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Appendix B

GSM 850 & 1900



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1. Effective (Isotropic) Radiated Power Output Data

1.1.Test Result

ANT1:

Band	Channel	Slot	Conducted Power (dBm)	ERP (dBm)	Limit(dBm)	Verdict
GSM850	128		32.28	25.63	38.45	PASS
GSM850	190		32.34	25.69	38.45	PASS
GSM850	251		32.30	25.65	38.45	PASS
EGPRS850	128	1	26.45	19.8	38.45	PASS
EGPRS850	128	2	23.70	17.05	38.45	PASS
EGPRS850	128	3	21.90	15.25	38.45	PASS
EGPRS850	128	4	20.46	13.81	38.45	PASS
EGPRS850	190	1	26.37	19.72	38.45	PASS
EGPRS850	190	2	23.51	16.86	38.45	PASS
EGPRS850	190	3	21.81	15.16	38.45	PASS
EGPRS850	190	4	20.29	13.64	38.45	PASS
EGPRS850	251	1	26.30	19.65	38.45	PASS
EGPRS850	251	2	23.53	16.88	38.45	PASS
EGPRS850	251	3	21.65	15	38.45	PASS
EGPRS850	251	4	20.26	13.61	38.45	PASS

ANT2:

ANIZ:						
Band	Channel	Slot	Conducted Power (dBm)	EIRP (dBm)	Limit(dBm)	Verdict
GSM1900	512		30.54	28.64	33.00	PASS
GSM1900	661		30.58	28.68	33.00	PASS
GSM1900	810		30.56	28.66	33.00	PASS
EGPRS1900	512	1	26.04	24.14	33.00	PASS
EGPRS1900	512	2	23.53	21.63	33.00	PASS
EGPRS1900	512	3	21.75	19.85	33.00	PASS
EGPRS1900	512	4	20.30	18.4	33.00	PASS
EGPRS1900	661	1	26.12	24.22	33.00	PASS
EGPRS1900	661	2	23.60	21.7	33.00	PASS
EGPRS1900	661	3	21.85	19.95	33.00	PASS
EGPRS1900	661	4	20.18	18.28	33.00	PASS
EGPRS1900	810	1	25.94	24.04	33.00	PASS
EGPRS1900	810	2	23.51	21.61	33.00	PASS
EGPRS1900	810	3	21.51	19.61	33.00	PASS
EGPRS1900	810	4	20.12	18.22	33.00	PASS



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ANT4:

Band	Channel	Slot	Conducted Power (dBm)	ERP (dBm)	Limit(dBm)	Verdict
GSM850	128		32.28	25.83	38.45	PASS
GSM850	190		32.34	25.89	38.45	PASS
GSM850	251		32.30	25.85	38.45	PASS
EGPRS850	128	1	26.45	20	38.45	PASS
EGPRS850	128	2	23.70	17.25	38.45	PASS
EGPRS850	128	3	21.90	15.45	38.45	PASS
EGPRS850	128	4	20.46	14.01	38.45	PASS
EGPRS850	190	1	26.37	19.92	38.45	PASS
EGPRS850	190	2	23.51	17.06	38.45	PASS
EGPRS850	190	3	21.81	15.36	38.45	PASS
EGPRS850	190	4	20.29	13.84	38.45	PASS
EGPRS850	251	1	26.30	19.85	38.45	PASS
EGPRS850	251	2	23.53	17.08	38.45	PASS
EGPRS850	251	3	21.65	15.2	38.45	PASS
EGPRS850	251	4	20.26	13.81	38.45	PASS

ANT3:

Band	Channel	Slot	Conducted Power (dBm)	EIRP (dBm)	Limit(dBm)	Verdict
GSM1900	512		29.87	25.37	33.00	PASS
GSM1900	661		29.60	25.1	33.00	PASS
GSM1900	810		29.70	25.2	33.00	PASS
EGPRS1900	512	1	25.71	21.21	33.00	PASS
EGPRS1900	512	2	23.32	18.82	33.00	PASS
EGPRS1900	512	3	21.26	16.76	33.00	PASS
EGPRS1900	512	4	20.10	15.6	33.00	PASS
EGPRS1900	661	1	25.82	21.32	33.00	PASS
EGPRS1900	661	2	23.27	18.77	33.00	PASS
EGPRS1900	661	3	21.18	16.68	33.00	PASS
EGPRS1900	661	4	20.25	15.75	33.00	PASS
EGPRS1900	810	1	25.96	21.46	33.00	PASS
EGPRS1900	810	2	23.16	18.66	33.00	PASS
EGPRS1900	810	3	21.31	16.81	33.00	PASS
EGPRS1900	810	4	19.87	15.37	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

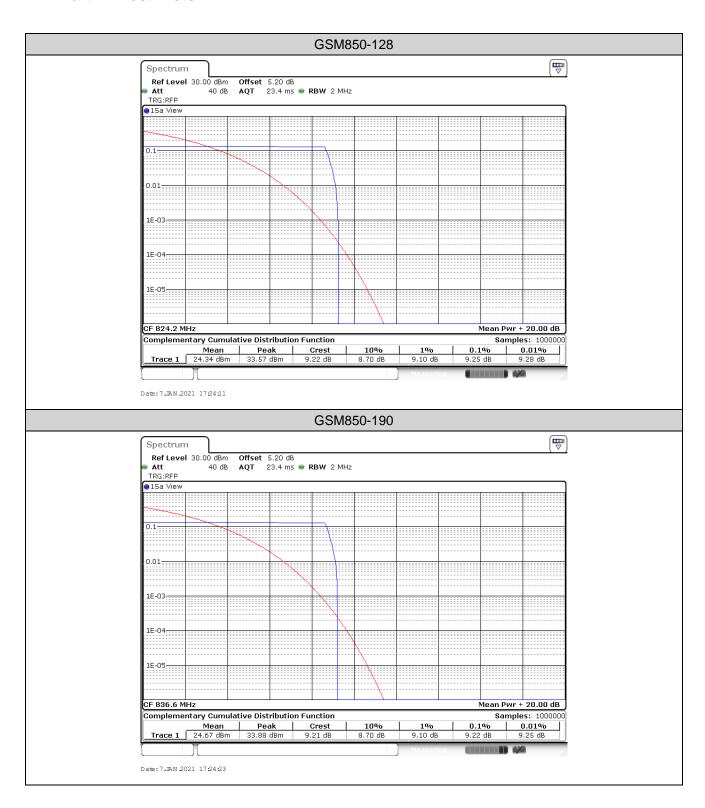
2.1. Test Result

Band	Channel	Result(dB)	Limit(dB)	Verdict
GSM850	128	9.25	13	PASS
GSM850	190	9.22	13	PASS
GSM850	251	9.16	13	PASS
EGPRS850	128	11.83	13	PASS
EGPRS850	190	12.72	13	PASS
EGPRS850	251	12.49	13	PASS
GSM1900	512	9.1	13	PASS
GSM1900	661	9.91	13	PASS
GSM1900	810	9.94	13	PASS
EGPRS1900	512	12.72	13	PASS
EGPRS1900	661	12.32	13	PASS
EGPRS1900	810	11.94	13	PASS



