



Appendix B

GSM 850 & 1900



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1. Effective (Isotropic) Radiated Power Output Data

1.1. Test Result(Up Antenna)

Band	Channel	Slot	Conducted Power (dBm)	ERP (dBm)	Limit(dBm)	Verdict
GSM850	128	---	32.52	32.17	38.45	PASS
GSM850	190	---	32.40	32.05	38.45	PASS
GSM850	251	---	32.73	32.38	38.45	PASS
EGPRS850	128	1	26.72	26.37	38.45	PASS
EGPRS850	128	2	24.41	24.06	38.45	PASS
EGPRS850	128	3	23.51	23.16	38.45	PASS
EGPRS850	128	4	21.74	21.39	38.45	PASS
EGPRS850	190	1	26.77	26.42	38.45	PASS
EGPRS850	190	2	24.54	24.19	38.45	PASS
EGPRS850	190	3	23.50	23.15	38.45	PASS
EGPRS850	190	4	21.80	21.45	38.45	PASS
EGPRS850	251	1	26.72	26.37	38.45	PASS
EGPRS850	251	2	24.33	23.98	38.45	PASS
EGPRS850	251	3	23.54	23.19	38.45	PASS
EGPRS850	251	4	21.80	21.45	38.45	PASS

Band	Channel	Slot	Conducted Power (dBm)	EIRP (dBm)	Limit(dBm)	Verdict
GSM1900	512	---	29.51	30.31	33.00	PASS
GSM1900	661	---	29.50	30.3	33.00	PASS
GSM1900	810	---	29.20	30	33.00	PASS
EGPRS1900	512	1	29.48	30.28	33.00	PASS
EGPRS1900	512	2	26.60	27.4	33.00	PASS
EGPRS1900	512	3	25.60	26.4	33.00	PASS
EGPRS1900	512	4	24.51	25.31	33.00	PASS
EGPRS1900	661	1	29.50	30.3	33.00	PASS
EGPRS1900	661	2	26.49	27.29	33.00	PASS
EGPRS1900	661	3	25.46	26.26	33.00	PASS
EGPRS1900	661	4	24.29	25.09	33.00	PASS
EGPRS1900	810	1	29.25	30.05	33.00	PASS
EGPRS1900	810	2	26.89	27.69	33.00	PASS
EGPRS1900	810	3	25.45	26.25	33.00	PASS
EGPRS1900	810	4	24.40	25.2	33.00	PASS



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1.2. Test Result(Down Antenna)

Band	Channel	Slot	Conducted Power (dBm)	ERP (dBm)	Limit(dBm)	Verdict
GSM850	128	---	32.28	32.43	38.45	PASS
GSM850	190	---	32.61	32.76	38.45	PASS
GSM850	251	---	32.58	32.73	38.45	PASS
EGPRS850	128	1	26.53	26.68	38.45	PASS
EGPRS850	128	2	24.45	24.6	38.45	PASS
EGPRS850	128	3	22.45	22.6	38.45	PASS
EGPRS850	128	4	21.42	21.57	38.45	PASS
EGPRS850	190	1	26.64	26.79	38.45	PASS
EGPRS850	190	2	24.65	24.8	38.45	PASS
EGPRS850	190	3	22.64	22.79	38.45	PASS
EGPRS850	190	4	21.63	21.78	38.45	PASS
EGPRS850	251	1	26.78	26.93	38.45	PASS
EGPRS850	251	2	24.70	24.85	38.45	PASS
EGPRS850	251	3	22.63	22.78	38.45	PASS
EGPRS850	251	4	21.93	22.08	38.45	PASS

Band	Channel	Slot	Conducted Power (dBm)	EIRP (dBm)	Limit(dBm)	Verdict
GSM1900	512	---	29.94	30.44	33.00	PASS
GSM1900	661	---	29.91	30.41	33.00	PASS
GSM1900	810	---	30.08	30.58	33.00	PASS
EGPRS1900	512	1	26.00	26.5	33.00	PASS
EGPRS1900	512	2	23.40	23.9	33.00	PASS
EGPRS1900	512	3	21.18	21.68	33.00	PASS
EGPRS1900	512	4	20.20	20.7	33.00	PASS
EGPRS1900	661	1	25.90	26.4	33.00	PASS
EGPRS1900	661	2	23.30	23.8	33.00	PASS
EGPRS1900	661	3	21.19	21.69	33.00	PASS
EGPRS1900	661	4	20.17	20.67	33.00	PASS
EGPRS1900	810	1	26.11	26.61	33.00	PASS
EGPRS1900	810	2	23.54	24.04	33.00	PASS
EGPRS1900	810	3	21.30	21.8	33.00	PASS
EGPRS1900	810	4	20.40	20.9	33.00	PASS



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Remark:

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

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

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



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2. Peak-to-Average Ratio

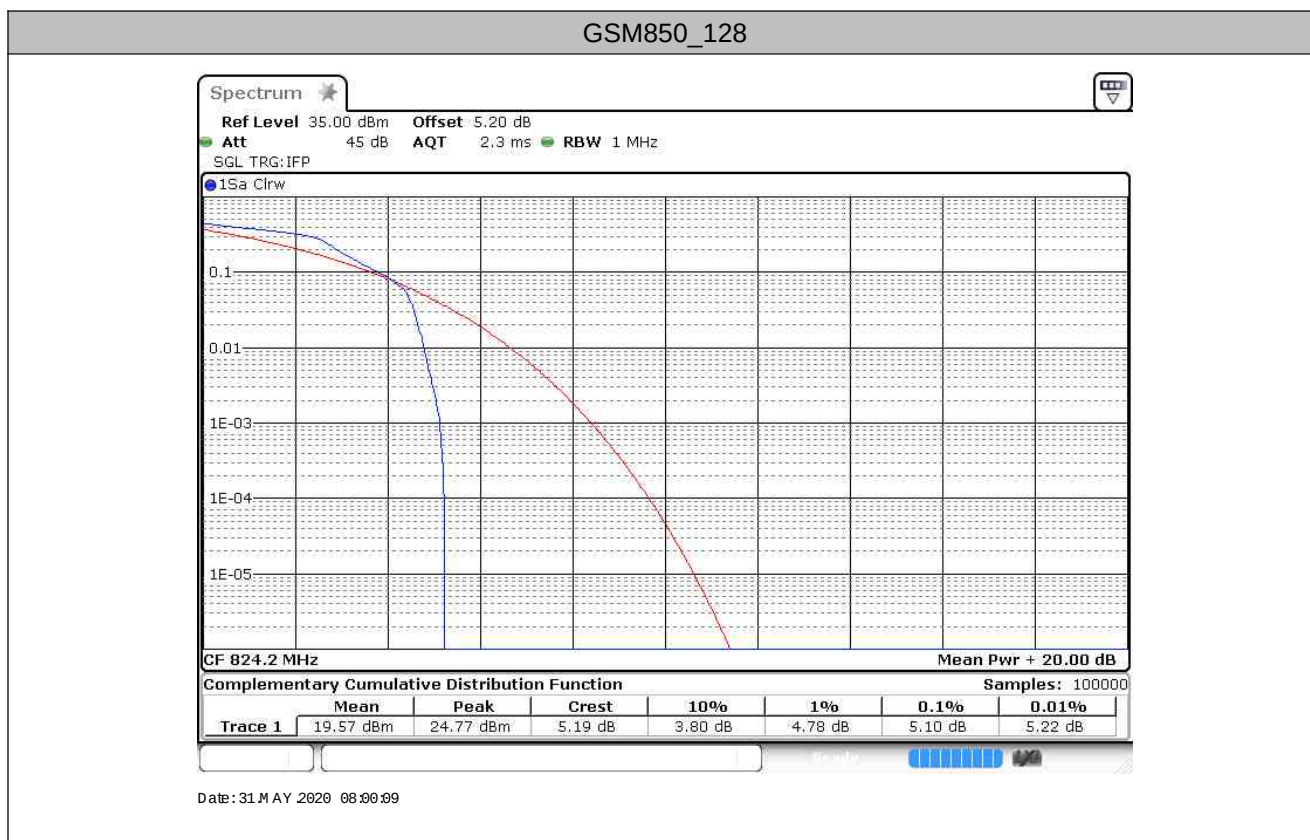
2.1. Test Result

Band	Channel	Peak-to-Average Ratio(dB)	Limit(dB)	Verdict
GSM850	128	7.97	13	PASS
GSM850	190	8.09	13	PASS
GSM850	251	8.23	13	PASS
EGPRS850	128	5.10	13	PASS
EGPRS850	190	4.78	13	PASS
EGPRS850	251	10.90	13	PASS
GSM1900	512	7.88	13	PASS
GSM1900	661	7.91	13	PASS
GSM1900	810	7.97	13	PASS
EGPRS1900	512	10.64	13	PASS
EGPRS1900	661	10.87	13	PASS
EGPRS1900	810	11.33	13	PASS



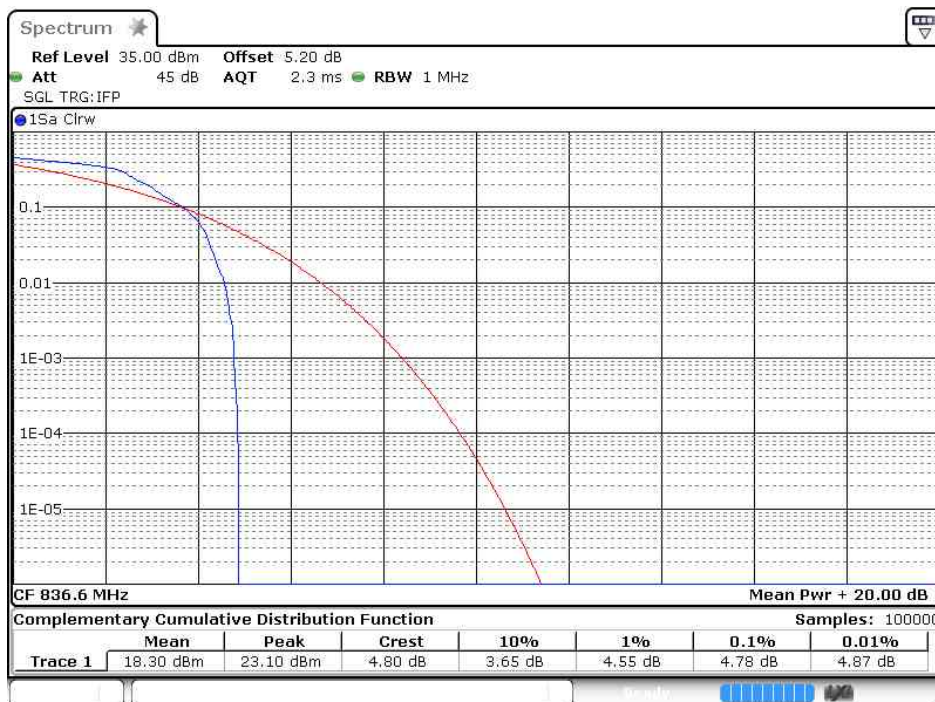


2.2.Part II - Test Plots





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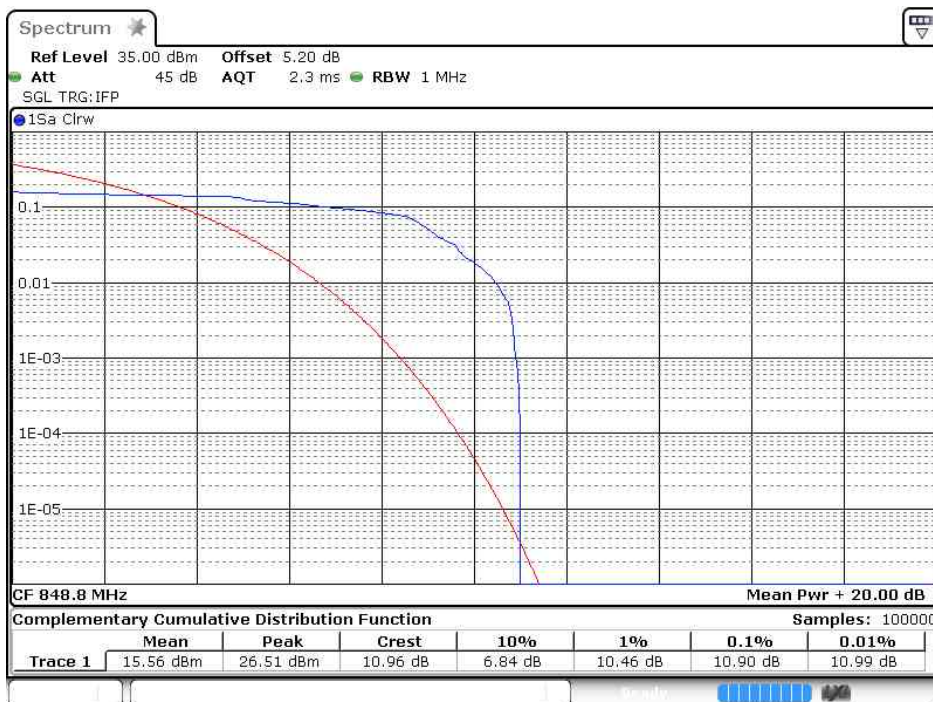
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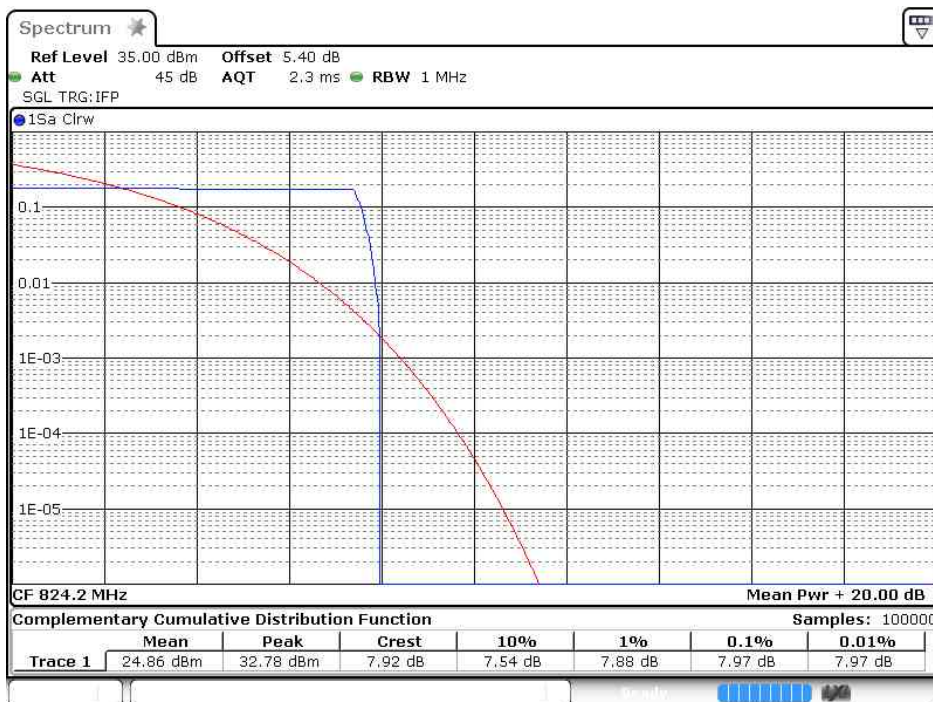


