



1 Appendix 1A: Transmitter Output Power

1.1 Conducted Power of Transmitter

		RF Output Power (Conducted)					
TEST CONDITIONS		Channel128(L)		Channel192(M)		Channel251(H)	
		824.2MHz		837.0MHz		848.8MHz	
		dBm		dBm		dBm	
T_{nom} / V_{nom}		Measured	Limit	Measured	Limit	Measured	Limit
GSM/TM1		31.93	38.5	32.08	38.5	32.12	38.5
GSM/TM2		26.39	38.5	26.45	38.5	26.58	38.5
TEST CONDITIONS		Channel4132(L)		Channel4182(M)		Channel4233(H)	
		826.4MHz		836.4MHz		846.6MHz	
		dBm		dBm		dBm	
T_{nom} / V_{nom}		Measured	Limit	Measured	Limit	Measured	Limit
UMTS/TM1		23.71	38.5	23.39	38.5	23.21	38.5
UMTS/TM2	Case1	23.46	38.5	23.13	38.5	22.87	38.5
	Case2	22.22	38.5	21.85	38.5	21.61	38.5
	Case3	21.87	38.5	21.53	38.5	21.29	38.5
	Case4	21.58	38.5	21.28	38.5	21.01	38.5
UMTS/TM3	Case1	22.38	38.5	21.79	38.5	21.53	38.5
	Case2	20.33	38.5	19.98	38.5	19.77	38.5
	Case3	21.11	38.5	20.77	38.5	20.58	38.5
	Case4	20.91	38.5	20.48	38.5	20.43	38.5
	Case5	22.56	38.5	22.15	38.5	21.99	38.5



1.2 Effective Radiated Power of Transmitter (ERP)

Test Mode	Freq. [MHz]	Meas. Level [dBm]	Substitution Antenna Type	SGP [dBm]	Substitution Gain [dBi]	Cable Loss [dB]	Substitution Level (ERP)	FCC limit [dBm]	Result
							[dBm]		
GSM/TM1	824.2	32.78	Dipole Ant.	36.16	-2.75	0.6	32.81	38.5	Pass
GSM/TM1	837.0	32.93	Dipole Ant.	36.2	-2.87	0.6	32.73	38.5	Pass
GSM/TM1	848.8	32.97	Dipole Ant.	36.22	-2.85	0.6	32.77	38.5	Pass
GSM/TM2	824.2	27.24	Dipole Ant.	30.39	-2.75	0.6	27.04	38.5	Pass
GSM/TM2	837.0	27.3	Dipole Ant.	30.57	-2.87	0.6	27.1	38.5	Pass
GSM/TM2	848.8	27.43	Dipole Ant.	30.68	-2.85	0.6	27.23	38.5	Pass
UMTS/TM1	826.4	24.56	Dipole Ant.	27.71	-2.75	0.6	24.36	38.5	Pass
UMTS/TM1	836.4	24.24	Dipole Ant.	27.51	-2.87	0.6	24.04	38.5	Pass
UMTS/TM1	846.6	24.06	Dipole Ant.	27.31	-2.85	0.6	23.86	38.5	Pass

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

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

b, SGP=Signal Generator Level



2 Appendix 2A: Transmitter Output Power

2.1 Conducted Power of Transmitter

		RF Output Power (Conducted)					
TEST CONDITIONS		Channel512(L)		Channel661(M)		Channel810(H)	
		1850.2MHz		1880.0MHz		1909.8MHz	
		dBm		dBm		dBm	
T_{nom} / V_{nom}		Measured	Limit	Measured	Limit	Measured	Limit
GSM/TM1		29.52	33	29.37	33	29.27	33
GSM/TM2		25.82	33	25.65	33	25.49	33
TEST CONDITIONS		Channel9262(L)		Channel9400(M)		Channel9538(H)	
		1852.4MHz		1880.0MHz		1907.6MHz	
		dBm		dBm		dBm	
T_{nom} / V_{nom}		Measured	Limit	Measured	Limit	Measured	Limit
UMTS/TM1		23.55	33	23.09	33	22.98	33
UMTS/TM2	Case1	23.53	33	23.07	33	22.98	33
	Case2	22.77	33	22.31	33	22.22	33
	Case3	22.18	33	21.72	33	21.65	33
	Case4	21.95	33	21.53	33	21.39	33
UMTS/TM3	Case1	22.19	33	21.81	33	21.72	33
	Case2	20.69	33	20.13	33	20.08	33
	Case3	21.41	33	20.97	33	20.91	33
	Case4	20.99	33	20.46	33	20.31	33
	Case5	22.12	33	21.91	33	21.82	33



2.2 Peak-to-Average Ratio

		Peak-to-Average Ratio					
TEST CONDITIONS		Channel512(L)		Channel661(M)		Channel810(H)	
		1850.2MHz		1880.0MHz		1909.8MHz	
		dB		dB		dB	
T_{nom} / V_{nom}		Measured	Limit	Measured	Limit	Measured	Limit
GSM/TM1		0.5	13	0.5	13	0.4	13
GSM/TM2		3.0	13	3.1	13	3.1	13
TEST CONDITIONS		Channel9262(L)		Channel9400(M)		Channel9538(H)	
		1852.4MHz		1880.0MHz		1907.6MHz	
		dB		dB		dB	
T_{nom} / V_{nom}		Measured	Limit	Measured	Limit	Measured	Limit
UMTS/TM1		3.42	13	3.29	13	3.22	13
UMTS/TM2	Case1	3.44	13	3.42	13	3.4	13
	Case2	4.12	13	4.2	13	4.05	13
	Case3	4.62	13	4.53	13	4.48	13
	Case4	4.6	13	4.62	13	4.56	13
UMTS/TM3	Case1	5.46	13	5.36	13	5.3	13
	Case2	5.32	13	5.62	13	6.05	13
	Case3	6.02	13	6.04	13	5.96	13
	Case4	6.52	13	6.54	13	6.29	13
	Case5	5.32	13	5.24	13	5.23	13



2.3 Effective Isotropic Radiated Power of Transmitter (EIRP)

Test Mode	Freq. [MHz]	Meas. Level [dBm]	Substitution Antenna Type	SGP [dBm]	Substitution Gain [dBi]	Cable Loss [dB]	Substitution Level (EIRP)	FCC limit [dBm]	Result
							[dBm]		
GSM/TM1	1850.2	32.52	Horn Ant.	28.82	4.5	1	32.32	33	Pass
GSM/TM1	1880.0	32.37	Horn Ant.	29.02	4.5	1	32.52	33	Pass
GSM/TM1	1909.8	32.27	Horn Ant.	28.27	4.8	1	32.07	33	Pass
GSM/TM2	1850.2	28.82	Horn Ant.	25.12	4.5	1	28.62	33	Pass
GSM/TM2	1880.0	28.65	Horn Ant.	25.26	4.5	1	28.76	33	Pass
GSM/TM2	1909.8	28.49	Horn Ant.	24.49	4.8	1	28.29	33	Pass
UMT S/TM 1	1852.4	26.55	Horn Ant.	22.85	4.5	1	26.35	33	Pass
UMT S/TM 1	1880.0	26.09	Horn Ant.	22.74	4.5	1	26.24	33	Pass
UMT S/TM 1	1907.6	25.98	Horn Ant.	22.28	4.8	1	26.08	33	Pass

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

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

b, SGP=Signal Generator Level



3 Appendix 3A: Transmitter Output Power

3.1 Conducted Power of Transmitter

TEST CONDITIONS		RF Output Power (Conducted)					
		Channel 1312(L)		Channel 1412(M)		Channel 1513(H)	
		1712.4MHz		1732.4MHz		1752.6MHz	
		dBm		dBm		dBm	
Tnom / Vnom		Measured	Limit	Measured	Limit	Measured	Limit
UMTS/TM1		23.31	30	23.23	30	23.19	30
UMTS/TM2	Case1	23.26	30	23.22	30	23.11	30
	Case2	22.48	30	22.41	30	22.34	30
	Case3	21.87	30	21.82	30	21.76	30
	Case4	21.68	30	21.54	30	21.47	30
UMTS/TM3	Case1	22.09	30	22.05	30	21.99	30
	Case2	20.21	30	20.33	30	20.27	30
	Case3	21.16	30	21.06	30	21.05	30
	Case4	20.49	30	20.62	30	20.55	30
	Case5	22.21	30	22.05	30	21.99	30



3.2 Peak-to-Average Ratio

TEST CONDITIONS		RF Output Power (Conducted)					
		Channel 1312(L)		Channel 1412(M)		Channel 1513(H)	
		1712.4MHz		1732.4MHz		1752.6MHz	
		dB		dB		dB	
Tnom / Vnom		Measured	Limit	Measured	Limit	Measured	Limit
UMTS/TM1		4.04	13	3.97	13	4.03	13
UMTS/TM2	Case1	3.73	13	3.65	13	3.94	13
	Case2	3.64	13	3.48	13	3.76	13
	Case3	3.44	13	3.25	13	3.54	13
	Case4	3.39	13	3.27	13	3.58	13
UMTS/TM3	Case1	3.5	13	3.46	13	3.73	13
	Case2	3.33	13	3.06	13	3.63	13
	Case3	3.49	13	3.38	13	3.75	13
	Case4	3.21	13	3.15	13	3.59	13
	Case5	3.66	13	3.54	13	3.77	13



3.3 Efficient Isotropic Radiated Power (EIRP)

Test Mode	Freq. [MHz]	Meas. Level [dBm]	Substitution Antenna Type	SGP [dBm]	Substitution Gain [dBi]	Cable Loss [dB]	Substitution Level (EIRP) [dBm]	Limit [dBm]	Result
UMTS/T M1	1712.4	26.31	Horn Ant.	22.61	4.5	1	26.11	30	Pass
UMTS/T M1	1732.4	26.23	Horn Ant.	22.79	4.5	1	26.29	30	Pass
UMTS/T M1	1752.6	26.19	Horn Ant.	22.19	4.8	1	25.99	30	Pass

Note: a, For getting the EIRP (Efficient Isotropic Radiated Power) in substitution method, the following formula should take to calculate it,

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

b, SGP=Signal Generator Level



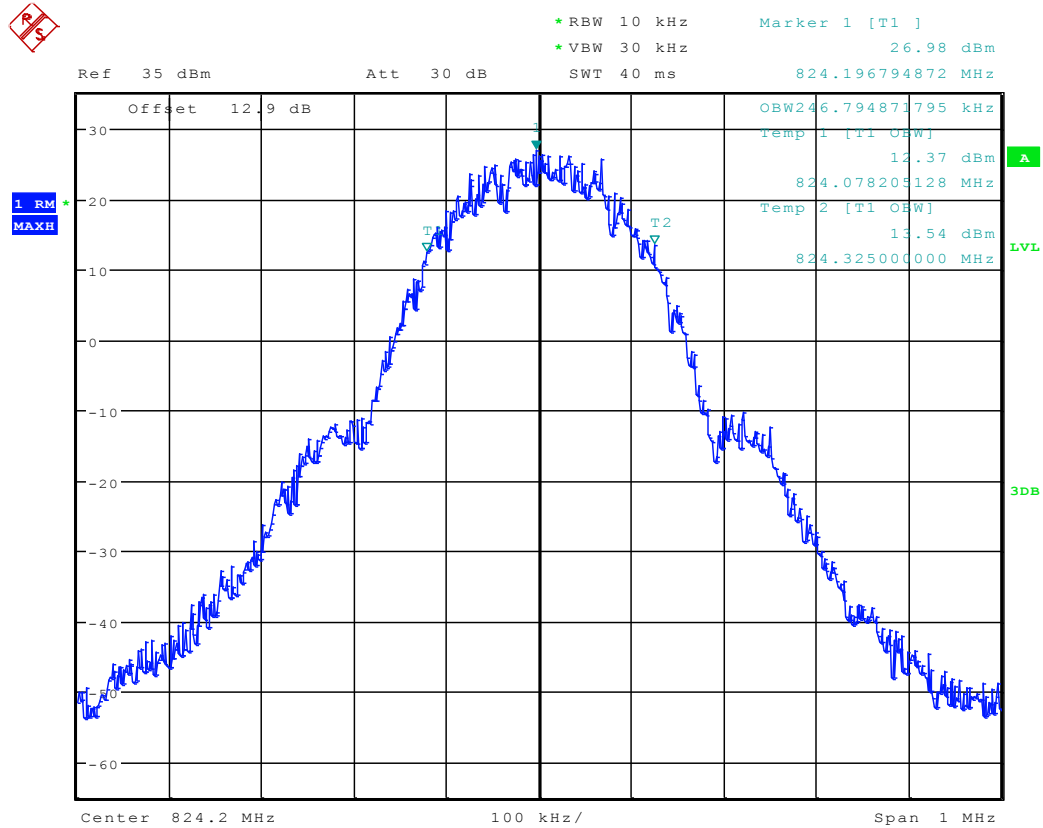
4 Appendix 1B: Occupied Bandwidth

4.1 Result Table

Test Mode	RF Channel	Occupied Bandwidth [kHz]	Verdict
GSM/TM1	128	246.79	Pass
	192	243.59	Pass
	251	240.38	Pass
GSM/TM2	128	240.38	Pass
	192	243.59	Pass
	251	241.99	Pass
Test Mode	RF Channel	Occupied Bandwidth [MHz]	Verdict
UMTS/TM1	4132	4.05	Pass
	4182	4.07	Pass
	4233	4.05	Pass



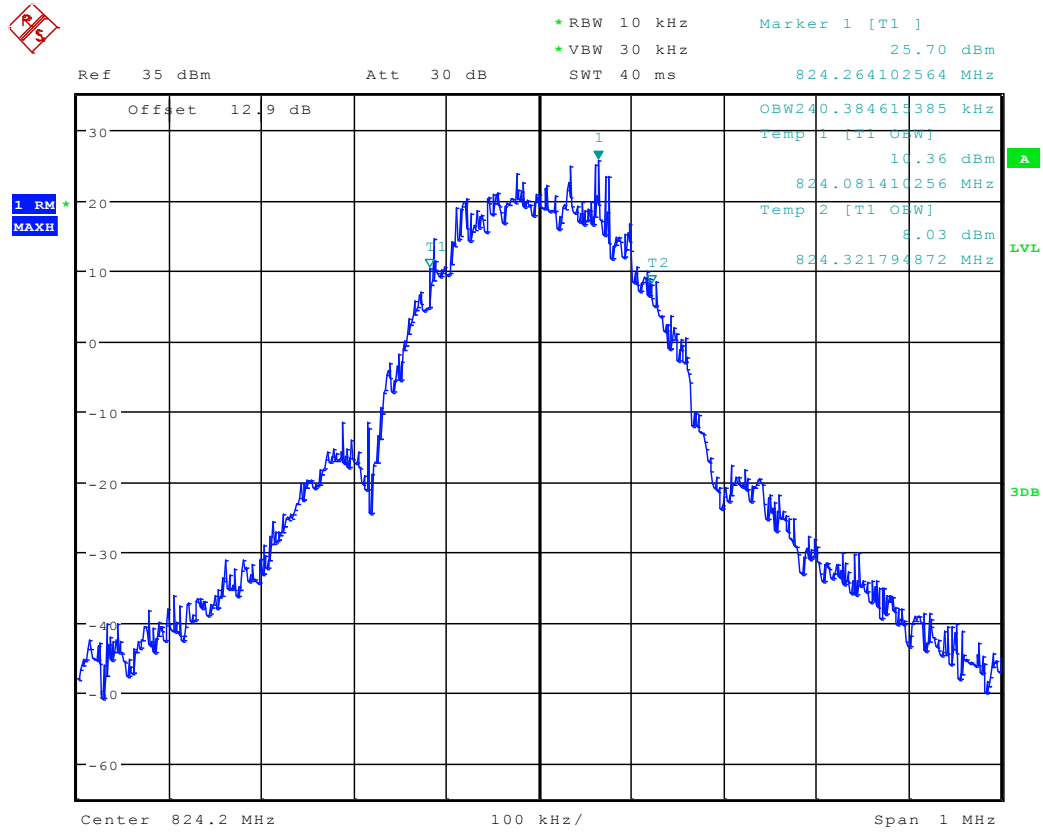
4.2 Channel 128 (GSM/TM1:GPRS/GSM)



Date: 14.NOV.2012 20:54:32



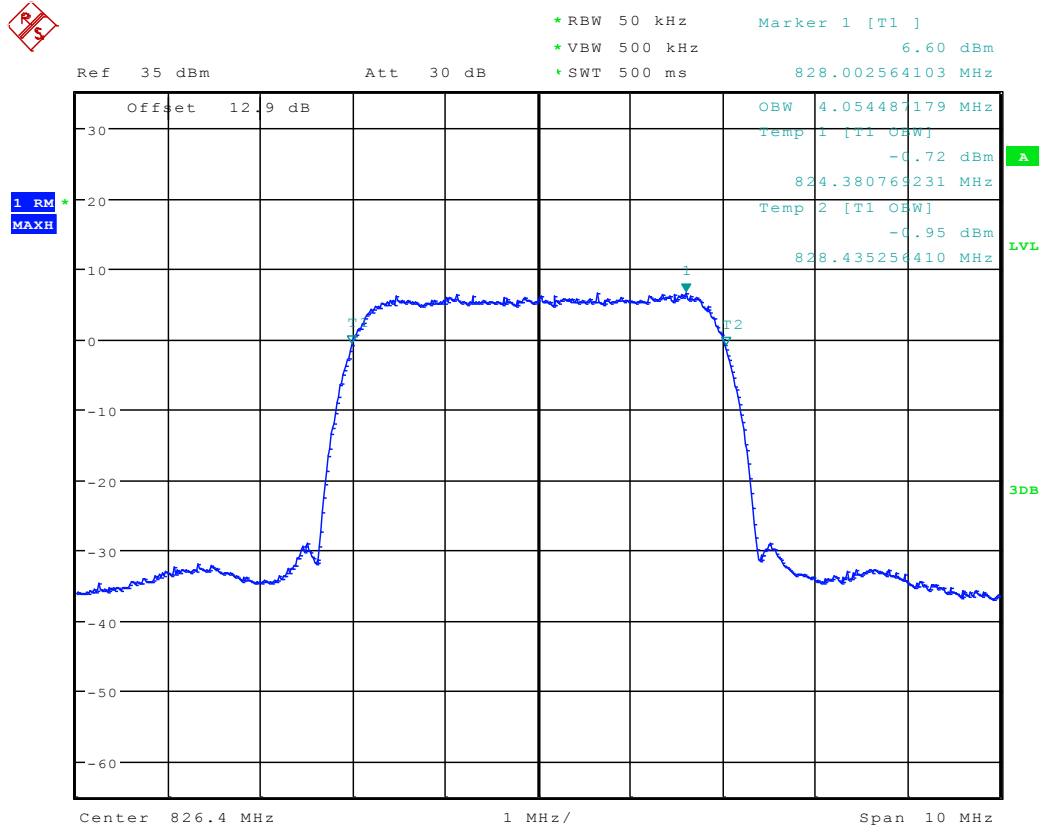
4.3 Channel 128 (GSM/TM2:EDGE)



Date: 14.NOV.2012 21:03:18



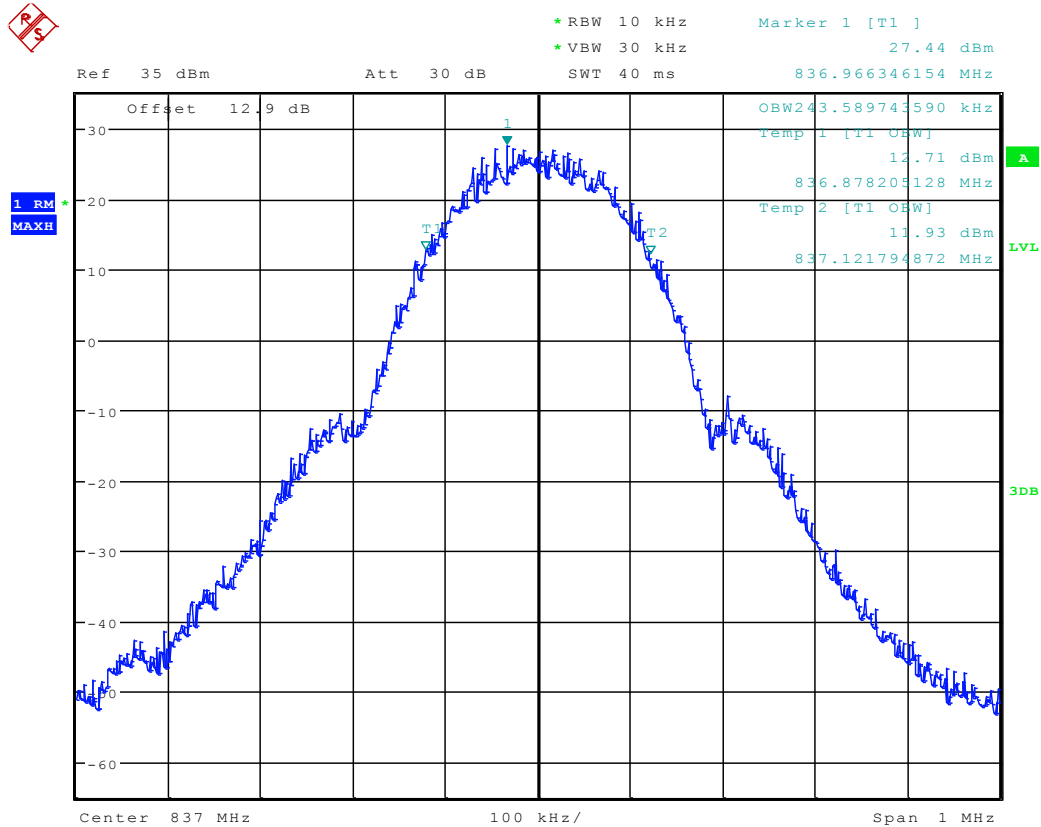
4.4 Channel 4132 (UMTS/TM1: WCDMA)



Date: 14.NOV.2012 21:08:04



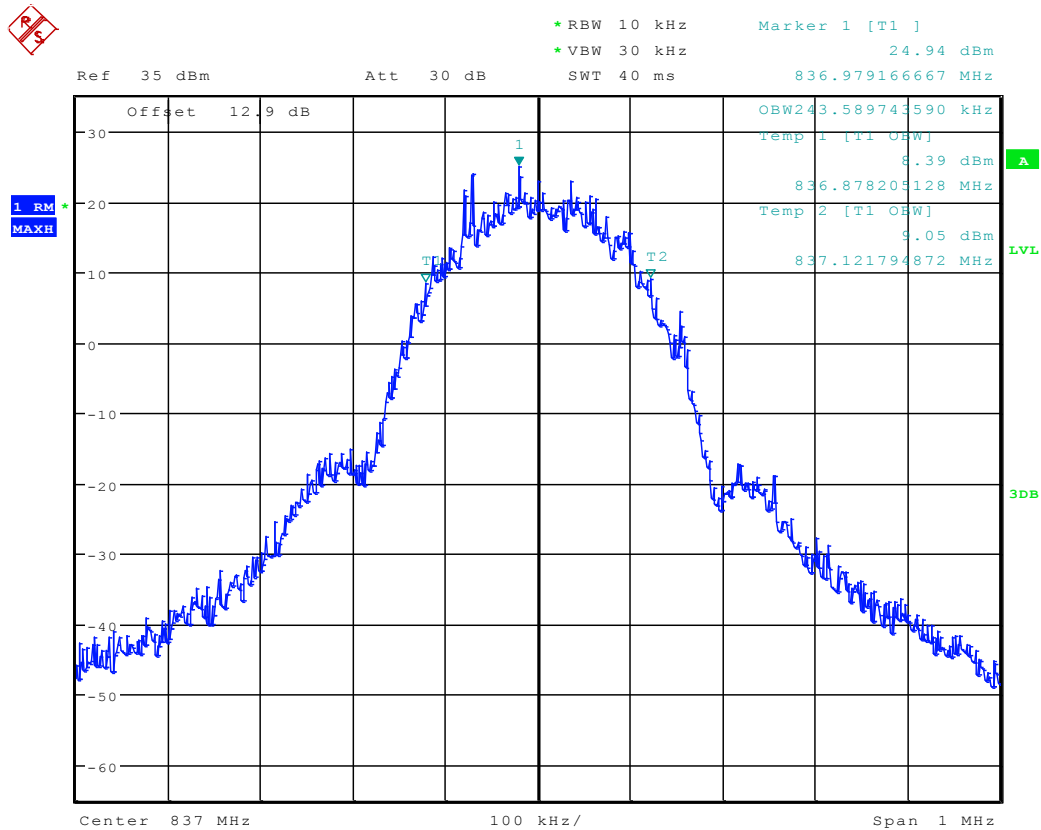
4.5 Channel 192 (GSM/TM1:GPRS/GSM)



Date: 14.NOV.2012 20:54:46



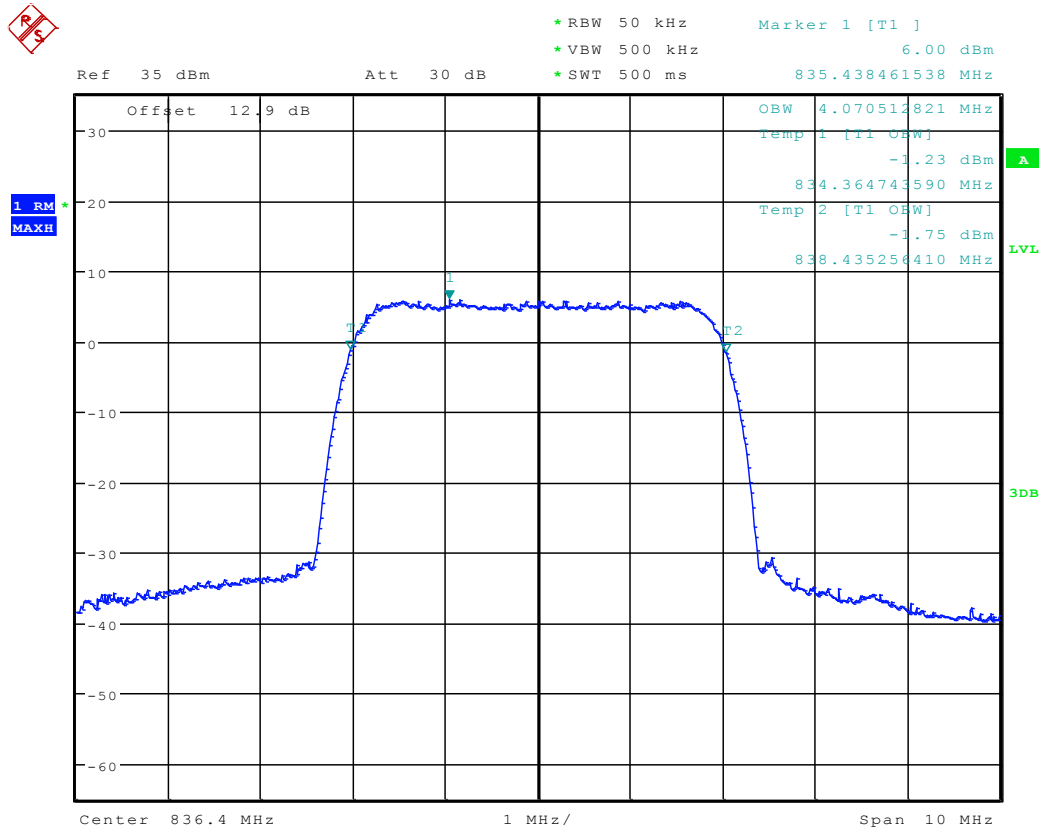
4.6 Channel 192 (GSM/TM2:EDGE)



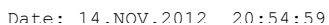
Date: 14.NOV.2012 21:03:32

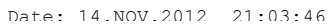
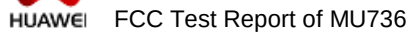


4.7 Channel 4182 (UMTS/TM1: WCDMA)



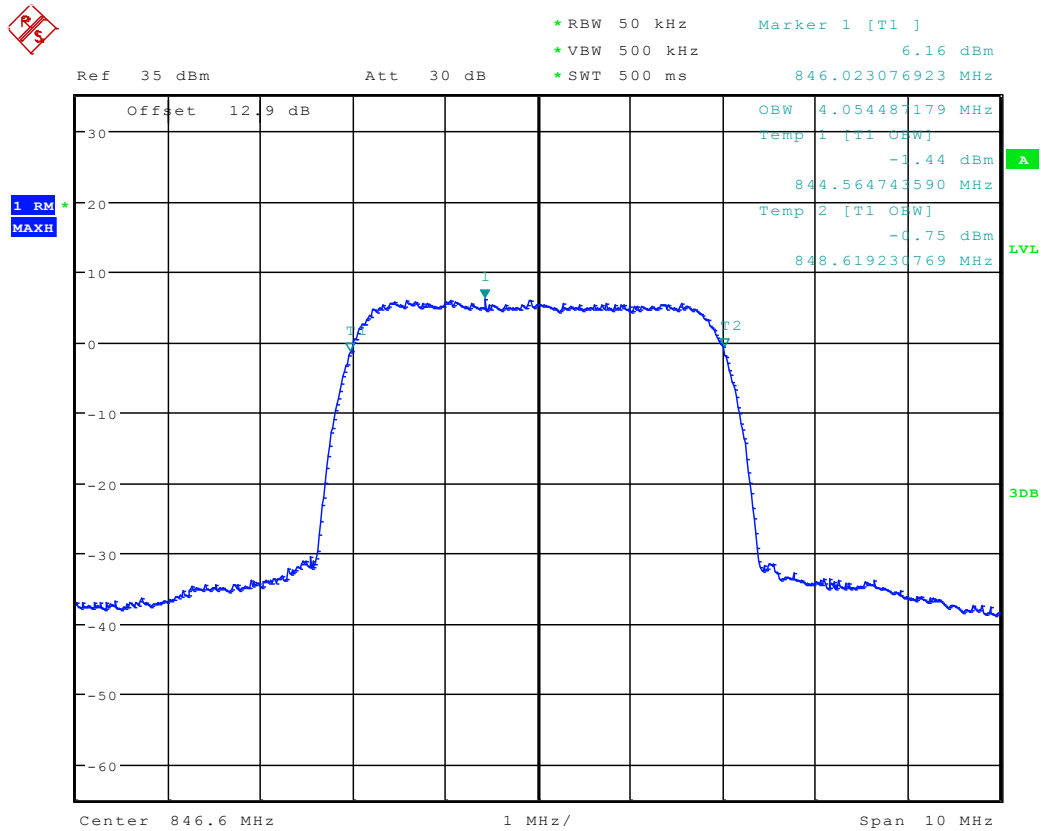
Date: 14.NOV.2012 21:08:18







4.10 Channel 4233 (UMTS/TM1: WCDMA)



Date: 14.NOV.2012 21:08:31



5 Appendix 2B: Occupied Bandwidth

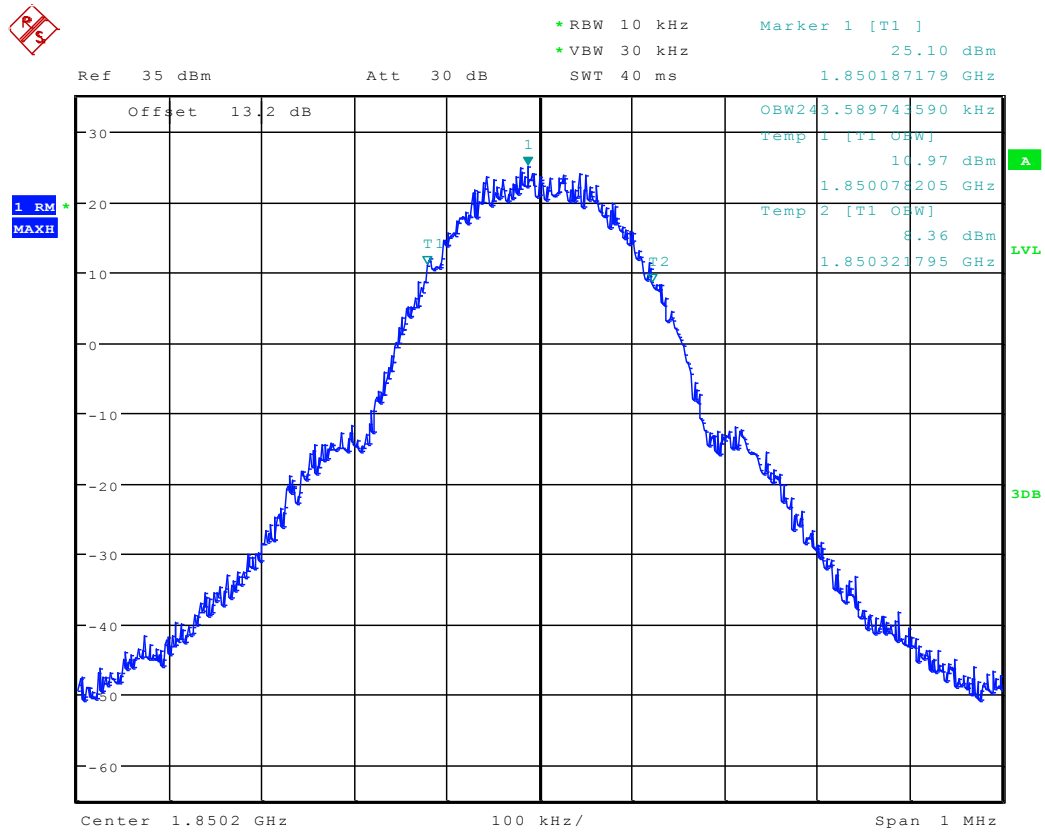
5.1 Result Table

Test Mode	RF Channel	Occupied Bandwidth [kHz]	Verdict
GSM/TM1	512	243.58	Pass
	661	243.59	Pass
	810	241.99	Pass
GSM/TM2	512	250.00	Pass
	661	245.19	Pass
	810	248.40	Pass
Test Mode	RF Channel	Occupied Bandwidth [MHz]	Verdict
UMTS/TM1	9262	4.07	Pass
	9400	4.05	Pass
	9538	4.07	Pass



