



Appendix B

GSM 850 & 1900



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1. Effective (Isotropic) Radiated Power Output Data

1.1. Test Result

Band	Channel	Slot	Conducted Power (dBm)	ERP (dBm)	Limit(dBm)	Verdict
GSM850	128	---	32.80	28.74	38.45	PASS
GSM850	190	---	33.33	29.27	38.45	PASS
GSM850	251	---	33.23	29.17	38.45	PASS
EGPRS850	128	1	25.51	21.45	38.45	PASS
EGPRS850	128	2	25.05	20.99	38.45	PASS
EGPRS850	128	3	23.50	19.44	38.45	PASS
EGPRS850	128	4	21.10	17.04	38.45	PASS
EGPRS850	190	1	25.71	21.65	38.45	PASS
EGPRS850	190	2	25.15	21.09	38.45	PASS
EGPRS850	190	3	23.47	19.41	38.45	PASS
EGPRS850	190	4	21.10	17.04	38.45	PASS
EGPRS850	251	1	25.85	21.79	38.45	PASS
EGPRS850	251	2	25.13	21.07	38.45	PASS
EGPRS850	251	3	23.62	19.56	38.45	PASS
EGPRS850	251	4	21.31	17.25	38.45	PASS

Band	Channel	Slot	Conducted Power (dBm)	EIRP (dBm)	Limit(dBm)	Verdict
GSM1900	512	---	30.69	30.1	33.00	PASS
GSM1900	661	---	30.52	29.93	33.00	PASS
GSM1900	810	---	30.34	29.75	33.00	PASS
EGPRS1900	512	1	26.10	25.51	33.00	PASS
EGPRS1900	512	2	24.11	23.52	33.00	PASS
EGPRS1900	512	3	21.84	21.25	33.00	PASS
EGPRS1900	512	4	19.13	18.54	33.00	PASS
EGPRS1900	661	1	26.40	25.81	33.00	PASS
EGPRS1900	661	2	24.41	23.82	33.00	PASS
EGPRS1900	661	3	22.10	21.51	33.00	PASS
EGPRS1900	661	4	19.47	18.88	33.00	PASS
EGPRS1900	810	1	26.84	26.25	33.00	PASS
EGPRS1900	810	2	24.26	23.67	33.00	PASS
EGPRS1900	810	3	22.26	21.67	33.00	PASS
EGPRS1900	810	4	19.35	18.76	33.00	PASS

Remark:



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a: For getting the EIRP (Efficient Isotropic Radiated Power), the following formula should be taken to calculate it,

ERP [dBm] = Conducted Power [dBm] + Gain [dBd]

EIRP [dBm] = Conducted Power [dBm] + Gain [dBi]



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2. Peak-to-Average Ratio

2.1. Test Result

Band	Channel	Result(dB)	Limit(dB)	Verdict
GSM850	128	8.93	13	PASS
GSM850	190	8.96	13	PASS
GSM850	251	8.9	13	PASS
EGPRS850	128	11.8	13	PASS
EGPRS850	190	12.38	13	PASS
EGPRS850	251	11.97	13	PASS
GSM1900	512	9.1	13	PASS
GSM1900	661	9.04	13	PASS
GSM1900	810	9.07	13	PASS
EGPRS1900	512	12.23	13	PASS
EGPRS1900	661	11.94	13	PASS
EGPRS1900	810	12.90	13	PASS



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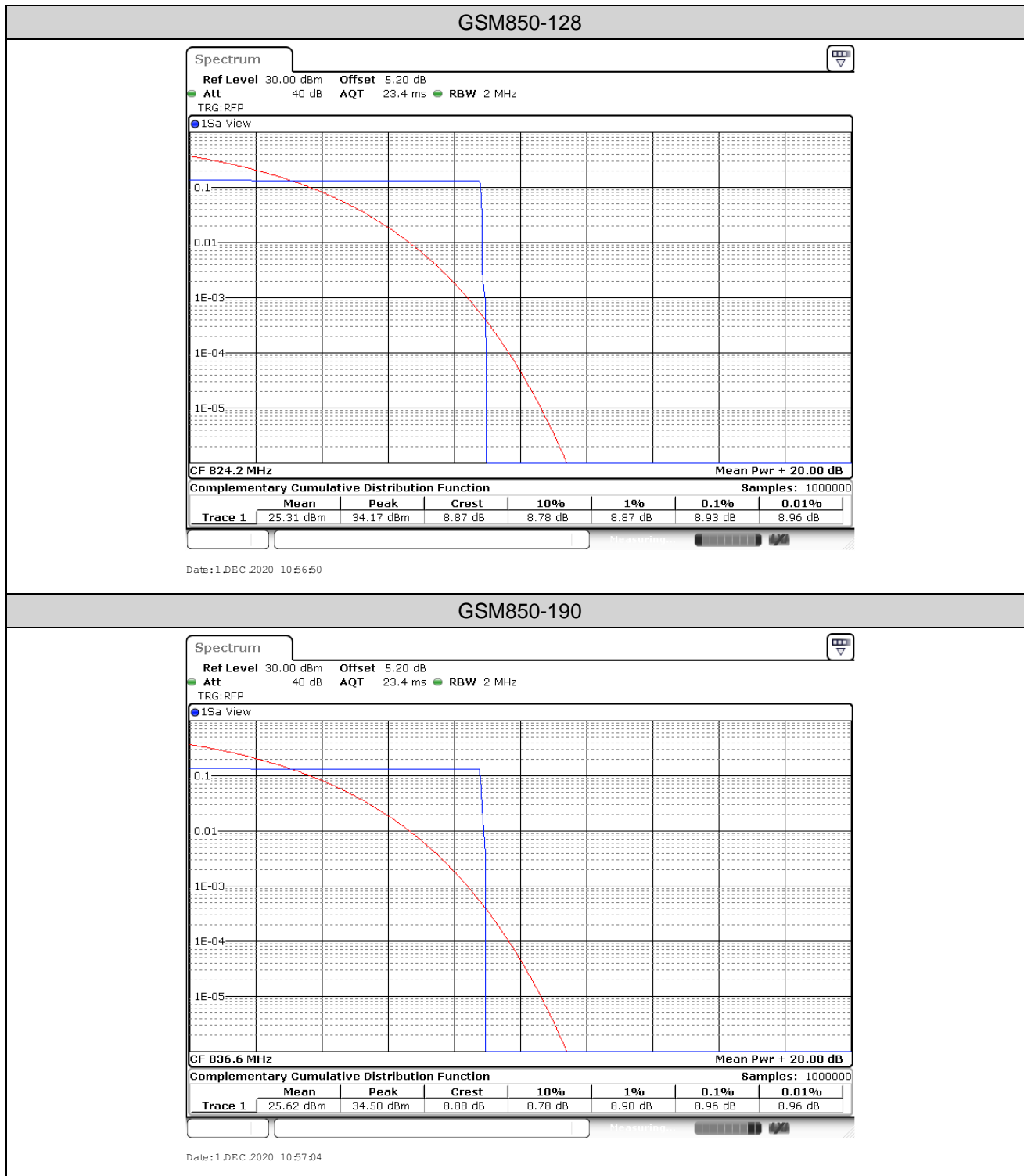
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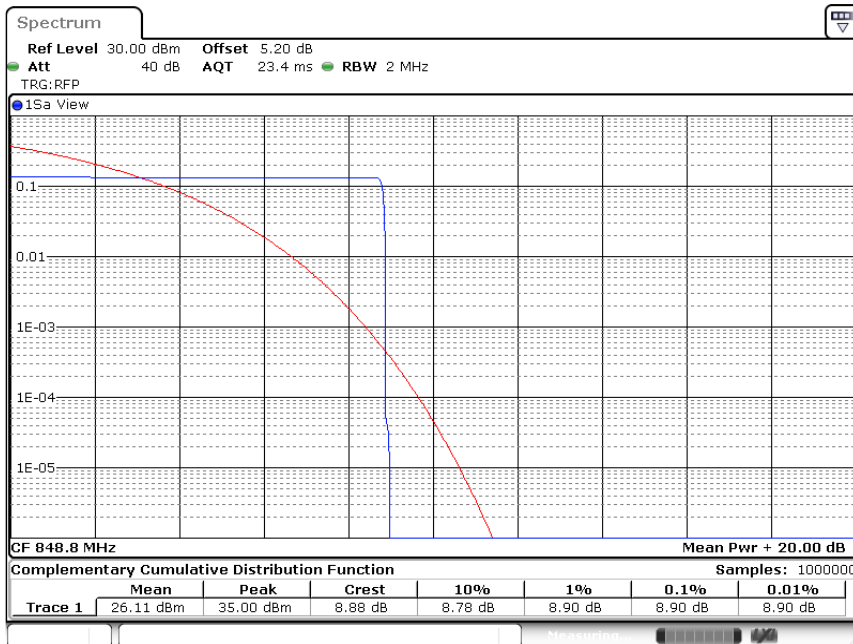
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2.2.Part II - Test Plots

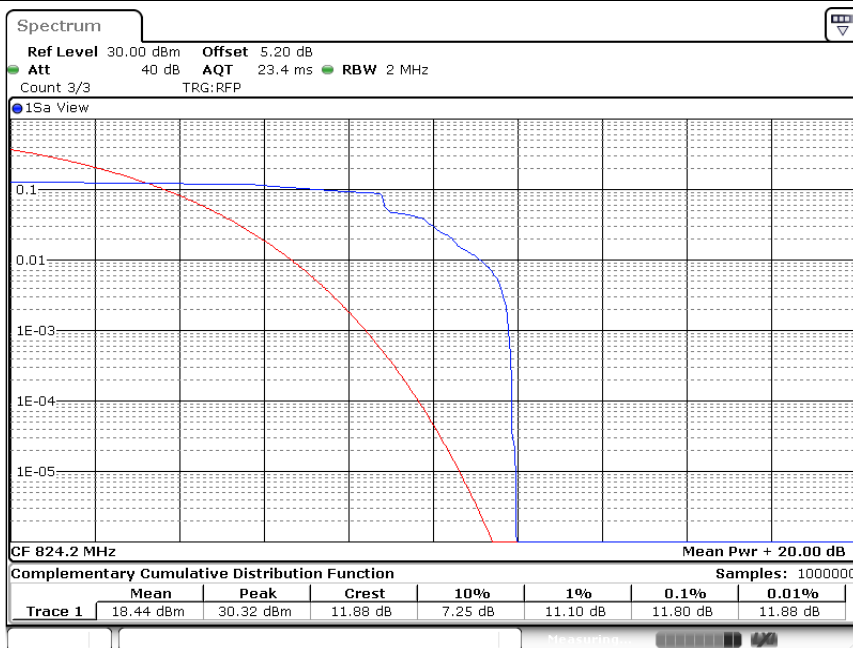


GSM850-251



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EGPRS850-128



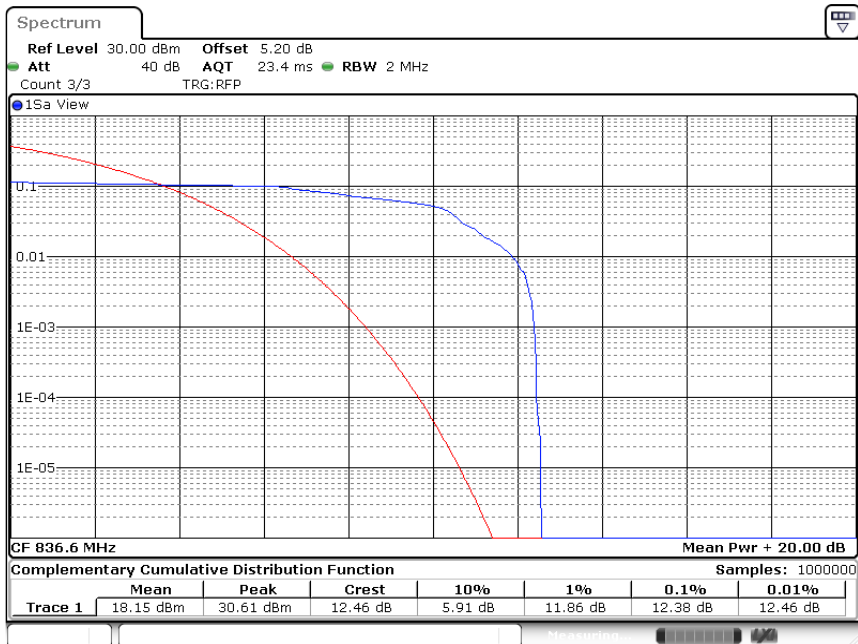
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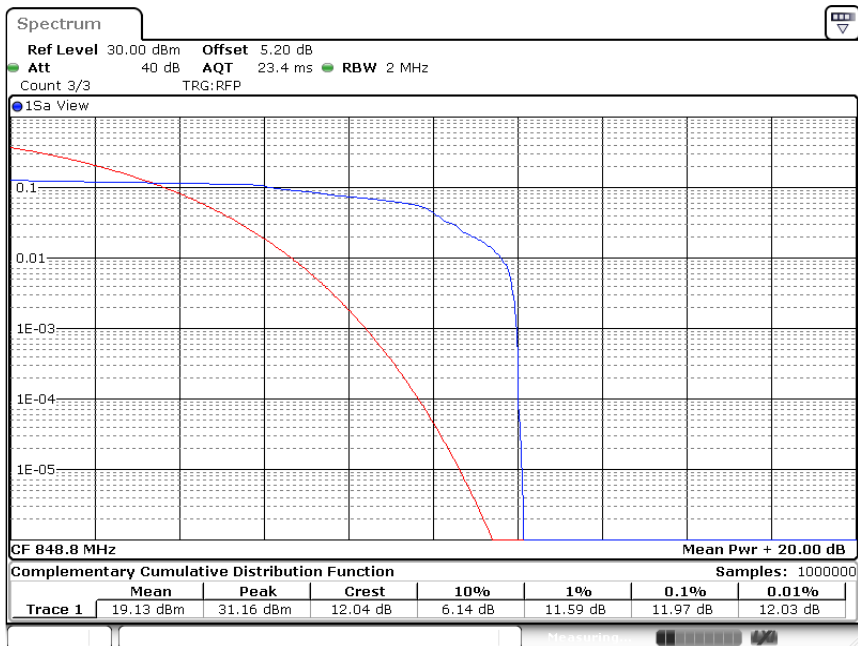
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EGPRS850-190



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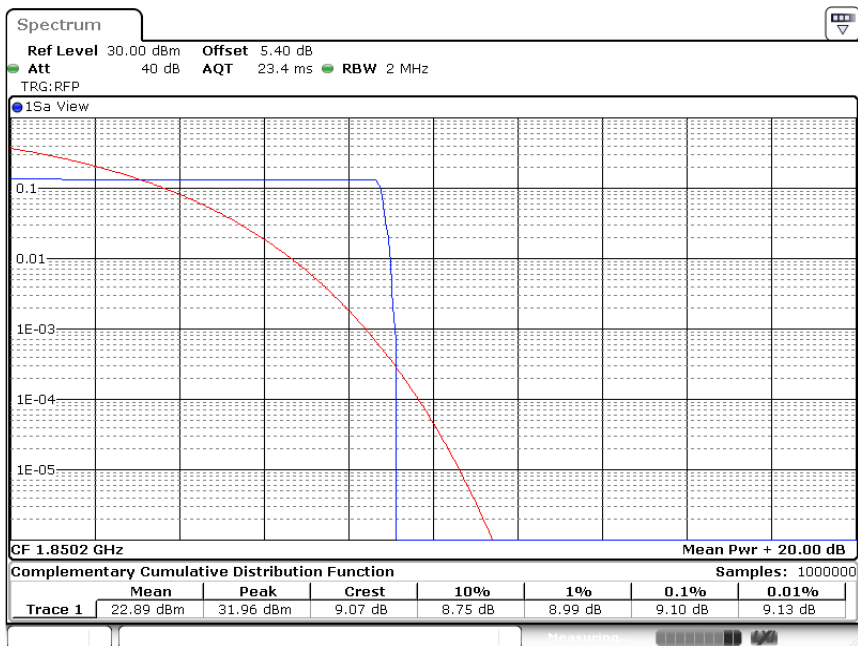
EGPRS850-251