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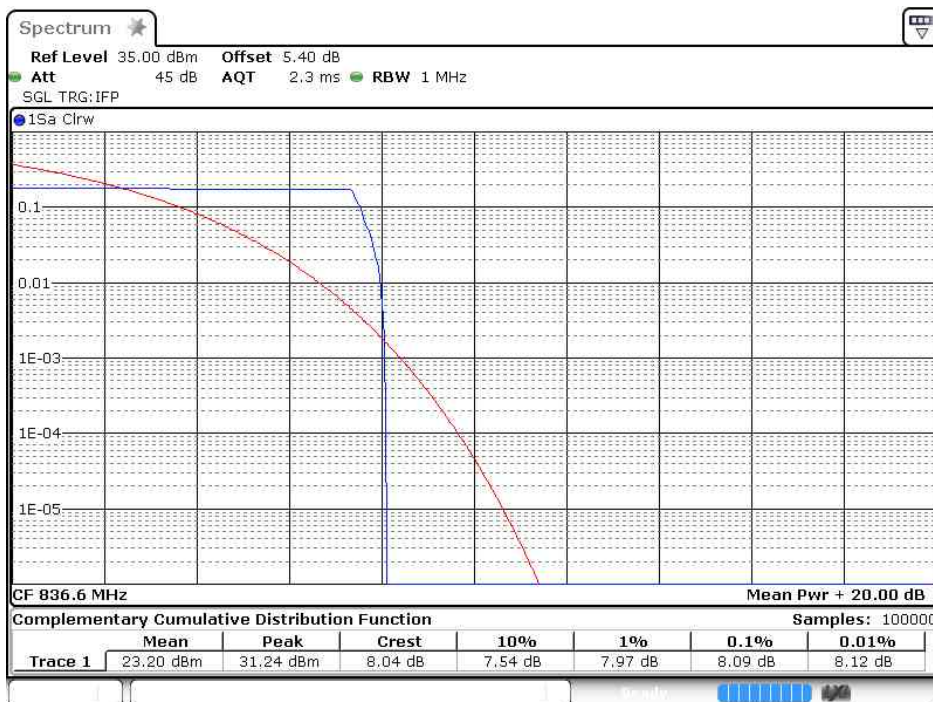
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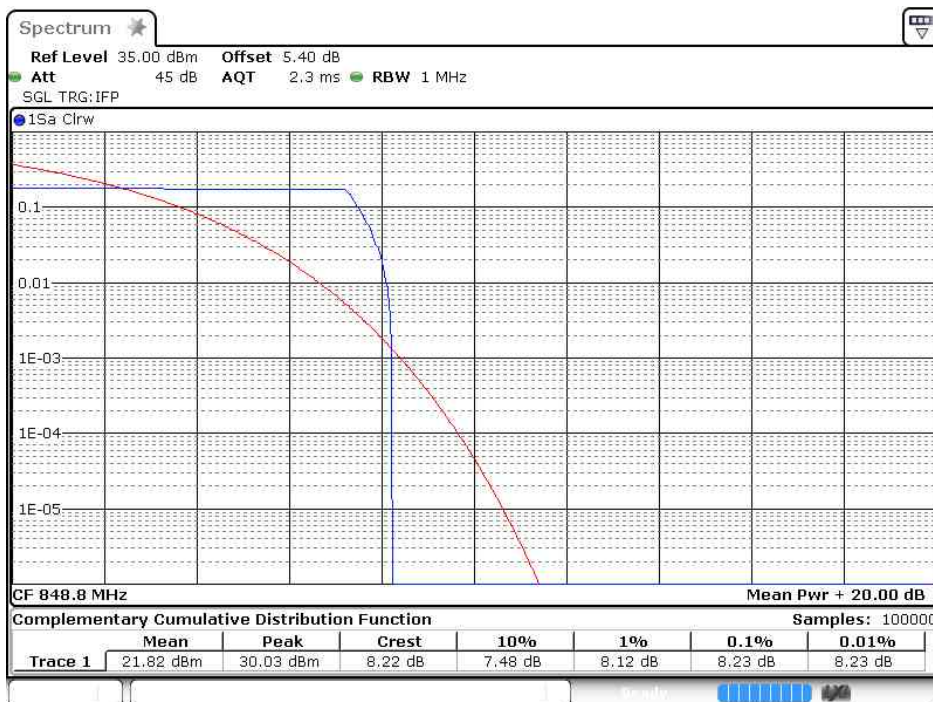
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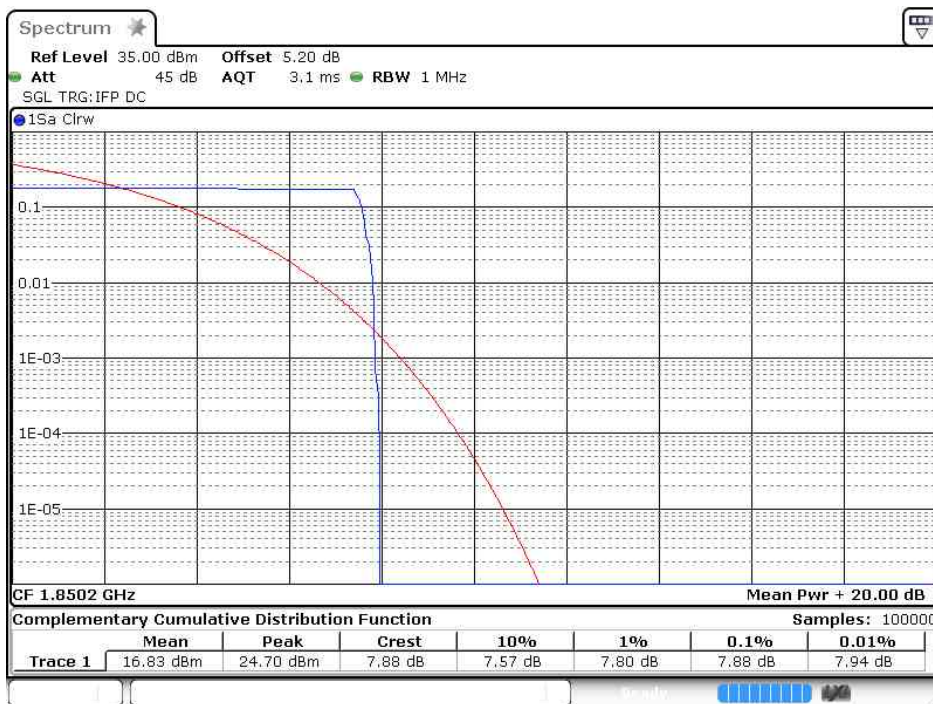
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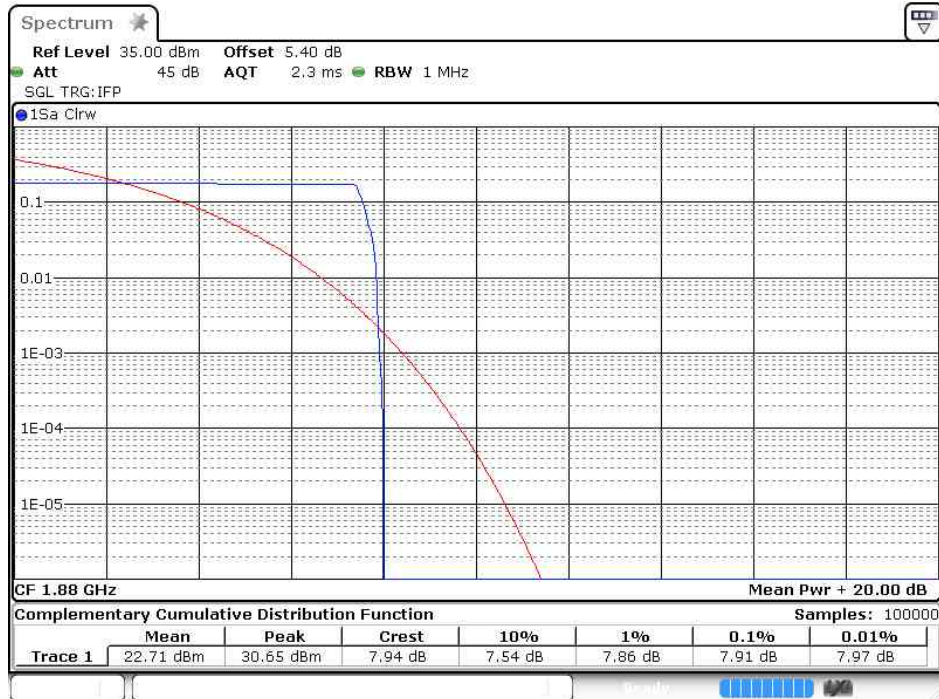
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GSM1900_661



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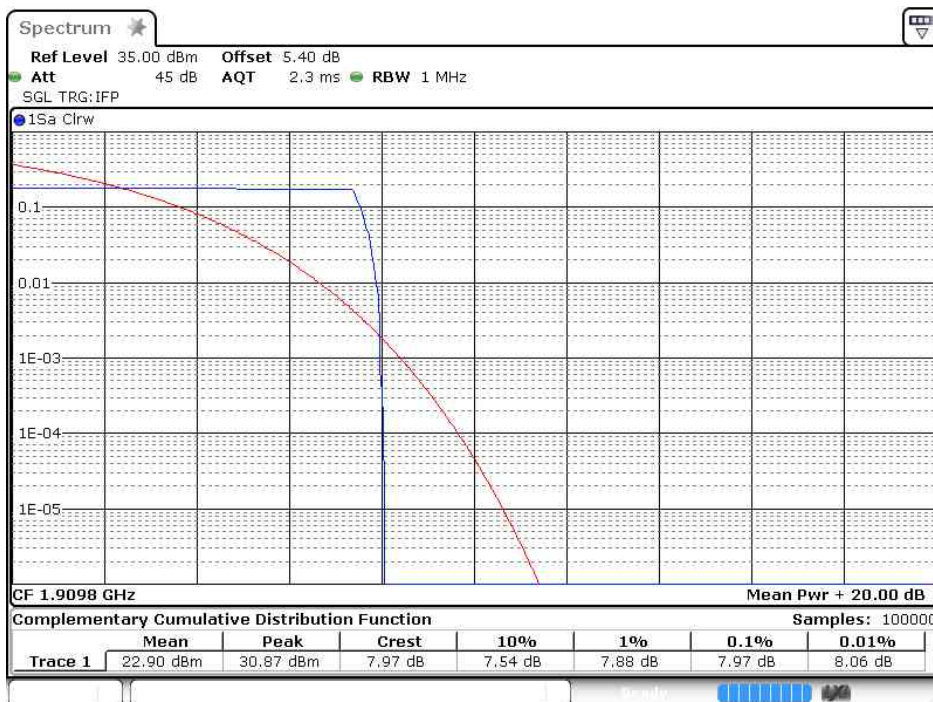


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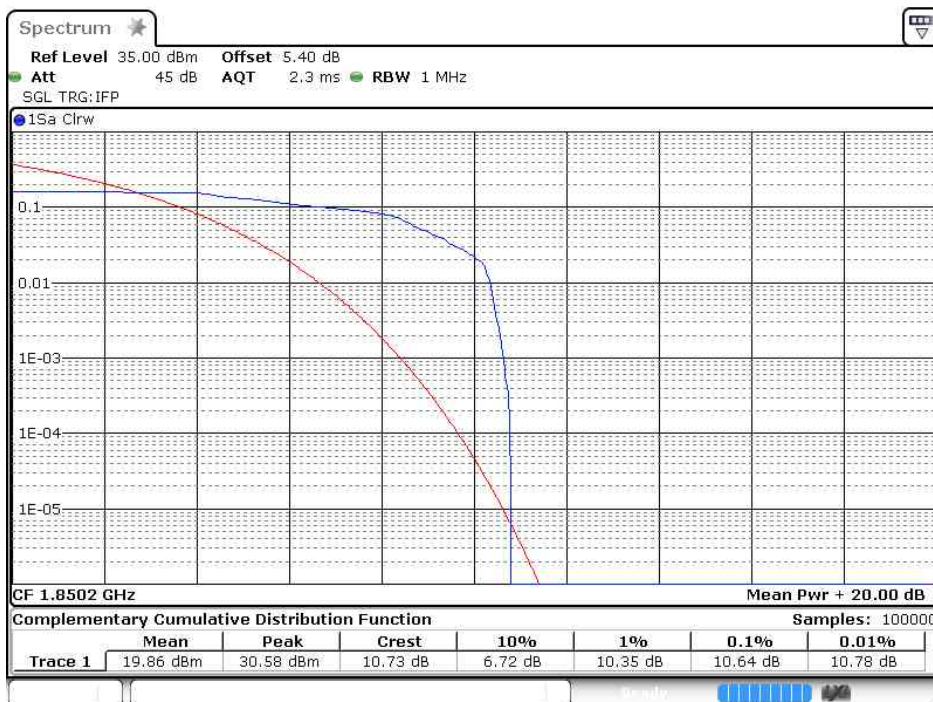
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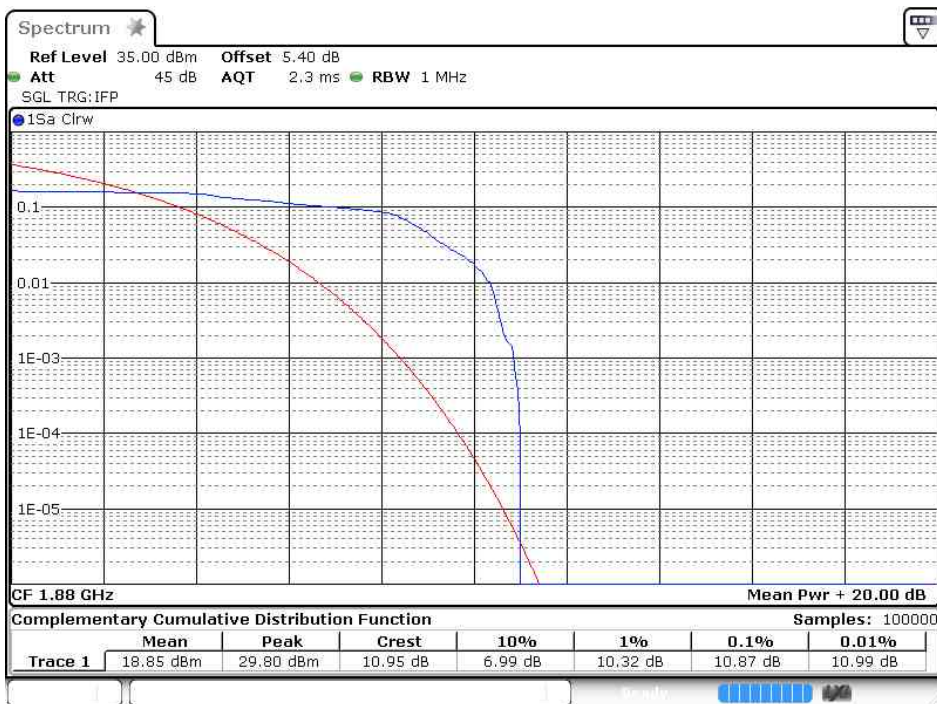
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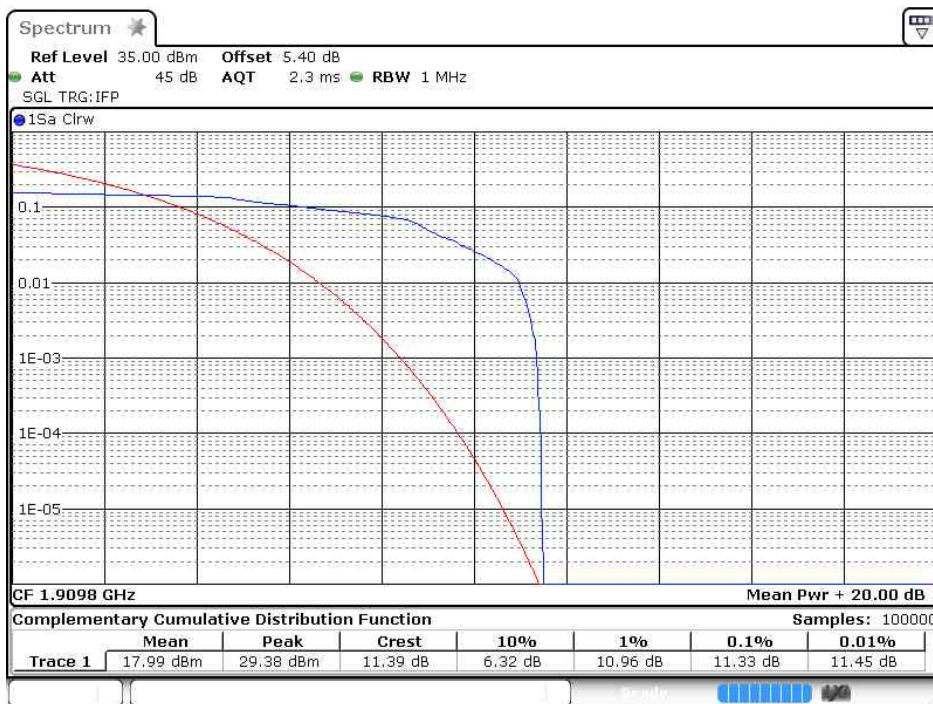
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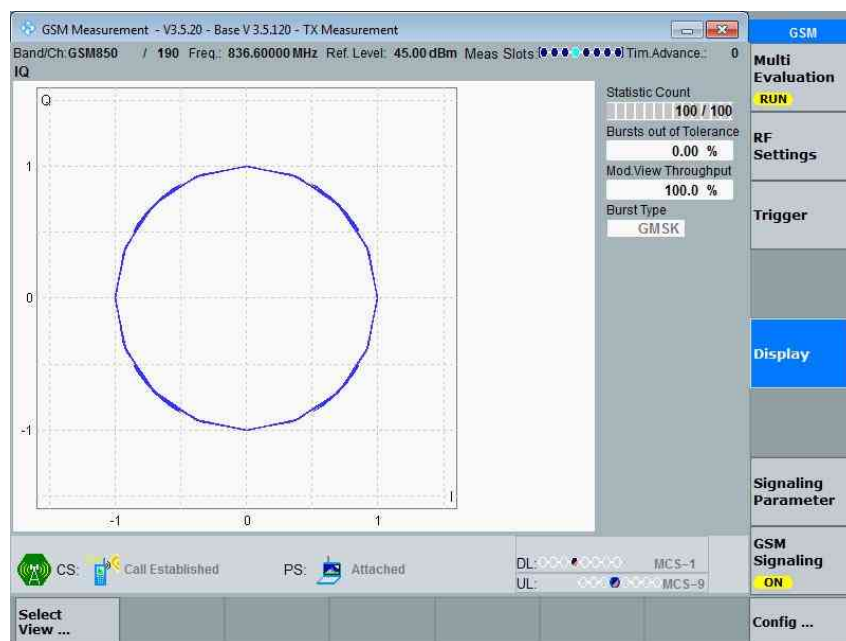
3. Modulation Characteristics

