



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	---	31.50	27.56	38.45	PASS
GSM850	190	---	31.55	27.61	38.45	PASS
GSM850	251	---	31.31	27.37	38.45	PASS
EGPRS850 (GMSK)	128	1	31.56	27.62	38.45	PASS
EGPRS850 (GMSK)	128	2	29.94	26.00	38.45	PASS
EGPRS850 (GMSK)	128	3	28.85	24.91	38.45	PASS
EGPRS850 (GMSK)	128	4	27.50	23.56	38.45	PASS
EGPRS850 (GMSK)	190	1	31.51	27.57	38.45	PASS
EGPRS850 (GMSK)	190	2	29.81	25.87	38.45	PASS
EGPRS850 (GMSK)	190	3	28.68	24.74	38.45	PASS
EGPRS850 (GMSK)	190	4	27.31	23.37	38.45	PASS
EGPRS850 (GMSK)	251	1	31.32	27.38	38.45	PASS
EGPRS850 (GMSK)	251	2	29.55	25.61	38.45	PASS
EGPRS850 (GMSK)	251	3	28.41	24.47	38.45	PASS
EGPRS850 (GMSK)	251	4	27.08	23.14	38.45	PASS
EGPRS850 (8PSK)	128	1	27.72	23.78	38.45	PASS
EGPRS850 (8PSK)	128	2	25.34	21.40	38.45	PASS
EGPRS850 (8PSK)	128	3	23.67	19.73	38.45	PASS
EGPRS850 (8PSK)	128	4	23.06	19.12	38.45	PASS
EGPRS850 (8PSK)	190	1	27.54	23.60	38.45	PASS
EGPRS850 (8PSK)	190	2	25.06	21.12	38.45	PASS
EGPRS850 (8PSK)	190	3	23.43	19.49	38.45	PASS
EGPRS850 (8PSK)	190	4	22.82	18.88	38.45	PASS
EGPRS850 (8PSK)	251	1	27.45	23.51	38.45	PASS
EGPRS850 (8PSK)	251	2	24.98	21.04	38.45	PASS
EGPRS850 (8PSK)	251	3	23.36	19.42	38.45	PASS
EGPRS850 (8PSK)	251	4	22.75	18.81	38.45	PASS



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Band	Channel	Slot	Conducted Power (dBm)	EIRP (dBm)	Limit(dBm)	Verdict
GSM1900	512	---	29.96	28.96	33.00	PASS
GSM1900	661	---	29.91	28.91	33.00	PASS
GSM1900	810	---	30.05	29.05	33.00	PASS
EGPRS1900 (GMSK)	512	1	29.98	28.98	33.00	PASS
EGPRS1900 (GMSK)	512	2	28.16	27.16	33.00	PASS
EGPRS1900 (GMSK)	512	3	25.95	24.95	33.00	PASS
EGPRS1900 (GMSK)	512	4	24.77	23.77	33.00	PASS
EGPRS1900 (GMSK)	661	1	30.00	29.00	33.00	PASS
EGPRS1900 (GMSK)	661	2	28.19	27.19	33.00	PASS
EGPRS1900 (GMSK)	661	3	26.01	25.01	33.00	PASS
EGPRS1900 (GMSK)	661	4	24.81	23.81	33.00	PASS
EGPRS1900 (GMSK)	810	1	30.14	29.14	33.00	PASS
EGPRS1900 (GMSK)	810	2	28.38	27.38	33.00	PASS
EGPRS1900 (GMSK)	810	3	26.22	25.22	33.00	PASS
EGPRS1900 (GMSK)	810	4	25.06	24.06	33.00	PASS
EGPRS1900 (8PSK)	512	1	27.38	26.38	33.00	PASS
EGPRS1900 (8PSK)	512	2	24.77	23.77	33.00	PASS
EGPRS1900 (8PSK)	512	3	22.75	21.75	33.00	PASS
EGPRS1900 (8PSK)	512	4	21.76	20.76	33.00	PASS
EGPRS1900 (8PSK)	661	1	27.28	26.28	33.00	PASS
EGPRS1900 (8PSK)	661	2	24.65	23.65	33.00	PASS
EGPRS1900 (8PSK)	661	3	22.71	21.71	33.00	PASS
EGPRS1900 (8PSK)	661	4	21.75	20.75	33.00	PASS
EGPRS1900 (8PSK)	810	1	27.51	26.51	33.00	PASS
EGPRS1900 (8PSK)	810	2	24.94	23.94	33.00	PASS
EGPRS1900 (8PSK)	810	3	23.14	22.14	33.00	PASS
EGPRS1900 (8PSK)	810	4	22.05	21.05	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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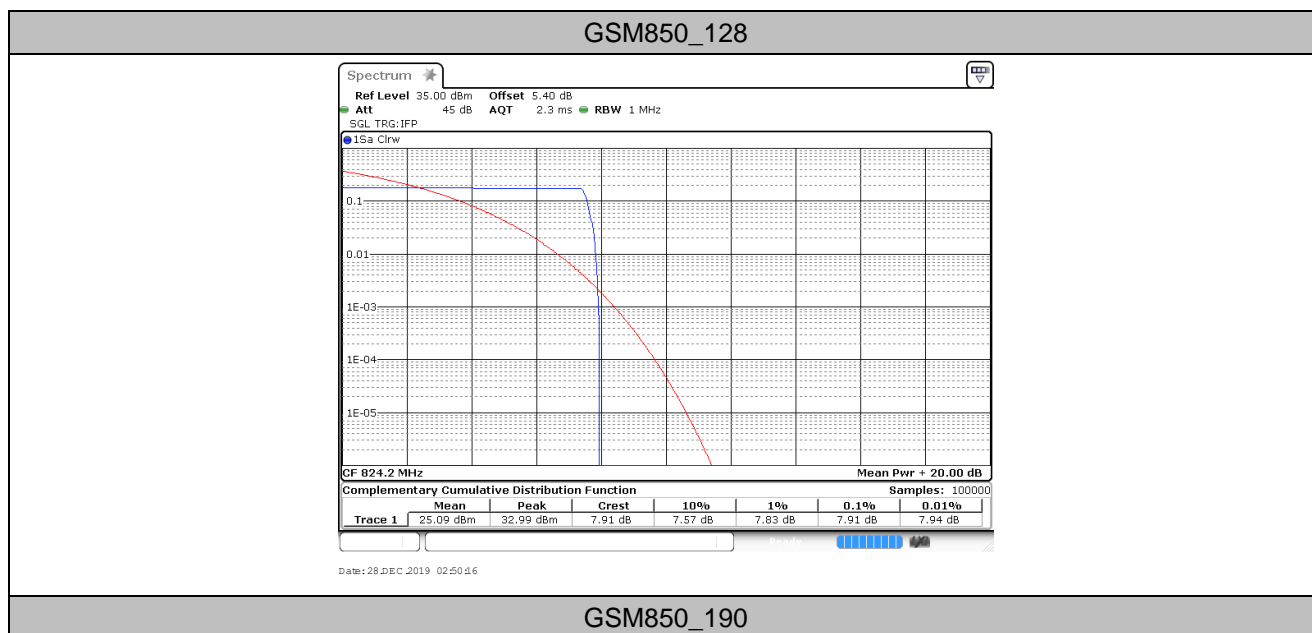
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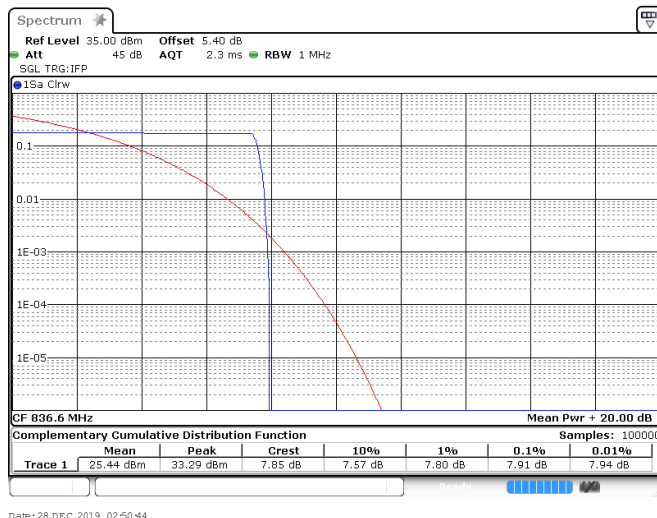
2. Peak-to-Average Ratio

2.1. Test Result

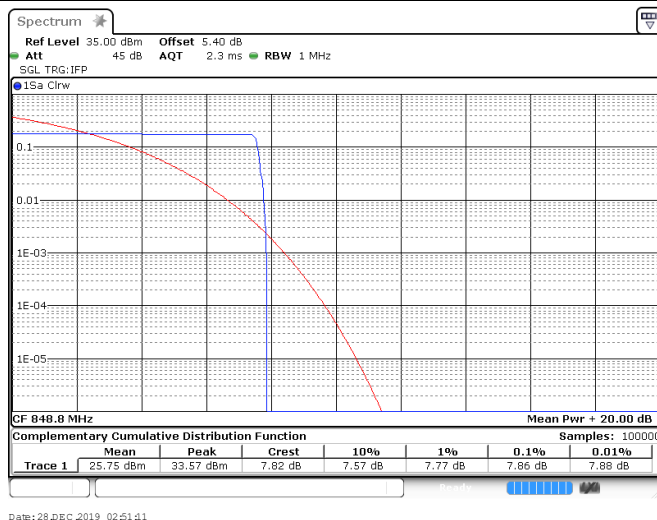
Band	Channel	Peak-to-Average Ratio(dB)	Limit(dB)	Verdict
GSM850	128	7.91	13	PASS
GSM850	190	7.91	13	PASS
GSM850	251	7.86	13	PASS
EGPRS850	128	10.93	13	PASS
EGPRS850	190	10.93	13	PASS
EGPRS850	251	10.46	13	PASS
GSM1900	512	7.77	13	PASS
GSM1900	661	7.74	13	PASS
GSM1900	810	7.77	13	PASS
EGPRS1900	512	9.86	13	PASS
EGPRS1900	661	10.46	13	PASS
EGPRS1900	810	10.38	13	PASS

