



Appendix B

GSM850&1900



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1. Effective (Isotropic) Radiated Power Output Data

1.1. Test Result

BAND	Channel	Power(dBm)	ERP(dBm)	Limit(dBm)	Verdict
GSM850	128	32.34	27.43	38.45	PASS
GSM850	190	32.43	27.52	38.45	PASS
GSM850	251	32.31	27.4	38.45	PASS
EGPRS850	128	24.88	19.97	38.45	PASS
EGPRS850	190	24.97	20.06	38.45	PASS
EGPRS850	251	25.54	20.63	38.45	PASS

BAND	Channel	Power(dBm)	EIRP(dBm)	Limit(dBm)	Verdict
GSM1900	512	27.91	26.48	33.00	PASS
GSM1900	661	27.89	26.46	33.00	PASS
GSM1900	810	27.86	26.43	33.00	PASS
EGPRS1900	512	23.08	21.65	33.00	PASS
EGPRS1900	661	23.10	21.67	33.00	PASS
EGPRS1900	810	23.12	21.69	33.00	PASS

Note:

a: For getting the ERP (Efficient Radiated Power) in substitution method, the following formula should be taken to calculate it,

$$\text{ERP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBd]}$$

$$\text{EIRP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBi]}$$

b: SGP=Signal Generator Level



2. Peak-to-Average Ratio

2.1. Test Result

BAND	Channel	Peak-to-Average Ratio(dB)	Limit(dB)	Verdict
GSM850	128	7.71	13	PASS
GSM850	190	7.71	13	PASS
GSM850	251	7.71	13	PASS
EGPRS850	128	10.20	13	PASS
EGPRS850	190	10.23	13	PASS
EGPRS850	251	10.38	13	PASS
GSM1900	512	7.68	13	PASS
GSM1900	661	7.71	13	PASS
GSM1900	810	7.71	13	PASS
EGPRS1900	512	10.84	13	PASS
EGPRS1900	661	10.99	13	PASS
EGPRS1900	810	10.70	13	PASS

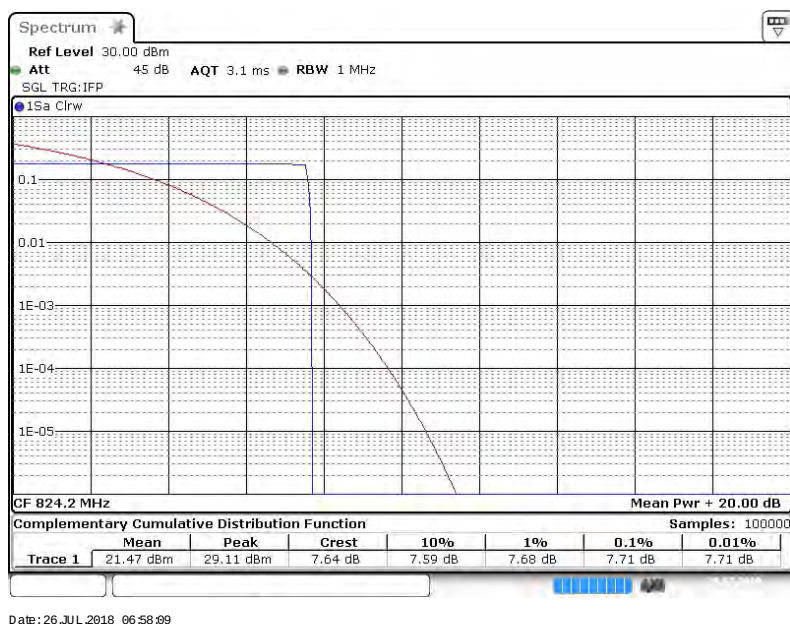
Part II - Test Plots

2.2. For GSM

2.2.1. Test Band = GSM 850

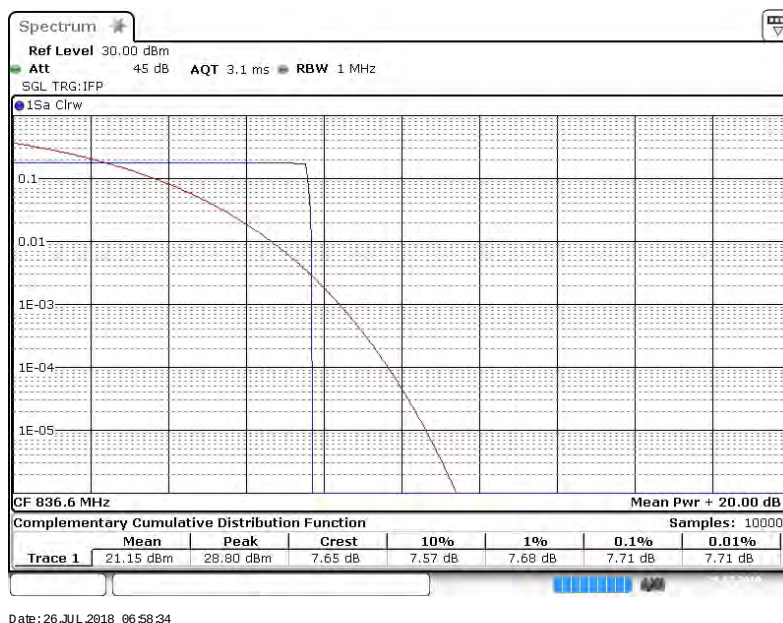
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2.2.1.1.1. Test Channel = LCH

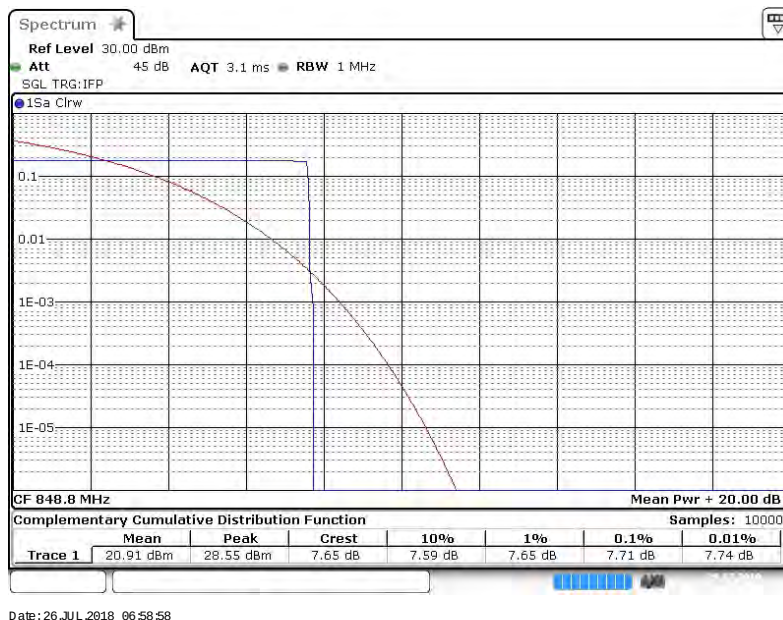




2.2.1.1.2. Test Channel = MCH



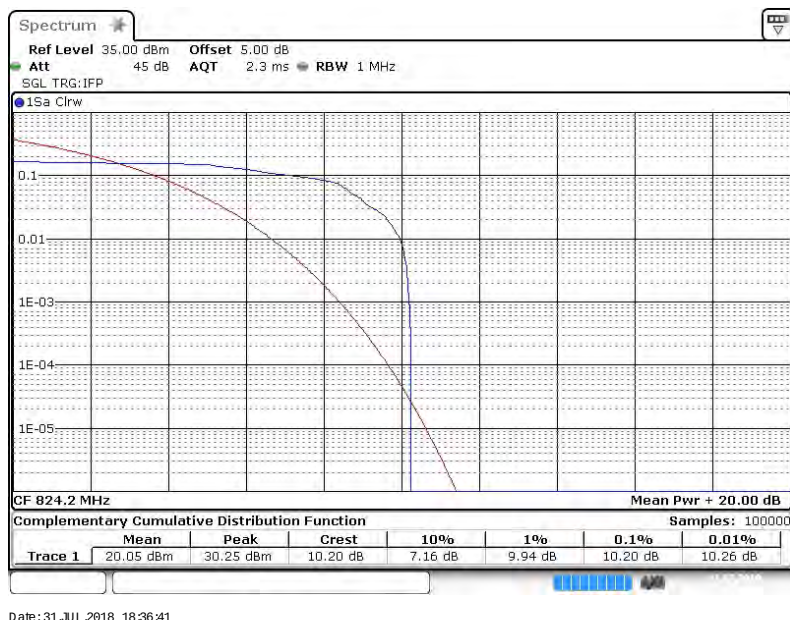
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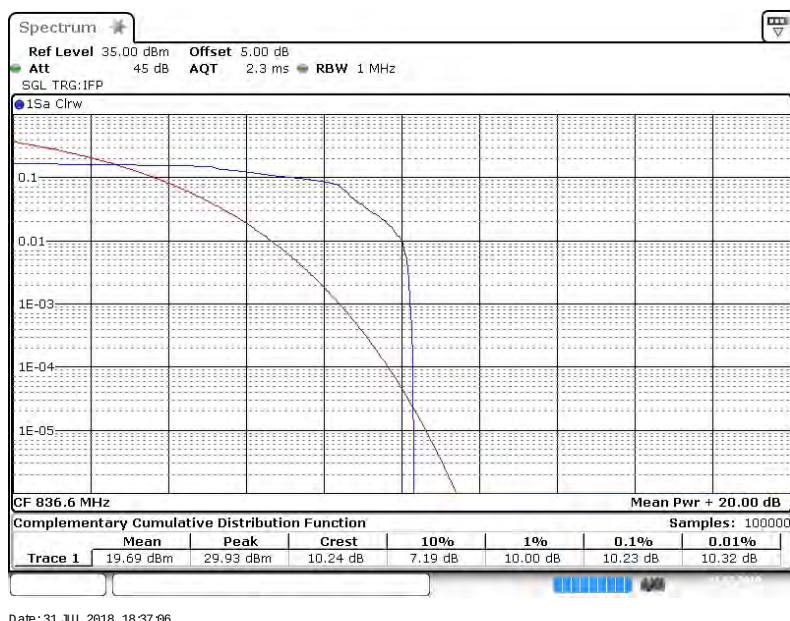


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2.2.1.2.1. Test Channel = LCH

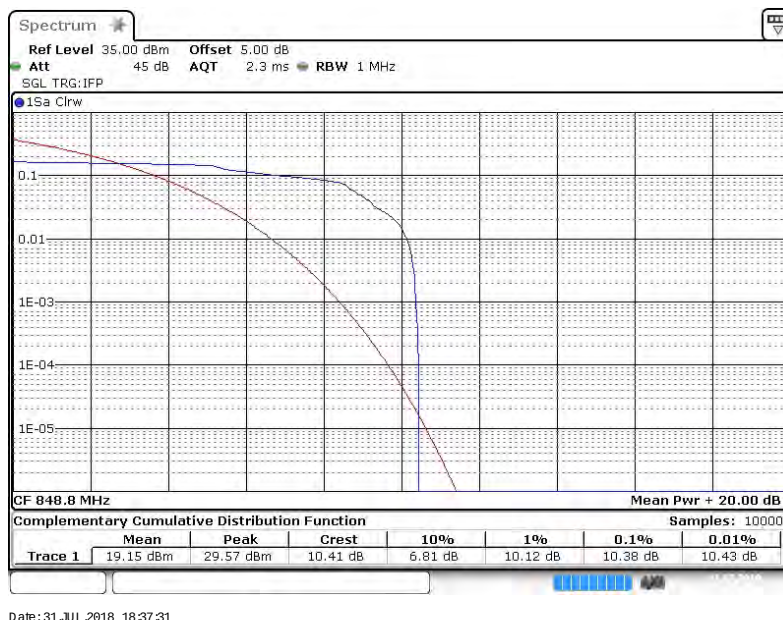


2.2.1.2.2. Test Channel = MCH





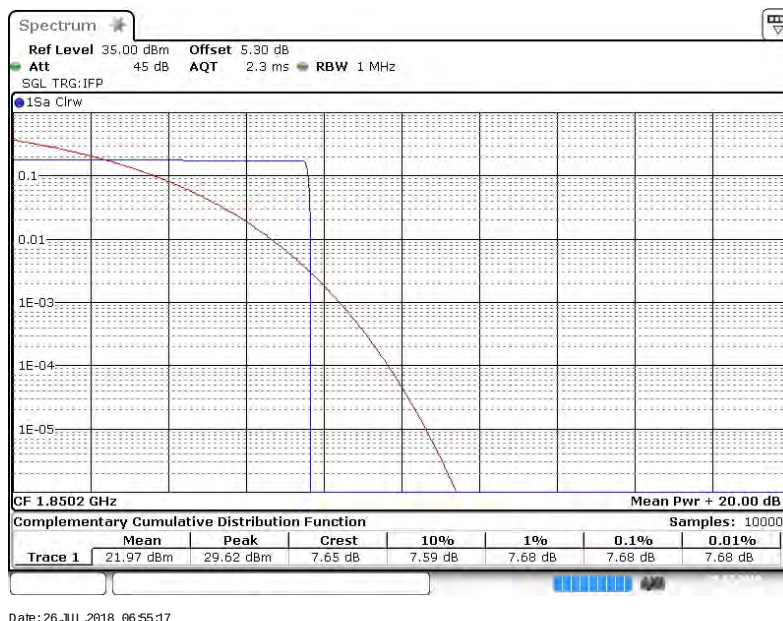
2.2.1.2.3. Test Channel = HCH



2.2.2. Test Band = GSM 1900

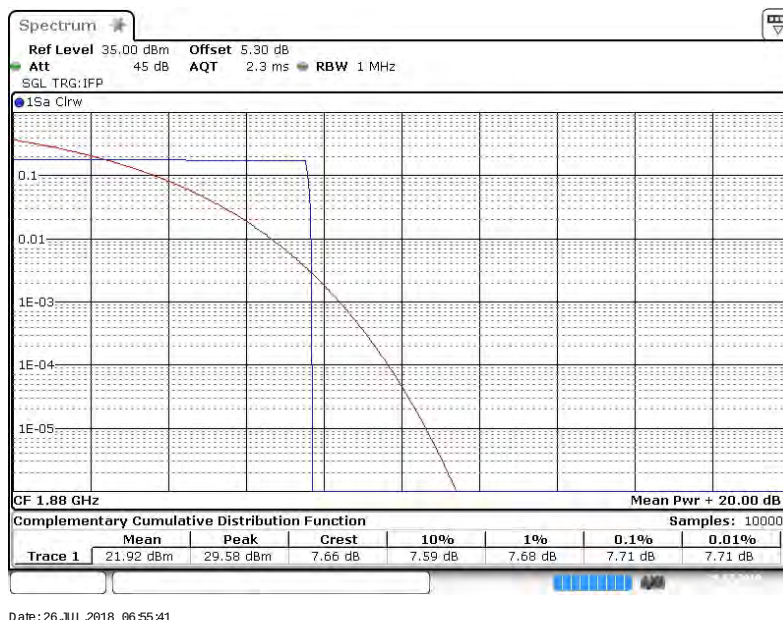
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2.2.2.1.1. Test Channel = LCH

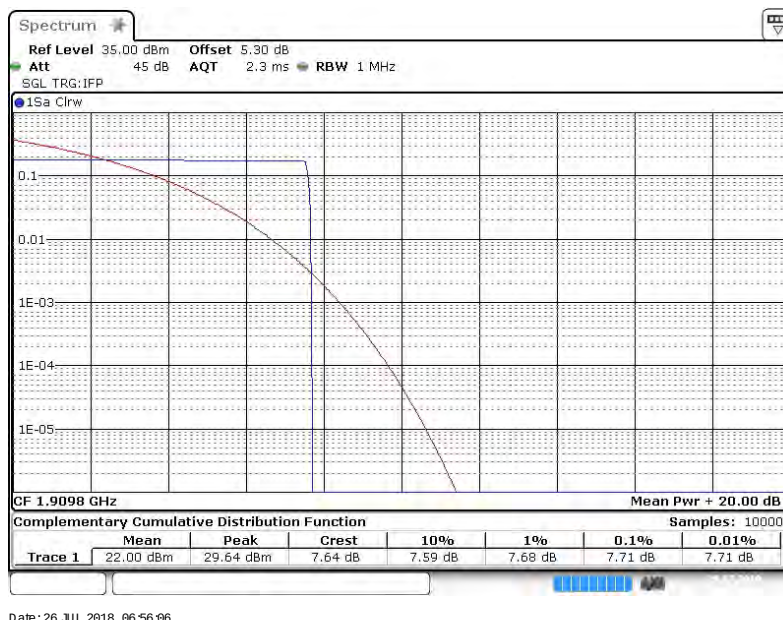




2.2.2.1.2. Test Channel = MCH



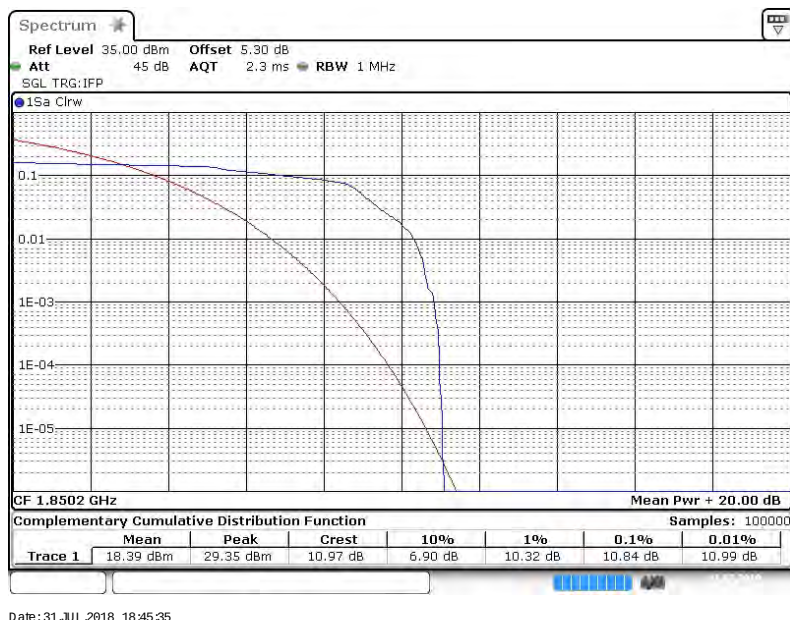
2.2.2.1.3. Test Channel = HCH



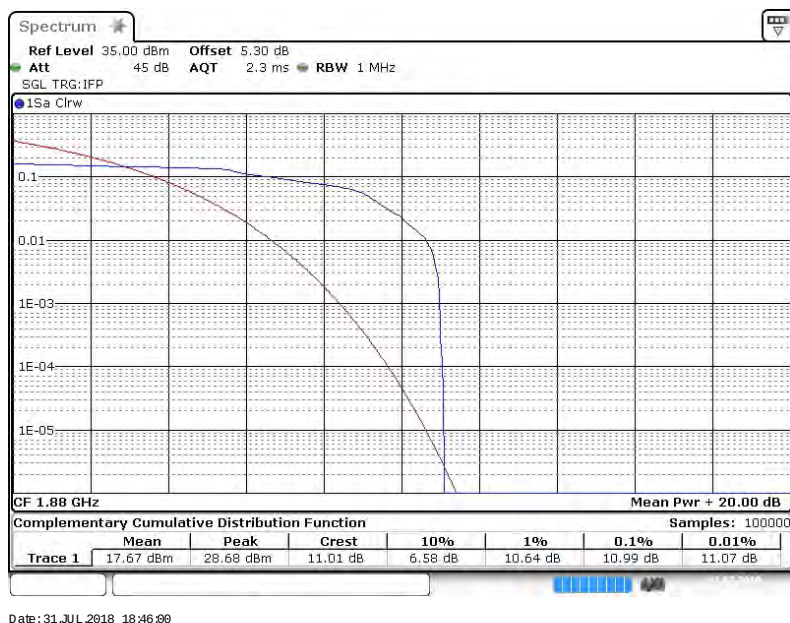


2.2.2.2. Test Mode = GSM/TM2

2.2.2.2.1. Test Channel = LCH

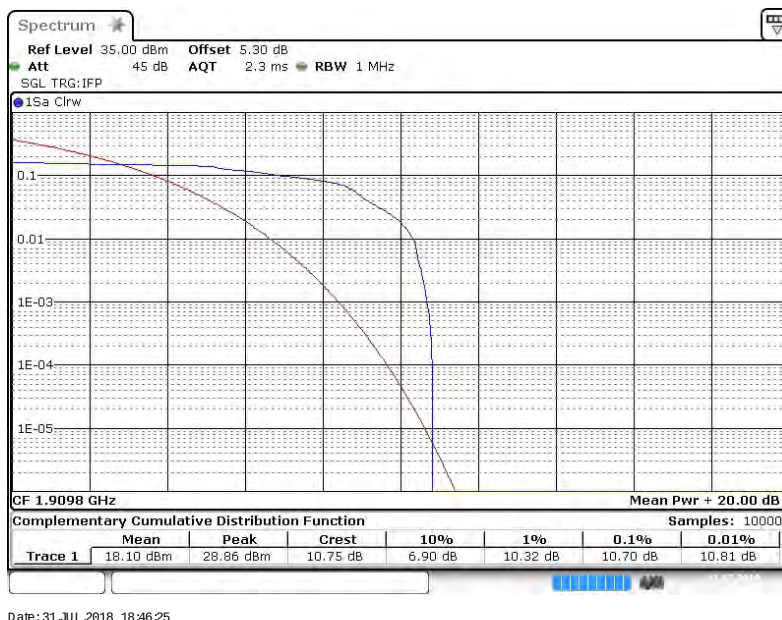


2.2.2.2.2. Test Channel = MCH





2.2.2.2.3. Test Channel = HCH





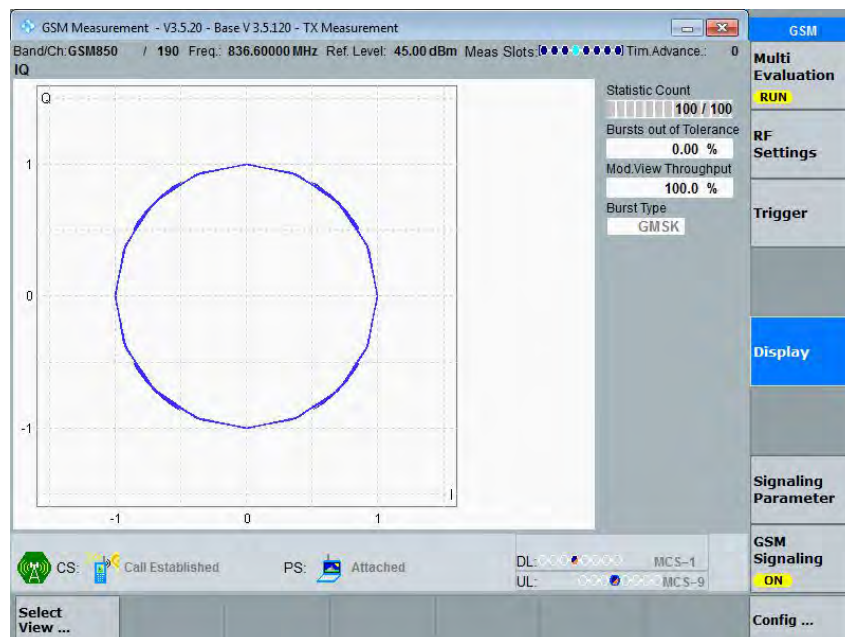
3. Modulation Characteristics

3.1. For GSM

3.1.1. Test BAND = GSM 850

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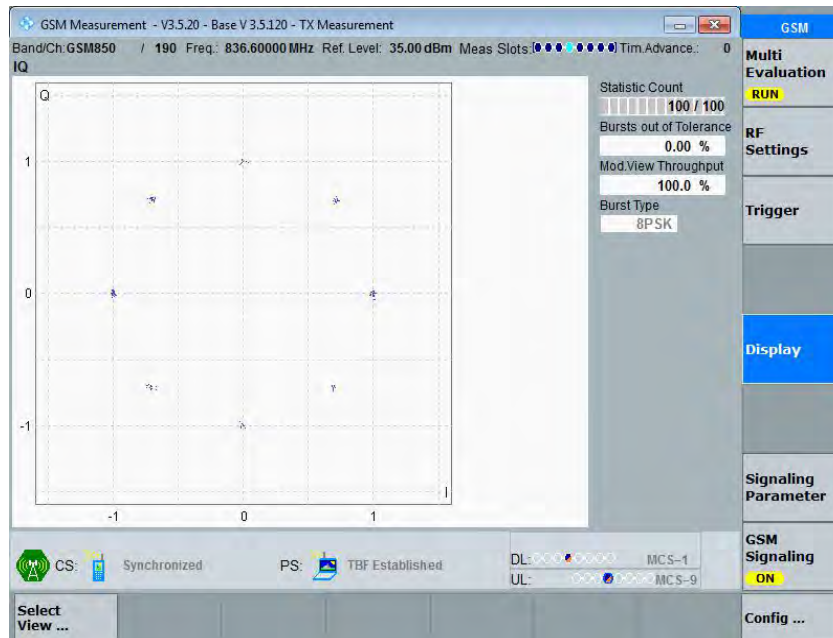
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3.1.1.2. Test Mode = GSM/TM2