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2.2. Part II - Test Plots



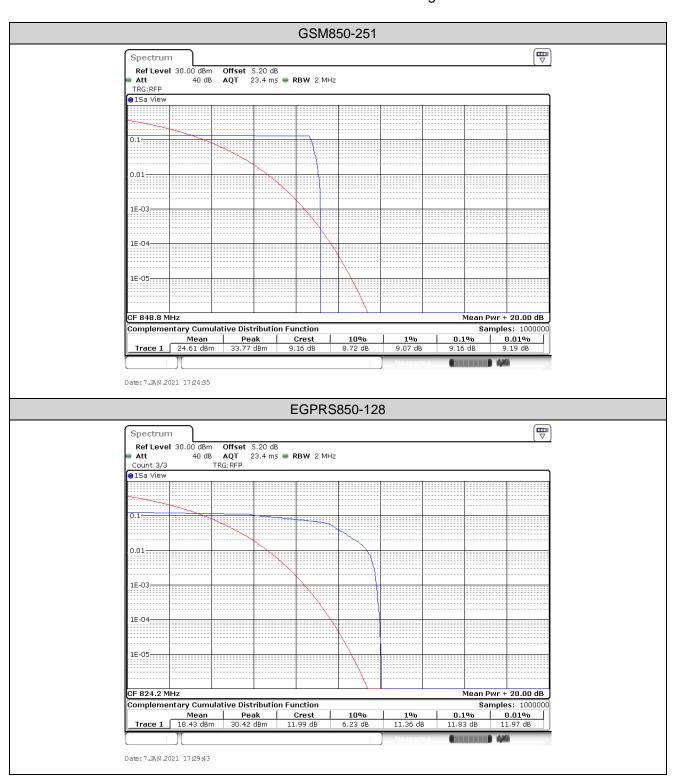


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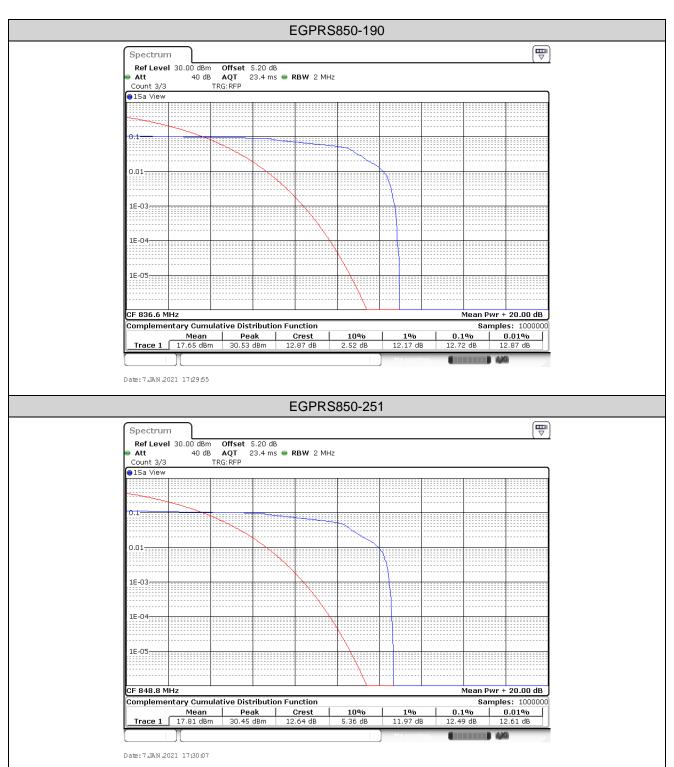
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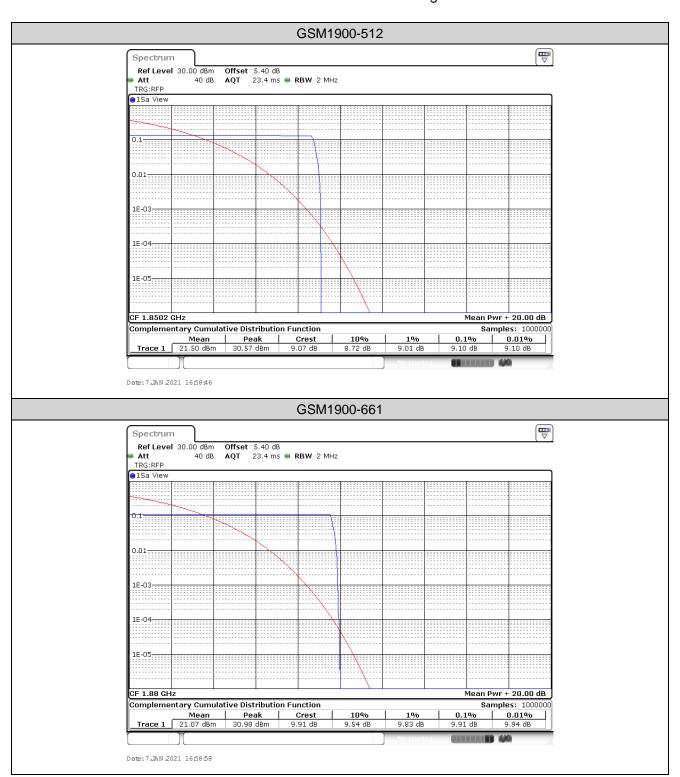
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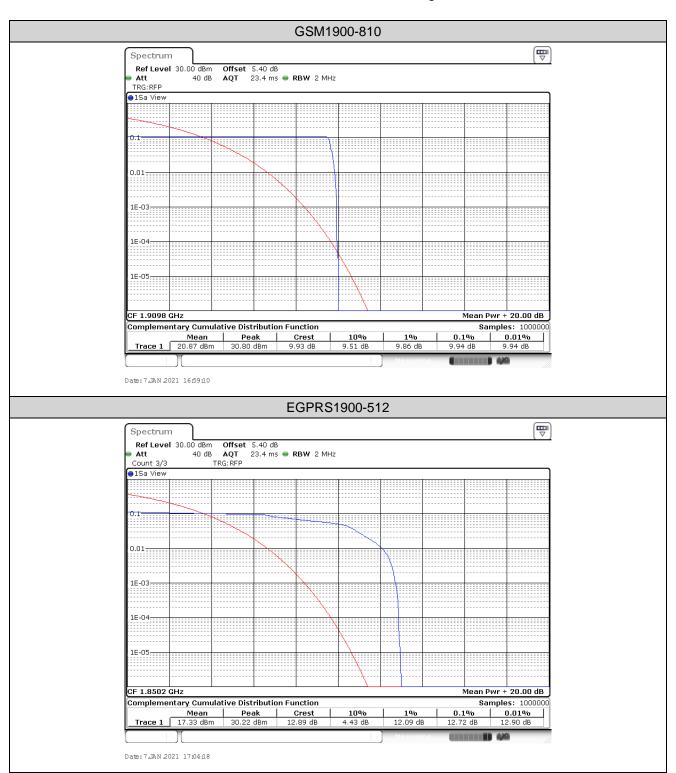


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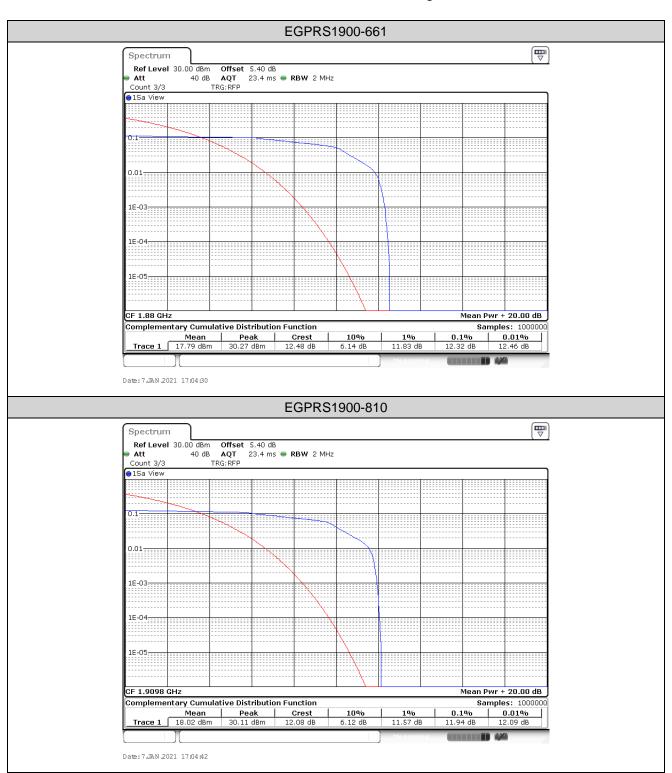
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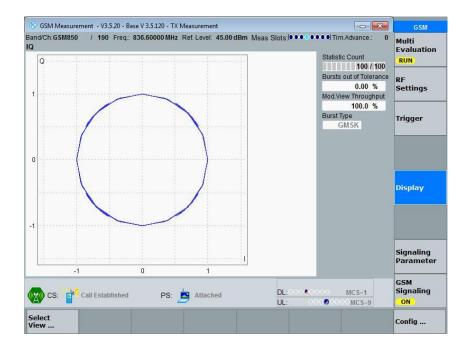
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3. Modulation Characteristics

- **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

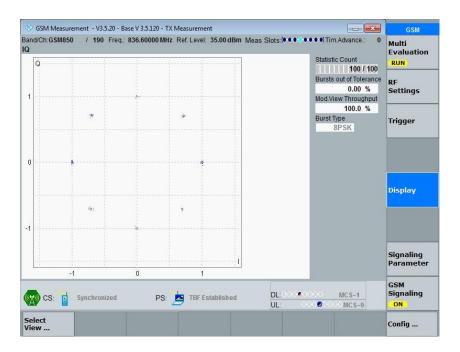




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3.1.1.2. Test Mode = GSM/TM2

3.1.1.2.1. Test Channel = MCH





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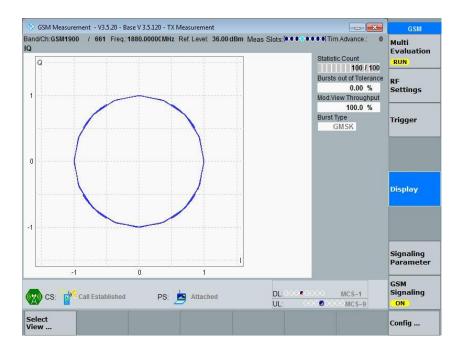
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3.1.2. Test Band = GSM 1900

3.1.2.1. Test Mode = GSM/TM1

3.1.2.1.1. Test Channel = MCH





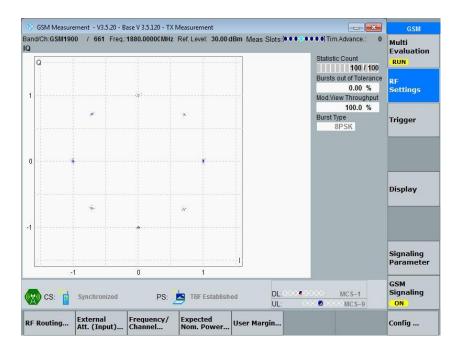
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3.1.2.2. Test Mode = GSM/TM2

3.1.2.2.1. Test Channel = MCH





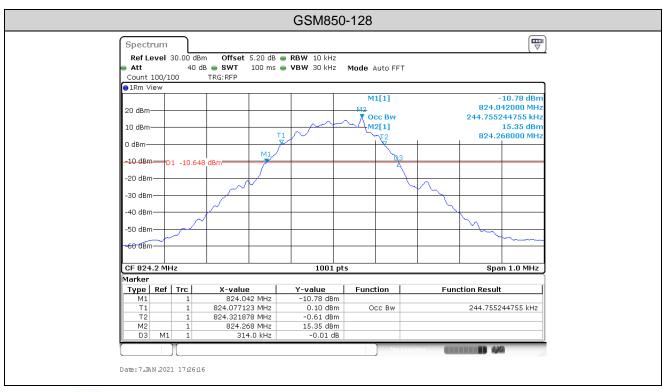
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4. 26dB Bandwidth and Occupied Bandwidth

