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Appendix B

GSM 850 & 1900



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1. Effective (Isotropic) Radiated Power Output Data

1.1.Test Result

MAIN:

Band	Channel	Slot	Conducted Power (dBm)	ERP (dBm)	Limit(dBm)	Verdict
GSM850	128		33.33	30.7	38.45	PASS
GSM850	190		32.68	30.05	38.45	PASS
GSM850	251		32.58	29.95	38.45	PASS
EGPRS850	128	1	26.36	23.73	38.45	PASS
EGPRS850	128	2	23.43	20.8	38.45	PASS
EGPRS850	128	3	22.29	19.66	38.45	PASS
EGPRS850	128	4	20.96	18.33	38.45	PASS
EGPRS850	190	1	25.98	23.35	38.45	PASS
EGPRS850	190	2	23.65	21.02	38.45	PASS
EGPRS850	190	3	21.94	19.31	38.45	PASS
EGPRS850	190	4	20.59	17.96	38.45	PASS
EGPRS850	251	1	25.63	23	38.45	PASS
EGPRS850	251	2	23.28	20.65	38.45	PASS
EGPRS850	251	3	21.71	19.08	38.45	PASS
EGPRS850	251	4	21.15	18.52	38.45	PASS

Band	Channel	Slot	Conducted Power (dBm)	EIRP (dBm)	Limit(dBm)	Verdict
GSM1900	512		30.43	31.13	33.00	PASS
GSM1900	661		30.59	31.29	33.00	PASS
GSM1900	810		30.77	31.47	33.00	PASS
EGPRS1900	512	1	25.56	26.26	33.00	PASS
EGPRS1900	512	2	23.42	24.12	33.00	PASS
EGPRS1900	512	3	21.13	21.83	33.00	PASS
EGPRS1900	512	4	20.26	20.96	33.00	PASS
EGPRS1900	661	1	25.76	26.46	33.00	PASS
EGPRS1900	661	2	23.58	24.28	33.00	PASS
EGPRS1900	661	3	21.42	22.12	33.00	PASS
EGPRS1900	661	4	20.23	20.93	33.00	PASS
EGPRS1900	810	1	25.83	26.53	33.00	PASS
EGPRS1900	810	2	23.58	24.28	33.00	PASS
EGPRS1900	810	3	21.48	22.18	33.00	PASS
EGPRS1900	810	4	20.09	20.79	33.00	PASS



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DIV:

Band	Channel	Slot	Conducted Power (dBm)	ERP (dBm)	Limit(dBm)	Verdict
GSM850	128		31.76	25.21	38.45	PASS
GSM850	190		31.86	25.31	38.45	PASS
GSM850	251		31.85	25.3	38.45	PASS
EGPRS850	128	1	26.69	20.14	38.45	PASS
EGPRS850	128	2	24.02	17.47	38.45	PASS
EGPRS850	128	3	22.45	15.9	38.45	PASS
EGPRS850	128	4	21.43	14.88	38.45	PASS
EGPRS850	190	1	26.89	20.34	38.45	PASS
EGPRS850	190	2	24.02	17.47	38.45	PASS
EGPRS850	190	3	22.43	15.88	38.45	PASS
EGPRS850	190	4	21.41	14.86	38.45	PASS
EGPRS850	251	1	26.85	20.3	38.45	PASS
EGPRS850	251	2	24.23	17.68	38.45	PASS
EGPRS850	251	3	22.51	15.96	38.45	PASS
EGPRS850	251	4	21.41	14.86	38.45	PASS

Band	Channel	Slot	Conducted Power (dBm)	EIRP (dBm)	Limit(dBm)	Verdict
GSM1900	512		28.73	28.53	33.00	PASS
GSM1900	661		28.61	28.41	33.00	PASS
GSM1900	810		28.45	28.25	33.00	PASS
EGPRS1900	512	1	25.64	25.44	33.00	PASS
EGPRS1900	512	2	23.56	23.36	33.00	PASS
EGPRS1900	512	3	21.33	21.13	33.00	PASS
EGPRS1900	512	4	20.28	20.08	33.00	PASS
EGPRS1900	661	1	25.75	25.55	33.00	PASS
EGPRS1900	661	2	23.54	23.34	33.00	PASS
EGPRS1900	661	3	21.18	20.98	33.00	PASS
EGPRS1900	661	4	20.49	20.29	33.00	PASS
EGPRS1900	810	1	25.65	25.45	33.00	PASS
EGPRS1900	810	2	23.61	23.41	33.00	PASS
EGPRS1900	810	3	21.38	21.18	33.00	PASS
EGPRS1900	810	4	20.07	19.87	33.00	PASS

Remark:

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

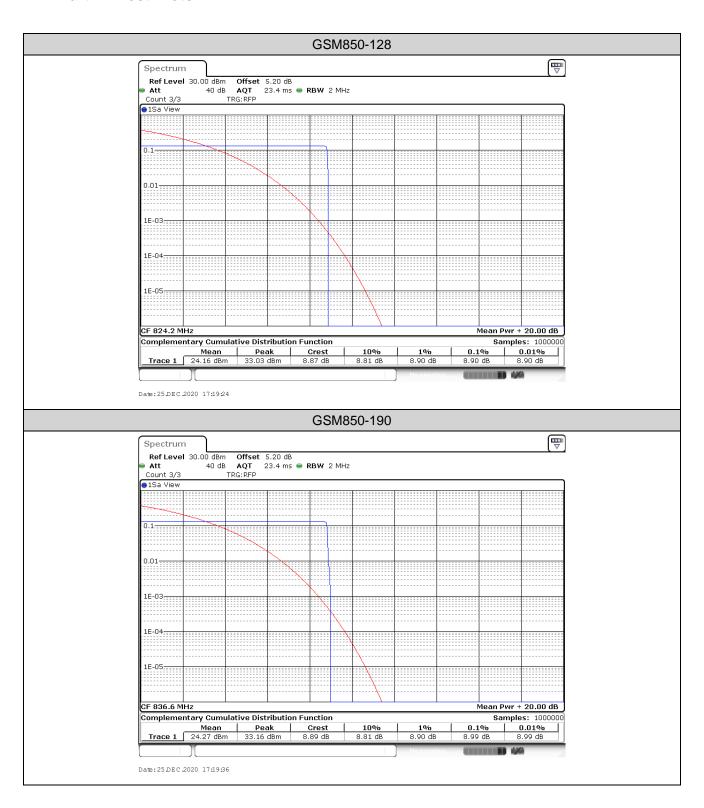
2.1. Test Result

Band	Channel	Result(dB)	Limit(dB)	Verdict
GSM850	128	8.9	13	PASS
GSM850	190	8.99	13	PASS
GSM850	251	8.9	13	PASS
EGPRS850	128	12.12	13	PASS
EGPRS850	190	11.97	13	PASS
EGPRS850	251	11.88	13	PASS
GSM1900	512	8.9	13	PASS
GSM1900	661	8.93	13	PASS
GSM1900	810	8.96	13	PASS
EGPRS1900	512	12.72	13	PASS
EGPRS1900	661	11.97	13	PASS
EGPRS1900	810	12	13	PASS