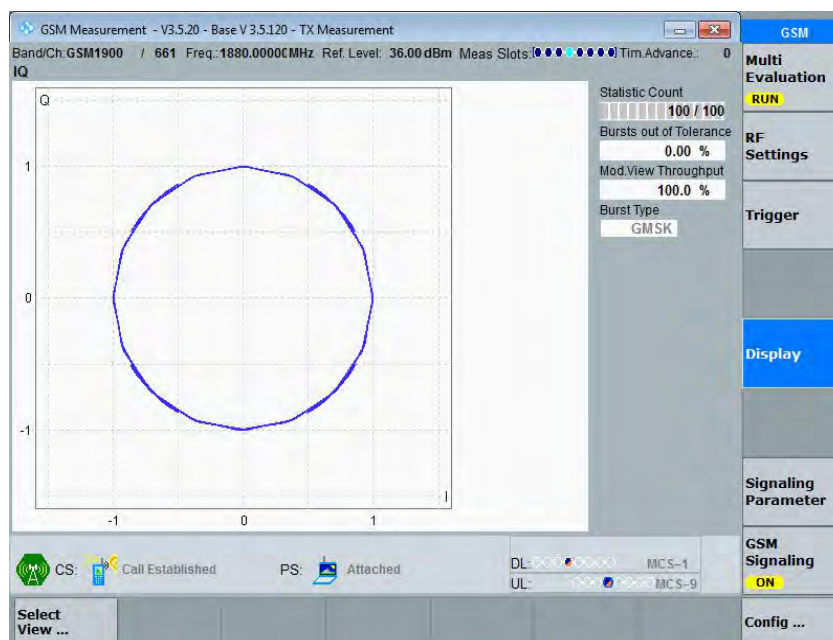
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3.1.2. Test BAND = GSM 1900

3.1.2.1. Test Mode = GSM/TM1

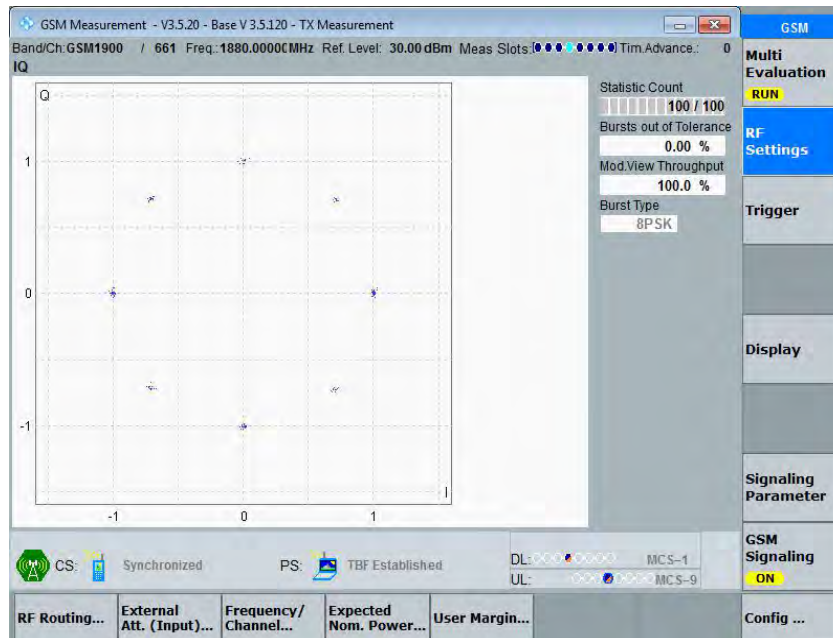
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3.1.2.2. Test Mode = GSM/TM2

3.1.2.2.1. Test Channel = MCH



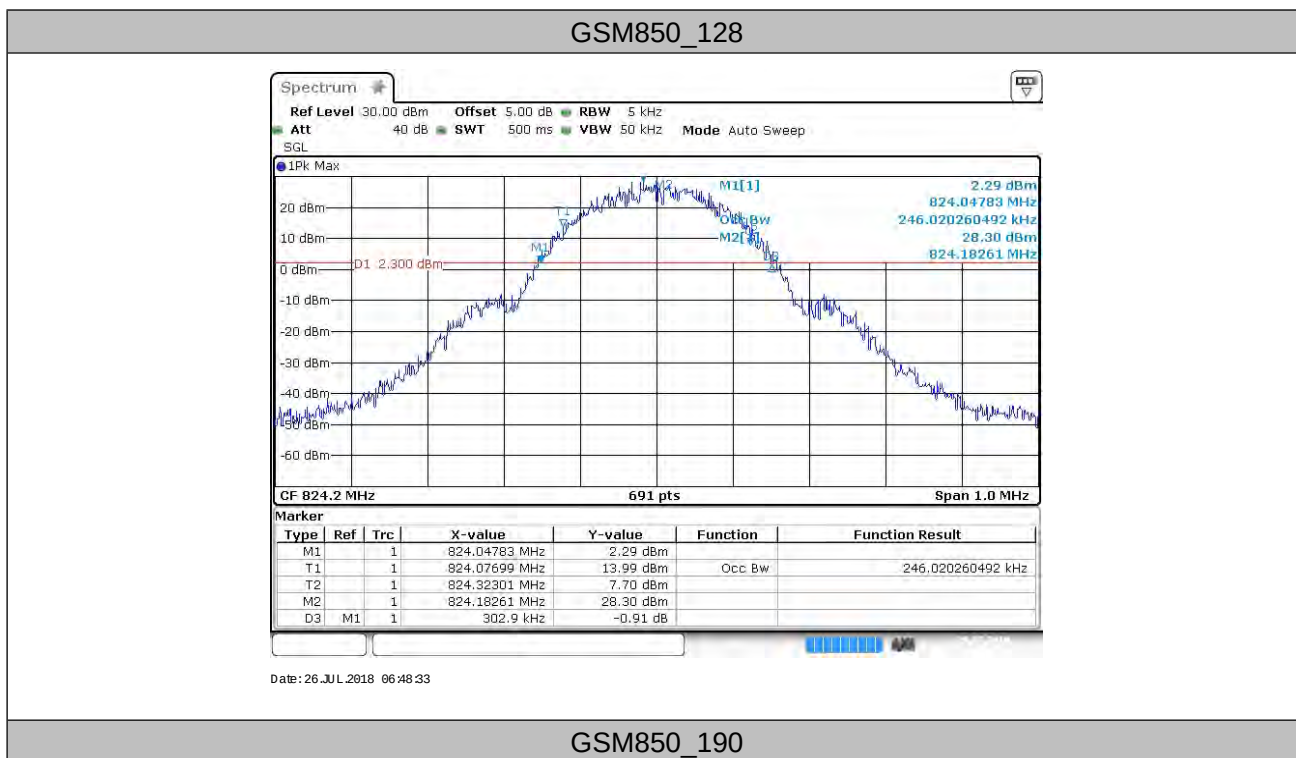


4. 26dB Bandwidth and Occupied Bandwidth

4.1. Test Result

BAND	Channel	Occupied Bandwidth (kHz)	26dB Bandwidth (kHz)	Limit(kHz)	Verdict
GSM850	128	246.02	302.90	---	PASS
GSM850	190	244.57	298.55	---	PASS
GSM850	251	246.02	304.35	---	PASS
EGPRS850	128	250.36	307.25	---	PASS
EGPRS850	190	253.26	310.14	---	PASS
EGPRS850	251	256.15	308.70	---	PASS
GSM1900	512	243.13	295.65	---	PASS
GSM1900	661	240.23	304.35	---	PASS
GSM1900	810	243.13	307.25	---	PASS
EGPRS1900	512	253.26	307.25	---	PASS
EGPRS1900	661	246.02	302.90	---	PASS
EGPRS1900	810	250.36	295.65	---	PASS

4.2. Test Plots

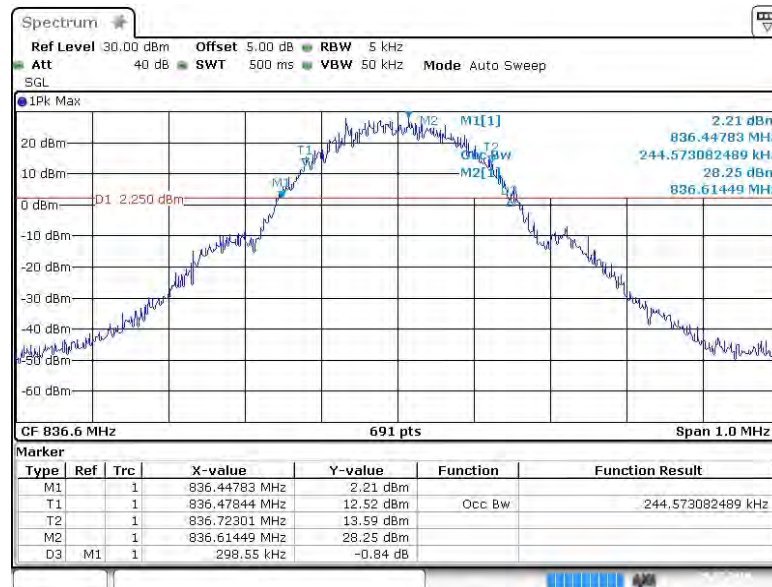




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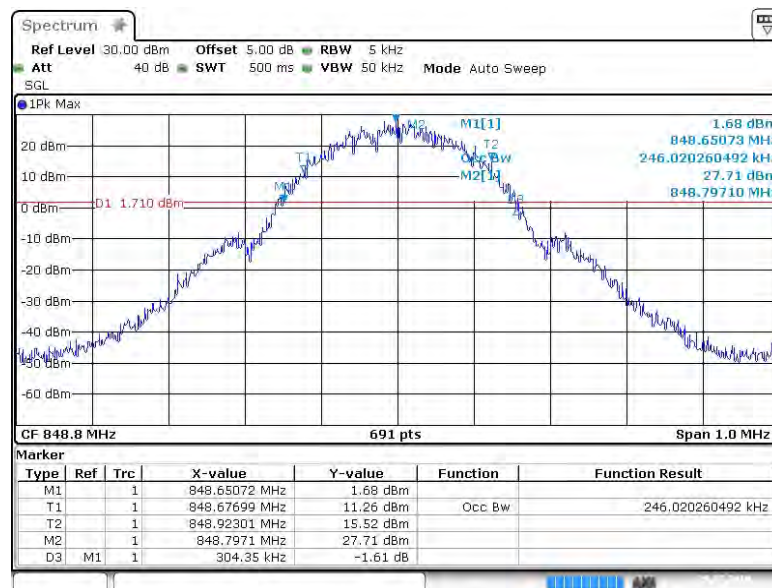
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GSM850_251



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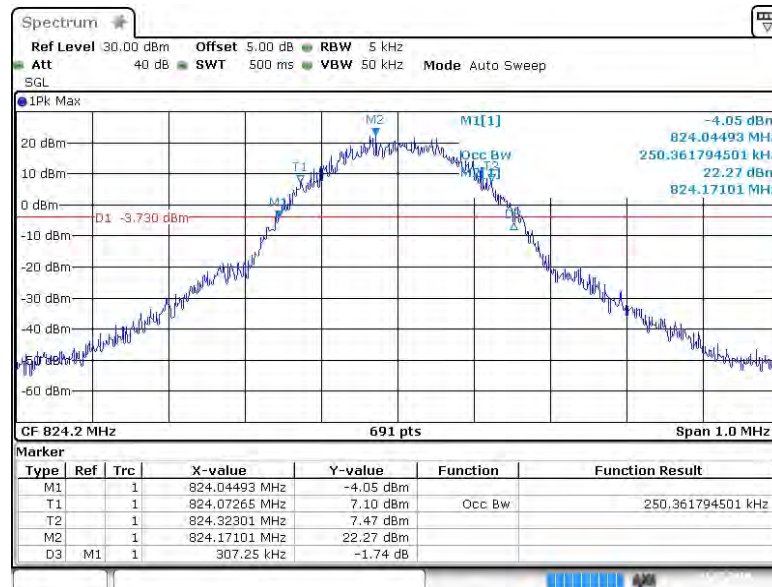
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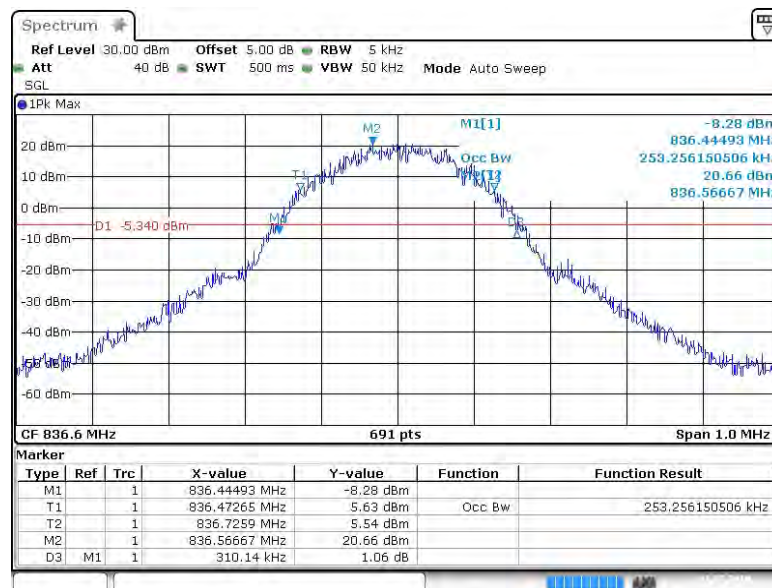
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EGPRS850_190



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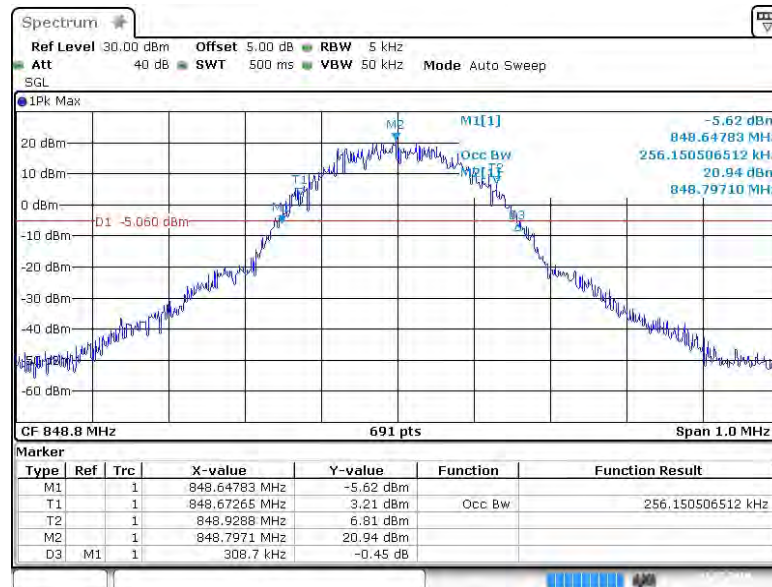
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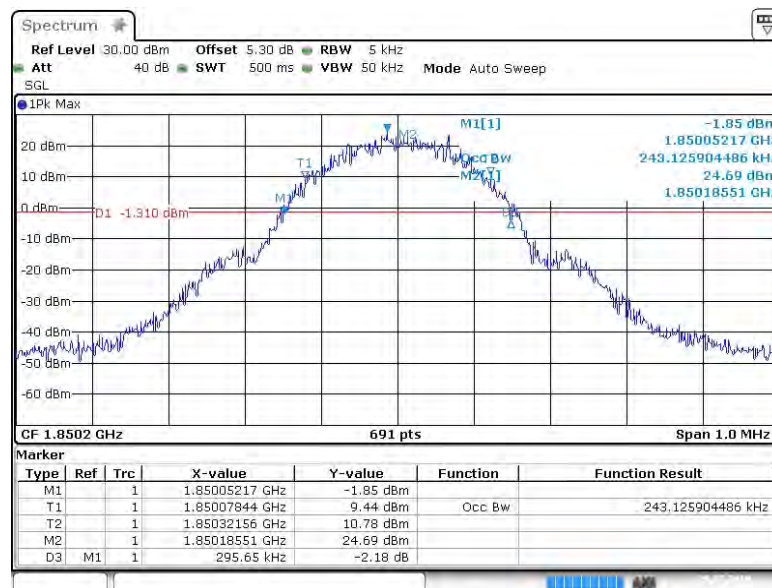
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GSM1900_512



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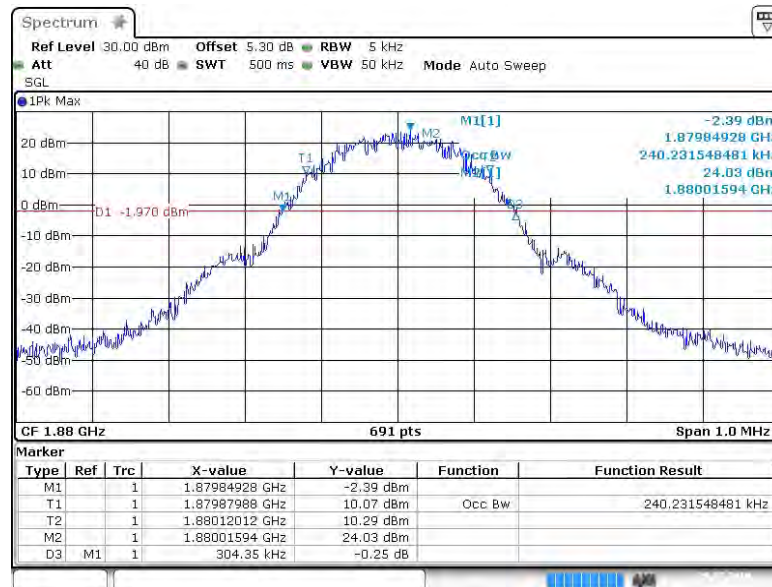
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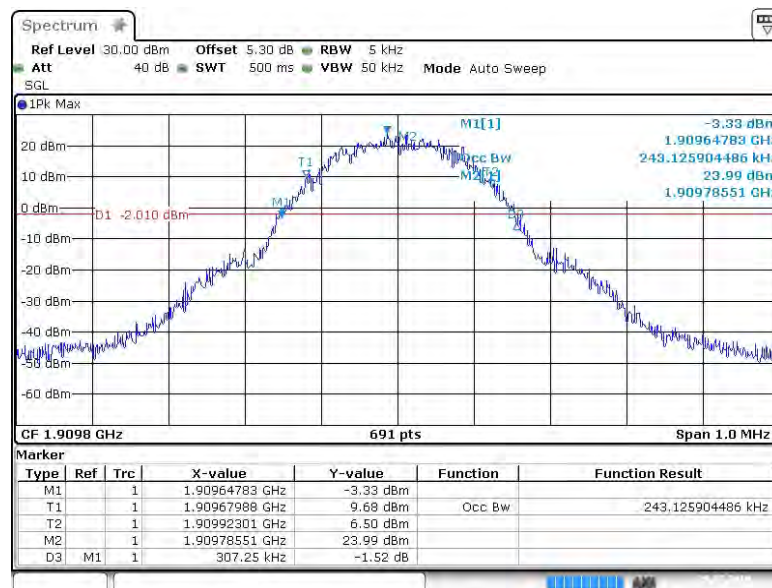
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GSM1900_810



