



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	---	32.67	31.02	38.45	PASS
GSM850	190	---	32.77	31.12	38.45	PASS
GSM850	251	---	32.81	31.16	38.45	PASS
EGPRS850 (GMSK)	128	1	32.66	31.01	38.45	PASS
EGPRS850 (GMSK)	128	2	31.65	30.00	38.45	PASS
EGPRS850 (GMSK)	128	3	29.47	27.82	38.45	PASS
EGPRS850 (GMSK)	128	4	28.27	26.62	38.45	PASS
EGPRS850 (GMSK)	190	1	32.76	31.11	38.45	PASS
EGPRS850 (GMSK)	190	2	31.76	30.11	38.45	PASS
EGPRS850 (GMSK)	190	3	29.61	27.96	38.45	PASS
EGPRS850 (GMSK)	190	4	28.37	26.72	38.45	PASS
EGPRS850 (GMSK)	251	1	32.80	31.15	38.45	PASS
EGPRS850 (GMSK)	251	2	31.86	30.21	38.45	PASS
EGPRS850 (GMSK)	251	3	29.72	28.07	38.45	PASS
EGPRS850 (GMSK)	251	4	28.51	26.86	38.45	PASS
EGPRS850 (8PSK)	128	1	26.87	25.22	38.45	PASS
EGPRS850 (8PSK)	128	2	25.74	24.09	38.45	PASS
EGPRS850 (8PSK)	128	3	23.52	21.87	38.45	PASS
EGPRS850 (8PSK)	128	4	22.28	20.63	38.45	PASS
EGPRS850 (8PSK)	190	1	26.99	25.34	38.45	PASS
EGPRS850 (8PSK)	190	2	25.84	24.19	38.45	PASS
EGPRS850 (8PSK)	190	3	23.64	21.99	38.45	PASS
EGPRS850 (8PSK)	190	4	22.48	20.83	38.45	PASS
EGPRS850 (8PSK)	251	1	27.04	25.39	38.45	PASS
EGPRS850 (8PSK)	251	2	25.90	24.25	38.45	PASS
EGPRS850 (8PSK)	251	3	23.52	21.87	38.45	PASS
EGPRS850 (8PSK)	251	4	22.55	20.90	38.45	PASS



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Band	Channel	Slot	Conducted Power (dBm)	EIRP (dBm)	Limit(dBm)	Verdict
GSM1900	512	---	29.91	30.41	33.00	PASS
GSM1900	661	---	29.89	30.39	33.00	PASS
GSM1900	810	---	29.91	30.41	33.00	PASS
EGPRS1900 (GMSK)	512	1	29.95	30.45	33.00	PASS
EGPRS1900 (GMSK)	512	2	29.02	29.52	33.00	PASS
EGPRS1900 (GMSK)	512	3	26.94	27.44	33.00	PASS
EGPRS1900 (GMSK)	512	4	25.88	26.38	33.00	PASS
EGPRS1900 (GMSK)	661	1	29.93	30.43	33.00	PASS
EGPRS1900 (GMSK)	661	2	28.95	29.45	33.00	PASS
EGPRS1900 (GMSK)	661	3	26.93	27.43	33.00	PASS
EGPRS1900 (GMSK)	661	4	25.83	26.33	33.00	PASS
EGPRS1900 (GMSK)	810	1	29.92	30.42	33.00	PASS
EGPRS1900 (GMSK)	810	2	28.97	29.47	33.00	PASS
EGPRS1900 (GMSK)	810	3	26.95	27.45	33.00	PASS
EGPRS1900 (GMSK)	810	4	25.86	26.36	33.00	PASS
EGPRS1900 (8PSK)	512	1	28.85	29.35	33.00	PASS
EGPRS1900 (8PSK)	512	2	28.05	28.55	33.00	PASS
EGPRS1900 (8PSK)	512	3	26.50	27.00	33.00	PASS
EGPRS1900 (8PSK)	512	4	25.62	26.12	33.00	PASS
EGPRS1900 (8PSK)	661	1	26.28	26.78	33.00	PASS
EGPRS1900 (8PSK)	661	2	25.34	25.84	33.00	PASS
EGPRS1900 (8PSK)	661	3	23.49	23.99	33.00	PASS
EGPRS1900 (8PSK)	661	4	22.41	22.91	33.00	PASS
EGPRS1900 (8PSK)	810	1	28.93	29.43	33.00	PASS
EGPRS1900 (8PSK)	810	2	28.15	28.65	33.00	PASS
EGPRS1900 (8PSK)	810	3	26.61	27.11	33.00	PASS
EGPRS1900 (8PSK)	810	4	25.67	26.17	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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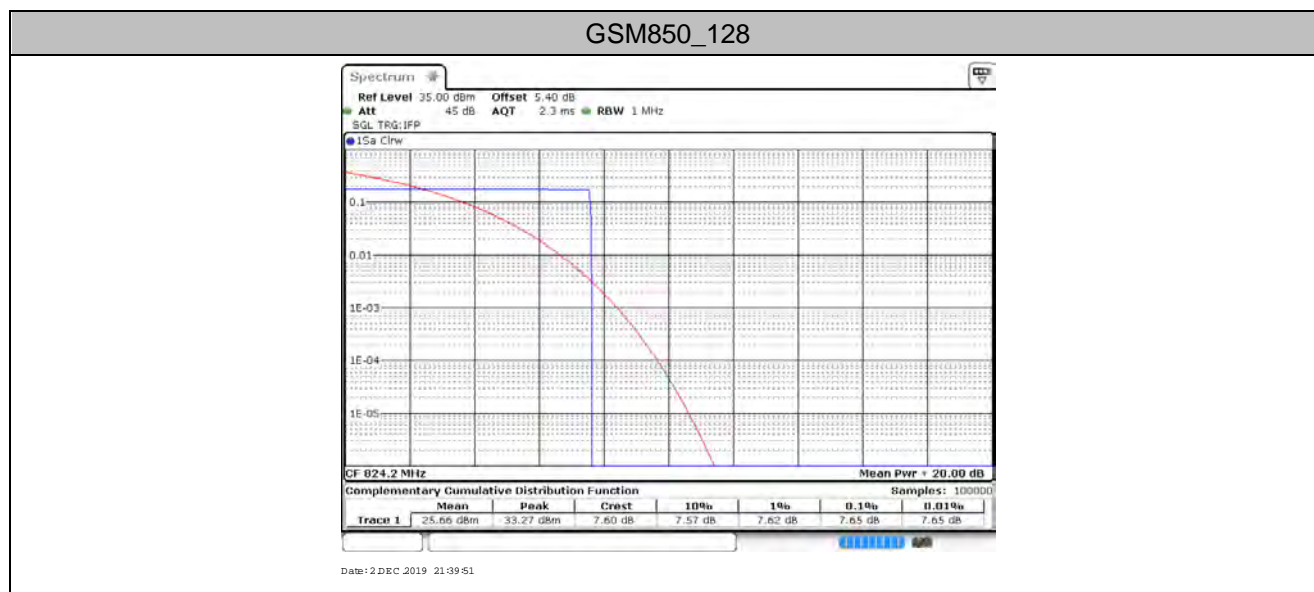
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2. Peak-to-Average Ratio

2.1. Test Result

Band	Channel	Peak-to-Average Ratio(dB)	Limit(dB)	Verdict
GSM850	128	7.65	13	PASS
GSM850	190	7.68	13	PASS
GSM850	251	7.62	13	PASS
EGPRS850	128	10.70	13	PASS
EGPRS850	190	10.41	13	PASS
EGPRS850	251	10.99	13	PASS
GSM1900	512	7.71	13	PASS
GSM1900	661	7.71	13	PASS
GSM1900	810	7.71	13	PASS
EGPRS1900	512	9.97	13	PASS
EGPRS1900	661	9.94	13	PASS
EGPRS1900	810	9.71	13	PASS

2.2.Part II - Test Plots



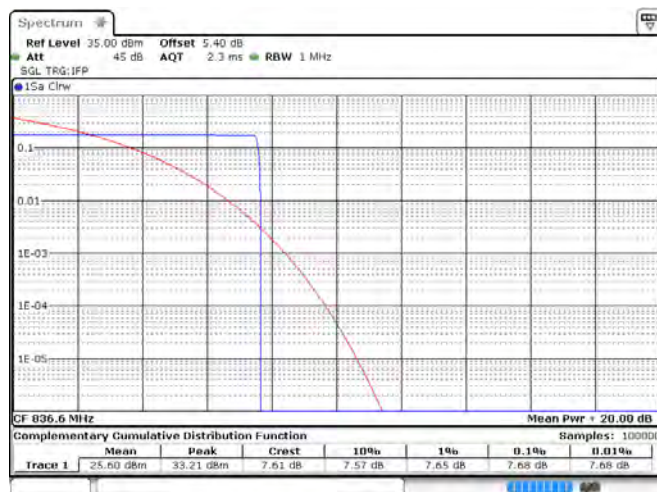
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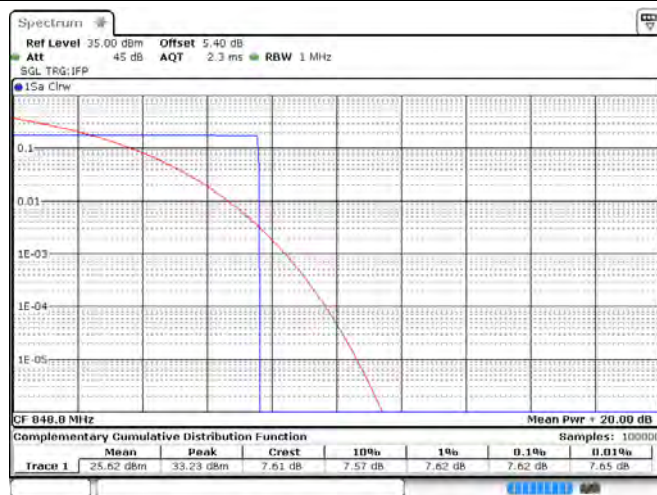


GSM850_190



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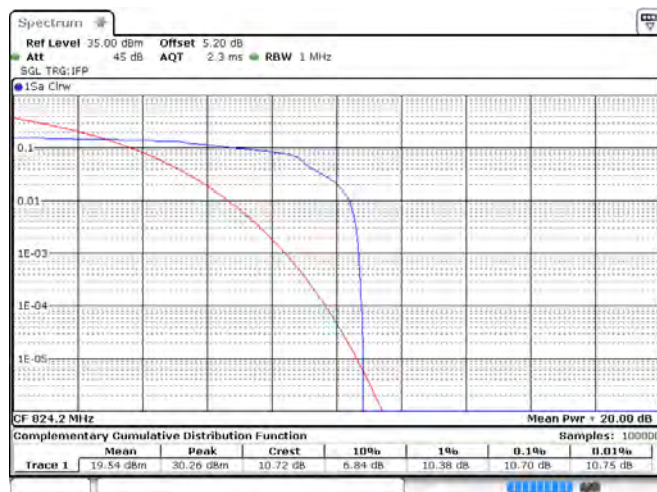


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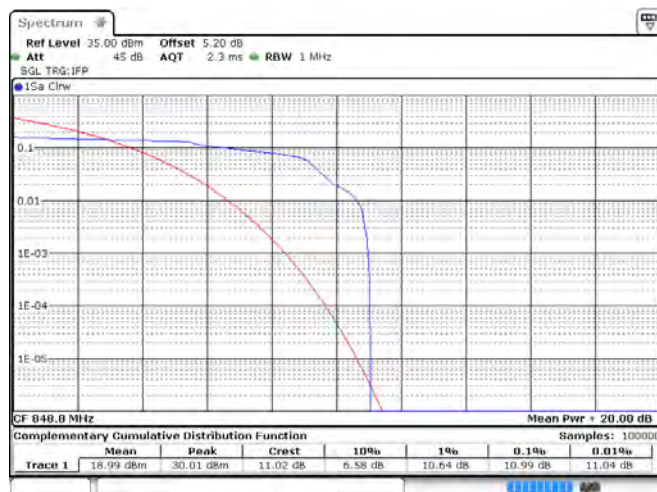


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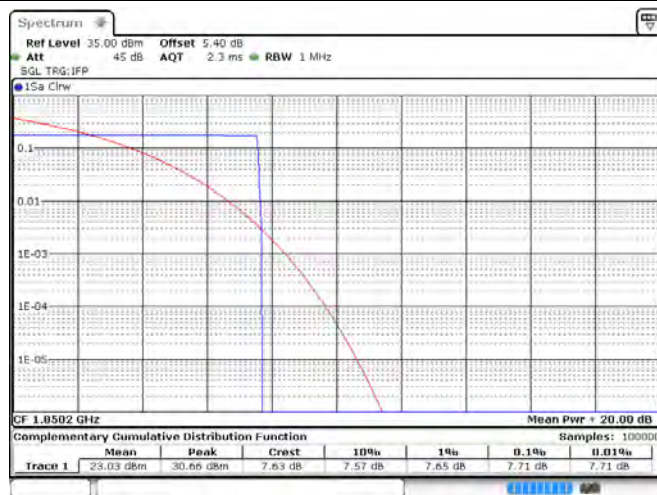


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GSM1900_512



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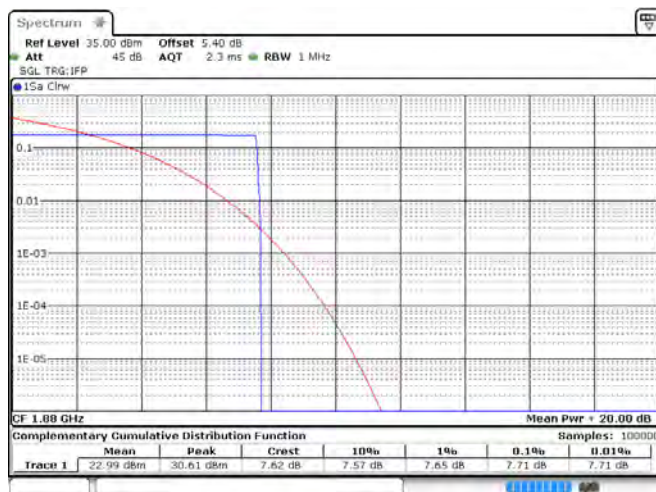


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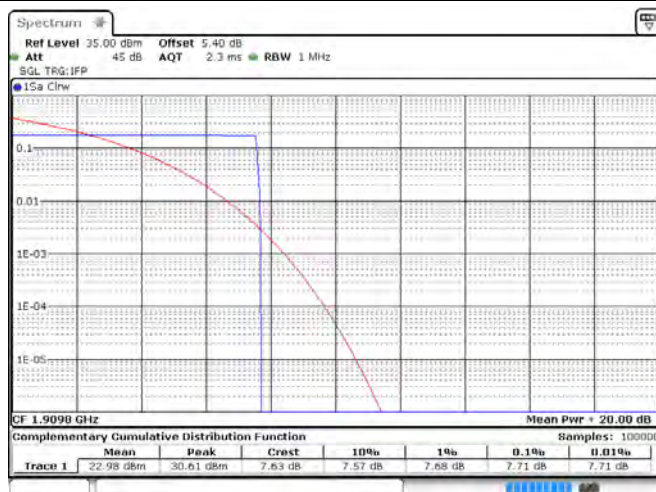


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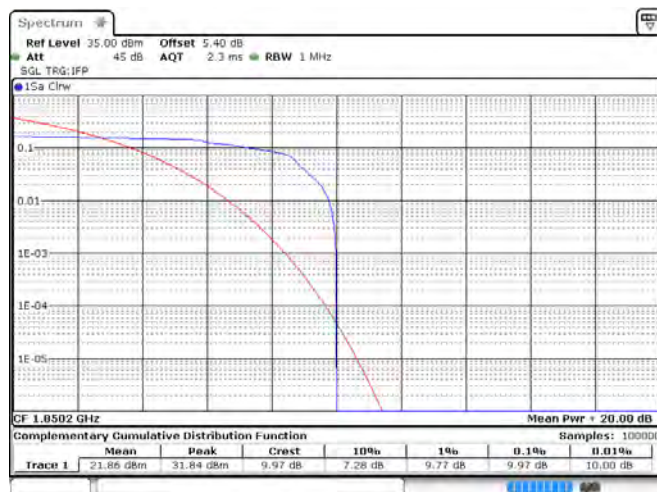