4.1. Test Result

	Channel	Occupied	26dB Bandwidth	Limit	V
Band		Bandwidth (MHz)	(MHz)	(MHz)	Verdict
GSM850	128	0.245	0.314		PASS
GSM850	190	0.245	0.315		PASS
GSM850	251	0.245	0.314		PASS
EGPRS850	128	0.246	0.318		PASS
EGPRS850	190	0.247	0.319		PASS
EGPRS850	251	0.246	0.318		PASS
GSM1900	512	0.243	0.313		PASS
GSM1900	661	0.244	0.314		PASS
GSM1900	810	0.244	0.314		PASS
EGPRS1900	512	0.244	0.315		PASS
EGPRS1900	661	0.244	0.316		PASS
EGPRS1900	810	0.244	0.315		PASS

4.2. Test Plots





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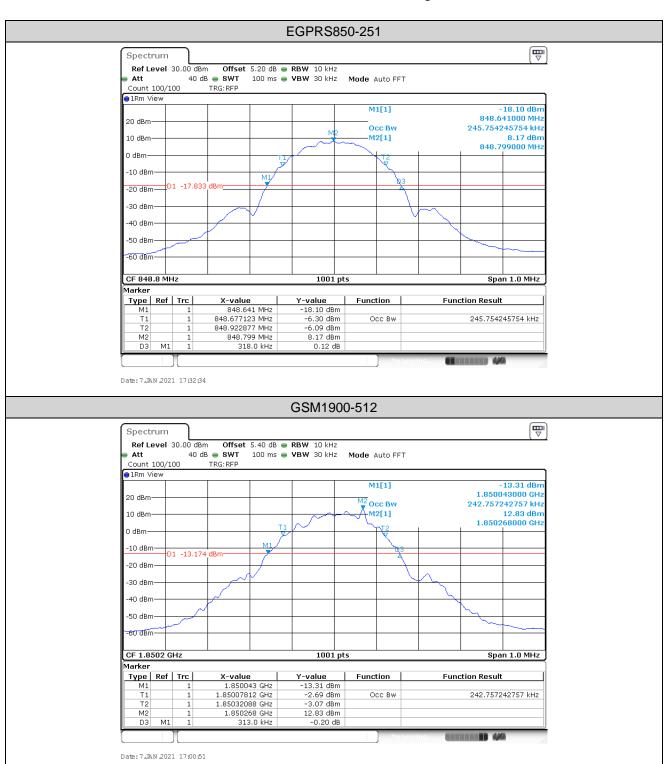
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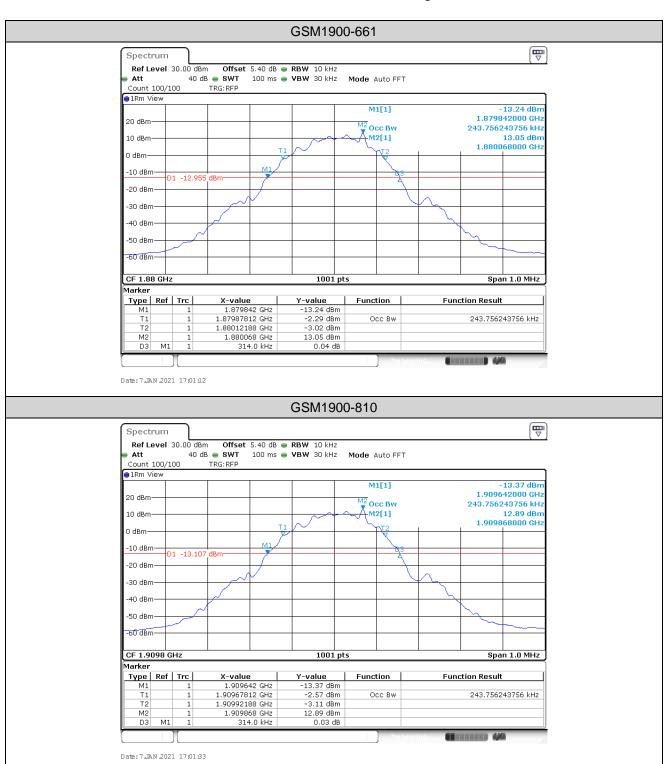
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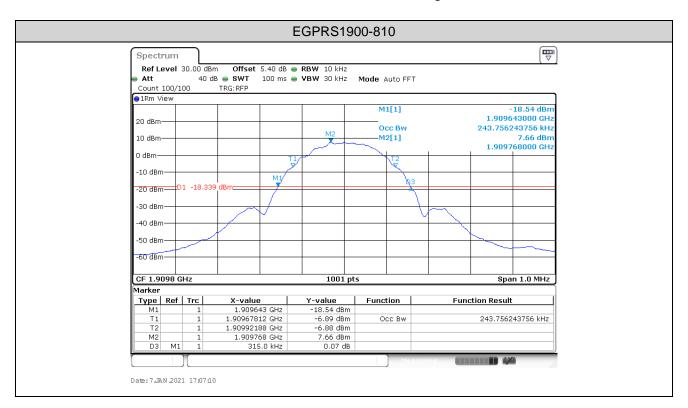
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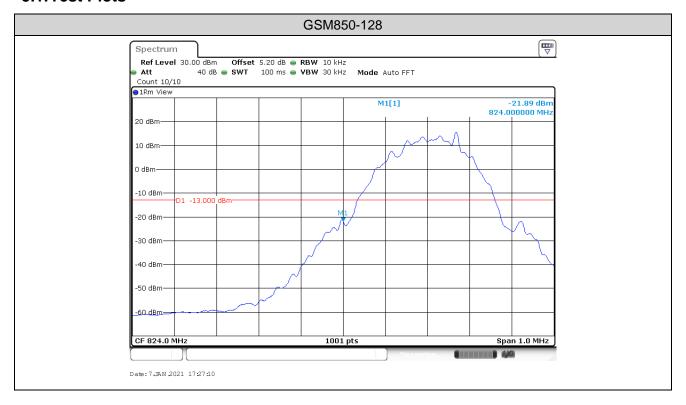
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5. Band Edge Compliance

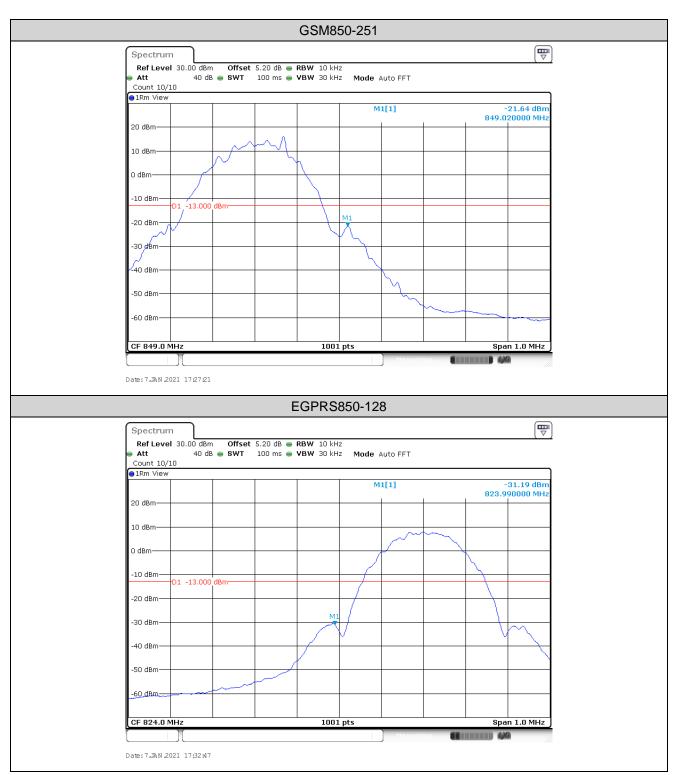
5.1. Test Plots





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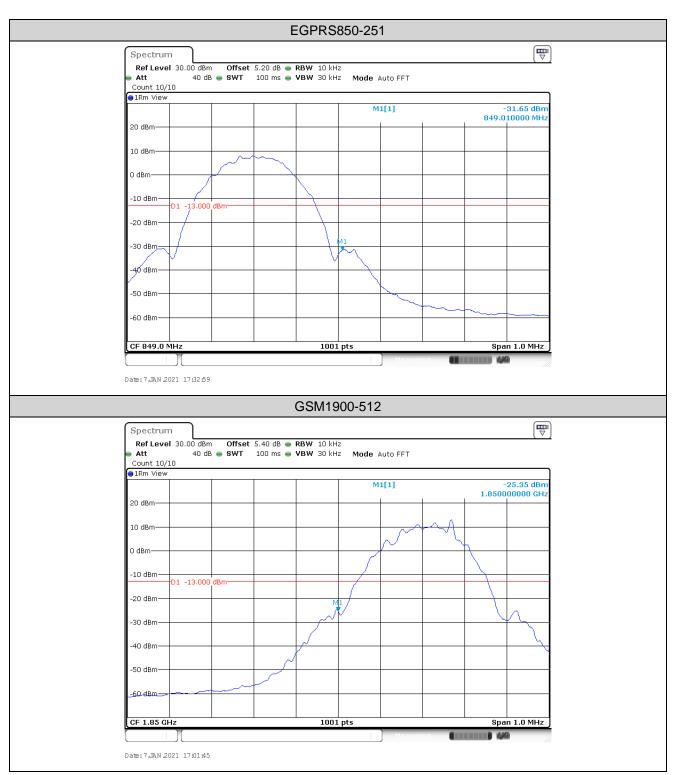
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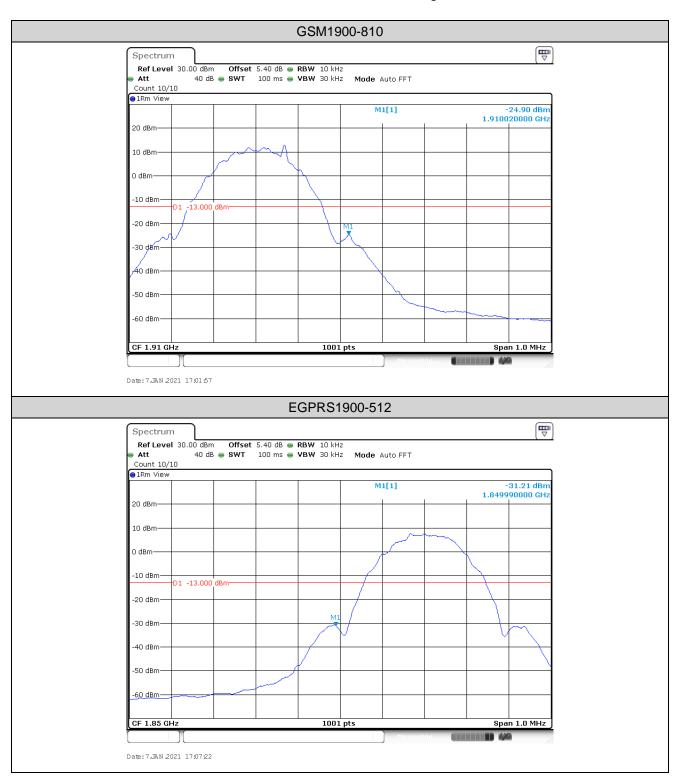