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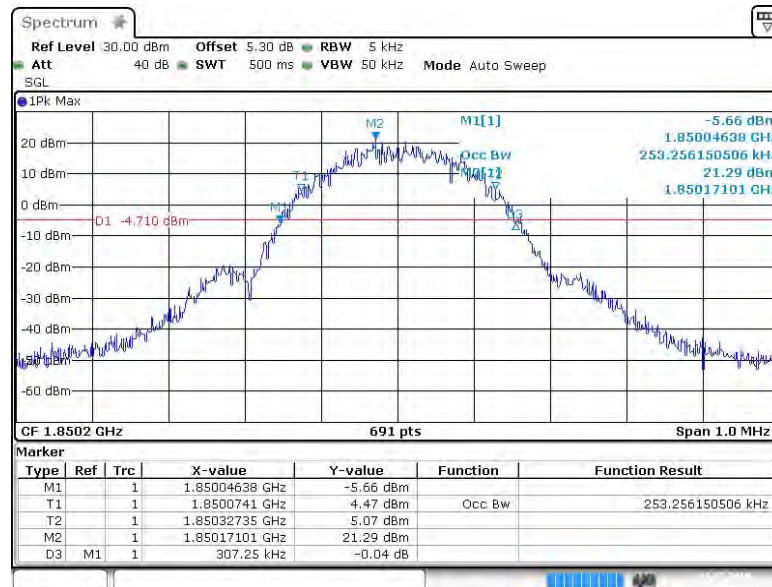
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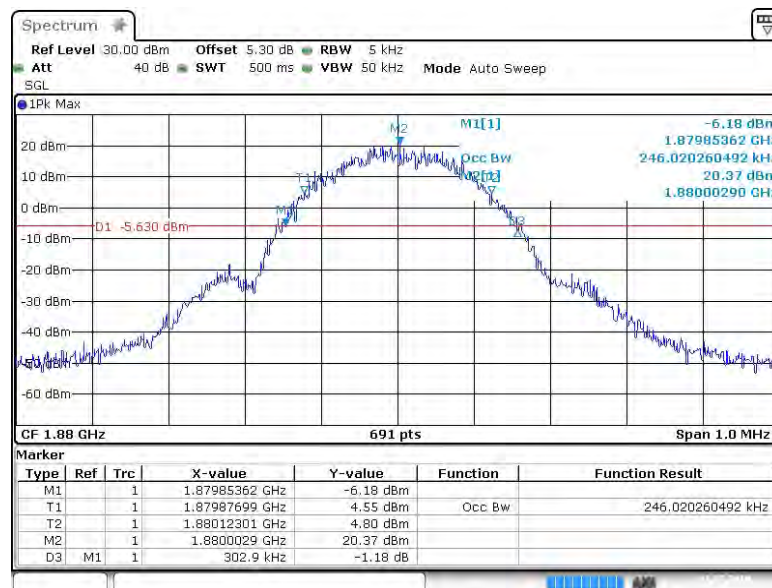
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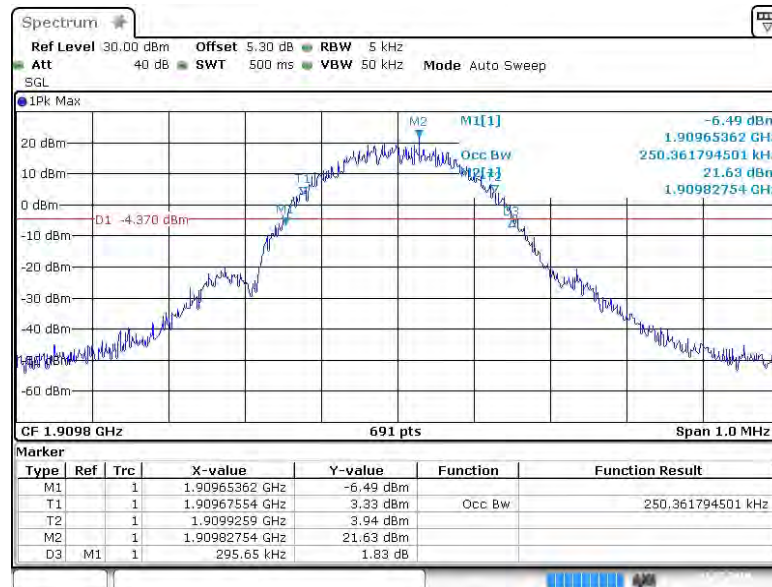
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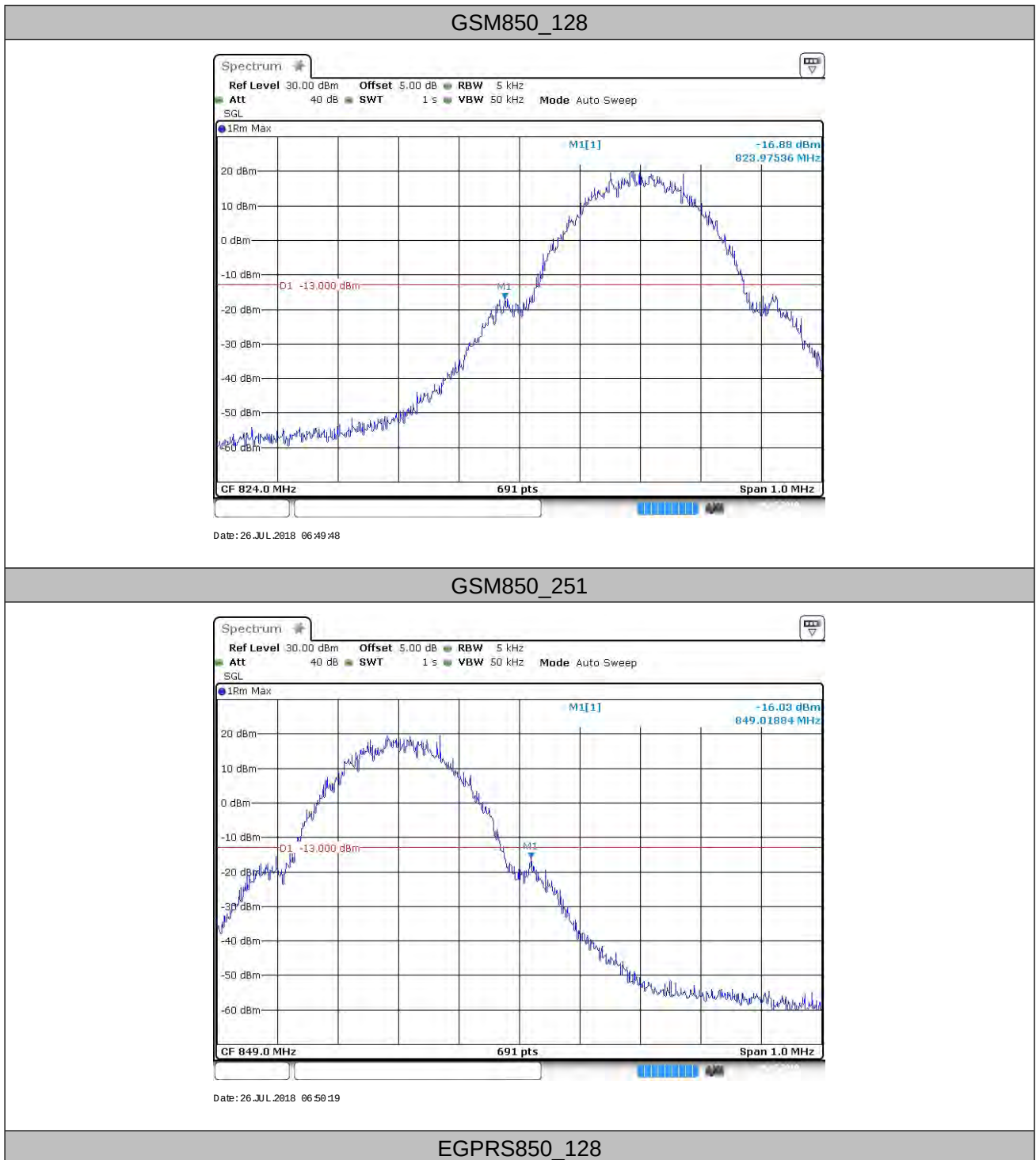


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5. Band Edge Compliance

5.1. Test Plots

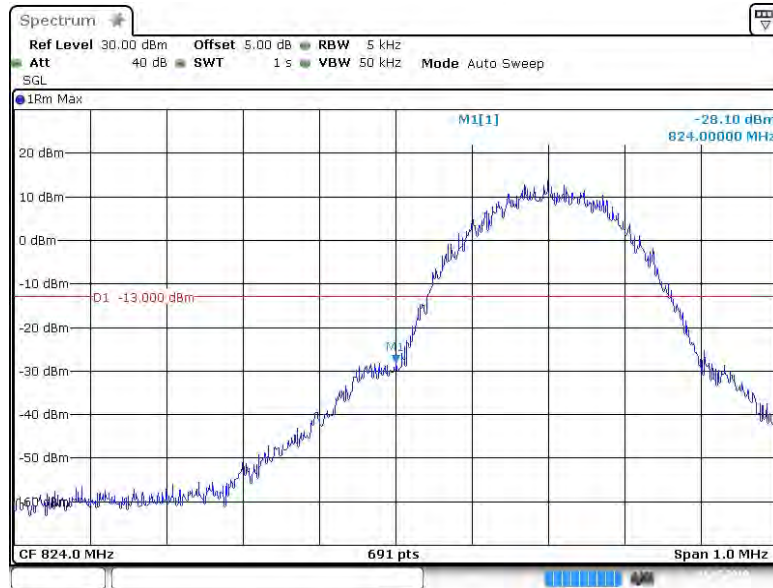




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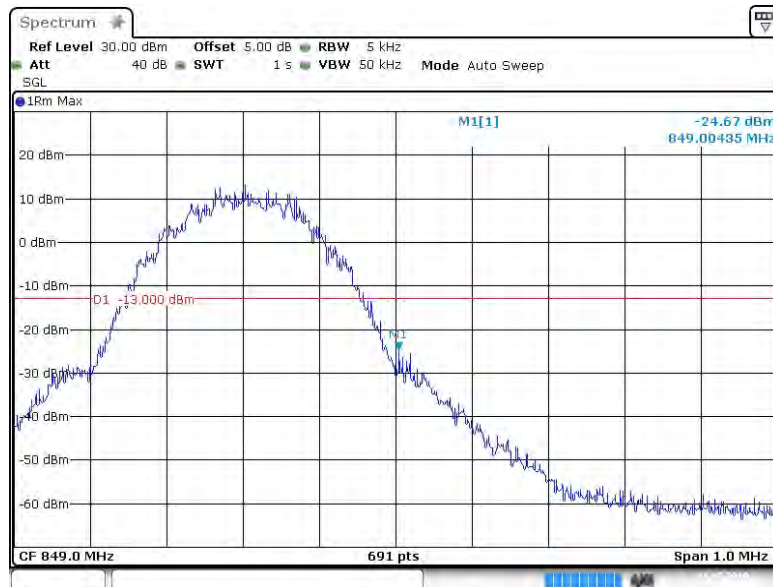
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EGPRS850_251



Date: 31 JUL 2018 18:34:05

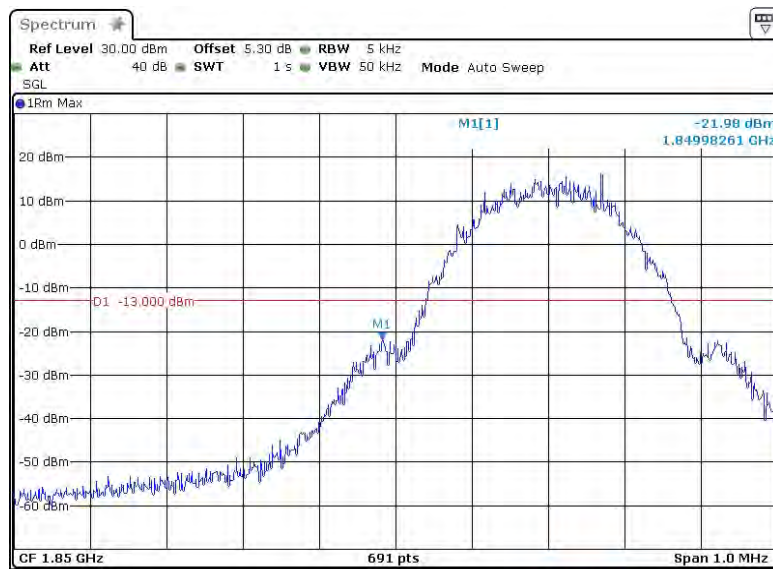
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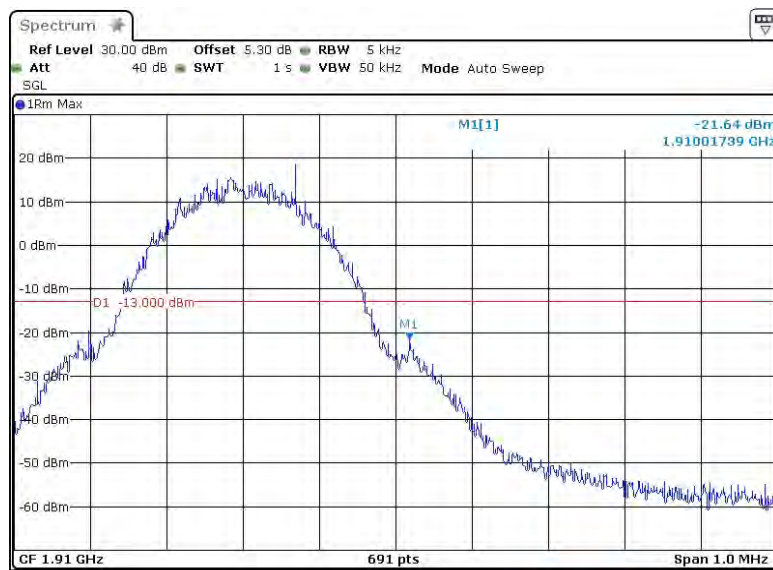
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GSM1900_810



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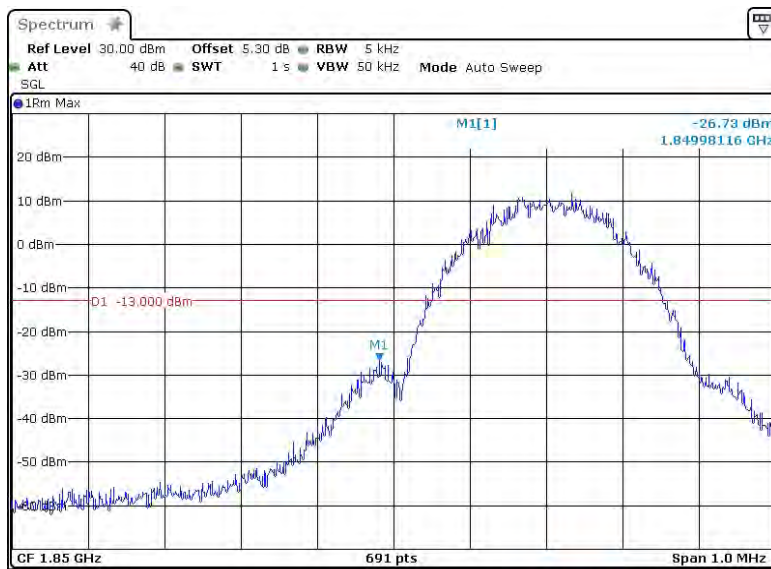
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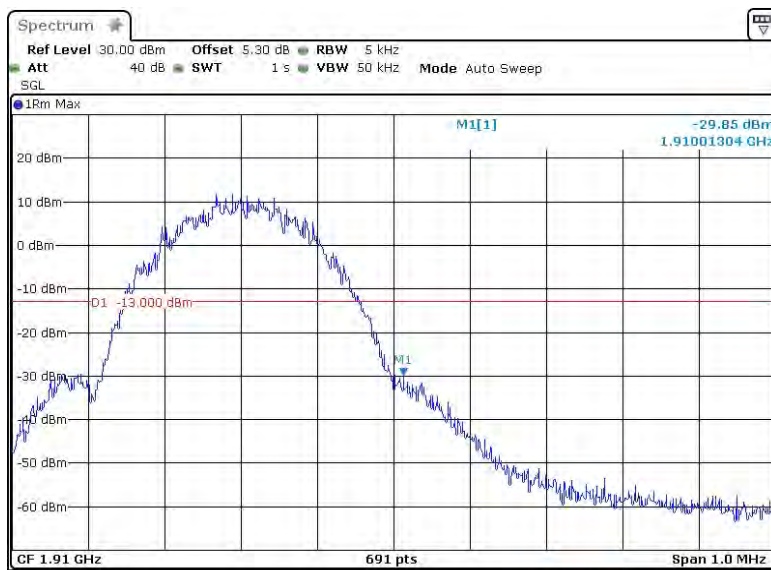
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EGPRS1900_810



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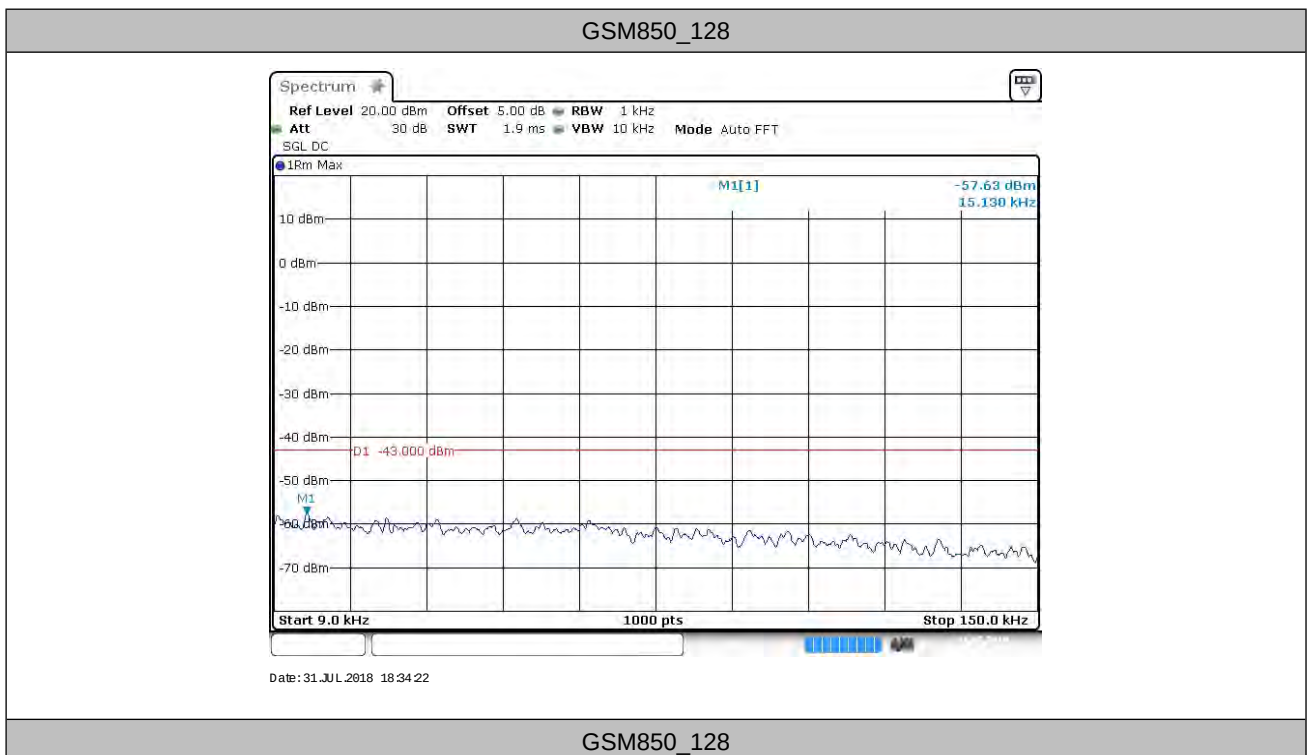


6. Spurious Emission at Antenna Terminal

NOTE1: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = $k * (Span / RBW)$ " with k between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

NOTE2: only the worst case data displayed in this report.

6.1. Test Plots

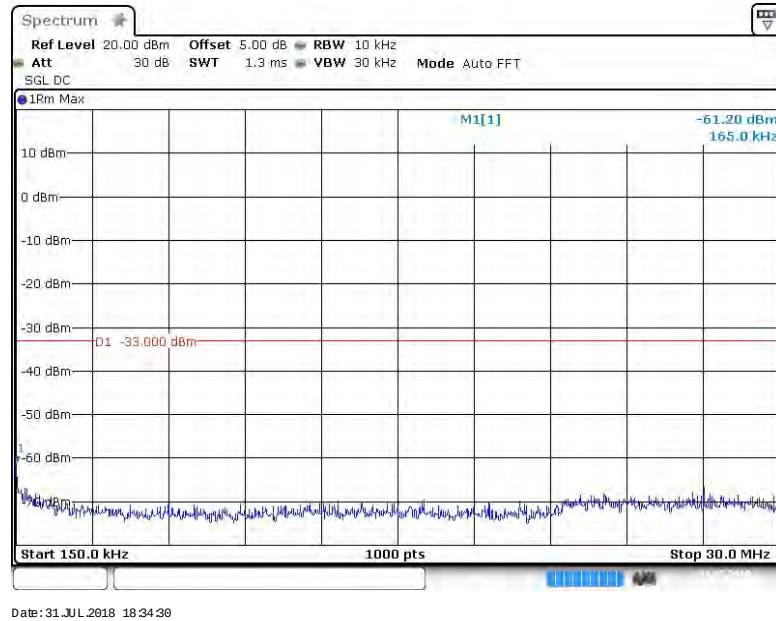




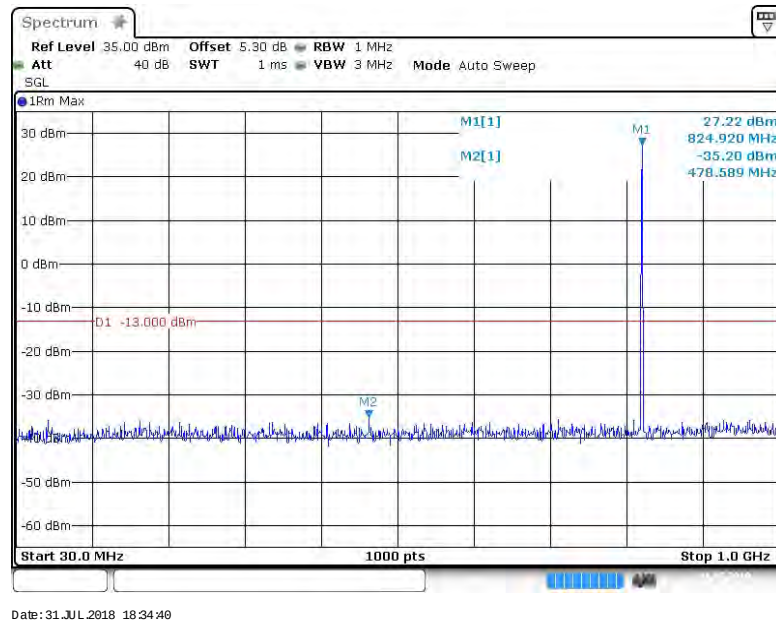
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GSM850_128



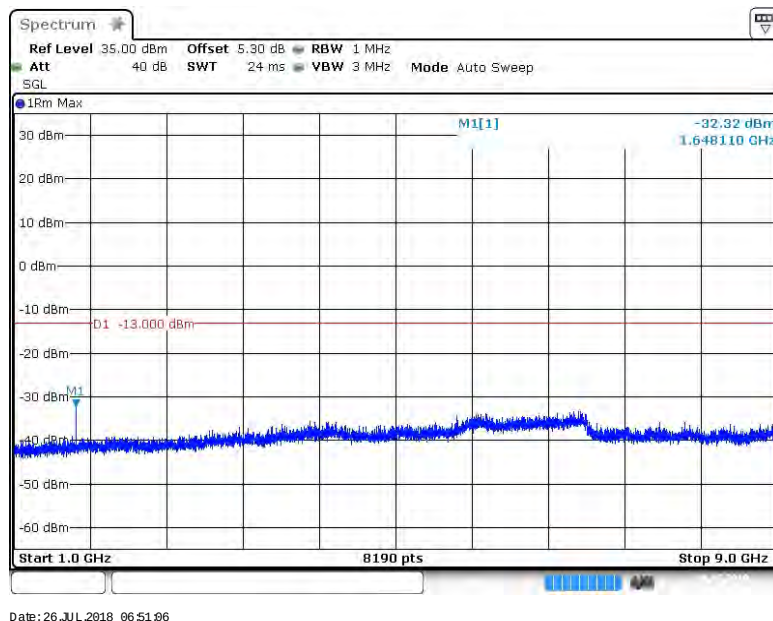
GSM850_128



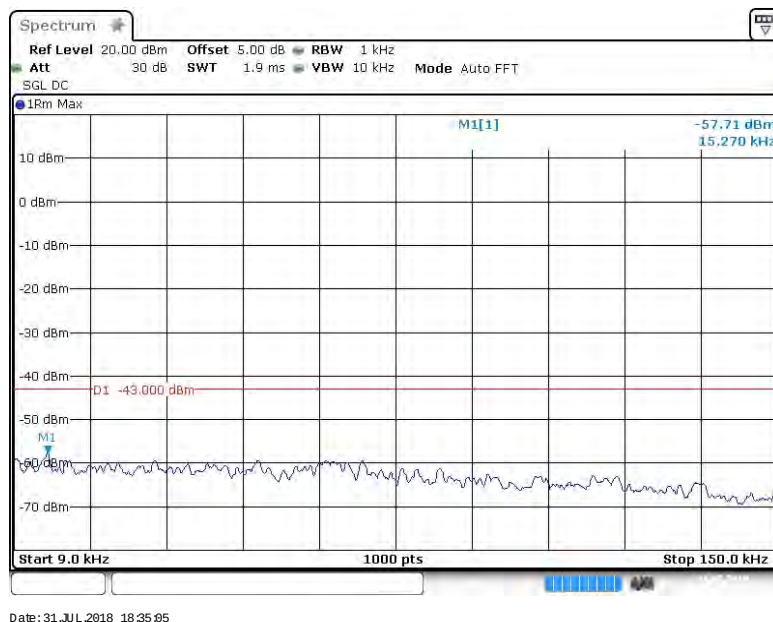
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GSM850_190



