TEST REPORT

Report Number: SZ12050427-1

Application
for
Original Grant
of 47 CFR Part 22 and Part 24 Certification

HUAWEI Ascend Y 101; HSDPA/UMTS/GPRS/GSM/EDGE Mobile Phone with Bluetooth

FCC ID: QISU8186-5

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7 June, 2012	7 June, 2012

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GENERAL INFORMATION

Applicant Name:	Huawei Technologies Co.,Ltd
Applicant Address:	Bantian, Longgang District, Shenzhen, China
FCC Specification Standard:	FCC Part 22: 2011 FCC Part 24: 2011
FCC ID:	QISU8186-5
FCC Model(s):	HUAWEI U8186-5/U8186-5
Type of EUT:	HUAWEI Ascend Y 101; HSDPA/UMTS/GPRS/GSM/EDGE Mobile Phone with Bluetooth
Description of EUT:	HUAWEI Ascend Y 101; HSDPA/UMTS/GPRS/GSM/EDGE Mobile Phone with Bluetooth
Serial Number:	N/A
Sample Receipt Date:	05 March, 2012
Date of Test:	7 June, 2012
Report Date:	7 June, 2012
Environmental Conditions:	Temperature: 25 ± 10℃ Humidity: 10 to 90%

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Appendix – Exhibits for Application of Certification

1.0 **Summary of Test Results**

Test Items	FCC Section	Results	Details see section
Channels for Cellular and Broadband PCS Services	22.905 24.229	Pass	4.1
RF Output Power	2.1046 22.913 24.232	Pass	4.3
Occupied Bandwidth	2.1049	Pass	4.4
Spurious Emissions at Antenna Terminals	2.1051 2.1057 22.917 24.238	Pass	4.5
Power of Spurious Emissions	2.1053 2.1057 22.917 24.238	Pass	4.6
Blockedge at antenna terminal	22.917 24.238	Pass	4.7
Frequency Stability	2.1055 22.355 24.235	Pass	4.8
RF Exposure	1.1307 2.1093	Pass	4.9

1.1 Statement of Compliance

The equipment under test is found to be complying with the applicable requirements of following standards:

FCC Part 22: 2011
FCC Part 24: 2011

2.0 **General Description**

2.1 Product Description

The HUAWEI U8186-5/U8186-5 is a HUAWEI Ascend Y 101;
HSDPA/UMTS/GPRS/GSM/EDGE Mobile Phone with Bluetooth.

The Cellular radiotelephone service and personal communications services frequency ranges of the EUT are as below:

GSM/GPRS/EDGE 850MHz:
Tx: 824.20 - 848.80MHz (at intervals of 200kHz)
Rx: 869.20 - 893.80MHz (at intervals of 200kHz)

GSM/GPRS/EGPRS 1900MHz:
Tx: 1850.20 - 1909.80MHz (at intervals of 200kHz)
Rx: 1930.20 - 1989.80MHz (at intervals of 200kHz)

WCDMA / HSDPA 850MHz:
Tx: 826.40 - 846.60MHz (at intervals of 200kHz) & 826.50 – 842.50MHz (at intervals of 5MHz)
Rx: 871.40 - 891.60MHz (at intervals of 200kHz) & 871.50 – 887.50MHz (at intervals of 5MHz)

WCDMA / HSDPA 1900MHz:
Tx: 1852.40 – 1907.60MHz (at intervals of 200kHz) & 1852.50 – 1907.50 (at intervals of 5MHz)
Rx: 1832.40 – 1987.60MHz (at intervals of 200kHz) & 1832.50 – 1987.50 (at intervals of 5MHz)

The EUT is powered by Lithium type rechargeable battery pack (3.7VDC).

The antenna used in the EUT is integral, and the test sample is a prototype.

The circuit description is attached in the Appendix and saved with filename: descri.pdf.

2.3 Test Methodology

Preliminary radiated scans and all radiated measurements were performed in semi-anechoic chamber. All Radiated tests were performed at an antenna to EUT distance of 3 meters, unless stated otherwise in the "**Justification Section**" of this Application. All measurements were made in accordance with the procedures in 47 CFR Part 2, Part 22, Part 24 and TIA-603-C.

2.4 Test Facility

The facilities used to collect the radiated data and conducted data are in **Intertek Testing Services Shenzhen Ltd. Kejiyuan Branch** and located at 6F, D Block, Huahan Building, Langshan Road, Nanshan District, Shenzhen, P. R. China. This test facility and site measurement data have been fully placed on file with the FCC (Registration Number: 242492).

3.0 **System Test Configuration**

3.1 Justification

For radiated emissions testing, the equipment under test (EUT) was controlled by communication tester to produce maximum power. Care was taken to ensure proper power supply voltages during testing. During testing, all cables (if any) were manipulated to produce worst case emissions.

The EUT was powered separately by the fully charged Lithium batteries described in page 8 and only the worst case was reported.

For the measurements, the EUT is attached to a plastic stand if necessary and placed on the wooden turntable. If the EUT attaches to peripherals, they are connected and operational to simulate typical use.

The signal is maximized through rotation and placement in the three orthogonal axes. The antenna polarization are varied during the search for maximum signal level. Only the worst-case polarization is reported. For each spurious, raise and lower the test antenna from 1m to 4m to obtain a maximum reading on the spectrum analyzer. Radiated emissions are taken at three meters. If necessary, a pre-amplifier is used and/or the test is conducted at a closer distance.

The power level of EUT is set by the communication tester are the maximum power levels emitted by the EUT.

For the 850MHz band, according to 22.917, compliance with the rule is based on the use of instrumentation employing a resolution bandwidth of 100 kHz or greater. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter is employed. The 26dB emission bandwidth taken in section 4.4 is used for calculating the resolution bandwidth.

For the 1900MHz band, according to 24.238, compliance with the rule is based on the use of instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter is employed. The 26dB emission bandwidth taken in section 4.4 is used for calculating the resolution bandwidth.

Emission that are directly caused by digital circuits in the transmit path and transmitter portion are measured, and the limit are according to FCC Part 15 Section 15.109.

3.1 Justification - Cont'd

Detector function for radiated emissions is in peak mode.

All relevant operation modes have been tested, and the worst case data is included in this report.

Simultaneous transmission (Bluetooth in this case) was investigated and no new emissions were found.

3.2 Details of EUT Accessories

Accessory	Model	Manufacturer
Battery	HB4J1	BYD
		GuangYu
Headset	125G#+3261# 3.5MM-2	QuanCheng
	MEMD1532A761A00	LianChuang
USB Cable	LSA00350	LianSheng
	H09-000167	PengYi
AC Adapter	HS-050040U6	BYD
		HangJia

3.3 Measurement Uncertainty

When determining of the test conclusion, the Measurement Uncertainty of test has been considered.

Uncertainty and Compliance - Unless the standard specifically states that measured values are to be extended by the measurement uncertainty in determining compliance, all compliance determinations are based on the actual measured value.

3.4 Equipment Modification

Any modifications installed previous to testing by Huawei Technologies Co.,Ltd will be incorporated in each production model sold/leased in the United States.

No modifications were installed by Intertek Testing Services Shenzhen Ltd. Kejiyuan Branch.

4.0 **Test Results**

Data is included of the worst case configuration (the configuration which resulted in the highest emission levels).Configuration photographs and data tables of the emissions are included.

4.1 Channels for Cellular and Broadband PCS Services (FCC Part 22.905, Part 24.229)

The following frequency bands are allocated for assignment to service providers in the Cellular Radiotelephone and Broadband PCS Services by FCC:

850MHz band
(a) Channel Block A:
869 - 880 MHz paired with 824 - 835 MHz
890 - 891.5 MHz paired with 845 - 846.5 MHz
(b) Channel Block B:
880 - 890 MHz paired with 835 - 845 MHz
891.5 - 894 MHz paired with 846 - 849 MHz

1900MHz band
The following frequency blocks are available for assignment on a Major Trading Areas (MTA) basis:
Block A: 1850 - 1865 MHz paired with 1930 - 1945 MHz; and
Block B: 1870 - 1885 MHz paired with 1950 - 1965 MHz.

The following frequency blocks are available for assignment on a Basic Trading Areas (BTA) basis:
Block C: 1895 - 1910 MHz paired with 1975 - 1990 MHz
Block D: 1865 - 1870 MHz paired with 1945 - 1950 MHz
Block E: 1885 - 1890 MHz paired with 1965 - 1970 MHz
Block F: 1890 - 1895 MHz paired with 1970 - 1975 MHz

The frequency range of the EUT is as below:

GSM/GPRS/EDGE 850MHz:
Tx: 824.20 - 848.80MHz (at intervals of 200kHz)
Rx: 869.20 - 893.80MHz (at intervals of 200kHz)

GSM/GPRS/EGPRS 1900MHz:
Tx: 1850.20 - 1909.80MHz (at intervals of 200kHz)
Rx: 1930.20 - 1989.80MHz (at intervals of 200kHz)

WCDMA / HSDPA 850MHz:
Tx: 826.40 - 846.60MHz (at intervals of 200kHz) & 826.50 – 842.50MHz (at intervals of 5MHz)

Rx: 871.40 - 891.60MHz (at intervals of 200kHz) & 871.50 – 887.50MHz (at intervals of 5MHz)

WCDMA / HSDPA 1900MHz:
Tx: 1852.40 – 1907.60MHz (at intervals of 200kHz) & 1852.50 – 1907.50 (at intervals of 5MHz)
Rx: 1832.40 – 1987.60MHz (at intervals of 200kHz) & 1832.50 – 1987.50 (at intervals of 5MHz)

As a result, the frequency range of the EUT fits into the allocated frequency blocks.

4.2 RF Power Output (FCC Part 2.1046, 22.913 & 24.232)

The RF power output is measured at the RF output terminal. The limit is as follows:
Part 22.913 (for 850MHz band):

[ ] ≤ 500W ERP (57dBm) for base stations and cellular repeaters
[√] ≤ 7W ERP (38.5dBm) for mobile and auxiliary test transmitters

Part 24.232 (for 1900MHz band):

[ ] ≤ 1640W e.i.r.p. (62.1dBm) for base stations up to 300m HAAT;
[√] ≤ 2W e.i.r.p. (33dBm) peak output power for portable mobile

Test results:

Band	ARFCN	Frequency (MHz)	Antenna Gain (dBi)	Measured output power (dBm)	*ERP (dBm)	Limit (dBm)	Verdict
GSM 850MHz	190	836.6	1.3	32.0	31.2	38.5	Pass
GPRS 850MHz	190	836.6	1.3	32.0	31.2	38.5	Pass
EGPRS 850MHz	190	836.6	1.3	31.7	30.9	38.5	Pass
WCDMA 850MHz	4183	836.6	1.3	25.4	24.6	38.5	Pass
HSDPA 850MHz	4183	836.6	1.3	23.3	22.5	38.5	Pass

Band	ARFCN	Frequency (MHz)	Antenna Gain (dBi)	Measured output power (dBm)	#EIRP (dBm)	Limit (dBm)	Verdict
GSM 1900MHz	661	1880.0	1.0	28.7	29.7	33.0	Pass
GPRS 1900MHz	661	1880.0	1.0	28.7	29.7	33.0	Pass
EGPRS 1900MHz	9400	1880.0	1.0	28.3	29.3	33.0	Pass
WCDMA 1900MHz	9400	1880.0	1.0	24.4	25.4	33.0	Pass
HSDPA 1900MHz	9400	1880.0	1.0	22.0	23.0	33.0	Pass

*ERP (dBm) = Conducted Power (dBm) + Antenna Gain (dBi) - 2.15dB
#EIRP (dBm) = Conducted Power (dBm) + Antenna Gain (dBi)
Remark: RMS detector was used for output power measurement.
The PAR of the transmission for GSM is 9.52dB.
RBW: 1MHz and VBW: 3MHz were used when testing the GSM/GPRS/EGPRS mode.
RBW: 10MHz and VBW: 10MHz were used when testing the WCDMA/HSDPA mode.

4.3 Occupied Bandwidth (FCC Part 2.1049)

From 2.1049, occupied bandwidth is defined as the measured spectral width of an emission. The measurement determines occupied bandwidth as the difference between upper and lower frequencies where 0.5% of the emission power is above the upper frequency and 0.5% of the emission power is below the lower frequency.

The 26dB bandwidth is also recorded to determine the resolution bandwidth used in measurements, as specified in 22.917 and 24.238.

Test results:

Band	ARFCN	Frequency (MHz)	99% Bandwidth (kHz)	26dB Bandwidth (kHz)
GSM 850MHz	190	836.6	246	316
GSM 1900MHz	661	1880.0	244	314
GPRS 850MHz	190	836.6	246	322
GPRS 1900MHz	661	1880.0	246	324
EGPRS 850MHz	190	836.6	240	316
EGPRS 1900MHz	661	1880.0	242	312
WCDMA 850MHz	4183	836.6	4180	4700
WCDMA 1900MHz	9400	1880.0	4160	4680
HSDPA 850MHz	4183	836.6	4200	4680
HSDPA 1900MHz	9400	1880.0	4200	4700

The plots of 99% and 26dB bandwidth are saved in the file bw.pdf.

4.4 Spurious Emissions at Antenna Terminals (FCC Part 22.1051, 2.1057, 22.917, 24.238)

The conducted spurious emissions are measured from 9kHz up to the 10th harmonic of fundamental emission.

According to 22.917 and 24.238, the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10log(P) dB, i.e. at or below -13dBm.

Test results:

Band	ARFCN	Frequency (MHz)	Verdict
GSM 850MHz	190	836.6	Pass
GSM 1900MHz	661	1880.0	Pass
GPRS 850MHz	190	836.6	Pass
GPRS 1900MHz	661	1880.0	Pass
EGPRS 850MHz	190	836.6	Pass
EGPRS 1900MHz	661	1880.0	Pass
WCDMA 850MHz	4183	836.6	Pass
WCDMA 1900MHz	9400	1880.0	Pass
HSDPA 850MHz	4183	836.6	Pass
HSDPA 1900MHz	9400	1880.0	Pass

The plots are saved in the file cspurious.pdf.

4.5 Power of Spurious Emissions (FCC Part 2.1053, 2.1057, 22.917, 24.238)

The radiated spurious emissions are tested per TIA/EIA-603 using the Substitution Method and measured from 9KHz up to the 10th harmonic of fundamental emission. The simultaneous transmission has been considered when perform spurious radiation test.

According to 22.917, the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10log(P) dB, i.e. at or below -13dBm. The RBW: 100KHz and VBW: 300KHz were used at the 850 band; The RBW: 1MHz and VBW: 3MHz were used at the 1900 band;

Test results:

GSM 850MHz (ARFCN = 190, Channel frequency = 836.6MHz):

Polarization	Frequency (MHz)	Measured ERP (dBm)	Limit ERP (dBm)	Margin (dB)
V	1673.2	-46.8	-13	-33.8
V	2509.8	-55.0	-13	-42.0

GSM 1900MHz (ARFCN = 661, Channel frequency = 1880.0MHz):

Polarization	Frequency (MHz)	Calculated EIRP (dBm)	Limit EIRP (dBm)	Margin (dB)
V	3760	-47.9	-13	-34.9
V	5640	-44.8	-13	-31.8

GPRS 850MHz (ARFCN = 190, Channel frequency = 836.6MHz):

Polarization	Frequency (MHz)	Measured ERP (dBm)	Limit ERP (dBm)	Margin (dB)
V	1673.2	-46.4	-13	-33.4
V	2509.8	-54.4	-13	-41.4

GPRS 1900MHz (ARFCN = 661, Channel frequency = 1880.0MHz):

Polarization	Frequency (MHz)	Calculated EIRP (dBm)	Limit EIRP (dBm)	Margin (dB)
V	3760	-47.4	-13	-34.4
V	5640	-44.6	-13	-31.6

EGPRS 850MHz (ARFCN = 190, Channel frequency = 836.6MHz):

Polarization	Frequency (MHz)	Measured ERP (dBm)	Limit ERP (dBm)	Margin (dB)
V	1673.2	-46.3	-13	-33.3
V	2509.8	-54.3	-13	-41.3

EGPRS 1900MHz (ARFCN = 661, Channel frequency = 1880.0MHz):

Polarization	Frequency (MHz)	*Calculated EIRP (dBm)	Limit EIRP (dBm)	Margin (dB)
V	3760	-47.3	-13	-34.3
V	5640	-44.8	-13	-31.8

WCDMA 850MHz (ARFCN = 4183, Channel frequency = 836.6MHz):

Polarization	Frequency (MHz)	Measured ERP (dBm)	Limit ERP (dBm)	Margin (dB)
V	1673.2	-53.3	-13	-40.3
V	2509.8	-54.2	-13	-41.2

WCDMA 1900MHz (ARFCN = 9400, Channel frequency = 1880.0MHz):

Polarization	Frequency (MHz)	*Calculated EIRP (dBm)	Limit EIRP (dBm)	Margin (dB)
V	3760	-48.8	-13	-35.8
V	5640	-46.5	-13	-33.5

HSDPA 850MHz (ARFCN = 4183, Channel frequency = 836.6MHz):

Polarization	Frequency (MHz)	Measured ERP (dBm)	Limit ERP (dBm)	Margin (dB)
V	1673.2	-53.3	-13	-40.3
V	2509.8	-54.1	-13	-41.1

HSDPA 1900MHz (ARFCN = 9400, Channel frequency = 1880.0MHz):

Polarization	Frequency (MHz)	*Calculated EIRP (dBm)	Limit EIRP (dBm)	Margin (dB)
V	3760	-48.7	-13	-35.7
V	5640	-46.5	-13	-33.5

*EIRP = ERP + 2.15dB

Remarks: the magnitudes of spurious emission which are attenuated more than 20 dB below the permissible value are not reported.

4.6 Blockedge at Antenna Terminals (FCC Part 22.917, 24.238)

In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter is employed. The 26dB emission bandwidth taken in section 4.4 is used for calculating the resolution bandwidth.
The power of any emission at the blockedge must be attenuated below the transmitting power (P) by a factor of at least 43 +10 Log (P) dB, i.e. at or below -13dBm when using 1% emissions bandwidth.

According to the FCC KDB with Publication Number: 890810, measurements using narrower resolution bandwidths are acceptable and must sum the power from all contiguous reduced resolution bandwidths within the 1% resolution specified, an alternative is to add an additional correction factor of 10 Log (RBW1/ RBW2) to the 43 +10 Log (P) limit. RBW1 is the narrower measurement resolution bandwidth and RBW2 is the 1% emissions bandwidth.

Test results:

Band	ARFCN	Channel Frequency (MHz)	Worst case bandedge emission with RBW 1KHz(dBm)	Correction Factor (dB)	Worst case bandedge emission with RBW 3.2KHz(dBm)	Limit (dBm)	Verdict
GSM 850MHz	128	824.2	-18.42	-5.05	-13.37	-13	PASS
	251	848.8	-19.65	-5.05	-14.60	-13	PASS
GPRS 850MHz	128	824.2	-19.89	-5.05	-14.84	-13	PASS
	251	848.8	-20.58	-5.05	-15.53	-13	PASS
EGPRS 850MHz	128	824.2	-25.36	-5.05	-20.31	-13	PASS
	251	848.8	-26.34	-5.05	-21.29	-13	PASS

Note: The correction factor = 10 Log (RBW1/ RBW2) = 10 Log (1/3.2) = -5.05 dB for GSM 850 Band.

Band	ARFCN	Channel Frequency (MHz)	Worst case bandedge emission with RBW 3KHz(dBm)	Correction Factor (dB)	Worst case bandedge emission with RBW 3.2KHz(dBm)	Limit (dBm)	Verdict
GSM 1900MHz	512	1850.2	-16.43	-0.28	-16.15	-13	PASS
	810	1909.8	-16.48	-0.28	-16.20	-13	PASS
GPRS 1900MHz	512	1850.2	-18.36	-0.28	-18.08	-13	PASS
	810	1909.8	-15.88	-0.28	-15.60	-13	PASS
EGPRS1900MHz	512	1850.2	-18.54	-0.28	-18.26	-13	PASS
	810	1909.8	-19.30	-0.28	-19.02	-13	PASS

Note: The correction factor = 10 Log (RBW1/ RBW2) = 10 Log (3/3.2) = -0.28 dB for GSM 1900 Band.

Band	ARFCN	Channel Frequency (MHz)	Worst case bandedge emission with RBW 100KHz(dBm)	Limit (dBm)	Verdict
WCDMA 850MHz	4132	826.4	-17.21	-13	PASS
	4233	846.6	-17.53	-13	PASS
WCDMA 1900MHz	9262	1852.4	-19.65	-13	PASS
	9538	1907.6	-19.78	-13	PASS
HSDPA 850MHz	4132	826.4	-16.09	-13	PASS
	4233	846.6	-17.34	-13	PASS
HSDPA 1900MHz	9262	1852.4	-19.87	-13	PASS
	9538	1907.6	-19.18	-13	PASS

The plots for GSM/WCDMA are saved in the file be.pdf.

4.7 Frequency Stability (FCC Part 2.1055, 22.355, 24.235)

The frequency stability is measured with the temperature variation range of -30˚C to +50˚C (10˚C increment), and voltage supply variation range of 85% to 115% of nominal AC supply voltage, and/or nominal to battery end points for hand-carried battery-powered supplies.

[√] AC nominal supply voltage: 120VAC
[√] Battery nominal voltage: ___3.7___VDC; End points: __3.6__VDC

20˚C is taken as temperature in normal condition.

For the 850MHz band, according to 22.355, the stability requirements are: ±1.5ppm for mobile units and ±2.5ppm for portable units.

For the 1900MHz band, according to 24.235, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Test results for battery operation:

GSM 850MHz (AFRCN = 190, Channel frequency = 836.6MHz):

Input voltage (VDC)	Temperature (˚C)	Frequency deviation (Hz)	Limit (Hz)	Verdict
3.7	-30	-36	±2091.5	PASS
	-20	-39		PASS
	-10	-43		PASS
	0	-40		PASS
	+10	-46		PASS
	+20	-43		PASS
	+30	-46		PASS
	+40	-45		PASS
	+50	-42		PASS
3.6	+20	-40		PASS

GSM 1900MHz (AFRCN = 512, Channel frequency = 1850.2MHz):

Input voltage (VDC)	Temperature (˚C)	Measured Frequency (MHz)	Limit (MHz)	Verdict
3.7	-30	1850.199929	1850 - 1910	PASS
	-20	1850.199933		PASS
	-10	1850.199930		PASS
	0	1850.199939		PASS
	+10	1850.199940		PASS
	+20	1850.199943		PASS
	+30	1850.199944		PASS
	+40	1850.199947		PASS
	+50	1850.199950		PASS
3.6	+20	1850.199939		PASS

GSM 1900MHz (AFRCN = 810, Channel frequency = 1909.8MHz):

Input voltage (VDC)	Temperature (˚C)	Measured Frequency (MHz)	Limit (MHz)	Verdict
3.7	-30	1909.799947	1850 - 1910	PASS
	-20	1909.799943		PASS
	-10	1909.799950		PASS
	0	1909.799942		PASS
	+10	1909.799940		PASS
	+20	1909.799937		PASS
	+30	1909.799935		PASS
	+40	1909.799953		PASS
	+50	1909.799950		PASS
3.6	+20	1909.799963		PASS

GPRS 850MHz (AFRCN = 190, Channel frequency = 836.6MHz):

Input voltage (VDC)	Temperature (˚C)	Frequency deviation (Hz)	Limit (Hz)	Verdict
3.7	-30	-49	±2091.5	PASS
	-20	-43		PASS
	-10	-42		PASS
	0	-40		PASS
	+10	-36		PASS
	+20	-38		PASS
	+30	-39		PASS
	+40	-34		PASS
	+50	-40		PASS
3.6	+20	-43		PASS

GPRS 1900MHz (AFRCN = 512, Channel frequency = 1850.2MHz):

Input voltage (VDC)	Temperature (˚C)	Measured Frequency (MHz)	Limit (MHz)	Verdict
3.7	-30	1850.199933	1850 - 1910	PASS
	-20	1850.199937		PASS
	-10	1850.199943		PASS
	0	1850.199950		PASS
	+10	1850.199944		PASS
	+20	1850.199937		PASS
	+30	1850.199944		PASS
	+40	1850.199933		PASS
	+50	1850.199943		PASS
3.6	+20	1850.199955		PASS

GPRS 1900MHz (AFRCN = 810, Channel frequency = 1909.8MHz):

Input voltage (VDC)	Temperature (˚C)	Measured Frequency (MHz)	Limit (MHz)	Verdict
3.7	-30	1909.799966	1850 - 1910	PASS
	-20	1909.799955		PASS
	-10	1909.799943		PASS
	0	1909.799939		PASS
	+10	1909.799970		PASS
	+20	1909.799963		PASS
	+30	1909.799939		PASS
	+40	1909.799947		PASS
	+50	1909.799953		PASS
3.6	+20	1909.799947		PASS

EGPRS 850MHz (AFRCN = 190, Channel frequency = 836.6MHz):

Input voltage (VDC)	Temperature (˚C)	Frequency deviation (Hz)	Limit (Hz)	Verdict
3.7	-30	-46	±2091.5	PASS
	-20	-40		PASS
	-10	-43		PASS
	0	-48		PASS
	+10	-47		PASS
	+20	-42		PASS
	+30	-43		PASS
	+40	-44		PASS
	+50	-39		PASS
3.6	+20	-37		PASS

EGPRS 1900MHz (AFRCN = 512, Channel frequency = 1850.2MHz):

Input voltage (VDC)	Temperature (˚C)	Measured Frequency (MHz)	Limit (MHz)	Verdict
3.7	-30	1850.199973	1850 - 1910	PASS
	-20	1850.199983		PASS
	-10	1850.199973		PASS
	0	1850.199966		PASS
	+10	1850.199944		PASS
	+20	1850.199949		PASS
	+30	1850.199954		PASS
	+40	1850.199970		PASS
	+50	1850.199944		PASS
3.6	+20	1850.199956		PASS

EGPRS 1900MHz (AFRCN = 810, Channel frequency = 1909.8MHz):

Input voltage (VDC)	Temperature (˚C)	Measured Frequency (MHz)	Limit (MHz)	Verdict
3.7	-30	1909.799963	1850 - 1910	PASS
	-20	1909.799953		PASS
	-10	1909.799944		PASS
	0	1909.799940		PASS
	+10	1909.799932		PASS
	+20	1909.799945		PASS
	+30	1909.799980		PASS
	+40	1909.799947		PASS
	+50	1909.799952		PASS
3.6	+20	1909.799960		PASS

WCDMA 850MHz (AFRCN = 4183, Channel frequency = 836.6MHz):

Input voltage (VDC)	Temperature (˚C)	Frequency deviation (Hz)	Limit (Hz)	Verdict
3.7	-30	-28	±2091.5	PASS
	-20	-33		PASS
	-10	-30		PASS
	0	-32		PASS
	+10	-28		PASS
	+20	-24		PASS
	+30	-27		PASS
	+40	-23		PASS
	+50	-22		PASS
3.6	+20	-29		PASS

WCDMA 1900MHz (AFRCN = 9262, Channel frequency = 1852.4MHz):