5.2 GSM/TM1:GPRS/GSM

Channel 512

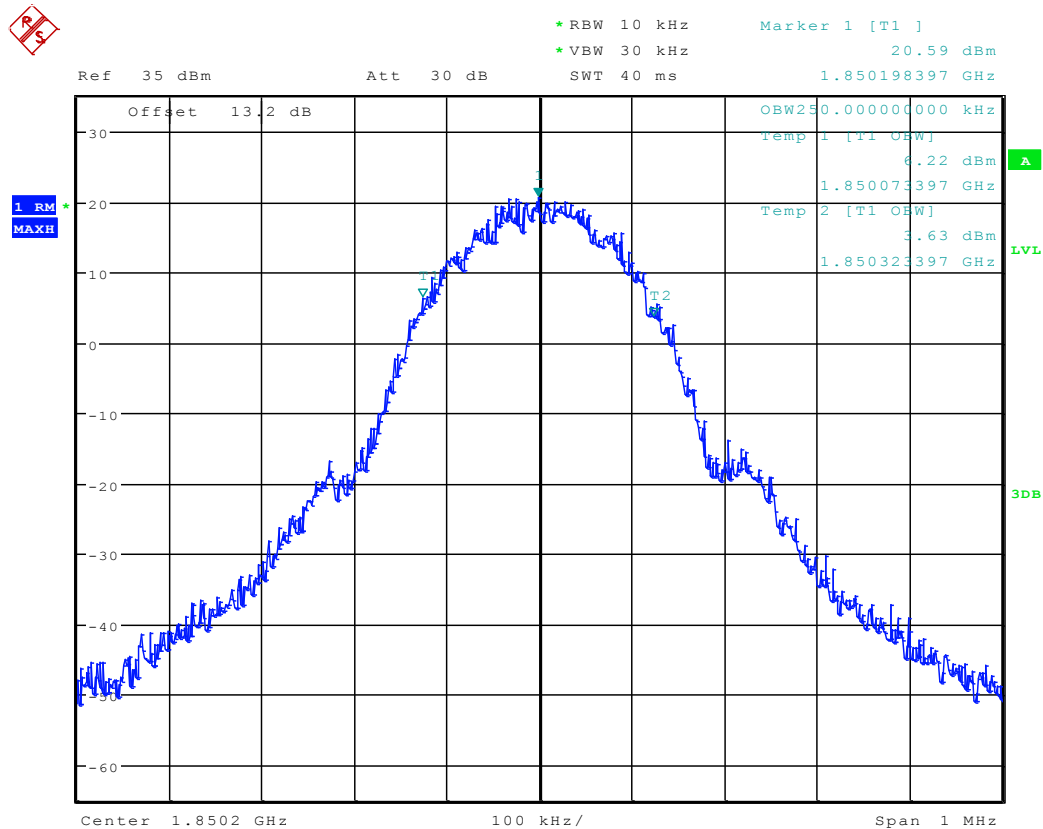


Date: 14.NOV.2012 20:38:16



5.3 GSM/TM2:EDGE

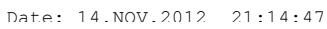
Channel 512



Date: 14.NOV.2012 20:44:09



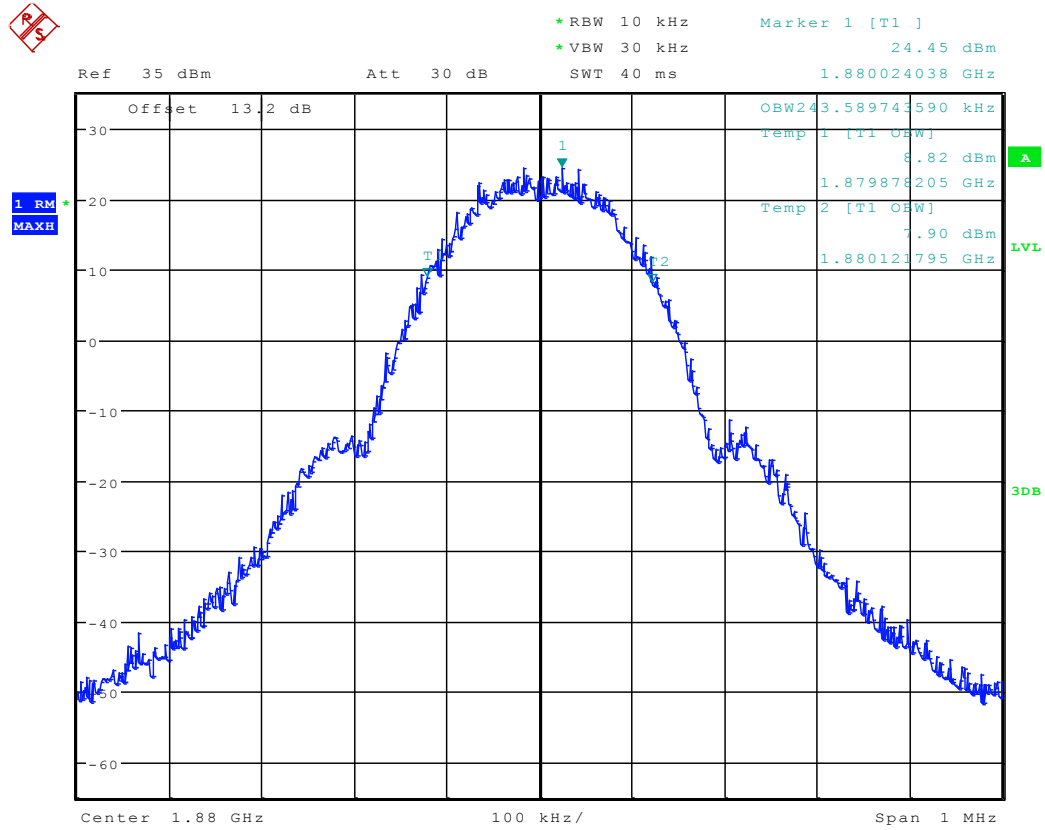
Channel 9262





5.5 GSM/TM1:GPRS/GSM

Channel 661

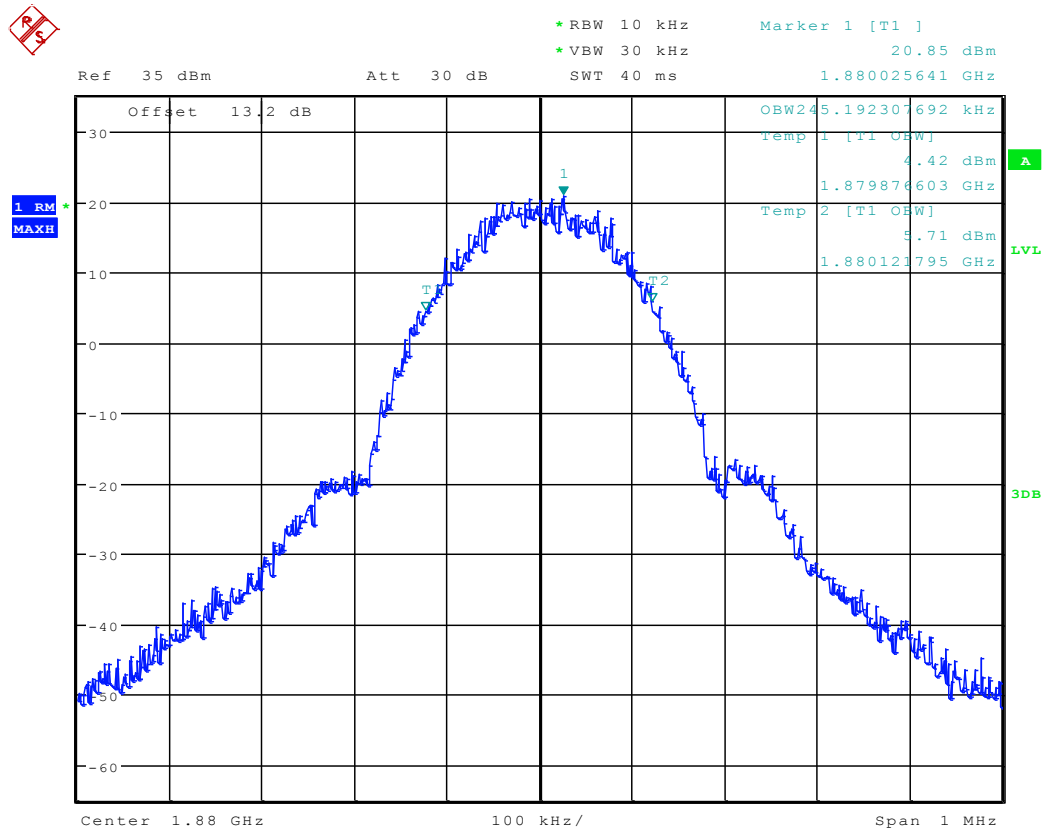


Date: 14.NOV.2012 20:38:29



5.6 GSM/TM2:EDGE

Channel 661

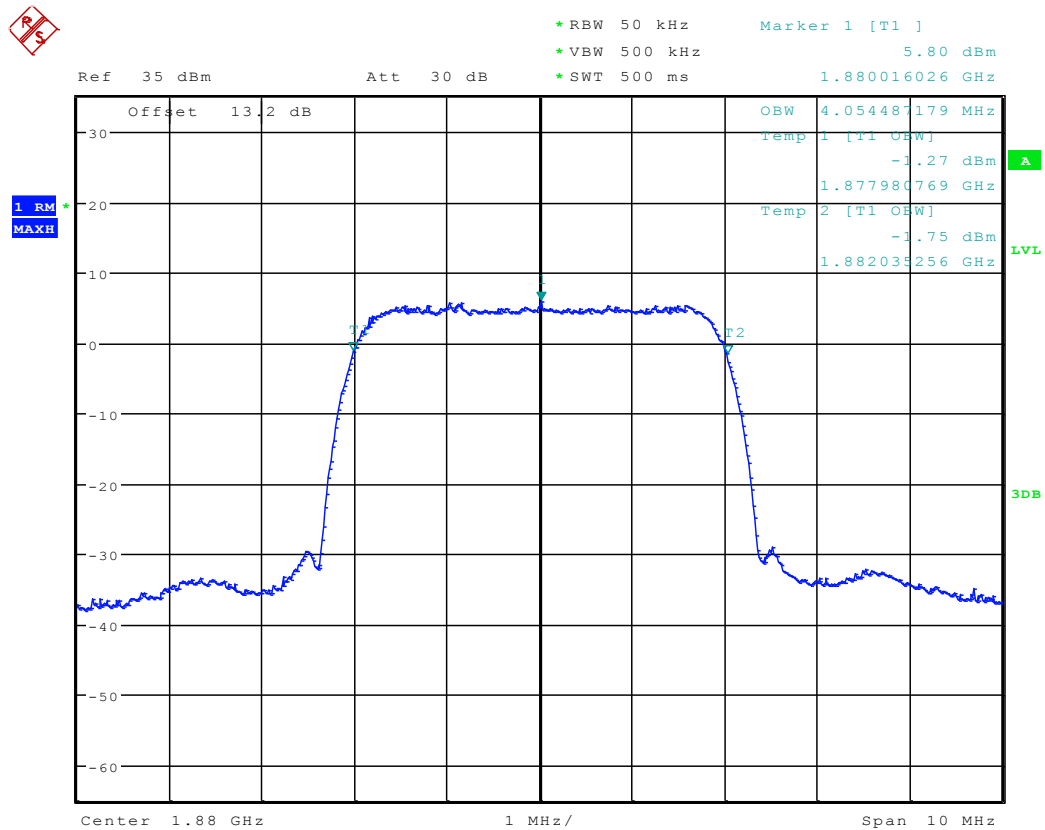


Date: 14.NOV.2012 20:44:22



5.7 UMTS/TM1: WCDMA

Channel 9400

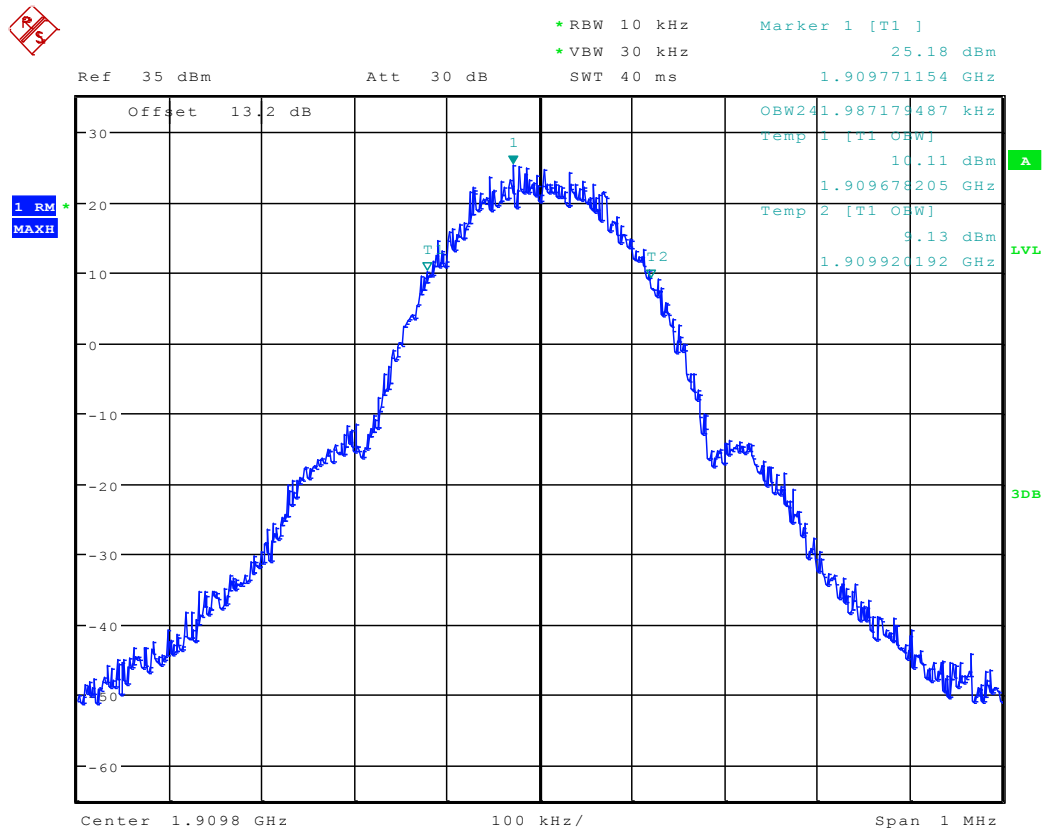


Date: 14.NOV.2012 21:15:00



5.8 GSM/TM1:GPRS/GSM

Channel 810

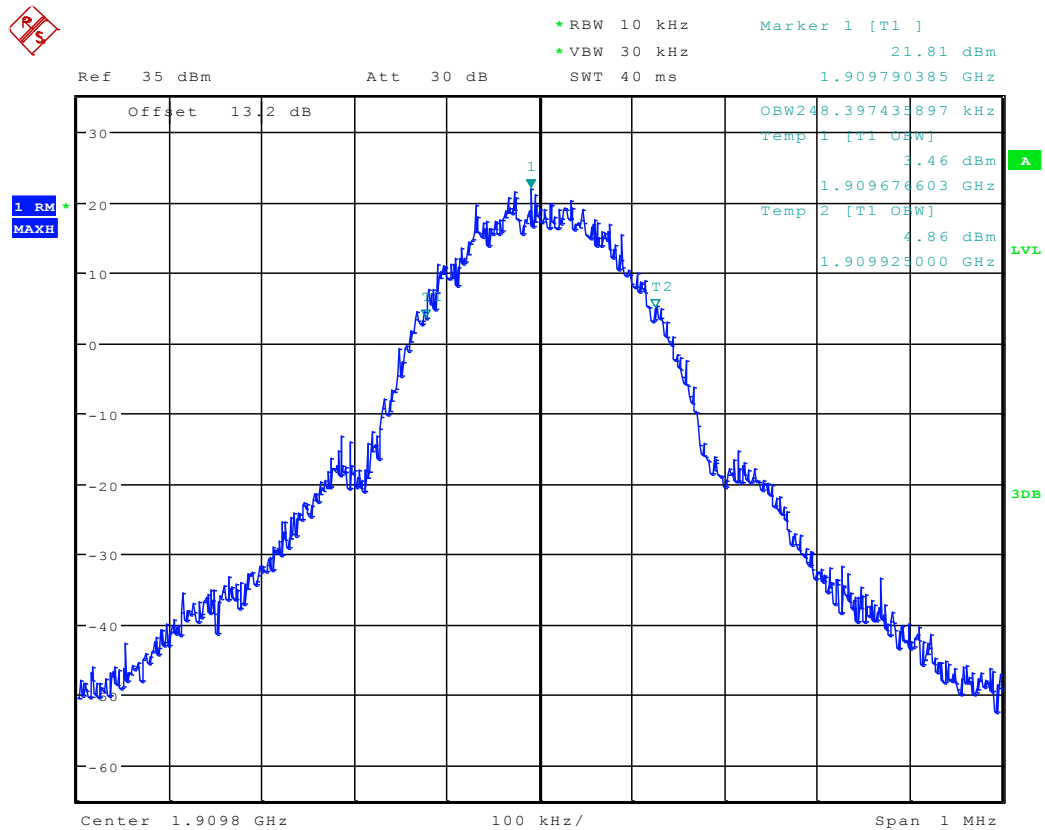


Date: 14.NOV.2012 20:38:43



5.9 GSM/TM2:EDGE

Channel 810

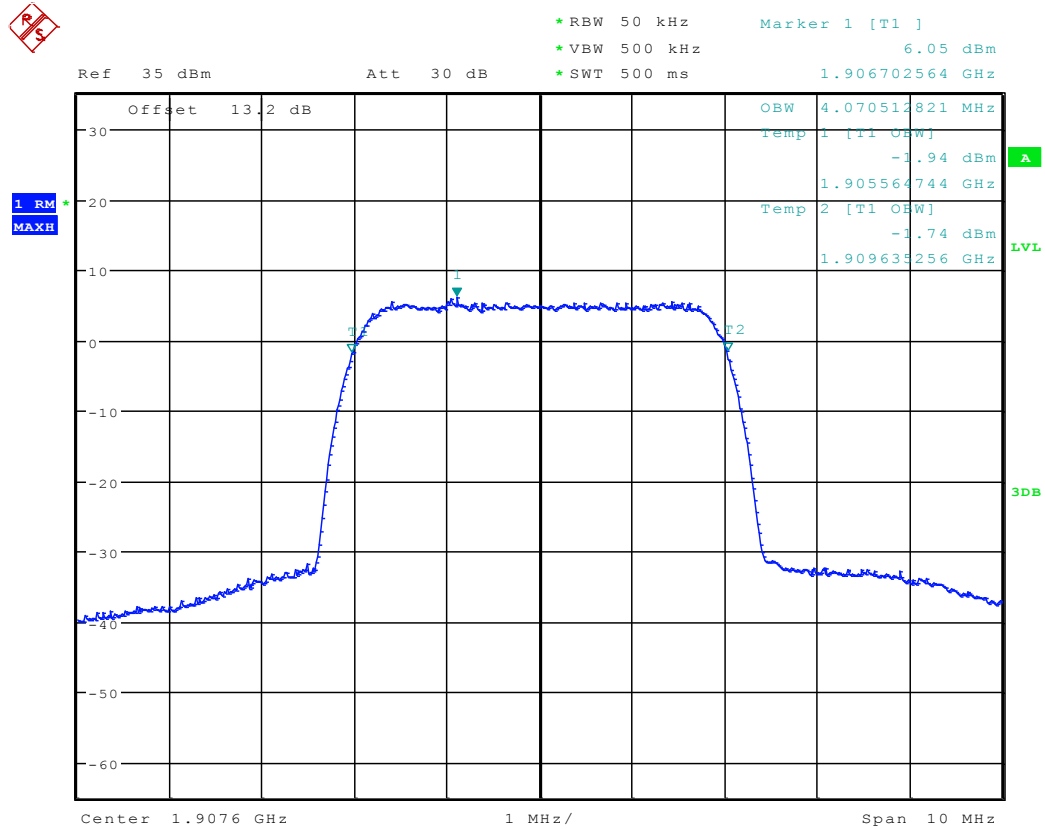


Date: 14.NOV.2012 20:44:36



5.10 UMTS/TM1: WCDMA

Channel 9538



Date: 14.NOV.2012 21:15:14



6 Appendix 3B: Occupied Bandwidth

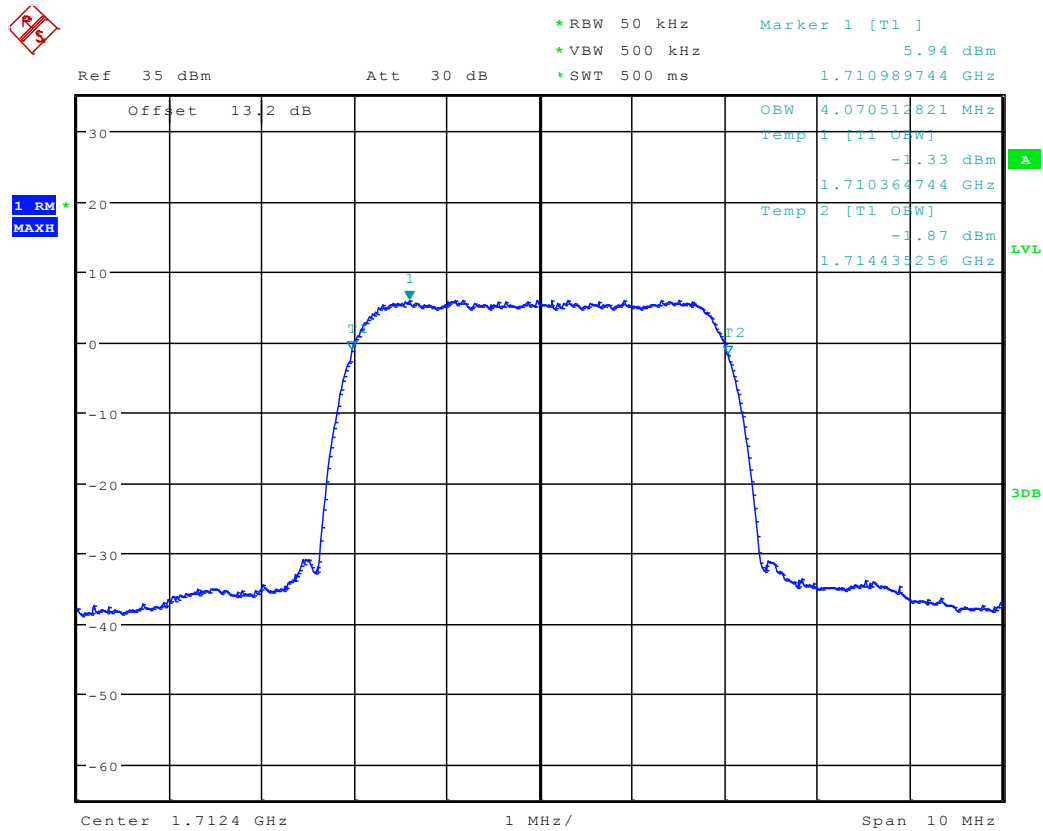
6.1 Result Table

Test Mode	RF Channel	Occupied Bandwidth [MHz]	Verdict
UMTS/TM1	1312	4.07	Pass
	1412	4.07	Pass
	1513	4.07	Pass



