



FCC TEST REPORT

According to

47 CFR Part 22H, 24E

Applicant : Partner Tech Corp.
Address : 10FL, 233-2, Baoqiao Road, Xindian,
New Taipei City, Taiwan
Equipment : Handheld Terminal
Model No. : MF-2351
FCC ID : NDPMF2351
Trade Name : Partner

- The test result refers exclusively to the test presented test model / sample.,
- Without written approval of **CerpPASS Technology Corp.**, the test report shall not be reproduced except in full.



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CERTIFICATE OF COMPLIANCE

According to

47 CFR Part 22H, 24E

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Address : 10FL, 233-2, Baoqiao Road, Xindian,
New Taipei City, Taiwan
Equipment : Handheld Terminal
Model No. : MF-2351
FCC ID : NDPMF2351

I **HEREBY** CERTIFY THAT :


The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4 2009**.

The equipment was **passed** the test performed according to **FCC Rules and Regulations Part 22H, 24E**.

The test was carried out on Mar. 19, 2013 at Cerpass Technology Corp.

Approved by:

Tested by:


Hill Chen
EMC/RF B.U. Assistant Manager


Tom Tai
Engineer



1. Report of Measurements and Examinations

1.1 List of Measurements and Examinations

FCC Rule	Description of Test	Result
2.1046	. RF Output Power	Pass
22.913 24.232	. ERP / EIRP Measurement	Pass
2.1055, 22.355, 24.235	. Frequency Stability	Pass
2.1049, 22.917, 24.238(b)	. Occupied Bandwidth	Pass
2.1049, 22.917, 24.238(b)	. Band Edges Measurement	Pass
2.1051	. Conducted Spurious Emissions	Pass
2.1053	. Field Strength of Spurious Emissions	Pass



2. Test Configuration of Equipment under Test

2.1 Feature of Equipment under Test

Basic configuration	
Processor	TI Cortex A8 AM3715, 1GHz
Operating	WinCe6.0
Memory	DDR2, 2GB(256M), NAND Flash, 4GB(512M)
Flash	3.5inch 240 x 320 Pixels / 262000 Color
Display	Support touch and stylus input
Key	Alpha & numeric Keys (Total 20 Hardware keys)
Magnetic Card	Triple Track (track 1, 2 & 3)
IC Card Reader	EMV/PBOC2.0 L1&L2; ISO 7816
SAM Card	2
Expansion Card	Mini SD Card Slot
USB	1 USB (OTG)
RS232	1 RS232
Printer	High Speed, High resolution, thermal printer (Dimension 30mm, Width 58mm)
Audio	speaker (mono) x 1, microphone x 1
Vibration	Support
Battery	Rechargeable Battery: DC7.4V/2000mAh
Power	Power Adapter: Output Voltage DC 9V/3A, Input Voltage 100~240V, 50/60Hz 1. ADAPTER \ ATS030-A090 2. ULLPOWER \ CGSW-0903000
Communication interface(built-in)	1 SIM Slot
Secure	Processor MAXQ1850
Performance	Operating System VOS
Physical Specification	Dimension (mm): 208(L) x 85.5(W) x 53(D) mm Weight: 500g
Optional Configuration	
Communication	WCDMA, Bluetooth V2.1+EDR, WIFI 802.11b/g, GPS, GPRS
Camera	3.1M Pixel
Contactless reader	ISO 14443 A/B/NFC, Contactless EMV
Bar Code	1D or 2D
Scanner Fingerprint	



2.2 Test Mode and Test Software

- a. The spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range.
- b. The complete test system included EUT for the test.
- c. An executive program, "APP" under WIN CE was executed to transmit and receive data through GSM/WCDMA.
- d. During all tests, EUT is in link mode with base station emulator at maximum power level.
- e. The following test modes were performed for the test:

GSM 850: CH 128, CH 189, CH 251

DCS 1900: CH 512, CH 661, CH 810

WCDMA Band V: CH 4132, CH 4180, CH 4233

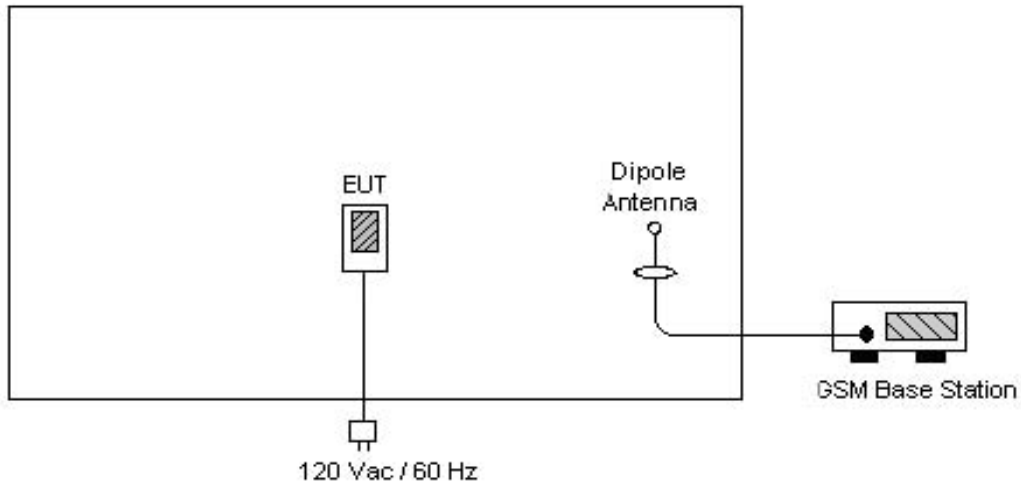
WCDMA Band II: CH 9262, CH 9400, CH 9538

2.3 Description of Test System

The EUT was tested alone. No support devices is needed for testing.



2.4 Connection Diagram of Test System




2.5 Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
SERIES POWER METER	AGILENT	E 4416A	GB41292146	2013/03/09	2014/03/08
POWER SENSOR	AGILENT	E9327A	US40441392	2013/03/09	2014/03/08
SPECTRUM ANALYZER	R&S	FSP40	100047	2013/03/15	2014/03/14
SIGNAL GENERATOR	HP	83640A	2927A00107	2012/09/10	2013/09/09
PREAMPLIFIER	AGILENT	8449B	3008A01954	2013/03/07	2014/03/06
HORN ANTENNA	EMCO	3115	31589	2013/03/18	2014/03/17
VECTOR SIGNAL GENERATOR	R&S	SMU200A	102669	2012/09/10	2013/09/09
UNIVERSAL RADIO COMMUNICATION TESTER	R&S	CMU200	113425	2013/03/13	2014/03/12



2.6 General Information of Test

Test Site :	Cerpass Technology Corp. 2F-11, No. 3, Yuan Qu St., (Nankang Software Park), Taipei, Taiwan 115, R.O.C.
Test Site Location (OATS2-SD) :	No.68-1, Shihbachongsi, Shihding Township, Taipei City 223, Taiwan, R.O.C.
FCC Registration Number:	TW1049, TW1061, 390316, 488071
IC Registration Number :	4934B-1, 4934D-1
VCCI Registration Number:	T-1173 for Telecommunication Test C-4139 for Conducted emission test R-3428 for Radiated emission test G-97 for Radiated emission test above 1GHz
Frequency Range Investigated:	GSM 850: from 30MHz to 9000MHz GSM 1900, WCDMA Band V, WCDMA Band II: from 30MHz to 19000MHz
Test Distance:	The test distance of radiated emission from antenna to EUT is 3 M.
Laboratory Accreditation	



3. RF Output Power

3.1 Test Limit

33dBm (2W)

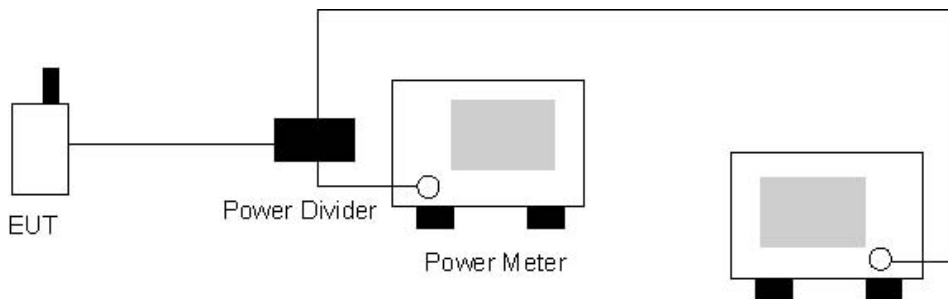
3.2 Measurement Instruments

As described in chapter 2.5 of this test report.

3.3 Test Procedure

- a. The transmitter output was connected to power meter and base station through power divider.
- b. Set EUT at maximum power through base station as below
 - b1 : Set PCL=5 for GSM850 and/or PCL=0 for GSM1900
 - b2 : Set All Up Bits for WCDMA
- c. Select lowest, middle, and highest channels for each band.

3.4 Test Setup Layout





3.5 Test Result and Data

Test Date: Feb. 06, 2013

Temperature: 22°C

Atmospheric pressure: 1020 hPa

Humidity: 65%

GSM 850

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (Watts)
CH 128	824.2	32.15	1.6406
CH 189	836.4	32.10	1.6218
CH 251	848.8	31.17	1.3092
Measurement uncertainty	±0.5dB		

DCS 1900

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (Watts)
CH 512	1850.2	30.39	1.0940
CH 661	1880.0	28.74	0.7482
CH 810	1909.8	29.08	0.8091
Measurement uncertainty	±0.5dB		



Test Date: Jan. 31, 2013

Temperature: 21°C

Atmospheric pressure: 1020 hPa

Humidity: 64%

WCDMA Band V

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (Watts)
CH 4132	826.4	22.01	0.1589
CH 4180	836.0	22.26	0.1683
CH 4233	846.6	22.05	0.1603
Measurement uncertainty	±0.5dB		

WCDMA Band II

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (Watts)
CH 9262	1852.4	21.28	0.1343
CH 9400	1880.0	21.87	0.1538
CH 9538	1907.6	21.51	0.1416
Measurement uncertainty	±0.5dB		



4. ERP / EIRP Measurement

4.1 Test Limit

33dBm (2W)

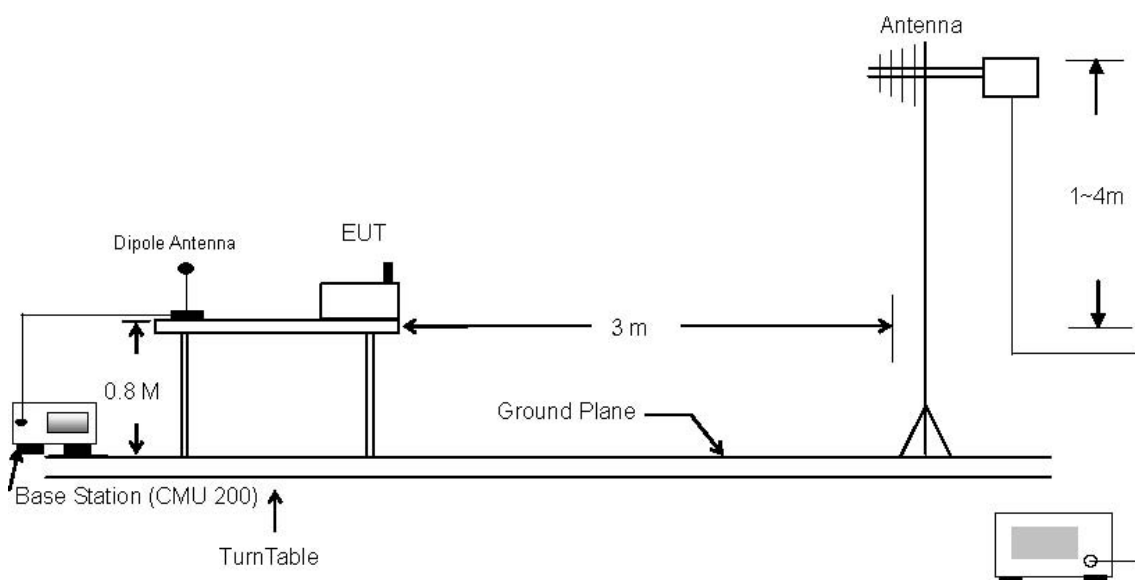
4.2 Measurement Instruments

As described in chapter 2.5 of this test report.

4.3 Test Procedure

- a. The EUT was placed on a rotatable wooden table with 0.8 meter about ground.
- b. The EUT was set 3 meters from the receiving antenna which was mounted on the antenna tower.
- c. The table was rotated 360 degrees to determine the position of the highest spurious emission.
- d. The height of the receiving antenna is varied between one meter and four meters to reach the maximum spurious emission for both horizontal and vertical polarizations.
- e. Taking the record of maximum spurious emission.
- f. A Horn antenna was substituted in place of the EUT and was driven by a signal generator.
- g. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
- h. Taking the recorded of output power at antenna port.
- i. Repeat step 7 to step 8 for another polarization.
- j. Emission level (dBm) = output power + substitution Gain.

4.4 Test Setup Layout





4.5 Test Result and Data

Test Date: Feb. 06, 2013

Temperature: 22°C

Atmospheric pressure: 1020 hPa

Humidity: 65%

GSM 850 (HORIZONTAL)

Channel	Frequency (MHz)	Read (dBm)	Factor (dB)	ERP (dBm)	ERP (Watts)
CH 128	824.2	27.56	4.16	31.72	1.4859
CH 189	836.4	27.47	4.14	31.61	1.4488
CH 251	848.8	26.77	4.12	30.89	1.2274
Measurement uncertainty	±0.5dB				

GSM 850 (VERTICAL)

Channel	Frequency (MHz)	Read (dBm)	Factor (dB)	ERP (dBm)	ERP (Watts)
CH 128	824.2	24.67	7.78	32.45	1.7579
CH 189	836.4	24.27	8.06	32.33	1.7100
CH 251	848.8	22.91	8.37	31.28	1.3428
Measurement uncertainty	±0.5dB				

DCS 1900 (HORIZONTAL)

Channel	Frequency (MHz)	Read (dBm)	Factor (dB)	ERP (dBm)	ERP (Watts)
CH 512	1850.2	31.07	-1.22	29.85	0.9661
CH 661	1880.0	29.47	-1.00	28.47	0.7031
CH 810	1909.8	27.27	1.42	28.69	0.7396
Measurement uncertainty	±0.5dB				

DCS 1900 (VERTICAL)

Channel	Frequency (MHz)	Read (dBm)	Factor (dB)	ERP (dBm)	ERP (Watts)
CH 512	1850.2	32.17	-1.63	30.54	1.1324
CH 661	1880.0	30.51	-1.38	29.13	0.8185
CH 810	1909.8	28.30	1.02	29.32	0.8551
Measurement uncertainty	±0.5dB				



Test Date: Jan. 31, 2013

Temperature: 21°C

Atmospheric pressure: 1020 hPa

Humidity: 64%

WCDMA Band V (HORIZONTAL)

Channel	Frequency (MHz)	Read (dBm)	Factor (dB)	EIRP (dBm)	ERP (Watts)
CH 4132	826.4	18.17	4.15	22.32	0.1706
CH 4180	836.0	18.44	4.14	22.58	0.1811
CH 4233	846.6	18.26	4.13	22.39	0.1734
Measurement uncertainty	±0.5dB				

WCDMA Band V (VERTICAL)

Channel	Frequency (MHz)	Read (dBm)	Factor (dB)	EIRP (dBm)	ERP (Watts)
CH 4132	826.4	13.93	7.82	21.75	0.1496
CH 4180	836.0	13.90	8.06	21.96	0.1570
CH 4233	846.6	13.43	8.30	21.73	0.1489
Measurement uncertainty	±0.5dB				

WCDMA Band II (HORIZONTAL)

Channel	Frequency (MHz)	Read (dBm)	Factor (dB)	EIRP (dBm)	ERP (Watts)
CH 9262	1852.4	22.91	-1.22	21.69	0.1476
CH 9400	1880.0	23.27	-1.00	22.27	0.1687
CH 9538	1907.6	20.61	1.42	22.03	0.1596
Measurement uncertainty	±0.5dB				

WCDMA Band II (VERTICAL)

Channel	Frequency (MHz)	Read (dBm)	Factor (dB)	EIRP (dBm)	ERP (Watts)
CH 9262	1852.4	22.40	-1.63	20.77	0.1194
CH 9400	1880.0	22.83	-1.38	21.45	0.1396
CH 9538	1907.6	20.22	1.02	21.24	0.1330
Measurement uncertainty	±0.5dB				



5. Frequency Stability

5.1 Test Limit

< 2.5ppm

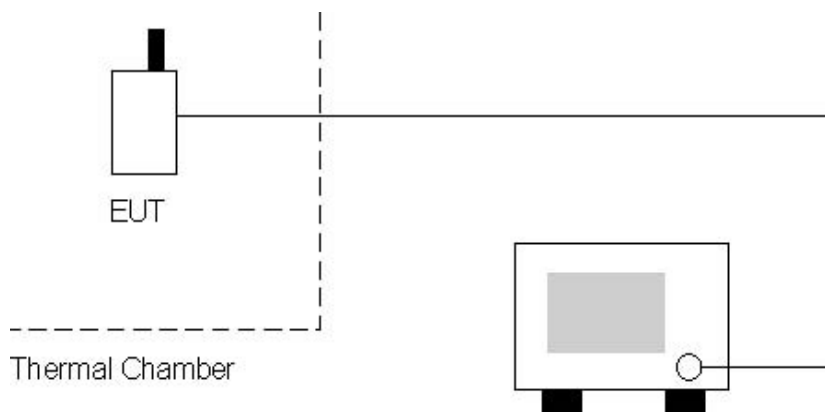
5.2 Measurement Instruments

As described in chapter 2.5 of this test report.

5.3 Test Procedure

- The EUT and test equipment were set up as shown on the following section.
- With all power removed, the temperature was decreased to -30°C and permitted to stabilize for three hours. Power was applied and the maximum change in frequency was note within one minute.
- With power OFF, the temperature was raised in 10°C steps. The sample was permitted to stabilize at each step for at least one-half hour. Power was applied and the maximum frequency change was noted within one minute.
- The temperature tests were performed for the worst case.
- Test data was recorded.

5.4 Test Setup Layout





5.5 Test Result and Data

Test Date: Feb. 06, 2013

Temperature: 22°C

Atmospheric pressure: 1020 hPa

Humidity: 65%

GSM 850

Channel	Frequency (MHz)	Voltage (Volt)	Frequency Error (Hz)	Frequency Error (ppm)
189	836.4	108	15	0.018
		120	16	0.019
		132	19	0.023

Channel	Frequency (MHz)	Temperature ()	Frequency Error (Hz)	Frequency Error (ppm)
189	836.4	-30	21	0.025
		-20	13	0.016
		-10	15	0.018
		0	16	0.019
		10	9	0.011
		20	17	0.020
		30	27	0.032
		40	20	0.024
		50	18	0.022
		60	22	0.026



Test Date: Feb. 06, 2013

Temperature: 22°C

Atmospheric pressure: 1020 hPa

Humidity: 65%

DCS 1900

Channel	Frequency (MHz)	Voltage (Volt)	Frequency Error (Hz)	Frequency Error (ppm)
661	1880	108	55	0.029
		120	45	0.024
		132	50	0.027

Channel	Frequency (MHz)	Temperature ()	Frequency Error (Hz)	Frequency Error (ppm)
661	1880	-30	40	0.021
		-20	48	0.026
		-10	49	0.026
		0	50	0.027
		10	34	0.018
		20	41	0.022
		30	42	0.022
		40	49	0.026
		50	33	0.018
		60	41	0.022



Test Date: Jan. 31, 2013

Temperature: 21°C

Atmospheric pressure: 1020 hPa

Humidity: 64%

WCDMA Band V

Channel	Frequency (MHz)	Voltage (Volt)	Frequency Error (Hz)	Frequency Error (ppm)
4180	836.0	108	15	0.018
		120	-16	-0.019
		132	-26	-0.031

Channel	Frequency (MHz)	Temperature ()	Frequency Error (Hz)	Frequency Error (ppm)
4180	836.0	-30	13	0.016
		-20	14	0.017
		-10	21	0.025
		0	-23	-0.028
		10	-9	-0.011
		20	-14	-0.017
		30	18	0.022
		40	10	0.012
		50	11	0.013
		60	12	0.014



Test Date: Jan. 31, 2013

Temperature: 21°C

Atmospheric pressure: 1020 hPa

Humidity: 64%

WCDMA Band II

Channel	Frequency (MHz)	Voltage (Volt)	Frequency Error (Hz)	Frequency Error (ppm)
9400	1880	108	-34	-0.018
		120	-35	-0.019
		132	38	0.020

Channel	Frequency (MHz)	Temperature ()	Frequency Error (Hz)	Frequency Error (ppm)
4180	836.0	-30	-30	-0.016
		-20	-21	-0.011
		-10	-28	-0.015
		0	30	0.016
		10	42	0.022
		20	23	0.012
		30	24	0.013
		40	28	0.015
		50	-41	-0.022
		60	42	0.022



6. Occupied Bandwidth

6.1 Test Limit

N/A

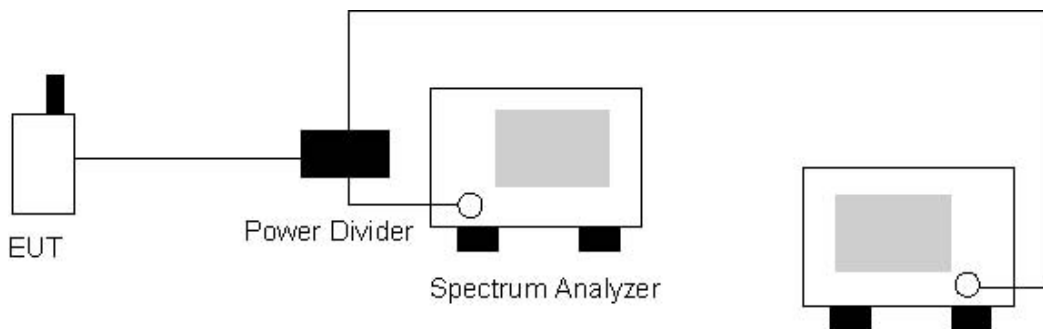
6.2 Measurement Instruments

As described in chapter 2.5 of this test report.

6.3 Test Procedure

- a. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
- b. The 99% occupied bandwidth of middle channel for the highest and lowest RF powers were measured.
- c. The bandedge of low and high channels for the highest RF powers within the transmitting frequency band were measured. Setting RBW as roughly BW/100.

6.4 Test Setup Layout





6.5 Test Result and Data

Test Date: Feb. 06, 2013

Temperature: 22°C

Atmospheric pressure: 1020 hPa

Humidity: 65%

GSM 850

Channel	Frequency (MHz)	99% Occupied Bandwidth (KHz)	-26dBc Bandwidth (KHz)
CH 128	824.2	270	312
CH 189	836.4	278	316
CH 251	848.8	274	316

DCS 1900

Channel	Frequency (MHz)	99% Occupied Bandwidth (KHz)	-26dBc Bandwidth (KHz)
CH 512	1850.2	266	310
CH 661	1880.0	270	314
CH 810	1909.8	264	310

Test Date: Jan. 31, 2013

Temperature: 21°C

Atmospheric pressure: 1020 hPa

Humidity: 64%

WCDMA Band V

Channel	Frequency (MHz)	99% Occupied Bandwidth (KHz)	-26dBc Bandwidth (KHz)
CH 4132	826.4	4560	4660
CH 4180	836.0	4580	4660
CH 4233	846.6	4540	4660

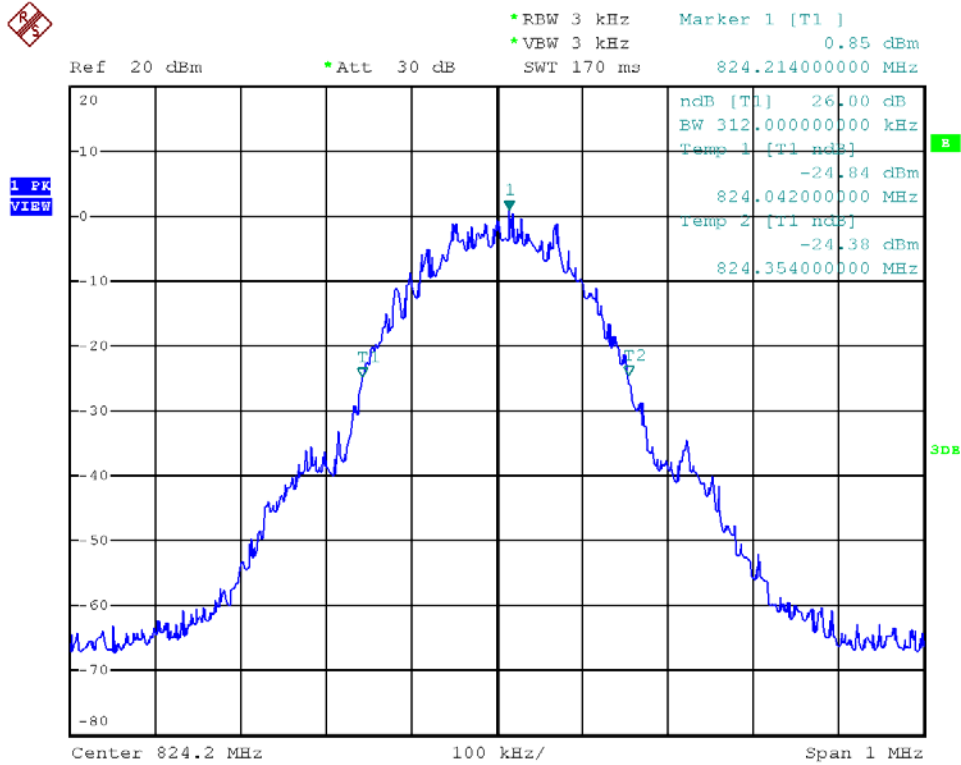
WCDMA Band II

Channel	Frequency (MHz)	99% Occupied Bandwidth (KHz)	-26dBc Bandwidth (KHz)
CH 9262	1852.4	4560	4680
CH 9400	1880.0	4600	4680
CH 9538	1907.6	4560	4700