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2.2. Part II - Test Plots



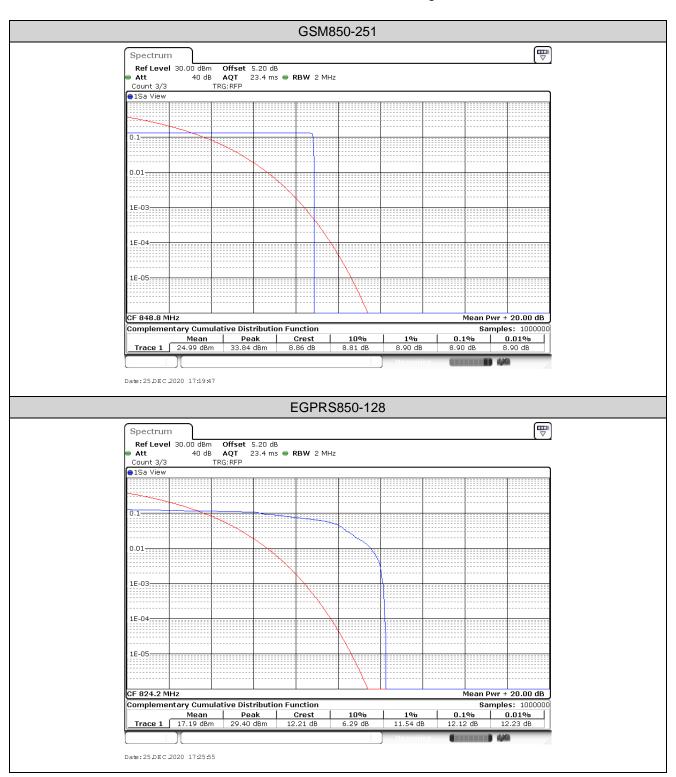


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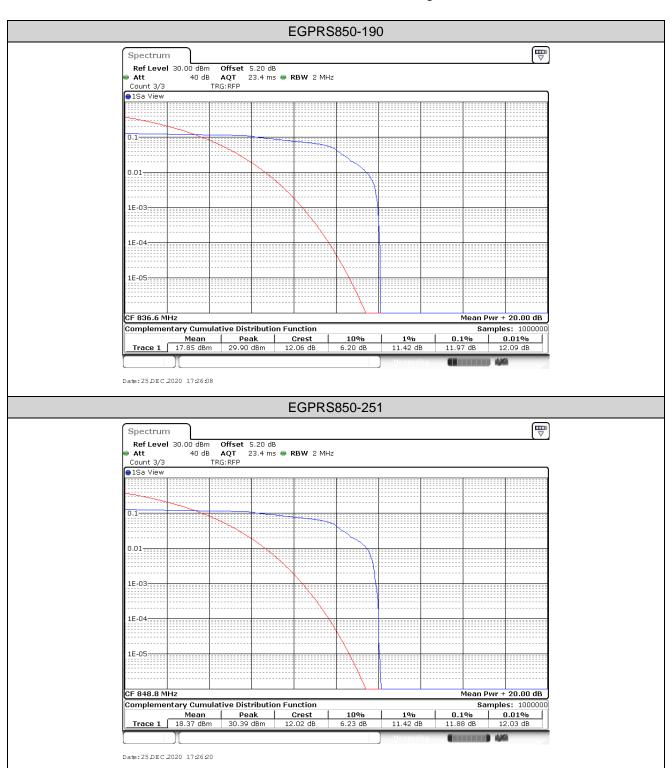
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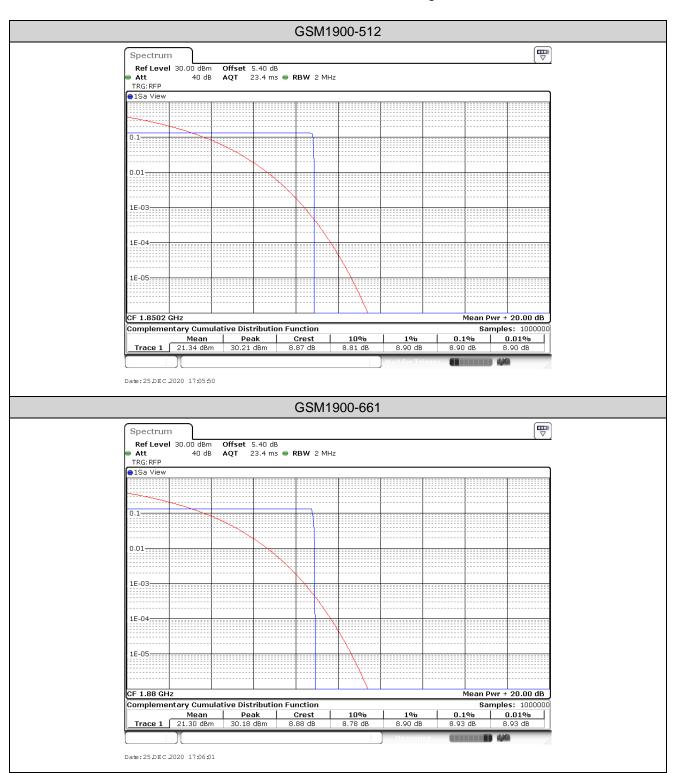
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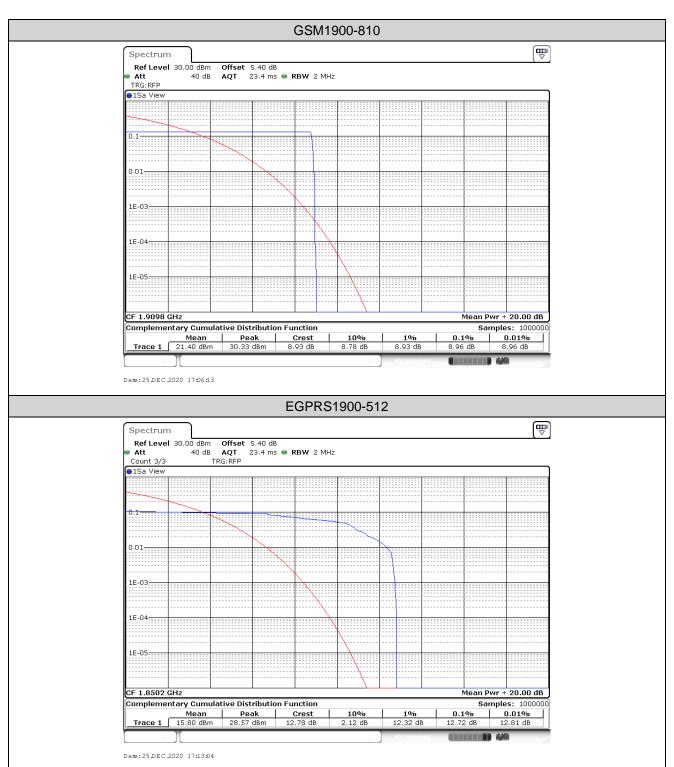
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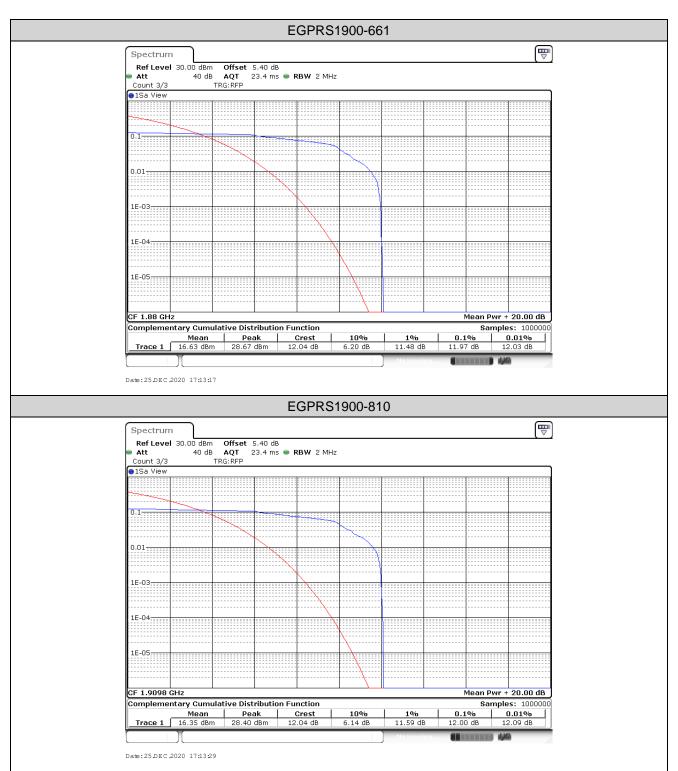
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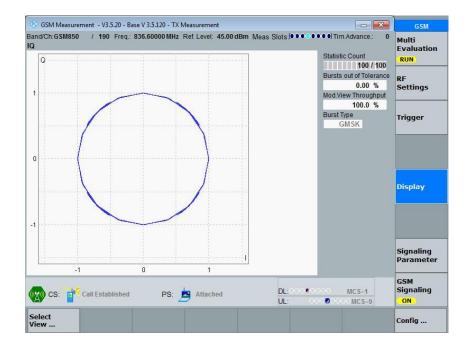
3. Modulation Characteristics

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

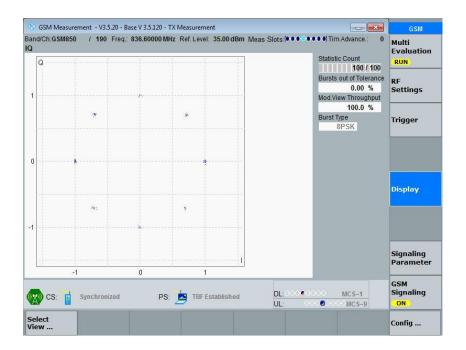




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3.1.1.2. Test Mode = GSM/TM2

3.1.1.2.1. Test Channel = MCH



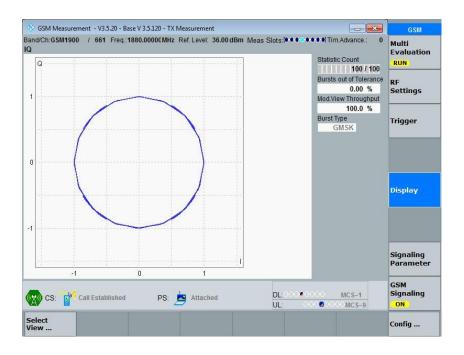


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3.1.2. Test Band = GSM 1900

3.1.2.1. Test Mode = GSM/TM1

3.1.2.1.1. Test Channel = MCH

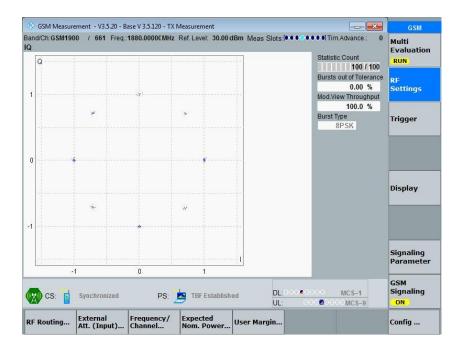




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3.1.2.2. Test Mode = GSM/TM2