Input voltage (VDC)	Temperature (˚C)	Measured Frequency (MHz)	Limit (MHz)	Verdict
3.7	-30	1850.199978	1850 - 1910	PASS
	-20	1850.199967		PASS
	-10	1850.199963		PASS
	0	1850.199947		PASS
	+10	1850.199942		PASS
	+20	1850.199944		PASS
	+30	1850.199936		PASS
	+40	1850.199946		PASS
	+50	1850.199942		PASS
3.6	+20	1850.199960		PASS

WCDMA 1900MHz (AFRCN = 9538, Channel frequency = 1907.6MHz):

Input voltage (VDC)	Temperature (˚C)	Measured Frequency (MHz)	Limit (MHz)	Verdict
3.7	-30	1909.799986	1850 - 1910	PASS
	-20	1909.799963		PASS
	-10	1909.799960		PASS
	0	1909.799954		PASS
	+10	1909.799948		PASS
	+20	1909.799946		PASS
	+30	1909.799940		PASS
	+40	1909.799938		PASS
	+50	1909.799944		PASS
3.6	+20	1909.799960		PASS

HSDPA 850MHz (AFRCN = 4183, Channel frequency = 836.6MHz):

Input voltage (VDC)	Temperature (˚C)	Frequency deviation (Hz)	Limit (Hz)	Verdict
3.7	-30	-36	±2091.5	PASS
	-20	-40		PASS
	-10	-38		PASS
	0	-37		PASS
	+10	-33		PASS
	+20	-30		PASS
	+30	-32		PASS
	+40	-34		PASS
	+50	-36		PASS
3.6	+20	-37		PASS

HSDPA 1900MHz (AFRCN = 9262, Channel frequency = 1852.4MHz):

Input voltage (VDC)	Temperature (˚C)	Measured Frequency (MHz)	Limit (MHz)	Verdict
3.7	-30	1850.199989	1850 - 1910	PASS
	-20	1850.199966		PASS
	-10	1850.199949		PASS
	0	1850.199955		PASS
	+10	1850.199954		PASS
	+20	1850.199962		PASS
	+30	1850.199949		PASS
	+40	1850.199960		PASS
	+50	1850.199977		PASS
3.6	+20	1850.199945		PASS

HSDPA 1900MHz (AFRCN = 9538, Channel frequency = 1907.6MHz):

Input voltage (VDC)	Temperature (˚C)	Measured Frequency (MHz)	Limit (MHz)	Verdict
3.7	-30	1909.799944	1850 - 1910	PASS
	-20	1909.799954		PASS
	-10	1909.799948		PASS
	0	1909.799960		PASS
	+10	1909.799944		PASS
	+20	1909.799963		PASS
	+30	1909.799944		PASS
	+40	1909.799966		PASS
	+50	1909.799967		PASS
3.6	+20	1909.799936		PASS

Test results for battery operation charged by AC voltage:

GSM 850MHz (AFRCN = 190, Channel frequency = 836.6MHz):

Input voltage (VDC)	Temperature (˚C)	Frequency deviation (Hz)	Limit (Hz)	Verdict
120	-30	-29	±2091.5	PASS
	-20	-30		PASS
	-10	-31		PASS
	0	-29		PASS
	+10	-27		PASS
	+20	-28		PASS
	+30	-28		PASS
	+40	-29		PASS
	+50	-27		PASS
102	+20	-28		PASS
138	+20	-30		PASS

GSM 1900MHz (AFRCN = 512, Channel frequency = 1850.2MHz):

Input voltage (VDC)	Temperature (˚C)	Measured Frequency (MHz)	Limit (MHz)	Verdict
120	-30	1850.199943	1850 - 1910	PASS
	-20	1850.199940		PASS
	-10	1850.199939		PASS
	0	1850.199947		PASS
	+10	1850.199943		PASS
	+20	1850.199942		PASS
	+30	1850.199940		PASS
	+40	1850.199950		PASS
	+50	1850.199939		PASS
102	+20	1850.199942		PASS
138	+20	1850.199950		PASS

GSM 1900MHz (AFRCN = 810, Channel frequency = 1909.8MHz):

Input voltage (VDC)	Temperature (˚C)	Measured Frequency (MHz)	Limit (MHz)	Verdict
120	-30	1909.799936	1850 - 1910	PASS
	-20	1909.799938		PASS
	-10	1909.799940		PASS
	0	1909.799940		PASS
	+10	1909.799937		PASS
	+20	1909.799939		PASS
	+30	1909.799938		PASS
	+40	1909.799939		PASS
	+50	1909.799941		PASS
102	+20	1909.799942		PASS
138	+20	1909.799943		PASS

GPRS 850MHz (AFRCN = 190, Channel frequency = 836.6MHz):

Input voltage (VDC)	Temperature (˚C)	Frequency deviation (Hz)	Limit (Hz)	Verdict
120	-30	-30	±2091.5	PASS
	-20	-29		PASS
	-10	-33		PASS
	0	-32		PASS
	+10	-31		PASS
	+20	-32		PASS
	+30	-33		PASS
	+40	-34		PASS
	+50	-30		PASS
102	+20	-33		PASS
138	+20	-31		PASS

GPRS 1900MHz (AFRCN = 512, Channel frequency = 1850.2MHz):

Input voltage (VDC)	Temperature (˚C)	Measured Frequency (MHz)	Limit (MHz)	Verdict
120	-30	1850.199927	1850 - 1910	PASS
	-20	1850.199929		PASS
	-10	1850.199930		PASS
	0	1850.199933		PASS
	+10	1850.199936		PASS
	+20	1850.199947		PASS
	+30	1850.199942		PASS
	+40	1850.199943		PASS
	+50	1850.199941		PASS
102	+20	1850.199937		PASS
138	+20	1850.199944		PASS

GPRS 1900MHz (AFRCN = 810, Channel frequency = 1909.8MHz):

Input voltage (VDC)	Temperature (˚C)	Measured Frequency (MHz)	Limit (MHz)	Verdict
120	-30	1909.799936	1850 - 1910	PASS
	-20	1909.799947		PASS
	-10	1909.799939		PASS
	0	1909.799942		PASS
	+10	1909.799939		PASS
	+20	1909.799940		PASS
	+30	1909.799941		PASS
	+40	1909.799942		PASS
	+50	1909.799948		PASS
102	+20	1909.799947		PASS
138	+20	1909.799949		PASS

EGPRS 850MHz (AFRCN = 190, Channel frequency = 836.6MHz):

Input voltage (VDC)	Temperature (˚C)	Frequency deviation (Hz)	Limit (Hz)	Verdict
120	-30	-44	±2091.5	PASS
	-20	-45		PASS
	-10	-42		PASS
	0	-43		PASS
	+10	-44		PASS
	+20	-42		PASS
	+30	-43		PASS
	+40	-41		PASS
	+50	-40		PASS
102	+20	-39		PASS
138	+20	-38		PASS

EGPRS 1900MHz (AFRCN = 512, Channel frequency = 1850.2MHz):

Input voltage (VDC)	Temperature (˚C)	Measured Frequency (MHz)	Limit (MHz)	Verdict
120	-30	1850.199933	1850 - 1910	PASS
	-20	1850.199932		PASS
	-10	1850.199930		PASS
	0	1850.199929		PASS
	+10	1850.199929		PASS
	+20	1850.199930		PASS
	+30	1850.199936		PASS
	+40	1850.199940		PASS
	+50	1850.199941		PASS
102	+20	1850.199942		PASS
138	+20	1850.199944		PASS

EGPRS 1900MHz (AFRCN = 810, Channel frequency = 1909.8MHz):

Input voltage (VDC)	Temperature (˚C)	Measured Frequency (MHz)	Limit (MHz)	Verdict
120	-30	1909.799947	1850 - 1910	PASS
	-20	1909.799945		PASS
	-10	1909.799949		PASS
	0	1909.799953		PASS
	+10	1909.799952		PASS
	+20	1909.799954		PASS
	+30	1909.799955		PASS
	+40	1909.799956		PASS
	+50	1909.799957		PASS
102	+20	1909.799953		PASS
138	+20	1909.799955		PASS

WCDMA 850MHz (AFRCN = 4183, Channel frequency = 836.6MHz):

Input voltage (VDC)	Temperature (˚C)	Frequency deviation (Hz)	Limit (Hz)	Verdict
120	-30	-23	±2091.5	PASS
	-20	-19		PASS
	-10	-20		PASS
	0	-23		PASS
	+10	-21		PASS
	+20	-20		PASS
	+30	-27		PASS
	+40	-28		PASS
	+50	-26		PASS
102	+20	-23		PASS
138	+20	-21		PASS

WCDMA 1900MHz (AFRCN = 9262, Channel frequency = 1852.4MHz):

Input voltage (VDC)	Temperature (˚C)	Measured Frequency (MHz)	Limit (MHz)	Verdict
120	-30	1850.199937	1850 - 1910	PASS
	-20	1850.199940		PASS
	-10	1850.199942		PASS
	0	1850.199943		PASS
	+10	1850.199944		PASS
	+20	1850.199939		PASS
	+30	1850.199943		PASS
	+40	1850.199929		PASS
	+50	1850.199933		PASS
102	+20	1850.199935		PASS
138	+20	1850.199940		PASS

WCDMA 1900MHz (AFRCN = 9538, Channel frequency = 1907.6MHz):

Input voltage (VDC)	Temperature (˚C)	Measured Frequency (MHz)	Limit (MHz)	Verdict
120	-30	1909.799919	1850 - 1910	PASS
	-20	1909.799932		PASS
	-10	1909.799929		PASS
	0	1909.799932		PASS
	+10	1909.799940		PASS
	+20	1909.799939		PASS
	+30	1909.799943		PASS
	+40	1909.799942		PASS
	+50	1909.799939		PASS
102	+20	1909.799943		PASS
138	+20	1909.799937		PASS

HSDPA 850MHz (AFRCN = 4183, Channel frequency = 836.6MHz):

Input voltage (VDC)	Temperature (˚C)	Frequency deviation (Hz)	Limit (Hz)	Verdict
120	-30	-29	±2091.5	PASS
	-20	-27		PASS
	-10	-29		PASS
	0	-30		PASS
	+10	-30		PASS
	+20	-31		PASS
	+30	-33		PASS
	+40	-34		PASS
	+50	-39		PASS
102	+20	-37		PASS
138	+20	-40		PASS

HSDPA 1900MHz (AFRCN = 9262, Channel frequency = 1852.4MHz):

Input voltage (VDC)	Temperature (˚C)	Measured Frequency (MHz)	Limit (MHz)	Verdict
120	-30	1850.199917	1850 - 1910	PASS
	-20	1850.199919		PASS
	-10	1850.199918		PASS
	0	1850.199916		PASS
	+10	1850.199921		PASS
	+20	1850.199924		PASS
	+30	1850.199928		PASS
	+40	1850.199930		PASS
	+50	1850.199926		PASS
102	+20	1850.199920		PASS
138	+20	1850.199918		PASS

HSDPA 1900MHz (AFRCN = 9538, Channel frequency = 1907.6MHz):

Input voltage (VDC)	Temperature (˚C)	Measured Frequency (MHz)	Limit (MHz)	Verdict
120	-30	1909.799933	1850 - 1910	PASS
	-20	1909.799930		PASS
	-10	1909.799942		PASS
	0	1909.799940		PASS
	+10	1909.799936		PASS
	+20	1909.799934		PASS
	+30	1909.799930		PASS
	+40	1909.799929		PASS
	+50	1909.799927		PASS
102	+20	1909.799924		PASS
138	+20	1909.799930		PASS

4.8 Radio Frequency Exposure Compliance

EUT is subject to the radio frequency exposure requirements specified in FCC Rule §§ 1.1307(b), 2.1093. It shall be considered to operate in a “general population / uncontrolled” environment.

[×] Portable unit: EUT was evaluated for Specific Absorption Rate (SAR) evaluation compliance according to OET Bulletin 65, Supplement C (Edition 01-01). It is in compliance with the SAR evaluation requirements. The caution statement is saved as filename: RF exposure info.pdf. A SAR test report was submitted at same time and saved as SAR Report.pdf.

[ ] Mobile unit: EUT was evaluated for Maximum Permissible Exposure (MPE) evaluation compliance according to OET Bulletin 65(Edition 97-01). The evaluation calculation results are saved as filename: RF exposure info.pdf.

5.0 **Equipment List**

Equipment	EMI Test Receiver	EMI Test Receiver	Spectrum Analyzer	Universal Radio Communication Tester
Registration No.	SZ185-02	SZ185-01	SZ056-03	SZ065-1
Manufacturer	R&S	R&S	R&S	R&S
Model No.	ESCI	ESCI	FSP30	CMU200
Calibration Date	05-Nov-2011	11-Mar-2012	11-Mar-2012	23-Jun-2011
Calibration Due Date	05-Nov-2012	11-Mar-2013	11-Mar-2013	23-Jun-2012

Equipment	BiConLog Antenna	Horn Antennas	Signal Generator	Active Loop Antenna
Registration No.	SZ061-03	SZ061-08 SZ061-09	SZ180-01	SZ061-06
Manufacturer	ETS	ETS	R&S	Electro-Metrics
Model No.	3142C	3115	SML03	EM-6876
Calibration Date	02-Jul-2011	15-Oct-2011	11-Mar-2012	11-Mar-2012
Calibration Due Date	02-Jul-2012	15-Oct-2012	11-Mar-2013	11-Mar-2013

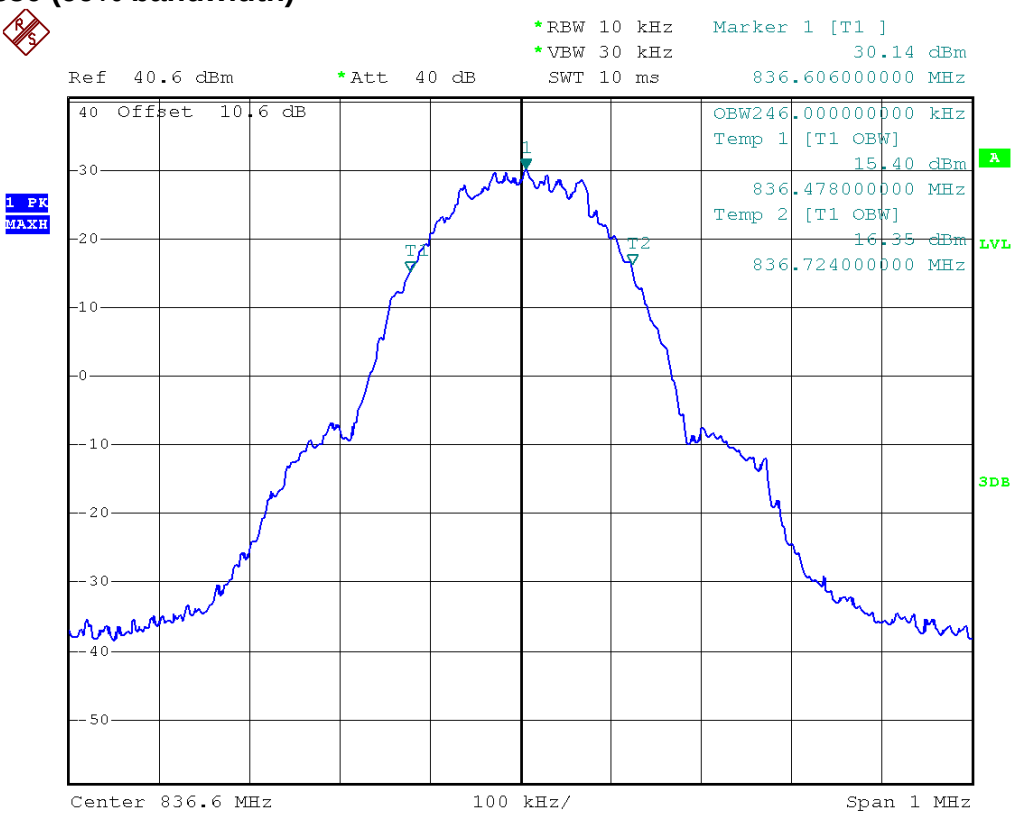
Equipment	RF Power Meter	Temperature & Humidity Chamber	Roberts Antennas
Registration No.	SZ182-01	SZ016-02	EW-0159
Manufacturer	BOONTON	Dongzhix	CDI
Model No.	4232A	WGD/SJ-415-A	A100
Calibration Date	11-Mar-2012	19-Nov-2011	13-May-2012
Calibration Due Date	11-Mar-2013	19-Nov-2012	13-May-2013

Equipment	Notch Filter	Notch Filter	Highpass Filter
Registration No.	SZ067-05	SZ067-08	SZ067-11
Manufacturer	Micro-Tronics	Wainwright	Wainwright
Model No.	BRM50707-02	WRCT800/960-0.2/40-8SSK	WHKX1.0/15G-10S
Calibration Date	15-Jul-2011	25-Feb-2012	15-Jul-2011
Calibration Due Date	15-Jul-2012	25-Aug-2012	15-Jul-2012

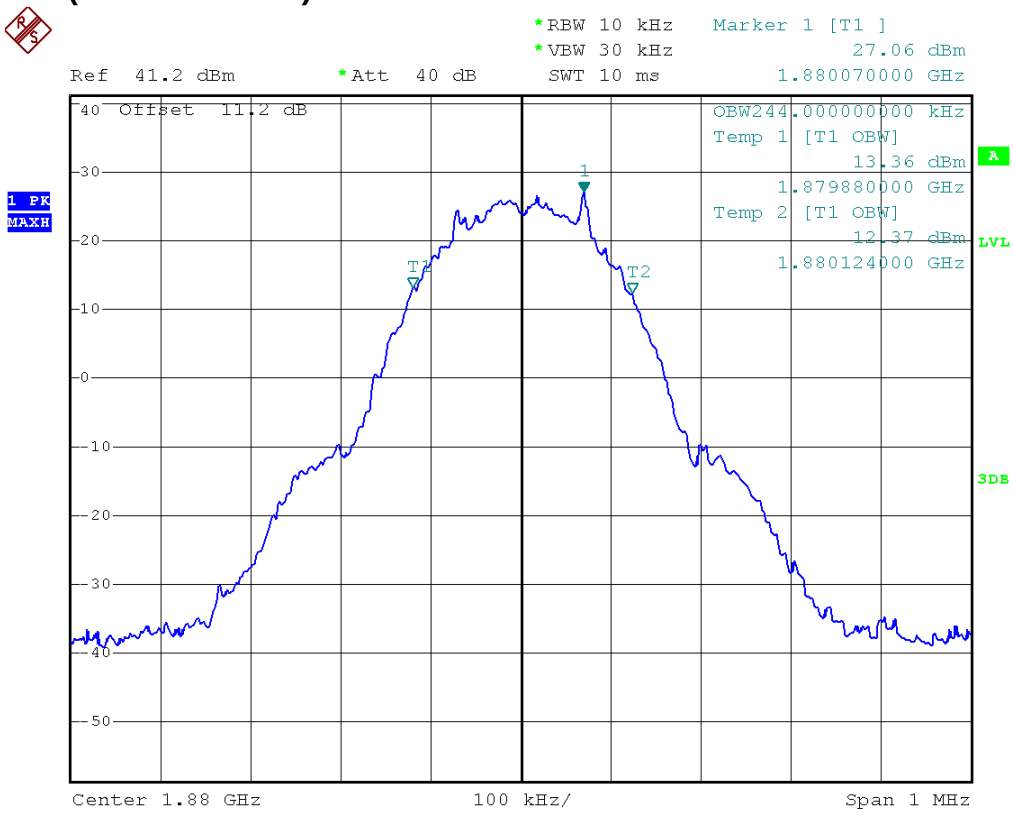
END OF TEST REPORT

APPENDIX
EXHIBITS OF APPLICATION FOR CERTIFICATION

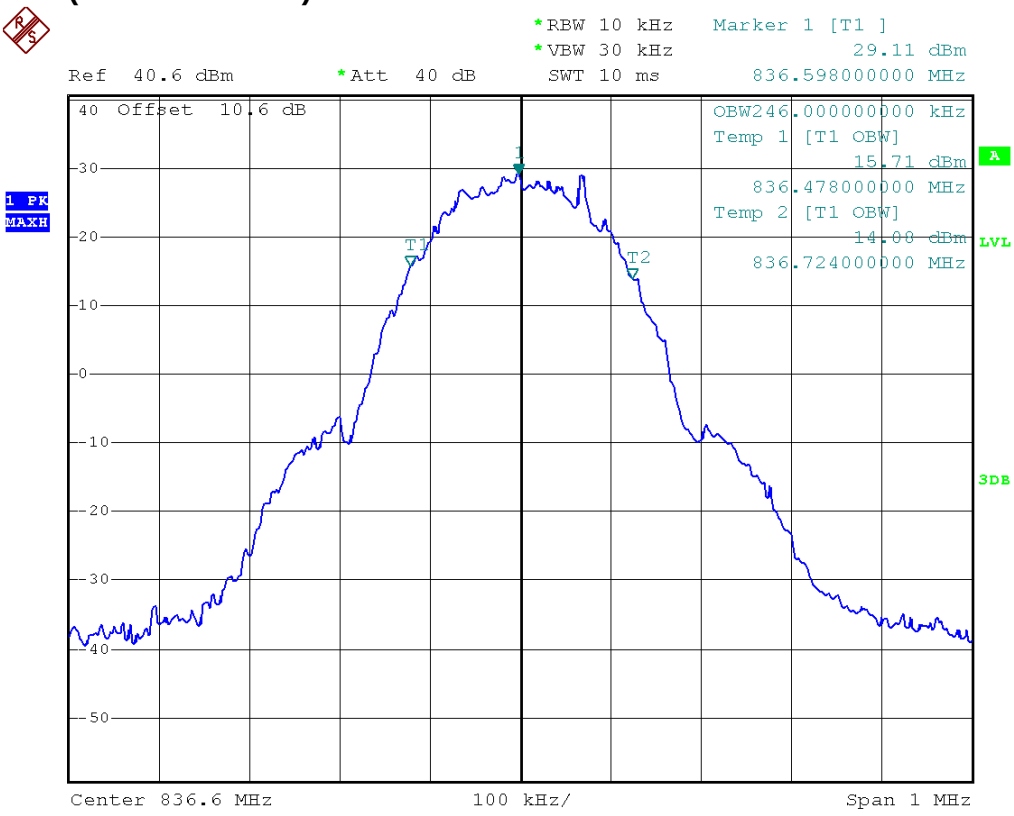
GSM 850 (99% bandwidth)



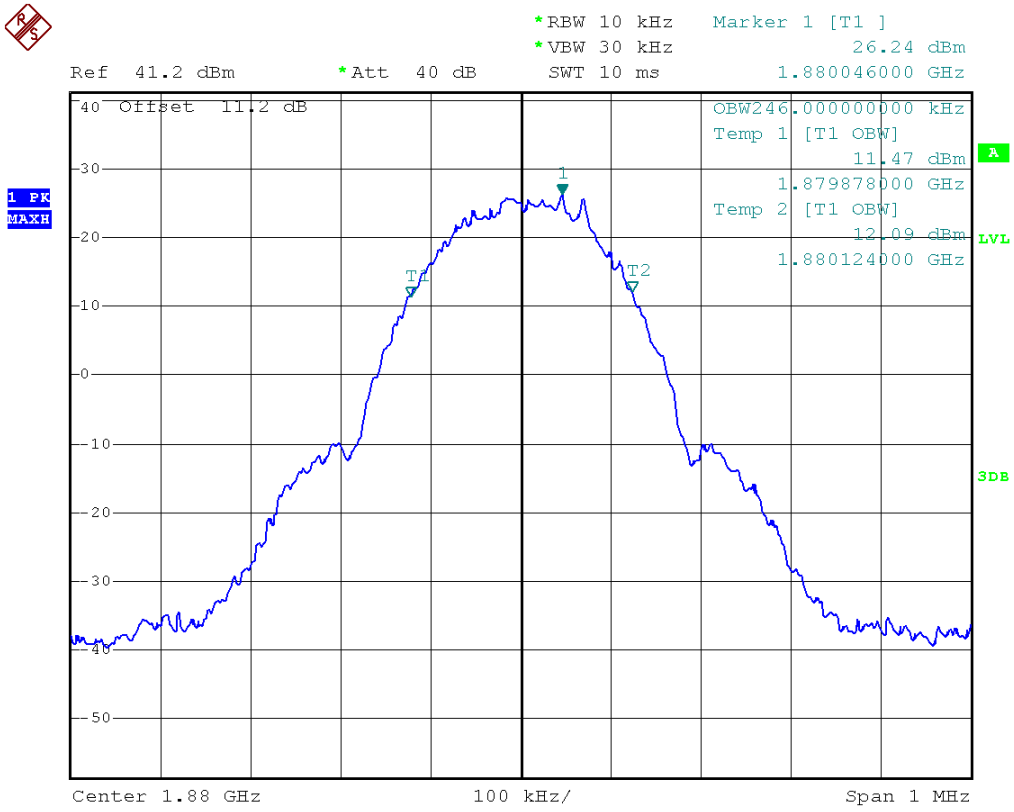
GSM 1900 (99% bandwidth)



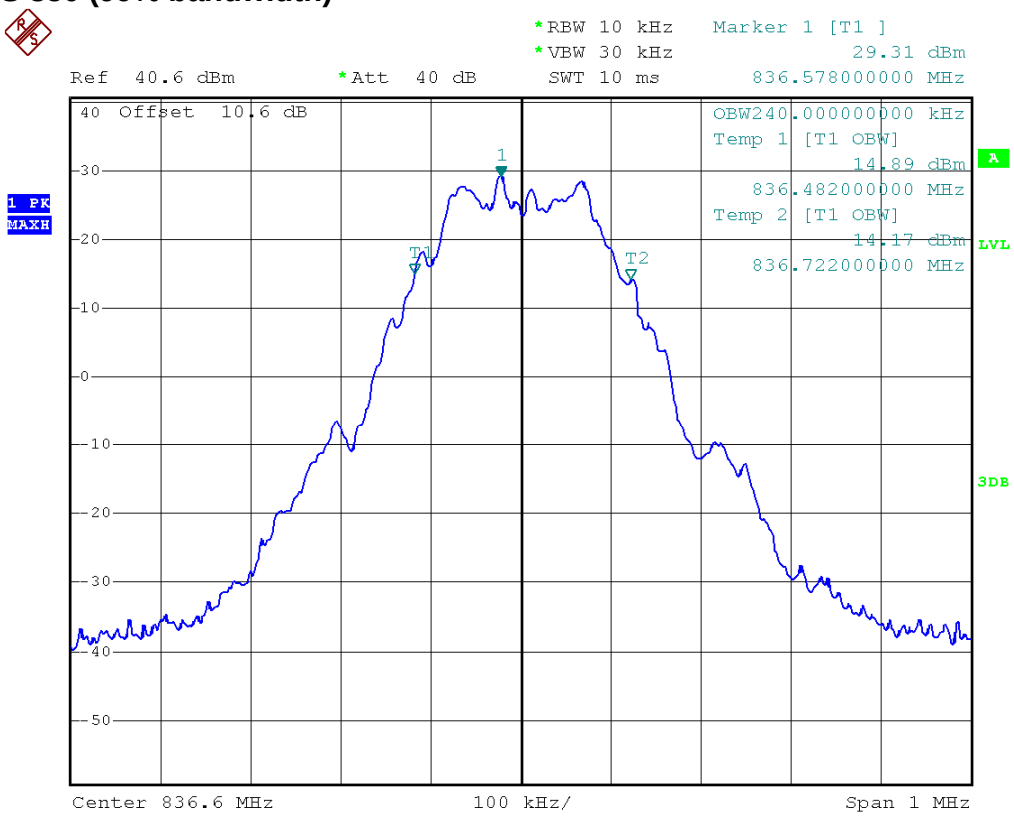
GPRS 850 (99% bandwidth)