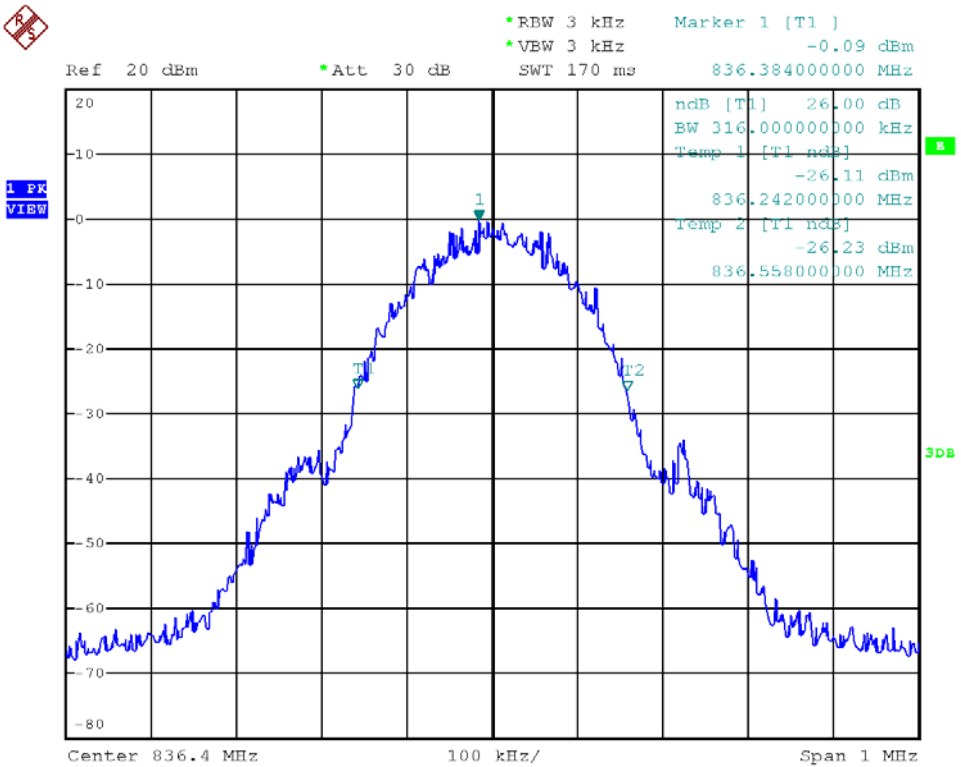


-26dBc Bandwidth

GSM 850, CH 128

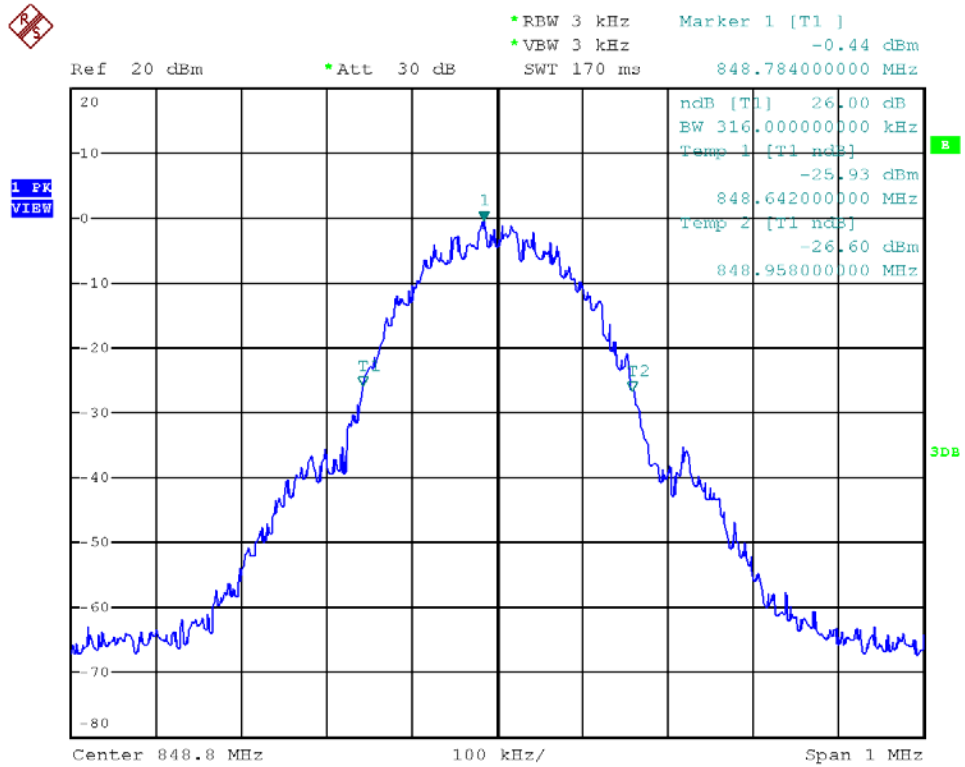


GSM 850, CH 189

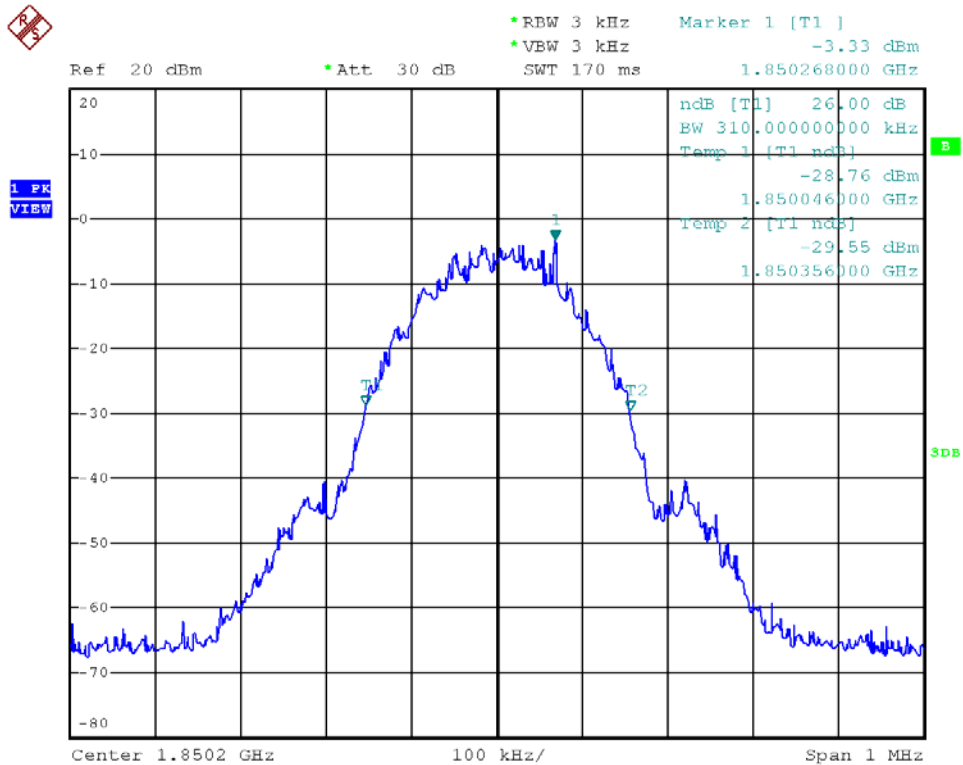




GSM 850, CH 251

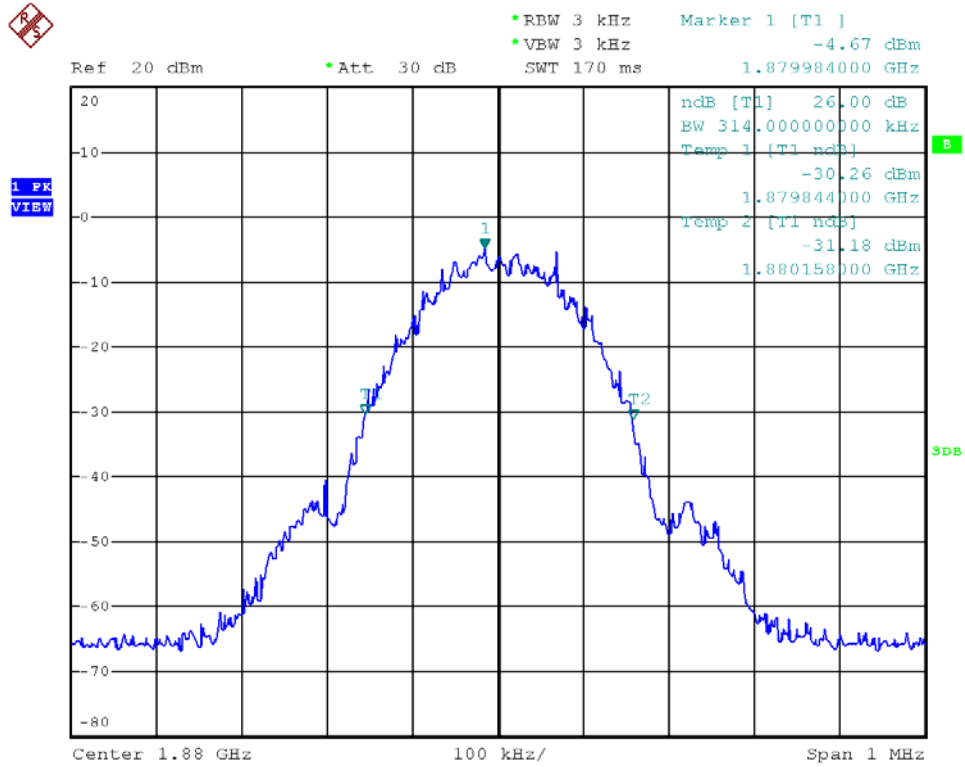


DCS 1900, CH 512

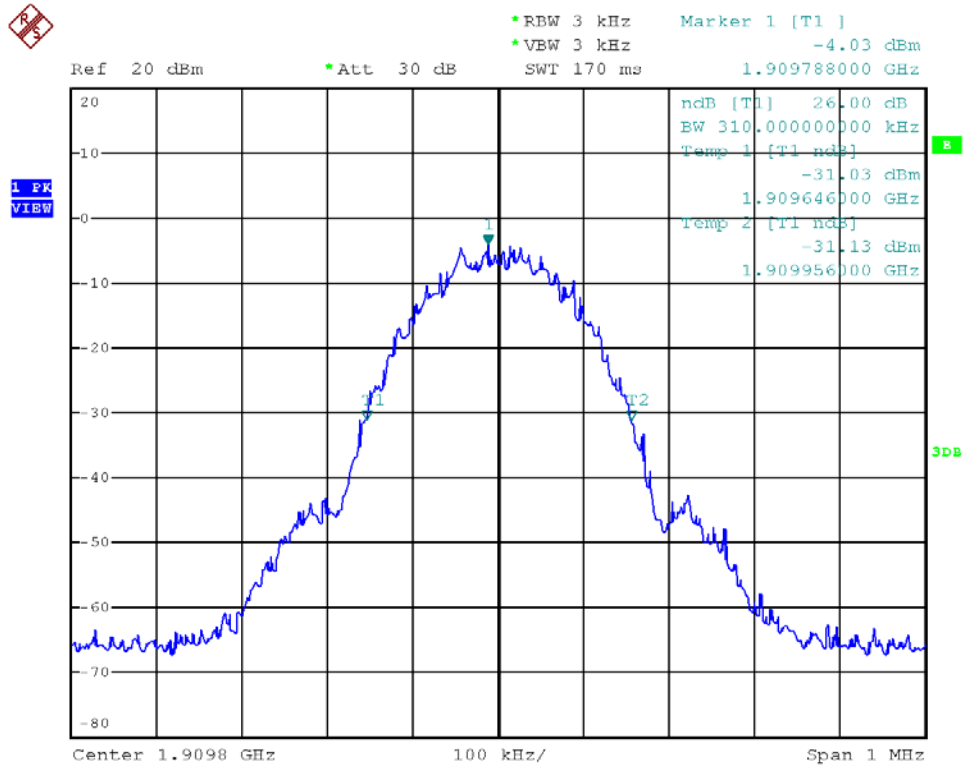




DCS 1900, CH 661

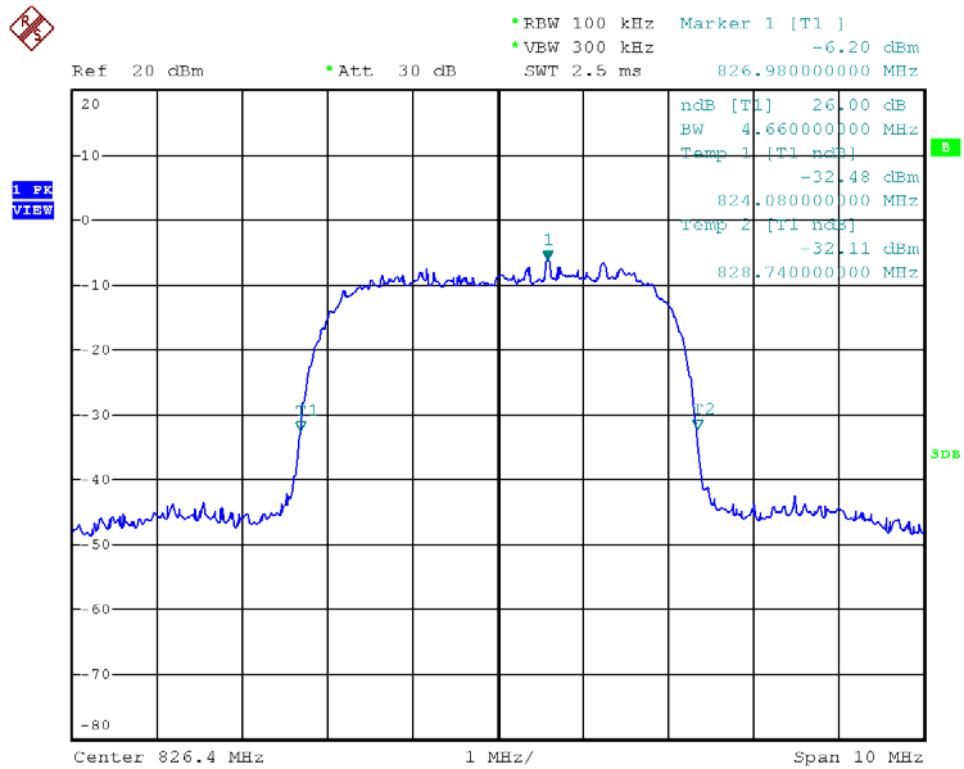


DCS 1900, CH 810

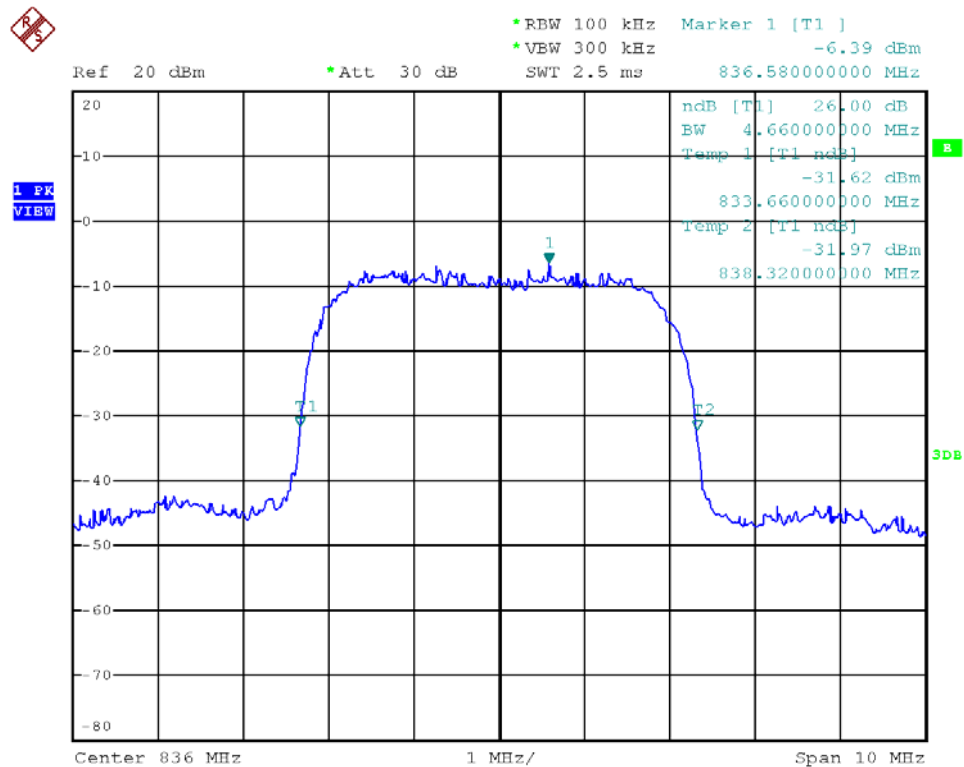




WCDMA Band V, CH 4132

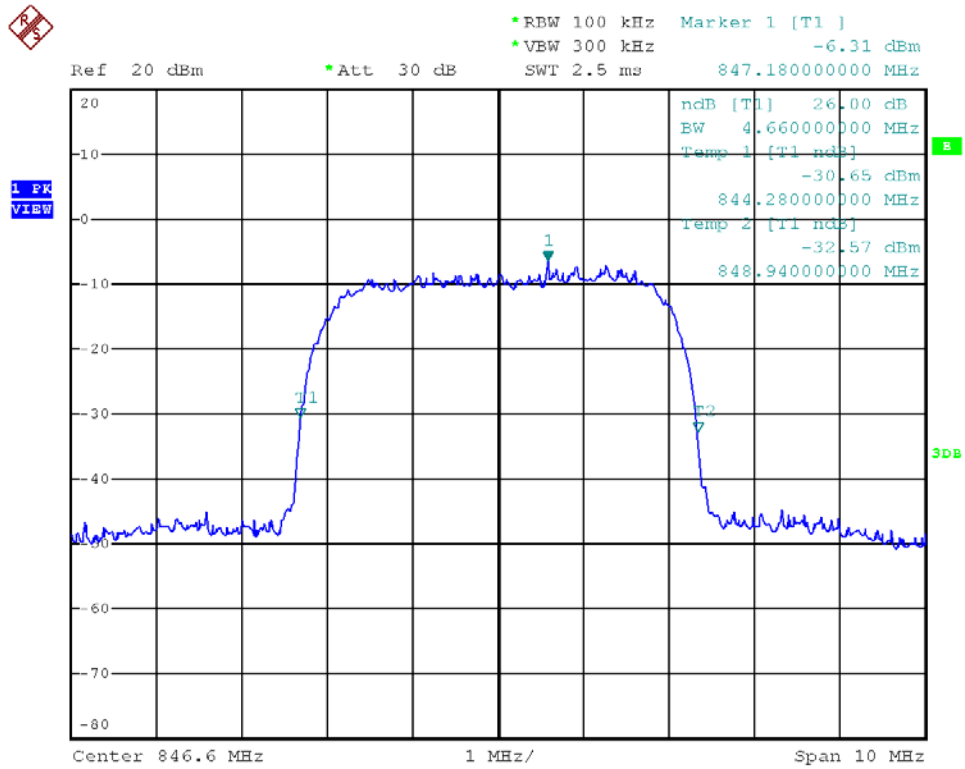


WCDMA Band V, CH 4180

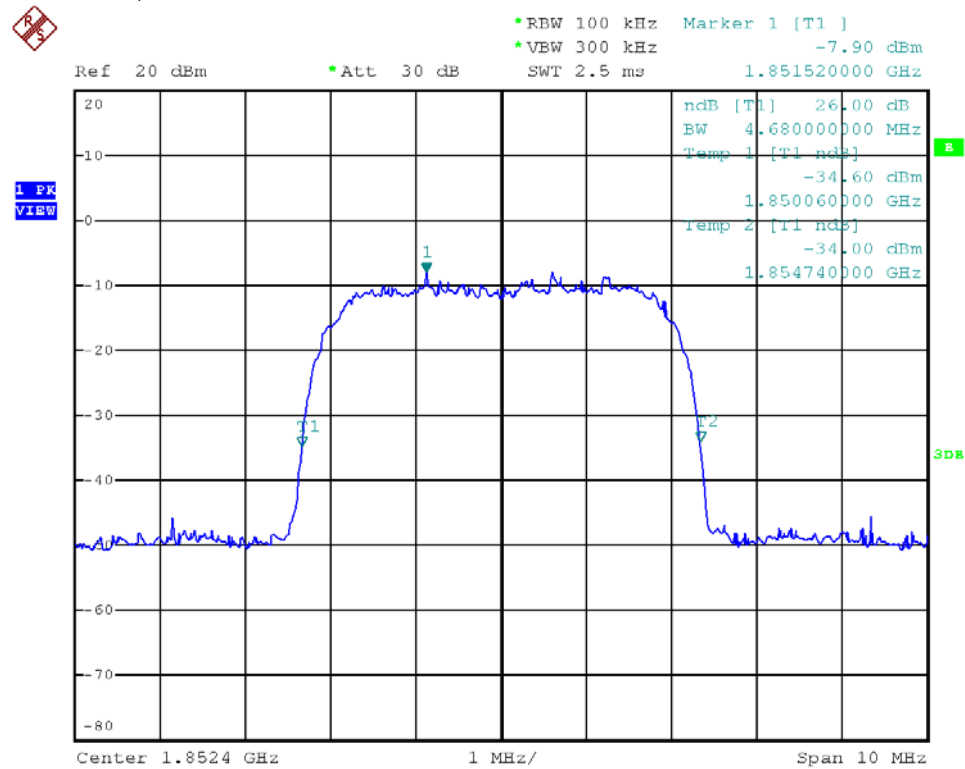




WCDMA Band V, CH 4233

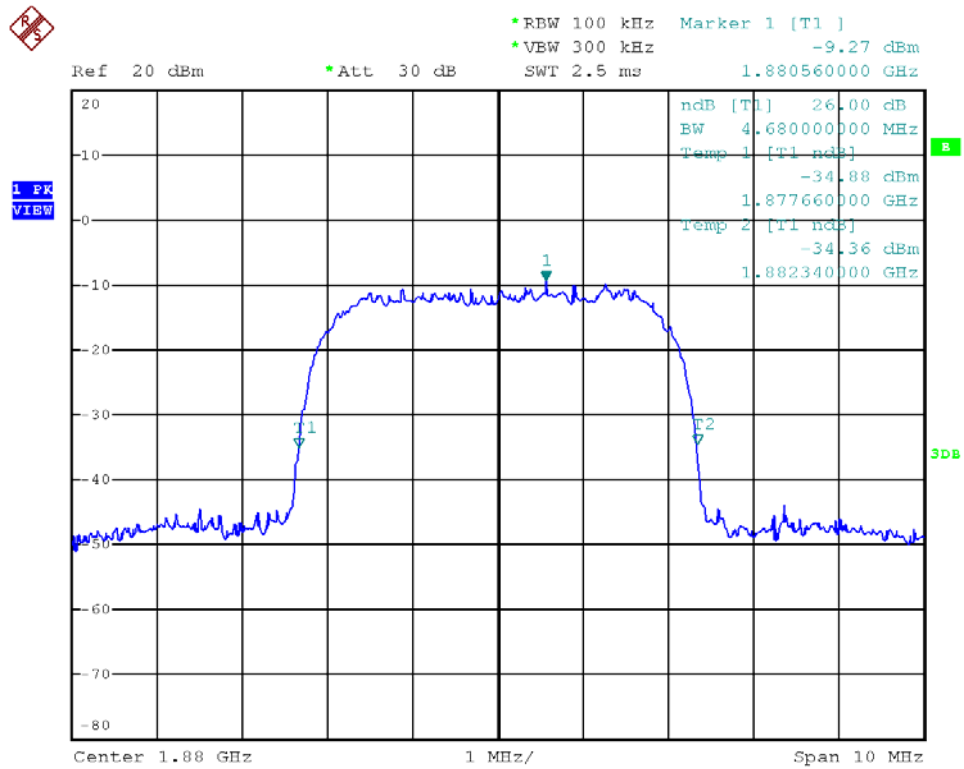


WCDMA Band II, CH 9262

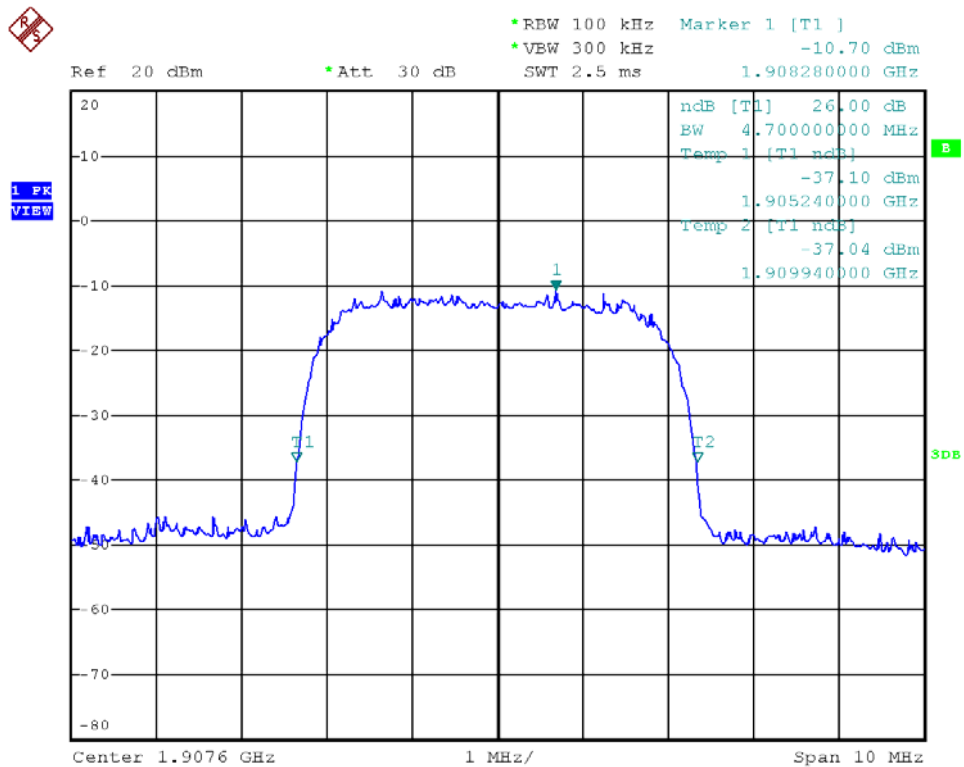




WCDMA Band II, CH 9400



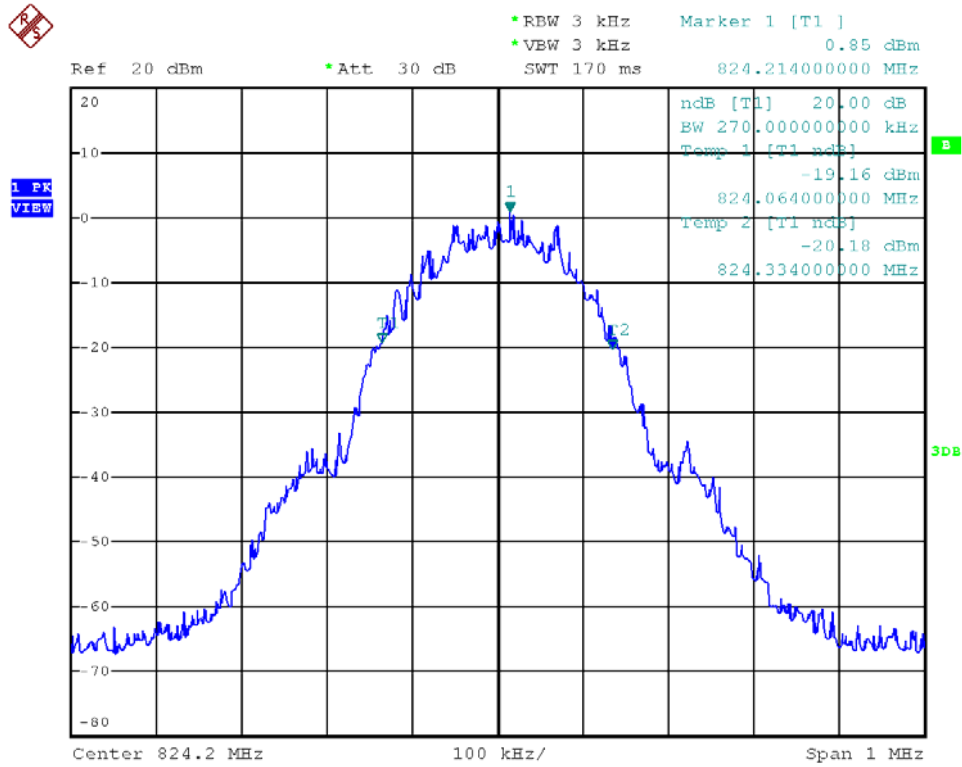
WCDMA Band II, CH 9538



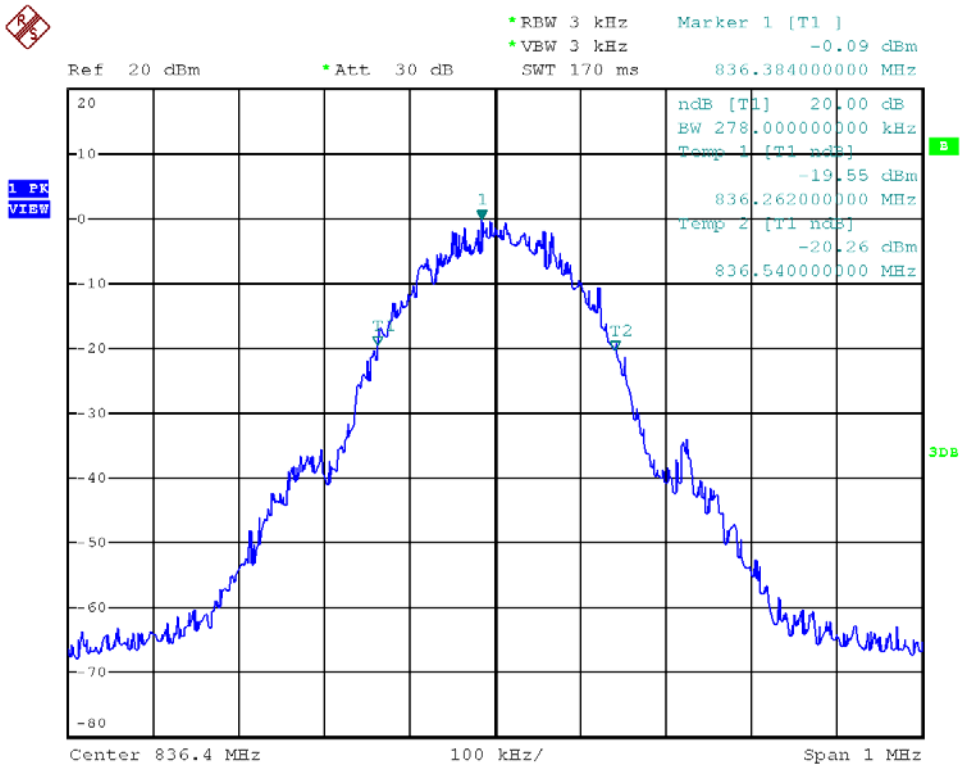


-20dBc Bandwidth

GSM 850, CH 128

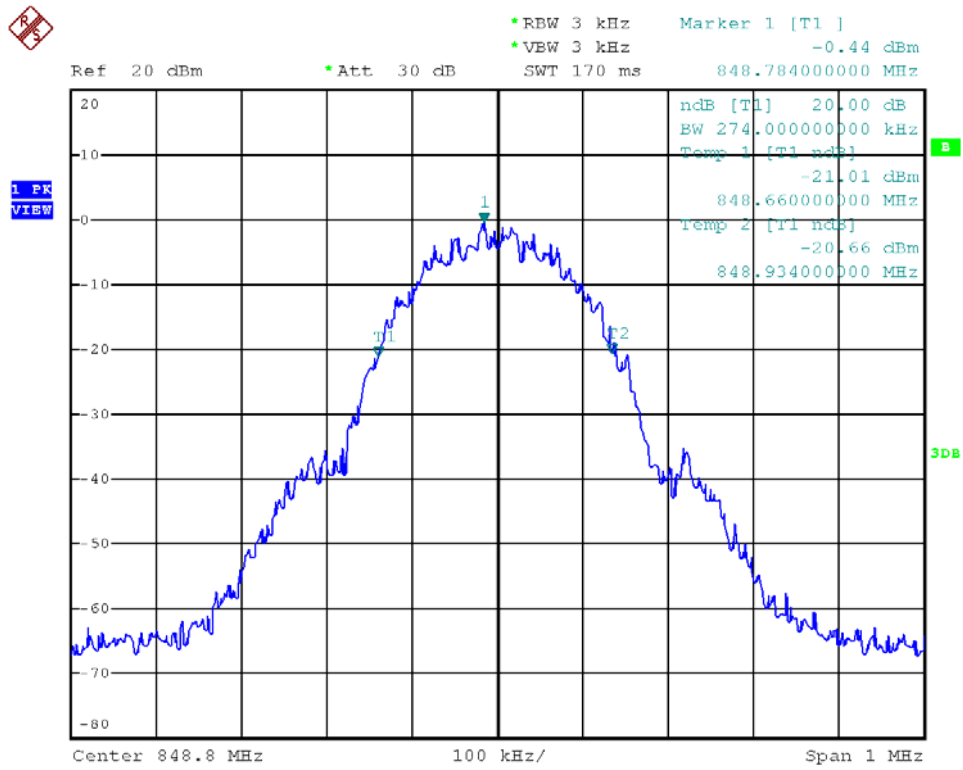


GSM 850, CH 189

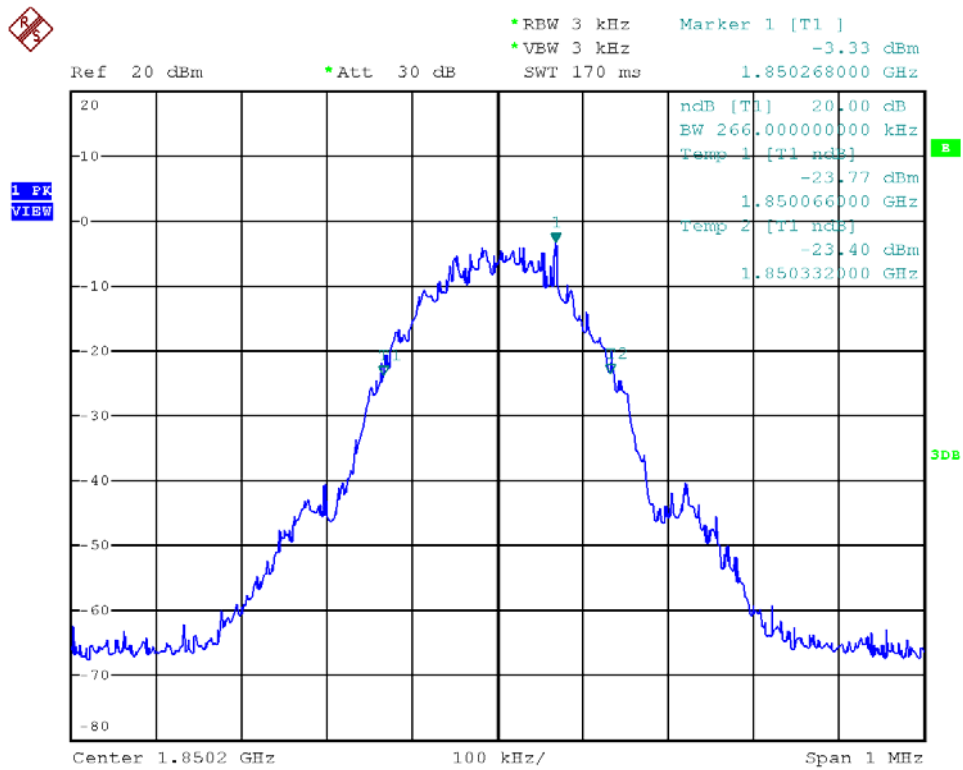




GSM 850, CH 251

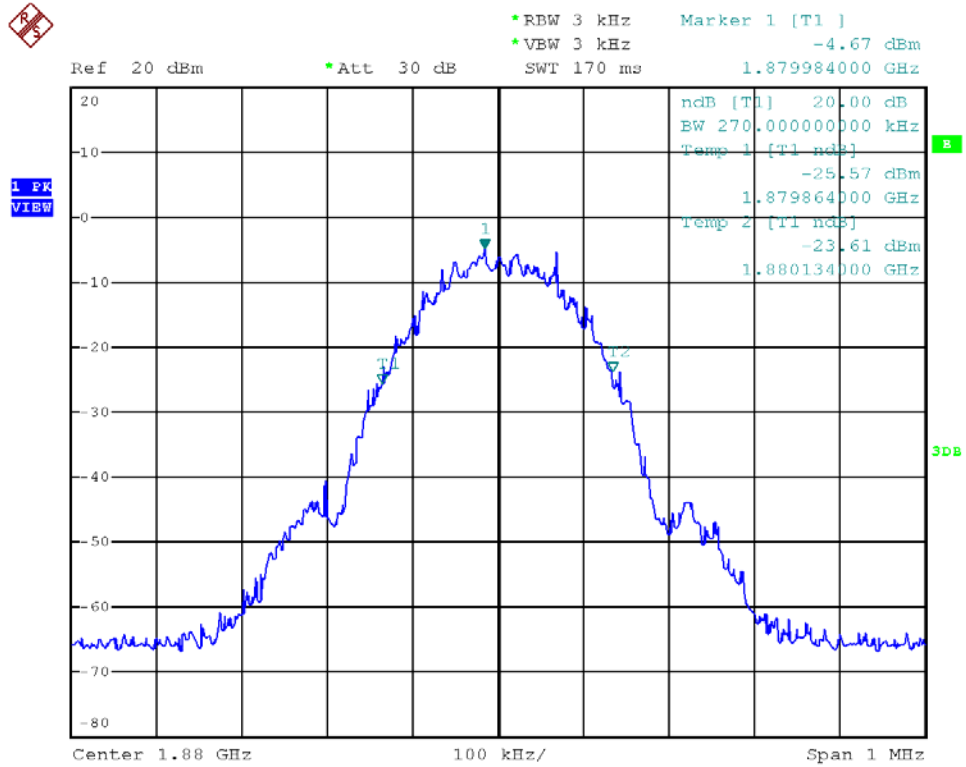


DCS 1900, CH 512

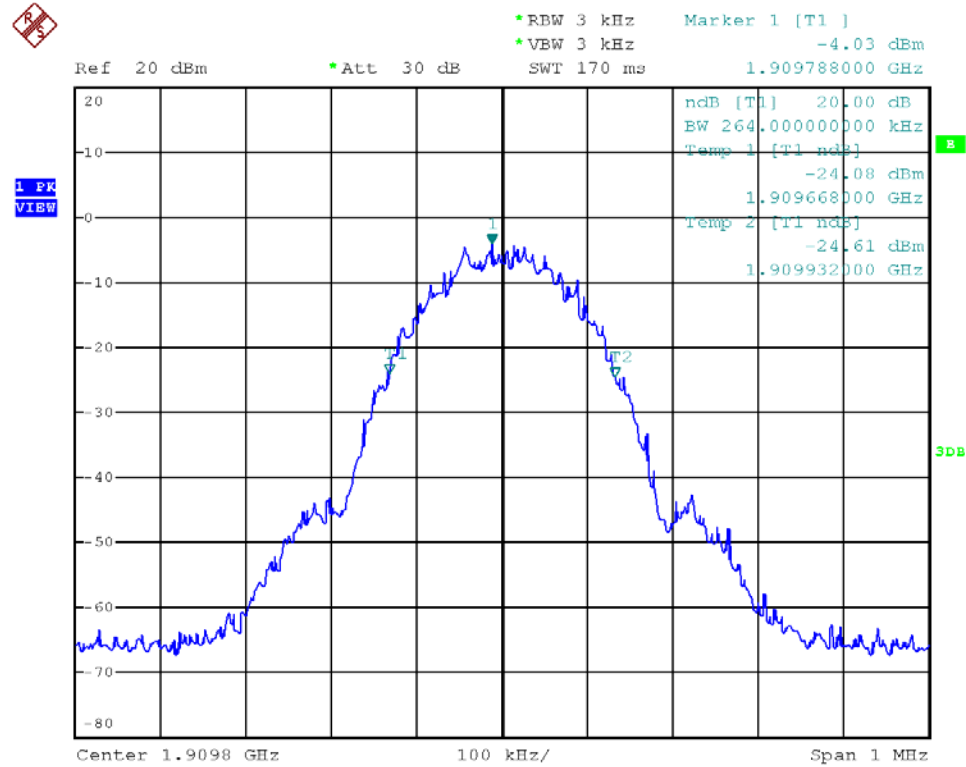




DCS 1900, CH 661

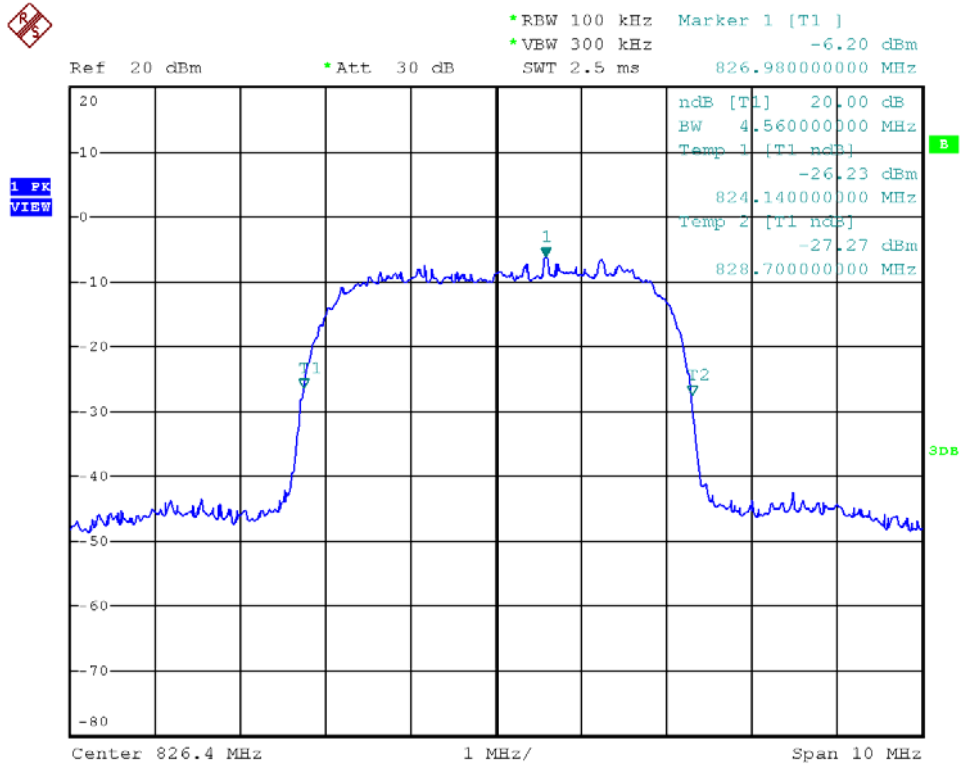


DCS 1900, CH 810

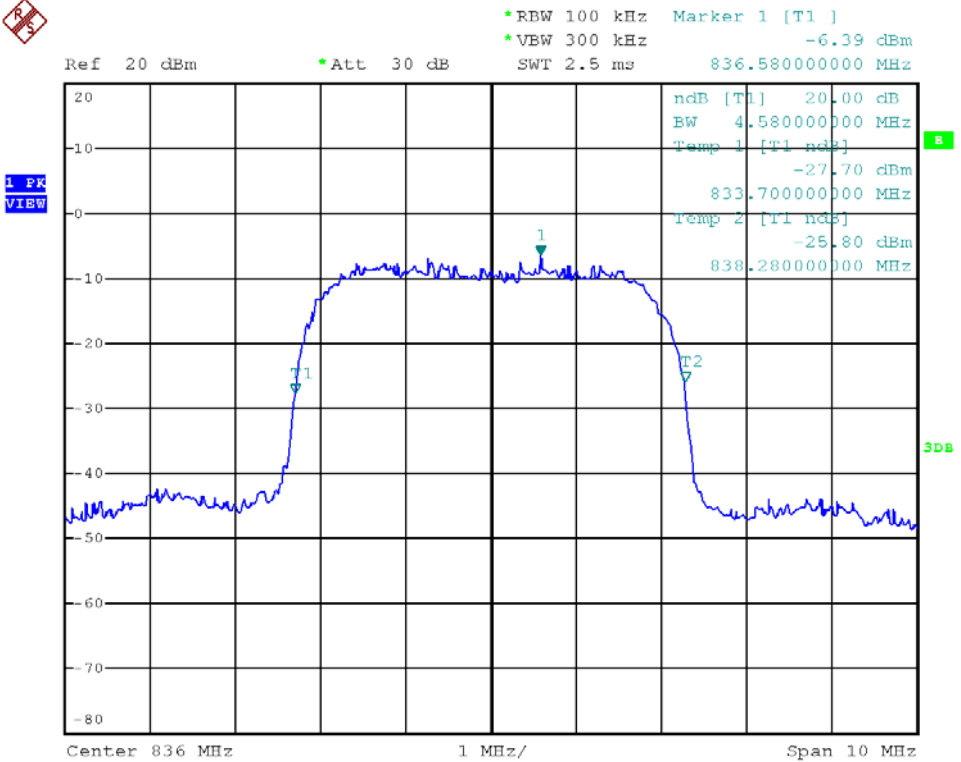




WCDMA Band V, CH 4132

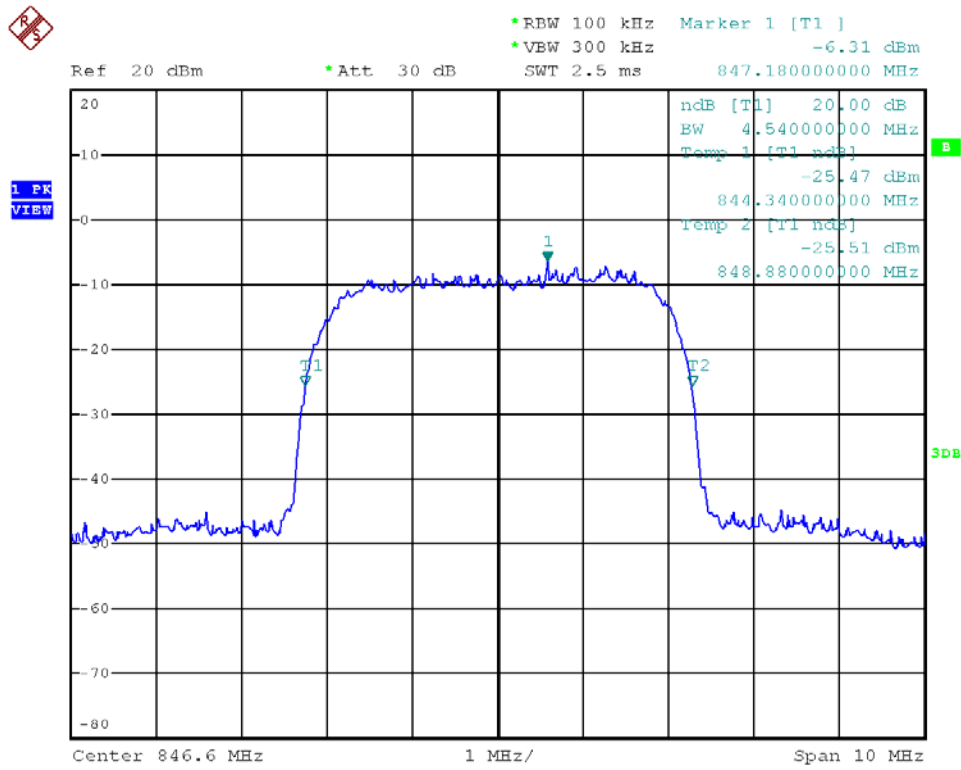


WCDMA Band V, CH 4180

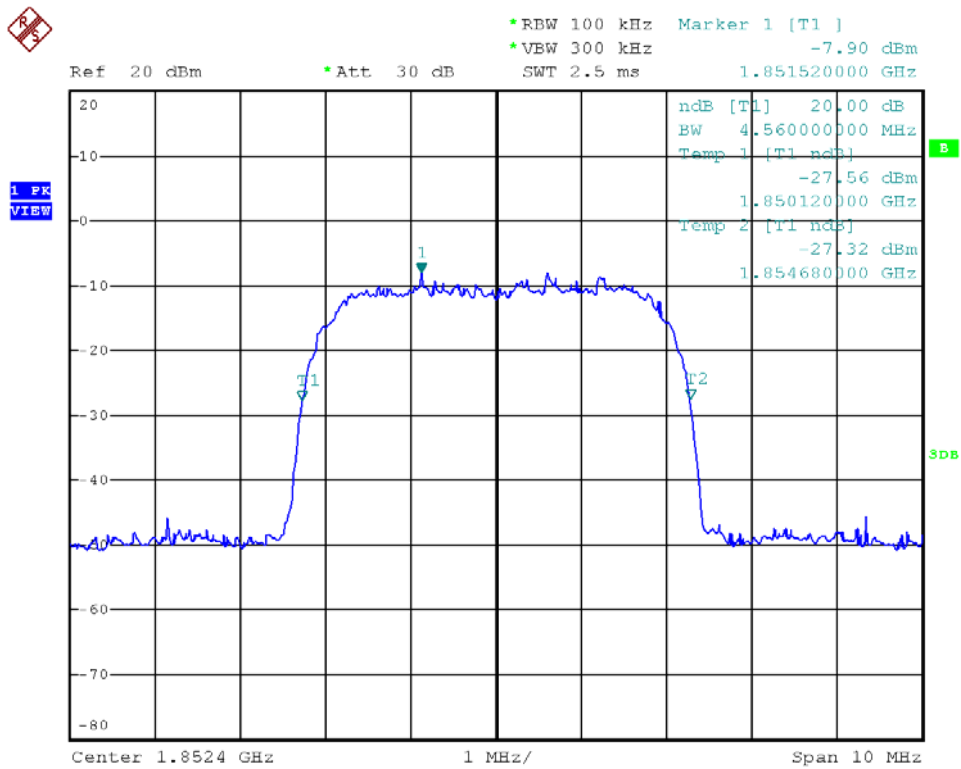




WCDMA Band V, CH 4233

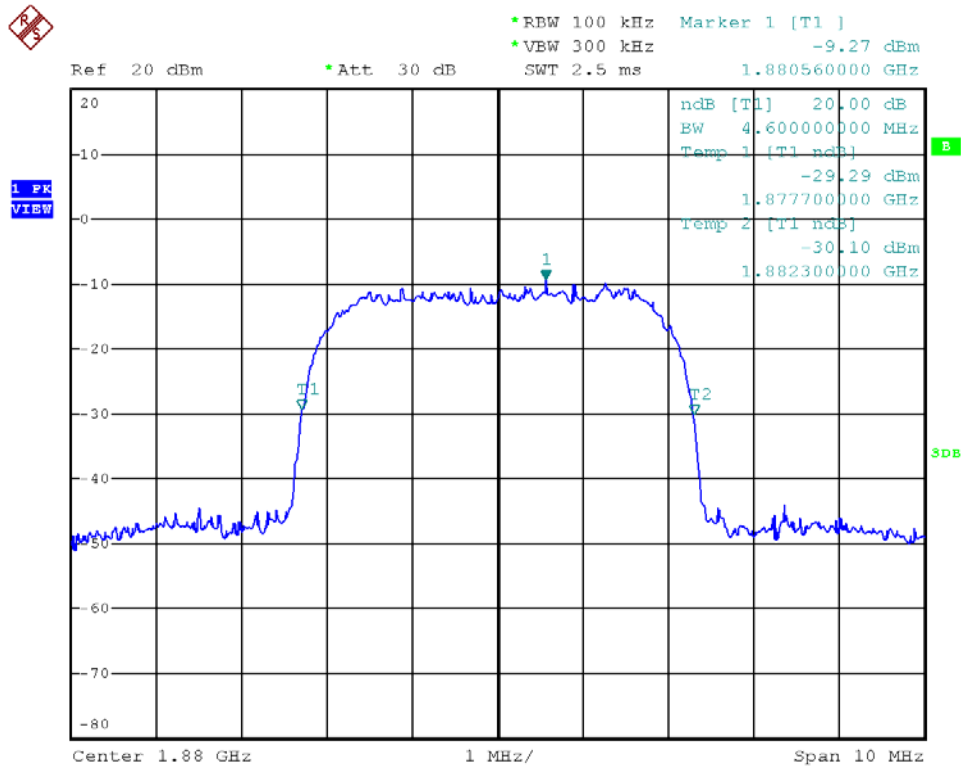


WCDMA Band II, CH 9262

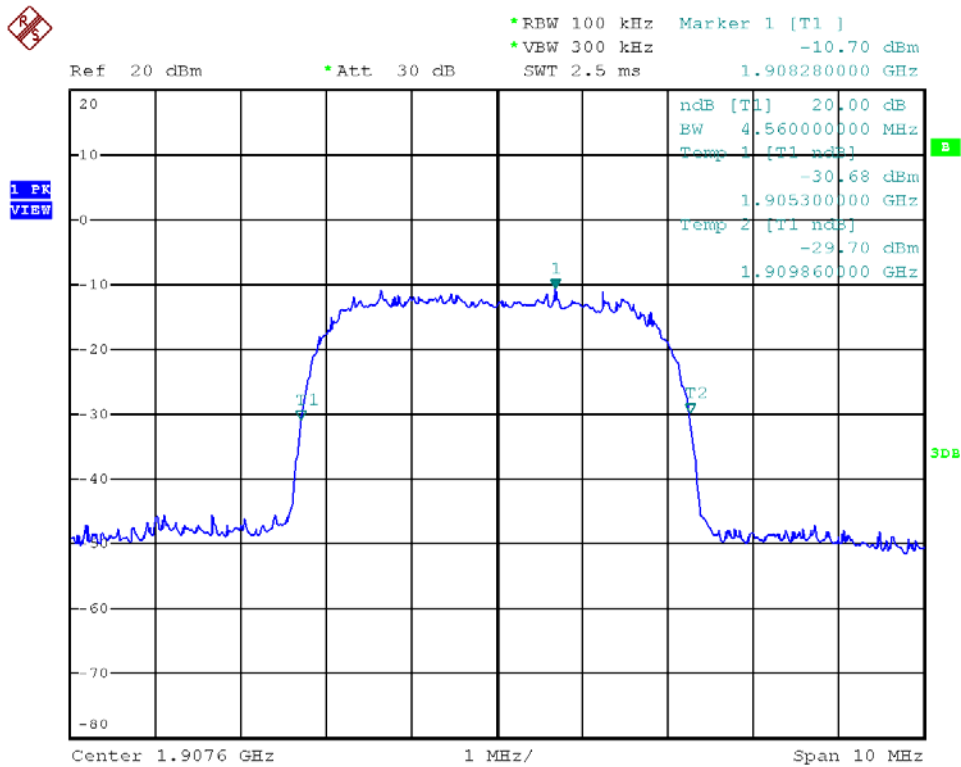




WCDMA Band II, CH 9400



WCDMA Band II, CH 9538





7. Band Edge Measurement

7.1 Test Limit

-13dBm

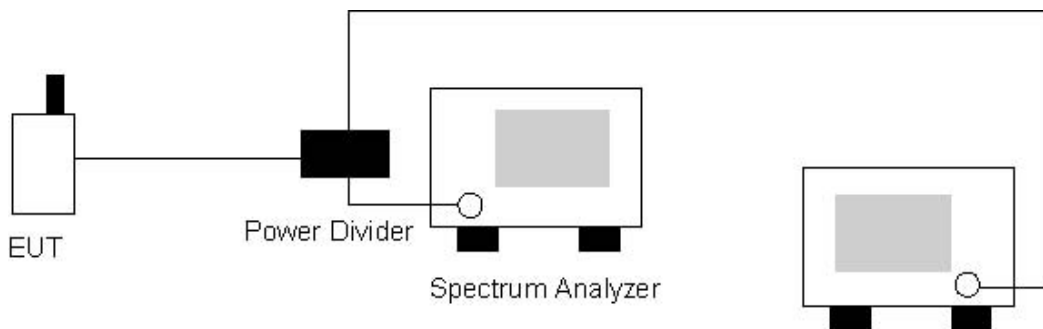
7.2 Measurement Instruments

As described in chapter 2.5 of this test report.

7.3 Test Procedure

- a. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