3.1.2.2.1. Test Channel = MCH





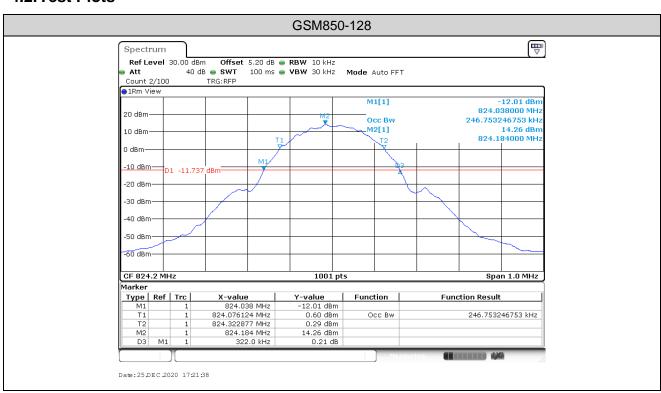
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4. 26dB Bandwidth and Occupied Bandwidth

4.1. Test Result

Band	Channel	Occupied	26dB Bandwidth	Limit	Verdict
Danu	Channel	Bandwidth (MHz)	(MHz)	(MHz)	verdict
GSM850	128	0.247	0.322		PASS
GSM850	190	0.247	0.323		PASS
GSM850	251	0.247	0.324		PASS
EGPRS850	128	0.247	0.316		PASS
EGPRS850	190	0.245	0.316		PASS
EGPRS850	251	0.246	0.316		PASS
GSM1900	512	0.247	0.323		PASS
GSM1900	661	0.247	0.322		PASS
GSM1900	810	0.247	0.322		PASS
EGPRS1900	512	0.243	0.316		PASS
EGPRS1900	661	0.243	0.317		PASS
EGPRS1900	810	0.243	0.316		PASS

4.2. Test Plots





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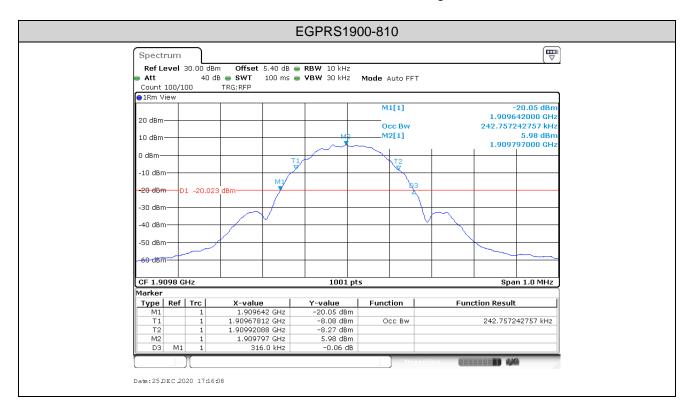
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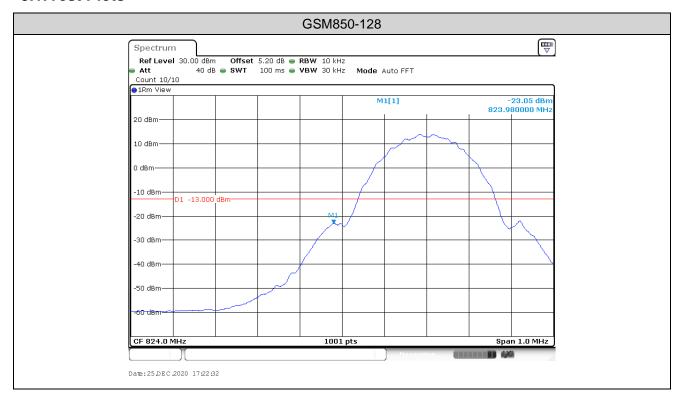




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5. Band Edge Compliance

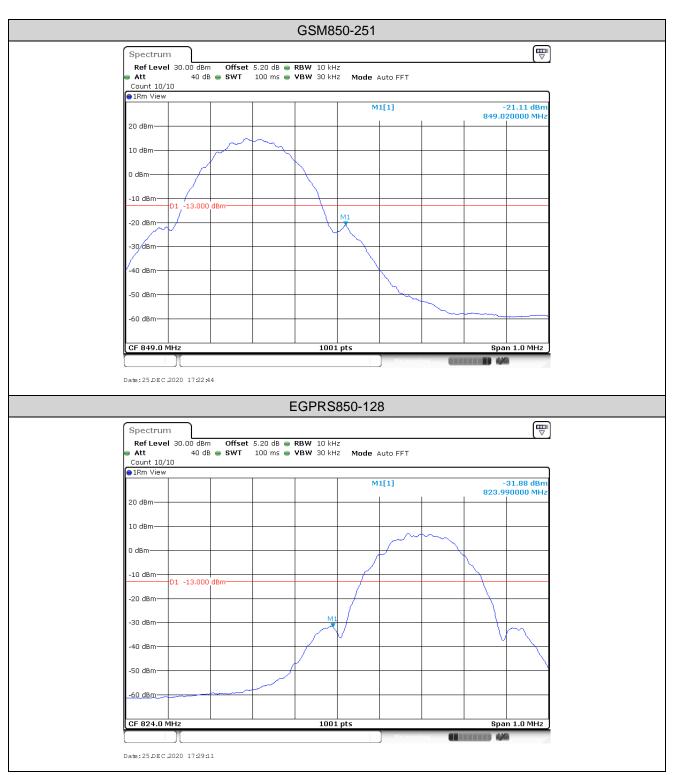
5.1. Test Plots





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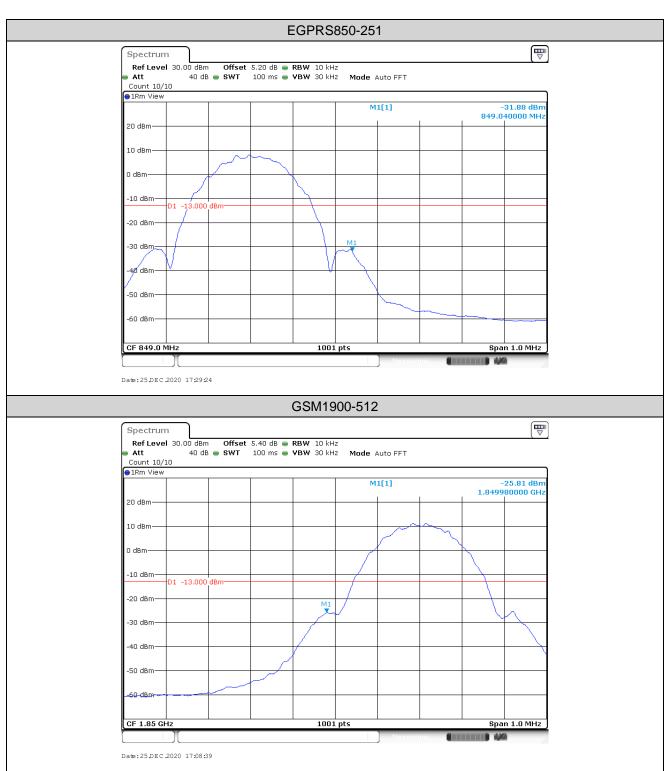
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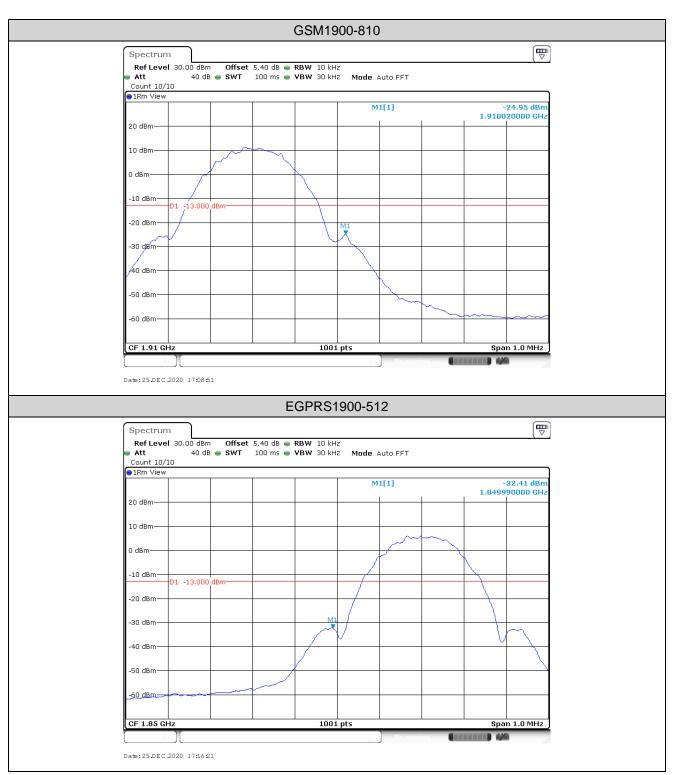
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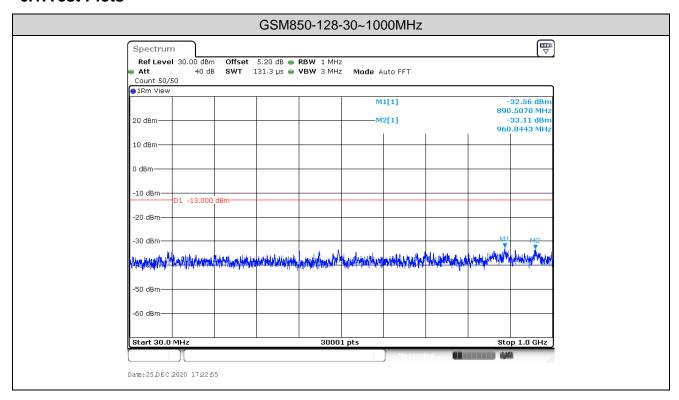
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6. Spurious Emission at Antenna Terminal