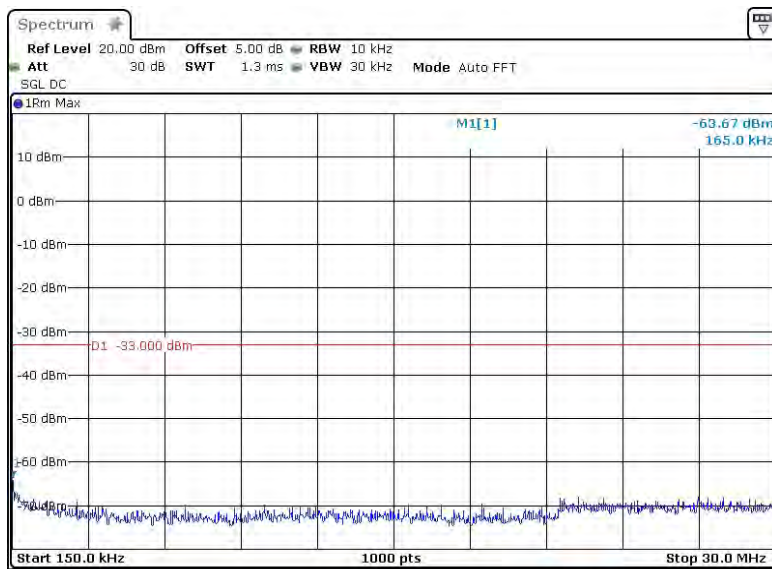
GSM850_190



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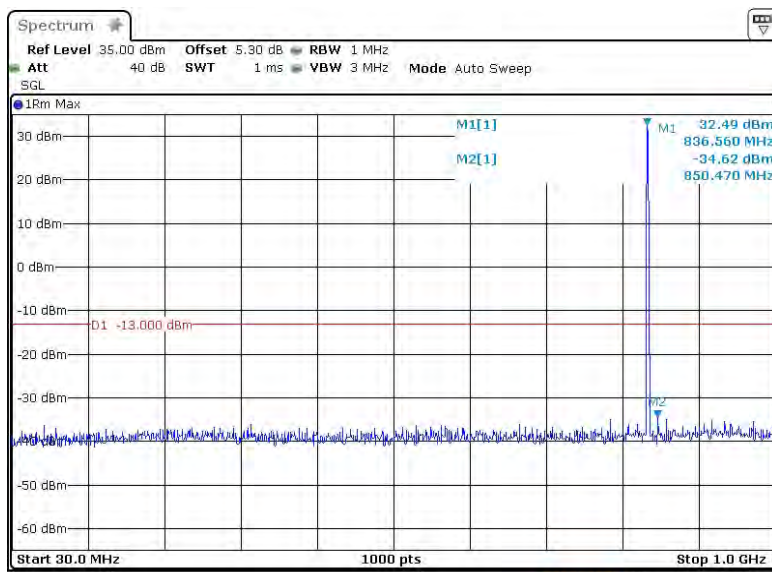
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GSM850_190



Date: 26 JUL 2018 06:51:43

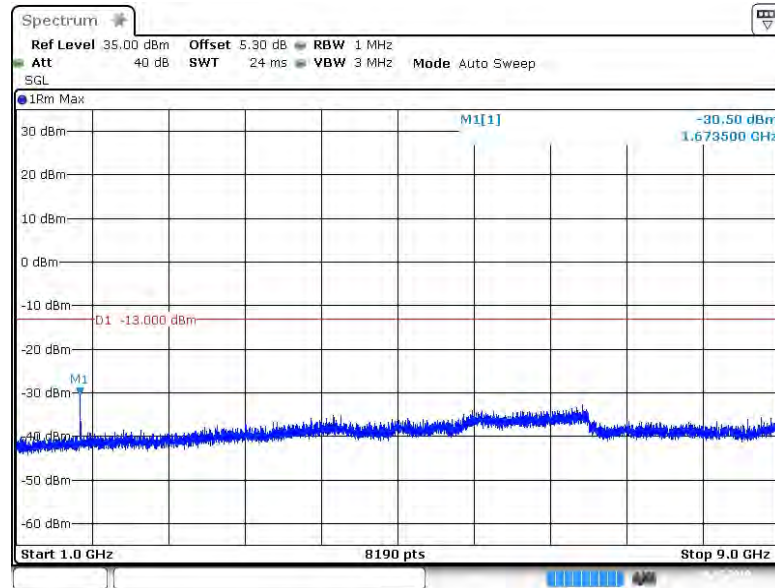
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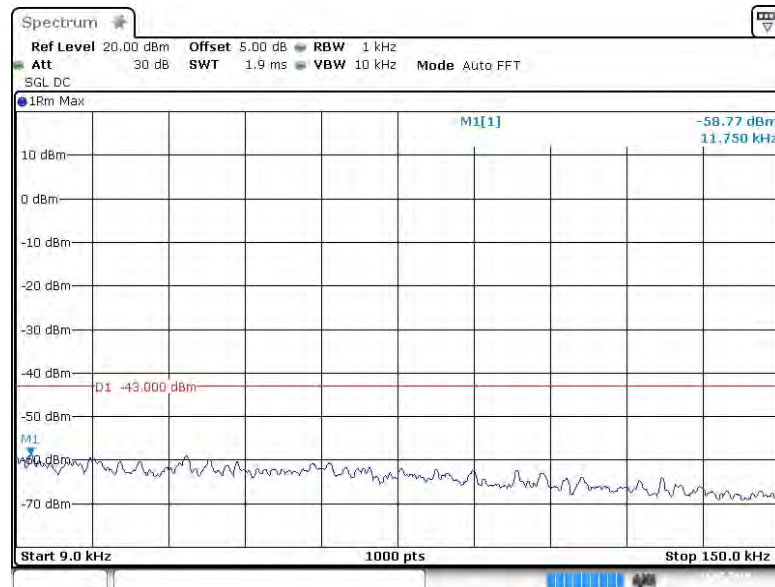
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GSM850_251



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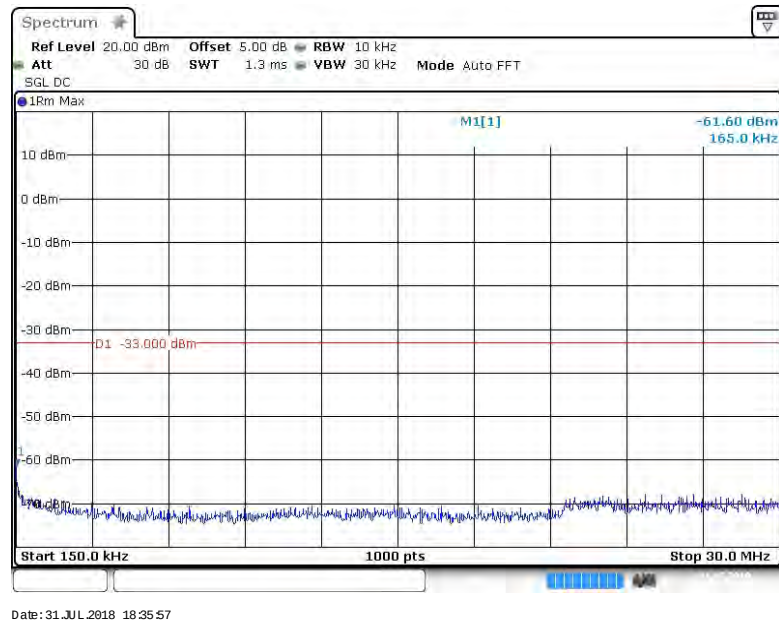
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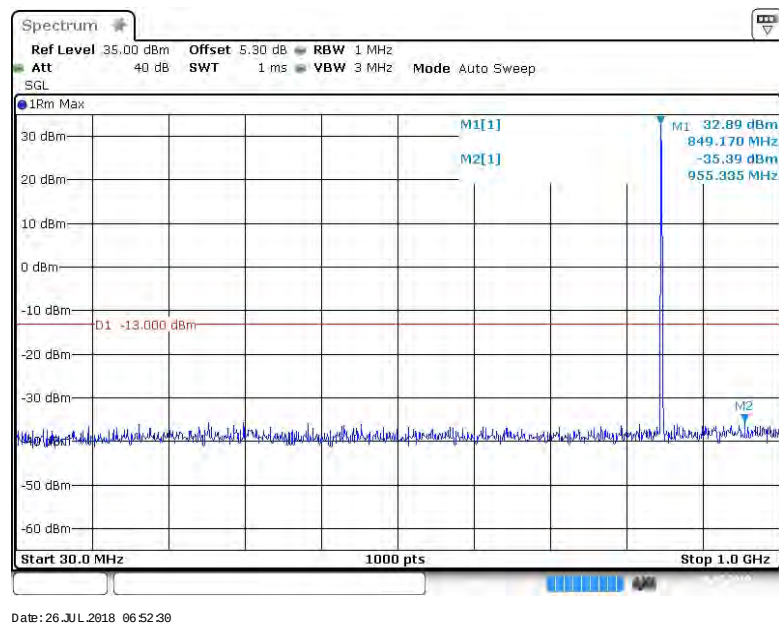
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GSM850_251



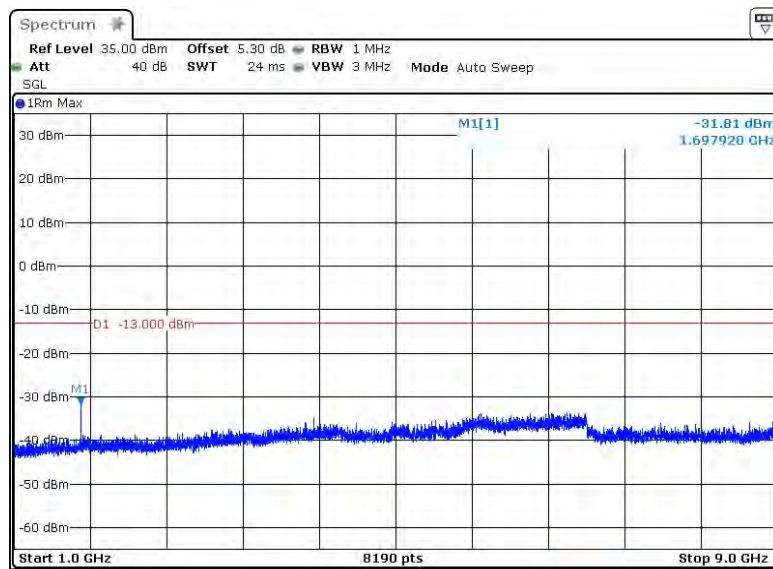
GSM850_251



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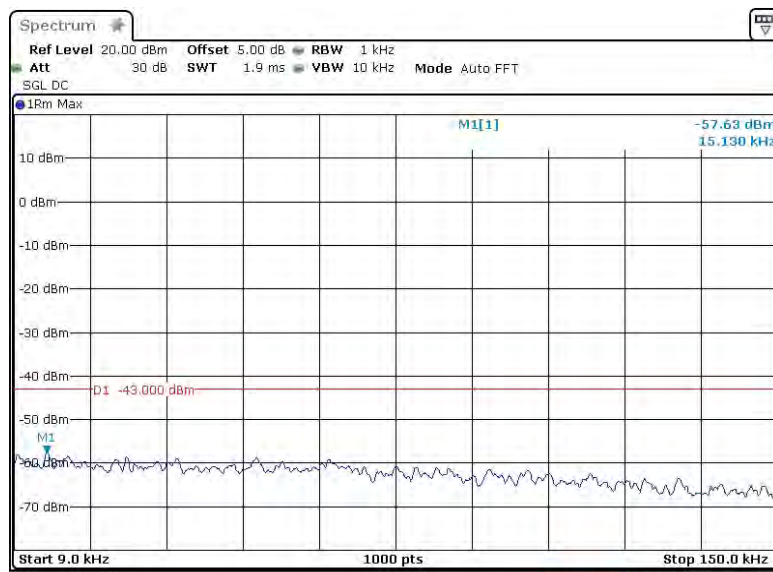
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EGPRS850_128



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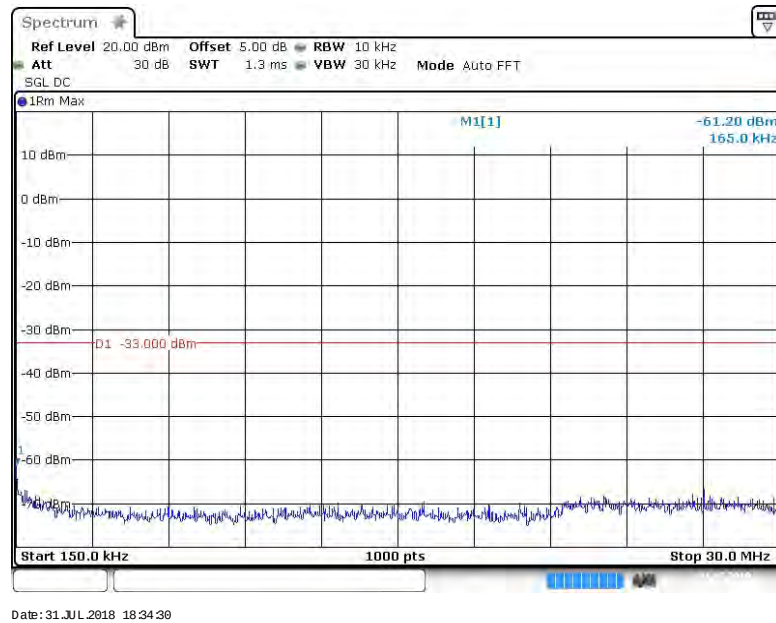
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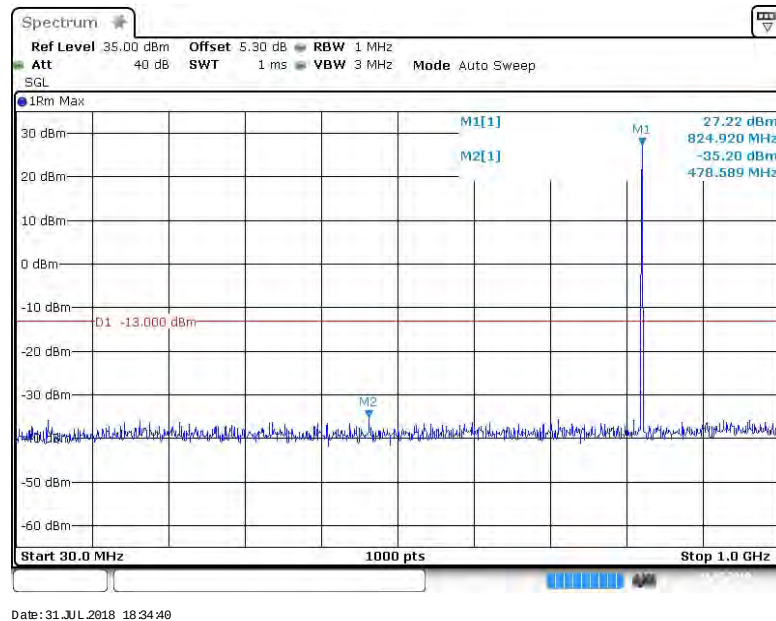
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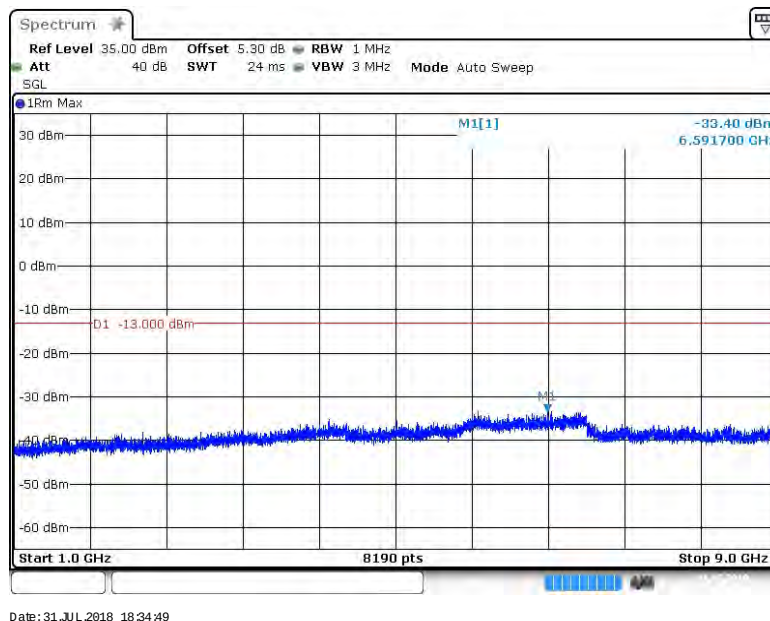
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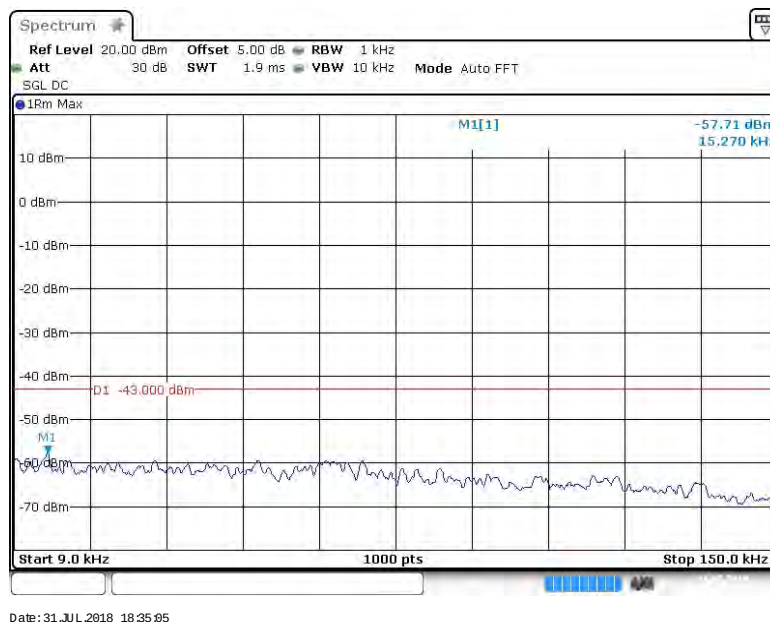
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EGPRS850_190



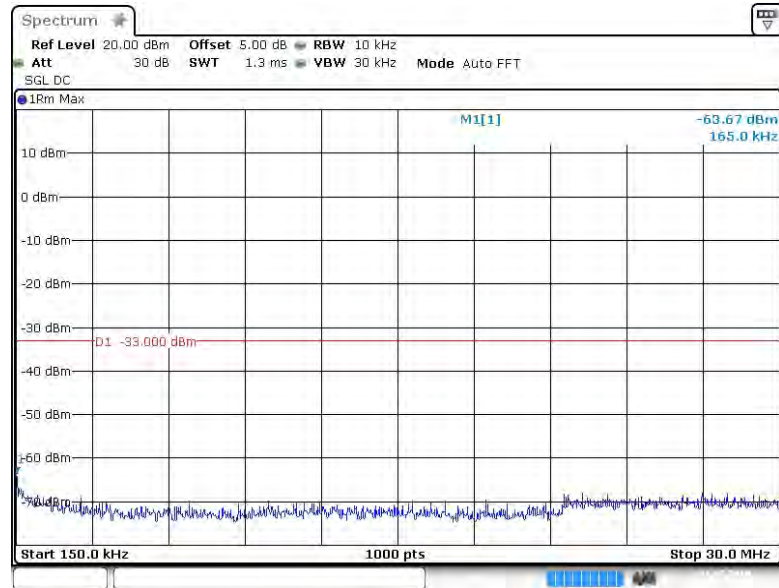
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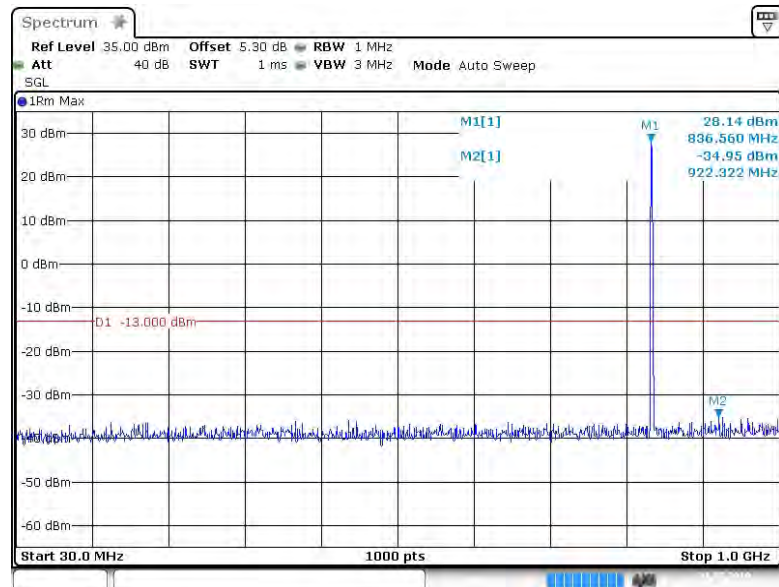
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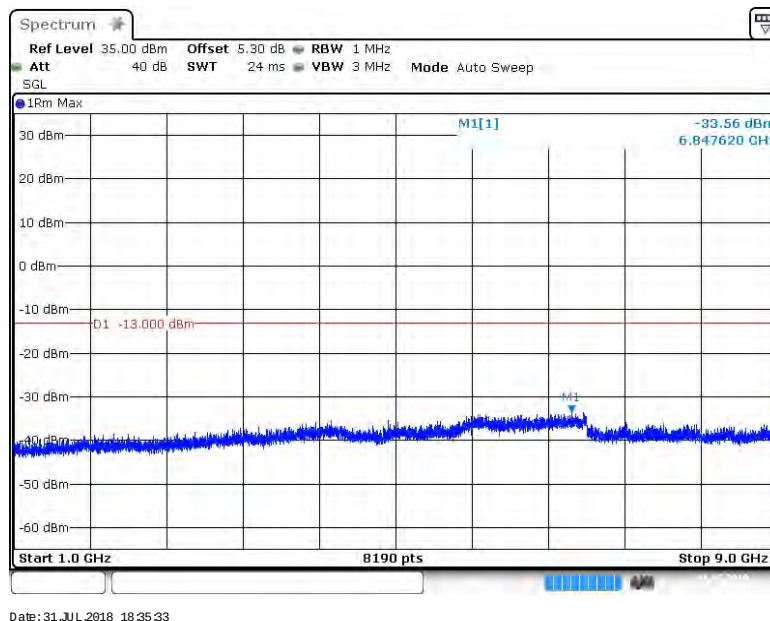
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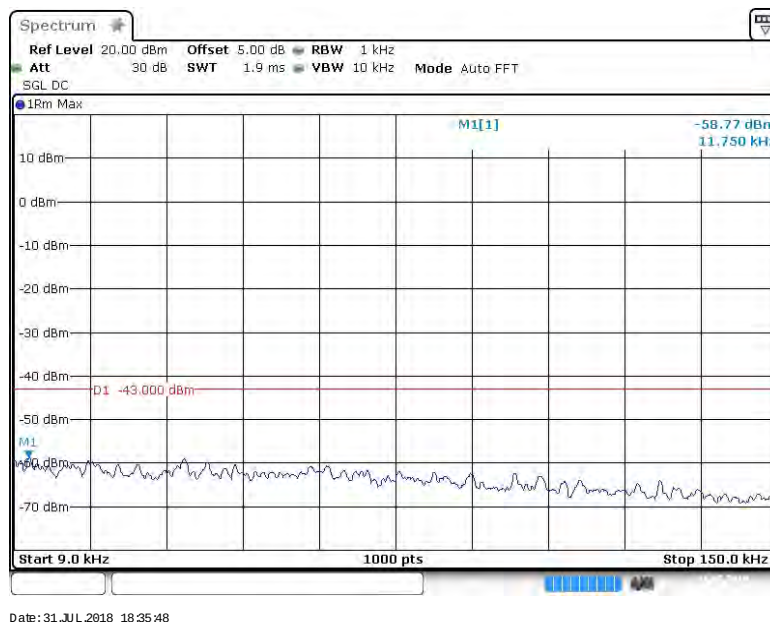
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EGPRS850_251