3.1. For GSM

3.1.1. Test Band = GSM 850

3.1.1.1. Test Mode = GSM/TM1

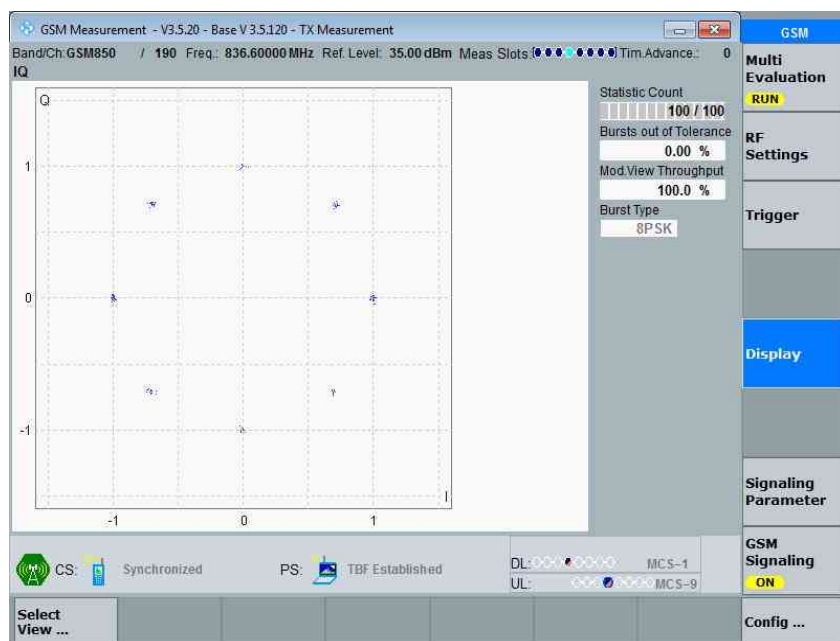
3.1.1.1.1. Test Channel = MCH





3.1.1.2. Test Mode = GSM/TM2

3.1.1.2.1. Test Channel = MCH

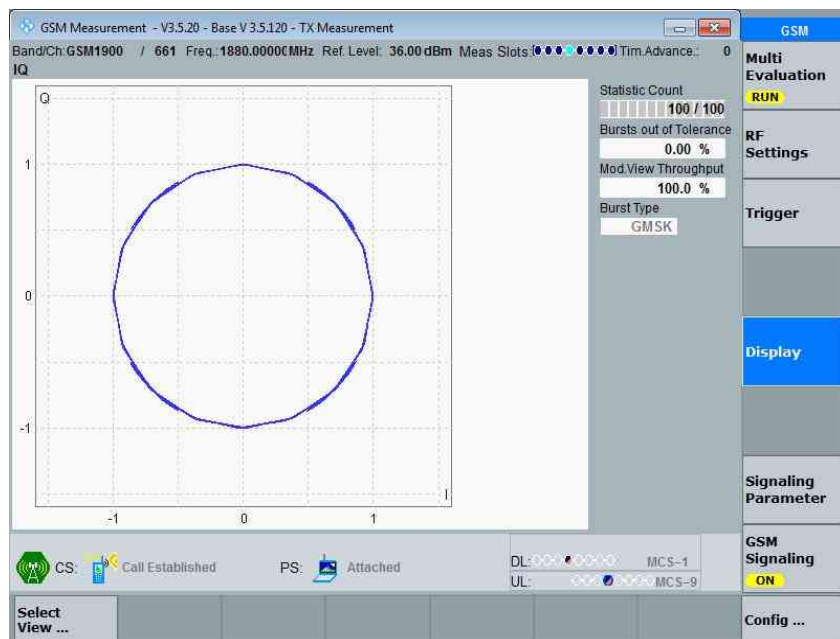




3.1.2. Test Band = GSM 1900

3.1.2.1. Test Mode = GSM/TM1

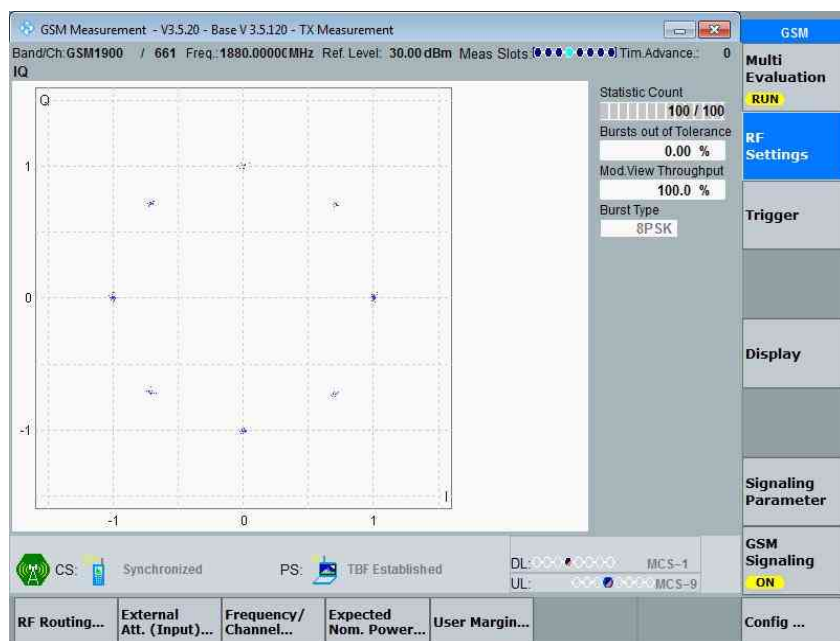
3.1.2.1.1. Test Channel = MCH





3.1.2.2. Test Mode = GSM/TM2

3.1.2.2.1. Test Channel = MCH



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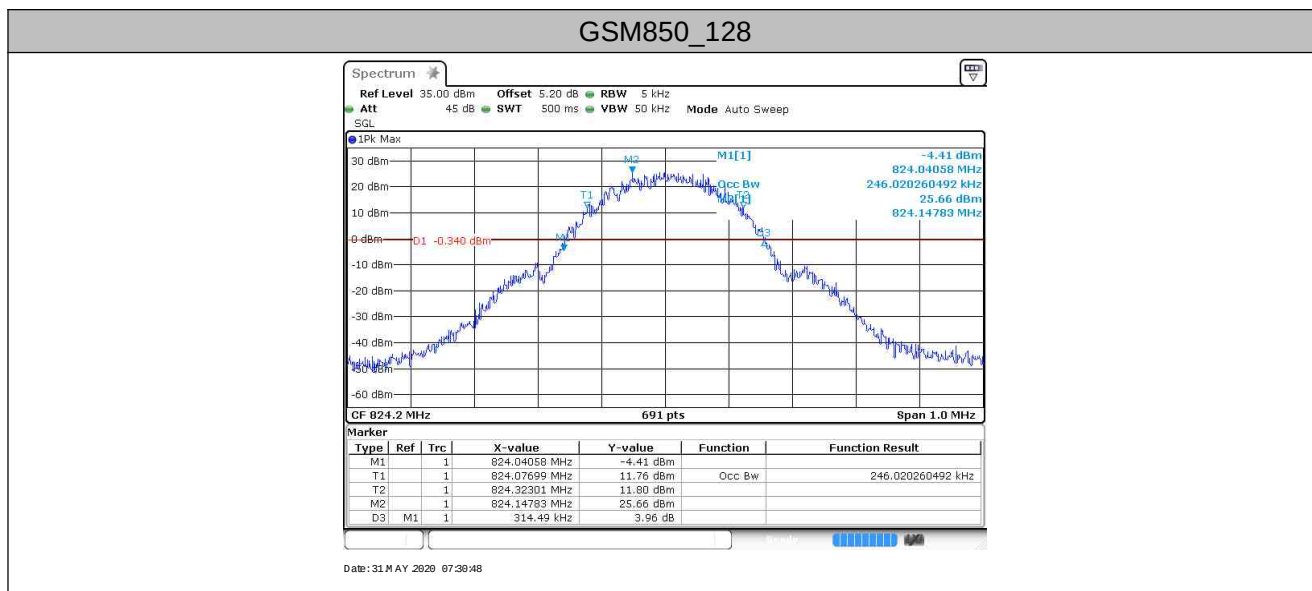


4. 26dB Bandwidth and Occupied Bandwidth

4.1. Test Result

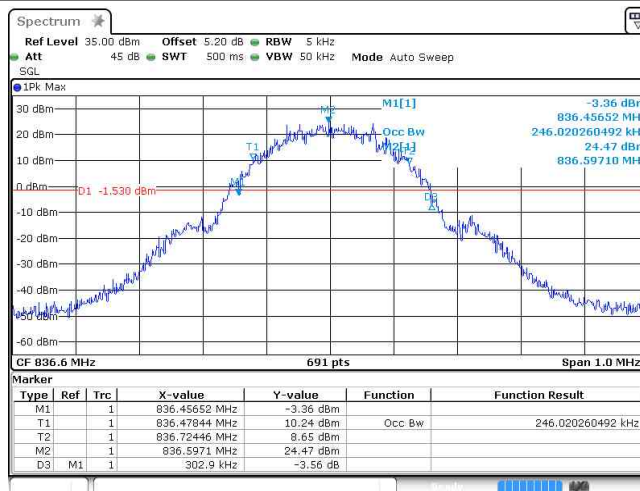
Band	Channel	Occupied Bandwidth (kHz)	26dB Bandwidth (kHz)	Limit(kHz)	Verdict
GSM850	128	246.02	314.49	---	PASS
GSM850	190	246.02	302.90	---	PASS
GSM850	251	243.13	308.70	---	PASS
EGPRS850	128	257.60	310.40	---	PASS
EGPRS850	190	250.36	304.35	---	PASS
EGPRS850	251	248.92	304.35	---	PASS
GSM1900	512	243.13	302.90	---	PASS
GSM1900	661	243.13	315.94	---	PASS
GSM1900	810	243.13	305.80	---	PASS
EGPRS1900	512	246.02	298.55	---	PASS
EGPRS1900	661	243.13	284.06	---	PASS
EGPRS1900	810	241.68	302.90	---	PASS

4.2. Test Plots

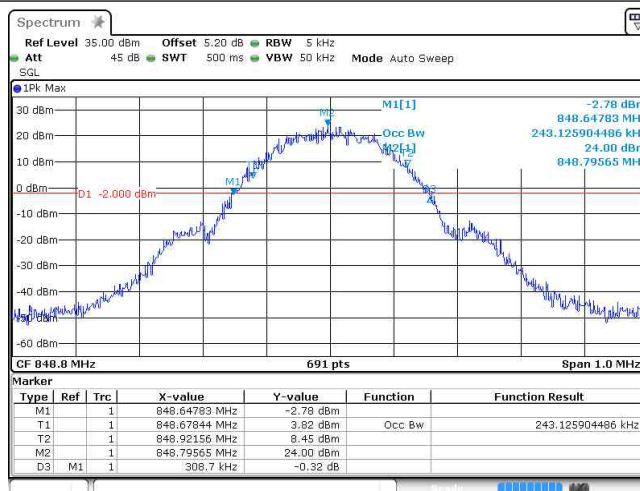




GSM850_190

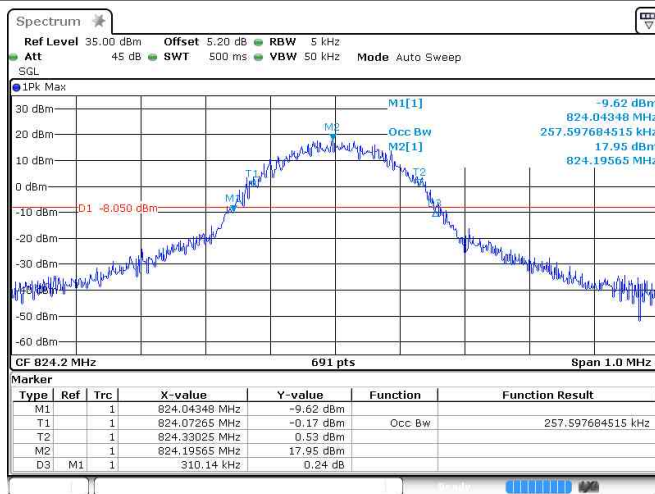


GSM850_251



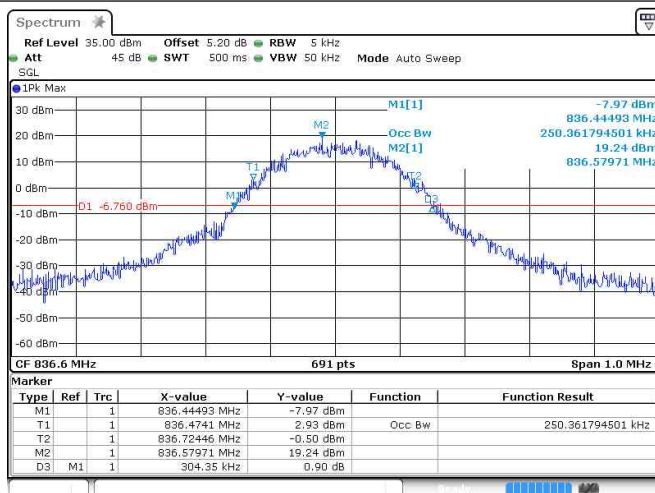


EGPRS850_128



Date: 6 JUL 2020 03:17:19

EGPRS850_190

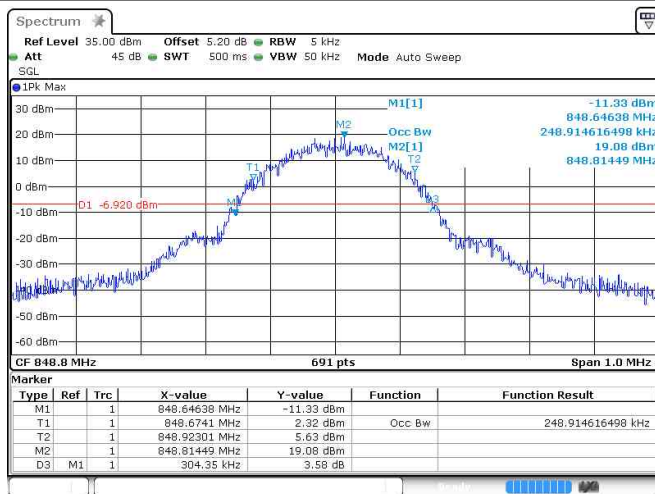


Date: 6 JUL 2020 03:18:56



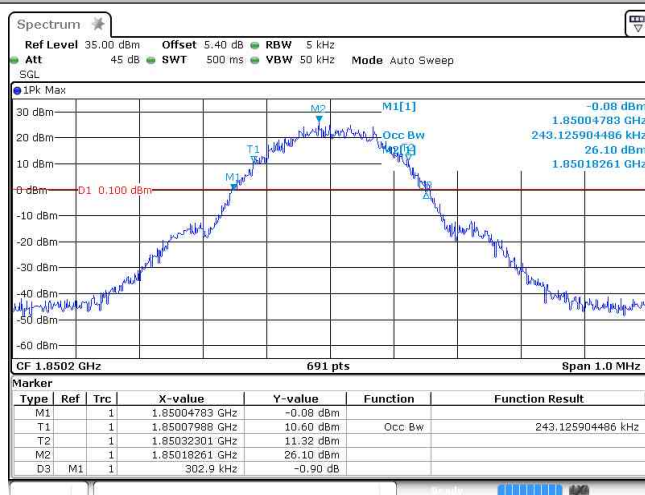


EGPRS850_251



Date: 6 JUL 2020 03:19:24

GSM1900_512



Date: 31 MAY 2020 07:05:14



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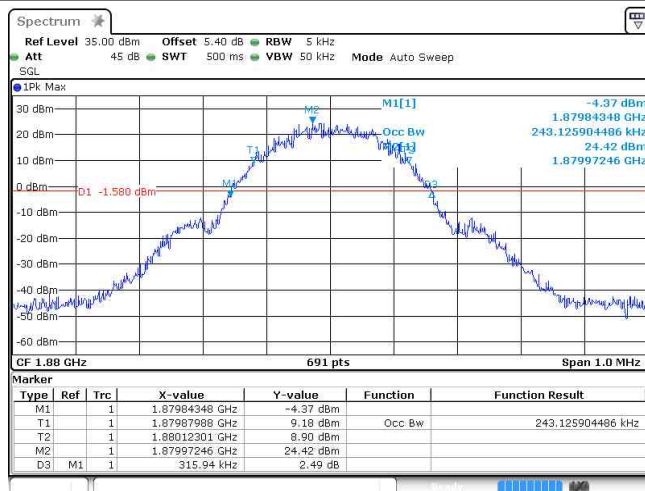
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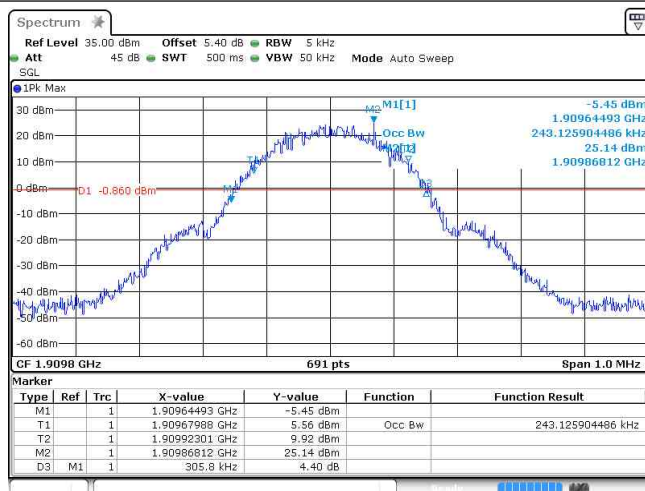
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GSM1900_661

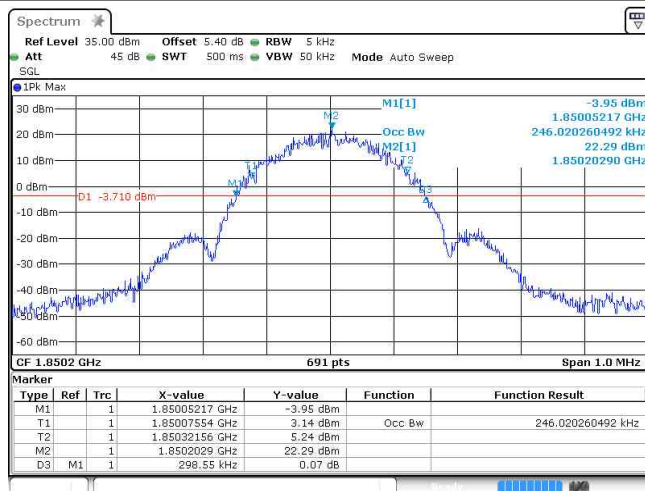


GSM1900_810

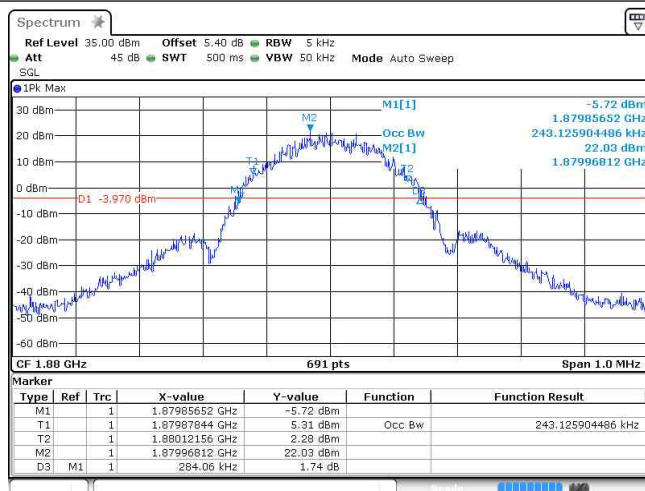




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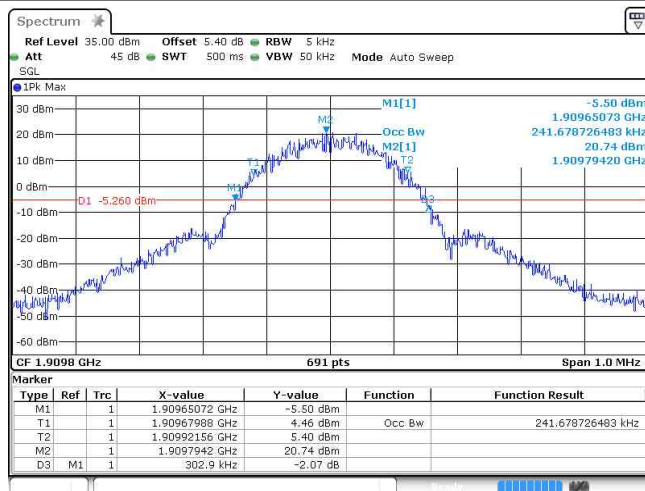