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 * (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

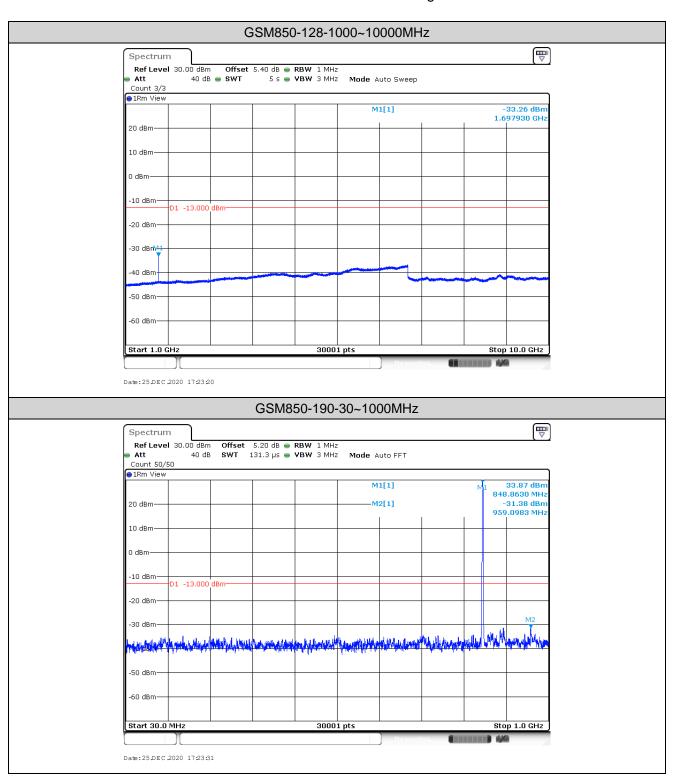






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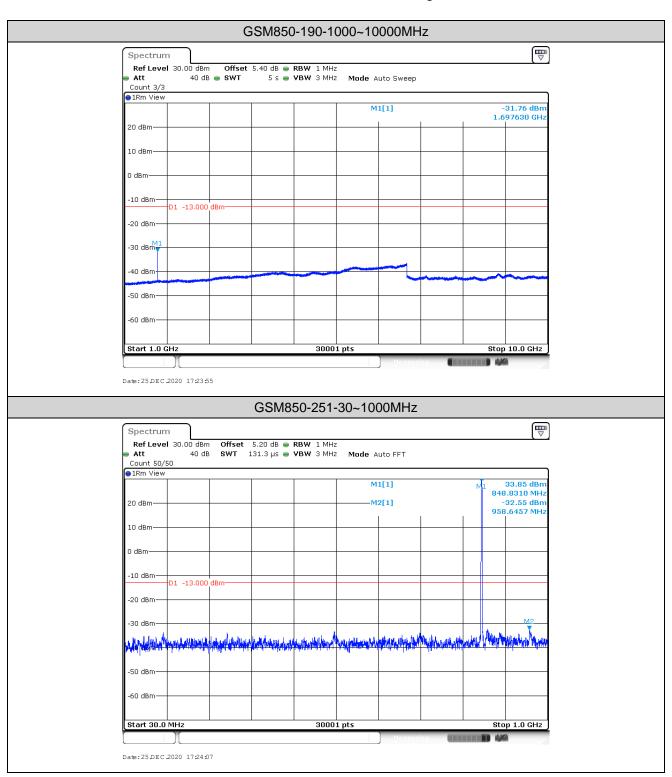
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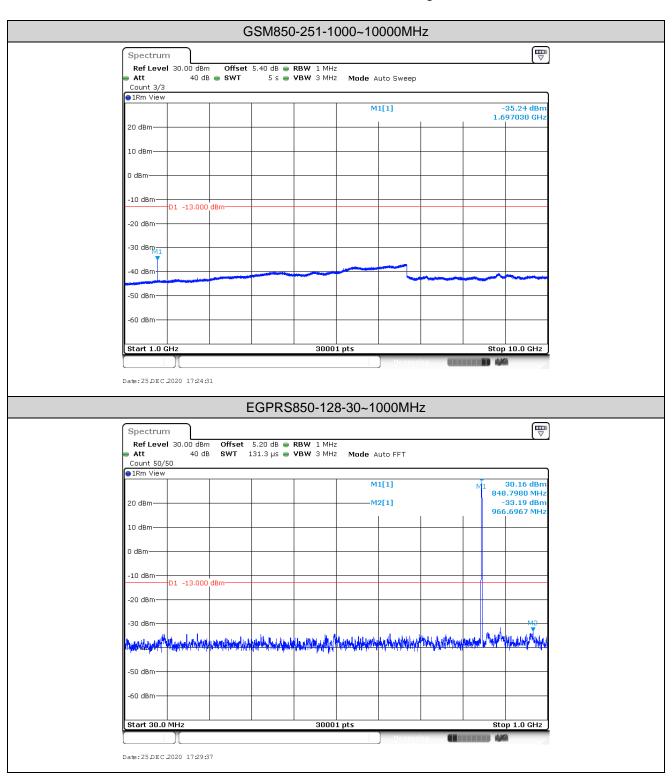
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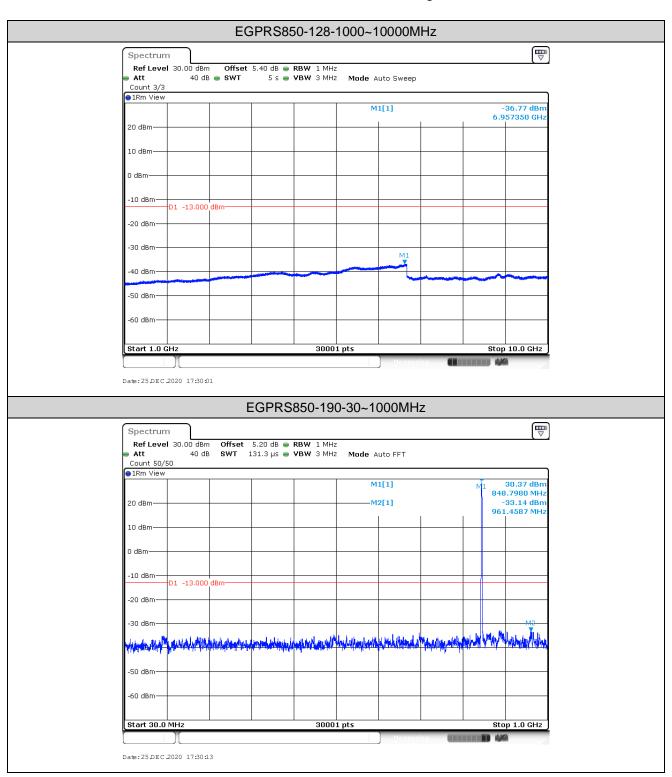
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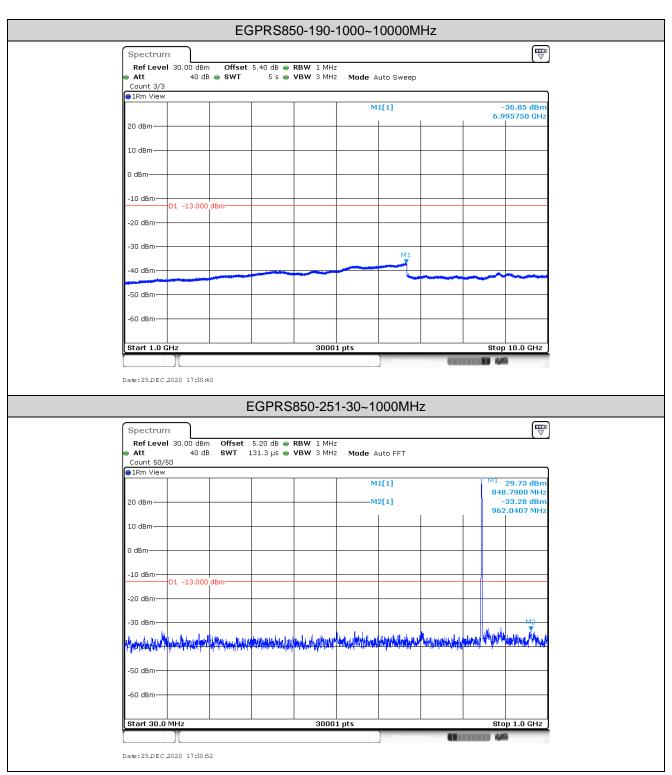
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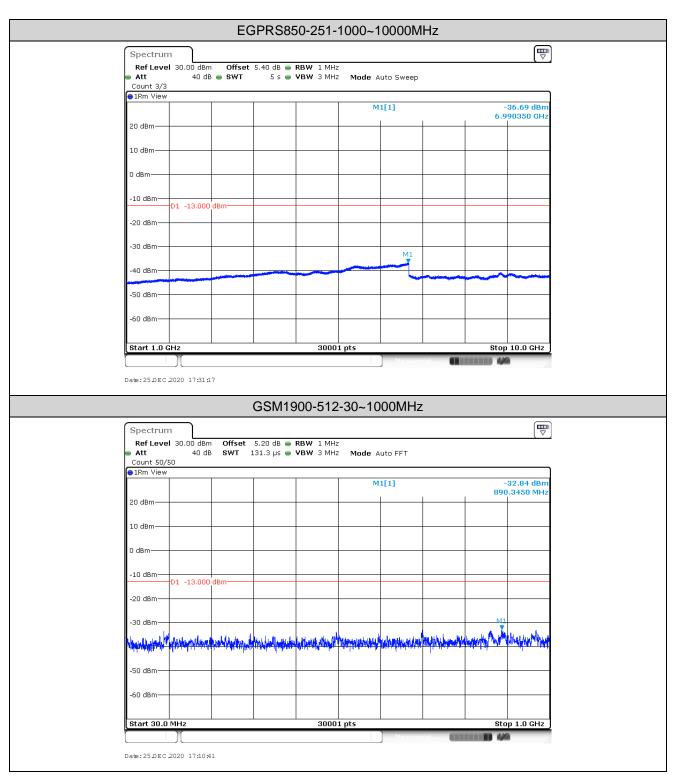