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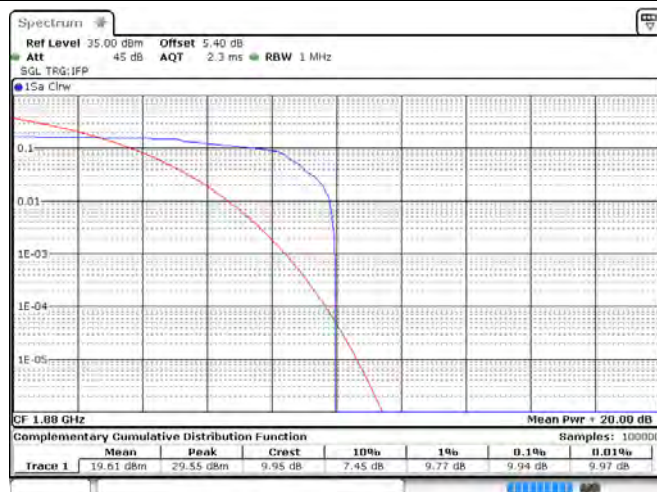


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EGPRS1900_661



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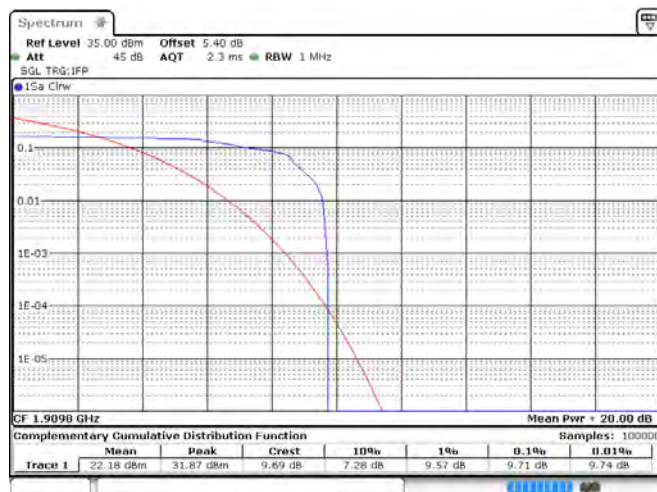
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EGPRS1900_810



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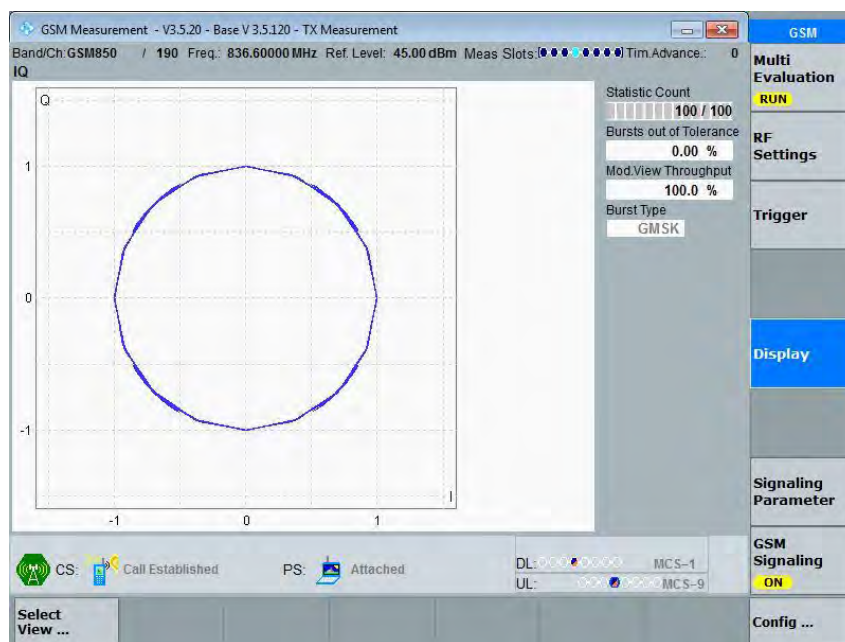
3. Modulation Characteristics

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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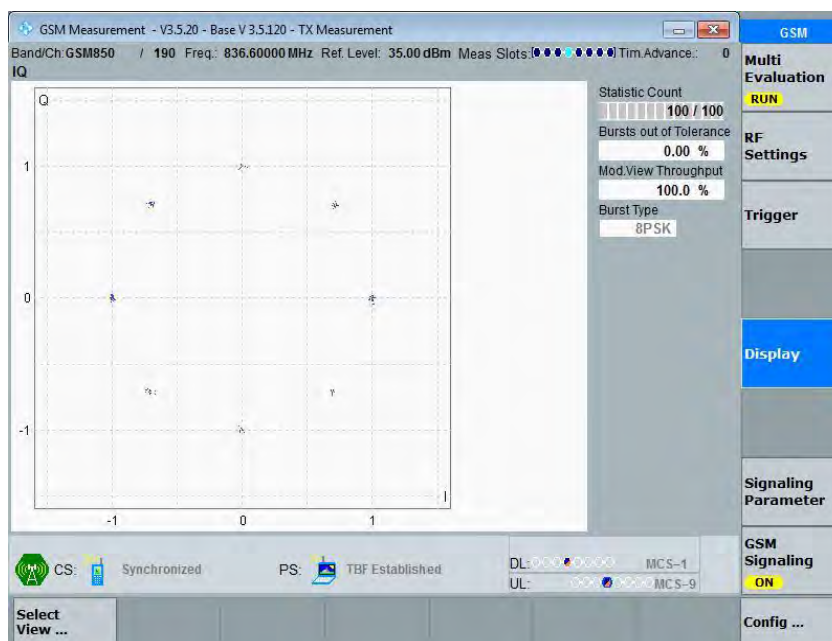
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3.1.1.2. Test Mode = GSM/TM2

3.1.1.2.1. Test Channel = MCH



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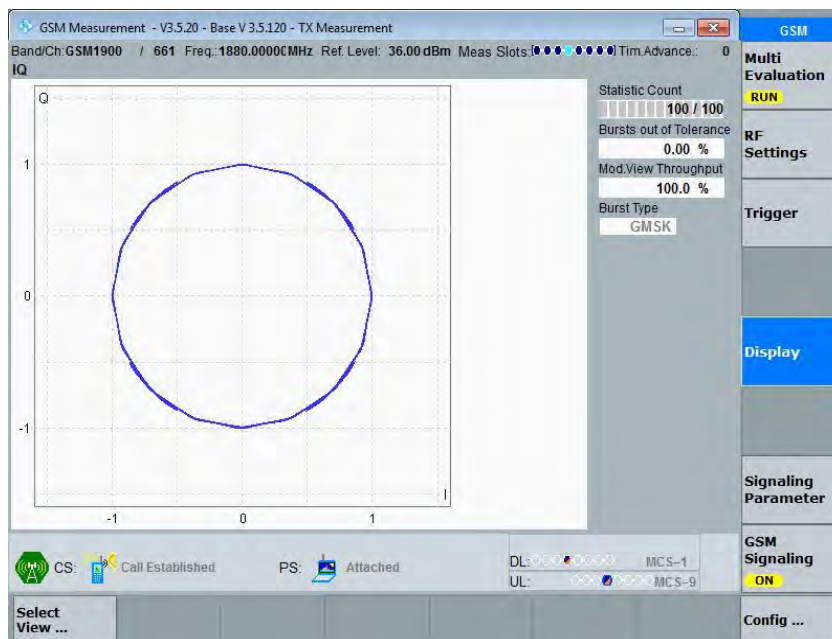
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3.1.2. Test Band = GSM 1900

3.1.2.1. Test Mode = GSM/TM1

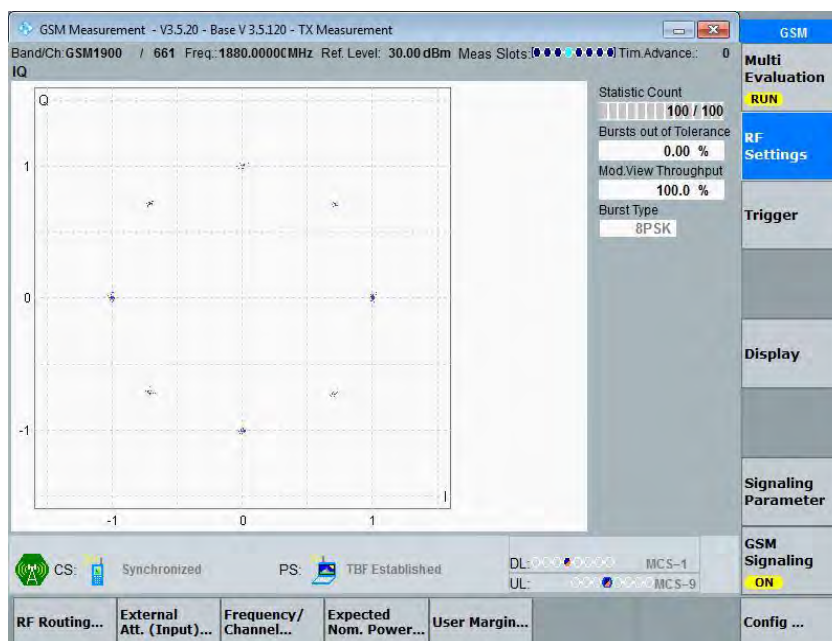
3.1.2.1.1. Test Channel = MCH





3.1.2.2. Test Mode = GSM/TM2

3.1.2.2.1. Test Channel = MCH



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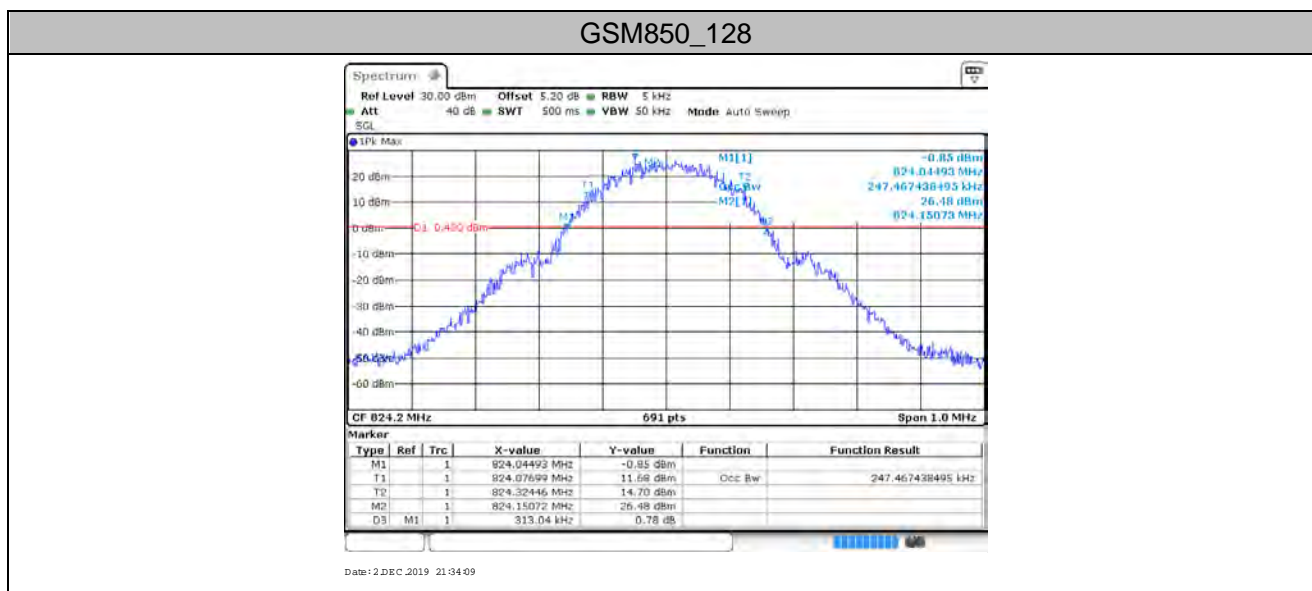


4. 26dB Bandwidth and Occupied Bandwidth

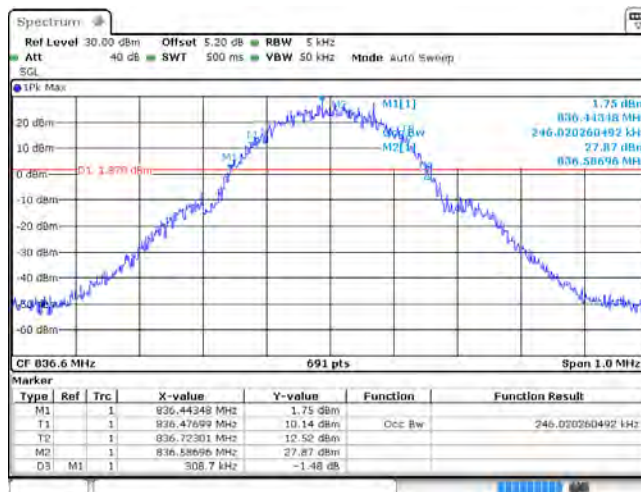
4.1. Test Result

Band	Channel	Occupied Bandwidth (kHz)	26dB Bandwidth (kHz)	Limit(kHz)	Verdict
GSM850	128	247.47	313.04	---	PASS
GSM850	190	246.02	308.70	---	PASS
GSM850	251	244.57	298.55	---	PASS
EGPRS850	128	247.47	297.10	---	PASS
EGPRS850	190	251.81	295.65	---	PASS
EGPRS850	251	251.81	307.25	---	PASS
GSM1900	512	247.47	298.55	---	PASS
GSM1900	661	244.57	310.14	---	PASS
GSM1900	810	244.57	314.49	---	PASS
EGPRS1900	512	260.49	320.29	---	PASS
EGPRS1900	661	254.70	308.70	---	PASS
EGPRS1900	810	259.04	314.49	---	PASS

4.2. Test Plots

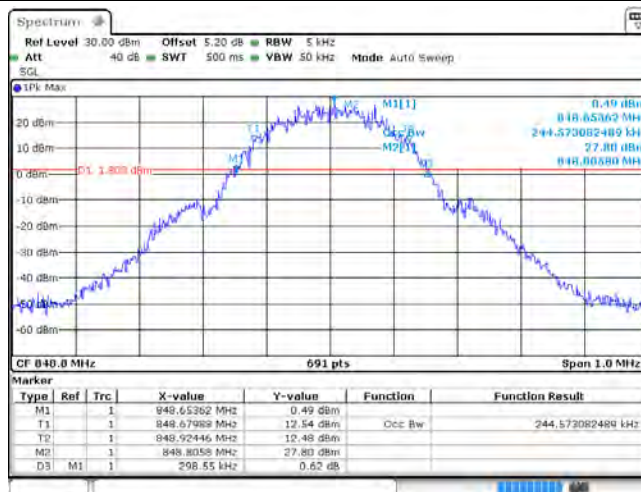


GSM850_190



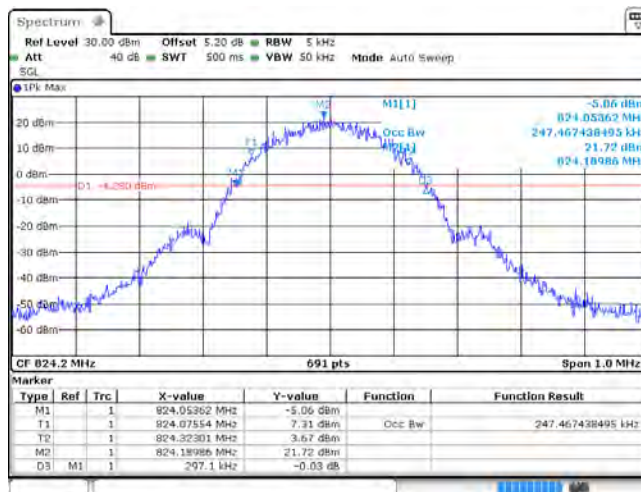
Date: 2 DEC 2019 21:34:34

GSM850_251



Date: 2 DEC 2019 21:35:00

EGPRS850_128



Date: 2 DEC 2019 21:41:51

EGPRS850_190



Date: 2 DEC 2019 21:42:38



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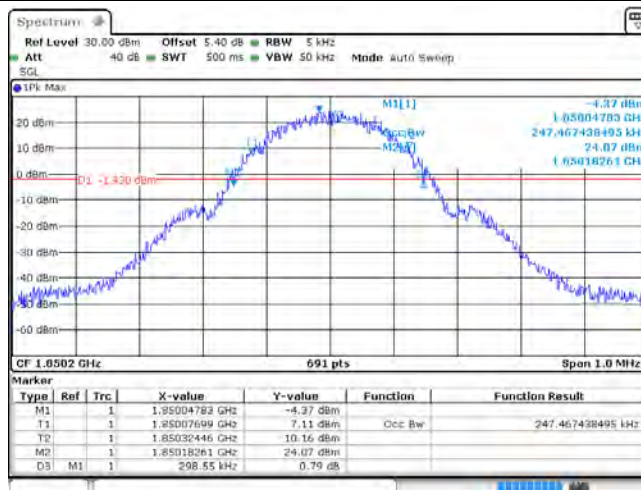
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EGPRS850_251