EGPRS1900_661





EGPRS1900_810



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Shenzhen Branch Testing Center EEC Laboratory

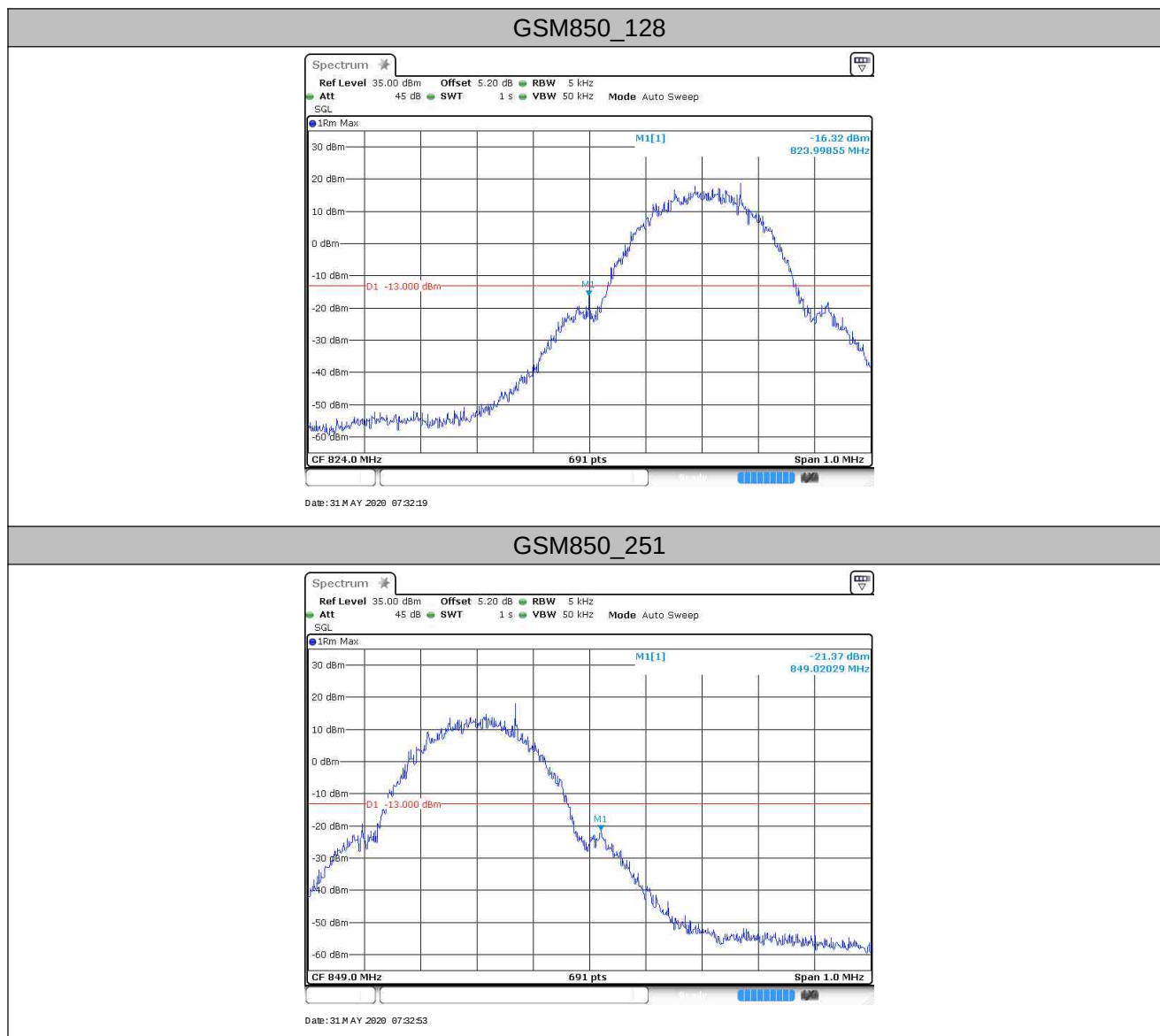
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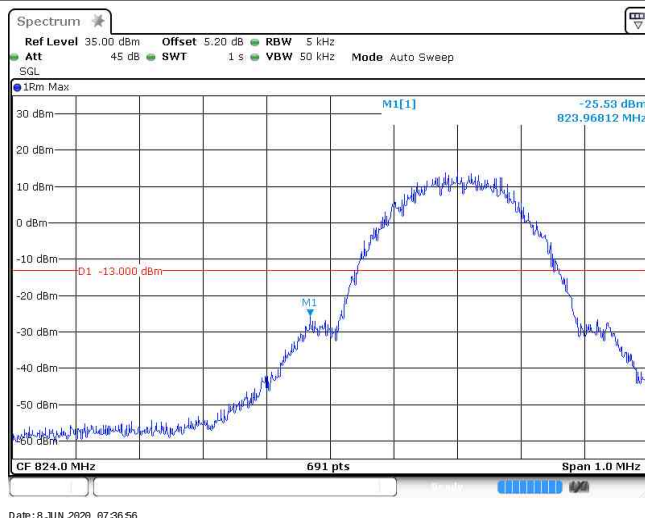
5. Band Edge Compliance

5.1. Test Plots



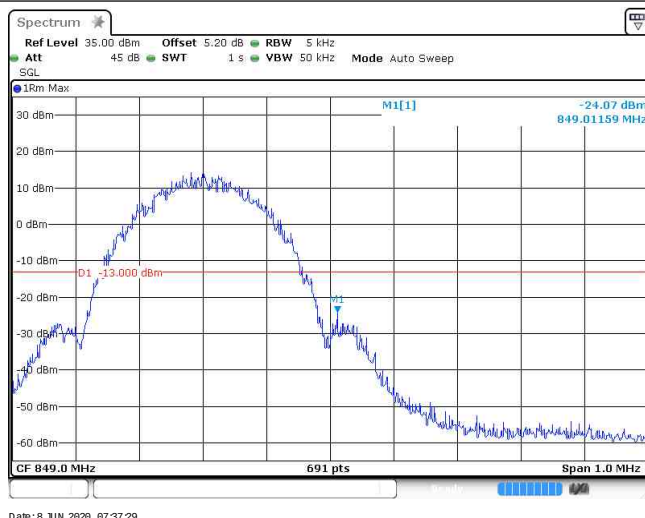


EGPRS850_128



Date: 8 JUN 2020 07:36:56

EGPRS850_251

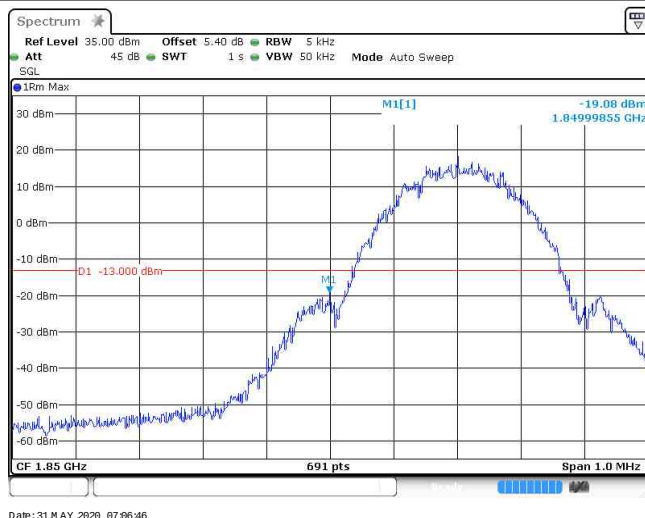


Date: 8 JUN 2020 07:37:29

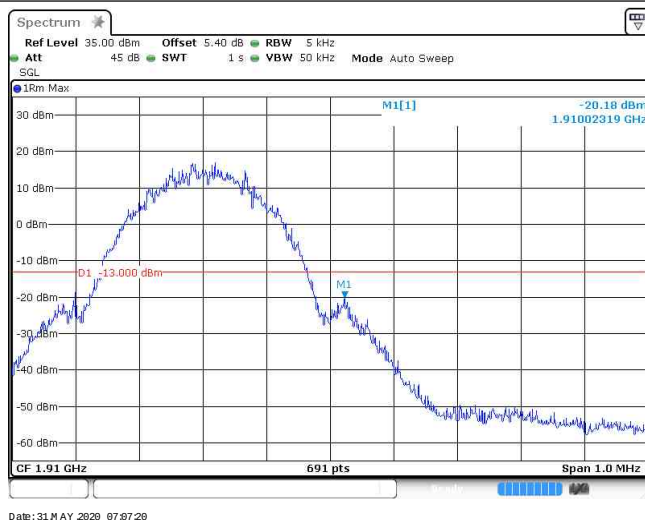




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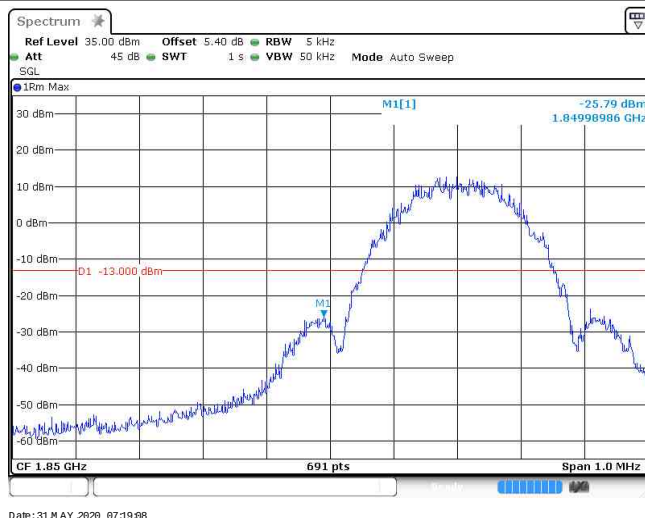


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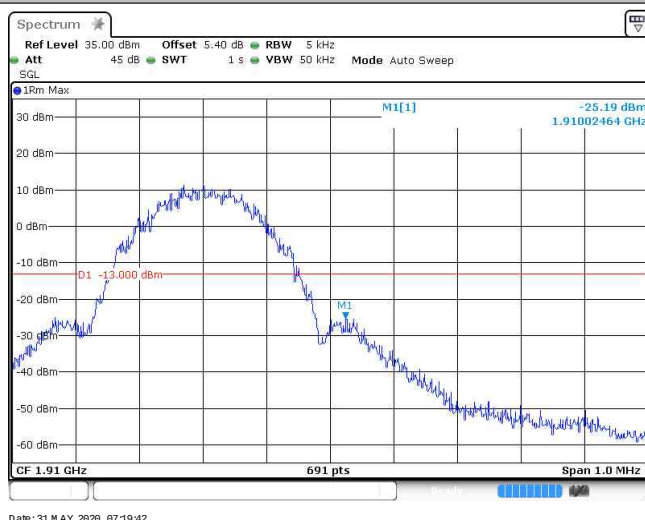


EGPRS1900_512



Date: 31 MAY 2020 07:19:08

EGPRS1900_810



Date: 31 MAY 2020 07:19:42



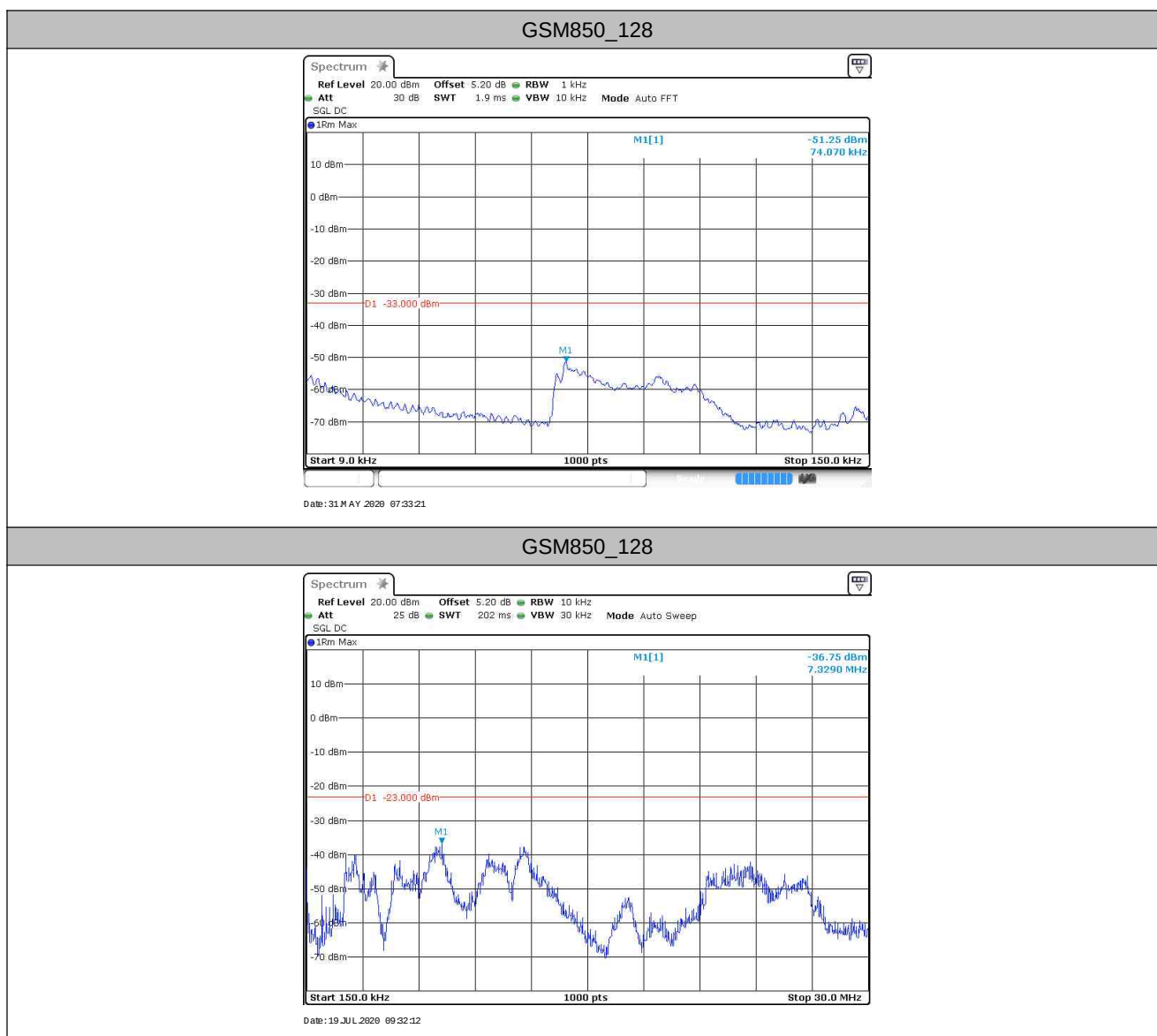


6. Spurious Emission at Antenna Terminal

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

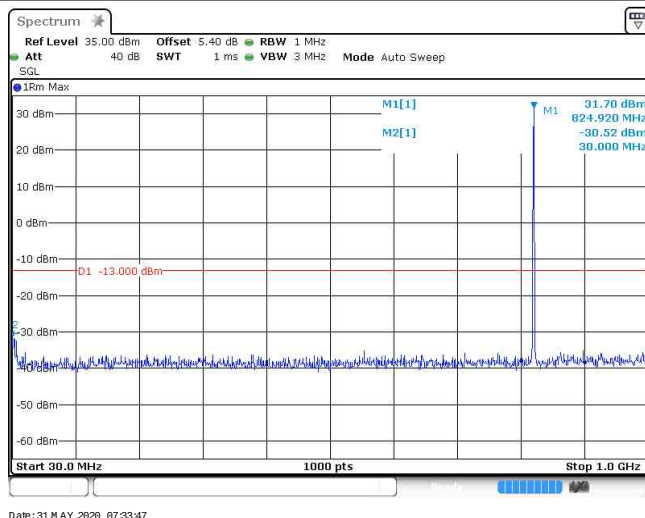
Remark2: only the worst case data displayed in this report.

