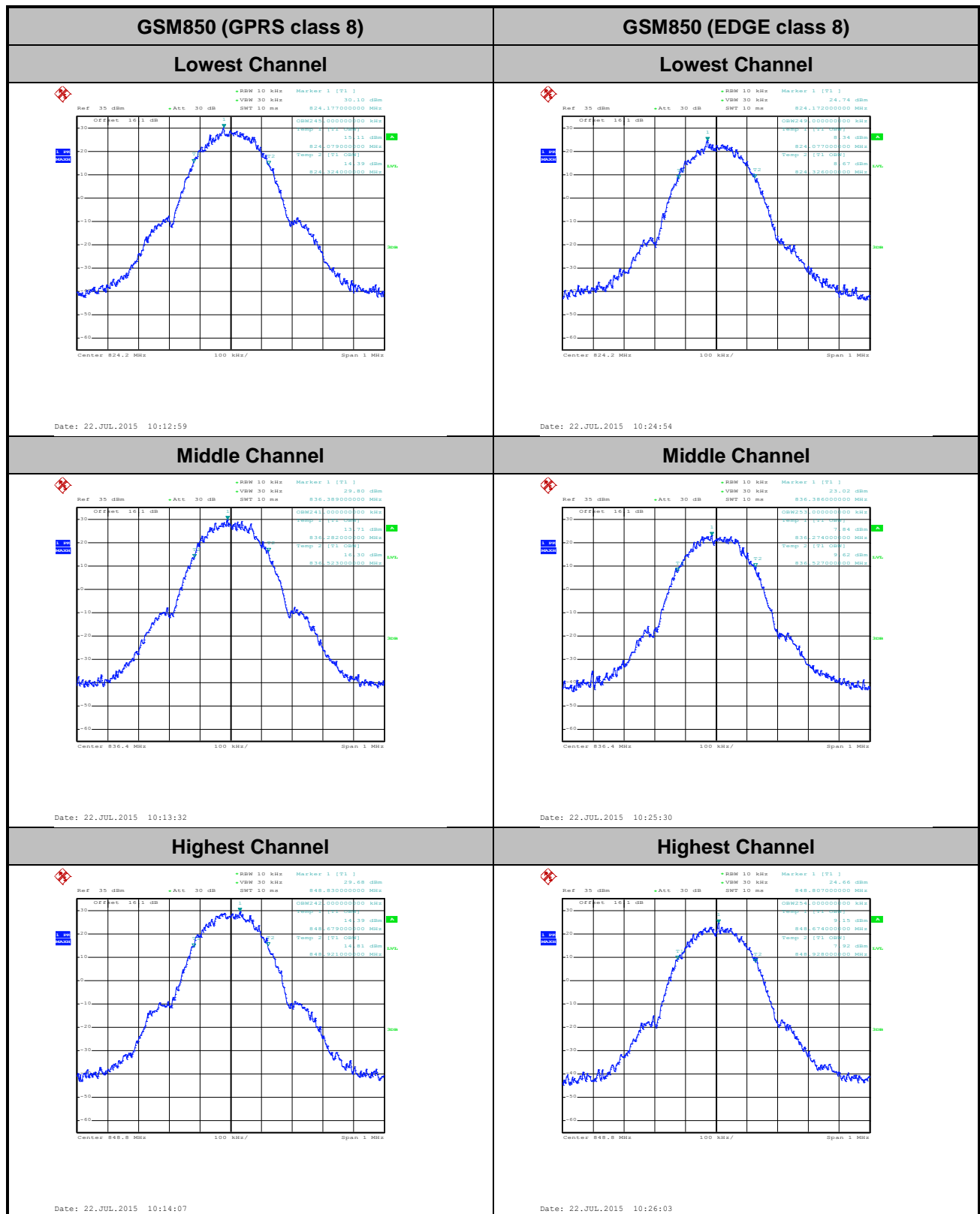


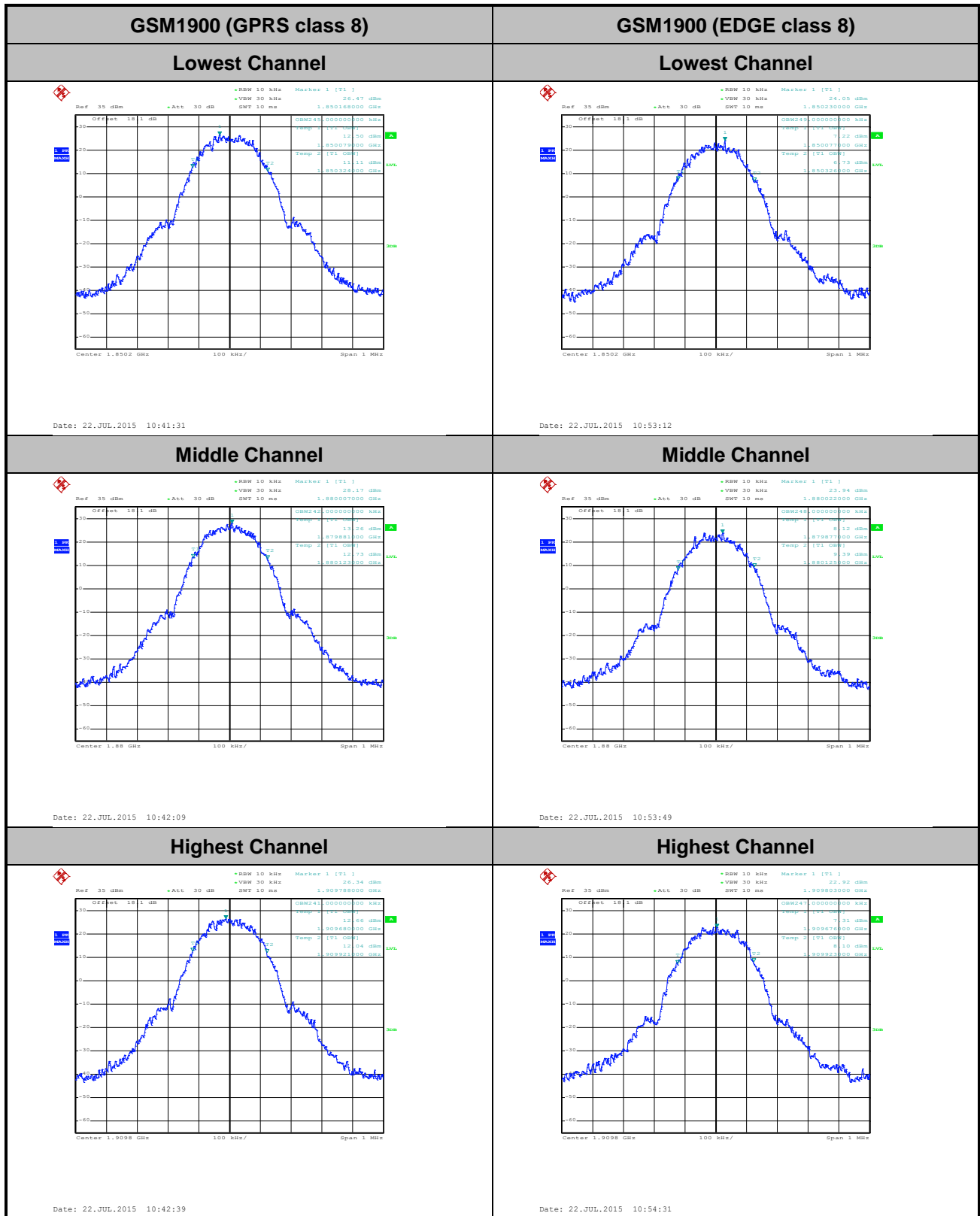


**Occupied Bandwidth**

Mode	GSM850	
Mod.	GPRS class 8	EDGE class 8
Lowest CH	0.245	0.249
Middle CH	0.241	0.253
Highest CH	0.242	0.254

Mode	GSM1900	
Mod.	GPRS class 8	EDGE class 8
Lowest CH	0.245	0.249
Middle CH	0.242	0.248
Highest CH	0.241	0.247