6.2 GSM/TM1: WCDMA

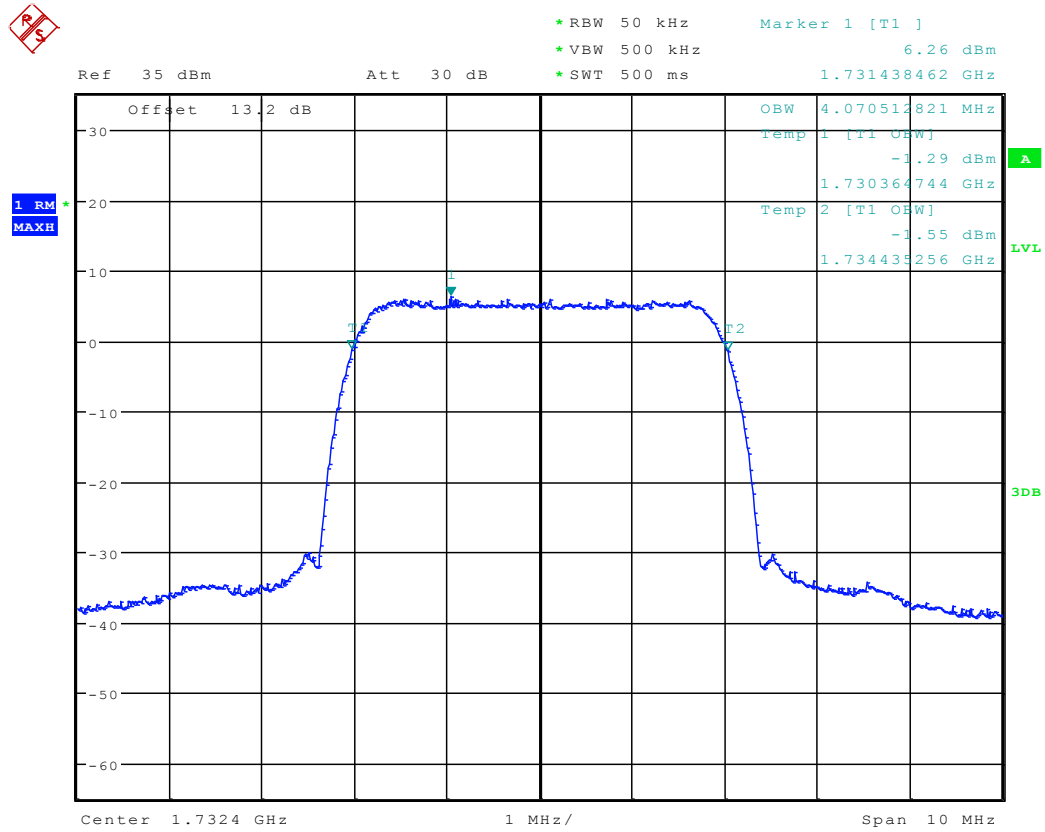
6.2.1 Channel 1312



Date: 14.NOV.2012 20:48:54



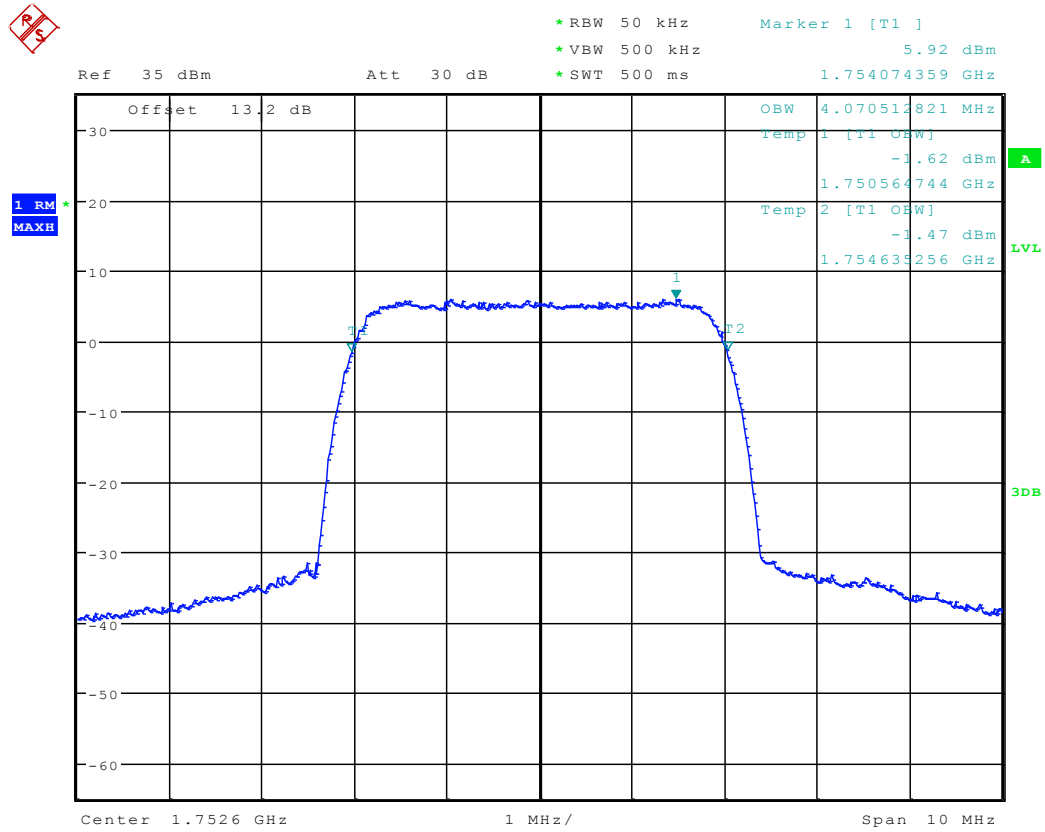
6.2.2 Channel 1412



Date: 14.NOV.2012 20:49:07



6.2.3 Channel 1513



Date: 14.NOV.2012 20:49:21

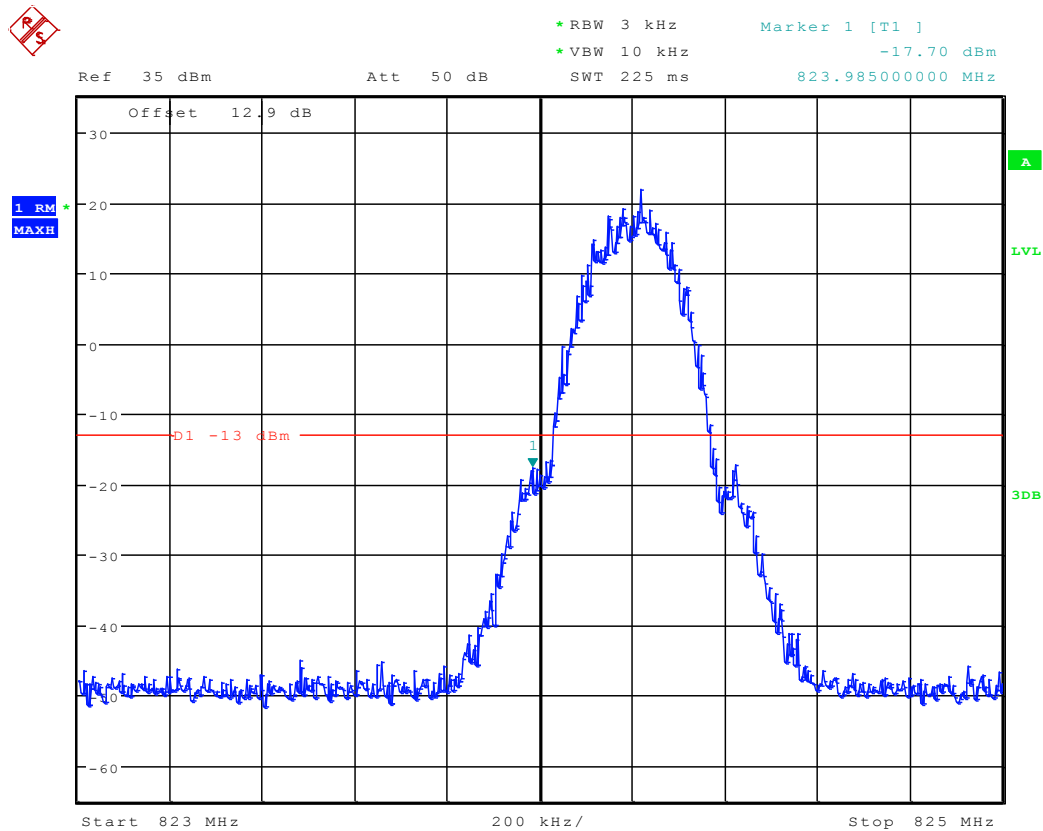


Appendix 1C: Band Edges Compliance

6.3 GSM/TM1:GPRS/GSM

6.3.1 Left Edge

Channel 128

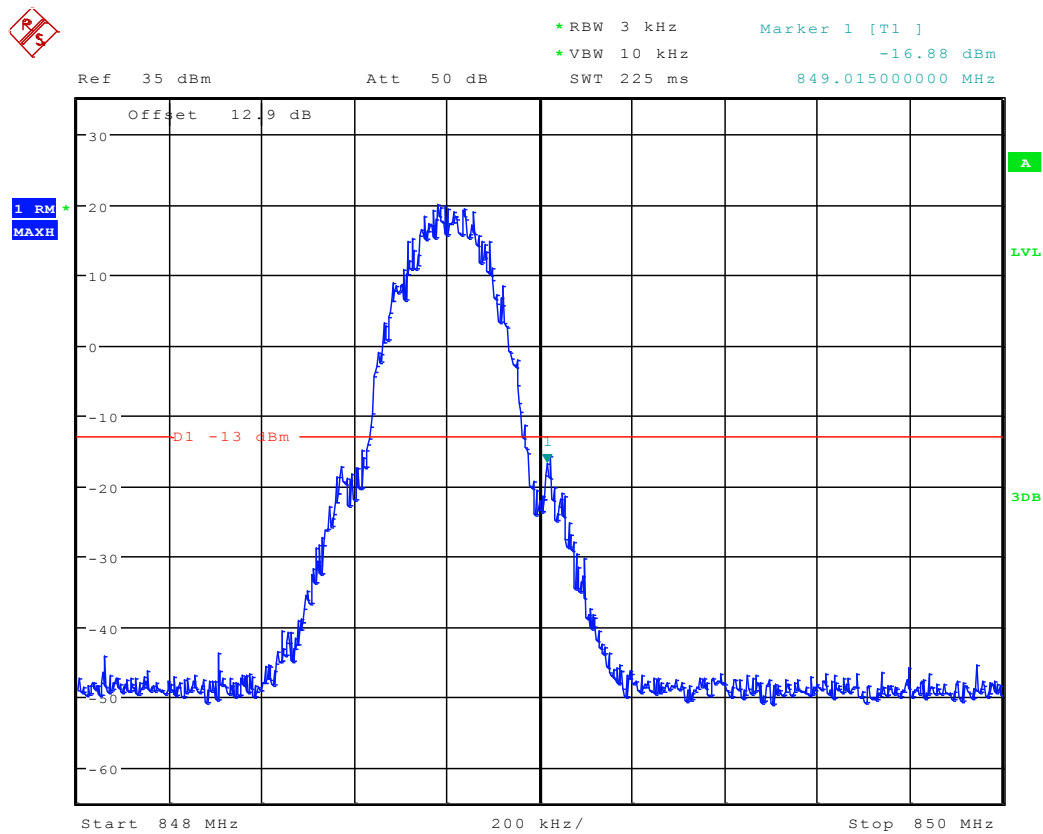


Date: 14.NOV.2012 21:00:11



6.3.2 Right Edge

Channel 251



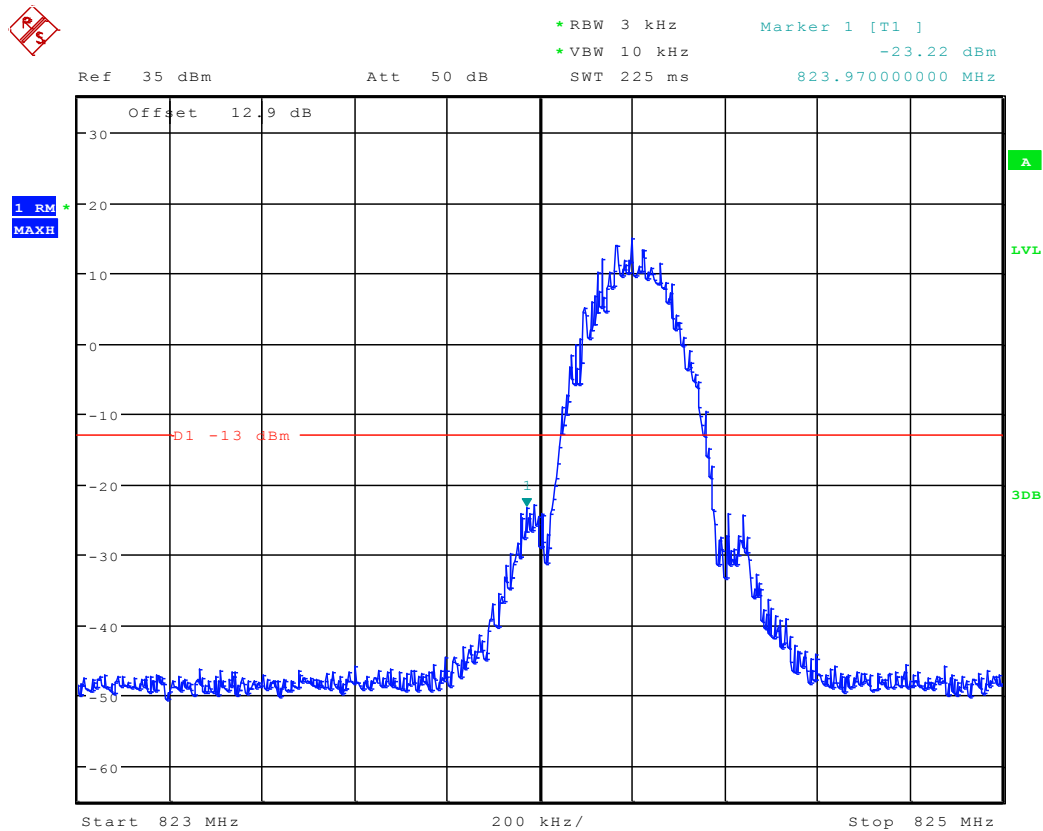
Date: 14.NOV.2012 21:00:28



6.4 GSM/TM2:EDGE

6.4.1 Left Edge

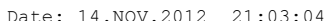
Channel 128



Date: 14.NOV.2012 21:02:25



Channel 251

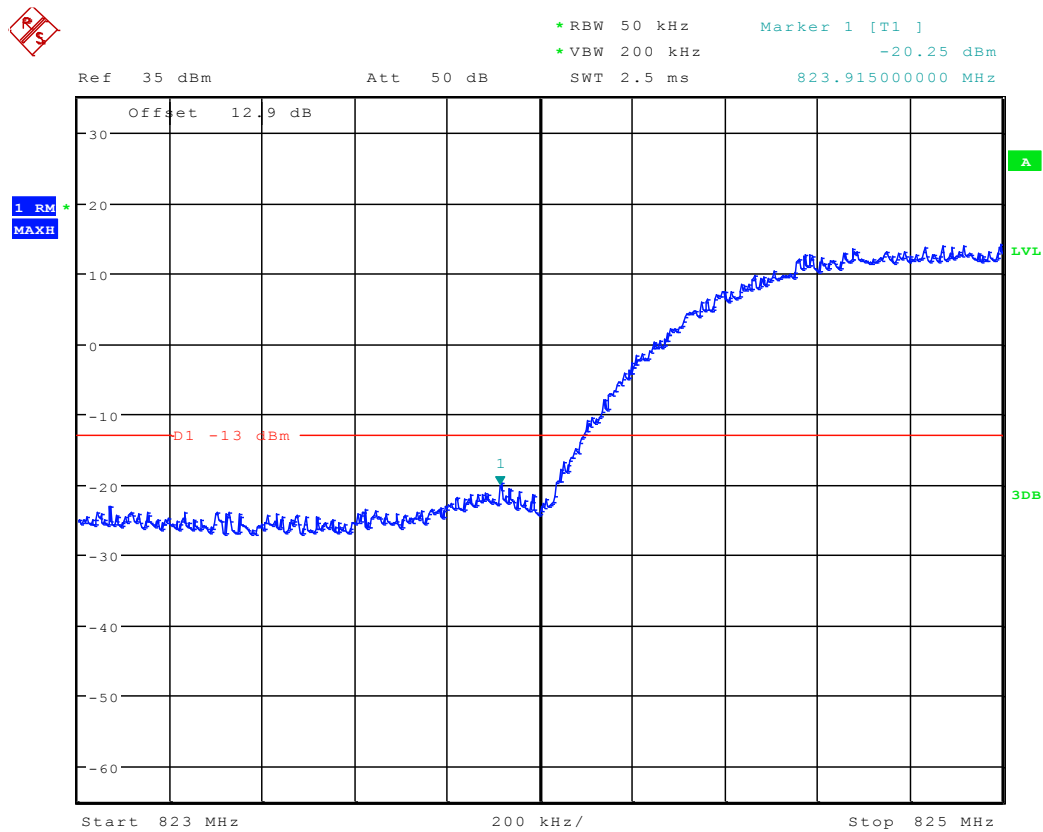




6.5 UMTS/TM1: WCDMA

6.5.1 Left Edge

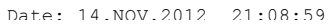
Channel 4132



Date: 14.NOV.2012 21:08:46



Channel 4233



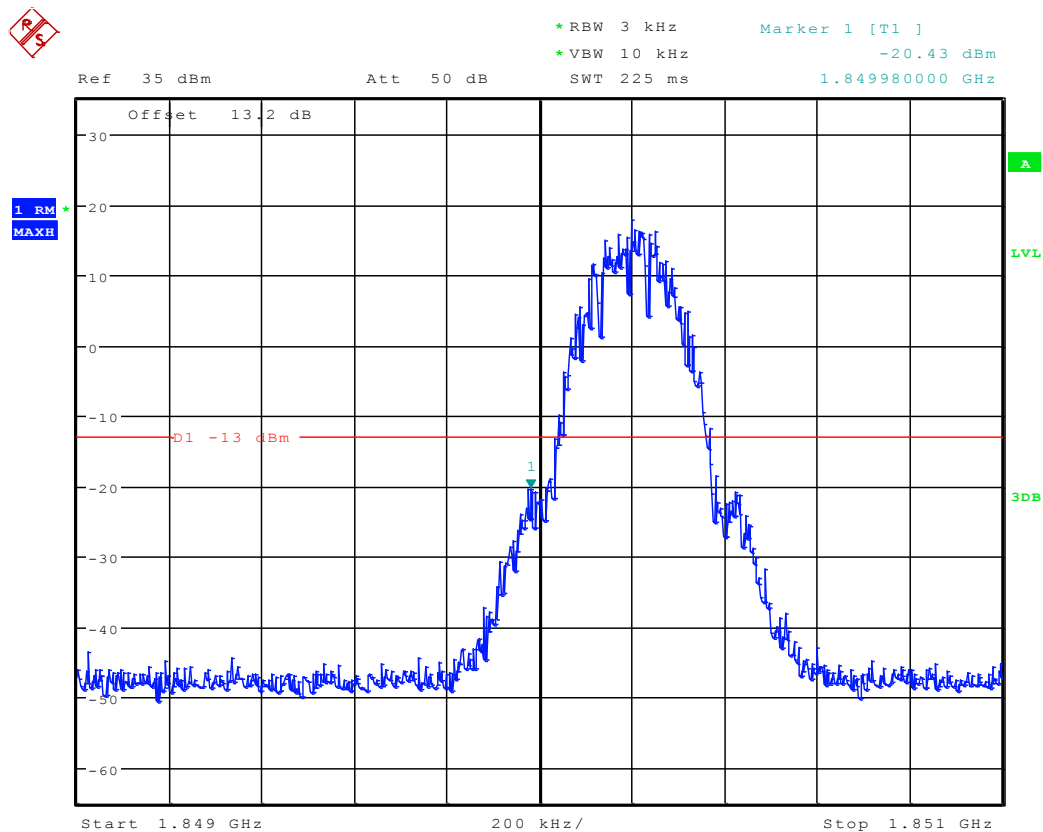


7 Appendix 2C: Band Edges Compliance

7.1 GSM/TM1:GPRS/GSM

7.1.1 Left Edge

Channel 512

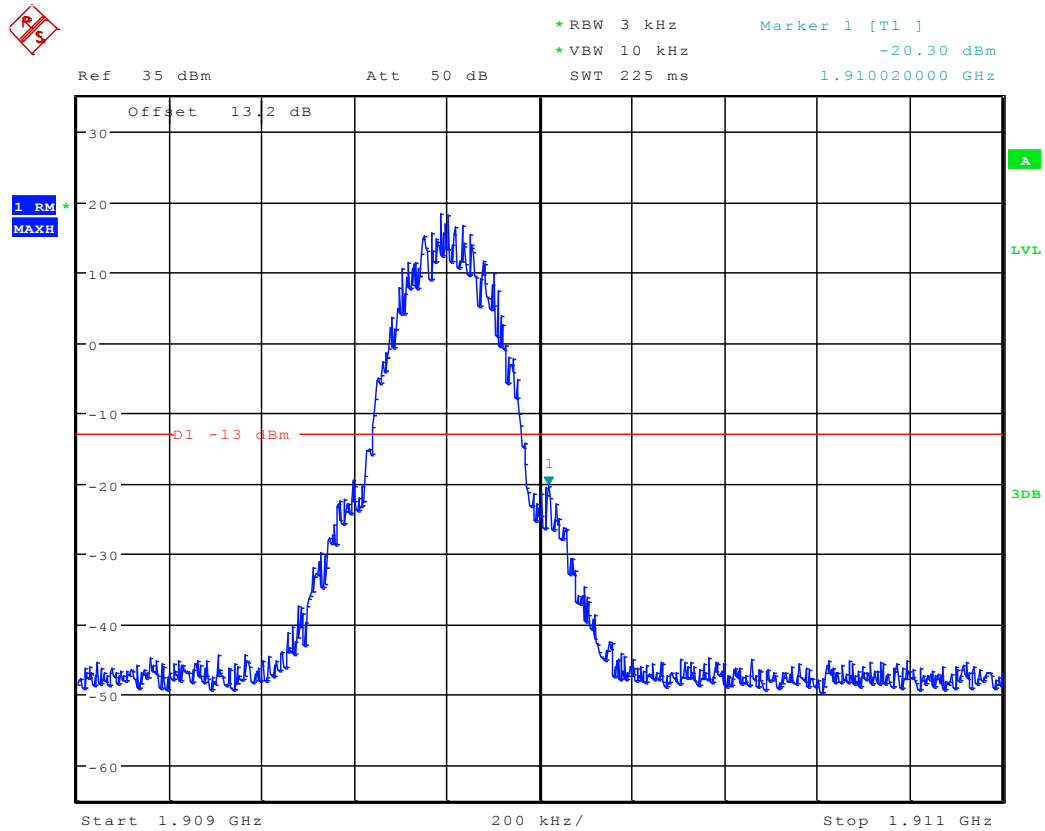


Date: 14.NOV.2012 20:41:09



7.1.2 Right Edge

Channel 810



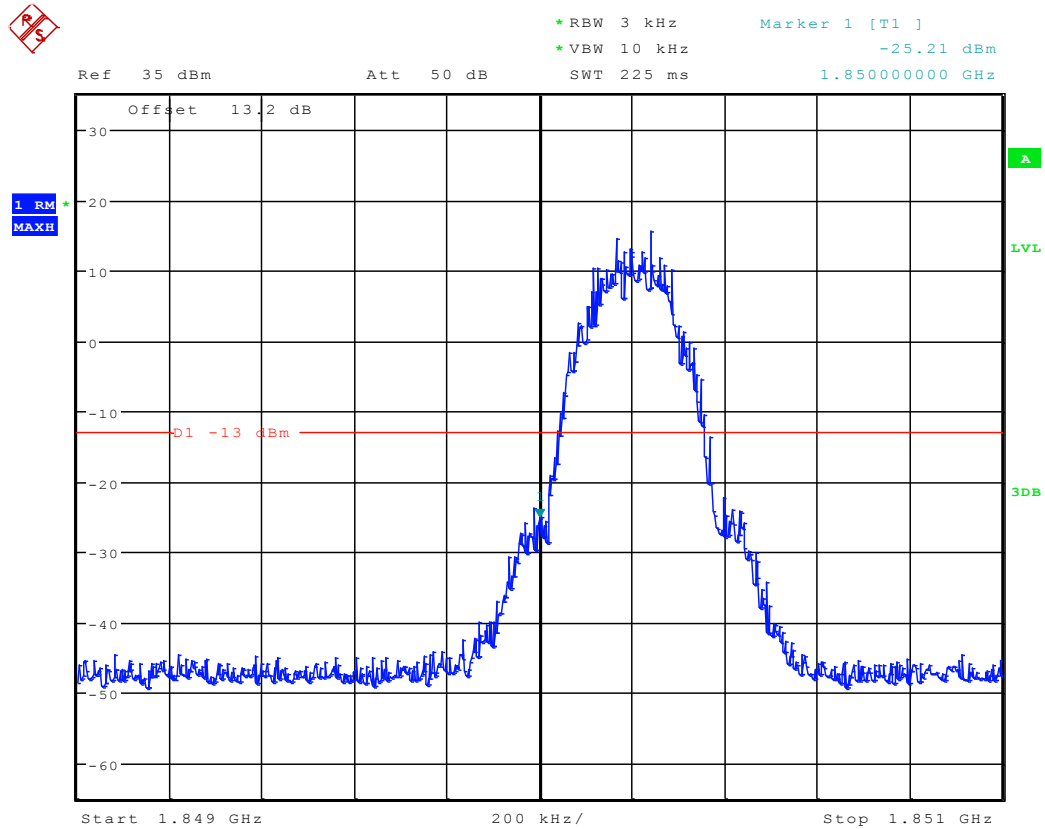
Date: 14.NOV.2012 20:41:22



7.2 GSM/TM2:EDGE

7.2.1 Left Edge

Channel 512

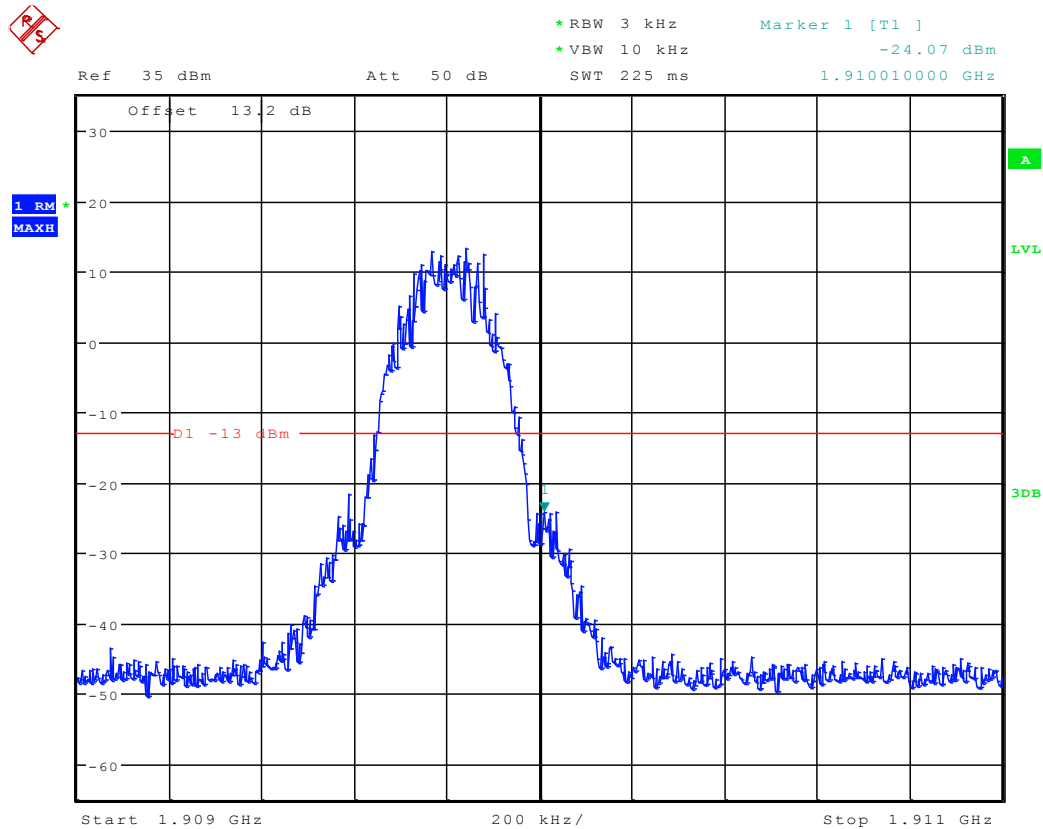


Date: 14.NOV.2012 20:43:40



7.2.2 Right Edge

Channel 810



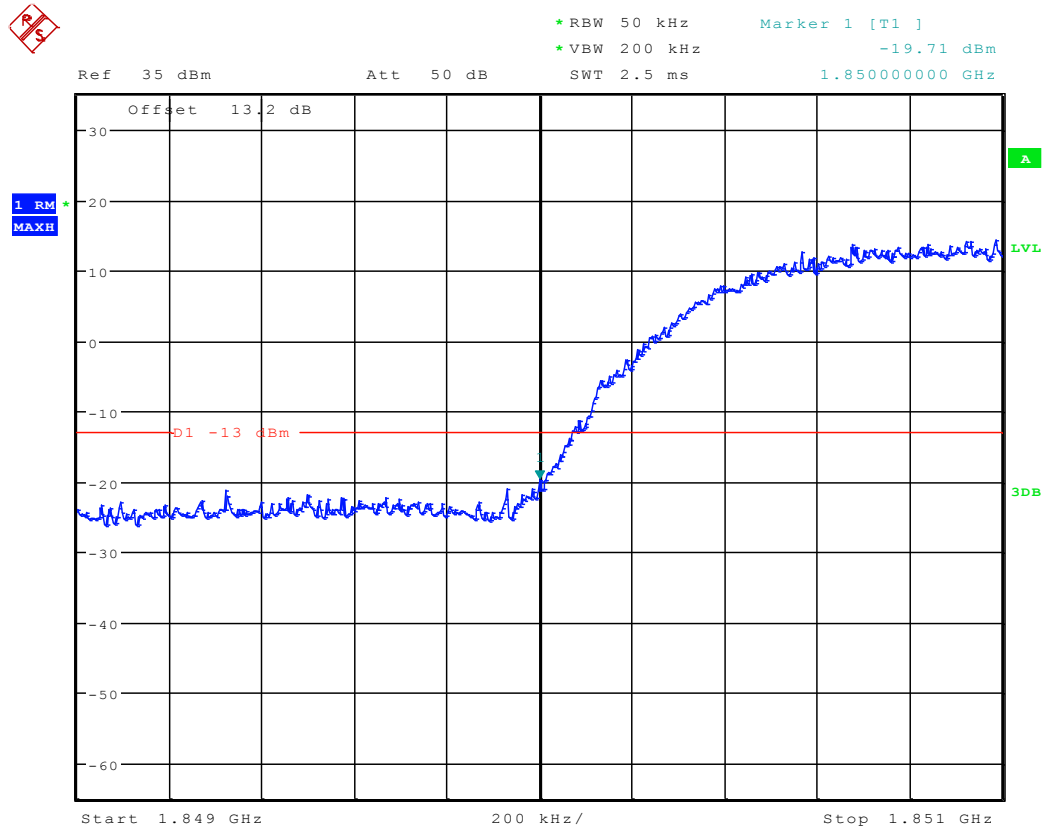
Date: 14.NOV.2012 20:43:54



7.3 UMTS/TM1: WCDMA

7.3.1 Left Edge

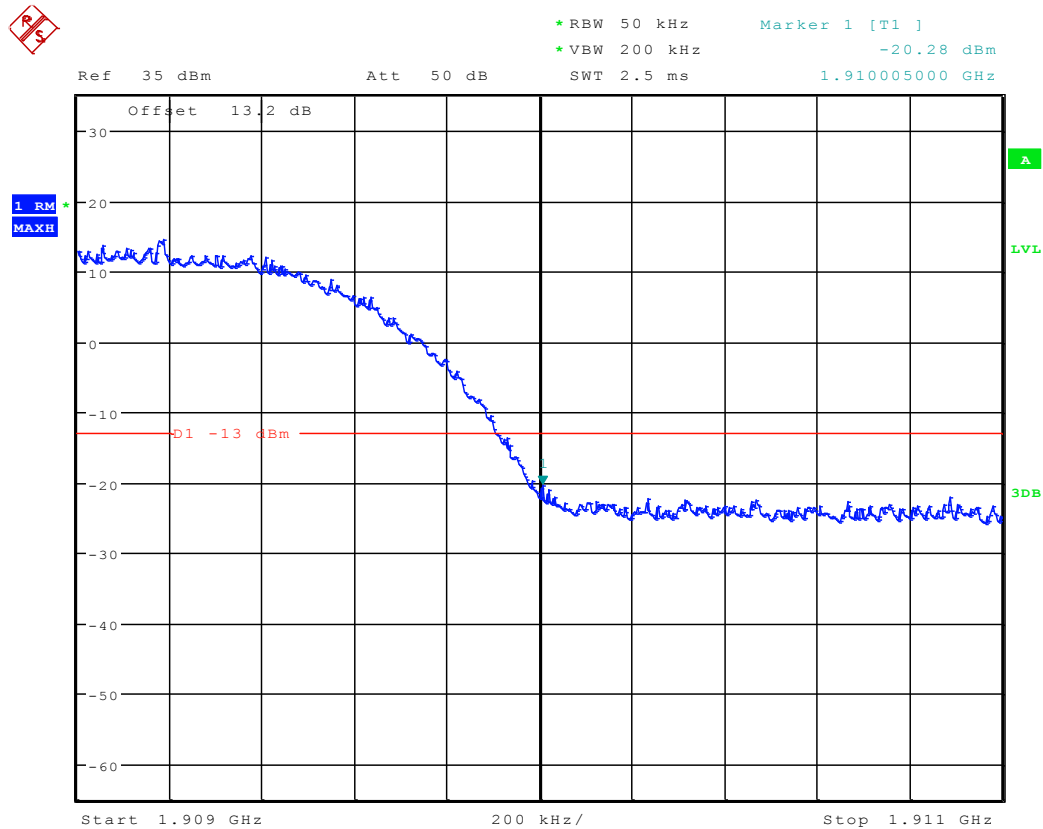
Channel 9262



Date: 14.NOV.2012 21:15:29



Channel 9538



Date: 14.NOV.2012 21:15:42

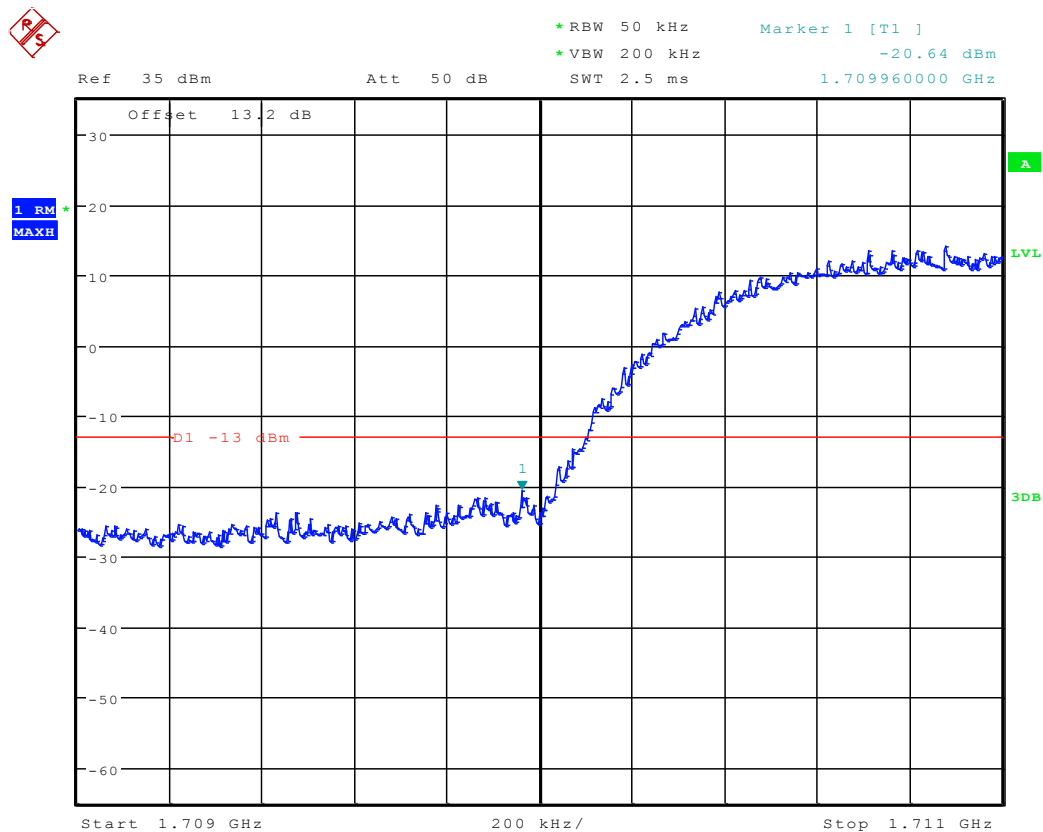


8 Appendix 3C: Band Edges Compliance

8.1 UMTS/TM1: WCDMA

8.1.1 Left Edge

Channel 1312

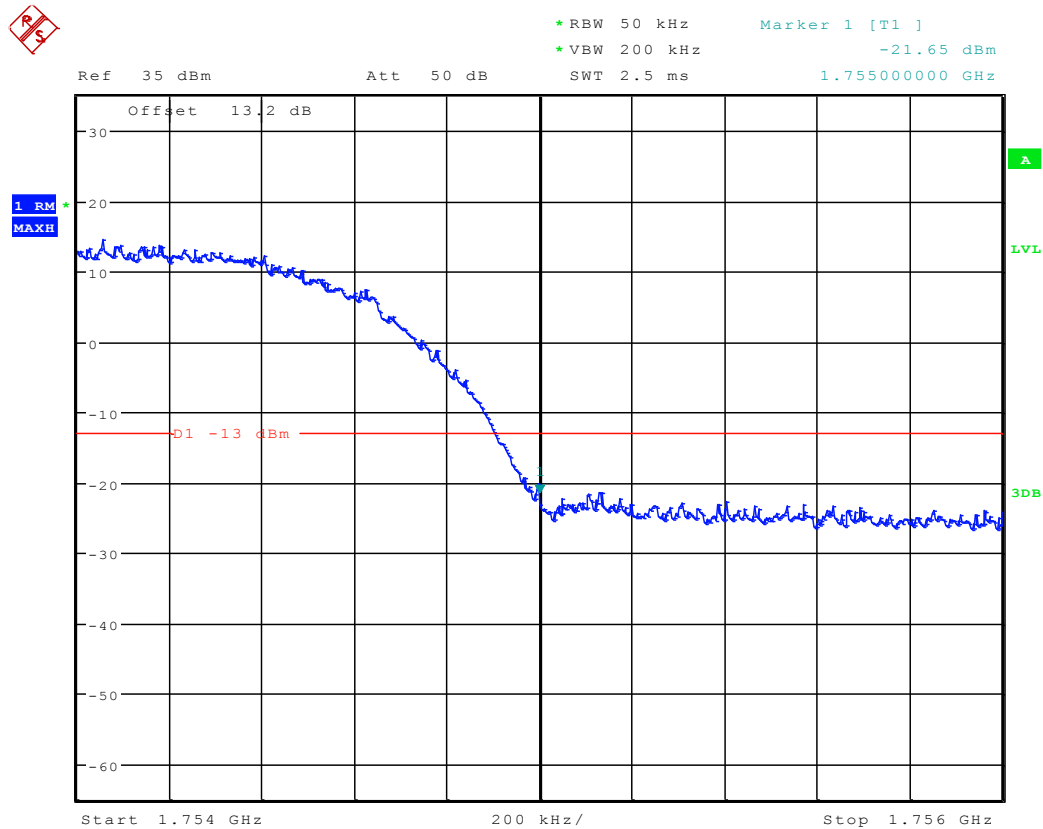


Date: 14.NOV.2012 20:49:35



8.1.2 Right Edge

Channel 1513



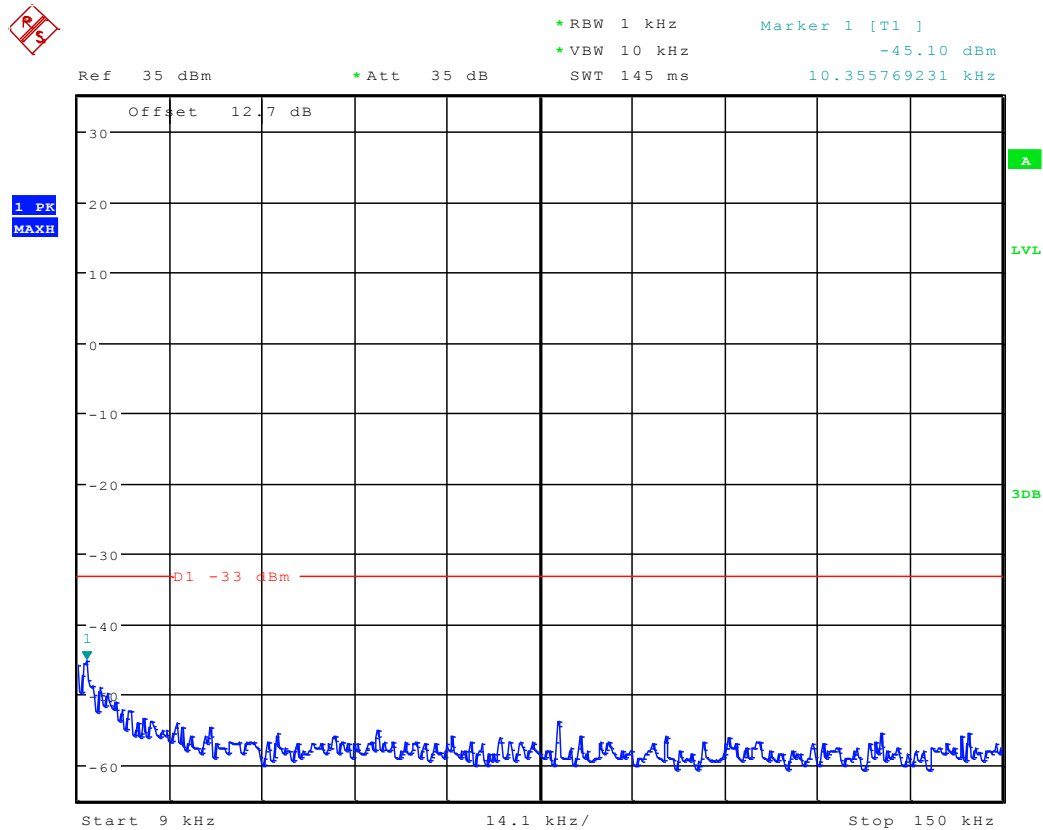
Date: 14.NOV.2012 20:49:49



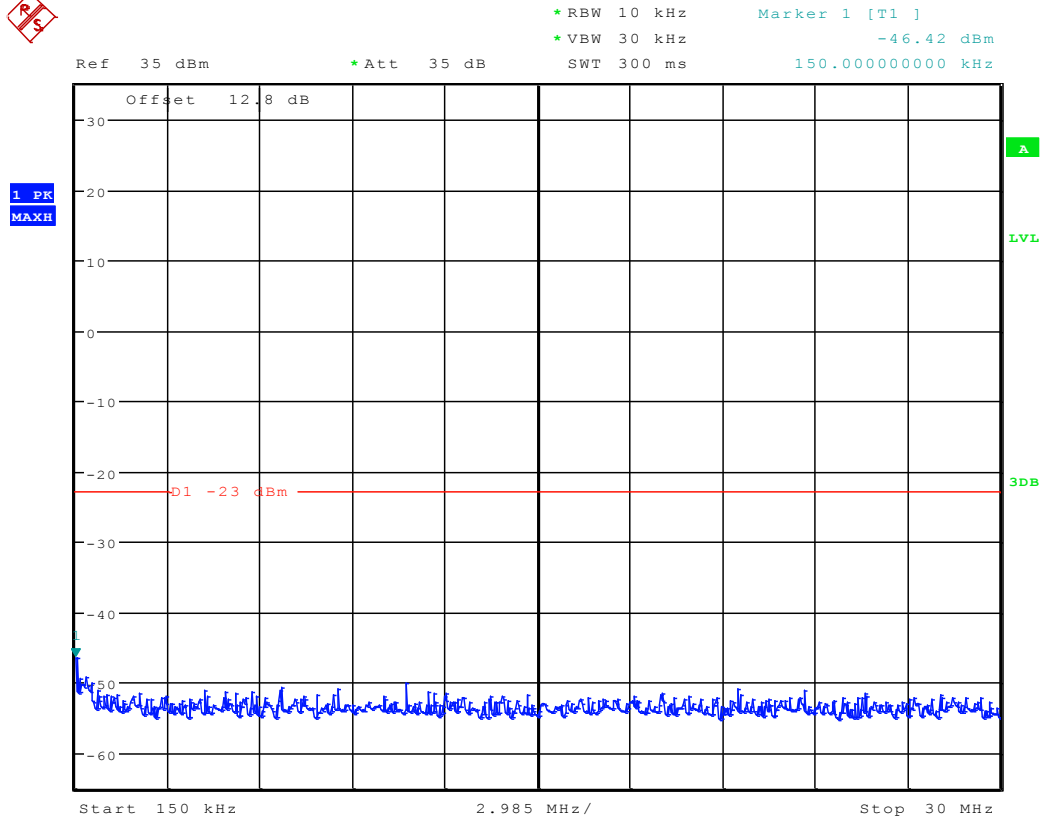
9 Appendix 1D: Spurious Emission at Antenna Terminal