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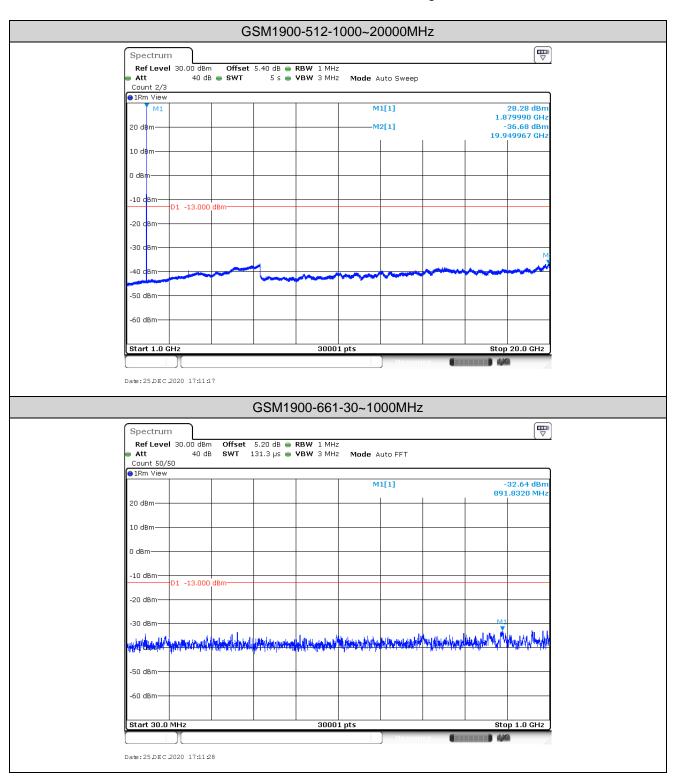
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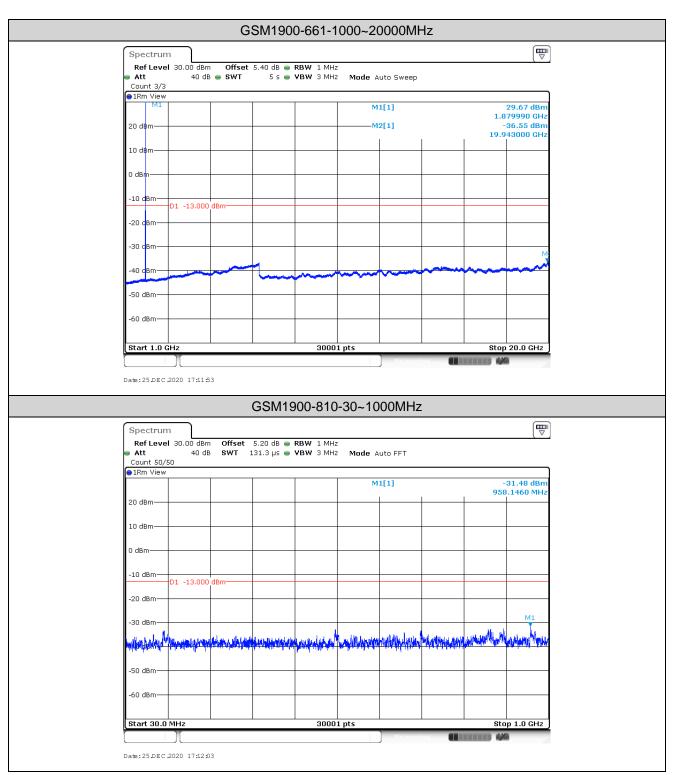
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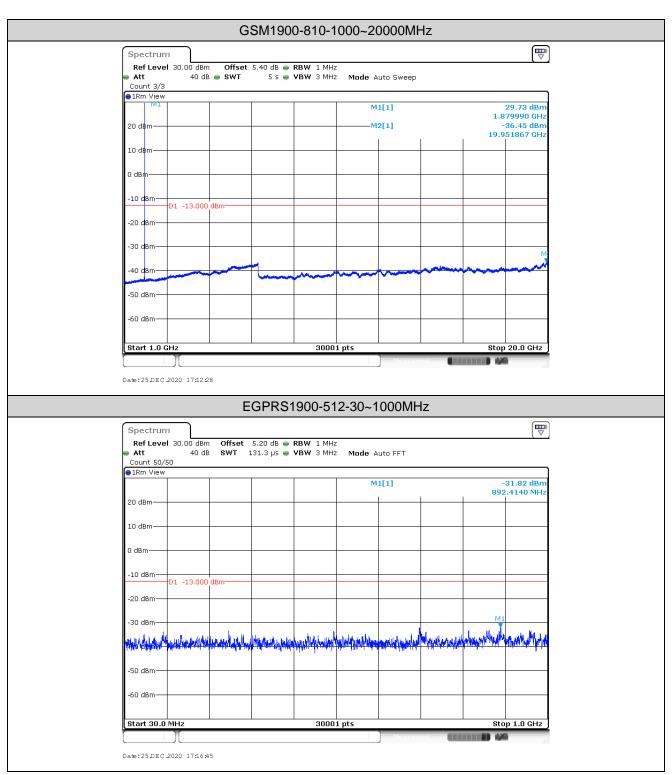
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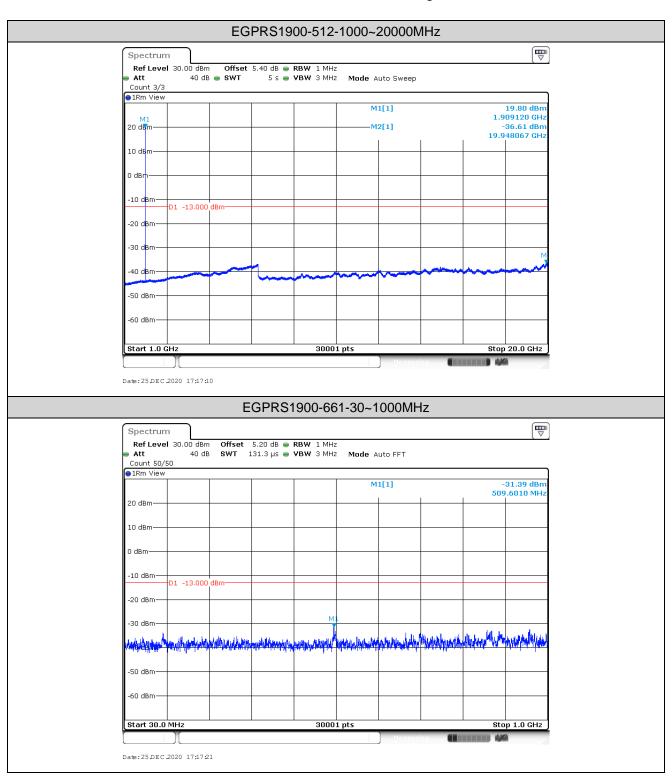
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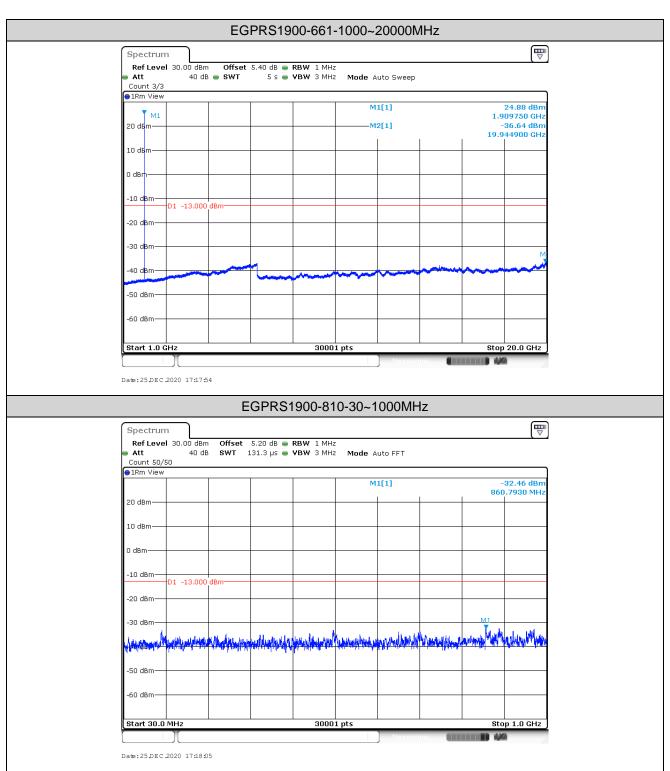
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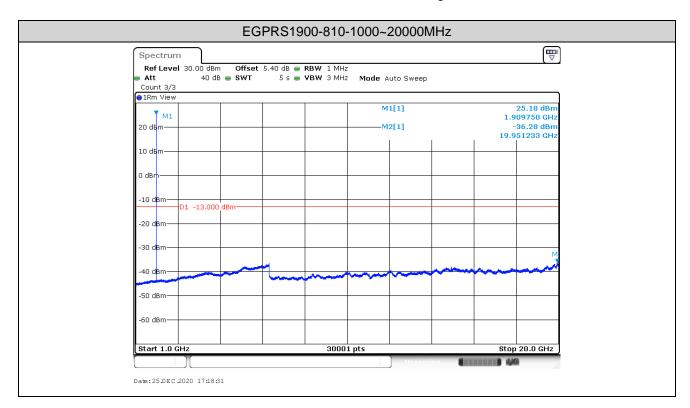
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7. Field Strength of Spurious Radiation