Date: 2 DEC 2019 21:42:46

GSM1900_512



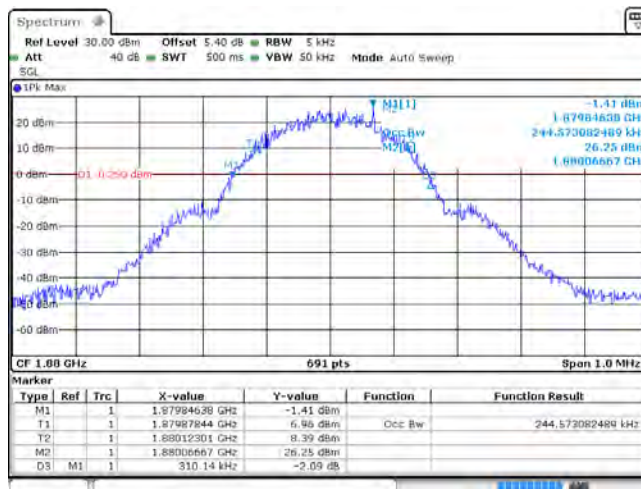
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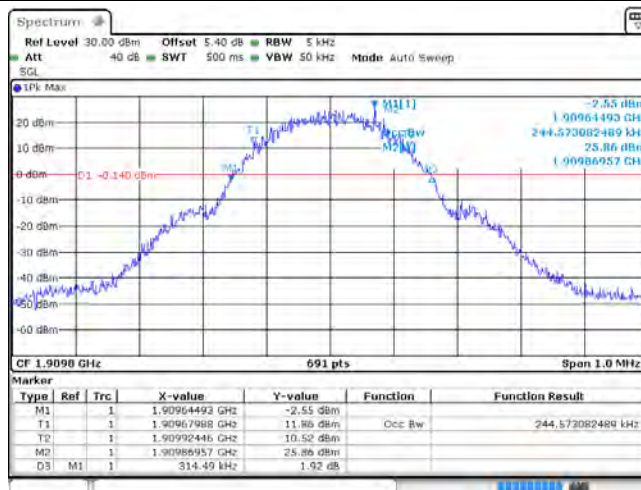
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GSM1900_661



Date: 2 DEC 2019 20:26:43

GSM1900_810



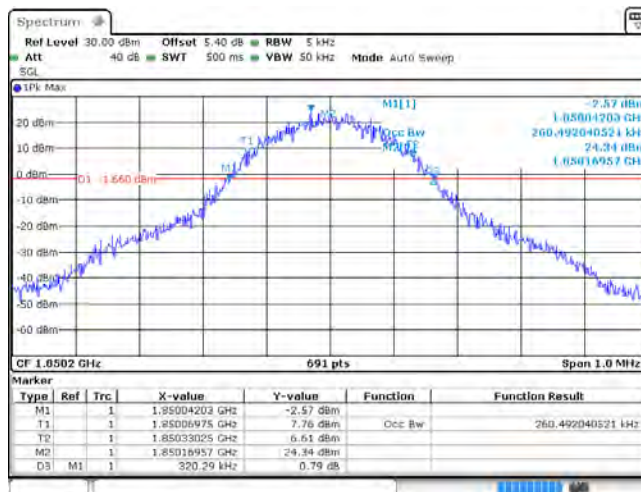
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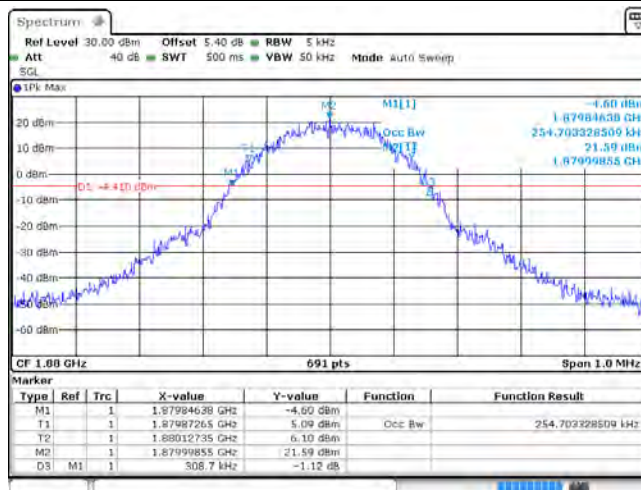
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EGPRS1900_512



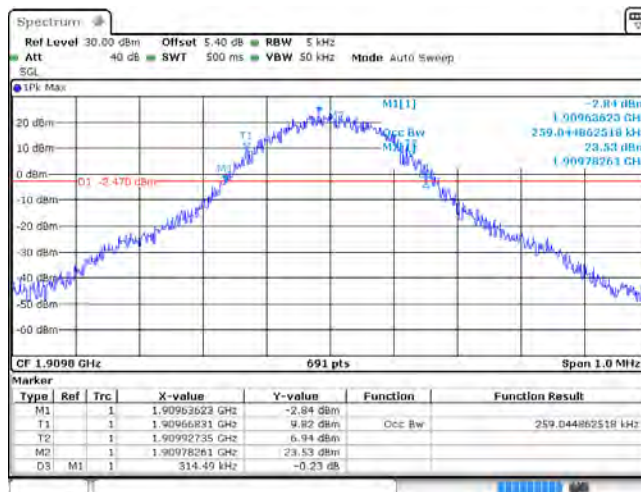
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EGPRS1900_810



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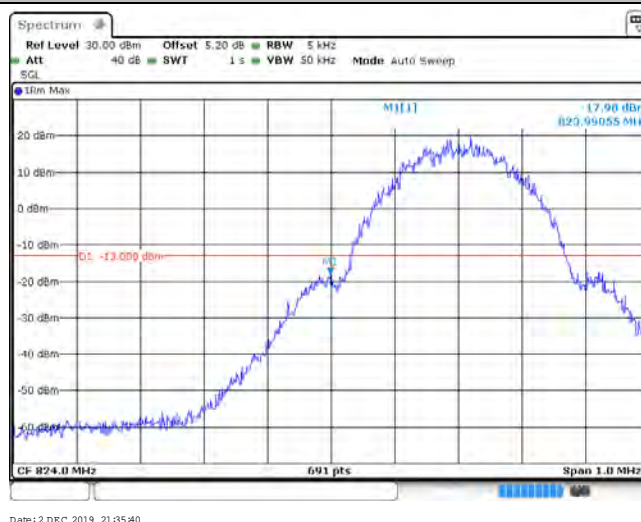
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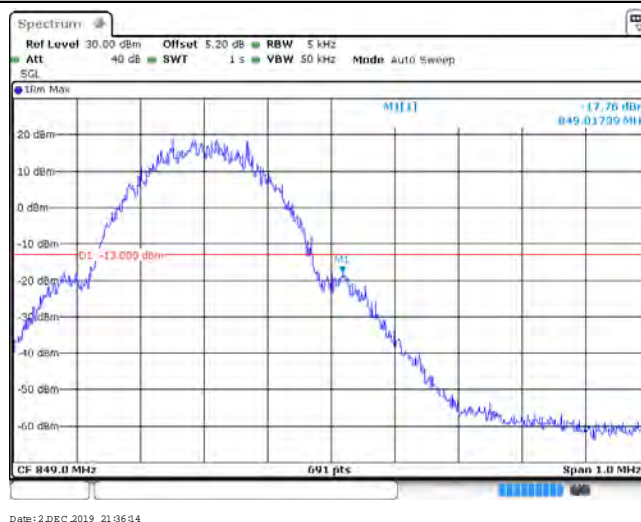
5. Band Edge Compliance

5.1. Test Plots

GSM850_128

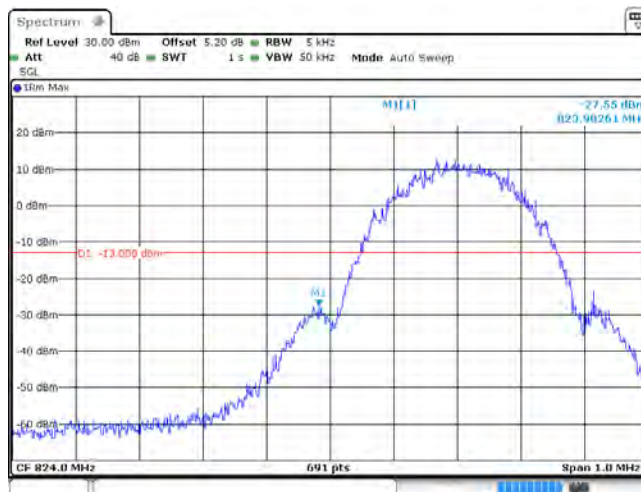


GSM850_251



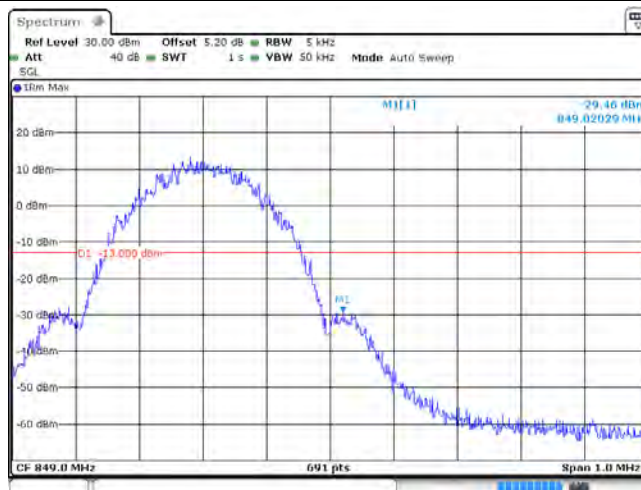


EGPRS850_128



Date: 2 DEC 2019 21:43:27

EGPRS850_251



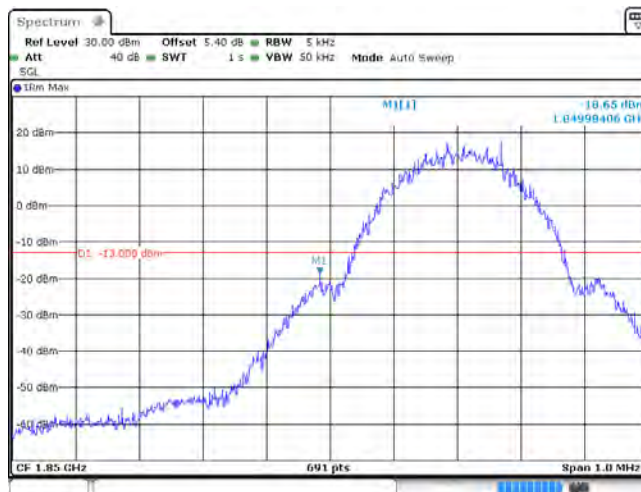
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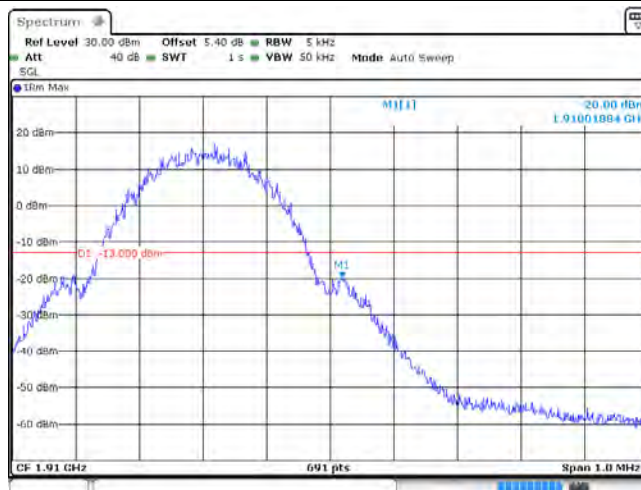
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GSM1900_512



Date: 2 DEC 2019 20:27:49

GSM1900_810



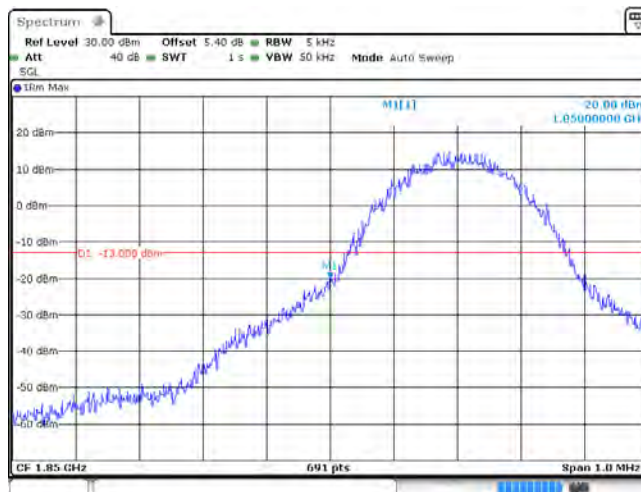
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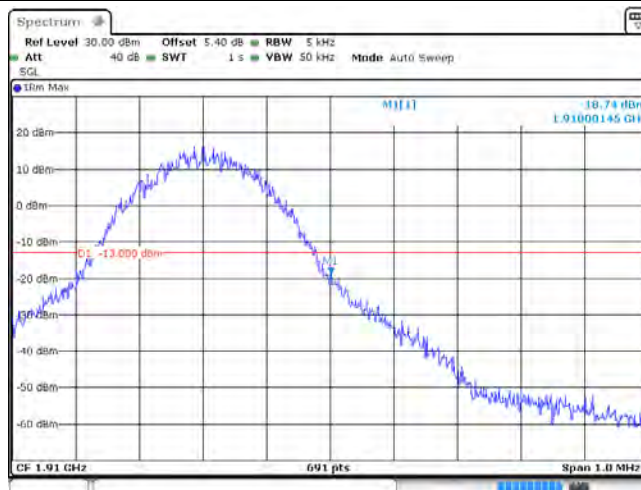
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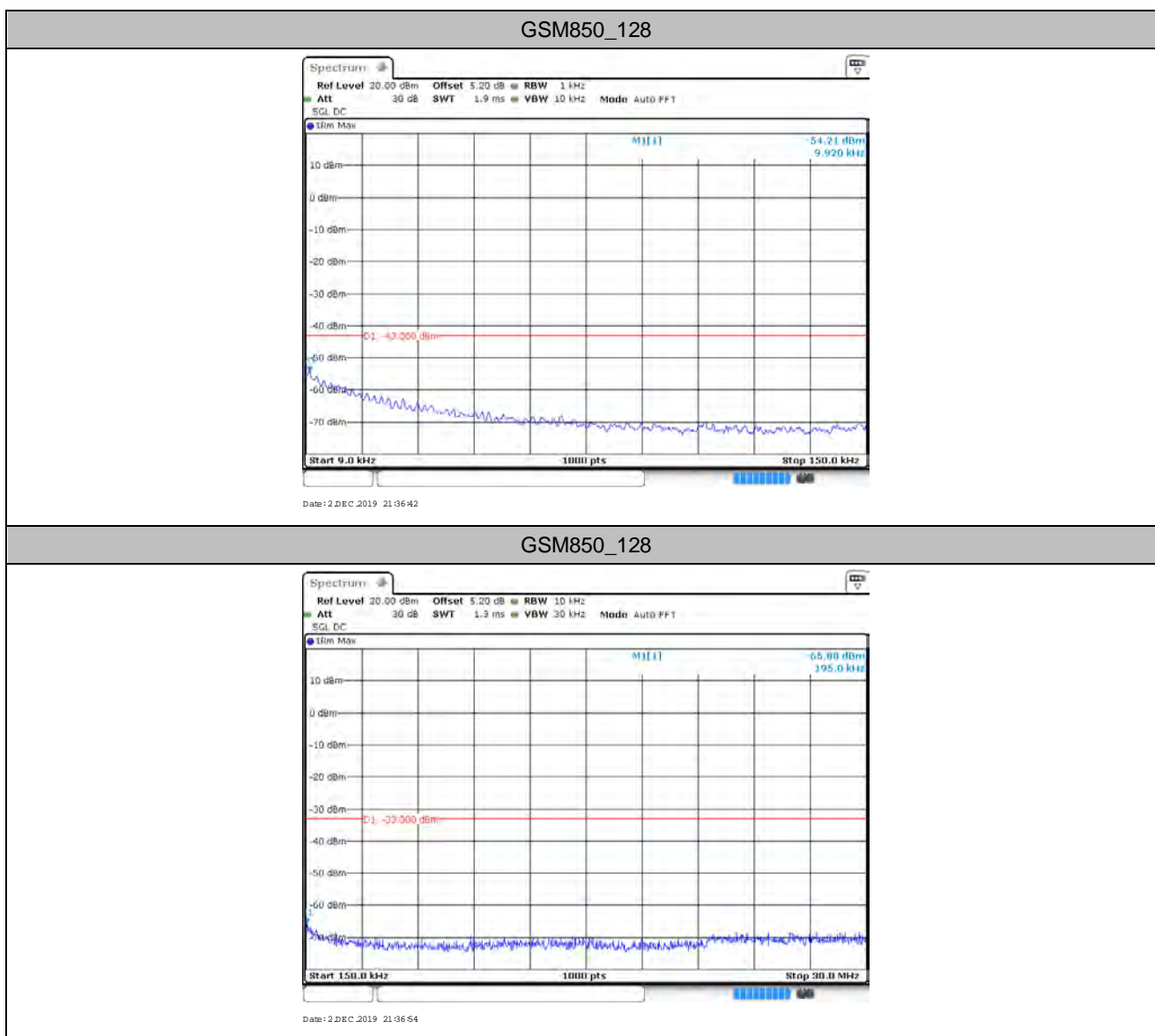