9.1 GSM/TM1:GPRS/GSM

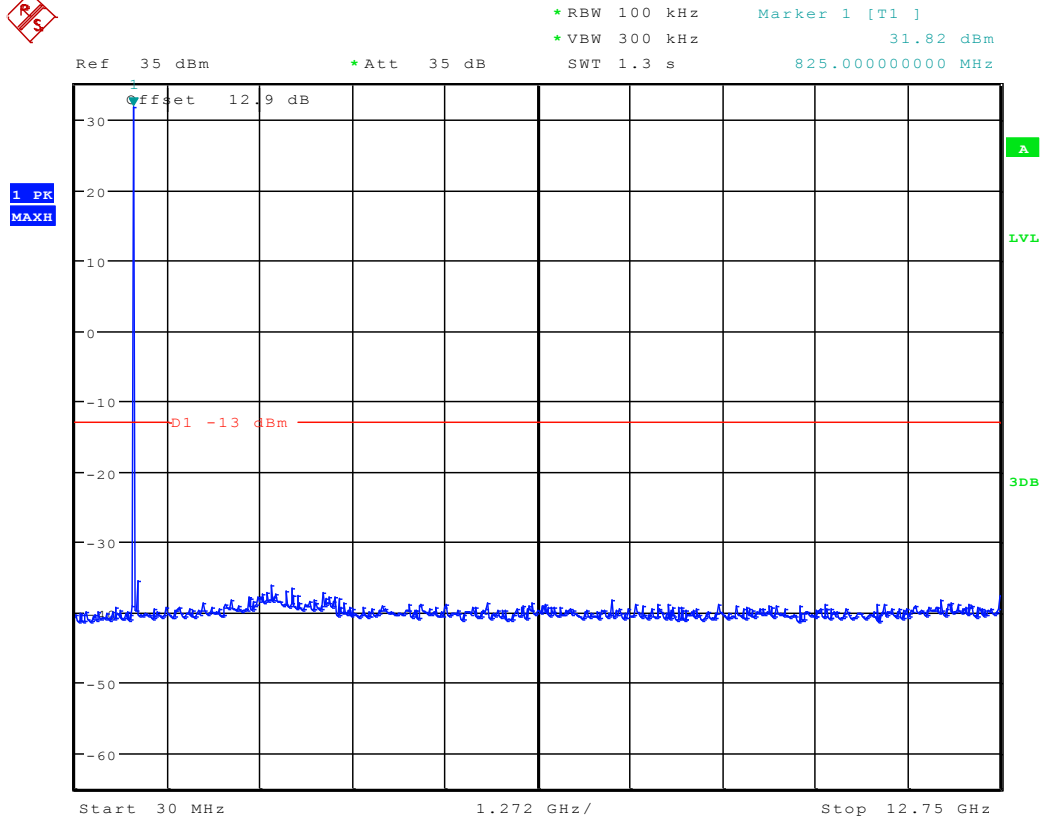
9.1.1 Channel 128



Date: 14.NOV.2012 20:55:14

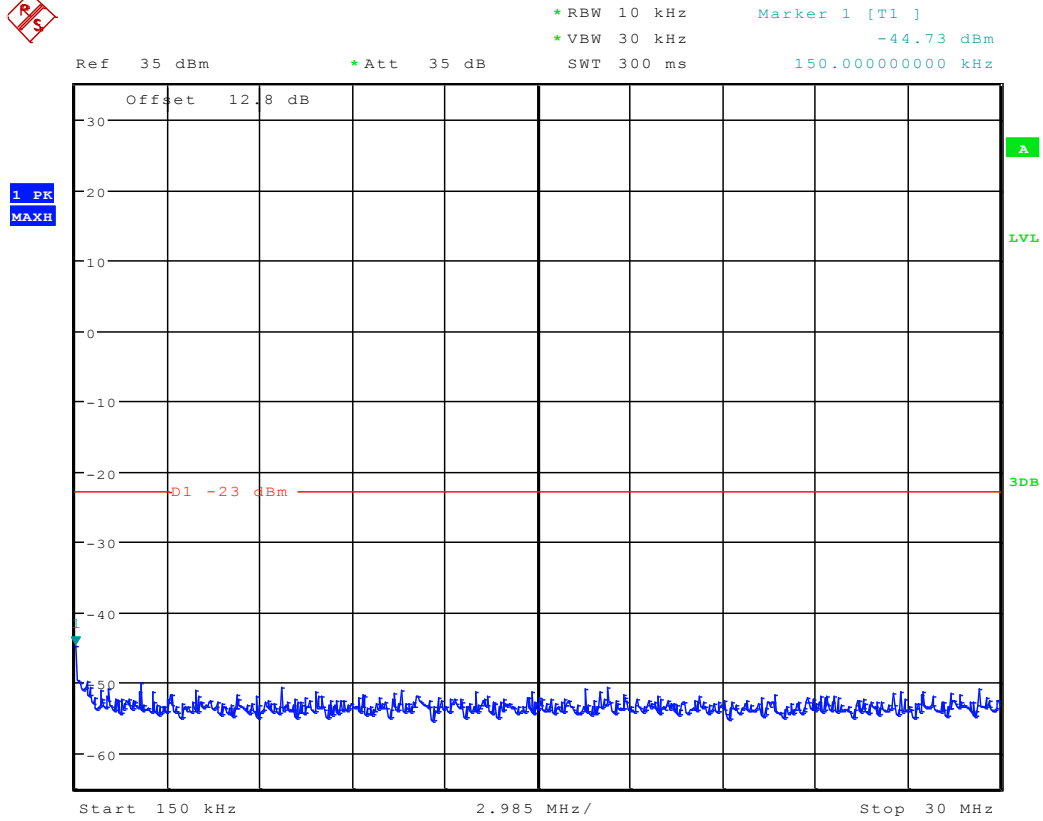


Date: 14.NOV.2012 20:55:58

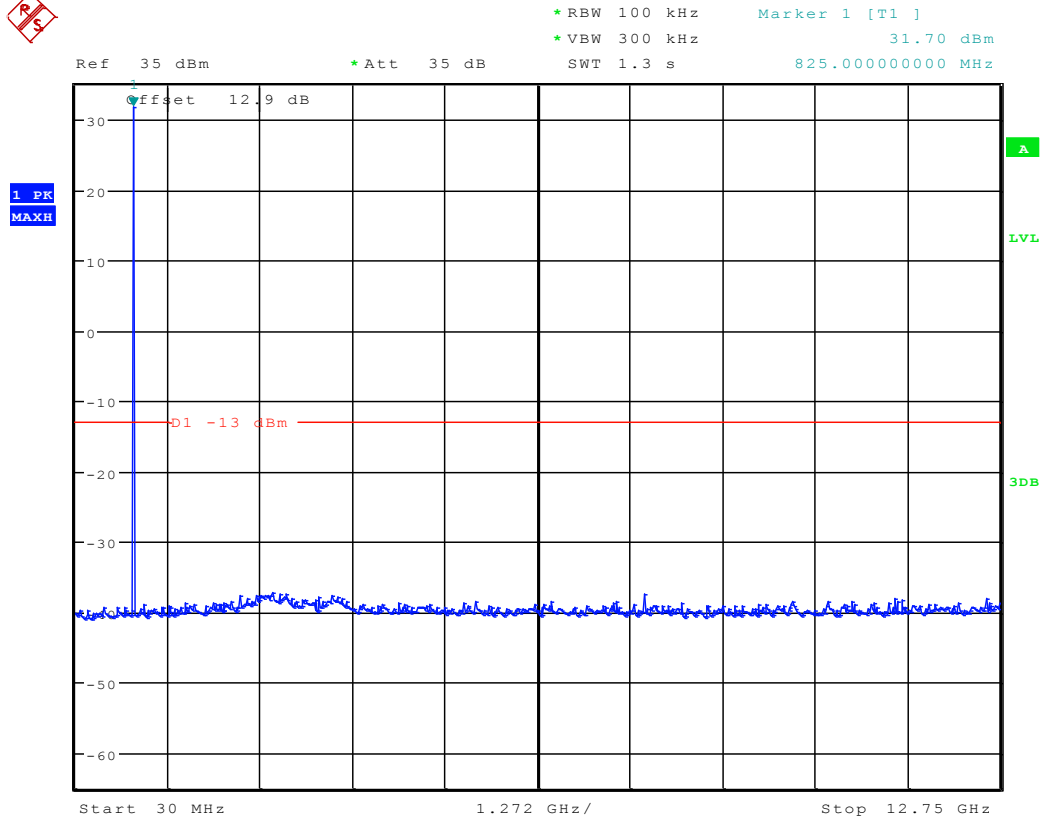


Date: 14.NOV.2012 20:57:09





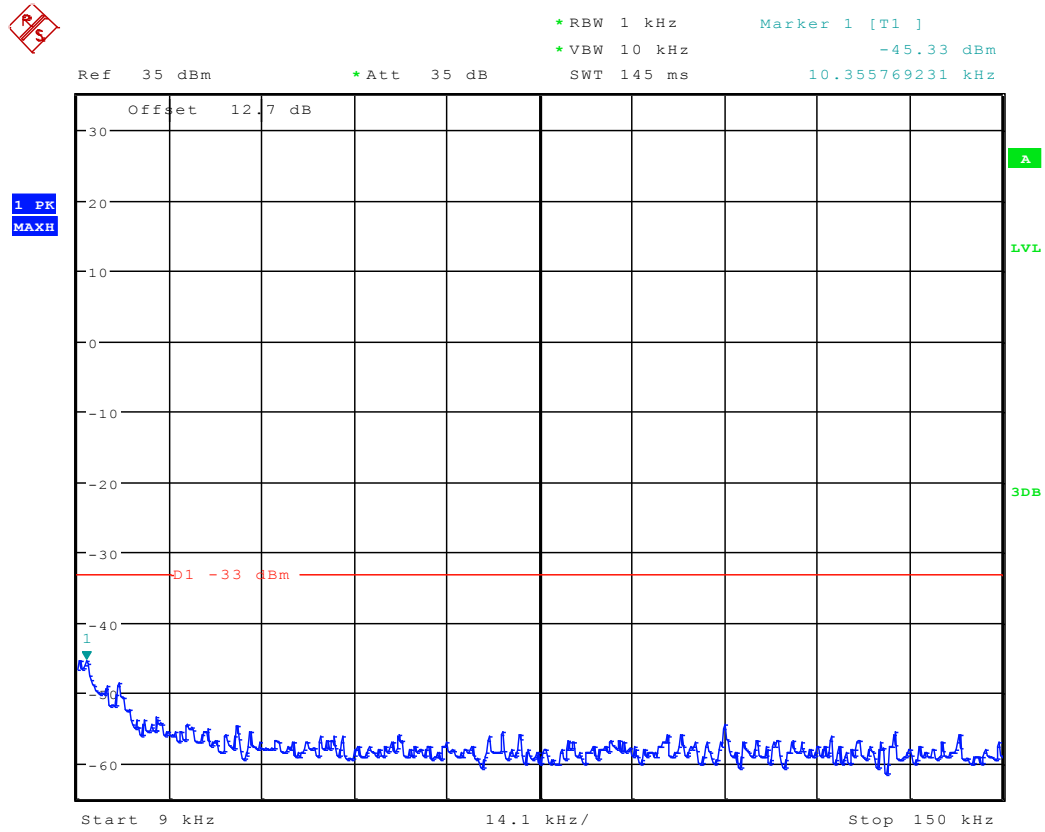
Date: 14.NOV.2012 20:56:13



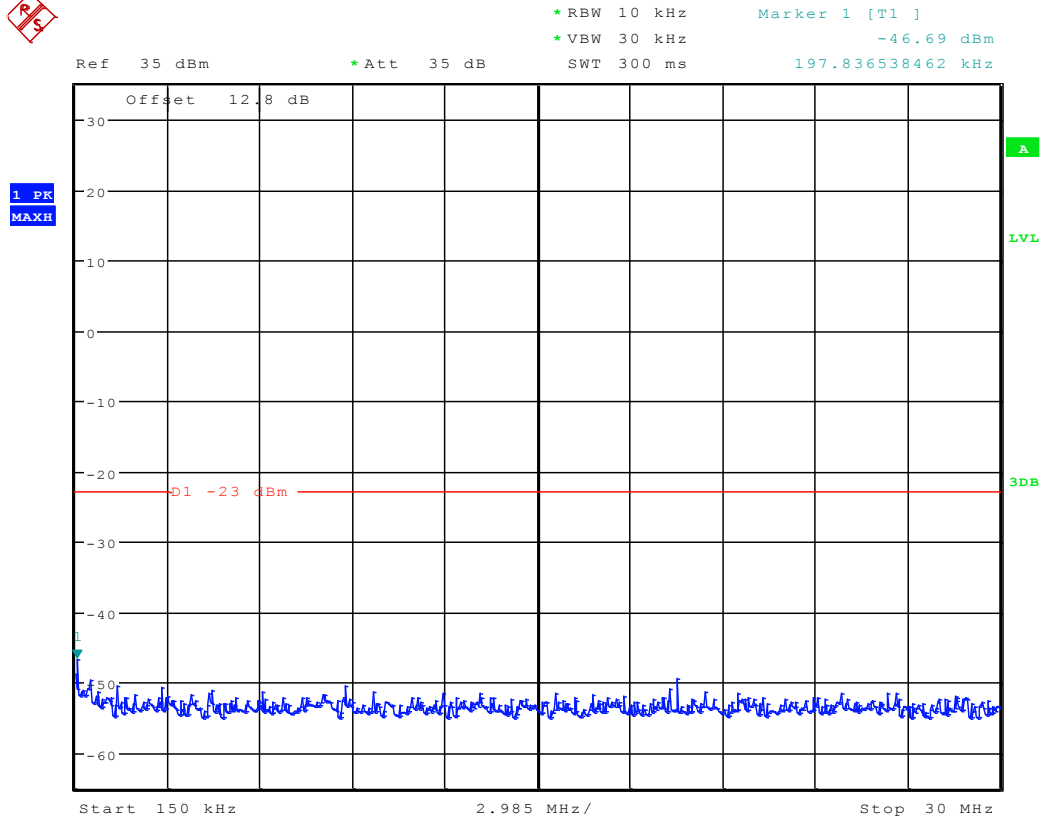
Date: 14.NOV.2012 20:58:49



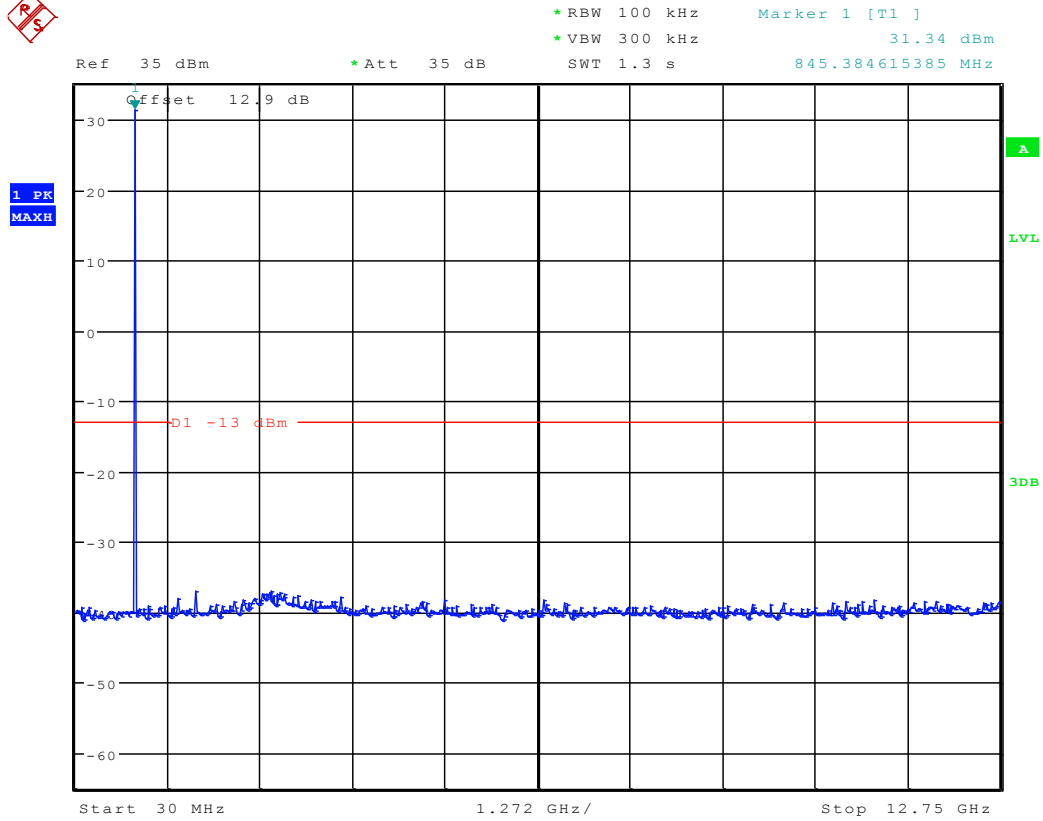
9.1.3 Channel 251



Date: 14.NOV.2012 20:55:43



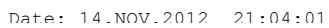
Date: 14.NOV.2012 20:56:27

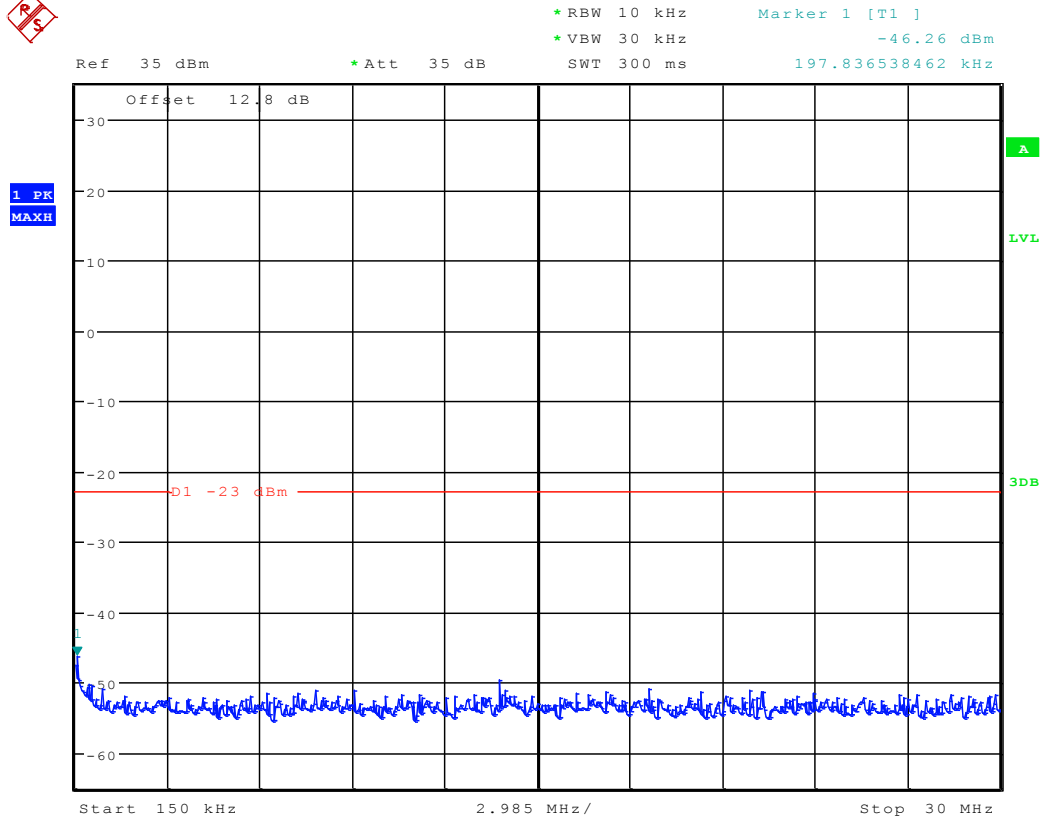


Date: 14.NOV.2012 20:59:57

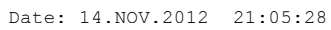


9.2.1 Channel 128



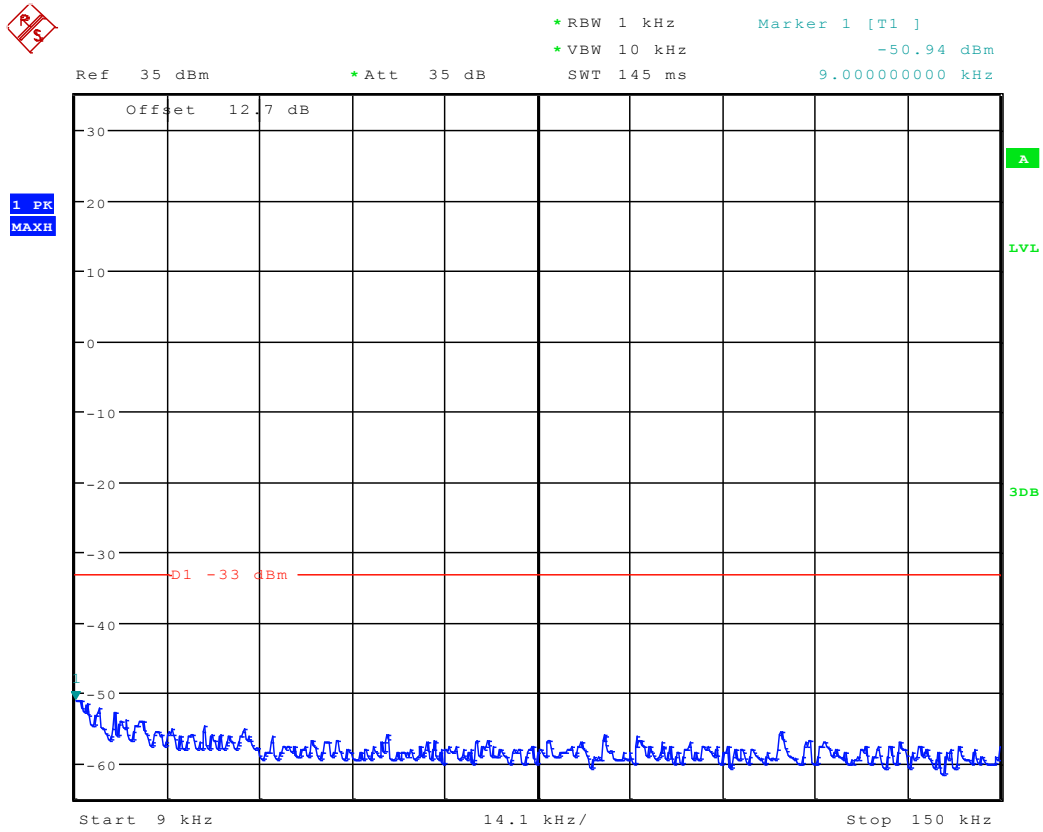


Date: 14.NOV.2012 21:04:44

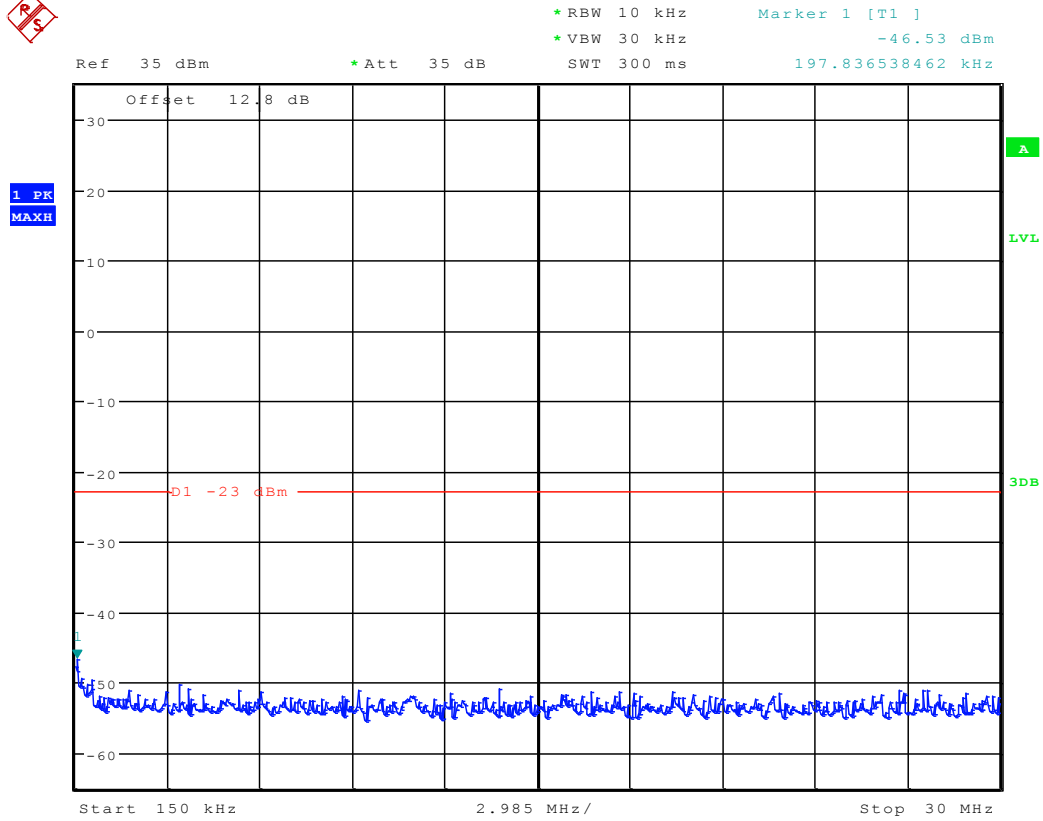




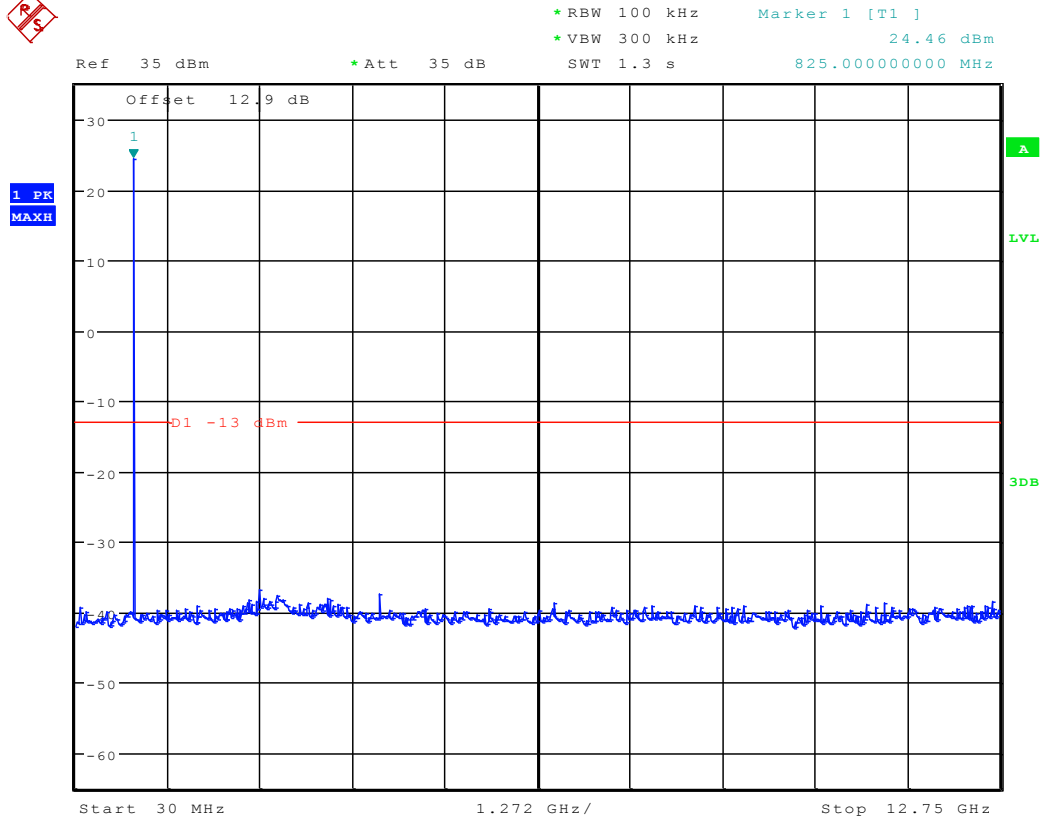
9.2.2 Channel 192



Date: 14.NOV.2012 21:04:15



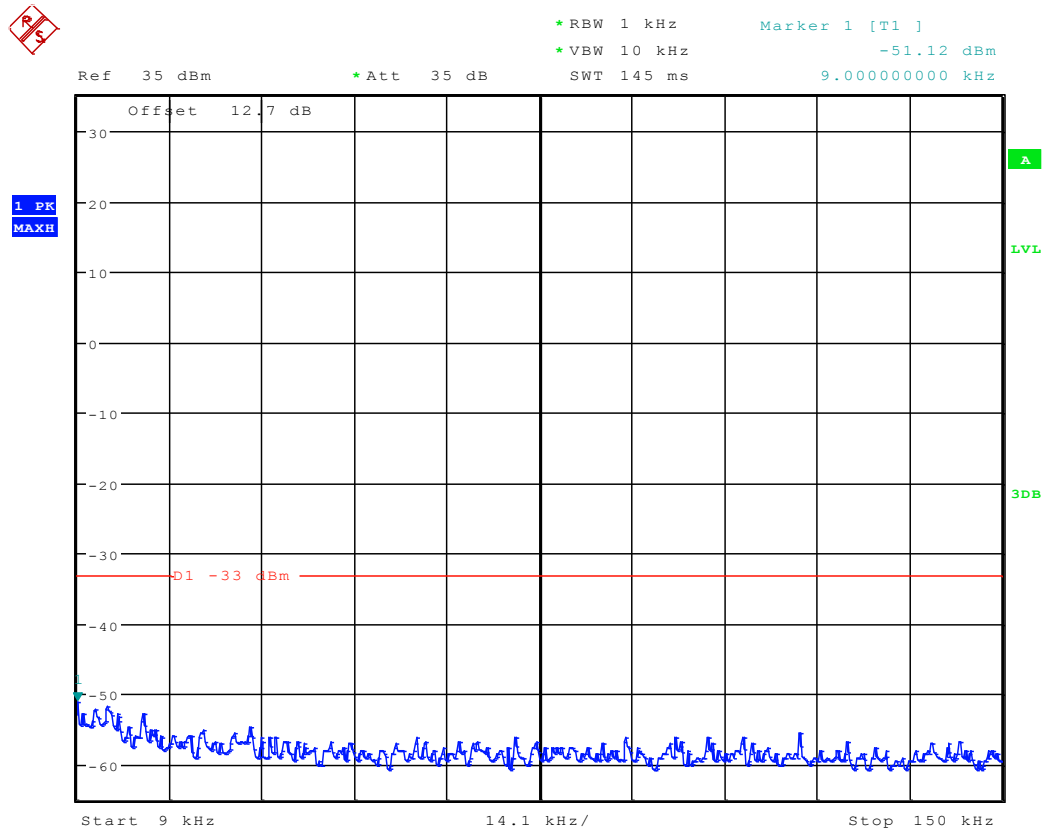
Date: 14.NOV.2012 21:04:59



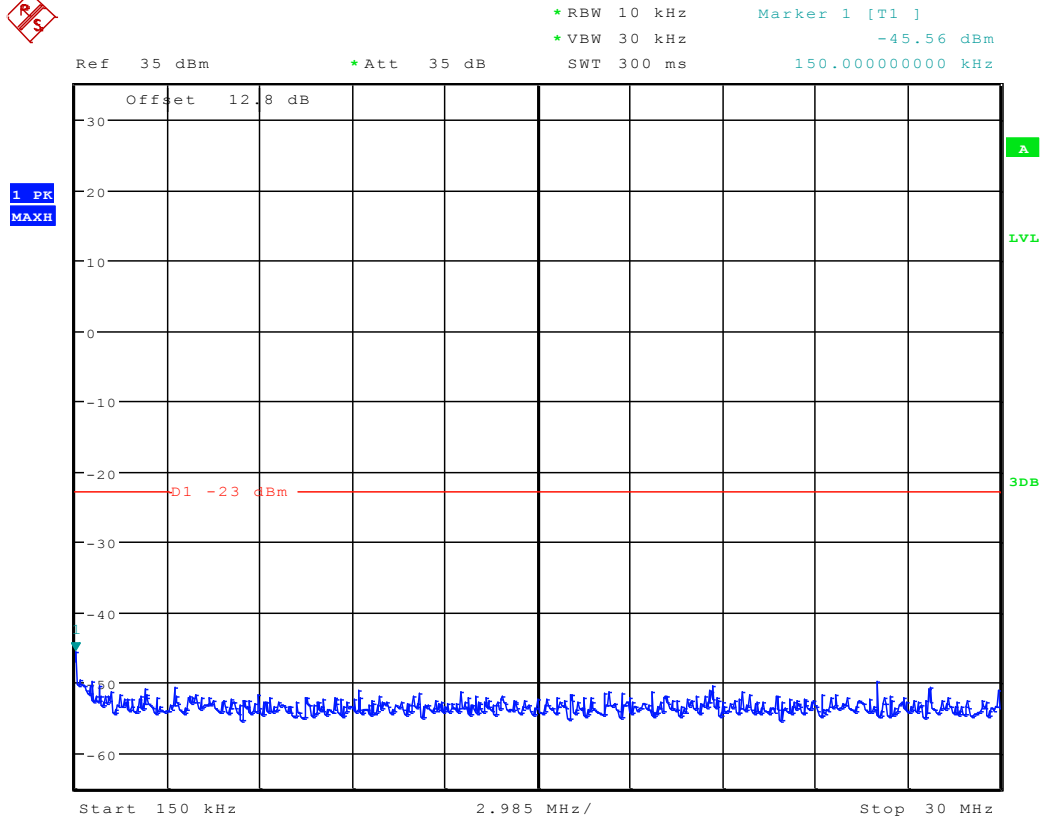
Date: 14.NOV.2012 21:05:43



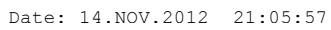
9.2.3 Channel 251



Date: 14.NOV.2012 21:04:29



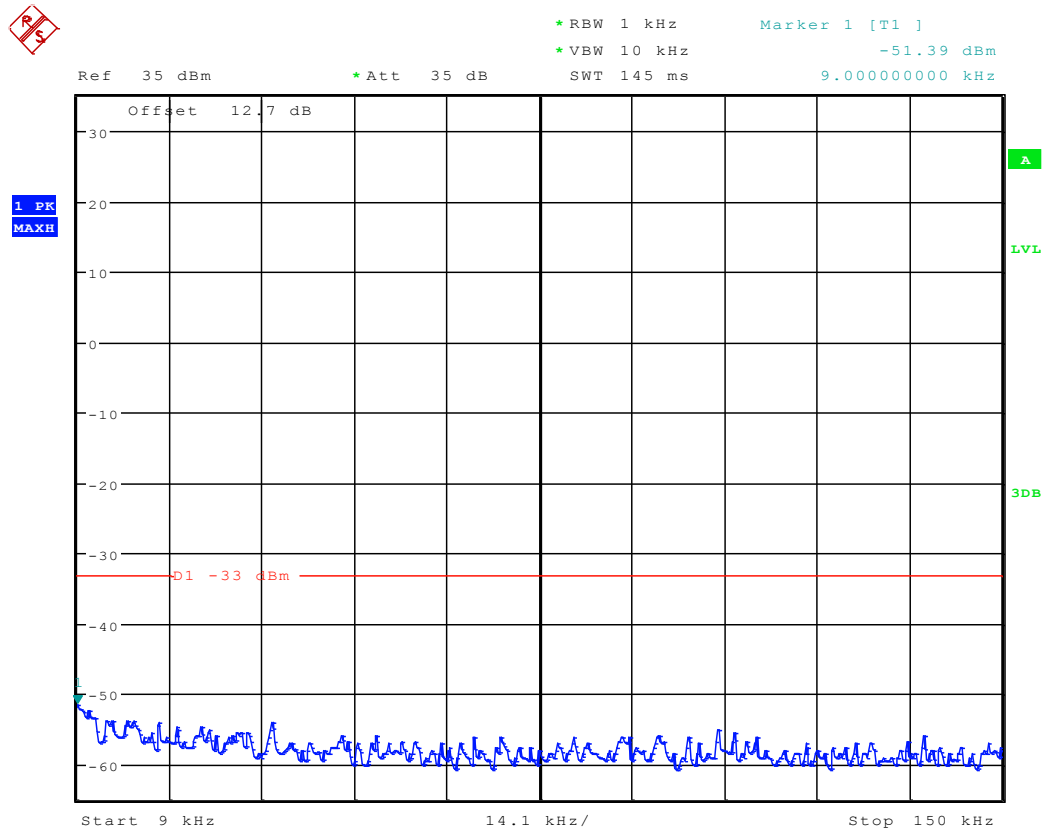
Date: 14.NOV.2012 21:05:13



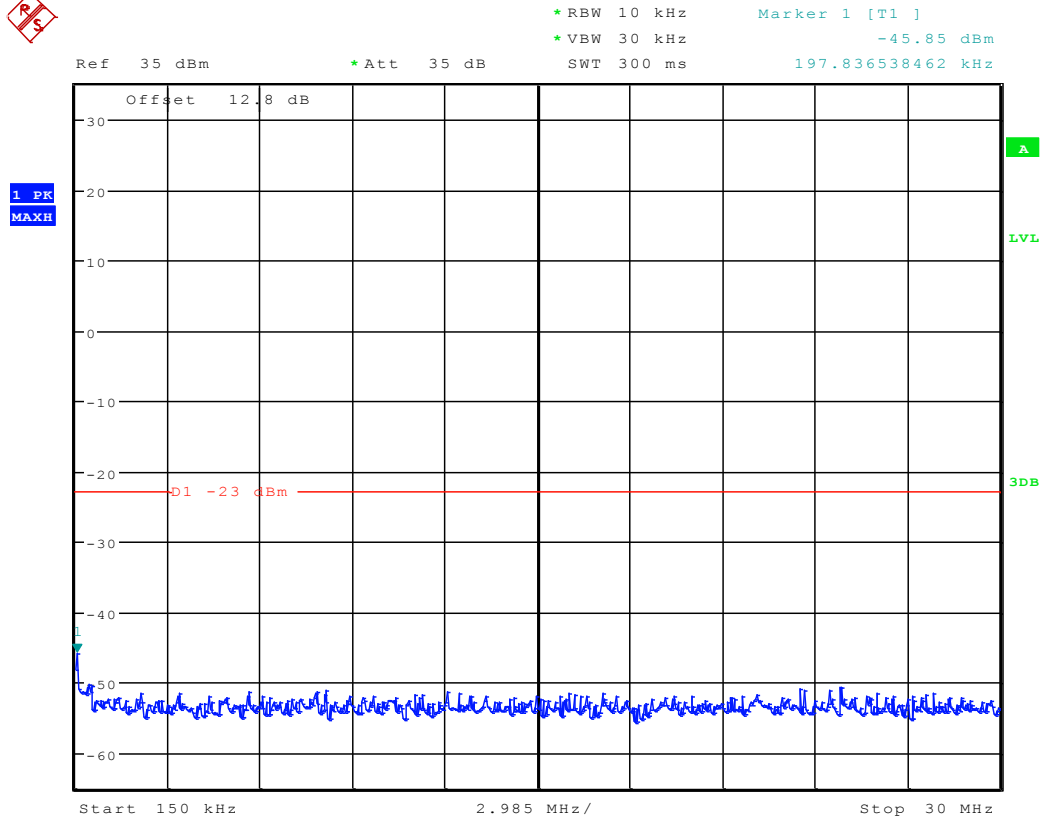


9.3 UMTS/TM1: WCDMA

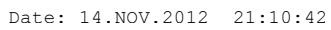
9.3.1 Channel 4132

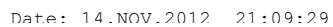


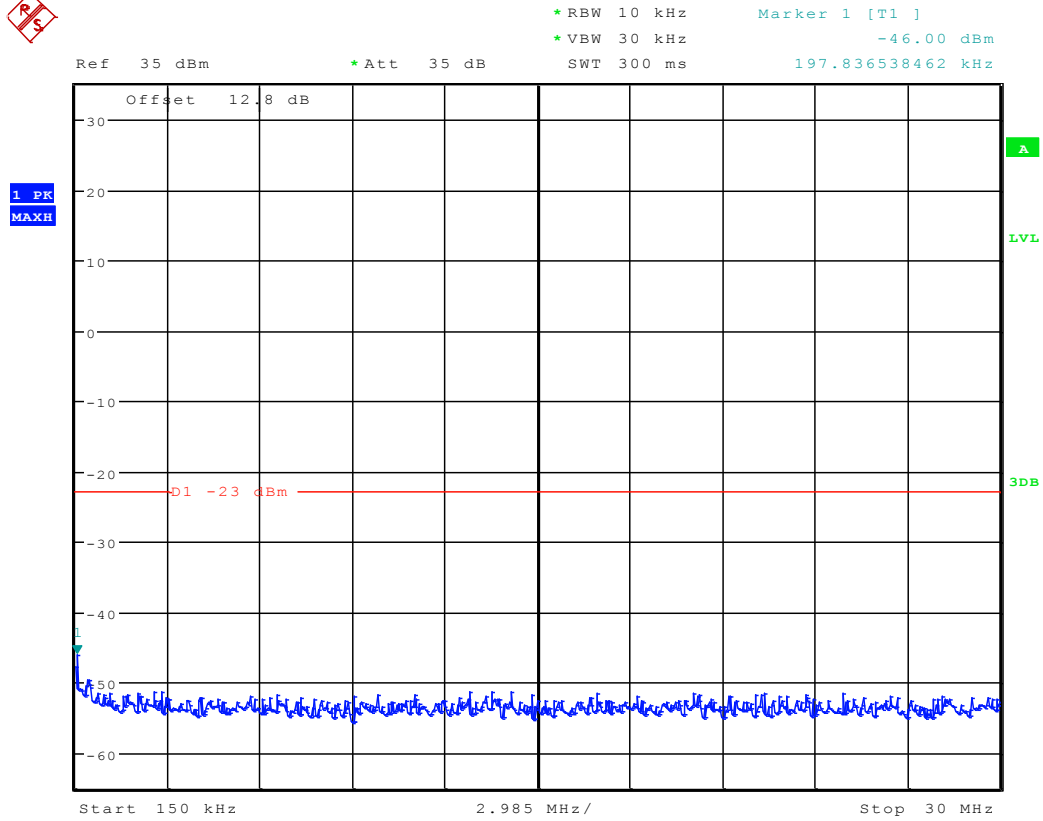
Date: 14.NOV.2012 21:09:14



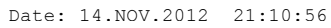
Date: 14.NOV.2012 21:09:58





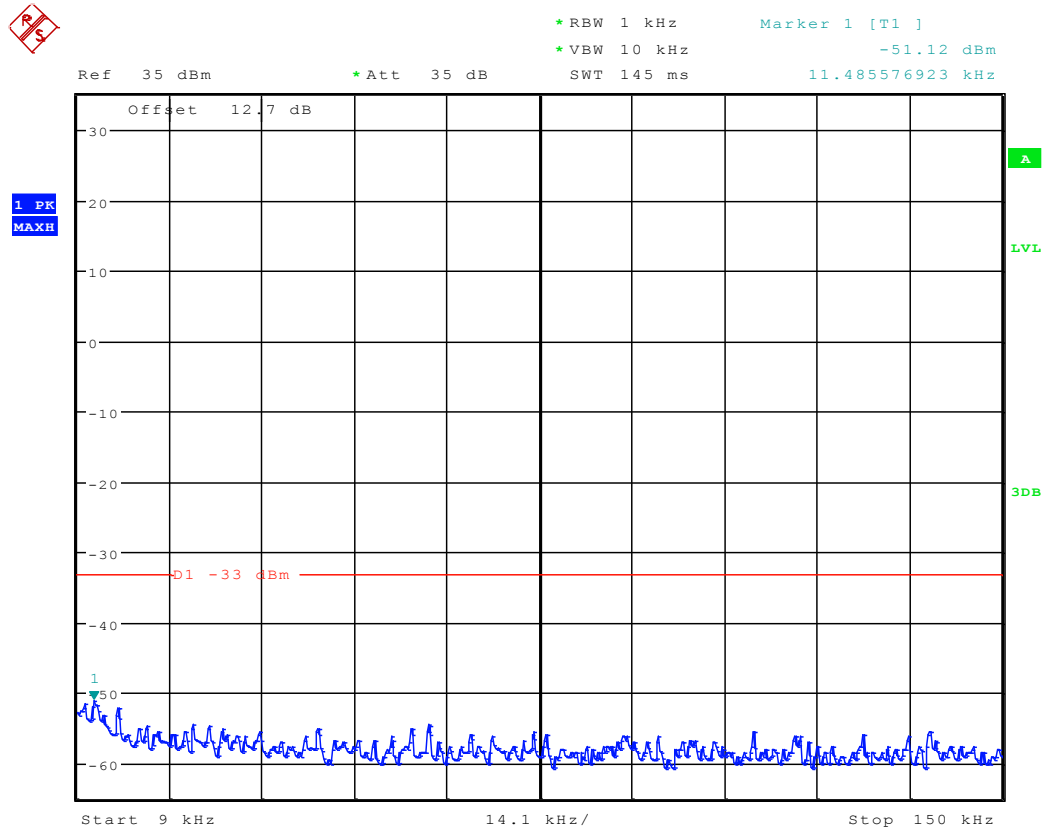


Date: 14.NOV.2012 21:10:12

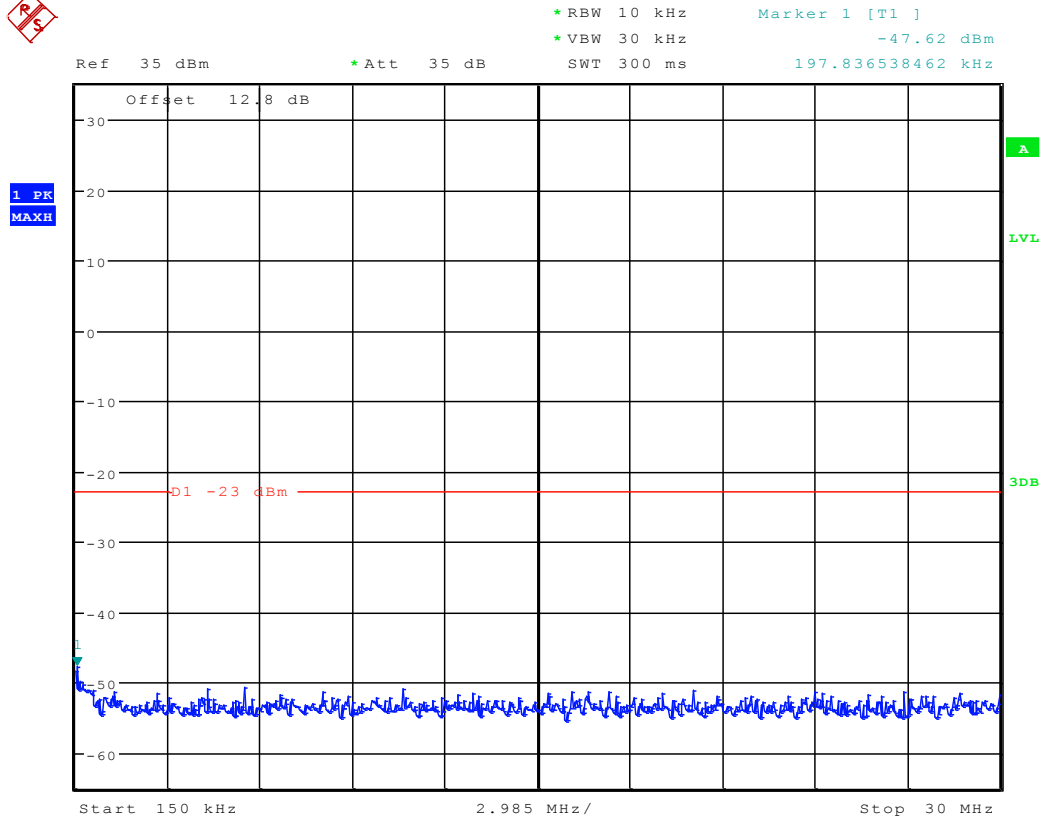




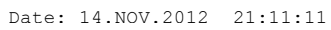
9.3.3 Channel 4233



Date: 14.NOV.2012 21:09:43



Date: 14.NOV.2012 21:10:27

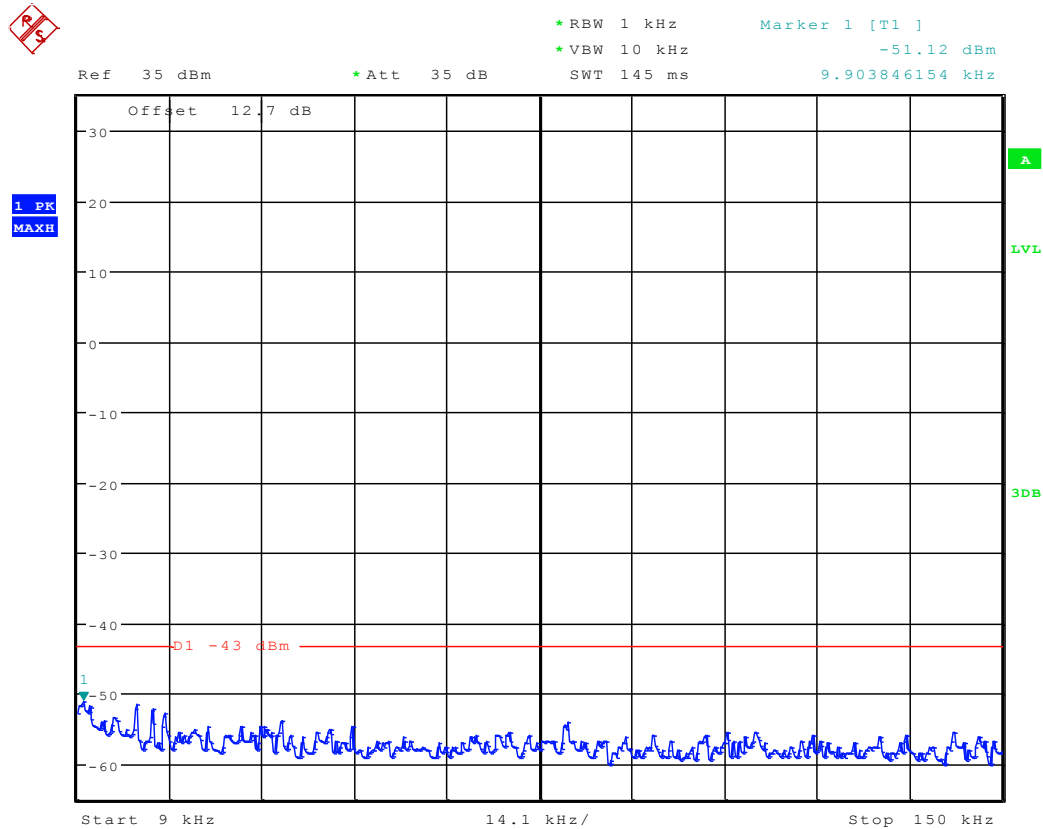




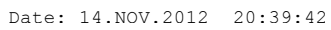
10 Appendix 2D: Spurious Emission at Antenna Terminal