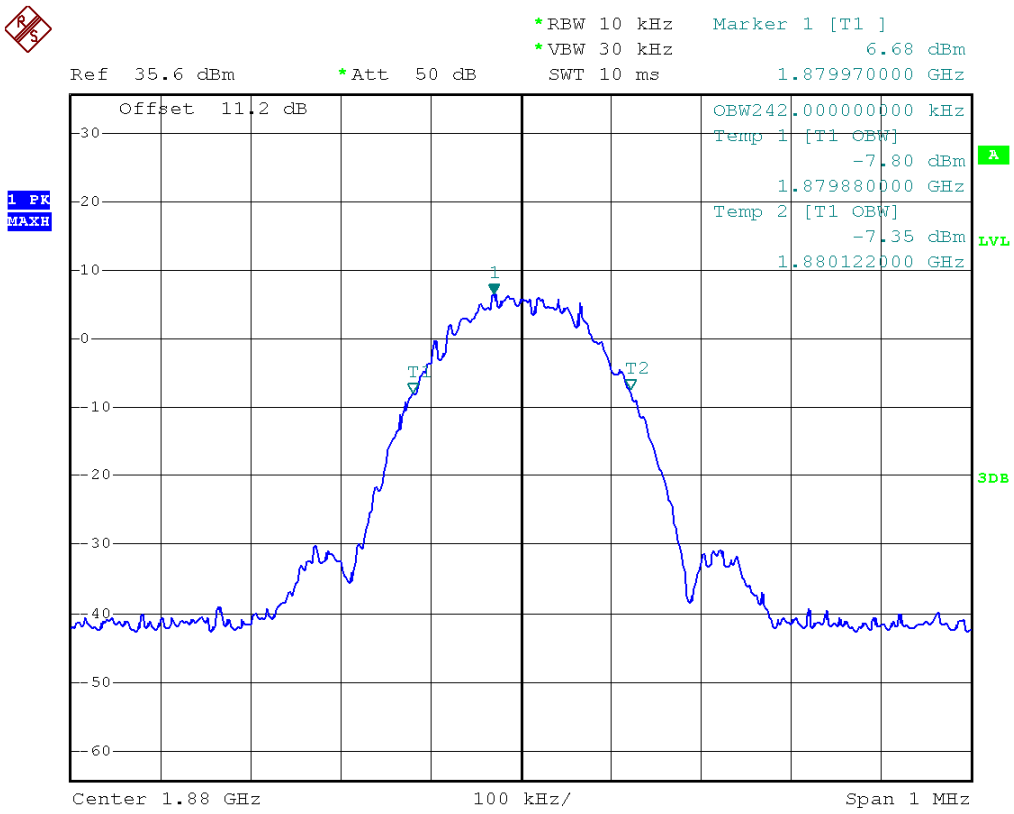
GPRS 1900 (99% bandwidth)



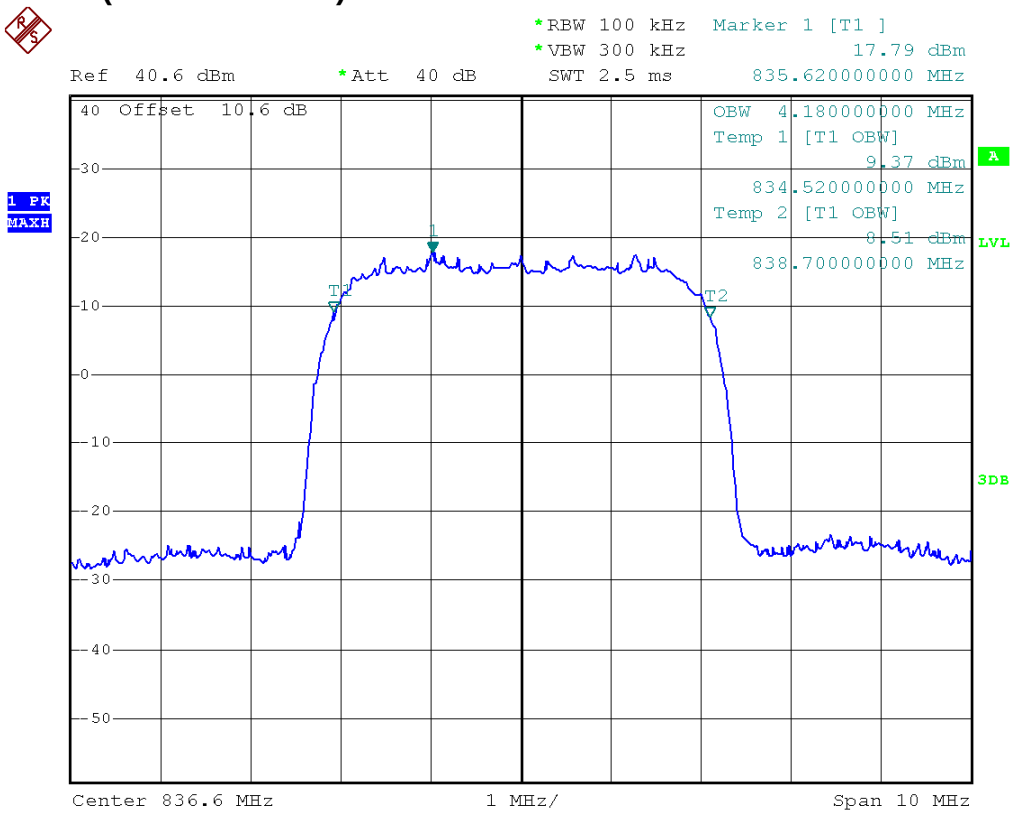
EGPRS 850 (99% bandwidth)



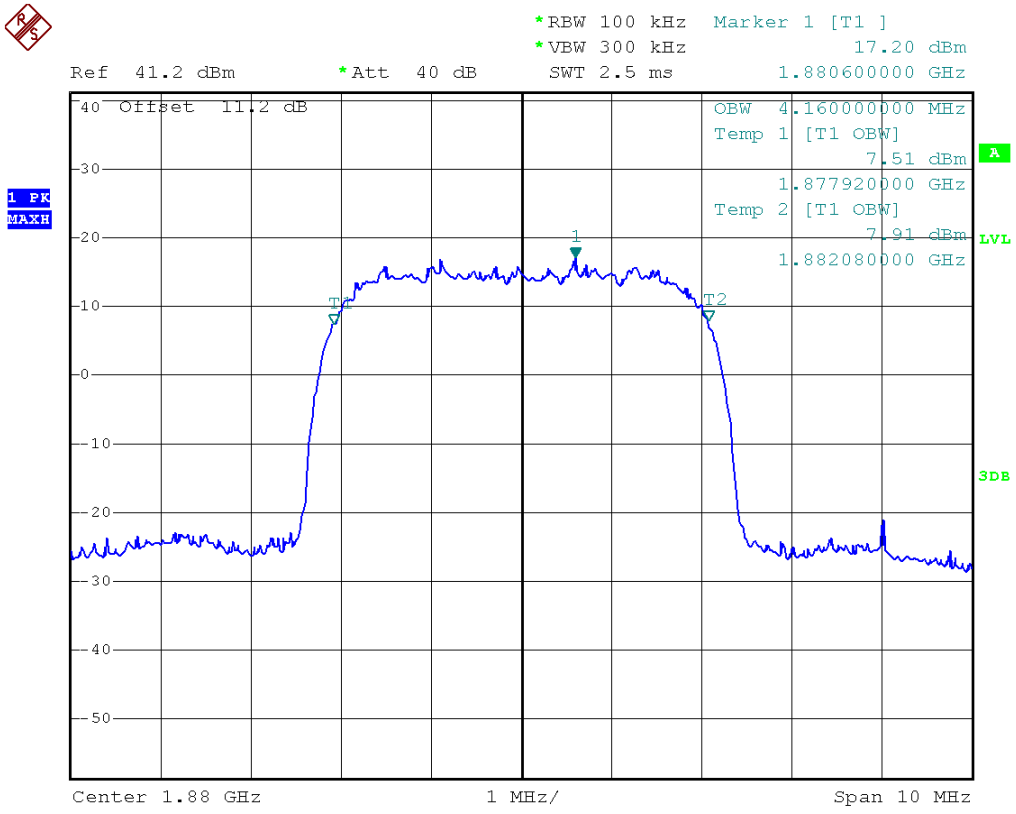
EGPRS 1900 (99% bandwidth)



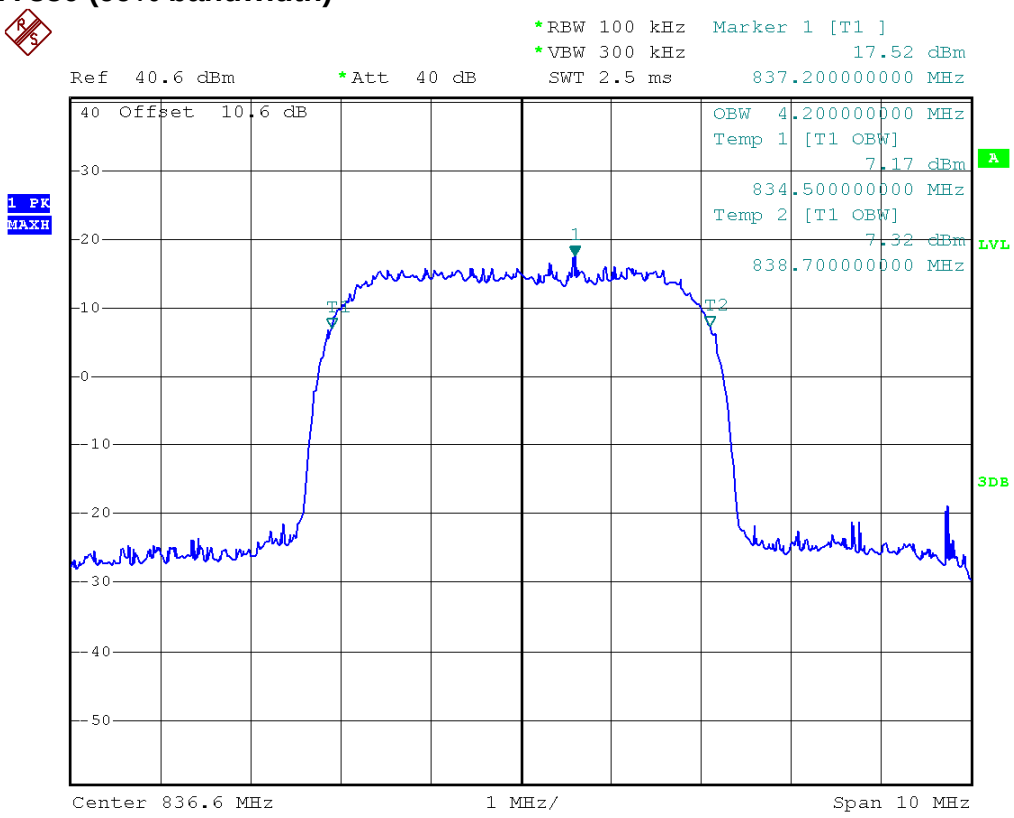
WCDMA 850 (99% bandwidth)



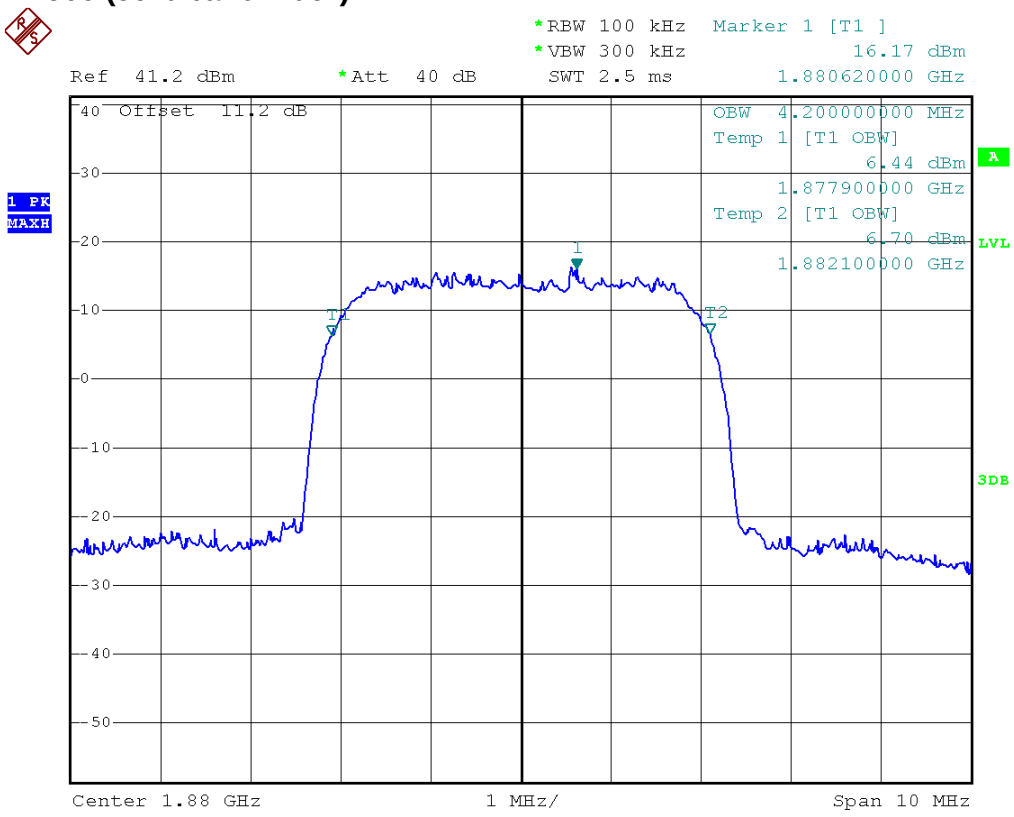
WCDMA 1900 (99% bandwidth)



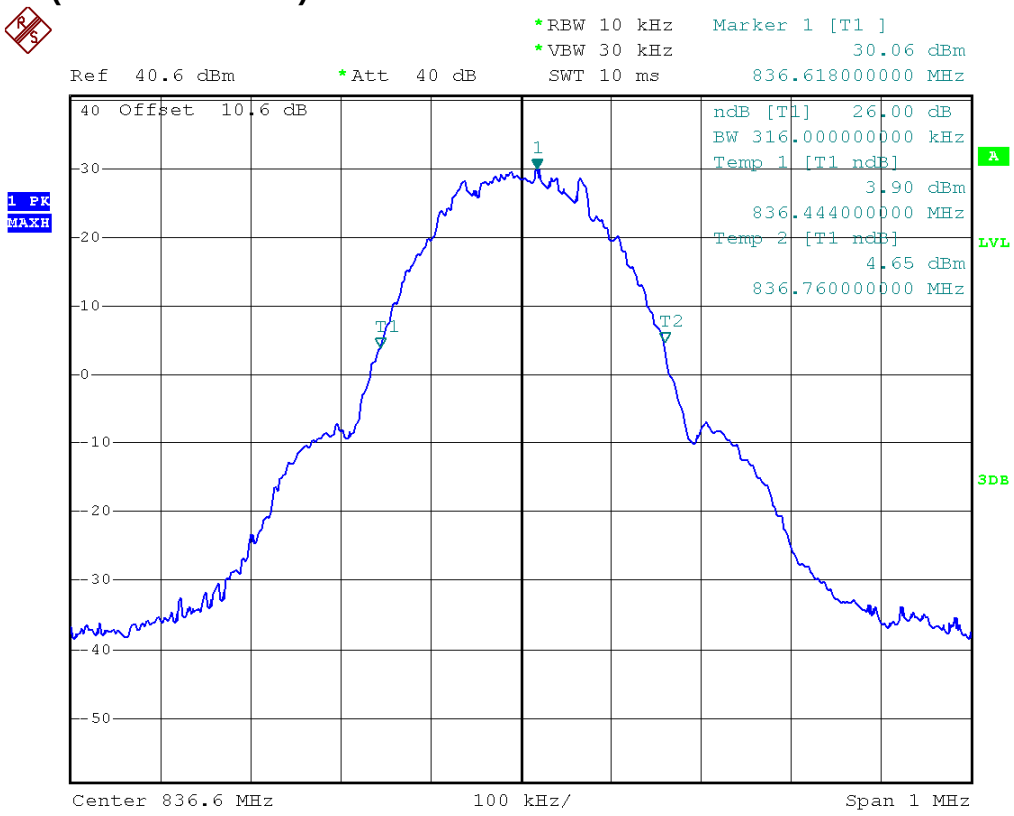
HSDPA 850 (99% bandwidth)



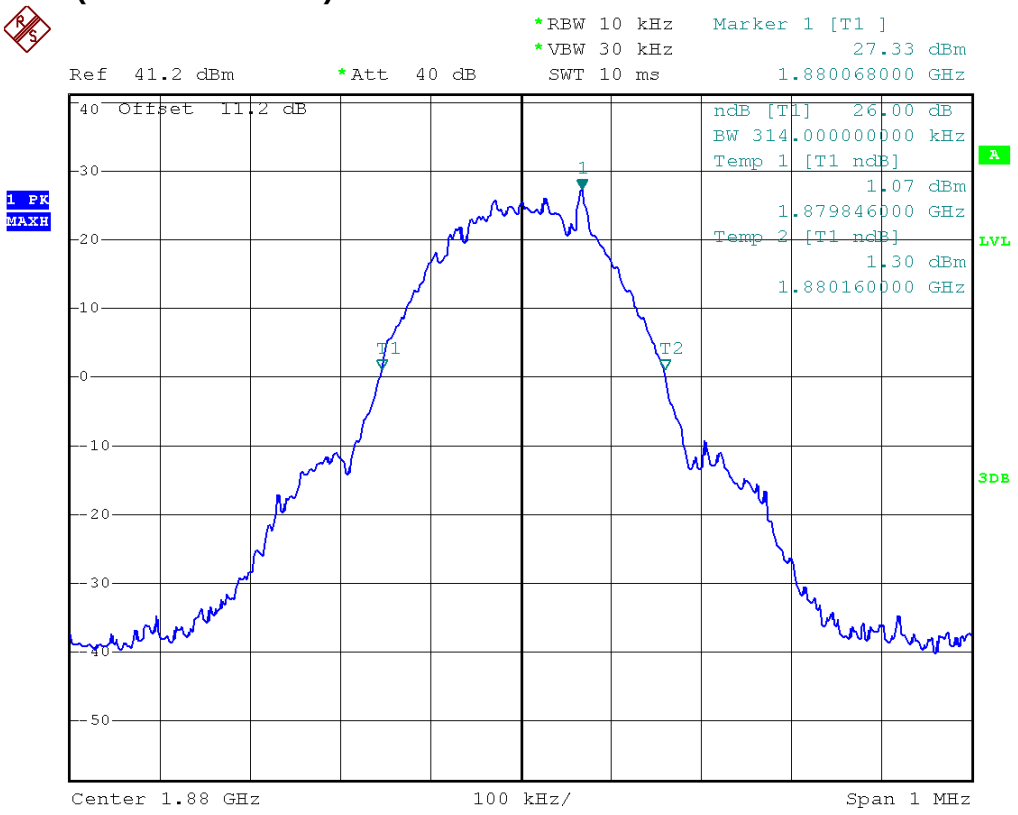
HSDPA 1900 (99% bandwidth)



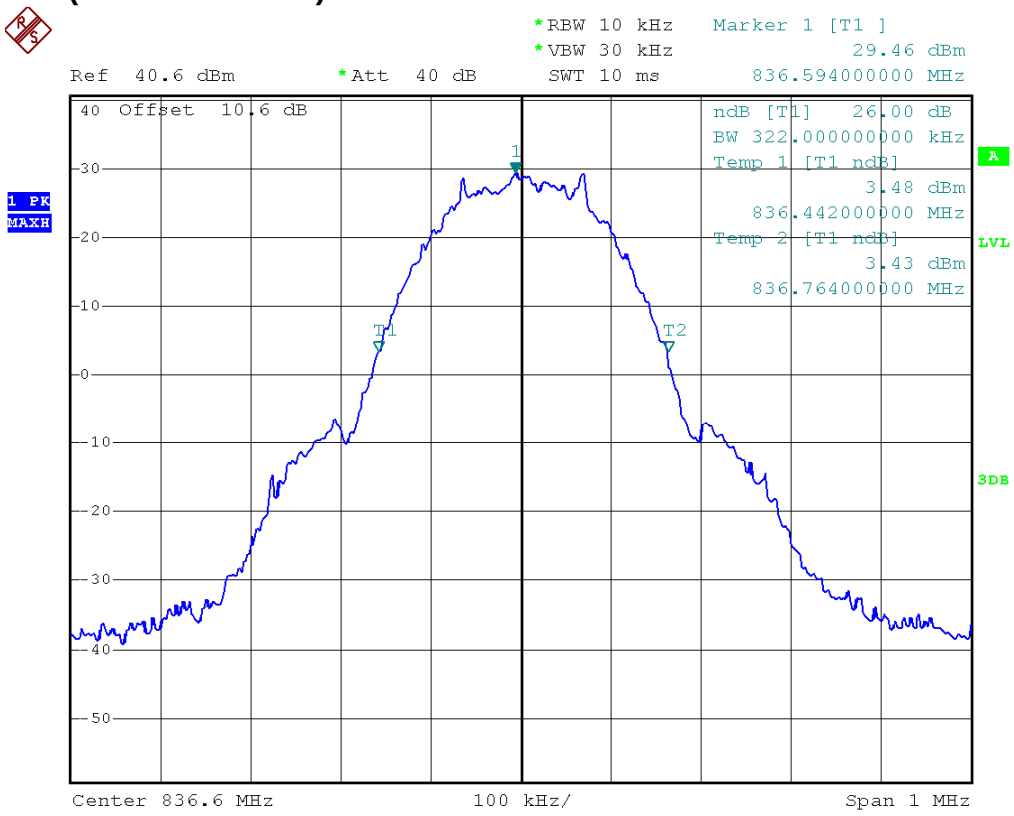
GSM 850 (26dB bandwidth)



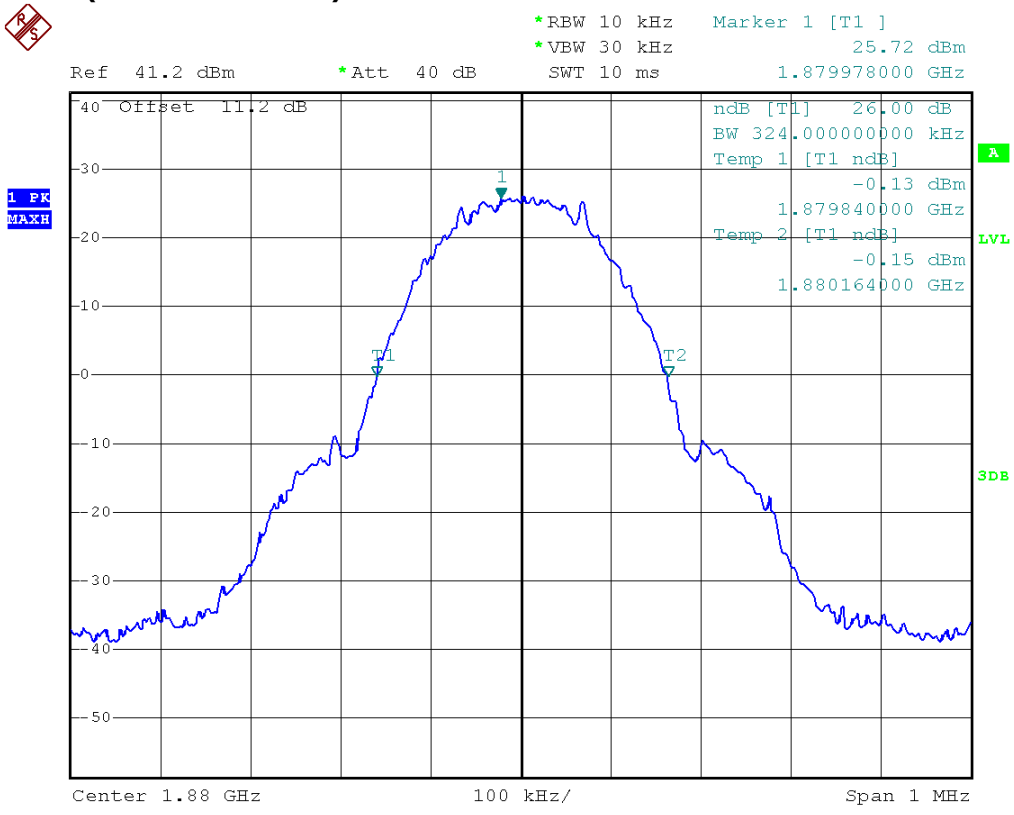
GSM 1900 (26dB bandwidth)



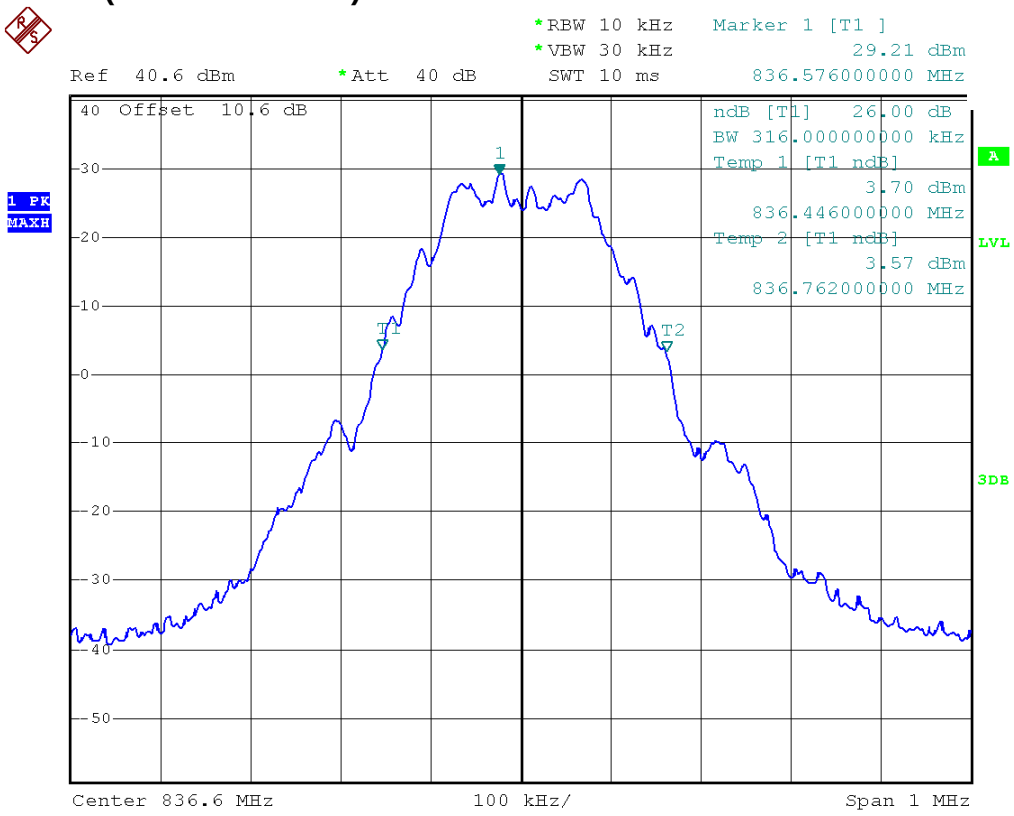
GPRS 850 (26dB bandwidth)