- b. The 99% occupied bandwidth of middle channel for the highest and lowest RF powers were measured.
- c. The bandedge of low and high channels for the highest RF powers within the transmitting frequency band were measured. Setting RBW as roughly BW/100.

7.4 Test Setup Layout





7.5 Test Result and Data

Test Date: Feb. 07, 2013

Temperature: 23°C

Atmospheric pressure: 1020 hPa

Humidity: 61%

GSM 850

Channel	Frequency (MHz)	Maximum value in frequency (MHz)	Maximum value (dBm)
CH 128	824.2	823.996	-31.72
CH 251	848.8	849.022	-35.36

DCS 1900

Channel	Frequency (MHz)	Maximum value in frequency (MHz)	Maximum value (dBm)
CH 512	1850.2	1849.998	-39.67
CH 810	1909.8	1910.020	-41.47

Test Date: Jan. 31, 2013

Temperature: 21°C

Atmospheric pressure: 1020 hPa

Humidity: 64%

WCDMA Band V

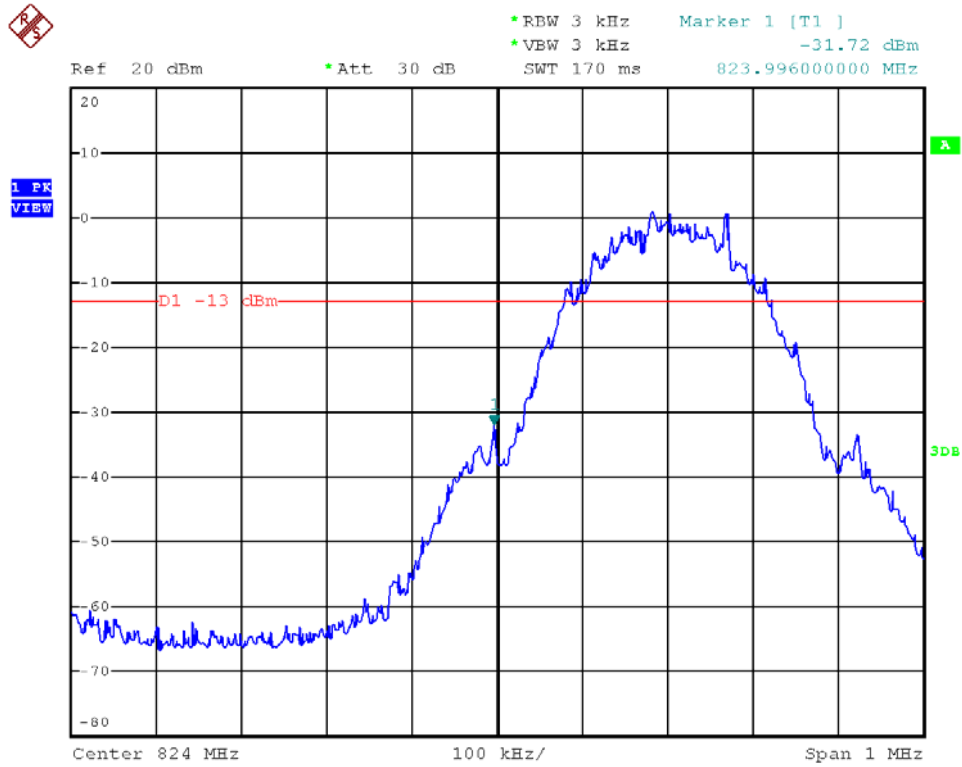
Channel	Frequency (MHz)	Maximum value in frequency (MHz)	Maximum value (dBm)
CH 4132	826.4	824.000	-41.87
CH 4233	846.6	849.000	-41.20

WCDMA Band II

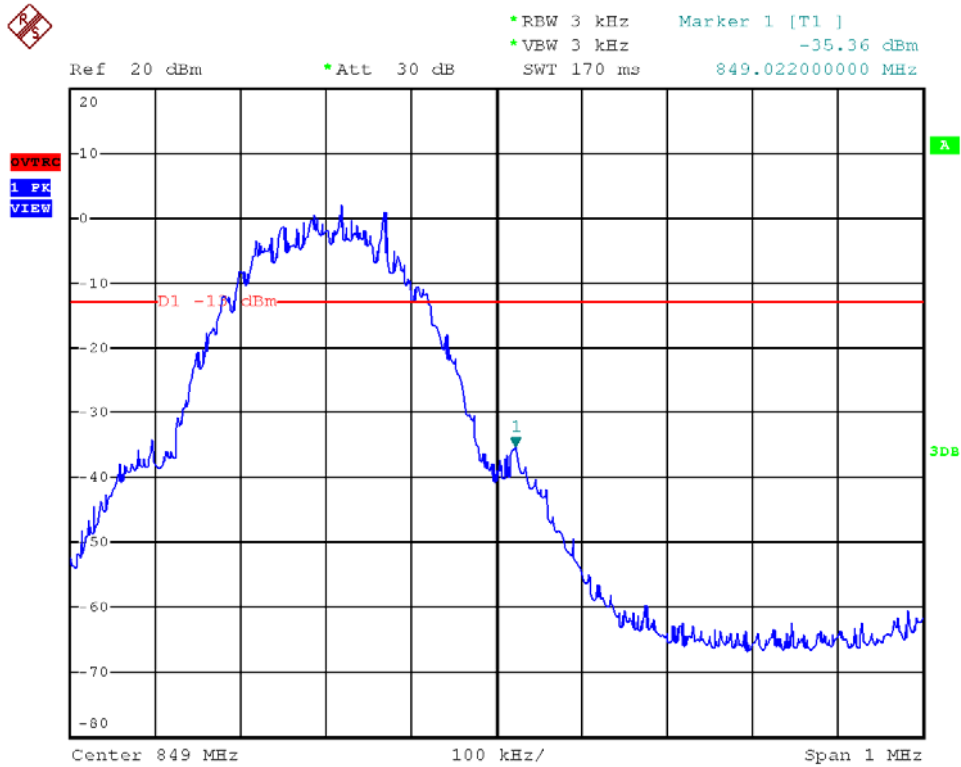
Channel	Frequency (MHz)	Maximum value in frequency (MHz)	Maximum value (dBm)
CH 9262	1852.4	1850.000	-43.09
CH 9538	1907.6	1910.000	-44.92



GSM 850, CH 128

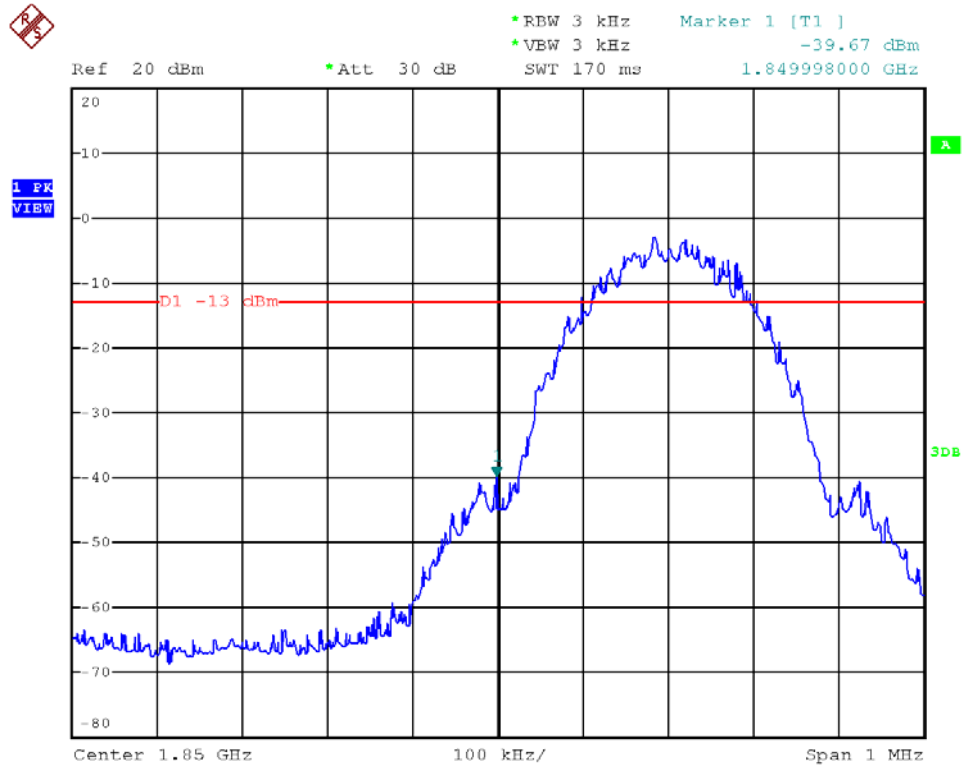


GSM 850, CH 251

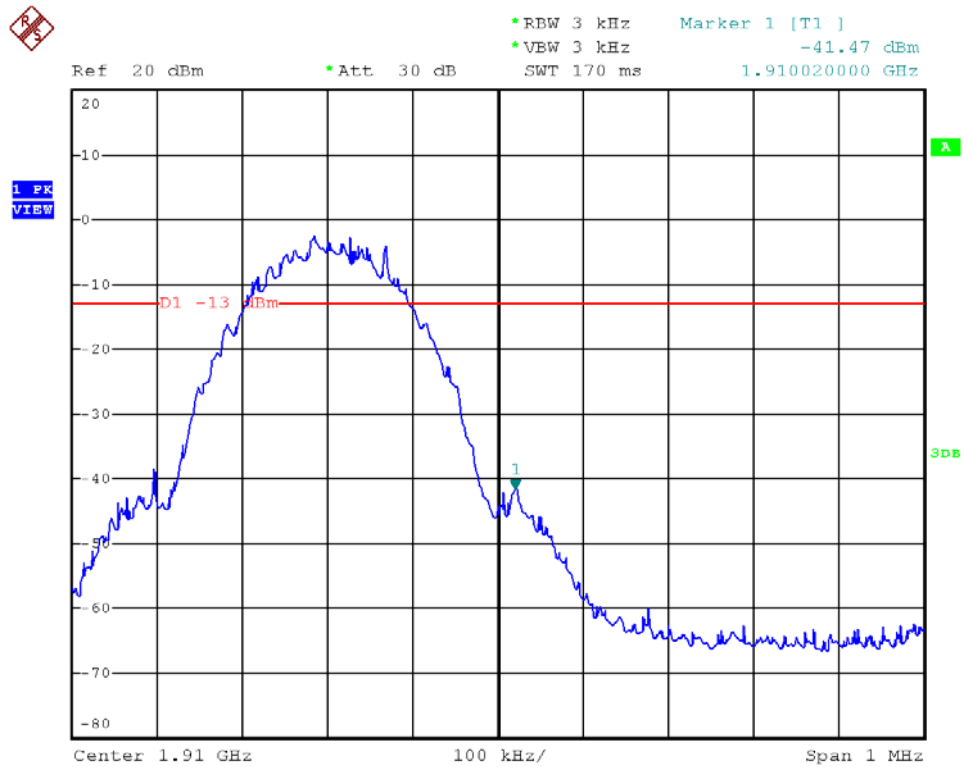




DCS 1900, CH 512

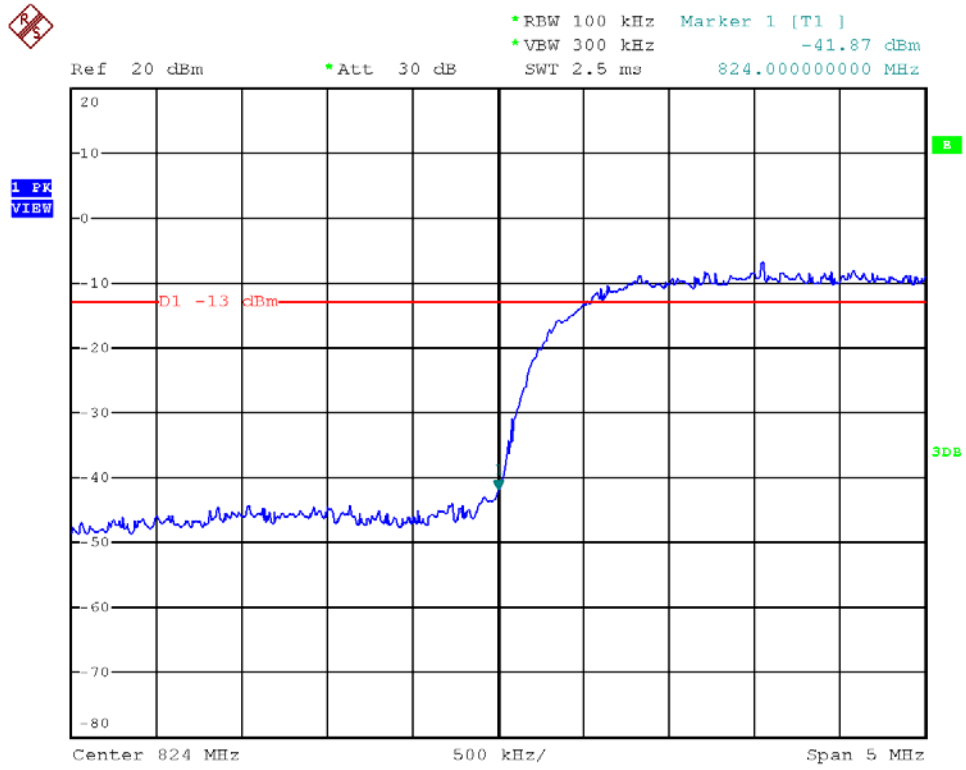


DCS 1900, CH 810

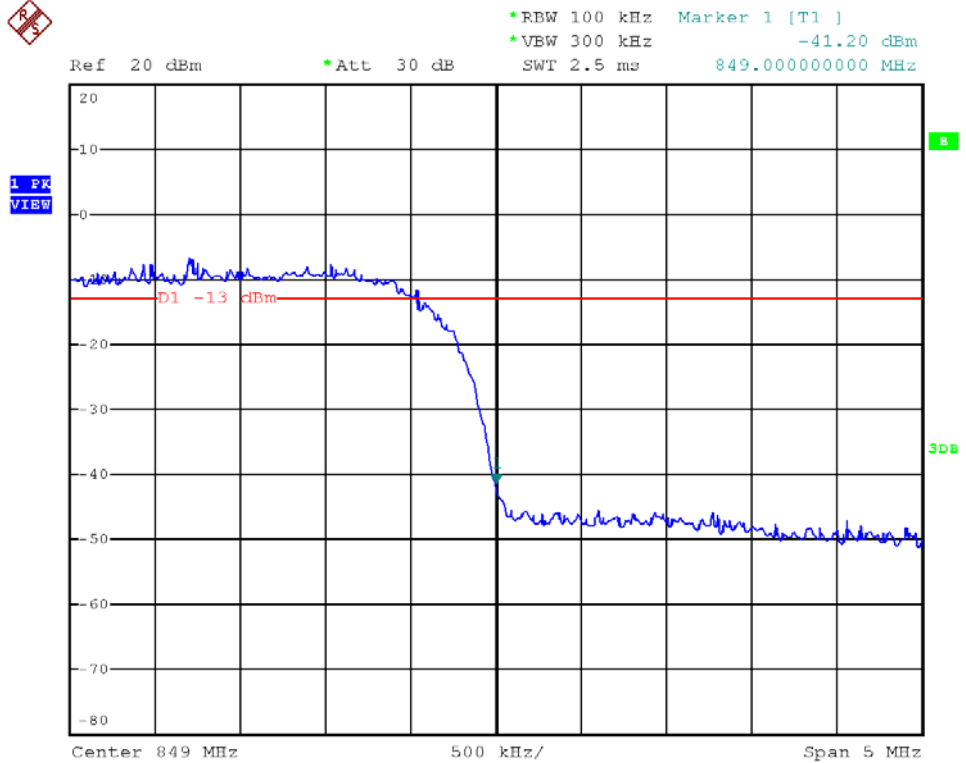




WCDMA Band V, CH 4132

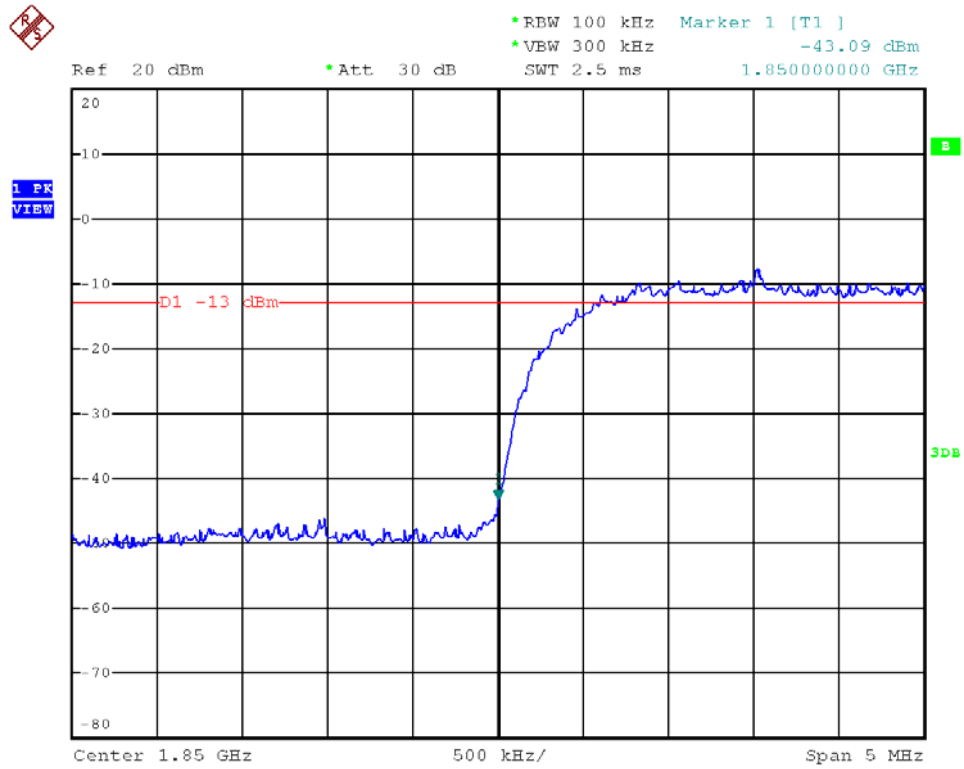


WCDMA Band V, CH 4233

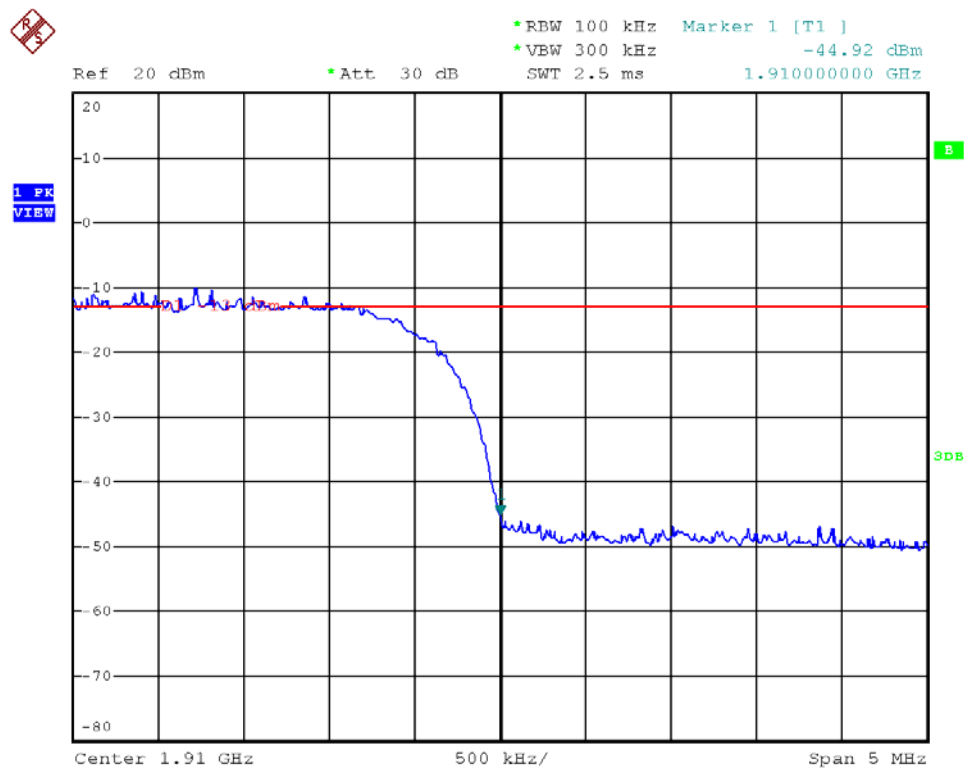




WCDMA Band II, CH 9262



WCDMA Band II, CH 9538





8. Conducted Spurious Emission

8.1 Test Limit

-13dBm

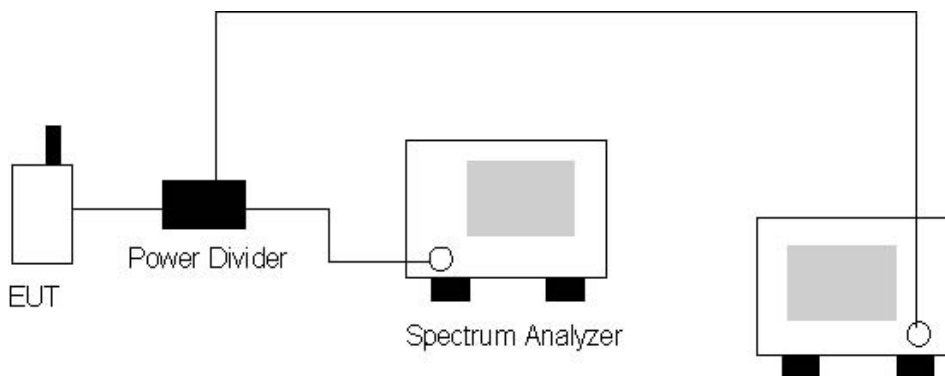
8.2 Measurement Instruments

As described in chapter 2.5 of this test report.