2.2. Part II - Test Plots



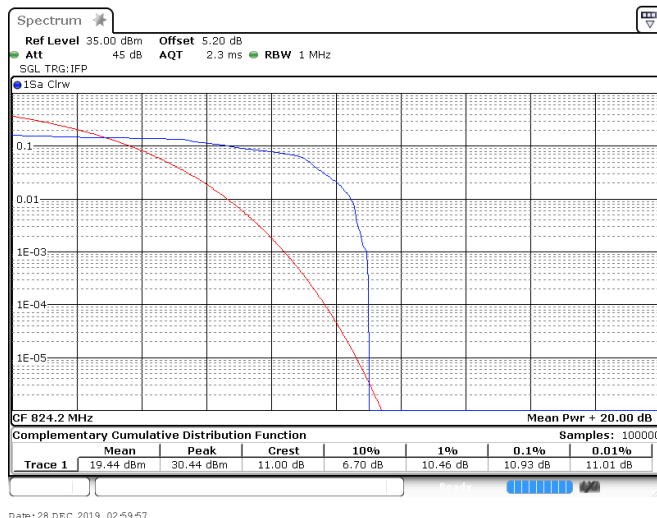


GSM850_251

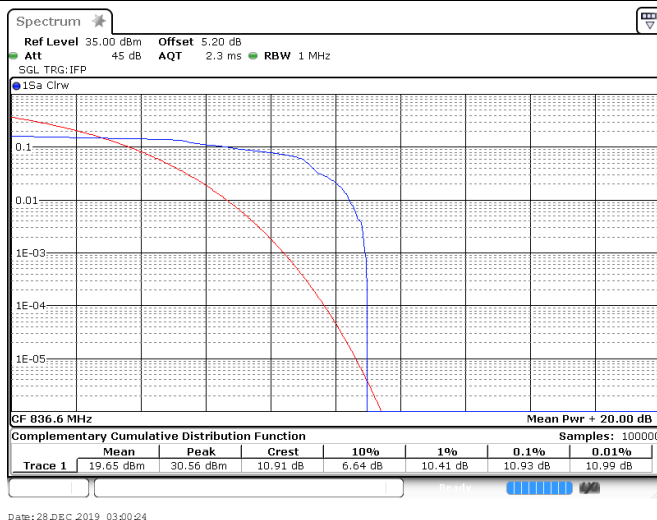


EGPRS850_128



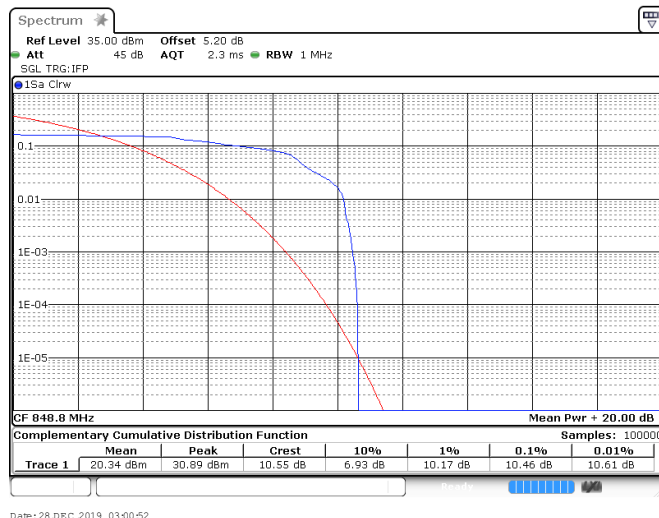


EGPRS850_190

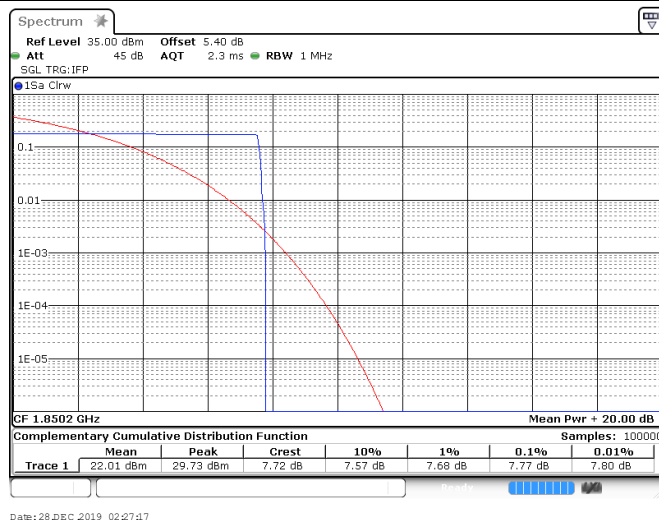


EGPRS850_251



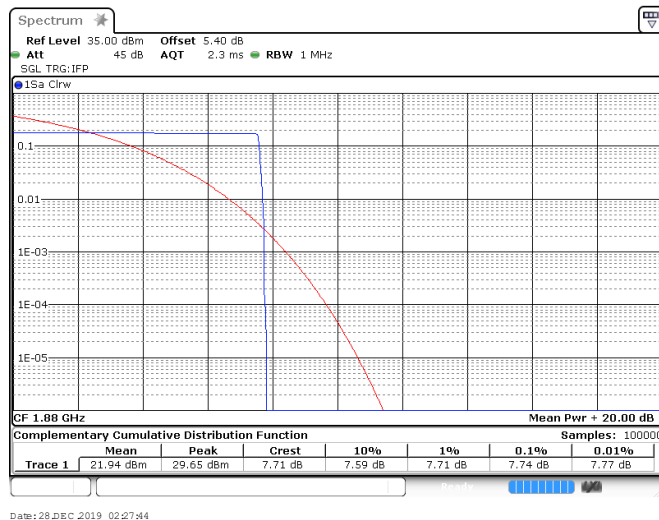


GSM1900_512

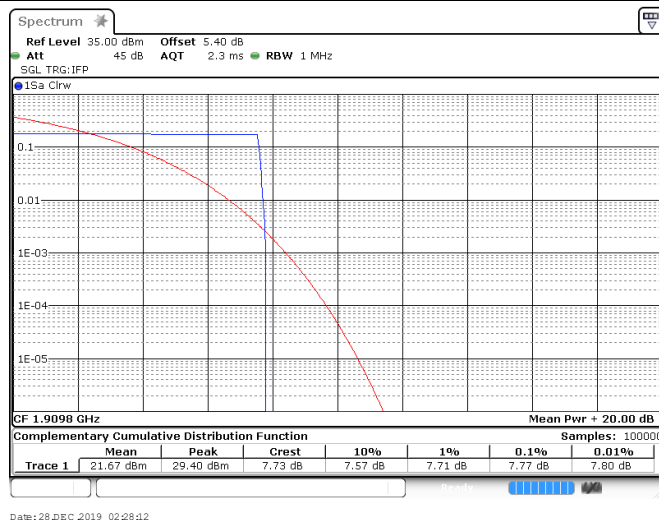


GSM1900_661



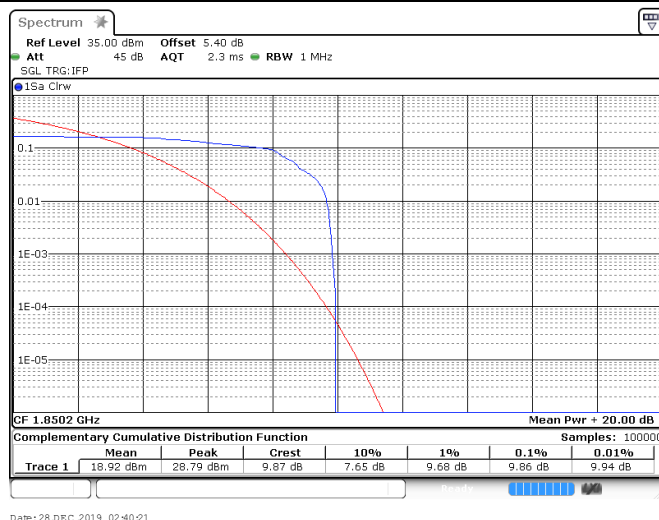


GSM1900_810

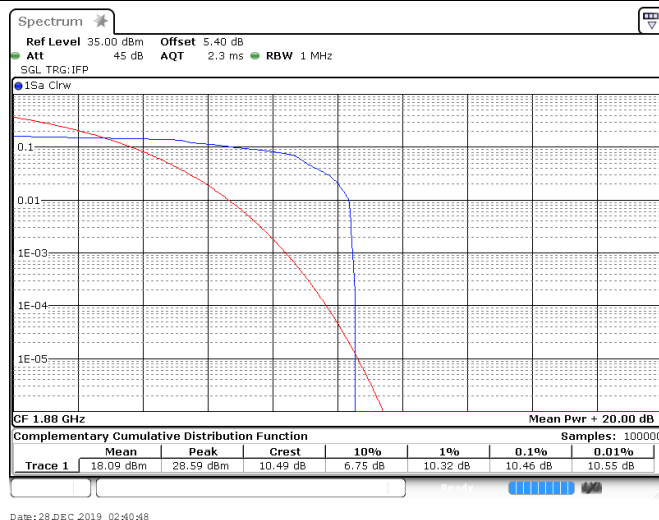


EGPRS1900_512





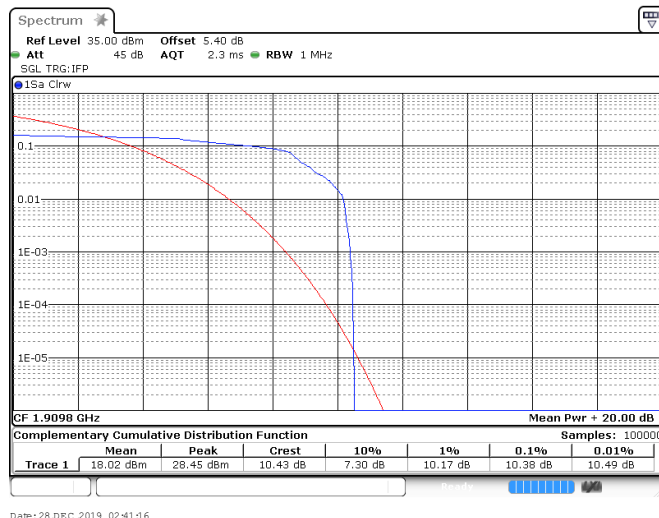
EGPRS1900_661



EGPRS1900_810



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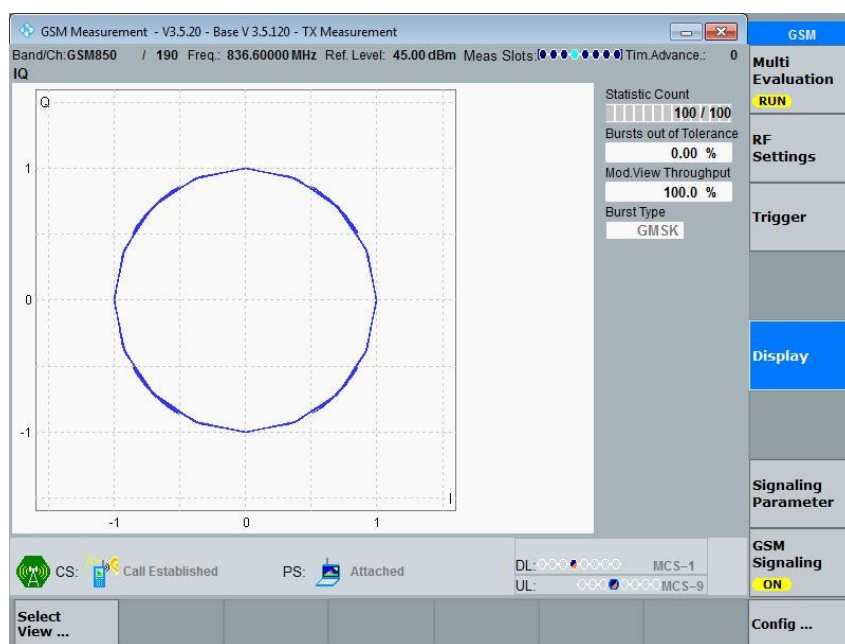
3. Modulation Characteristics

3.1. For GSM

3.1.1. Test Band = GSM 850

3.1.1.1. Test Mode = GSM/TM1

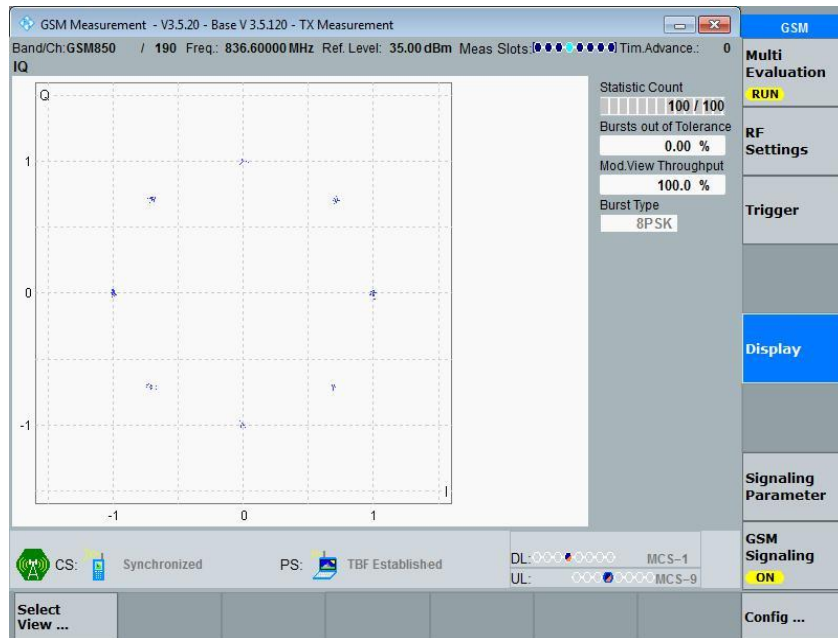
3.1.1.1.1. Test Channel = MCH





3.1.1.2. Test Mode = GSM/TM2

3.1.1.2.1. Test Channel = MCH

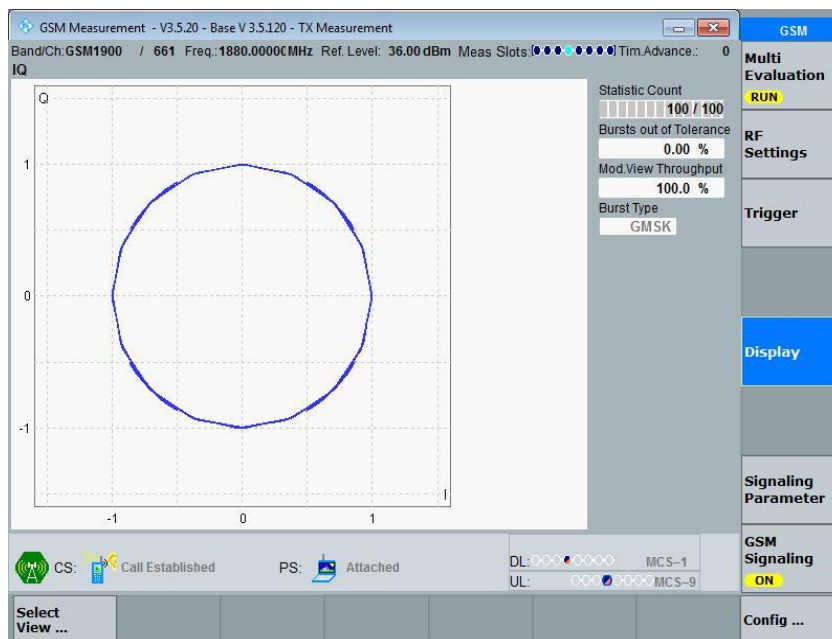




3.1.2. Test Band = GSM 1900

3.1.2.1. Test Mode = GSM/TM1

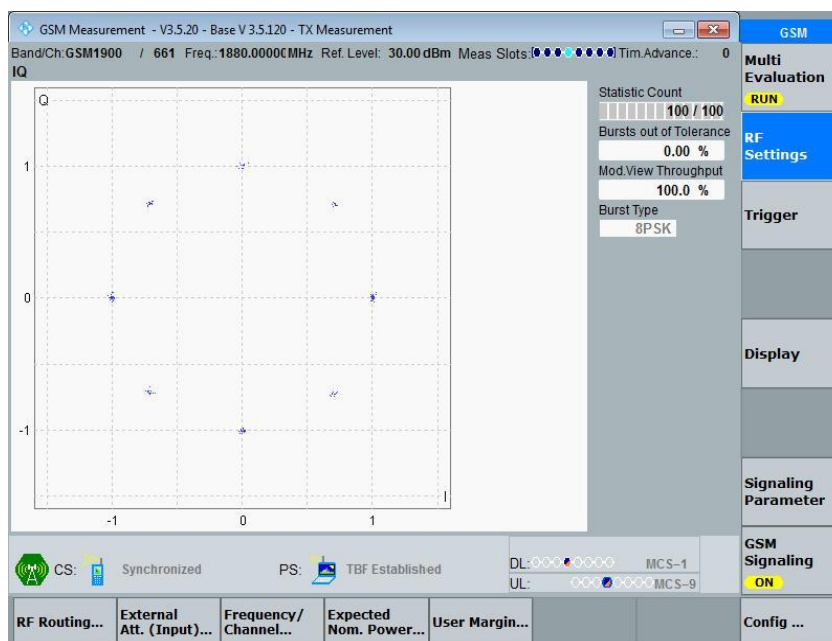
3.1.2.1.1. Test Channel = MCH





3.1.2.2. Test Mode = GSM/TM2

3.1.2.2.1. Test Channel = MCH



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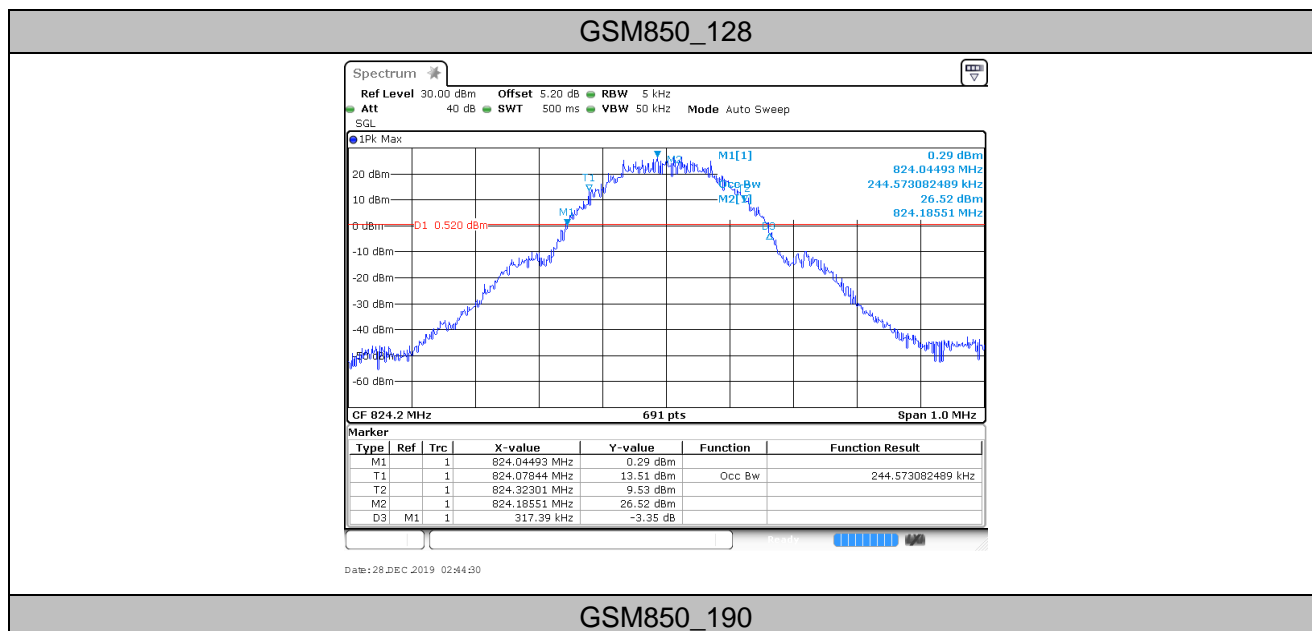
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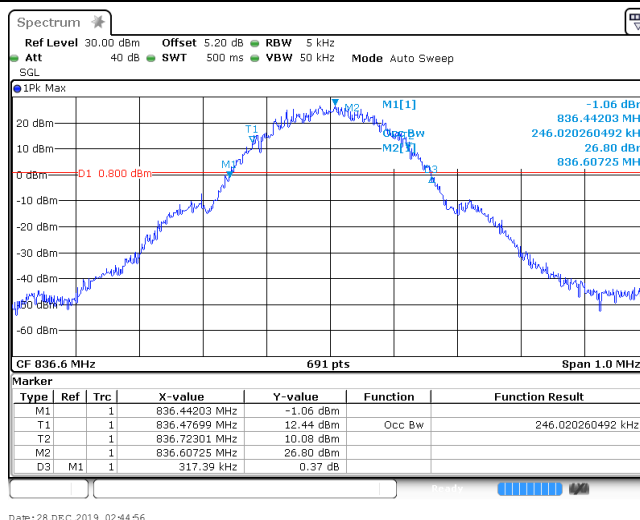
4. 26dB Bandwidth and Occupied Bandwidth

4.1.Test Result

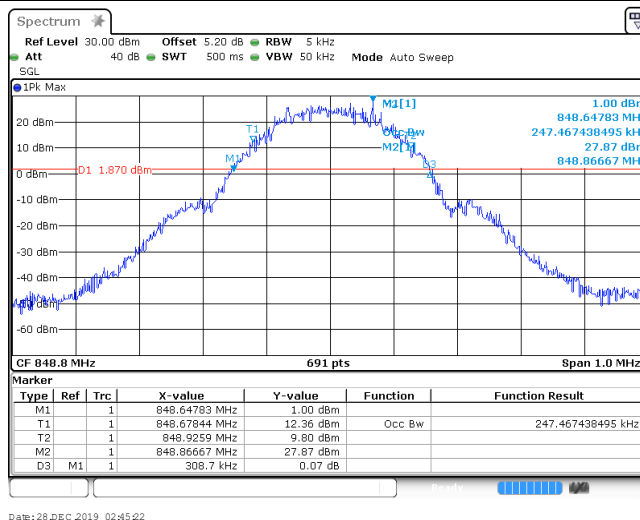
Band	Channel	Occupied Bandwidth (kHz)	26dB Bandwidth (kHz)	Limit(kHz)	Verdict
GSM850	128	244.57	317.39	---	PASS
GSM850	190	246.02	317.39	---	PASS
GSM850	251	247.47	308.70	---	PASS
EGPRS850	128	250.36	302.90	---	PASS
EGPRS850	190	247.47	298.55	---	PASS
EGPRS850	251	248.91	302.90	---	PASS
GSM1900	512	247.47	295.65	---	PASS
GSM1900	661	246.02	307.25	---	PASS
GSM1900	810	247.47	307.25	---	PASS
EGPRS1900	512	248.91	304.35	---	PASS
EGPRS1900	661	250.36	302.90	---	PASS
EGPRS1900	810	244.57	284.06	---	PASS