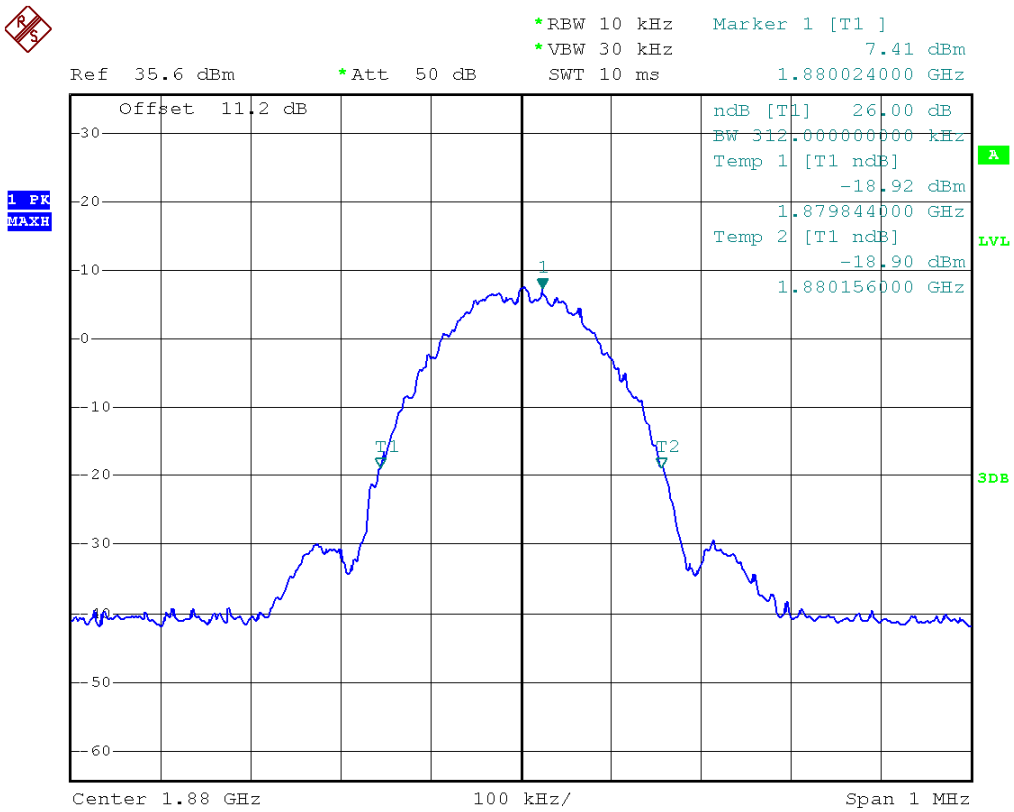
GPRS 1900 (26dB bandwidth)



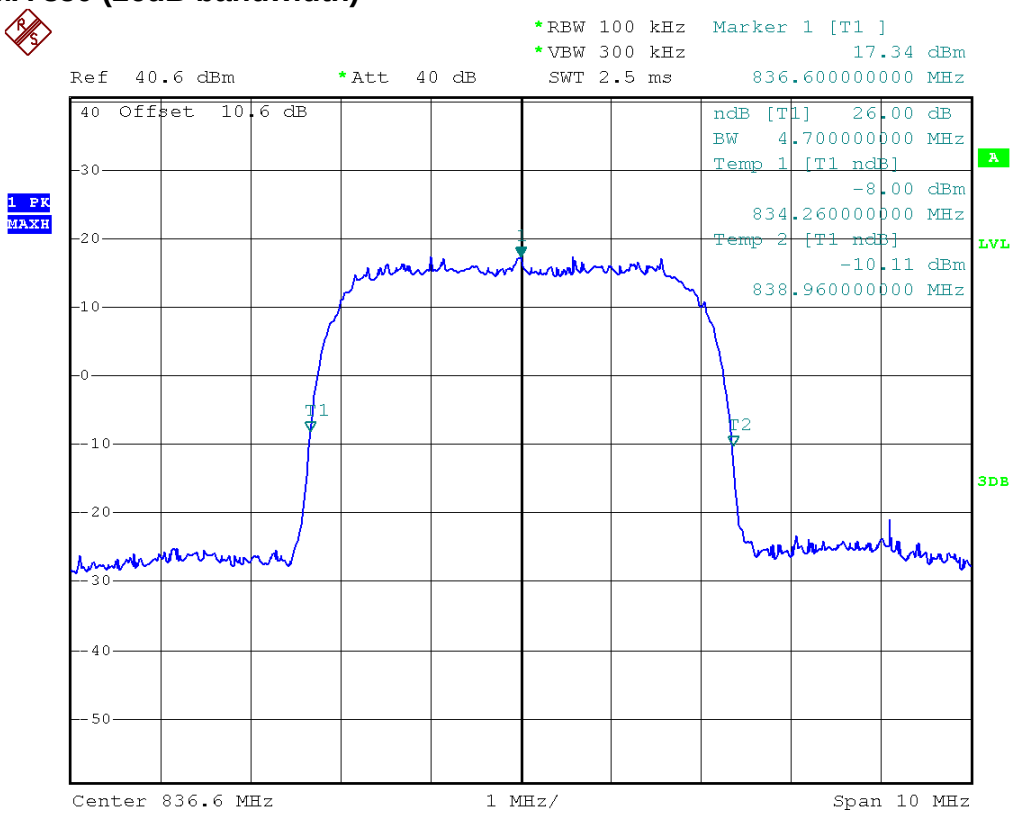
EGPRS 850 (26dB bandwidth)



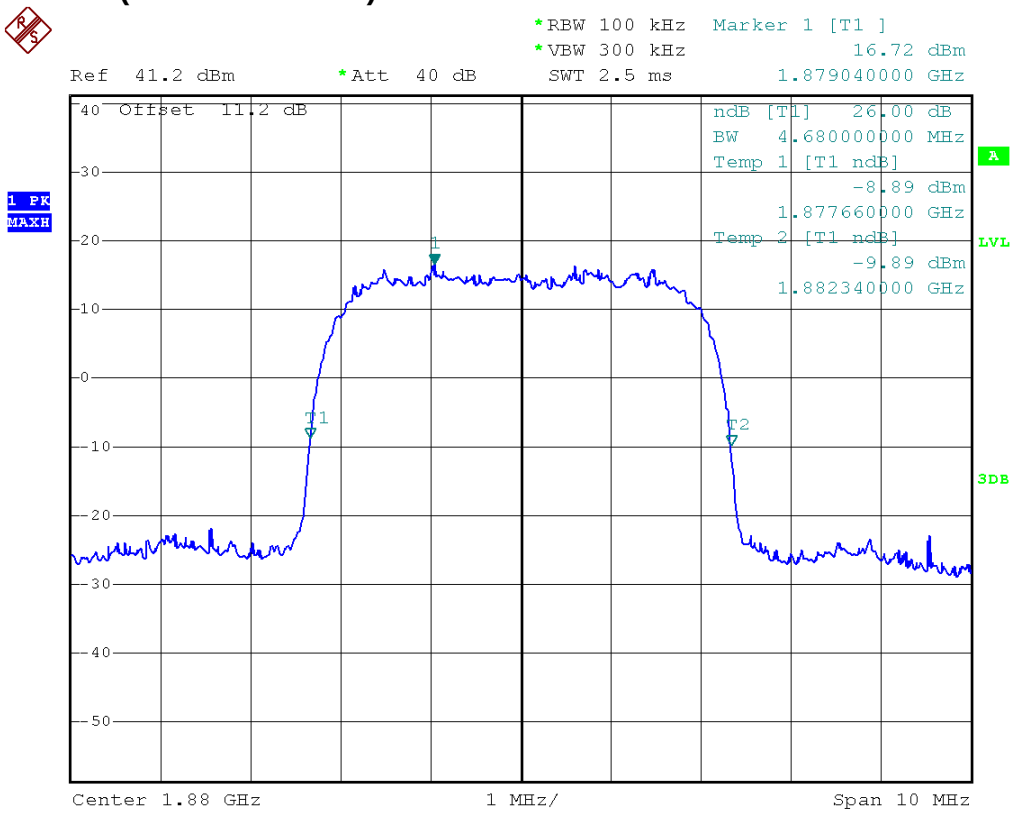
EGPRS 1900 (26dB bandwidth)



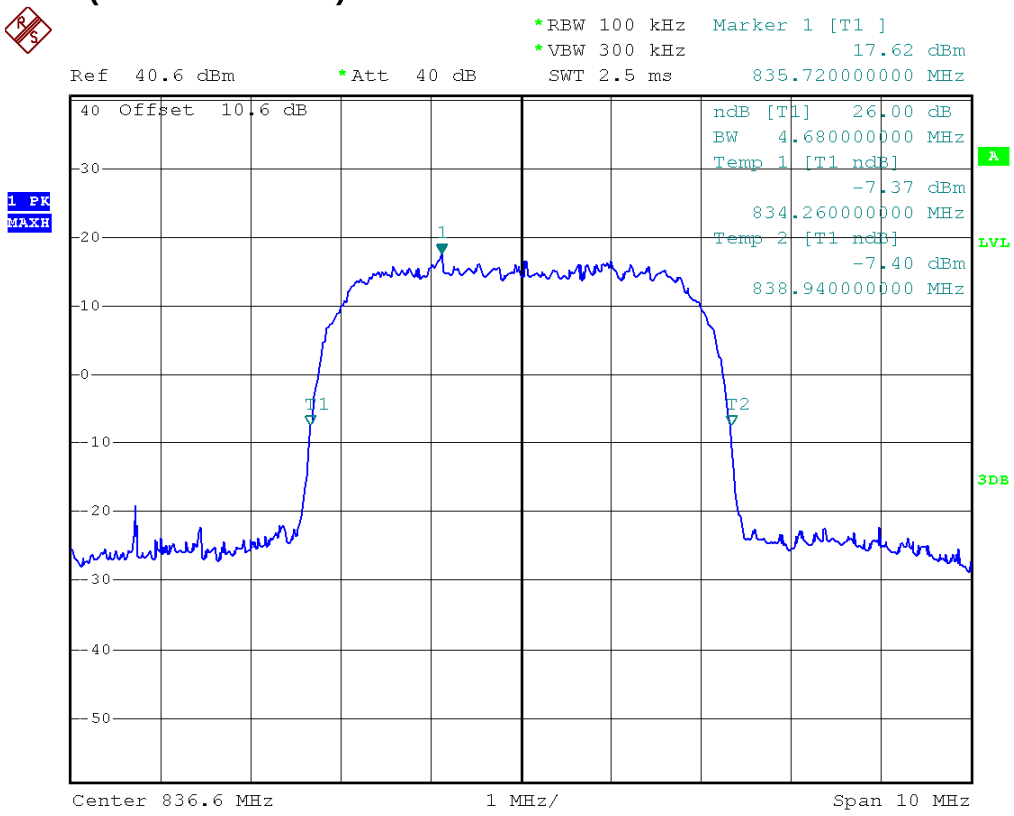
WCDMA 850 (26dB bandwidth)



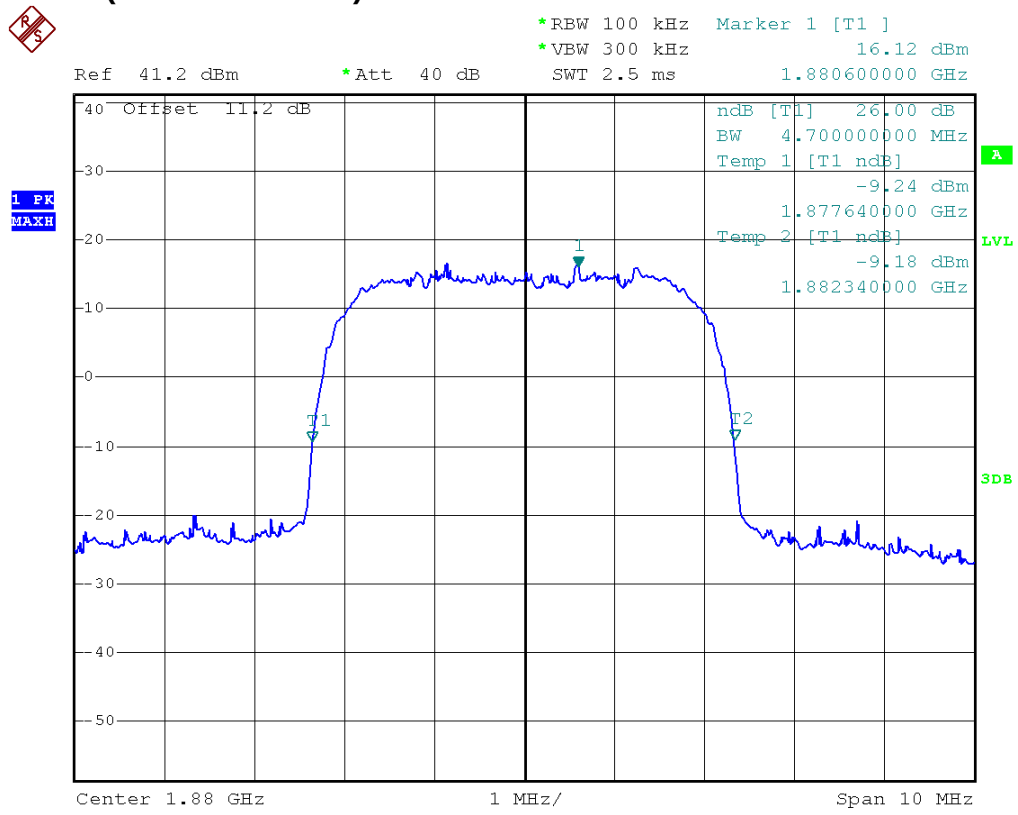
WCDMA 1900 (26dB bandwidth)



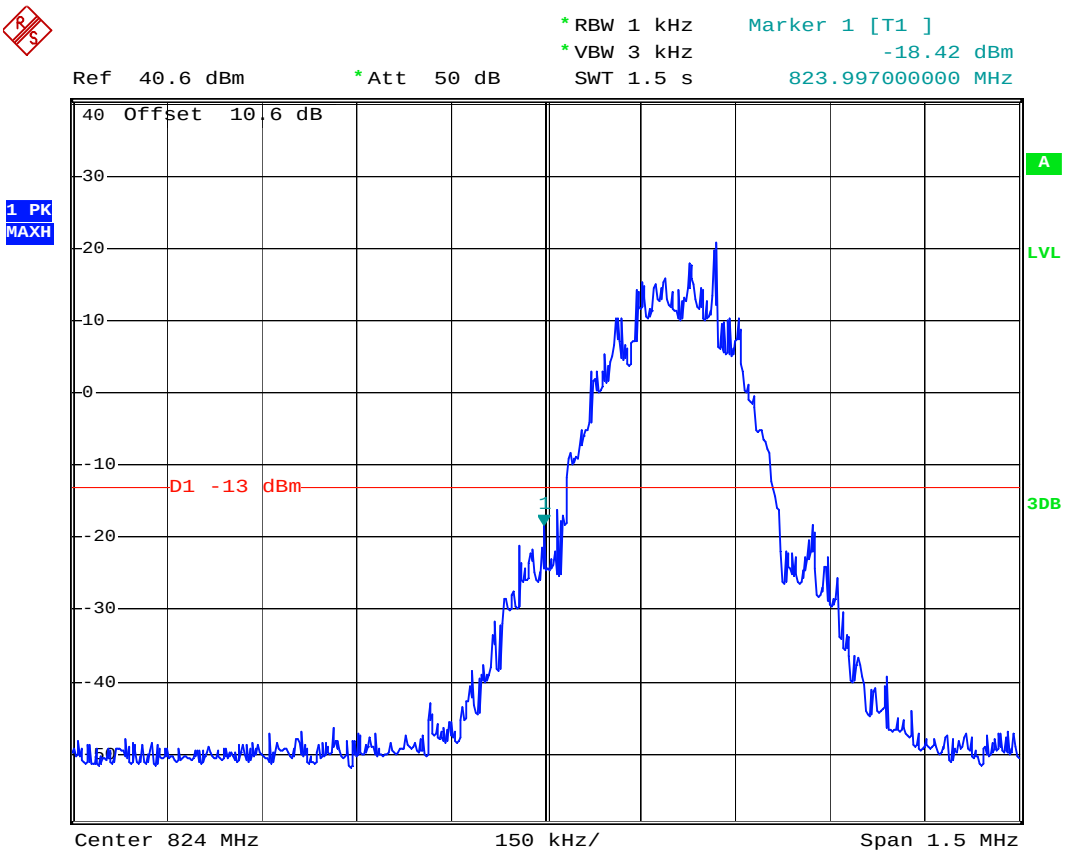
HSDPA 850 (26dB bandwidth)

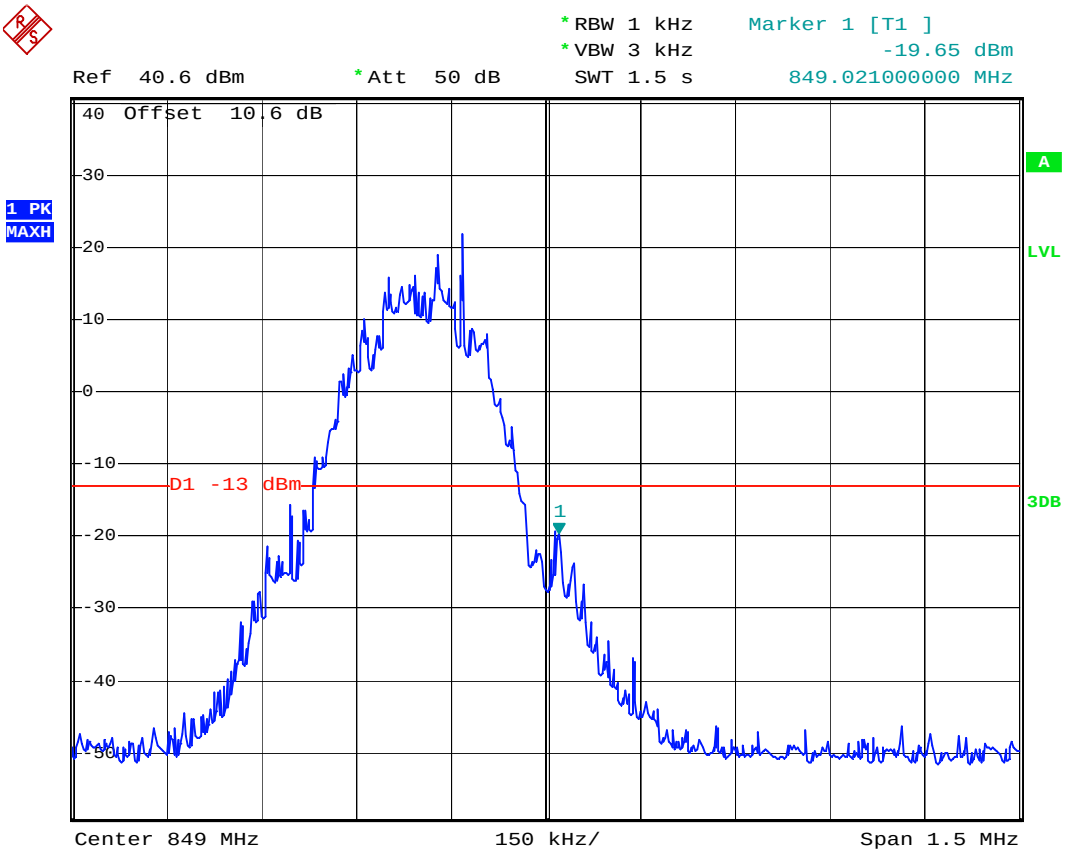


HSDPA 1900 (26dB bandwidth)

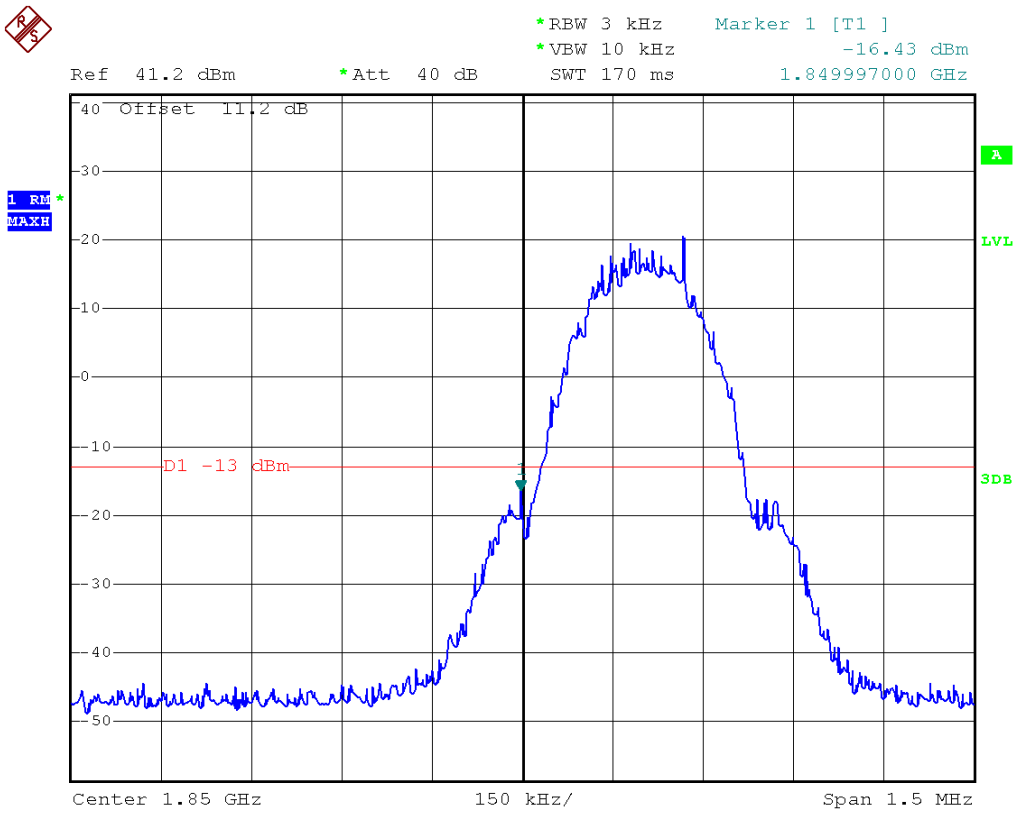


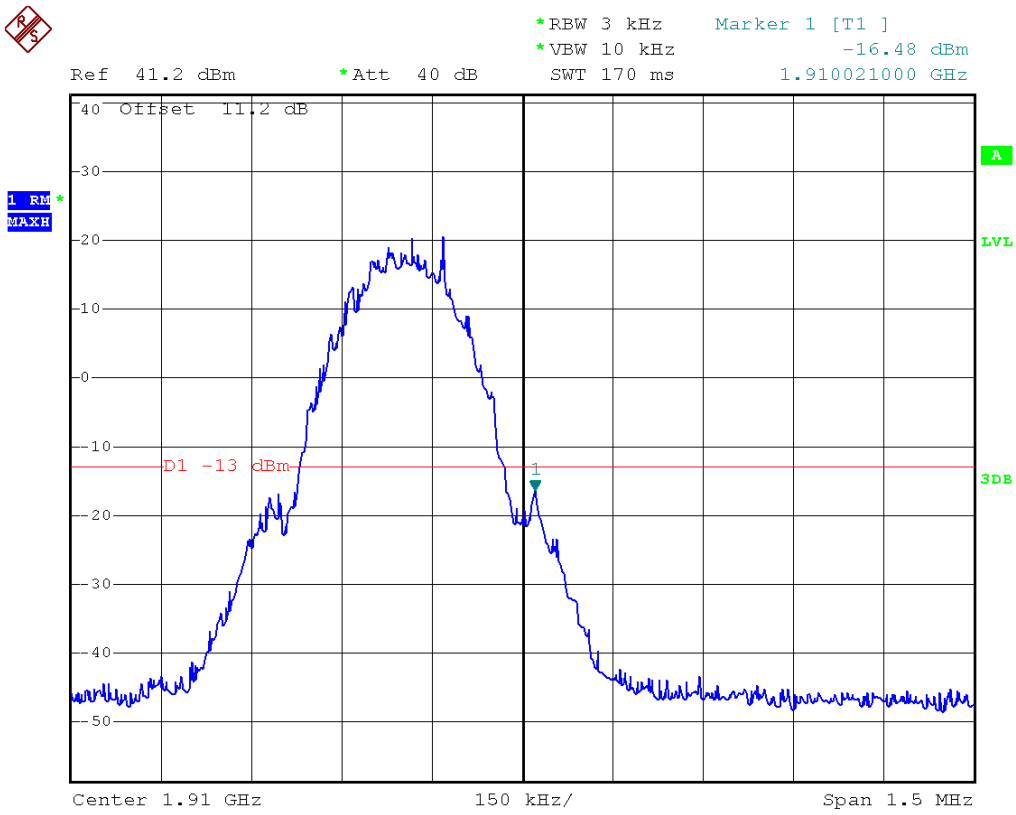
GSM 850


*RBW 1 kHz
*VBW 3 kHz
SWT 1.5 s
Marker 1 [T1]
-18.42 dBm
823.997000000 MHz
Ref 40.6 dBm
*Att 50 dB
40 Offset 10.6 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
30
20
10
0
-10
-20
-30
-40
-50
Center 824 MHz
150 kHz/
Span 1.5 MHz