8.3 Test Procedure

- a. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
- b. The middle channel for the highest RF power within the transmitting frequency was measured.
- c. The conducted spurious emission for the whole frequency range was taken.

8.4 Test Setup Layout





8.5 Test Result and Data

Test Date: Feb. 06, 2013

Temperature: 22°C

Atmospheric pressure: 1020 hPa

Humidity: 65%

GSM 850

Channel	Frequency (MHz)	Maximum value in frequency (MHz)		Maximum value (dBm)	
		9K-1G	1G-20G	9K-1G	1G-20G
CH 128	824.2	9K-1G	398.01	9K-1G	-47.91
		1G-20G	14452.00	1G-20G	-36.48
CH 189	848.8	9K-1G	906.00	9K-1G	-47.86
		1G-20G	14148.00	1G-20G	-36.08
CH 251	848.8	9K-1G	308.01	9K-1G	-47.72
		1G-20G	14414.00	1G-20G	-36.89

DCS 1900

Channel	Frequency (MHz)	Maximum value in frequency (MHz)		Maximum value (dBm)	
		9K-1G	1G-20G	9K-1G	1G-20G
CH 512	1850.2	9K-1G	778.00	9K-1G	-47.66
		1G-20G	19316.00	1G-20G	-36.36
CH 661	1880.0	9K-1G	766.00	9K-1G	-47.65
		1G-20G	13844.00	1G-20G	-36.40
CH 251	1909.8	9K-1G	676.00	9K-1G	-47.91
		1G-20G	14300.00	1G-20G	-36.42



Test Date: Jan. 31, 2013

Temperature: 21°C

Atmospheric pressure: 1020 hPa

Humidity: 64%

WCDMA Band V

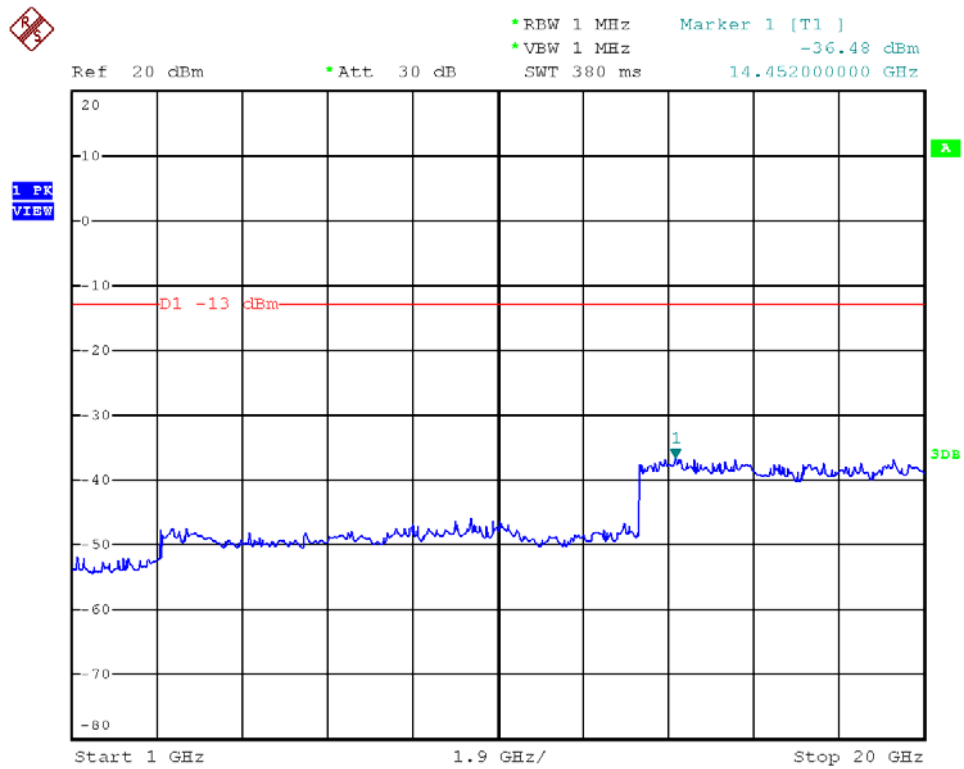
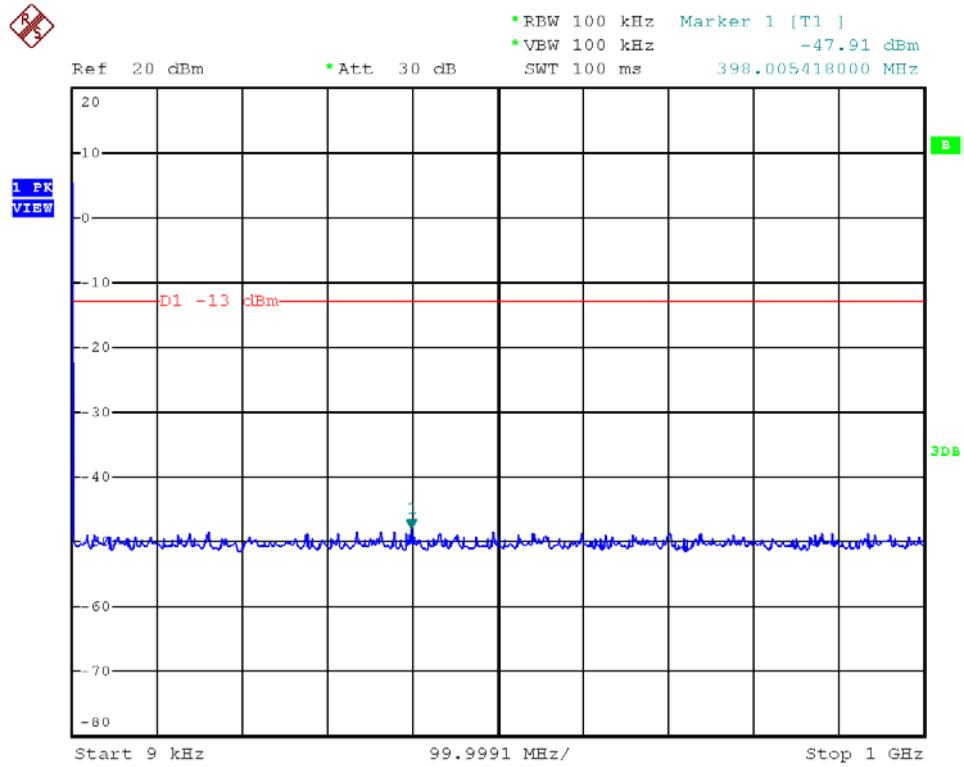
Channel	Frequency (MHz)	Maximum value in frequency (MHz)		Maximum value (dBm)	
		9K-1G	1G-20G	9K-1G	1G-20G
CH 4132	826.4	9K-1G	200.01	9K-1G	-48.13
		1G-20G	14414.00	1G-20G	-35.13
CH 4180	836.0	9K-1G	586.00	9K-1G	-48.30
		1G-20G	14490.00	1G-20G	-37.16
CH 4233	846.6	9K-1G	316.01	9K-1G	-48.07
		1G-20G	15174.00	1G-20G	-35.26

WCDMA Band II

Channel	Frequency (MHz)	Maximum value in frequency (MHz)		Maximum value (dBm)	
		9K-1G	1G-20G	9K-1G	1G-20G
CH 9262	1852.4	9K-1G	270.01	9K-1G	-47.79
		1G-20G	14452.00	1G-20G	-36.34
CH 9400	1880.0	9K-1G	646.00	9K-1G	-47.85
		1G-20G	16086.00	1G-20G	-36.02
CH 9538	1907.6	9K-1G	468.00	9K-1G	-47.54
		1G-20G	14452.00	1G-20G	-36.62

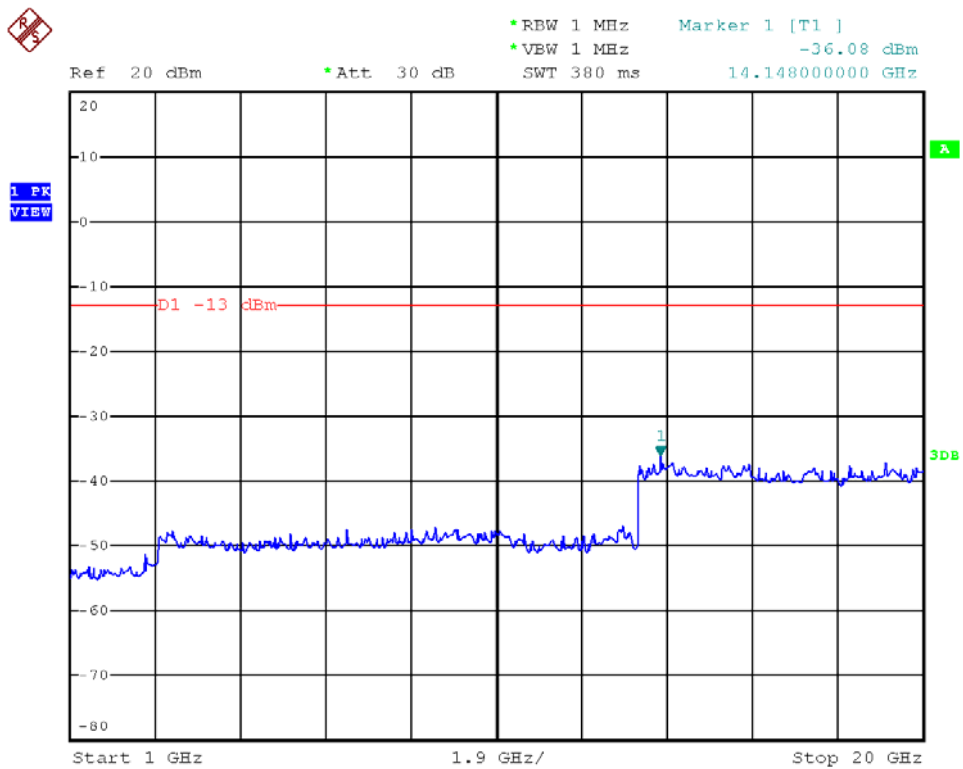
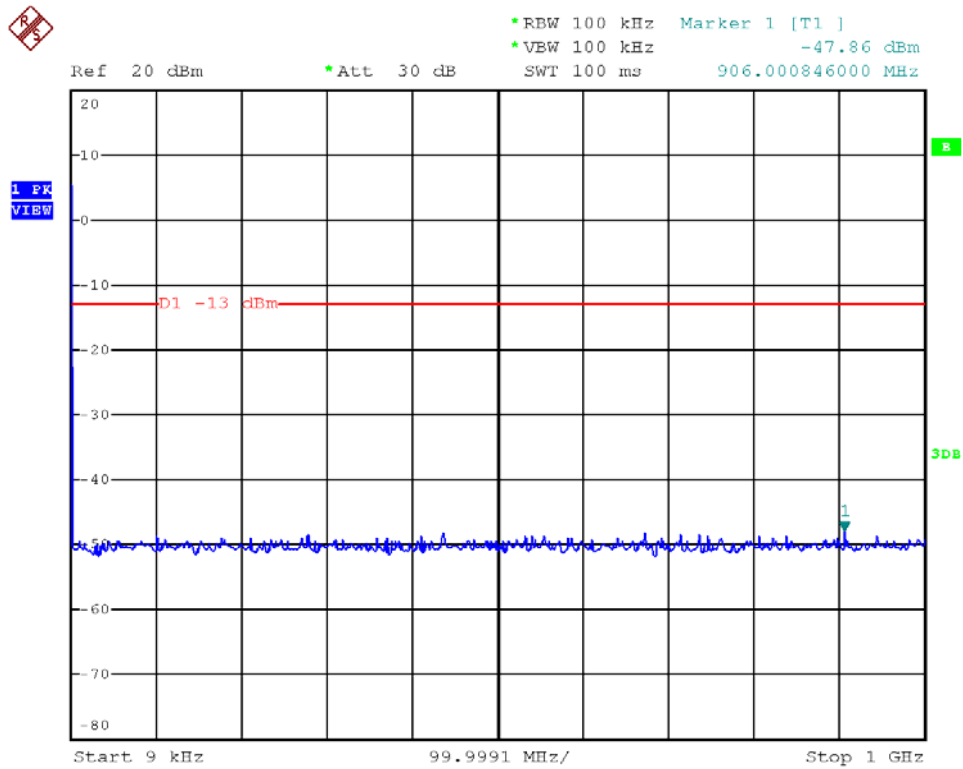


GSM 850, CH 128



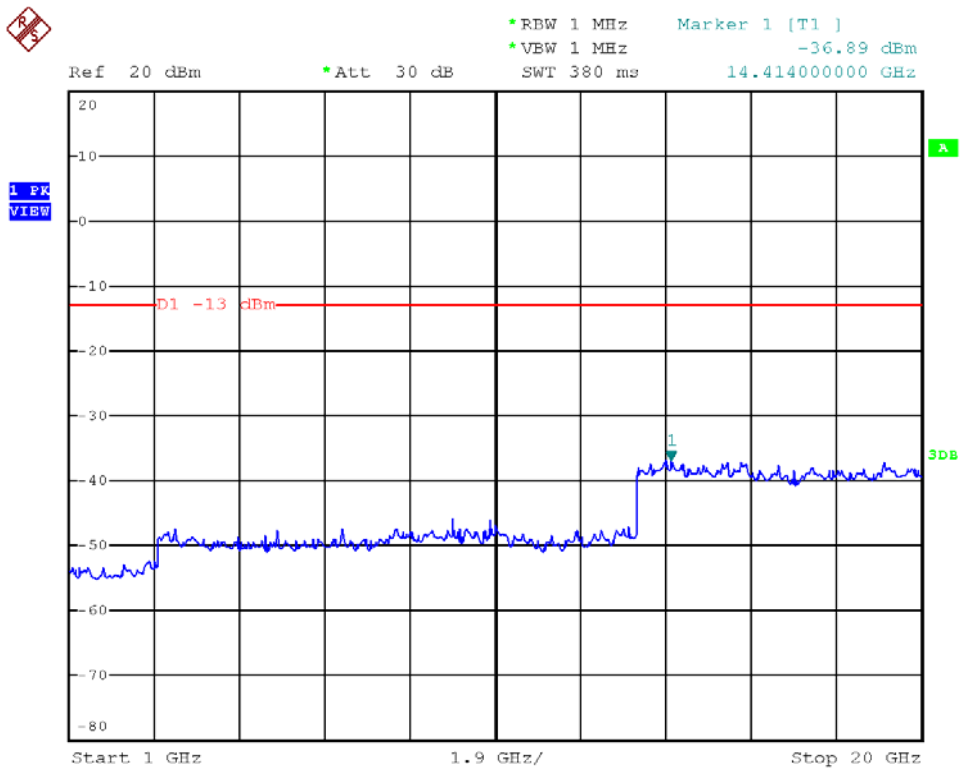
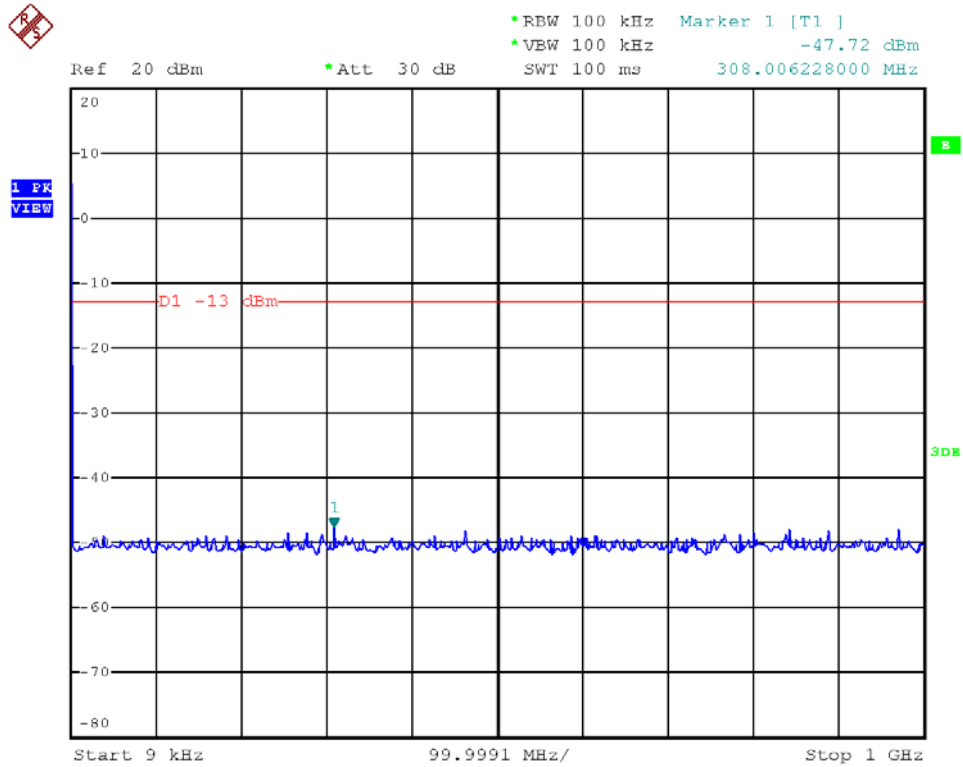


GSM 850, CH 189



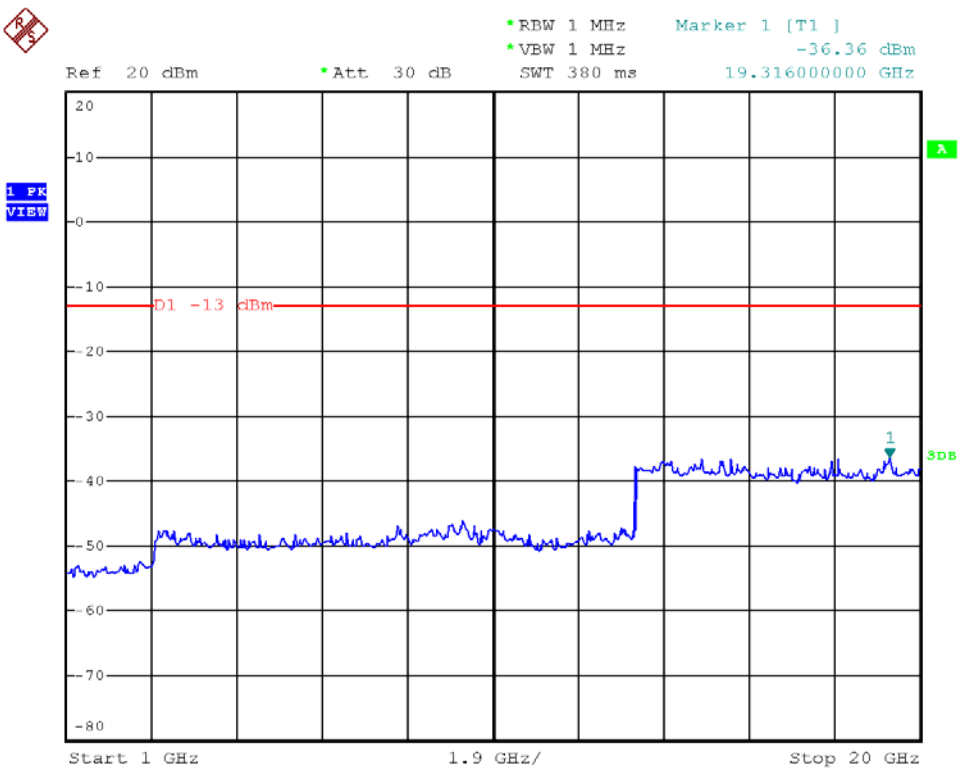
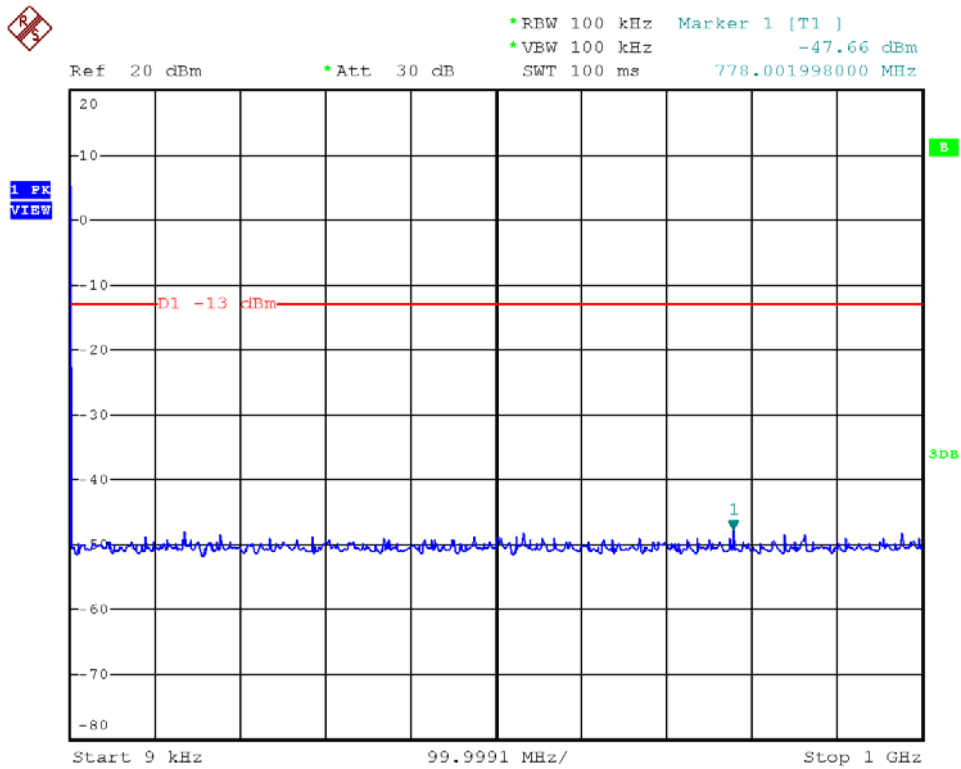


GSM 850, CH 251



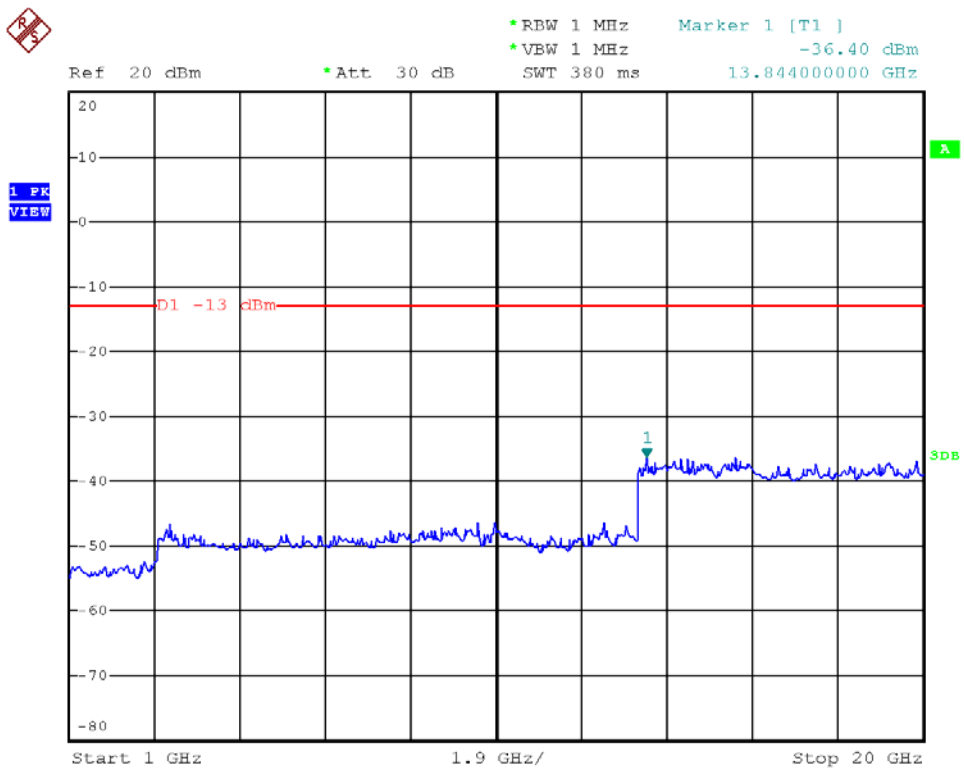
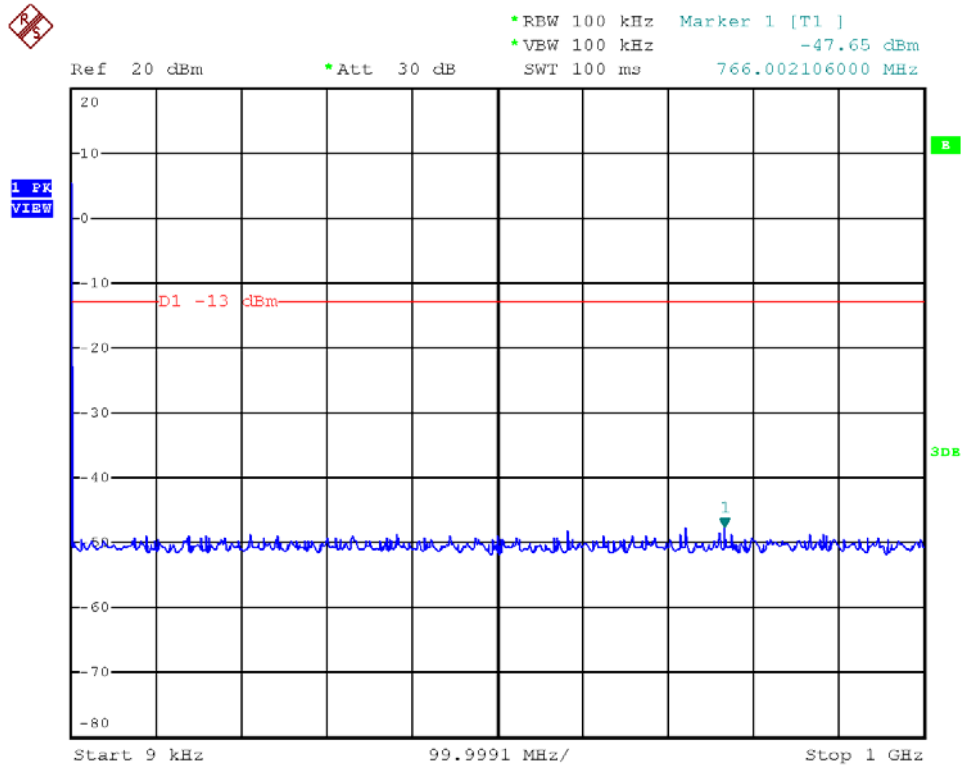


DCS 1900, CH 512



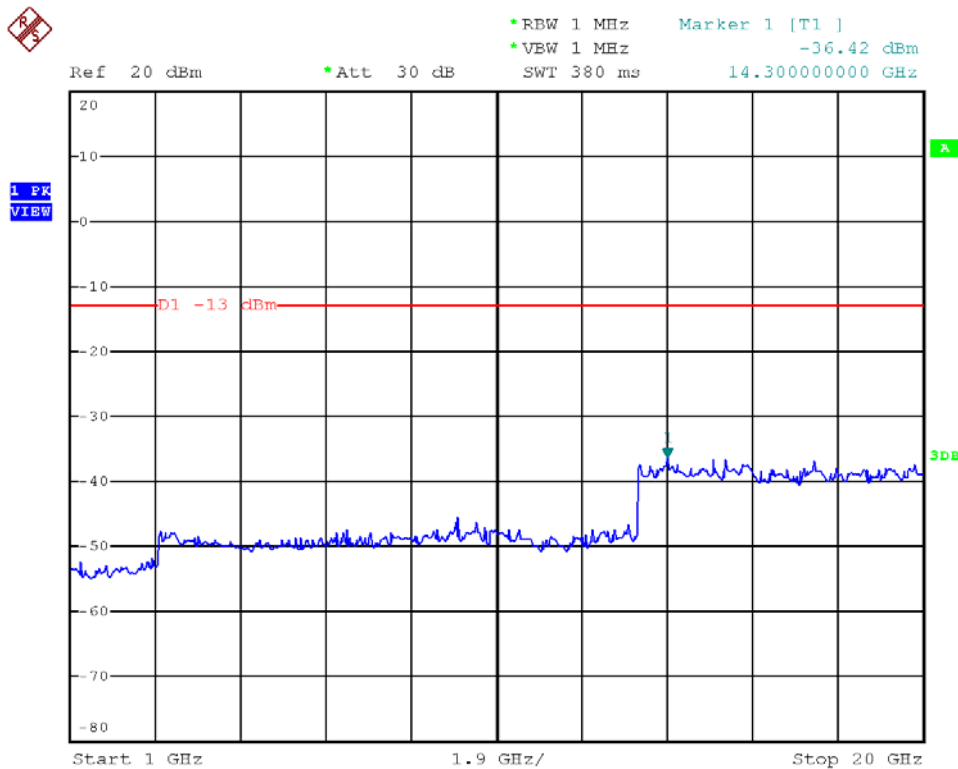
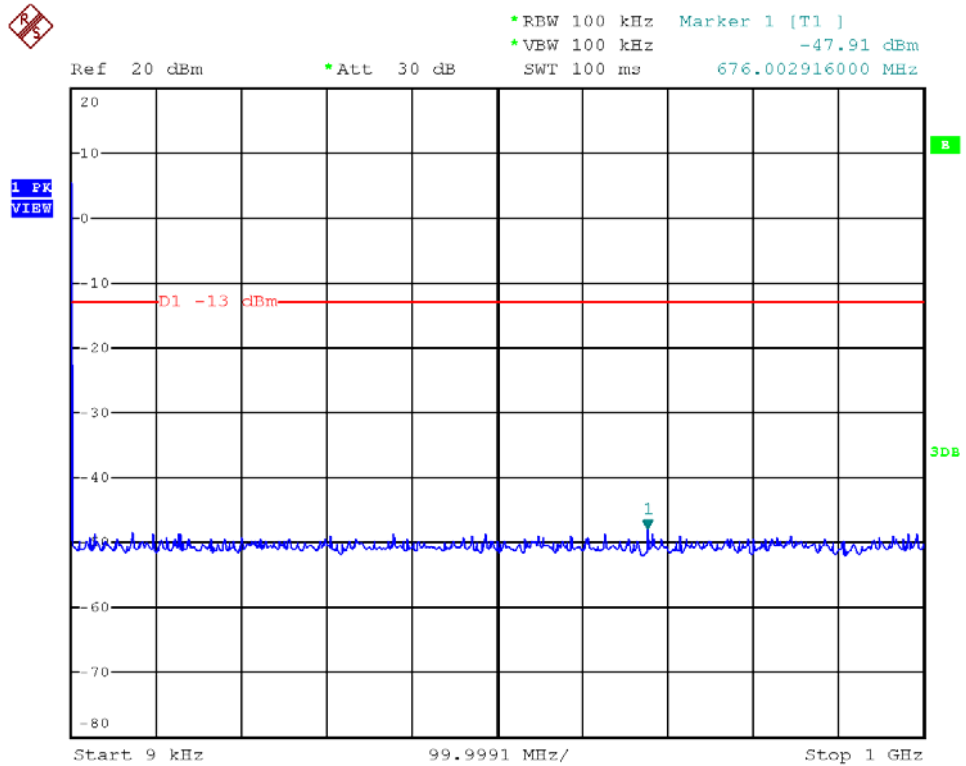