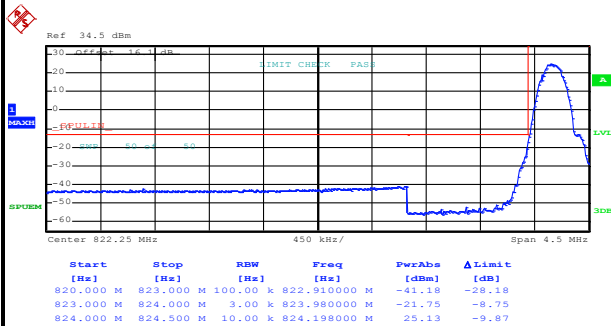


Conducted Band Edge



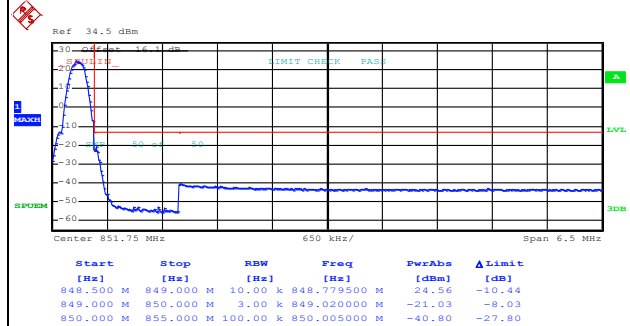
GSM850 (GPRS class 8)

Lowest Band Edge



Date: 22.JUL.2015 10:15:55

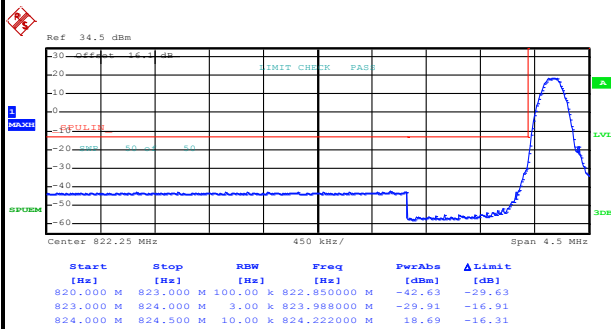
Highest Band Edge



Date: 22.JUL.2015 10:17:28

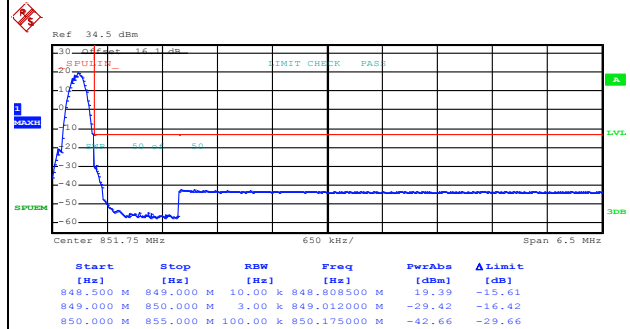
GSM850 (EDGE class 8)

Lowest Band Edge



Date: 22.JUL.2015 10:28:09

Highest Band Edge

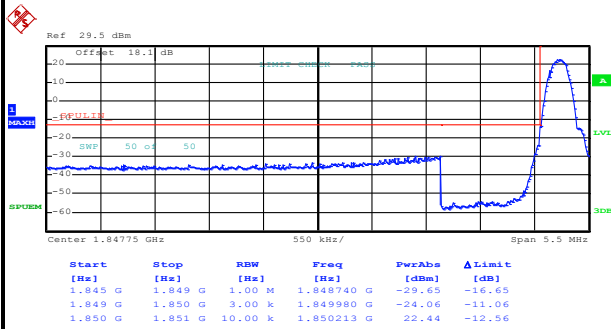


Date: 22.JUL.2015 10:29:41



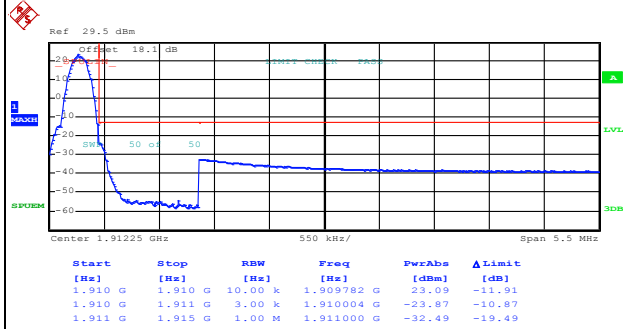
GSM1900 (GPRS class 8)