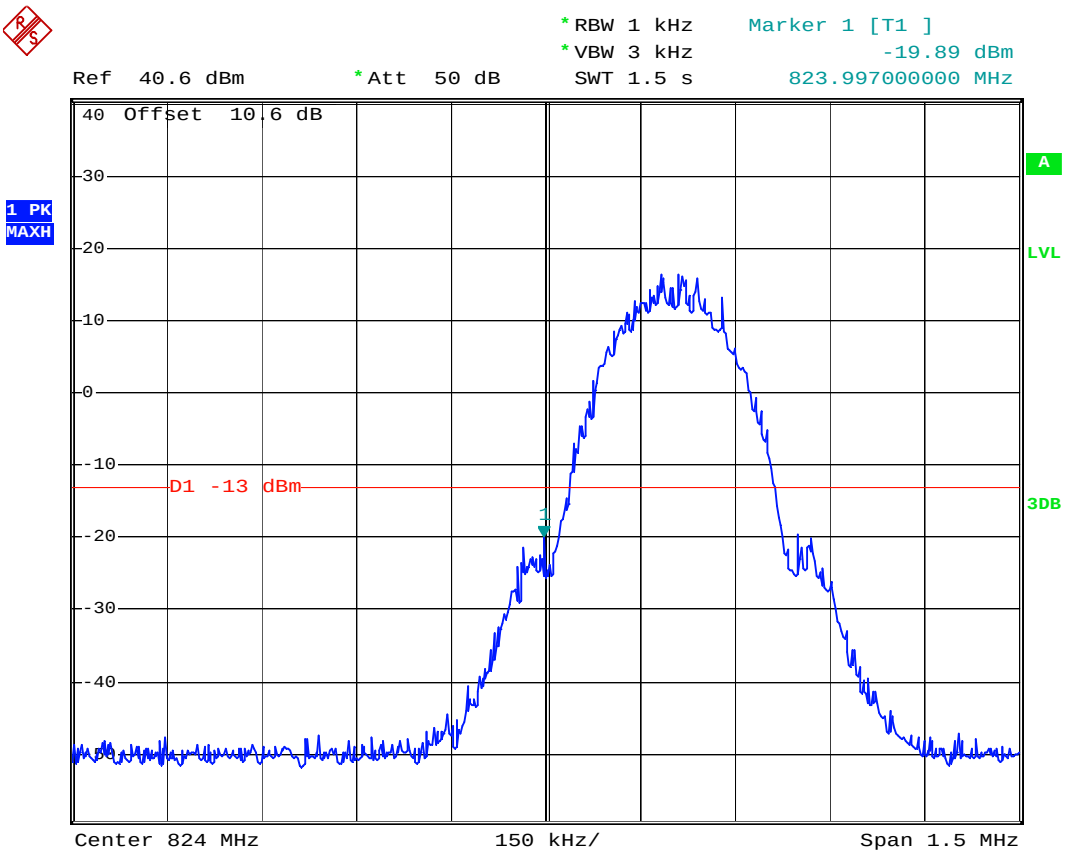

*RBW 1 kHz
*VBW 3 kHz
SWT 1.5 s
Marker 1 [T1]
-19.65 dBm
849.021000000 MHz
Ref 40.6 dBm
*Att 50 dB
40 Offset 10.6 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
30
20
10
0
-10
-20
-30
-40
-50
Center 849 MHz
150 kHz/
Span 1.5 MHz

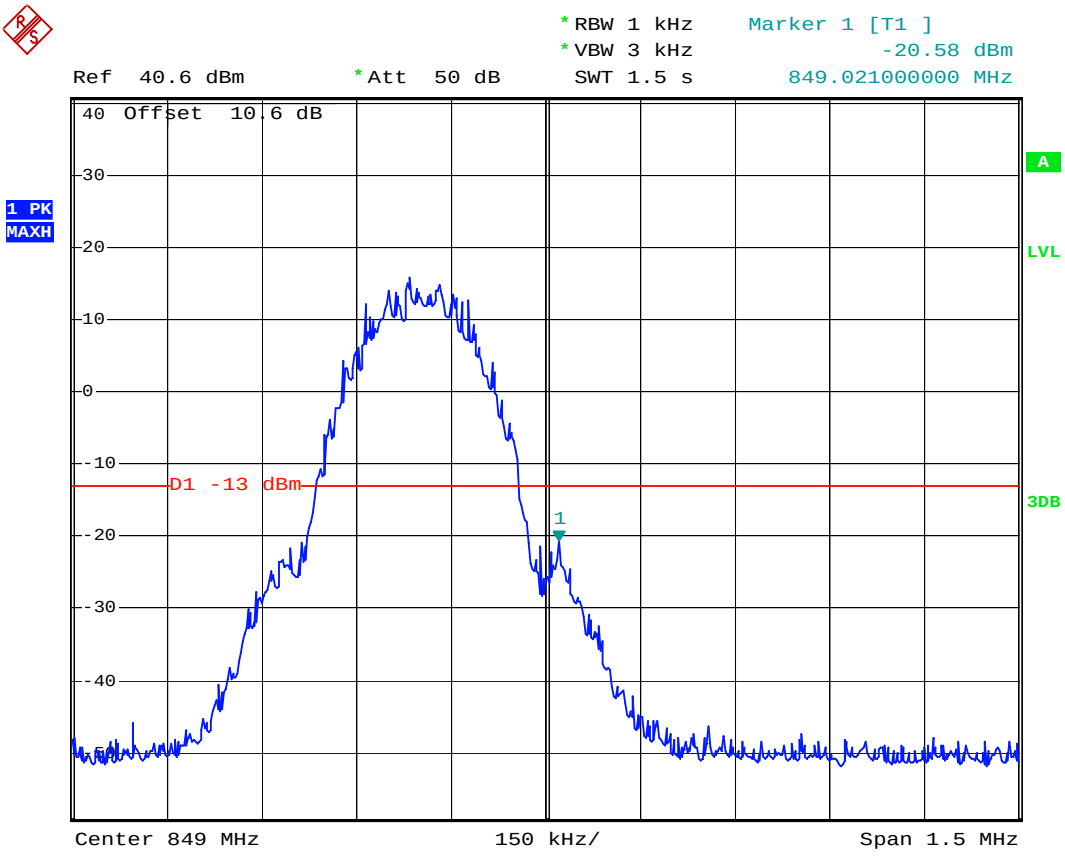
GSM 1900


*RBW 3 kHz
*VBW 10 kHz
SWT 170 ms
Marker 1 [T1]
-16.43 dBm
1.849997000 GHz
Ref 41.2 dBm
*Att 40 dB
Offset 11.2 dB
1 RM
MAXH
A
LVL
3DB
D1 -13 dBm
Center 1.85 GHz
150 kHz/
Span 1.5 MHz

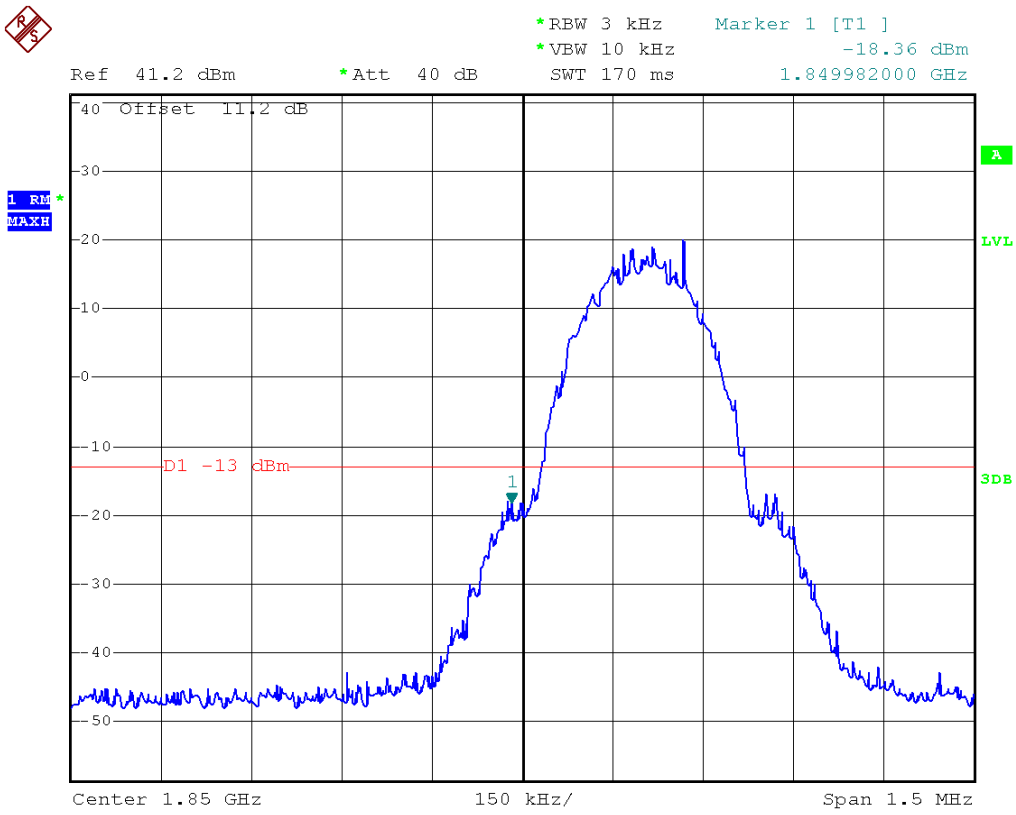

*RBW 3 kHz
*VBW 10 kHz
SWT 170 ms
Marker 1 [T1]
-16.48 dBm
1.910021000 GHz
Ref 41.2 dBm
*Att 40 dB
Offset 11.2 dB
1 RM
MAXH
A
LVL
3DB
D1 -13 dBm
Center 1.91 GHz
150 kHz/
Span 1.5 MHz

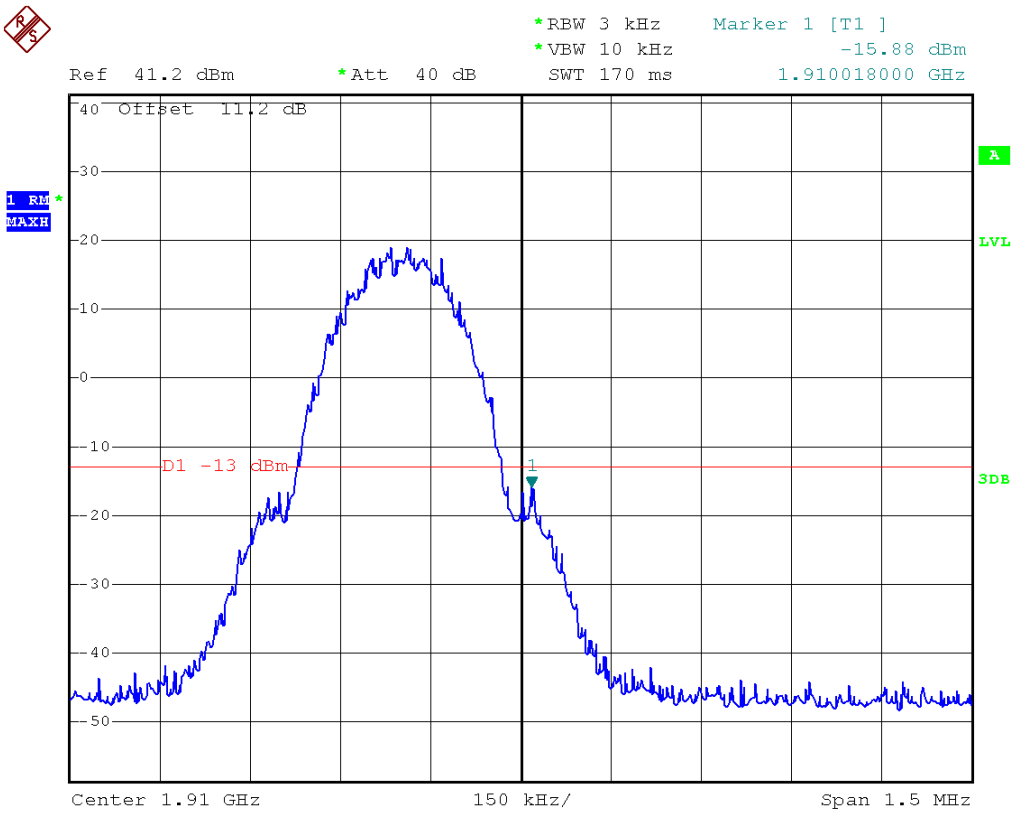
GPRS 850


*RBW 1 kHz
*VBW 3 kHz
SWT 1.5 s
Marker 1 [T1]
-19.89 dBm
823.997000000 MHz
Ref 40.6 dBm
*Att 50 dB
40 Offset 10.6 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Center 824 MHz
150 kHz/
Span 1.5 MHz

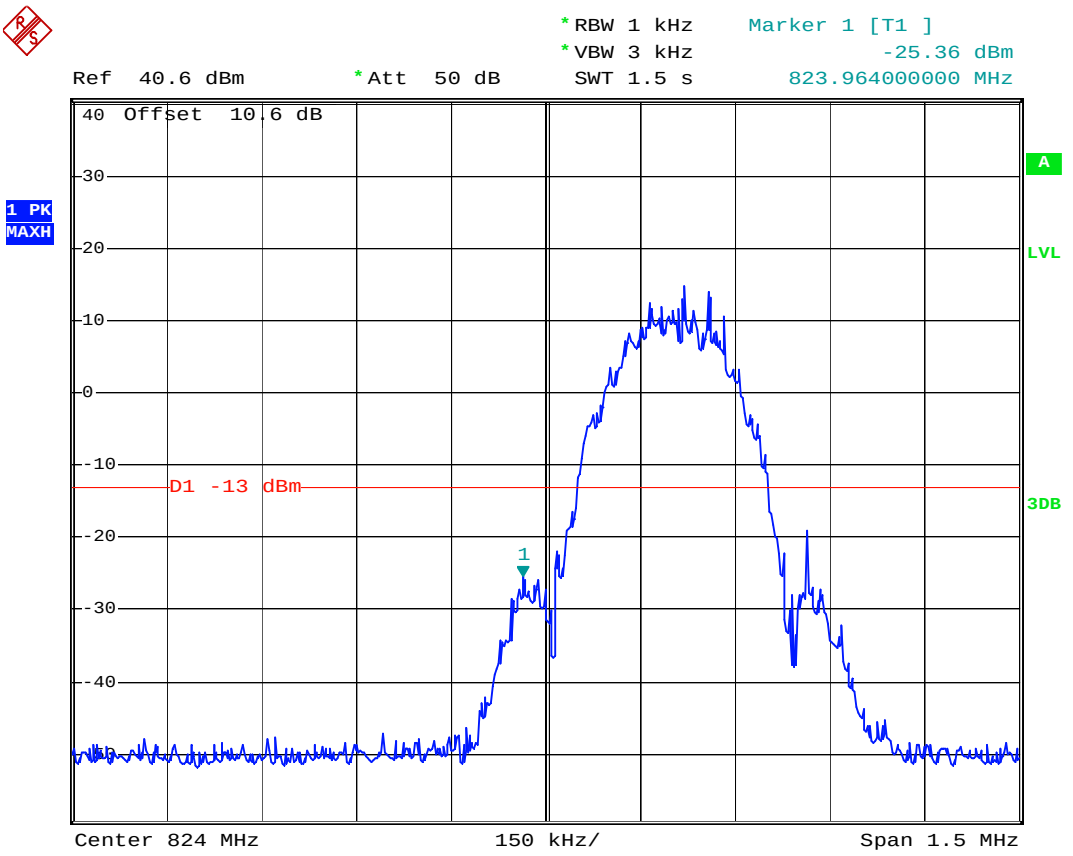

*RBW 1 kHz
*VBW 3 kHz
SWT 1.5 s
Marker 1 [T1]
-20.58 dBm
849.021000000 MHz
Ref 40.6 dBm
*Att 50 dB
40 Offset 10.6 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Center 849 MHz
150 kHz/
Span 1.5 MHz

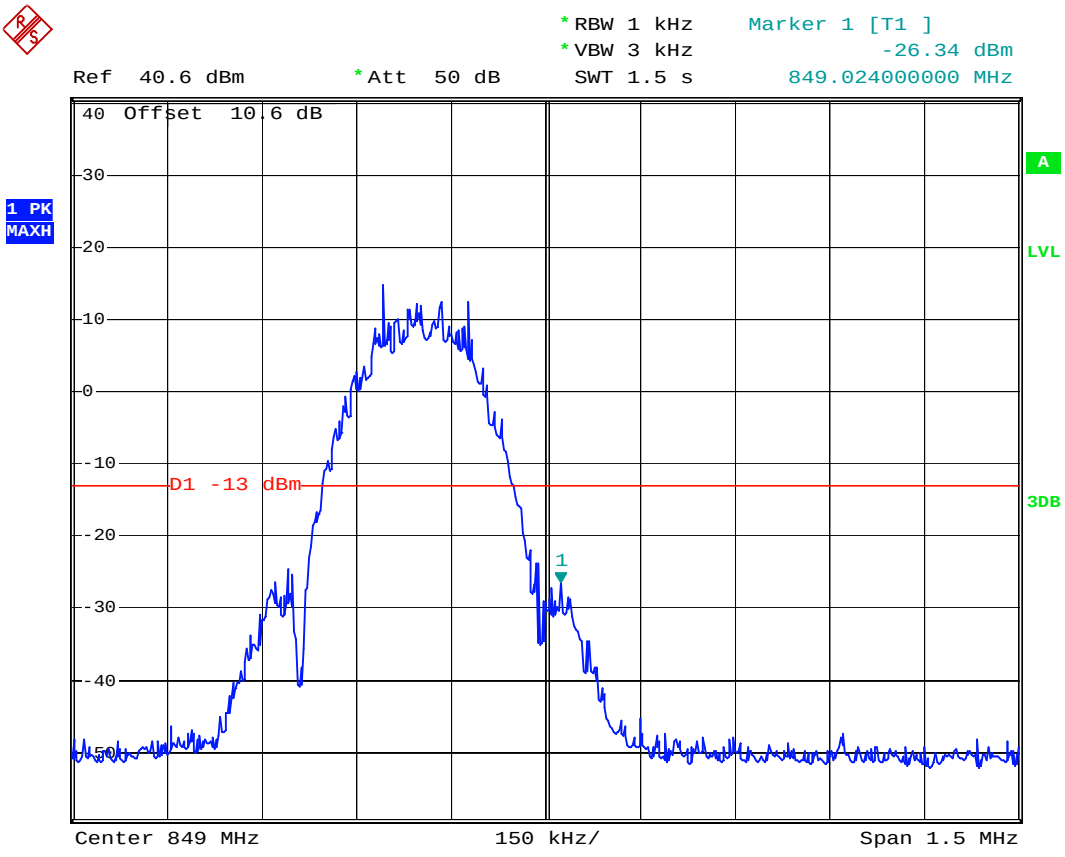
GPRS 1900


*RBW 3 kHz
*VBW 10 kHz
SWT 170 ms
Marker 1 [T1]
-18.36 dBm
1.849982000 GHz
Ref 41.2 dBm
*Att 40 dB
40 Offset 11.2 dB
1 RM *
MAXH
A
LVL
3DB
D1 -13 dBm
1
Center 1.85 GHz
150 kHz/
Span 1.5 MHz

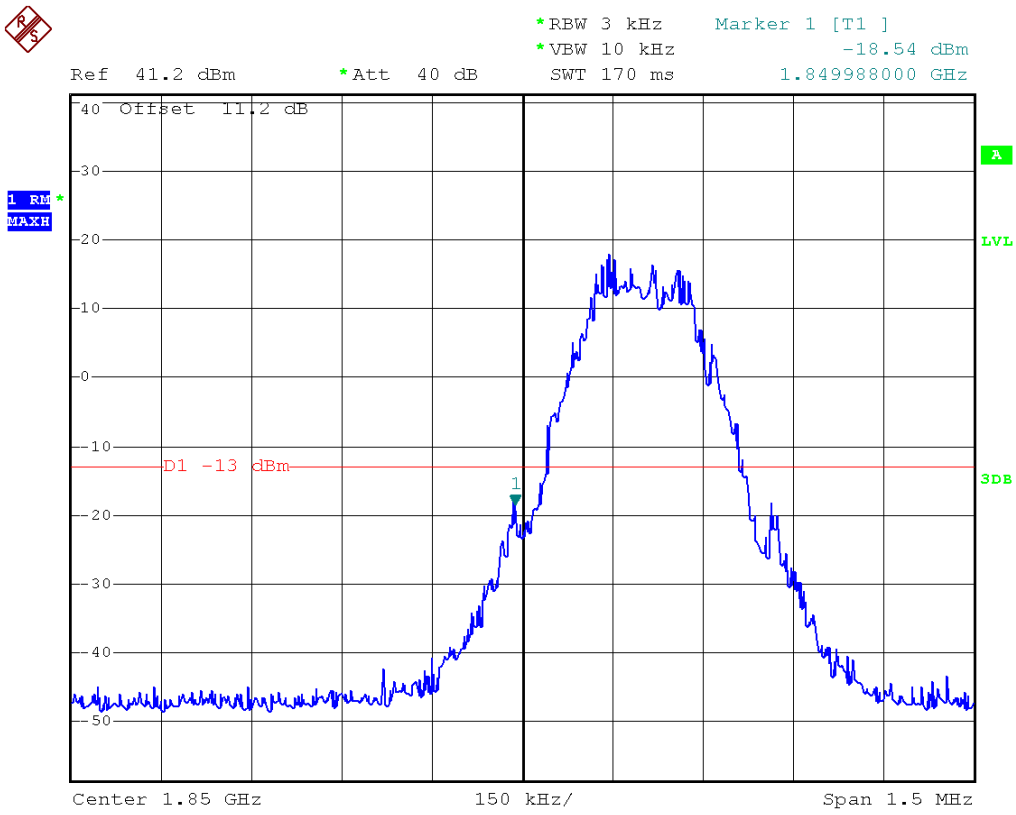

*RBW 3 kHz
*VBW 10 kHz
SWT 170 ms
Marker 1 [T1]
-15.88 dBm
1.910018000 GHz
Ref 41.2 dBm
*Att 40 dB
40 Offset 11.2 dB
1 RM *
MAXH
A
LVL
3DB
D1 -13 dBm
1
Center 1.91 GHz
150 kHz/
Span 1.5 MHz

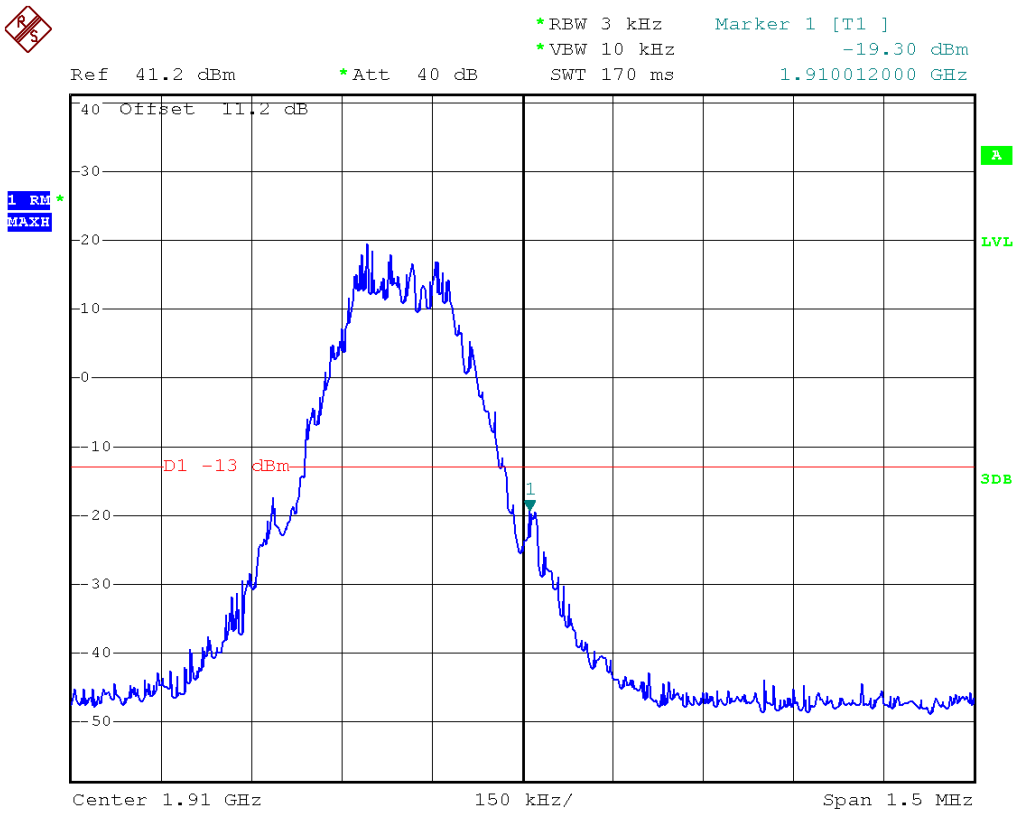
EGPRS 850


*RBW 1 kHz
*VBW 3 kHz
SWT 1.5 s
Marker 1 [T1]
-25.36 dBm
823.964000000 MHz
Ref 40.6 dBm
*Att 50 dB
40 Offset 10.6 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Center 824 MHz
150 kHz/
Span 1.5 MHz

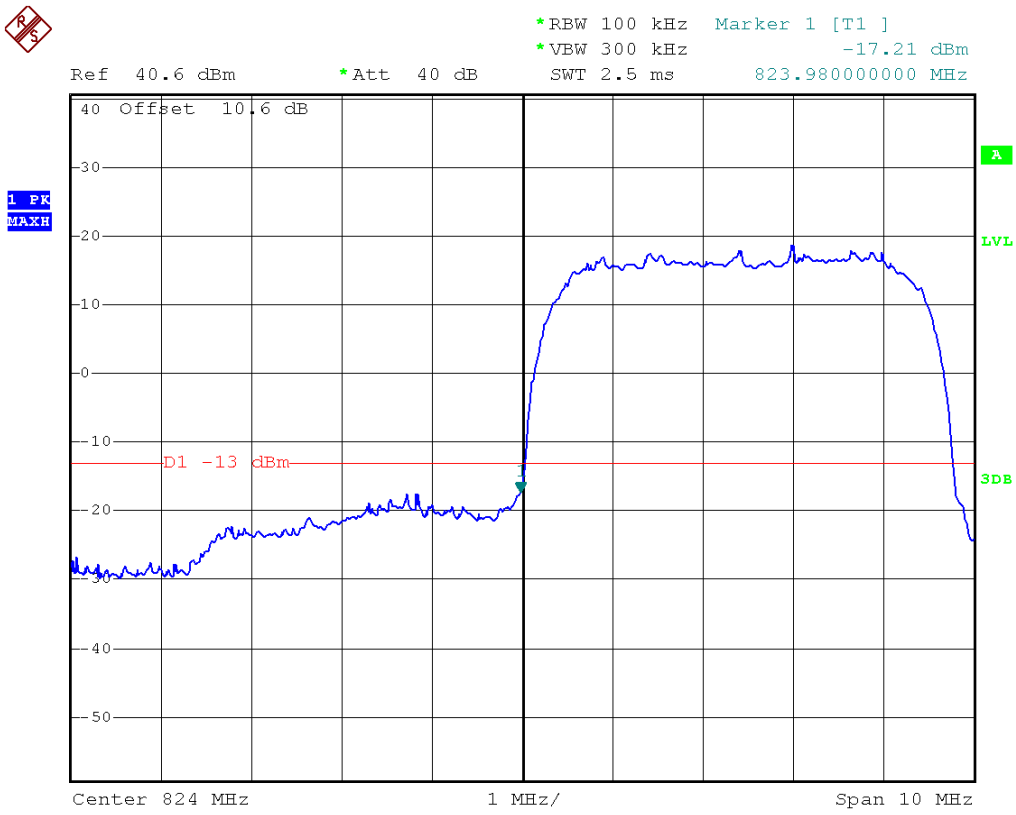

*RBW 1 kHz
*VBW 3 kHz
SWT 1.5 s
Marker 1 [T1]
-26.34 dBm
849.024000000 MHz
Ref 40.6 dBm
*Att 50 dB
40 Offset 10.6 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Center 849 MHz
150 kHz/
Span 1.5 MHz