6.1. Test Plots



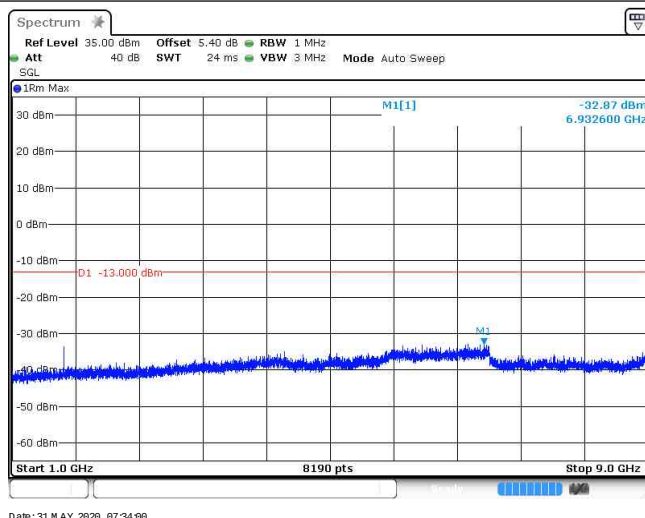


GSM850_128



Date: 31 MAY 2020 07:33:47

GSM850_128



Date: 31 MAY 2020 07:34:00



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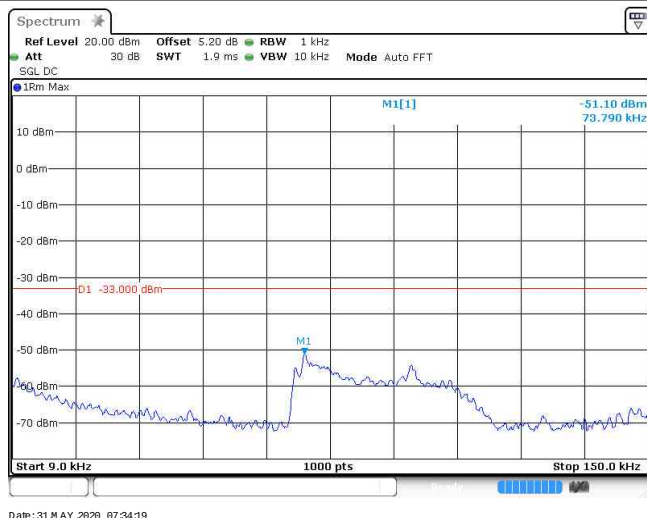
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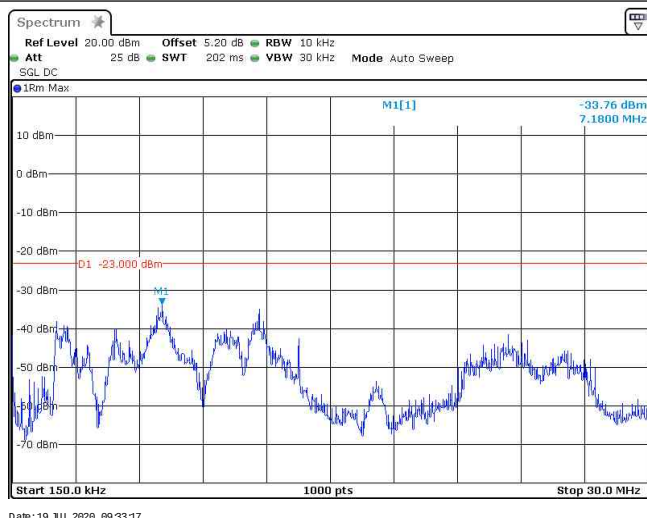
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GSM850_190

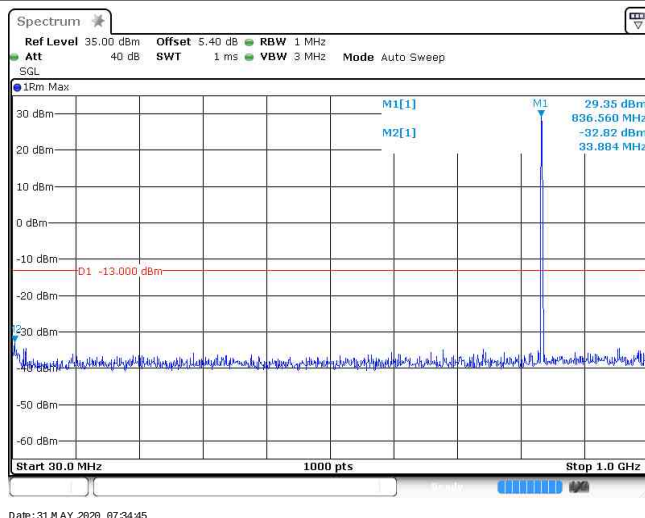


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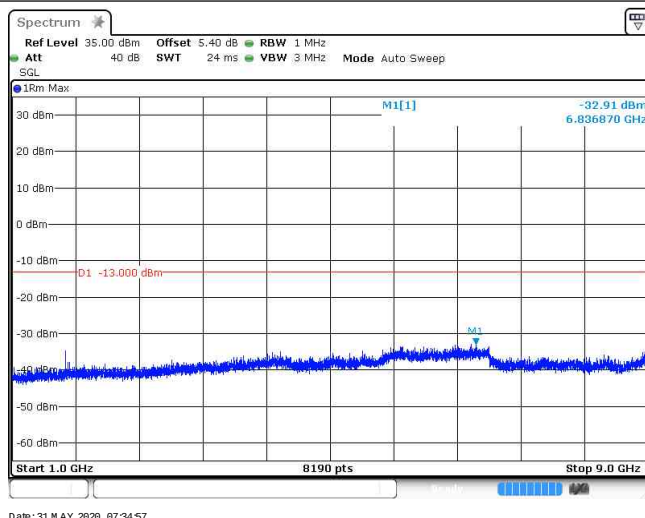


GSM850_190



Date: 31 MAY 2020 07:34:45

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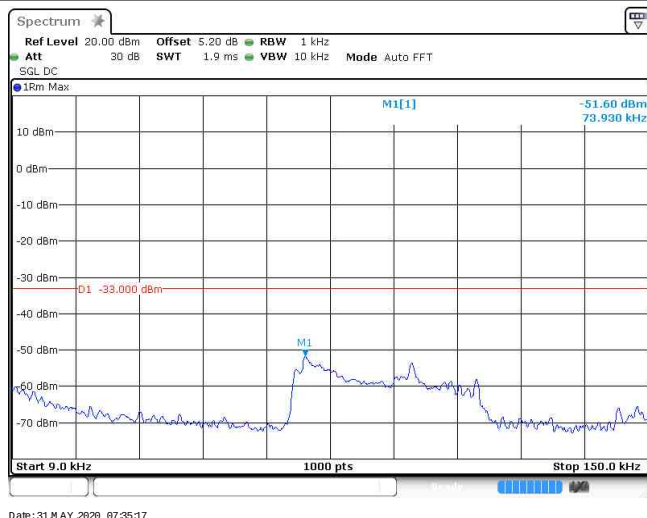


Date: 31 MAY 2020 07:34:57

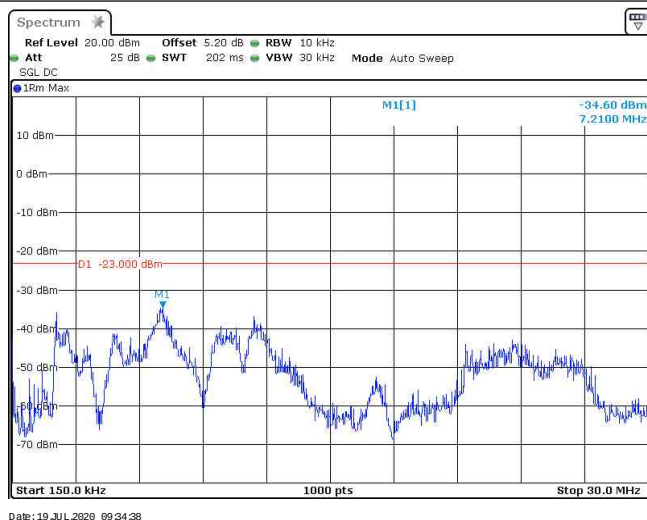




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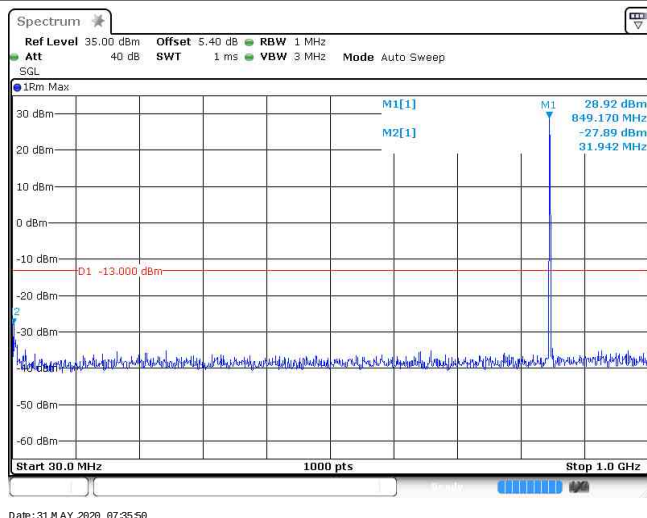


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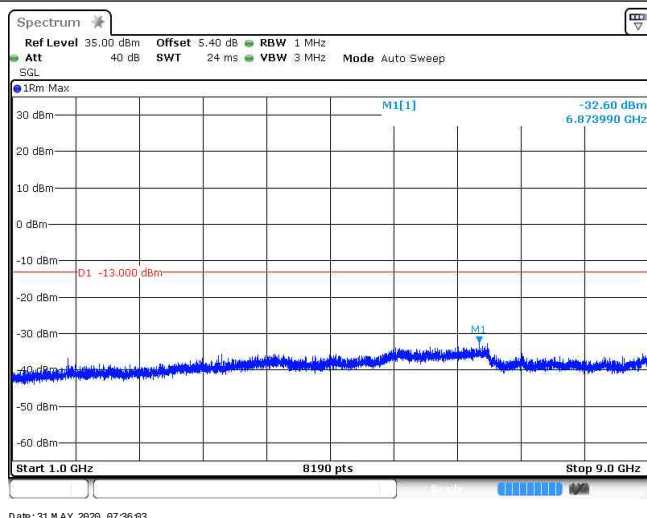


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Date: 31 MAY 2020 07:35:59

GSM850_251



Date: 31 MAY 2020 07:36:03

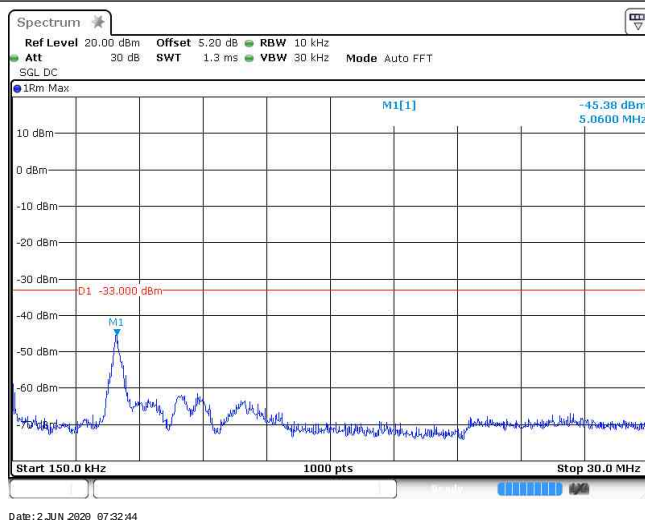




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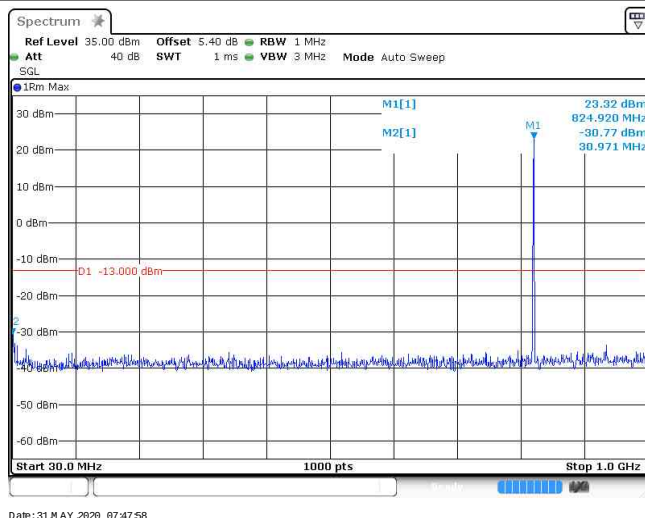


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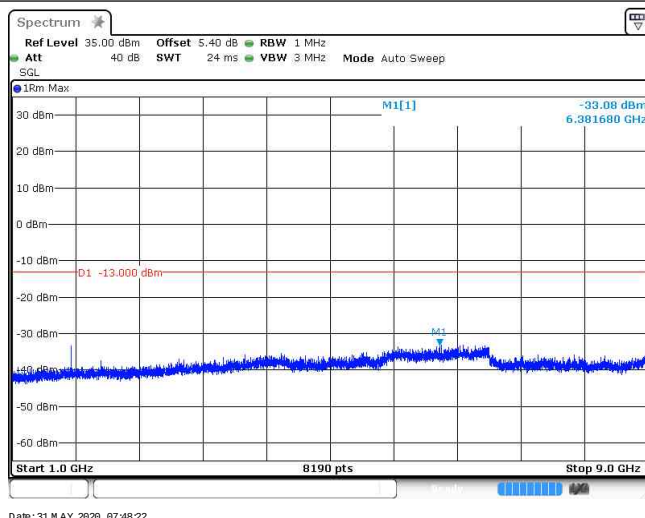


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EGPRS850_128



Date: 31 MAY 2020 07:48:22





EGPRS850_190

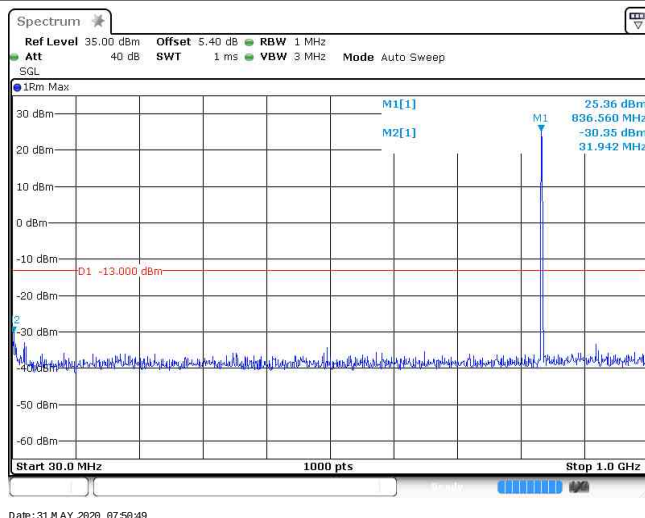


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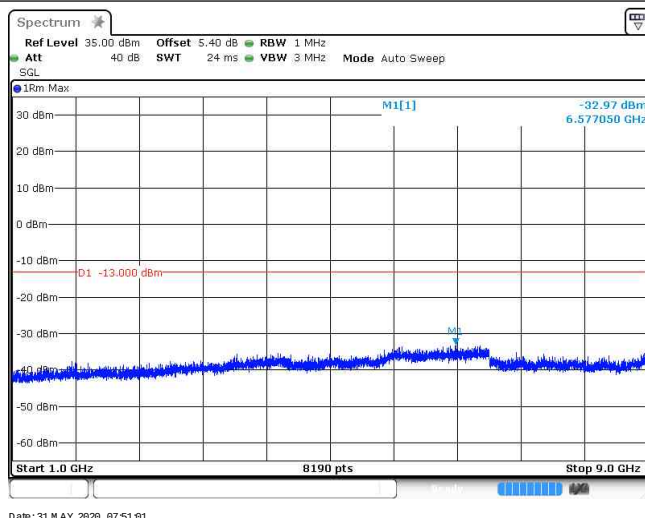




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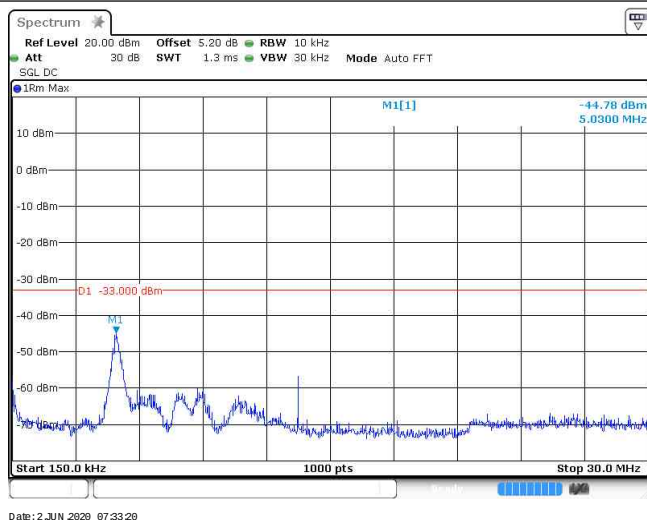




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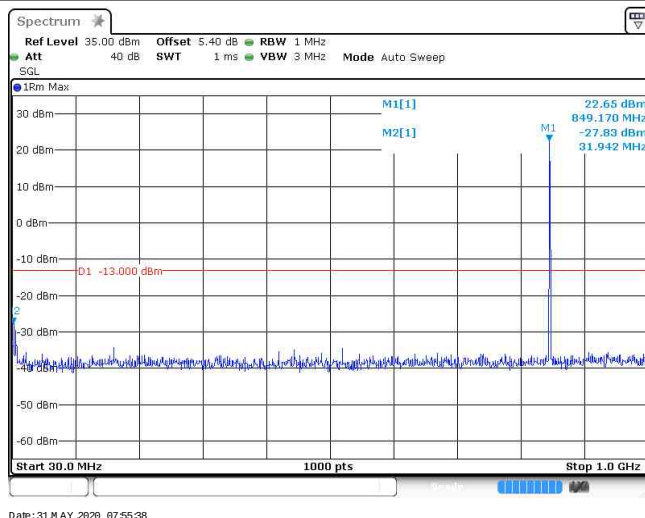


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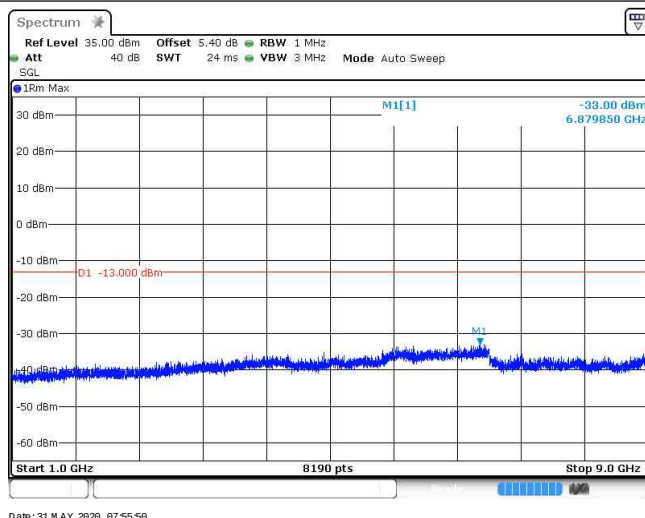