4.2. Test Plots



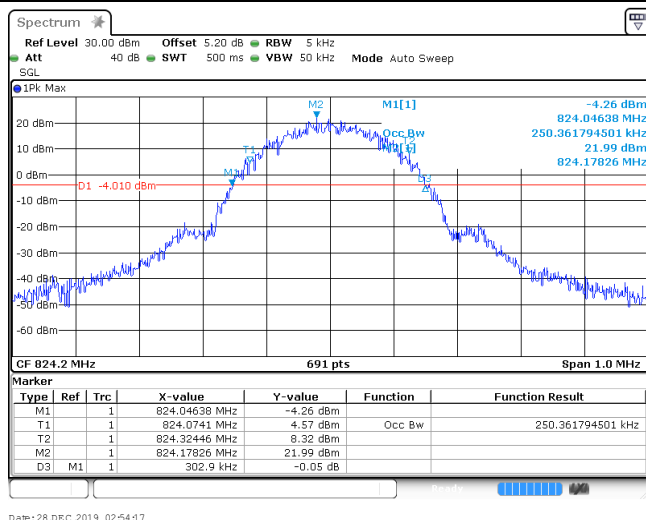


GSM850_251

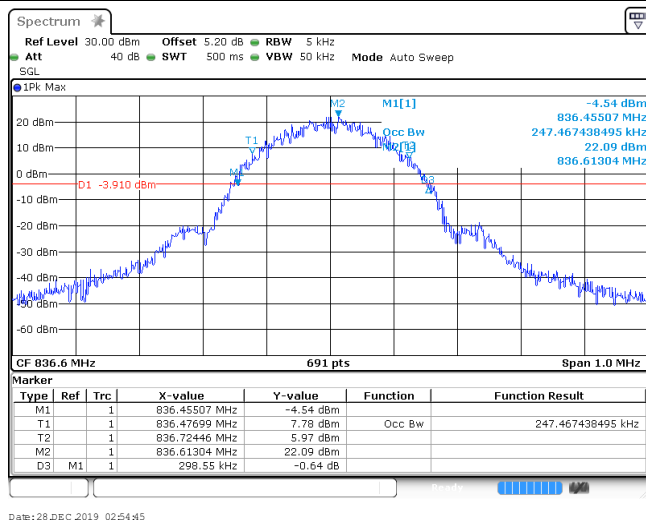


EGPRS850_128



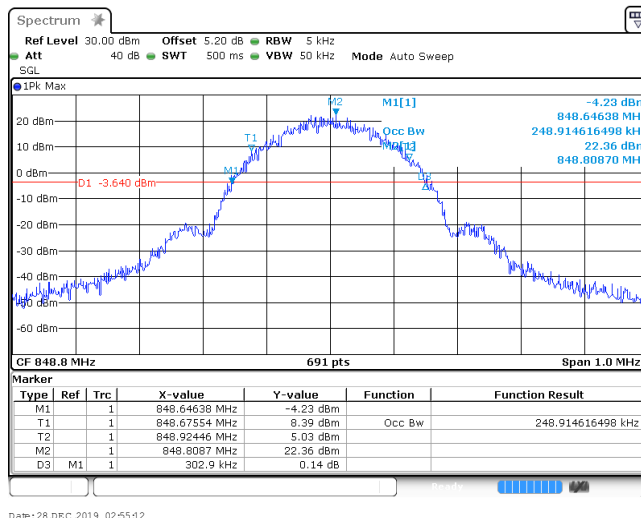


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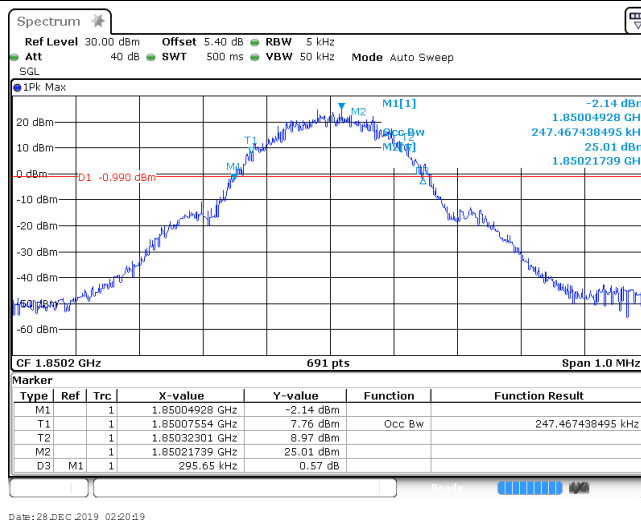


EGPRS850_251





GSM1900_512

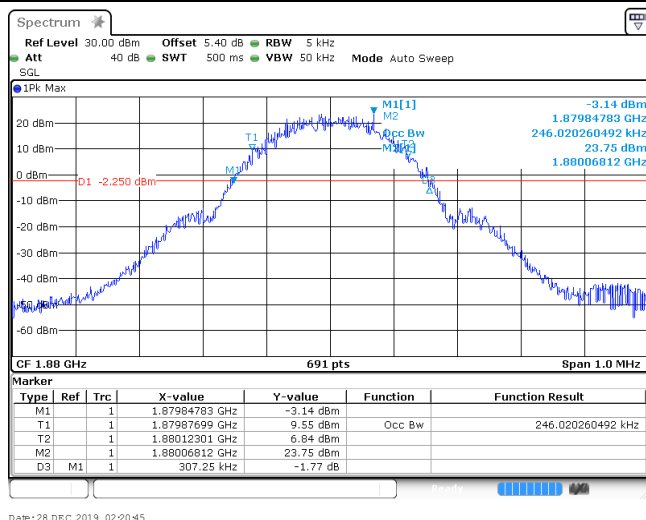


GSM1900_661

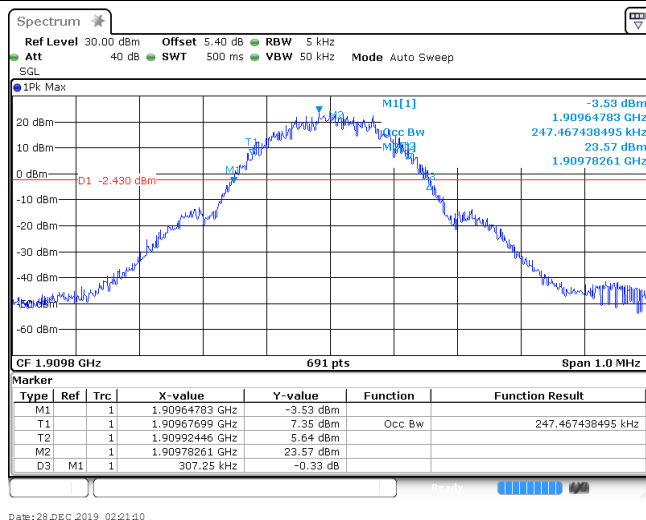


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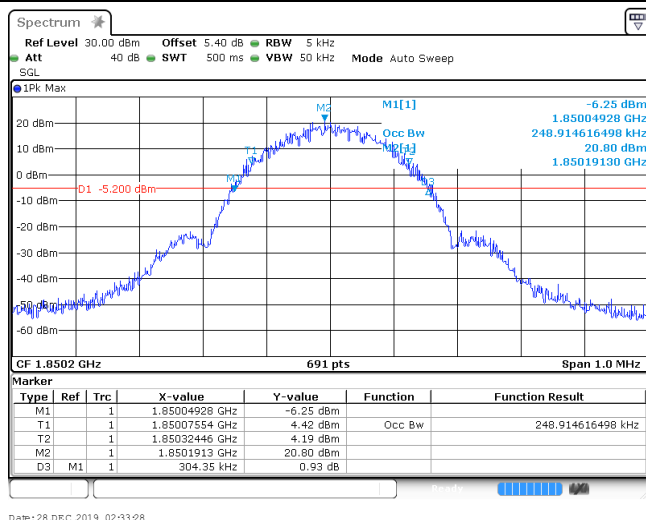


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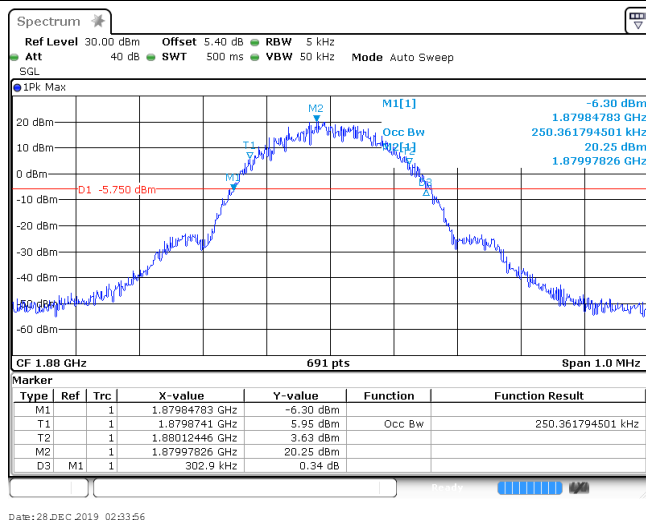


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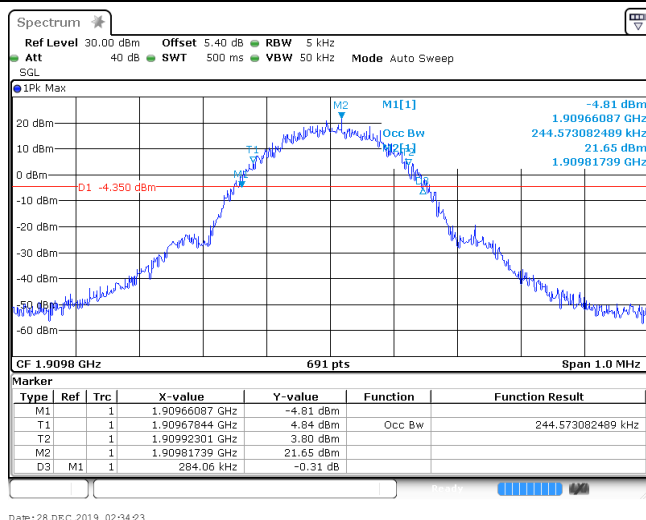


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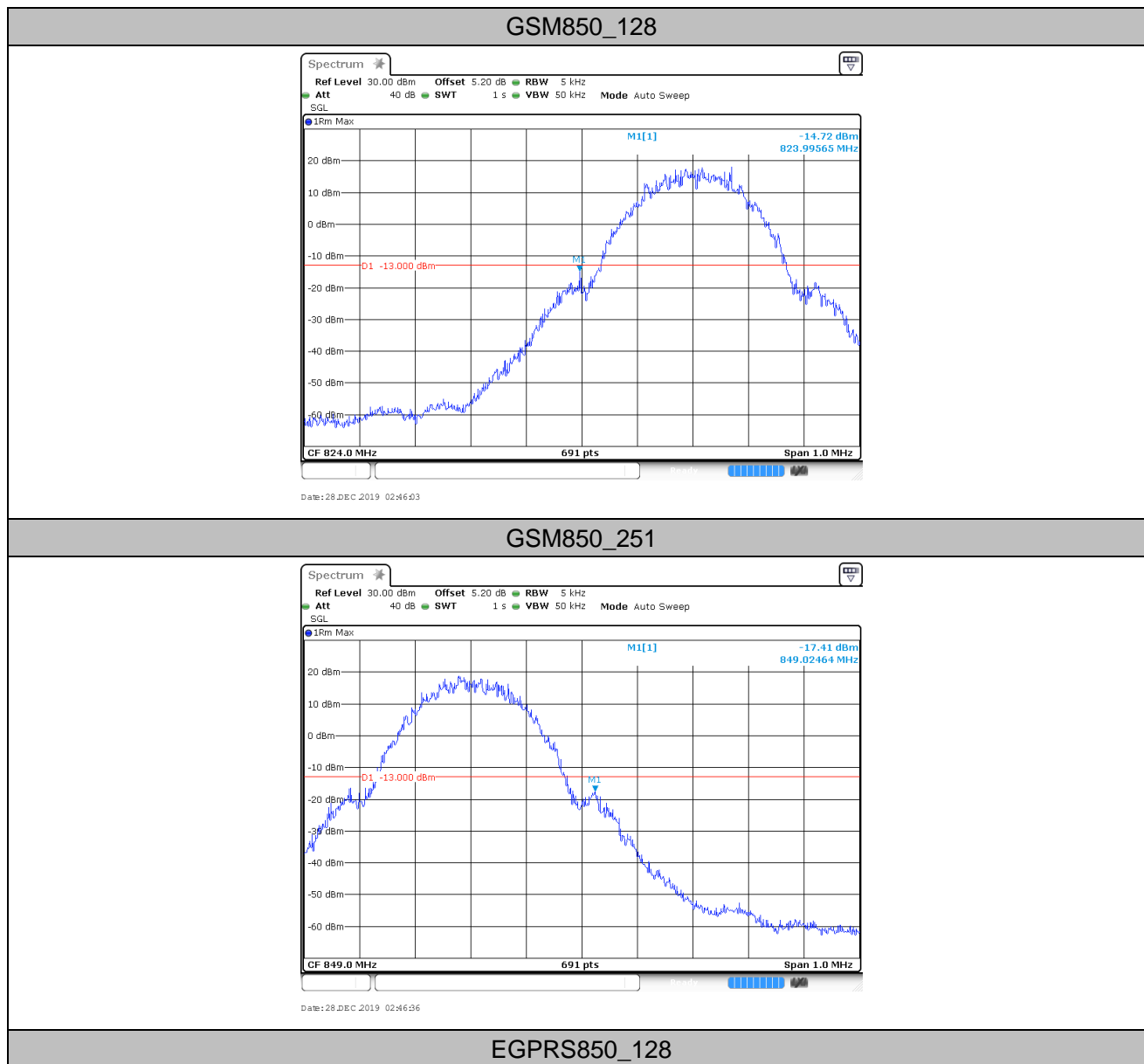
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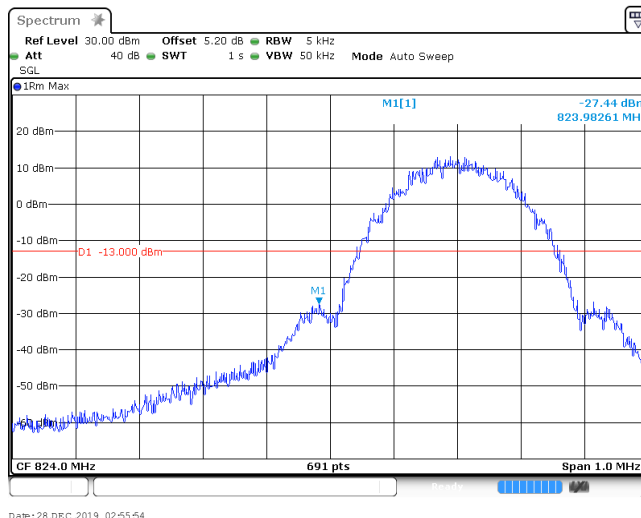
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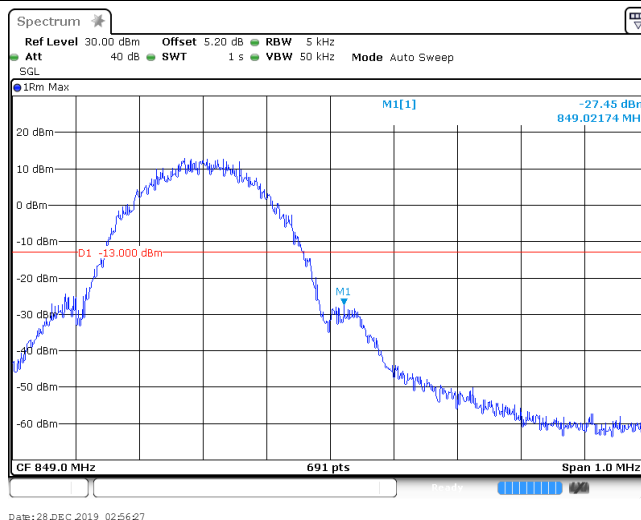
5. Band Edge Compliance