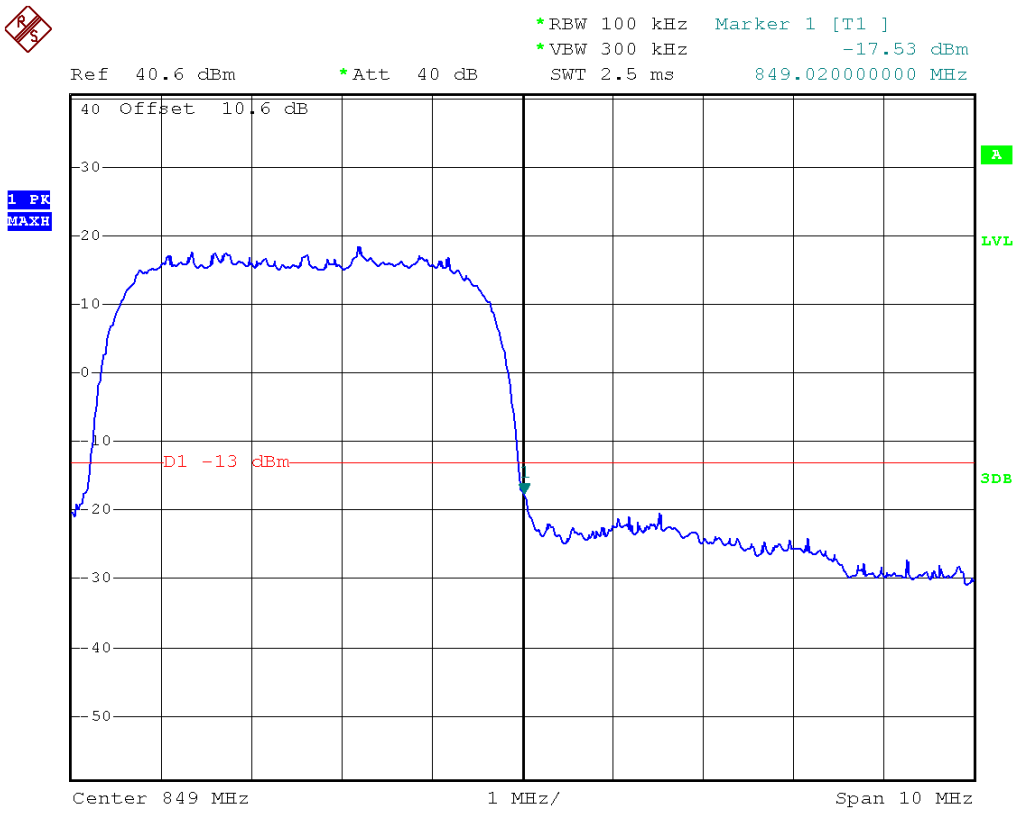
EGPRS 1900


*RBW 3 kHz
*VBW 10 kHz
SWT 170 ms
Marker 1 [T1]
-18.54 dBm
1.849988000 GHz
Ref 41.2 dBm
*Att 40 dB
Offset 11.2 dB
1 RM
MAXH
A
LVL
3DB
D1 -13 dBm
Center 1.85 GHz
150 kHz/
Span 1.5 MHz

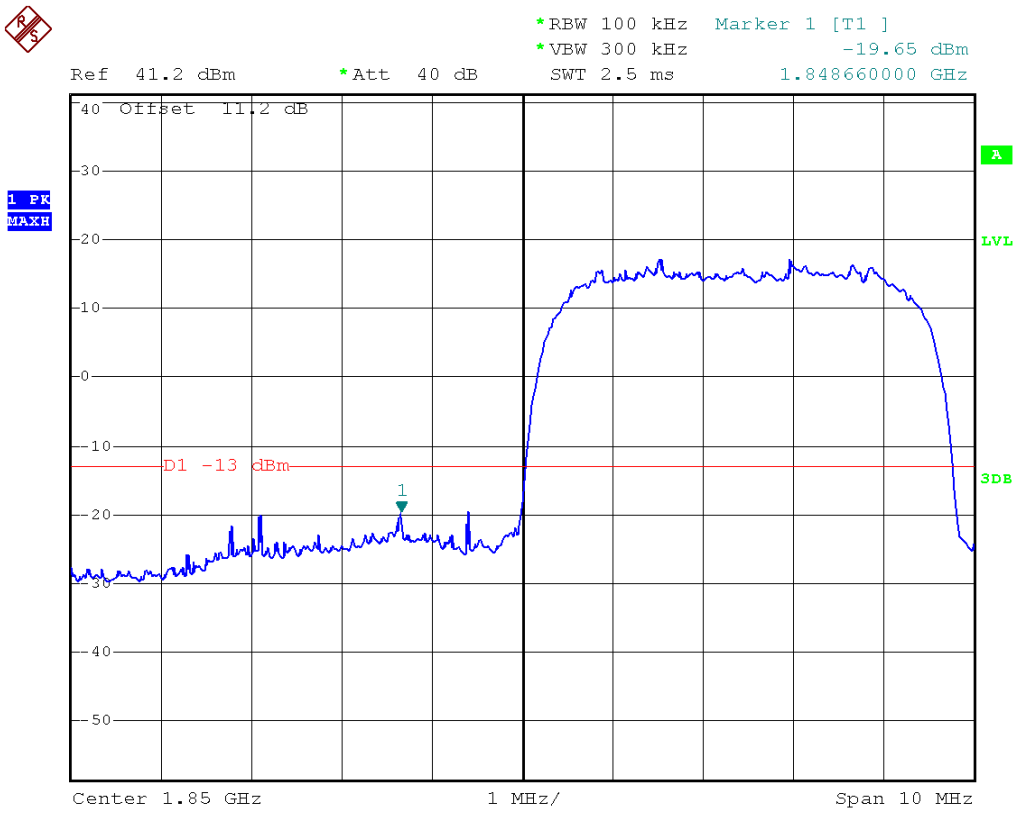

*RBW 3 kHz
*VBW 10 kHz
SWT 170 ms
Marker 1 [T1]
-19.30 dBm
1.910012000 GHz
Ref 41.2 dBm
*Att 40 dB
Offset 11.2 dB
1 RM
MAXH
A
LVL
3DB
D1 -13 dBm
Center 1.91 GHz
150 kHz/
Span 1.5 MHz

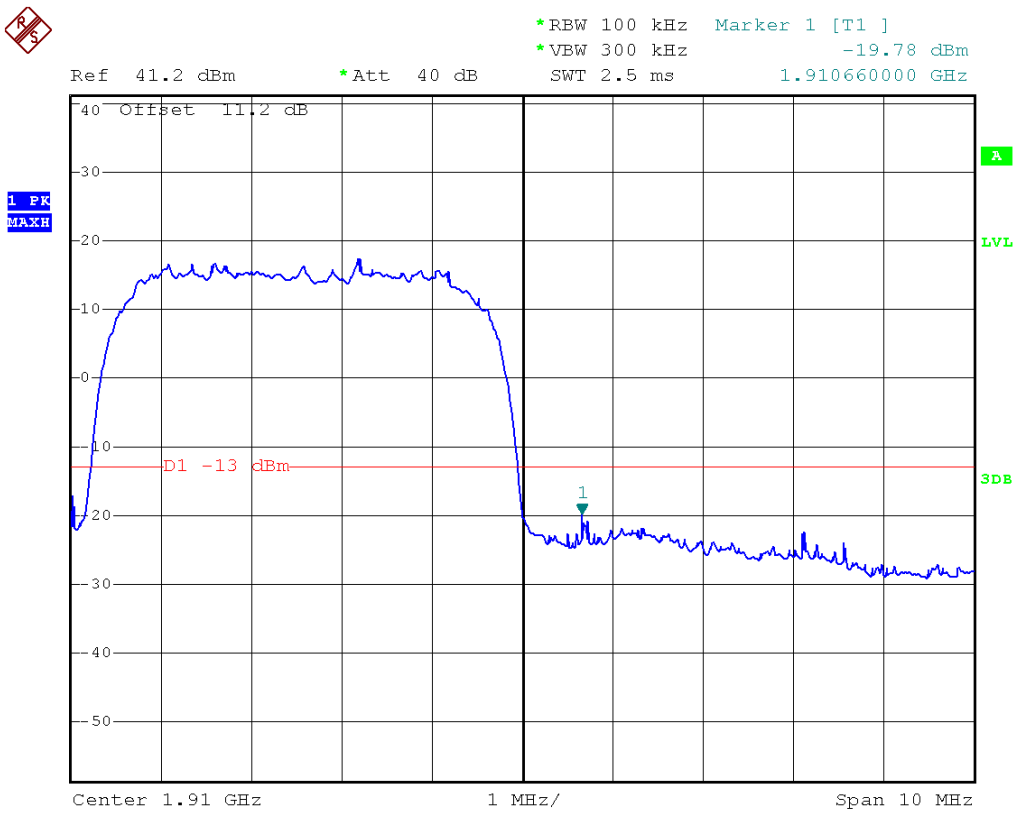
WCDMA 850


*RBW 100 kHz
Marker 1 [T1]
*VBW 300 kHz
-17.21 dBm
Ref 40.6 dBm
*Att 40 dB
SWT 2.5 ms
823.980000000 MHz
40 Offset 10.6 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Center 824 MHz
1 MHz/
Span 10 MHz

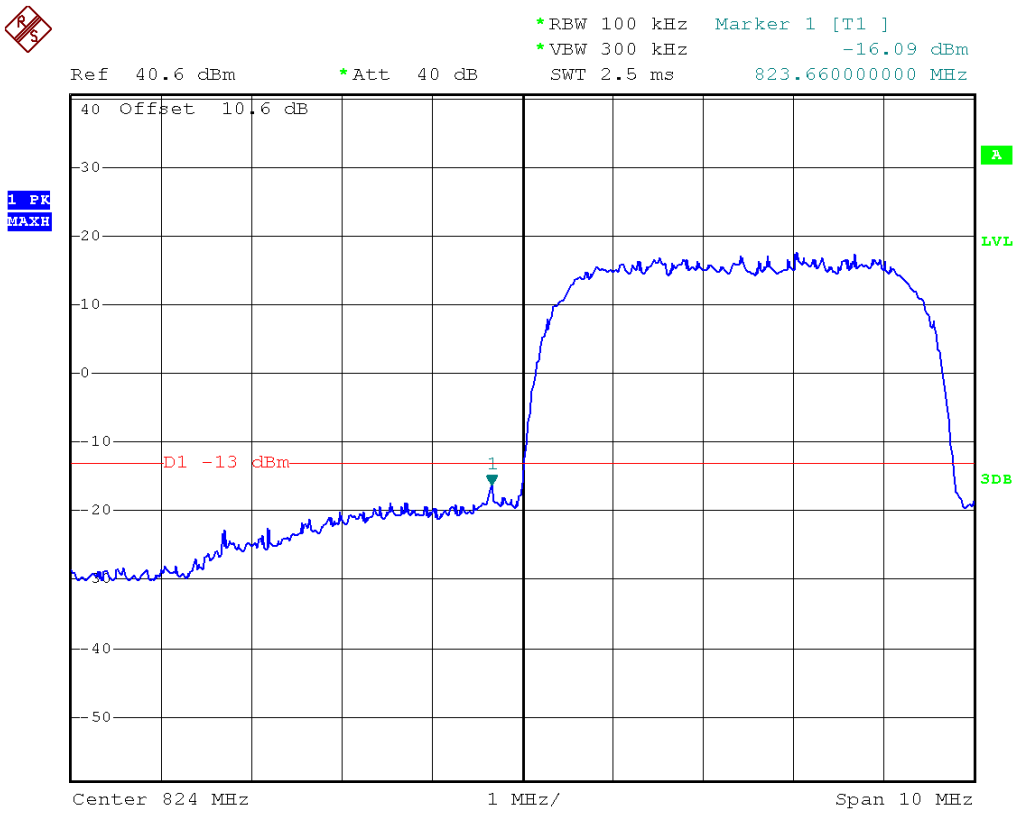

*RBW 100 kHz
Marker 1 [T1]
*VBW 300 kHz
-17.53 dBm
Ref 40.6 dBm
*Att 40 dB
SWT 2.5 ms
849.020000000 MHz
40 Offset 10.6 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Center 849 MHz
1 MHz/
Span 10 MHz

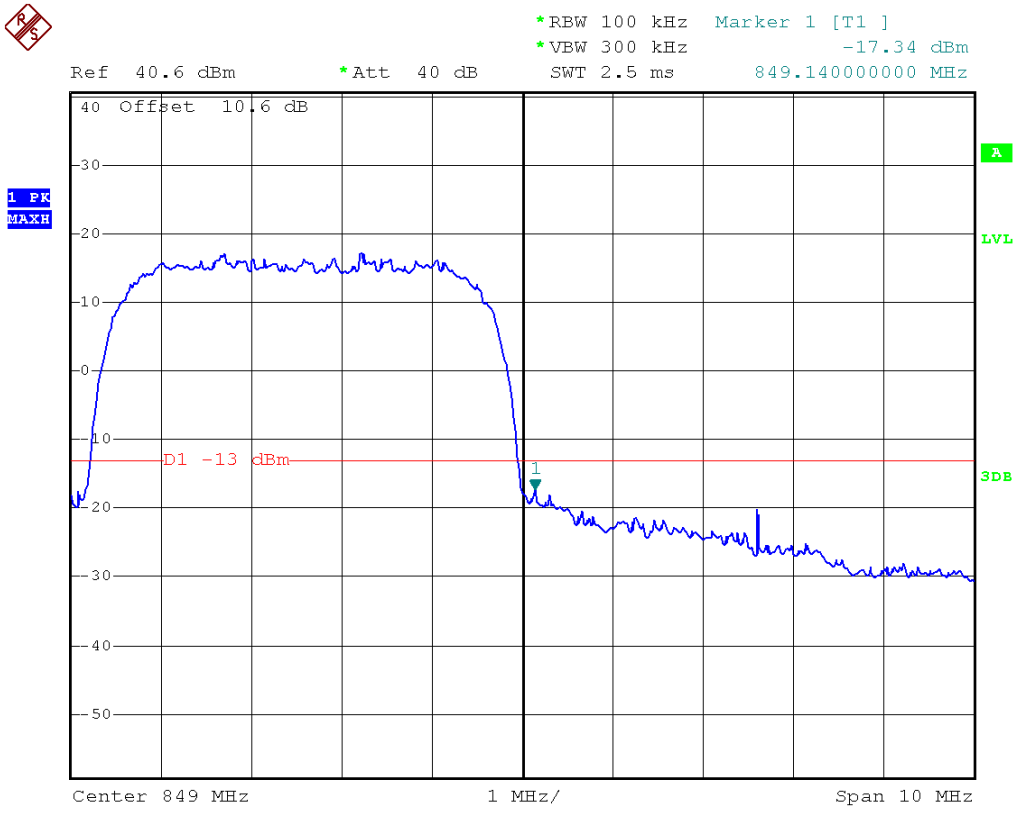
WCDMA 1900


*RBW 100 kHz
Marker 1 [T1]
*VBW 300 kHz
-19.65 dBm
Ref 41.2 dBm
*Att 40 dB
SWT 2.5 ms
1.848660000 GHz
Offset 11.2 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Center 1.85 GHz
1 MHz/
Span 10 MHz

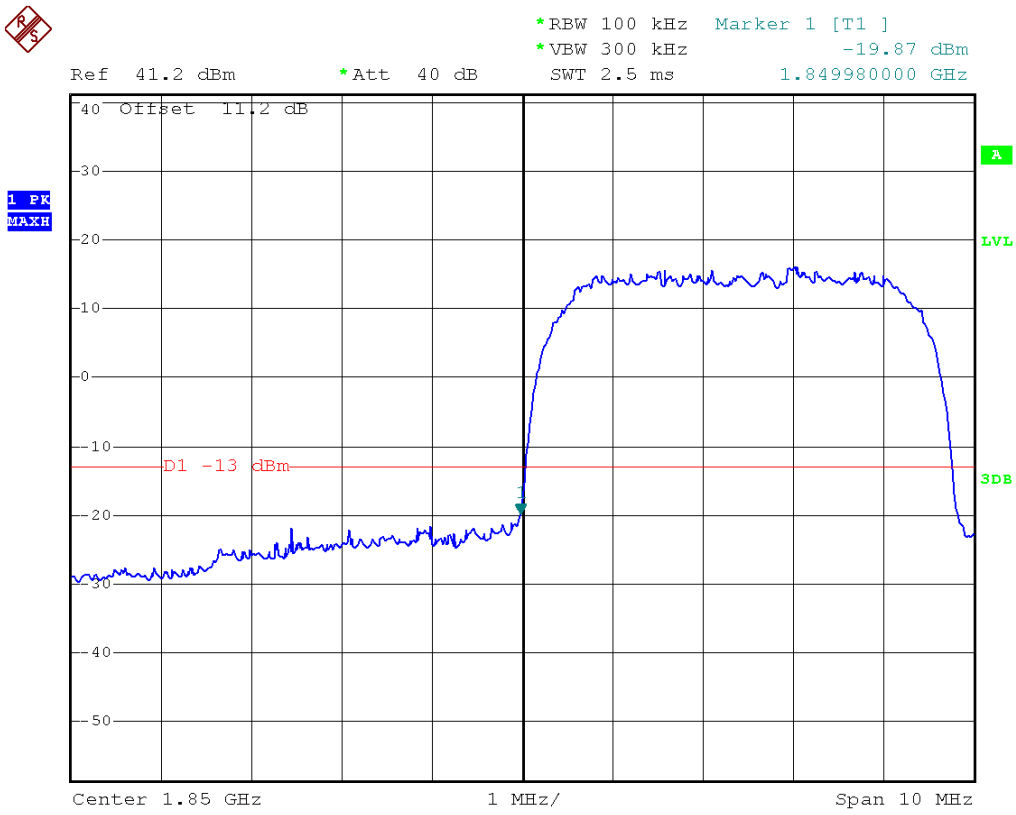

*RBW 100 kHz
Marker 1 [T1]
*VBW 300 kHz
-19.78 dBm
Ref 41.2 dBm
*Att 40 dB
SWT 2.5 ms
1.910660000 GHz
Offset 11.2 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Center 1.91 GHz
1 MHz/
Span 10 MHz

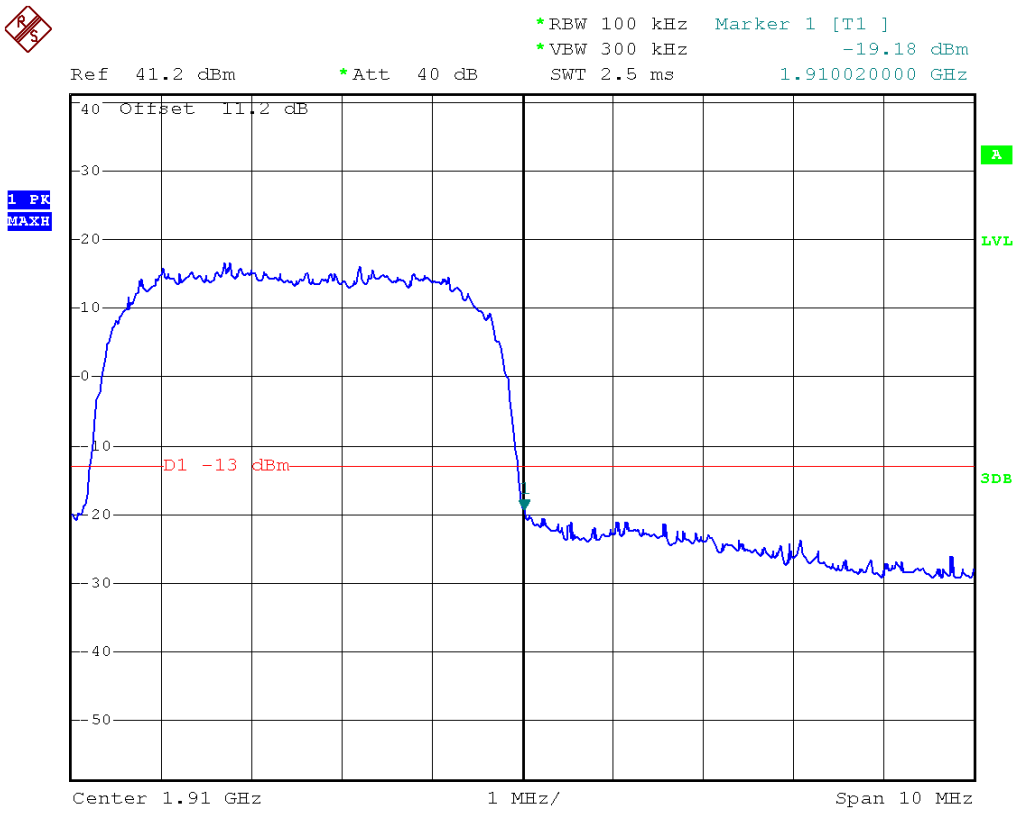
HSDPA 850


*RBW 100 kHz
*VBW 300 kHz
SWT 2.5 ms
Marker 1 [T1]
-16.09 dBm
823.660000000 MHz
Ref 40.6 dBm
*Att 40 dB
Offset 10.6 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Center 824 MHz
1 MHz/
Span 10 MHz

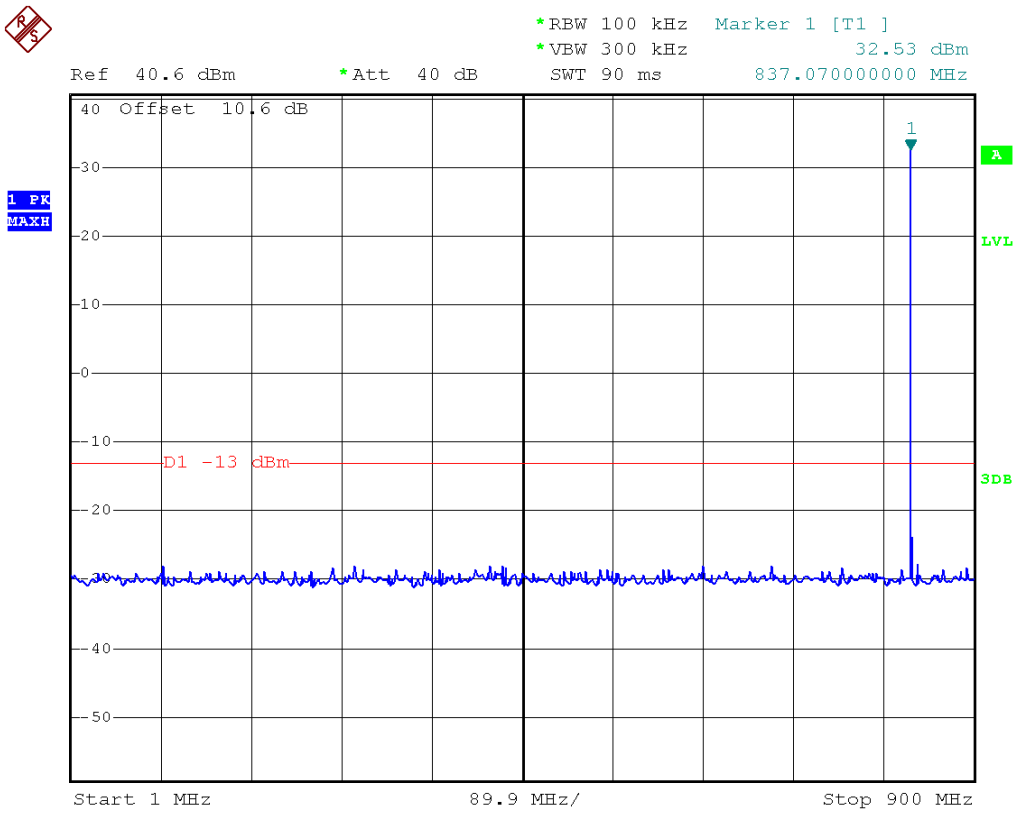

*RBW 100 kHz
*VBW 300 kHz
SWT 2.5 ms
Marker 1 [T1]
-17.34 dBm
849.140000000 MHz
Ref 40.6 dBm
*Att 40 dB
Offset 10.6 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Center 849 MHz
1 MHz/
Span 10 MHz

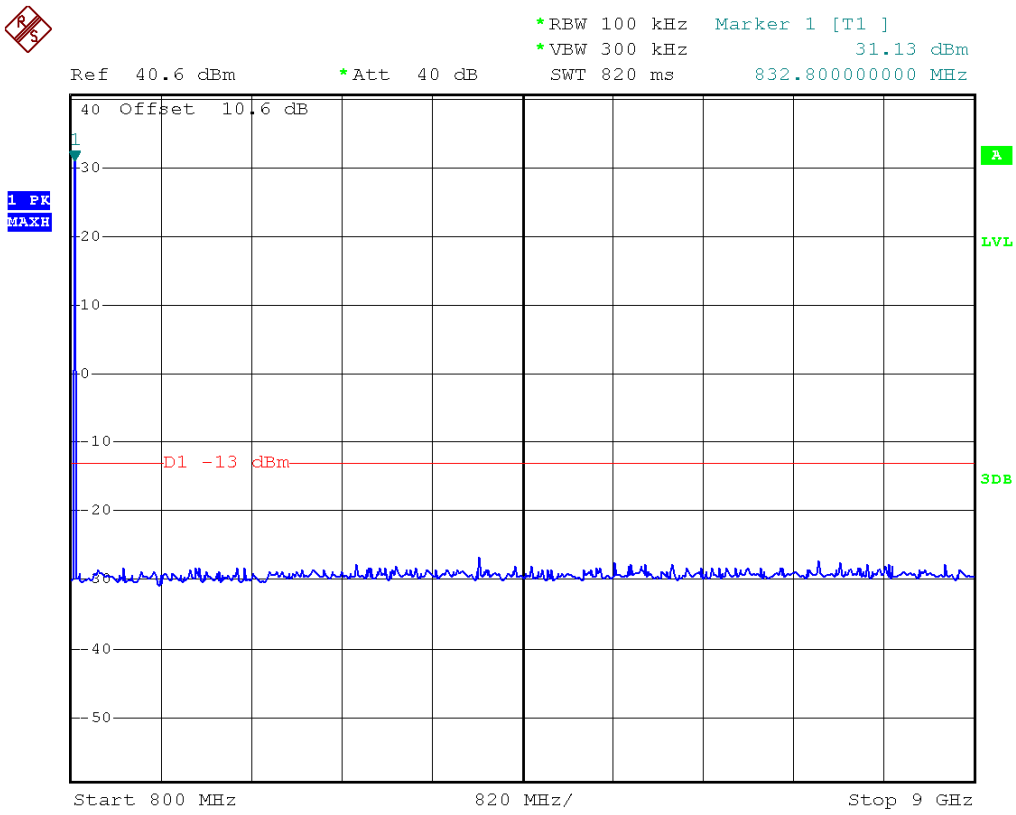
HSDPA 1900


*RBW 100 kHz
Marker 1 [T1]
*VBW 300 kHz
-19.87 dBm
Ref 41.2 dBm
*Att 40 dB
SWT 2.5 ms
1.849980000 GHz
Offset 11.2 dB
1 PK MAXH
A
LVL
3DB
D1 -13 dBm
Center 1.85 GHz
1 MHz/
Span 10 MHz