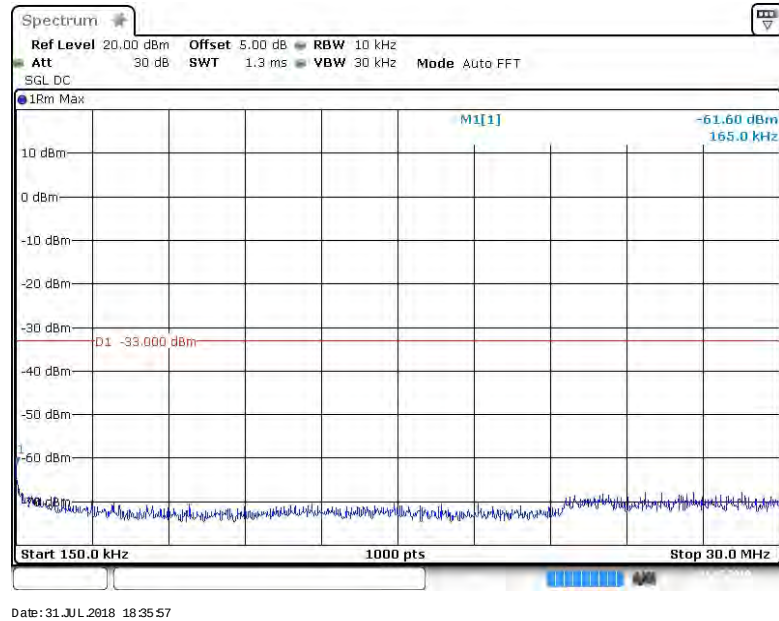
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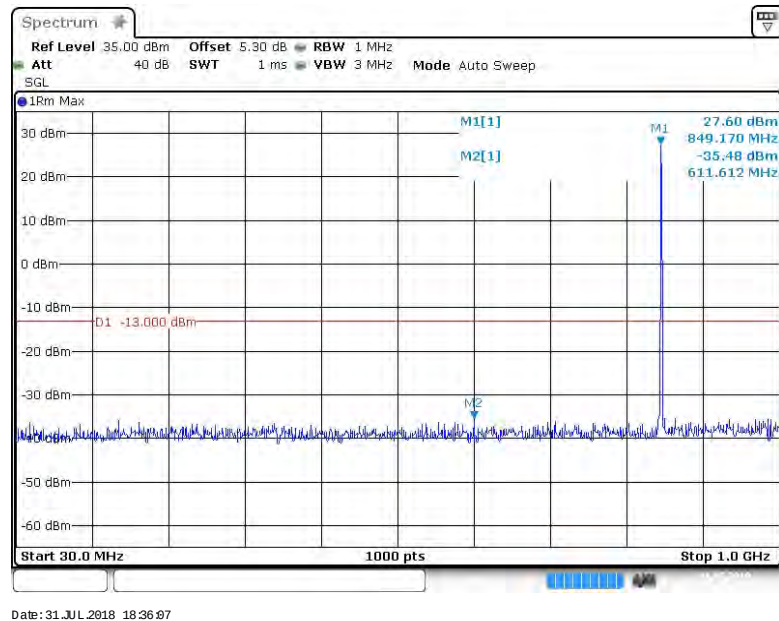
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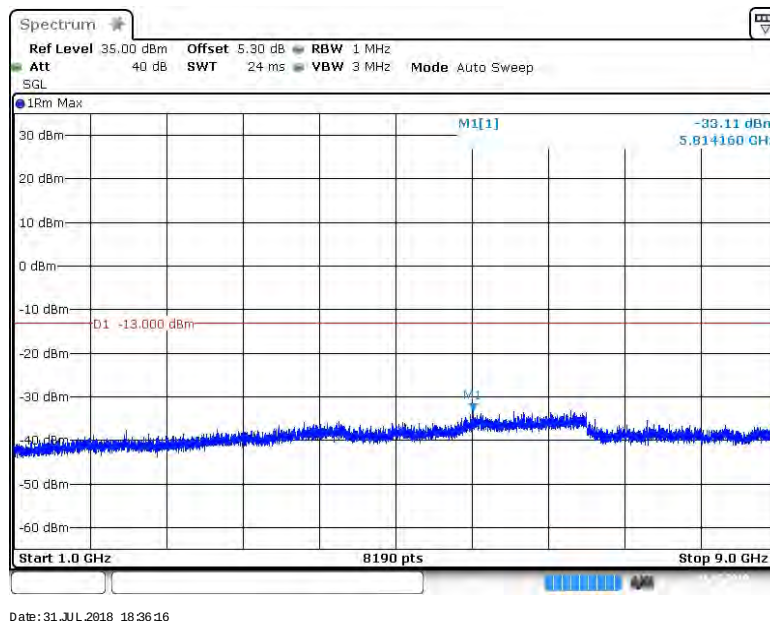
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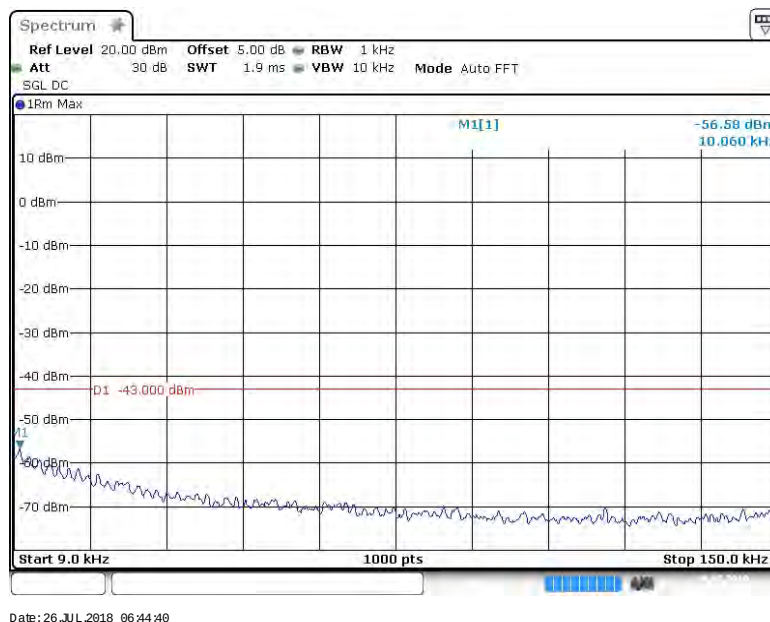
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GSM1900_512