6. Spurious Emission at Antenna Terminal

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 = $k * (\text{Span} / RBW)$ " 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



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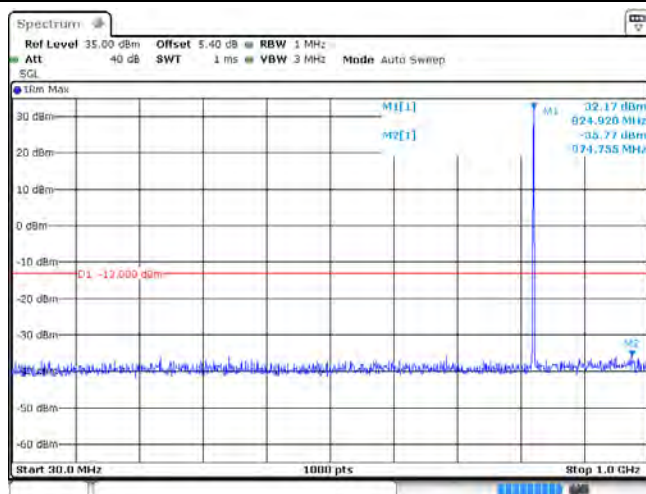
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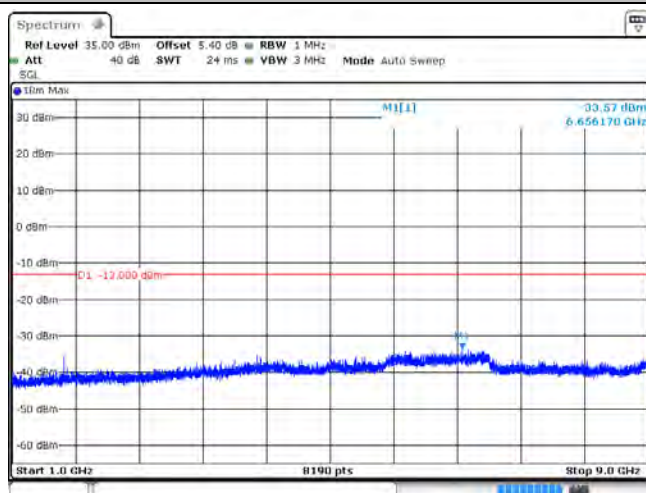


GSM850_128



Date: 2 DEC 2019 21:37:08

GSM850_128

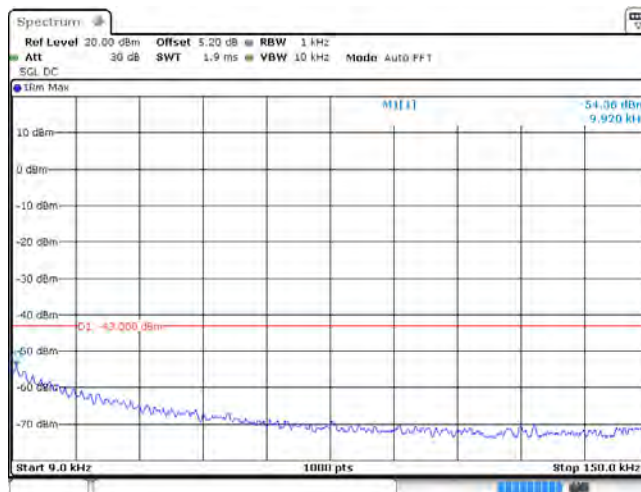


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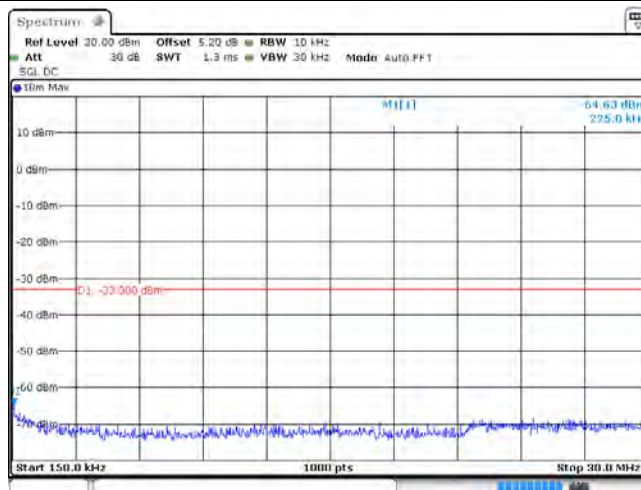




GSM850_190



GSM850_190

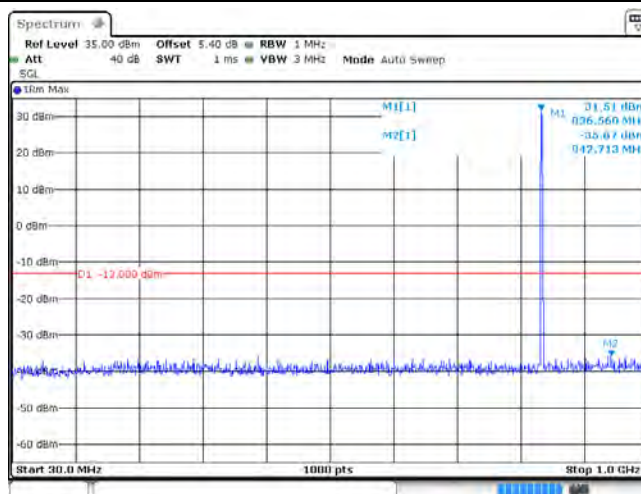


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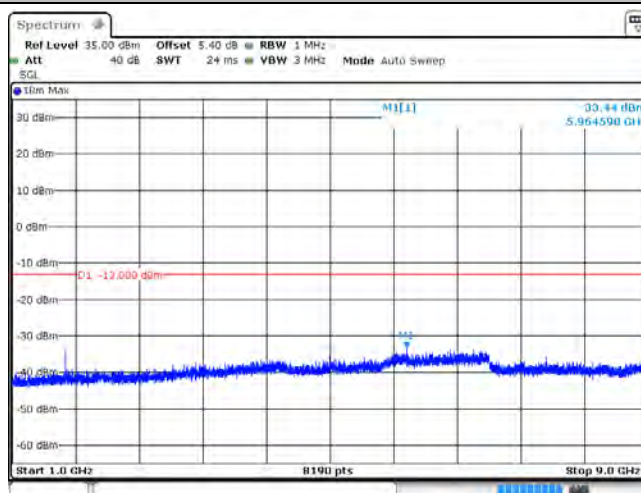


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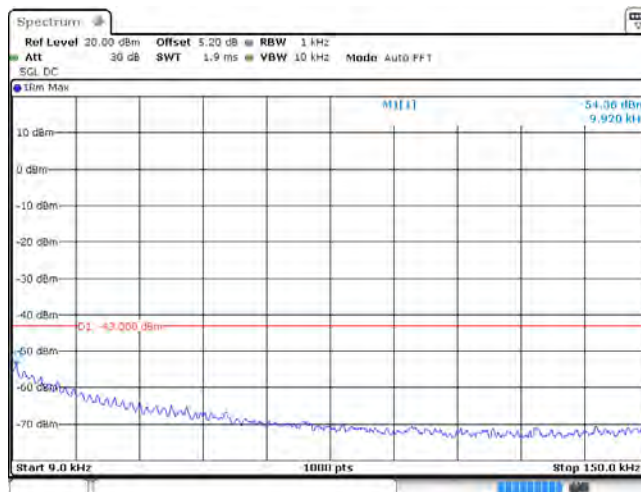


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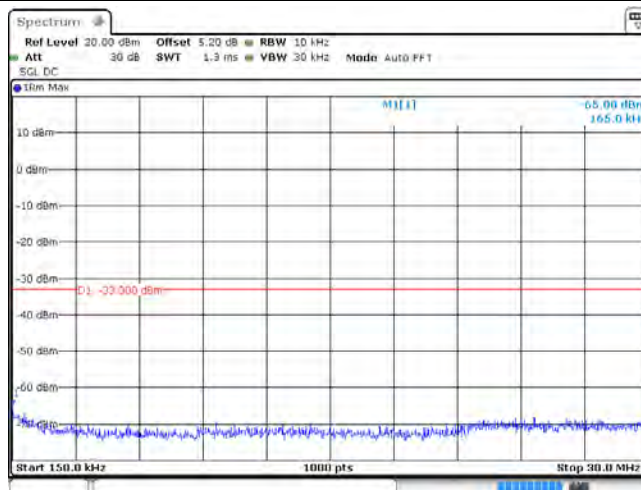


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Date: 2 DEC 2019 21:38:49



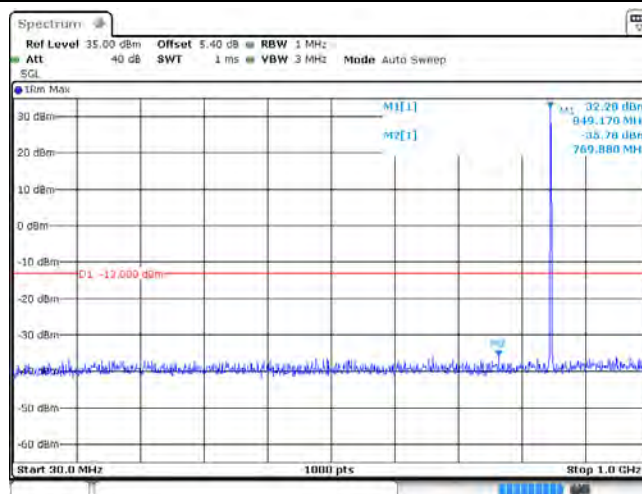
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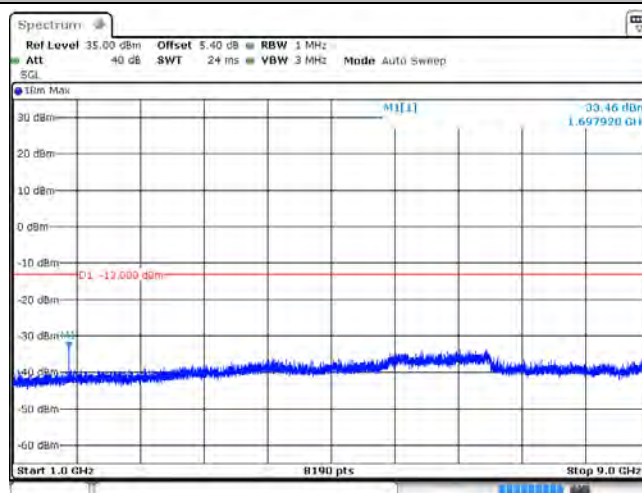


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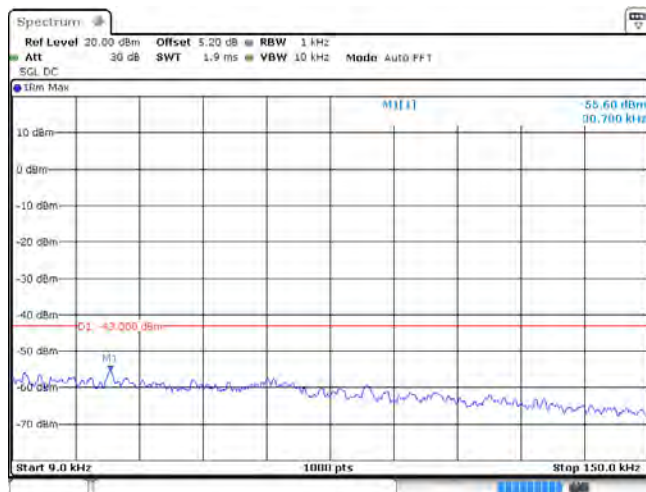


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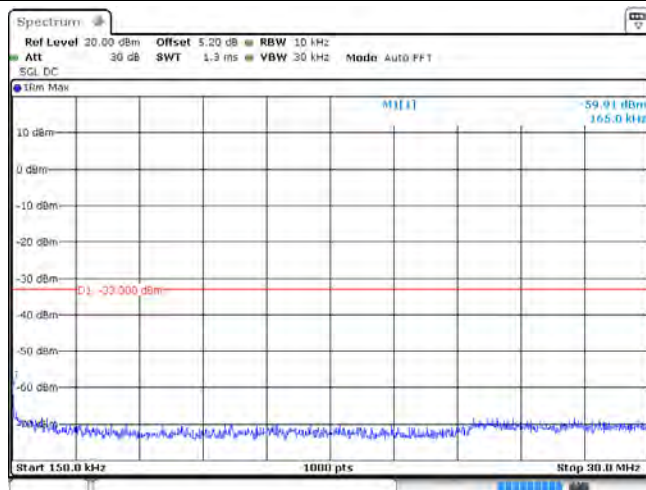




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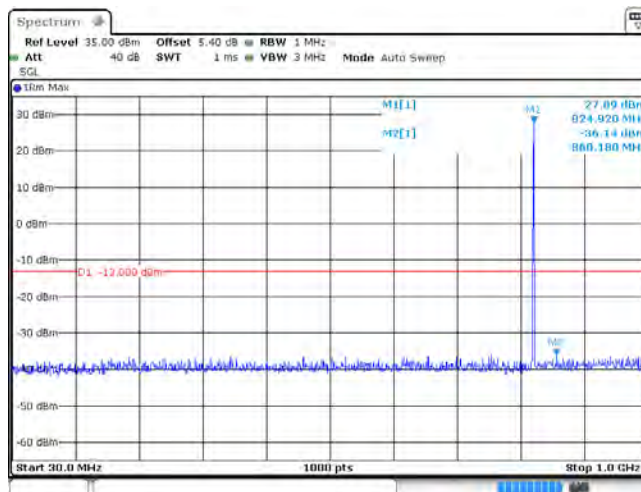


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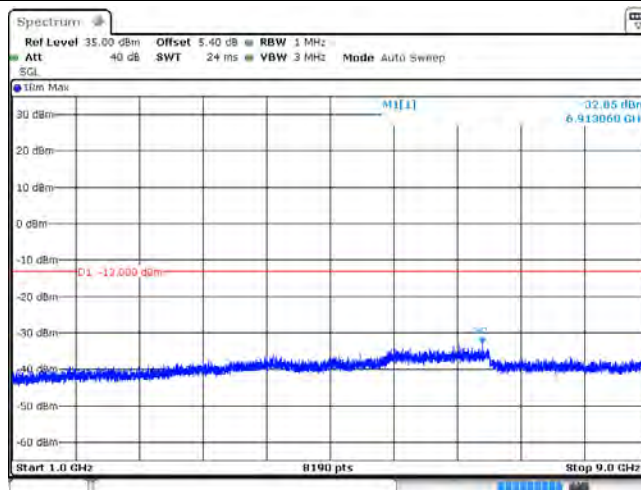