5.1. Test Plots





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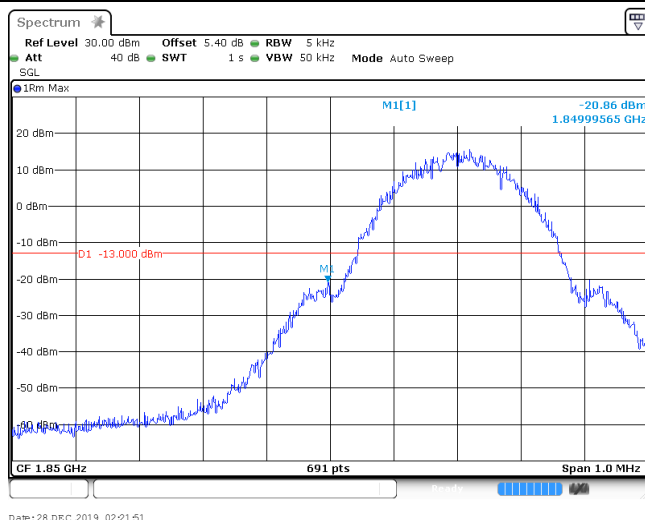
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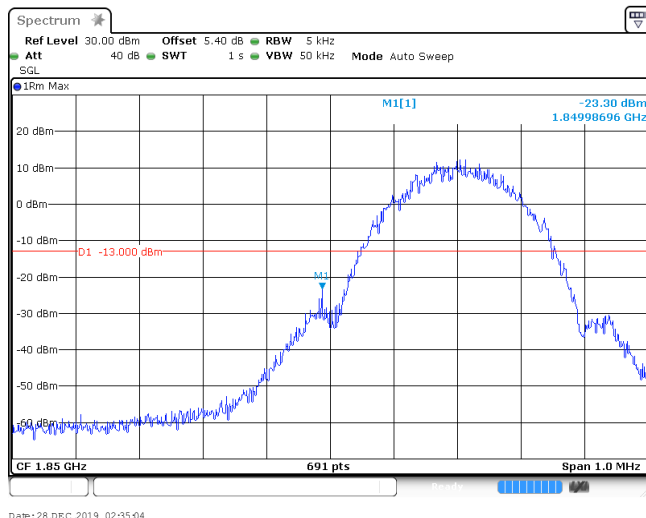


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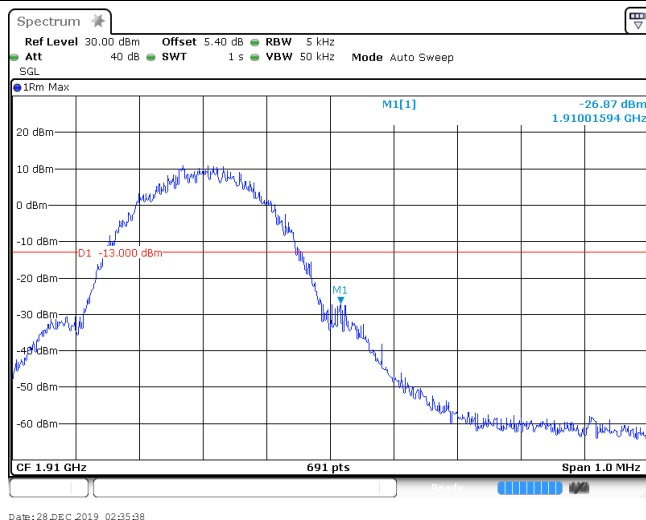


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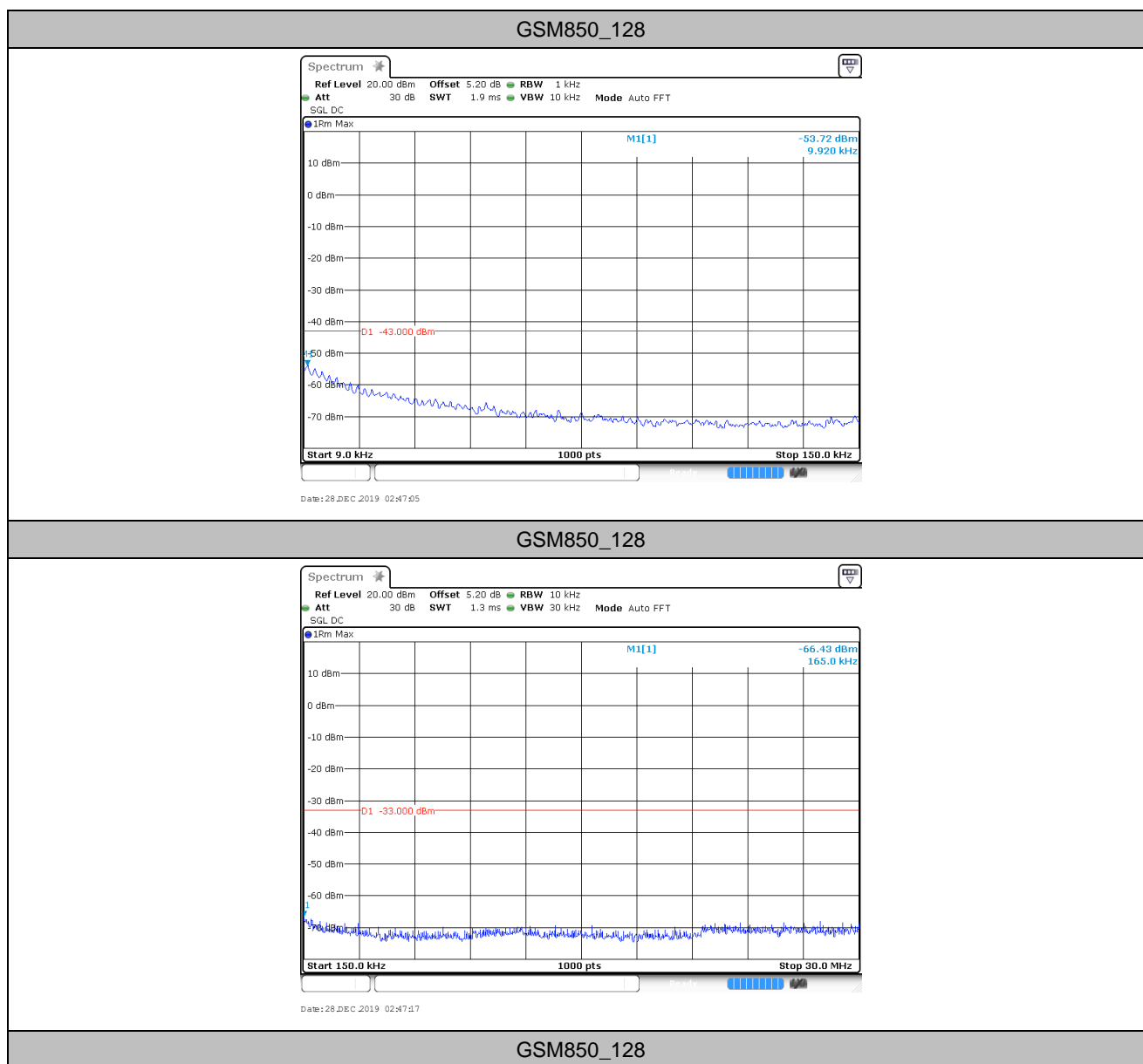


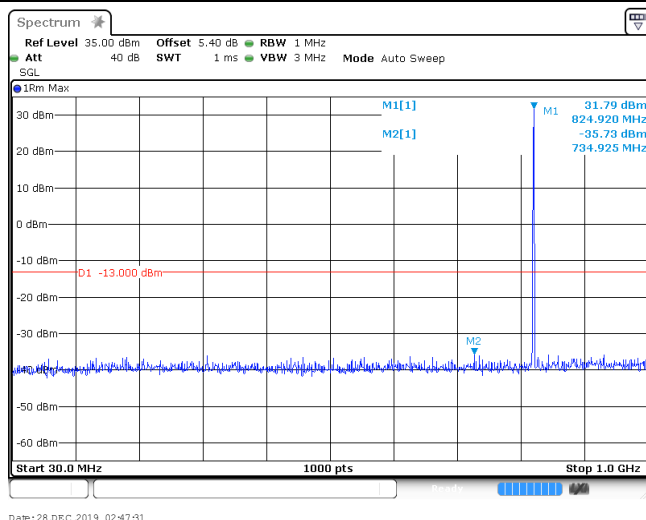
6. Spurious Emission at Antenna Terminal

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.

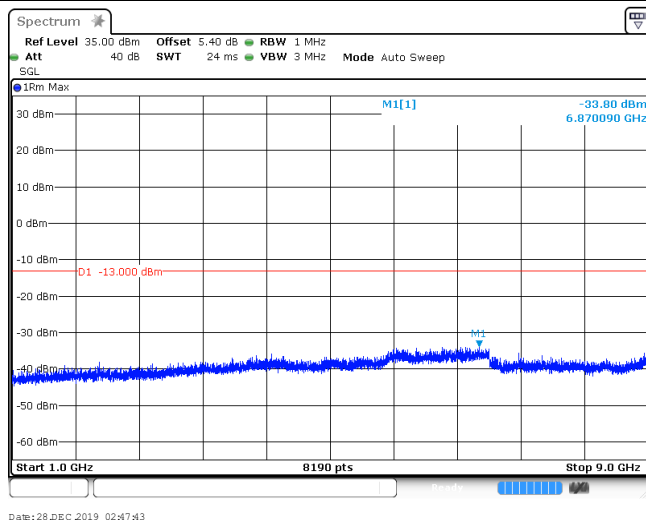
Remark2: only the worst case data displayed in this report.

6.1.Test Plots



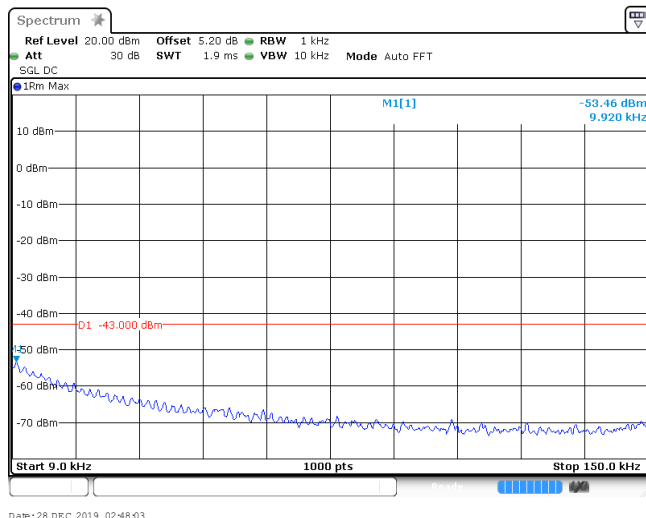


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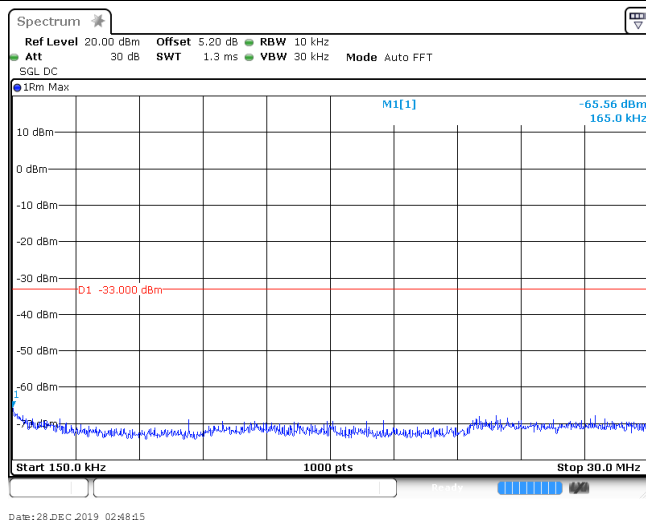


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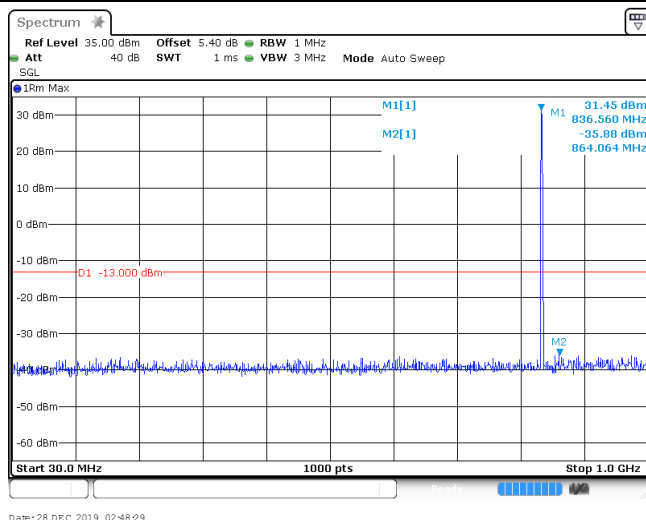


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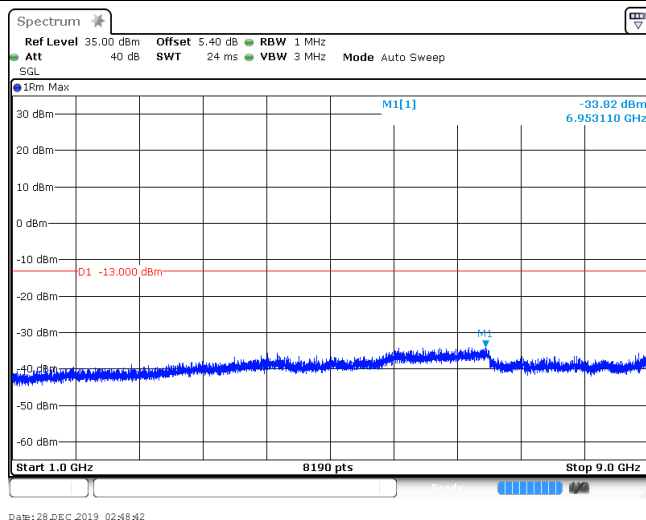


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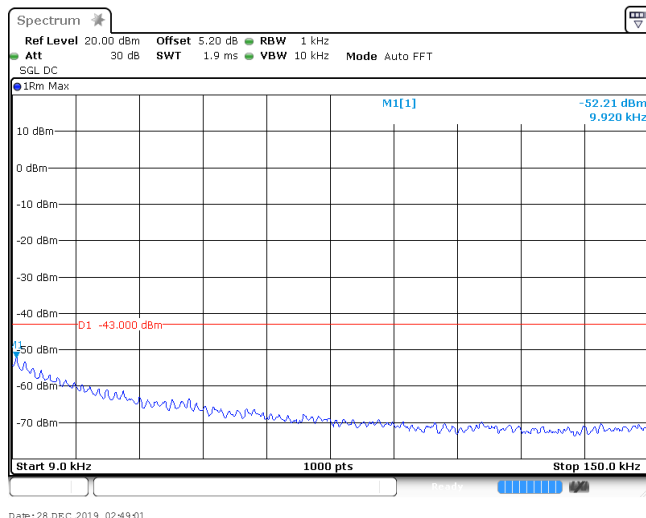