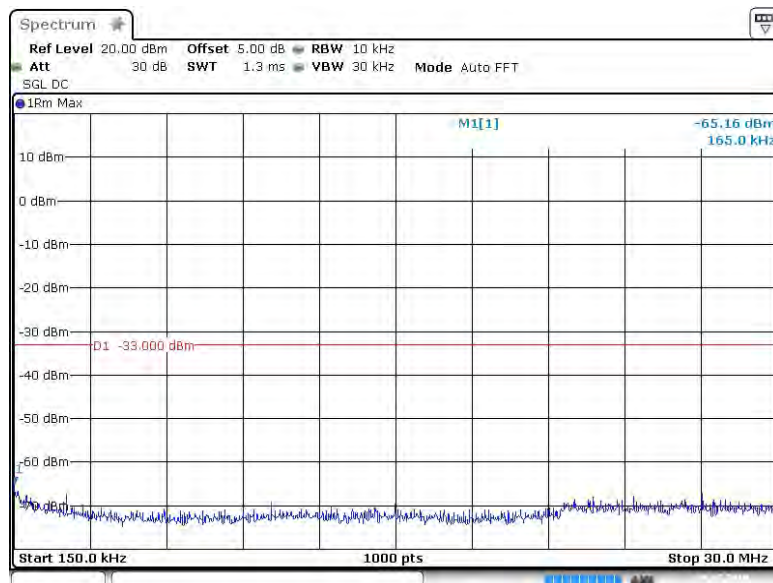
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SGS-CSTC Standards Technical Services Co., Ltd.
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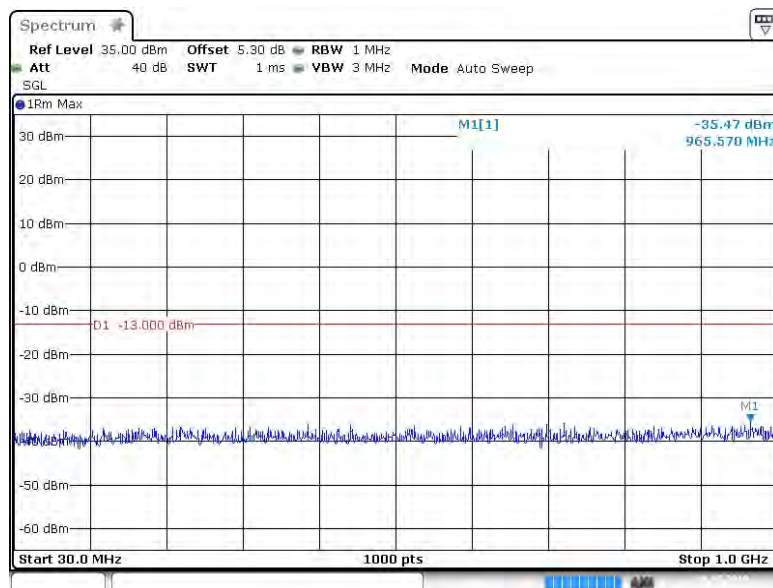
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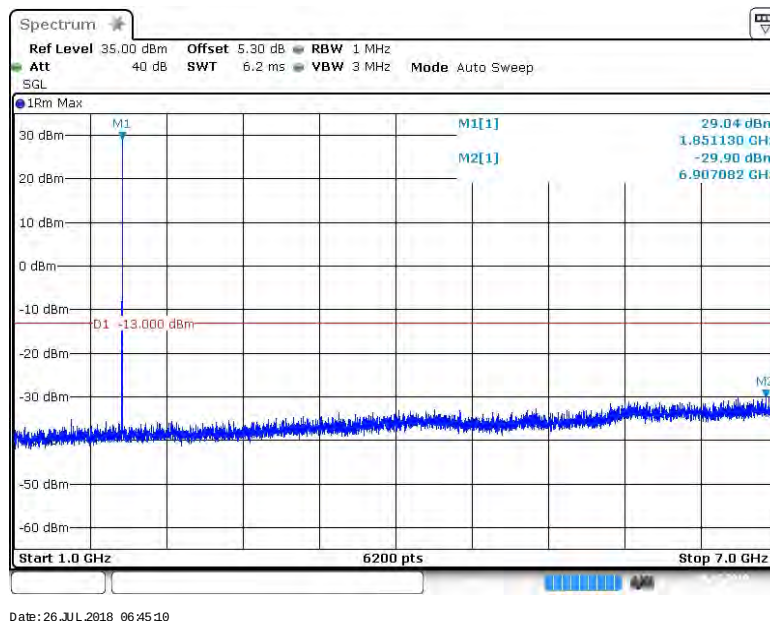
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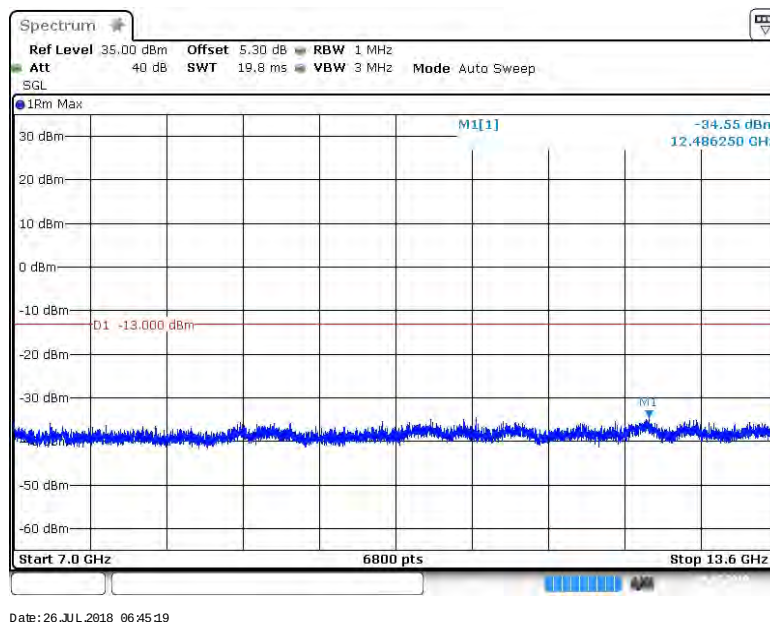
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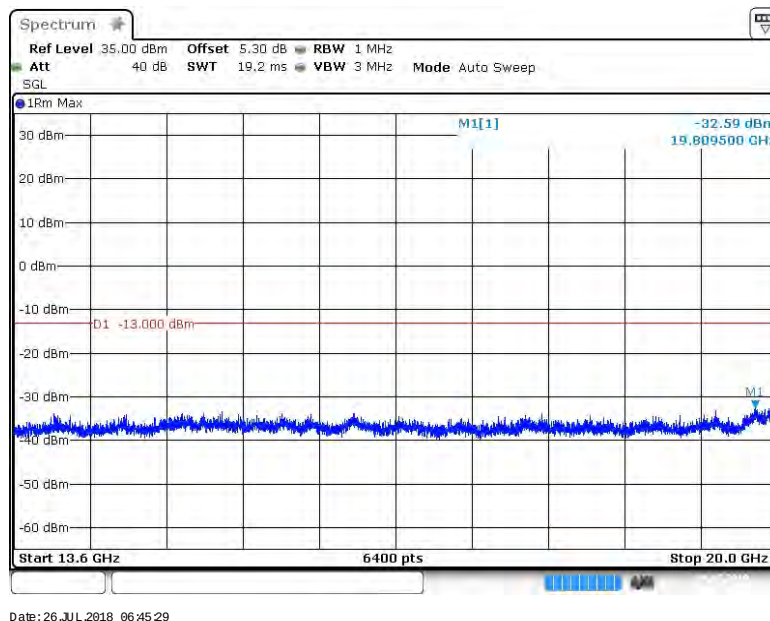
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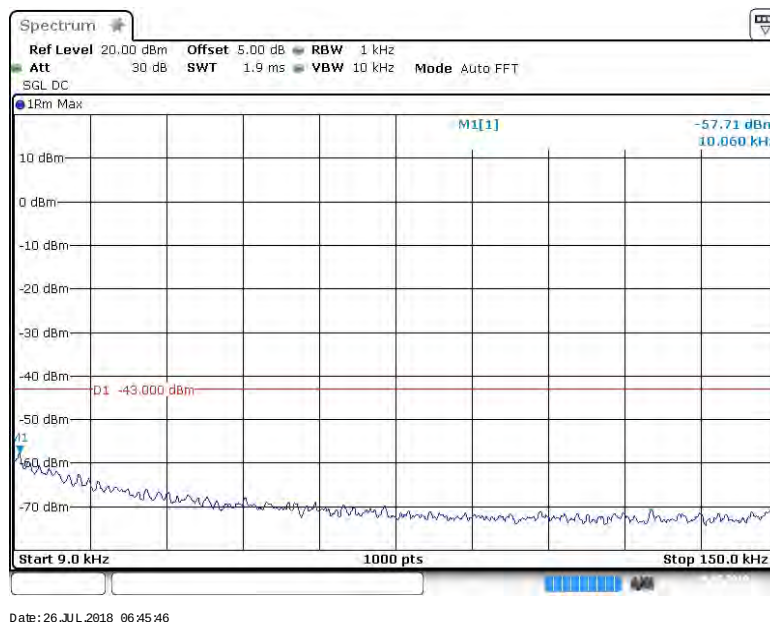
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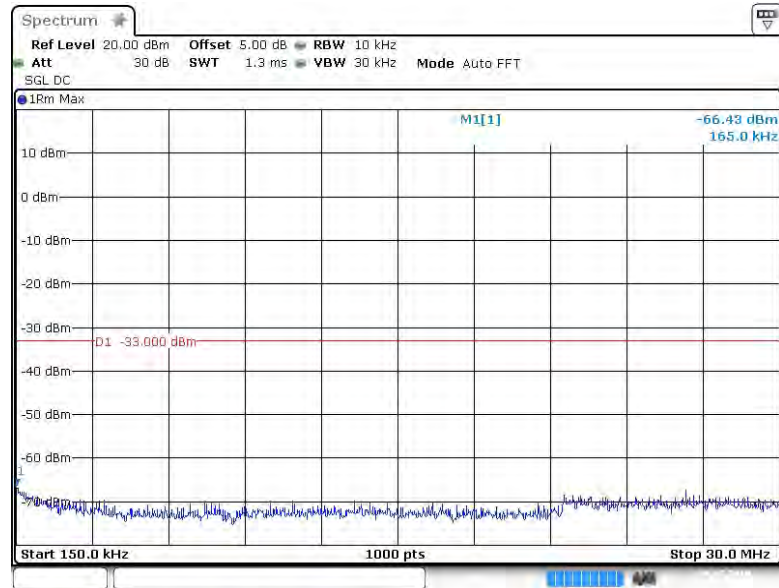
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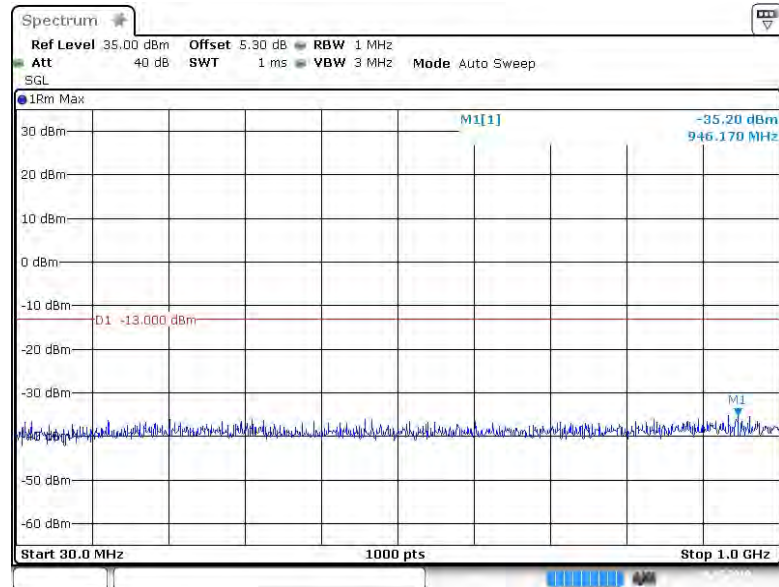
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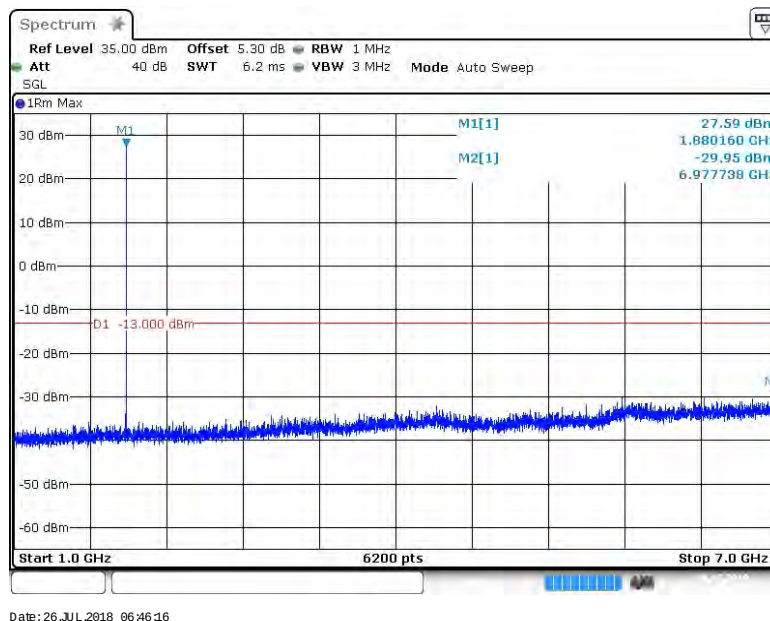
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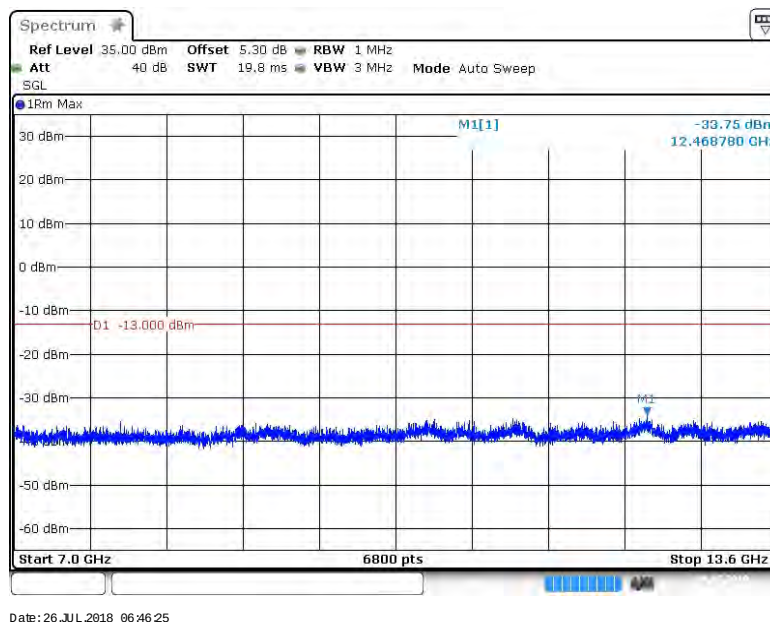
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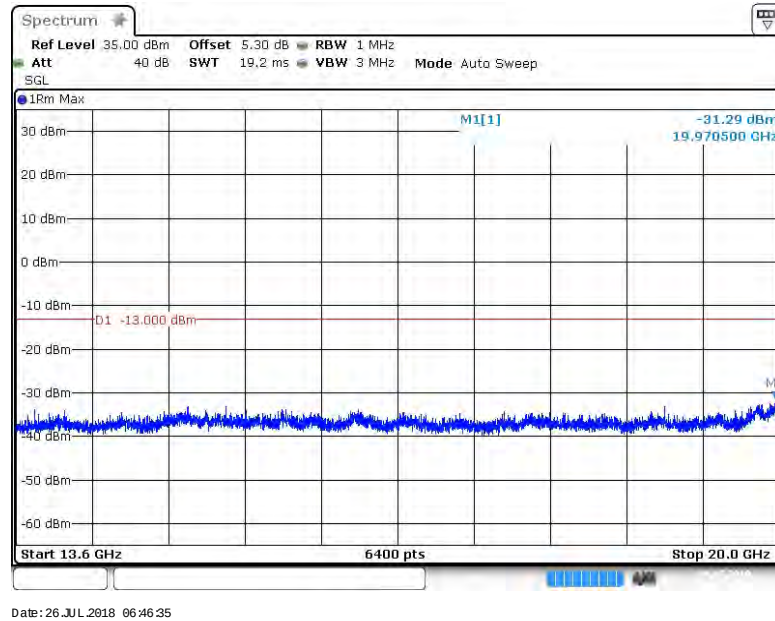
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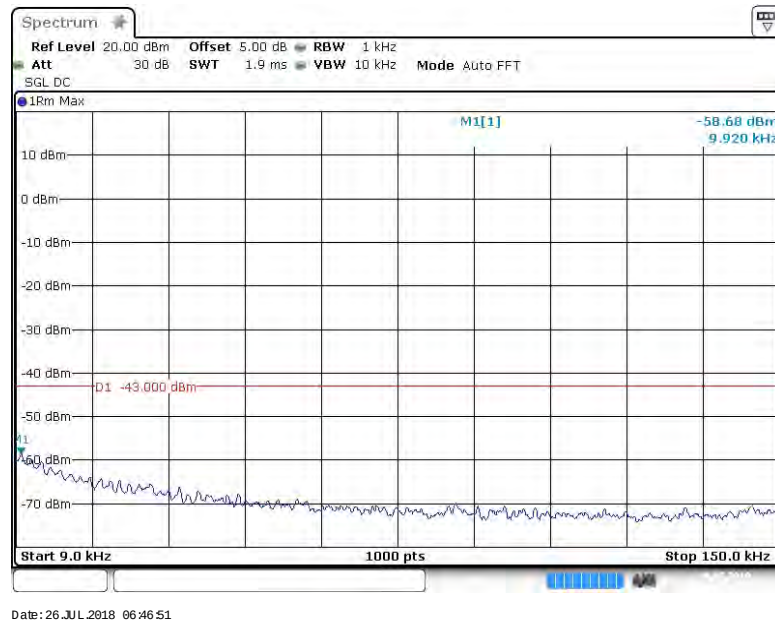
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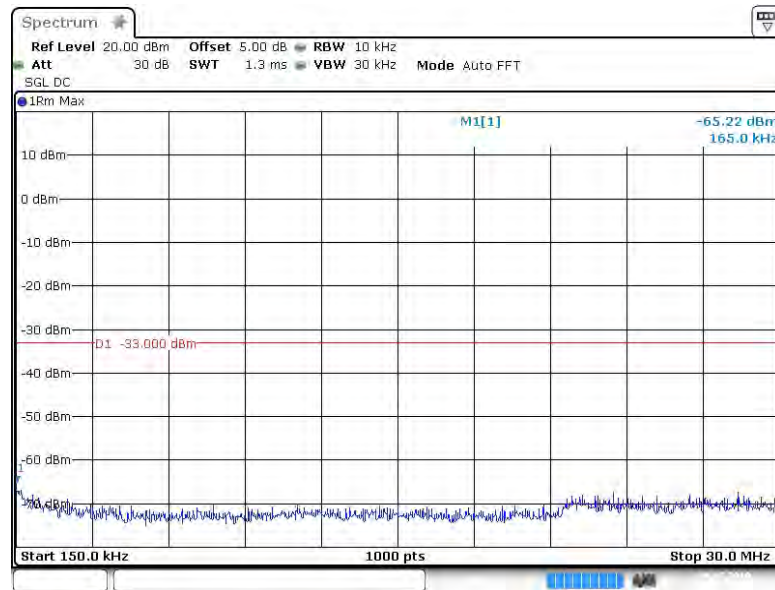
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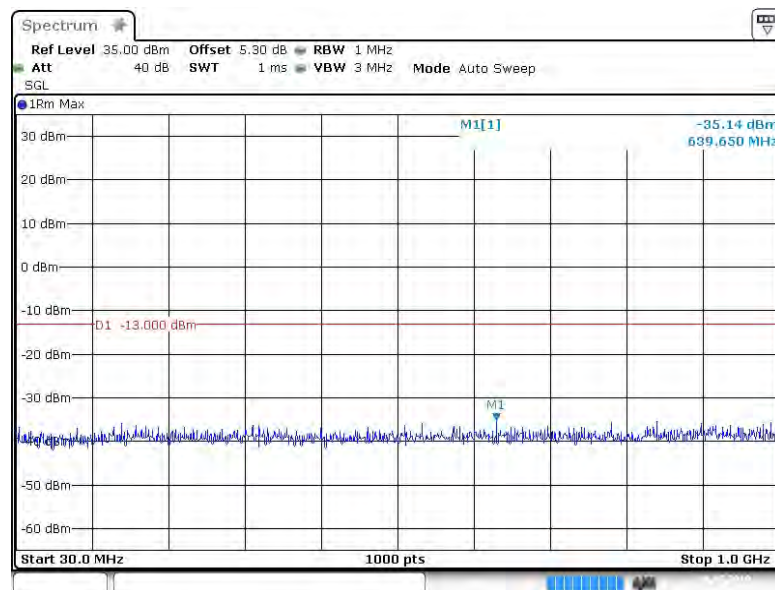
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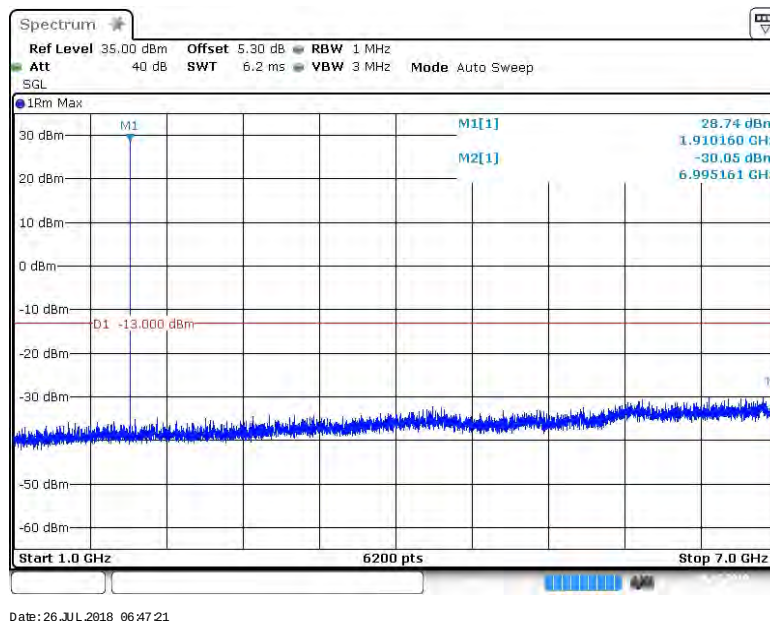
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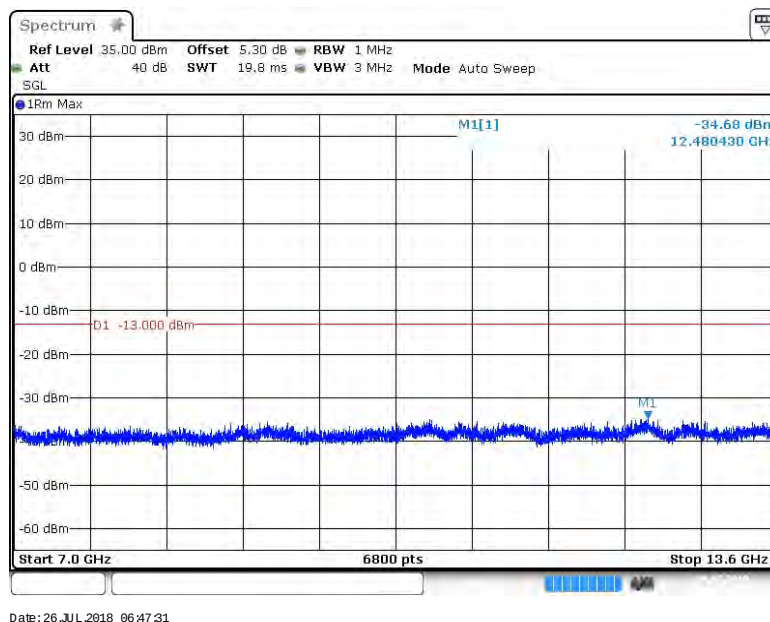
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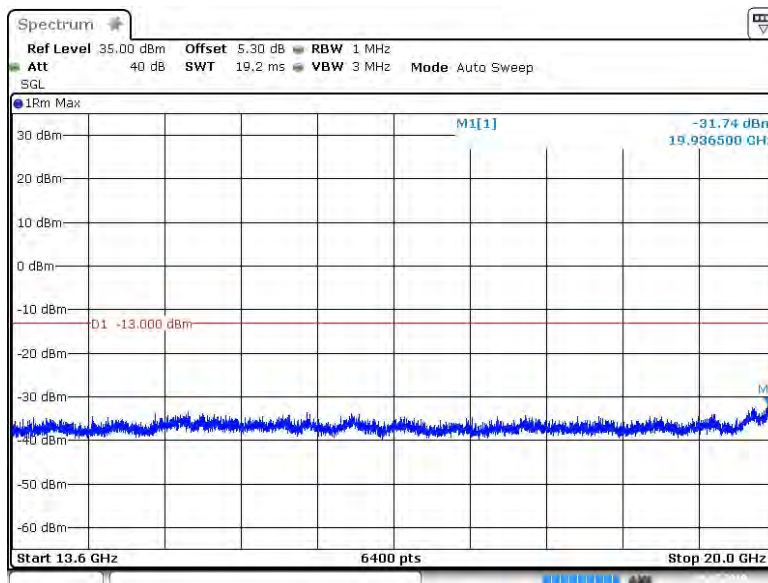
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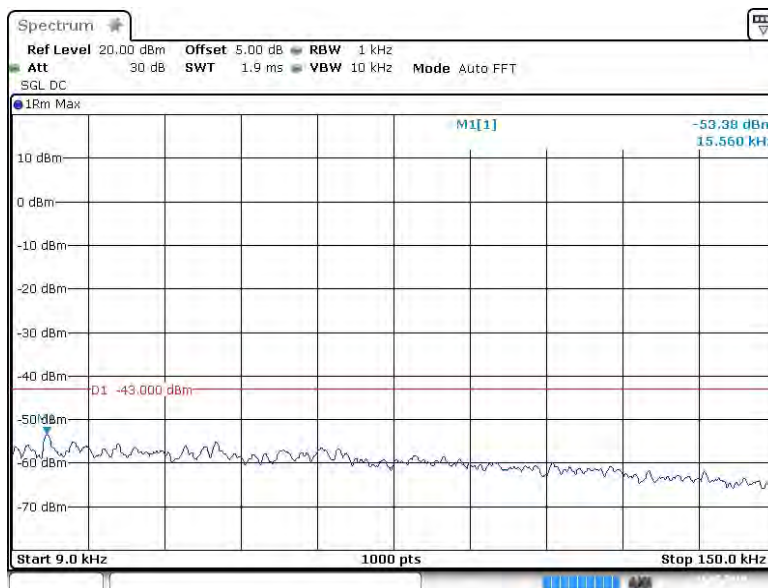
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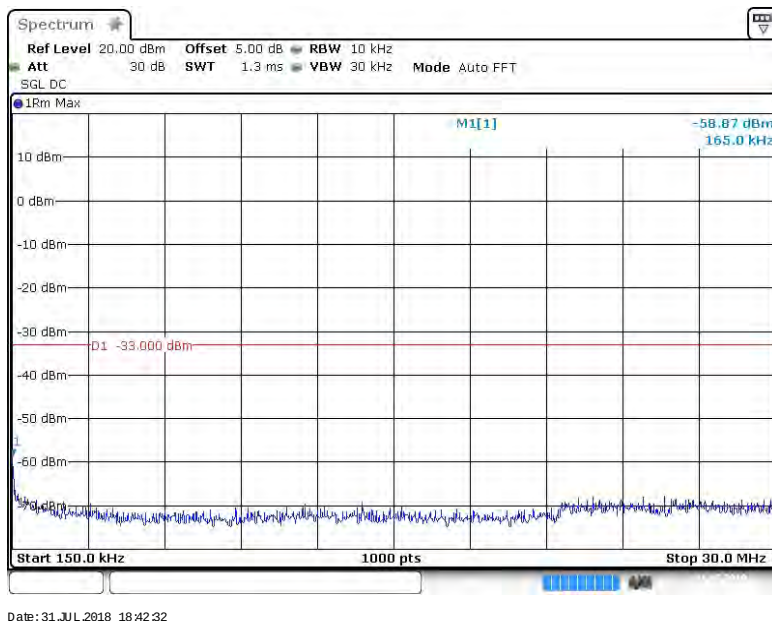
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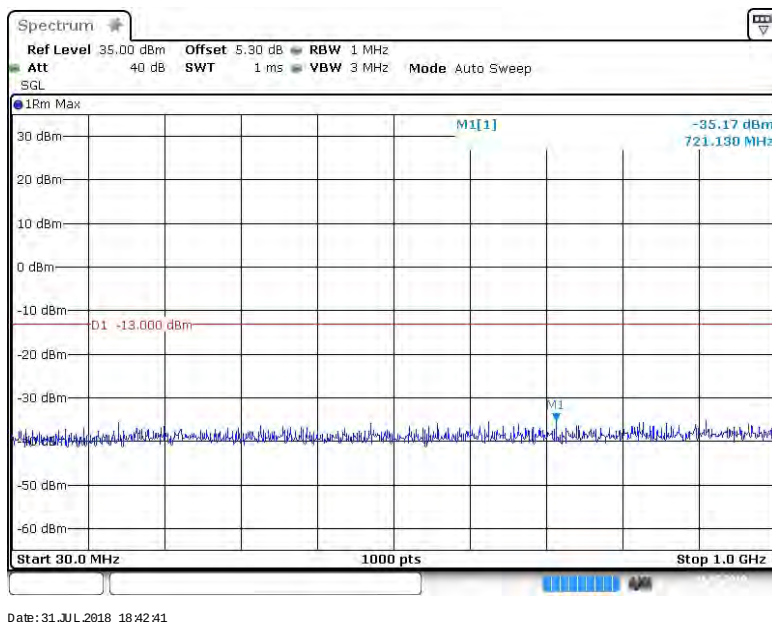
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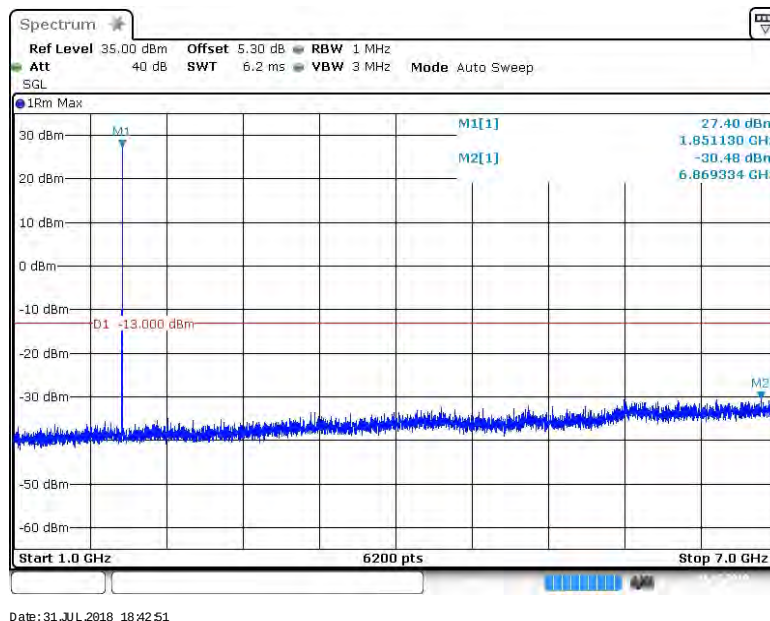
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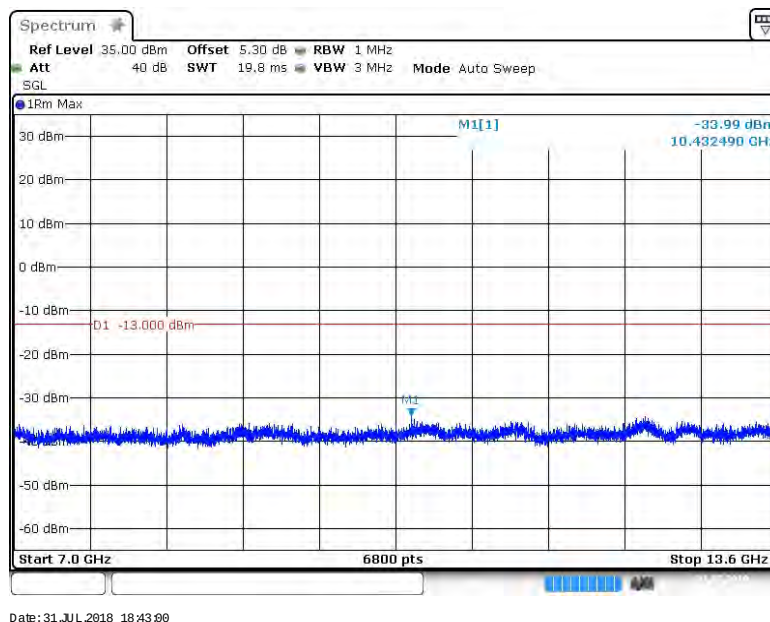
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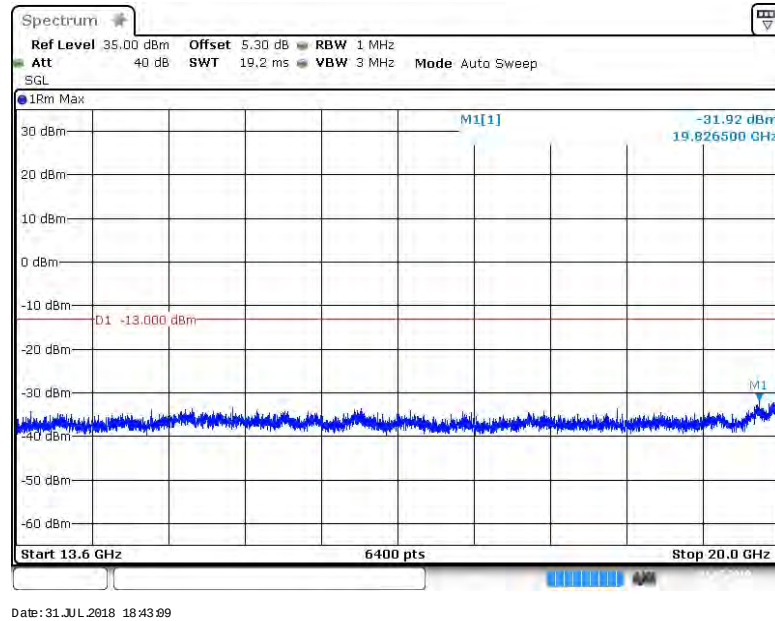
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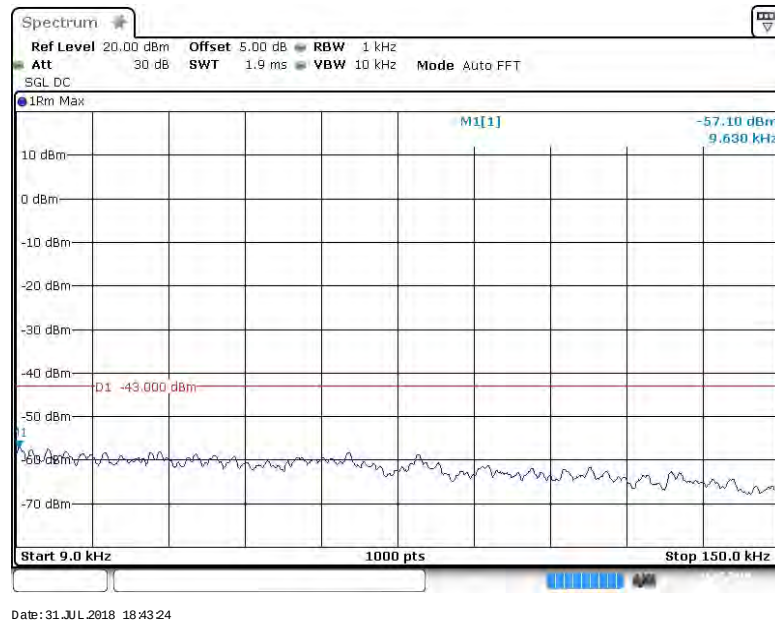
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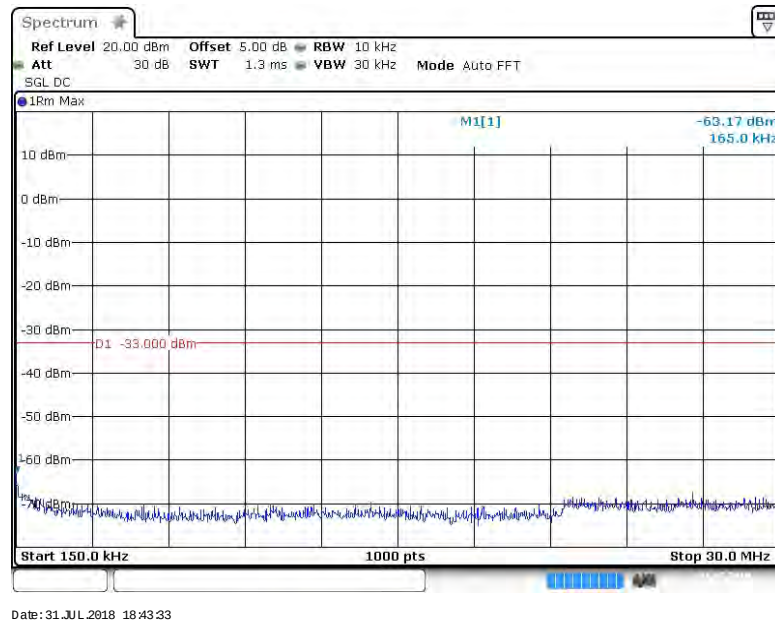
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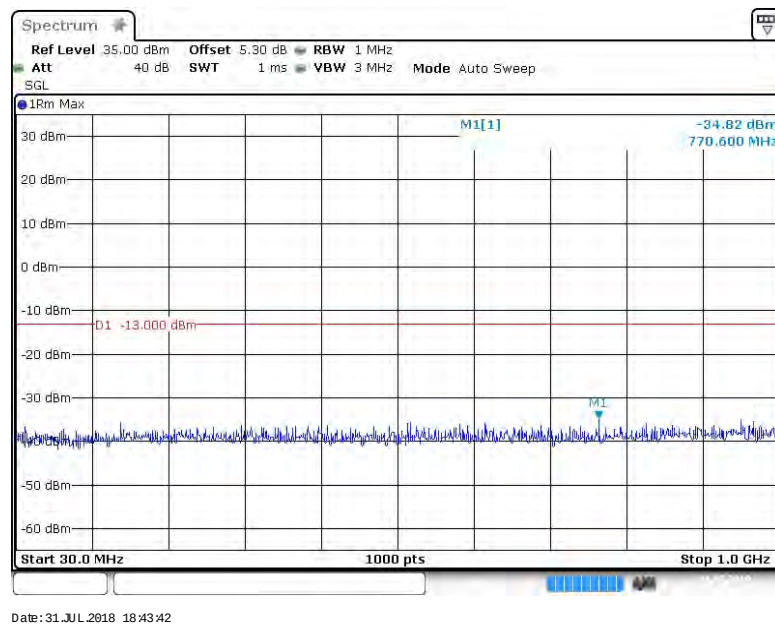
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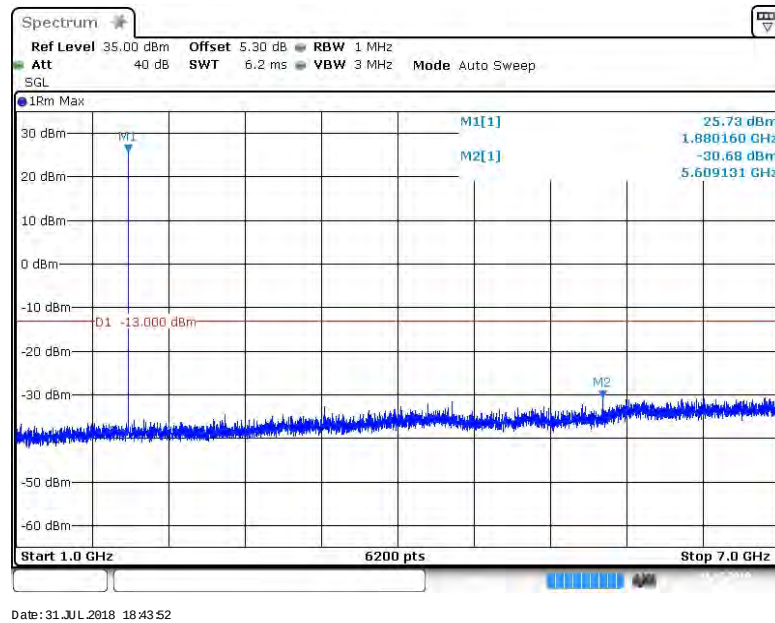
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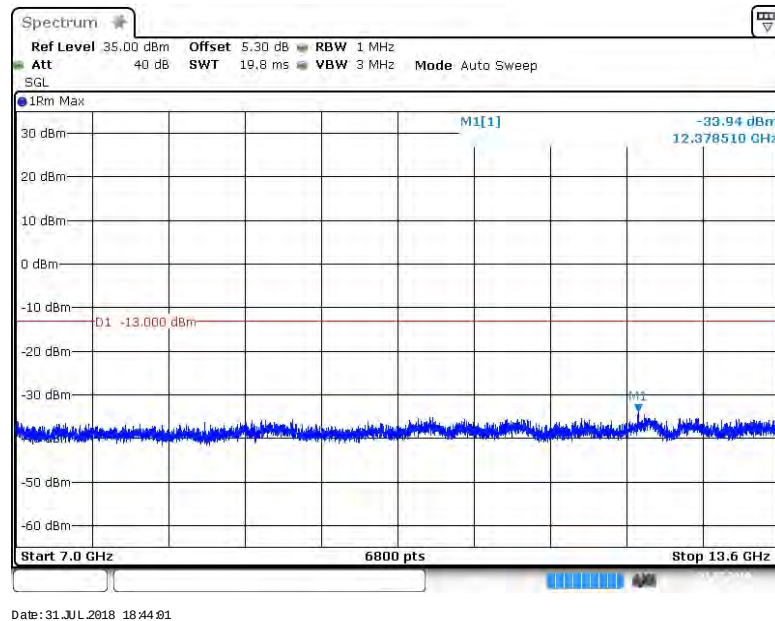
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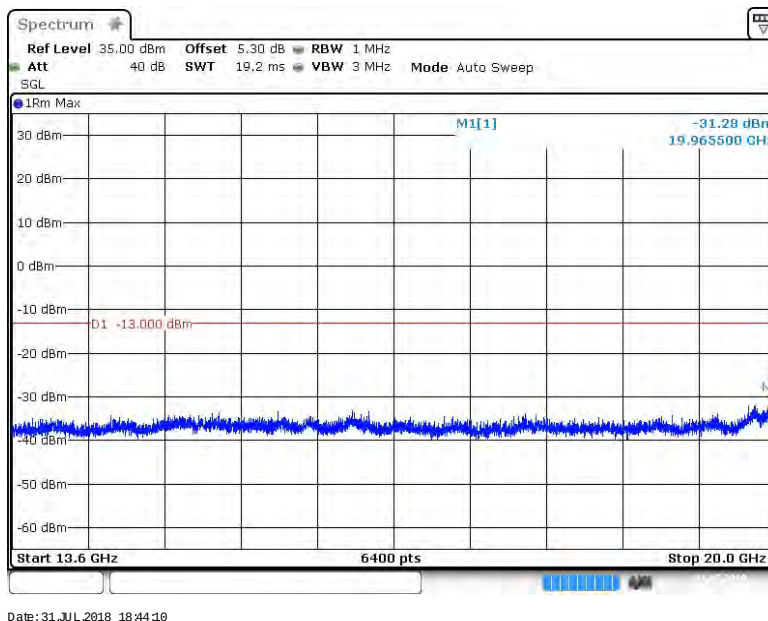
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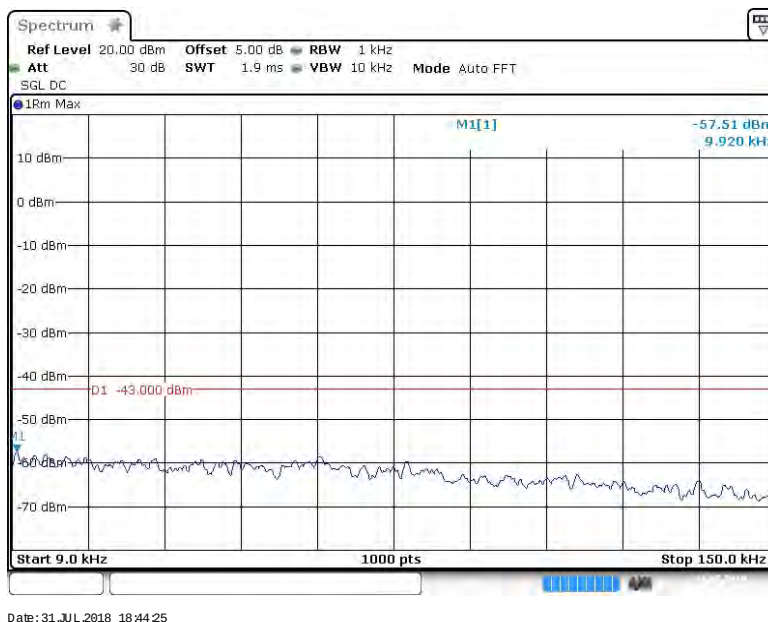
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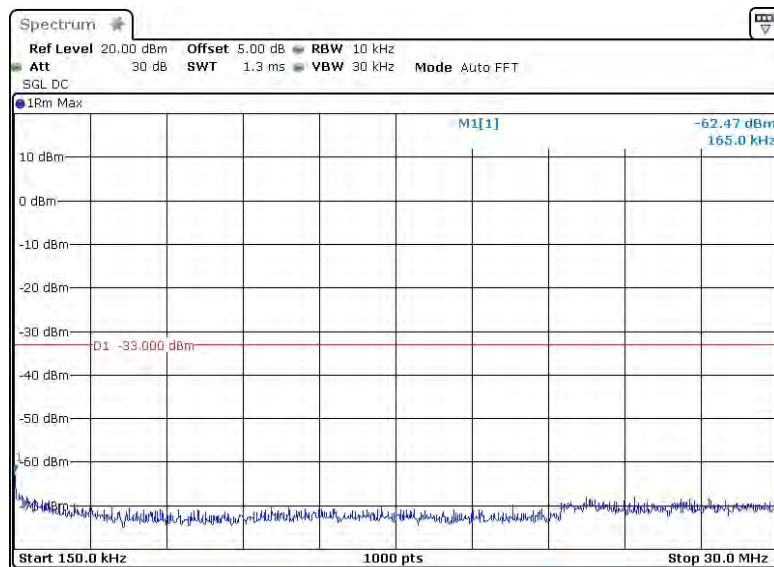
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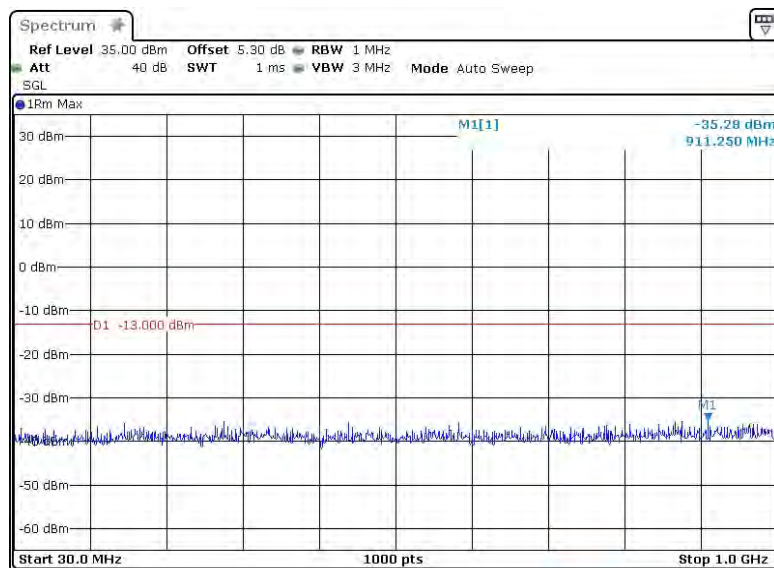
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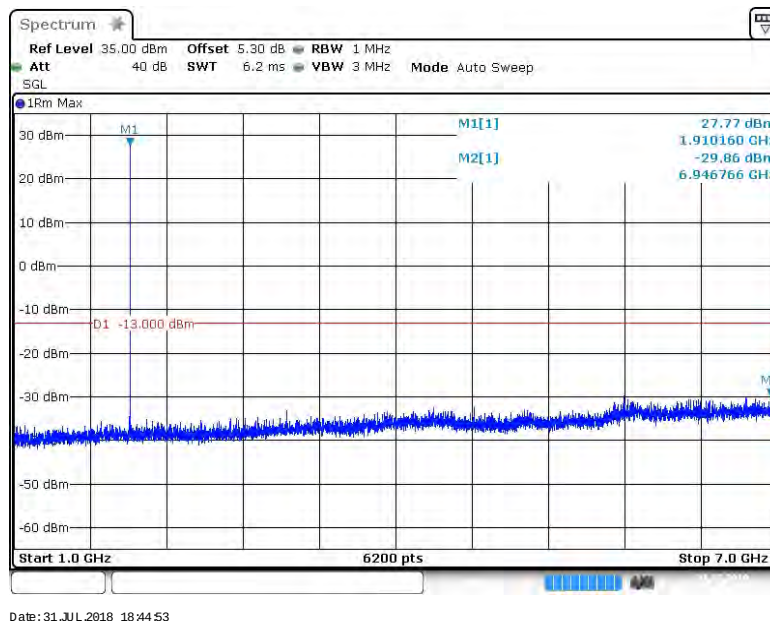
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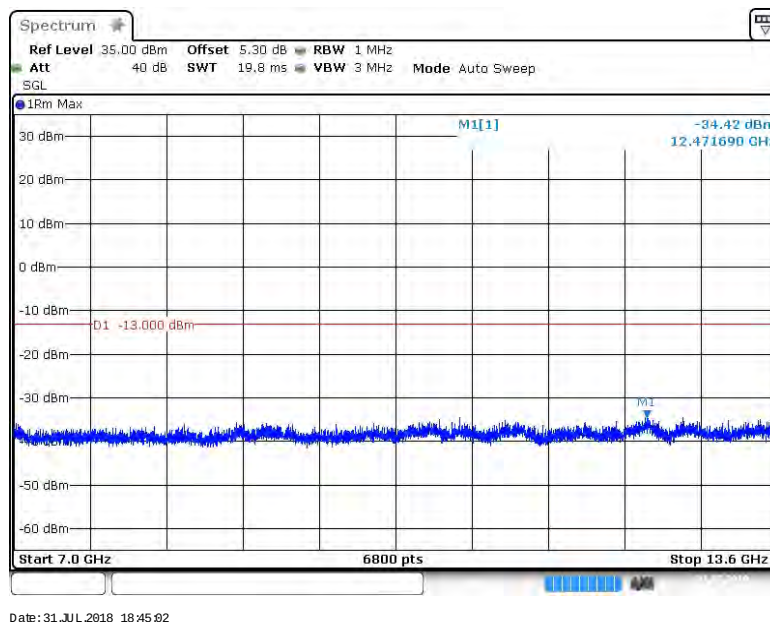
SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