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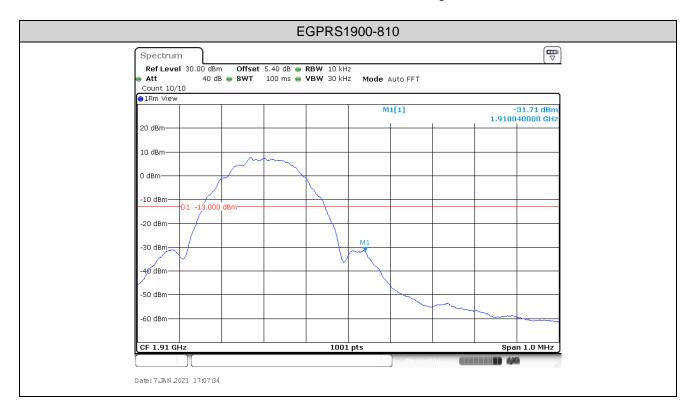
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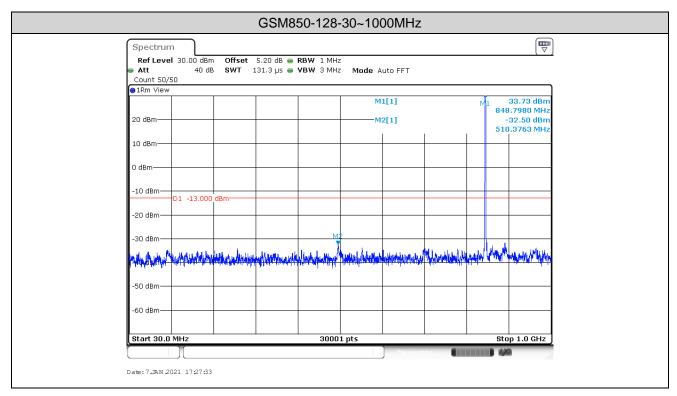
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6. Spurious Emission at Antenna Terminal

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

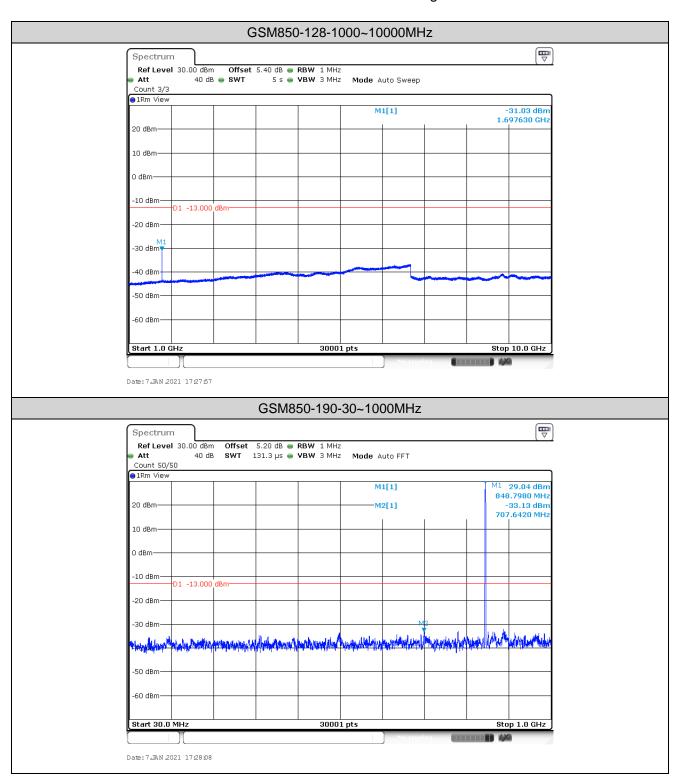






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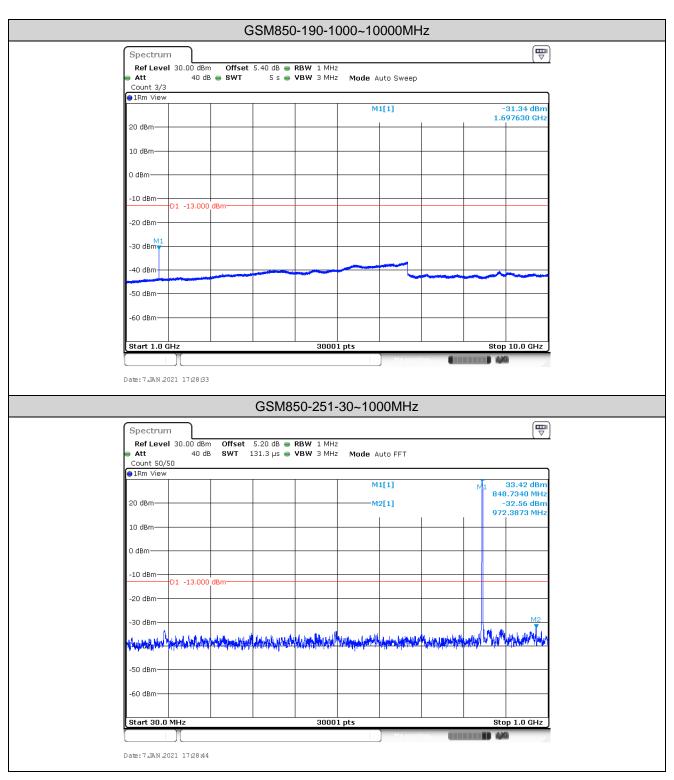
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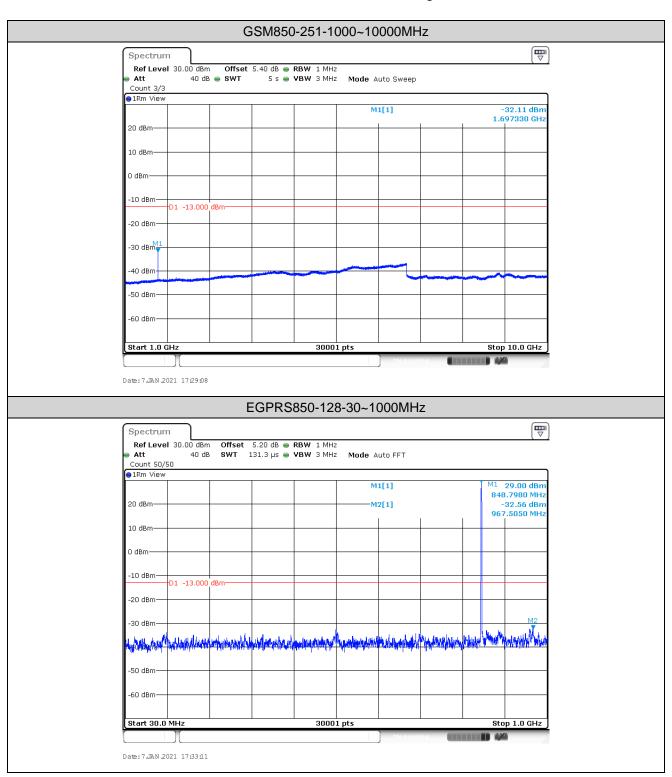
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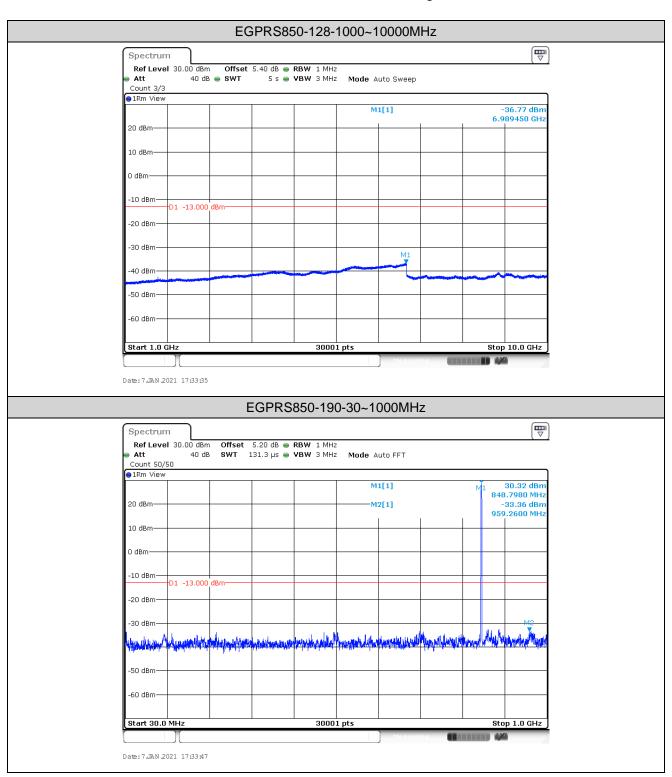
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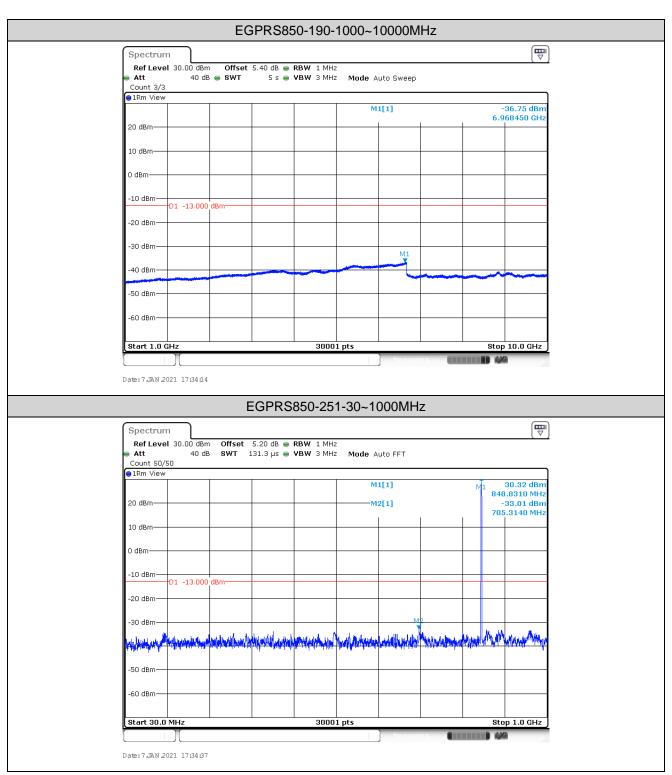
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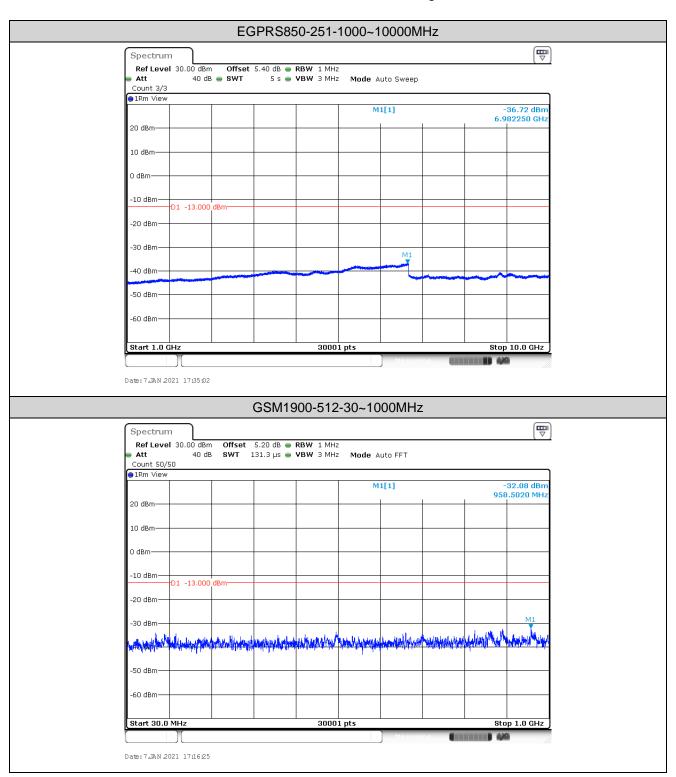