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EGPRS850_251



Date: 31 MAY 2020 07:55:50

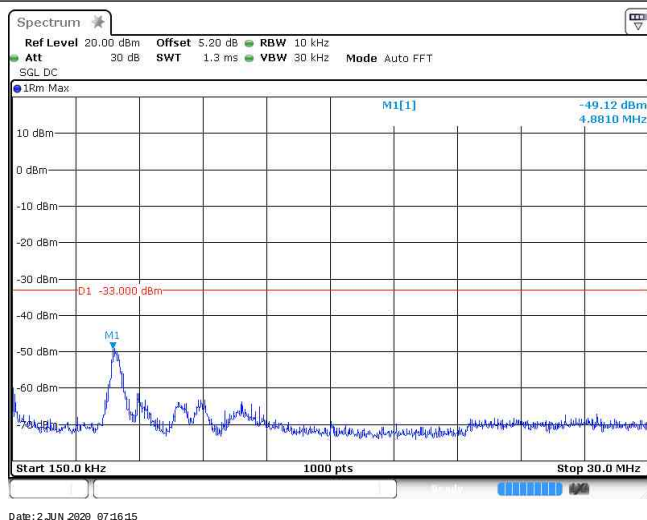




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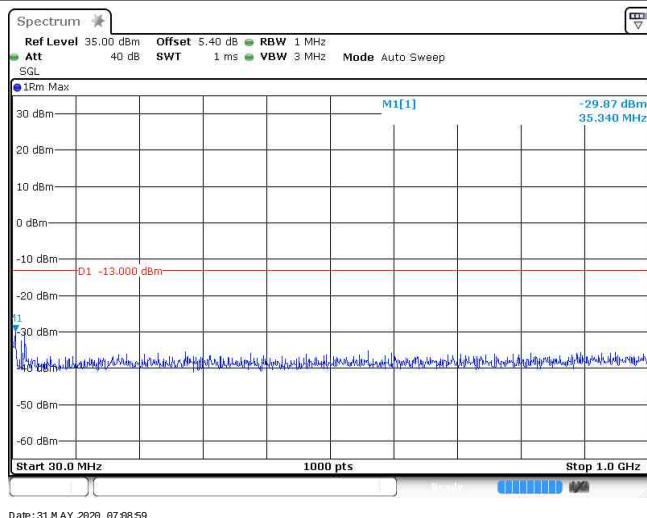


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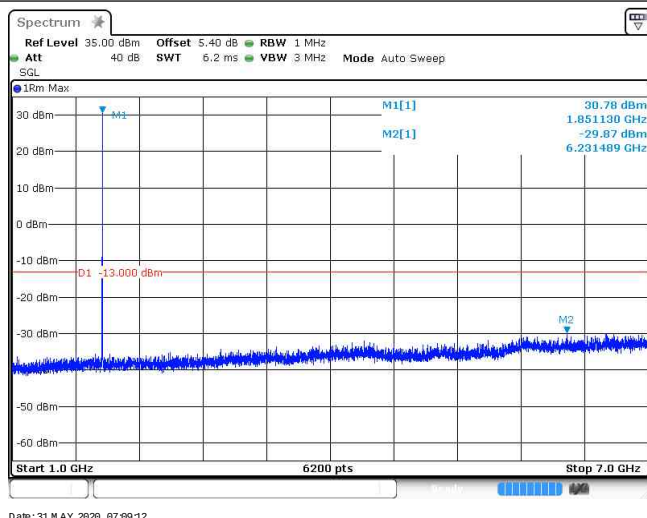




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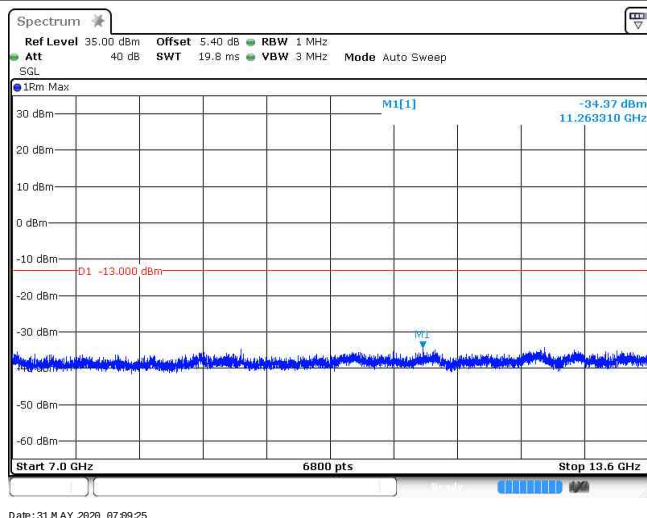


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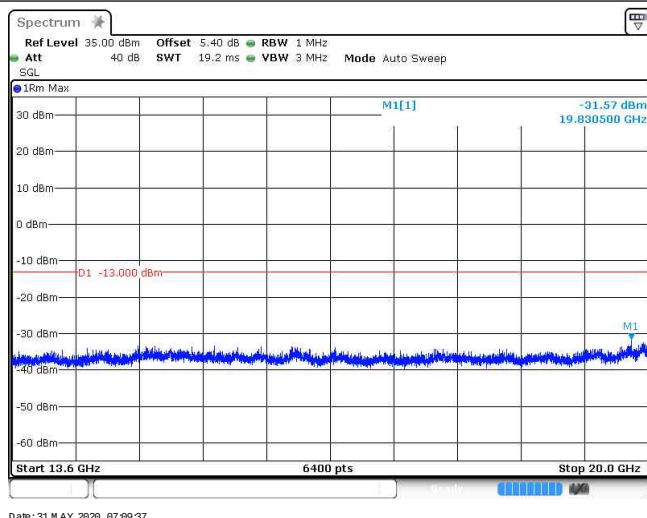


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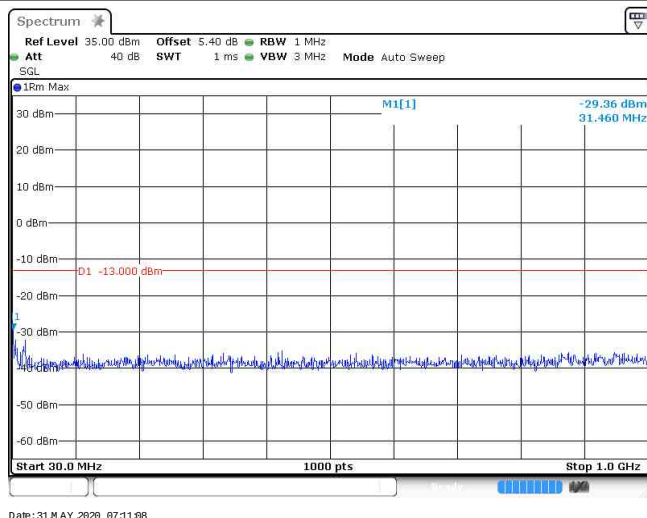
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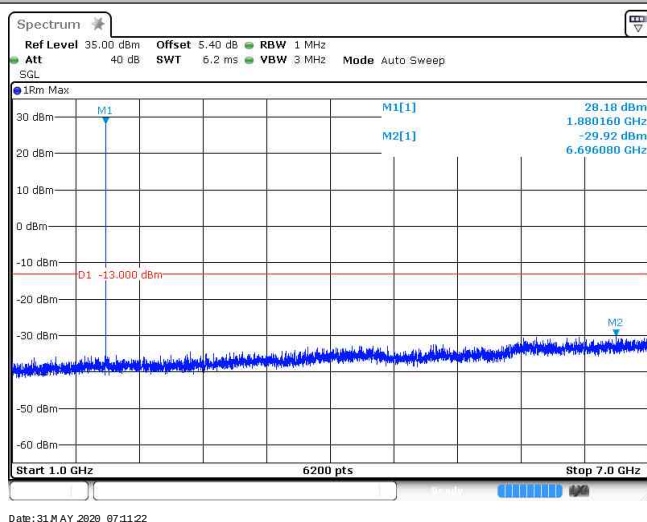
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GSM1900 661



GSM1900 661



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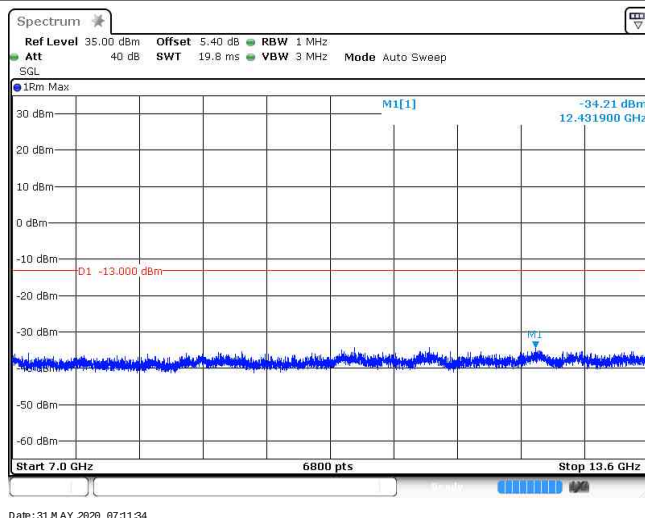
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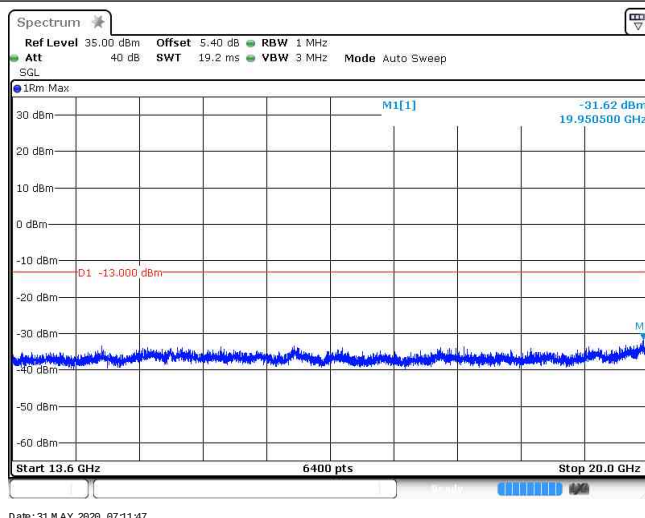
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GSM1900_661



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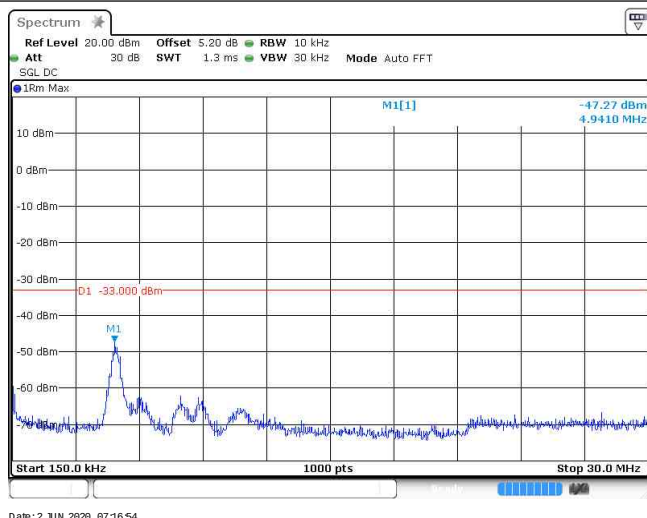




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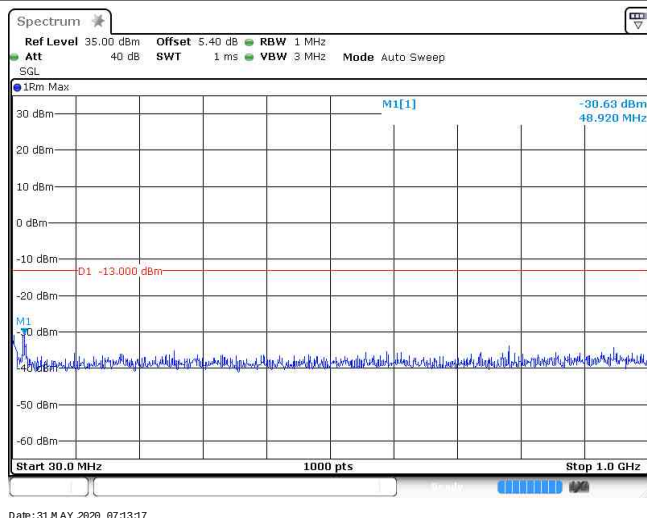


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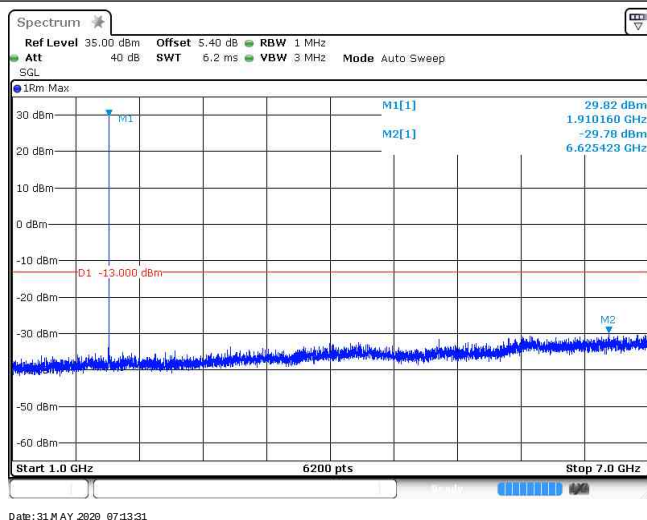




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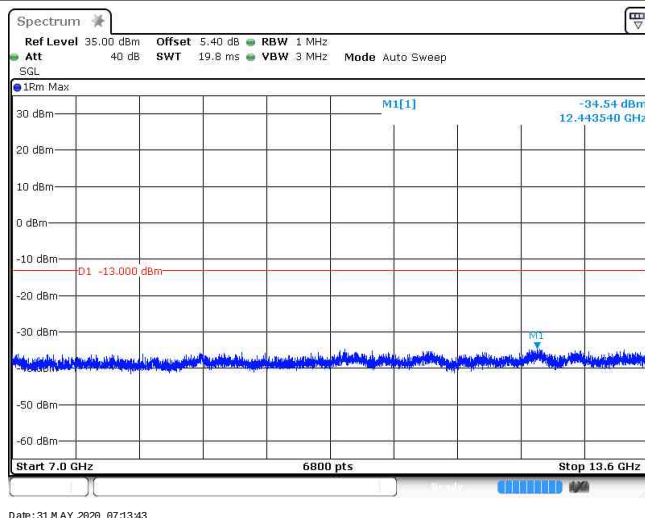


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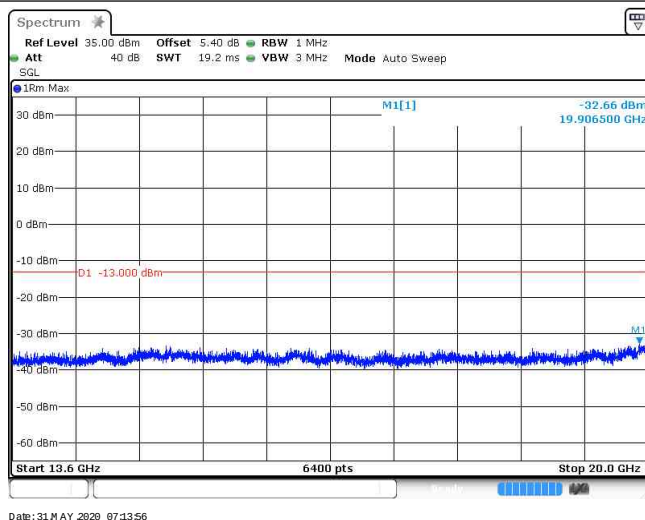




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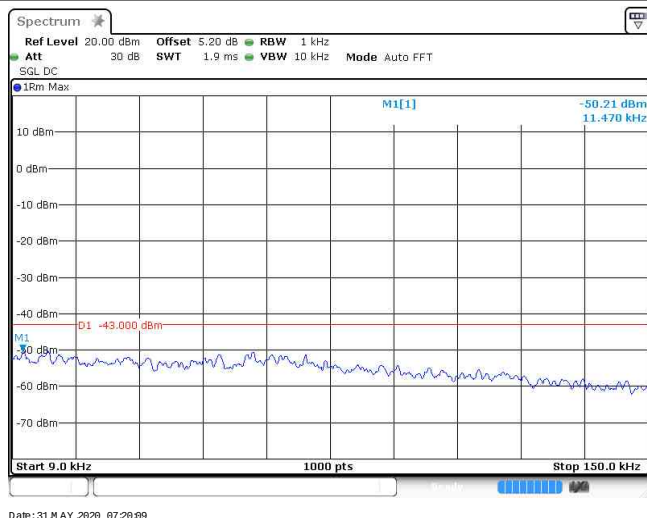


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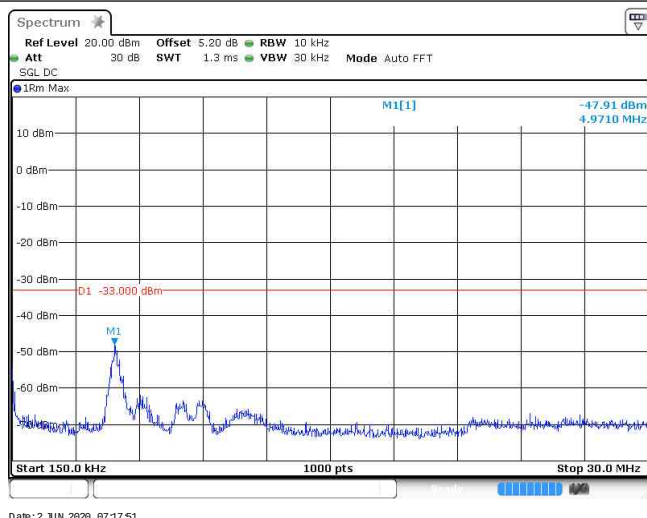


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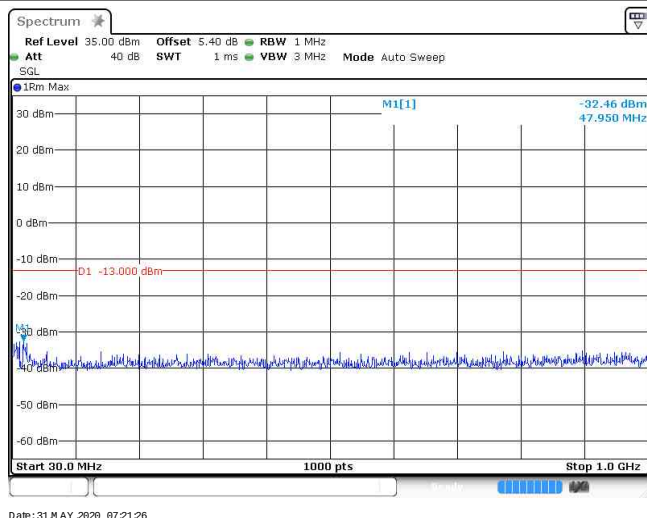