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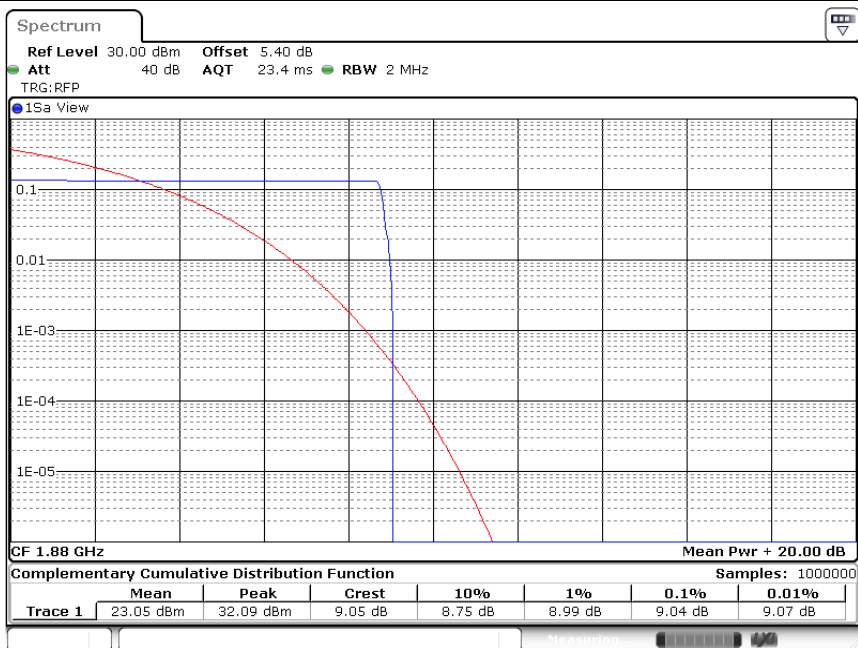


GSM1900-512



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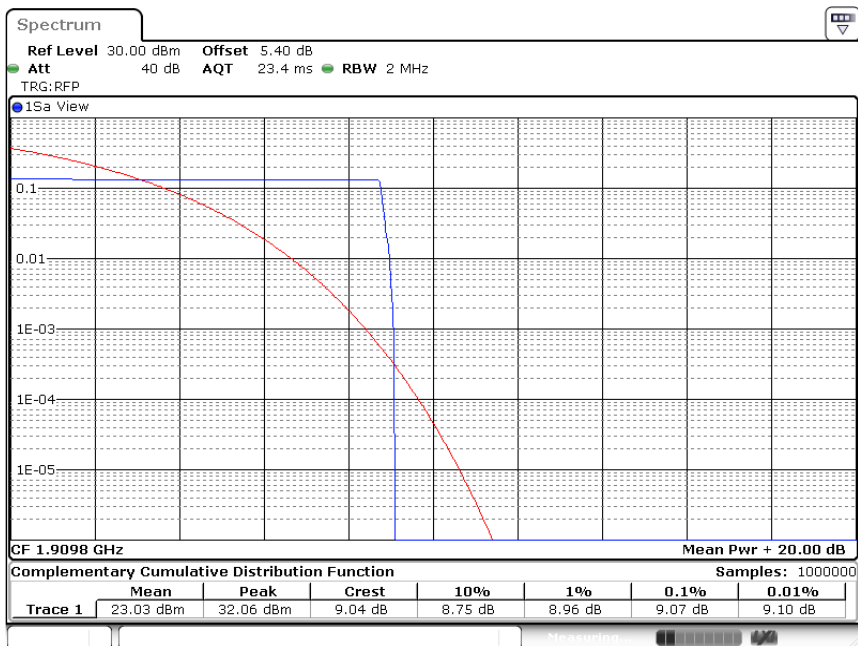
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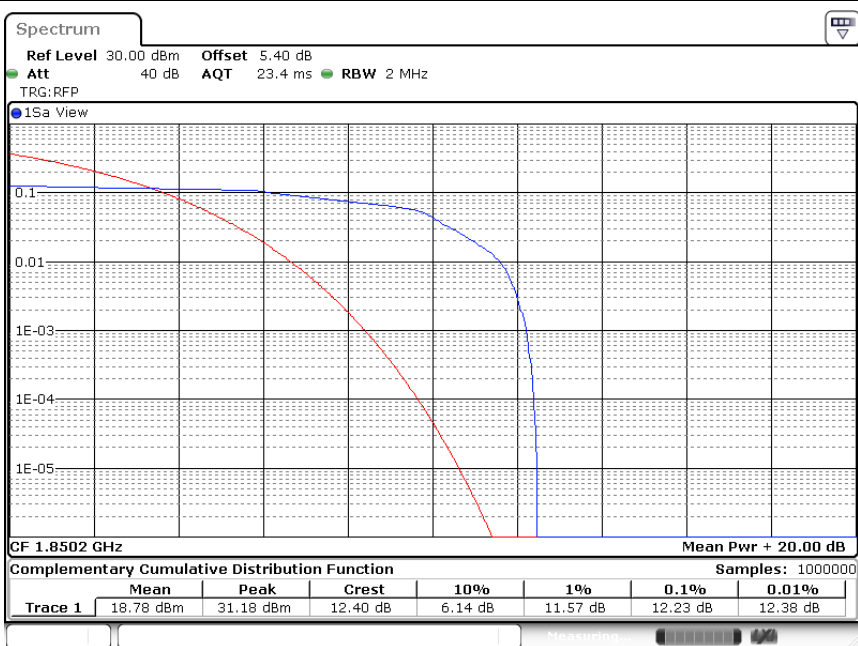


GSM1900-810



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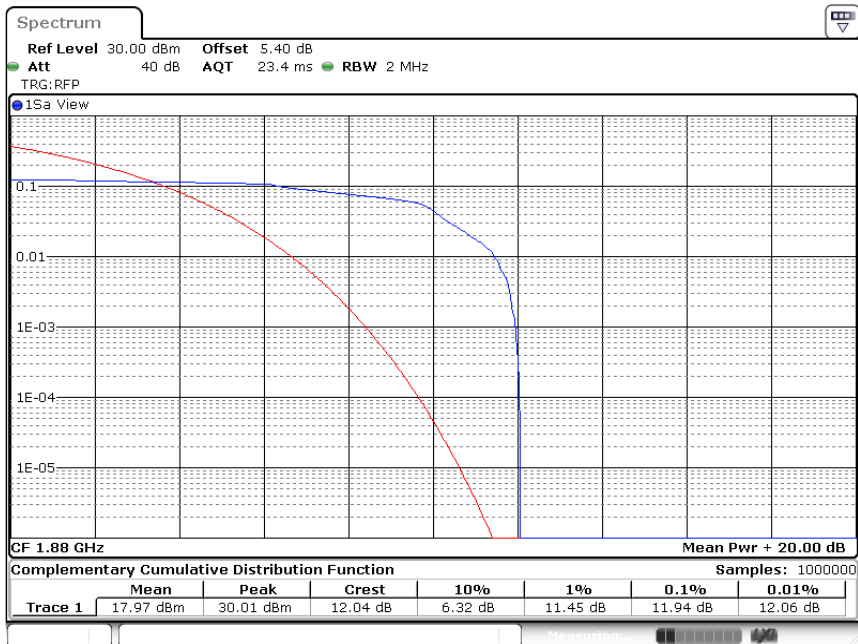
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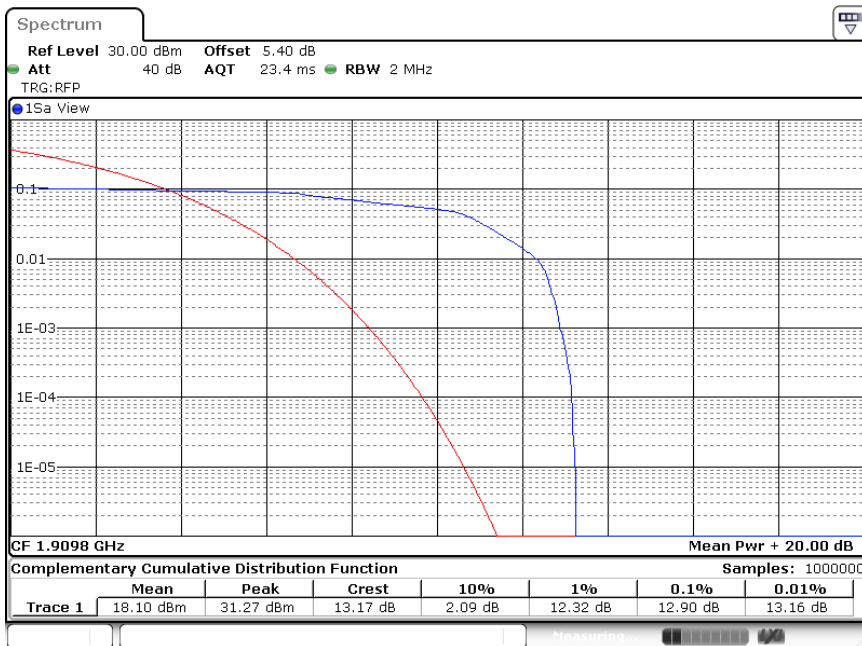


EGPRS1900-661



Date: 1 DEC 2020 10:08:41

EGPRS1900-810



Date: 15 DEC 2020 17:07:08



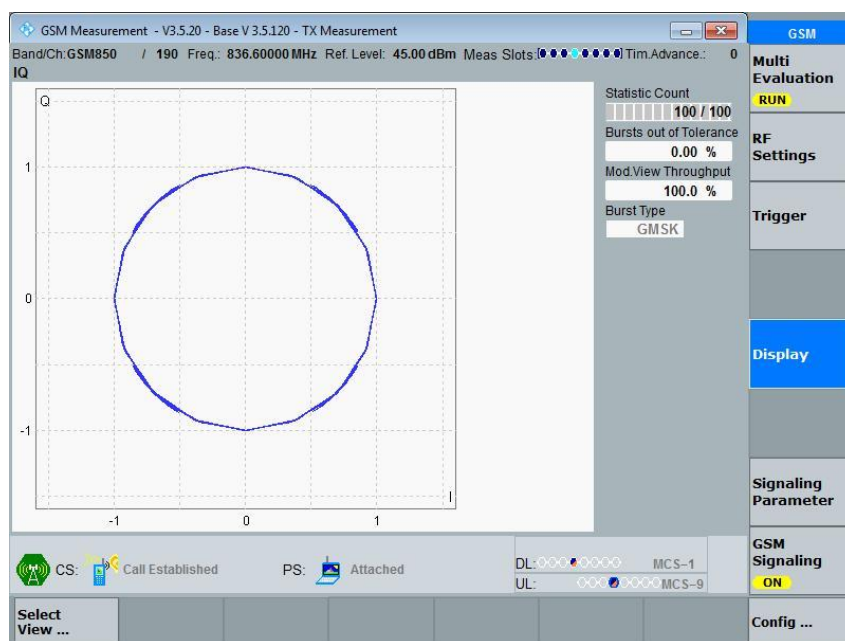
3. Modulation Characteristics

3.1. For GSM

3.1.1. Test Band = GSM 850

3.1.1.1. Test Mode = GSM/TM1

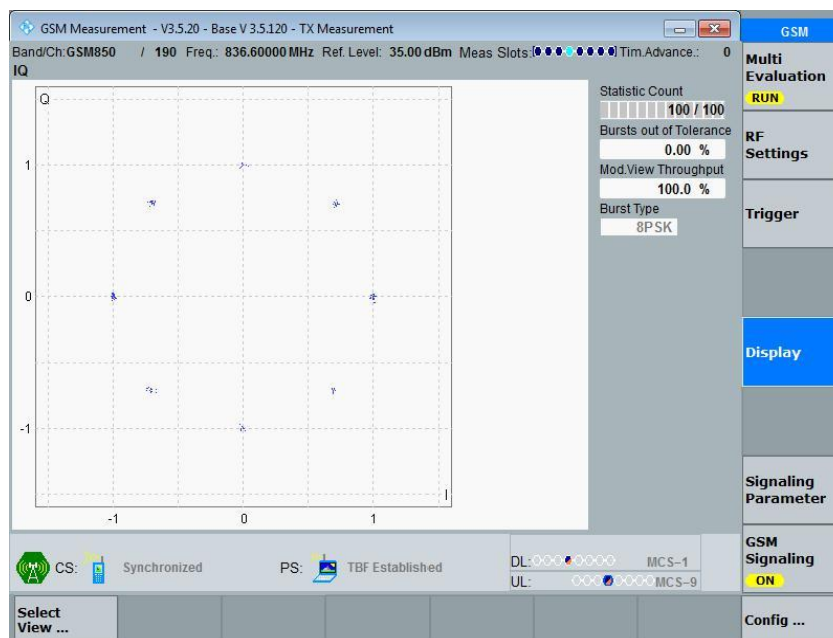
3.1.1.1.1. Test Channel = MCH





3.1.1.2. Test Mode = GSM/TM2

3.1.1.2.1. Test Channel = MCH



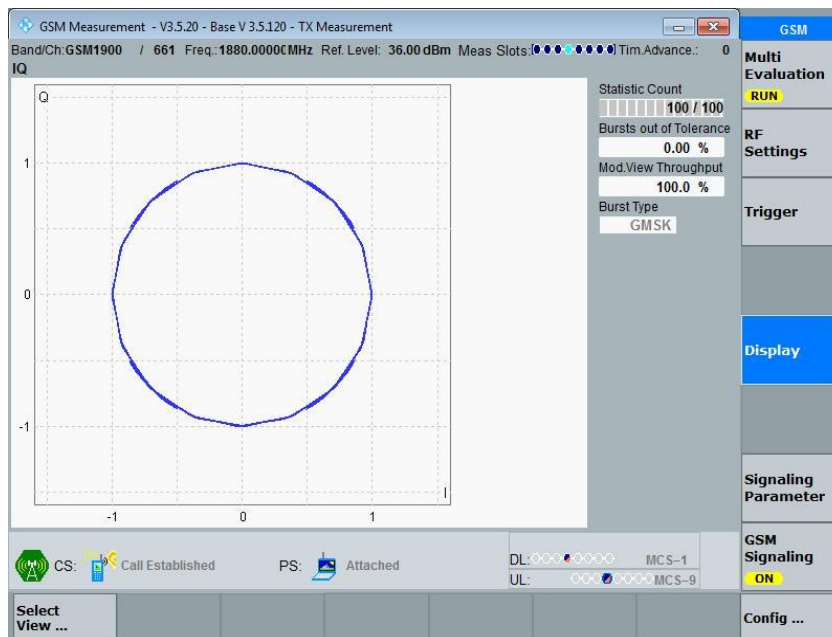
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3.1.2. Test Band = GSM 1900

3.1.2.1. Test Mode = GSM/TM1

3.1.2.1.1. Test Channel = MCH



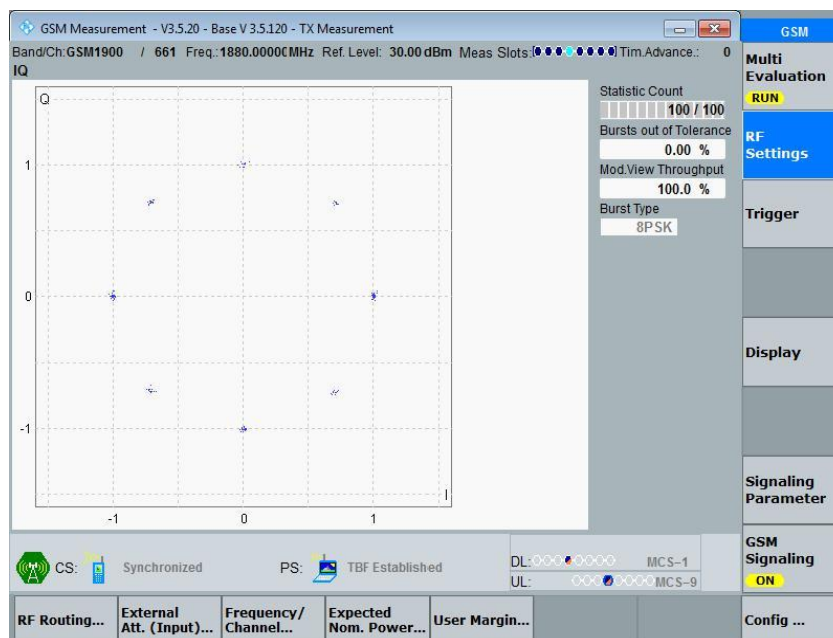
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3.1.2.2. Test Mode = GSM/TM2