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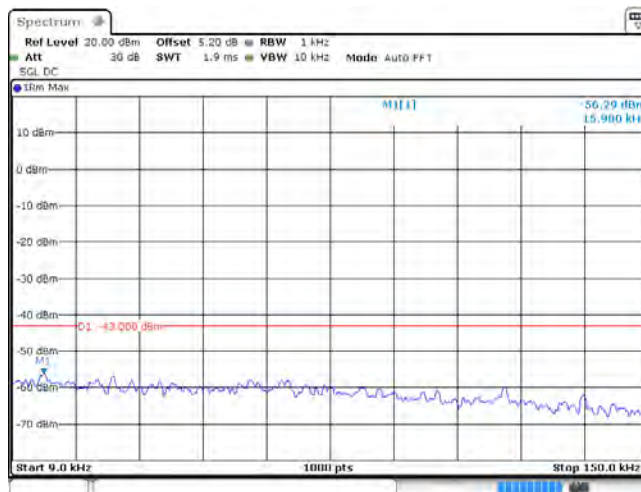


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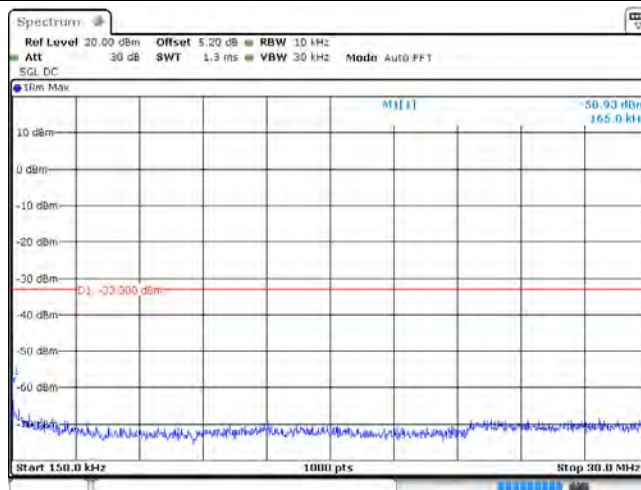


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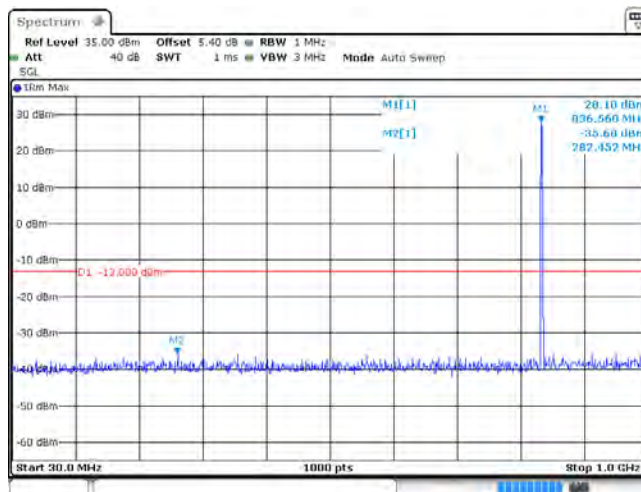


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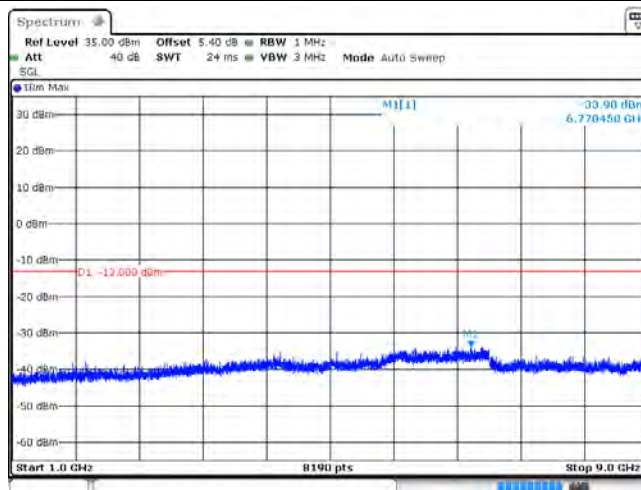


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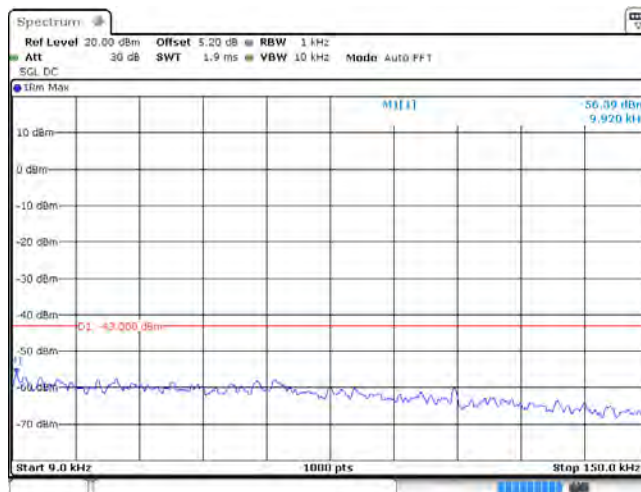


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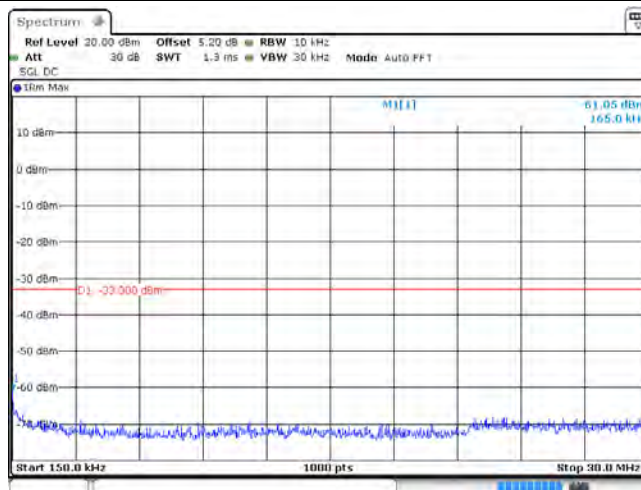


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Date: 2 DEC 2019 21:46:17

EGPRS850_251



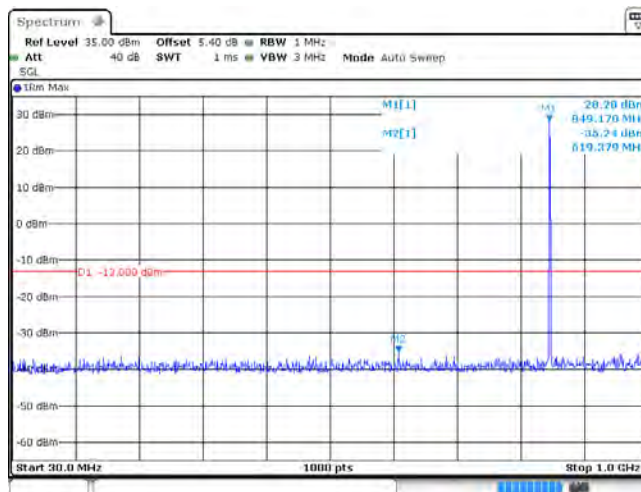
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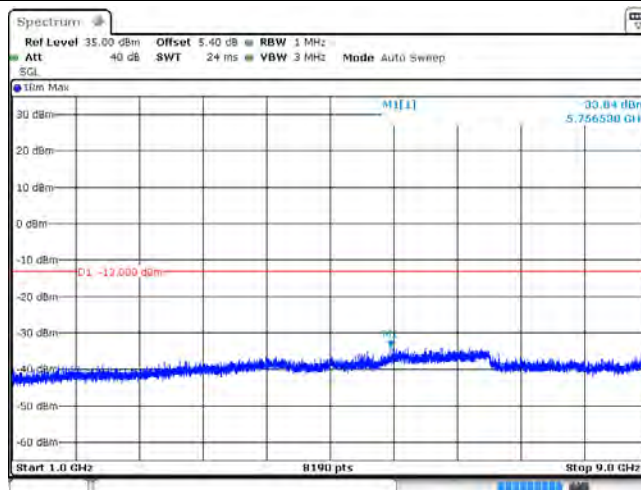
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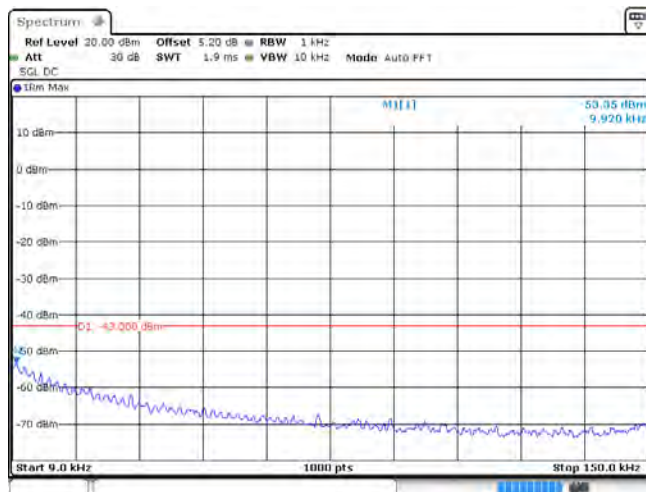
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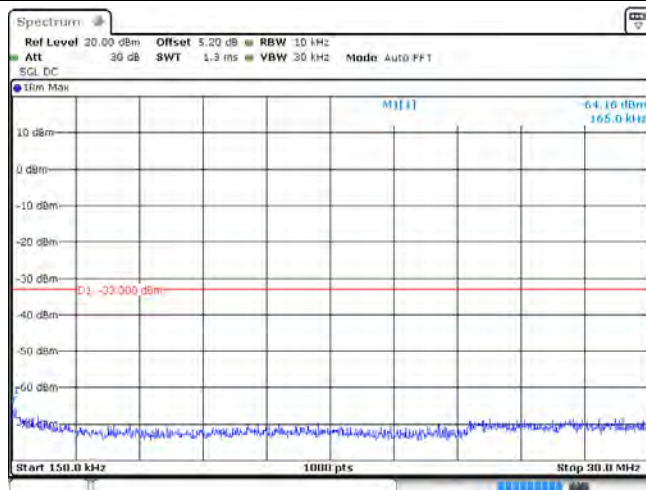


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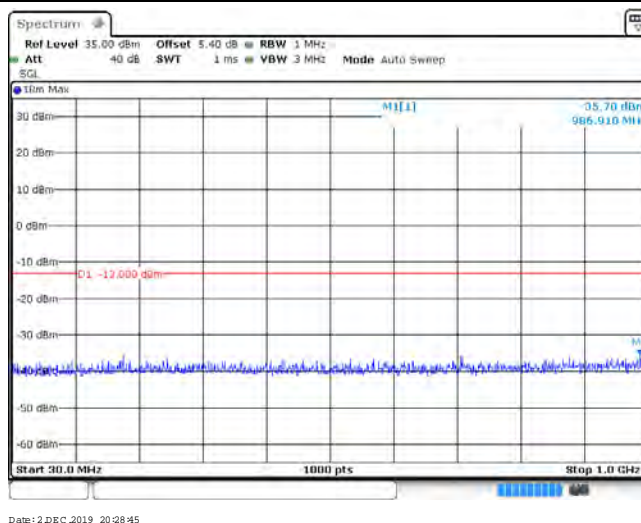


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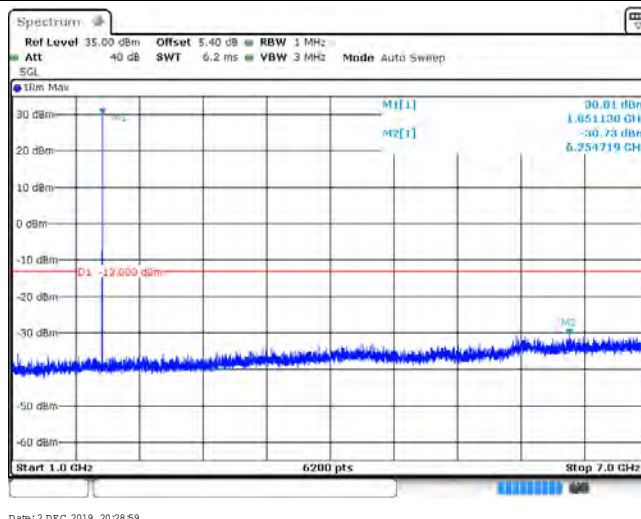
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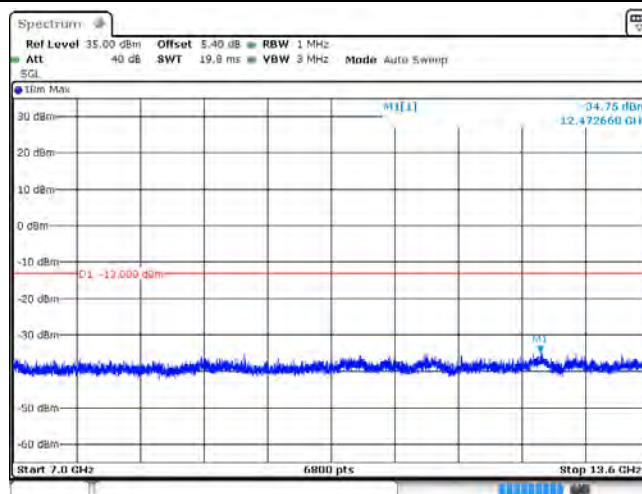


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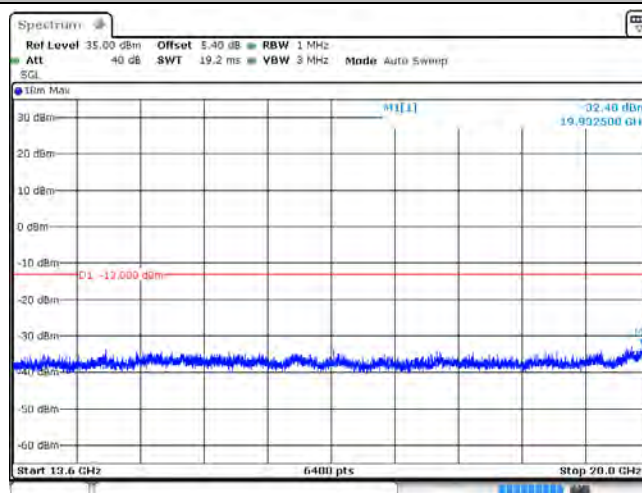


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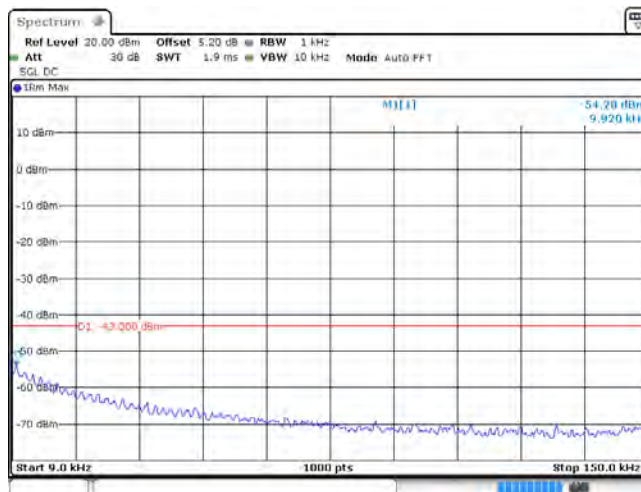


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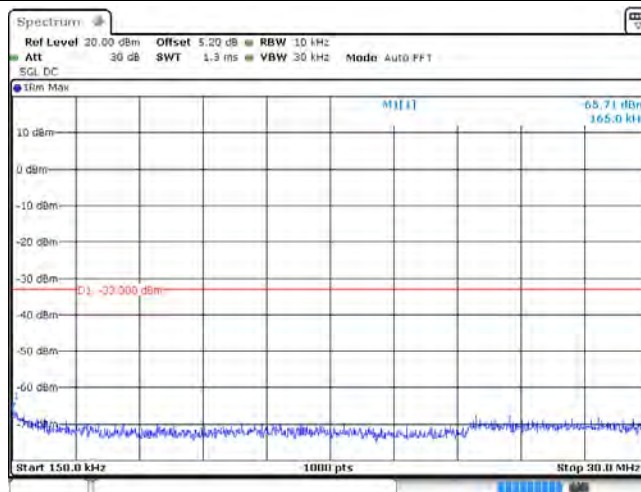