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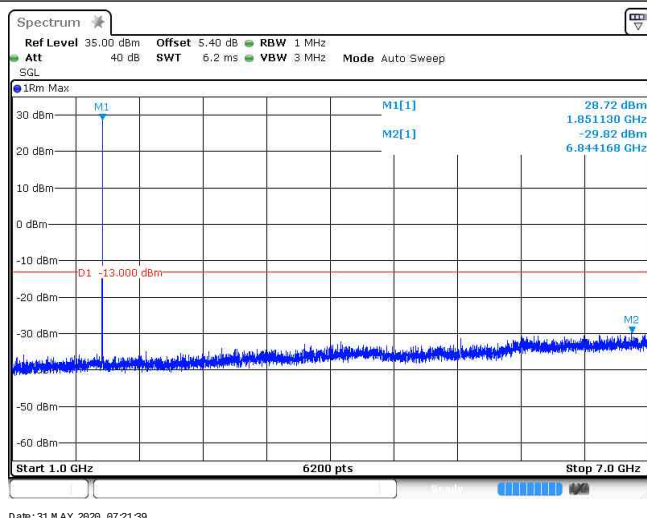


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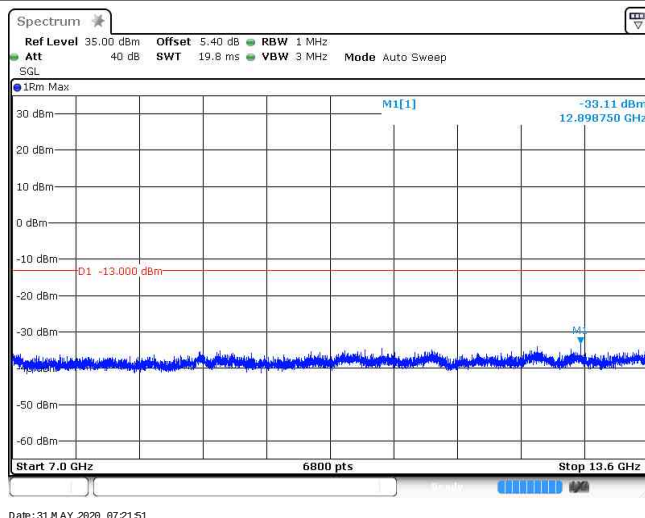
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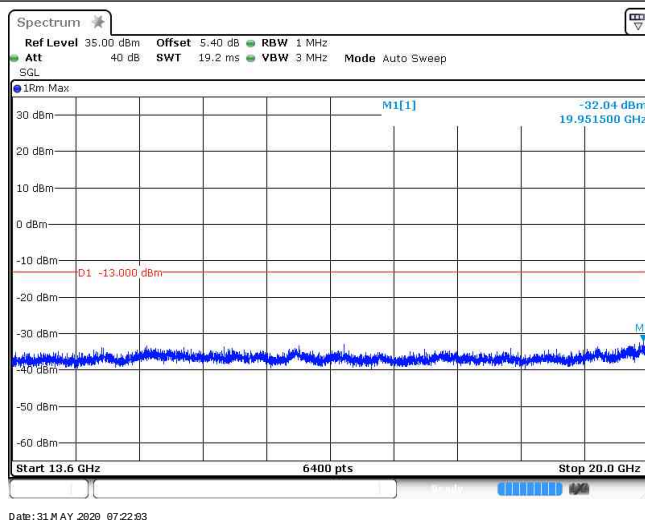
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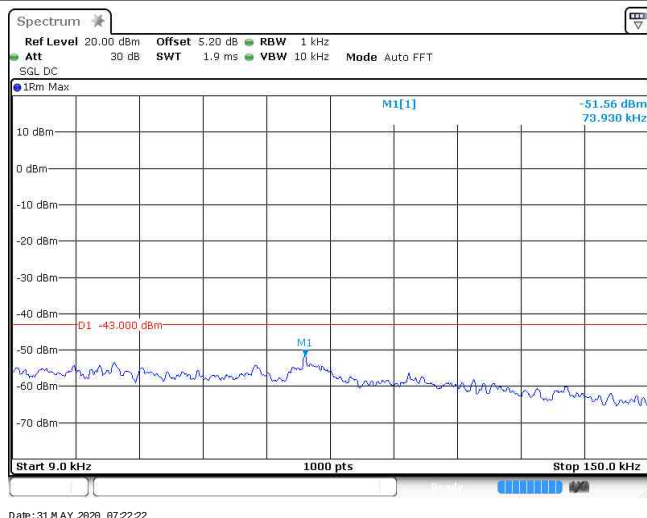


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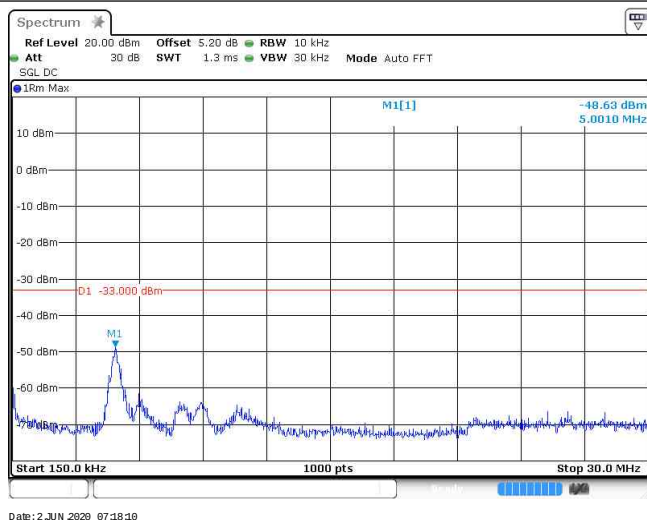




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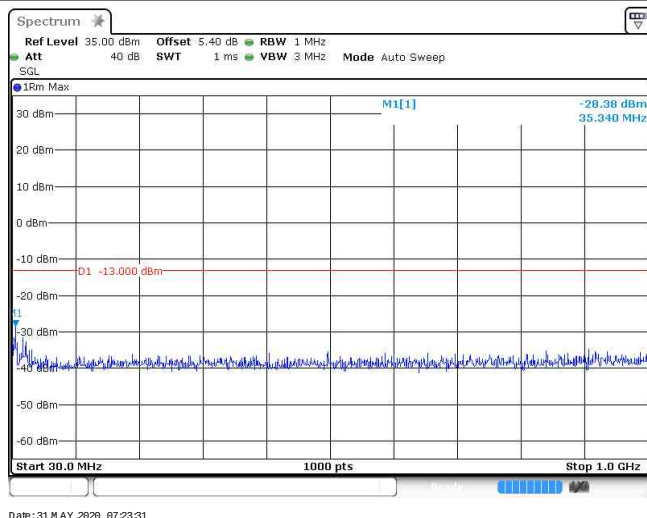


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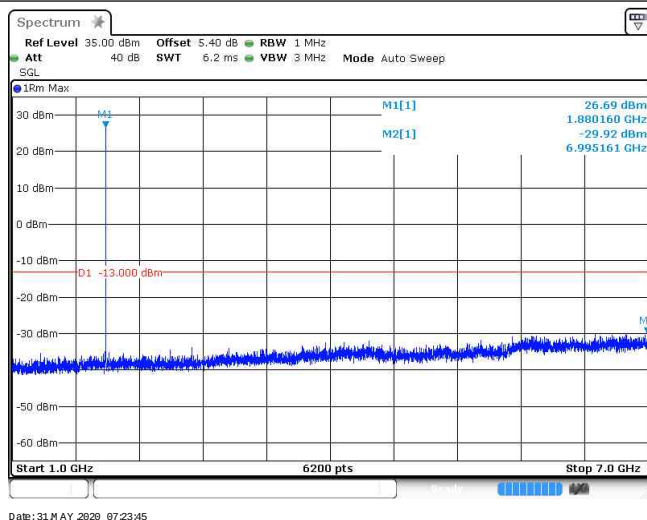




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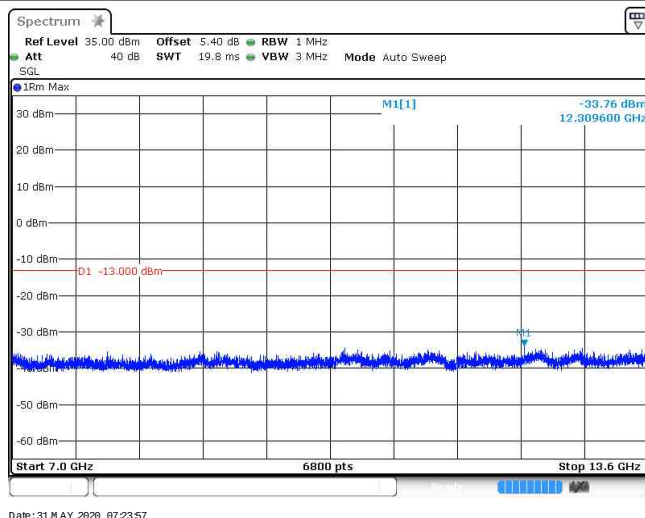
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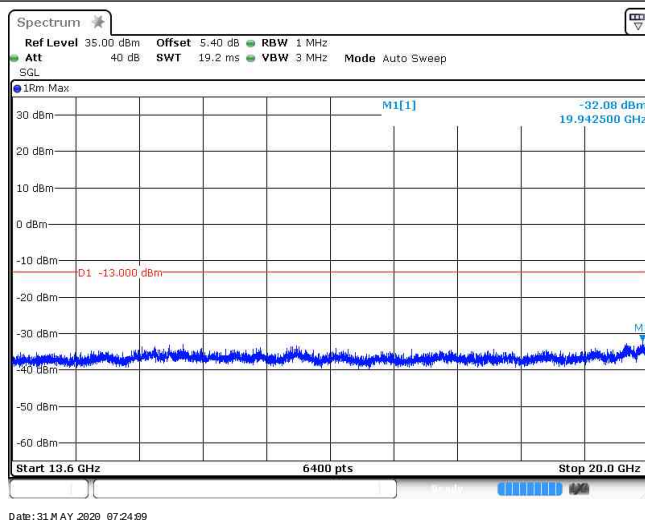
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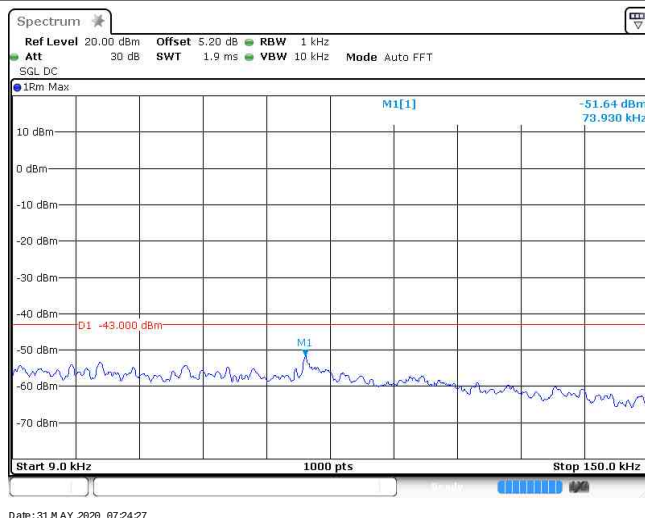


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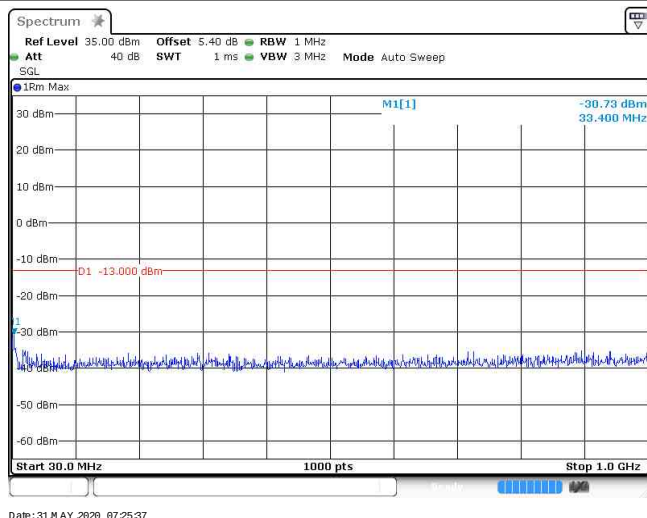


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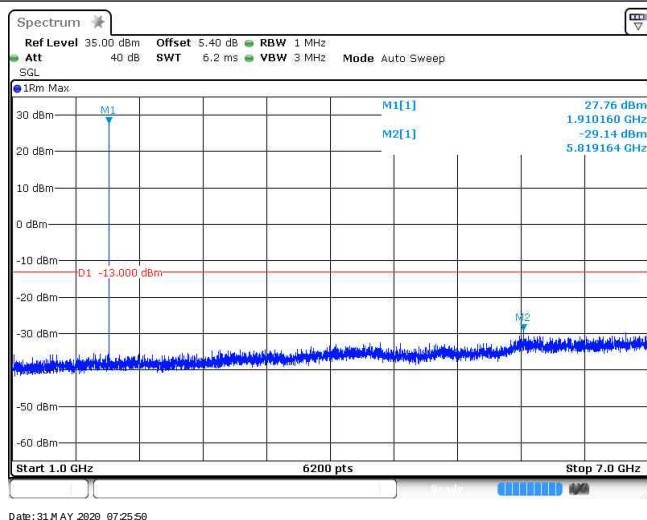




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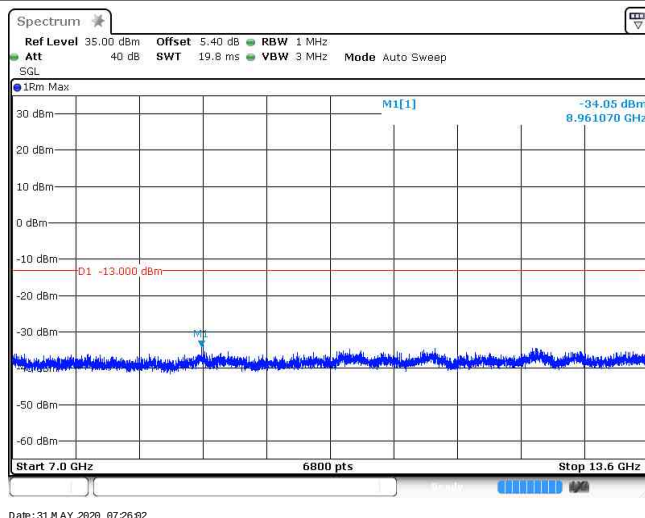
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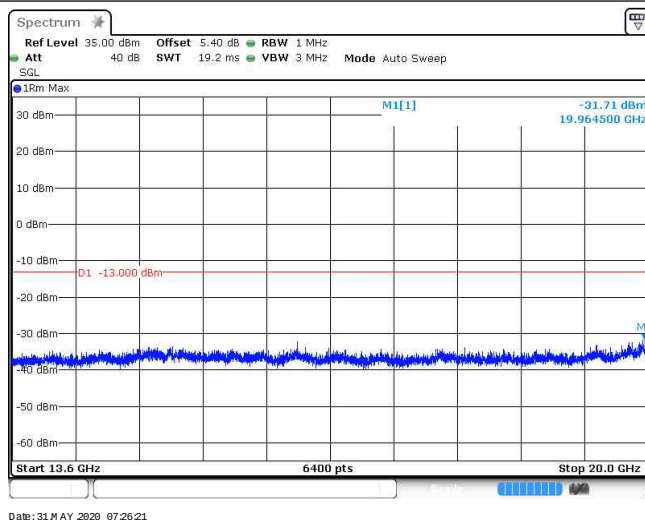
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EGPRS1900_810



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7. Field Strength of Spurious Radiation

7.1. Test Band = GSM 1900(Down Antenna)

7.1.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
65.114000	-60.71	-13.00	47.71	Vertical
191.990000	-76.57	-13.00	63.57	Vertical
929.675000	-71.23	-13.00	58.23	Vertical
3700.000000	-55.90	-13.00	42.90	Vertical
5550.450000	-41.66	-13.00	28.66	Vertical
10653.400000	-50.57	-13.00	37.57	Vertical
65.453500	-61.56	-13.00	48.56	Horizontal
192.038500	-68.03	-13.00	55.03	Horizontal
942.188000	-71.42	-13.00	58.42	Horizontal
3761.600000	-56.69	-13.00	43.69	Horizontal
5550.100000	-45.54	-13.00	32.54	Horizontal
7339.300000	-53.08	-13.00	40.08	Horizontal

7.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
65.065500	-60.39	-13.00	47.39	Vertical
191.844500	-77.54	-13.00	64.54	Vertical
955.040500	-71.16	-13.00	58.16	Vertical
3759.850000	-54.96	-13.00	41.96	Vertical
5639.700000	-40.44	-13.00	27.44	Vertical
10627.962500	-50.61	-13.00	37.61	Vertical
65.696000	-63.58	-13.00	50.58	Horizontal
191.844500	-68.93	-13.00	55.93	Horizontal
959.017500	-70.55	-13.00	57.55	Horizontal
3759.850000	-53.33	-13.00	40.33	Horizontal
5639.700000	-47.50	-13.00	34.50	Horizontal
7614.050000	-53.54	-13.00	40.54	Horizontal



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7.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
66.617500	-60.87	-13.00	47.87	Vertical
191.941500	-77.56	-13.00	64.56	Vertical
946.650000	-72.07	-13.00	59.07	Vertical
3957.950000	-57.33	-13.00	44.33	Vertical
5729.300000	-44.69	-13.00	31.69	Vertical
7962.300000	-52.75	-13.00	39.75	Vertical
65.065500	-62.24	-13.00	49.24	Horizontal
192.038500	-67.94	-13.00	54.94	Horizontal
942.430500	-71.66	-13.00	58.66	Horizontal
3819.000000	-51.14	-13.00	38.14	Horizontal
5728.950000	-48.03	-13.00	35.03	Horizontal
10610.225000	-49.94	-13.00	36.94	Horizontal