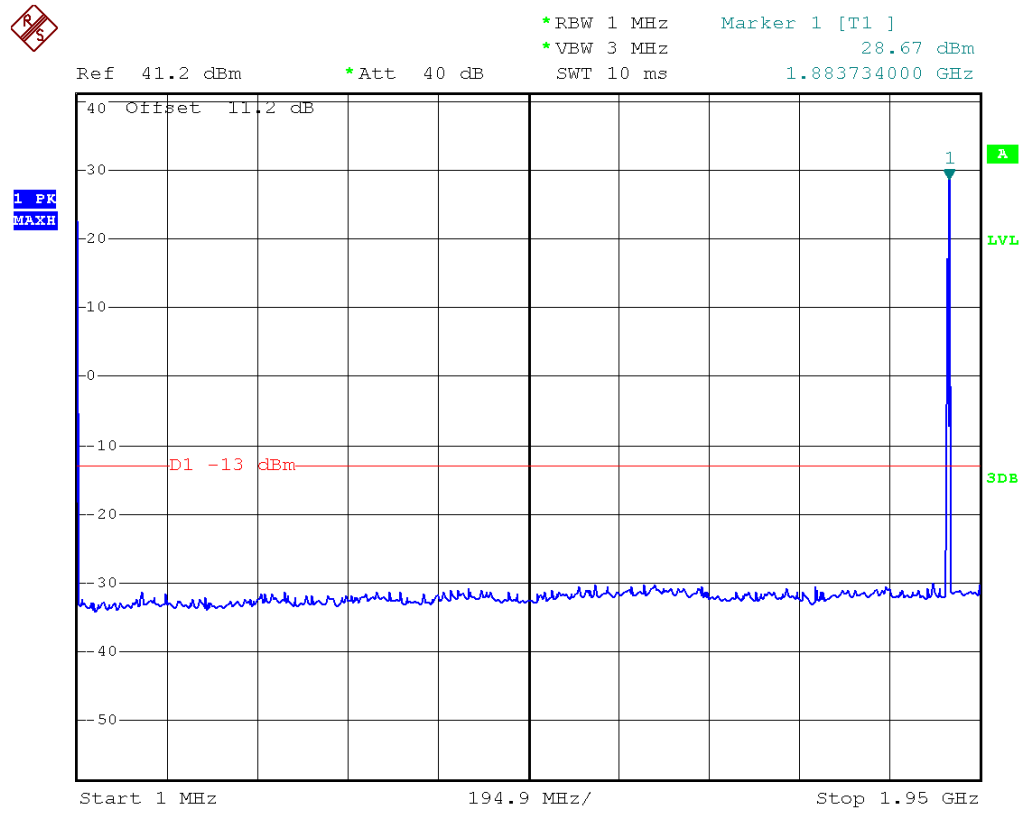

*RBW 100 kHz
Marker 1 [T1]
*VBW 300 kHz
-19.18 dBm
Ref 41.2 dBm
*Att 40 dB
SWT 2.5 ms
1.910020000 GHz
Offset 11.2 dB
1 PK MAXH
A
LVL
3DB
D1 -13 dBm
Center 1.91 GHz
1 MHz/
Span 10 MHz

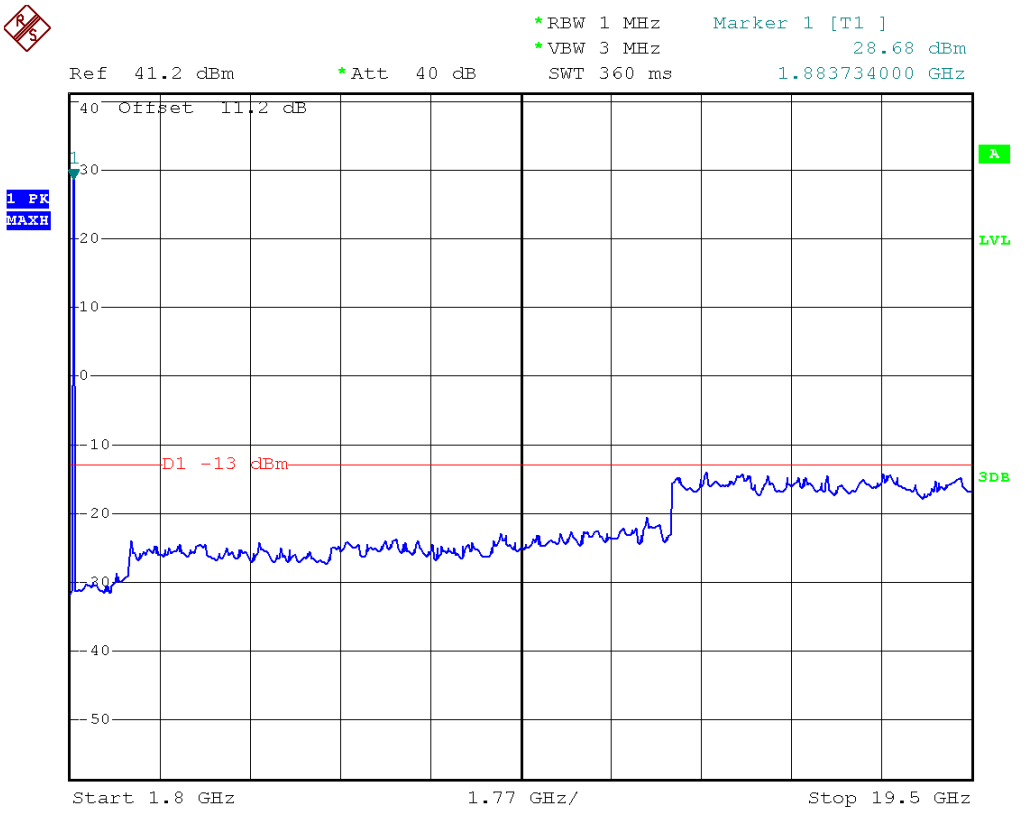
GSM 850


*RBW 100 kHz
Marker 1 [T1]
*VBW 300 kHz
32.53 dBm
Ref 40.6 dBm
*Att 40 dB
SWT 90 ms
837.070000000 MHz
40 Offset 10.6 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Start 1 MHz
89.9 MHz/
Stop 900 MHz

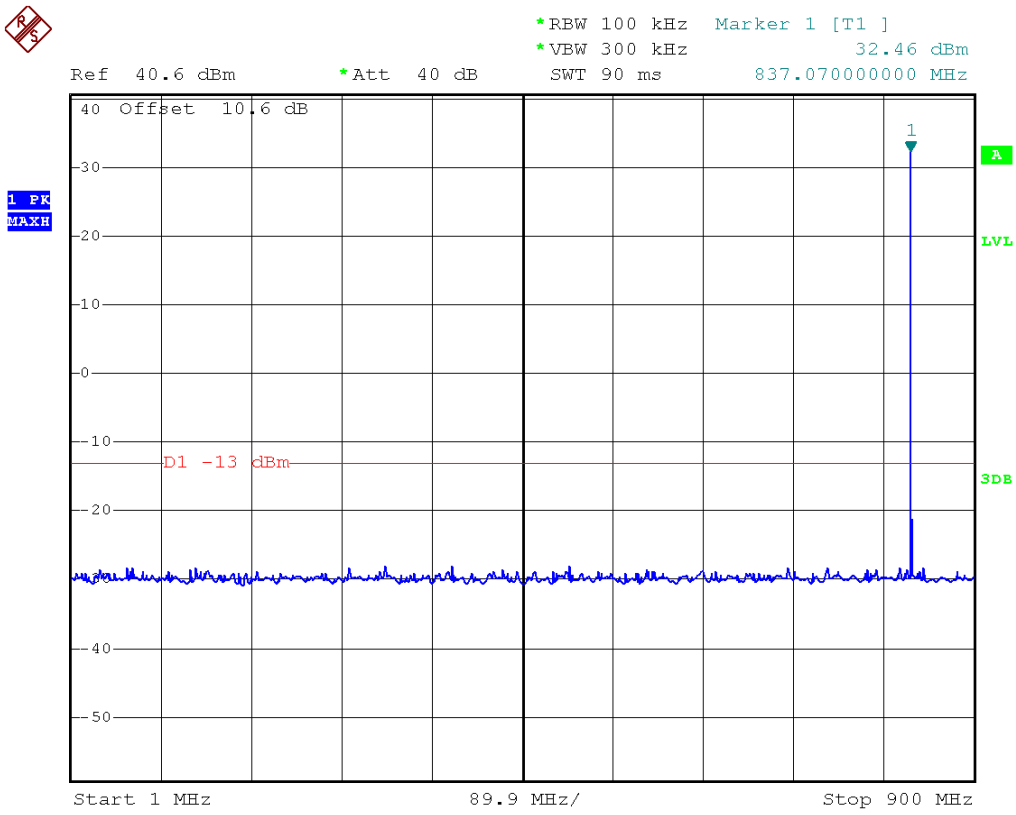

*RBW 100 kHz
Marker 1 [T1]
*VBW 300 kHz
31.13 dBm
Ref 40.6 dBm
*Att 40 dB
SWT 820 ms
832.800000000 MHz
40 Offset 10.6 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Start 800 MHz
820 MHz/
Stop 9 GHz

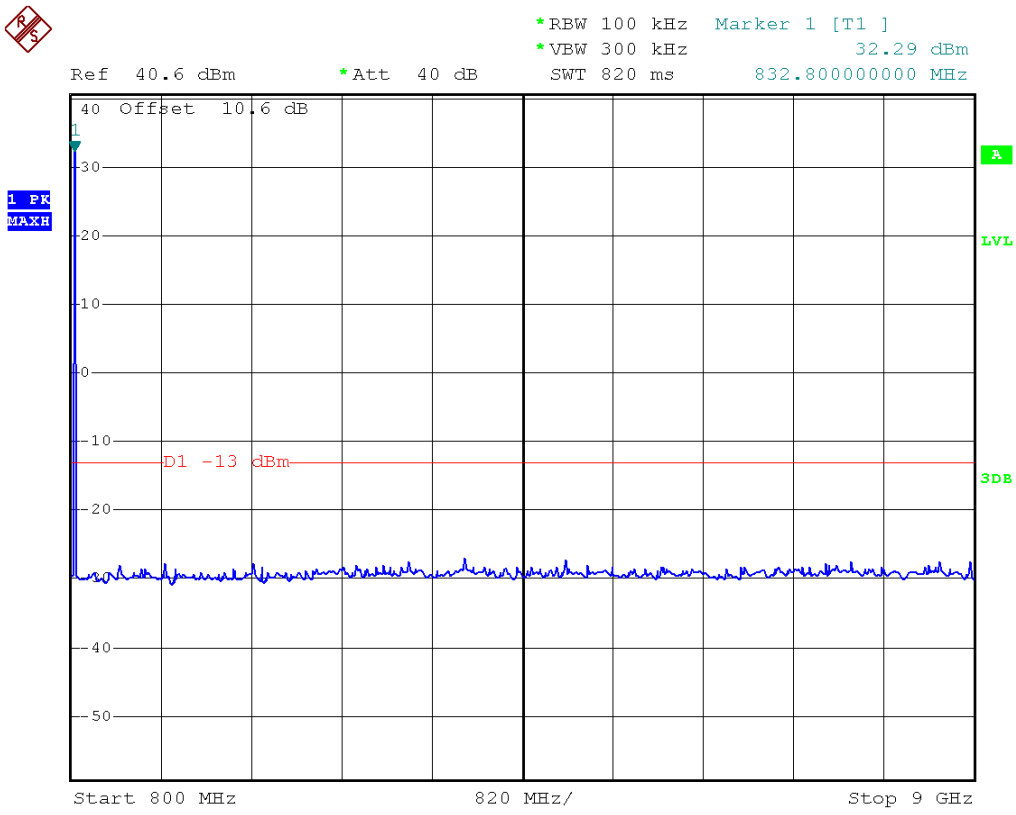
GSM 1900


*RBW 1 MHz
*VBW 3 MHz
Marker 1 [T1]
28.67 dBm
1.883734000 GHz
Ref 41.2 dBm
*Att 40 dB
SWT 10 ms
Offset 11.2 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Start 1 MHz
194.9 MHz/
Stop 1.95 GHz

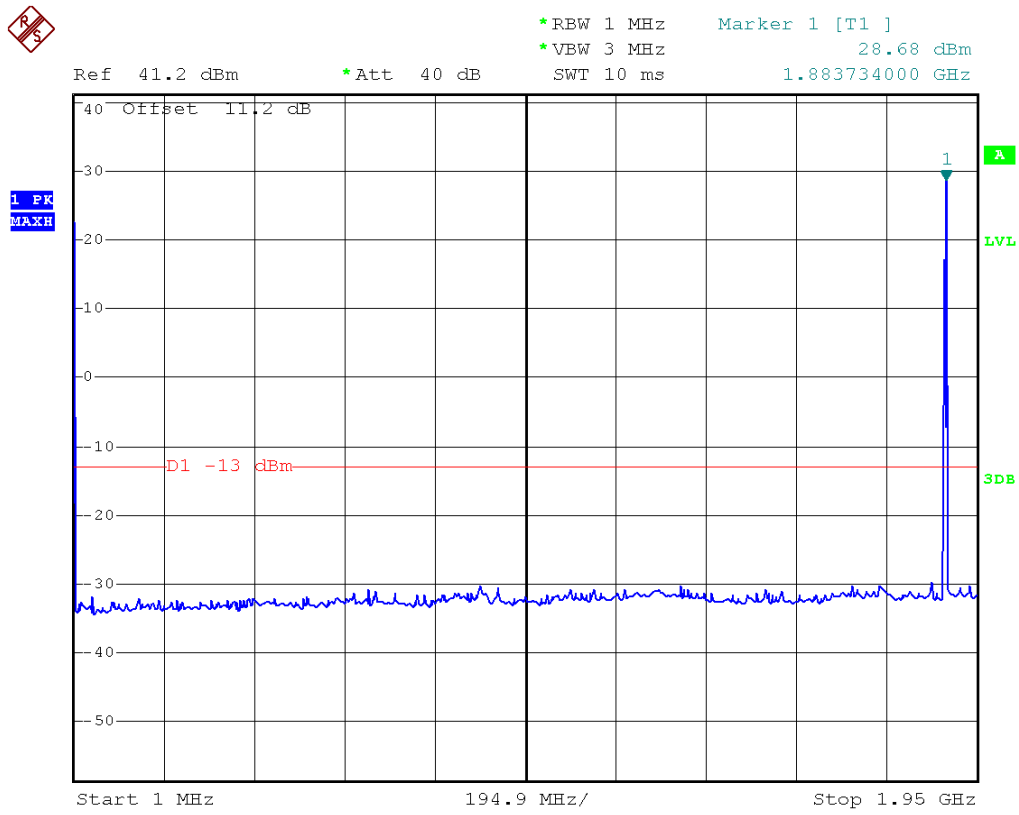

*RBW 1 MHz
*VBW 3 MHz
Marker 1 [T1]
28.68 dBm
1.883734000 GHz
Ref 41.2 dBm
*Att 40 dB
SWT 360 ms
Offset 11.2 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Start 1.8 GHz
1.77 GHz/
Stop 19.5 GHz

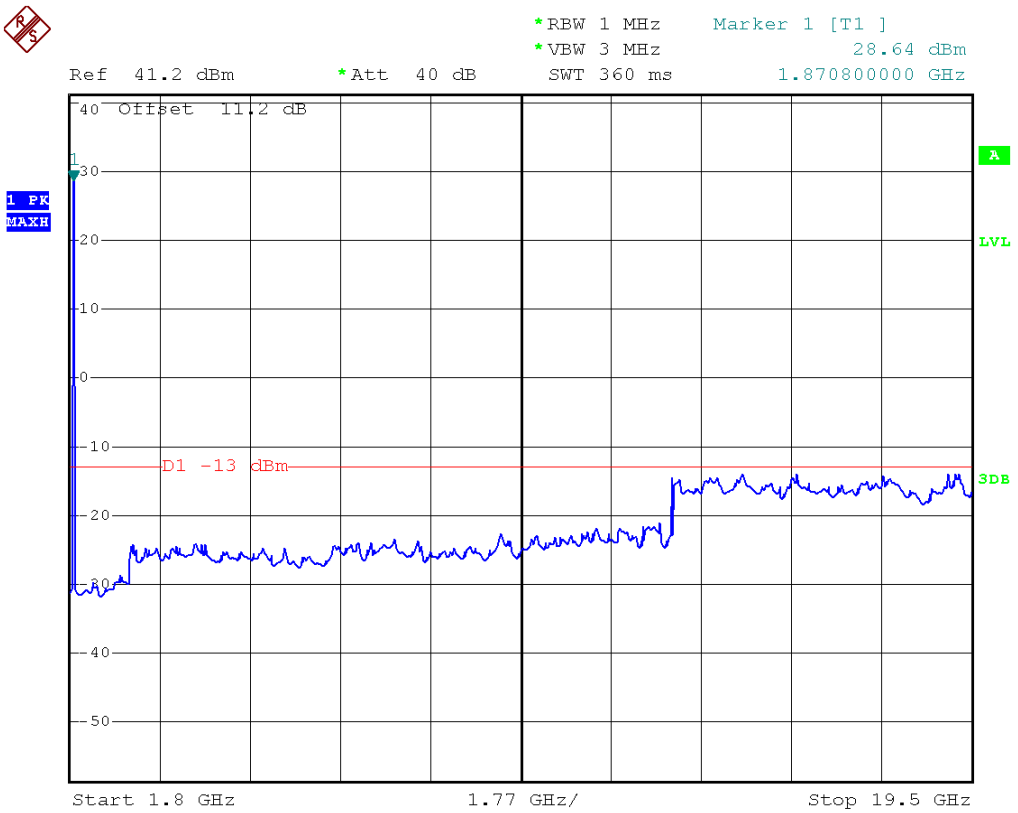
GPRS 850


*RBW 100 kHz
Marker 1 [T1]
*VBW 300 kHz
32.46 dBm
Ref 40.6 dBm
*Att 40 dB
SWT 90 ms
837.070000000 MHz
40 Offset 10.6 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Start 1 MHz
89.9 MHz/
Stop 900 MHz

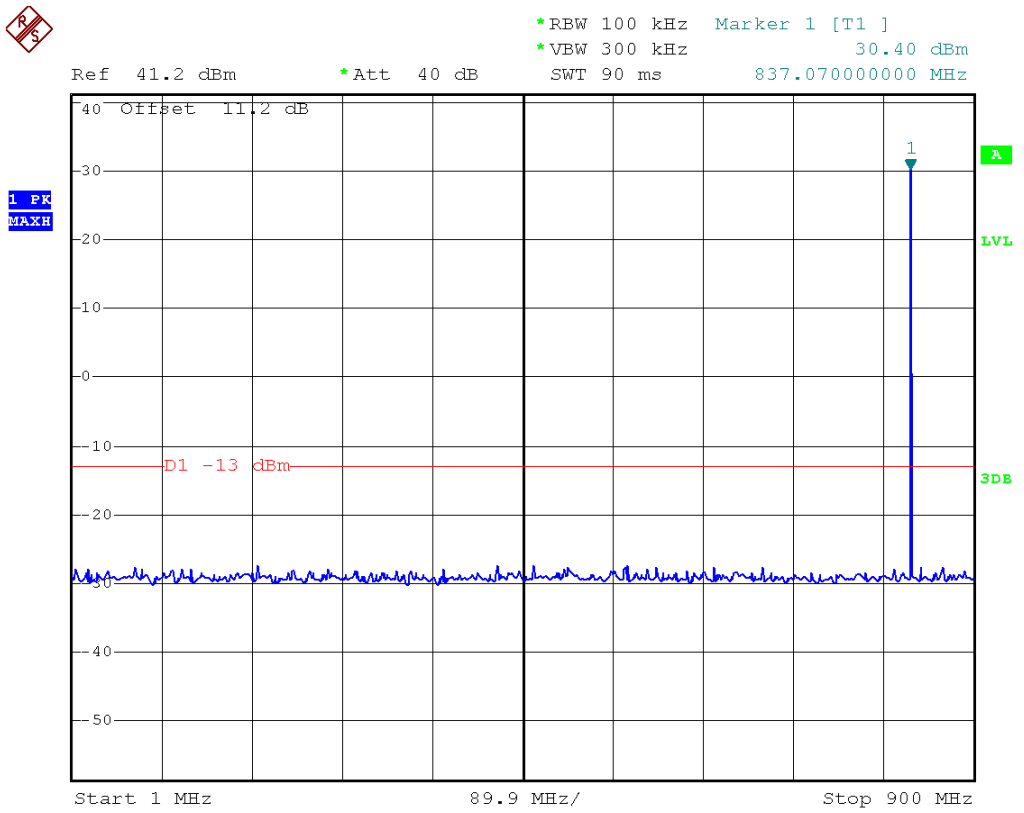

*RBW 100 kHz
Marker 1 [T1]
*VBW 300 kHz
32.29 dBm
Ref 40.6 dBm
*Att 40 dB
SWT 820 ms
832.800000000 MHz
40 Offset 10.6 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Start 800 MHz
820 MHz/
Stop 9 GHz

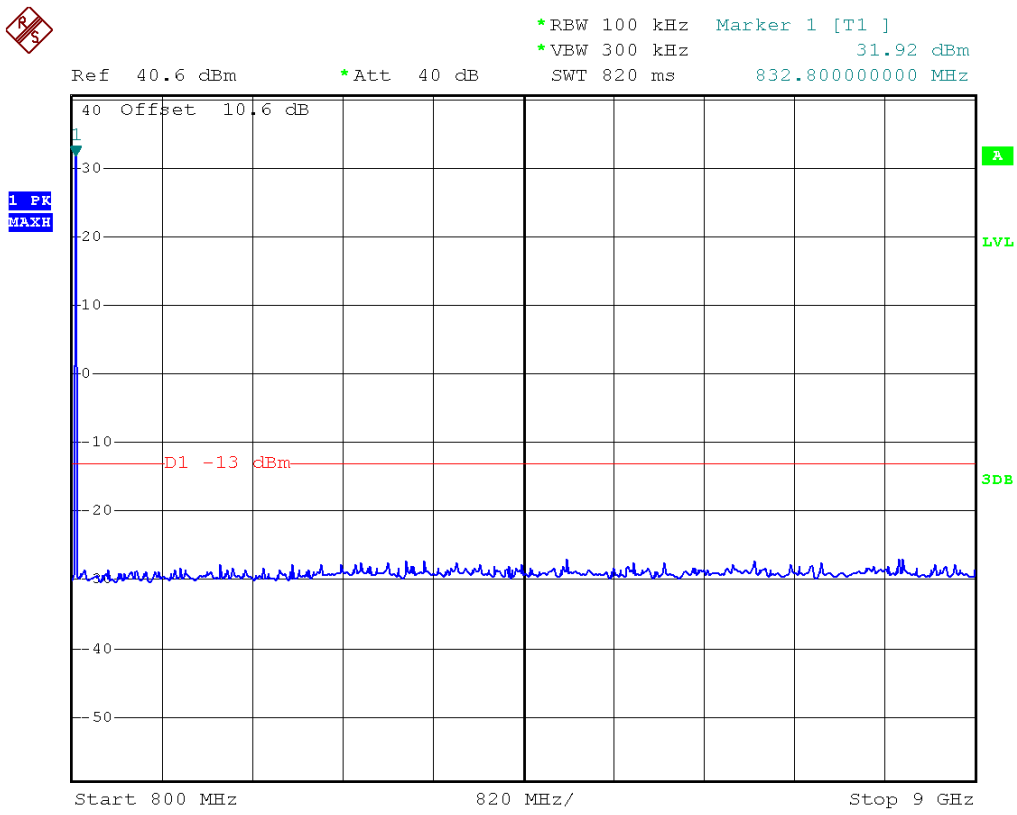
GPRS 1900


*RBW 1 MHz
*VBW 3 MHz
SWT 10 ms
Marker 1 [T1]
28.68 dBm
1.883734000 GHz
Ref 41.2 dBm
*Att 40 dB
Offset 11.2 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Start 1 MHz
194.9 MHz/
Stop 1.95 GHz

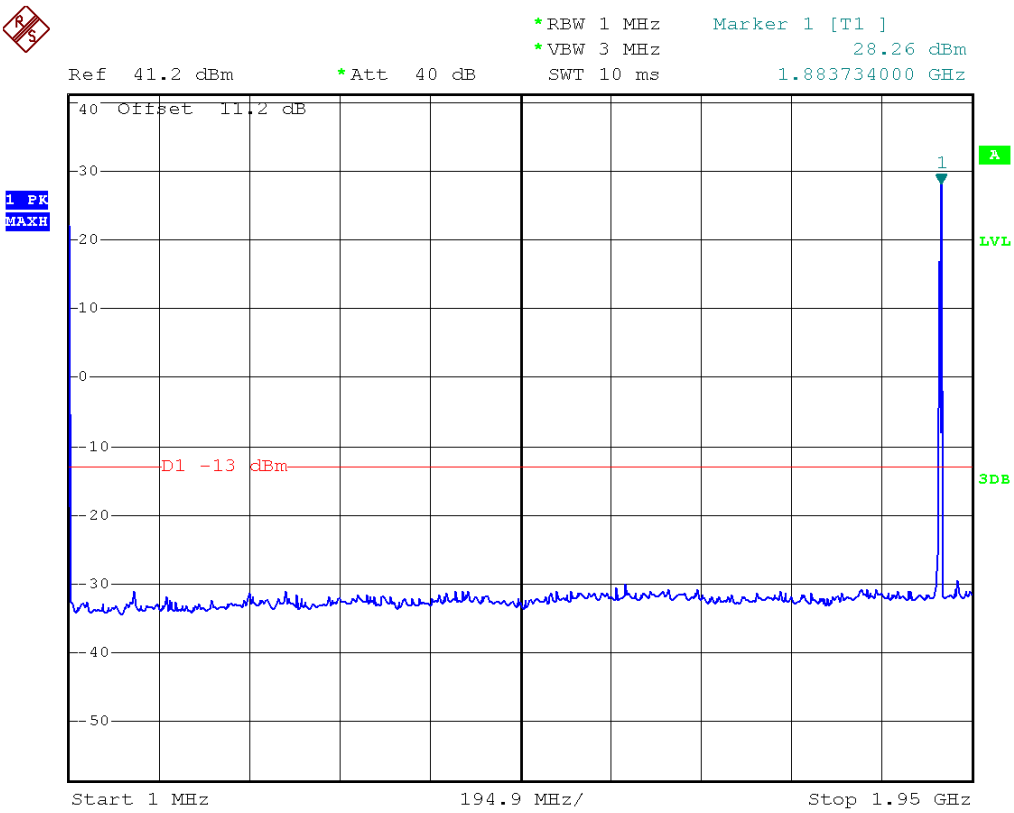

*RBW 1 MHz
*VBW 3 MHz
SWT 360 ms
Marker 1 [T1]
28.64 dBm
1.870800000 GHz
Ref 41.2 dBm
*Att 40 dB
Offset 11.2 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Start 1.8 GHz
1.77 GHz/
Stop 19.5 GHz