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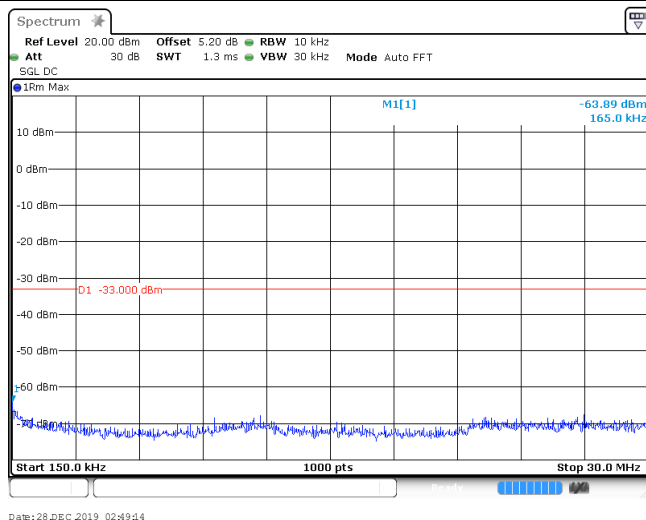


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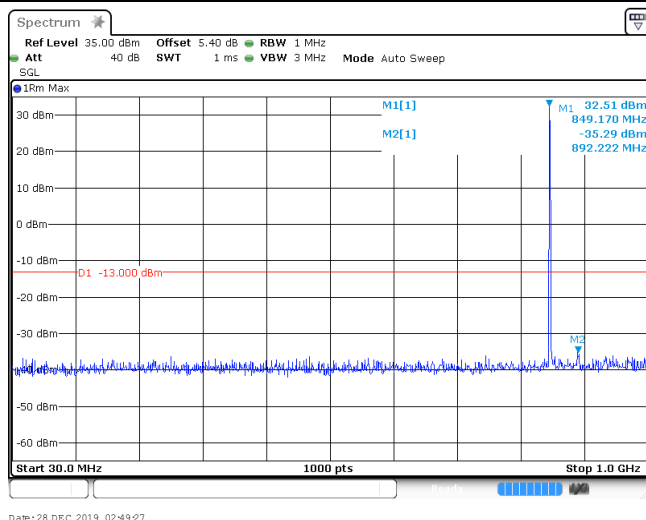


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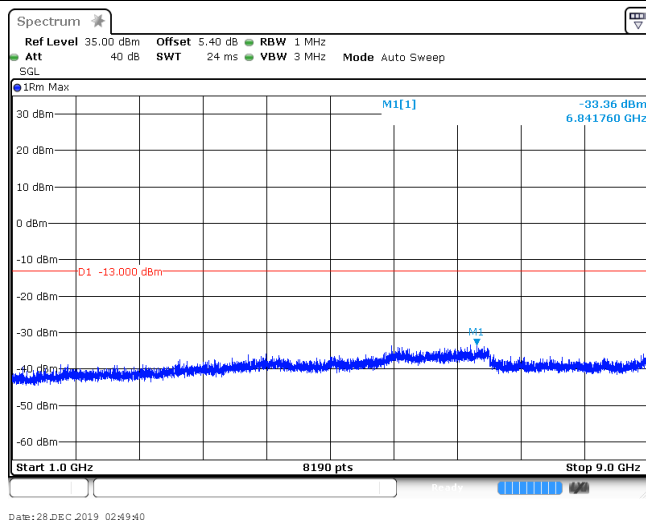


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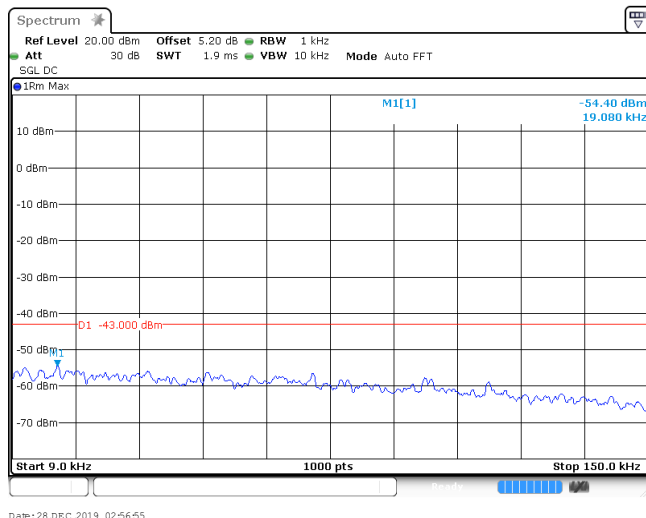


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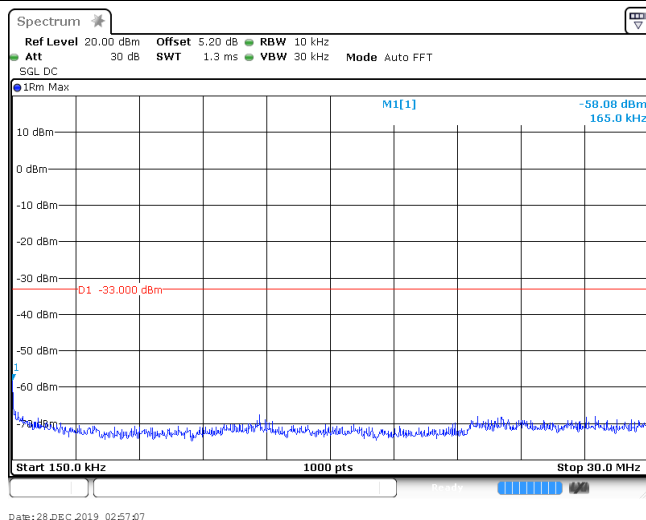


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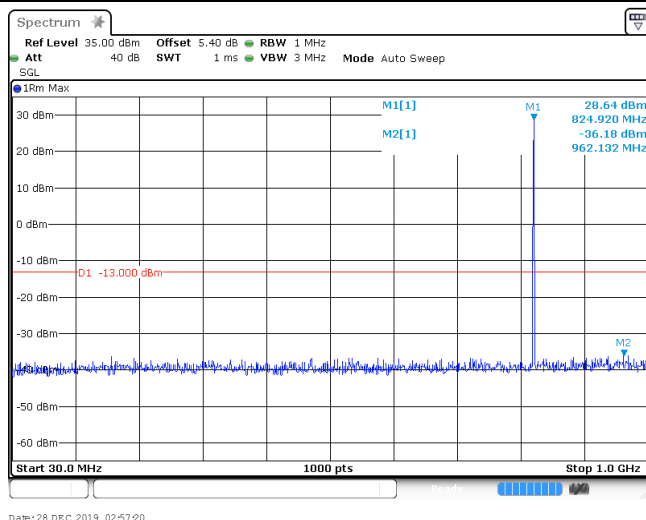


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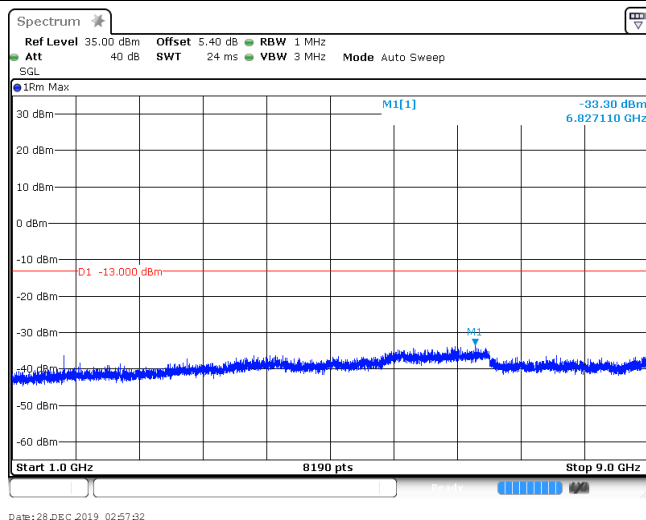


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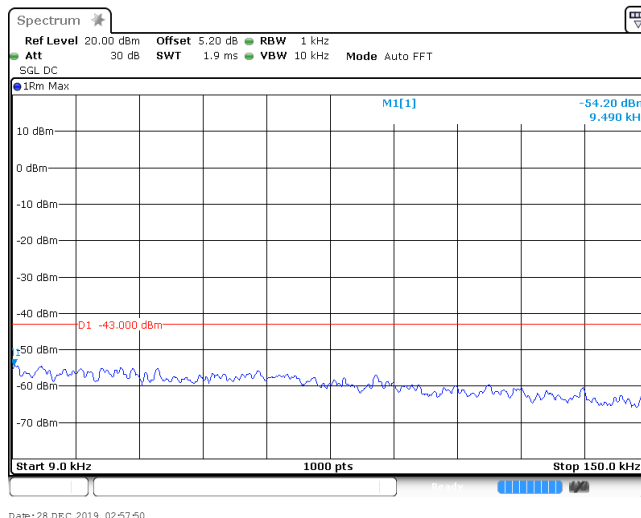


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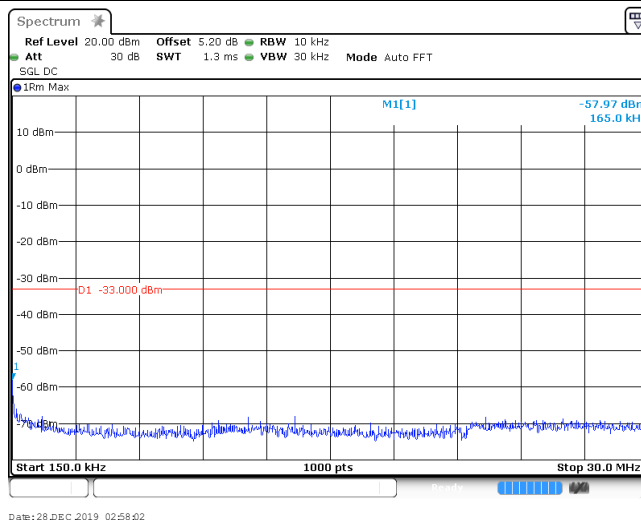


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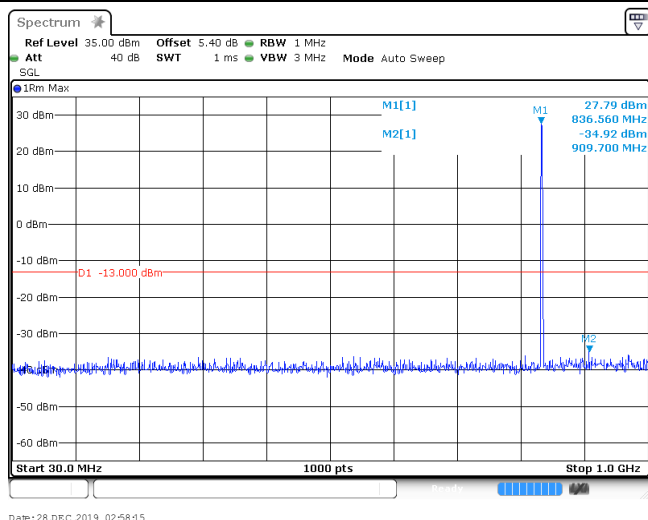


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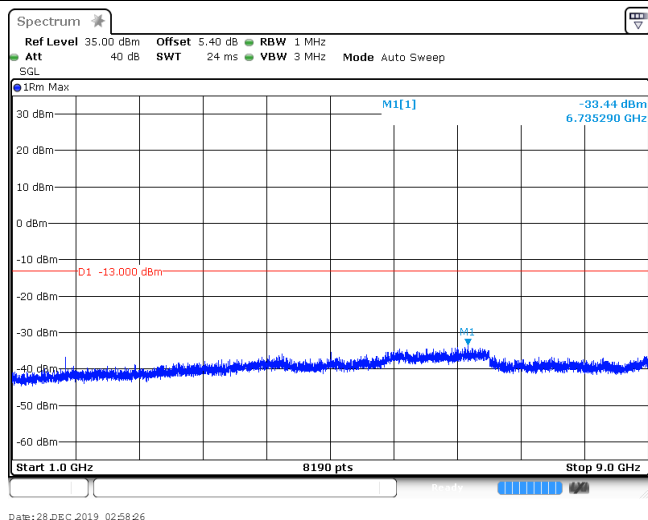


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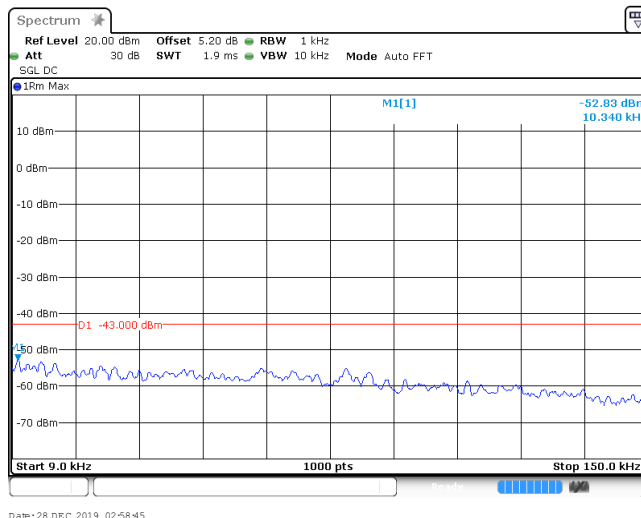


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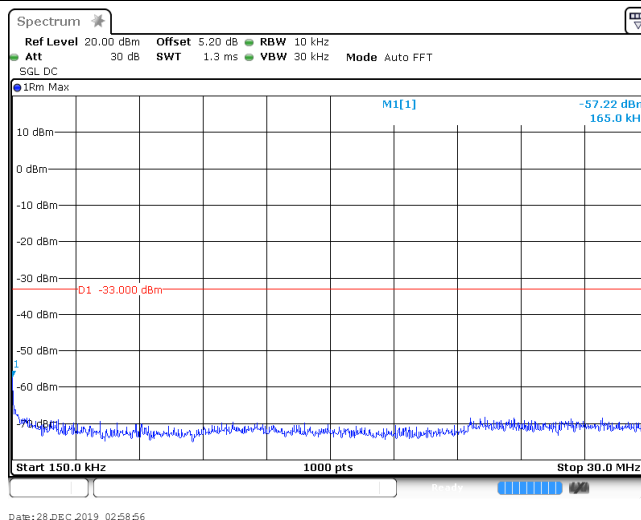


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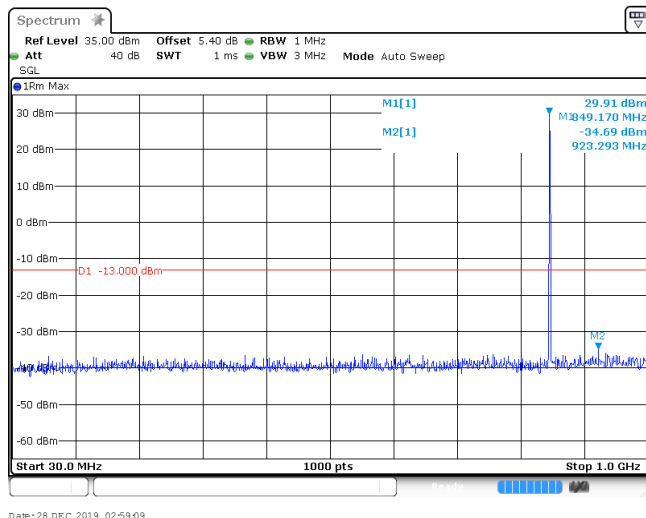


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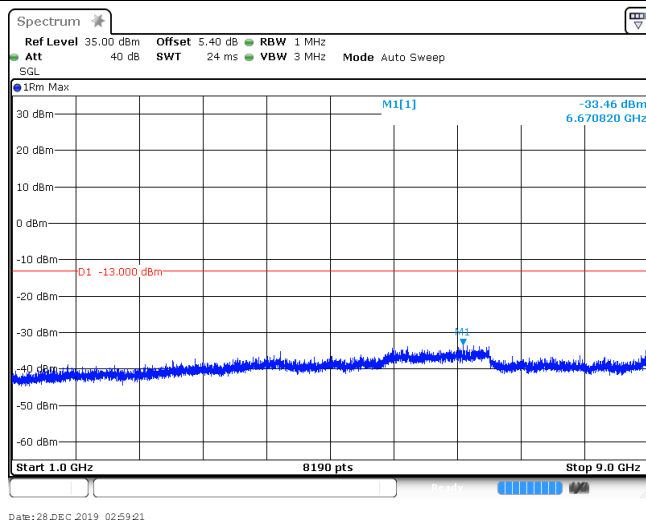