DCS 1900, CH 661



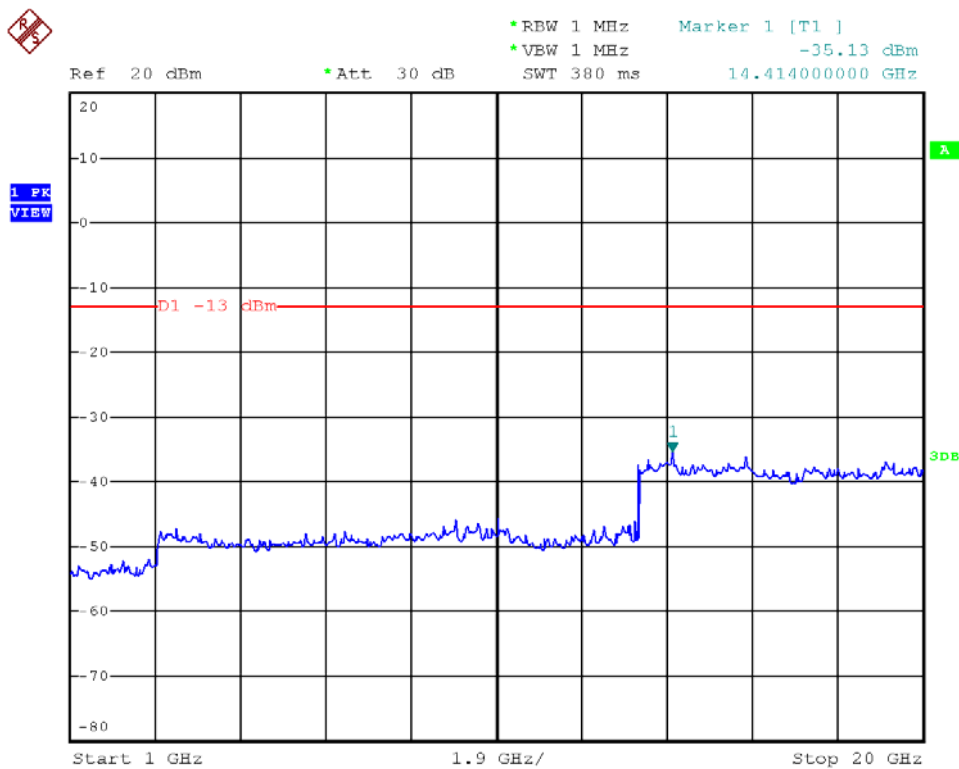
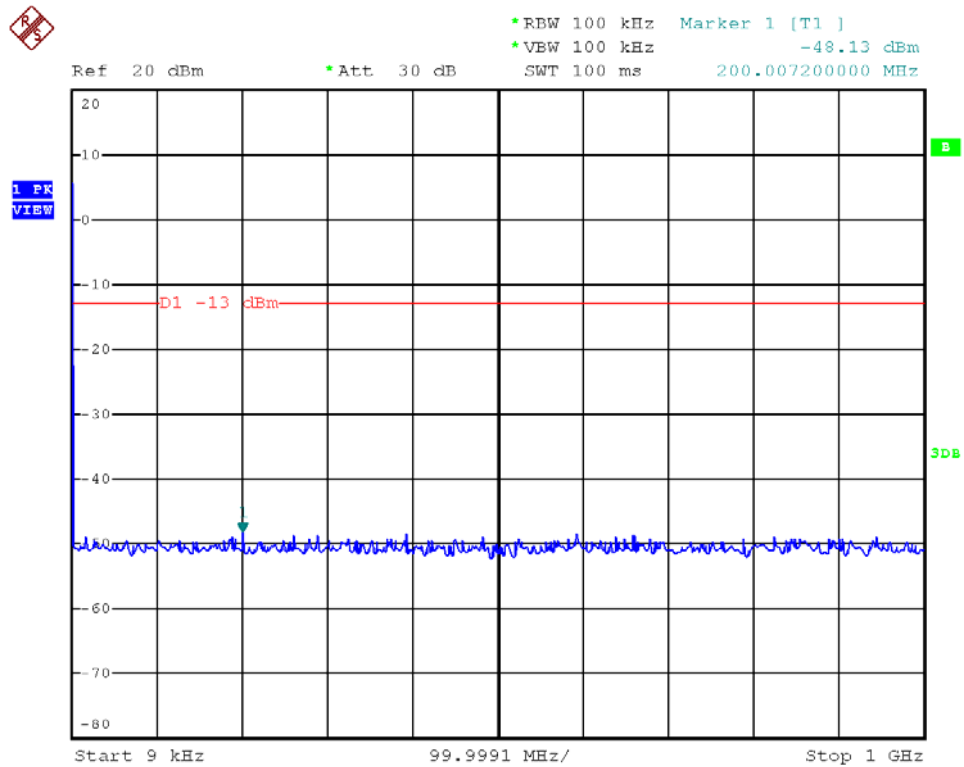


DCS 1900, CH 810



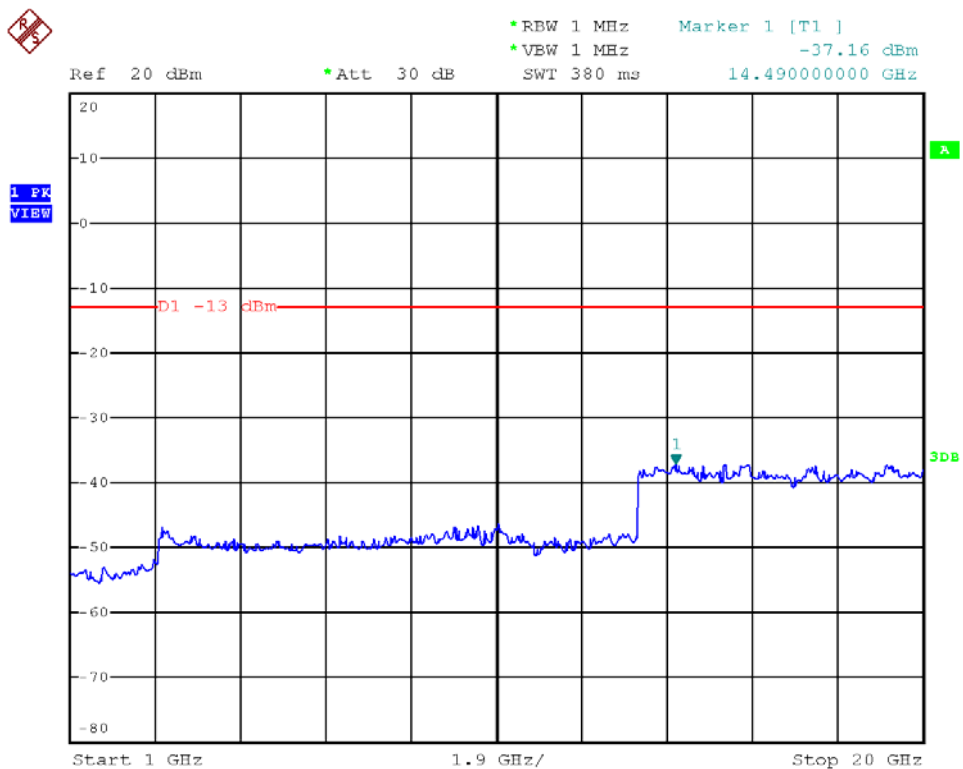
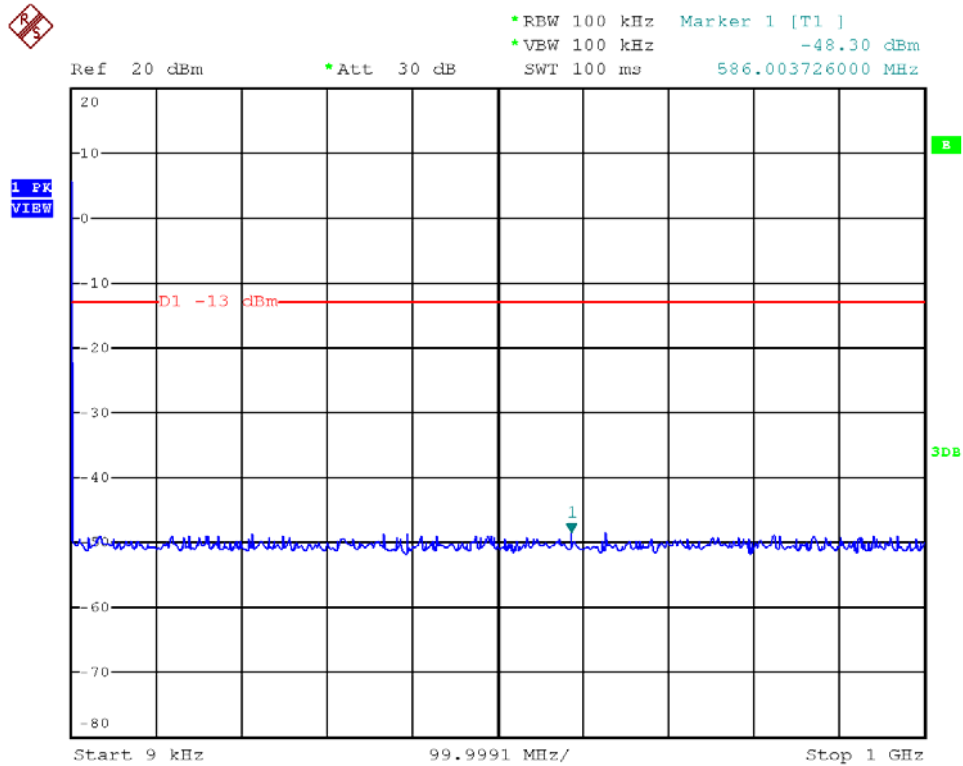


WCDMA Band V, CH 4132



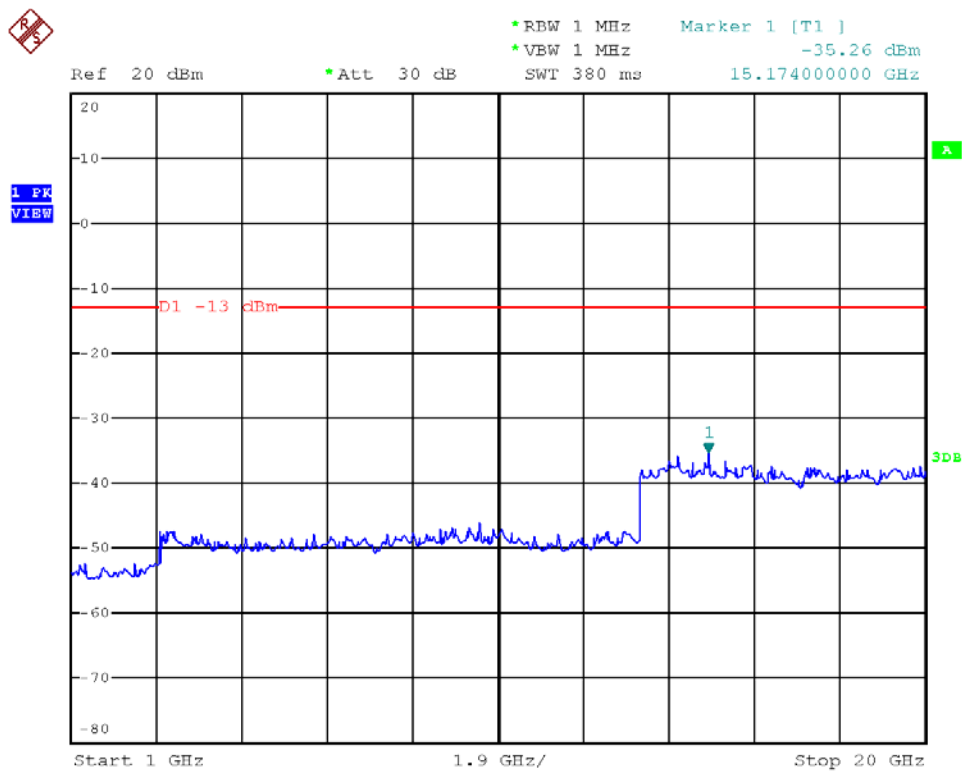
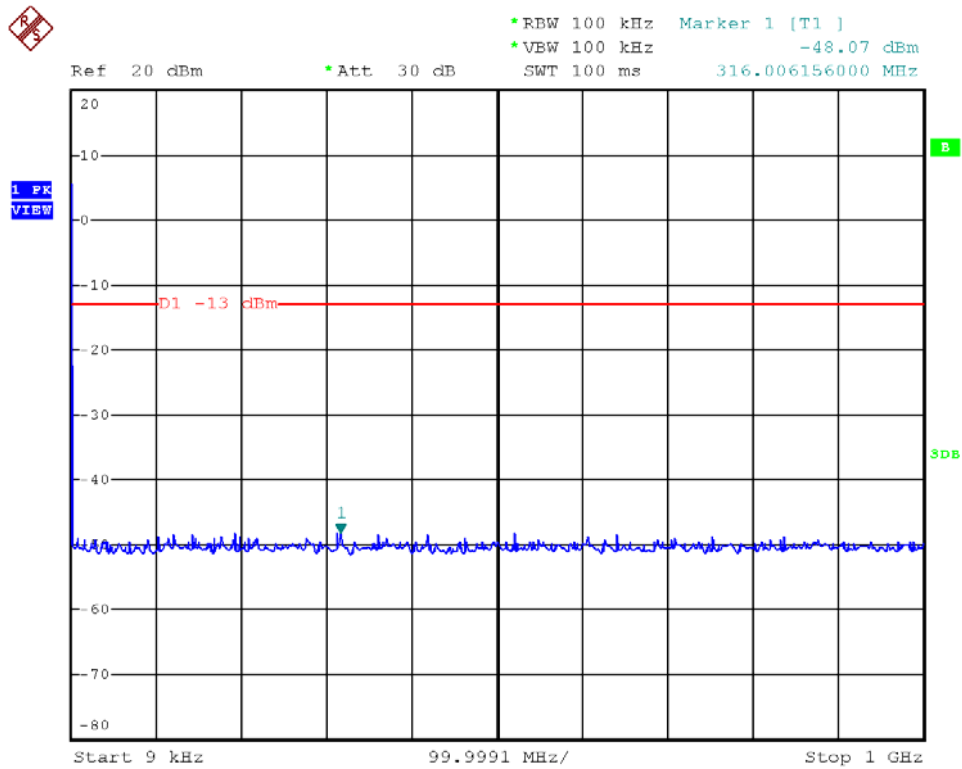


WCDMA Band V, CH 4180



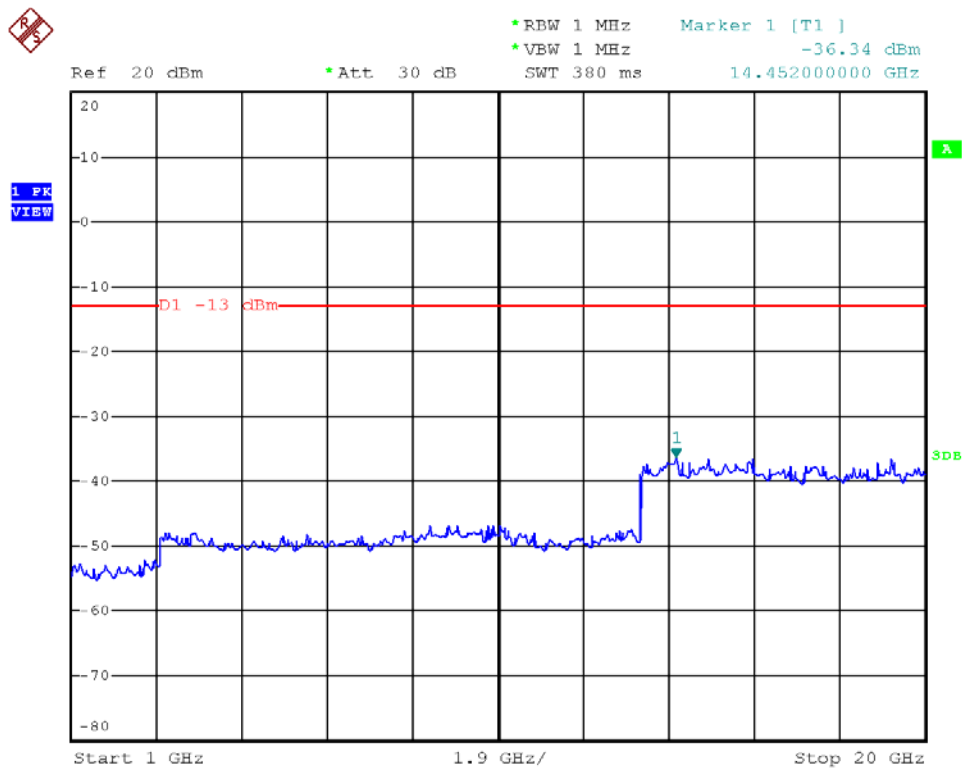
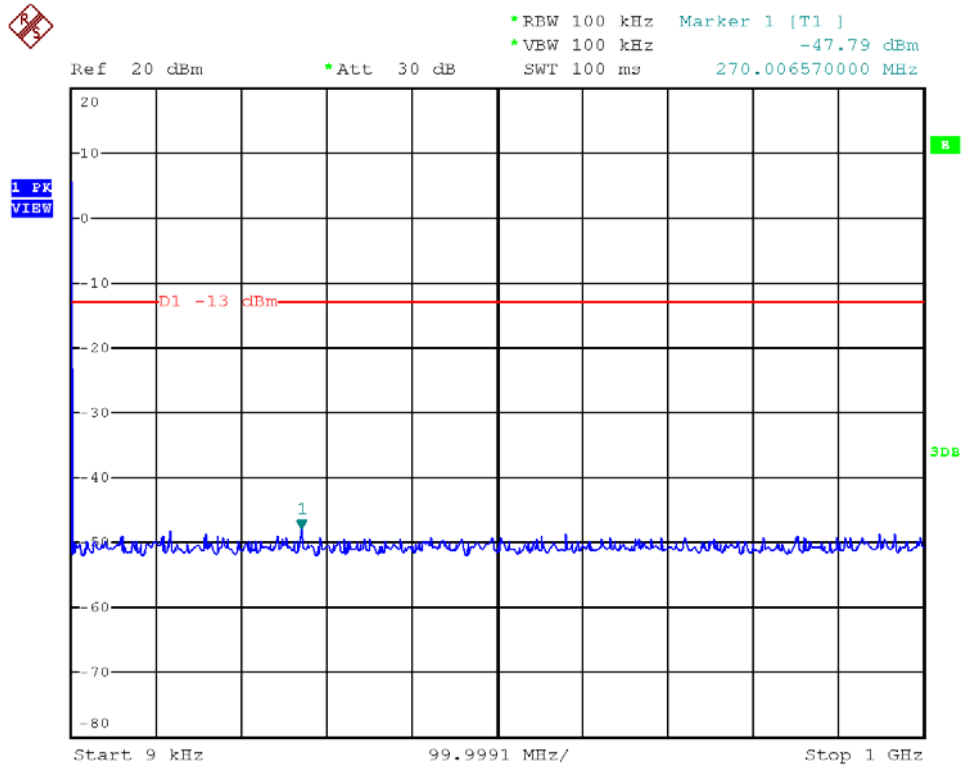


WCDMA Band V, CH 4233



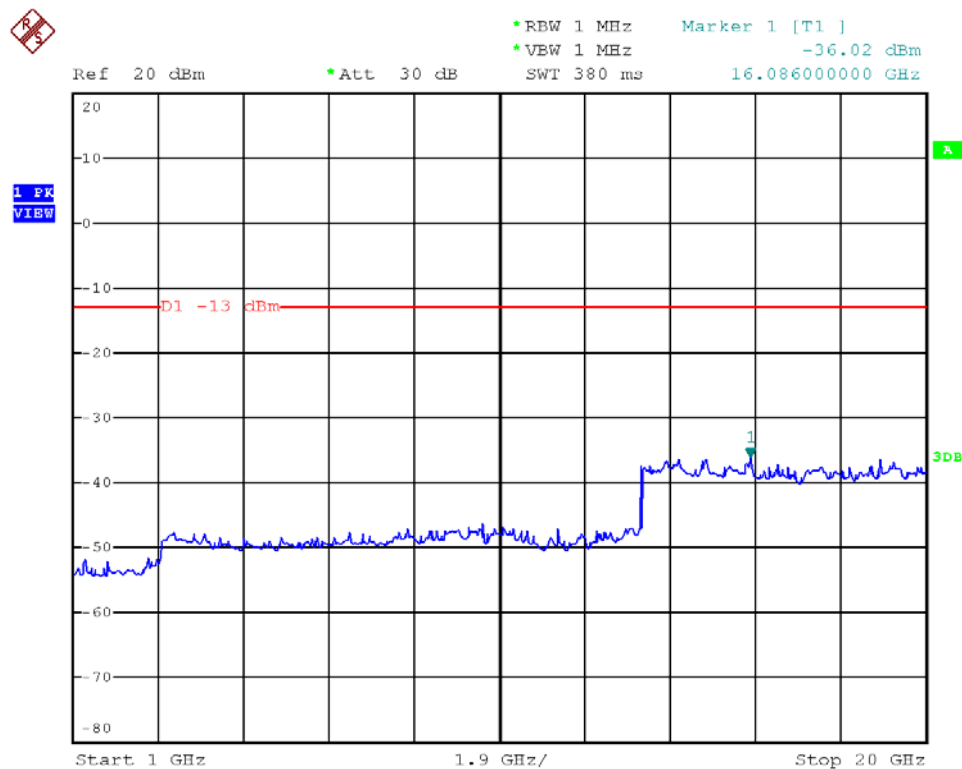
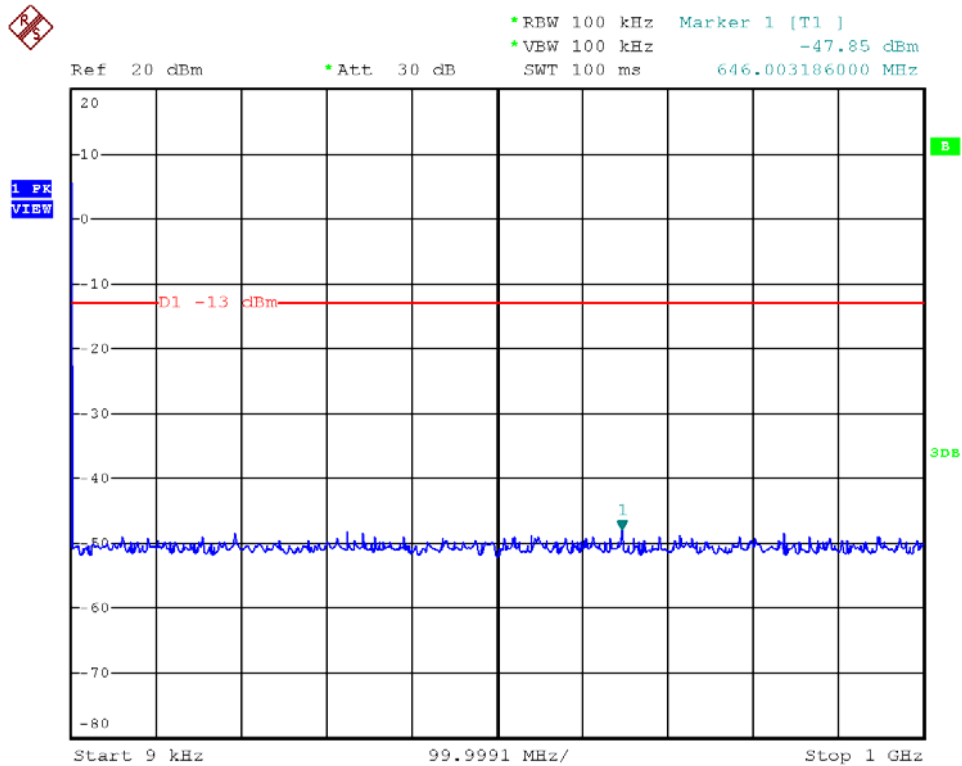


WCDMA Band II, CH 9262



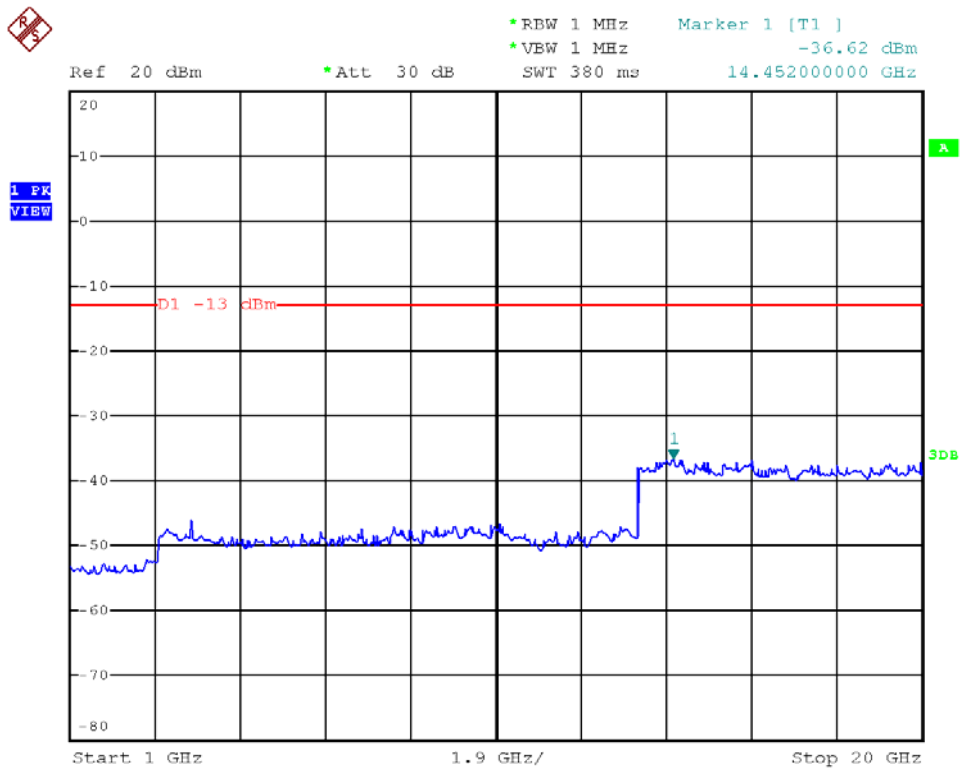
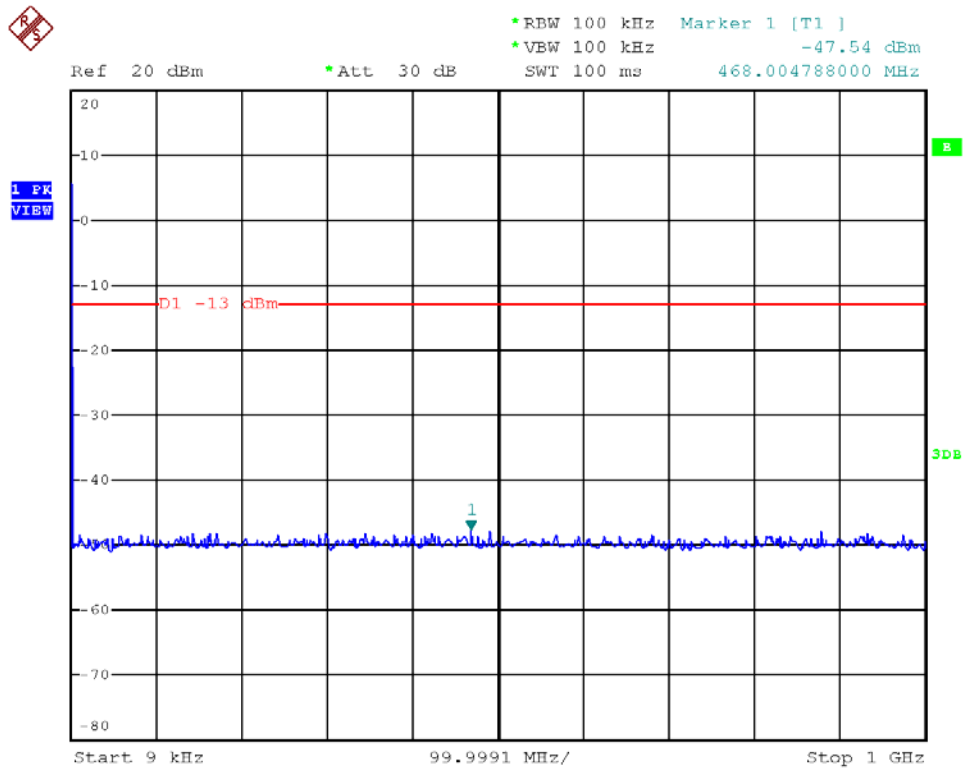


WCDMA Band II, CH 9400





WCDMA Band II, CH 9538





9. Field Strength of Spurious Emissions

9.1 Test Limit

-13dBm

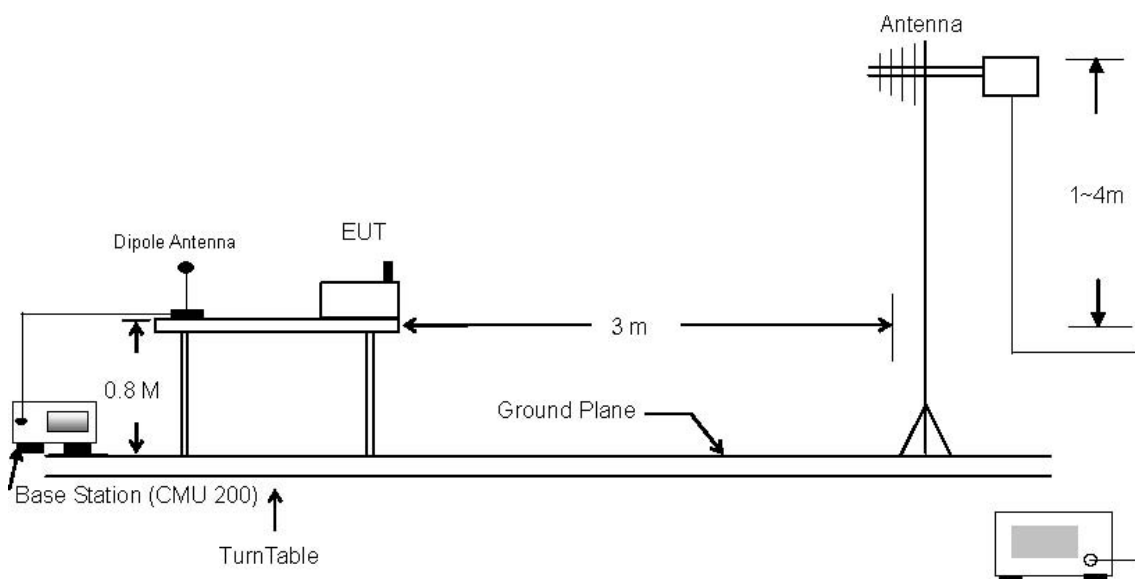
9.2 Measurement Instruments

As described in chapter 2.5 of this test report.