7.1. Test Band = GSM_850 MAIN

7.1.1. Test Channel = Low Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	43.8232	-62.75	-13.00	49.75	Horizontal				
2	99.0675	-73.88	-13.00	60.88	Horizontal				
3	241.8586	-66.51	-13.00	53.51	Horizontal				
4	1648.5297	-39.14	-13.00	26.14	Horizontal				
5	2473.0946	-38.60	-13.00	25.60	Horizontal				
6	4121.2040	-59.59	-13.00	46.59	Horizontal				



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7.2. Test Band = GSM_850 MAIN

7.2.1. Test Channel = Low Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	31.6491	-73.10	-13.00	60.10	Vertical				
2	114.7822	-62.69	-13.00	49.69	Vertical				
3	460.2165	-64.52	-13.00	51.52	Vertical				
4	1648.1296	-49.38	-13.00	36.38	Vertical				
5	2472.2945	-45.89	-13.00	32.89	Vertical				
6	9821.7274	-51.95	-13.00	38.95	Vertical				



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7.3. Test Band = GSM_850 MAIN

7.3.1. Test Channel = Mid Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	42.9501	-61.93	-13.00	48.93	Horizontal				
2	102.0261	-73.91	-13.00	60.91	Horizontal				
3	237.0569	-67.09	-13.00	54.09	Horizontal				
4	1673.3347	-39.90	-13.00	26.90	Horizontal				
5	2509.9020	-37.44	-13.00	24.44	Horizontal				
6	9561.7854	-52.67	-13.00	39.67	Horizontal				



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7.4. Test Band = GSM_850 MAIN

7.4.1. Test Channel = Mid Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	30.5335	-74.85	-13.00	61.85	Vertical				
2	108.4769	-62.92	-13.00	49.92	Vertical				
3	438.8269	-66.25	-13.00	53.25	Vertical				
4	1672.9346	-49.11	-13.00	36.11	Vertical				
5	2510.3021	-46.45	-13.00	33.45	Vertical				
6	9585.8195	-52.62	-13.00	39.62	Vertical				



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7.5. Test Band = GSM_850 MAIN

7.5.1. Test Channel = High Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	39.7490	-63.22	-13.00	50.22	Horizontal				
2	96.6423	-72.93	-13.00	59.93	Horizontal				
3	232.0126	-66.59	-13.00	53.59	Horizontal				
4	1697.3395	-40.31	-13.00	27.31	Horizontal				
5	2546.3093	-41.56	-13.00	28.56	Horizontal				
6	9542.6514	-52.62	-13.00	39.62	Horizontal				



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7.6. Test Band = GSM_850 MAIN

7.6.1. Test Channel = High Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	30.6790	-74.02	-13.00	61.02	Vertical				
2	109.9320	-63.73	-13.00	50.73	Vertical				
3	421.0751	-65.48	-13.00	52.48	Vertical				
4	1697.7395	-48.54	-13.00	35.54	Vertical				
5	2546.7093	-42.06	-13.00	29.06	Vertical				
6	9313.0438	-52.70	-13.00	39.70	Vertical				



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7.7. Test Band = **GSM_1900** MAIN

7.7.1. Test Channel = Low Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	42.1741	-63.87	-13.00	50.87	Horizontal				
2	100.9590	-74.14	-13.00	61.14	Horizontal				
3	231.9641	-67.78	-13.00	54.78	Horizontal				
4	3700.5234	-51.72	-13.00	38.72	Horizontal				
5	5550.5850	-46.22	-13.00	33.22	Horizontal				
6	16401.946	-45.13	-13.00	32.13	Horizontal				



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7.8. Test Band = GSM_1900 MAIN

7.8.1. Test Channel = Low Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	30.2910	-74.76	-13.00	61.76	Vertical				
2	118.7109	-63.68	-13.00	50.68	Vertical				
3	386.1048	-66.90	-13.00	53.90	Vertical				
4	3700.5234	-59.01	-13.00	46.01	Vertical				
5	5550.5850	-51.06	-13.00	38.06	Vertical				
6	17988.499	-41.06	-13.00	28.06	Vertical				



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7.9. Test Band = **GSM_1900 MAIN**

7.9.1. Test Channel = Mid Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	40.9130	-63.30	-13.00	50.30	Horizontal				
2	92.3741	-74.73	-13.00	61.73	Horizontal				
3	234.0497	-66.84	-13.00	53.84	Horizontal				
4	3760.0253	-49.04	-13.00	36.04	Horizontal				
5	5640.0880	-47.26	-13.00	34.26	Horizontal				
6	16386.446	-44.76	-13.00	31.76	Horizontal				



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7.10. Test Band = GSM_1900 MAIN 7.10.1. Test Channel = Mid Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	30.2425	-75.02	-13.00	62.02	Vertical				
2	110.6595	-63.97	-13.00	50.97	Vertical				
3	459.2465	-65.95	-13.00	52.95	Vertical				
4	3760.0253	-57.40	-13.00	44.40	Vertical				
5	5640.0880	-50.33	-13.00	37.33	Vertical				
6	17999.000	-41.31	-13.00	28.31	Vertical				



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7.11. Test Band = GSM_1900 MAIN 7.11.1. Test Channel = High Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	44.1142	-63.23	-13.00	50.23	Horizontal				
2	109.3500	-74.83	-13.00	61.83	Horizontal				
3	234.3892	-66.82	-13.00	53.82	Horizontal				
4	3819.5273	-53.61	-13.00	40.61	Horizontal				
5	5729.5910	-51.17	-13.00	38.17	Horizontal				
6	16376.445	-45.26	-13.00	32.26	Horizontal				



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7.12. Test Band = GSM_1900 MAIN 7.12.1. Test Channel = High Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	31.6976	-75.94	-13.00	62.94	Vertical				
2	115.5583	-63.98	-13.00	50.98	Vertical				
3	517.6919	-65.27	-13.00	52.27	Vertical				
4	3819.5273	-55.38	-13.00	42.38	Vertical				
5	5729.5910	-55.43	-13.00	42.43	Vertical				
6	17997.999	-41.38	-13.00	28.38	Vertical				