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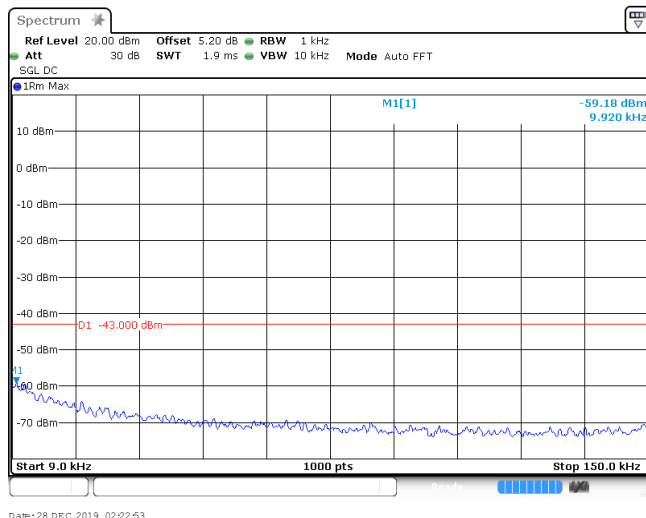
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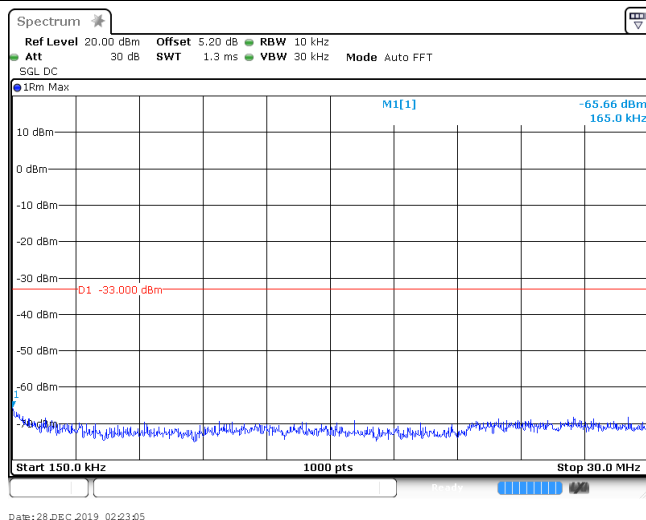
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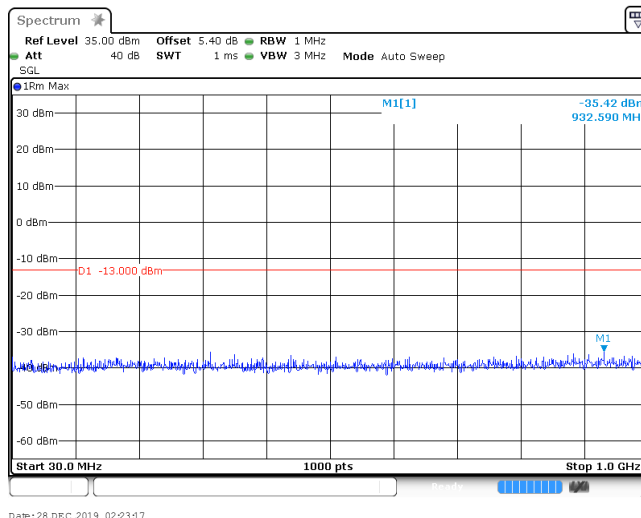


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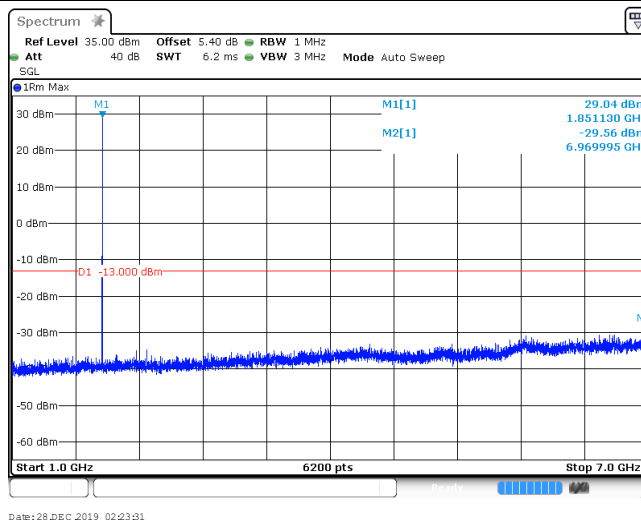


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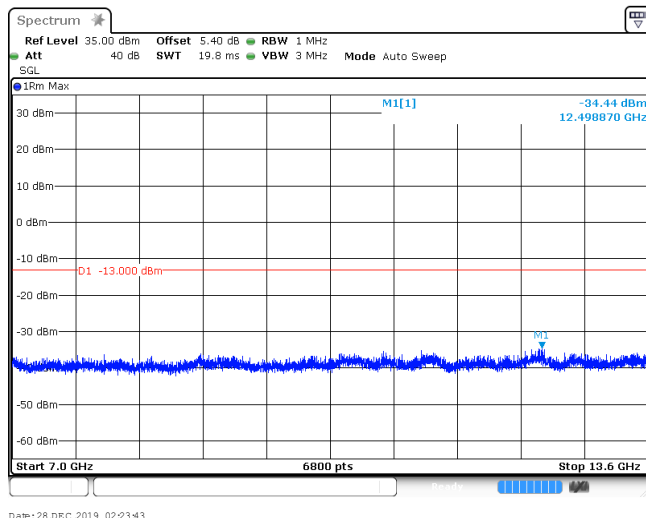
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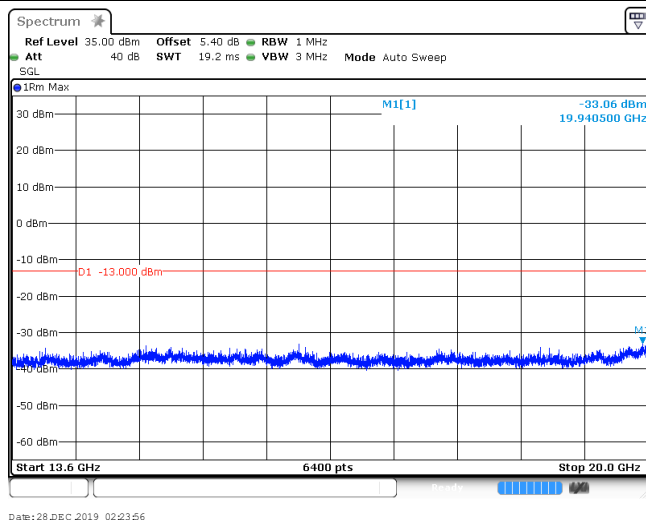
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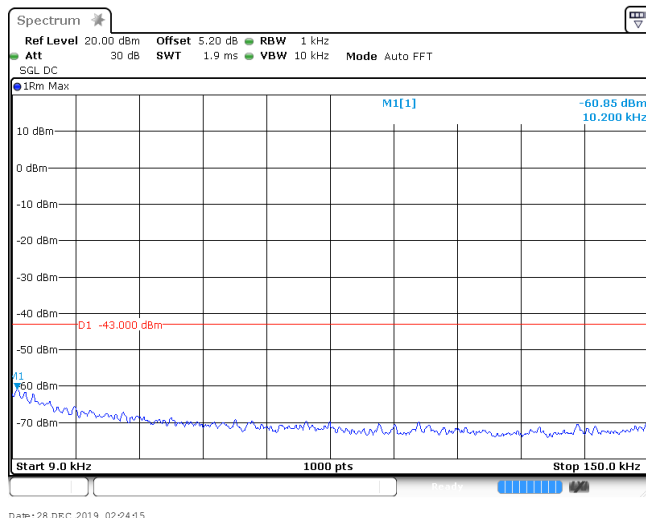
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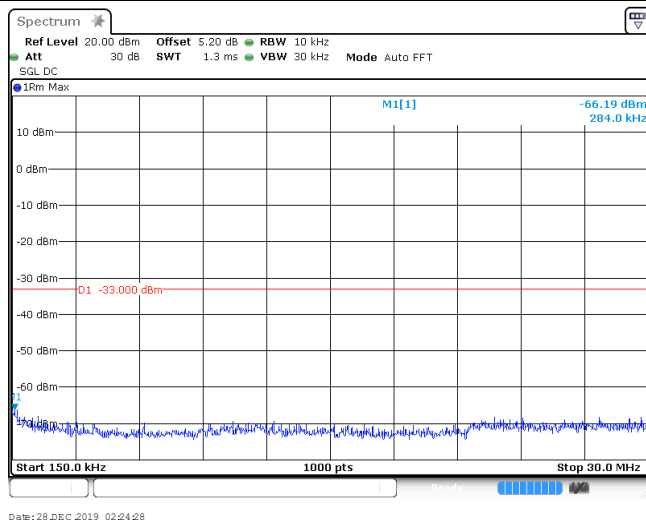
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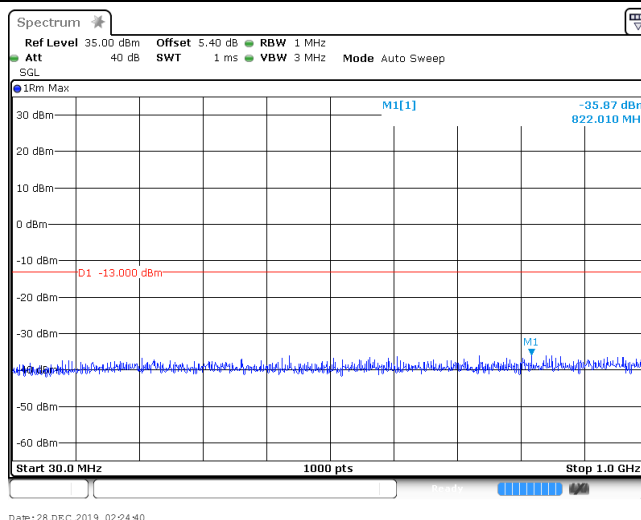


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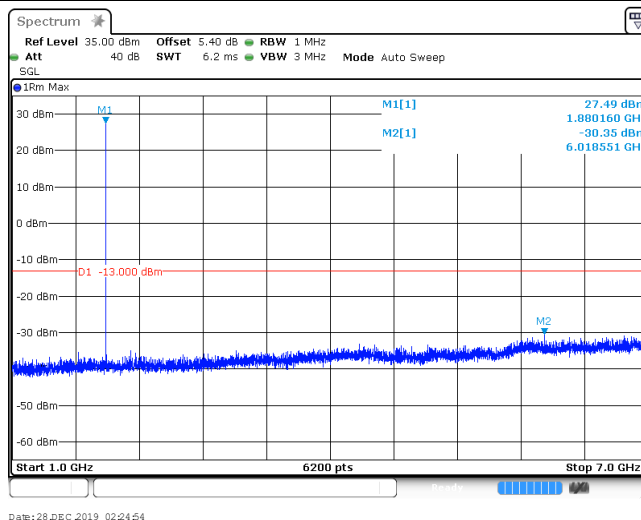


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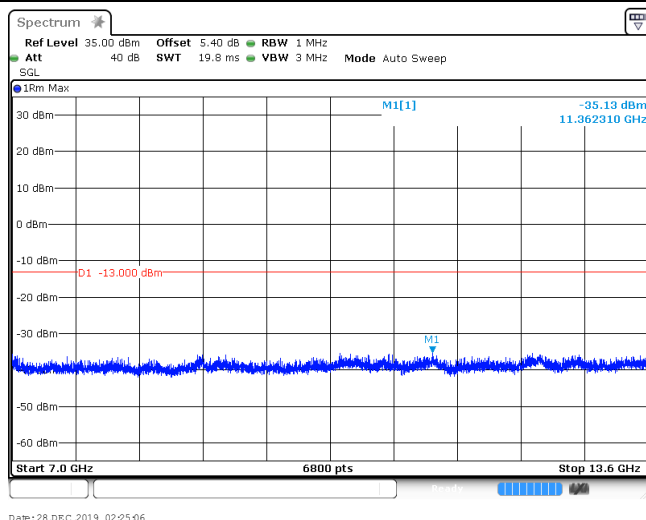
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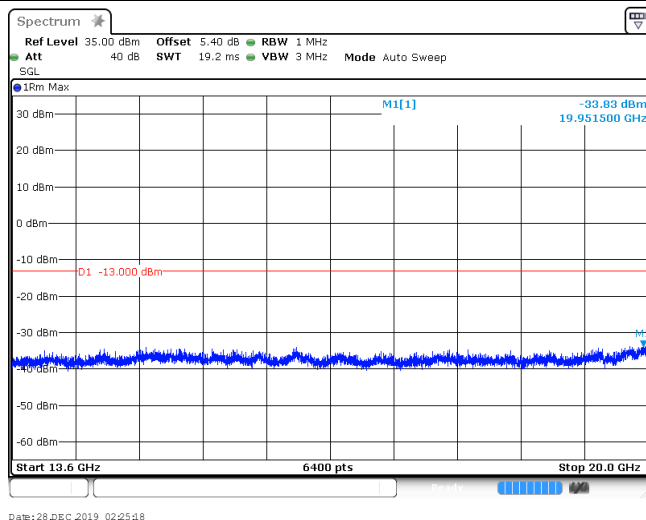
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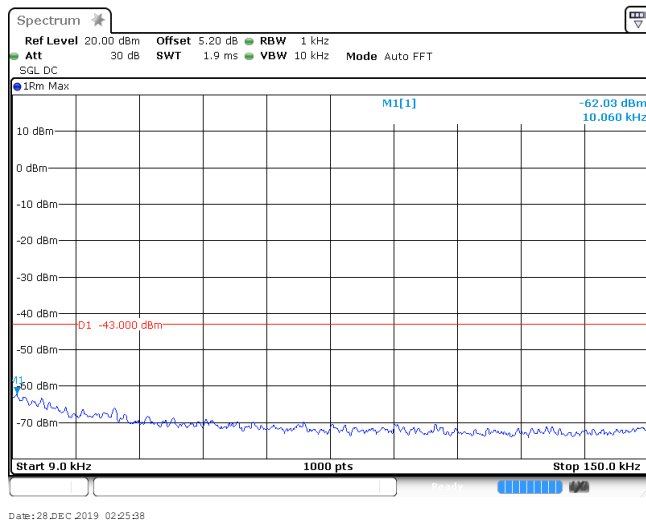
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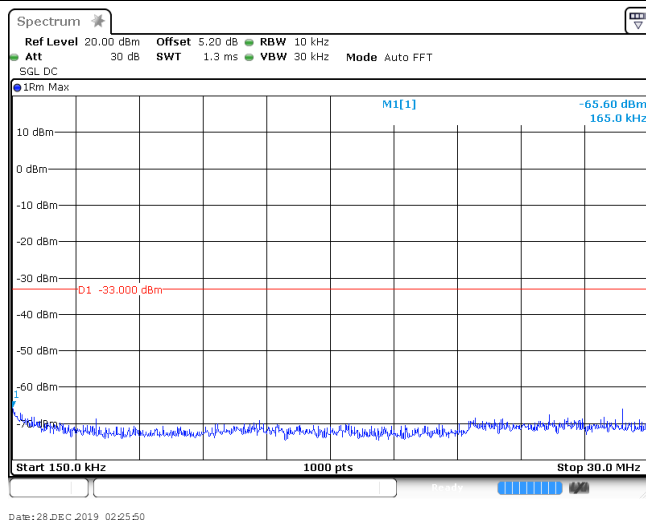
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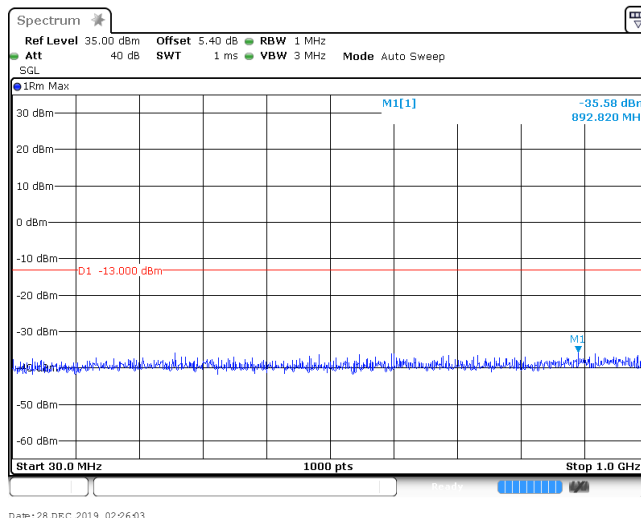