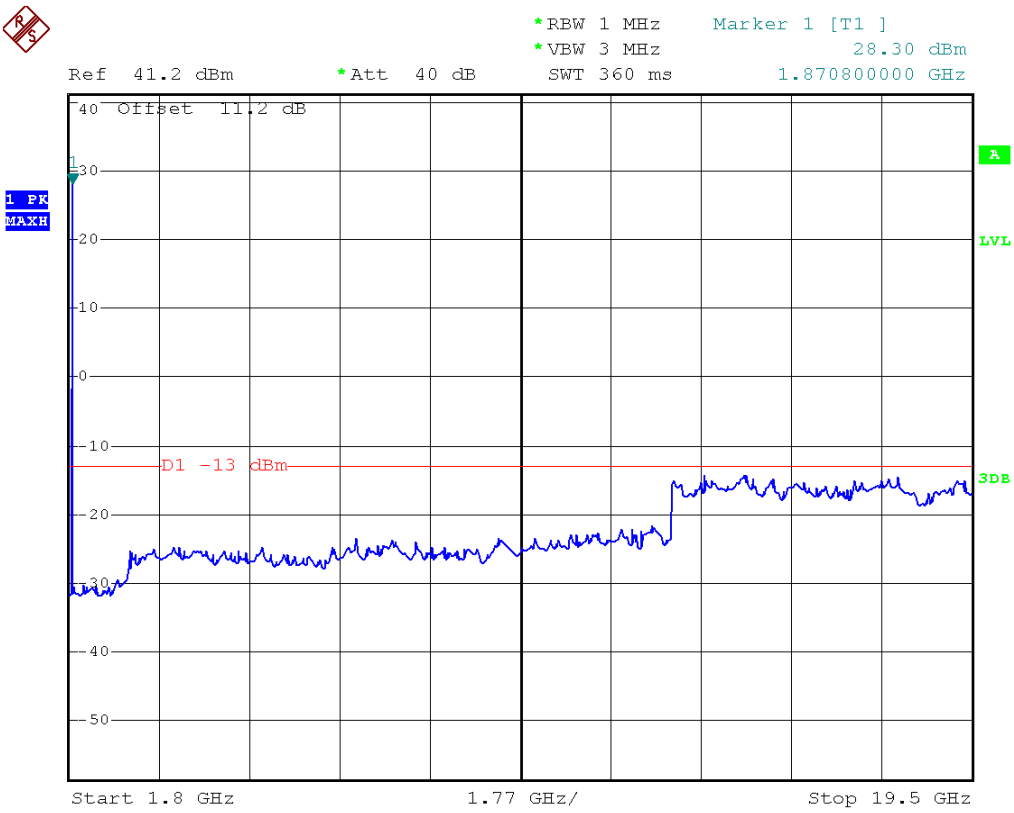
EGPRS 850


*RBW 100 kHz
Marker 1 [T1]
*VBW 300 kHz
30.40 dBm
Ref 41.2 dBm
*Att 40 dB
SWT 90 ms
837.070000000 MHz
40 Offset 11.2 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Start 1 MHz
89.9 MHz/
Stop 900 MHz

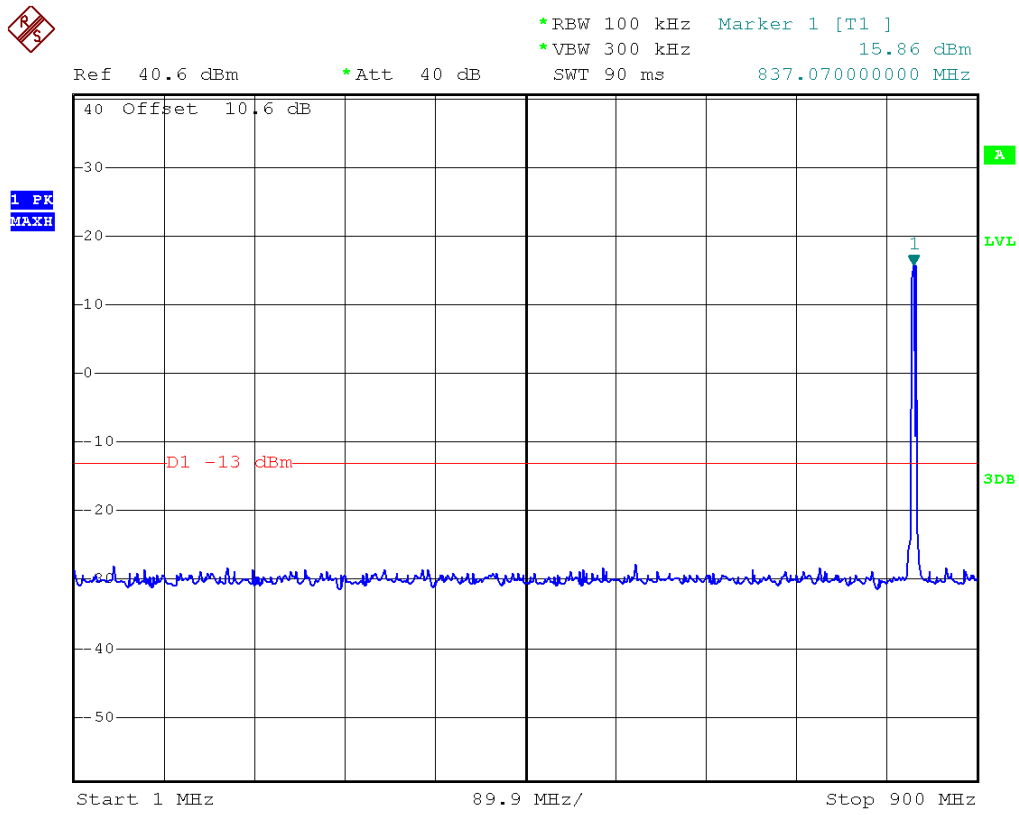

*RBW 100 kHz
Marker 1 [T1]
*VBW 300 kHz
31.92 dBm
Ref 40.6 dBm
*Att 40 dB
SWT 820 ms
832.800000000 MHz
40 Offset 10.6 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Start 800 MHz
820 MHz/
Stop 9 GHz

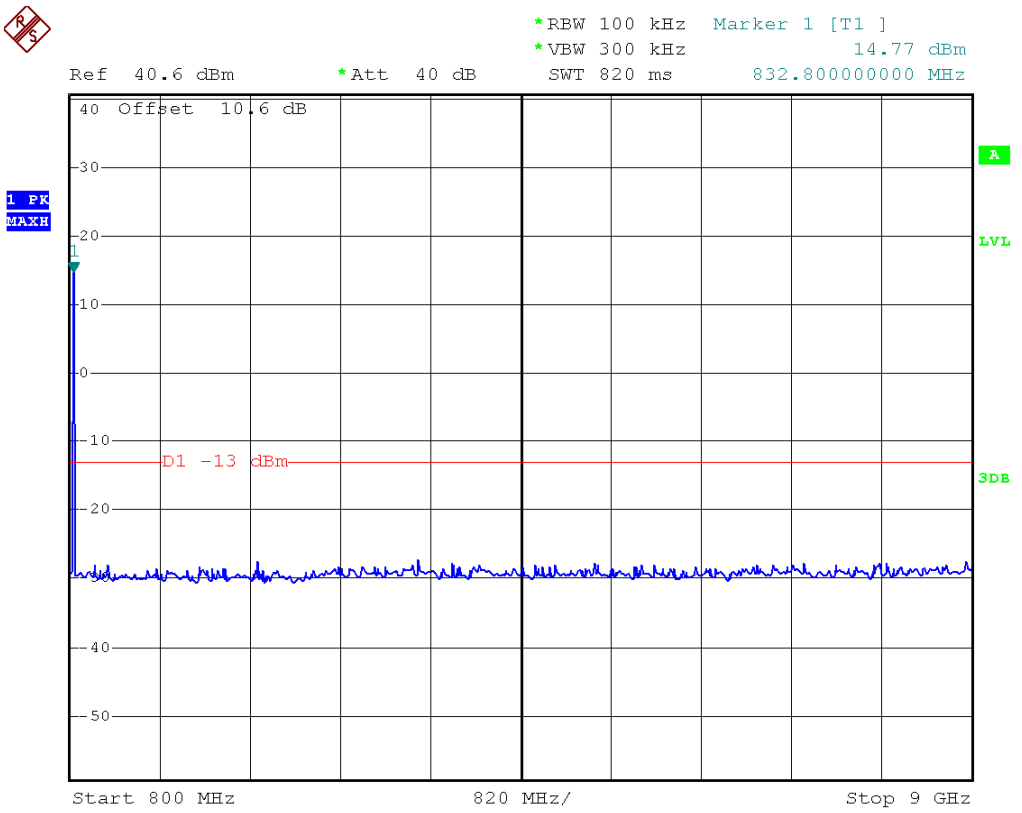
EGPRS 1900


*RBW 1 MHz
Marker 1 [T1]
*VBW 3 MHz
28.26 dBm
Ref 41.2 dBm
*Att 40 dB
SWT 10 ms
1.883734000 GHz
Offset 11.2 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Start 1 MHz
194.9 MHz/
Stop 1.95 GHz

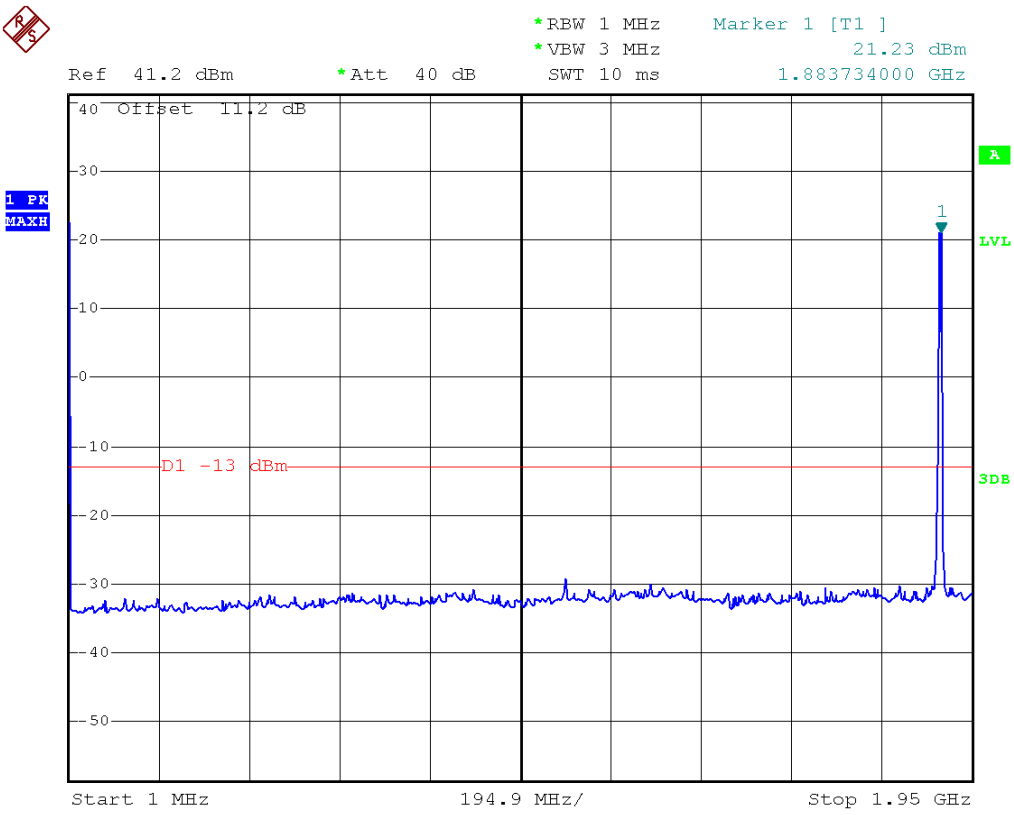

*RBW 1 MHz
Marker 1 [T1]
*VBW 3 MHz
28.30 dBm
Ref 41.2 dBm
*Att 40 dB
SWT 360 ms
1.870800000 GHz
Offset 11.2 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Start 1.8 GHz
1.77 GHz/
Stop 19.5 GHz

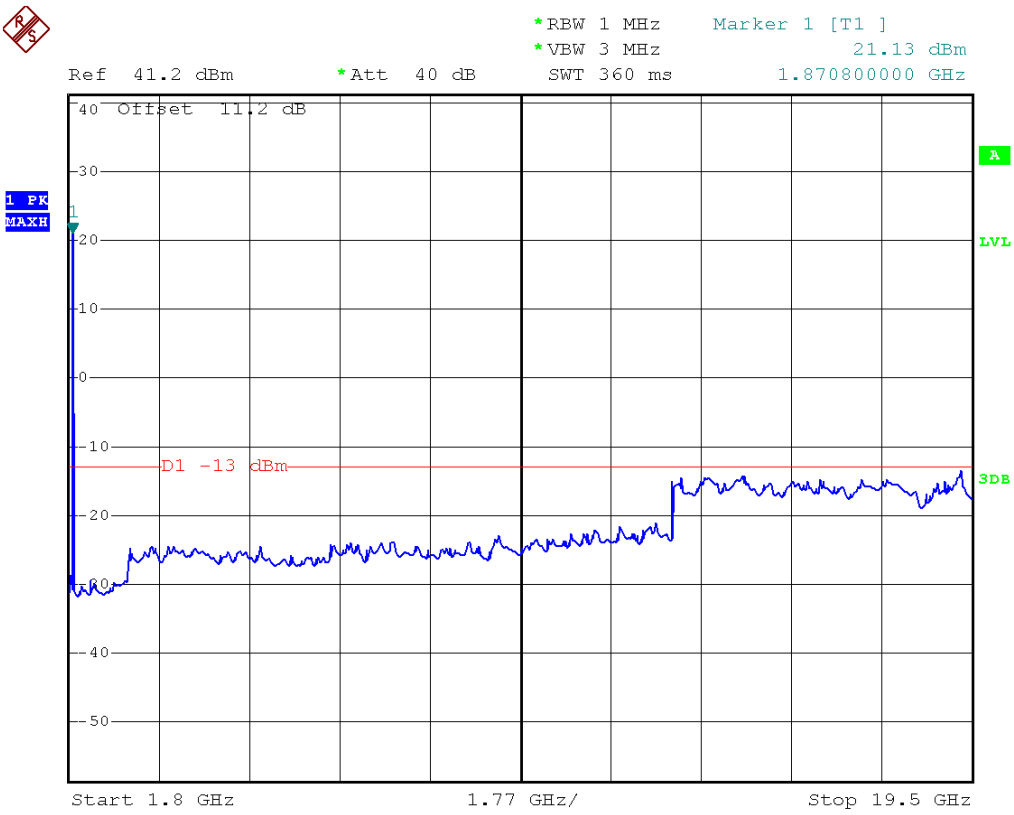
WCDMA 850


*RBW 100 kHz
Marker 1 [T1]
*VBW 300 kHz
15.86 dBm
Ref 40.6 dBm
*Att 40 dB
SWT 90 ms
837.070000000 MHz
40 Offset 10.6 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Start 1 MHz
89.9 MHz/
Stop 900 MHz

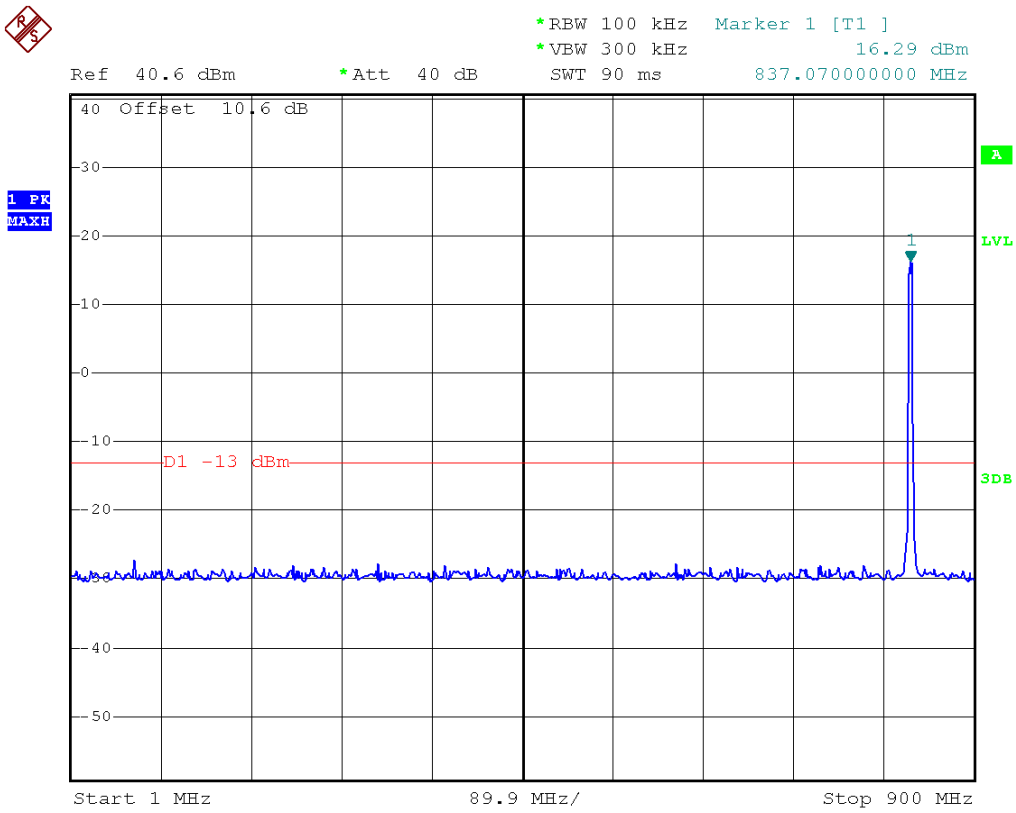

*RBW 100 kHz
Marker 1 [T1]
*VBW 300 kHz
14.77 dBm
Ref 40.6 dBm
*Att 40 dB
SWT 820 ms
832.800000000 MHz
40 Offset 10.6 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Start 800 MHz
820 MHz/
Stop 9 GHz

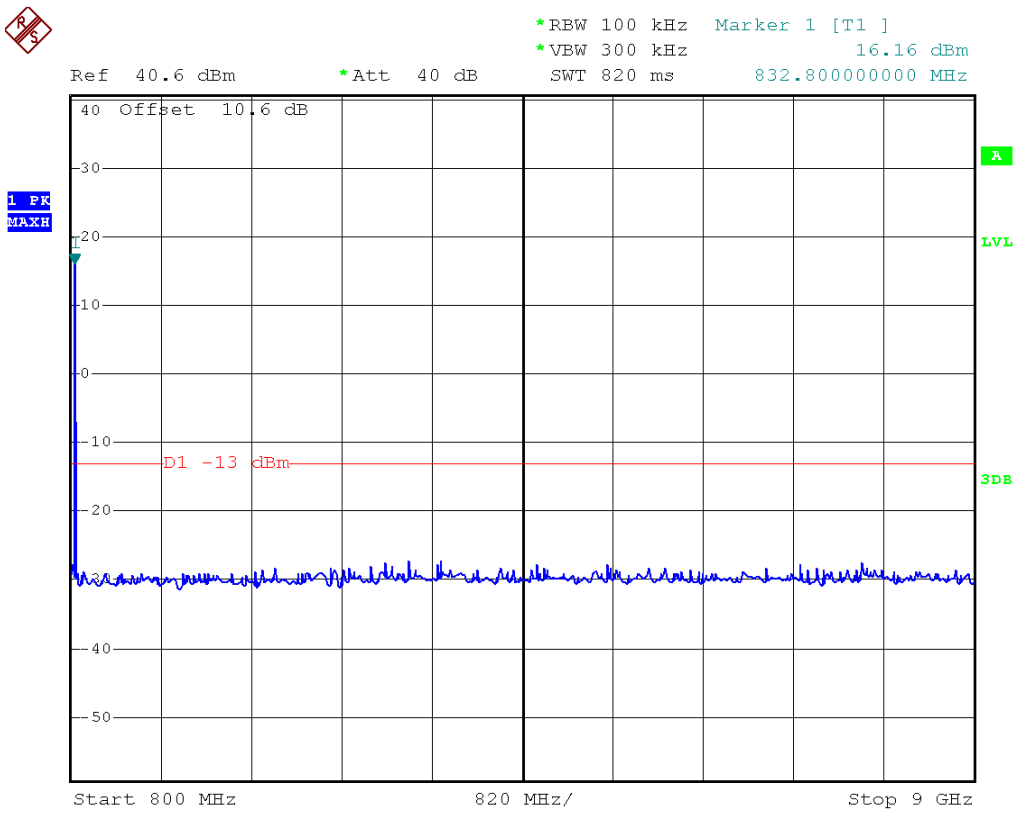
WCDMA 1900


*RBW 1 MHz
*VBW 3 MHz
SWT 10 ms
Marker 1 [T1]
21.23 dBm
1.883734000 GHz
Ref 41.2 dBm
*Att 40 dB
Offset 11.2 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Start 1 MHz
194.9 MHz/
Stop 1.95 GHz

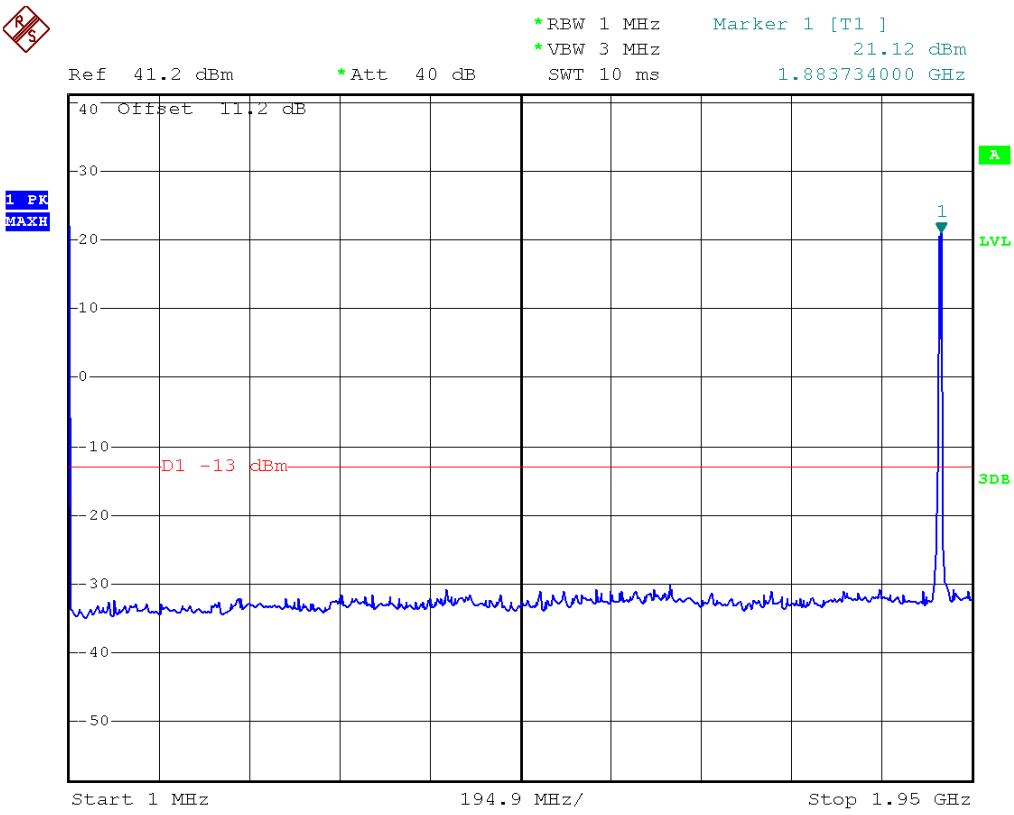

*RBW 1 MHz
*VBW 3 MHz
SWT 360 ms
Marker 1 [T1]
21.13 dBm
1.870800000 GHz
Ref 41.2 dBm
*Att 40 dB
Offset 11.2 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Start 1.8 GHz
1.77 GHz/
Stop 19.5 GHz

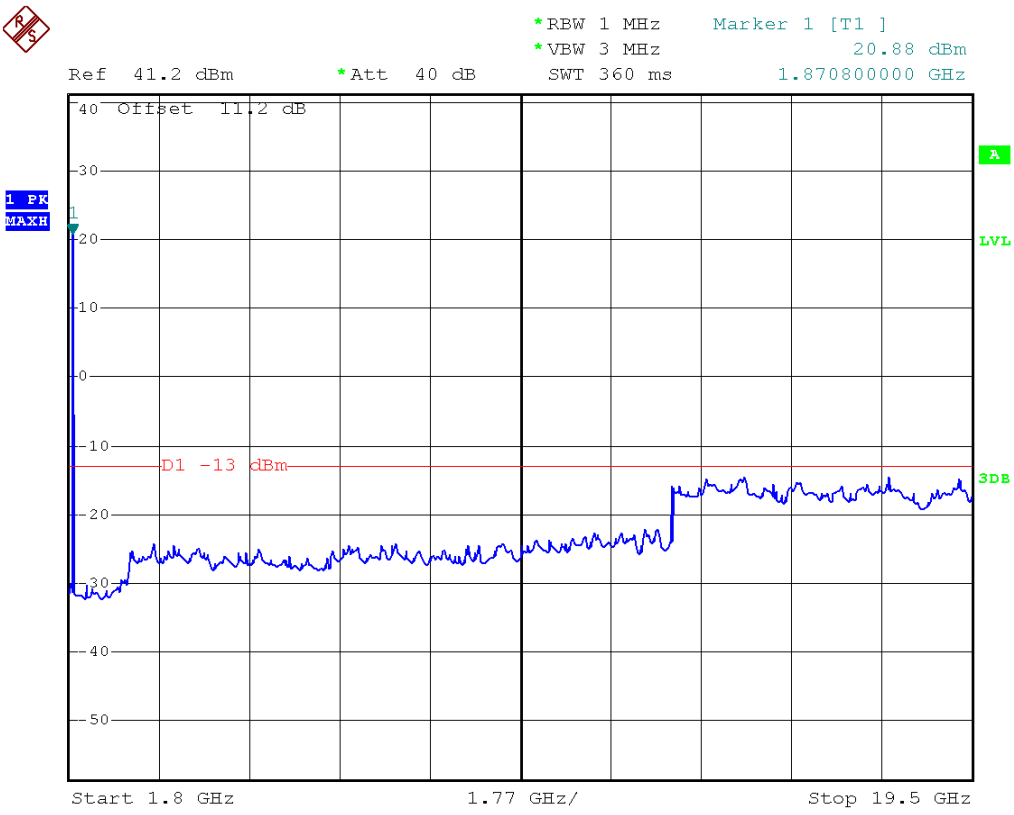
HSDPA 850


*RBW 100 kHz
Marker 1 [T1]
*VBW 300 kHz
16.29 dBm
Ref 40.6 dBm
*Att 40 dB
SWT 90 ms
837.070000000 MHz
40 Offset 10.6 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Start 1 MHz
89.9 MHz/
Stop 900 MHz


*RBW 100 kHz
Marker 1 [T1]
*VBW 300 kHz
16.16 dBm
Ref 40.6 dBm
*Att 40 dB
SWT 820 ms
832.800000000 MHz
40 Offset 10.6 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Start 800 MHz
820 MHz/
Stop 9 GHz

HSDPA 1900


*RBW 1 MHz
*VBW 3 MHz
SWT 10 ms
Marker 1 [T1]
21.12 dBm
1.883734000 GHz
Ref 41.2 dBm
*Att 40 dB
Offset 11.2 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Start 1 MHz
194.9 MHz/
Stop 1.95 GHz


*RBW 1 MHz
*VBW 3 MHz
SWT 360 ms
Marker 1 [T1]
20.88 dBm
1.870800000 GHz
Ref 41.2 dBm
*Att 40 dB
Offset 11.2 dB
1 PK
MAXH
A
LVL
3DB
D1 -13 dBm
Start 1.8 GHz
1.77 GHz/
Stop 19.5 GHz