Lowest Band Edge



Date: 22.JUL.2015 10:46:02

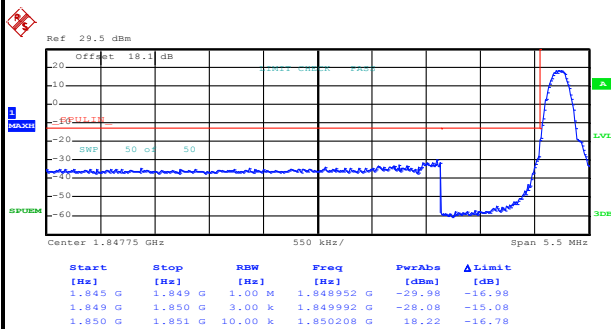
Highest Band Edge



Date: 22.JUL.2015 10:47:32

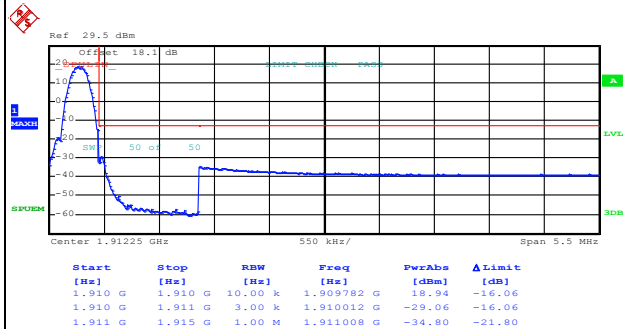
GSM1900 (EDGE class 8)

Lowest Band Edge



Date: 22.JUL.2015 10:56:12

Highest Band Edge



Date: 22.JUL.2015 10:57:47

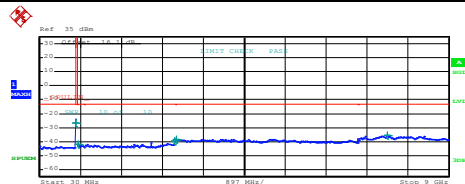


Conducted Spurious Emission



GSM850 (GPRS class 8)

Lowest Channel

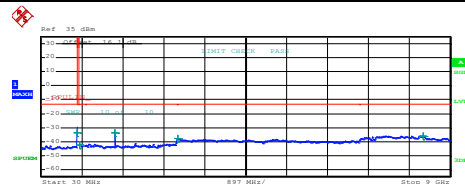


Start	Stop	RBW	Freq	Power	Limit
[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]
810,000 M	820,000 M	1,000 M	815.802500 M	-26.93	-13.33
855,000 M	1,000 G	1,000 M	876.061251 M	-42.09	-29.09
1,000 G	3,000 G	1,000 M	2.992000 G	-39.80	-26.80
3,000 G	7,000 G	1,000 M	3.029000 G	-38.24	-25.24
7,000 G	9,000 G	1,000 M	7.662500 G	-35.61	-22.61

Date: 22.JUL.2015 10:18:07

GSM850 (EDGE class 8)

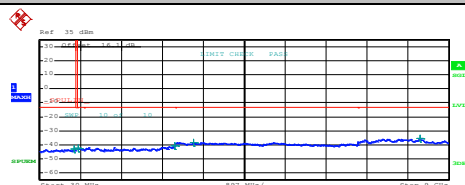
Lowest Channel



Start	Stop	RBW	Freq	Power	Limit
[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]
810,000 M	820,000 M	1,000 M	815.802500 M	-33.48	-20.48
855,000 M	1,000 G	1,000 M	865.041251 M	-42.33	-29.33
1,000 G	3,000 G	1,000 M	1.648500 G	-33.77	-20.77
3,000 G	7,000 G	1,000 M	3.020000 G	-38.01	-25.01
7,000 G	9,000 G	1,000 M	8.405000 G	-35.86	-22.86