3.1.2.2.1. Test Channel = MCH



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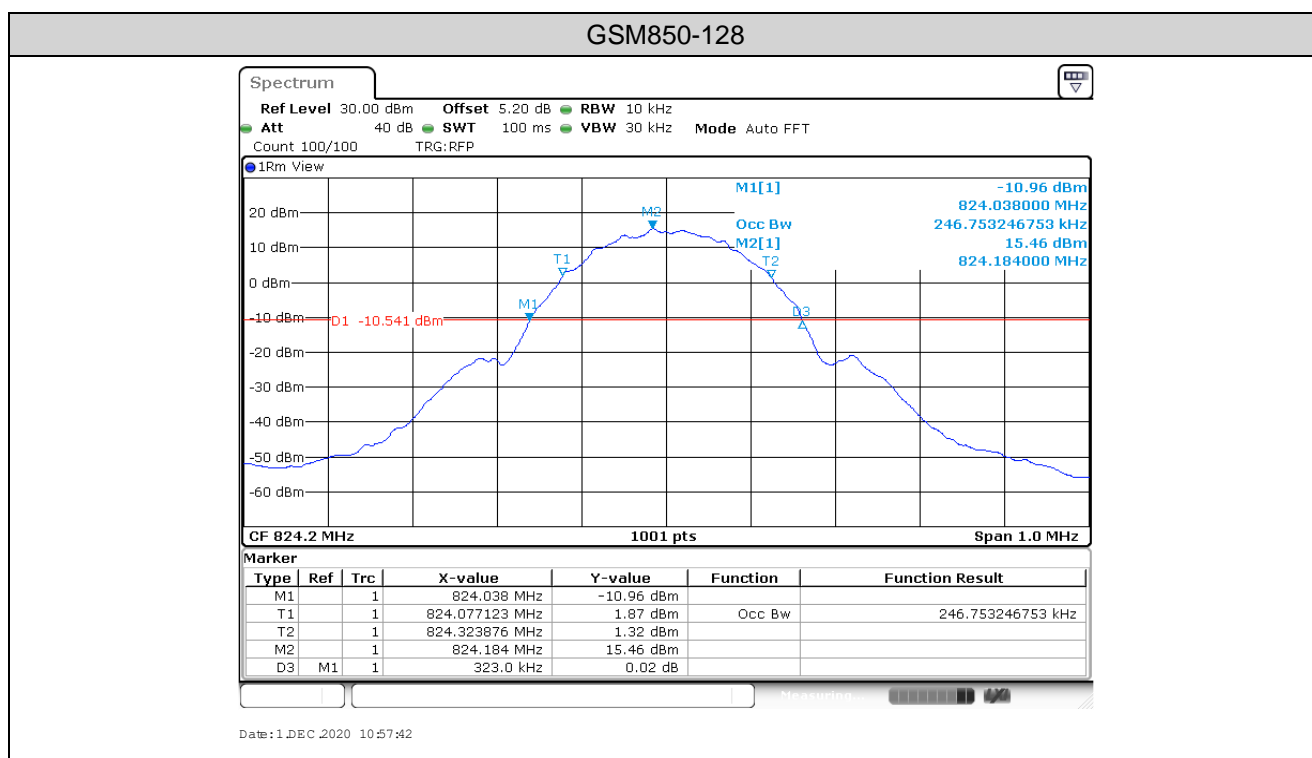


4. 26dB Bandwidth and Occupied Bandwidth

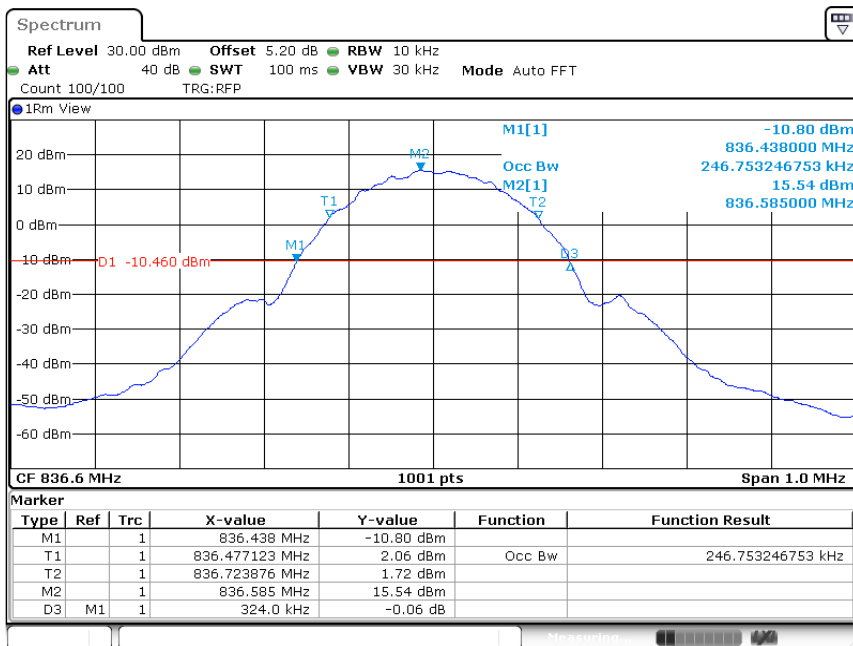
4.1. Test Result

Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	0.247	0.323	---	PASS
GSM850	190	0.247	0.324	---	PASS
GSM850	251	0.247	0.323	---	PASS
EGPRS850	128	0.245	0.318	---	PASS
EGPRS850	190	0.245	0.319	---	PASS
EGPRS850	251	0.244	0.318	---	PASS
GSM1900	512	0.248	0.324	---	PASS
GSM1900	661	0.249	0.324	---	PASS
GSM1900	810	0.248	0.324	---	PASS
EGPRS1900	512	0.246	0.318	---	PASS
EGPRS1900	661	0.246	0.317	---	PASS
EGPRS1900	810	0.246	0.320	---	PASS

4.2. Test Plots

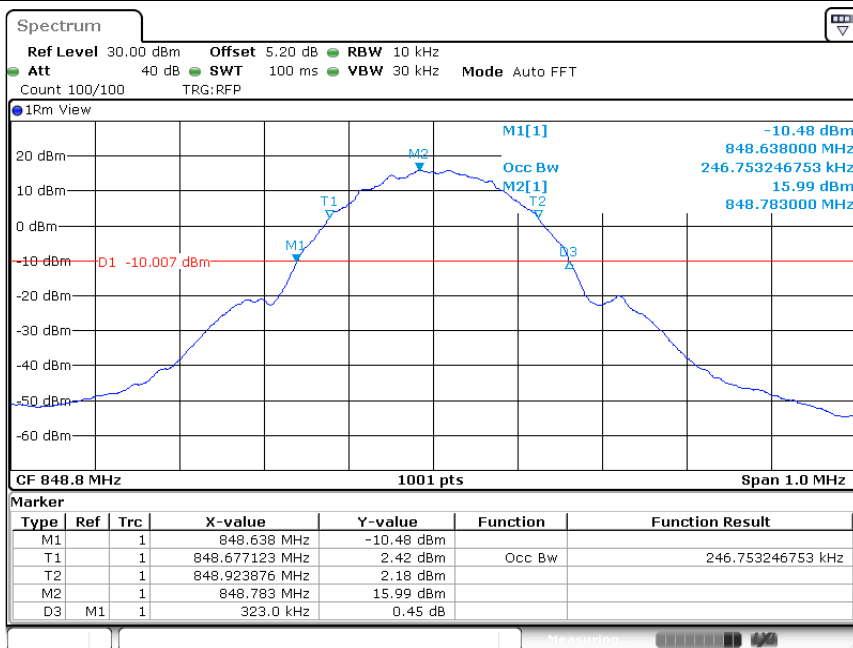


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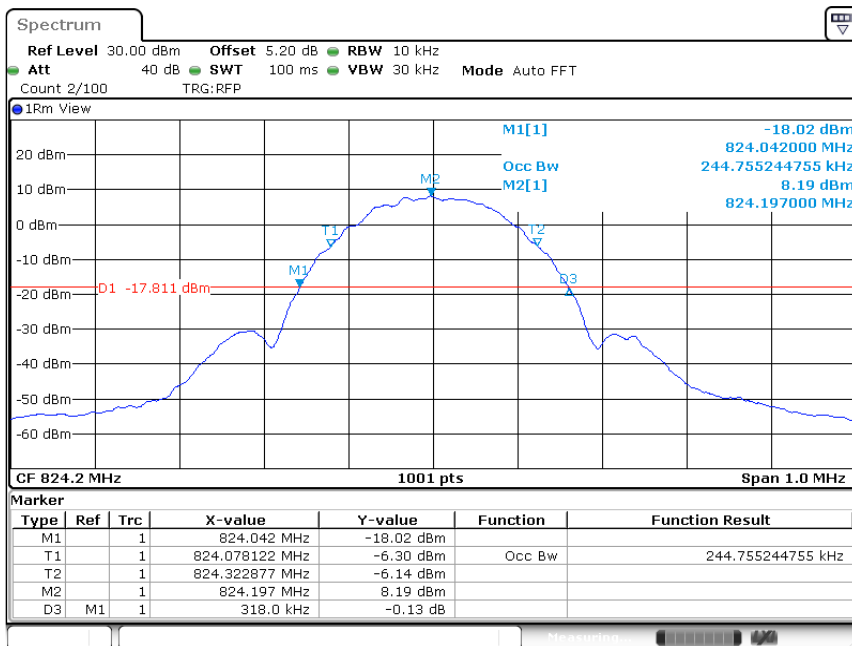
GSM850-251



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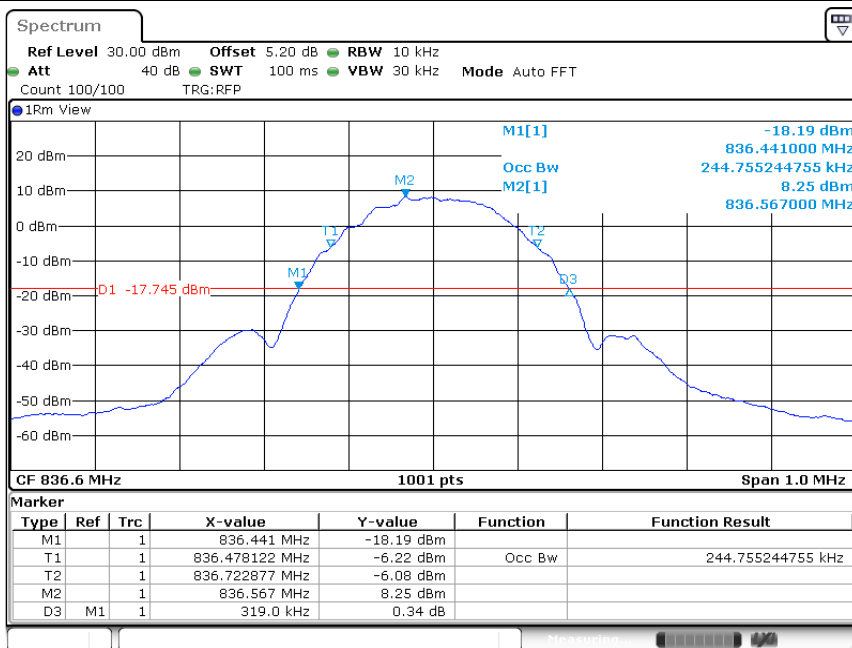


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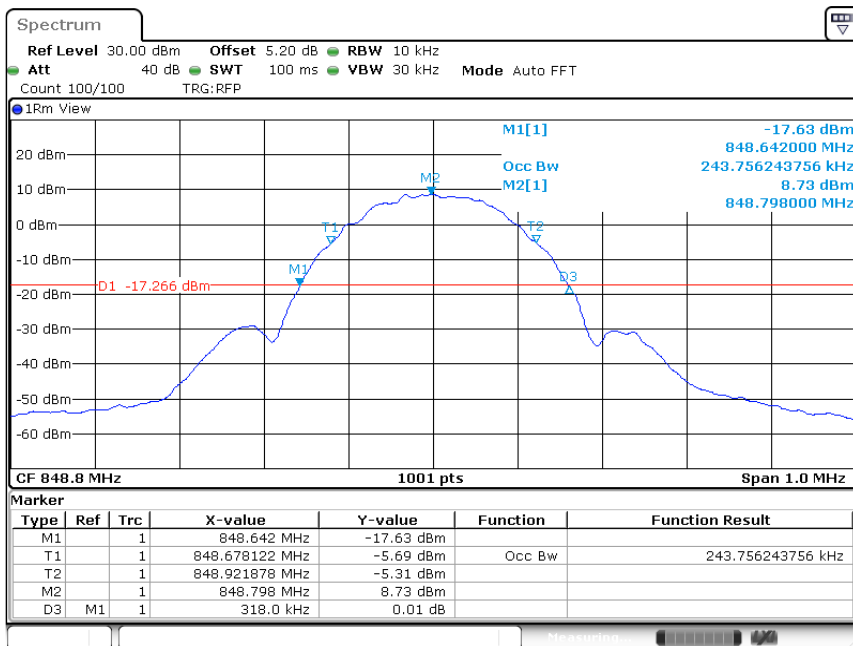
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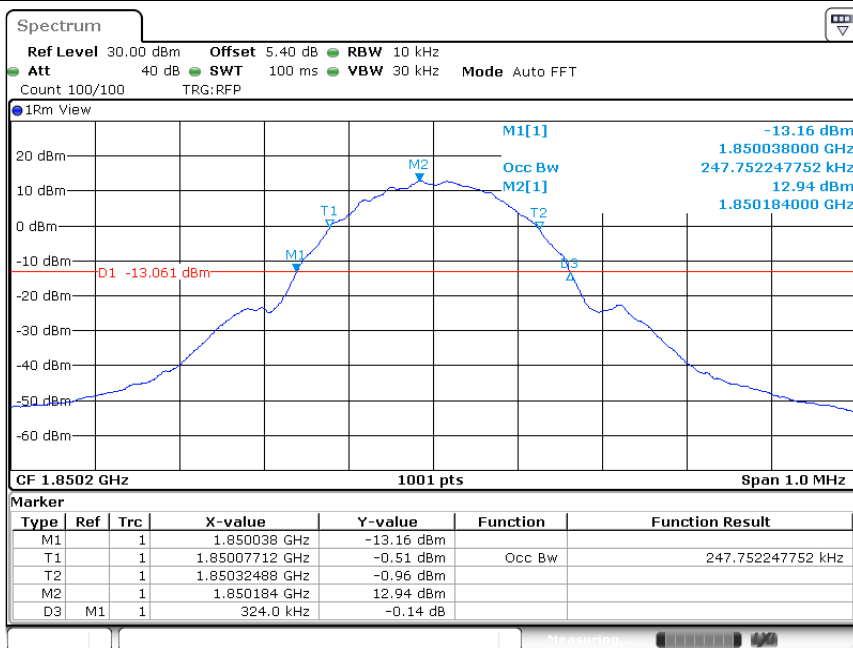


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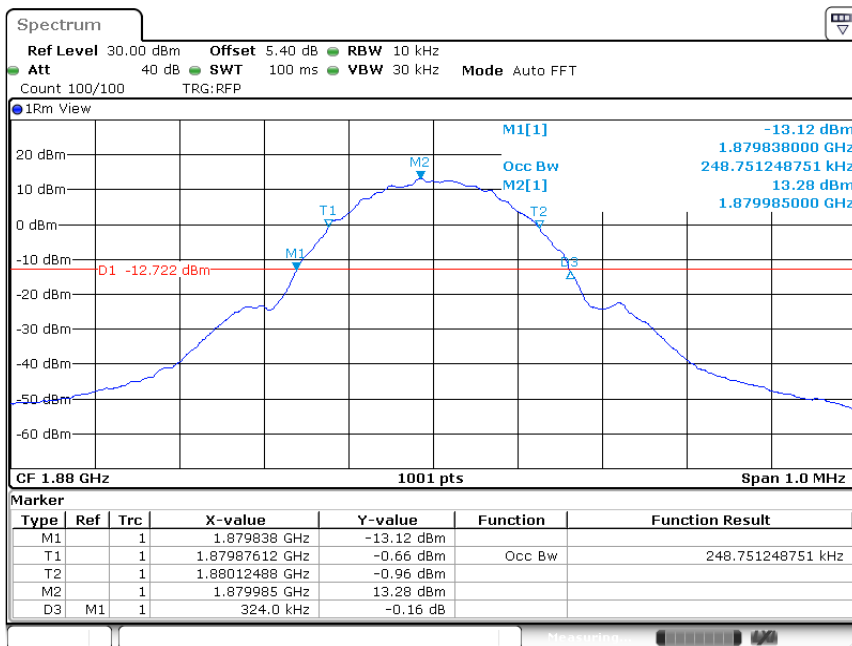
GSM1900-512