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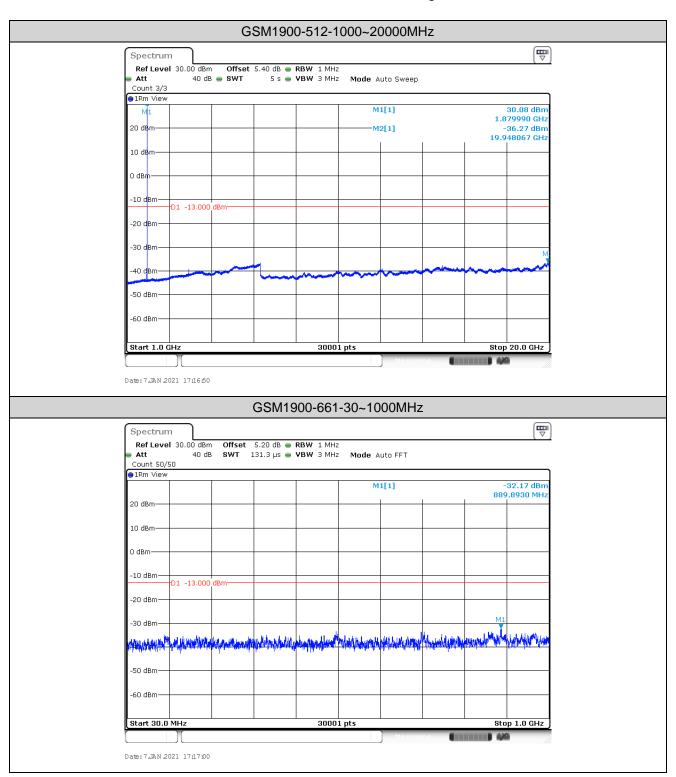
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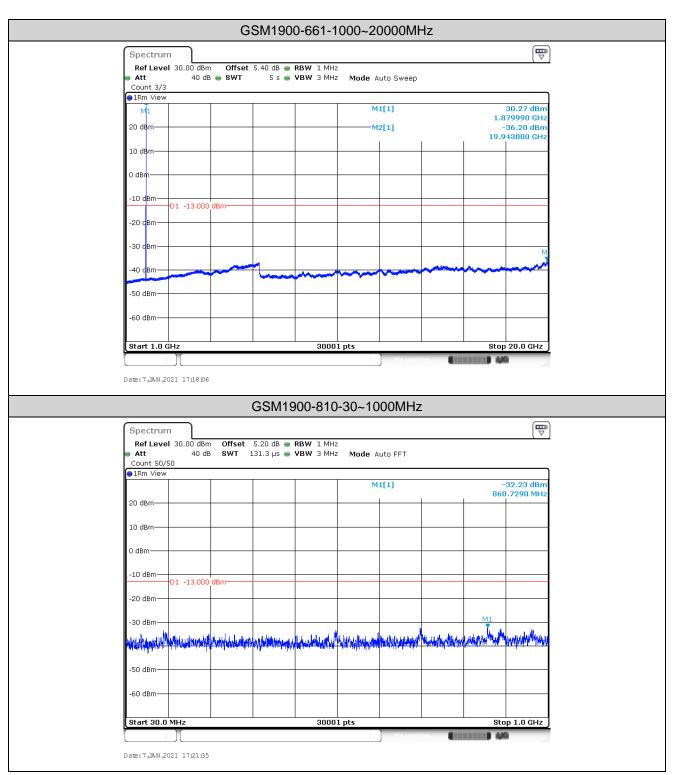
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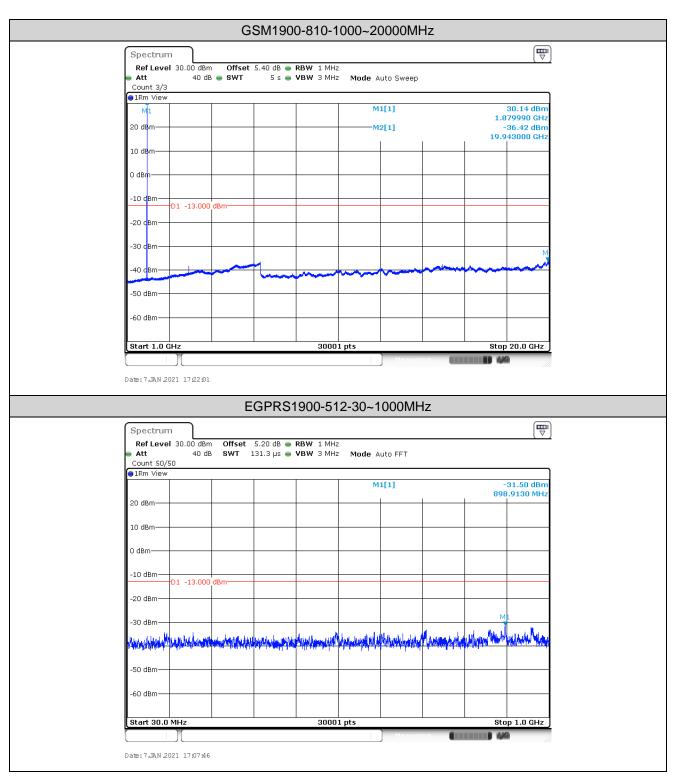
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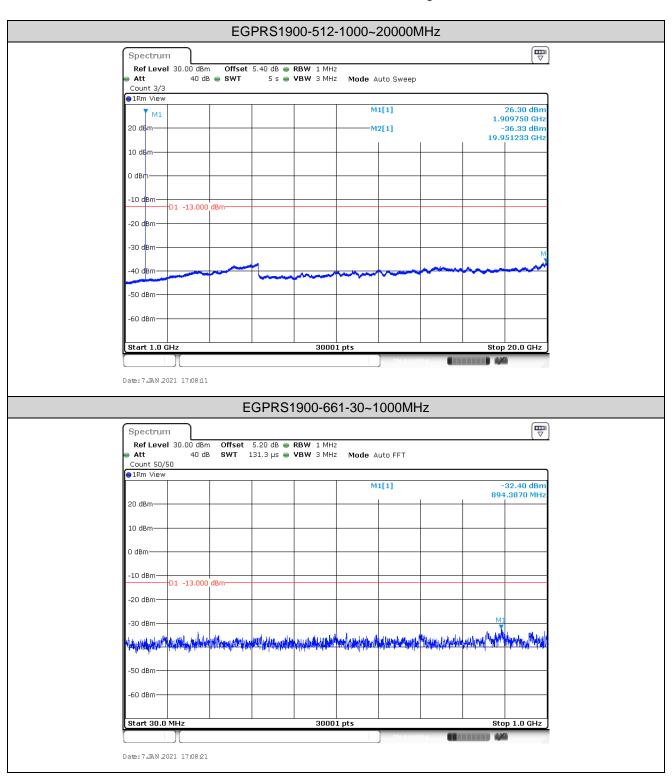
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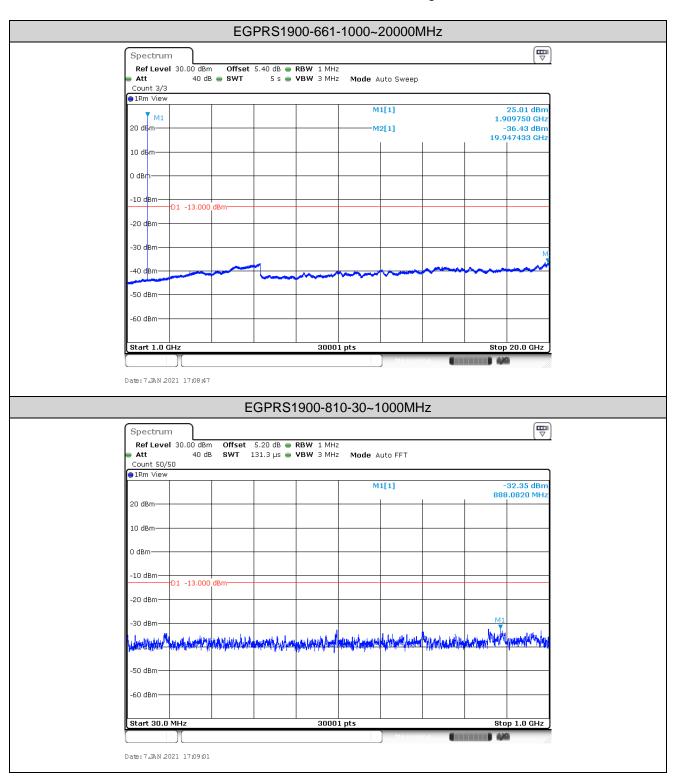
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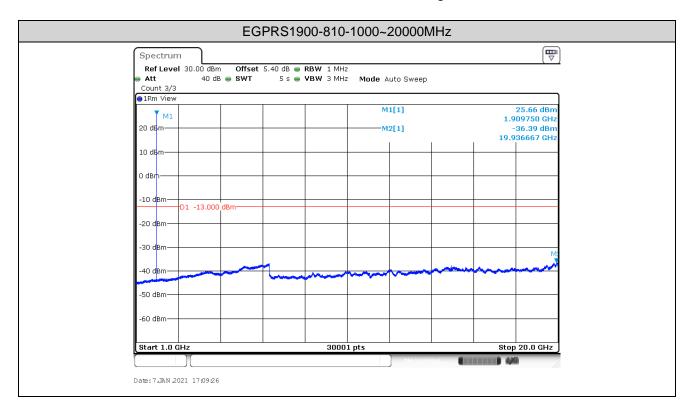
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7. Field Strength of Spurious Radiation