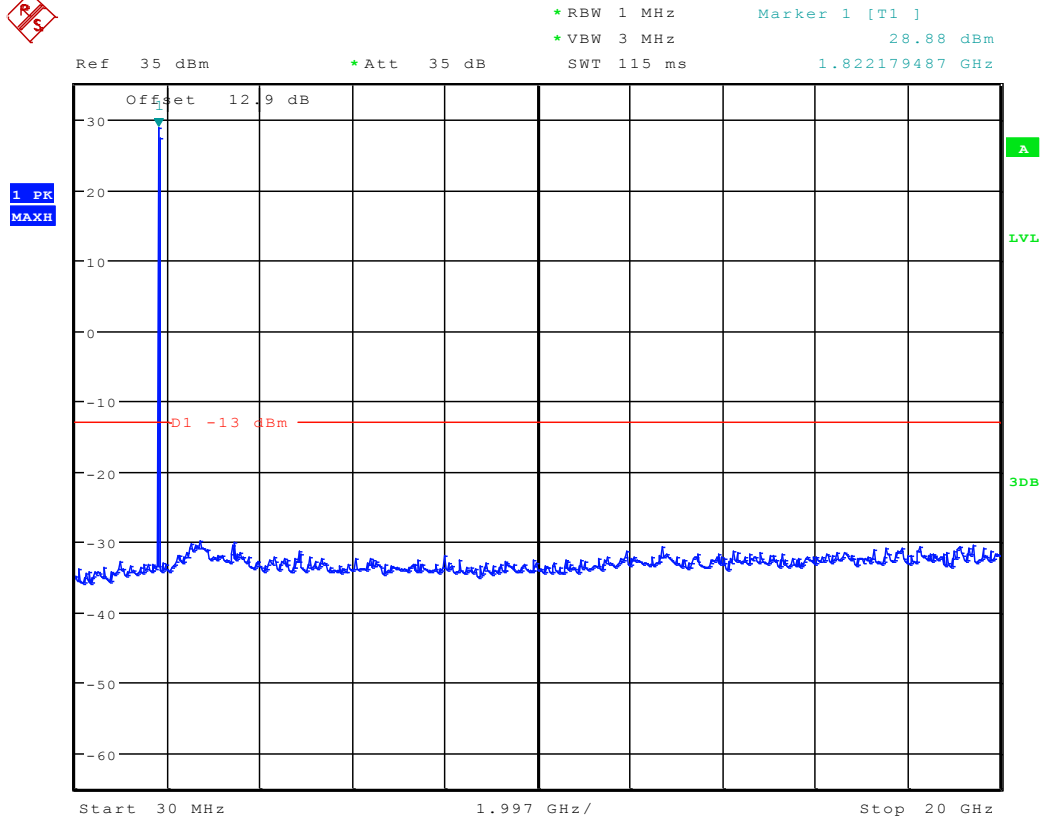
10.1 GSM/TM1:GPRS/GSM

10.1.1 Channel 512



Date: 14.NOV.2012 20:38:58

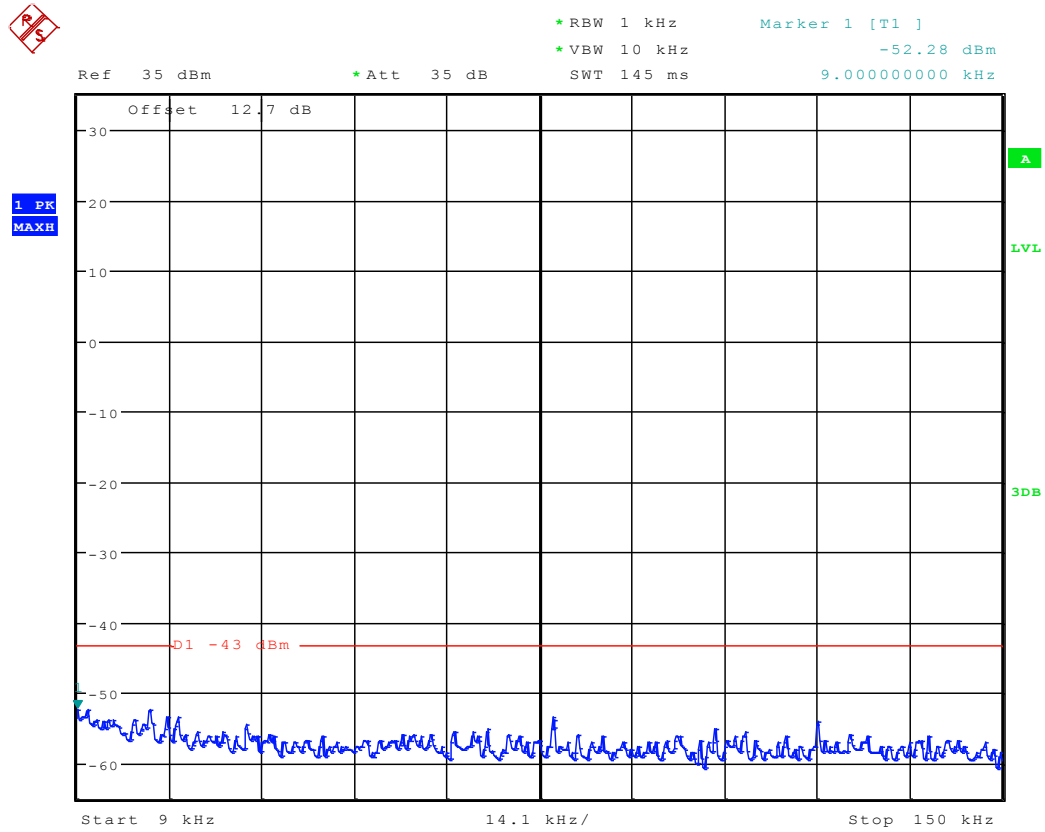




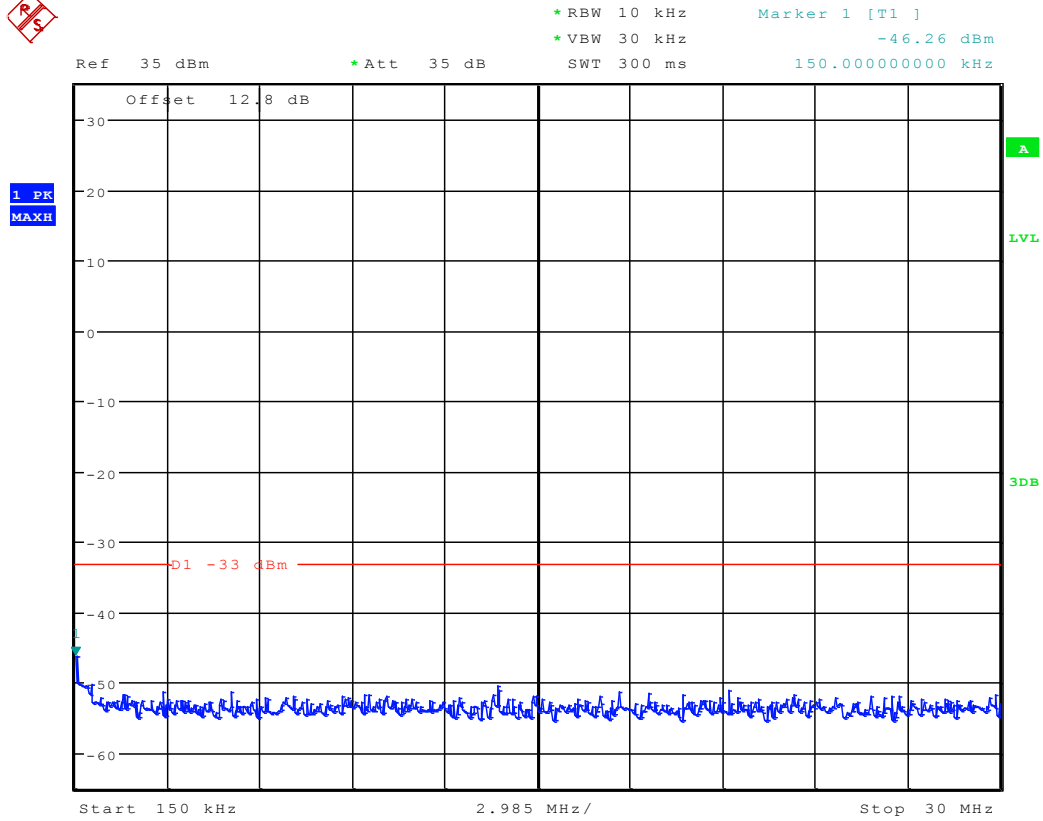
Date: 14.NOV.2012 20:40:25



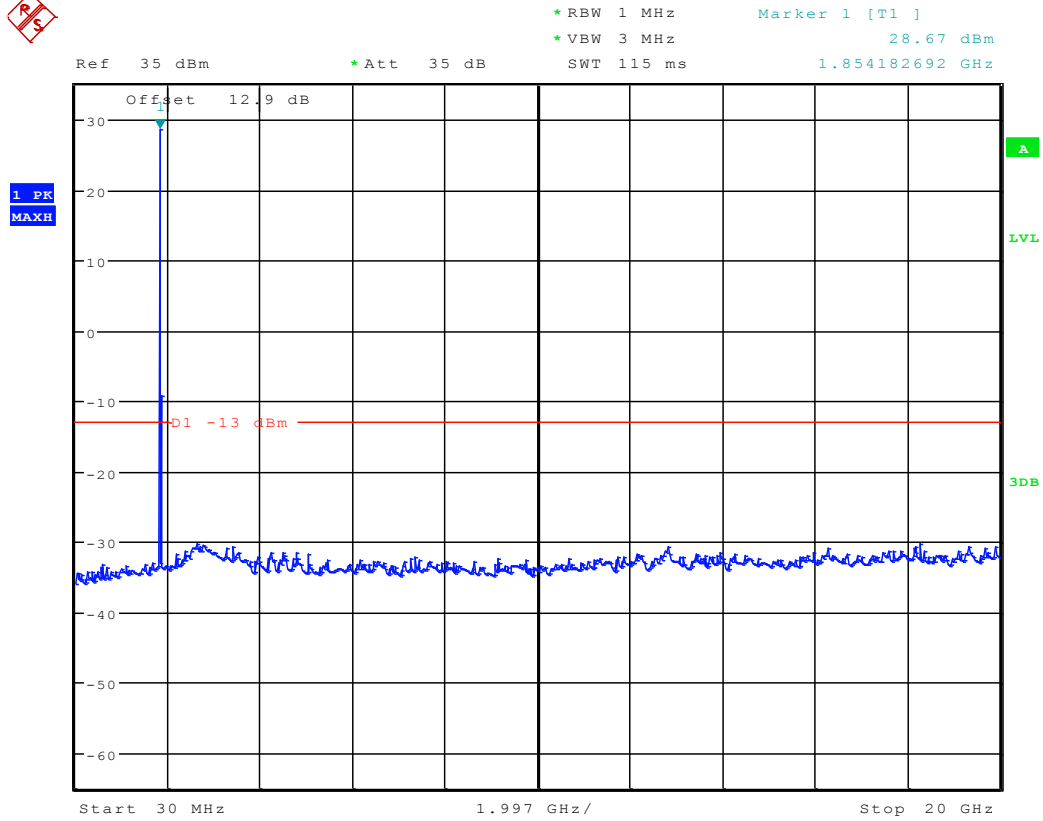
10.1.2 Channel 661



Date: 14.NOV.2012 20:39:12



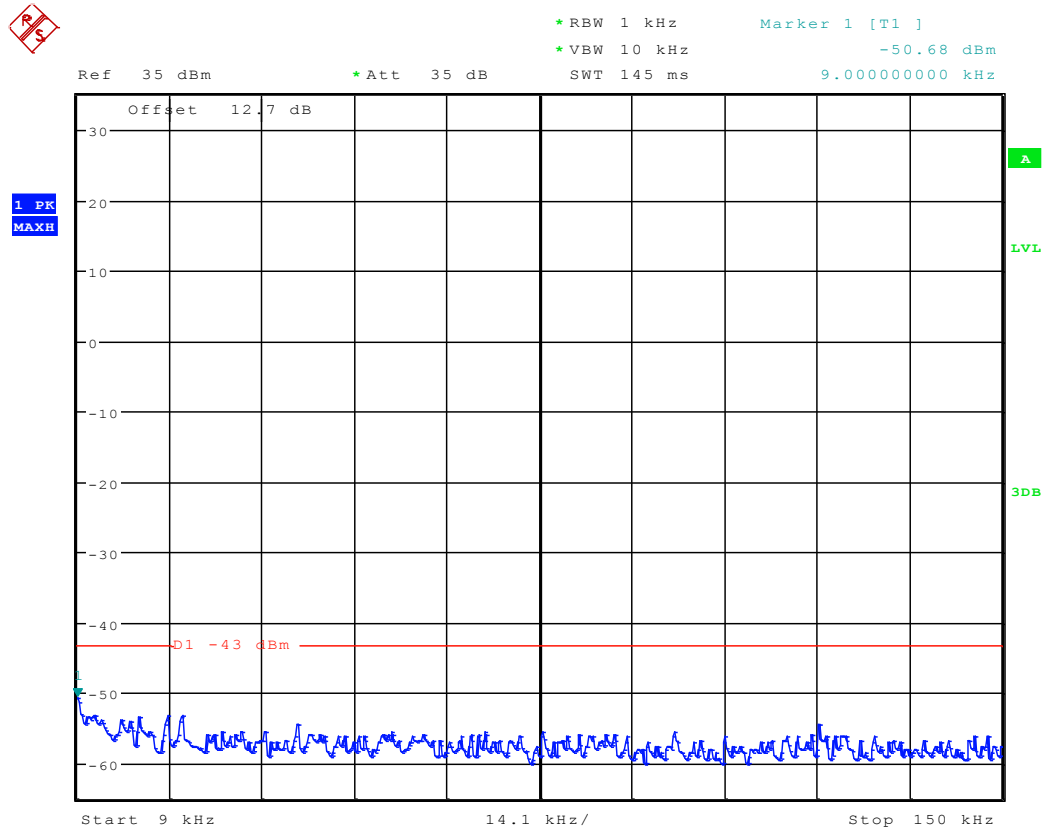
Date: 14.NOV.2012 20:39:56



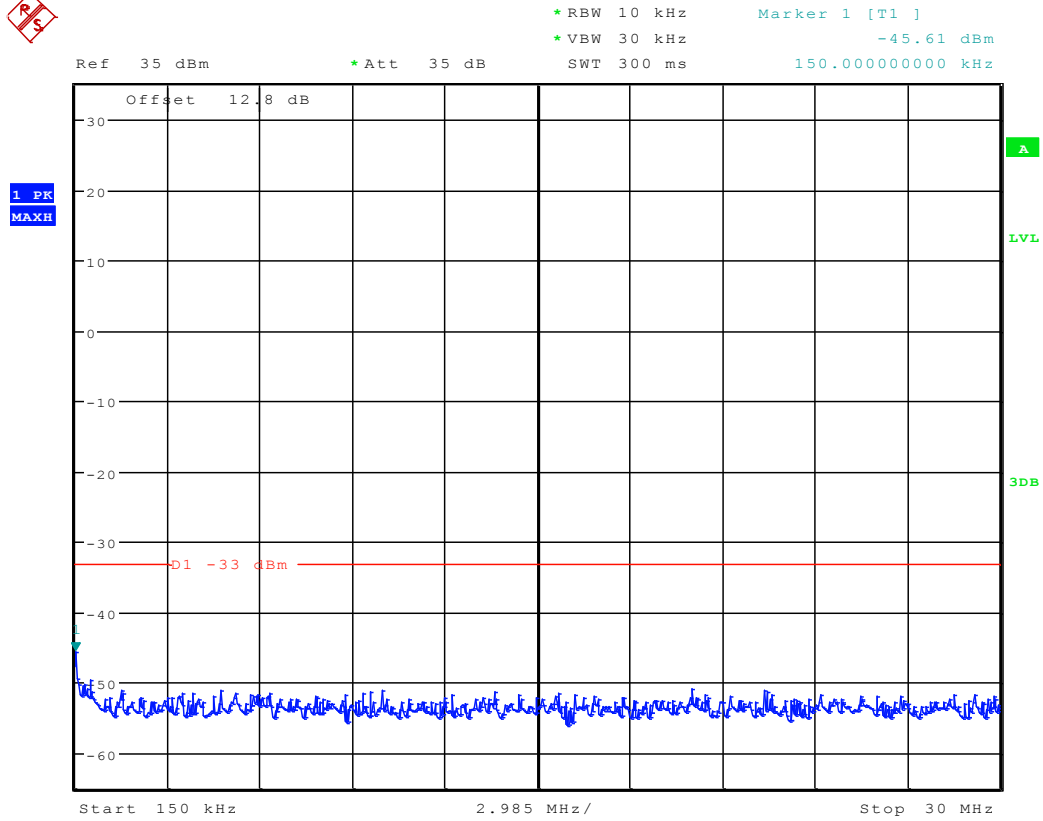
Date: 14.NOV.2012 20:40:40



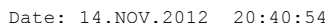
10.1.3 Channel 810



Date: 14.NOV.2012 20:39:27



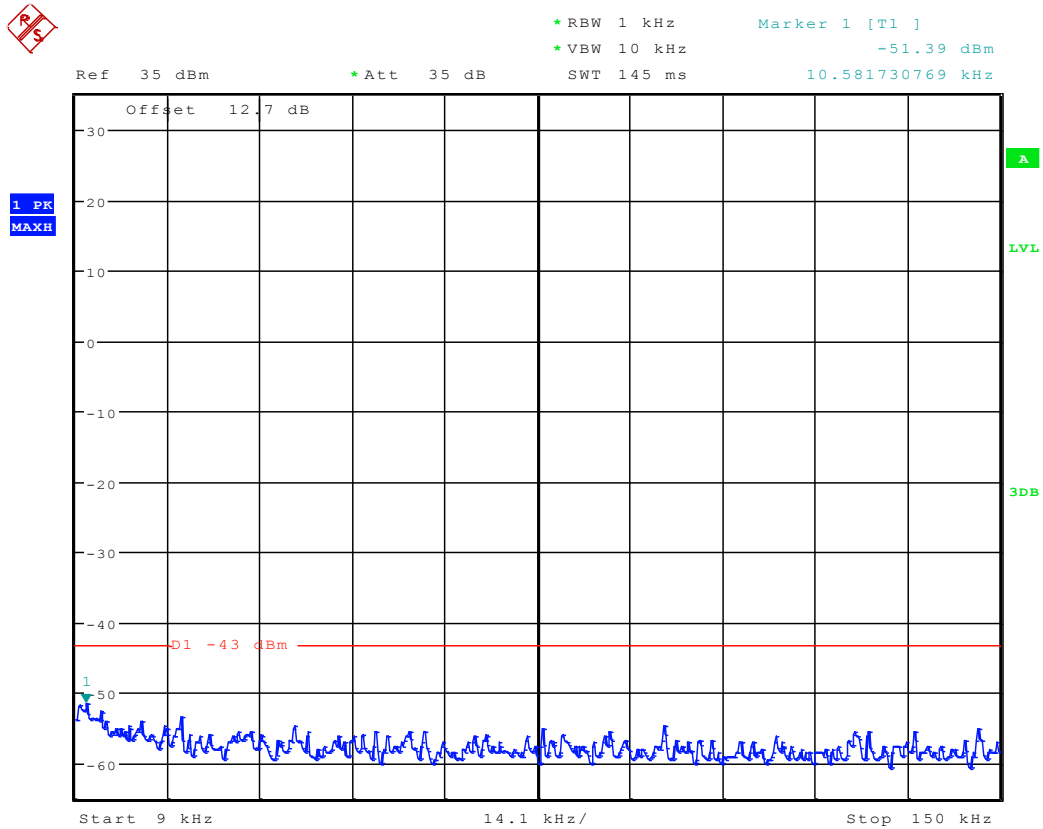
Date: 14.NOV.2012 20:40:10



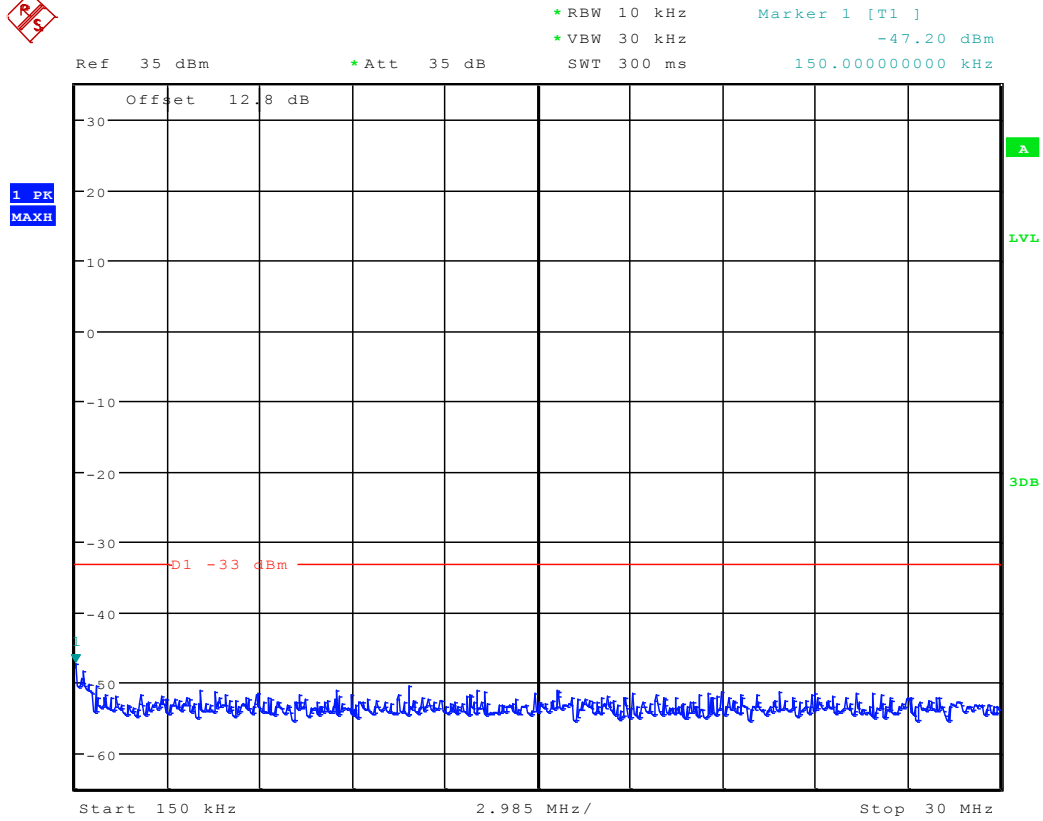


10.2 GSM/TM2:EDGE

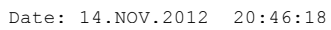
10.2.1 Channel 512



Date: 14.NOV.2012 20:44:51

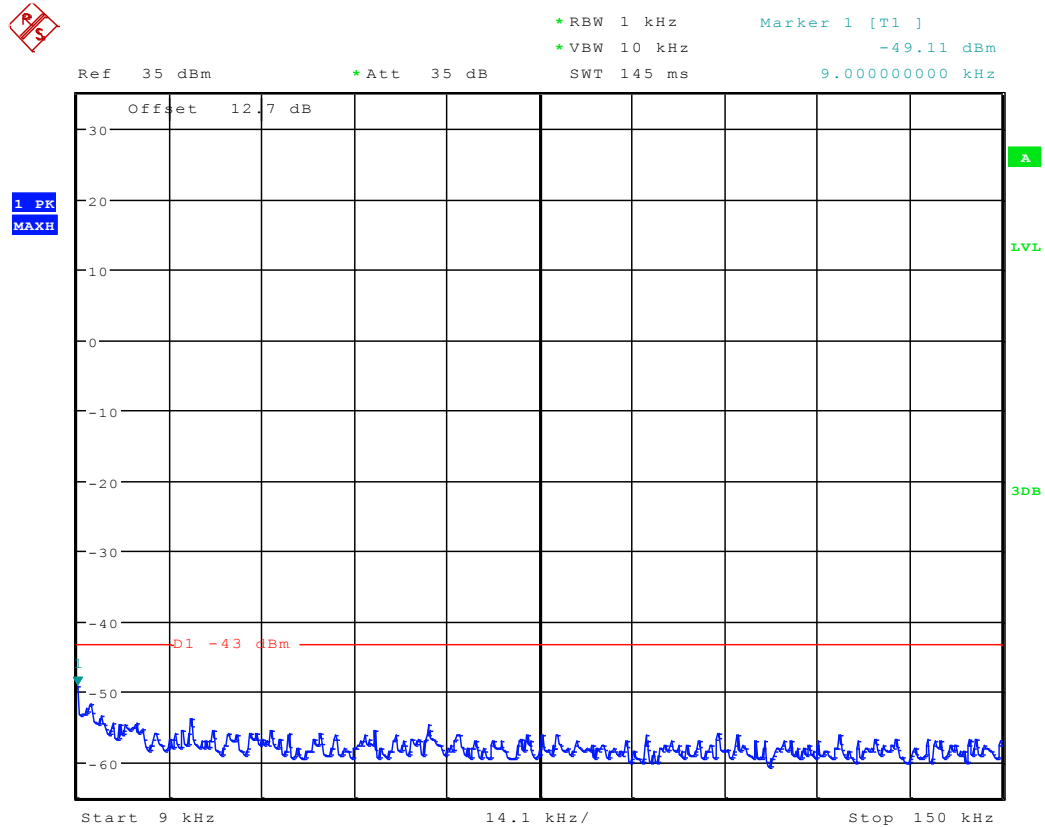


Date: 14.NOV.2012 20:45:35

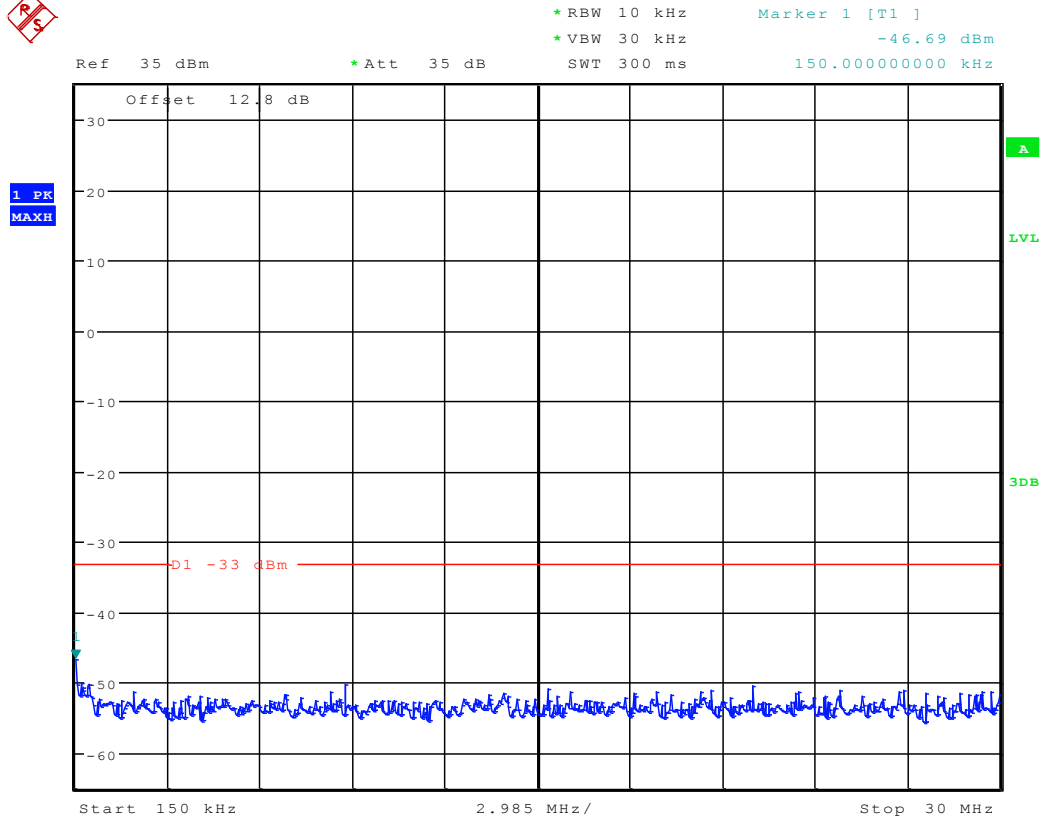




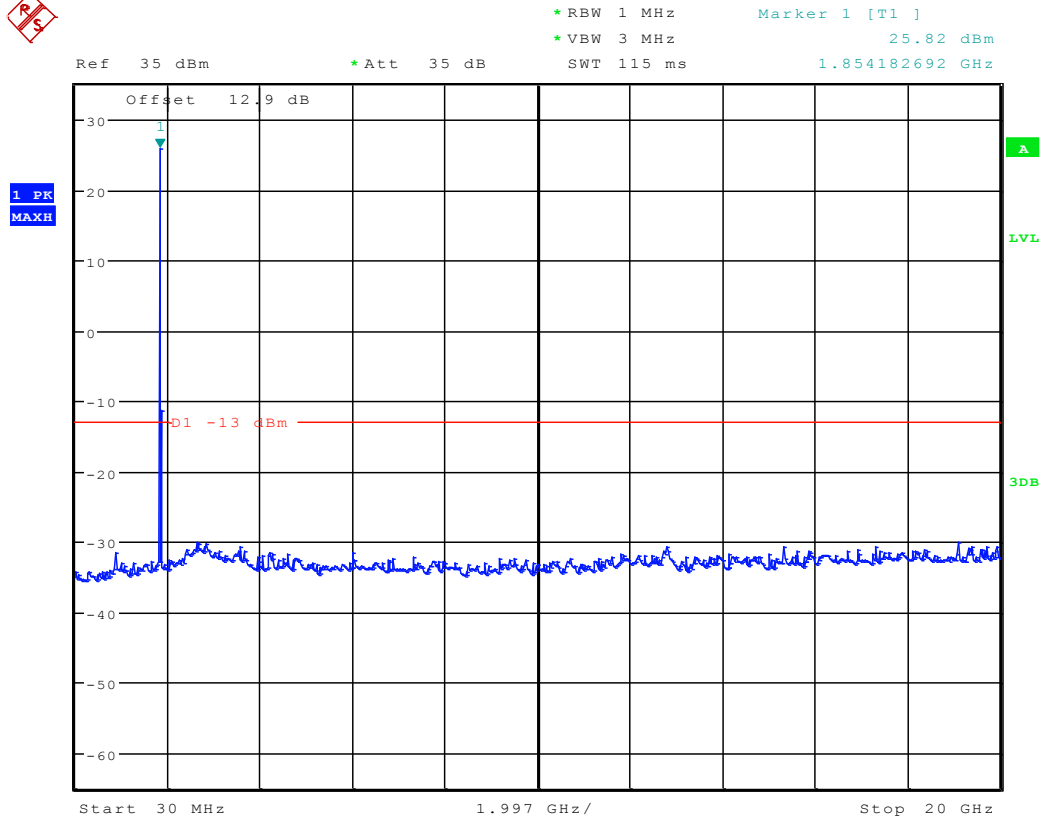
10.2.2 Channel 661



Date: 14.NOV.2012 20:45:05



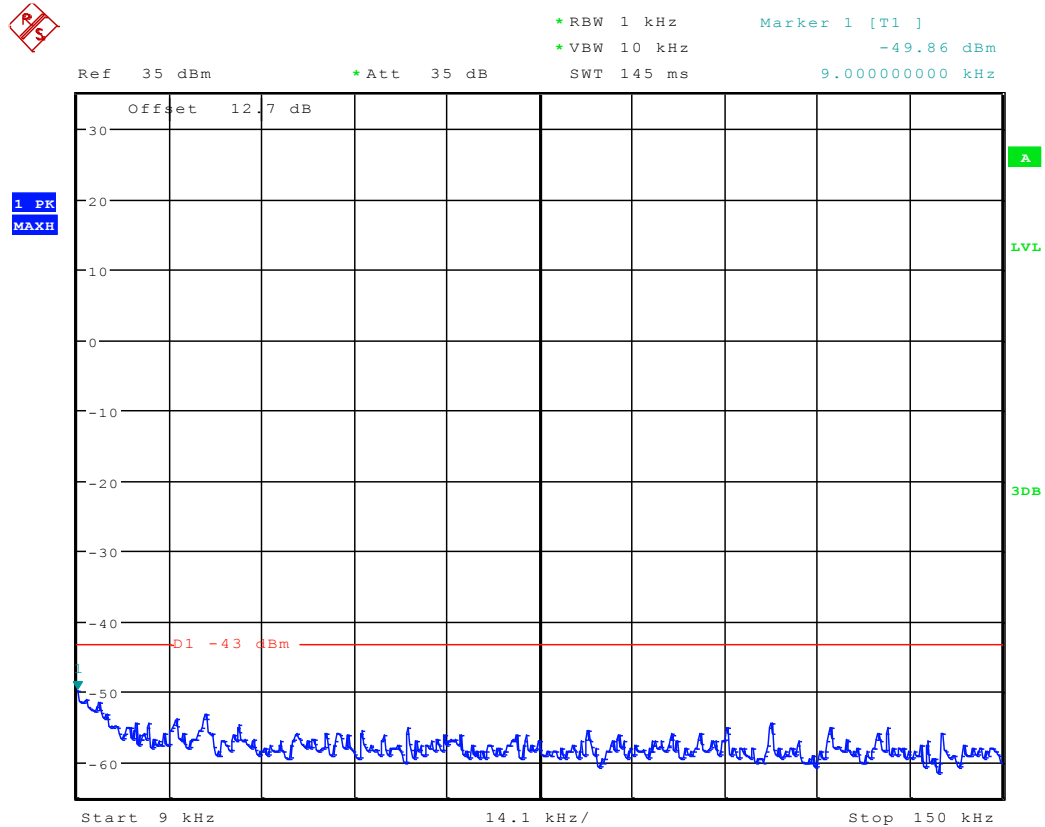
Date: 14.NOV.2012 20:45:49



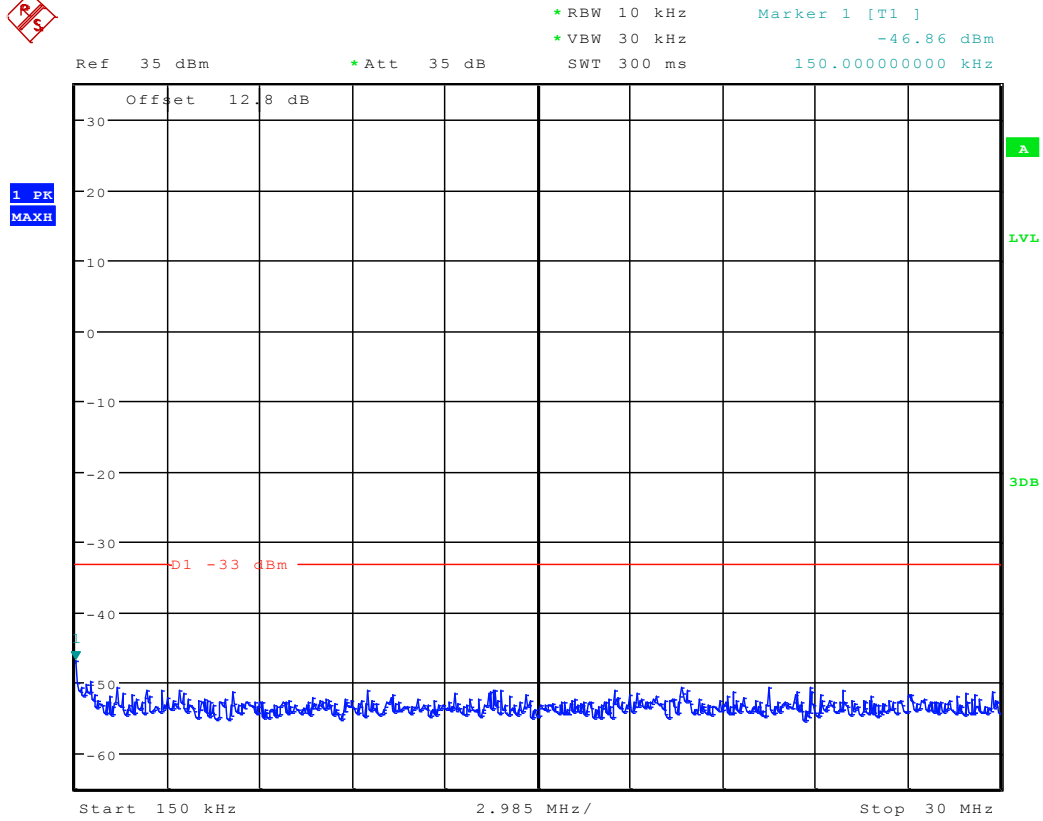
Date: 14.NOV.2012 20:46:33



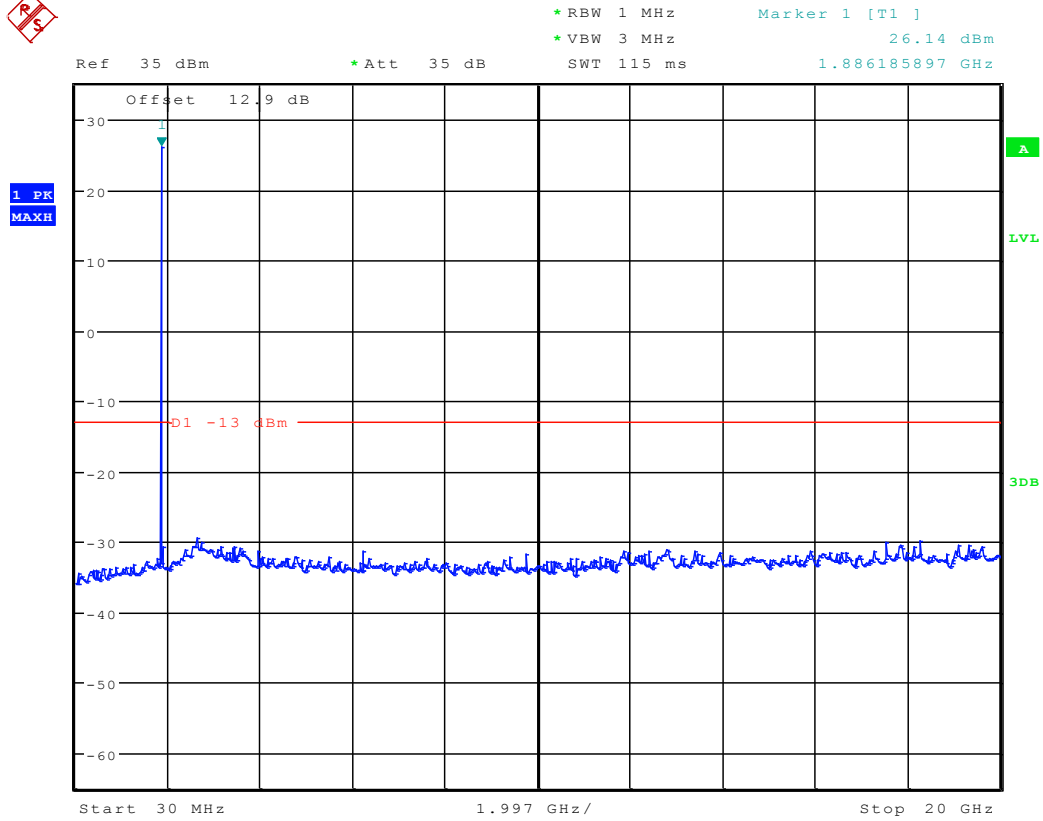
10.2.3 Channel 810



Date: 14.NOV.2012 20:45:20



Date: 14.NOV.2012 20:46:03

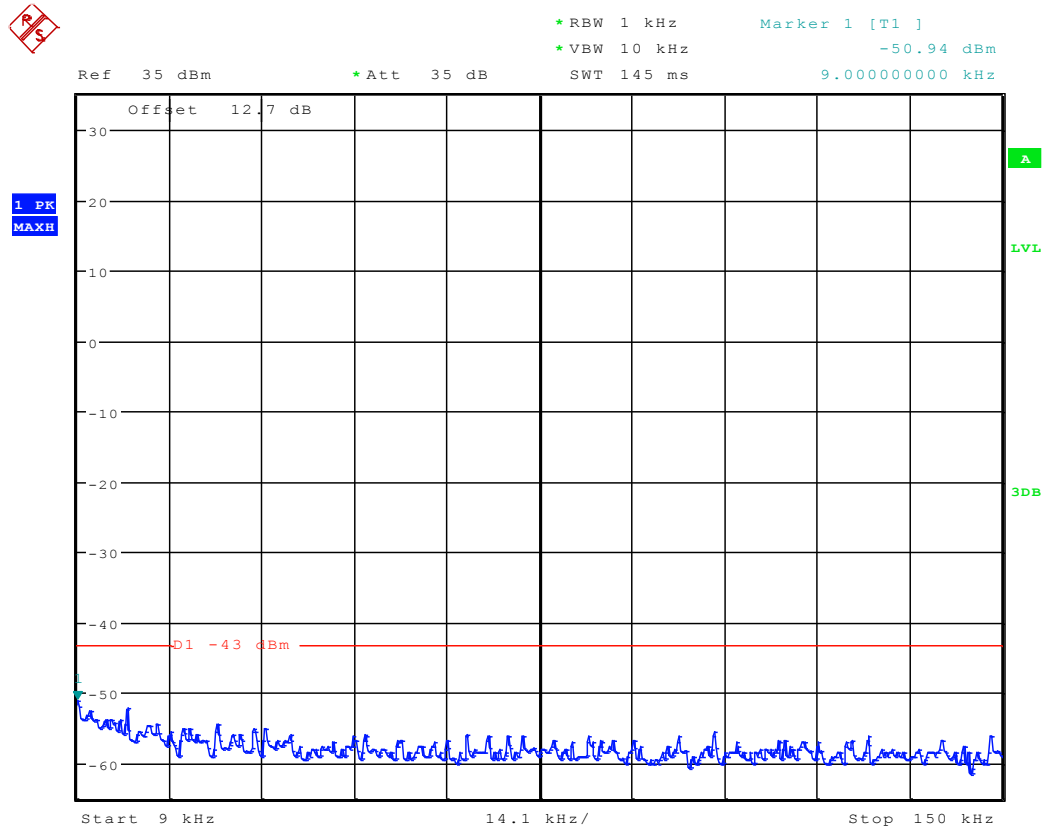


Date: 14.NOV.2012 20:46:47



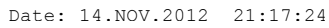
10.3 UMTS/TM1: WCDMA

10.3.1 Channel 9262



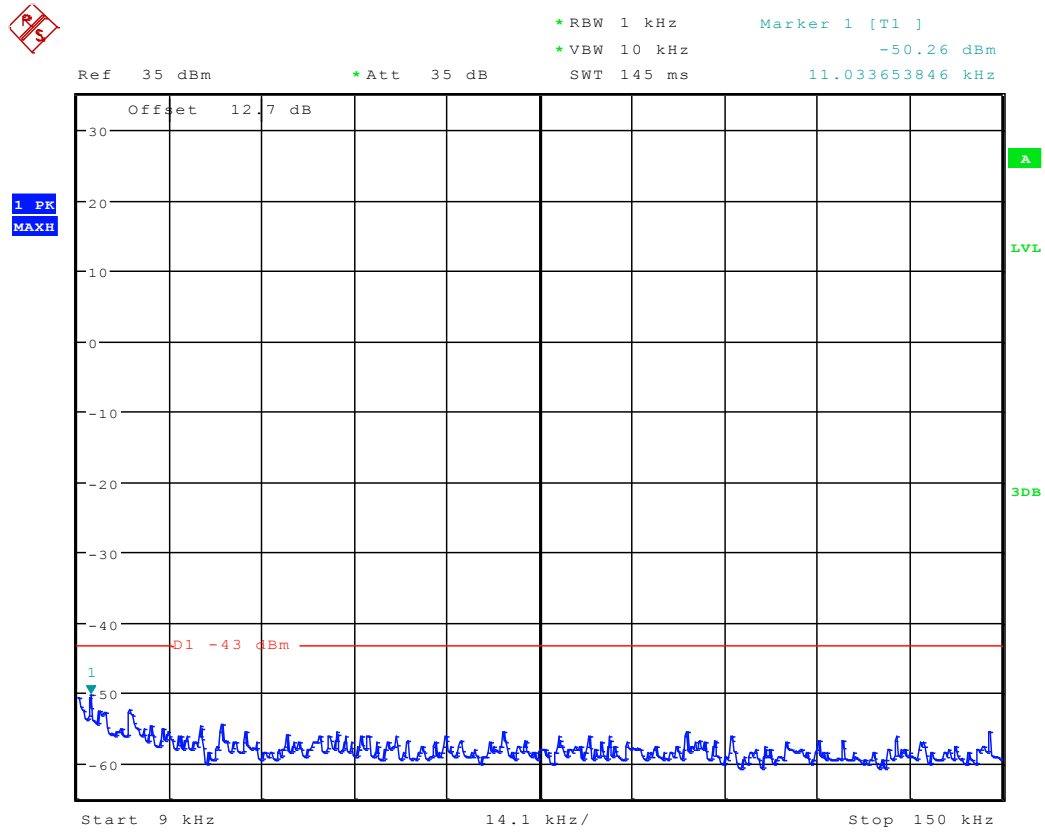
Date: 14.NOV.2012 21:15:57







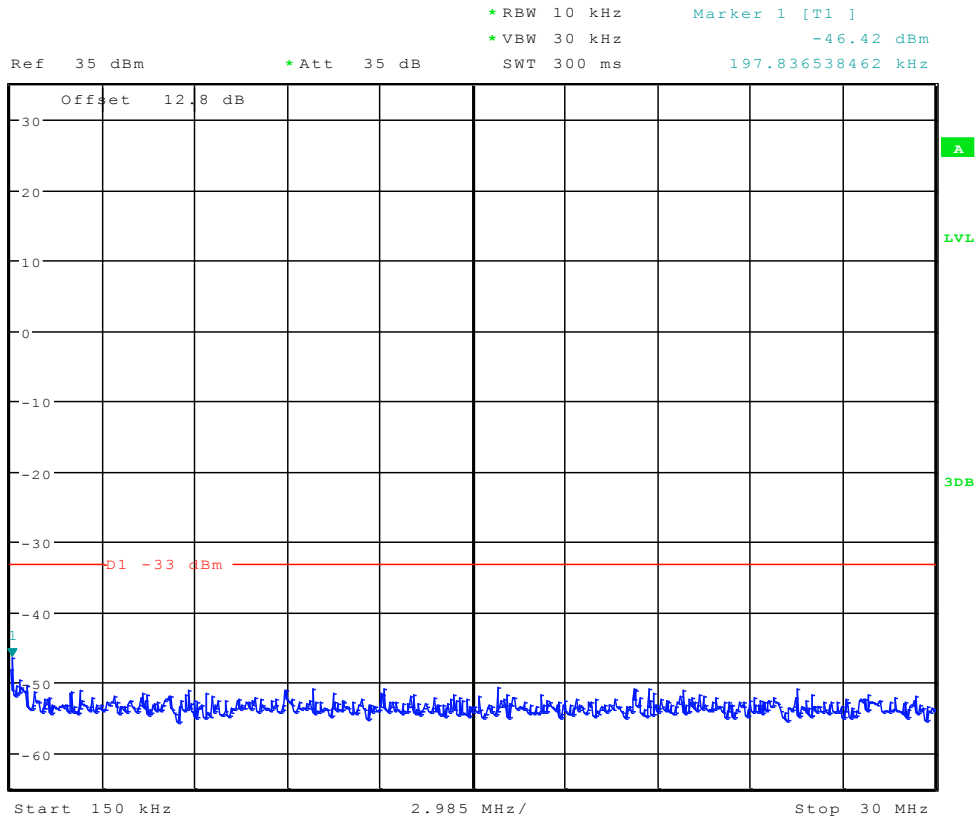
10.3.2 Channel 9400



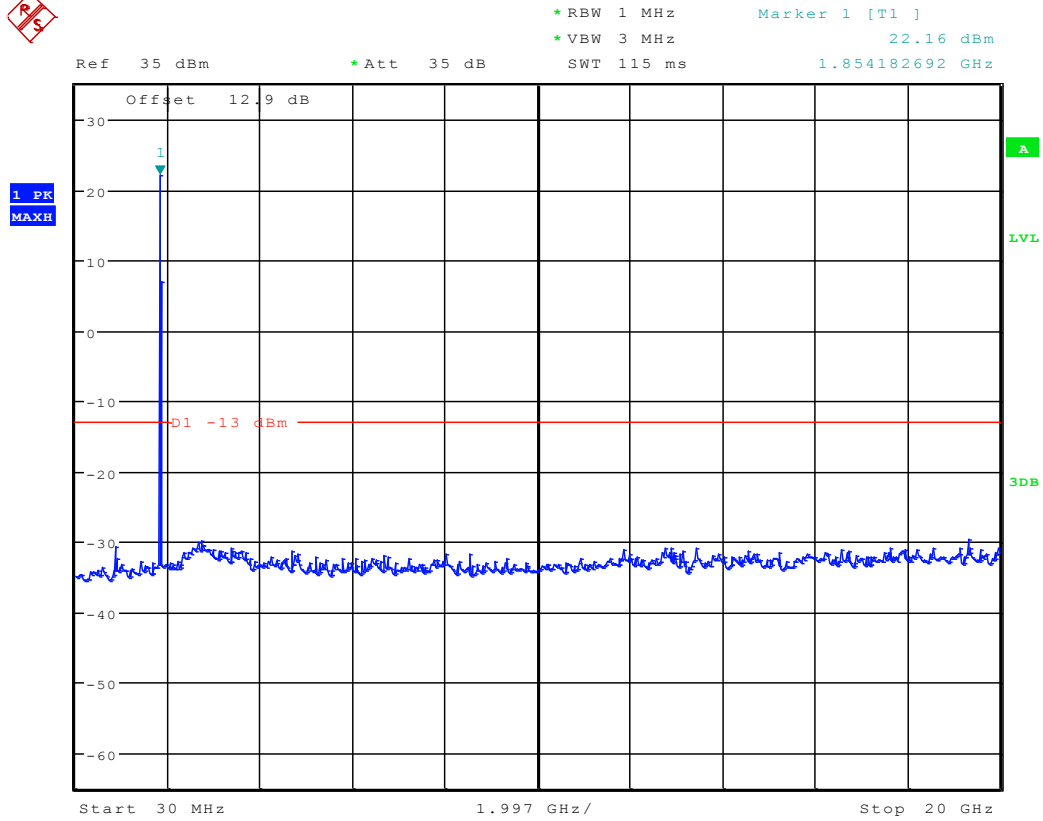
Date: 14.NOV.2012 21:16:11



1 PK
MAXH



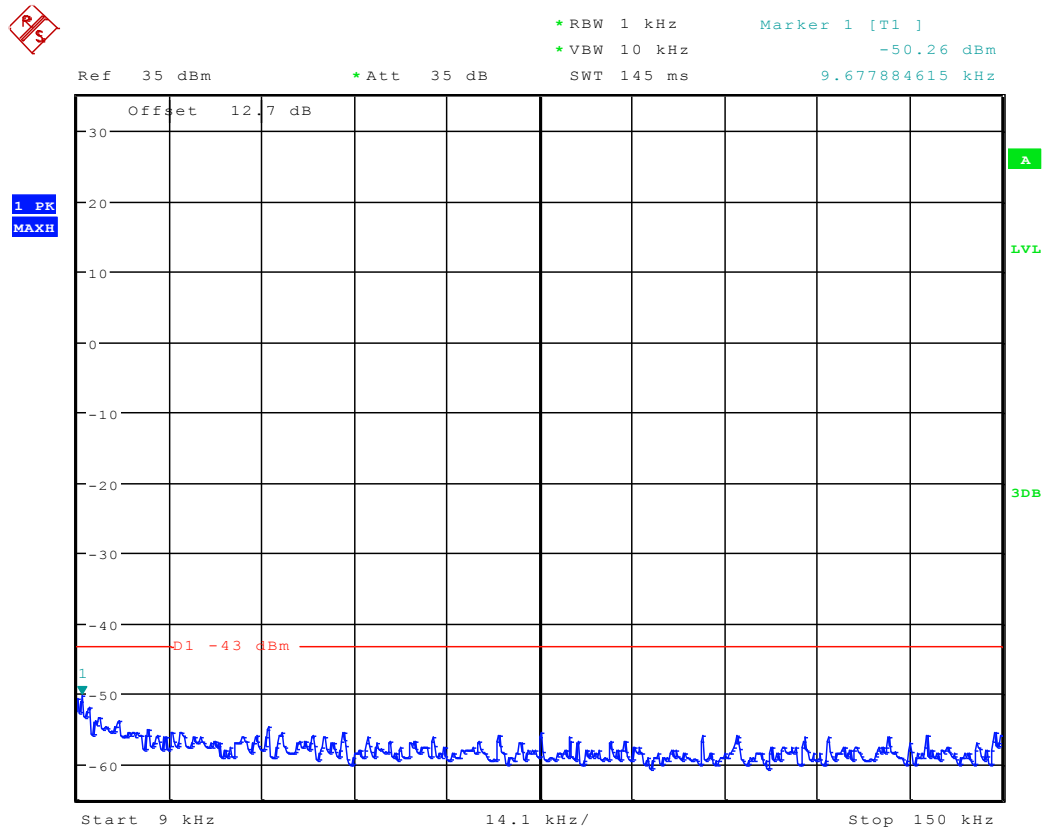
Date: 14.NOV.2012 21:16:55



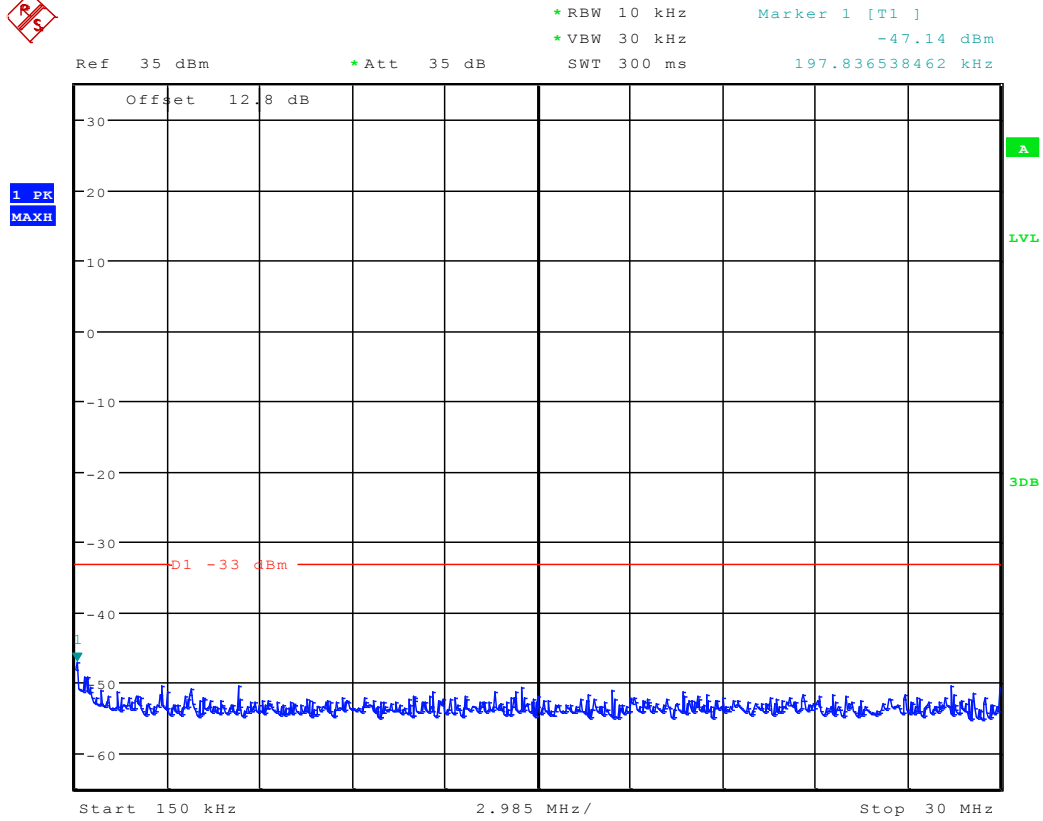
Date: 14.NOV.2012 21:17:39



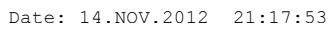
10.3.3 Channel 9538