Date: 1 DEC 2020 10:29:14

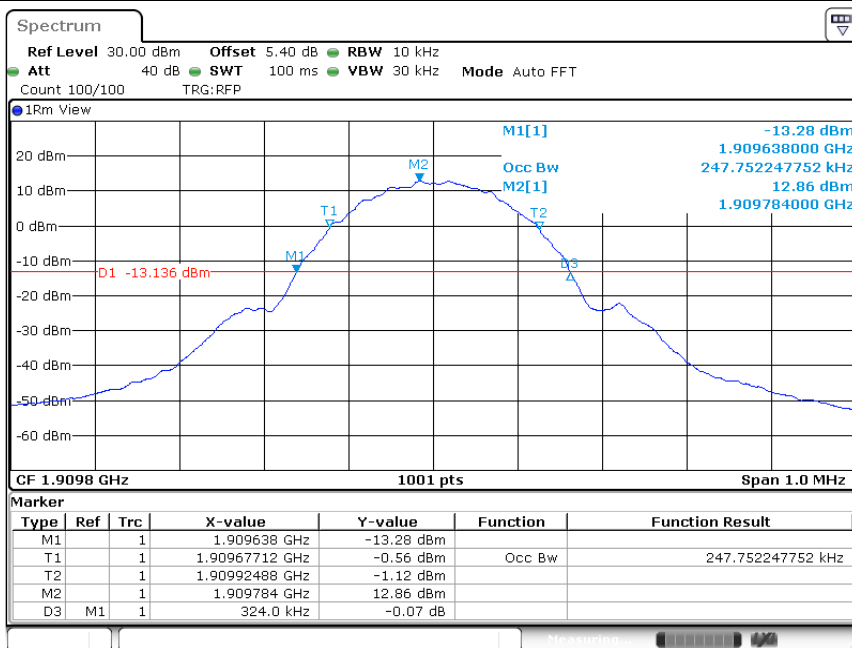


GSM1900-661



Date: 1 DEC 2020 10:29:37

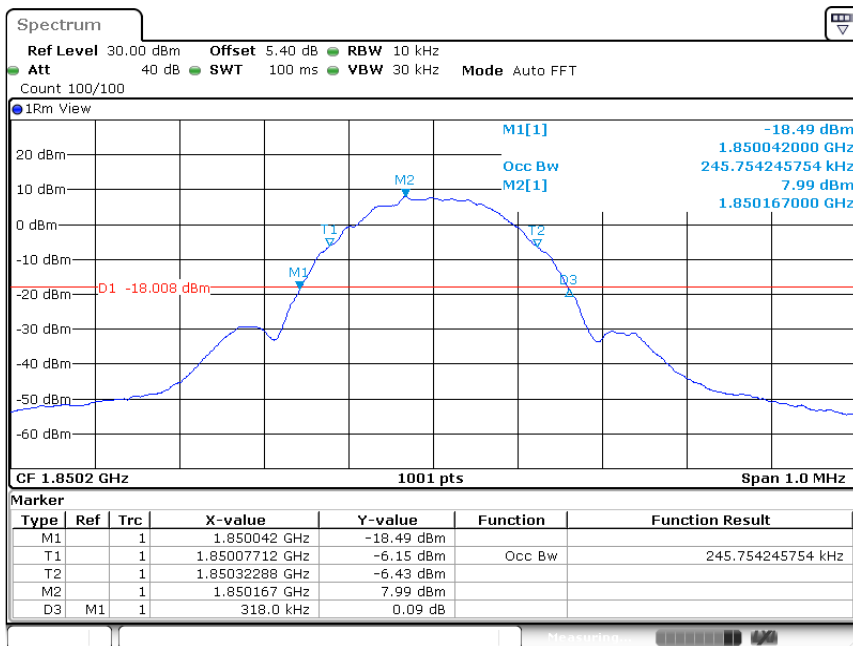
GSM1900-810



Date: 1 DEC 2020 10:30:01

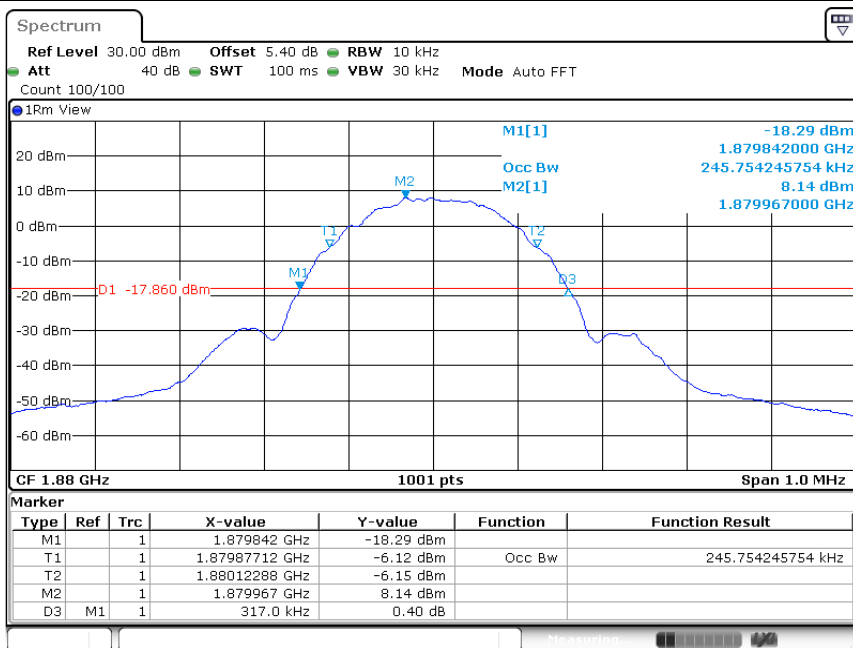


EGPRS1900-512



Date: 1 DEC 2020 10:45:56

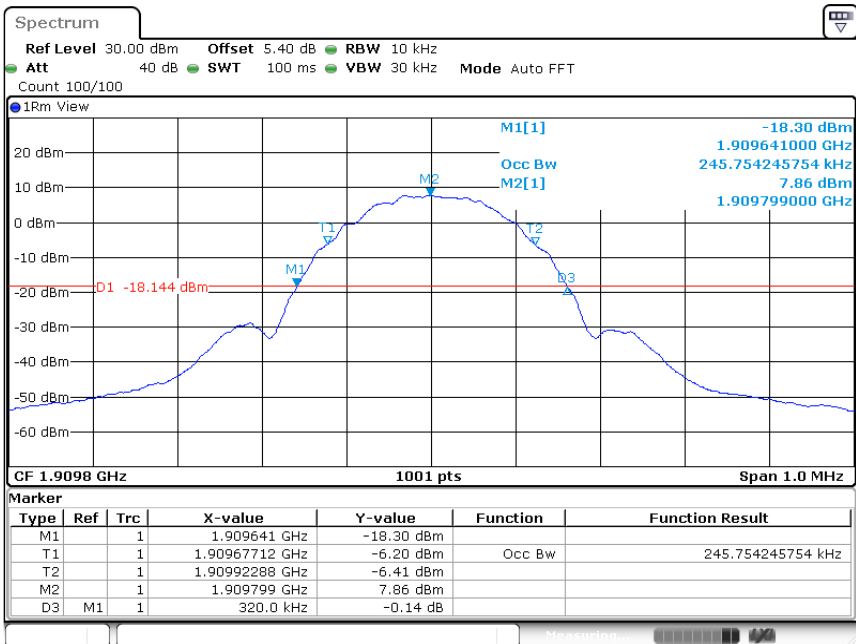
EGPRS1900-661



Date: 1 DEC 2020 10:46:19



EGPRS1900-810



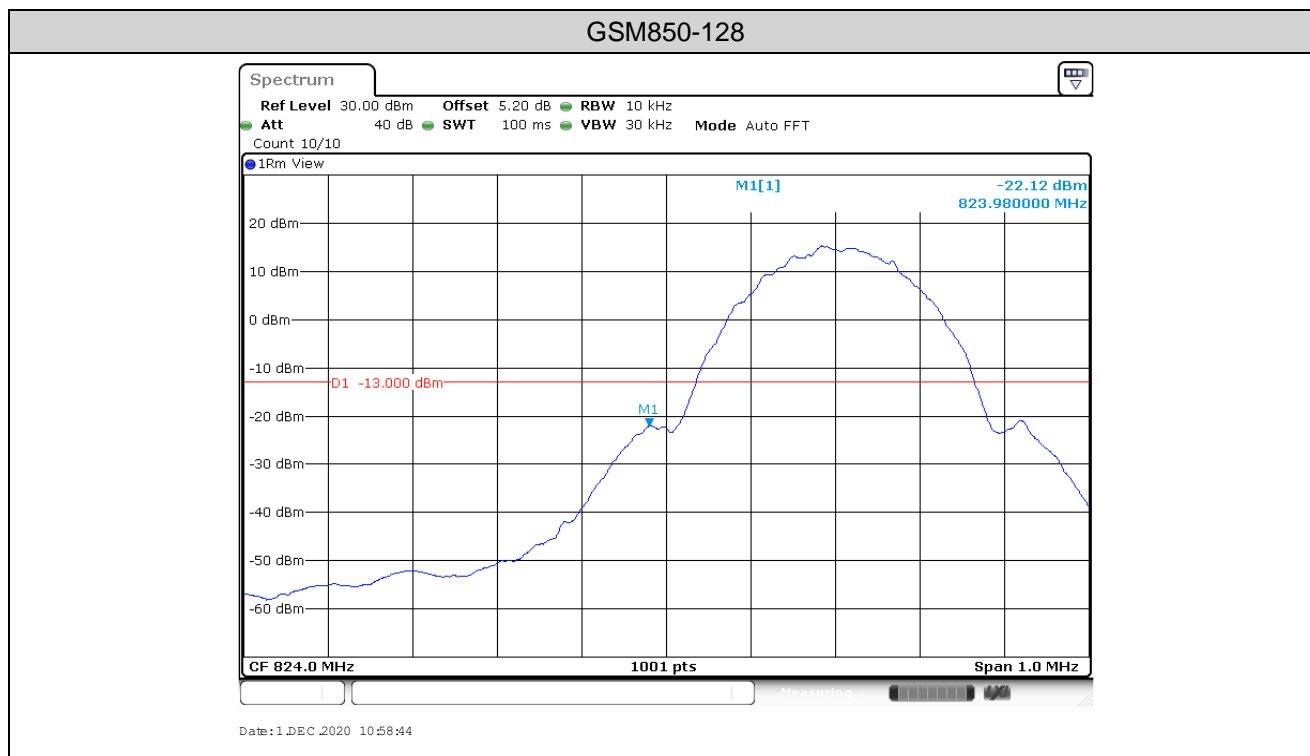
Date: 1 DEC 2020 10:46:42





5. Band Edge Compliance

5.1. Test Plots

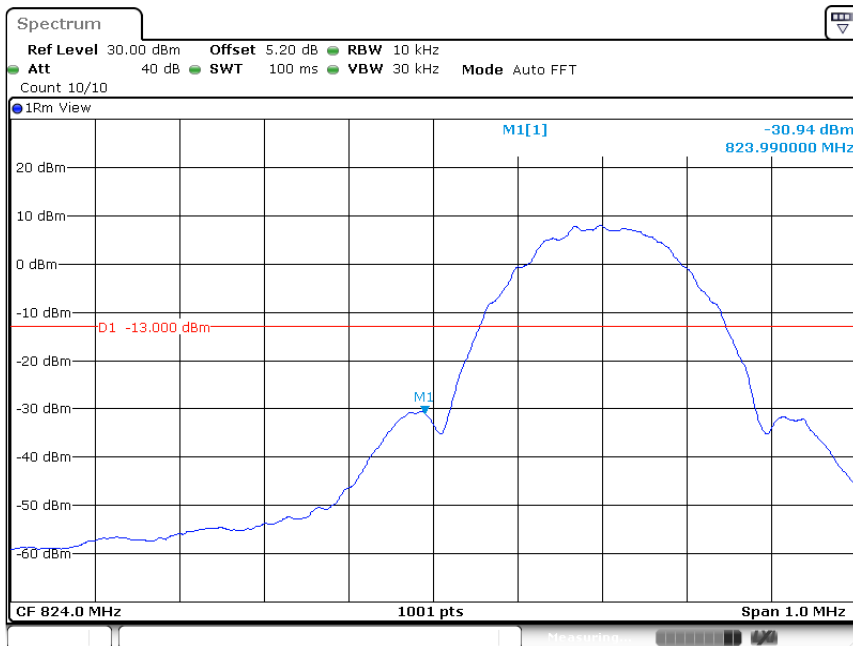


GSM850-251



Date: 1 DEC 2020 10:58:58

EGPRS850-128



Date: 1 DEC 2020 11:04:34

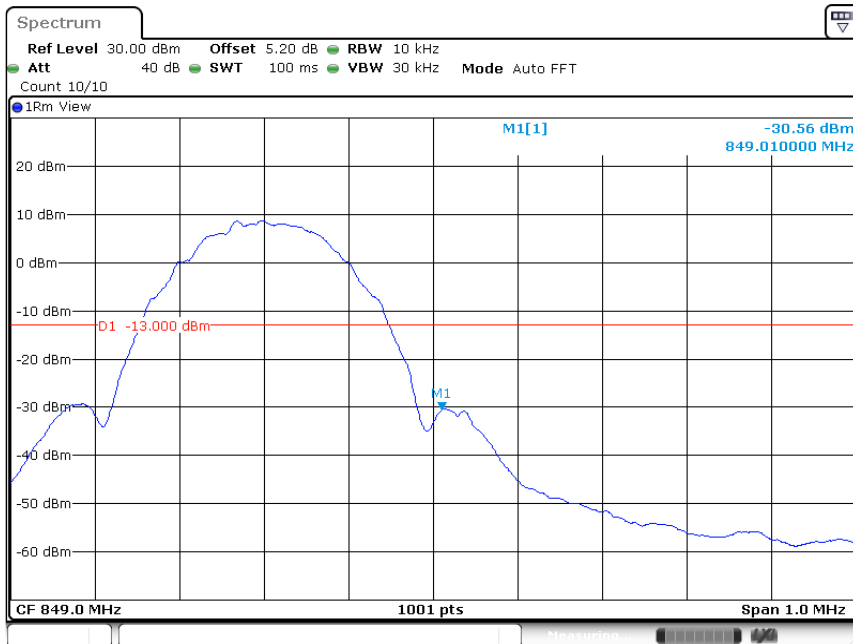


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EGPRS850-251



Date: 1 DEC 2020 11:04:48

GSM1900-512



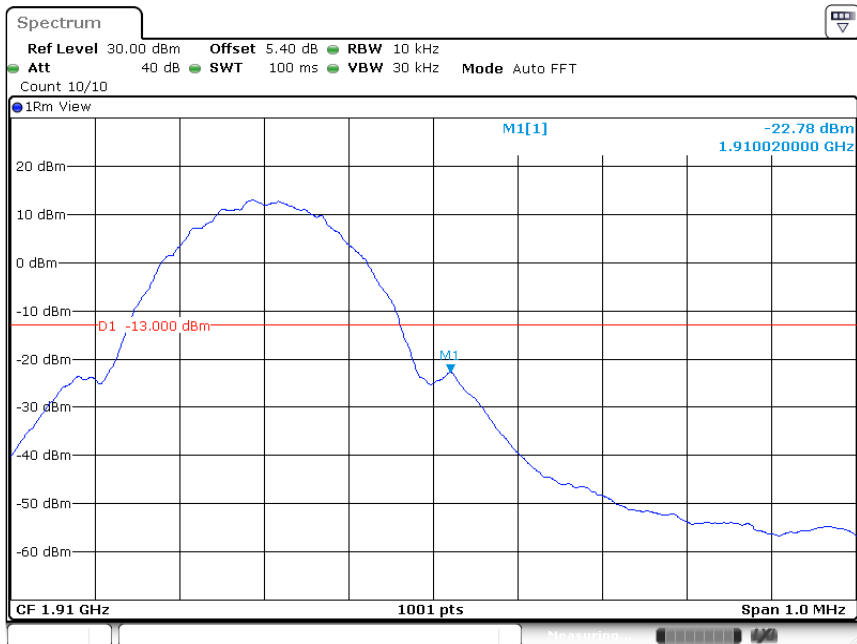
Date: 1 DEC 2020 10:37:05



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GSM1900-810



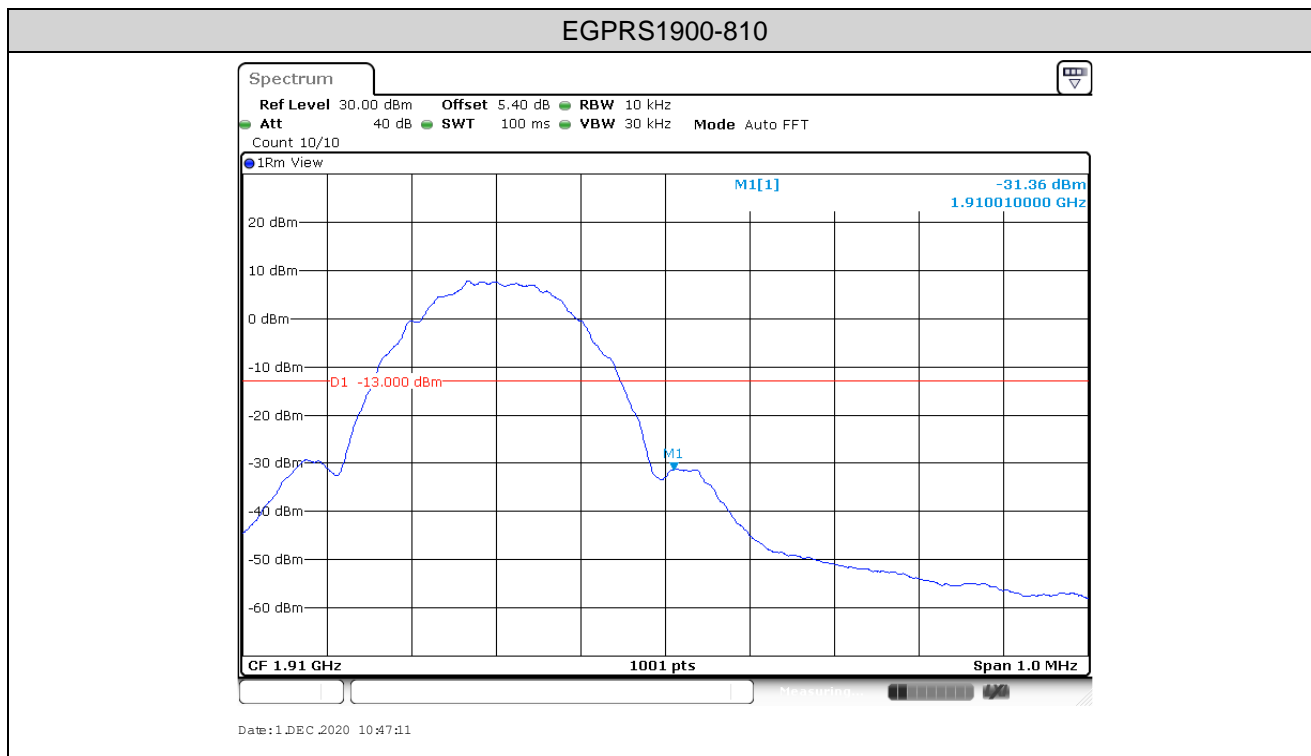
Date: 1 DEC 2020 10:37:20

EGPRS1900-512