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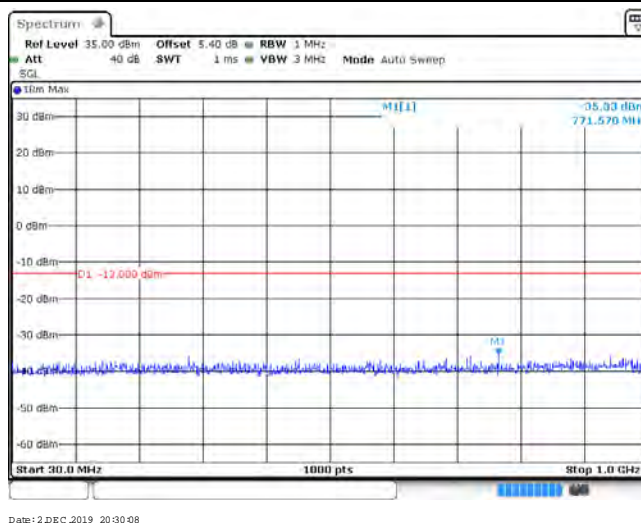
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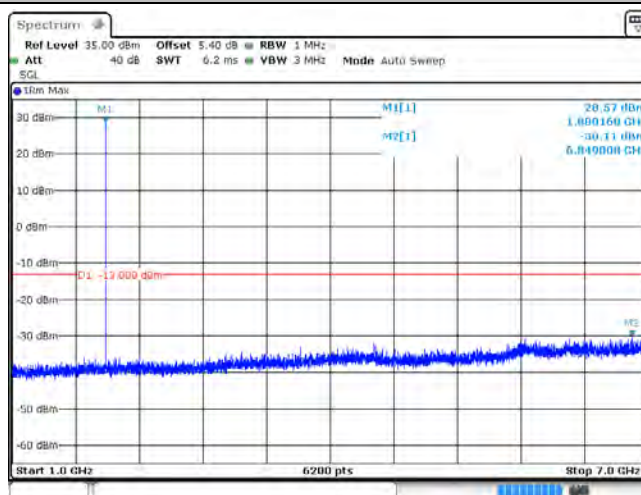


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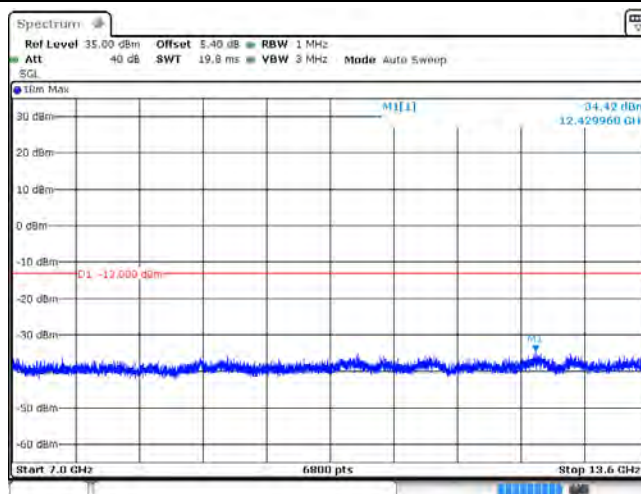


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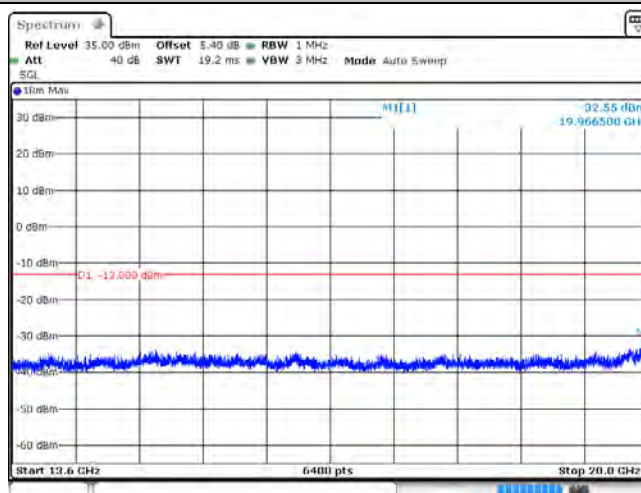


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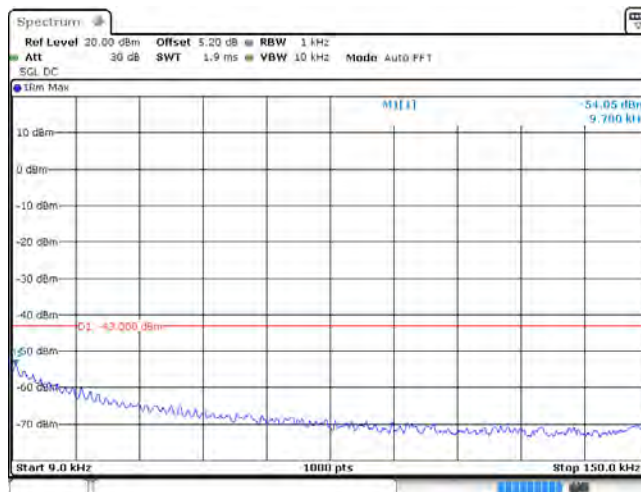


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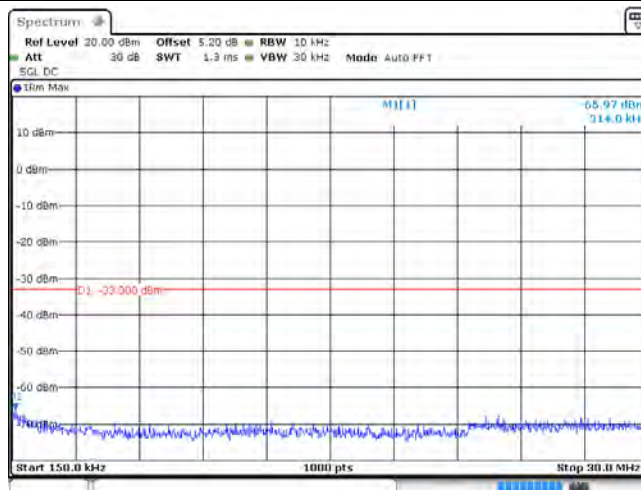


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GSM1900_810



Date: 2 DEC 2019 20:31:38



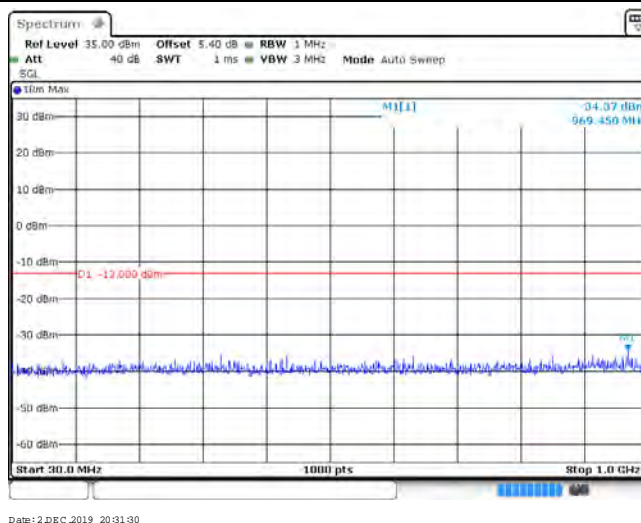
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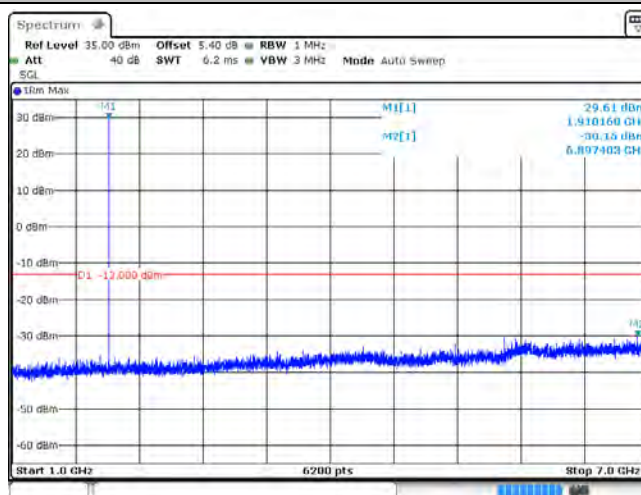


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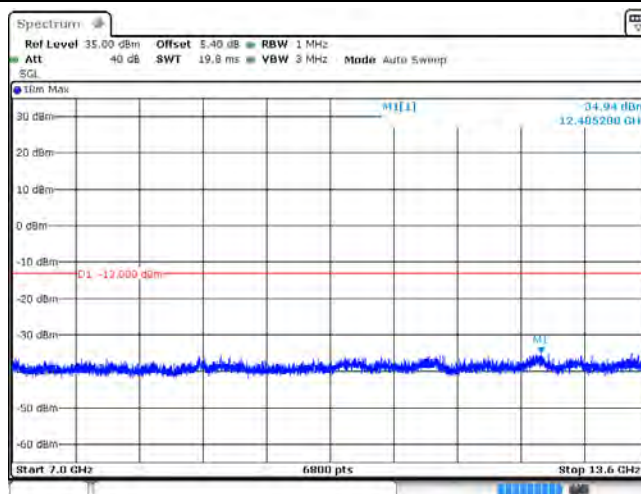


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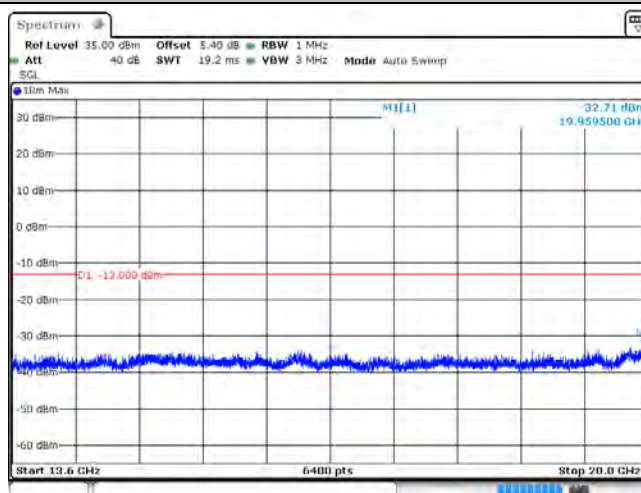


GSM1900_810



Date: 2 DEC 2019 20:31:56

GSM1900_810



Date: 2 DEC 2019 20:32:08

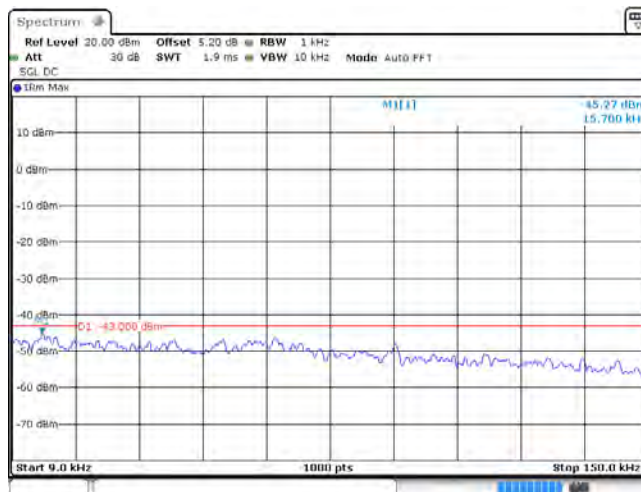


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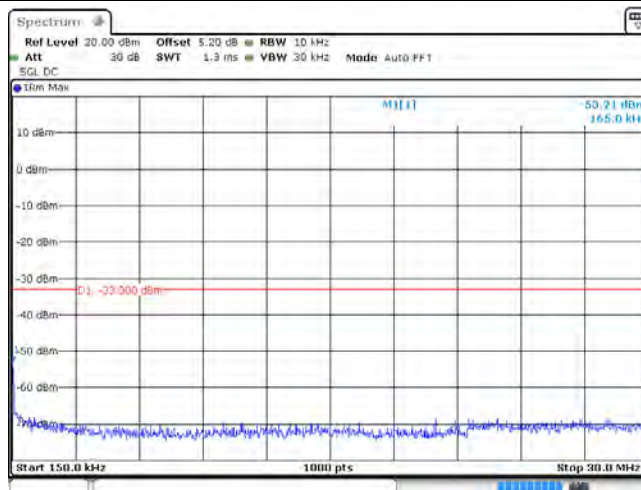


EGPRS1900_512



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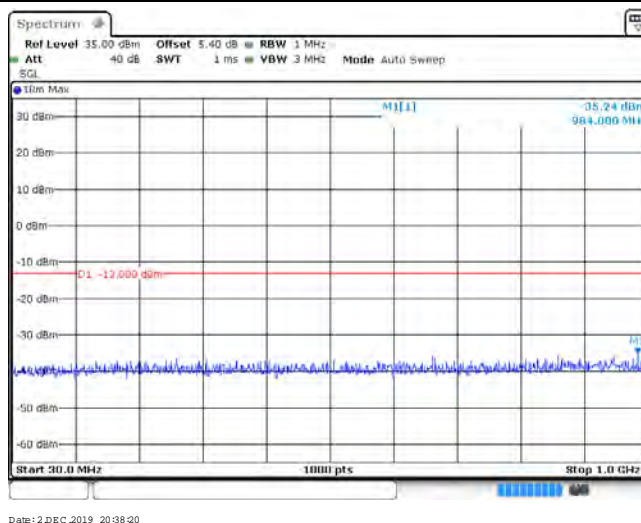


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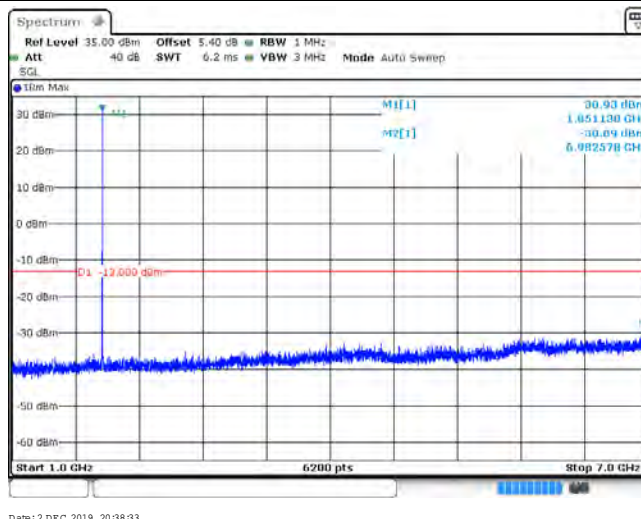
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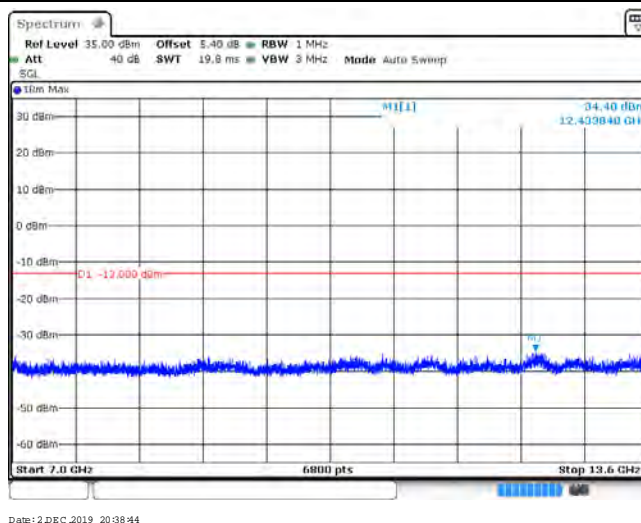


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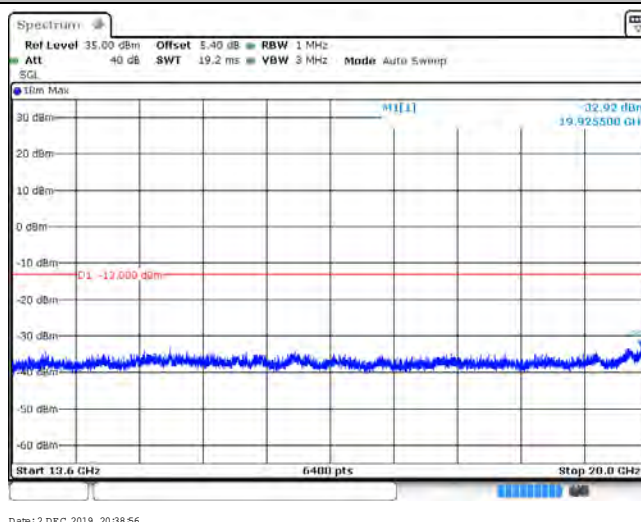