9.3 Test Procedure

- The EUT was placed on a rotatable wooden table with 0.8 meter about ground.
- The EUT was set 3 meters from the receiving antenna which was mounted on the antenna tower.
- The table was rotated 360 degrees to determine the position of the highest spurious emission.
- The height of the receiving antenna is varied between one meter and four meters to reach the maximum spurious emission for both horizontal and vertical polarizations.
- Taking the record of maximum spurious emission.
- A Horn antenna was substituted in place of the EUT and was driven by a signal generator.
- Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
- Taking the recorded of output power at antenna port.
- Repeat step 7 to step 8 for another polarization.
- Emission level (dBm) = output power + substitution Gain.

9.4 Test Setup Layout





9.5 Test Result and Data

Test Date: Mar. 19, 2013

Temperature: 22°C

Atmospheric pressure: 1020 hPa

Humidity: 66%

GSM 850 (VERTICAL)

Channel	Frequency (MHz)	Maximum value in frequency (MHz)		Maximum value (dBm)	
CH 128	824.2	30M-1G	825.40	30M-1G	-26.71
		1G-20G	11545.00	1G-20G	-41.23
CH 189	836.4	30M-1G	837.04	30M-1G	-28.28
		1G-20G	11678.00	1G-20G	-41.66
CH 251	848.8	30M-1G	849.65	30M-1G	-27.92
		1G-20G	11412.00	1G-20G	-42.26

GSM 850 (HORIZONTAL)

Channel	Frequency (MHz)	Maximum value in frequency (MHz)		Maximum value (dBm)	
CH 128	824.2	30M-1G	825.40	30M-1G	-25.49
		1G-20G	11678.00	1G-20G	-41.82
CH 189	836.4	30M-1G	837.04	30M-1G	-28.21
		1G-20G	11678.00	1G-20G	-42.33
CH 251	848.8	30M-1G	849.65	30M-1G	-28.31
		1G-20G	11412.00	1G-20G	-43.17



DCS 1900 (VERTICAL)

Channel	Frequency (MHz)	Maximum value in frequency (MHz)		Maximum value (dBm)	
		30M-1G	1G-20G	30M-1G	1G-20G
CH 512	1850.2	30M-1G	31.94	30M-1G	-47.84
		1G-20G	11260.00	1G-20G	-42.03
CH 661	1880.0	30M-1G	31.94	30M-1G	-47.64
		1G-20G	11830.00	1G-20G	-41.03
CH 251	1909.8	30M-1G	31.94	30M-1G	-47.45
		1G-20G	9360.00	1G-20G	-42.49

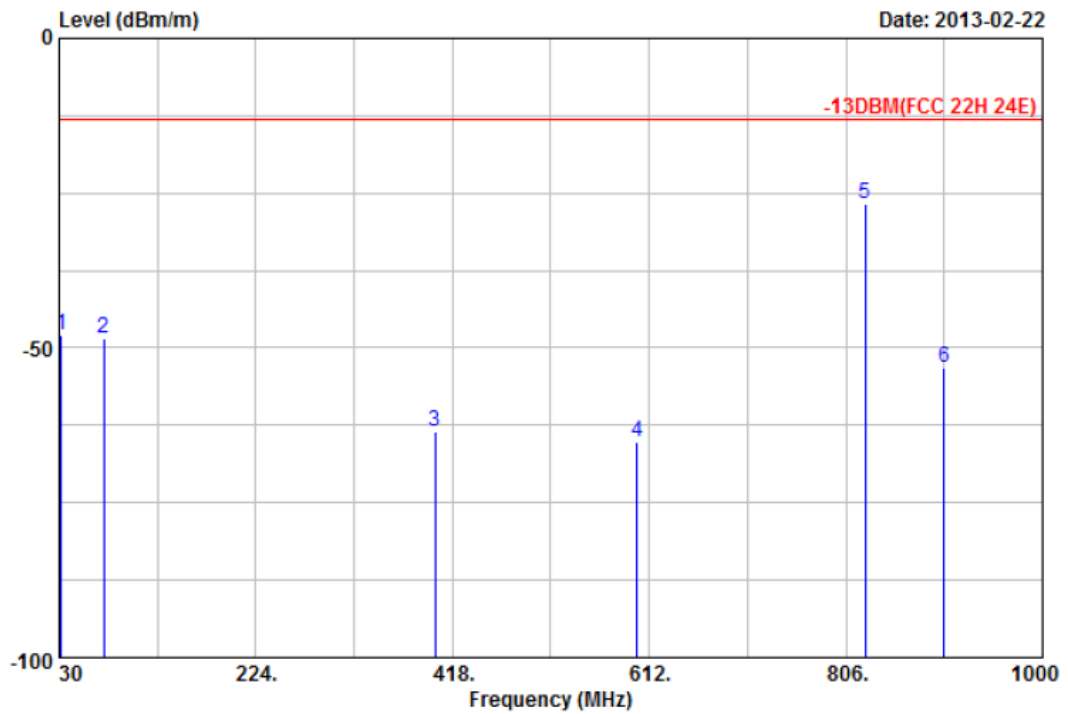
DCS 1900 (HORIZONTAL)

Channel	Frequency (MHz)	Maximum value in frequency (MHz)		Maximum value (dBm)	
		30M-1G	1G-20G	30M-1G	1G-20G
CH 512	1850.2	30M-1G	30.00	30M-1G	-50.31
		1G-20G	11412.00	1G-20G	-42.00
CH 661	1880.0	30M-1G	30.00	30M-1G	-50.96
		1G-20G	11260.00	1G-20G	-41.17
CH 251	1909.8	30M-1G	30.00	30M-1G	-51.07
		1G-20G	11602.00	1G-20G	-42.63



9.5.1 Test Result and Data (30MHz ~ 1GHz)

Power	: DC 7.4V	Pol/Phase	: VERTICAL
Test Mode	: GSM 850, CH 128	Temperature	: 21 °C
Test Date	: Feb. 22, 2013	Humidity	: 71 %



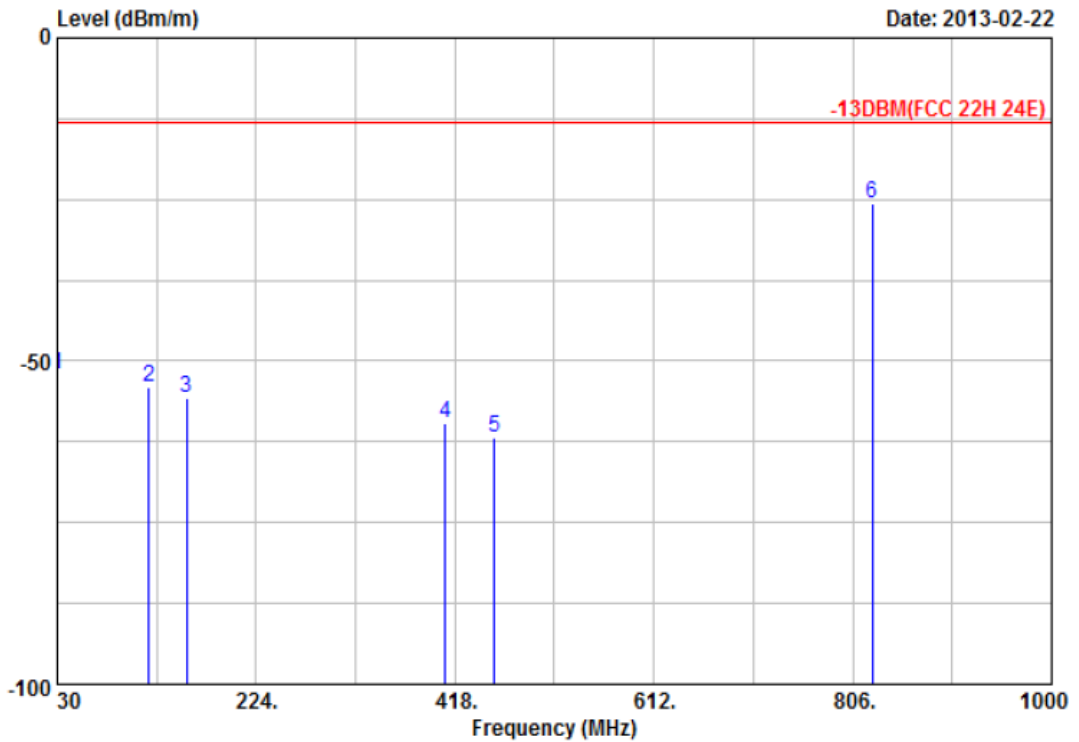
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	31.94	-58.16	10.32	-47.84	-13.00	-34.84	Peak	100	360
2	73.65	-48.56	0.17	-48.39	-13.00	-35.39	Peak	100	360
3	400.54	-55.28	-8.36	-63.64	-13.00	-50.64	Peak	100	360
4	600.36	-61.00	-4.27	-65.27	-13.00	-52.27	Peak	100	360
5	825.40	-27.32	0.61	-26.71	-13.00	-13.71	Peak	100	360
6	903.00	-54.55	1.44	-53.11	-13.00	-40.11	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: HORIZONTAL
Test Mode	: GSM 850, CH 128	Temperature	: 21 °C
Test Date	: Feb. 22, 2013	Humidity	: 71 %



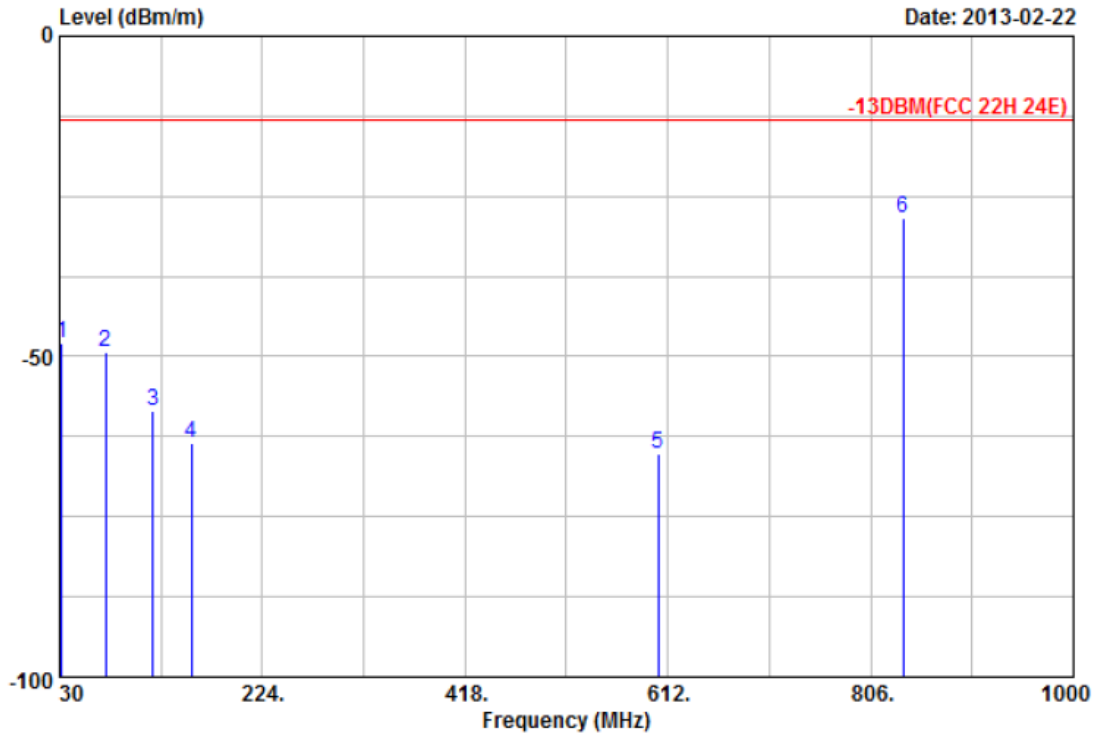
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	30.00	-67.26	15.10	-52.16	-13.00	-39.16	Peak	100	0
2	119.24	-44.12	-9.88	-54.00	-13.00	-41.00	Peak	100	0
3	156.10	-47.25	-8.54	-55.79	-13.00	-42.79	Peak	100	0
4	408.30	-51.41	-8.12	-59.53	-13.00	-46.53	Peak	100	0
5	456.80	-55.17	-6.69	-61.86	-13.00	-48.86	Peak	100	0
6	825.40	-25.30	-0.19	-25.49	-13.00	-12.49	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: VERTICAL
Test Mode	: GSM 850, CH 189	Temperature	: 21 °C
Test Date	: Feb. 22, 2013	Humidity	: 71 %



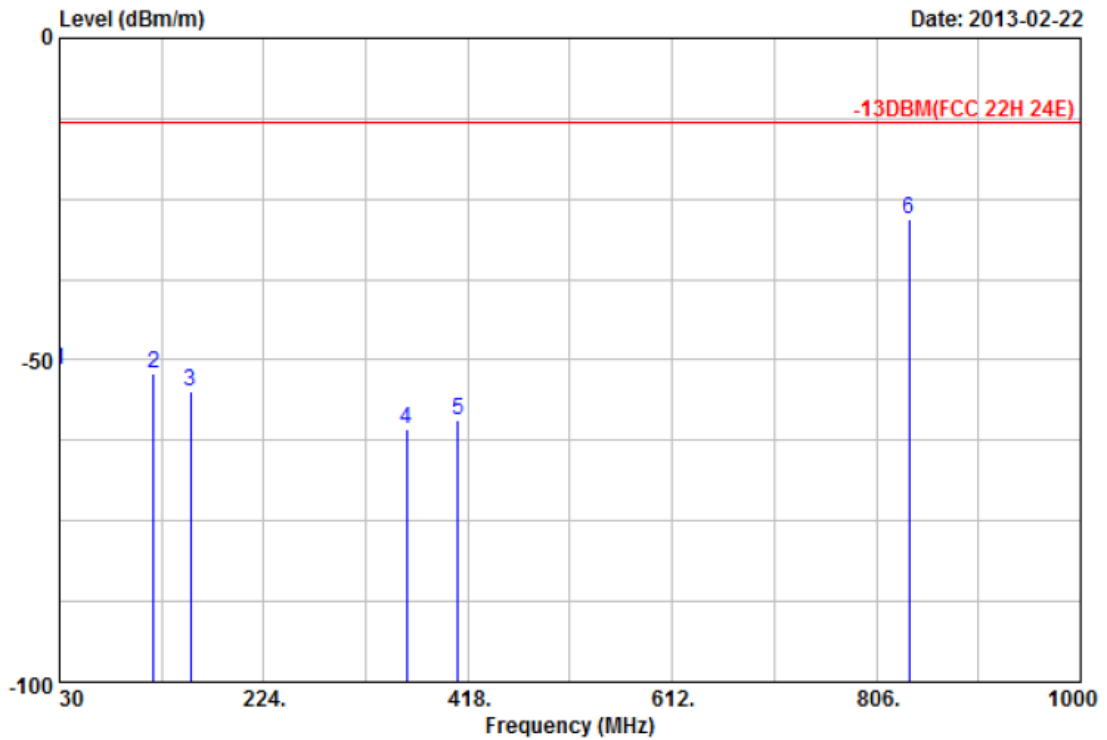
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	31.94	-58.13	10.32	-47.81	-13.00	-34.81	Peak	100	360
2	73.65	-49.40	0.17	-49.23	-13.00	-36.23	Peak	100	360
3	119.24	-51.95	-6.68	-58.63	-13.00	-45.63	Peak	100	360
4	156.10	-55.98	-7.66	-63.64	-13.00	-50.64	Peak	100	360
5	602.30	-61.06	-4.19	-65.25	-13.00	-52.25	Peak	100	360
6	837.04	-29.23	0.95	-28.28	-13.00	-15.28	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: HORIZONTAL
Test Mode	: GSM 850, CH 189	Temperature	: 21 °C
Test Date	: Feb. 22, 2013	Humidity	: 71 %



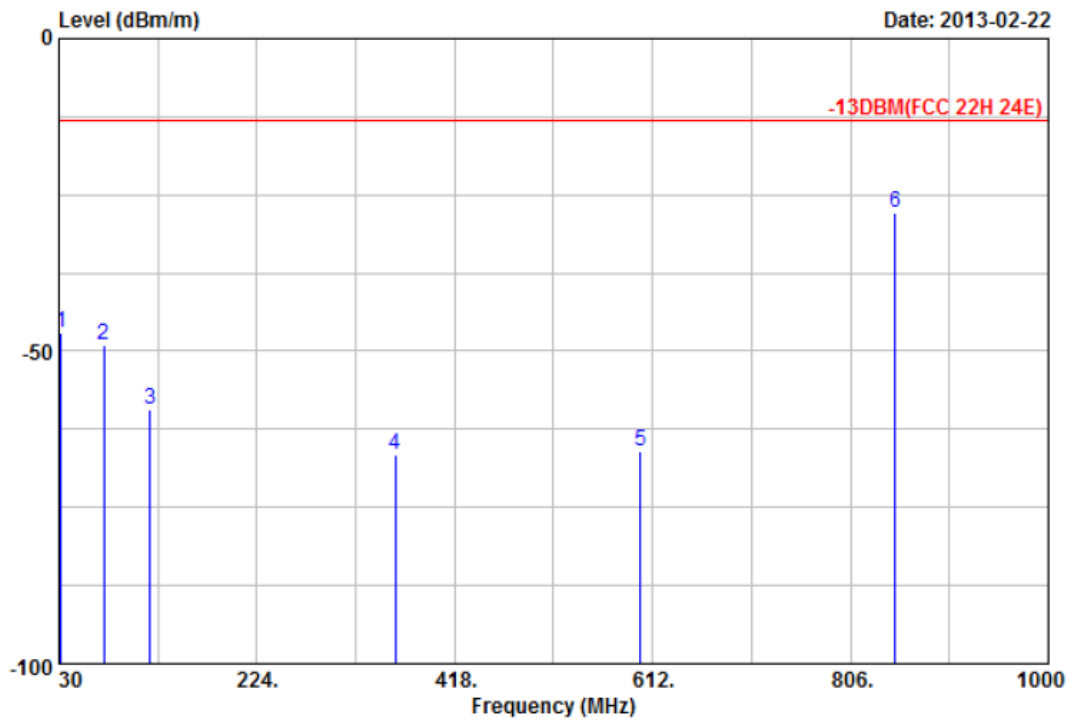
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	30.00	-66.67	15.10	-51.57	-13.00	-38.57	Peak	100	0
2	119.24	-42.13	-9.88	-52.01	-13.00	-39.01	Peak	100	0
3	154.16	-46.71	-8.15	-54.86	-13.00	-41.86	Peak	100	0
4	359.80	-51.68	-9.05	-60.73	-13.00	-47.73	Peak	100	0
5	408.30	-51.11	-8.12	-59.23	-13.00	-46.23	Peak	100	0
6	837.04	-27.79	-0.42	-28.21	-13.00	-15.21	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: VERTICAL
Test Mode	: GSM 850, CH 251	Temperature	: 21 °C
Test Date	: Feb. 22, 2013	Humidity	: 71 %



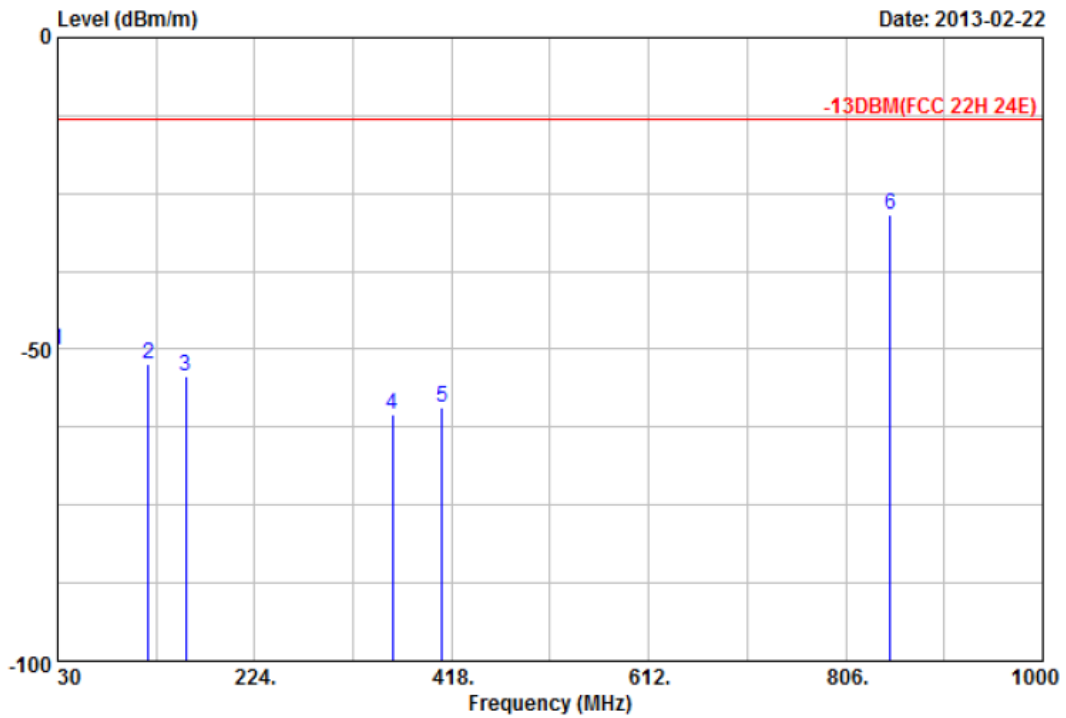
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	31.94	-57.39	10.32	-47.07	-13.00	-34.07	Peak	100	360
2	73.65	-49.14	0.17	-48.97	-13.00	-35.97	Peak	100	360
3	119.24	-52.57	-6.68	-59.25	-13.00	-46.25	Peak	100	360
4	359.80	-58.20	-8.27	-66.47	-13.00	-53.47	Peak	100	360
5	600.36	-61.74	-4.27	-66.01	-13.00	-53.01	Peak	100	360
6	849.65	-29.25	1.33	-27.92	-13.00	-14.92	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: HORIZONTAL
Test Mode	: GSM 850, CH 251	Temperature	: 21 °C
Test Date	: Feb. 22, 2013	Humidity	: 71 %



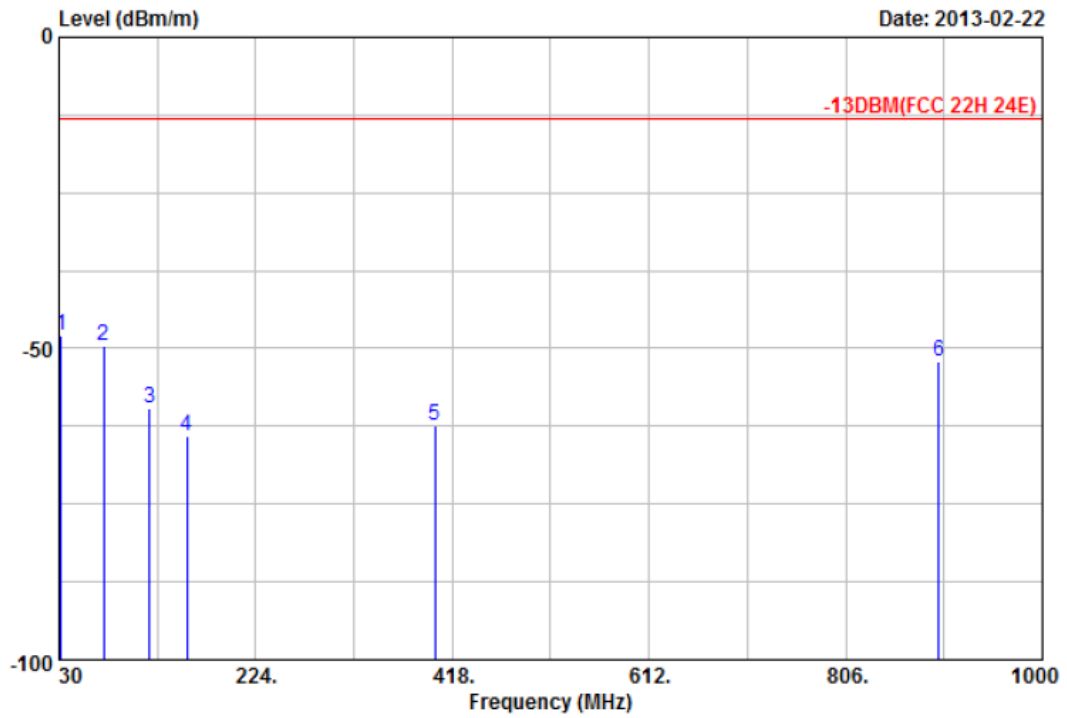
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	30.00	-65.25	15.10	-50.15	-13.00	-37.15	Peak	100	0
2	119.24	-42.53	-9.88	-52.41	-13.00	-39.41	Peak	100	0
3	156.10	-45.70	-8.54	-54.24	-13.00	-41.24	Peak	100	0
4	359.80	-51.43	-9.05	-60.48	-13.00	-47.48	Peak	100	0
5	408.30	-51.35	-8.12	-59.47	-13.00	-46.47	Peak	100	0
6	849.65	-27.65	-0.66	-28.31	-13.00	-15.31	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: VERTICAL
Test Mode	: DCS 1900, CH 512	Temperature	: 21 °C
Test Date	: Feb. 22, 2013	Humidity	: 71 %



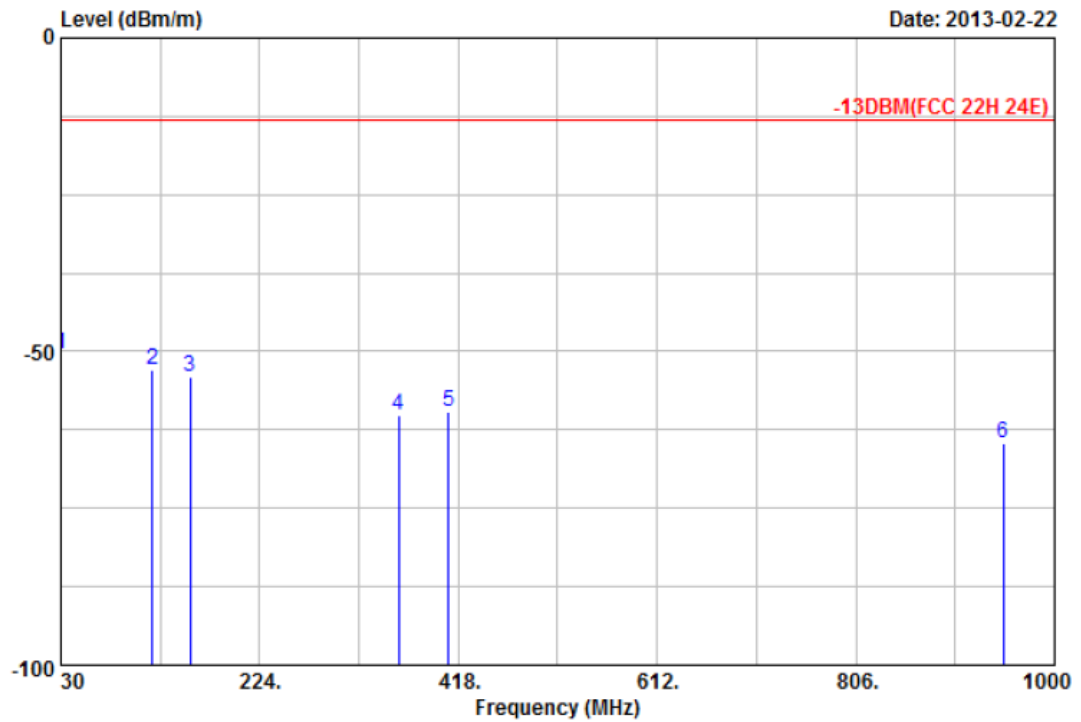
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	31.94	-58.16	10.32	-47.84	-13.00	-34.84	Peak	100	360
2	73.65	-49.81	0.17	-49.64	-13.00	-36.64	Peak	100	360
3	119.24	-52.81	-6.68	-59.49	-13.00	-46.49	Peak	100	360
4	156.10	-56.27	-7.66	-63.93	-13.00	-50.93	Peak	100	360
5	400.54	-54.07	-8.36	-62.43	-13.00	-49.43	Peak	100	360
6	898.15	-53.34	1.28	-52.06	-13.00	-39.06	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: HORIZONTAL
Test Mode	: DCS 1900, CH 512	Temperature	: 21 °C
Test Date	: Feb. 22, 2013	Humidity	: 71 %



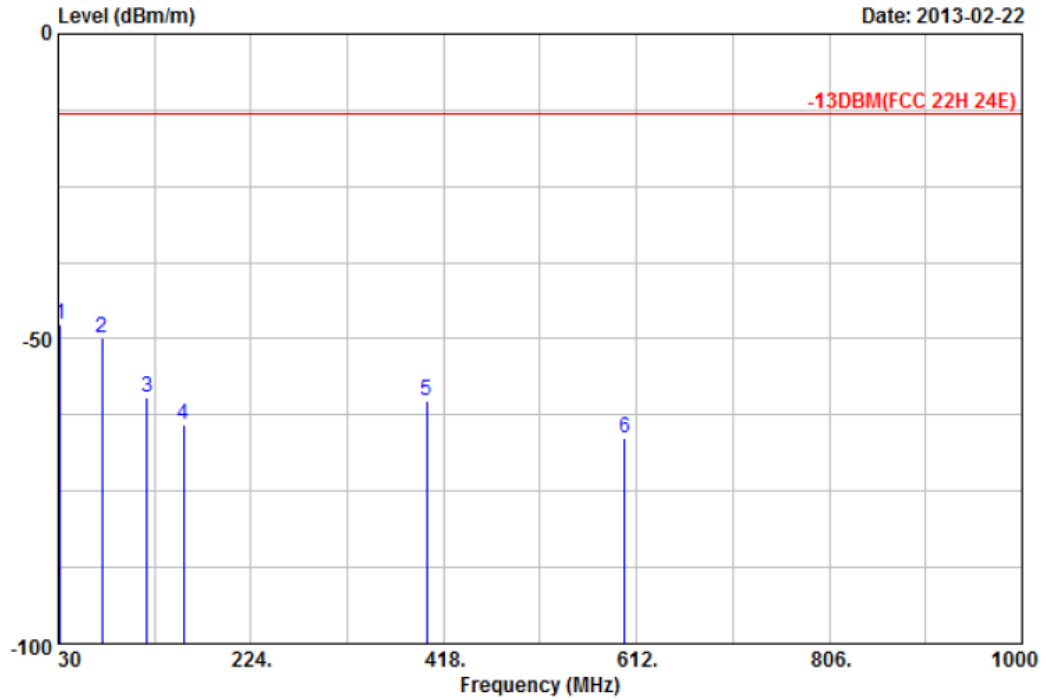
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	30.00	-65.41	15.10	-50.31	-13.00	-37.31	Peak	100	0
2	119.24	-43.07	-9.88	-52.95	-13.00	-39.95	Peak	100	0
3	156.10	-45.61	-8.54	-54.15	-13.00	-41.15	Peak	100	0
4	359.80	-51.23	-9.05	-60.28	-13.00	-47.28	Peak	100	0
5	408.30	-51.48	-8.12	-59.60	-13.00	-46.60	Peak	100	0
6	949.56	-69.92	5.38	-64.54	-13.00	-51.54	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: VERTICAL
Test Mode	: DCS 1900, CH 661	Temperature	: 21 °C
Test Date	: Feb. 22, 2013	Humidity	: 71 %



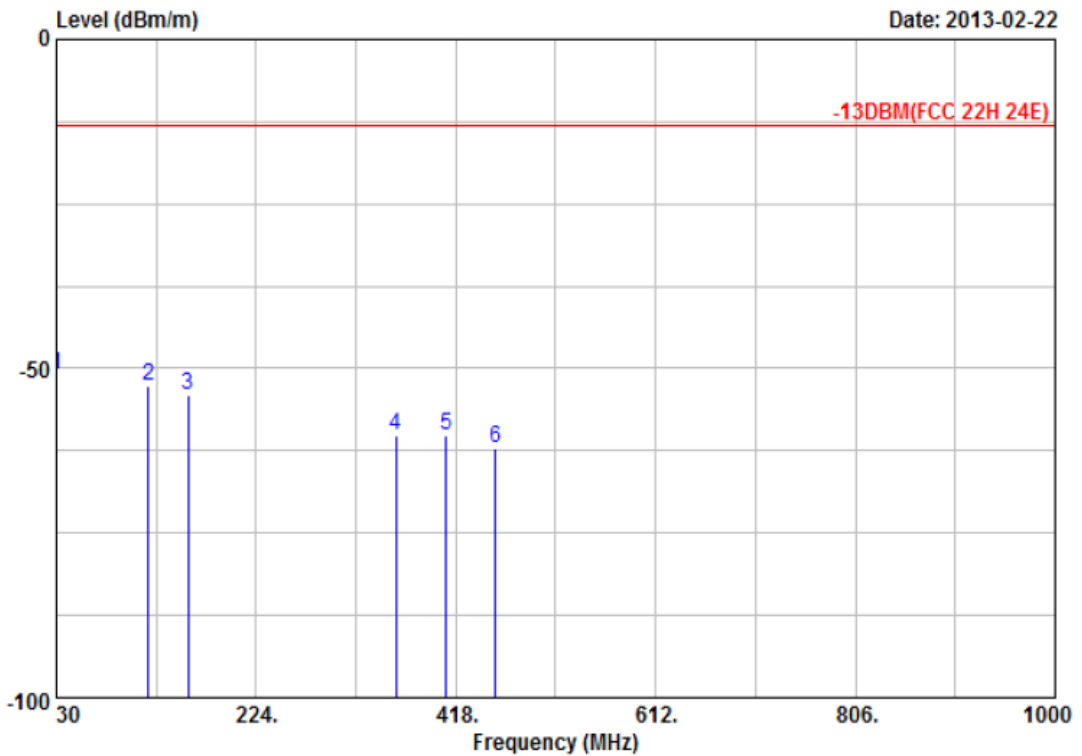
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	31.94	-57.96	10.32	-47.64	-13.00	-34.64	Peak	100	360
2	73.65	-49.95	0.17	-49.78	-13.00	-36.78	Peak	100	360
3	119.24	-52.97	-6.68	-59.65	-13.00	-46.65	Peak	100	360
4	156.10	-56.28	-7.66	-63.94	-13.00	-50.94	Peak	100	360
5	400.54	-51.85	-8.36	-60.21	-13.00	-47.21	Peak	100	360
6	600.36	-62.02	-4.27	-66.29	-13.00	-53.29	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: HORIZONTAL
Test Mode	: DCS 1900, CH 661	Temperature	: 21 °C
Test Date	: Feb. 22, 2013	Humidity	: 71 %