Date: 1 DEC 2020 10:46:57





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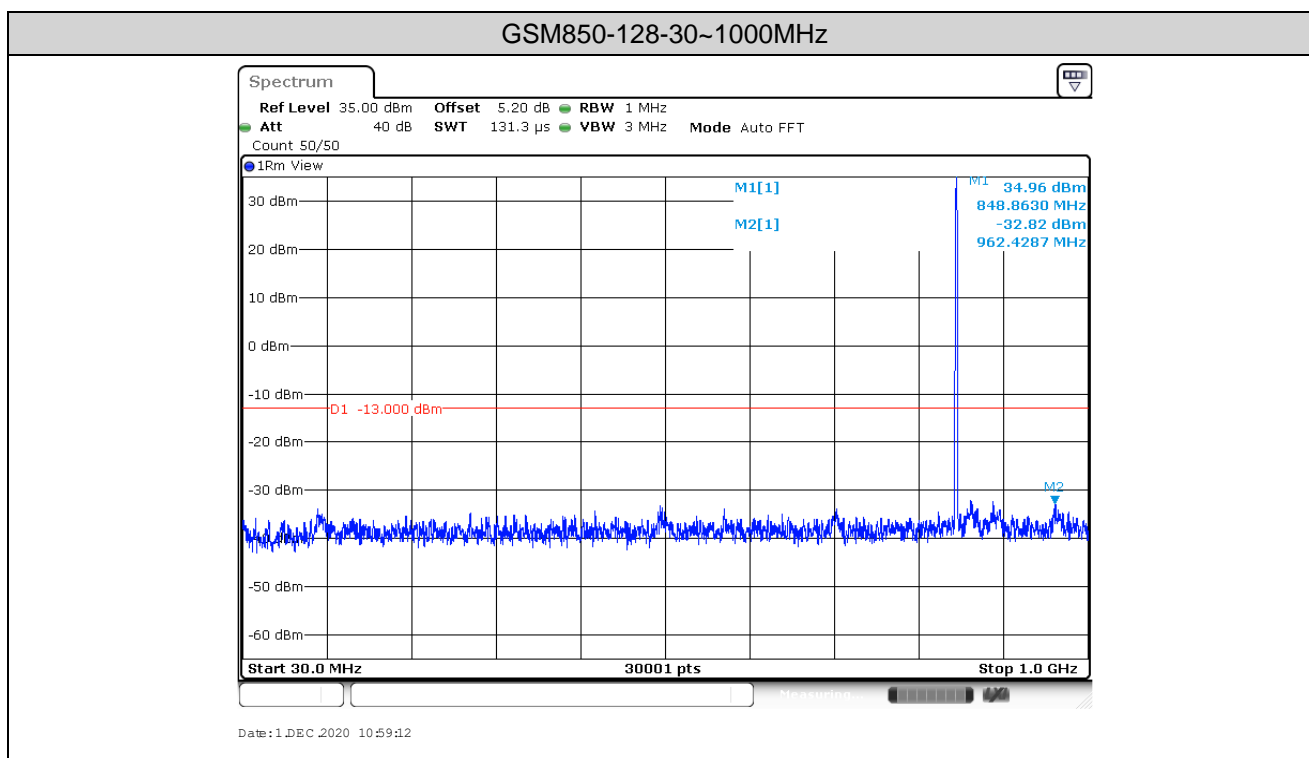


6. Spurious Emission at Antenna Terminal

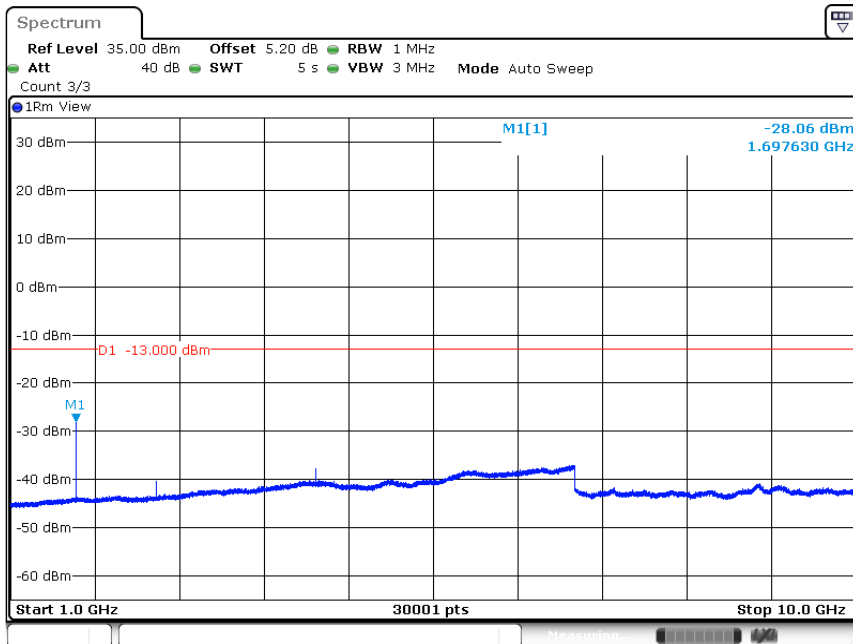
Remark1: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = $k * (\text{Span} / RBW)$ " with k between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

Remark2: only the worst case data displayed in this report.

6.1. Test Plots

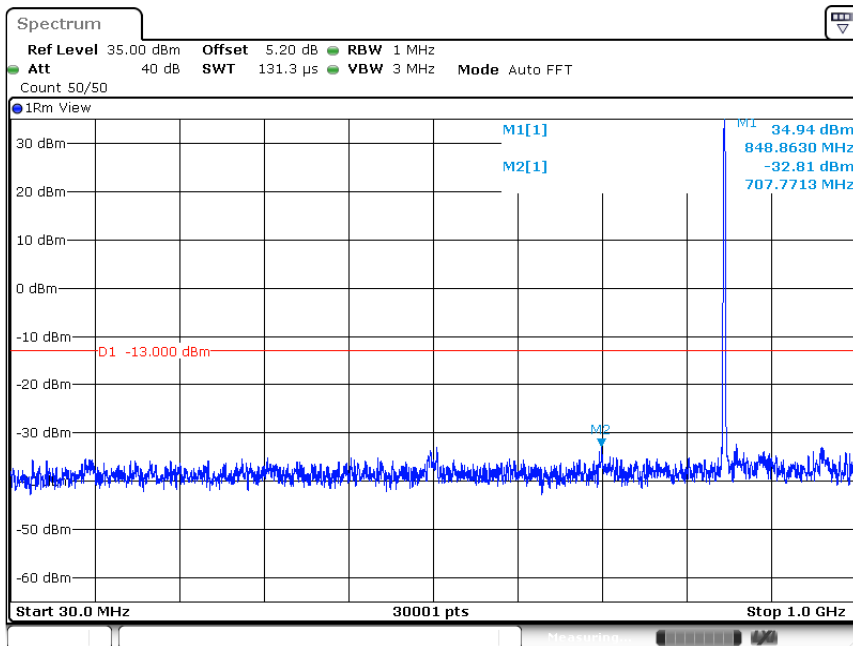


GSM850-128-1000~10000MHz



Date: 1 DEC 2020 10:59:37

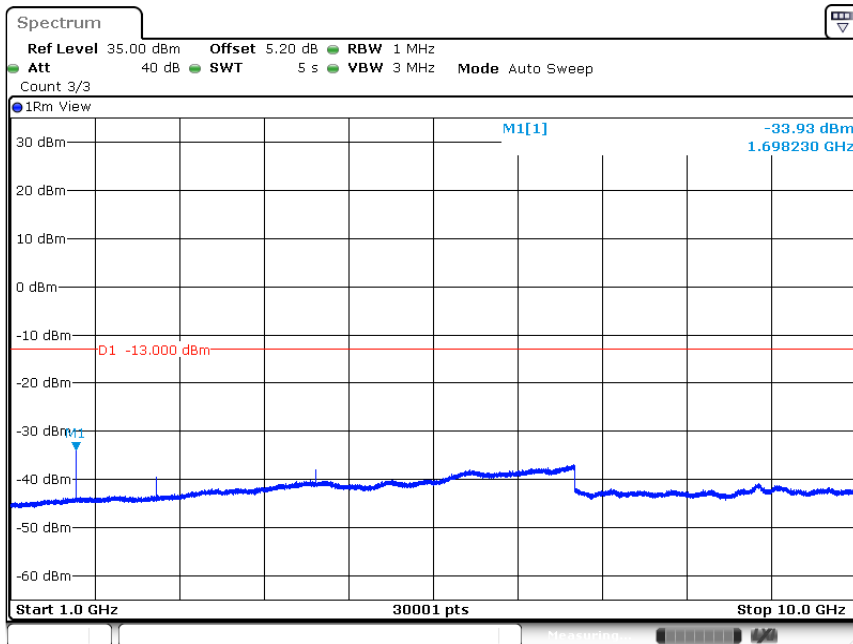
GSM850-190-30~1000MHz



Date: 1 DEC 2020 10:59:50

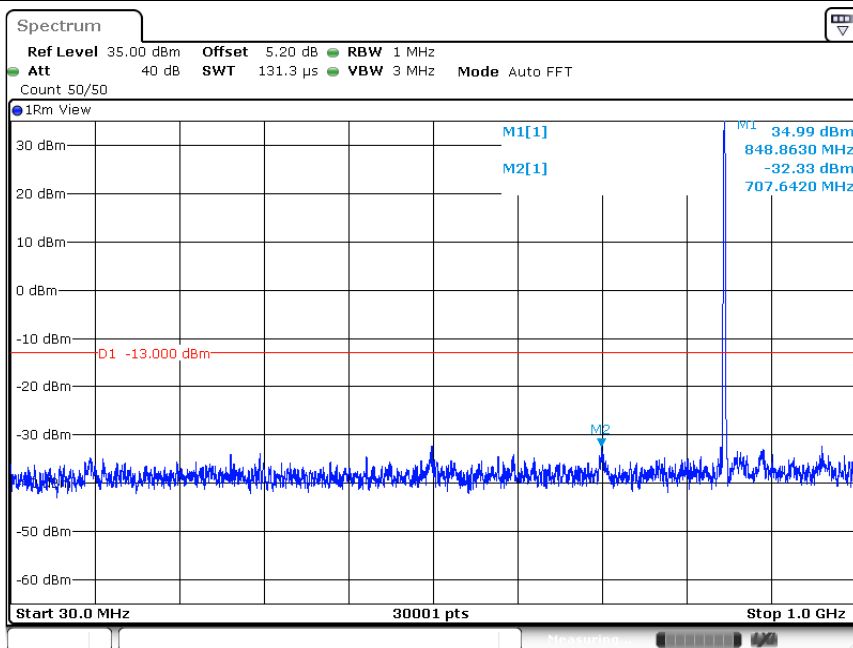


GSM850-190-1000~10000MHz



Date: 1 DEC 2020 11:00:15

GSM850-251-30~1000MHz



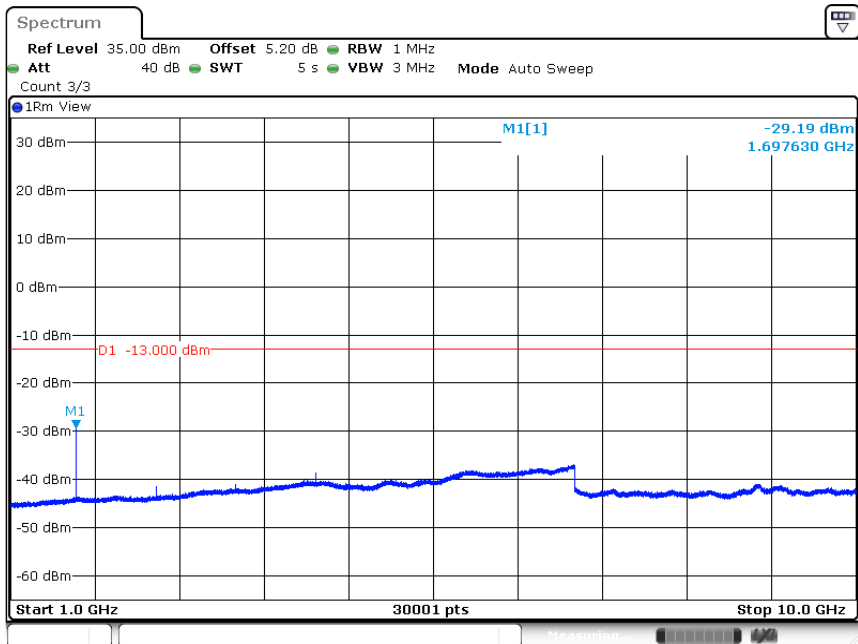
Date: 1 DEC 2020 11:00:29



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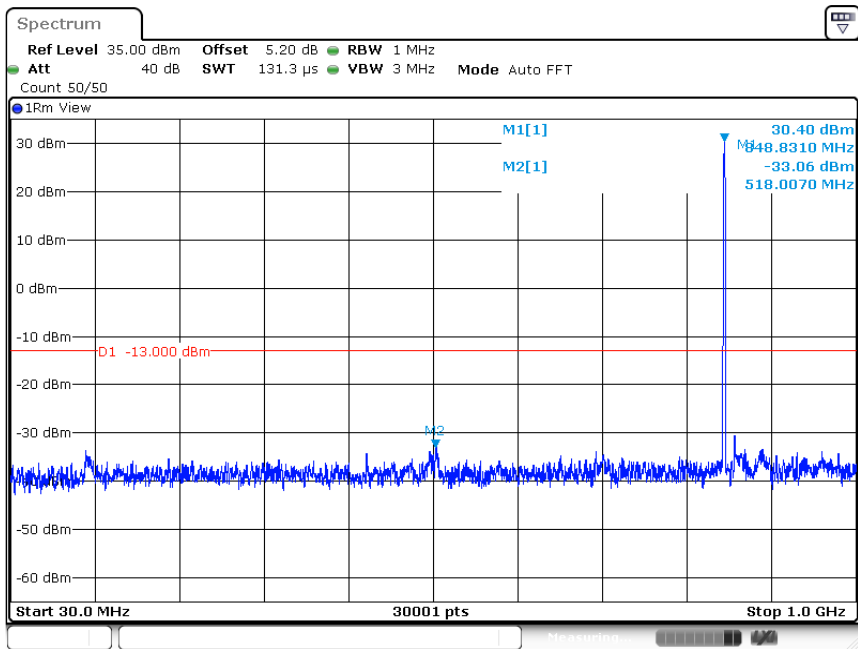
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GSM850-251-1000~10000MHz