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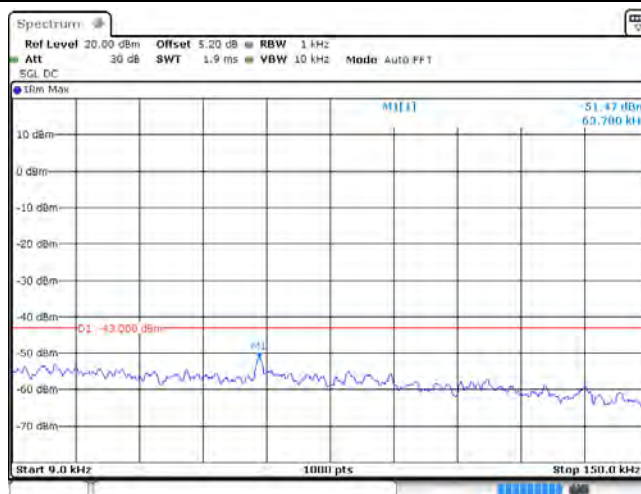


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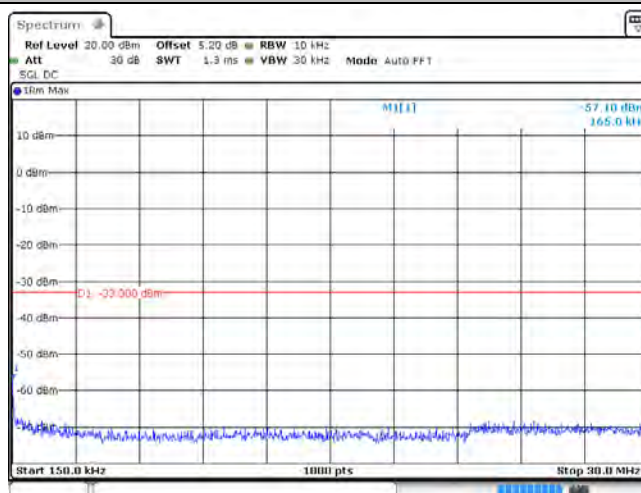


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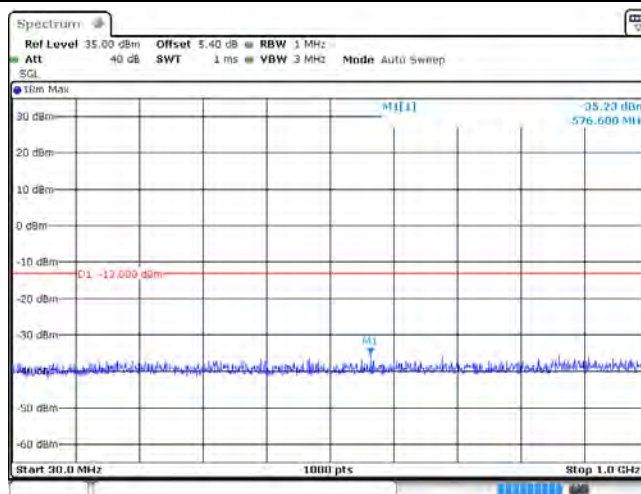


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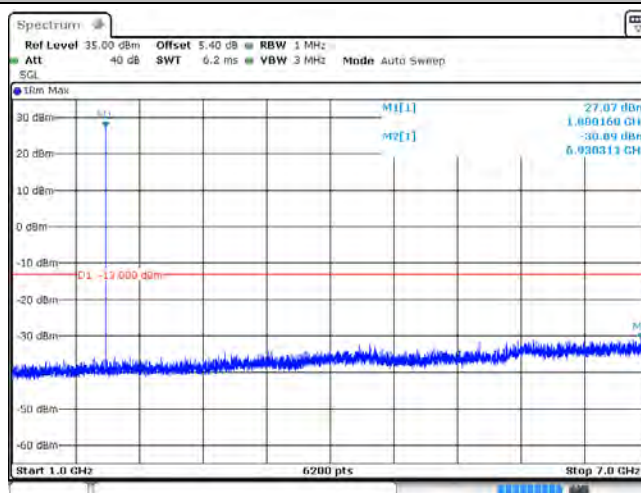


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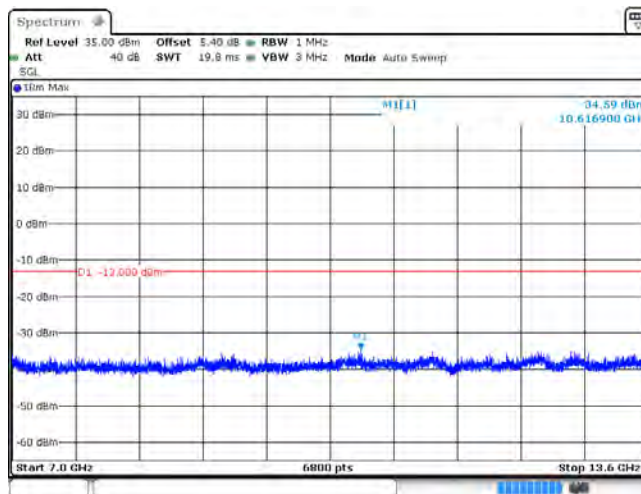


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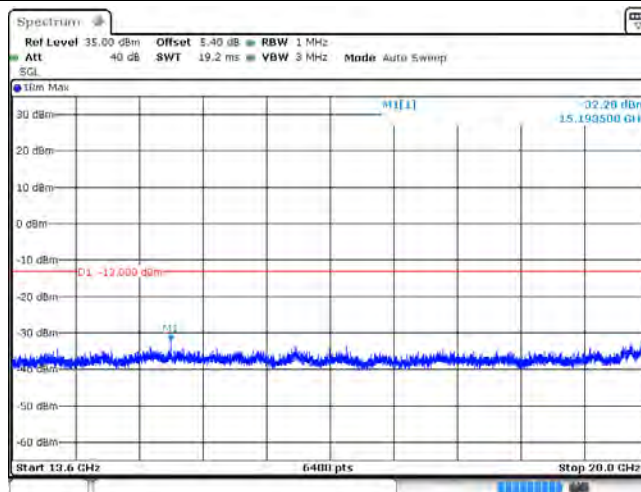


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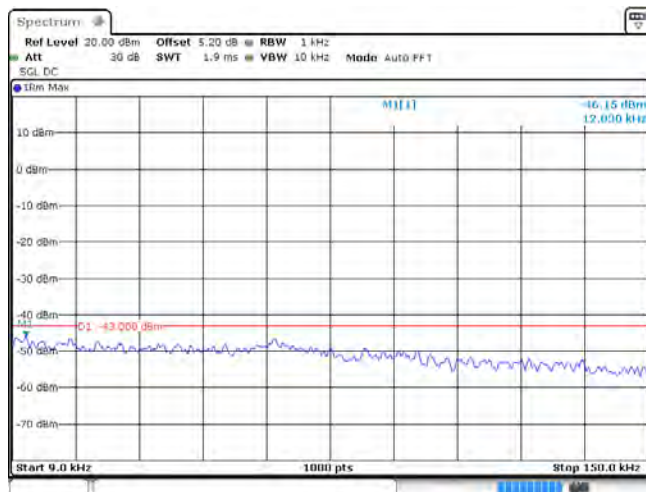


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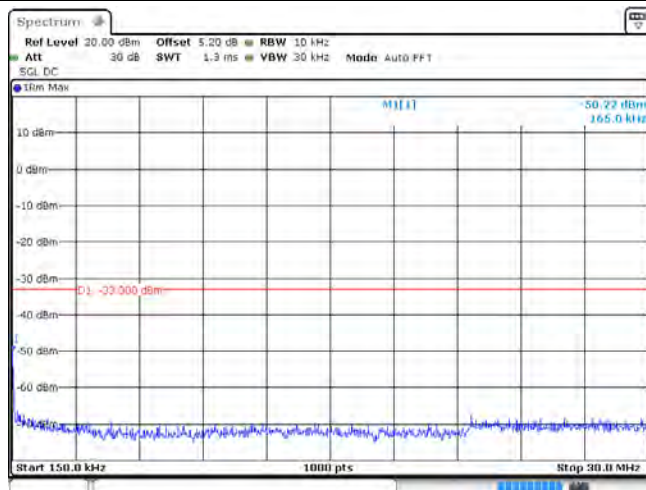


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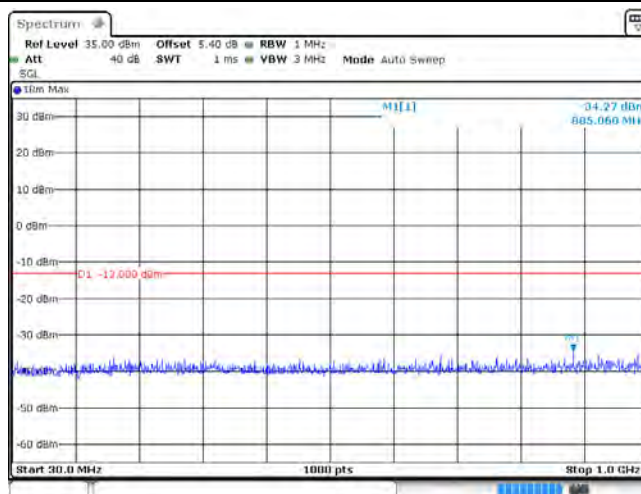


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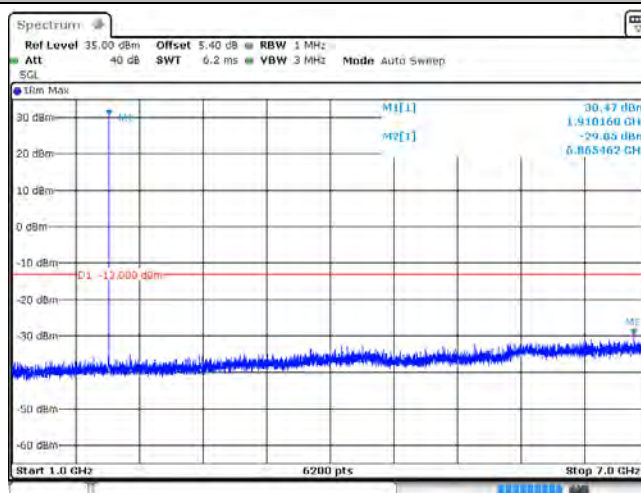


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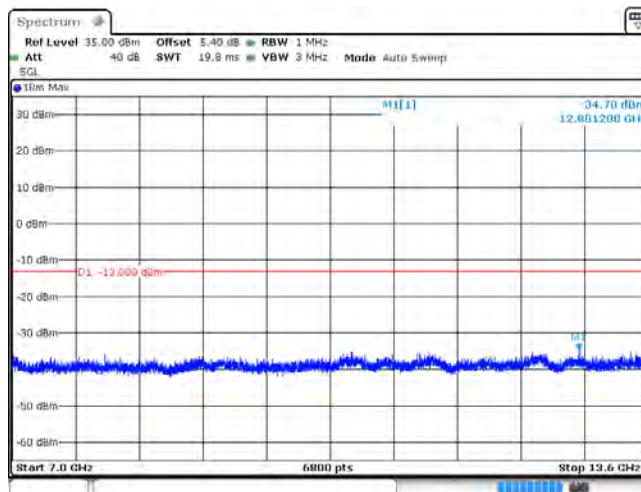


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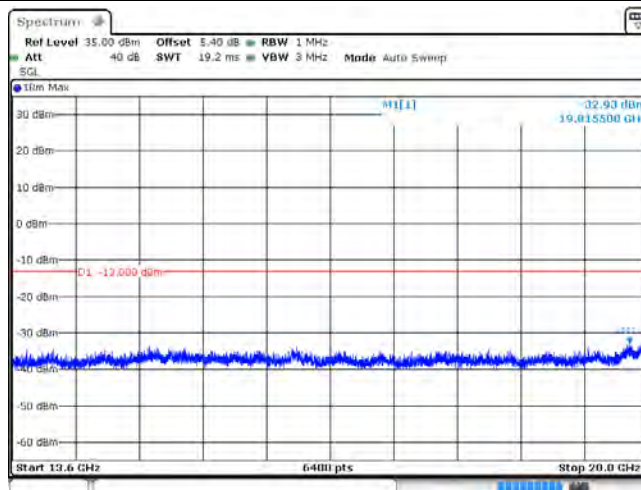


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7. Field Strength of Spurious Radiation

7.1. Test Band = GSM 1900 (Main Ant)

7.1.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
109.7380	-64.71	-13.00	51.71	Vertical
2713.5427	-37.64	-13.00	24.64	Vertical
3700.0233	-49.89	-13.00	36.89	Vertical
5550.5850	-55.84	-13.00	42.84	Vertical
7400.6467	-49.70	-13.00	36.70	Vertical
17997.9999	-35.00	-13.00	22.00	Vertical
41.2041	-63.19	-13.00	50.19	Horizontal
2701.5403	-36.26	-13.00	23.26	Horizontal
3700.5234	-55.01	-13.00	42.01	Horizontal
5550.5850	-56.50	-13.00	43.50	Horizontal
7400.6467	-52.67	-13.00	39.67	Horizontal
16390.4463	-39.07	-13.00	26.07	Horizontal

7.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
108.0404	-64.73	-13.00	51.73	Vertical
2693.5387	-37.61	-13.00	24.61	Vertical
3760.0253	-48.91	-13.00	35.91	Vertical
5640.0880	-54.60	-13.00	41.60	Vertical
11280.2760	-44.35	-13.00	31.35	Vertical
17998.5000	-35.54	-13.00	22.54	Vertical
39.8945	-63.87	-13.00	50.87	Horizontal
2702.7405	-36.40	-13.00	23.40	Horizontal
3760.0253	-54.49	-13.00	41.49	Horizontal
5640.0880	-55.60	-13.00	42.60	Horizontal
11280.2760	-44.42	-13.00	31.42	Horizontal
16399.9467	-39.17	-13.00	26.17	Horizontal



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7.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
106.7793	-64.61	-13.00	51.61	Vertical
2700.7401	-37.43	-13.00	24.43	Vertical
3819.5273	-52.77	-13.00	39.77	Vertical
5729.0910	-55.11	-13.00	42.11	Vertical
14474.3825	-43.48	-13.00	30.48	Vertical
17978.4993	-36.18	-13.00	23.18	Vertical
41.2526	-62.21	-13.00	49.21	Horizontal
2695.1390	-36.41	-13.00	23.41	Horizontal
3819.5273	-55.12	-13.00	42.12	Horizontal
5729.0910	-51.35	-13.00	38.35	Horizontal
9297.2099	-48.92	-13.00	35.92	Horizontal
16380.9460	-39.40	-13.00	26.40	Horizontal

7.2. Test Band = GSM 850 (Main Ant)

7.2.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
113.5697	-64.25	-13.00	51.25	Vertical
1648.1296	-61.86	-13.00	48.86	Vertical
2472.6945	-40.99	-13.00	27.99	Vertical
3296.5099	-58.78	-13.00	45.78	Vertical
14461.3820	-43.65	-13.00	30.65	Vertical
17992.9998	-35.93	-13.00	22.93	Vertical
41.2041	-63.32	-13.00	50.32	Horizontal
236.8628	-66.44	-13.00	53.44	Horizontal
1648.1296	-62.00	-13.00	49.00	Horizontal
2472.6945	-43.98	-13.00	30.98	Horizontal
3297.0099	-57.93	-13.00	44.93	Horizontal
16389.9463	-39.69	-13.00	26.69	Horizontal



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7.2.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
110.4170	-63.68	-13.00	50.68	Vertical
1673.3347	-62.27	-13.00	49.27	Vertical
2509.9020	-43.66	-13.00	30.66	Vertical
3346.5116	-57.30	-13.00	44.30	Vertical
14506.8836	-43.82	-13.00	30.82	Vertical
17995.9999	-37.00	-13.00	24.00	Vertical
40.7675	-62.78	-13.00	49.78	Horizontal
1672.9346	-61.24	-13.00	48.24	Horizontal
2510.3021	-44.49	-13.00	31.49	Horizontal
3346.5116	-54.58	-13.00	41.58	Horizontal
16386.4462	-39.85	-13.00	26.85	Horizontal
17985.9995	-40.89	-13.00	27.89	Horizontal