7.1. Test Band = GSM 850 ANT 1

7.1.1. Test Channel = Low Channel

Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity		
1	43.4837	-69.95	-63.01	-13.00	50.01	Horizontal		
2	104.7422	-69.01	-73.79	-13.00	60.79	Horizontal		
3	233.9527	-70.21	-67.40	-13.00	54.40	Horizontal		
4	1648.5297	-57.41	-53.36	-13.00	40.36	Horizontal		
5	2472.6945	-63.99	-53.18	-13.00	40.18	Horizontal		
6	9536.8179	-58.36	-53.33	-13.00	40.33	Horizontal		



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7.2. Test Band = GSM_850 ANT 1

7.2.1. Test Channel = Low Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity			
1	31.3096	-68.60	-74.04	-13.00	61.04	Vertical			
2	110.4655	-70.25	-63.88	-13.00	50.88	Vertical			
3	399.6855	-68.89	-65.77	-13.00	52.77	Vertical			
4	1648.1296	-60.32	-55.65	-13.00	42.65	Vertical			
5	2472.6945	-66.60	-57.20	-13.00	44.20	Vertical			
6	9880.2960	-59.39	-52.98	-13.00	39.98	Vertical			



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7.3. Test Band = GSM_850 ANT 1

7.3.1. Test Channel = Mid Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity			
1	44.1627	-69.67	-62.69	-13.00	49.69	Horizontal			
2	106.6338	-69.36	-74.26	-13.00	61.26	Horizontal			
3	240.0155	-70.28	-67.49	-13.00	54.49	Horizontal			
4	1672.9346	-58.95	-55.13	-13.00	42.13	Horizontal			
5	2510.3021	-64.26	-53.00	-13.00	40.00	Horizontal			
6	9553.1518	-58.03	-53.04	-13.00	40.04	Horizontal			



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7.4. Test Band = GSM_850 ANT 1

7.4.1. Test Channel = Mid Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity			
1	30.0485	-69.67	-73.87	-13.00	60.87	Vertical			
2	114.1032	-69.64	-63.59	-13.00	50.59	Vertical			
3	327.8534	-69.57	-67.59	-13.00	54.59	Vertical			
4	1673.3347	-59.67	-54.91	-13.00	41.91	Vertical			
5	2509.5019	-61.31	-51.74	-13.00	38.74	Vertical			
6	9569.4857	-58.35	-53.06	-13.00	40.06	Vertical			



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7.5. Test Band = GSM_850 ANT 1

7.5.1. Test Channel = High Channel

Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity		
1	42.9016	-69.17	-62.26	-13.00	49.26	Horizontal		
2	98.4369	-69.60	-74.37	-13.00	61.37	Horizontal		
3	232.0611	-69.68	-66.86	-13.00	53.86	Horizontal		
4	1697.3395	-56.03	-52.45	-13.00	39.45	Horizontal		
5	2546.7093	-58.17	-47.37	-13.00	34.37	Horizontal		
6	9531.9177	-58.44	-53.39	-13.00	40.39	Horizontal		



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7.6. Test Band = GSM_850 ANT 1

7.6.1. Test Channel = High Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity			
1	30.0970	-69.77	-74.02	-13.00	61.02	Vertical			
2	118.5654	-69.20	-63.54	-13.00	50.54	Vertical			
3	390.8580	-68.89	-65.70	-13.00	52.70	Vertical			
4	1697.3395	-60.02	-55.18	-13.00	42.18	Vertical			
5	2546.3093	-65.16	-55.49	-13.00	42.49	Vertical			
6	9299.0433	-58.61	-52.52	-13.00	39.52	Vertical			



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7.7. Test Band = GSM_1900 ANT 2

7.7.1. Test Channel = Low Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity			
1	43.7747	-70.14	-63.18	-13.00	50.18	Horizontal			
2	100.0860	-70.29	-74.78	-13.00	61.78	Horizontal			
3	246.3208	-70.33	-67.68	-13.00	54.68	Horizontal			
4	3700.5234	-51.88	-60.45	-13.00	47.45	Horizontal			
5	7445.1482	-57.33	-57.36	-13.00	44.36	Horizontal			
6	16371.945	-60.43	-46.48	-13.00	33.48	Horizontal			



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7.8. Test Band = GSM_1900 ANT 2

7.8.1. Test Channel = Low Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity			
1	31.3581	-69.92	-75.41	-13.00	62.41	Vertical			
2	112.5026	-69.68	-63.49	-13.00	50.49	Vertical			
3	602.3771	-70.81	-63.18	-13.00	50.18	Vertical			
4	3599.0200	-52.58	-61.67	-13.00	48.67	Vertical			
5	7349.6450	-57.45	-56.94	-13.00	43.94	Vertical			
6	17993.499	-60.64	-42.92	-13.00	29.92	Vertical			



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7.9. Test Band = GSM_1900 ANT 2

7.9.1. Test Channel = Mid Channel

Suspected Data List							
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity	
1	43.6292	-70.22	-63.27	-13.00	50.27	Horizontal	
2	101.8321	-69.37	-73.97	-13.00	60.97	Horizontal	
3	242.2466	-70.47	-67.73	-13.00	54.73	Horizontal	
4	5640.0880	-54.33	-60.37	-13.00	47.37	Horizontal	
5	11241.7747	-58.62	-52.58	-13.00	39.58	Horizontal	
6	16400.446	-61.01	-46.57	-13.00	33.57	Horizontal	



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7.10. Test Band = GSM_1900 ANT 2 7.10.1. Test Channel = Mid Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity			
1	30.2910	-70.06	-74.50	-13.00	61.50	Vertical			
2	110.2230	-70.79	-64.40	-13.00	51.40	Vertical			
3	651.8981	-70.38	-62.88	-13.00	49.88	Vertical			
4	3629.0210	-52.61	-61.77	-13.00	48.77	Vertical			
5	7326.6442	-57.15	-56.66	-13.00	43.66	Vertical			
6	17998.500	-60.85	-43.01	-13.00	30.01	Vertical			



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7.11. Test Band = GSM_1900 ANT 2 7.11.1. Test Channel = High Channel

Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity		
1	39.9430	-70.15	-63.41	-13.00	50.41	Horizontal		
2	99.7465	-70.52	-75.05	-13.00	62.05	Horizontal		
3	237.2509	-71.14	-68.34	-13.00	55.34	Horizontal		
4	3631.0210	-52.51	-60.74	-13.00	47.74	Horizontal		
5	7350.1450	-57.08	-57.26	-13.00	44.26	Horizontal		
6	16369.445	-60.66	-46.76	-13.00	33.76	Horizontal		