Date: 14.NOV.2012 21:16:26



Date: 14.NOV.2012 21:17:09

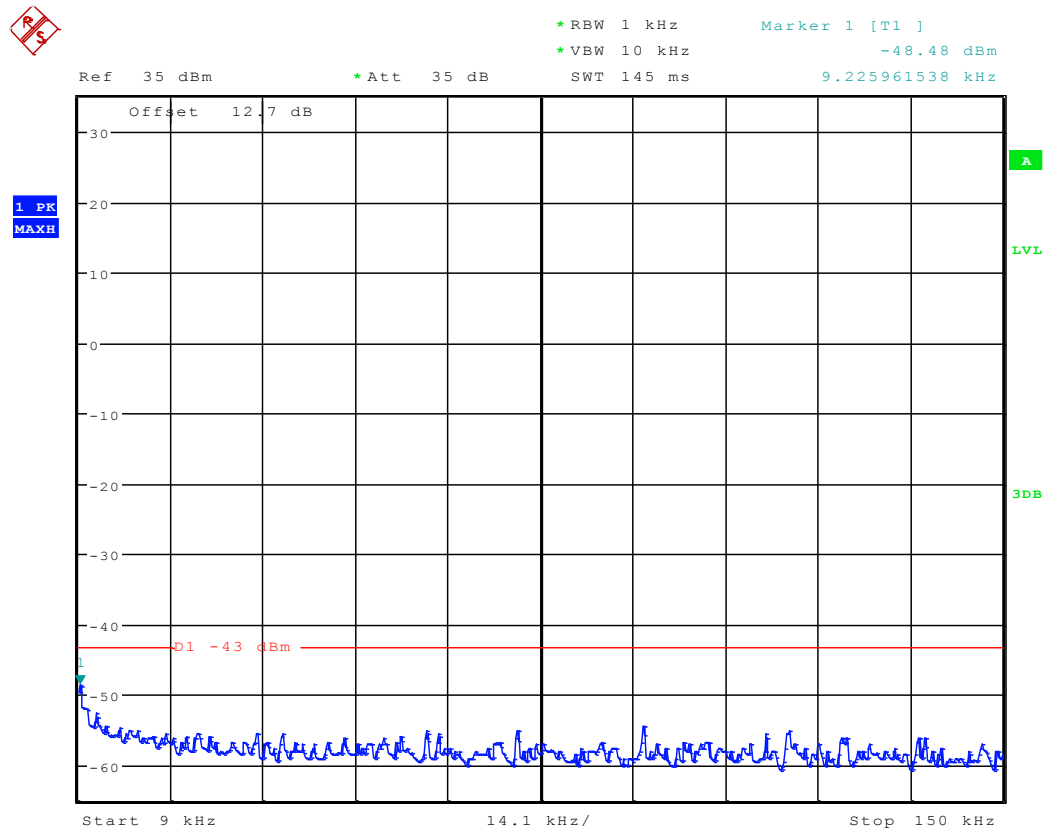




11 Appendix 3D: Spurious Emission at Antenna Terminal

11.1 UMTS/TM1: WCDMA

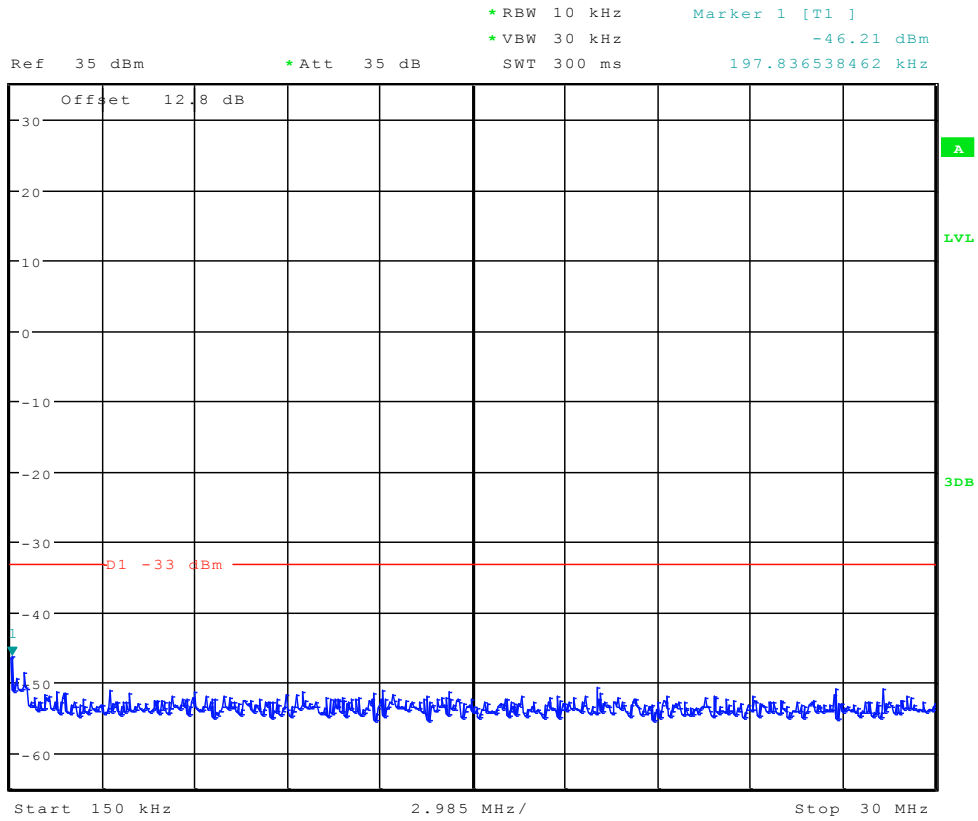
11.1.1 Channel 1312



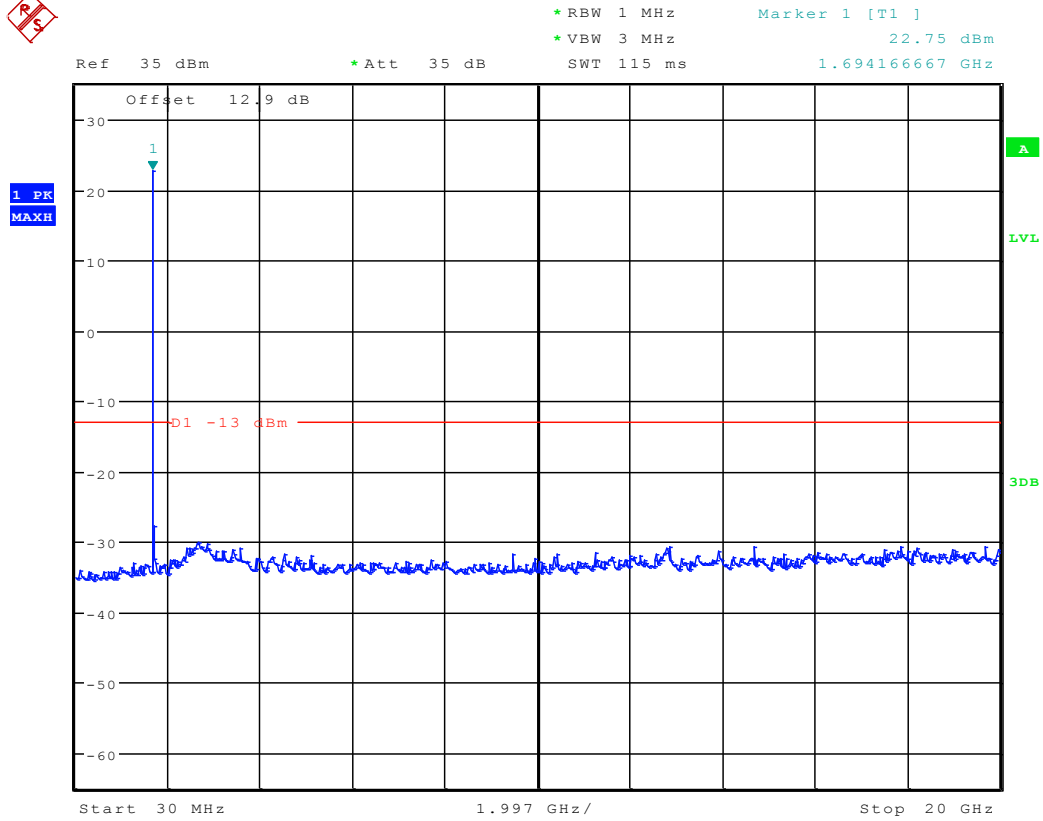
Date: 14.NOV.2012 20:50:04



1 PK
MAXH



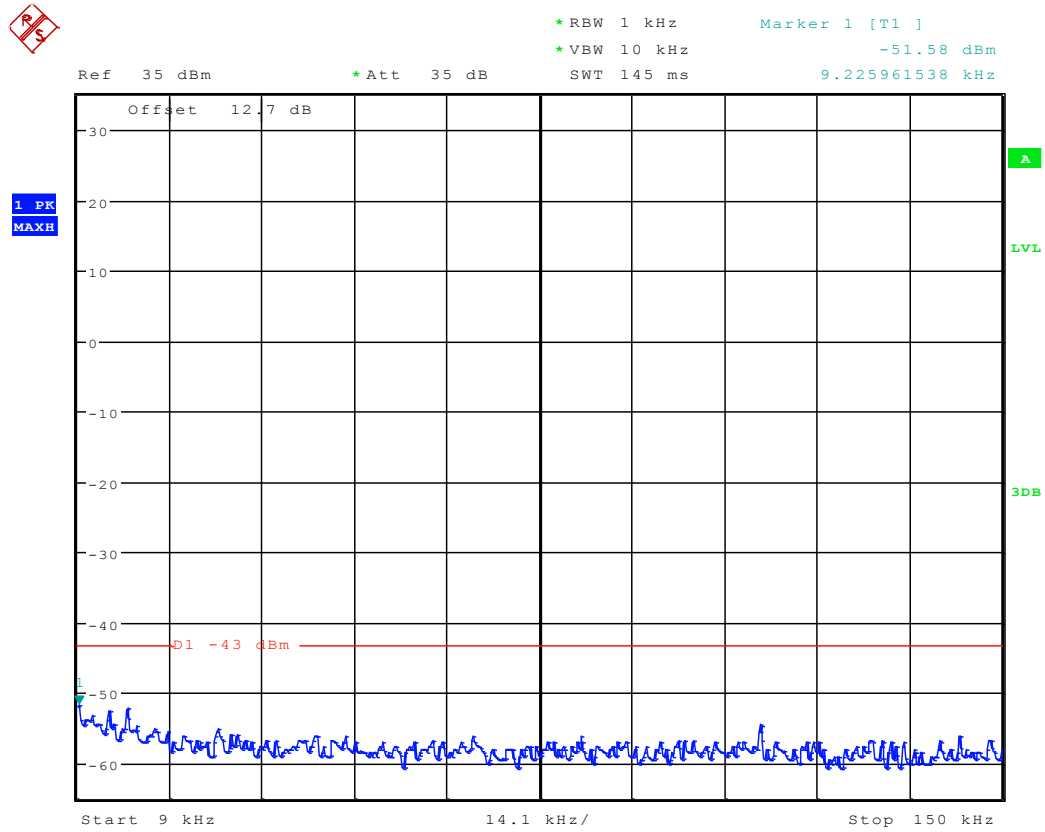
Date: 14.NOV.2012 20:50:47



Date: 14.NOV.2012 20:51:31

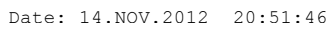


11.1.2 Channel 1412



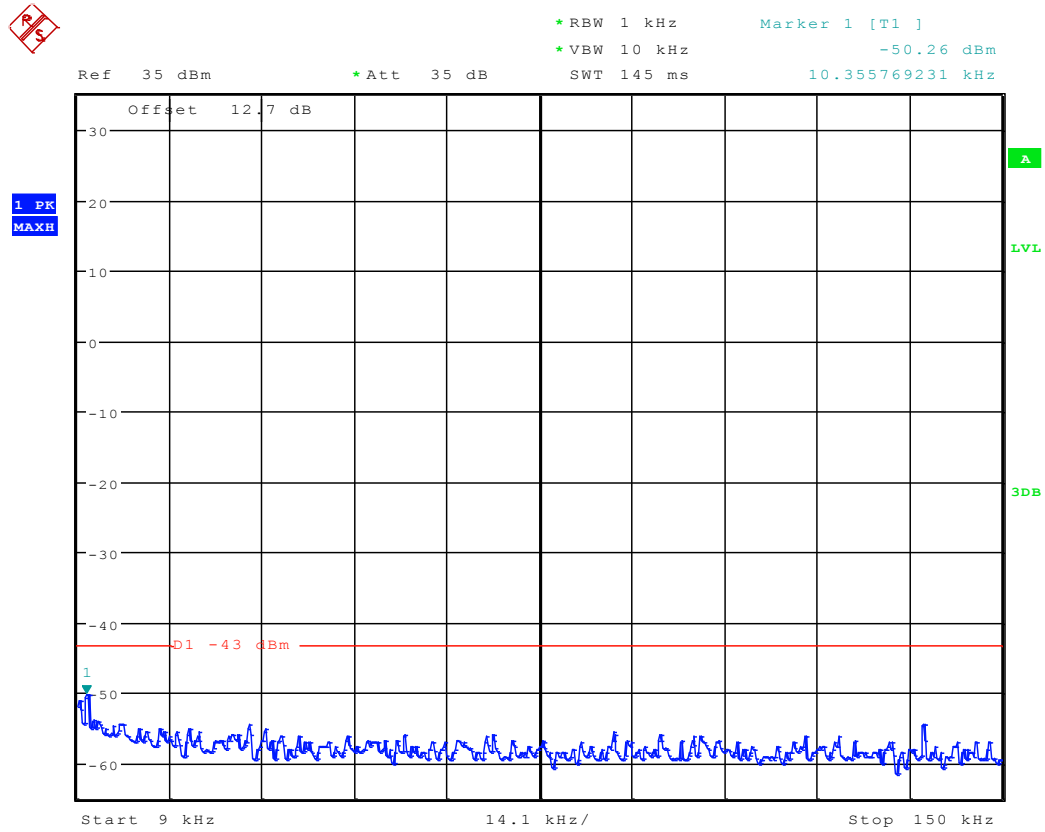
Date: 14.NOV.2012 20:50:18



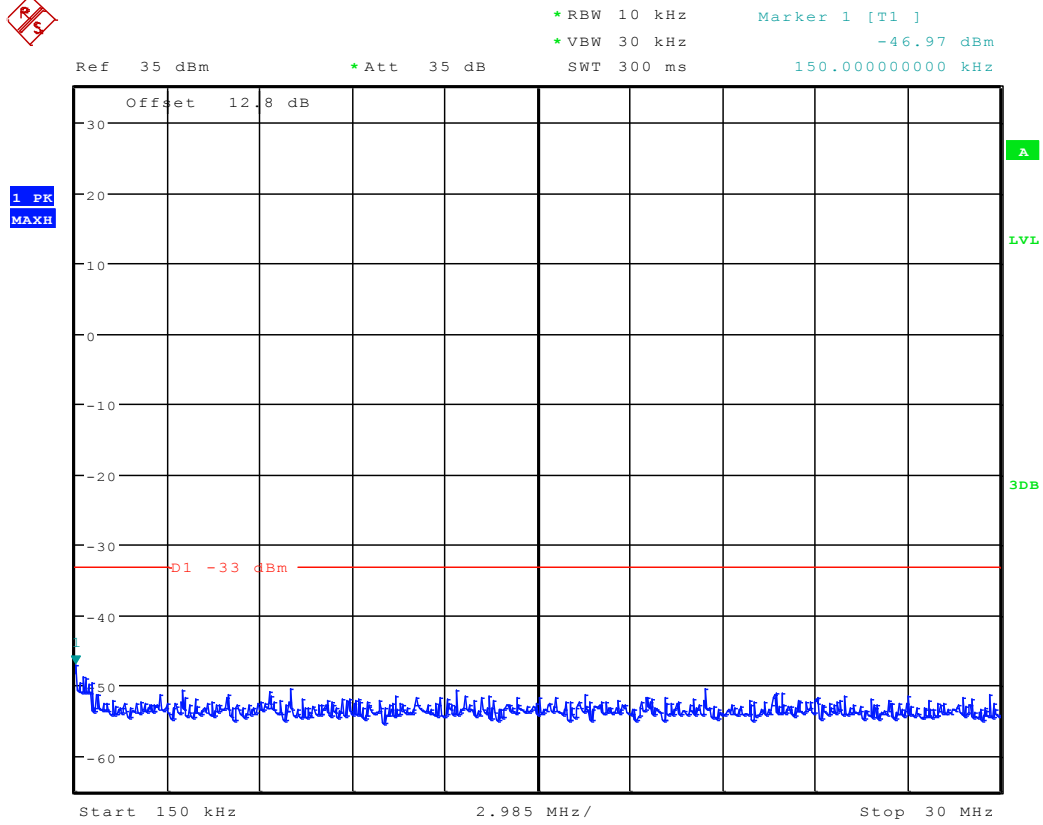




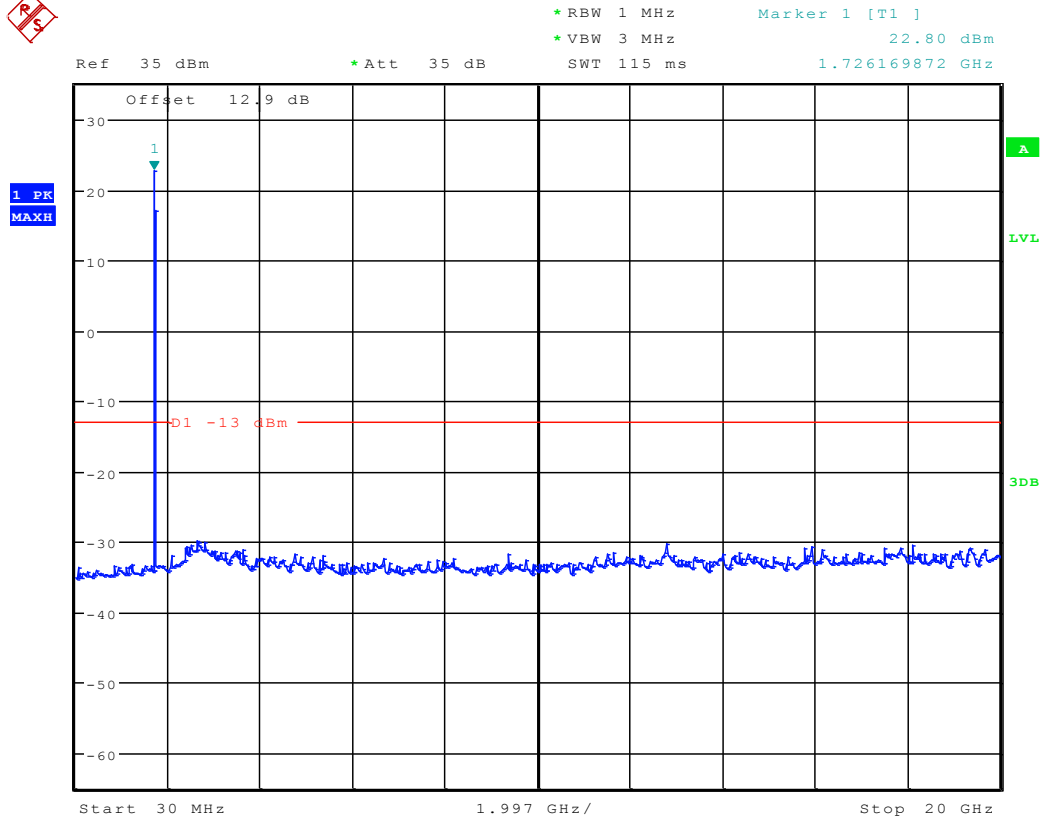
11.1.3 Channel 1513



Date: 14.NOV.2012 20:50:33



Date: 14.NOV.2012 20:51:16



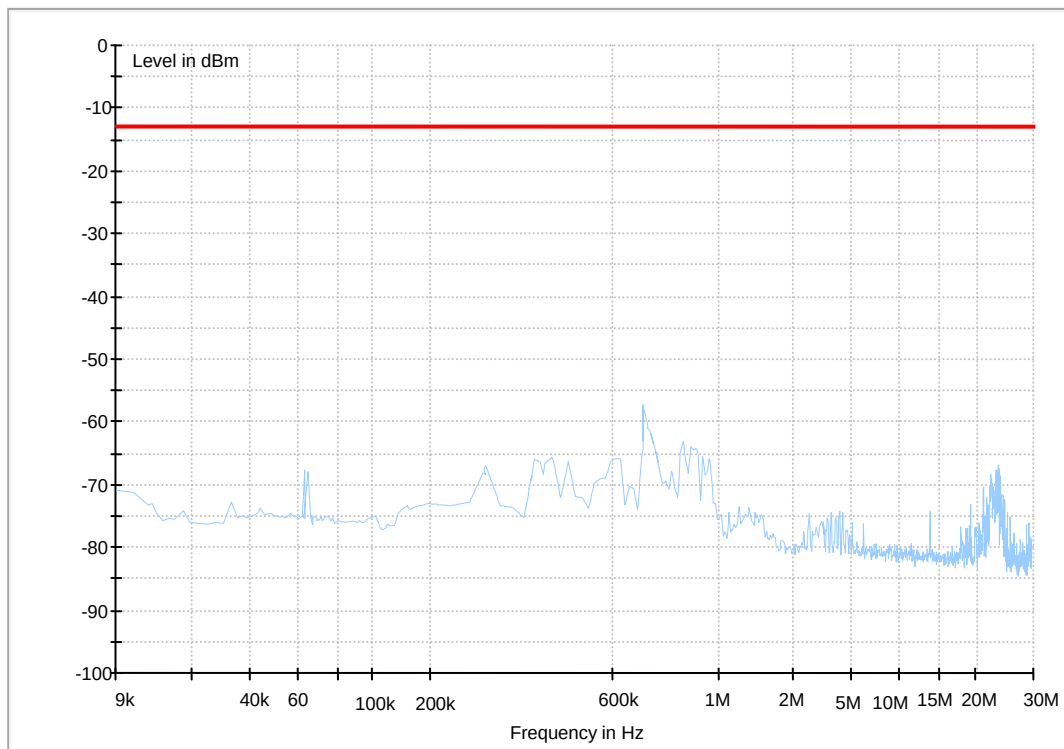
Date: 14.NOV.2012 20:52:00



12 Appendix 1E: Radiated spurious emission

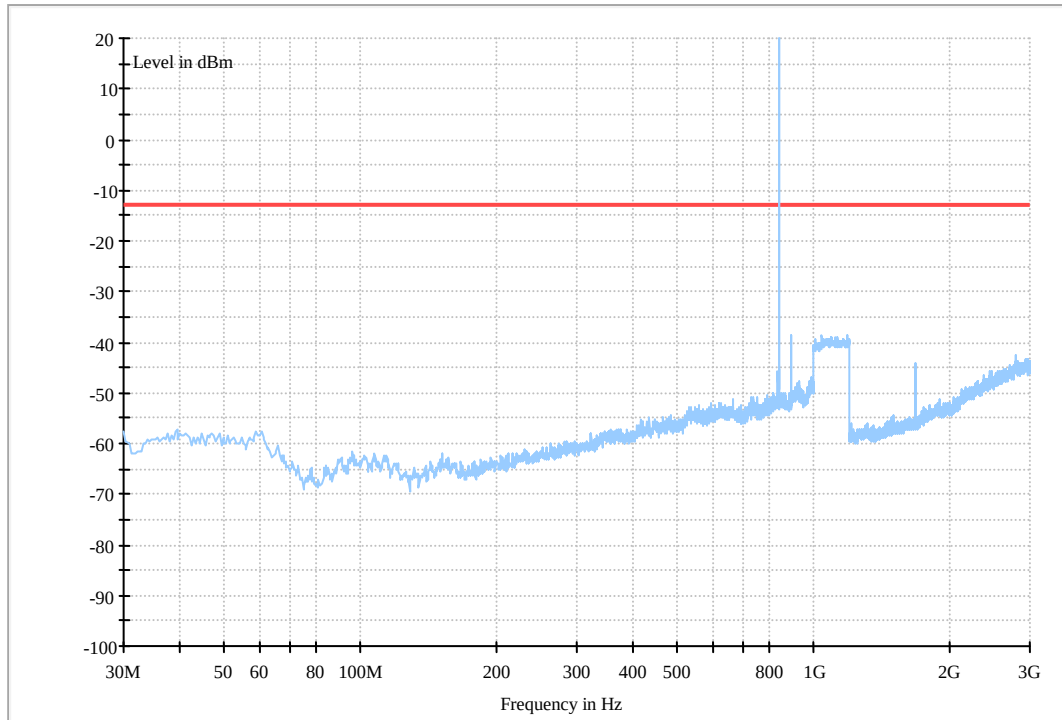
12.1 GPRS 850

12.1.1 Traffic Mode (9kHz-30MHz)



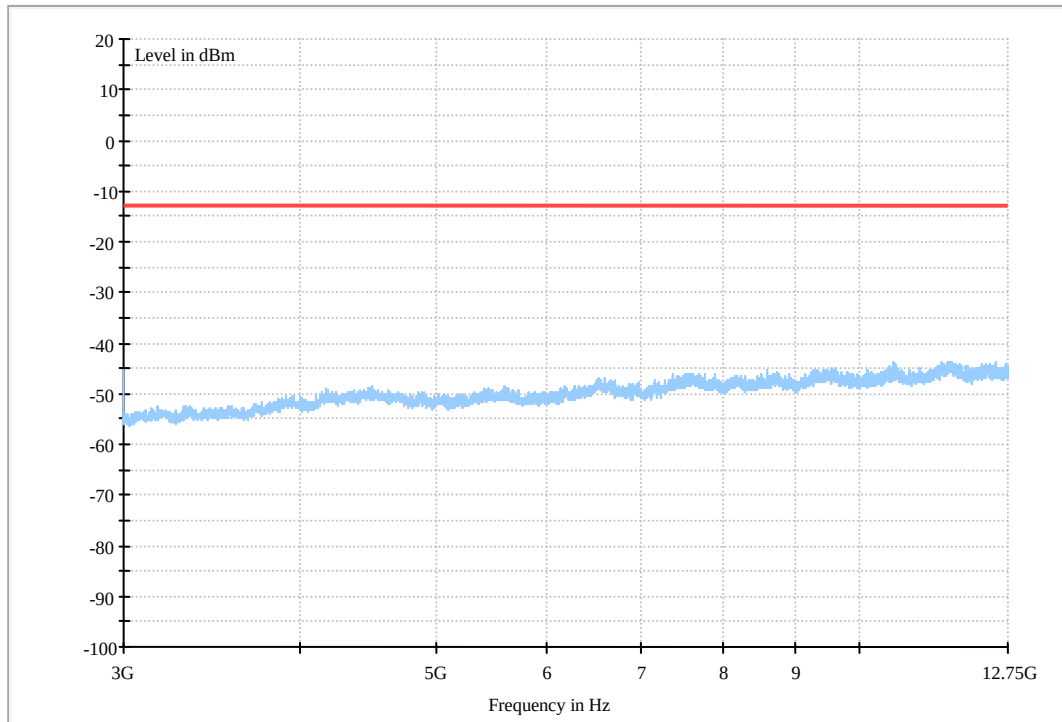


12.1.2 Traffic Mode (30MHz-3GHz)





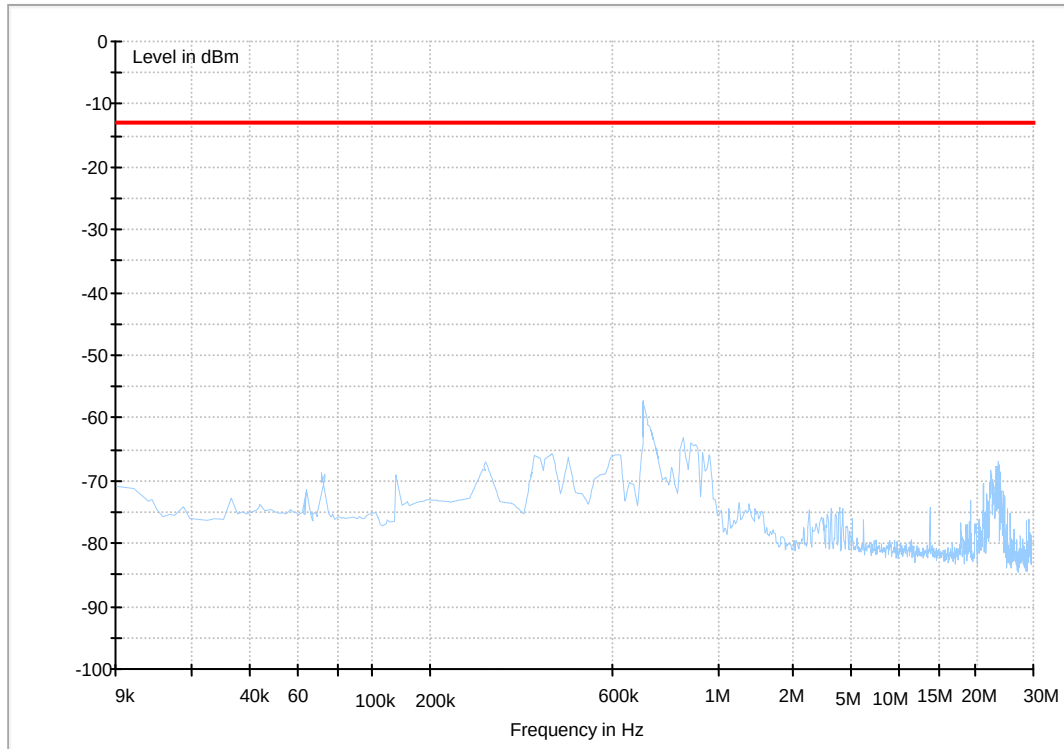
12.1.3 Traffic Mode (3GHz-18GHz)





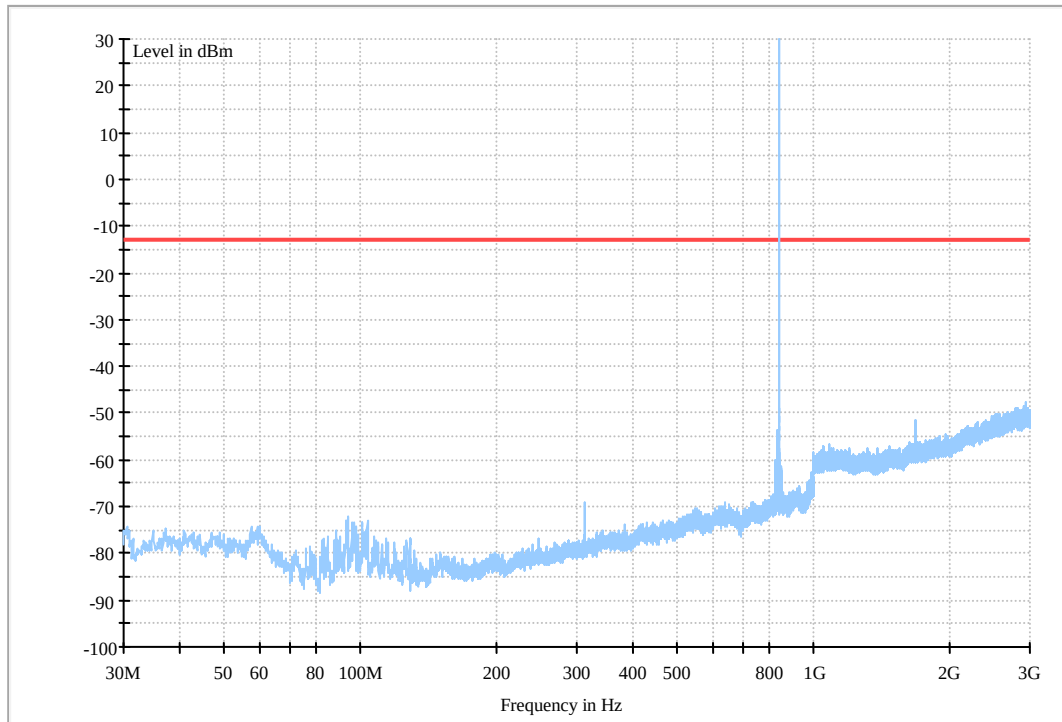
12.2 EDGE 850

12.2.1 Traffic Mode (9kHz-30MHz)



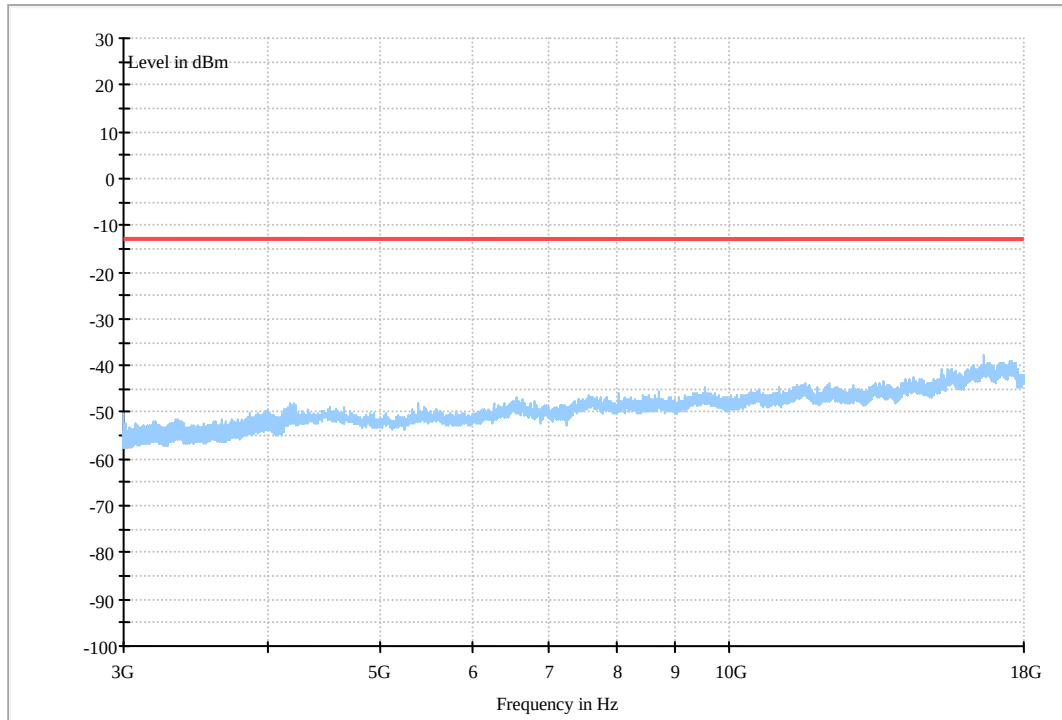


12.2.2 Traffic Mode (30MHz-3GHz)





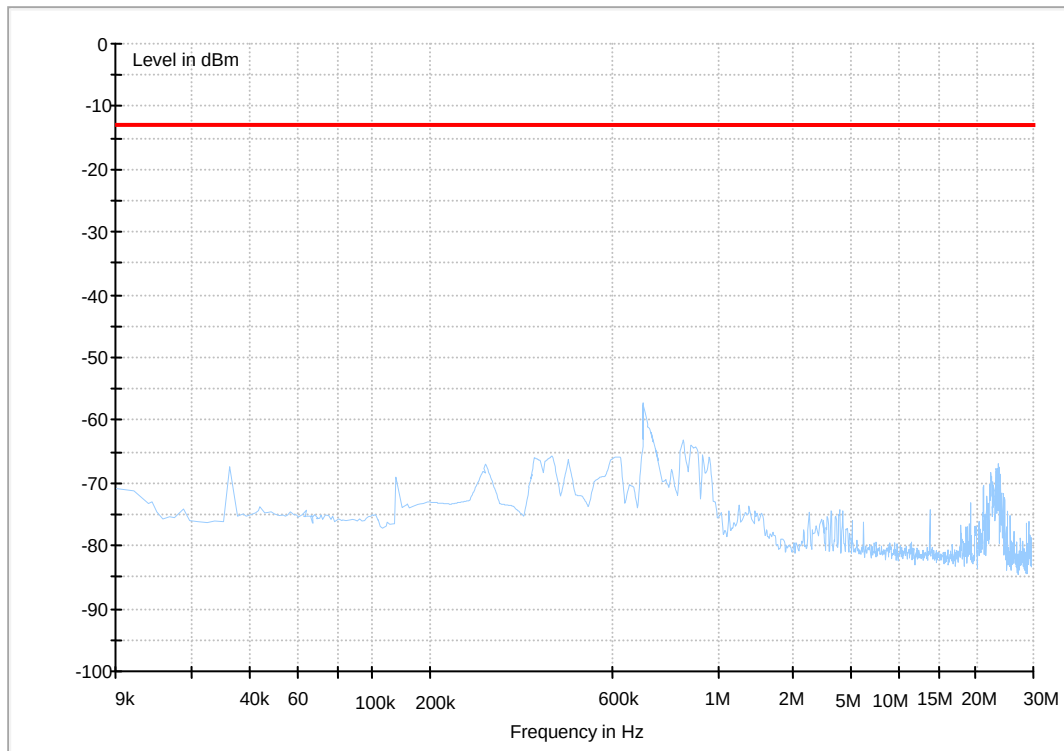
12.2.3 Traffic Mode (3GHz-18GHz)





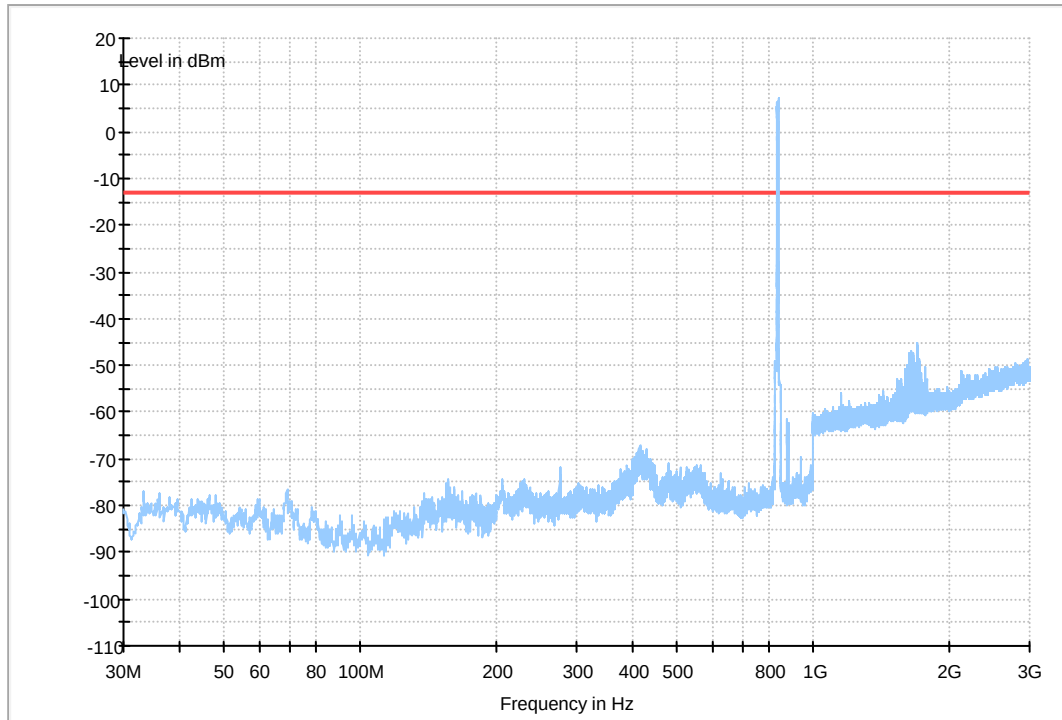
12.3 WCDMA BNAD V

12.3.1 Traffic Mode (9kHz-30MHz)



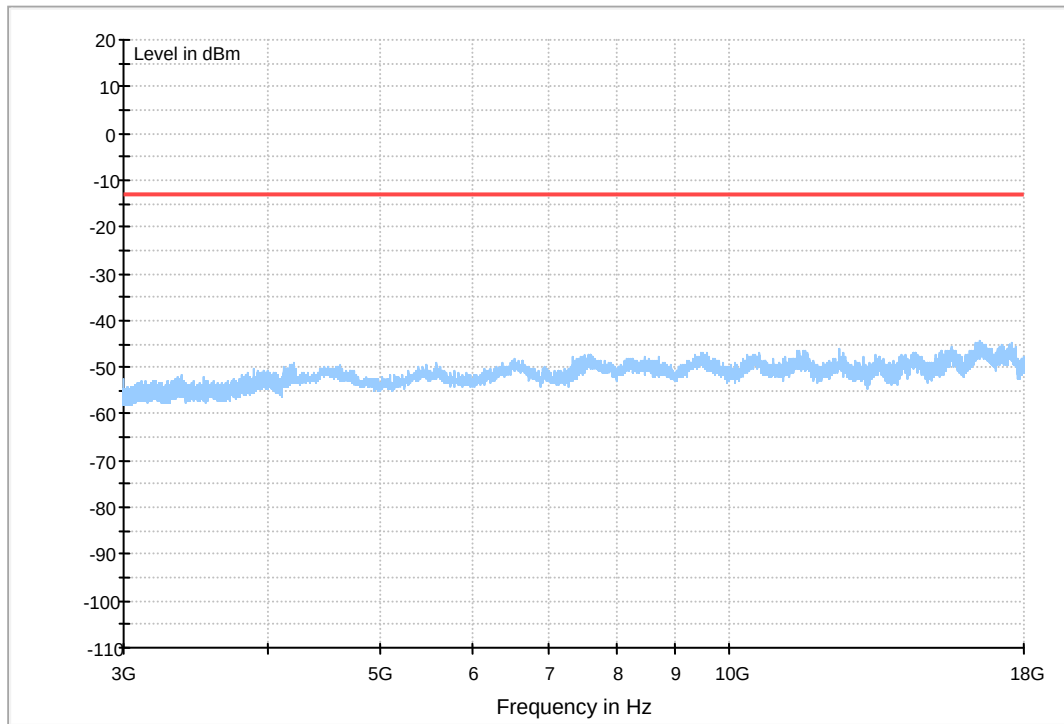


12.3.2 Traffic Mode (30MHz-3GHz)





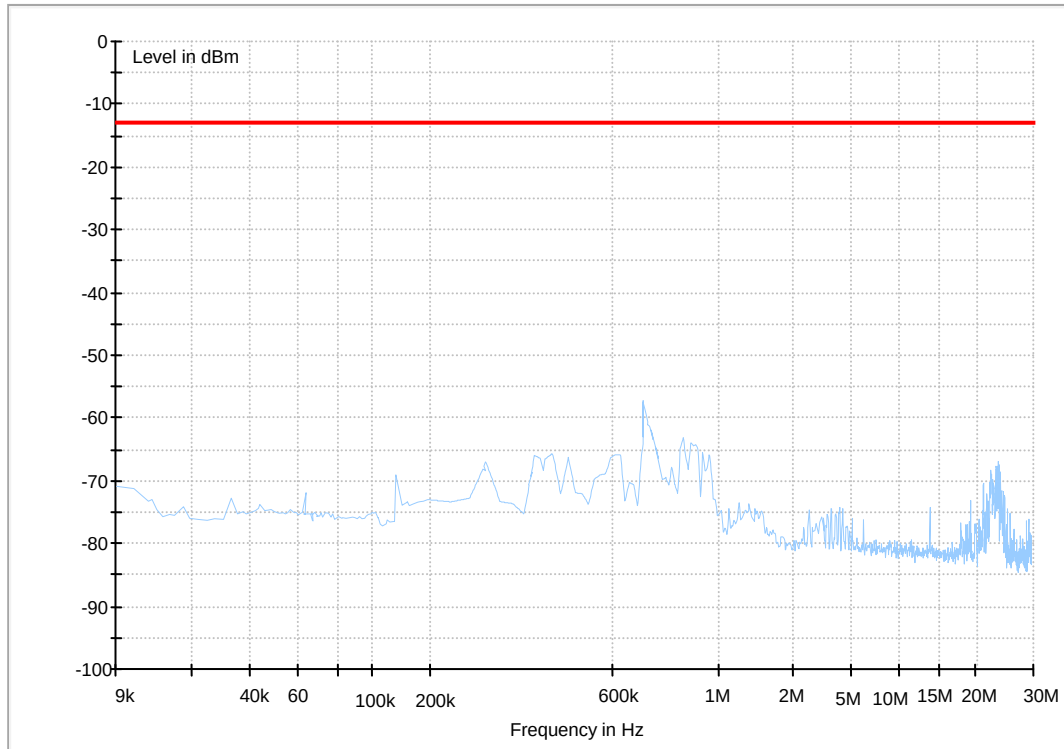
12.3.3 Traffic Mode (3GHz-18GHz)





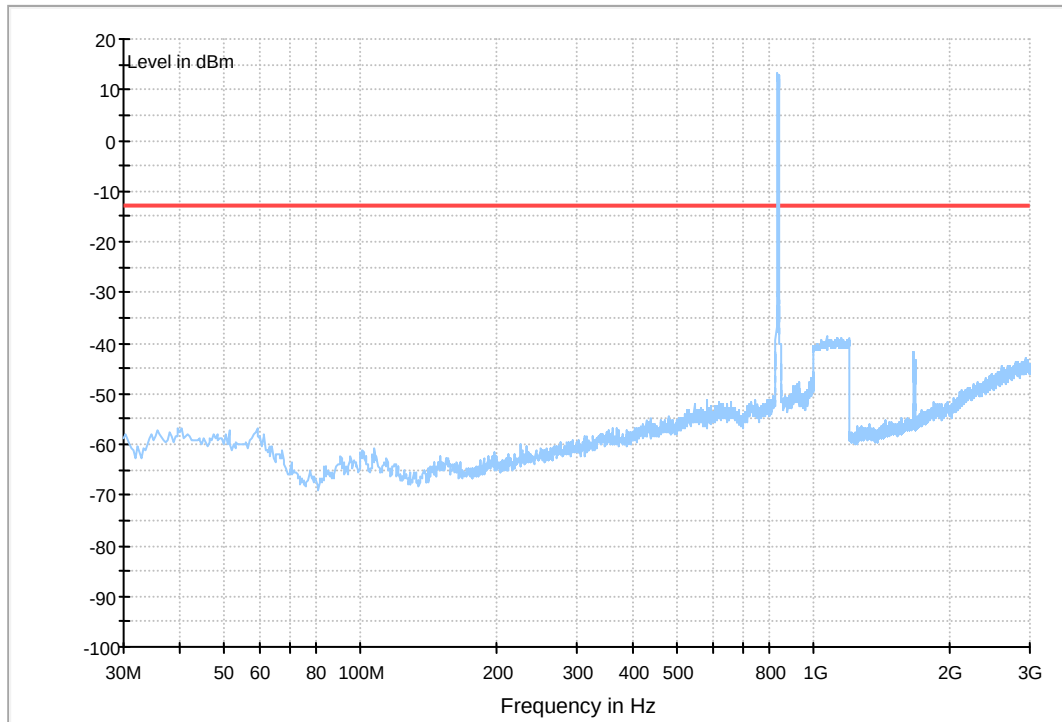
12.4 HSDPA BNAD V

12.4.1 Traffic Mode (9kHz-30MHz)



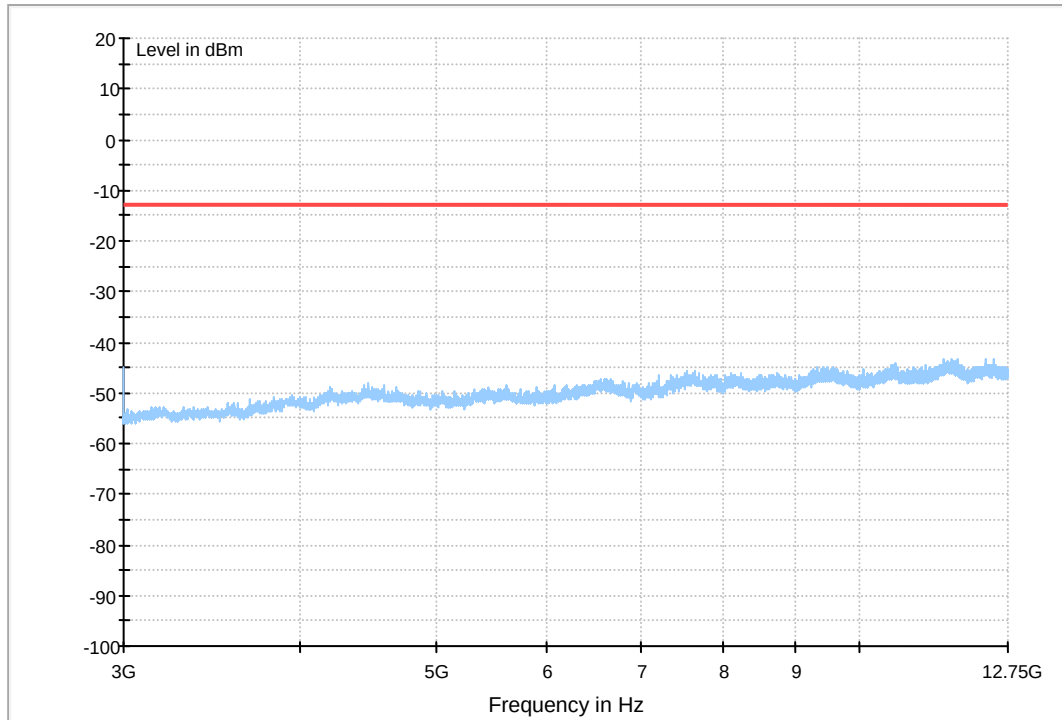


12.4.2 Traffic Mode (30MHz-3GHz)





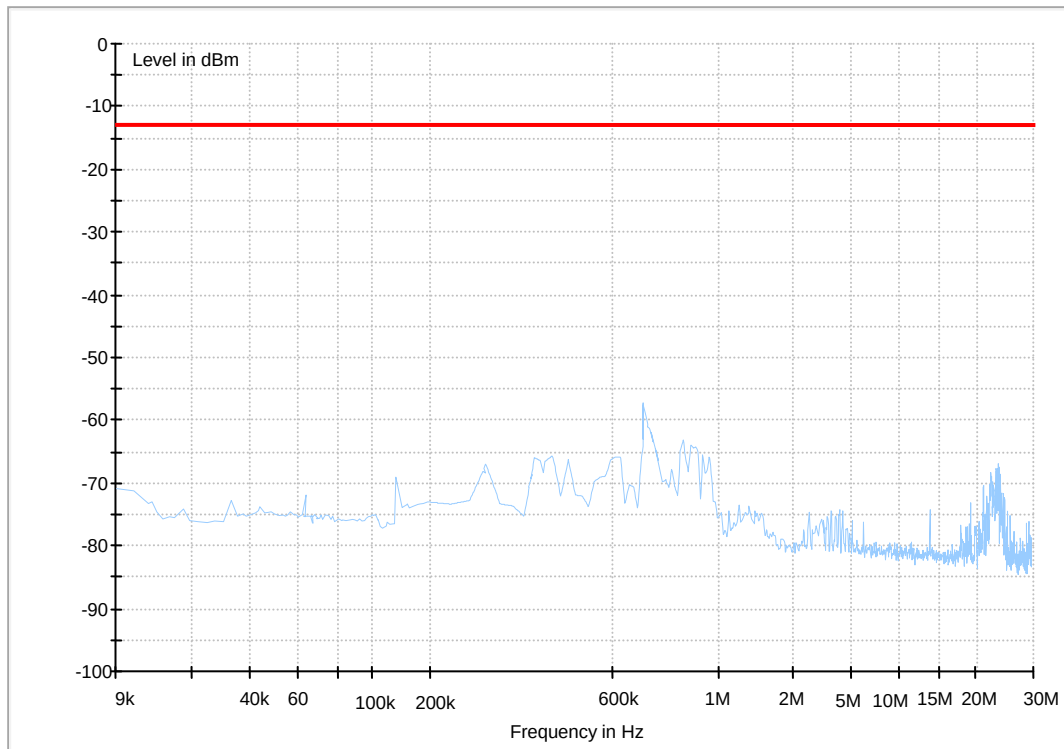
12.4.3 Traffic Mode (3GHz-18GHz)