Date: 22.JUL.2015 10:30:45

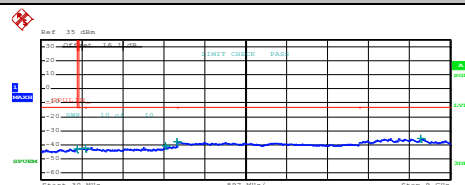
Middle Channel



Start	Stop	RBW	Freq	Power	Limit
[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]
810,000 M	820,000 M	1,000 M	784.845000 M	-43.30	-30.30
855,000 M	1,000 G	1,000 M	864.316251 M	-42.46	-29.46
1,000 G	3,000 G	1,000 M	2.993000 G	-40.91	-27.91
3,000 G	7,000 G	1,000 M	3.405000 G	-38.43	-25.43
7,000 G	9,000 G	1,000 M	8.376500 G	-35.74	-22.74

Date: 22.JUL.2015 10:18:41

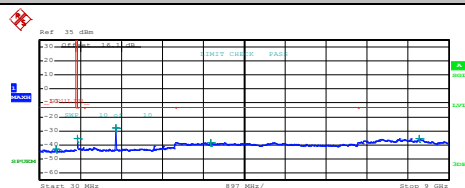
Middle Channel



Start	Stop	RBW	Freq	Power	Limit
[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]
810,000 M	820,000 M	1,000 M	816.642500 M	-43.05	-30.05
855,000 M	1,000 G	1,000 M	893.003750 M	-42.34	-29.34
1,000 G	3,000 G	1,000 M	2.755500 G	-40.94	-27.94
3,000 G	7,000 G	1,000 M	3.020000 G	-37.97	-24.97
7,000 G	9,000 G	1,000 M	8.357500 G	-35.25	-22.25

Date: 22.JUL.2015 10:31:37

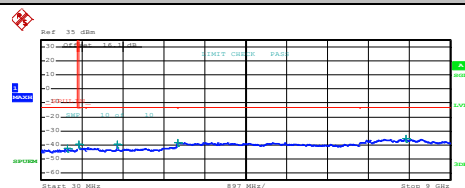
Highest Channel



Start	Stop	RBW	Freq	Power	Limit
[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]
810,000 M	820,000 M	1,000 M	391.810500 M	-43.35	-30.35
855,000 M	1,000 G	1,000 M	855.036250 M	-35.51	-22.51
1,000 G	3,000 G	1,000 M	1.697500 G	-37.99	-24.99
3,000 G	7,000 G	1,000 M	3.781000 G	-38.28	-25.28
7,000 G	9,000 G	1,000 M	8.363000 G	-35.35	-22.35