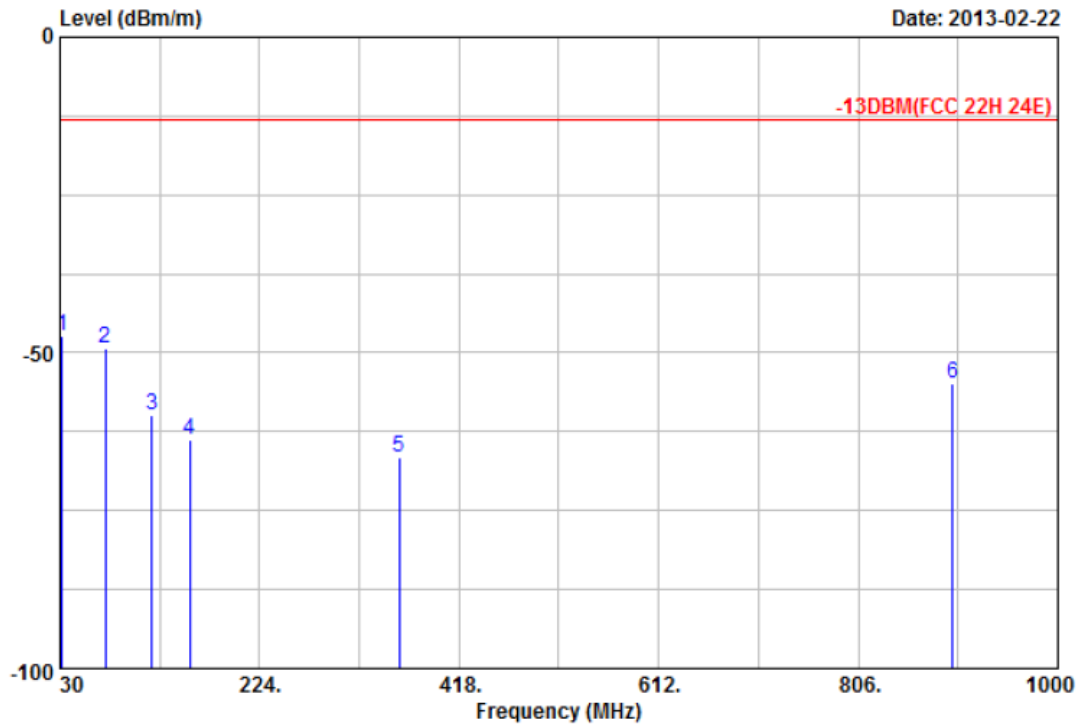
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	30.00	-66.06	15.10	-50.96	-13.00	-37.96	Peak	100	0
2	119.24	-42.63	-9.88	-52.51	-13.00	-39.51	Peak	100	0
3	158.04	-45.15	-8.92	-54.07	-13.00	-41.07	Peak	100	0
4	359.80	-51.21	-9.05	-60.26	-13.00	-47.26	Peak	100	0
5	408.30	-52.15	-8.12	-60.27	-13.00	-47.27	Peak	100	0
6	456.80	-55.33	-6.69	-62.02	-13.00	-49.02	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: VERTICAL
Test Mode	: DCS 1900, CH 810	Temperature	: 21 °C
Test Date	: Feb. 22, 2013	Humidity	: 71 %



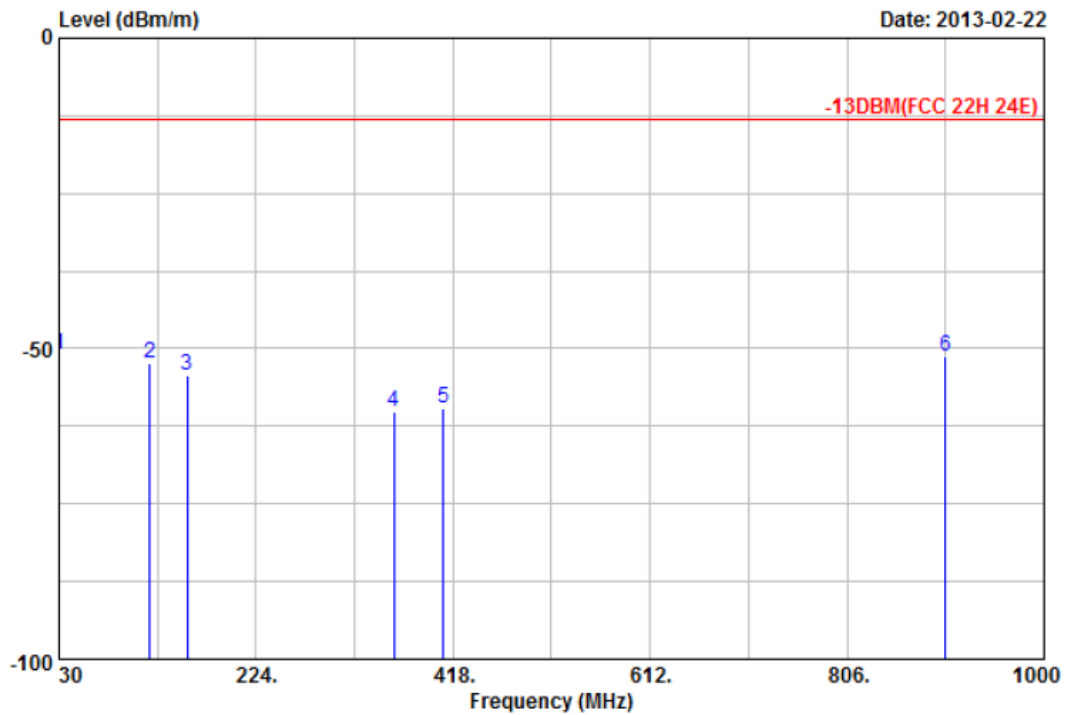
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	31.94	-57.77	10.32	-47.45	-13.00	-34.45	Peak	100	360
2	73.65	-49.54	0.17	-49.37	-13.00	-36.37	Peak	100	360
3	119.24	-53.10	-6.68	-59.78	-13.00	-46.78	Peak	100	360
4	156.10	-56.03	-7.66	-63.69	-13.00	-50.69	Peak	100	360
5	359.80	-58.37	-8.27	-66.64	-13.00	-53.64	Peak	100	360
6	898.15	-56.08	1.28	-54.80	-13.00	-41.80	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: HORIZONTAL
Test Mode	: DCS 1900, CH 810	Temperature	: 21 °C
Test Date	: Feb. 22, 2013	Humidity	: 71 %



Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	30.00	-66.17	15.10	-51.07	-13.00	-38.07	Peak	100	0
2	119.24	-42.50	-9.88	-52.38	-13.00	-39.38	Peak	100	0
3	156.10	-45.71	-8.54	-54.25	-13.00	-41.25	Peak	100	0
4	359.80	-51.21	-9.05	-60.26	-13.00	-47.26	Peak	100	0
5	408.30	-51.55	-8.12	-59.67	-13.00	-46.67	Peak	100	0
6	903.00	-52.22	0.93	-51.29	-13.00	-38.29	Peak	100	0

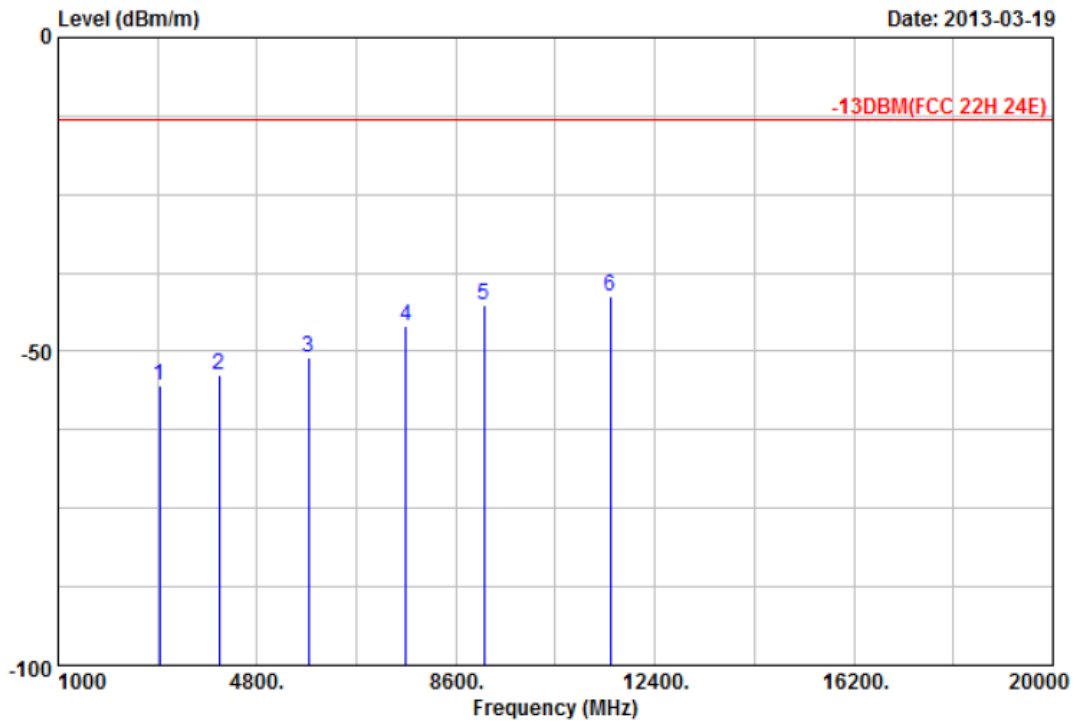
Notes:

1. Result = Read Value + Factor
2. The data is worse case.



9.5.2 Test Result and Data (1GHz ~ 20GHz)

Power	: DC 7.4V	Pol/Phase	: VERTICAL
Test Mode	: GSM 850, CH 128	Temperature	: 22 °C
Test Date	: Mar. 19, 2013	Humidity	: 66 %



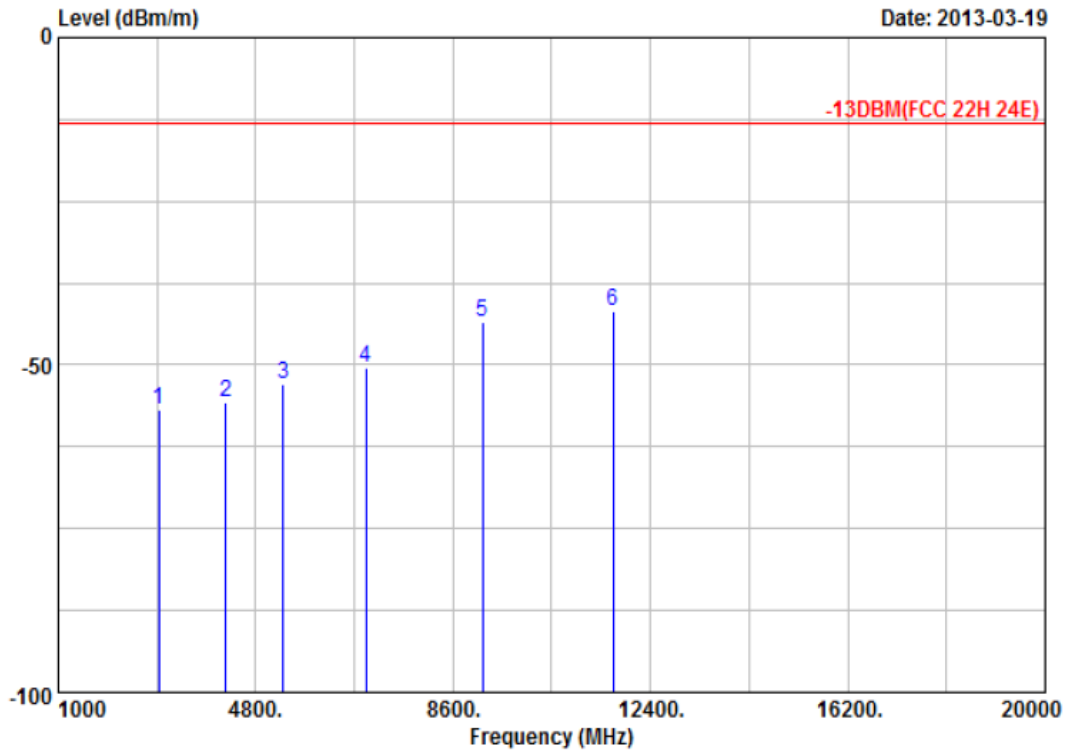
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	2938.00	-62.57	7.10	-55.47	-13.00	-42.47	Peak	100	360
2	4078.00	-66.48	12.61	-53.87	-13.00	-40.87	Peak	100	360
3	5788.00	-66.57	15.50	-51.07	-13.00	-38.07	Peak	100	360
4	7650.00	-65.24	19.27	-45.97	-13.00	-32.97	Peak	100	360
5	9132.00	-65.54	22.80	-42.74	-13.00	-29.74	Peak	100	360
6	11545.00	-66.10	24.87	-41.23	-13.00	-28.23	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: HORIZONTAL
Test Mode	: GSM 850, CH 128	Temperature	: 22 °C
Test Date	: Mar. 19, 2013	Humidity	: 66 %



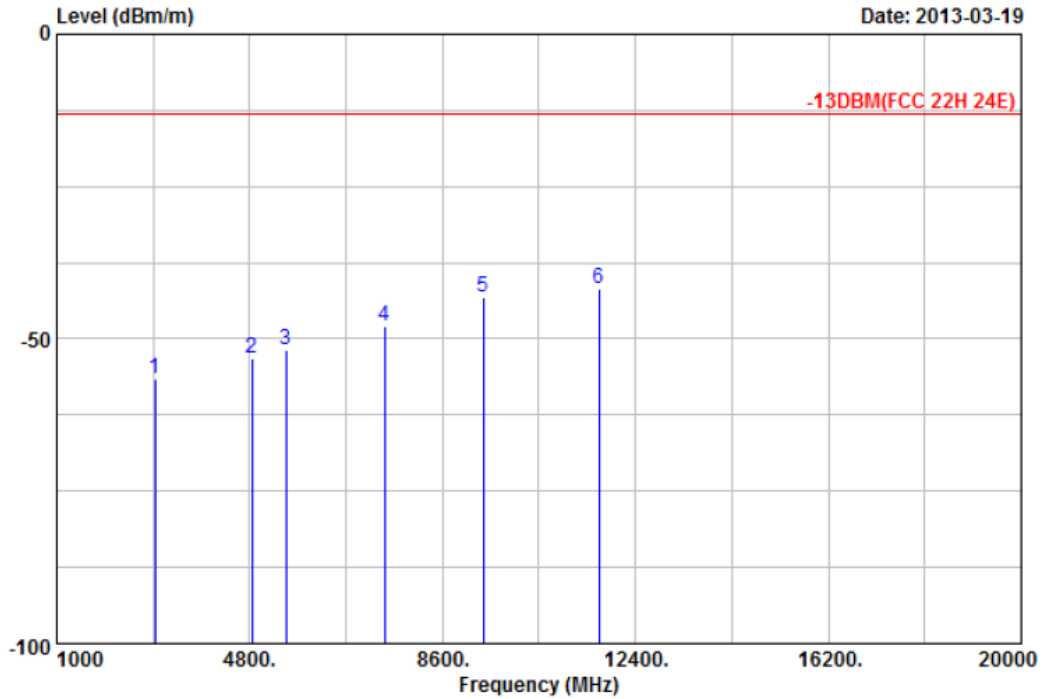
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	2938.00	-63.82	7.10	-56.72	-13.00	-43.72	Peak	100	0
2	4230.00	-68.27	12.69	-55.58	-13.00	-42.58	Peak	100	0
3	5332.00	-67.55	14.72	-52.83	-13.00	-39.83	Peak	100	0
4	6928.00	-67.32	16.86	-50.46	-13.00	-37.46	Peak	100	0
5	9170.00	-66.29	22.83	-43.46	-13.00	-30.46	Peak	100	0
6	11678.00	-66.59	24.77	-41.82	-13.00	-28.82	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: VERTICAL
Test Mode	: GSM 850, CH 189	Temperature	: 20 °C
Test Date	: Mar. 19, 2013	Humidity	: 66 %



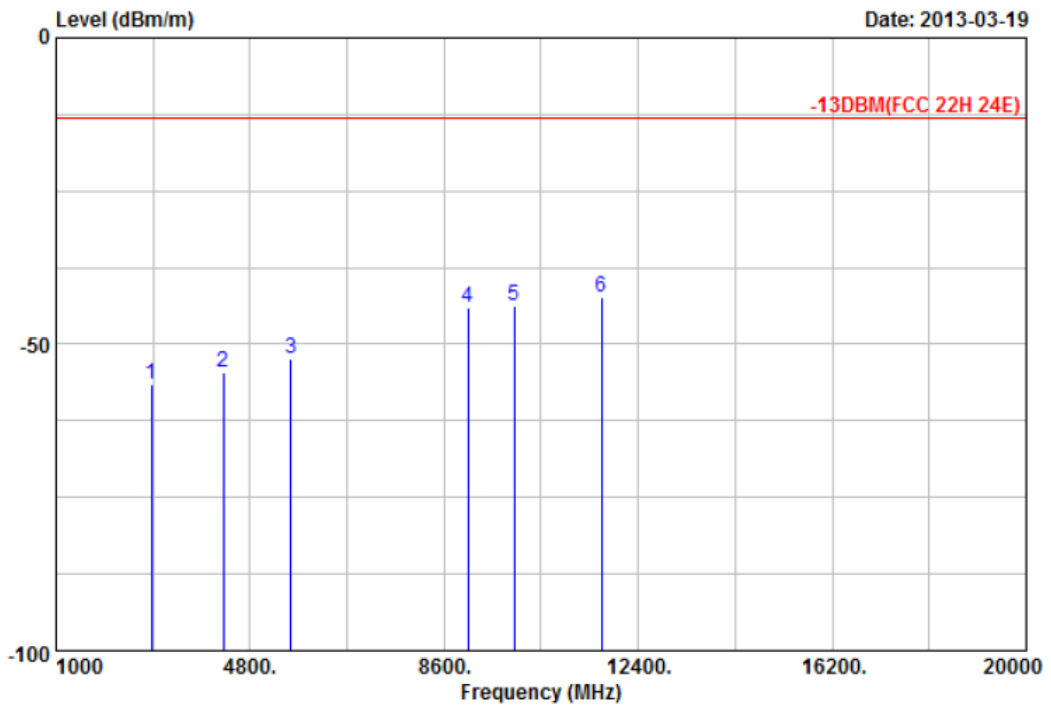
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	2938.00	-63.51	7.10	-56.41	-13.00	-43.41	Peak	100	360
2	4838.00	-67.11	13.97	-53.14	-13.00	-40.14	Peak	100	360
3	5522.00	-67.09	15.41	-51.68	-13.00	-38.68	Peak	100	360
4	7460.00	-66.86	19.07	-47.79	-13.00	-34.79	Peak	100	360
5	9398.00	-66.06	22.98	-43.08	-13.00	-30.08	Peak	100	360
6	11678.00	-66.43	24.77	-41.66	-13.00	-28.66	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: HORIZONTAL
Test Mode	: GSM 850, CH 189	Temperature	: 20 °C
Test Date	: Mar. 19, 2013	Humidity	: 66 %



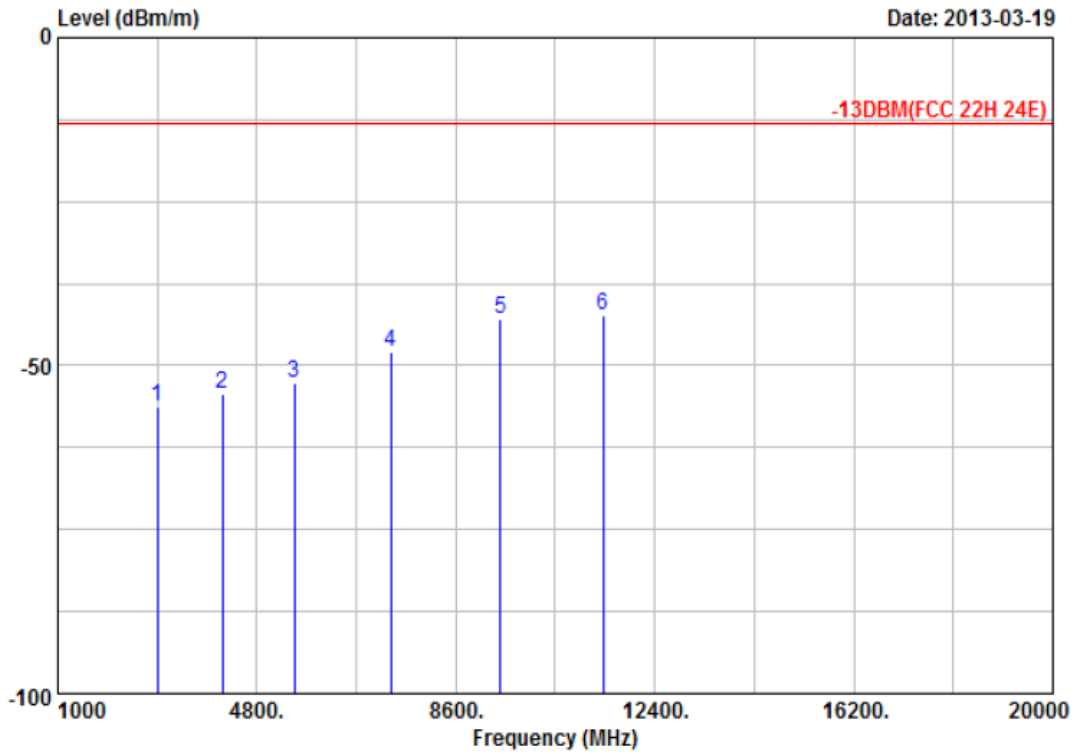
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	2862.00	-62.81	6.38	-56.43	-13.00	-43.43	Peak	100	0
2	4268.00	-67.28	12.71	-54.57	-13.00	-41.57	Peak	100	0
3	5598.00	-67.92	15.43	-52.49	-13.00	-39.49	Peak	100	0
4	9075.00	-66.90	22.76	-44.14	-13.00	-31.14	Peak	100	0
5	9968.00	-66.76	23.08	-43.68	-13.00	-30.68	Peak	100	0
6	11678.00	-67.10	24.77	-42.33	-13.00	-29.33	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: VERTICAL
Test Mode	: GSM 850, CH 251	Temperature	: 20 °C
Test Date	: Mar. 19, 2013	Humidity	: 66 %



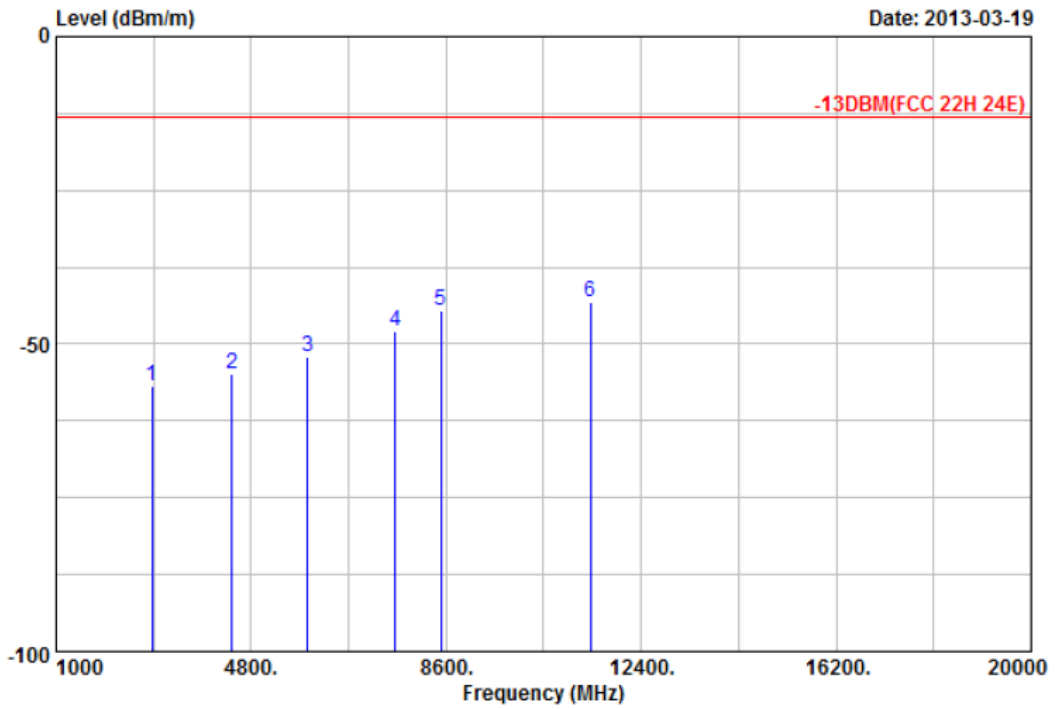
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	2900.00	-62.90	6.74	-56.16	-13.00	-43.16	Peak	100	360
2	4135.00	-67.03	12.64	-54.39	-13.00	-41.39	Peak	100	360
3	5522.00	-68.10	15.41	-52.69	-13.00	-39.69	Peak	100	360
4	7365.00	-66.51	18.68	-47.83	-13.00	-34.83	Peak	100	360
5	9455.00	-65.90	23.02	-42.88	-13.00	-29.88	Peak	100	360
6	11412.00	-66.90	24.64	-42.26	-13.00	-29.26	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: HORIZONTAL
Test Mode	: GSM 850, CH 251	Temperature	: 20 °C
Test Date	: Mar. 19, 2013	Humidity	: 66 %

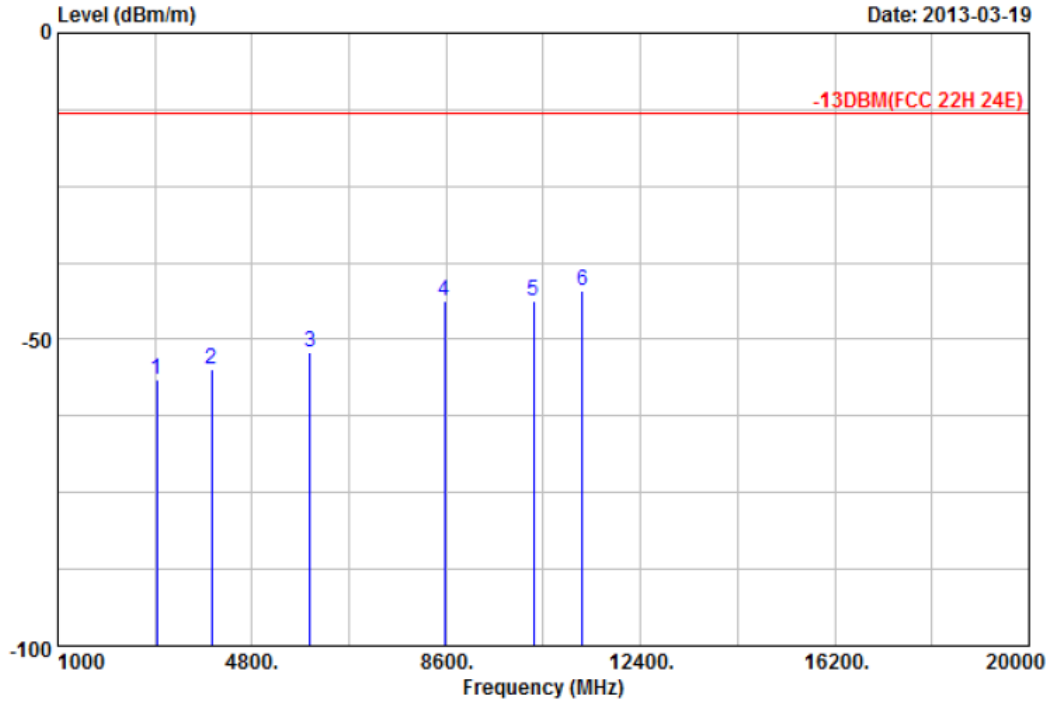


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	2862.00	-63.13	6.38	-56.75	-13.00	-43.75	Peak	100	0
2	4420.00	-67.77	12.79	-54.98	-13.00	-41.98	Peak	100	0
3	5902.00	-67.51	15.54	-51.97	-13.00	-38.97	Peak	100	0
4	7612.00	-67.11	19.26	-47.85	-13.00	-34.85	Peak	100	0
5	8505.00	-66.23	21.66	-44.57	-13.00	-31.57	Peak	100	0
6	11412.00	-67.81	24.64	-43.17	-13.00	-30.17	Peak	100	0

- Notes:
1. Result = Read Value + Factor
 2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: VERTICAL
Test Mode	: DCS 1900, CH 512	Temperature	: 20 °C
Test Date	: Mar. 19, 2013	Humidity	: 66 %



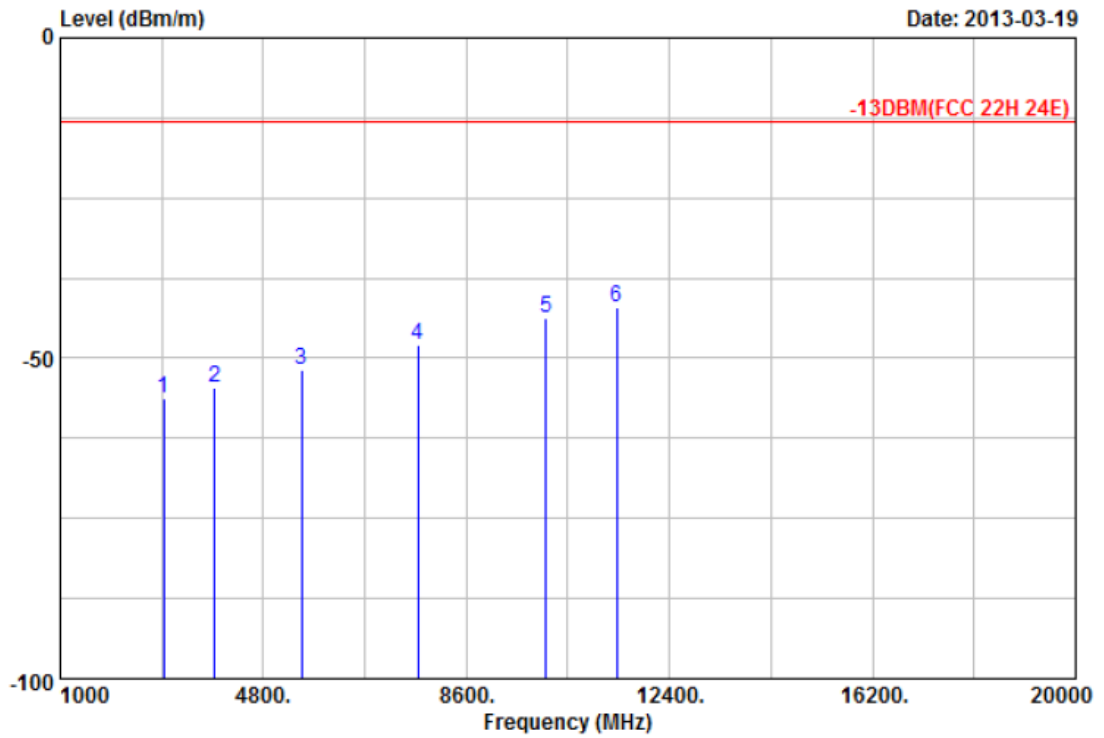
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	2938.00	-63.68	7.10	-56.58	-13.00	-43.58	Peak	100	360
2	4002.00	-67.40	12.57	-54.83	-13.00	-41.83	Peak	100	360
3	5940.00	-67.76	15.55	-52.21	-13.00	-39.21	Peak	100	360
4	8562.00	-65.63	21.78	-43.85	-13.00	-30.85	Peak	100	360
5	10310.00	-66.16	22.50	-43.66	-13.00	-30.66	Peak	100	360
6	11260.00	-66.23	24.20	-42.03	-13.00	-29.03	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: HORIZONTAL
Test Mode	: DCS 1900, CH 512	Temperature	: 20 °C
Test Date	: Mar. 19, 2013	Humidity	: 66 %