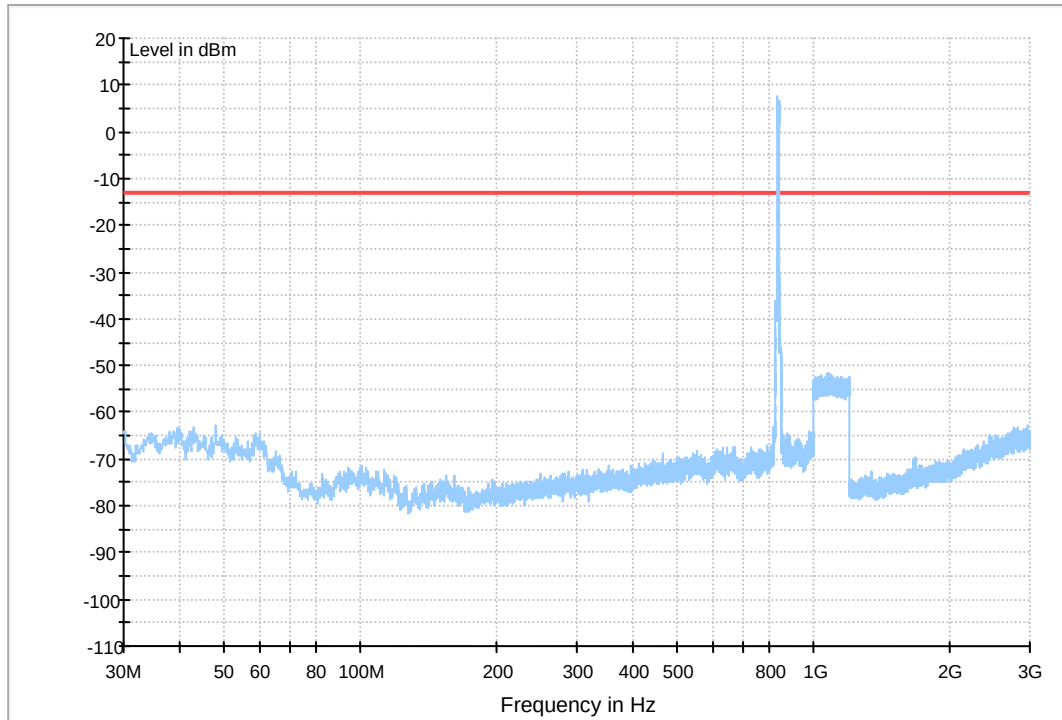
12.5 HSUPA BNAD V

12.5.1 Traffic Mode (9kHz-30MHz)



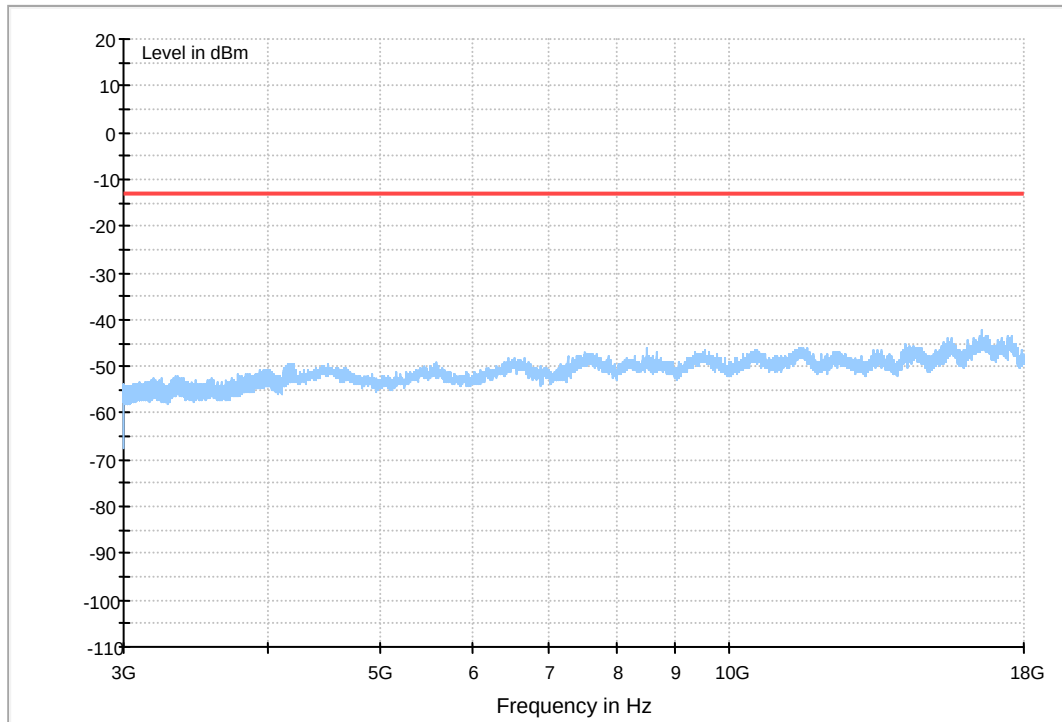


12.5.2 Traffic Mode (30MHz-3GHz)





12.5.3 Traffic Mode (3GHz-18GHz)

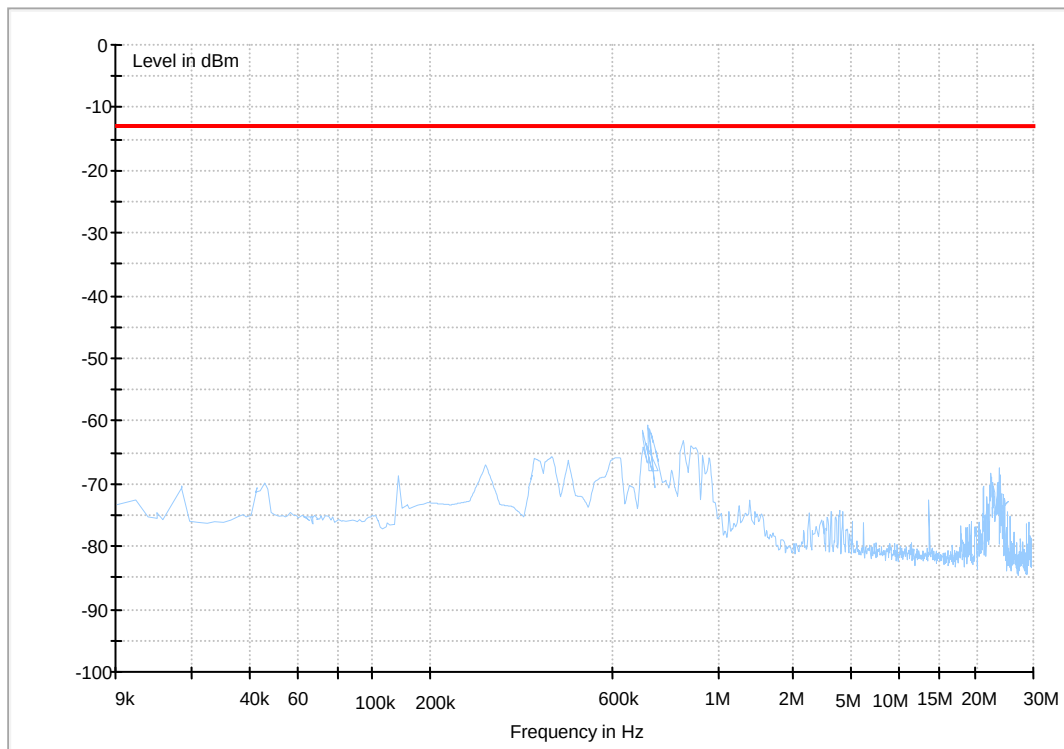




13 Appendix 2E: Radiated spurious emission

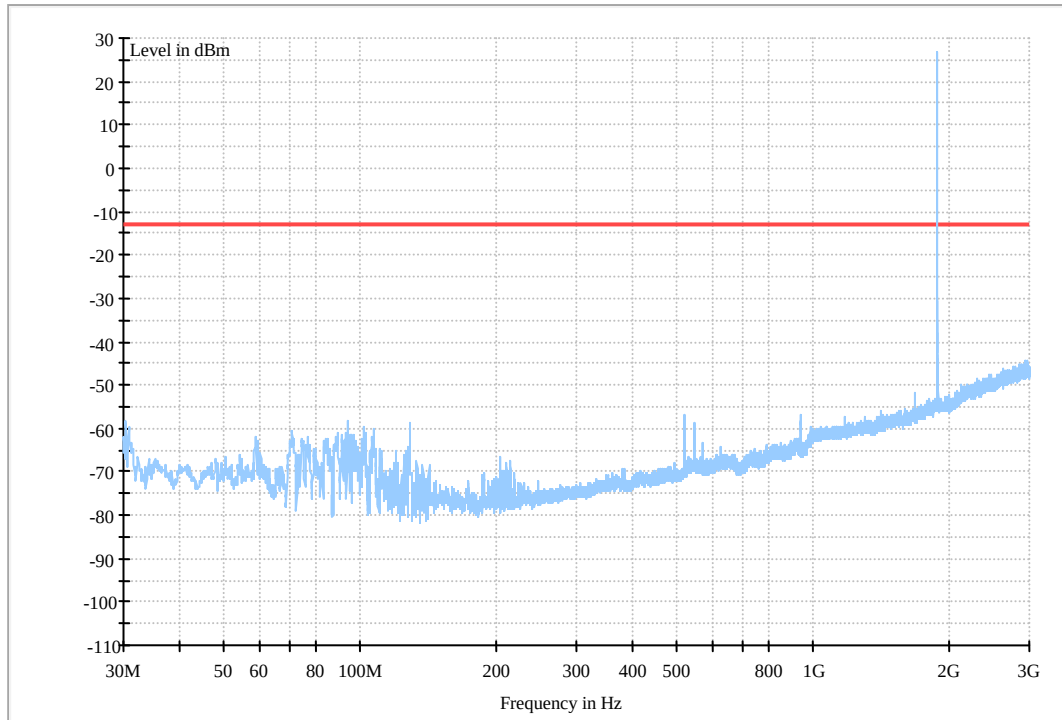
13.1 GPRS 1900

13.1.1 Traffic Mode (9kHz-30MHz)



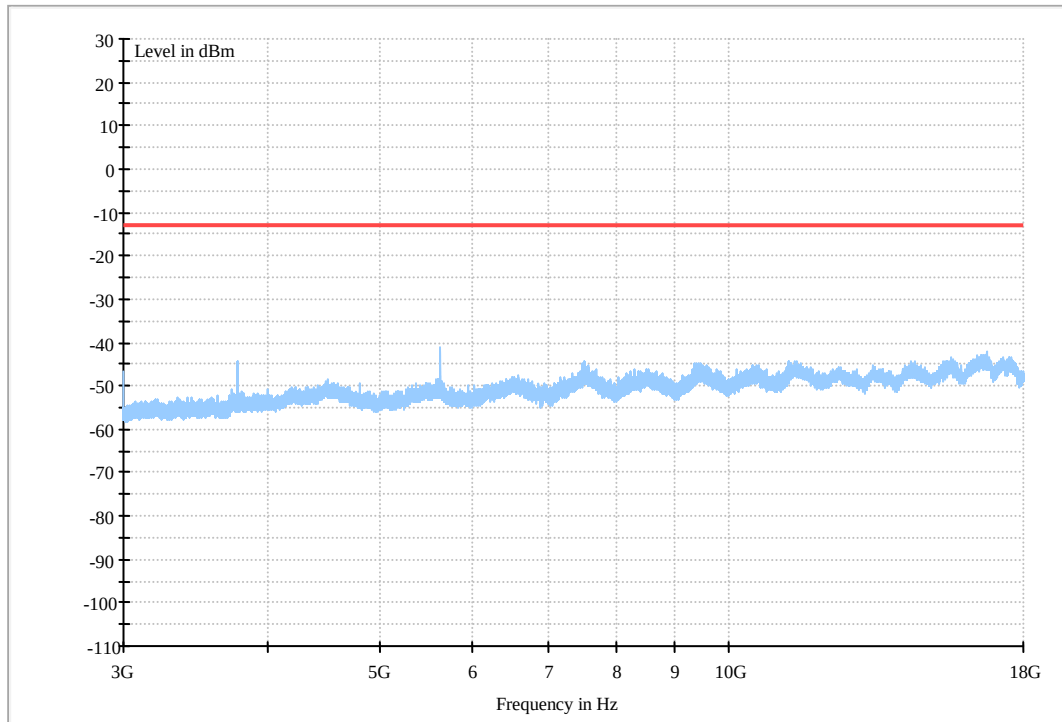


13.1.2 Traffic Mode (30MHz-3GHz)



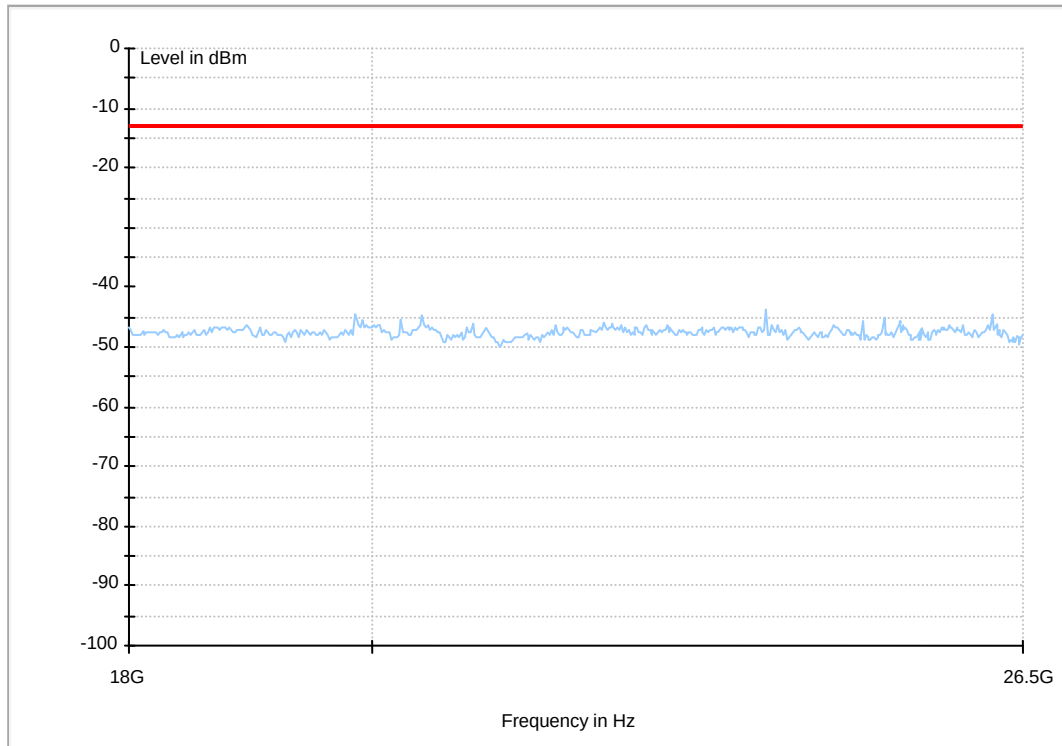


13.1.3 Traffic Mode (3GHz-18GHz)





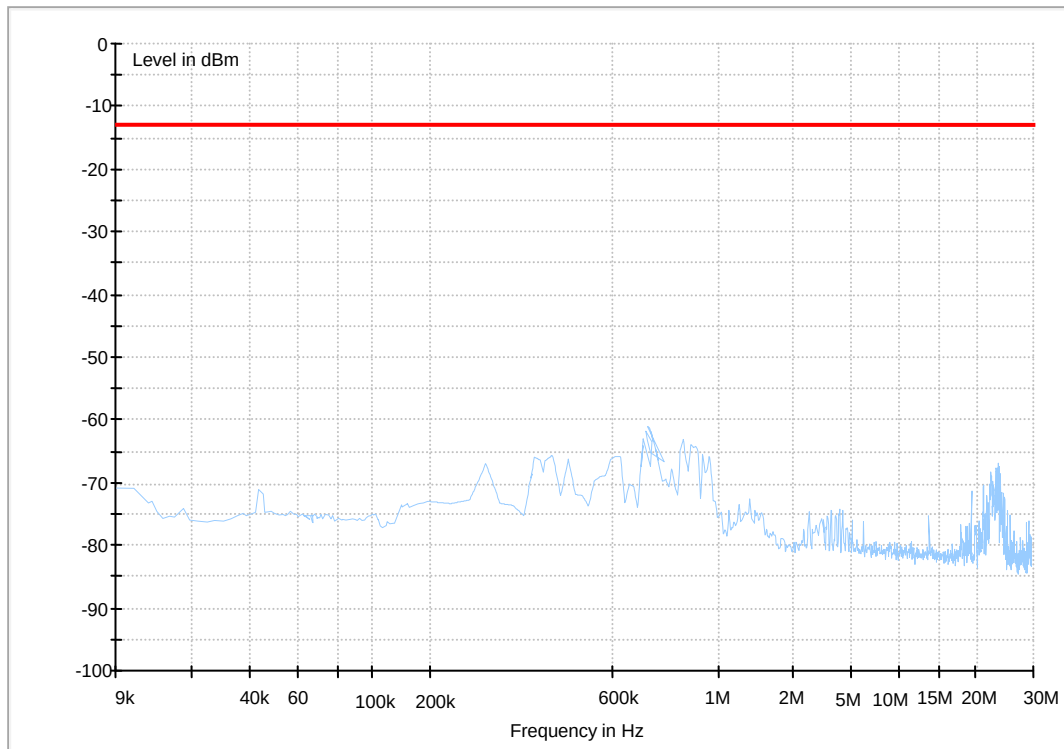
13.1.4 Traffic Mode (18GHz-26.5GHz)





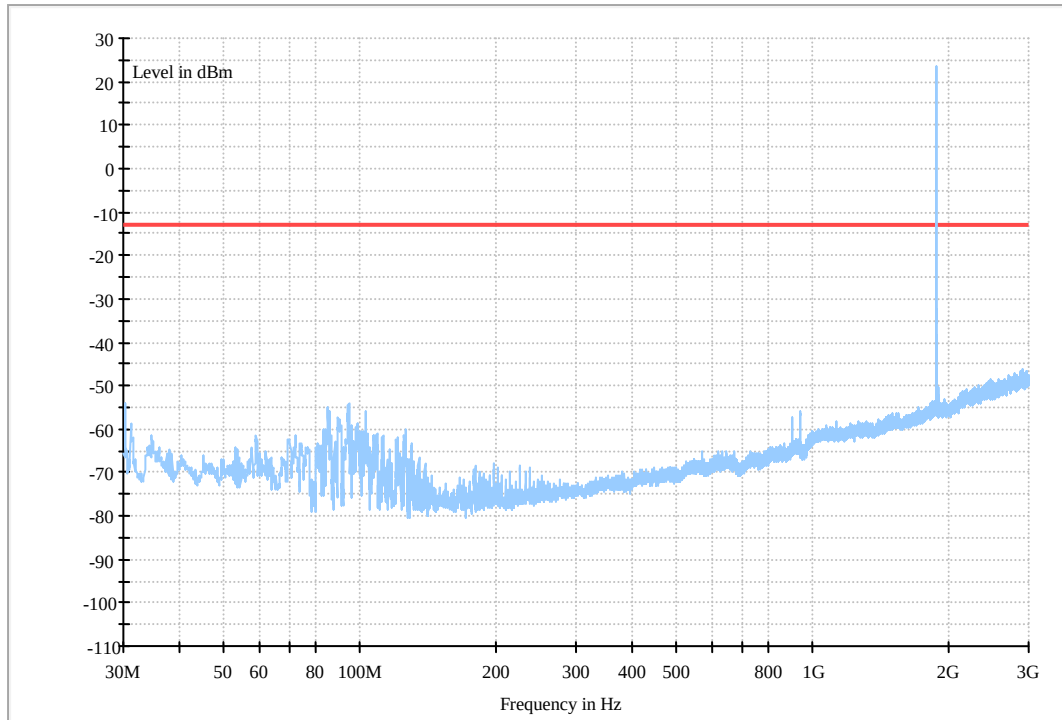
13.2 EDGE 1900

13.2.1 Traffic Mode (9kHz-30MHz)



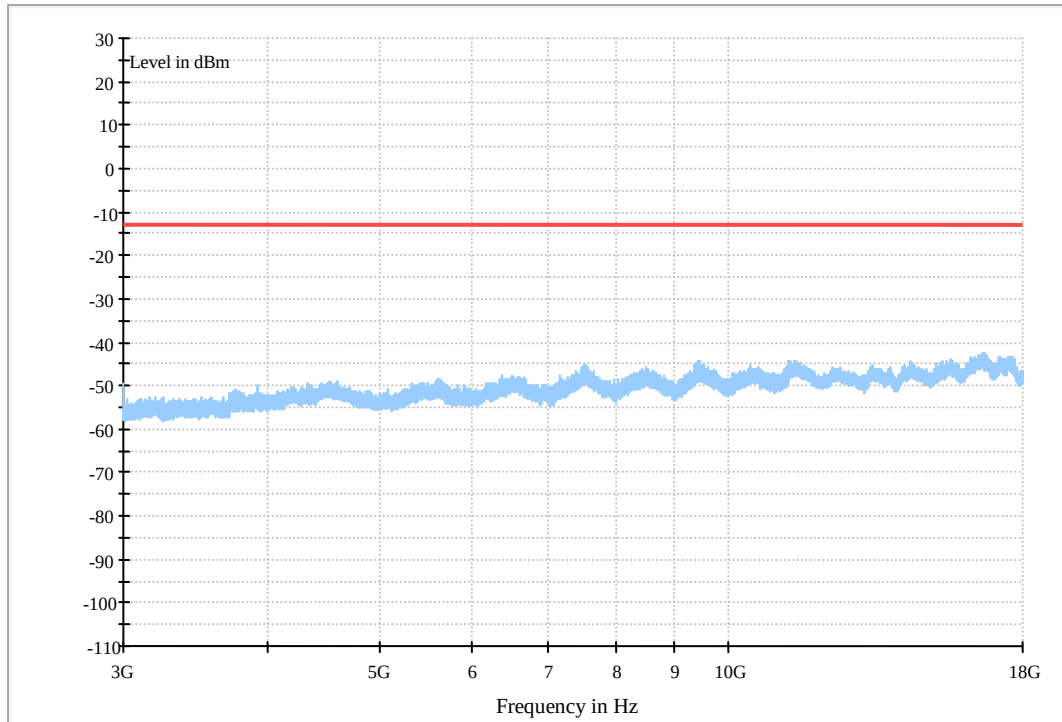


13.2.2 Traffic Mode (30MHz-3GHz)



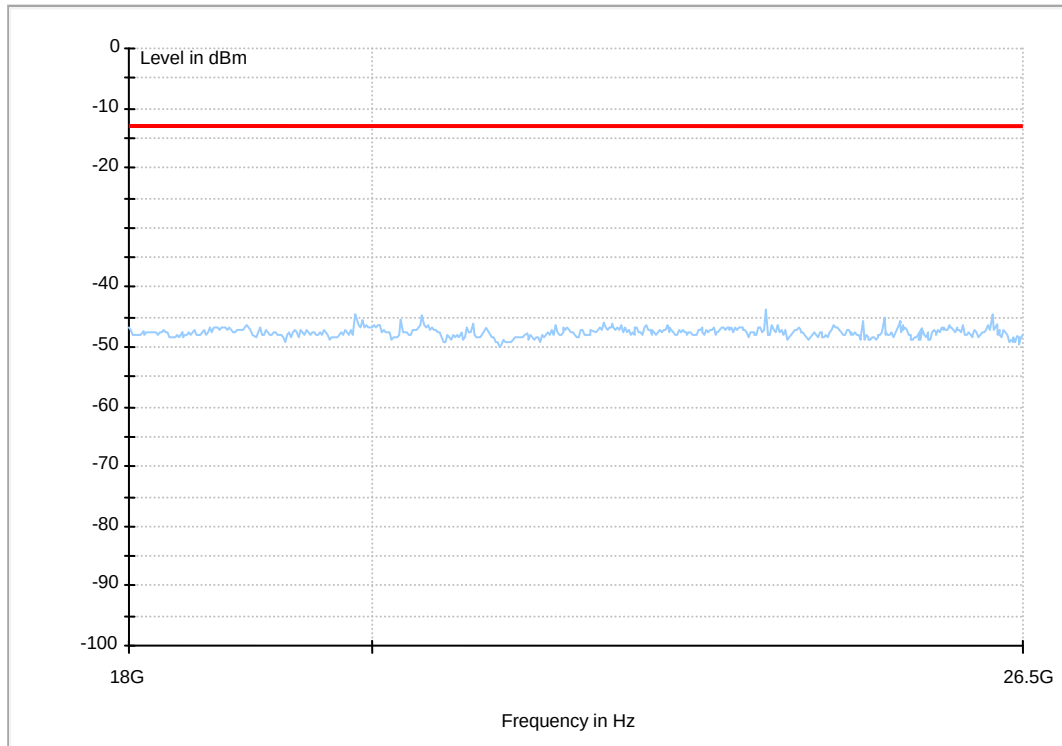


13.2.3 Traffic Mode (3GHz-18GHz)





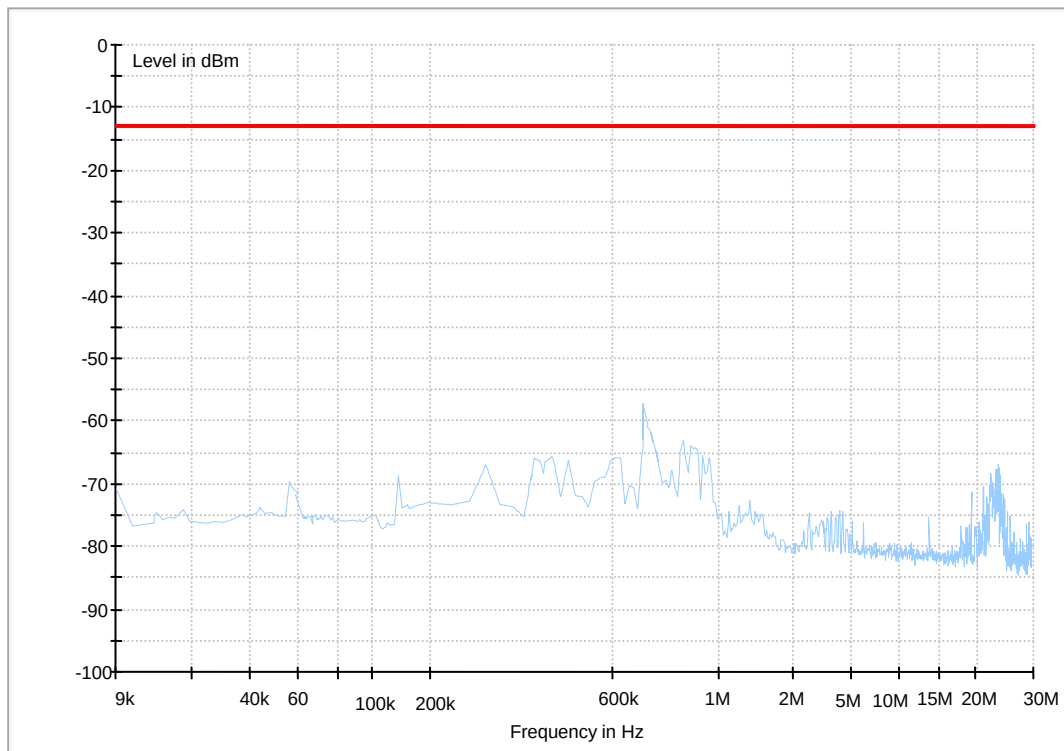
13.2.4 Traffic Mode (18GHz-26.5GHz)





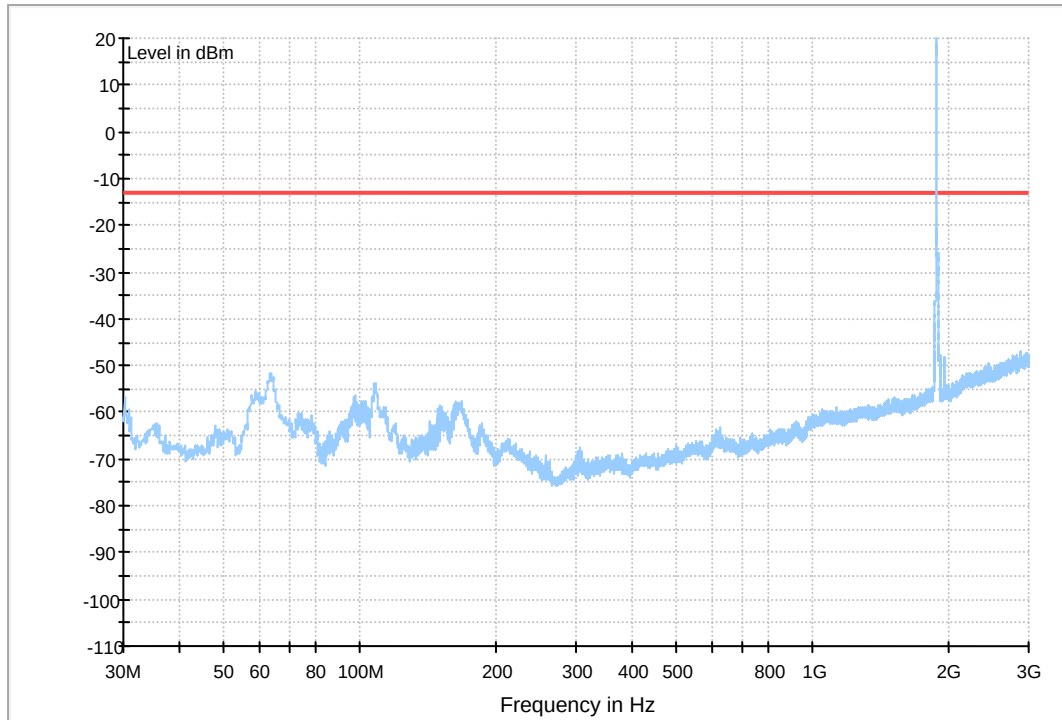
13.3 WCDMA BAND II

13.3.1 Traffic Mode (9kHz-30MHz)



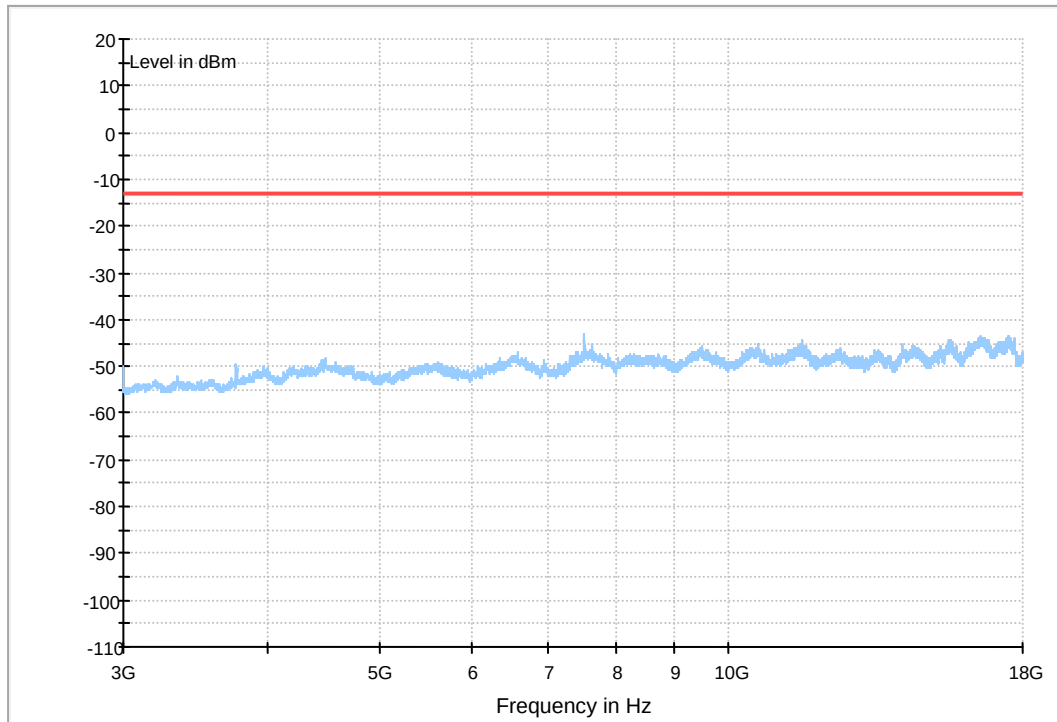


13.3.2 Traffic Mode (30MHz-3GHz)



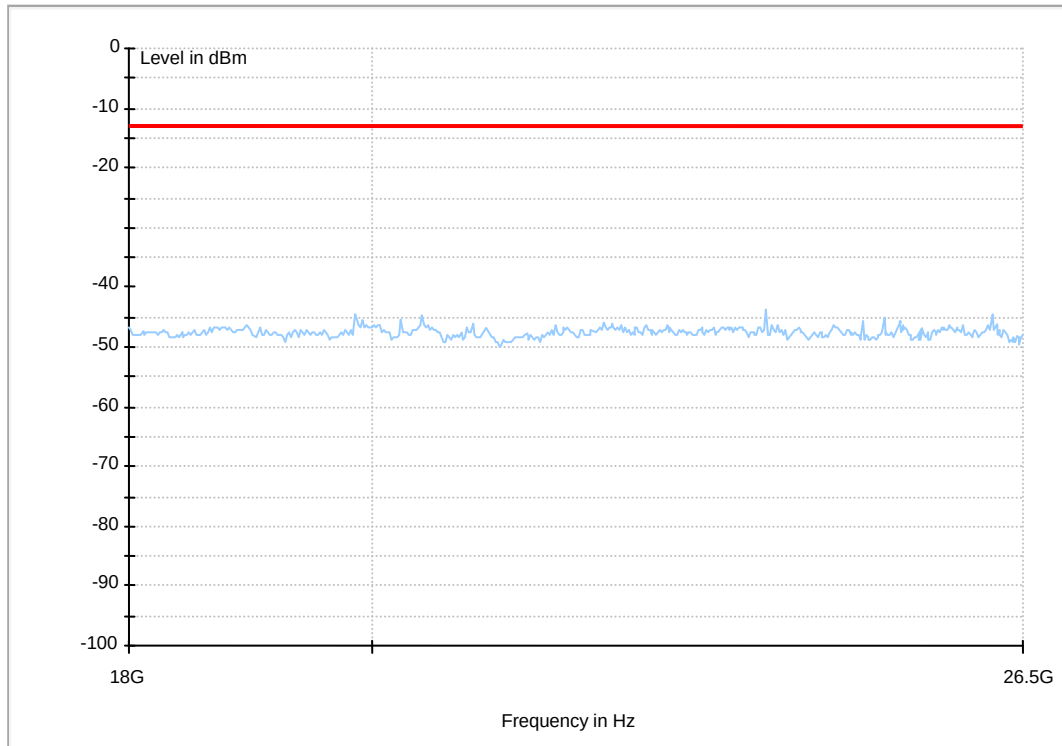


13.3.3 Traffic Mode (3GHz-18GHz)





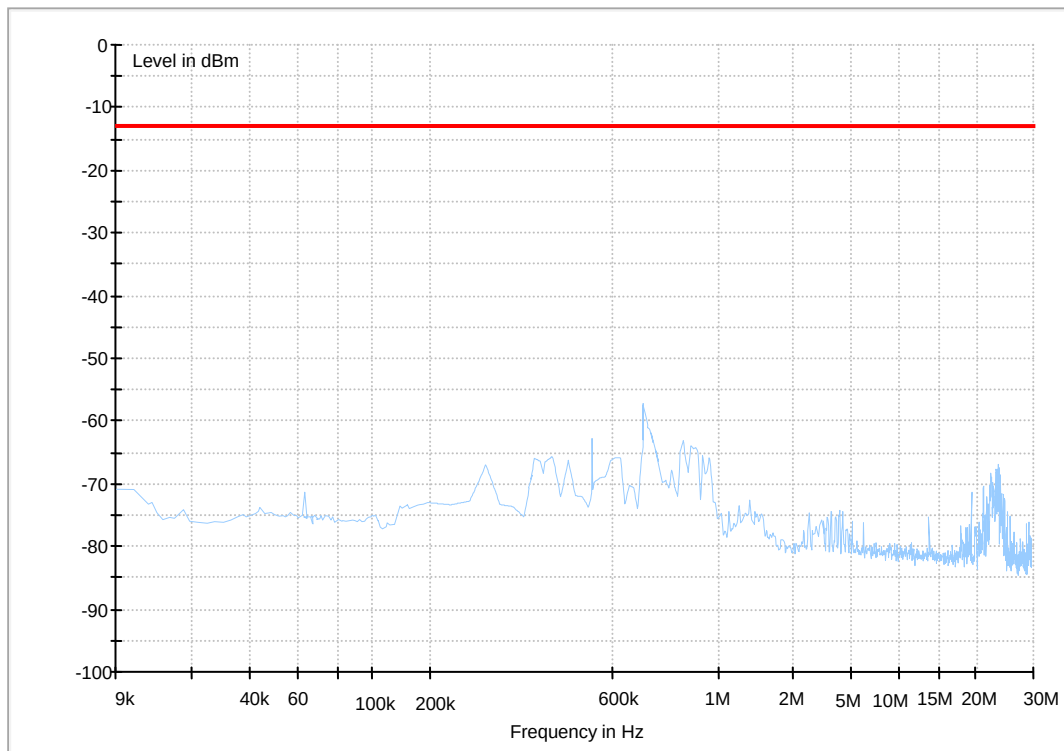
13.3.4 Traffic Mode (18GHz-26.5GHz)





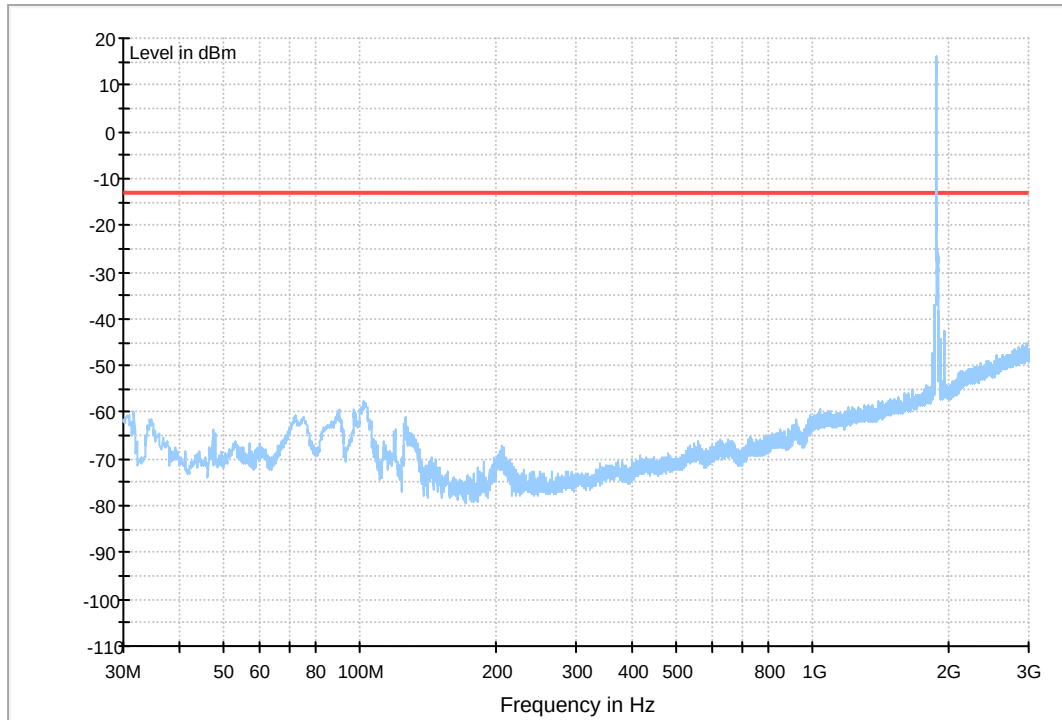
13.4 HSDPA BAND II

13.4.1 Traffic Mode (9kHz-30MHz)



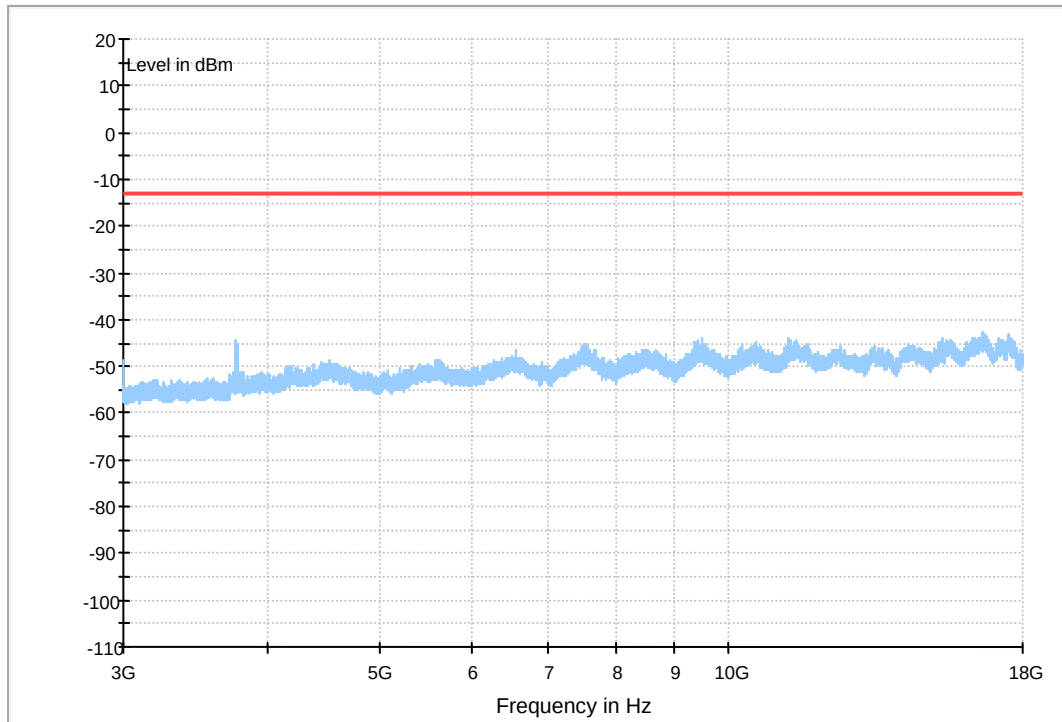


13.4.2 Traffic Mode (30MHz-3GHz)



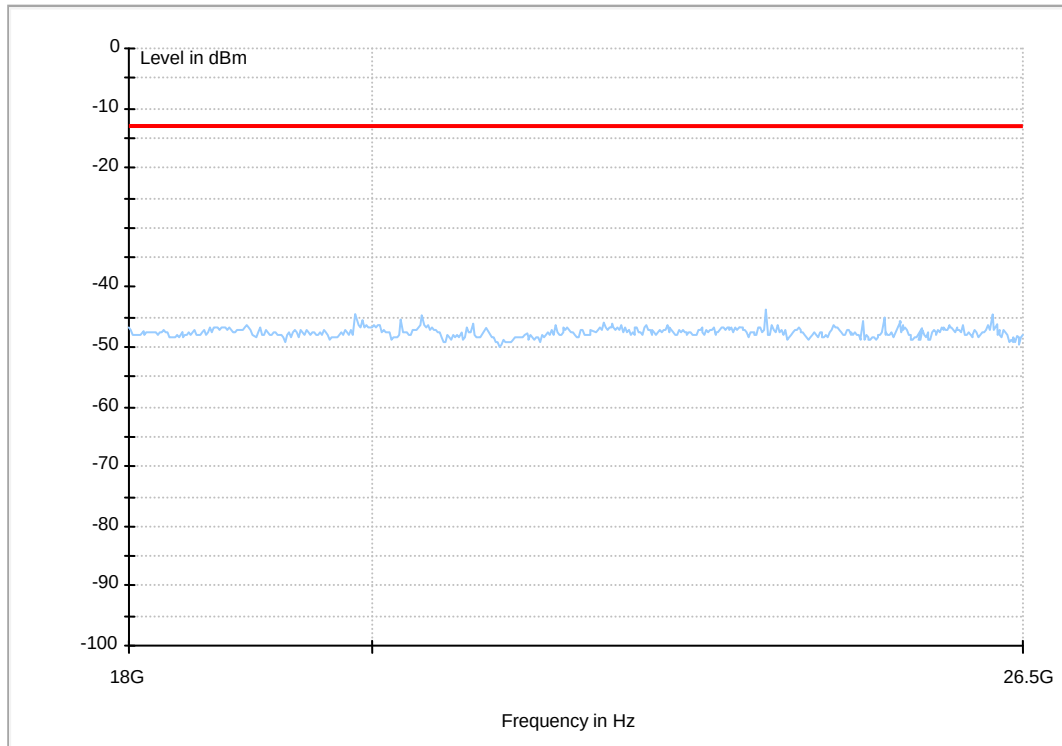


13.4.3 Traffic Mode (3GHz-18GHz)





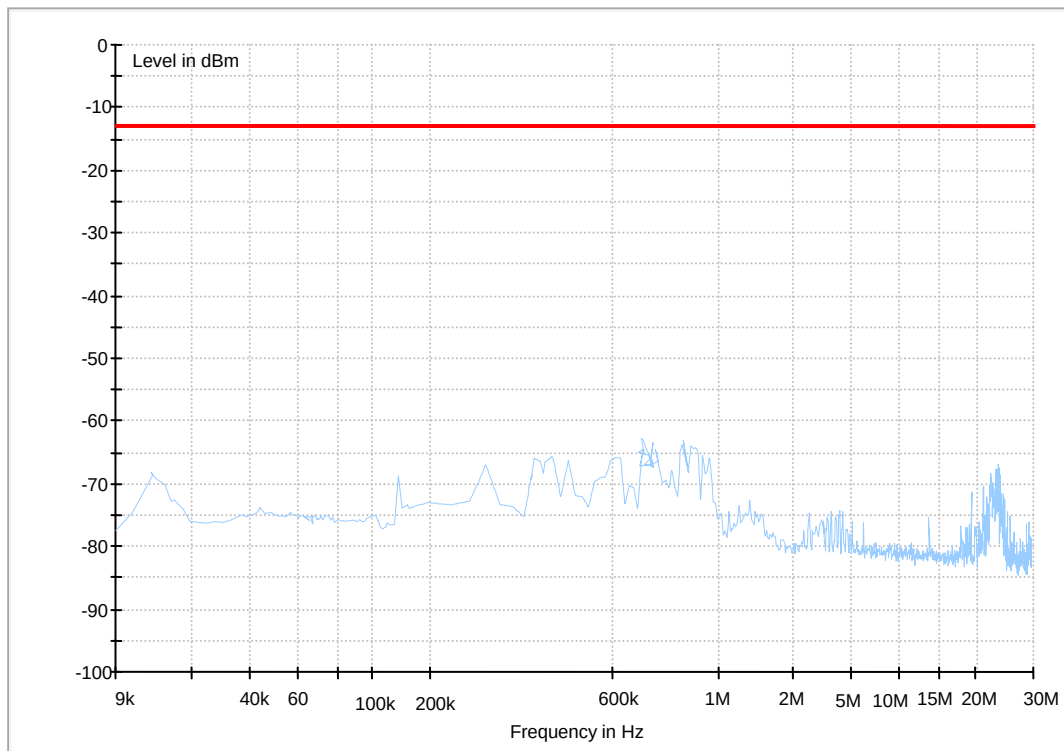
13.4.4 Traffic Mode (18GHz-26.5GHz)