Date: 1 DEC 2020 11:00:53

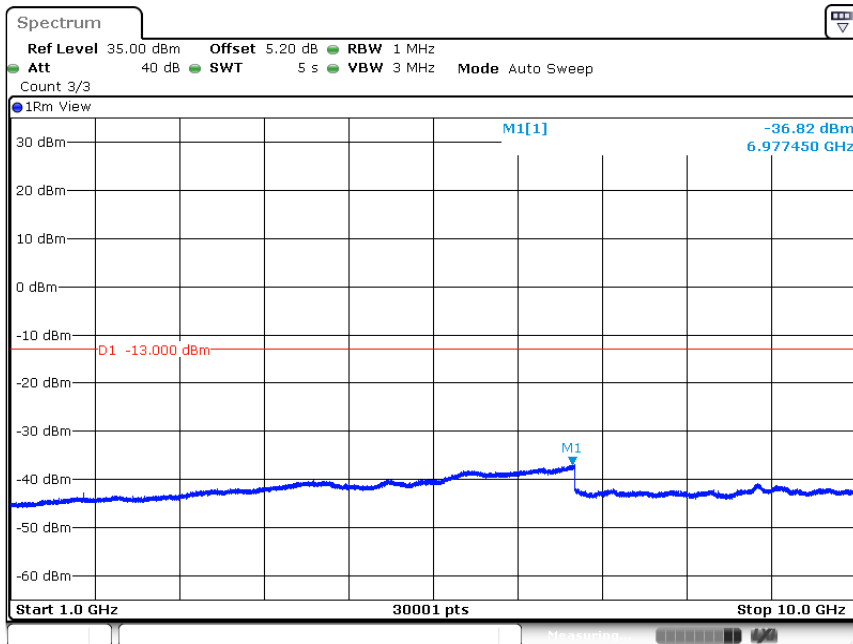
EGPRS850-128-30~1000MHz



Date: 1 DEC 2020 11:05:02

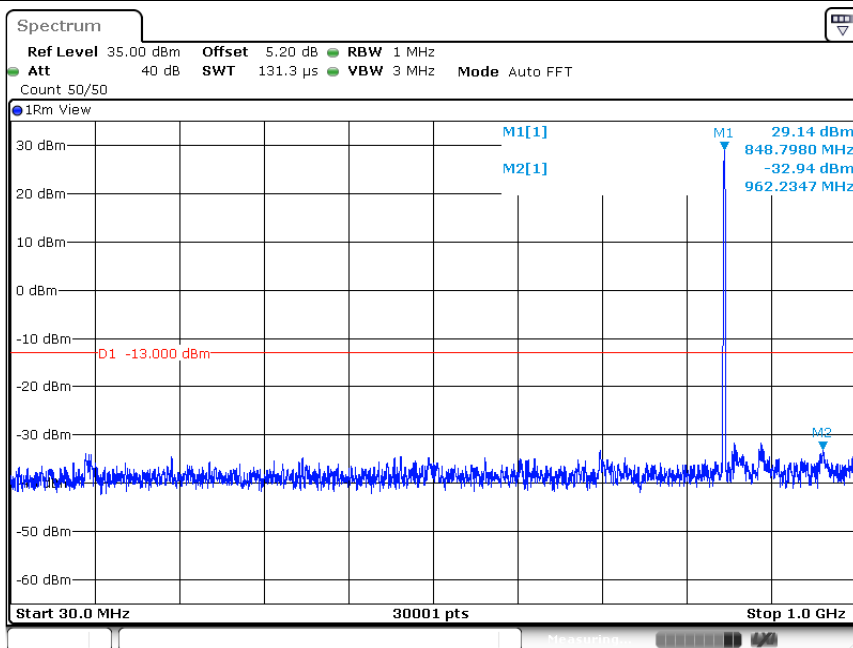


EGPRS850-128-1000~10000MHz



Date: 1 DEC 2020 11:05:26

EGPRS850-190-30~1000MHz



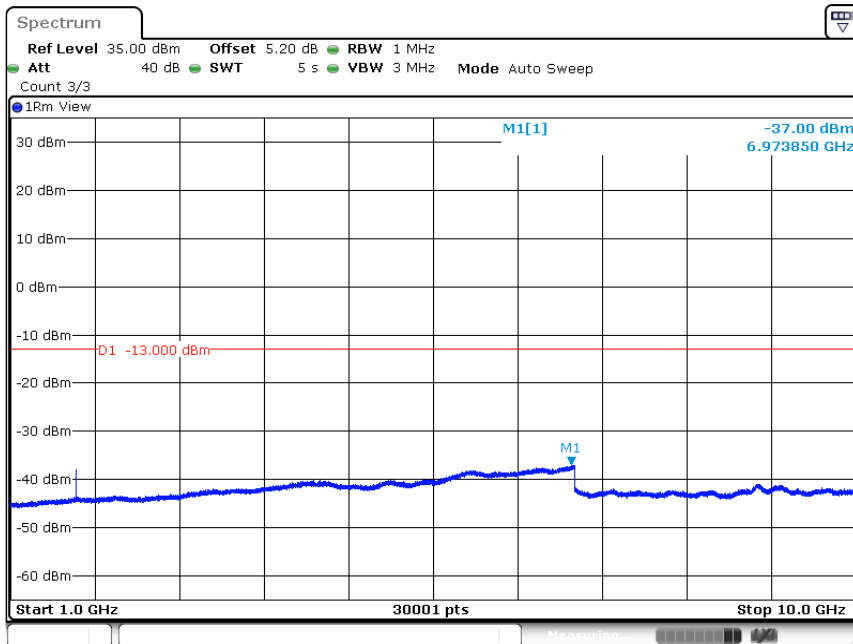
Date: 1 DEC 2020 11:05:40



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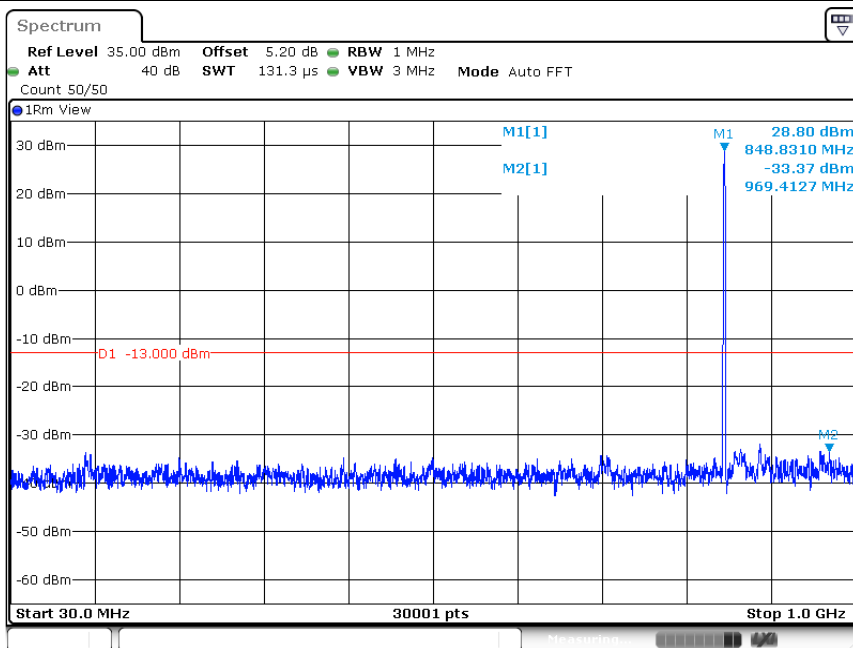
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EGPRS850-190-1000~10000MHz



Date: 1 DEC 2020 11:06:04

EGPRS850-251-30~1000MHz



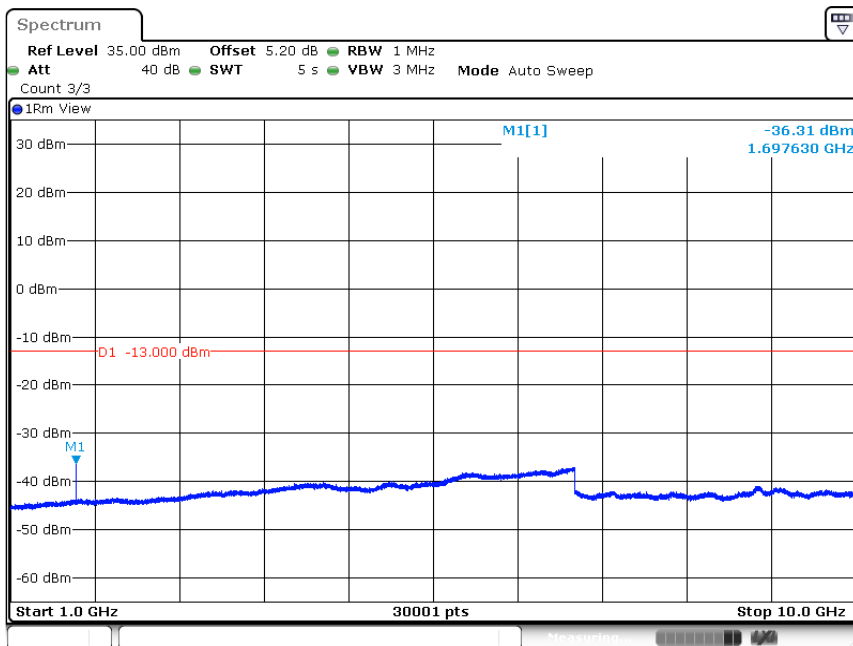
Date: 1 DEC 2020 11:06:18



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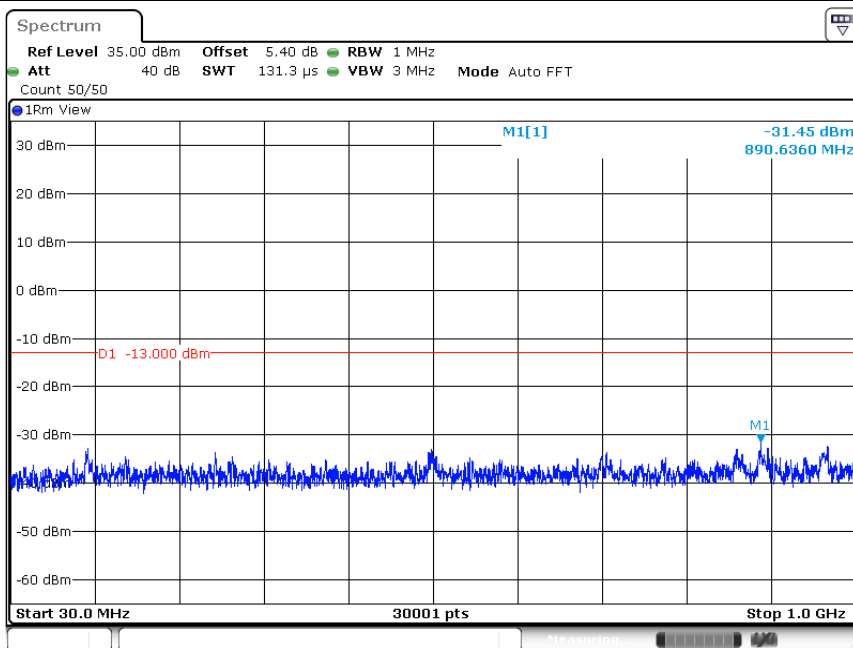
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EGPRS850-251-1000~10000MHz



Date: 1 DEC 2020 11:06:42

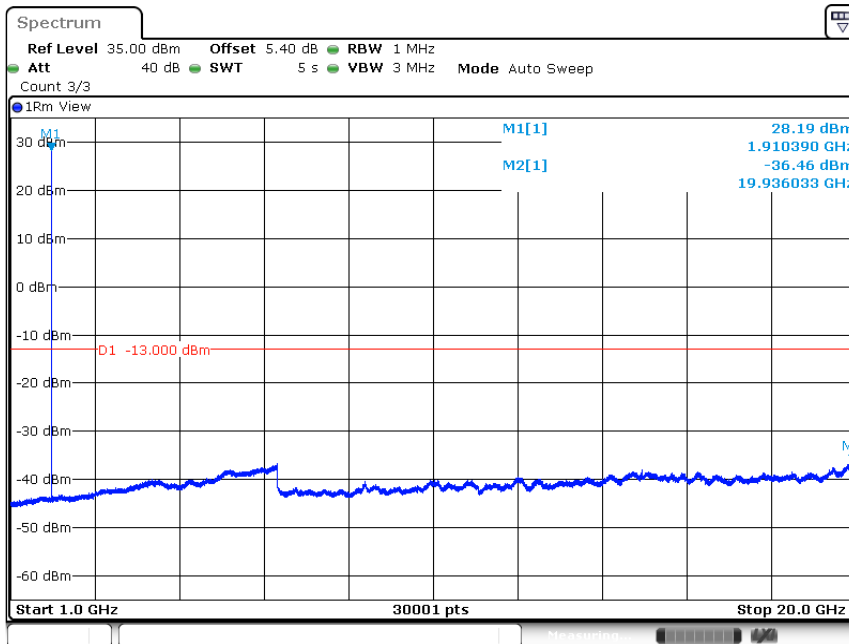
GSM1900-512-30~1000MHz



Date: 1 DEC 2020 10:37:33

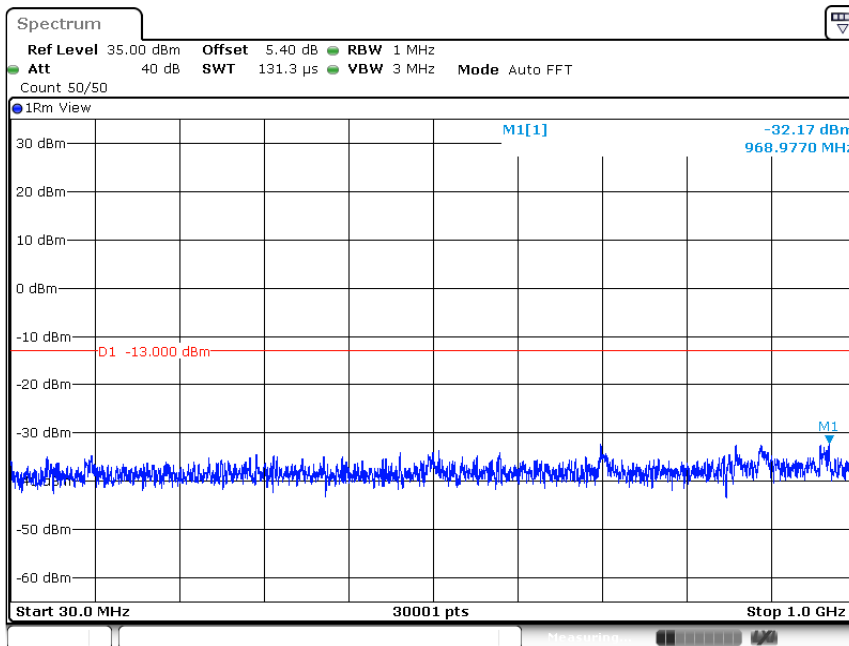


GSM1900-512-1000~20000MHz



Date: 1 DEC 2020 10:38:31

GSM1900-661-30~1000MHz



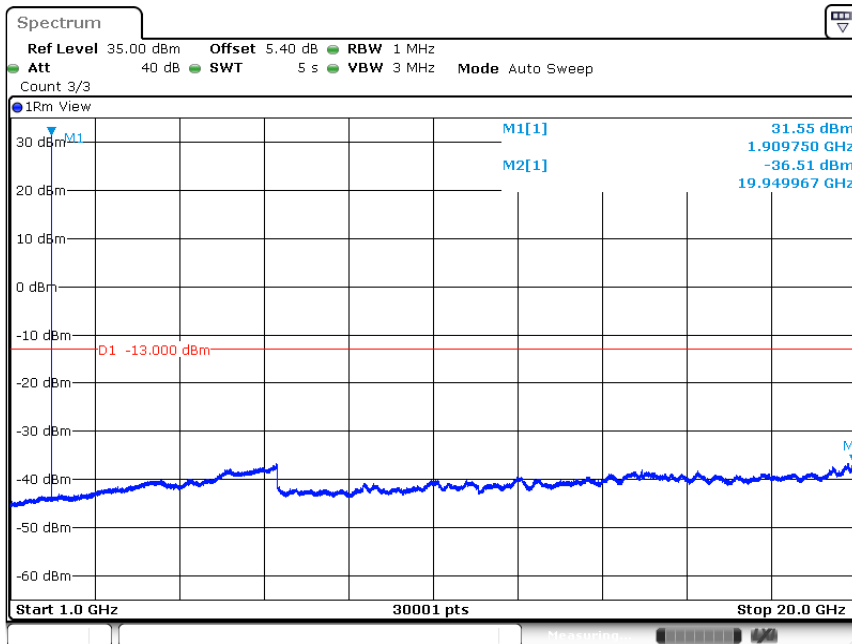
Date: 1 DEC 2020 10:38:44



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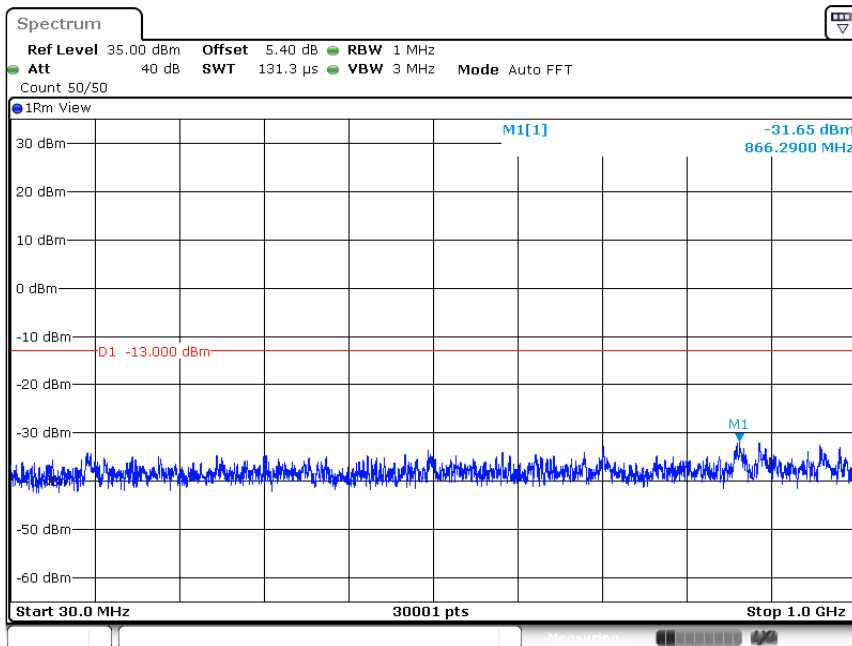
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GSM1900-661-1000~20000MHz