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7.13. Test Band = **GSM_850** DIV

7.13.1. Test Channel = Low Channel

Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity			
1	43.6292	-62.97	-13.00	49.97	Horizontal			
2	101.8806	-74.69	-13.00	61.69	Horizontal			
3	244.0897	-66.53	-13.00	53.53	Horizontal			
4	1648.5297	-46.44	-13.00	33.44	Horizontal			
5	2473.0946	-36.00	-13.00	23.00	Horizontal			
6	9313.2771	-52.05	-13.00	39.05	Horizontal			



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7.14. Test Band = GSM_850 DIV 7.14.1. Test Channel = Low Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	30.9215	-74.51	-13.00	61.51	Vertical				
2	116.0433	-63.08	-13.00	50.08	Vertical				
3	433.3462	-66.38	-13.00	53.38	Vertical				
4	1648.1296	-47.16	-13.00	34.16	Vertical				
5	2472.6945	-39.57	-13.00	26.57	Vertical				
6	9851.8284	-51.88	-13.00	38.88	Vertical				



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7.15. Test Band = GSM_850 DIV 7.15.1. Test Channel = Mid Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	38.5364	-63.14	-13.00	50.14	Horizontal				
2	97.3699	-74.51	-13.00	61.51	Horizontal				
3	236.1353	-67.13	-13.00	54.13	Horizontal				
4	1672.9346	-40.76	-13.00	27.76	Horizontal				
5	2509.9020	-30.10	-13.00	17.10	Horizontal				
6	9329.8443	-52.13	-13.00	39.13	Horizontal				



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7.16. Test Band = GSM_850 DIV 7.16.1. Test Channel = Mid Channel

Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity			
1	30.6790	-74.81	-13.00	61.81	Vertical			
2	112.3571	-63.24	-13.00	50.24	Vertical			
3	439.0210	-66.17	-13.00	53.17	Vertical			
4	1672.9346	-47.64	-13.00	34.64	Vertical			
5	2509.9020	-44.90	-13.00	31.90	Vertical			
6	9874.6958	-51.80	-13.00	38.80	Vertical			



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7.17. Test Band = GSM_850 DIV 7.17.1. Test Channel = High Channel

Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity			
1	46.6848	-62.91	-13.00	49.91	Horizontal			
2	106.1003	-74.01	-13.00	61.01	Horizontal			
3	233.0312	-67.00	-13.00	54.00	Horizontal			
4	1697.3395	-48.21	-13.00	35.21	Horizontal			
5	2546.7093	-35.34	-13.00	22.34	Horizontal			
6	9571.1190	-52.05	-13.00	39.05	Horizontal			



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7.18. Test Band = GSM_850 DIV 7.18.1. Test Channel = High Channel

Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity			
1	30.0485	-74.00	-13.00	61.00	Vertical			
2	108.8164	-63.38	-13.00	50.38	Vertical			
3	330.5695	-67.35	-13.00	54.35	Vertical			
4	1697.7395	-47.50	-13.00	34.50	Vertical			
5	2546.7093	-38.92	-13.00	25.92	Vertical			
6	9890.3297	-51.61	-13.00	38.61	Vertical			



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7.19. Test Band = GSM_1900 DIV 7.19.1. Test Channel = Low Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	42.4166	-63.02	-13.00	50.02	Horizontal				
2	103.9177	-75.05	-13.00	62.05	Horizontal				
3	233.1282	-68.07	-13.00	55.07	Horizontal				
4	3700.5234	-54.68	-13.00	41.68	Horizontal				
5	5550.5850	-46.09	-13.00	33.09	Horizontal				
6	16377.945	-43.38	-13.00	30.38	Horizontal				



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7.20. Test Band = GSM_1900 DIV 7.20.1. Test Channel = Low Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	30.4365	-75.08	-13.00	62.08	Vertical				
2	108.4769	-64.82	-13.00	51.82	Vertical				
3	648.4059	-62.73	-13.00	49.73	Vertical				
4	3700.5234	-51.25	-13.00	38.25	Vertical				
5	5550.5850	-51.40	-13.00	38.40	Vertical				
6	17998.500	-39.16	-13.00	26.16	Vertical				



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7.21. Test Band = GSM_1900 DIV 7.21.1. Test Channel = Mid Channel

Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity			
1	45.0358	-63.27	-13.00	50.27	Horizontal			
2	83.5952	-75.42	-13.00	62.42	Horizontal			
3	234.7772	-67.27	-13.00	54.27	Horizontal			
4	3760.0253	-47.60	-13.00	34.60	Horizontal			
5	5640.0880	-44.58	-13.00	31.58	Horizontal			
6	16374.445	-42.92	-13.00	29.92	Horizontal			



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7.22. Test Band = GSM_1900 DIV 7.22.1. Test Channel = Mid Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	31.4066	-74.06	-13.00	61.06	Vertical				
2	108.3799	-64.77	-13.00	51.77	Vertical				
3	595.8293	-63.06	-13.00	50.06	Vertical				
4	3759.5253	-54.89	-13.00	41.89	Vertical				
5	5640.0880	-47.83	-13.00	34.83	Vertical				
6	17995.999	-39.23	-13.00	26.23	Vertical				



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7.23. Test Band = GSM_1900 DIV 7.23.1. Test Channel = High Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity				
1	44.1142	-63.04	-13.00	50.04	Horizontal				
2	102.1716	-74.26	-13.00	61.26	Horizontal				
3	242.8286	-67.21	-13.00	54.21	Horizontal				
4	3819.5273	-57.23	-13.00	44.23	Horizontal				
5	5729.5910	-41.76	-13.00	28.76	Horizontal				
6	16378.445	-43.18	-13.00	30.18	Horizontal				



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7.24. Test Band = GSM_1900 DIV 7.24.1. Test Channel = High Channel

Suspected Data List								
NO.	Freq. [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity			
1	30.1940	-74.54	-13.00	61.54	Vertical			
2	110.4170	-64.15	-13.00	51.15	Vertical			
3	638.6084	-62.84	-13.00	49.84	Vertical			
4	3820.0273	-55.94	-13.00	42.94	Vertical			
5	5729.5910	-50.19	-13.00	37.19	Vertical			
6	17999.500	-39.27	-13.00	26.27	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	21.63	0.026244	±2.5	PASS	
GSM850	128	VN	NT	17.98	0.021815	±2.5	PASS	
GSM850	128	VH	NT	16.40	0.019898	±2.5	PASS	
GSM850	190	VL	NT	13.79	0.016483	±2.5	PASS	
GSM850	190	VN	NT	21.28	0.025436	±2.5	PASS	
GSM850	190	VH	NT	18.08	0.021611	±2.5	PASS	
GSM850	251	VL	NT	22.79	0.026850	±2.5	PASS	
GSM850	251	VN	NT	26.25	0.030926	±2.5	PASS	
GSM850	251	VH	NT	25.18	0.029665	±2.5	PASS	
EGPRS850	128	VL	NT	46.39	0.056285	±2.5	PASS	
EGPRS850	128	VN	NT	45.59	0.055314	±2.5	PASS	
EGPRS850	128	VH	NT	43.39	0.052645	±2.5	PASS	
EGPRS850	190	VL	NT	41.04	0.049056	±2.5	PASS	
EGPRS850	190	VN	NT	46.49	0.055570	±2.5	PASS	
EGPRS850	190	VH	NT	42.42	0.050705	±2.5	PASS	
EGPRS850	251	VL	NT	41.10	0.048421	±2.5	PASS	
EGPRS850	251	VN	NT	43.17	0.050860	±2.5	PASS	
EGPRS850	251	VH	NT	47.30	0.055726	±2.5	PASS	
GSM1900	512	VL	NT	31.45	0.016998	±2.5	PASS	
GSM1900	512	VN	NT	28.48	0.015393	±2.5	PASS	
GSM1900	512	VH	NT	25.80	0.013944	±2.5	PASS	
GSM1900	661	VL	NT	44.43	0.023633	±2.5	PASS	
GSM1900	661	VN	NT	42.39	0.022548	±2.5	PASS	
GSM1900	661	VH	NT	41.39	0.022016	±2.5	PASS	
GSM1900	810	VL	NT	45.91	0.024039	±2.5	PASS	
GSM1900	810	VN	NT	41.81	0.021892	±2.5	PASS	
GSM1900	810	VH	NT	34.51	0.018070	±2.5	PASS	
EGPRS1900	512	VL	NT	41.91	0.022652	±2.5	PASS	
EGPRS1900	512	VN	NT	46.56	0.025165	±2.5	PASS	
EGPRS1900	512	VH	NT	41.75	0.022565	±2.5	PASS	
EGPRS1900	661	VL	NT	54.11	0.028782	±2.5	PASS	
EGPRS1900	661	VN	NT	48.07	0.025569	±2.5	PASS	