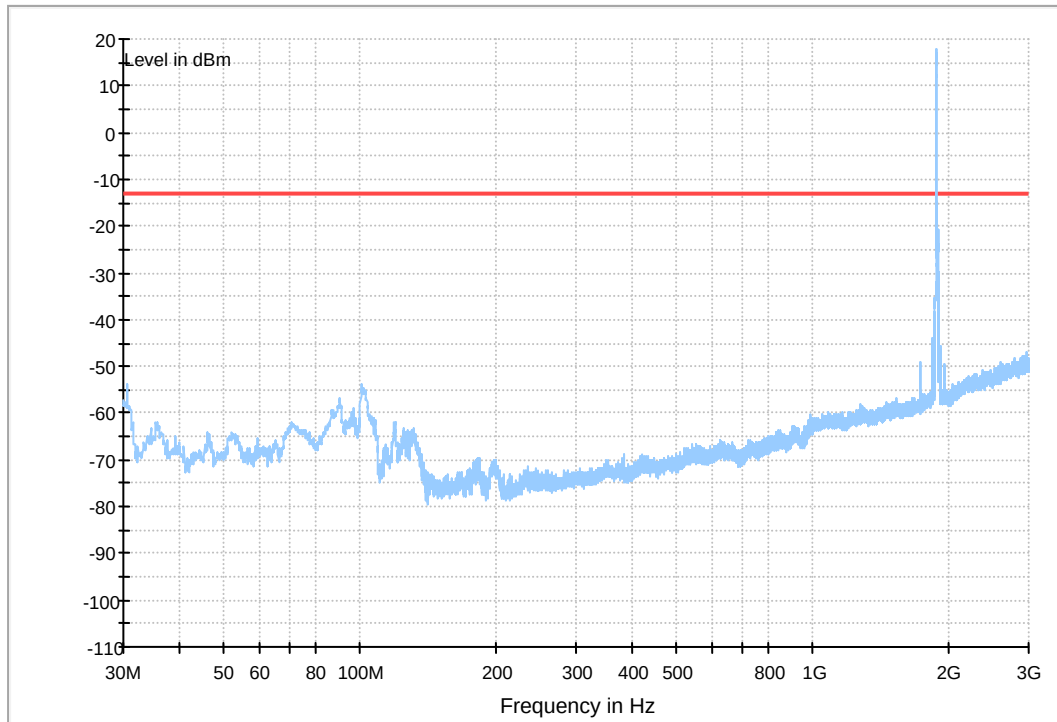
13.5 HSUPA BAND II

13.5.1 Traffic Mode (9kHz-30MHz)



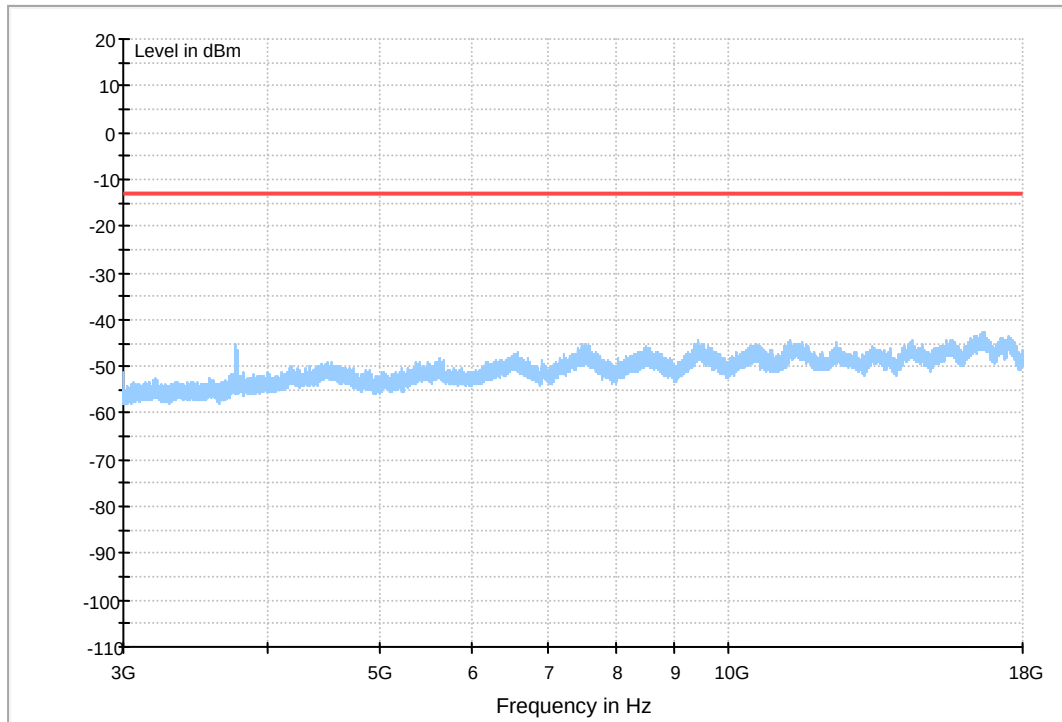


13.5.2 Traffic Mode (30MHz-3GHz)



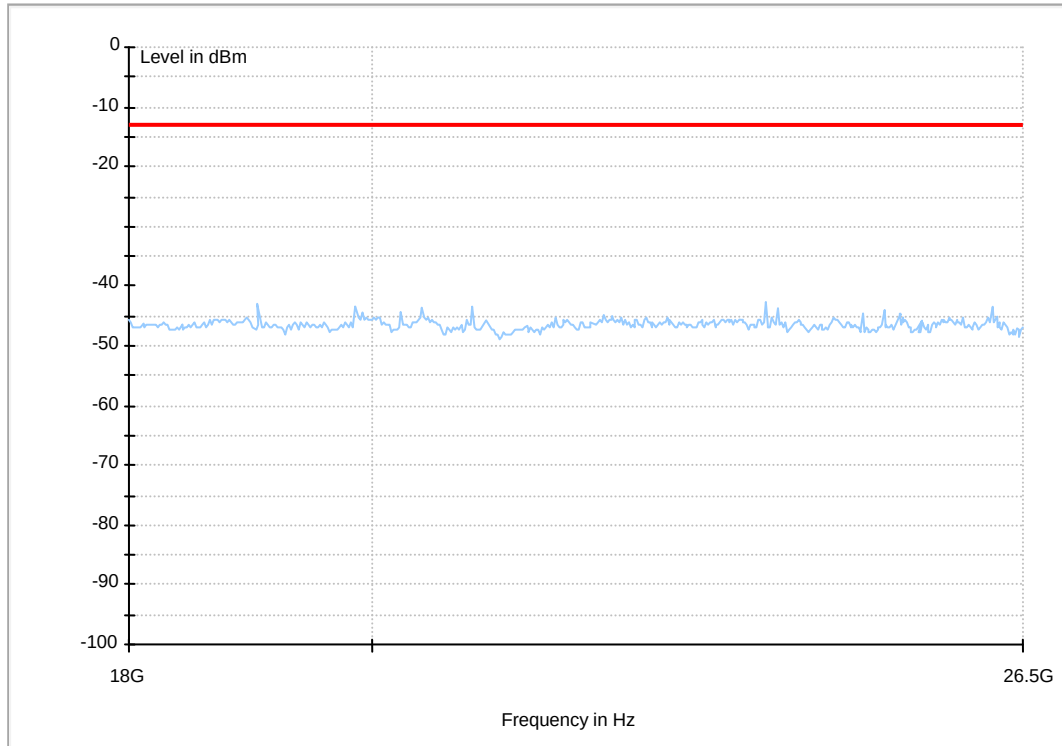


13.5.3 Traffic Mode (3GHz-18GHz)





13.5.4 Traffic Mode (18GHz-26.5GHz)

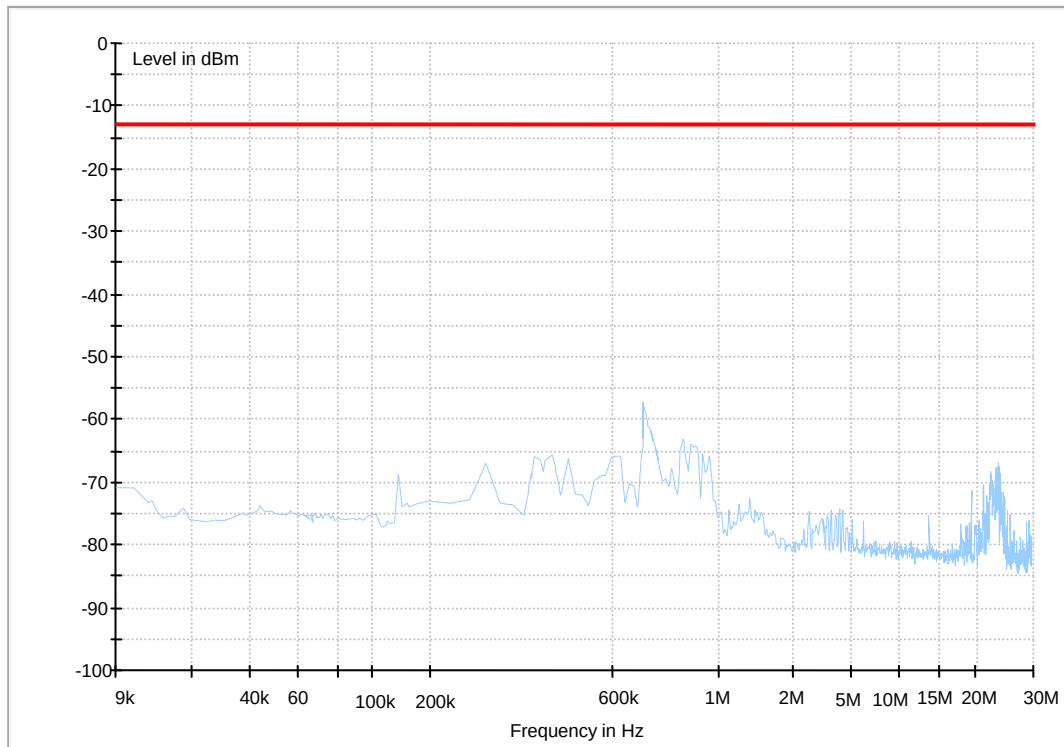




14 Appendix 3E: Radiated spurious emission

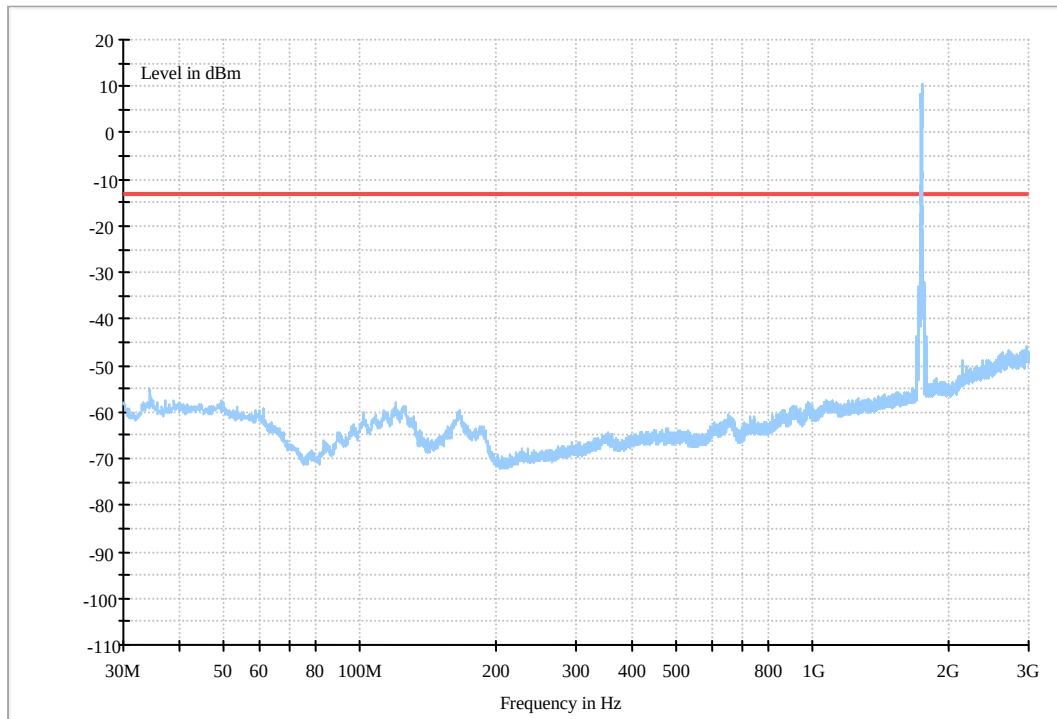
14.1 WCDMA BAND IV

14.1.1 Traffic Mode (9kHz-30MHz)



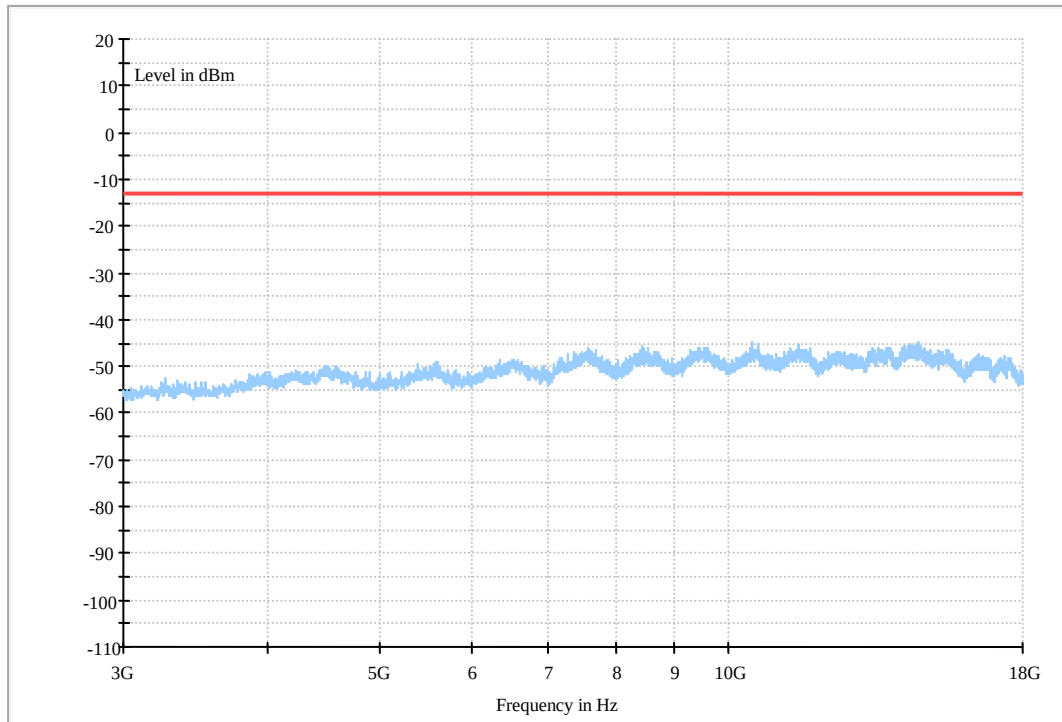


14.1.2 Traffic Mode (30MHz-3GHz)





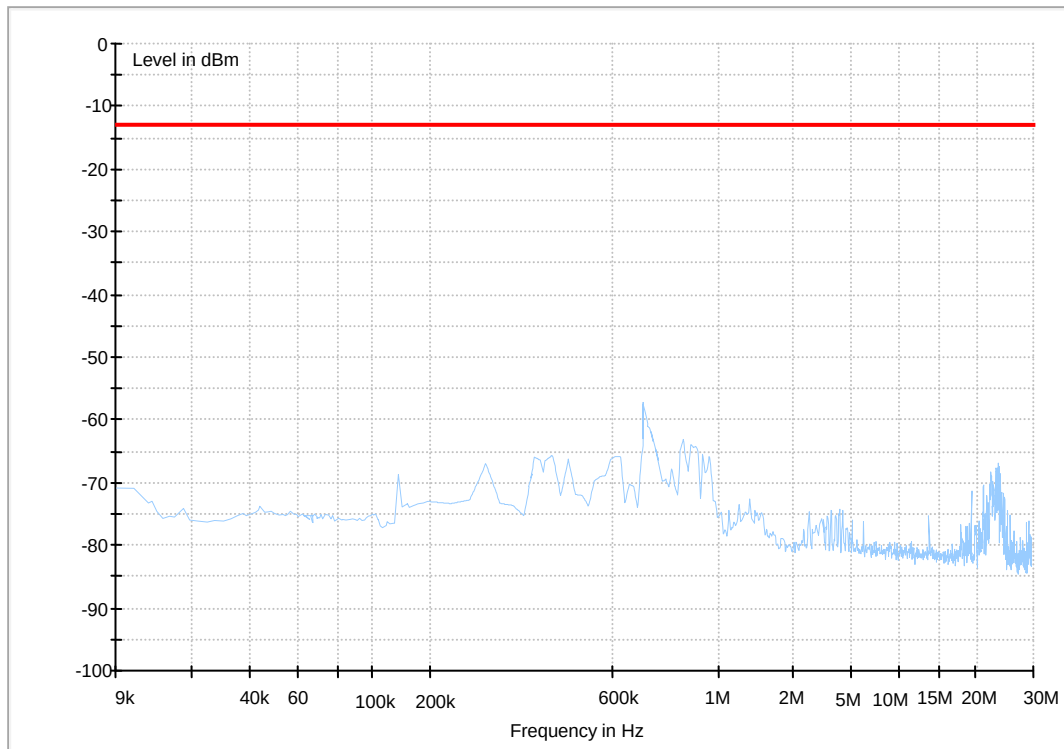
14.1.3 Traffic Mode (3GHz-18GHz)





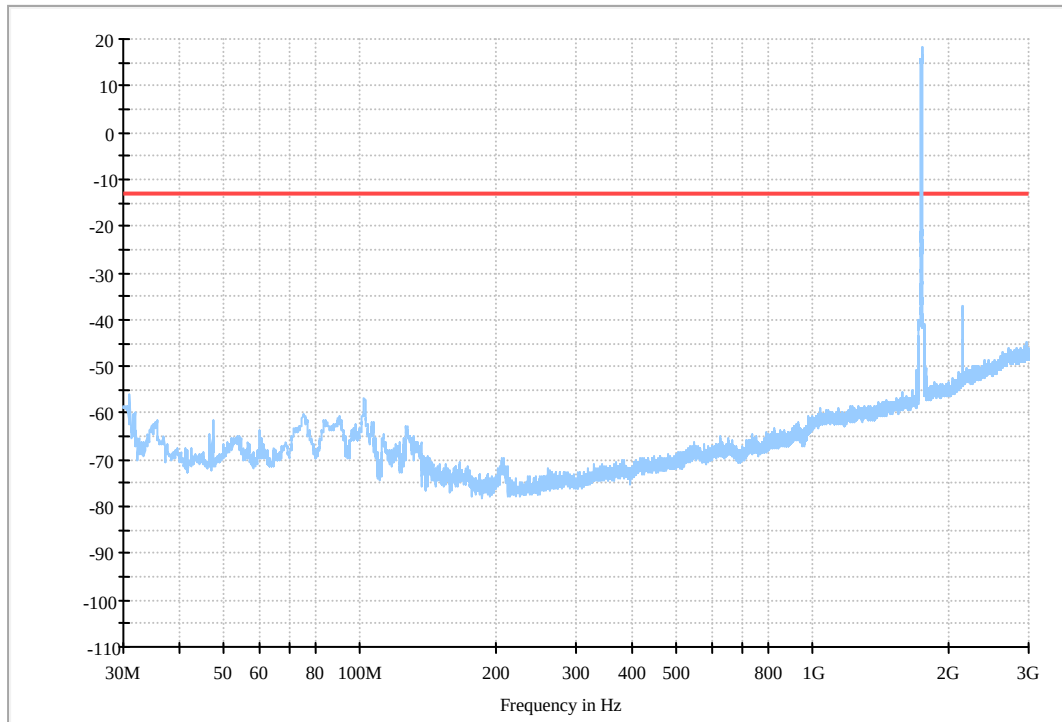
14.2 HSDPA BAND IV

14.2.1 Traffic Mode (9kHz-30MHz)



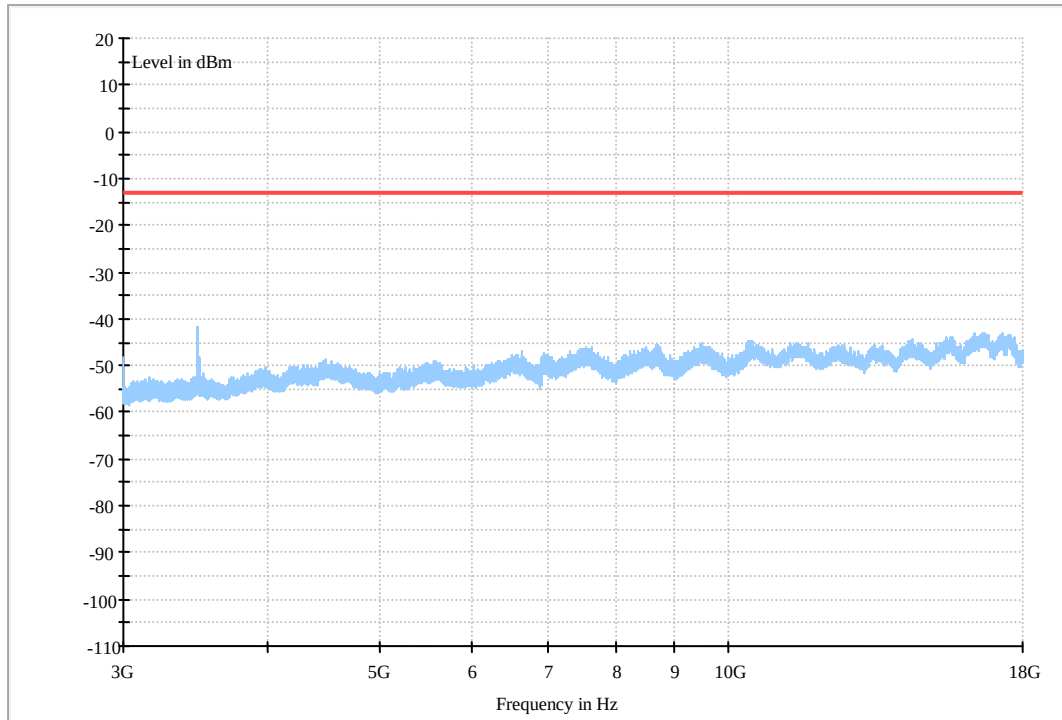


14.2.2 Traffic Mode (30MHz-3GHz)





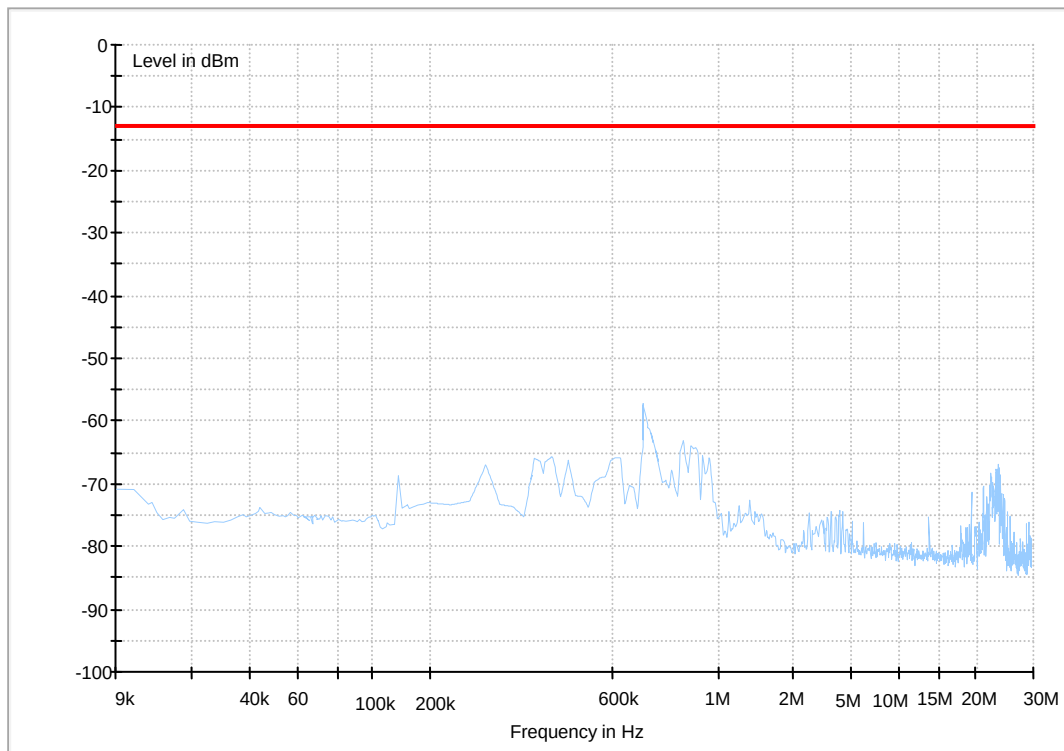
14.2.3 Traffic Mode (3GHz-18GHz)





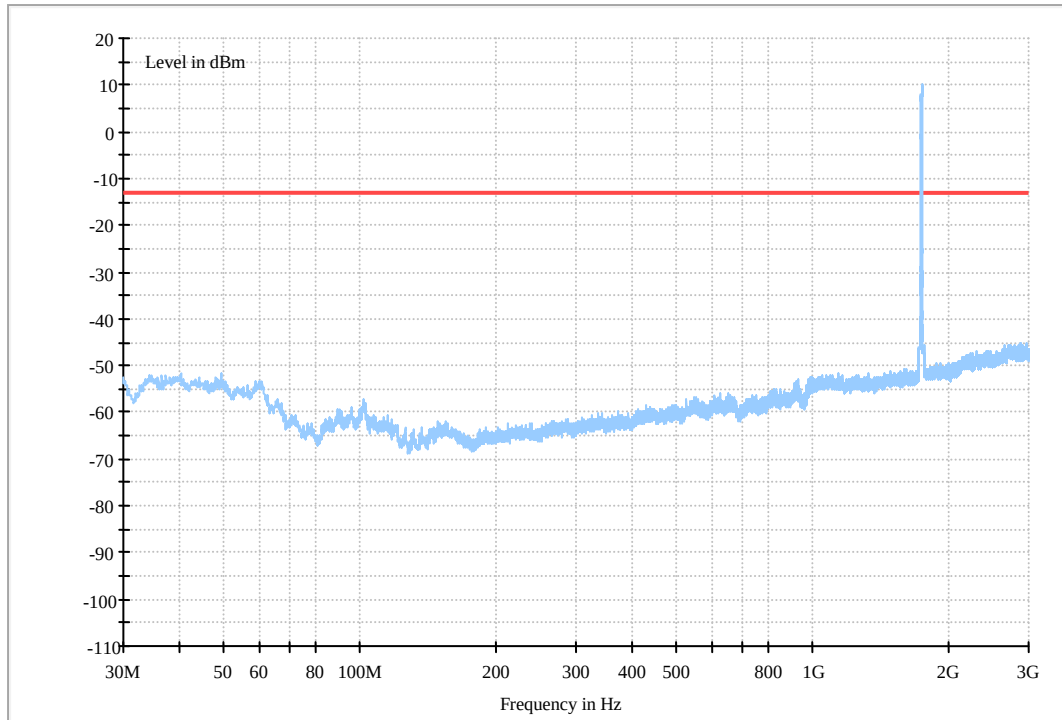
14.3 HSUPA BAND IV

14.3.1 Traffic Mode (9kHz-30MHz)



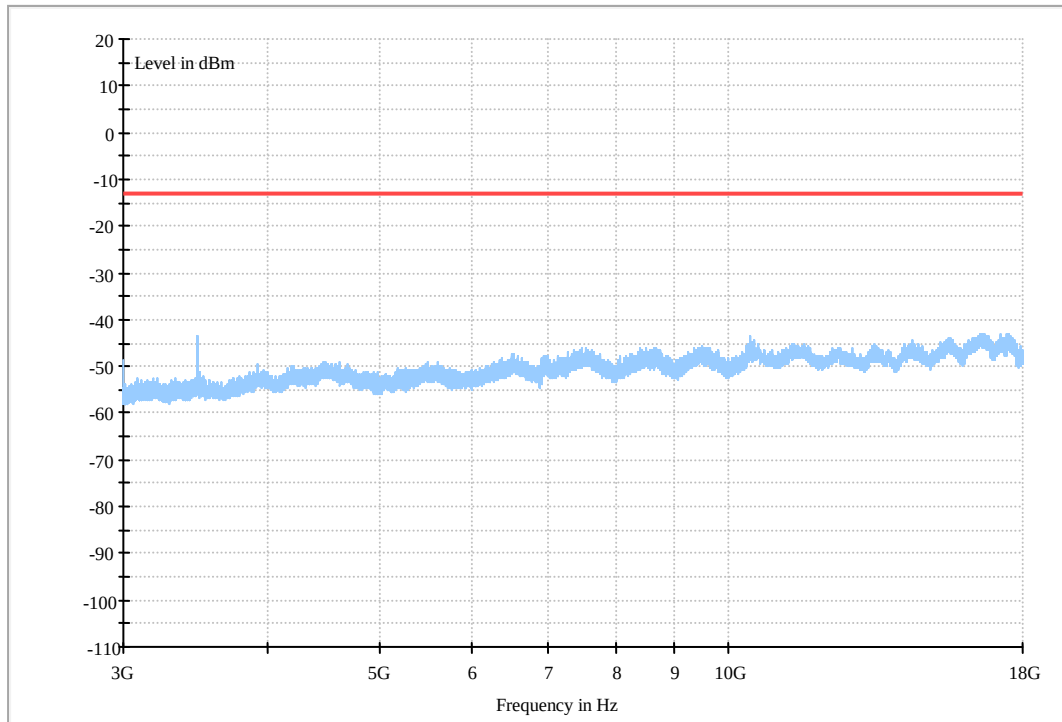


14.3.2 Traffic Mode (30MHz-3GHz)





14.3.3 Traffic Mode (3GHz-18GHz)





15 Appendix 1F: Frequency Stability

15.1 Frequency Error vs. Temperature

Test Mode	RF Ch.	Volt.	Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Freq. vs. 20 °C [ppm]	Limit [ppm]	Verdict
GSM/TM1	M	VN	-30 °C	-9	-0.01075	---	±2.5	Pass
			-20 °C	14	0.01673	---	±2.5	Pass
			-10 °C	-21	-0.02509	---	±2.5	Pass
			0 °C	28	0.03345	---	±2.5	Pass
			10 °C	-23	-0.02748	---	±2.5	Pass
			20 °C	14	0.01673	---	±2.5	Pass
			30 °C	-9	-0.01075	---	±2.5	Pass
			40 °C	15	0.01792	---	±2.5	Pass
			50 °C	-23	-0.02748	---	±2.5	Pass
GSM/TM2	M	VN	-30 °C	-25	-0.02987	---	±2.5	Pass
			-20 °C	-17	-0.02031	---	±2.5	Pass
			-10 °C	-10	-0.01195	---	±2.5	Pass
			0 °C	8	0.00956	---	±2.5	Pass
			10 °C	-6	-0.00717	---	±2.5	Pass
			20 °C	-17	-0.02031	---	±2.5	Pass
			30 °C	12	0.01434	---	±2.5	Pass
			40 °C	15	0.01792	---	±2.5	Pass
			50 °C	16	0.01912	---	±2.5	Pass
UMTS/ TM1	M	VN	-30 °C	16	0.01912	---	±2.5	Pass
			-20 °C	22	0.02628	---	±2.5	Pass
			-10 °C	15	0.01792	---	±2.5	Pass
			0 °C	12	0.01434	---	±2.5	Pass
			10 °C	-25	-0.02987	---	±2.5	Pass
			20 °C	-13	-0.01553	---	±2.5	Pass



Test Mode	RF Ch.	Volt.	Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Freq. vs. 20 °C [ppm]	Limit [ppm]	Verdict
			30 °C	-9	-0.01075	---	±2.5	Pass
			40 °C	26	0.03106	---	±2.5	Pass
			50 °C	21	0.02509	---	±2.5	Pass



15.2 Frequency Error vs. Voltage

Test Mode	RF Ch.	Temp.	Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Freq. vs. 20 °C [ppm]	Limit [ppm]	Verdict
GSM/TM1	M	TN	VL	-13	-0.01553	---	±2.5	Pass
			VN	-13	-0.01553	---	±2.5	Pass
			VH	23	0.02748	---	±2.5	Pass
GSM/TM1	M	TN	VL	-18	-0.02151	---	±2.5	Pass
			VN	-10	-0.01195	---	±2.5	Pass
			VH	-12	-0.01434	---	±2.5	Pass
UMTS/TM1	M	TN	VL	20	0.02389	---	±2.5	Pass
			VN	16	0.01912	---	±2.5	Pass
			VH	24	0.02867	---	±2.5	Pass



16 Appendix 2F: Frequency Stability

16.1 Frequency Error vs. Temperature

Test Mode	RF Ch.	Volt.	Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Freq. vs. 20 °C [ppm]	Limit [ppm]	Verdict
GSM/TM1	M	VN	-30 °C	23	0.01223	---	±2.5	Pass
			-20 °C	16	0.00851	---	±2.5	Pass
			-10 °C	19	0.01011	---	±2.5	Pass
			0 °C	-24	-0.01277	---	±2.5	Pass
			10 °C	27	0.01436	---	±2.5	Pass
			20 °C	19	0.01011	---	±2.5	Pass
			30 °C	-8	-0.00426	---	±2.5	Pass
			40 °C	-13	-0.00691	---	±2.5	Pass
			50 °C	24	0.01277	---	±2.5	Pass
GSM/TM2	M	VN	-30 °C	-10	-0.00532	---	±2.5	Pass
			-20 °C	-8	-0.00426	---	±2.5	Pass
			-10 °C	14	0.00745	---	±2.5	Pass
			0 °C	15	0.00798	---	±2.5	Pass
			10 °C	-20	-0.01064	---	±2.5	Pass
			20 °C	23	0.01223	---	±2.5	Pass
			30 °C	21	0.01117	---	±2.5	Pass
			40 °C	-22	-0.01170	---	±2.5	Pass
			50 °C	19	0.01011	---	±2.5	Pass
UMTS/TM1	M	VN	-30 °C	-19	-0.01011	---	±2.5	Pass
			-20 °C	-15	-0.00798	---	±2.5	Pass
			-10 °C	-14	-0.00745	---	±2.5	Pass
			0 °C	17	0.00904	---	±2.5	Pass
			10 °C	-20	-0.01064	---	±2.5	Pass
			20 °C	-20	-0.01064	---	±2.5	Pass



Test Mode	RF Ch.	Volt.	Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Freq. vs. 20 °C [ppm]	Limit [ppm]	Verdict
			30 °C	23	0.01223	---	±2.5	Pass
			40 °C	22	0.01170	---	±2.5	Pass
			50 °C	-7	-0.00372	---	±2.5	Pass



16.2 Frequency Error vs. Voltage

Test Mode	RF Ch.	Temp.	Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Freq. vs. 20 °C [ppm]	Limit [ppm]	Verdict
GSM/TM1	M	TN	VL	-24	-0.01277	---	±2.5	Pass
			VN	-11	-0.00585	---	±2.5	Pass
			VH	9	0.00479	---	±2.5	Pass
GSM/TM1	M	TN	VL	-19	-0.01011	---	±2.5	Pass
			VN	15	0.00798	---	±2.5	Pass
			VH	7	0.00372	---	±2.5	Pass
UMTS/TM1	M	TN	VL	-21	-0.01117	---	±2.5	Pass
			VN	20	0.01064	---	±2.5	Pass
			VH	28	0.01489	---	±2.5	Pass



17 Appendix 3F: Frequency Stability

17.1 Frequency Error vs. Temperature

Test Mode	RF Ch.	Volt.	Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Freq. vs. 20 °C [ppm]	Limit [ppm]	Verdict
UMTS/TM 1	M	VN	-30 °C	-15	-0.00866	---	±2.5	Pass
			-20 °C	-14	-0.00808	---	±2.5	Pass
			-10 °C	15	0.00866	---	±2.5	Pass
			0 °C	-13	-0.00750	---	±2.5	Pass
			10 °C	-22	-0.01270	---	±2.5	Pass
			20 °C	-21	-0.01212	---	±2.5	Pass
			30 °C	-10	-0.00577	---	±2.5	Pass
			40 °C	22	0.01270	---	±2.5	Pass
			50 °C	20	0.01154	---	±2.5	Pass

17.2 Frequency Error vs. Voltage

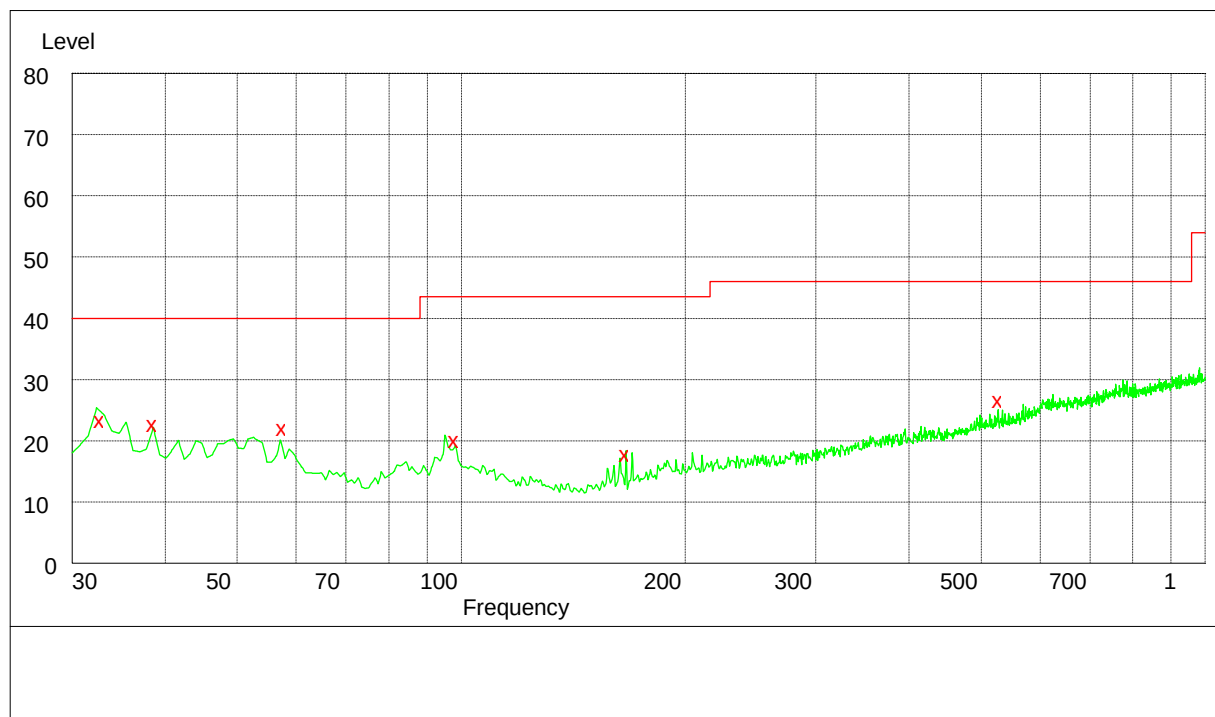
Test Mode	RF Ch.	Temp.	Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Freq. vs. 20 °C [ppm]	Limit [ppm]	Verdict
UMTS/TM 1	M	20 °C	VL	13	0.00750	---	±2.5	Pass
			VN	-23	-0.01328	---	±2.5	Pass
			VH	-10	-0.00577	---	±2.5	Pass



18 Appendix G: Receiver Spurious Emissions

This test was carried out in all the test modes, Here only the worst test result was shown.

18.1 30MHz-1GHz

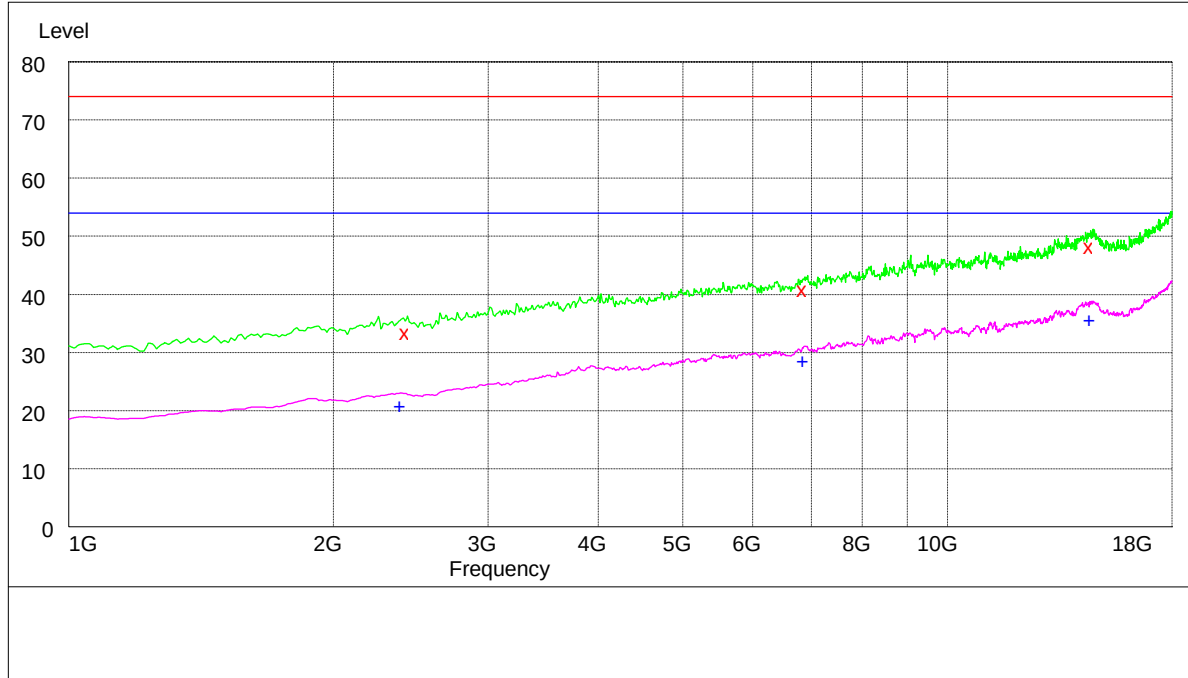


MEASUREMENT RESULT: QP Detector

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Height cm	Azimuth deg	Polarisation
32.760000	23.80	14.8	40.0	16.2	178.0	135.00	VERTICAL
38.640000	23.20	15.2	40.0	16.8	100.0	231.00	VERTICAL
57.600000	22.60	13.8	40.0	17.4	200.0	119.00	VERTICAL
98.220000	20.60	13.2	43.5	22.9	100.0	146.00	VERTICAL
166.740000	18.40	10.4	43.5	25.1	100.0	80.00	VERTICAL
528.120000	27.10	19.7	46.0	18.9	100.0	57.00	VERTICAL



18.21GHz-18GHz



MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Height cm	Azimuth deg	Polarisation
2420.500000	33.90	-10.4	74.0	40.1	100.0	128.00	VERTICAL
6853.000000	41.30	2.1	74.0	32.7	100.0	351.00	HORIZONTAL
14538.600000	48.60	14.5	74.0	25.4	100.0	180.00	HORIZONTAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Height cm	Azimuth deg	Polarisation
2386.200000	21.20	-10.5	54.0	32.8	100.0	219.00	VERTICAL
6862.100000	28.90	2.2	54.0	25.1	100.0	144.00	HORIZONTAL
14538.100000	36.00	14.5	54.0	18.0	100.0	26.00	VERTICAL