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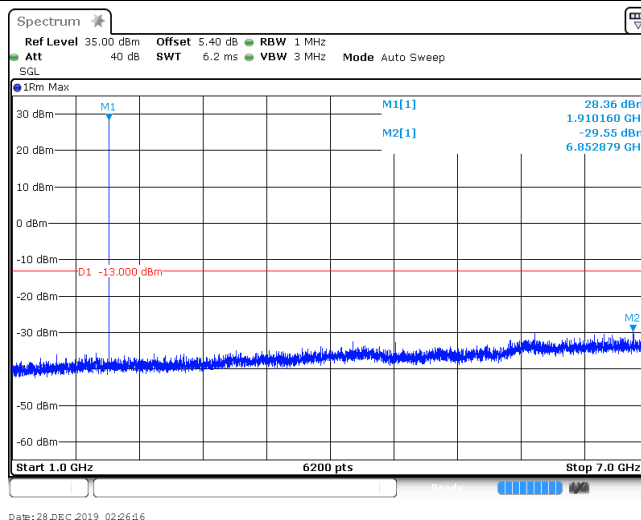


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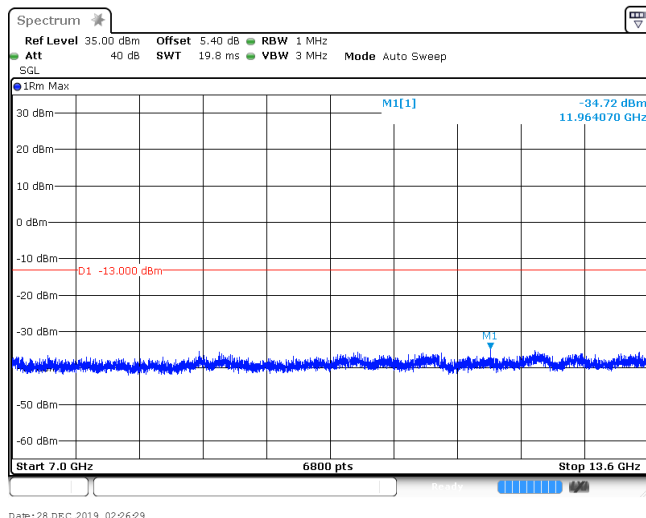
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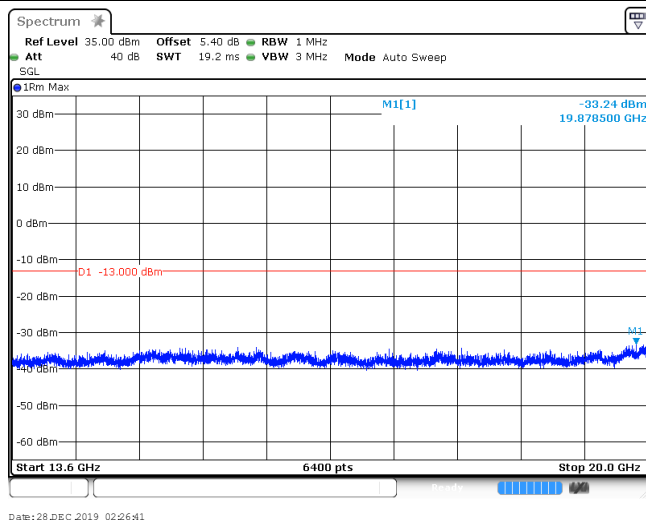
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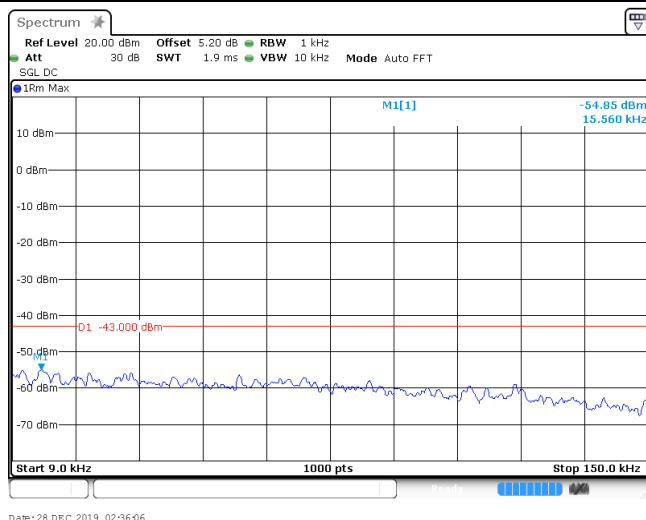


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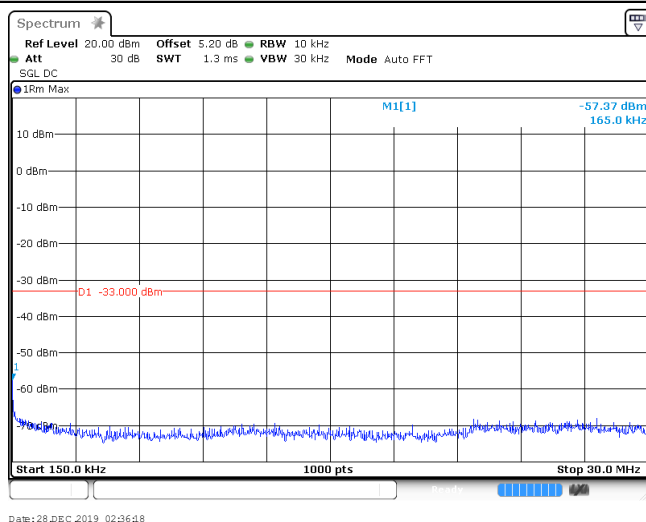


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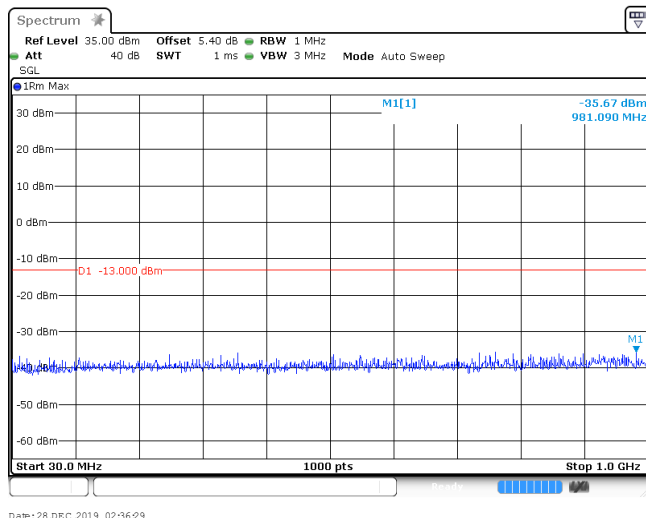
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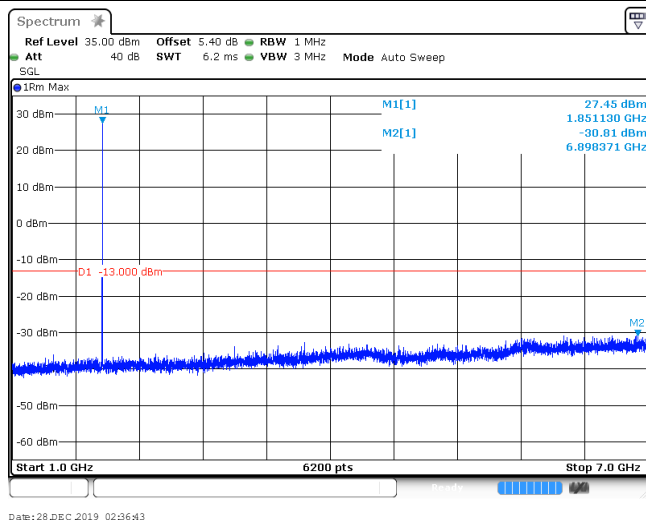
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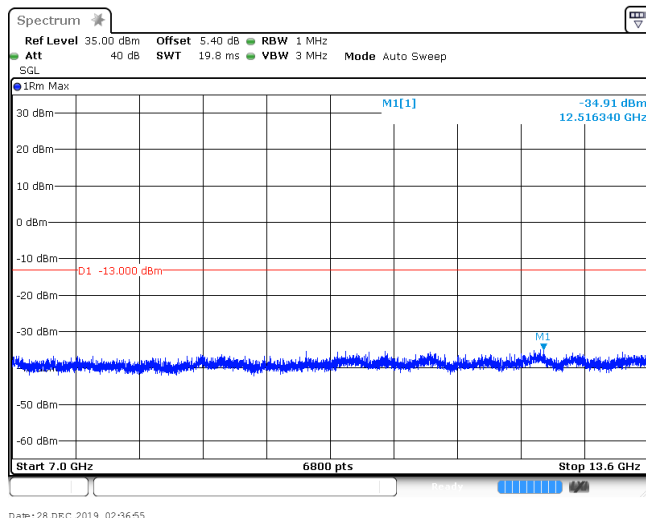


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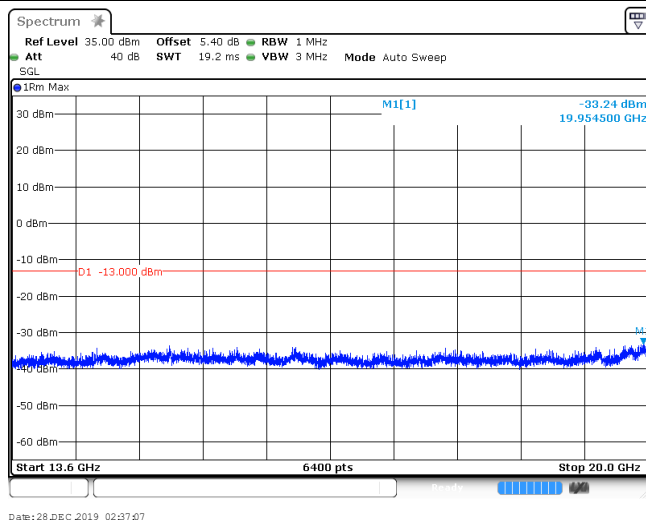


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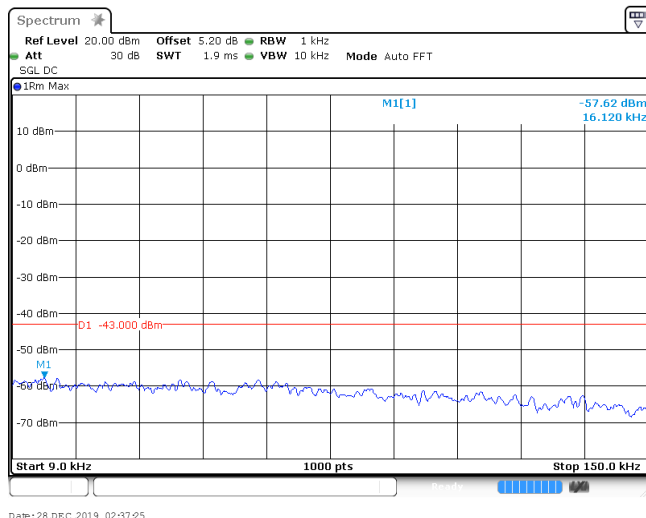


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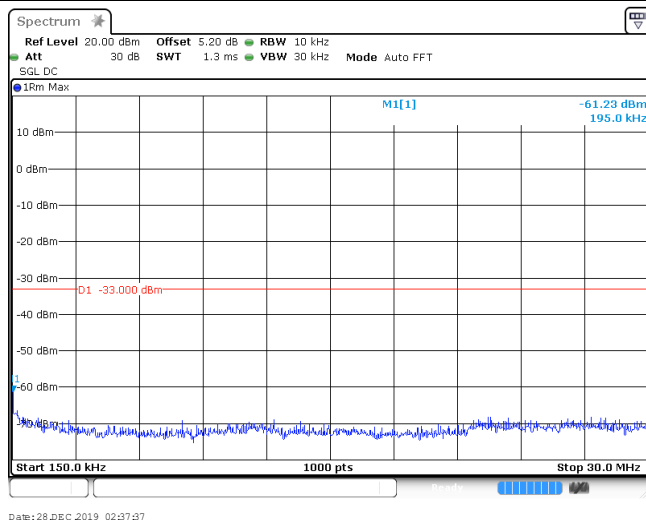
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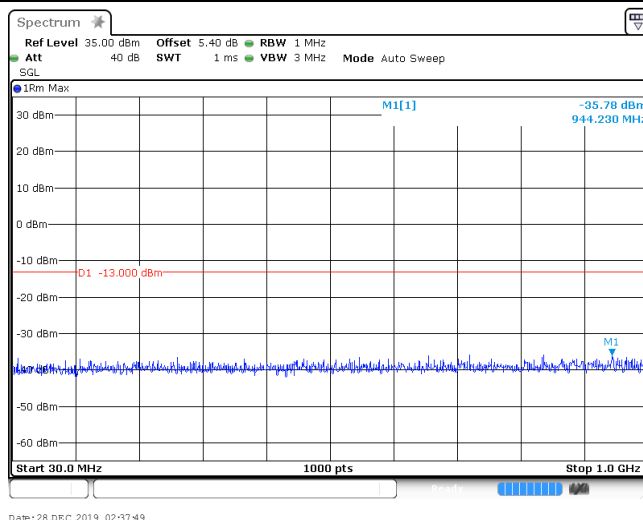
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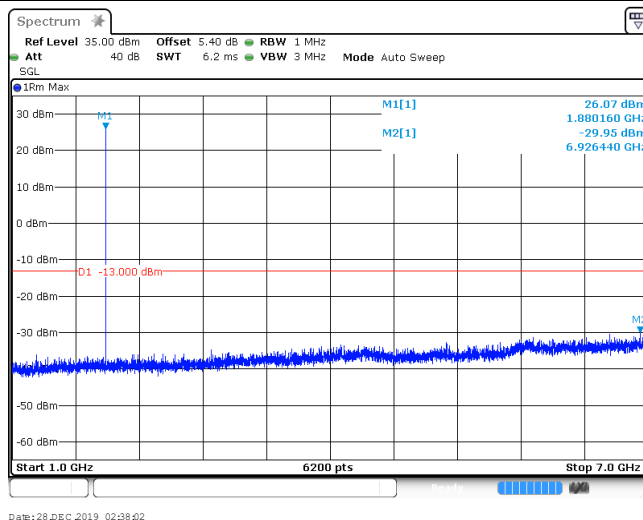
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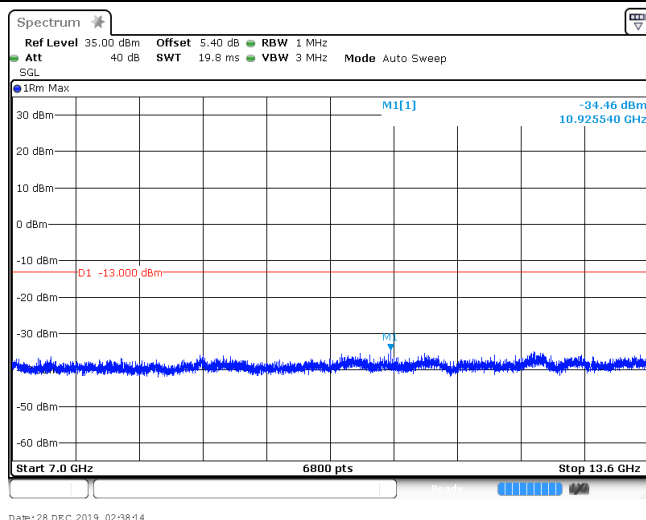
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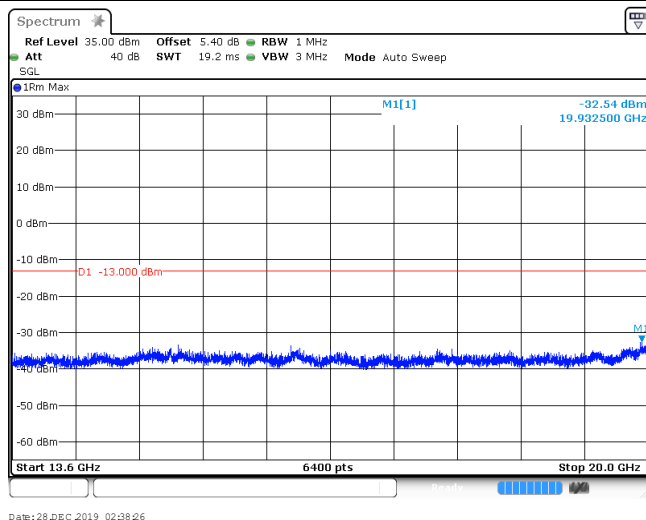
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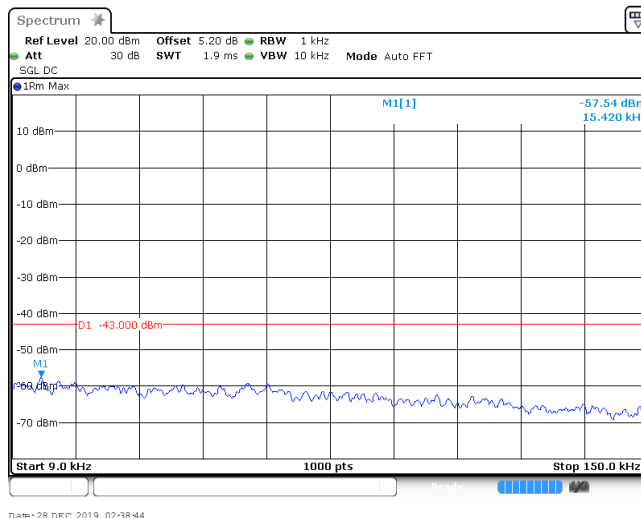