7.2. Test Band = GSM 850(Down Antenna)

7.2.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
65.647500	-60.35	-13.00	47.35	Vertical
191.941500	-76.19	-13.00	63.19	Vertical
1669.050000	-55.52	-13.00	42.52	Vertical
2462.250000	-50.46	-13.00	37.46	Vertical
4145.200000	-56.01	-13.00	43.01	Vertical
6519.600000	-54.58	-13.00	41.58	Vertical
65.599000	-62.74	-13.00	49.74	Horizontal
191.844500	-68.10	-13.00	55.10	Horizontal
1665.900000	-56.64	-13.00	43.64	Horizontal
2469.825000	-49.82	-13.00	36.82	Horizontal
4171.800000	-56.16	-13.00	43.16	Horizontal
5455.250000	-54.80	-13.00	41.80	Horizontal



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7.2.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
65.453500	-60.52	-13.00	47.52	Vertical
191.699000	-76.99	-13.00	63.99	Vertical
1625.700000	-56.24	-13.00	43.24	Vertical
2502.825000	-49.87	-13.00	36.87	Vertical
3457.100000	-57.38	-13.00	44.38	Vertical
4726.550000	-55.54	-13.00	42.54	Vertical
65.211000	-63.09	-13.00	50.09	Horizontal
191.844500	-67.39	-13.00	54.39	Horizontal
1623.075000	-56.69	-13.00	43.69	Horizontal
2546.775000	-50.68	-13.00	37.68	Horizontal
3285.600000	-57.90	-13.00	44.90	Horizontal
4327.900000	-55.06	-13.00	42.06	Horizontal

7.2.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
65.647500	-61.07	-13.00	48.07	Vertical
191.844500	-77.13	-13.00	64.13	Vertical
1673.475000	-56.56	-13.00	43.56	Vertical
2506.275000	-50.26	-13.00	37.26	Vertical
4185.800000	-56.38	-13.00	43.38	Vertical
6738.350000	-53.74	-13.00	40.74	Vertical
65.938500	-62.93	-13.00	49.93	Horizontal
191.844500	-67.93	-13.00	54.93	Horizontal
1761.000000	-55.20	-13.00	42.20	Horizontal
2603.925000	-50.32	-13.00	37.32	Horizontal
4297.100000	-55.45	-13.00	42.45	Horizontal
6867.500000	-53.20	-13.00	40.20	Horizontal



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7.3. Test Band = GSM 1900(Up Antenna)

7.3.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
65.647500	-61.52	-13.00	48.52	Vertical
191.893000	-76.98	-13.00	63.98	Vertical
935.252500	-71.61	-13.00	58.61	Vertical
3700.000000	-55.16	-13.00	42.16	Vertical
5550.450000	-41.49	-13.00	28.49	Vertical
10711.287500	-50.26	-13.00	37.26	Vertical
65.308000	-63.44	-13.00	50.44	Horizontal
192.087000	-67.97	-13.00	54.97	Horizontal
949.220500	-71.08	-13.00	58.08	Horizontal
3700.000000	-54.59	-13.00	41.59	Horizontal
5550.800000	-39.49	-13.00	26.49	Horizontal
7836.650000	-52.90	-13.00	39.90	Horizontal

7.3.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
65.696000	-60.42	-13.00	47.42	Vertical
191.941500	-77.69	-13.00	64.69	Vertical
951.597000	-71.22	-13.00	58.22	Vertical
3828.100000	-56.99	-13.00	43.99	Vertical
5639.700000	-41.50	-13.00	28.50	Vertical
10470.662500	-50.32	-13.00	37.32	Vertical
66.084000	-63.15	-13.00	50.15	Horizontal
192.087000	-68.19	-13.00	55.19	Horizontal
969.251000	-71.05	-13.00	58.05	Horizontal
3760.200000	-54.16	-13.00	41.16	Horizontal
5639.700000	-43.92	-13.00	30.92	Horizontal
7964.750000	-52.72	-13.00	39.72	Horizontal



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7.3.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
65.550500	-62.36	-13.00	49.36	Vertical
191.941500	-77.71	-13.00	64.71	Vertical
948.638500	-71.61	-13.00	58.61	Vertical
3819.350000	-53.62	-13.00	40.62	Vertical
5729.650000	-46.13	-13.00	33.13	Vertical
10622.462500	-50.81	-13.00	37.81	Vertical
65.453500	-63.67	-13.00	50.67	Horizontal
191.990000	-67.70	-13.00	54.70	Horizontal
951.791000	-70.71	-13.00	57.71	Horizontal
3819.350000	-52.53	-13.00	39.53	Horizontal
5730.000000	-43.47	-13.00	30.47	Horizontal
7854.500000	-52.41	-13.00	39.41	Horizontal

7.4. Test Band = GSM 850(Up Antenna)

7.4.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
66.375000	-62.32	-13.00	49.32	Vertical
191.893000	-78.26	-13.00	65.26	Vertical
612.679000	-77.75	-13.00	64.75	Vertical
1621.425000	-56.53	-13.00	43.53	Vertical
2599.575000	-49.98	-13.00	36.98	Vertical
3357.000000	-57.41	-13.00	44.41	Vertical
65.453500	-63.44	-13.00	50.44	Horizontal
191.844500	-68.65	-13.00	55.65	Horizontal
1672.050000	-56.40	-13.00	43.40	Horizontal
2597.850000	-50.25	-13.00	37.25	Horizontal
4348.550000	-55.69	-13.00	42.69	Horizontal
6765.650000	-53.86	-13.00	40.86	Horizontal



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7.4.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
66.472000	-60.78	-13.00	47.78	Vertical
191.990000	-78.37	-13.00	65.37	Vertical
607.392500	-78.31	-13.00	65.31	Vertical
1670.775000	-56.48	-13.00	43.48	Vertical
2589.750000	-48.64	-13.00	35.64	Vertical
4187.550000	-55.73	-13.00	42.73	Vertical
65.599000	-62.43	-13.00	49.43	Horizontal
192.038500	-67.81	-13.00	54.81	Horizontal
1719.300000	-54.69	-13.00	41.69	Horizontal
2464.125000	-50.87	-13.00	37.87	Horizontal
4235.150000	-55.23	-13.00	42.23	Horizontal
6511.900000	-54.37	-13.00	41.37	Horizontal

7.4.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
65.162500	-61.67	-13.00	48.67	Vertical
191.941500	-78.62	-13.00	65.62	Vertical
1677.375000	-56.06	-13.00	43.06	Vertical
2552.700000	-50.37	-13.00	37.37	Vertical
4210.650000	-56.37	-13.00	43.37	Vertical
6433.150000	-54.36	-13.00	41.36	Vertical
65.308000	-64.41	-13.00	51.41	Horizontal
191.844500	-68.43	-13.00	55.43	Horizontal
1668.750000	-56.88	-13.00	43.88	Horizontal
2600.700000	-50.18	-13.00	37.18	Horizontal
4365.350000	-55.61	-13.00	42.61	Horizontal
6541.650000	-54.53	-13.00	41.53	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.





8. Frequency Stability

8.1. Frequency Error Vs Voltage

Voltage							
BAND	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM850	128	VL	TN	10.10	0.012254	±2.5	PASS
GSM850	128	VN	TN	-4.98	-0.006048	±2.5	PASS
GSM850	128	VH	TN	2.83	0.003437	±2.5	PASS
GSM850	190	VL	TN	8.69	0.010388	±2.5	PASS
GSM850	190	VN	TN	-2.61	-0.003115	±2.5	PASS
GSM850	190	VH	TN	-11.36	-0.013573	±2.5	PASS
GSM850	251	VL	TN	4.41	0.005192	±2.5	PASS
GSM850	251	VN	TN	2.85	0.003358	±2.5	PASS
GSM850	251	VH	TN	13.12	0.015460	±2.5	PASS
EGPRS850	128	VL	TN	-12.35	-0.014982	±2.5	PASS
EGPRS850	128	VN	TN	1.97	0.002393	±2.5	PASS
EGPRS850	128	VH	TN	-14.90	-0.018083	±2.5	PASS
EGPRS850	190	VL	TN	2.89	0.003456	±2.5	PASS
EGPRS850	190	VN	TN	5.99	0.007165	±2.5	PASS
EGPRS850	190	VH	TN	2.36	0.002821	±2.5	PASS
EGPRS850	251	VL	TN	5.92	0.006971	±2.5	PASS
EGPRS850	251	VN	TN	4.36	0.005140	±2.5	PASS
EGPRS850	251	VH	TN	-10.05	-0.011842	±2.5	PASS
GSM1900	512	VL	TN	-2.84	-0.001534	±2.5	PASS
GSM1900	512	VN	TN	-7.74	-0.004181	±2.5	PASS
GSM1900	512	VH	TN	-7.85	-0.004245	±2.5	PASS
GSM1900	661	VL	TN	-5.50	-0.002928	±2.5	PASS
GSM1900	661	VN	TN	-3.94	-0.002097	±2.5	PASS
GSM1900	661	VH	TN	2.77	0.001472	±2.5	PASS
GSM1900	810	VL	TN	4.75	0.002488	±2.5	PASS
GSM1900	810	VN	TN	-10.65	-0.005577	±2.5	PASS
GSM1900	810	VH	TN	-6.57	-0.003438	±2.5	PASS
EGPRS1900	512	VL	TN	-5.66	-0.003059	±2.5	PASS
EGPRS1900	512	VN	TN	-14.79	-0.007995	±2.5	PASS
EGPRS1900	512	VH	TN	4.09	0.002211	±2.5	PASS



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EGPRS1900	661	VL	TN	9.07	0.004825	±2.5	PASS
EGPRS1900	661	VN	TN	-9.96	-0.005296	±2.5	PASS
EGPRS1900	661	VH	TN	0.81	0.000429	±2.5	PASS
EGPRS1900	810	VL	TN	5.17	0.002708	±2.5	PASS
EGPRS1900	810	VN	TN	-0.55	-0.000290	±2.5	PASS
EGPRS1900	810	VH	TN	2.43	0.001274	±2.5	PASS

8.2.Frequency Error Vs Temperature

Temperature							
BAND	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM850	128	VN	-30	11.20	0.013589	±2.5	PASS
GSM850	128	VN	-20	3.34	0.004052	±2.5	PASS
GSM850	128	VN	-10	11.08	0.013445	±2.5	PASS
GSM850	128	VN	0	-10.38	-0.012594	±2.5	PASS
GSM850	128	VN	10	-0.84	-0.001014	±2.5	PASS
GSM850	128	VN	20	11.92	0.014462	±2.5	PASS
GSM850	128	VN	30	7.66	0.009299	±2.5	PASS
GSM850	128	VN	40	0.75	0.000913	±2.5	PASS
GSM850	128	VN	50	10.05	0.012194	±2.5	PASS
GSM850	190	VN	-30	5.35	0.006394	±2.5	PASS
GSM850	190	VN	-20	13.77	0.016457	±2.5	PASS
GSM850	190	VN	-10	1.91	0.002280	±2.5	PASS
GSM850	190	VN	0	-1.71	-0.002045	±2.5	PASS
GSM850	190	VN	10	11.85	0.014164	±2.5	PASS
GSM850	190	VN	20	1.11	0.001323	±2.5	PASS
GSM850	190	VN	30	-10.29	-0.012298	±2.5	PASS
GSM850	190	VN	40	13.66	0.016330	±2.5	PASS
GSM850	190	VN	50	-12.59	-0.015051	±2.5	PASS
GSM850	251	VN	-30	-1.31	-0.001547	±2.5	PASS
GSM850	251	VN	-20	7.84	0.009240	±2.5	PASS
GSM850	251	VN	-10	-8.73	-0.010290	±2.5	PASS
GSM850	251	VN	0	1.21	0.001429	±2.5	PASS
GSM850	251	VN	10	2.39	0.002815	±2.5	PASS
GSM850	251	VN	20	-9.25	-0.010899	±2.5	PASS
GSM850	251	VN	30	-8.92	-0.010514	±2.5	PASS



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GSM850	251	VN	40	10.24	0.012069	±2.5	PASS
GSM850	251	VN	50	6.22	0.007323	±2.5	PASS
EGPRS850	128	VN	-30	3.90	0.004734	±2.5	PASS
EGPRS850	128	VN	-20	-5.64	-0.006842	±2.5	PASS
EGPRS850	128	VN	-10	-1.23	-0.001498	±2.5	PASS
EGPRS850	128	VN	0	-1.33	-0.001618	±2.5	PASS
EGPRS850	128	VN	10	4.78	0.005803	±2.5	PASS
EGPRS850	128	VN	20	-1.43	-0.001735	±2.5	PASS
EGPRS850	128	VN	30	3.56	0.004316	±2.5	PASS
EGPRS850	128	VN	40	4.35	0.005274	±2.5	PASS
EGPRS850	128	VN	50	1.41	0.001711	±2.5	PASS
EGPRS850	190	VN	-30	-7.79	-0.009315	±2.5	PASS
EGPRS850	190	VN	-20	-0.23	-0.000272	±2.5	PASS
EGPRS850	190	VN	-10	-7.72	-0.009227	±2.5	PASS
EGPRS850	190	VN	0	2.27	0.002709	±2.5	PASS
EGPRS850	190	VN	10	-10.23	-0.012227	±2.5	PASS
EGPRS850	190	VN	20	-9.18	-0.010975	±2.5	PASS
EGPRS850	190	VN	30	9.99	0.011943	±2.5	PASS
EGPRS850	190	VN	40	-14.02	-0.016753	±2.5	PASS
EGPRS850	190	VN	50	9.77	0.011683	±2.5	PASS
EGPRS850	251	VN	-30	-11.73	-0.013823	±2.5	PASS
EGPRS850	251	VN	-20	-7.28	-0.008577	±2.5	PASS
EGPRS850	251	VN	-10	-13.57	-0.015984	±2.5	PASS
EGPRS850	251	VN	0	-5.70	-0.006710	±2.5	PASS
EGPRS850	251	VN	10	-7.77	-0.009153	±2.5	PASS
EGPRS850	251	VN	20	11.19	0.013183	±2.5	PASS
EGPRS850	251	VN	30	0.65	0.000766	±2.5	PASS
EGPRS850	251	VN	40	-4.23	-0.004982	±2.5	PASS
EGPRS850	251	VN	50	-13.78	-0.016232	±2.5	PASS
GSM1900	512	VN	-30	5.31	0.002870	±2.5	PASS
GSM1900	512	VN	-20	8.89	0.004807	±2.5	PASS
GSM1900	512	VN	-10	5.61	0.003033	±2.5	PASS
GSM1900	512	VN	0	-10.98	-0.005937	±2.5	PASS
GSM1900	512	VN	10	-10.49	-0.005669	±2.5	PASS
GSM1900	512	VN	20	-2.15	-0.001160	±2.5	PASS
GSM1900	512	VN	30	1.79	0.000965	±2.5	PASS
GSM1900	512	VN	40	6.79	0.003671	±2.5	PASS



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GSM1900	512	VN	50	-11.55	-0.006242	±2.5	PASS
GSM1900	661	VN	-30	11.61	0.006177	±2.5	PASS
GSM1900	661	VN	-20	3.15	0.001676	±2.5	PASS
GSM1900	661	VN	-10	2.71	0.001439	±2.5	PASS
GSM1900	661	VN	0	-13.95	-0.007420	±2.5	PASS
GSM1900	661	VN	10	1.41	0.000751	±2.5	PASS
GSM1900	661	VN	20	11.51	0.006125	±2.5	PASS
GSM1900	661	VN	30	-10.16	-0.005406	±2.5	PASS
GSM1900	661	VN	40	-14.94	-0.007949	±2.5	PASS
GSM1900	661	VN	50	-6.66	-0.003544	±2.5	PASS
GSM1900	810	VN	-30	7.97	0.004176	±2.5	PASS
GSM1900	810	VN	-20	-8.30	-0.004347	±2.5	PASS
GSM1900	810	VN	-10	-0.16	-0.000083	±2.5	PASS
GSM1900	810	VN	0	-14.78	-0.007738	±2.5	PASS
GSM1900	810	VN	10	8.87	0.004644	±2.5	PASS
GSM1900	810	VN	20	-1.22	-0.000638	±2.5	PASS
GSM1900	810	VN	30	-1.65	-0.000865	±2.5	PASS
GSM1900	810	VN	40	-12.48	-0.006533	±2.5	PASS
GSM1900	810	VN	50	0.28	0.000148	±2.5	PASS
EGPRS1900	512	VN	-30	-2.60	-0.001403	±2.5	PASS
EGPRS1900	512	VN	-20	-1.48	-0.000802	±2.5	PASS
EGPRS1900	512	VN	-10	-3.37	-0.001822	±2.5	PASS
EGPRS1900	512	VN	0	-14.87	-0.008037	±2.5	PASS
EGPRS1900	512	VN	10	6.46	0.003493	±2.5	PASS
EGPRS1900	512	VN	20	11.29	0.006103	±2.5	PASS
EGPRS1900	512	VN	30	7.83	0.004233	±2.5	PASS
EGPRS1900	512	VN	40	0.46	0.000251	±2.5	PASS
EGPRS1900	512	VN	50	-5.03	-0.002718	±2.5	PASS
EGPRS1900	661	VN	-30	11.90	0.006330	±2.5	PASS
EGPRS1900	661	VN	-20	-5.64	-0.002998	±2.5	PASS
EGPRS1900	661	VN	-10	-13.63	-0.007251	±2.5	PASS
EGPRS1900	661	VN	0	-6.76	-0.003594	±2.5	PASS
EGPRS1900	661	VN	10	-11.24	-0.005979	±2.5	PASS
EGPRS1900	661	VN	20	-6.75	-0.003592	±2.5	PASS
EGPRS1900	661	VN	30	-11.64	-0.006189	±2.5	PASS
EGPRS1900	661	VN	40	-10.58	-0.005630	±2.5	PASS
EGPRS1900	661	VN	50	5.38	0.002861	±2.5	PASS



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EGPRS1900	810	VN	-30	0.24	0.000128	±2.5	PASS
EGPRS1900	810	VN	-20	9.96	0.005214	±2.5	PASS
EGPRS1900	810	VN	-10	7.94	0.004159	±2.5	PASS
EGPRS1900	810	VN	0	3.71	0.001941	±2.5	PASS
EGPRS1900	810	VN	10	-6.25	-0.003273	±2.5	PASS
EGPRS1900	810	VN	20	-1.33	-0.000697	±2.5	PASS
EGPRS1900	810	VN	30	-11.86	-0.006209	±2.5	PASS
EGPRS1900	810	VN	40	6.06	0.003171	±2.5	PASS
EGPRS1900	810	VN	50	-14.41	-0.007546	±2.5	PASS

The End



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