Date: 1 DEC 2020 10:39:09

GSM1900-810-30~1000MHz



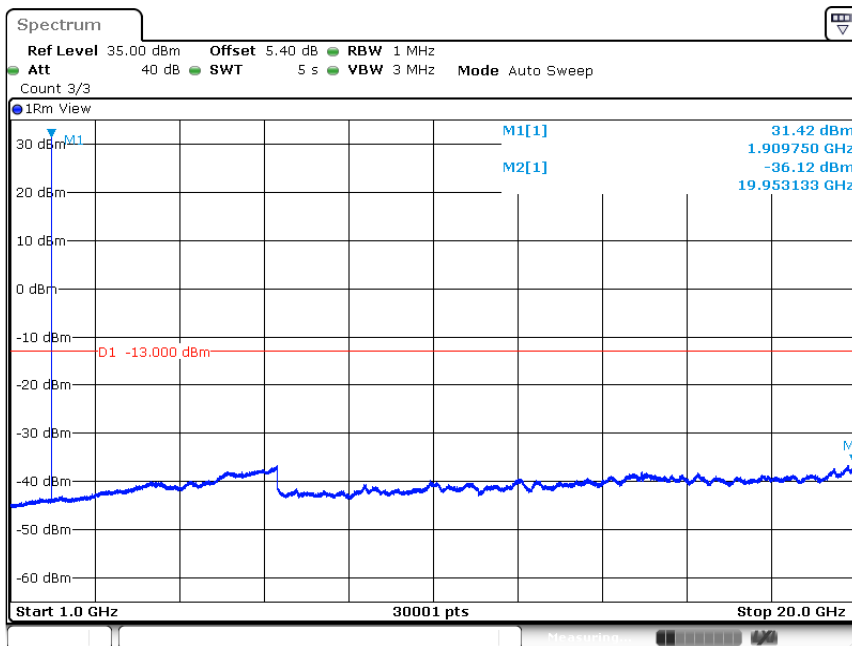
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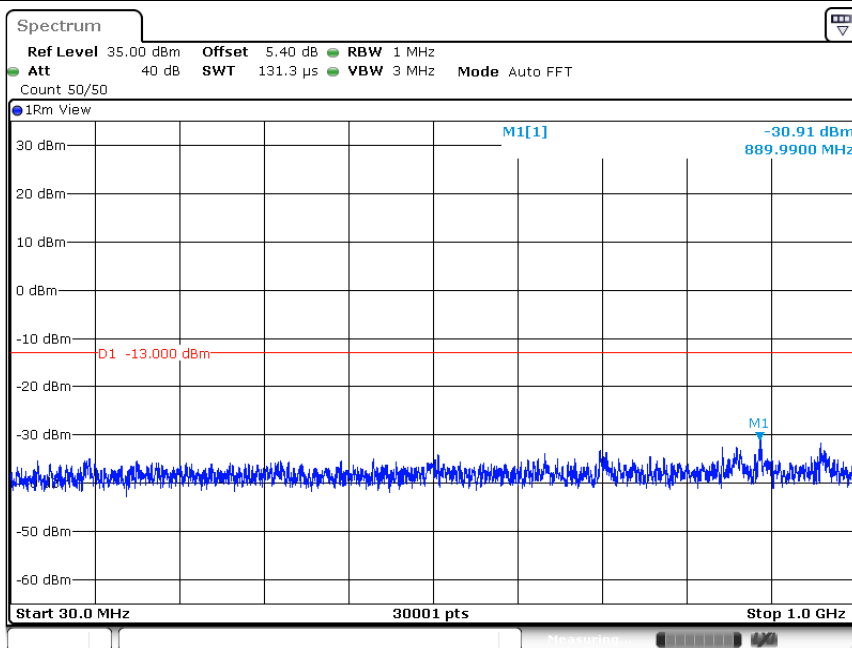
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GSM1900-810-1000~20000MHz



Date: 1 DEC 2020 10:40:03

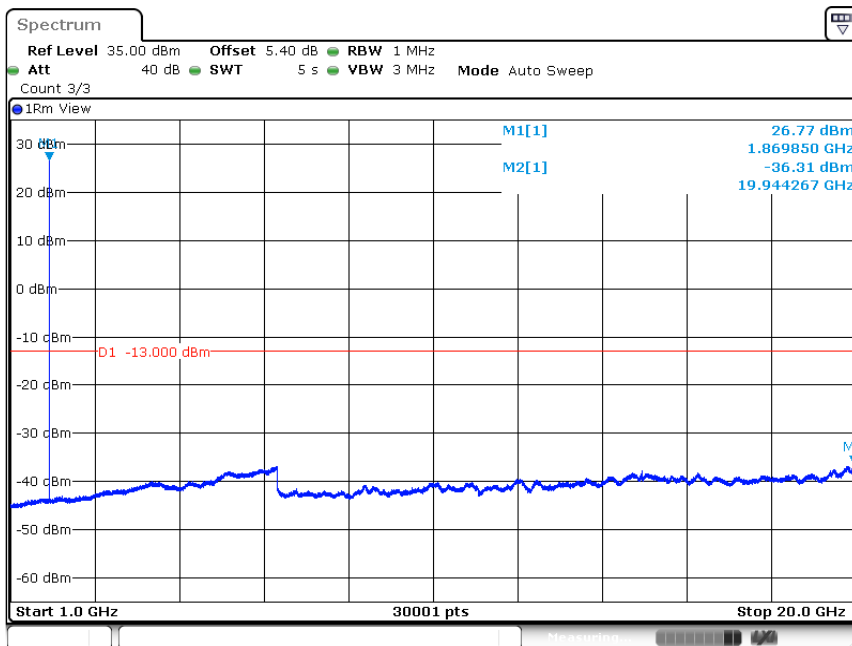
EGPRS1900-512-30~1000MHz



Date: 1 DEC 2020 10:53:31

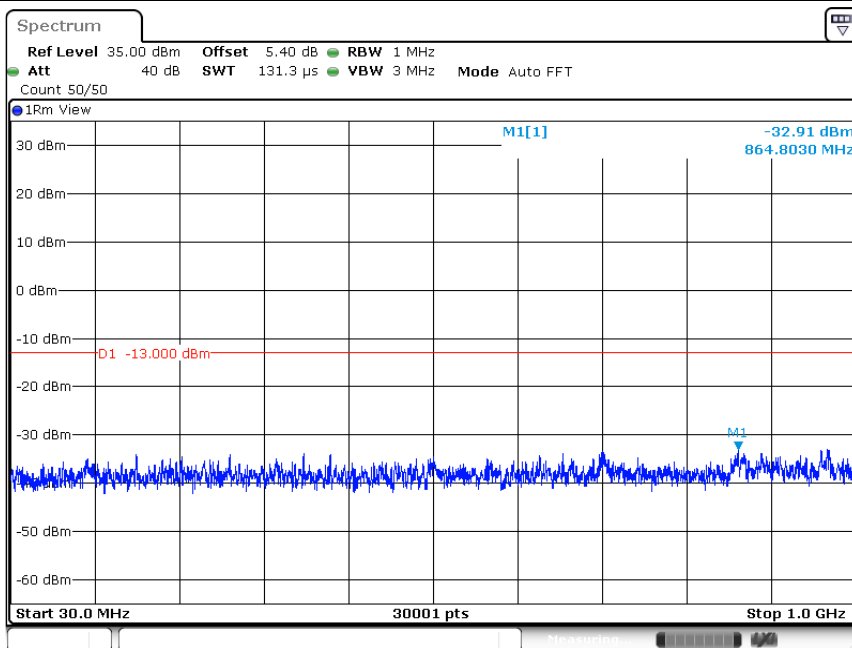


EGPRS1900-512-1000~20000MHz



Date: 1 DEC 2020 10:54:06

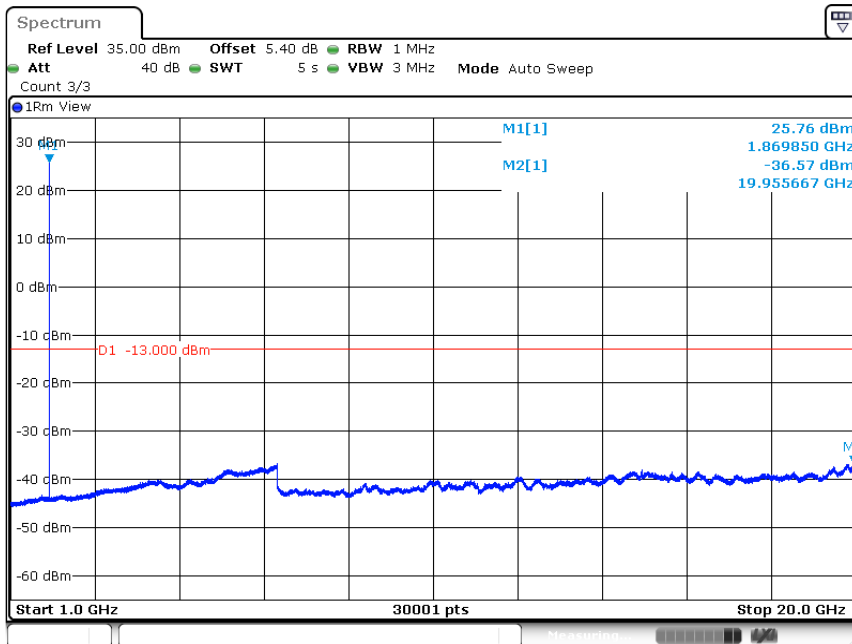
EGPRS1900-661-30~1000MHz



Date: 1 DEC 2020 10:54:19

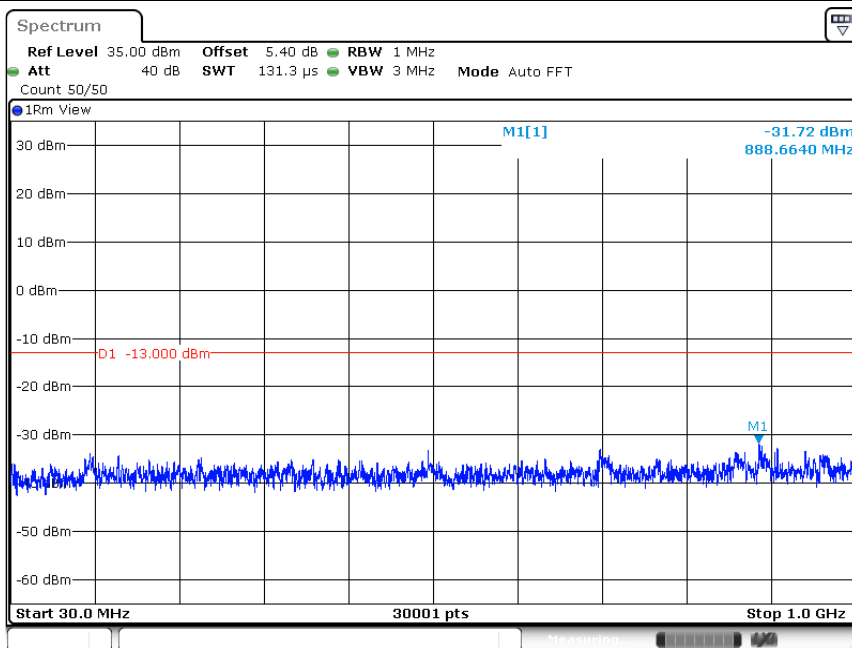


EGPRS1900-661-1000~20000MHz



Date: 1 DEC 2020 10:54:44

EGPRS1900-810-30~1000MHz



Date: 1 DEC 2020 10:54:56

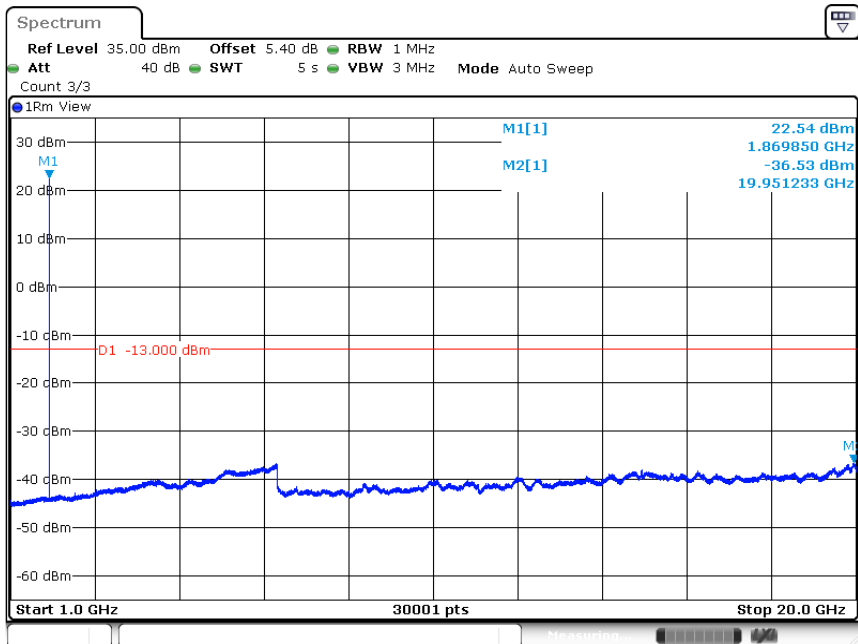


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EGPRS1900-810-1000~20000MHz



Date: 1 DEC 2020 10:55:23



7. Field Strength of Spurious Radiation

Firstly Supply:

7.1. Test Band = GSM_850

7.1.1. Test Channel = Low Channel

Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	42.2711	-69.39	-62.51	-13.00	49.51	184	72	Horizontal
2	1648.5297	-54.07	-50.02	-13.00	37.02	321	193	Horizontal
3	2472.2945	-46.44	-35.64	-13.00	22.64	151	169	Horizontal
4	3296.8099	-38.58	-48.84	-13.00	35.84	162	325	Horizontal
5	4120.9707	-26.97	-36.13	-13.00	23.13	194	9	Horizontal
6	4945.1315	-48.40	-56.17	-13.00	43.17	231	9	Horizontal



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7.2. Test Band = GSM_850

7.2.1. Test Channel = Low Channel

Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	30.6305	-63.56	-68.33	-13.00	55.33	147	325	Vertical
2	109.3015	-70.07	-63.82	-13.00	50.82	185	325	Vertical
3	1648.5297	-58.73	-54.05	-13.00	41.05	196	191	Vertical
4	2472.6945	-50.92	-41.52	-13.00	28.52	212	186	Vertical
5	3296.8099	-36.17	-47.39	-13.00	34.39	231	293	Vertical
6	4120.7374	-42.29	-52.06	-13.00	39.06	294	9	Vertical



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7.3. Test Band = GSM_850

7.3.1. Test Channel = Middle Channel

Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	41.7376	-69.38	-62.53	-13.00	49.53	258	166	Horizontal
2	1673.3347	-55.17	-51.36	-13.00	38.36	174	48	Horizontal
3	2509.9020	-51.23	-39.97	-13.00	26.97	196	168	Horizontal
4	3346.2782	-39.29	-49.58	-13.00	36.58	152	8	Horizontal
5	4183.0394	-24.30	-33.36	-13.00	20.36	312	8	Horizontal
6	5019.1006	-47.95	-55.06	-13.00	42.06	251	325	Horizontal



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7.4. Test Band = GSM_850

7.4.1. Test Channel = Middle Channel

Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	30.7760	-62.81	-67.73	-13.00	54.73	158	40	Vertical
2	116.4313	-68.79	-62.95	-13.00	49.95	174	261	Vertical
3	1673.3347	-59.09	-54.33	-13.00	41.33	185	334	Vertical
4	2509.9020	-50.00	-40.42	-13.00	27.42	196	264	Vertical
5	3346.2782	-38.85	-50.20	-13.00	37.20	231	8	Vertical
6	4183.0394	-39.63	-49.37	-13.00	36.37	151	103	Vertical



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7.5. Test Band = GSM_850

7.5.1. Test Channel = High Channel

Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	43.4352	-70.13	-63.19	-13.00	50.19	258	356	Horizontal
2	1697.7395	-52.83	-49.26	-13.00	36.26	174	330	Horizontal
3	2546.3093	-51.50	-40.70	-13.00	27.70	196	185	Horizontal
4	3395.2798	-44.33	-54.60	-13.00	41.60	231	262	Horizontal
5	4244.4081	-29.87	-39.02	-13.00	26.02	212	8	Horizontal
6	5093.0698	-46.91	-53.55	-13.00	40.55	151	8	Horizontal



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7.6. Test Band = GSM_850

7.6.1. Test Channel = High Channel

Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	30.7275	-63.35	-68.22	-13.00	55.22	288	261	Vertical
2	105.3728	-68.93	-63.60	-13.00	50.60	184	230	Vertical
3	1697.7395	-55.93	-51.09	-13.00	38.09	321	7	Vertical
4	2546.3093	-49.85	-40.18	-13.00	27.18	158	238	Vertical
5	3395.2798	-36.91	-48.35	-13.00	35.35	191	293	Vertical
6	4243.9415	-39.71	-49.39	-13.00	36.39	194	198	Vertical