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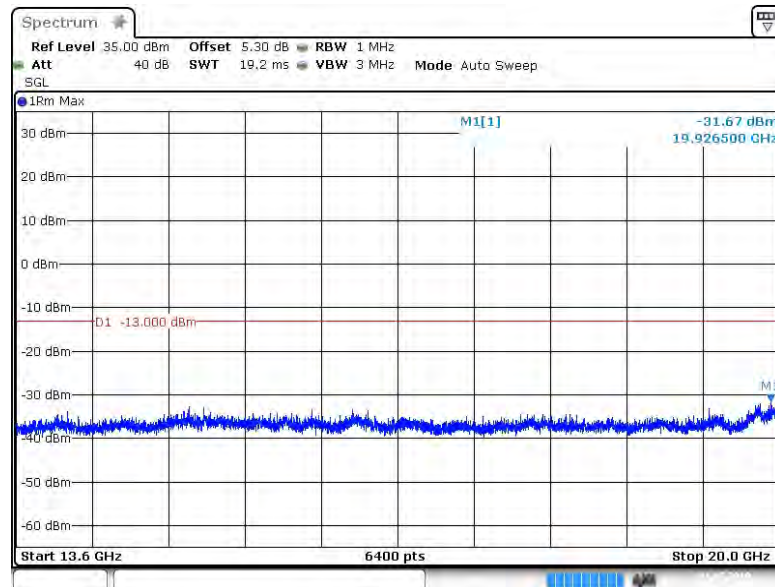
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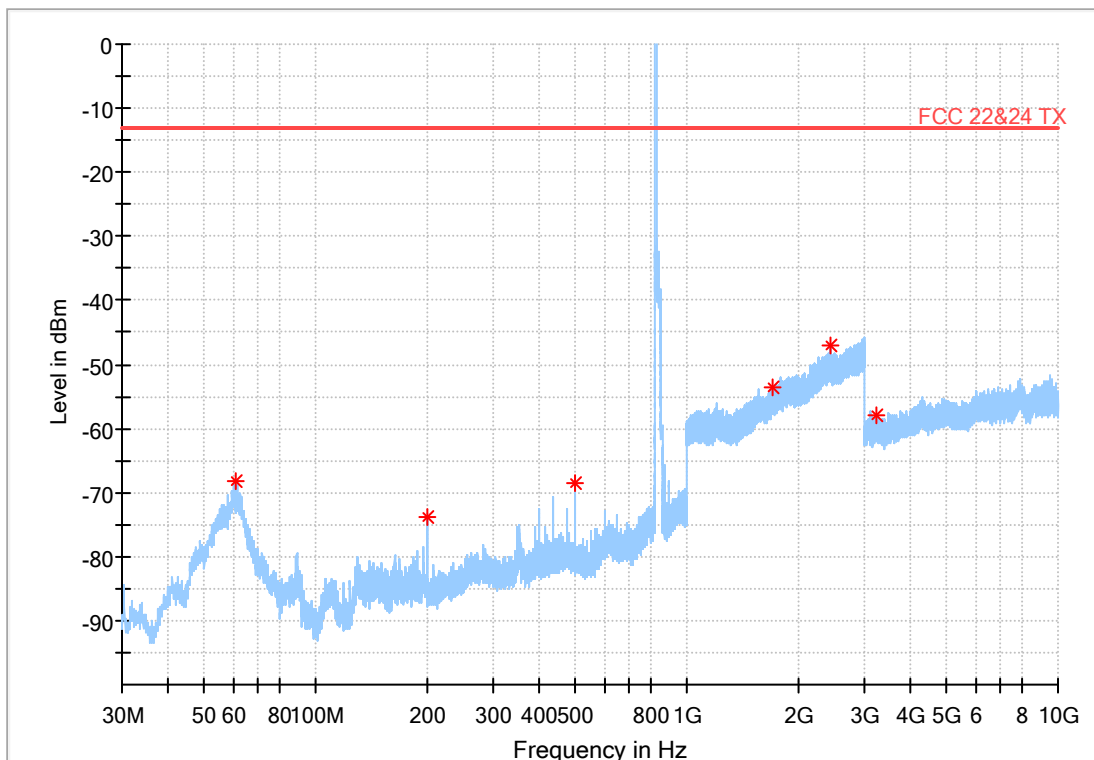