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7.12. Test Band = GSM_1900 ANT 2

7.12.1. Test Channel = High Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity			
1	30.0000	-70.52	-74.67	-13.00	61.67	Vertical			
2	111.1931	-69.82	-63.51	-13.00	50.51	Vertical			
3	604.6082	-70.64	-63.02	-13.00	50.02	Vertical			
4	3743.5248	-52.65	-61.79	-13.00	48.79	Vertical			
5	7346.6449	-57.48	-56.97	-13.00	43.97	Vertical			
6	17995.999	-60.79	-43.01	-13.00	30.01	Vertical			



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7.13. Test Band = GSM_850 ANT 4

7.13.1. Test Channel = Low Channel

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity			
1	38.6819	-69.35	-63.03	-13.00	50.03	Horizontal			
2	112.0176	-69.32	-74.60	-13.00	61.60	Horizontal			
3	249.3280	-70.17	-67.59	-13.00	54.59	Horizontal			
4	1648.1296	-60.95	-56.89	-13.00	43.89	Horizontal			
5	2472.6945	-52.61	-41.80	-13.00	28.80	Horizontal			
6	9317.4772	-58.99	-53.22	-13.00	40.22	Horizontal			



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7.14. Test Band = GSM_850 ANT 4 7.14.1. Test Channel = Low Channel

Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity		
1	31.2611	-68.25	-73.64	-13.00	60.64	Vertical		
2	113.2787	-70.10	-63.98	-13.00	50.98	Vertical		
3	428.8839	-68.65	-65.29	-13.00	52.29	Vertical		
4	1648.1296	-62.57	-57.90	-13.00	44.90	Vertical		
5	2472.6945	-58.29	-48.89	-13.00	35.89	Vertical		
6	9309.5437	-59.05	-53.03	-13.00	40.03	Vertical		



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7.15. Test Band = GSM_850 ANT 4 7.15.1. Test Channel = Mid Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity			
1	43.0957	-69.05	-62.13	-13.00	49.13	Horizontal			
2	105.4698	-69.94	-74.77	-13.00	61.77	Horizontal			
3	247.8244	-70.24	-67.62	-13.00	54.62	Horizontal			
4	1673.3347	-63.45	-59.64	-13.00	46.64	Horizontal			
5	2509.9020	-50.55	-39.29	-13.00	26.29	Horizontal			
6	9318.8773	-58.86	-53.10	-13.00	40.10	Horizontal			



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7.16. Test Band = GSM_850 ANT 4 7.16.1. Test Channel = Mid Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity			
1	30.2910	-69.93	-74.37	-13.00	61.37	Vertical			
2	109.8835	-68.66	-62.28	-13.00	49.28	Vertical			
3	380.5270	-69.92	-66.65	-13.00	53.65	Vertical			
4	1673.3347	-62.07	-57.31	-13.00	44.31	Vertical			
5	2509.9020	-56.20	-46.62	-13.00	33.62	Vertical			
6	9561.7854	-58.14	-52.85	-13.00	39.85	Vertical			



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7.17. Test Band = GSM_850 ANT 4

7.17.1. Test Channel = High Channel

Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity		
1	42.2226	-69.55	-62.67	-13.00	49.67	Horizontal		
2	108.7194	-68.75	-73.79	-13.00	60.79	Horizontal		
3	250.4920	-69.92	-67.45	-13.00	54.45	Horizontal		
4	1697.3395	-63.50	-59.92	-13.00	46.92	Horizontal		
5	2546.3093	-48.39	-37.59	-13.00	24.59	Horizontal		
6	9319.1106	-58.79	-53.03	-13.00	40.03	Horizontal		



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7.18. Test Band = GSM_850 ANT 4 7.18.1. Test Channel = High Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity			
1	30.2425	-70.24	-74.63	-13.00	61.63	Vertical			
2	111.9206	-69.58	-63.34	-13.00	50.34	Vertical			
3	372.8151	-69.44	-66.58	-13.00	53.58	Vertical			
4	1697.3395	-64.72	-59.88	-13.00	46.88	Vertical			
5	2546.3093	-55.37	-45.70	-13.00	32.70	Vertical			
6	9852.2951	-59.60	-53.14	-13.00	40.14	Vertical			



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7.19. Test Band = GSM_1900 ANT 3

7.19.1. Test Channel = Low Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity			
1	37.8089	-69.32	-63.29	-13.00	50.29	Horizontal			
2	99.8435	-70.09	-74.60	-13.00	61.60	Horizontal			
3	237.8814	-71.99	-69.19	-13.00	56.19	Horizontal			
4	3597.0199	-53.14	-61.25	-13.00	48.25	Horizontal			
5	5550.5850	-53.72	-59.86	-13.00	46.86	Horizontal			
6	16376.945	-58.93	-44.89	-13.00	31.89	Horizontal			



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7.20. Test Band = GSM_1900 ANT 3 7.20.1. Test Channel = Low Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity			
1	30.1940	-70.34	-74.68	-13.00	61.68	Vertical			
2	115.1218	-69.99	-64.03	-13.00	51.03	Vertical			
3	583.2672	-69.66	-62.85	-13.00	49.85	Vertical			
4	3535.0178	-52.29	-62.01	-13.00	49.01	Vertical			
5	7331.6444	-56.98	-56.48	-13.00	43.48	Vertical			
6	17998.500	-58.92	-41.08	-13.00	28.08	Vertical			



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7.21. Test Band = GSM_1900 ANT 3 7.21.1. Test Channel = Mid Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity			
1	43.0957	-69.25	-62.33	-13.00	49.33	Horizontal			
2	100.3285	-69.59	-74.09	-13.00	61.09	Horizontal			
3	242.8771	-71.92	-69.19	-13.00	56.19	Horizontal			
4	3547.5183	-52.28	-60.81	-13.00	47.81	Horizontal			
5	7366.6456	-57.27	-57.41	-13.00	44.41	Horizontal			
6	16393.946	-58.90	-44.56	-13.00	31.56	Horizontal			



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7.22. Test Band = GSM_1900 ANT 3 7.22.1. Test Channel = Mid Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity			
1	30.6790	-70.33	-75.15	-13.00	62.15	Vertical			
2	108.6224	-70.66	-64.57	-13.00	51.57	Vertical			
3	607.4214	-69.48	-61.87	-13.00	48.87	Vertical			
4	3624.5208	-52.61	-61.76	-13.00	48.76	Vertical			
5	7420.1473	-57.09	-56.63	-13.00	43.63	Vertical			
6	17992.999	-59.24	-41.54	-13.00	28.54	Vertical			



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7.23. Test Band = GSM_1900 ANT 3 7.23.1. Test Channel = High Channel

Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity		
1	42.6106	-69.71	-62.81	-13.00	49.81	Horizontal		
2	97.5639	-70.02	-74.96	-13.00	61.96	Horizontal		
3	232.1096	-71.40	-68.58	-13.00	55.58	Horizontal		
4	3640.0213	-52.59	-60.87	-13.00	47.87	Horizontal		
5	7466.1489	-57.35	-57.37	-13.00	44.37	Horizontal		
6	16395.946	-59.69	-45.31	-13.00	32.31	Horizontal		



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7.24. Test Band = GSM_1900 ANT 3 7.24.1. Test Channel = High Channel

Susp	Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity			
1	30.3395	-71.17	-75.65	-13.00	62.65	Vertical			
2	109.2530	-70.14	-63.90	-13.00	50.90	Vertical			
3	644.3802	-70.72	-63.23	-13.00	50.23	Vertical			
4	3532.5178	-52.27	-62.01	-13.00	49.01	Vertical			
5	7443.6481	-57.14	-56.79	-13.00	43.79	Vertical			
6	17999.500	-58.78	-40.91	-13.00	27.91	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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3)

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	-16.30	-0.019777	±2.5	PASS	
GSM850	128	VN	NT	-15.40	-0.018685	±2.5	PASS	
GSM850	128	VH	NT	-8.85	-0.010738	±2.5	PASS	
GSM850	190	VL	NT	-19.69	-0.023536	±2.5	PASS	
GSM850	190	VN	NT	-22.92	-0.027397	±2.5	PASS	
GSM850	190	VH	NT	-3.84	-0.004590	±2.5	PASS	
GSM850	251	VL	NT	-0.77	-0.000907	±2.5	PASS	
GSM850	251	VN	NT	-14.33	-0.016883	±2.5	PASS	
GSM850	251	VH	NT	-15.56	-0.018332	±2.5	PASS	
EGPRS850	128	VL	NT	19.50	0.023659	±2.5	PASS	
EGPRS850	128	VN	NT	20.53	0.024909	±2.5	PASS	
EGPRS850	128	VH	NT	17.98	0.021815	±2.5	PASS	
EGPRS850	190	VL	NT	16.47	0.019687	±2.5	PASS	
EGPRS850	190	VN	NT	22.92	0.027397	±2.5	PASS	
EGPRS850	190	VH	NT	14.72	0.017595	±2.5	PASS	
EGPRS850	251	VL	NT	16.05	0.018909	±2.5	PASS	
EGPRS850	251	VN	NT	20.40	0.024034	±2.5	PASS	
EGPRS850	251	VH	NT	22.60	0.026626	±2.5	PASS	
GSM1900	512	VL	NT	-3.23	-0.001746	±2.5	PASS	
GSM1900	512	VN	NT	-0.19	-0.000103	±2.5	PASS	
GSM1900	512	VH	NT	-0.61	-0.000330	±2.5	PASS	
GSM1900	661	VL	NT	6.46	0.003436	±2.5	PASS	
GSM1900	661	VN	NT	6.07	0.003229	±2.5	PASS	
GSM1900	661	VH	NT	-13.62	-0.007245	±2.5	PASS	
GSM1900	810	VL	NT	2.87	0.001503	±2.5	PASS	
GSM1900	810	VN	NT	11.82	0.006189	±2.5	PASS	
GSM1900	810	VH	NT	3.26	0.001707	±2.5	PASS	
EGPRS1900	512	VL	NT	13.53	0.007313	±2.5	PASS	
EGPRS1900	512	VN	NT	20.34	0.010993	±2.5	PASS	
EGPRS1900	512	VH	NT	19.98	0.010799	±2.5	PASS	