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7.7. Test Band = GSM_1900

7.7.1. Test Channel = Low Channel

Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	41.2526	-68.68	-61.85	-13.00	48.85	188	167	Horizontal
2	232.4491	-70.18	-67.36	-13.00	54.36	185	103	Horizontal
3	594.9562	-70.30	-62.79	-13.00	49.79	196	103	Horizontal
4	3700.5234	-43.22	-51.79	-13.00	38.79	321	325	Horizontal
5	5550.5850	-42.07	-48.21	-13.00	35.21	254	198	Horizontal
6	16390.4463	-58.39	-44.11	-13.00	31.11	184	135	Horizontal



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7.8. Test Band = GSM_1900

7.8.1. Test Channel = Low Channel

Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	32.8131	-60.70	-67.62	-13.00	54.62	185	72	Vertical
2	106.2943	-69.99	-64.44	-13.00	51.44	174	40	Vertical
3	422.3846	-70.16	-67.02	-13.00	54.02	196	40	Vertical
4	3700.5234	-42.69	-52.06	-13.00	39.06	154	230	Vertical
5	5550.5850	-43.64	-50.21	-13.00	37.21	168	72	Vertical
6	17994.9998	-58.12	-40.37	-13.00	27.37	254	9	Vertical



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7.9. Test Band = GSM_1900

7.9.1. Test Channel = Middle Channel

Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	43.4352	-70.68	-63.74	-13.00	50.74	225	8	Horizontal
2	248.8429	-70.01	-67.41	-13.00	54.41	216	40	Horizontal
3	3760.0253	-49.07	-57.47	-13.00	44.47	197	293	Horizontal
4	5640.0880	-41.15	-47.19	-13.00	34.19	184	135	Horizontal
5	7519.6507	-52.18	-52.32	-13.00	39.32	185	71	Horizontal
6	16378.4459	-58.26	-44.20	-13.00	31.20	249	166	Horizontal



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7.10. Test Band = GSM_1900

7.10.1. Test Channel = Middle Channel

Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	32.6191	-61.62	-68.35	-13.00	55.35	288	135	Vertical
2	118.3714	-69.85	-64.18	-13.00	51.18	231	167	Vertical
3	3760.0253	-45.45	-54.51	-13.00	41.51	254	167	Vertical
4	5640.0880	-43.04	-49.55	-13.00	36.55	196	40	Vertical
5	11280.2760	-54.51	-48.21	-13.00	35.21	258	8	Vertical
6	17997.9999	-58.29	-40.46	-13.00	27.46	146	262	Vertical



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7.11. Test Band = GSM_1900

7.11.1. Test Channel = High Channel

Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	41.9316	-69.93	-63.07	-13.00	50.07	174	135	Horizontal
2	249.2310	-70.02	-67.43	-13.00	54.43	185	198	Horizontal
3	3819.5273	-41.72	-49.95	-13.00	36.95	196	40	Horizontal
4	5729.5910	-41.78	-47.79	-13.00	34.79	213	135	Horizontal
5	7639.1546	-48.57	-49.65	-13.00	36.65	262	8	Horizontal
6	11458.7820	-55.26	-48.18	-13.00	35.18	291	325	Horizontal



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7.12. Test Band = GSM_1900

7.12.1. Test Channel = High Channel

Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	30.7760	-63.12	-68.04	-13.00	55.04	245	103	Vertical
2	109.2530	-70.84	-64.60	-13.00	51.60	195	230	Vertical
3	3819.5273	-42.77	-51.59	-13.00	38.59	321	135	Vertical
4	5729.5910	-41.64	-48.30	-13.00	35.30	251	72	Vertical
5	11458.7820	-54.94	-47.68	-13.00	34.68	164	8	Vertical
6	17993.4998	-58.36	-40.64	-13.00	27.64	184	8	Vertical



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Secondly Supply:

7.13. Test Band = GSM_850

7.13.1. Test Channel = Middle Channel

Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	44.9872	-58.22	-51.20	-13.00	38.20	278	261	Horizontal
2	534.2312	-70.69	-64.66	-13.00	51.66	251	69	Horizontal
3	1672.9346	-48.16	-44.34	-13.00	31.34	148	202	Horizontal
4	2510.3021	-54.44	-43.18	-13.00	30.18	196	158	Horizontal
5	3346.5116	-40.78	-51.07	-13.00	38.07	158	229	Horizontal
6	4183.0394	-33.96	-43.02	-13.00	30.02	196	229	Horizontal



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7.14. Test Band = GSM_850

7.14.1. Test Channel = Middle Channel

Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	78.7934	-57.44	-55.65	-13.00	42.65	258	7	Vertical
2	619.8380	-69.95	-62.38	-13.00	49.38	294	166	Vertical
3	1672.9346	-56.50	-51.74	-13.00	38.74	157	109	Vertical
4	2509.9020	-59.34	-49.76	-13.00	36.76	196	147	Vertical
5	3346.0449	-42.38	-53.73	-13.00	40.73	321	292	Vertical
6	4183.2728	-35.78	-45.52	-13.00	32.52	215	102	Vertical

Remark:

- 1) According to 971168 D01 Power Meas License Digital Systems, The amplitudes of unwanted emissions that are attenuated more than 20 dB below the applicable limit are not required to be reported.
- 2) The disturbance above 12.75GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the worst case data had been displayed.



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8. Frequency Stability

8.1. Frequency Error Vs Voltage

Voltage							
Band	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM850	128	VL	NT	0.42	0.000510	±2.5	PASS
GSM850	128	VN	NT	5.55	0.006734	±2.5	PASS
GSM850	128	VH	NT	3.16	0.003834	±2.5	PASS
GSM850	190	VL	NT	1.94	0.002319	±2.5	PASS
GSM850	190	VN	NT	5.29	0.006323	±2.5	PASS
GSM850	190	VH	NT	4.07	0.004865	±2.5	PASS
GSM850	251	VL	NT	2.20	0.002592	±2.5	PASS
GSM850	251	VN	NT	-2.39	-0.002816	±2.5	PASS
GSM850	251	VH	NT	1.87	0.002203	±2.5	PASS
EGPRS850	128	VL	NT	12.95	0.015712	±2.5	PASS
EGPRS850	128	VN	NT	13.43	0.016295	±2.5	PASS
EGPRS850	128	VH	NT	13.24	0.016064	±2.5	PASS
EGPRS850	190	VL	NT	19.11	0.022842	±2.5	PASS
EGPRS850	190	VN	NT	15.85	0.018946	±2.5	PASS
EGPRS850	190	VH	NT	18.69	0.022340	±2.5	PASS
EGPRS850	251	VL	NT	15.14	0.017837	±2.5	PASS
EGPRS850	251	VN	NT	15.50	0.018261	±2.5	PASS
EGPRS850	251	VH	NT	14.11	0.016623	±2.5	PASS
GSM1900	512	VL	NT	-3.36	-0.001816	±2.5	PASS
GSM1900	512	VN	NT	-19.82	-0.010712	±2.5	PASS
GSM1900	512	VH	NT	-5.04	-0.002724	±2.5	PASS
GSM1900	661	VL	NT	-11.88	-0.006319	±2.5	PASS
GSM1900	661	VN	NT	-13.43	-0.007144	±2.5	PASS
GSM1900	661	VH	NT	-15.56	-0.008277	±2.5	PASS
GSM1900	810	VL	NT	-4.58	-0.002398	±2.5	PASS
GSM1900	810	VN	NT	-4.13	-0.002163	±2.5	PASS
GSM1900	810	VH	NT	-3.10	-0.001623	±2.5	PASS
EGPRS1900	512	VL	NT	4.13	0.002232	±2.5	PASS
EGPRS1900	512	VN	NT	2.00	0.001081	±2.5	PASS
EGPRS1900	512	VH	NT	3.78	0.002043	±2.5	PASS



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EGPRS1900	661	VL	NT	-4.68	-0.002489	±2.5	PASS
EGPRS1900	661	VN	NT	-6.30	-0.003351	±2.5	PASS
EGPRS1900	661	VH	NT	-5.97	-0.003176	±2.5	PASS
EGPRS1900	810	VL	NT	3.75	0.001964	±2.5	PASS
EGPRS1900	810	VN	NT	4.13	0.002163	±2.5	PASS
EGPRS1900	810	VH	NT	4.23	0.002215	±2.5	PASS

8.2. Frequency Error Vs Temperature

Temperature							
Band	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM850	128	NV	-30	2.13	0.002584	±2.5	PASS
GSM850	128	NV	-20	0.39	0.000473	±2.5	PASS
GSM850	128	NV	-10	4.36	0.005290	±2.5	PASS
GSM850	128	NV	0	3.49	0.004234	±2.5	PASS
GSM850	128	NV	10	1.58	0.001917	±2.5	PASS
GSM850	128	NV	20	6.46	0.007838	±2.5	PASS
GSM850	128	NV	30	3.68	0.004465	±2.5	PASS
GSM850	128	NV	40	3.03	0.003676	±2.5	PASS
GSM850	128	NV	50	-0.29	-0.000352	±2.5	PASS
GSM850	190	NV	-30	3.33	0.003980	±2.5	PASS
GSM850	190	NV	-20	2.84	0.003395	±2.5	PASS
GSM850	190	NV	-10	5.97	0.007136	±2.5	PASS
GSM850	190	NV	0	2.45	0.002929	±2.5	PASS
GSM850	190	NV	10	3.58	0.004279	±2.5	PASS
GSM850	190	NV	20	4.46	0.005331	±2.5	PASS
GSM850	190	NV	30	8.33	0.009957	±2.5	PASS
GSM850	190	NV	40	5.23	0.006251	±2.5	PASS
GSM850	190	NV	50	5.88	0.007028	±2.5	PASS
GSM850	251	NV	-30	0.29	0.000342	±2.5	PASS
GSM850	251	NV	-20	0.55	0.000648	±2.5	PASS
GSM850	251	NV	-10	1.42	0.001673	±2.5	PASS
GSM850	251	NV	0	2.20	0.002592	±2.5	PASS
GSM850	251	NV	10	-0.39	-0.000459	±2.5	PASS
GSM850	251	NV	20	1.94	0.002286	±2.5	PASS
GSM850	251	NV	30	0.84	0.000990	±2.5	PASS
GSM850	251	NV	40	0.65	0.000766	±2.5	PASS



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GSM850	251	NV	50	1.61	0.001897	±2.5	PASS
EGPRS850	128	NV	-30	14.43	0.017508	±2.5	PASS
EGPRS850	128	NV	-20	17.31	0.021002	±2.5	PASS
EGPRS850	128	NV	-10	16.21	0.019668	±2.5	PASS
EGPRS850	128	NV	0	14.66	0.017787	±2.5	PASS
EGPRS850	128	NV	10	13.72	0.016646	±2.5	PASS
EGPRS850	128	NV	20	14.56	0.017666	±2.5	PASS
EGPRS850	128	NV	30	17.37	0.021075	±2.5	PASS
EGPRS850	128	NV	40	16.89	0.020493	±2.5	PASS
EGPRS850	128	NV	50	14.17	0.017192	±2.5	PASS
EGPRS850	190	NV	-30	18.73	0.022388	±2.5	PASS
EGPRS850	190	NV	-20	18.56	0.022185	±2.5	PASS
EGPRS850	190	NV	-10	18.76	0.022424	±2.5	PASS
EGPRS850	190	NV	0	16.50	0.019723	±2.5	PASS
EGPRS850	190	NV	10	16.85	0.020141	±2.5	PASS
EGPRS850	190	NV	20	18.50	0.022113	±2.5	PASS
EGPRS850	190	NV	30	19.69	0.023536	±2.5	PASS
EGPRS850	190	NV	40	17.95	0.021456	±2.5	PASS
EGPRS850	190	NV	50	16.27	0.019448	±2.5	PASS
EGPRS850	251	NV	-30	15.21	0.017919	±2.5	PASS
EGPRS850	251	NV	-20	14.50	0.017083	±2.5	PASS
EGPRS850	251	NV	-10	15.08	0.017766	±2.5	PASS
EGPRS850	251	NV	0	15.72	0.018520	±2.5	PASS
EGPRS850	251	NV	10	16.21	0.019098	±2.5	PASS
EGPRS850	251	NV	20	15.27	0.017990	±2.5	PASS
EGPRS850	251	NV	30	15.05	0.017731	±2.5	PASS
EGPRS850	251	NV	40	15.95	0.018791	±2.5	PASS
EGPRS850	251	NV	50	16.63	0.019592	±2.5	PASS
GSM1900	512	NV	-30	-5.68	-0.003070	±2.5	PASS
GSM1900	512	NV	-20	-6.65	-0.003594	±2.5	PASS
GSM1900	512	NV	-10	-7.17	-0.003875	±2.5	PASS
GSM1900	512	NV	0	-8.72	-0.004713	±2.5	PASS
GSM1900	512	NV	10	-3.94	-0.002129	±2.5	PASS
GSM1900	512	NV	20	-8.85	-0.004783	±2.5	PASS
GSM1900	512	NV	30	-7.55	-0.004081	±2.5	PASS
GSM1900	512	NV	40	-12.33	-0.006664	±2.5	PASS
GSM1900	512	NV	50	-4.65	-0.002513	±2.5	PASS



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GSM1900	661	NV	-30	-13.95	-0.007420	±2.5	PASS
GSM1900	661	NV	-20	-17.24	-0.009170	±2.5	PASS
GSM1900	661	NV	-10	-14.21	-0.007559	±2.5	PASS
GSM1900	661	NV	0	-15.37	-0.008176	±2.5	PASS
GSM1900	661	NV	10	-16.98	-0.009032	±2.5	PASS
GSM1900	661	NV	20	-14.53	-0.007729	±2.5	PASS
GSM1900	661	NV	30	-11.95	-0.006356	±2.5	PASS
GSM1900	661	NV	40	-16.66	-0.008862	±2.5	PASS
GSM1900	661	NV	50	-15.56	-0.008277	±2.5	PASS
GSM1900	810	NV	-30	0.65	0.000340	±2.5	PASS
GSM1900	810	NV	-20	-3.23	-0.001691	±2.5	PASS
GSM1900	810	NV	-10	-7.10	-0.003718	±2.5	PASS
GSM1900	810	NV	0	-2.65	-0.001388	±2.5	PASS
GSM1900	810	NV	10	-8.59	-0.004498	±2.5	PASS
GSM1900	810	NV	20	-4.39	-0.002299	±2.5	PASS
GSM1900	810	NV	30	-5.36	-0.002807	±2.5	PASS
GSM1900	810	NV	40	-2.71	-0.001419	±2.5	PASS
GSM1900	810	NV	50	-3.81	-0.001995	±2.5	PASS
EGPRS1900	512	NV	-30	2.81	0.001519	±2.5	PASS
EGPRS1900	512	NV	-20	3.36	0.001816	±2.5	PASS
EGPRS1900	512	NV	-10	0.19	0.000103	±2.5	PASS
EGPRS1900	512	NV	0	4.58	0.002475	±2.5	PASS
EGPRS1900	512	NV	10	3.23	0.001746	±2.5	PASS
EGPRS1900	512	NV	20	2.78	0.001503	±2.5	PASS
EGPRS1900	512	NV	30	-0.23	-0.000124	±2.5	PASS
EGPRS1900	512	NV	40	1.19	0.000643	±2.5	PASS
EGPRS1900	512	NV	50	0.16	0.000086	±2.5	PASS
EGPRS1900	661	NV	-30	-6.13	-0.003261	±2.5	PASS
EGPRS1900	661	NV	-20	-6.49	-0.003452	±2.5	PASS
EGPRS1900	661	NV	-10	-4.39	-0.002335	±2.5	PASS
EGPRS1900	661	NV	0	-5.91	-0.003144	±2.5	PASS
EGPRS1900	661	NV	10	-6.36	-0.003383	±2.5	PASS
EGPRS1900	661	NV	20	-5.39	-0.002867	±2.5	PASS
EGPRS1900	661	NV	30	-3.62	-0.001926	±2.5	PASS
EGPRS1900	661	NV	40	-4.10	-0.002181	±2.5	PASS
EGPRS1900	661	NV	50	-4.29	-0.002282	±2.5	PASS
EGPRS1900	810	NV	-30	5.65	0.002958	±2.5	PASS



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EGPRS1900	810	NV	-10	5.52	0.002890	±2.5	PASS
EGPRS1900	810	NV	0	3.16	0.001655	±2.5	PASS
EGPRS1900	810	NV	10	4.42	0.002314	±2.5	PASS
EGPRS1900	810	NV	20	5.46	0.002859	±2.5	PASS
EGPRS1900	810	NV	30	5.52	0.002890	±2.5	PASS
EGPRS1900	810	NV	40	7.30	0.003822	±2.5	PASS
EGPRS1900	810	NV	50	6.75	0.003534	±2.5	PASS

The End