7. Field Strength of Spurious Radiation

7.1. Test Band = GSM 850-Main Antenna

7.1.1. Test Channel = LCH_H

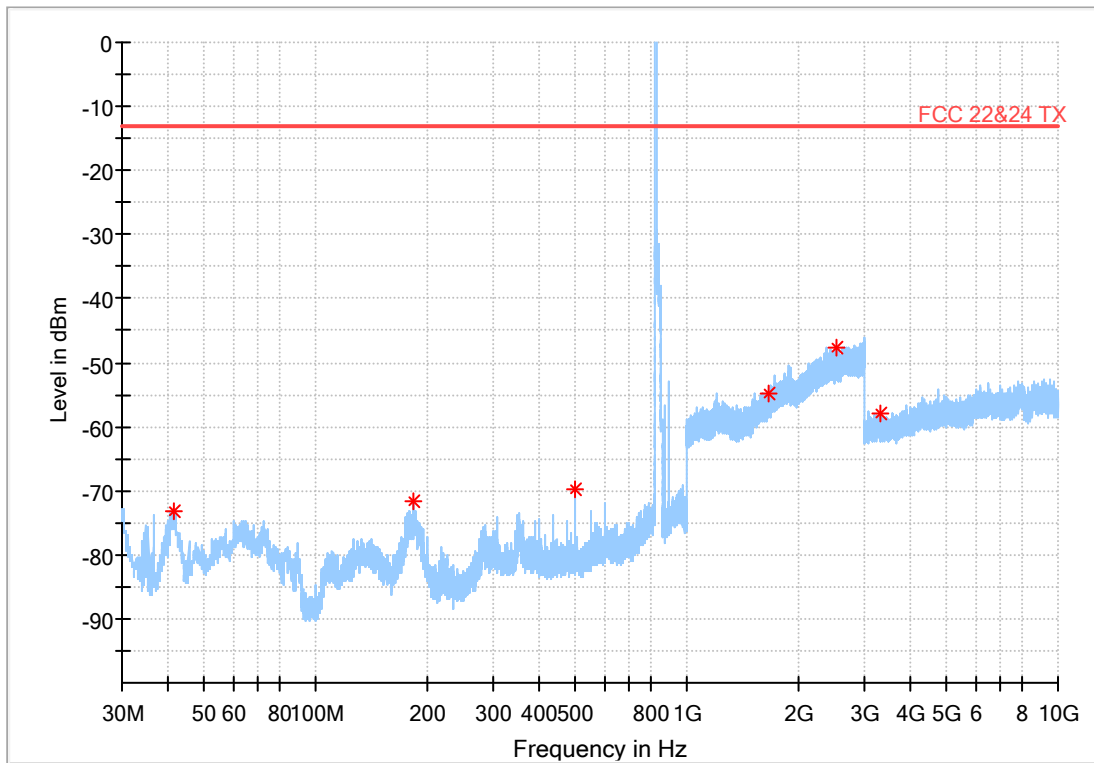
Full Spectrum





7.1.2. Test Channel = LCH_V

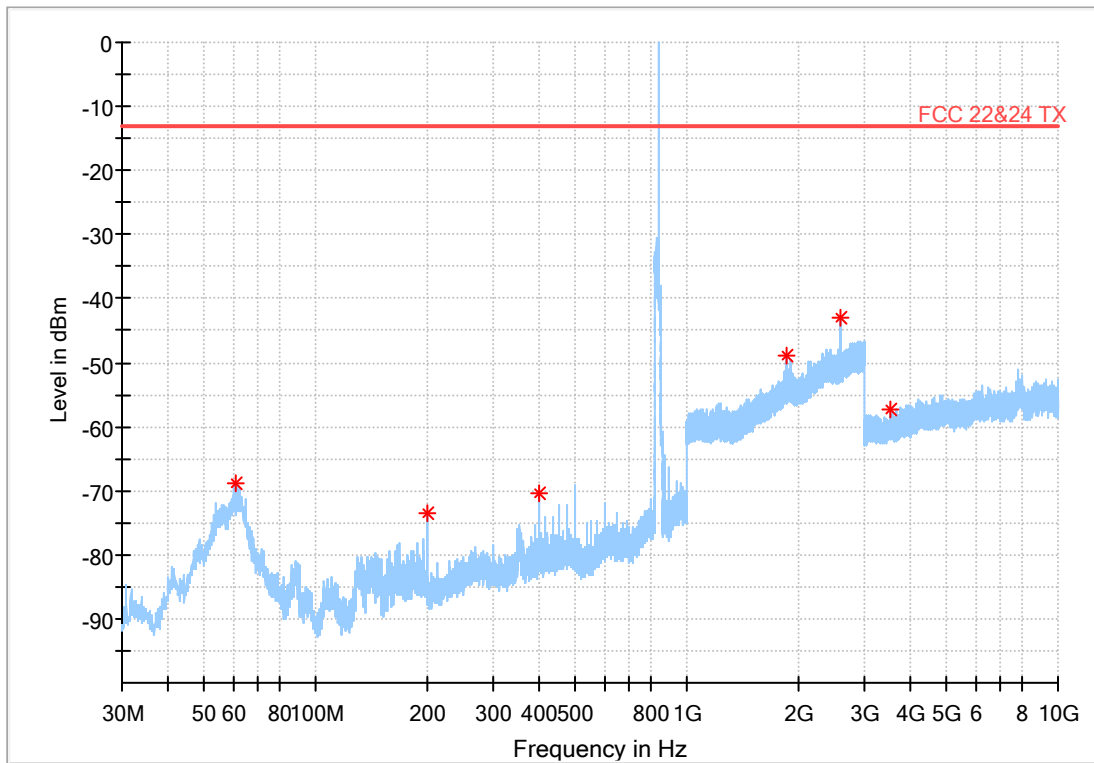
Full Spectrum





7.1.3. Test Channel = MCH_H

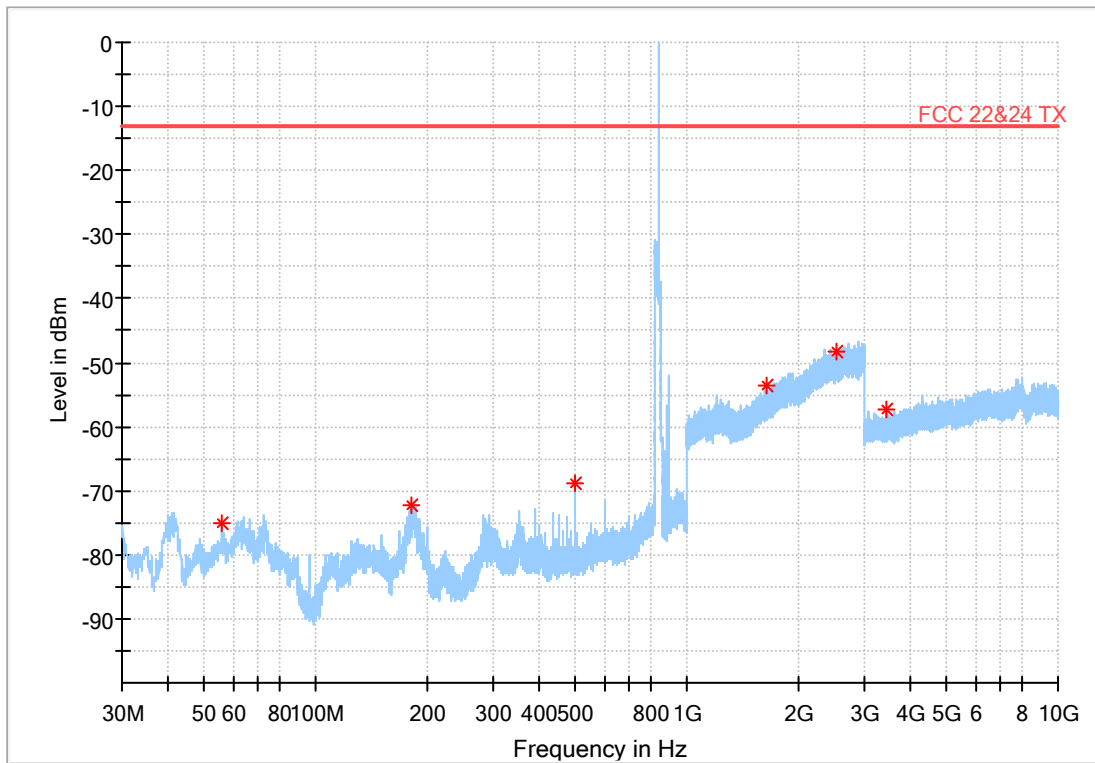
Full Spectrum





7.1.4. Test Channel = MCH_V

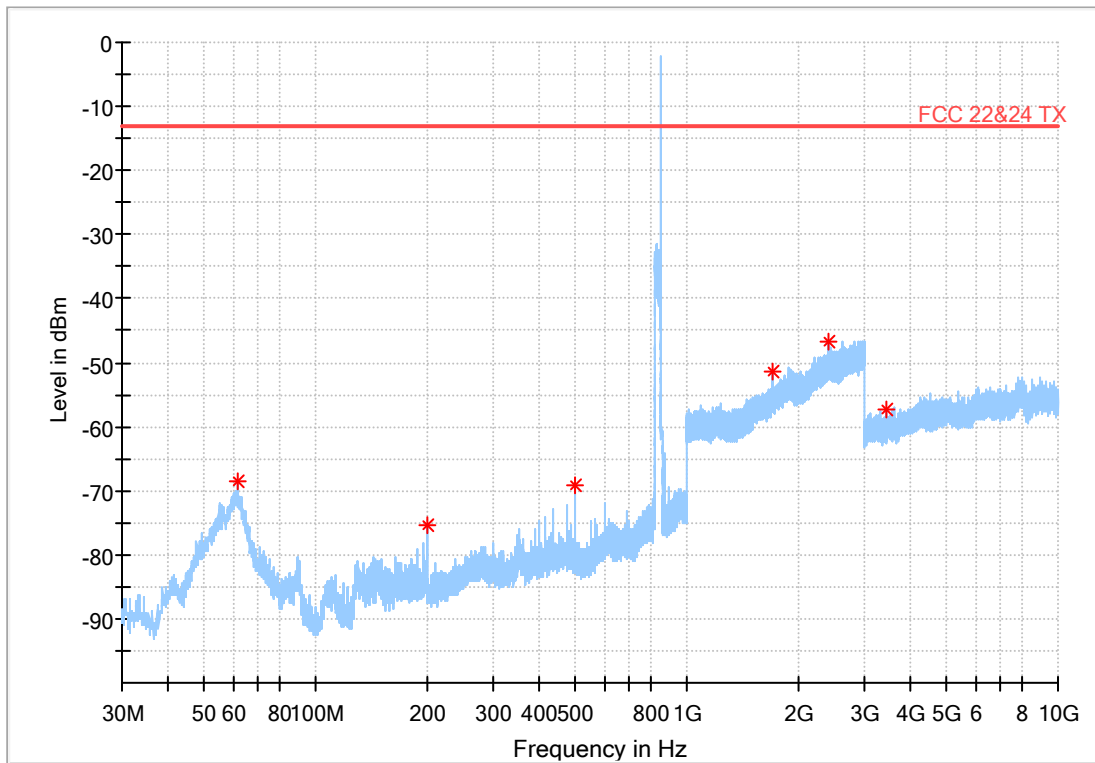
Full Spectrum





7.1.5. Test Channel = HCH_H

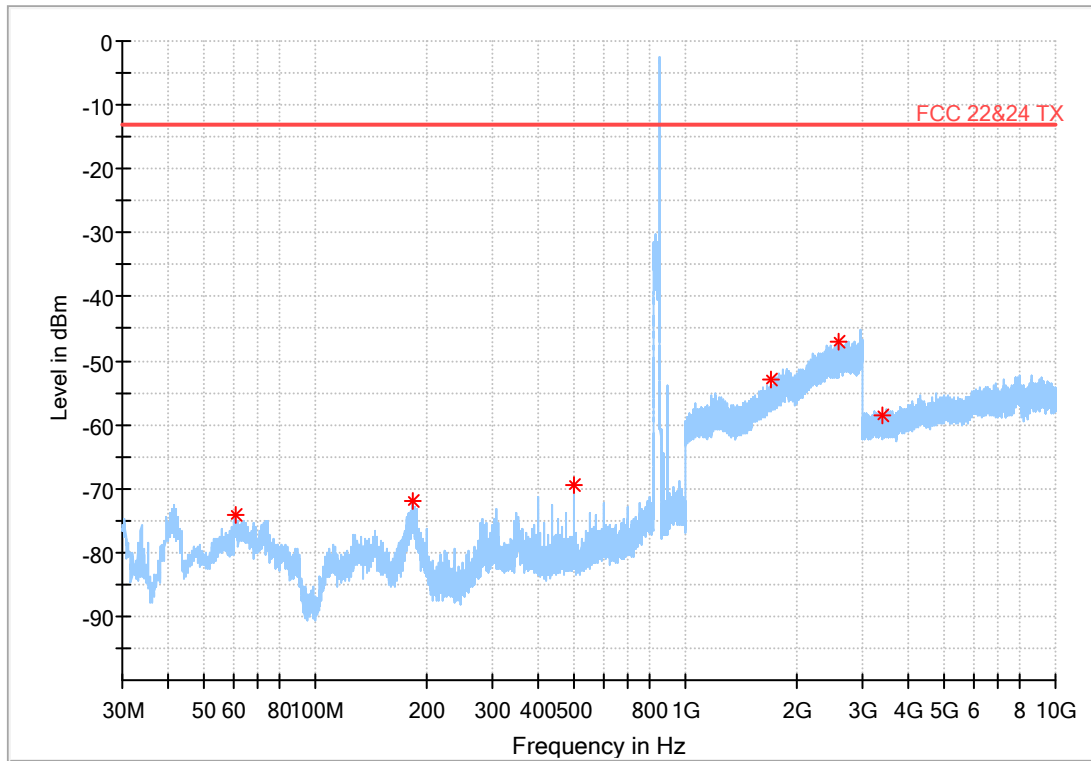
Full Spectrum





7.1.6. Test Channel = HCH_V

Full Spectrum

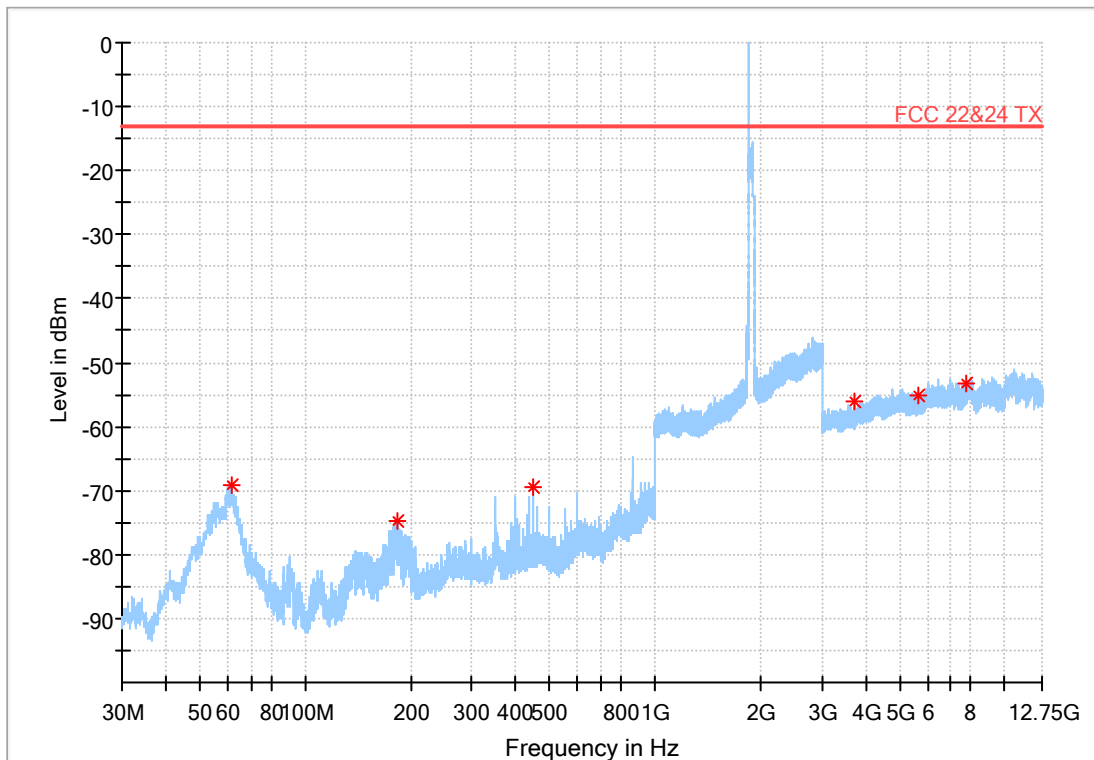




7.2. Test Band = GSM 1900-Main Antenna

7.2.1. Test Channel = LCH_H

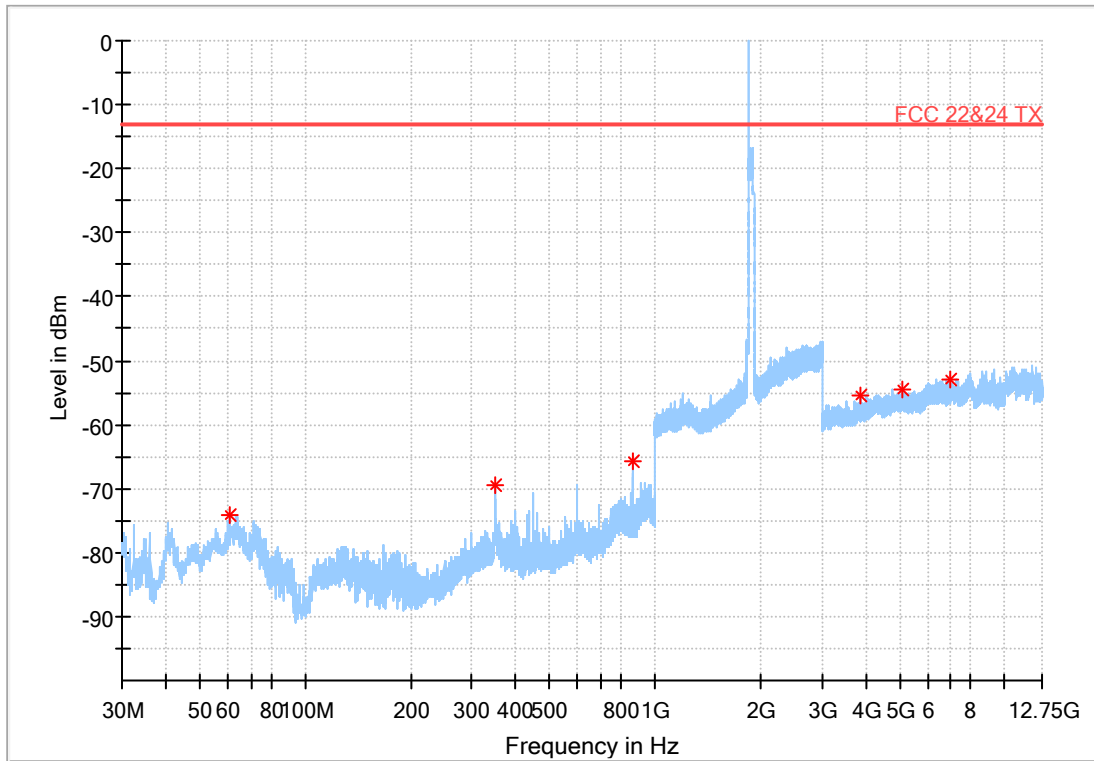
Full Spectrum





7.2.2. Test Channel = LCH_V

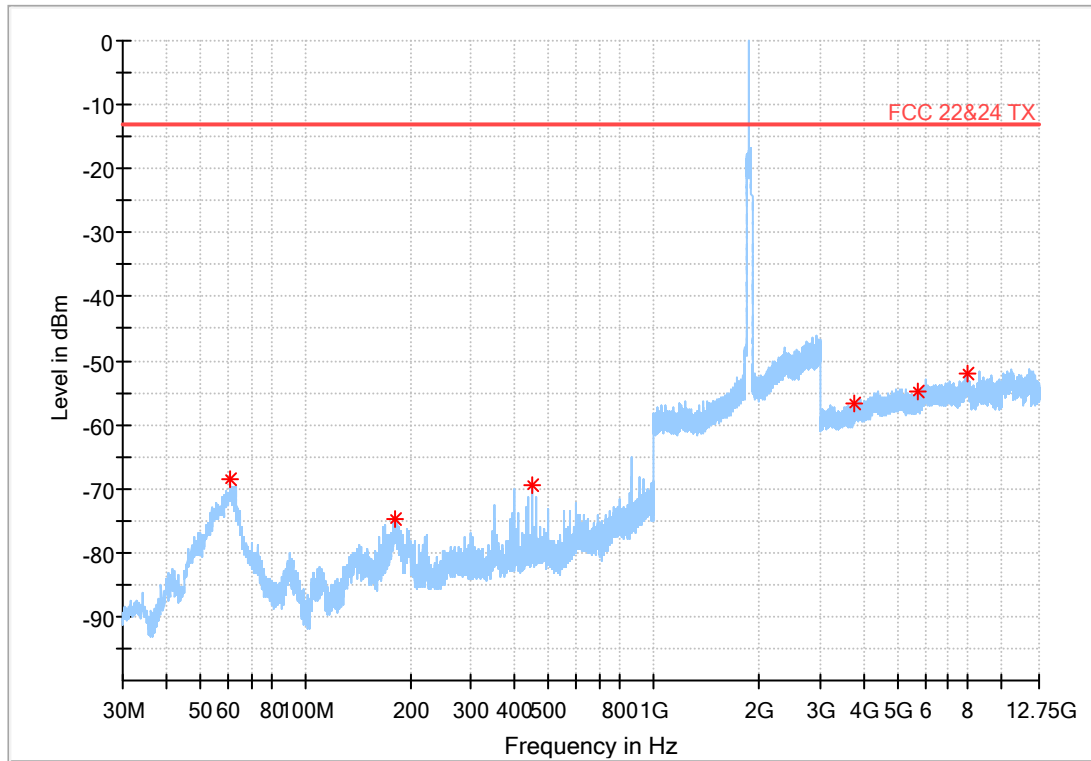
Full Spectrum





7.2.3. Test Channel = MCH_H

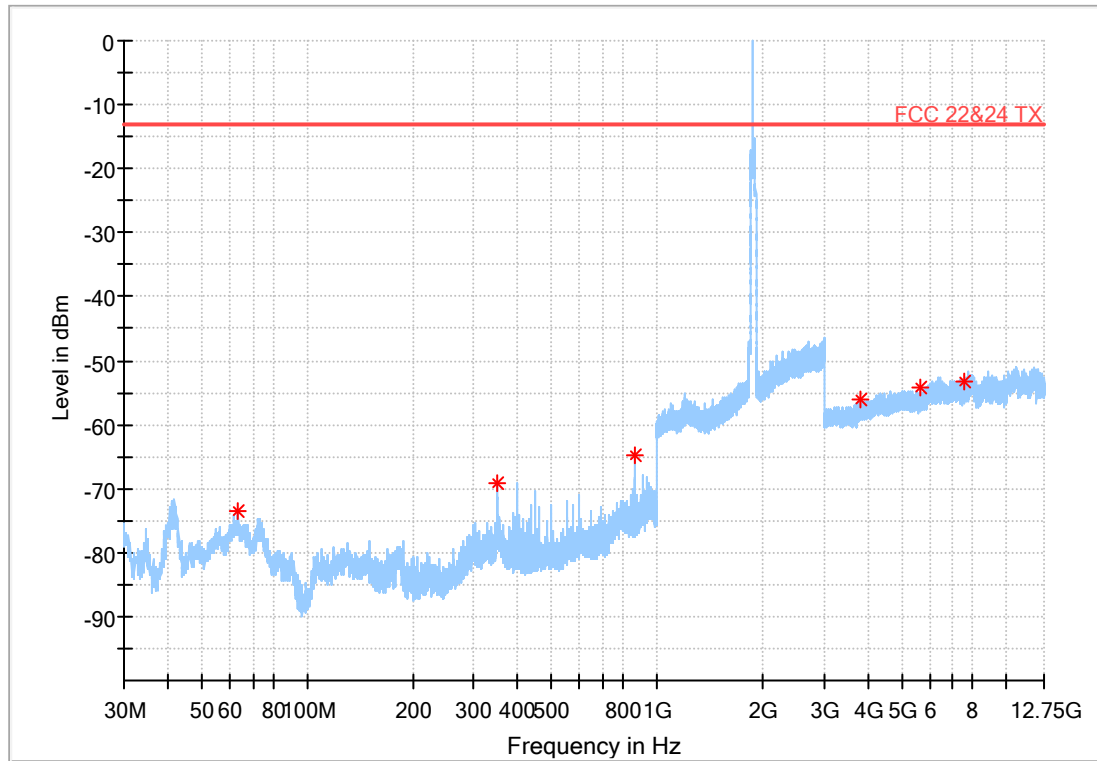
Full Spectrum





7.2.4. Test Channel = MCH_V

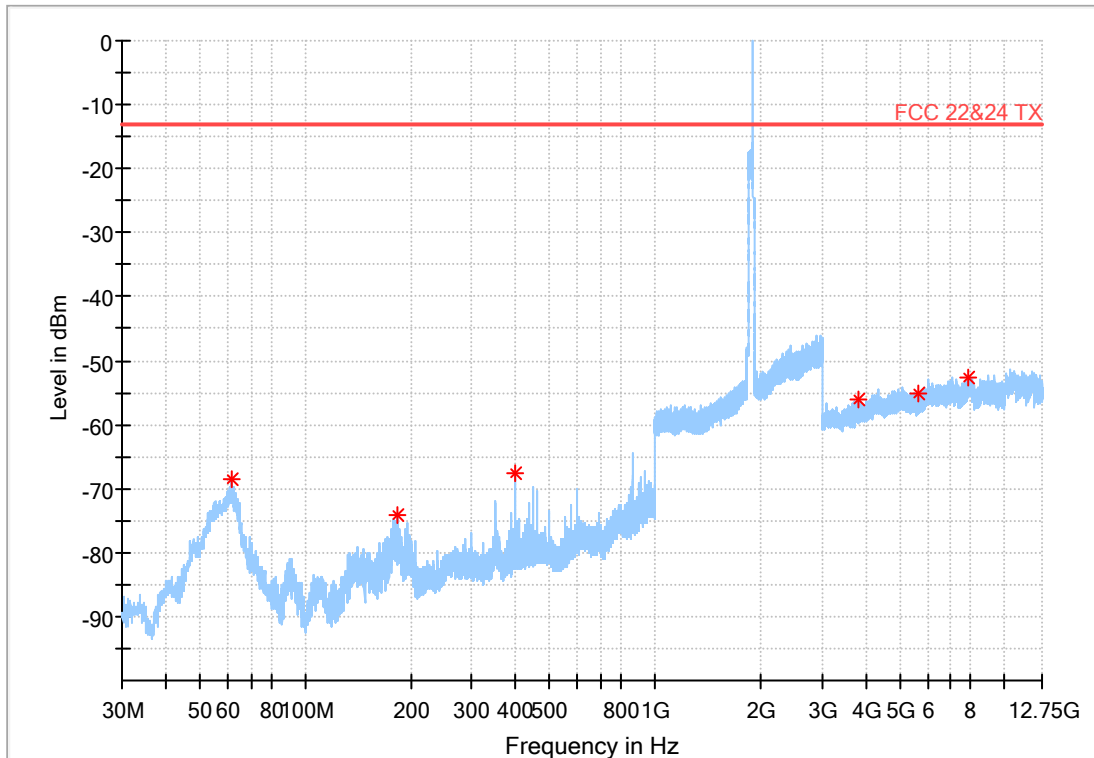
Full Spectrum





7.2.5. Test Channel = HCH_H

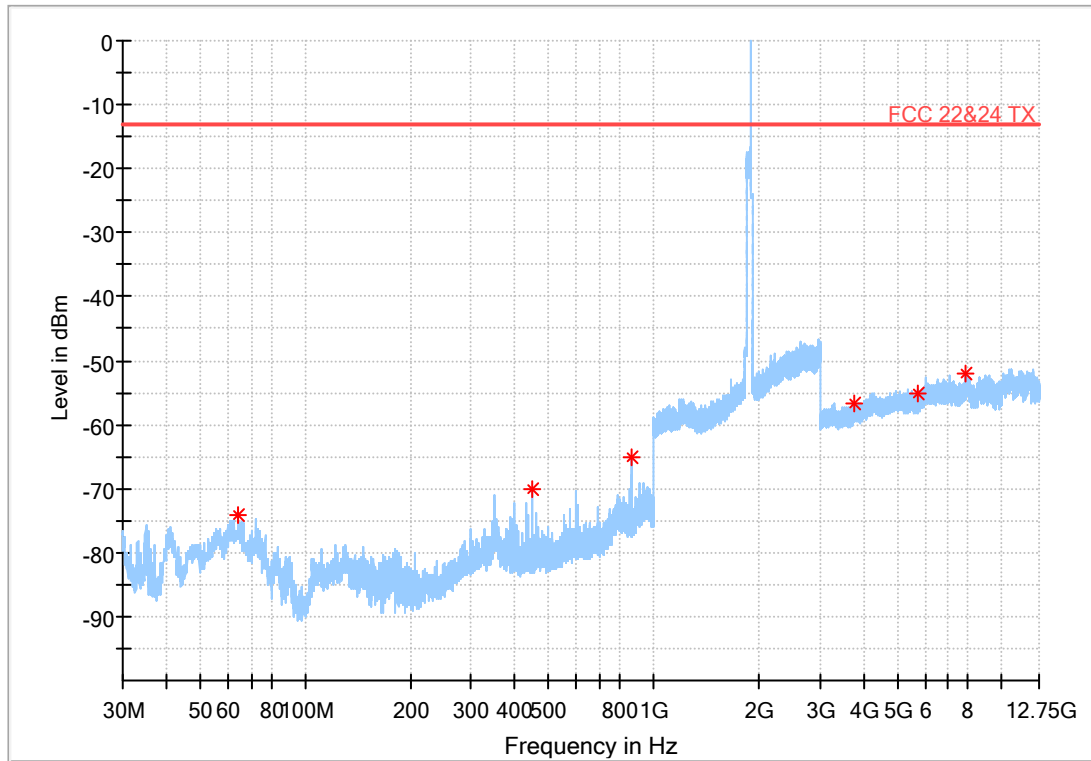
Full Spectrum





7.2.6. Test Channel = HCH_V

Full Spectrum





7.3. Test Band = GSM 850-Second Antenna

7.3.1. Test Channel = LCH_H

Full Spectrum