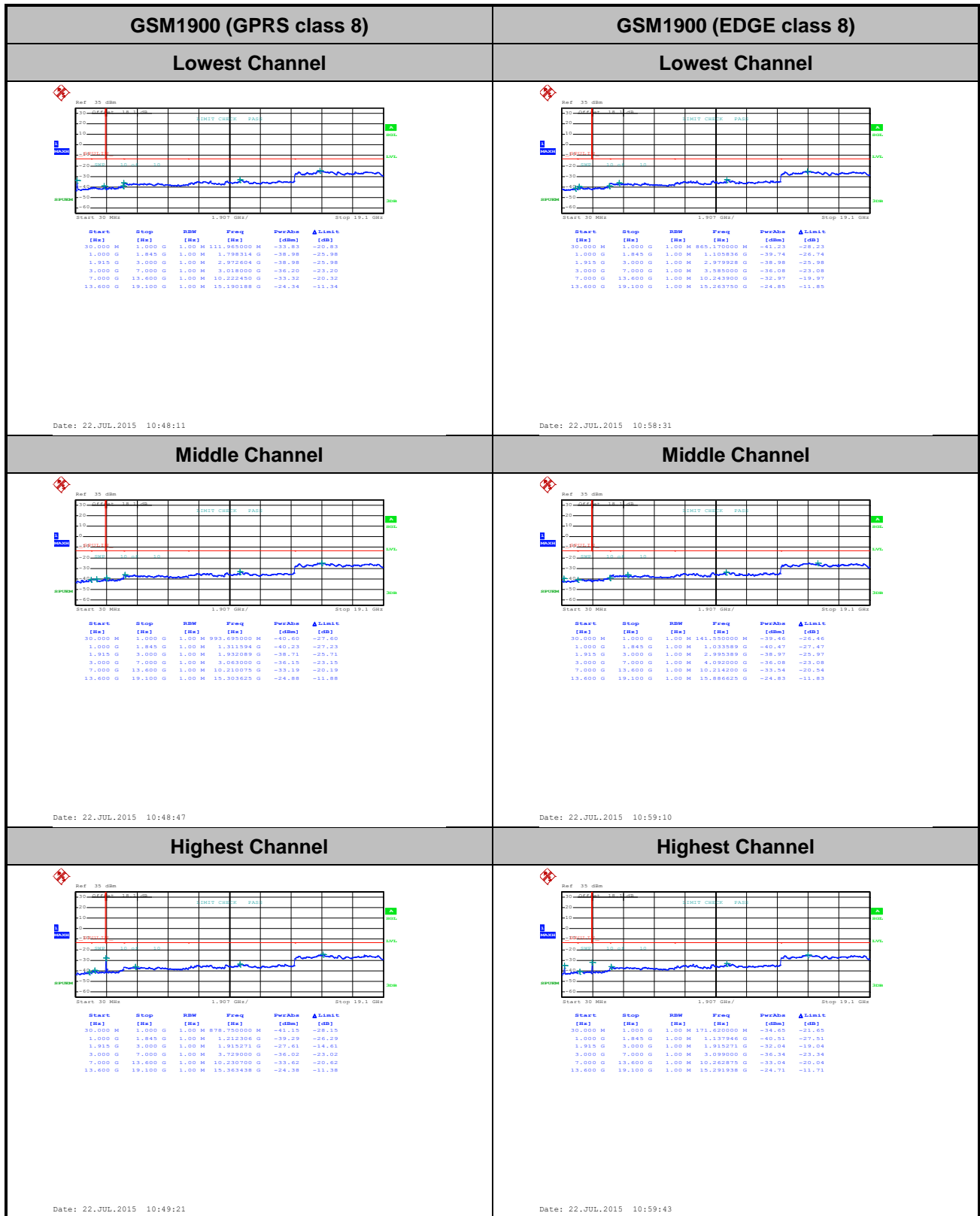
Date: 22.JUL.2015 10:19:13

Highest Channel



Start	Stop	RBW	Freq	Power	Limit
[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]
810,000 M	820,000 M	1,000 M	609.860500 M	-42.59	-29.59
855,000 M	1,000 G	1,000 M	855.036250 M	-39.61	-26.61
1,000 G	3,000 G	1,000 M	1.697500 G	-39.67	-26.67
3,000 G	7,000 G	1,000 M	3.020000 G	-38.23	-25.23
7,000 G	9,000 G	1,000 M	8.035000 G	-35.55	-22.55

Date: 22.JUL.2015 10:32:17



**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	0.0108	0.0084	PASS
40	Normal Voltage	0.0036	0.0048	
30	Normal Voltage	0.0036	0.0024	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0012	0.0036	
0	Normal Voltage	0.0024	0.0072	
-10	Normal Voltage	0.0060	0.0371	
-20	Normal Voltage	0.0048	0.0024	
-30	Normal Voltage	0.0012	0.0060	
20	Maximum Voltage	0.0048	0.0060	
20	Normal Voltage	0.0096	0.0036	
20	Battery End Point	0.0084	0.0012	



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	0.0170	0.0011	PASS
40	Normal Voltage	0.0021	0.0032	
30	Normal Voltage	0.0181	0.0005	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0186	0.0016	
0	Normal Voltage	0.0005	0.0005	
-10	Normal Voltage	0.0191	0.0011	
-20	Normal Voltage	0.0176	0.0021	
-30	Normal Voltage	0.0016	0.0016	
20	Maximum Voltage	0.0027	0.0027	
20	Normal Voltage	0.0005	0.0037	
20	Battery End Point	0.0011	0.0021	

Note:

1. Normal Voltage = 12V. ; Battery End Point (BEP) = 5 V. ; Maximum Voltage =18 V
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.