7.2.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
112.9391	-64.66	-13.00	51.66	Vertical
1697.3395	-61.48	-13.00	48.48	Vertical
2546.7093	-49.95	-13.00	36.95	Vertical
7349.6450	-53.36	-13.00	40.36	Vertical
14475.8825	-44.32	-13.00	31.32	Vertical
17989.9997	-37.66	-13.00	24.66	Vertical
42.5136	-64.59	-13.00	51.59	Horizontal
1697.3395	-61.06	-13.00	48.06	Horizontal
2546.7093	-47.99	-13.00	34.99	Horizontal
3395.5132	-55.33	-13.00	42.33	Horizontal
16397.9466	-40.61	-13.00	27.61	Horizontal
17998.5000	-42.29	-13.00	29.29	Horizontal



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7.3. Test Band = GSM 850 (Second Ant)

7.3.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
113.7152	-63.70	-13.00	50.70	Vertical
1648.1296	-55.34	-13.00	42.34	Vertical
2472.6945	-47.72	-13.00	34.72	Vertical
3296.5099	-59.18	-13.00	46.18	Vertical
14513.3838	-44.17	-13.00	31.17	Vertical
17999.0000	-37.39	-13.00	24.39	Vertical
41.1556	-64.18	-13.00	51.18	Horizontal
1648.1296	-62.12	-13.00	49.12	Horizontal
2472.6945	-38.39	-13.00	25.39	Horizontal
7347.6449	-54.16	-13.00	41.16	Horizontal
16380.9460	-40.43	-13.00	27.43	Horizontal
17991.4997	-41.45	-13.00	28.45	Horizontal

7.3.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
114.2002	-63.96	-13.00	50.96	Vertical
1673.3347	-59.53	-13.00	46.53	Vertical
2509.9020	-49.20	-13.00	36.20	Vertical
3346.5116	-60.61	-13.00	47.61	Vertical
14479.8827	-44.99	-13.00	31.99	Vertical
17999.5000	-39.44	-13.00	26.44	Vertical
41.1556	-63.69	-13.00	50.69	Horizontal
1672.9346	-63.06	-13.00	50.06	Horizontal
2509.9020	-39.99	-13.00	26.99	Horizontal
7369.1456	-53.74	-13.00	40.74	Horizontal
16399.9467	-41.60	-13.00	28.60	Horizontal
17991.9997	-43.34	-13.00	30.34	Horizontal



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7.3.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
108.2829	-63.89	-13.00	50.89	Vertical
1697.3395	-61.11	-13.00	48.11	Vertical
2546.7093	-44.93	-13.00	31.93	Vertical
3395.0132	-57.23	-13.00	44.23	Vertical
14488.8830	-45.23	-13.00	32.23	Vertical
17983.4995	-39.02	-13.00	26.02	Vertical
41.3011	-63.42	-13.00	50.42	Horizontal
1700.1400	-63.04	-13.00	50.04	Horizontal
2546.7093	-42.16	-13.00	29.16	Horizontal
3395.0132	-57.94	-13.00	44.94	Horizontal
16398.9466	-42.61	-13.00	29.61	Horizontal
17991.4997	-43.97	-13.00	30.97	Horizontal

7.4. Test Band = GSM 1900 (Second Ant)

7.4.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
112.3086	-64.54	-13.00	51.54	Vertical
2699.9400	-37.54	-13.00	24.54	Vertical
3700.5234	-52.70	-13.00	39.70	Vertical
5550.5850	-57.65	-13.00	44.65	Vertical
7400.6467	-49.89	-13.00	36.89	Vertical
17997.9999	-35.09	-13.00	22.09	Vertical
41.2526	-63.26	-13.00	50.26	Horizontal
2702.7405	-36.45	-13.00	23.45	Horizontal
3700.5234	-54.05	-13.00	41.05	Horizontal
5550.5850	-55.50	-13.00	42.50	Horizontal
7401.1467	-51.76	-13.00	38.76	Horizontal
16400.9467	-39.09	-13.00	26.09	Horizontal



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7.4.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
113.5212	-64.59	-13.00	51.59	Vertical
2728.3457	-38.36	-13.00	25.36	Vertical
3760.0253	-49.58	-13.00	36.58	Vertical
5639.5880	-56.00	-13.00	43.00	Vertical
14461.8821	-43.90	-13.00	30.90	Vertical
17999.5000	-37.09	-13.00	24.09	Vertical
44.5507	-63.60	-13.00	50.60	Horizontal
2700.3401	-36.49	-13.00	23.49	Horizontal
3760.0253	-50.62	-13.00	37.62	Horizontal
5640.0880	-56.31	-13.00	43.31	Horizontal
16378.9460	-40.41	-13.00	27.41	Horizontal
17997.9999	-40.87	-13.00	27.87	Horizontal

7.4.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
116.0433	-65.68	-13.00	52.68	Vertical
2694.3389	-37.77	-13.00	24.77	Vertical
3819.5273	-50.33	-13.00	37.33	Vertical
5729.5910	-53.37	-13.00	40.37	Vertical
11458.2819	-45.98	-13.00	32.98	Vertical
17919.9973	-38.23	-13.00	25.23	Vertical
41.2041	-64.71	-13.00	51.71	Horizontal
2728.7457	-37.57	-13.00	24.57	Horizontal
3819.5273	-51.98	-13.00	38.98	Horizontal
5729.5910	-51.56	-13.00	38.56	Horizontal
16398.9466	-41.65	-13.00	28.65	Horizontal
17996.4999	-42.79	-13.00	29.79	Horizontal

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

Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM850	128	VL	TN	0.81	0.000979	±2.5	PASS
GSM850	128	VN	TN	-1.74	-0.002115	±2.5	PASS
GSM850	128	VH	TN	-2.55	-0.003095	±2.5	PASS
GSM850	190	VL	TN	0.90	0.001081	±2.5	PASS
GSM850	190	VN	TN	0.58	0.000695	±2.5	PASS
GSM850	190	VH	TN	1.97	0.002354	±2.5	PASS
GSM850	251	VL	TN	-1.26	-0.001483	±2.5	PASS
GSM850	251	VN	TN	-1.45	-0.001712	±2.5	PASS
GSM850	251	VH	TN	1.65	0.001940	±2.5	PASS
EGPRS850	128	VL	TN	-1.42	-0.001724	±2.5	PASS
EGPRS850	128	VN	TN	5.13	0.006228	±2.5	PASS
EGPRS850	128	VH	TN	2.91	0.003526	±2.5	PASS
EGPRS850	190	VL	TN	1.74	0.002084	±2.5	PASS
EGPRS850	190	VN	TN	5.13	0.006136	±2.5	PASS
EGPRS850	190	VH	TN	-1.00	-0.001196	±2.5	PASS
EGPRS850	251	VL	TN	5.81	0.006847	±2.5	PASS
EGPRS850	251	VN	TN	0.94	0.001103	±2.5	PASS
EGPRS850	251	VH	TN	0.19	0.000228	±2.5	PASS
GSM1900	512	VL	TN	8.17	0.004415	±2.5	PASS
GSM1900	512	VN	TN	7.26	0.003926	±2.5	PASS
GSM1900	512	VH	TN	13.79	0.007451	±2.5	PASS
GSM1900	661	VL	TN	8.56	0.004551	±2.5	PASS
GSM1900	661	VN	TN	13.04	0.006938	±2.5	PASS
GSM1900	661	VH	TN	8.81	0.004688	±2.5	PASS
GSM1900	810	VL	TN	7.30	0.003821	±2.5	PASS
GSM1900	810	VN	TN	7.04	0.003685	±2.5	PASS
GSM1900	810	VH	TN	5.46	0.002857	±2.5	PASS
EGPRS1900	512	VL	TN	0.58	0.000314	±2.5	PASS
EGPRS1900	512	VN	TN	1.55	0.000838	±2.5	PASS
EGPRS1900	512	VH	TN	13.33	0.007207	±2.5	PASS
EGPRS1900	661	VL	TN	8.62	0.004585	±2.5	PASS
EGPRS1900	661	VN	TN	10.98	0.005839	±2.5	PASS
EGPRS1900	661	VH	TN	6.52	0.003469	±2.5	PASS
EGPRS1900	810	VL	TN	11.59	0.006069	±2.5	PASS
EGPRS1900	810	VN	TN	8.56	0.004480	±2.5	PASS
EGPRS1900	810	VH	TN	7.75	0.004057	±2.5	PASS



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8.2. Frequency Error Vs Temperature

Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM850	128	VN	-30	4.39	0.005327	±2.5	PASS
GSM850	128	VN	-20	2.78	0.003369	±2.5	PASS
GSM850	128	VN	-10	-0.68	-0.000823	±2.5	PASS
GSM850	128	VN	0	-1.61	-0.001959	±2.5	PASS
GSM850	128	VN	10	-5.17	-0.006268	±2.5	PASS
GSM850	128	VN	20	-2.68	-0.003251	±2.5	PASS
GSM850	128	VN	30	-5.20	-0.006307	±2.5	PASS
GSM850	128	VN	40	-2.29	-0.002781	±2.5	PASS
GSM850	128	VN	50	-3.16	-0.003839	±2.5	PASS
GSM850	190	VN	-30	0.87	0.001042	±2.5	PASS
GSM850	190	VN	-20	2.20	0.002624	±2.5	PASS
GSM850	190	VN	-10	5.23	0.006252	±2.5	PASS
GSM850	190	VN	0	1.07	0.001274	±2.5	PASS
GSM850	190	VN	10	-1.68	-0.002007	±2.5	PASS
GSM850	190	VN	20	-2.39	-0.002856	±2.5	PASS
GSM850	190	VN	30	-1.23	-0.001466	±2.5	PASS
GSM850	190	VN	40	0.26	0.000309	±2.5	PASS
GSM850	190	VN	50	-2.39	-0.002856	±2.5	PASS
GSM850	251	VN	-30	0.58	0.000685	±2.5	PASS
GSM850	251	VN	-20	4.94	0.005820	±2.5	PASS
GSM850	251	VN	-10	1.87	0.002206	±2.5	PASS
GSM850	251	VN	0	-3.10	-0.003652	±2.5	PASS
GSM850	251	VN	10	-1.68	-0.001978	±2.5	PASS
GSM850	251	VN	20	2.29	0.002701	±2.5	PASS
GSM850	251	VN	30	-0.16	-0.000190	±2.5	PASS
GSM850	251	VN	40	-0.03	-0.000038	±2.5	PASS
GSM850	251	VN	50	-0.87	-0.001027	±2.5	PASS
EGPRS850	128	VN	-30	1.00	0.001214	±2.5	PASS
EGPRS850	128	VN	-20	3.39	0.004113	±2.5	PASS
EGPRS850	128	VN	-10	-0.71	-0.000862	±2.5	PASS
EGPRS850	128	VN	0	3.75	0.004544	±2.5	PASS
EGPRS850	128	VN	10	-1.32	-0.001606	±2.5	PASS
EGPRS850	128	VN	20	3.94	0.004779	±2.5	PASS
EGPRS850	128	VN	30	1.78	0.002154	±2.5	PASS
EGPRS850	128	VN	40	3.81	0.004622	±2.5	PASS
EGPRS850	128	VN	50	0.42	0.000509	±2.5	PASS
EGPRS850	190	VN	-30	1.16	0.001389	±2.5	PASS
EGPRS850	190	VN	-20	-1.61	-0.001930	±2.5	PASS
EGPRS850	190	VN	-10	1.58	0.001891	±2.5	PASS
EGPRS850	190	VN	0	-0.26	-0.000309	±2.5	PASS
EGPRS850	190	VN	10	3.10	0.003705	±2.5	PASS
EGPRS850	190	VN	20	0.58	0.000695	±2.5	PASS
EGPRS850	190	VN	30	3.07	0.003666	±2.5	PASS



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EGPRS850	190	VN	40	0.03	0.000039	±2.5	PASS
EGPRS850	190	VN	50	1.61	0.001930	±2.5	PASS
EGPRS850	251	VN	-30	0.68	0.000799	±2.5	PASS
EGPRS850	251	VN	-20	1.87	0.002206	±2.5	PASS
EGPRS850	251	VN	-10	1.26	0.001483	±2.5	PASS
EGPRS850	251	VN	0	0.16	0.000190	±2.5	PASS
EGPRS850	251	VN	10	-0.42	-0.000494	±2.5	PASS
EGPRS850	251	VN	20	-0.65	-0.000761	±2.5	PASS
EGPRS850	251	VN	30	0.65	0.000761	±2.5	PASS
EGPRS850	251	VN	40	-1.68	-0.001978	±2.5	PASS
EGPRS850	251	VN	50	3.13	0.003690	±2.5	PASS
GSM1900	512	VN	-30	8.59	0.004642	±2.5	PASS
GSM1900	512	VN	-20	9.91	0.005357	±2.5	PASS
GSM1900	512	VN	-10	12.82	0.006928	±2.5	PASS
GSM1900	512	VN	0	1.84	0.000995	±2.5	PASS
GSM1900	512	VN	10	0.19	0.000105	±2.5	PASS
GSM1900	512	VN	20	-1.36	-0.000733	±2.5	PASS
GSM1900	512	VN	30	-2.49	-0.001344	±2.5	PASS
GSM1900	512	VN	40	0.65	0.000349	±2.5	PASS
GSM1900	512	VN	50	1.45	0.000785	±2.5	PASS
GSM1900	661	VN	-30	11.36	0.006045	±2.5	PASS
GSM1900	661	VN	-20	11.24	0.005976	±2.5	PASS
GSM1900	661	VN	-10	6.97	0.003709	±2.5	PASS
GSM1900	661	VN	0	3.55	0.001889	±2.5	PASS
GSM1900	661	VN	10	3.58	0.001906	±2.5	PASS
GSM1900	661	VN	20	2.74	0.001460	±2.5	PASS
GSM1900	661	VN	30	0.45	0.000240	±2.5	PASS
GSM1900	661	VN	40	-1.81	-0.000962	±2.5	PASS
GSM1900	661	VN	50	1.78	0.000945	±2.5	PASS
GSM1900	810	VN	-30	7.04	0.003685	±2.5	PASS
GSM1900	810	VN	-20	7.59	0.003973	±2.5	PASS
GSM1900	810	VN	-10	4.94	0.002587	±2.5	PASS
GSM1900	810	VN	0	9.10	0.004767	±2.5	PASS
GSM1900	810	VN	10	0.06	0.000034	±2.5	PASS
GSM1900	810	VN	20	-0.39	-0.000203	±2.5	PASS
GSM1900	810	VN	30	-4.07	-0.002130	±2.5	PASS
GSM1900	810	VN	40	1.90	0.000997	±2.5	PASS
GSM1900	810	VN	50	1.45	0.000761	±2.5	PASS
EGPRS1900	512	VN	-30	2.26	0.001221	±2.5	PASS
EGPRS1900	512	VN	-20	4.46	0.002408	±2.5	PASS
EGPRS1900	512	VN	-10	12.88	0.006963	±2.5	PASS
EGPRS1900	512	VN	0	8.39	0.004537	±2.5	PASS
EGPRS1900	512	VN	10	4.04	0.002181	±2.5	PASS
EGPRS1900	512	VN	20	8.59	0.004642	±2.5	PASS
EGPRS1900	512	VN	30	2.55	0.001379	±2.5	PASS
EGPRS1900	512	VN	40	1.65	0.000890	±2.5	PASS
EGPRS1900	512	VN	50	-3.97	-0.002146	±2.5	PASS



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EGPRS1900	661	VN	-30	3.94	0.002095	±2.5	PASS
EGPRS1900	661	VN	-20	8.04	0.004276	±2.5	PASS
EGPRS1900	661	VN	-10	4.46	0.002370	±2.5	PASS
EGPRS1900	661	VN	0	10.91	0.005805	±2.5	PASS
EGPRS1900	661	VN	10	9.46	0.005032	±2.5	PASS
EGPRS1900	661	VN	20	4.71	0.002507	±2.5	PASS
EGPRS1900	661	VN	30	-2.16	-0.001151	±2.5	PASS
EGPRS1900	661	VN	40	-0.81	-0.000429	±2.5	PASS
EGPRS1900	661	VN	50	5.00	0.002662	±2.5	PASS
EGPRS1900	810	VN	-30	5.36	0.002806	±2.5	PASS
EGPRS1900	810	VN	-20	5.07	0.002654	±2.5	PASS
EGPRS1900	810	VN	-10	5.26	0.002756	±2.5	PASS
EGPRS1900	810	VN	0	8.65	0.004531	±2.5	PASS
EGPRS1900	810	VN	10	4.62	0.002417	±2.5	PASS
EGPRS1900	810	VN	20	4.84	0.002536	±2.5	PASS
EGPRS1900	810	VN	30	2.10	0.001099	±2.5	PASS
EGPRS1900	810	VN	40	3.20	0.001674	±2.5	PASS
EGPRS1900	810	VN	50	4.88	0.002553	±2.5	PASS

The End



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