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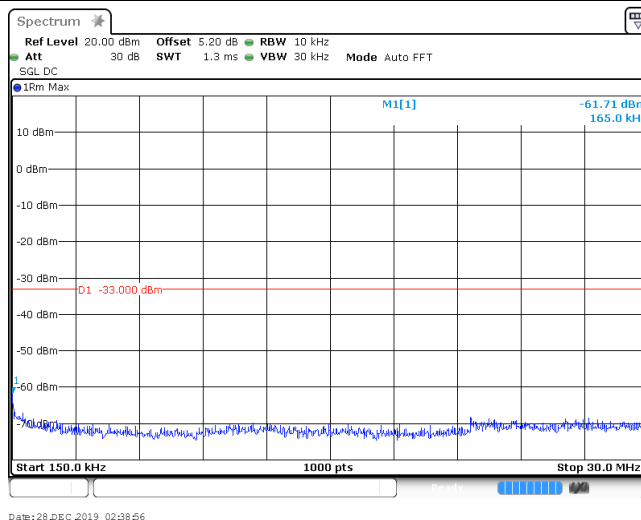


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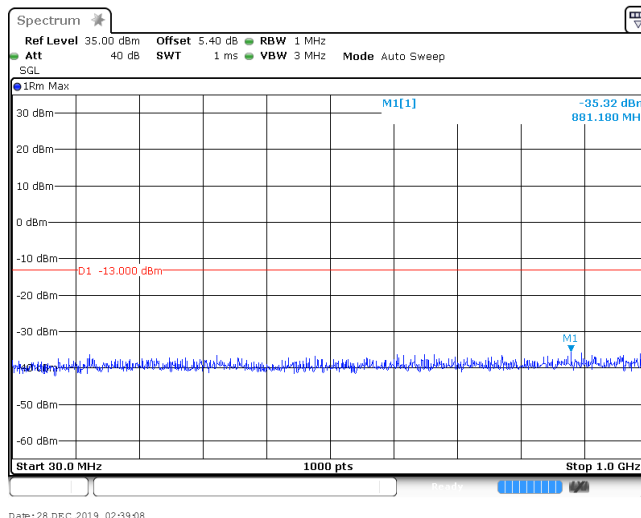


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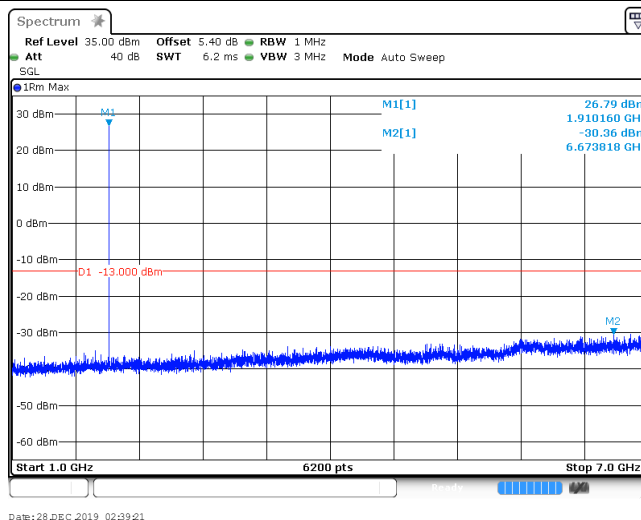
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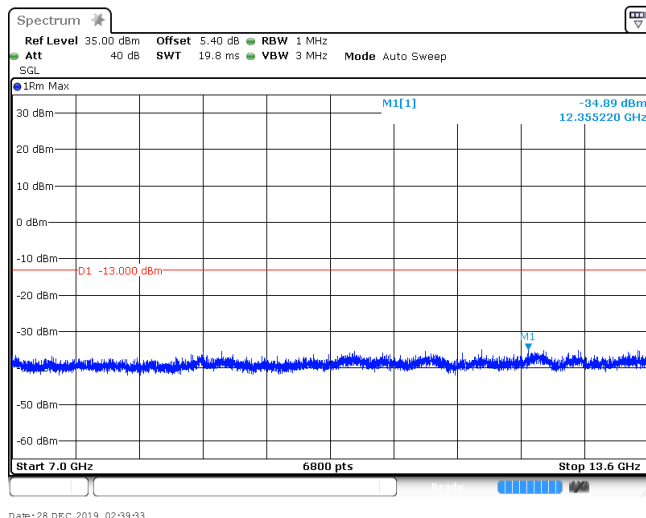


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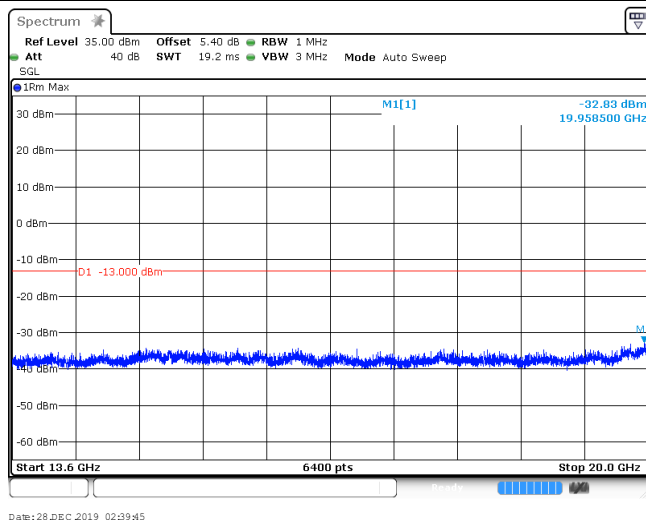


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7. Field Strength of Spurious Radiation

The 5029E data:

7.1. Test Band = GSM 1900

7.1.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
116.8193	-65.04	-13.00	52.04	Vertical
3700.5234	-48.51	-13.00	35.51	Vertical
5550.5850	-33.02	-13.00	20.02	Vertical
9251.2084	-45.33	-13.00	32.33	Vertical
11101.2700	-39.24	-13.00	26.24	Vertical
12951.3317	-45.22	-13.00	32.22	Vertical
44.6962	-63.77	-13.00	50.77	Horizontal
3700.5234	-40.77	-13.00	27.77	Horizontal
5550.5850	-24.65	-13.00	11.65	Horizontal
7400.6467	-41.67	-13.00	28.67	Horizontal
11101.2700	-35.77	-13.00	22.77	Horizontal
12951.3317	-39.17	-13.00	26.17	Horizontal

7.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
111.6781	-65.08	-13.00	52.08	Vertical
3760.0253	-43.10	-13.00	30.10	Vertical
5640.0880	-36.97	-13.00	23.97	Vertical
7520.1507	-46.62	-13.00	33.62	Vertical
11280.2760	-38.45	-13.00	25.45	Vertical
13159.3386	-46.53	-13.00	33.53	Vertical
45.0843	-63.67	-13.00	50.67	Horizontal
3760.0253	-40.60	-13.00	27.60	Horizontal
5640.0880	-24.71	-13.00	11.71	Horizontal
7519.6507	-40.06	-13.00	27.06	Horizontal
11280.2760	-30.98	-13.00	17.98	Horizontal
13160.3387	-44.33	-13.00	31.33	Horizontal



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7.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
107.9434	-64.45	-13.00	51.45	Vertical
3819.5273	-39.31	-13.00	26.31	Vertical
5729.0910	-36.31	-13.00	23.31	Vertical
9549.2183	-44.71	-13.00	31.71	Vertical
11458.7820	-46.92	-13.00	33.92	Vertical
17999.5000	-39.20	-13.00	26.20	Vertical
45.2298	-63.37	-13.00	50.37	Horizontal
3819.5273	-39.63	-13.00	26.63	Horizontal
5729.0910	-26.13	-13.00	13.13	Horizontal
9549.2183	-41.91	-13.00	28.91	Horizontal
11458.7820	-34.79	-13.00	21.79	Horizontal
13368.8456	-43.88	-13.00	30.88	Horizontal

7.2. Test Band = GSM 850

7.2.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
113.2302	-64.69	-13.00	51.69	Vertical
1648.5297	-56.13	-13.00	43.13	Vertical
2472.6945	-40.11	-13.00	27.11	Vertical
4121.0374	-30.74	-13.00	17.74	Vertical
4945.0648	-48.69	-13.00	35.69	Vertical
5769.0923	-53.54	-13.00	40.54	Vertical
39.5550	-63.40	-13.00	50.40	Horizontal
2472.6945	-41.55	-13.00	28.55	Horizontal
3297.0099	-43.84	-13.00	30.84	Horizontal
4121.0374	-39.18	-13.00	26.18	Horizontal
4945.0648	-50.44	-13.00	37.44	Horizontal
5769.5923	-46.04	-13.00	33.04	Horizontal



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7.2.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
113.8607	-64.35	-13.00	51.35	Vertical
1673.3347	-50.83	-13.00	37.83	Vertical
2509.9020	-36.04	-13.00	23.04	Vertical
3346.5116	-48.91	-13.00	35.91	Vertical
4183.0394	-29.19	-13.00	16.19	Vertical
5856.0952	-50.45	-13.00	37.45	Vertical
43.5807	-62.70	-13.00	49.70	Horizontal
2509.9020	-36.52	-13.00	23.52	Horizontal
3346.5116	-47.93	-13.00	34.93	Horizontal
4183.0394	-38.28	-13.00	25.28	Horizontal
5019.5673	-51.24	-13.00	38.24	Horizontal
5856.0952	-46.51	-13.00	33.51	Horizontal

7.2.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
111.5326	-64.54	-13.00	51.54	Vertical
1697.7395	-47.42	-13.00	34.42	Vertical
2546.7093	-36.96	-13.00	23.96	Vertical
3395.0132	-46.58	-13.00	33.58	Vertical
4243.5415	-41.64	-13.00	28.64	Vertical
17995.9999	-40.29	-13.00	27.29	Vertical
44.0172	-63.22	-13.00	50.22	Horizontal
1697.3395	-51.06	-13.00	38.06	Horizontal
2546.7093	-37.64	-13.00	24.64	Horizontal
3395.0132	-47.16	-13.00	34.16	Horizontal
4244.0415	-40.52	-13.00	27.52	Horizontal
5941.0980	-51.46	-13.00	38.46	Horizontal



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The 5029F data:

7.3. Test Band = GSM 1900

7.3.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
110.5140	-64.94	-13.00	51.94	Vertical
3700.5234	-47.58	-13.00	34.58	Vertical
5550.5850	-34.39	-13.00	21.39	Vertical
7400.6467	-43.72	-13.00	30.72	Vertical
11101.7701	-33.50	-13.00	20.50	Vertical
12951.3317	-44.94	-13.00	31.94	Vertical
39.7975	-64.49	-13.00	51.49	Horizontal
3700.5234	-44.81	-13.00	31.81	Horizontal
5550.5850	-27.34	-13.00	14.34	Horizontal
7400.6467	-36.56	-13.00	23.56	Horizontal
11101.2700	-32.07	-13.00	19.07	Horizontal
12951.8317	-39.32	-13.00	26.32	Horizontal

7.3.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
111.8236	-64.99	-13.00	51.99	Vertical
3760.0253	-37.09	-13.00	24.09	Vertical
5640.0880	-36.32	-13.00	23.32	Vertical
7520.1507	-44.87	-13.00	31.87	Vertical
11280.2760	-36.86	-13.00	23.86	Vertical
17999.5000	-39.65	-13.00	26.65	Vertical
39.5550	-64.18	-13.00	51.18	Horizontal
2713.5427	-36.64	-13.00	23.64	Horizontal
3760.0253	-43.01	-13.00	30.01	Horizontal
5640.0880	-30.54	-13.00	17.54	Horizontal
7520.1507	-40.10	-13.00	27.10	Horizontal
11279.7760	-31.39	-13.00	18.39	Horizontal



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7.3.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
110.2715	-63.99	-13.00	50.99	Vertical
3819.5273	-43.18	-13.00	30.18	Vertical
5729.5910	-37.57	-13.00	24.57	Vertical
7639.1546	-43.98	-13.00	30.98	Vertical
11458.7820	-46.24	-13.00	33.24	Vertical
17996.9999	-39.85	-13.00	26.85	Vertical
44.0172	-64.42	-13.00	51.42	Horizontal
248.5519	-68.26	-13.00	55.26	Horizontal
3819.5273	-45.92	-13.00	32.92	Horizontal
5729.5910	-31.23	-13.00	18.23	Horizontal
7639.1546	-45.12	-13.00	32.12	Horizontal
11458.7820	-40.00	-13.00	27.00	Horizontal

7.4. Test Band = GSM 850

7.4.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
115.4128	-64.78	-13.00	51.78	Vertical
1648.1296	-48.25	-13.00	35.25	Vertical
2472.6945	-40.14	-13.00	27.14	Vertical
3297.0432	-45.49	-13.00	32.49	Vertical
4120.9707	-39.03	-13.00	26.03	Vertical
4944.8982	-52.74	-13.00	39.74	Vertical
41.7376	-63.26	-13.00	50.26	Horizontal
1648.5297	-50.21	-13.00	37.21	Horizontal
2472.6945	-43.55	-13.00	30.55	Horizontal
3296.8099	-44.26	-13.00	31.26	Horizontal
4120.9707	-39.43	-13.00	26.43	Horizontal
4945.1315	-46.38	-13.00	33.38	Horizontal



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7.4.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
110.2230	-64.16	-13.00	51.16	Vertical
1672.9346	-51.52	-13.00	38.52	Vertical
2509.9020	-35.80	-13.00	22.80	Vertical
3346.2782	-50.69	-13.00	37.69	Vertical
4183.0394	-40.16	-13.00	27.16	Vertical
5019.5673	-54.35	-13.00	41.35	Vertical
43.2897	-63.69	-13.00	50.69	Horizontal
1673.3347	-46.51	-13.00	33.51	Horizontal
2509.9020	-38.89	-13.00	25.89	Horizontal
3346.7449	-49.33	-13.00	36.33	Horizontal
4183.0394	-41.24	-13.00	28.24	Horizontal
5856.3285	-52.61	-13.00	39.61	Horizontal

7.4.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
108.6709	-63.62	-13.00	50.62	Vertical
1697.3395	-45.35	-13.00	32.35	Vertical
2546.3093	-39.35	-13.00	26.35	Vertical
3395.2798	-52.33	-13.00	39.33	Vertical
4243.9415	-37.15	-13.00	24.15	Vertical
9882.1627	-52.09	-13.00	39.09	Vertical
41.6406	-63.83	-13.00	50.83	Horizontal
234.1467	-66.36	-13.00	53.36	Horizontal
1697.3395	-43.50	-13.00	30.50	Horizontal
2546.3093	-42.22	-13.00	29.22	Horizontal
3395.5132	-49.48	-13.00	36.48	Horizontal
4243.9415	-34.69	-13.00	21.69	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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