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EGPRS1900	661	VH	NT	55.43	0.029484	±2.5	PASS
EGPRS1900	810	VL	NT	55.69	0.029160	±2.5	PASS
EGPRS1900	810	VN	NT	49.24	0.025783	±2.5	PASS
EGPRS1900	810	VH	NT	58.76	0.030768	±2.5	PASS



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8.2. Frequency Error Vs Temperature

Temperature									
Band	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict		
GSM850	128	NV	-30	18.66	0.022640	±2.5	PASS		
GSM850	128	NV	-20	21.02	0.025504	±2.5	PASS		
GSM850	128	NV	-10	20.44	0.024800	±2.5	PASS		
GSM850	128	NV	0	18.02	0.021864	±2.5	PASS		
GSM850	128	NV	10	15.88	0.019267	±2.5	PASS		
GSM850	128	NV	20	16.59	0.020129	±2.5	PASS		
GSM850	128	NV	30	18.14	0.022009	±2.5	PASS		
GSM850	128	NV	40	16.69	0.020250	±2.5	PASS		
GSM850	128	NV	50	24.54	0.029774	±2.5	PASS		
GSM850	190	NV	-30	17.18	0.020536	±2.5	PASS		
GSM850	190	NV	-20	22.12	0.026440	±2.5	PASS		
GSM850	190	NV	-10	17.21	0.020571	±2.5	PASS		
GSM850	190	NV	0	17.14	0.020488	±2.5	PASS		
GSM850	190	NV	10	17.40	0.020798	±2.5	PASS		
GSM850	190	NV	20	14.59	0.017440	±2.5	PASS		
GSM850	190	NV	30	22.08	0.026393	±2.5	PASS		
GSM850	190	NV	40	15.85	0.018946	±2.5	PASS		
GSM850	190	NV	50	19.27	0.023034	±2.5	PASS		
GSM850	251	NV	-30	24.38	0.028723	±2.5	PASS		
GSM850	251	NV	-20	25.73	0.030313	±2.5	PASS		
GSM850	251	NV	-10	23.89	0.028146	±2.5	PASS		
GSM850	251	NV	0	23.79	0.028028	±2.5	PASS		
GSM850	251	NV	10	24.89	0.029324	±2.5	PASS		
GSM850	251	NV	20	22.12	0.026060	±2.5	PASS		
GSM850	251	NV	30	23.18	0.027309	±2.5	PASS		
GSM850	251	NV	40	27.02	0.031833	±2.5	PASS		
GSM850	251	NV	50	25.31	0.029819	±2.5	PASS		
EGPRS850	128	NV	-30	43.97	0.053349	±2.5	PASS		
EGPRS850	128	NV	-20	42.33	0.051359	±2.5	PASS		
EGPRS850	128	NV	-10	44.68	0.054210	±2.5	PASS		
EGPRS850	128	NV	0	45.23	0.054877	±2.5	PASS		
EGPRS850	128	NV	10	44.78	0.054331	±2.5	PASS		
EGPRS850	128	NV	20	43.75	0.053082	±2.5	PASS		



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		T		•			
EGPRS850	128	NV	30	42.65	0.051747	±2.5	PASS
EGPRS850	128	NV	40	42.78	0.051905	±2.5	PASS
EGPRS850	128	NV	50	42.91	0.052063	±2.5	PASS
EGPRS850	190	NV	-30	42.65	0.050980	±2.5	PASS
EGPRS850	190	NV	-20	43.23	0.051673	±2.5	PASS
EGPRS850	190	NV	-10	42.42	0.050705	±2.5	PASS
EGPRS850	190	NV	0	41.91	0.050096	±2.5	PASS
EGPRS850	190	NV	10	39.26	0.046928	±2.5	PASS
EGPRS850	190	NV	20	42.33	0.050598	±2.5	PASS
EGPRS850	190	NV	30	41.62	0.049749	±2.5	PASS
EGPRS850	190	NV	40	40.84	0.048817	±2.5	PASS
EGPRS850	190	NV	50	41.75	0.049904	±2.5	PASS
EGPRS850	251	NV	-30	48.98	0.057705	±2.5	PASS
EGPRS850	251	NV	-20	46.39	0.054654	±2.5	PASS
EGPRS850	251	NV	-10	48.85	0.057552	±2.5	PASS
EGPRS850	251	NV	0	47.17	0.055573	±2.5	PASS
EGPRS850	251	NV	10	48.17	0.056751	±2.5	PASS
EGPRS850	251	NV	20	47.65	0.056138	±2.5	PASS
EGPRS850	251	NV	30	45.68	0.053817	±2.5	PASS
EGPRS850	251	NV	40	47.20	0.055608	±2.5	PASS
EGPRS850	251	NV	50	47.04	0.055419	±2.5	PASS
GSM1900	512	NV	-30	28.73	0.015528	±2.5	PASS
GSM1900	512	NV	-20	29.86	0.016139	±2.5	PASS
GSM1900	512	NV	-10	28.09	0.015182	±2.5	PASS
GSM1900	512	NV	0	31.58	0.017068	±2.5	PASS
GSM1900	512	NV	10	27.70	0.014971	±2.5	PASS
GSM1900	512	NV	20	30.25	0.016350	±2.5	PASS
GSM1900	512	NV	30	24.50	0.013242	±2.5	PASS
GSM1900	512	NV	40	28.99	0.015669	±2.5	PASS
GSM1900	512	NV	50	28.15	0.015215	±2.5	PASS
GSM1900	661	NV	-30	46.69	0.024835	±2.5	PASS
GSM1900	661	NV	-20	39.68	0.021106	±2.5	PASS
GSM1900	661	NV	-10	46.10	0.024521	±2.5	PASS
GSM1900	661	NV	0	43.72	0.023255	±2.5	PASS
GSM1900	661	NV	10	41.68	0.022170	±2.5	PASS
GSM1900	661	NV	20	37.87	0.020144	±2.5	PASS
GSM1900	661	NV	30	44.72	0.023787	±2.5	PASS



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		1				1	_
GSM1900	661	NV	40	43.13	0.022941	±2.5	PASS
GSM1900	661	NV	50	43.91	0.023356	±2.5	PASS
GSM1900	810	NV	-30	34.87	0.018258	±2.5	PASS
GSM1900	810	NV	-20	42.20	0.022097	±2.5	PASS
GSM1900	810	NV	-10	40.55	0.021233	±2.5	PASS
GSM1900	810	NV	0	36.52	0.019122	±2.5	PASS
GSM1900	810	NV	10	36.32	0.019018	±2.5	PASS
GSM1900	810	NV	20	38.94	0.020390	±2.5	PASS
GSM1900	810	NV	30	39.16	0.020505	±2.5	PASS
GSM1900	810	NV	40	37.71	0.019746	±2.5	PASS
GSM1900	810	NV	50	38.42	0.020117	±2.5	PASS
EGPRS1900	512	NV	-30	43.49	0.023506	±2.5	PASS
EGPRS1900	512	NV	-20	43.46	0.023489	±2.5	PASS
EGPRS1900	512	NV	-10	41.10	0.022214	±2.5	PASS
EGPRS1900	512	NV	0	40.33	0.021798	±2.5	PASS
EGPRS1900	512	NV	10	43.33	0.023419	±2.5	PASS
EGPRS1900	512	NV	20	44.01	0.023787	±2.5	PASS
EGPRS1900	512	NV	30	41.23	0.022284	±2.5	PASS
EGPRS1900	512	NV	40	41.52	0.022441	±2.5	PASS
EGPRS1900	512	NV	50	45.17	0.024414	±2.5	PASS
EGPRS1900	661	NV	-30	55.73	0.029644	±2.5	PASS
EGPRS1900	661	NV	-20	52.76	0.028064	±2.5	PASS
EGPRS1900	661	NV	-10	56.76	0.030191	±2.5	PASS
EGPRS1900	661	NV	0	53.85	0.028644	±2.5	PASS
EGPRS1900	661	NV	10	52.17	0.027750	±2.5	PASS
EGPRS1900	661	NV	20	58.21	0.030963	±2.5	PASS
EGPRS1900	661	NV	30	57.73	0.030707	±2.5	PASS
EGPRS1900	661	NV	40	48.14	0.025606	±2.5	PASS
EGPRS1900	661	NV	50	53.27	0.028335	±2.5	PASS
EGPRS1900	810	NV	-30	56.37	0.029516	±2.5	PASS
EGPRS1900	810	NV	-20	54.92	0.028757	±2.5	PASS
EGPRS1900	810	NV	-10	55.27	0.028940	±2.5	PASS
EGPRS1900	810	NV	0	56.02	0.029333	±2.5	PASS
EGPRS1900	810	NV	10	58.82	0.030799	±2.5	PASS
EGPRS1900	810	NV	20	56.82	0.029752	±2.5	PASS
EGPRS1900	810	NV	30	53.50	0.028013	±2.5	PASS
EGPRS1900	810	NV	40	55.53	0.029076	±2.5	PASS



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EGPRS1900	810	NV	50	58.79	0.030783	±2.5	PASS

The End