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EGPRS1900	661	VL	NT	19.40	0.010319	±2.5	PASS
EGPRS1900	661	VN	NT	26.44	0.014064	±2.5	PASS
EGPRS1900	661	VH	NT	23.73	0.012622	±2.5	PASS
EGPRS1900	810	VL	NT	5.68	0.002974	±2.5	PASS
EGPRS1900	810	VN	NT	18.73	0.009807	±2.5	PASS
EGPRS1900	810	VH	NT	6.84	0.003582	±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	-8.14	-0.009876	±2.5	PASS	
GSM850	128	NV	-20	-7.49	-0.009088	±2.5	PASS	
GSM850	128	NV	-10	-11.75	-0.014256	±2.5	PASS	
GSM850	128	NV	0	-11.69	-0.014183	±2.5	PASS	
GSM850	128	NV	10	-18.50	-0.022446	±2.5	PASS	
GSM850	128	NV	20	-12.66	-0.015360	±2.5	PASS	
GSM850	128	NV	30	3.33	0.004040	±2.5	PASS	
GSM850	128	NV	40	-16.43	-0.019934	±2.5	PASS	
GSM850	128	NV	50	-19.34	-0.023465	±2.5	PASS	
GSM850	190	NV	-30	-23.02	-0.027516	±2.5	PASS	
GSM850	190	NV	-20	-1.13	-0.001351	±2.5	PASS	
GSM850	190	NV	-10	-22.02	-0.026321	±2.5	PASS	
GSM850	190	NV	0	-21.08	-0.025197	±2.5	PASS	
GSM850	190	NV	10	-19.57	-0.023392	±2.5	PASS	
GSM850	190	NV	20	-31.67	-0.037856	±2.5	PASS	
GSM850	190	NV	30	-21.53	-0.025735	±2.5	PASS	
GSM850	190	NV	40	-22.24	-0.026584	±2.5	PASS	
GSM850	190	NV	50	-28.90	-0.034545	±2.5	PASS	
GSM850	251	NV	-30	-19.98	-0.023539	±2.5	PASS	
GSM850	251	NV	-20	-10.91	-0.012853	±2.5	PASS	
GSM850	251	NV	-10	-18.89	-0.022255	±2.5	PASS	
GSM850	251	NV	0	-11.56	-0.013619	±2.5	PASS	
GSM850	251	NV	10	-12.98	-0.015292	±2.5	PASS	
GSM850	251	NV	20	-17.92	-0.021112	±2.5	PASS	
GSM850	251	NV	30	-14.75	-0.017377	±2.5	PASS	
GSM850	251	NV	40	-12.20	-0.014373	±2.5	PASS	



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		1		T	1		
GSM850	251	NV	50	-16.69	-0.019663	±2.5	PASS
EGPRS850	128	NV	-30	16.01	0.019425	±2.5	PASS
EGPRS850	128	NV	-20	23.86	0.028949	±2.5	PASS
EGPRS850	128	NV	-10	23.83	0.028913	±2.5	PASS
EGPRS850	128	NV	0	25.38	0.030793	±2.5	PASS
EGPRS850	128	NV	10	23.44	0.028440	±2.5	PASS
EGPRS850	128	NV	20	20.73	0.025152	±2.5	PASS
EGPRS850	128	NV	30	17.50	0.021233	±2.5	PASS
EGPRS850	128	NV	40	18.85	0.022871	±2.5	PASS
EGPRS850	128	NV	50	18.27	0.022167	±2.5	PASS
EGPRS850	190	NV	-30	12.91	0.015432	±2.5	PASS
EGPRS850	190	NV	-20	19.37	0.023153	±2.5	PASS
EGPRS850	190	NV	-10	15.66	0.018719	±2.5	PASS
EGPRS850	190	NV	0	19.47	0.023273	±2.5	PASS
EGPRS850	190	NV	10	13.85	0.016555	±2.5	PASS
EGPRS850	190	NV	20	19.66	0.023500	±2.5	PASS
EGPRS850	190	NV	30	12.17	0.014547	±2.5	PASS
EGPRS850	190	NV	40	14.40	0.017213	±2.5	PASS
EGPRS850	190	NV	50	20.02	0.023930	±2.5	PASS
EGPRS850	251	NV	-30	16.85	0.019852	±2.5	PASS
EGPRS850	251	NV	-20	22.37	0.026355	±2.5	PASS
EGPRS850	251	NV	-10	17.63	0.020770	±2.5	PASS
EGPRS850	251	NV	0	21.41	0.025224	±2.5	PASS
EGPRS850	251	NV	10	19.05	0.022443	±2.5	PASS
EGPRS850	251	NV	20	18.73	0.022066	±2.5	PASS
EGPRS850	251	NV	30	17.69	0.020841	±2.5	PASS
EGPRS850	251	NV	40	21.76	0.025636	±2.5	PASS
EGPRS850	251	NV	50	18.21	0.021454	±2.5	PASS
GSM1900	512	NV	-30	5.71	0.003086	±2.5	PASS
GSM1900	512	NV	-20	-2.29	-0.001238	±2.5	PASS
GSM1900	512	NV	-10	-6.10	-0.003297	±2.5	PASS
GSM1900	512	NV	0	-4.91	-0.002654	±2.5	PASS
GSM1900	512	NV	10	-7.97	-0.004308	±2.5	PASS
GSM1900	512	NV	20	4.88	0.002638	±2.5	PASS
GSM1900	512	NV	30	3.23	0.001746	±2.5	PASS
GSM1900	512	NV	40	-0.58	-0.000313	±2.5	PASS
GSM1900	512	NV	50	-3.71	-0.002005	±2.5	PASS



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		[
GSM1900	661	NV	-30	6.26	0.003330	±2.5	PASS
GSM1900	661	NV	-20	-1.87	-0.000995	±2.5	PASS
GSM1900	661	NV	-10	6.97	0.003707	±2.5	PASS
GSM1900	661	NV	0	13.92	0.007404	±2.5	PASS
GSM1900	661	NV	10	3.91	0.002080	±2.5	PASS
GSM1900	661	NV	20	3.10	0.001649	±2.5	PASS
GSM1900	661	NV	30	4.49	0.002388	±2.5	PASS
GSM1900	661	NV	40	5.81	0.003090	±2.5	PASS
GSM1900	661	NV	50	13.50	0.007181	±2.5	PASS
GSM1900	810	NV	-30	-2.58	-0.001351	±2.5	PASS
GSM1900	810	NV	-20	-8.20	-0.004294	±2.5	PASS
GSM1900	810	NV	-10	-8.94	-0.004681	±2.5	PASS
GSM1900	810	NV	0	-0.29	-0.000152	±2.5	PASS
GSM1900	810	NV	10	-2.26	-0.001183	±2.5	PASS
GSM1900	810	NV	20	-1.61	-0.000843	±2.5	PASS
GSM1900	810	NV	30	-2.03	-0.001063	±2.5	PASS
GSM1900	810	NV	40	-1.68	-0.000880	±2.5	PASS
GSM1900	810	NV	50	-6.17	-0.003231	±2.5	PASS
EGPRS1900	512	NV	-30	14.59	0.007886	±2.5	PASS
EGPRS1900	512	NV	-20	22.96	0.012409	±2.5	PASS
EGPRS1900	512	NV	-10	14.24	0.007696	±2.5	PASS
EGPRS1900	512	NV	0	19.05	0.010296	±2.5	PASS
EGPRS1900	512	NV	10	21.63	0.011691	±2.5	PASS
EGPRS1900	512	NV	20	21.66	0.011707	±2.5	PASS
EGPRS1900	512	NV	30	21.86	0.011815	±2.5	PASS
EGPRS1900	512	NV	40	7.59	0.004102	±2.5	PASS
EGPRS1900	512	NV	50	11.04	0.005967	±2.5	PASS
EGPRS1900	661	NV	-30	28.12	0.014957	±2.5	PASS
EGPRS1900	661	NV	-20	12.62	0.006713	±2.5	PASS
EGPRS1900	661	NV	-10	15.82	0.008415	±2.5	PASS
EGPRS1900	661	NV	0	24.76	0.013170	±2.5	PASS
EGPRS1900	661	NV	10	16.08	0.008553	±2.5	PASS
EGPRS1900	661	NV	20	20.92	0.011128	±2.5	PASS
EGPRS1900	661	NV	30	30.87	0.016420	±2.5	PASS
EGPRS1900	661	NV	40	13.33	0.007090	±2.5	PASS
EGPRS1900	661	NV	50	14.56	0.007745	±2.5	PASS
EGPRS1900	810	NV	-30	22.66	0.011865	±2.5	PASS



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EGPRS1900	810	NV	-20	21.60	0.011310	±2.5	PASS
EGPRS1900	810	NV	-10	6.94	0.003634	±2.5	PASS
EGPRS1900	810	NV	0	9.85	0.005158	±2.5	PASS
EGPRS1900	810	NV	10	14.82	0.007760	±2.5	PASS
EGPRS1900	810	NV	20	14.40	0.007540	±2.5	PASS
EGPRS1900	810	NV	30	14.98	0.007844	±2.5	PASS
EGPRS1900	810	NV	40	20.37	0.010666	±2.5	PASS
EGPRS1900	810	NV	50	6.59	0.003451	±2.5	PASS

The End