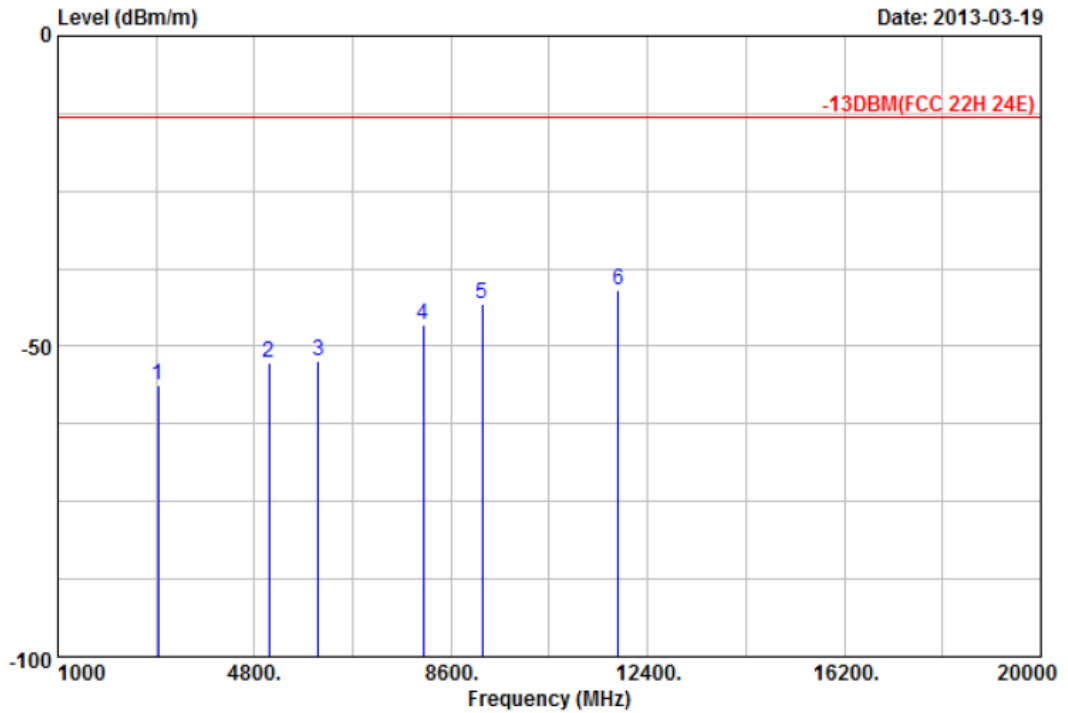
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	2938.00	-63.36	7.10	-56.26	-13.00	-43.26	Peak	100	0
2	3888.00	-66.53	12.02	-54.51	-13.00	-41.51	Peak	100	0
3	5522.00	-67.11	15.41	-51.70	-13.00	-38.70	Peak	100	0
4	7688.00	-67.12	19.27	-47.85	-13.00	-34.85	Peak	100	0
5	10082.00	-66.62	22.93	-43.69	-13.00	-30.69	Peak	100	0
6	11412.00	-66.64	24.64	-42.00	-13.00	-29.00	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: VERTICAL
Test Mode	: DCS 1900, CH 661	Temperature	: 20 °C
Test Date	: Mar. 19, 2013	Humidity	: 66 %



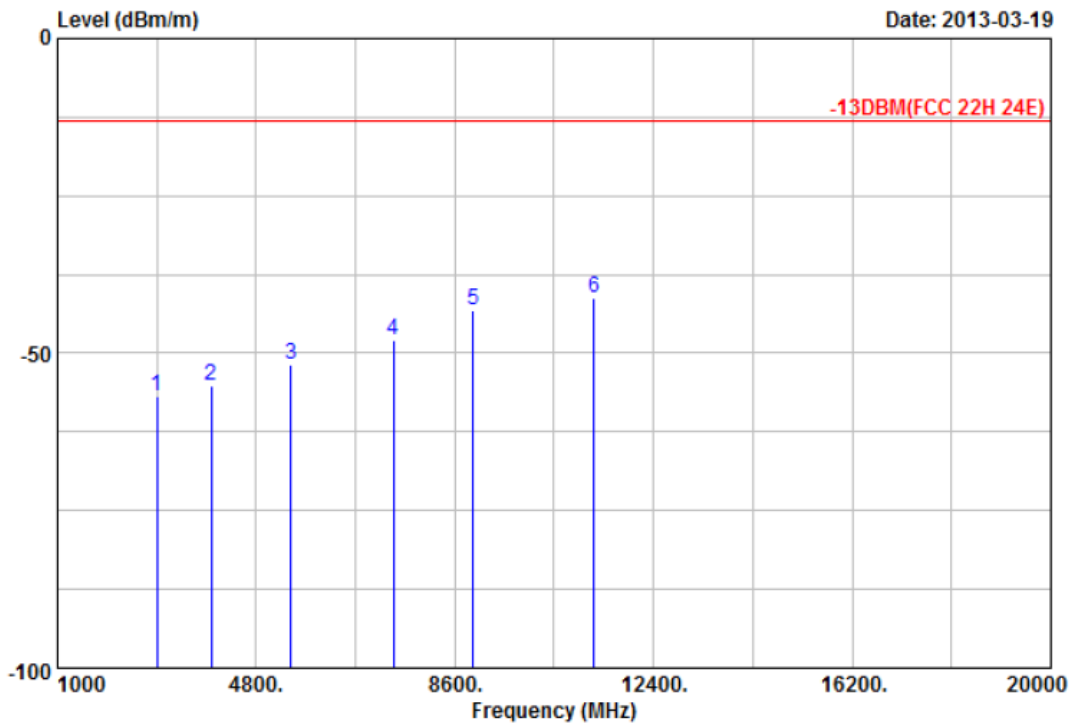
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	2938.00	-63.46	7.10	-56.36	-13.00	-43.36	Peak	100	360
2	5085.00	-67.53	14.77	-52.76	-13.00	-39.76	Peak	100	360
3	6035.00	-67.81	15.54	-52.27	-13.00	-39.27	Peak	100	360
4	8068.00	-66.18	19.65	-46.53	-13.00	-33.53	Peak	100	360
5	9208.00	-66.02	22.85	-43.17	-13.00	-30.17	Peak	100	360
6	11830.00	-65.69	24.66	-41.03	-13.00	-28.03	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: HORIZONTAL
Test Mode	: DCS 1900, CH 661	Temperature	: 20 °C
Test Date	: Mar. 19, 2013	Humidity	: 66 %



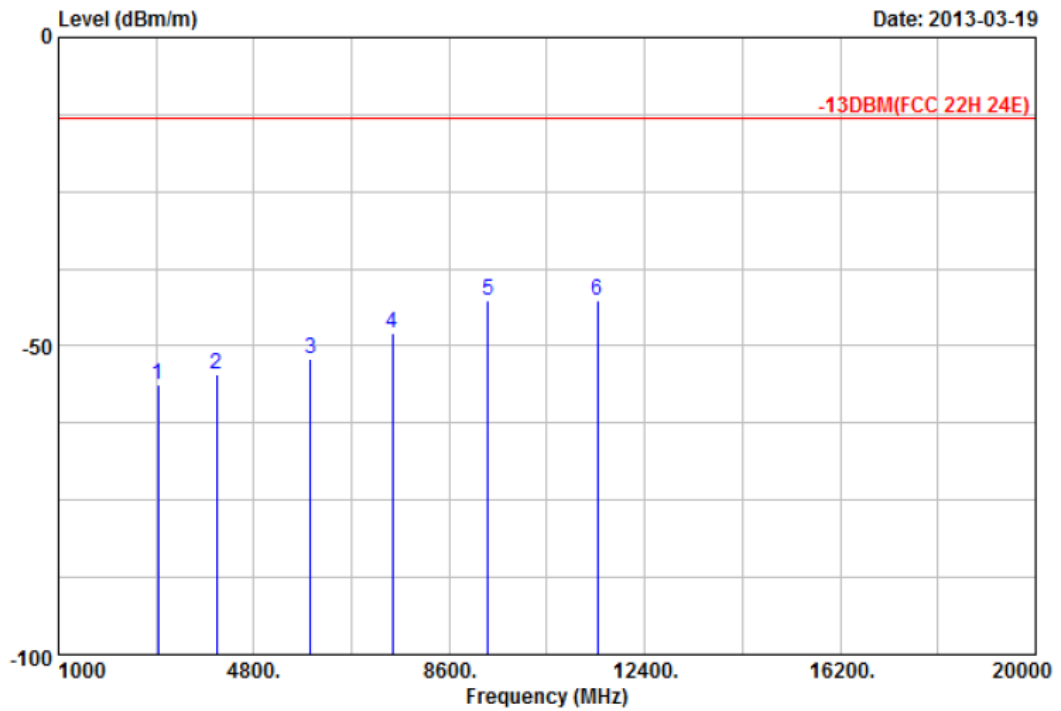
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	2900.00	-63.53	6.74	-56.79	-13.00	-43.79	Peak	100	0
2	3945.00	-67.45	12.30	-55.15	-13.00	-42.15	Peak	100	0
3	5465.00	-66.98	15.26	-51.72	-13.00	-38.72	Peak	100	0
4	7422.00	-66.78	18.91	-47.87	-13.00	-34.87	Peak	100	0
5	8942.00	-65.72	22.59	-43.13	-13.00	-30.13	Peak	100	0
6	11260.00	-65.37	24.20	-41.17	-13.00	-28.17	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: VERTICAL
Test Mode	: DCS 1900, CH 810	Temperature	: 20 °C
Test Date	: Mar. 19, 2013	Humidity	: 66 %



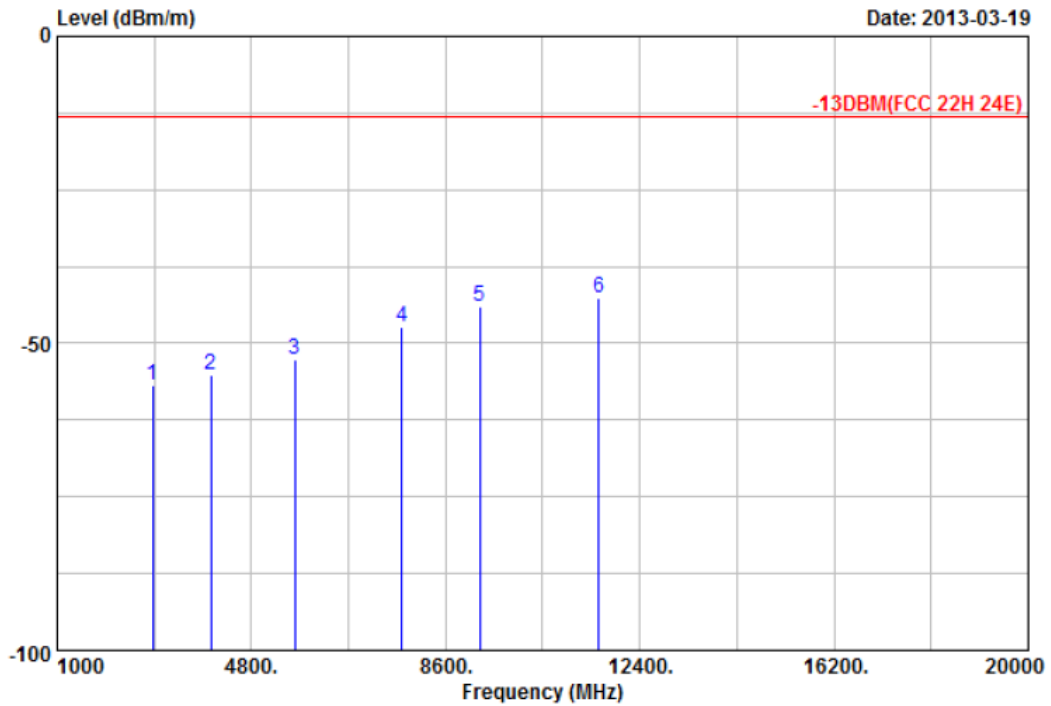
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	2938.00	-63.25	7.10	-56.15	-13.00	-43.15	Peak	100	360
2	4078.00	-67.20	12.61	-54.59	-13.00	-41.59	Peak	100	360
3	5902.00	-67.65	15.54	-52.11	-13.00	-39.11	Peak	100	360
4	7498.00	-67.15	19.23	-47.92	-13.00	-34.92	Peak	100	360
5	9360.00	-65.44	22.95	-42.49	-13.00	-29.49	Peak	100	360
6	11488.00	-67.35	24.86	-42.49	-13.00	-29.49	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: HORIZONTAL
Test Mode	: DCS 1900, CH 810	Temperature	: 20 °C
Test Date	: Mar. 19, 2013	Humidity	: 66 %



Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	2862.00	-63.12	6.38	-56.74	-13.00	-43.74	Peak	100	0
2	4002.00	-67.65	12.57	-55.08	-13.00	-42.08	Peak	100	0
3	5655.00	-68.17	15.45	-52.72	-13.00	-39.72	Peak	100	0
4	7745.00	-66.69	19.28	-47.41	-13.00	-34.41	Peak	100	0
5	9265.00	-66.95	22.89	-44.06	-13.00	-31.06	Peak	100	0
6	11602.00	-67.46	24.83	-42.63	-13.00	-29.63	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Test Date: Mar. 19, 2013

Temperature: 22°C

Atmospheric pressure: 1020 hPa

Humidity: 66%

WCDMA Band V (VERTICAL)

Channel	Frequency (MHz)	Maximum value in frequency (MHz)		Maximum value (dBm)	
		30M-1G	827.34	30M-1G	-25.86
CH 4132	826.4	1G-20G	11792.00	1G-20G	-42.41
		30M-1G	835.10	30M-1G	-27.22
CH 4180	836.0	1G-20G	11450.00	1G-20G	-41.97
		30M-1G	846.74	30M-1G	-25.43
CH 4233	846.6	1G-20G	11412.00	1G-20G	-41.79

WCDMA Band V (HORIZONTAL)

Channel	Frequency (MHz)	Maximum value in frequency (MHz)		Maximum value (dBm)	
		30M-1G	827.34	30M-1G	-28.66
CH 4132	826.4	1G-20G	9018.00	1G-20G	-43.23
		30M-1G	835.10	30M-1G	-27.07
CH 4180	836.0	1G-20G	11488.00	1G-20G	-42.39
		30M-1G	846.74	30M-1G	-29.71
CH 4233	846.6	1G-20G	11412.00	1G-20G	-42.09



WCDMA Band II (VERTICAL)

Channel	Frequency (MHz)	Maximum value in frequency (MHz)		Maximum value (dBm)	
		30M-1G	1G-20G	30M-1G	1G-20G
CH 9262	1852.4	30M-1G	59.10	30M-1G	-45.76
		1G-20G	11640.00	1G-20G	-41.90
CH 9400	1880.0	30M-1G	30.00	30M-1G	-49.33
		1G-20G	9892.00	1G-20G	-43.49
CH 9538	1907.6	30M-1G	51.34	30M-1G	-48.55
		1G-20G	11678.00	1G-20G	-42.17

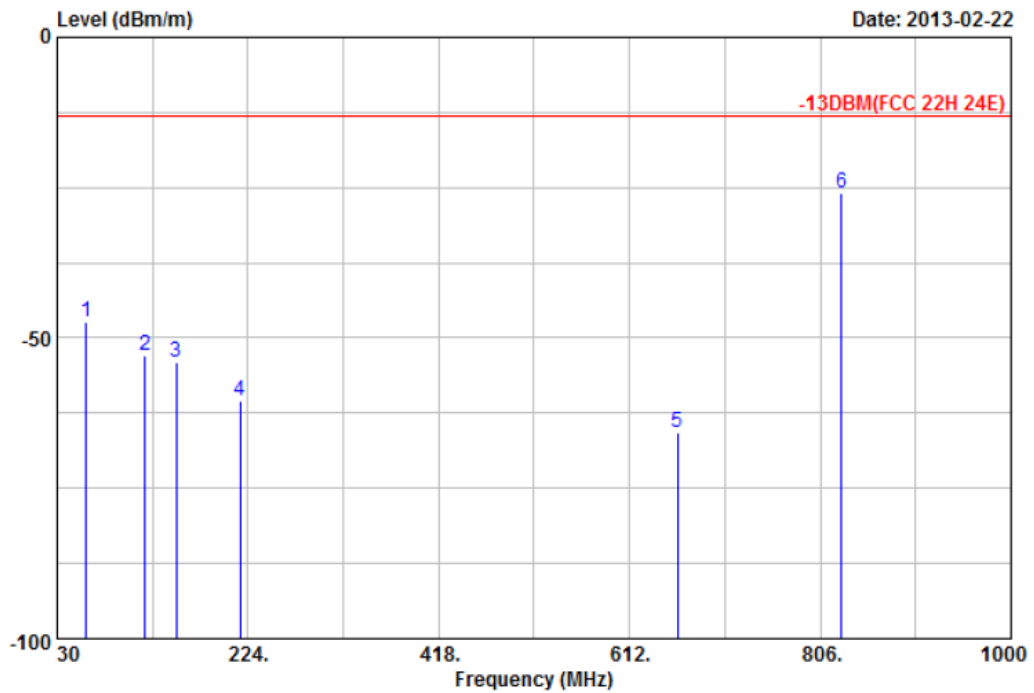
WCDMA Band II (HORIZONTAL)

Channel	Frequency (MHz)	Maximum value in frequency (MHz)		Maximum value (dBm)	
		30M-1G	1G-20G	30M-1G	1G-20G
CH 9262	1852.4	30M-1G	119.24	30M-1G	-46.05
		1G-20G	11678.00	1G-20G	-42.31
CH 9400	1880.0	30M-1G	119.24	30M-1G	-46.17
		1G-20G	12020.00	1G-20G	-41.48
CH 9538	1907.6	30M-1G	119.24	30M-1G	-46.46
		1G-20G	11678.00	1G-20G	-41.74



9.5.3 Test Result and Data (30MHz ~ 1GHz)

Power	: DC 7.4V	Pol/Phase	: VERTICAL
Test Mode	: WCDMA Band V, CH 4132	Temperature	: 21 °C
Test Date	: Feb. 22, 2013	Humidity	: 71 %



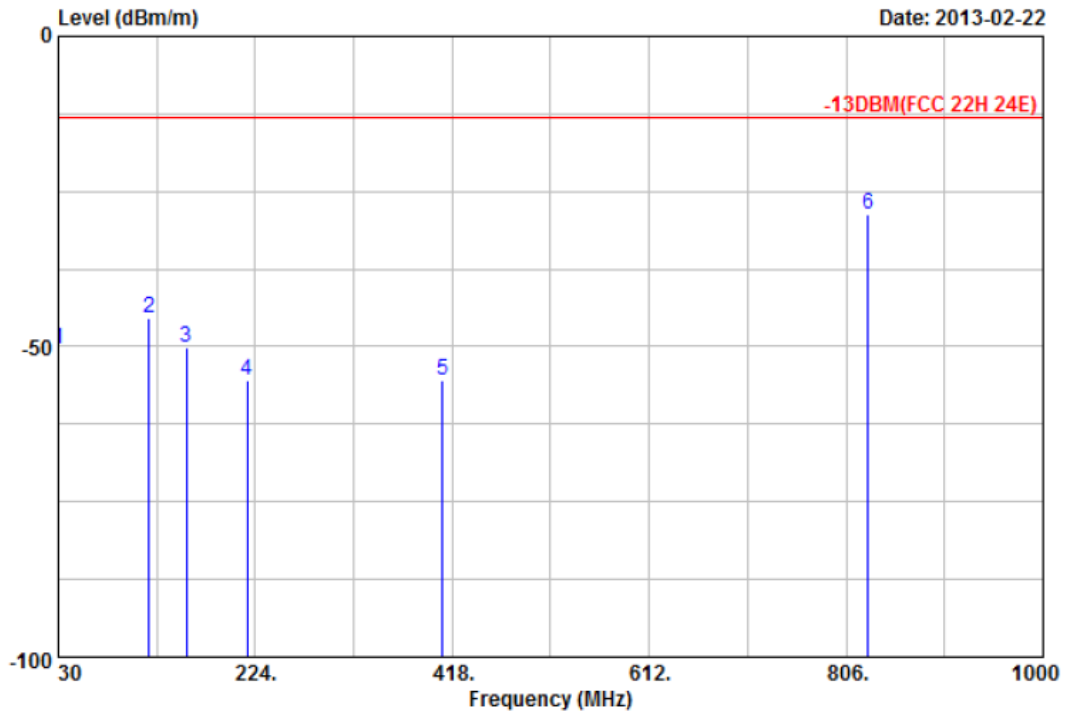
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	59.10	-51.34	3.98	-47.36	-13.00	-34.36	Peak	100	360
2	119.24	-46.11	-6.68	-52.79	-13.00	-39.79	Peak	100	360
3	151.25	-47.30	-6.81	-54.11	-13.00	-41.11	Peak	100	360
4	216.24	-46.01	-14.43	-60.44	-13.00	-47.44	Peak	100	360
5	660.50	-63.43	-2.19	-65.62	-13.00	-52.62	Peak	100	360
6	827.34	-26.52	0.66	-25.86	-13.00	-12.86	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: HORIZONTAL
Test Mode	: WCDMA Band V, CH 4132	Temperature	: 21 °C
Test Date	: Feb. 22, 2013	Humidity	: 71 %



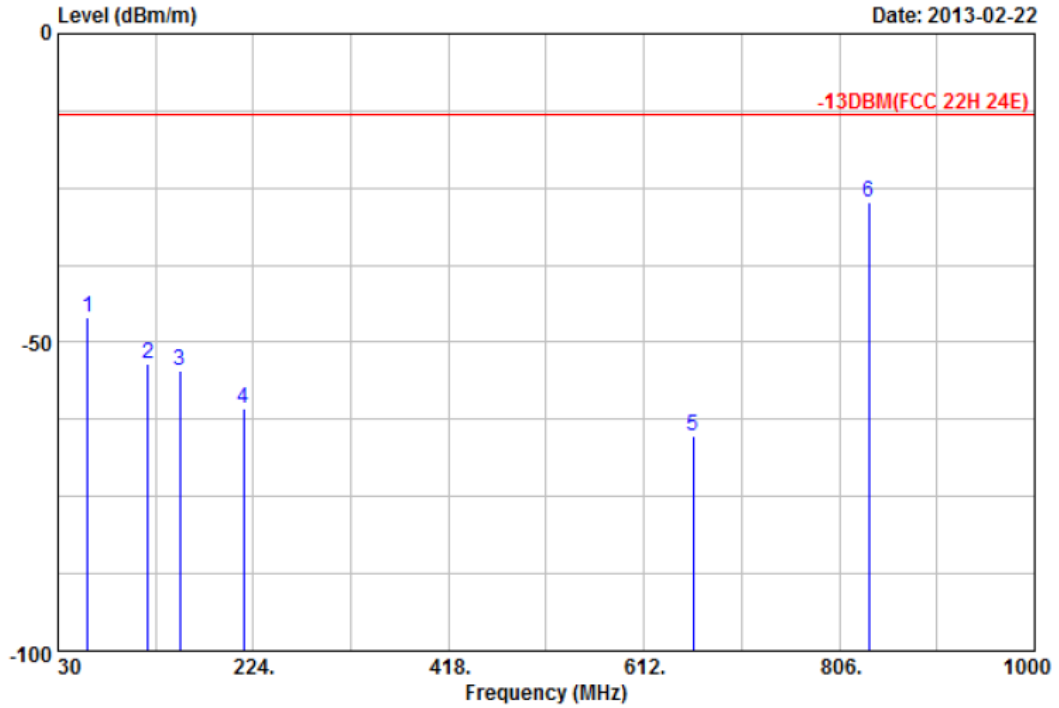
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	30.00	-65.47	15.10	-50.37	-13.00	-37.37	Peak	100	0
2	119.24	-35.52	-9.88	-45.40	-13.00	-32.40	Peak	100	0
3	156.10	-41.68	-8.54	-50.22	-13.00	-37.22	Peak	100	0
4	216.24	-39.11	-16.32	-55.43	-13.00	-42.43	Peak	100	0
5	408.30	-47.37	-8.12	-55.49	-13.00	-42.49	Peak	100	0
6	827.34	-28.43	-0.23	-28.66	-13.00	-15.66	Peak	100	0

Notes:

- 1. Result = Read Value + Factor
- 2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: VERTICAL
Test Mode	: WCDMA Band V, CH 4180	Temperature	: 21 °C
Test Date	: Feb. 22, 2013	Humidity	: 71 %



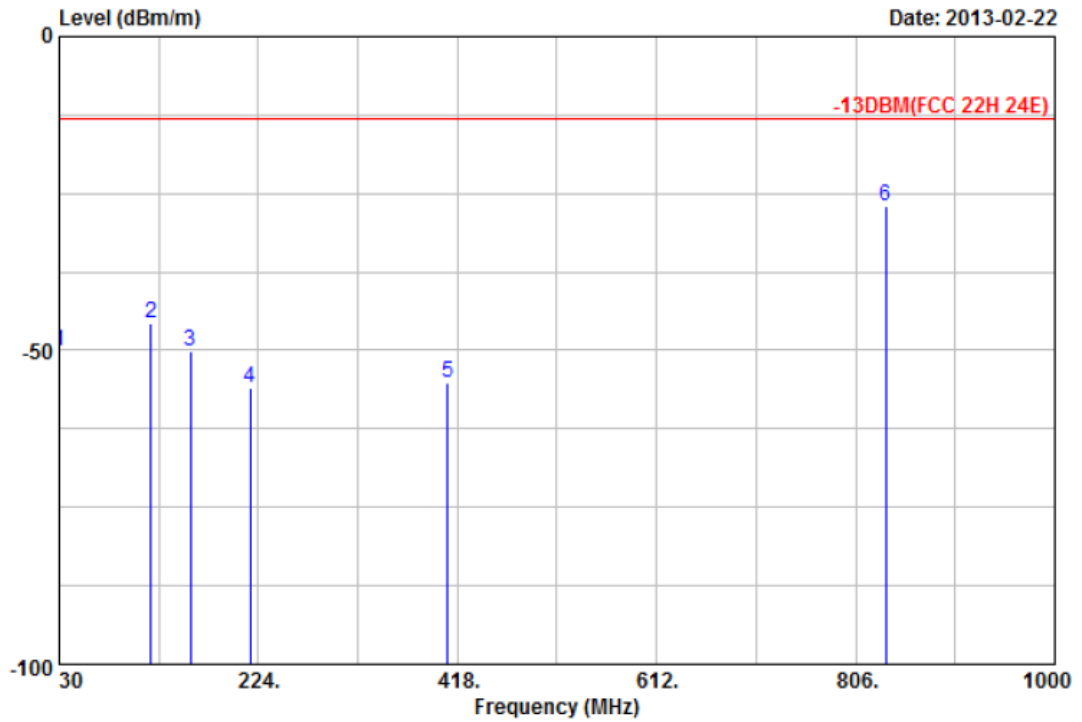
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	59.10	-49.87	3.98	-45.89	-13.00	-32.89	Peak	100	360
2	119.24	-46.72	-6.68	-53.40	-13.00	-40.40	Peak	100	360
3	151.25	-47.79	-6.81	-54.60	-13.00	-41.60	Peak	100	360
4	214.30	-46.27	-14.54	-60.81	-13.00	-47.81	Peak	100	360
5	660.50	-63.05	-2.19	-65.24	-13.00	-52.24	Peak	100	360
6	835.10	-28.12	0.90	-27.22	-13.00	-14.22	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: HORIZONTAL
Test Mode	: WCDMA Band V, CH 4180	Temperature	: 21 °C
Test Date	: Feb. 22, 2013	Humidity	: 71 %



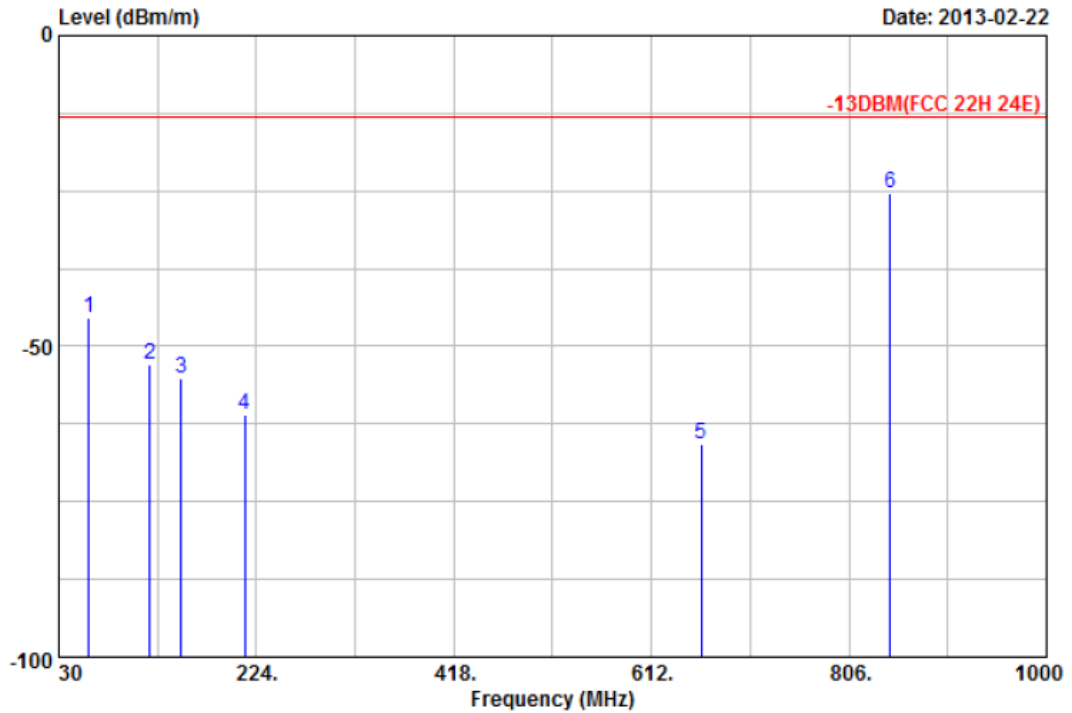
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	30.00	-65.28	15.10	-50.18	-13.00	-37.18	Peak	100	0
2	119.24	-35.76	-9.88	-45.64	-13.00	-32.64	Peak	100	0
3	158.04	-41.26	-8.92	-50.18	-13.00	-37.18	Peak	100	0
4	216.24	-39.67	-16.32	-55.99	-13.00	-42.99	Peak	100	0
5	408.30	-47.02	-8.12	-55.14	-13.00	-42.14	Peak	100	0
6	835.10	-26.69	-0.38	-27.07	-13.00	-14.07	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: VERTICAL
Test Mode	: WCDMA Band V, CH 4233	Temperature	: 21 °C
Test Date	: Feb. 22, 2013	Humidity	: 71 %



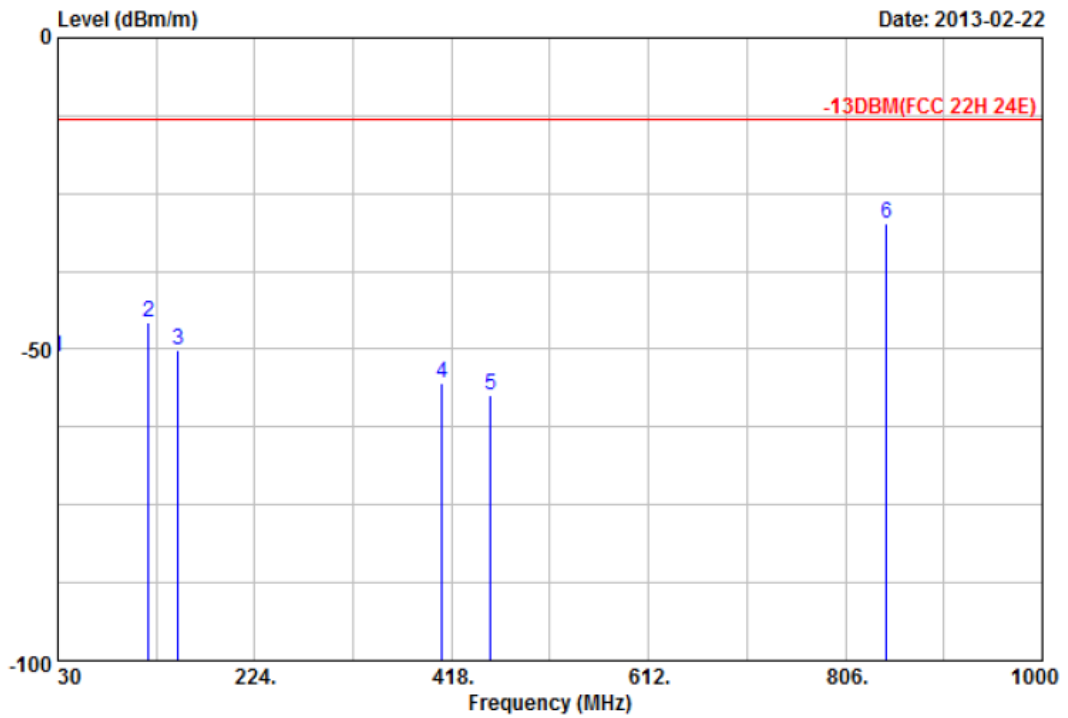
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	59.10	-49.43	3.98	-45.45	-13.00	-32.45	Peak	100	360
2	119.24	-46.37	-6.68	-53.05	-13.00	-40.05	Peak	100	360
3	150.28	-48.42	-6.64	-55.06	-13.00	-42.06	Peak	100	360
4	212.36	-46.39	-14.65	-61.04	-13.00	-48.04	Peak	100	360
5	660.50	-63.60	-2.19	-65.79	-13.00	-52.79	Peak	100	360
6	846.74	-26.67	1.24	-25.43	-13.00	-12.43	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: HORIZONTAL
Test Mode	: WCDMA Band V, CH 4233	Temperature	: 21 °C
Test Date	: Feb. 22, 2013	Humidity	: 71 %



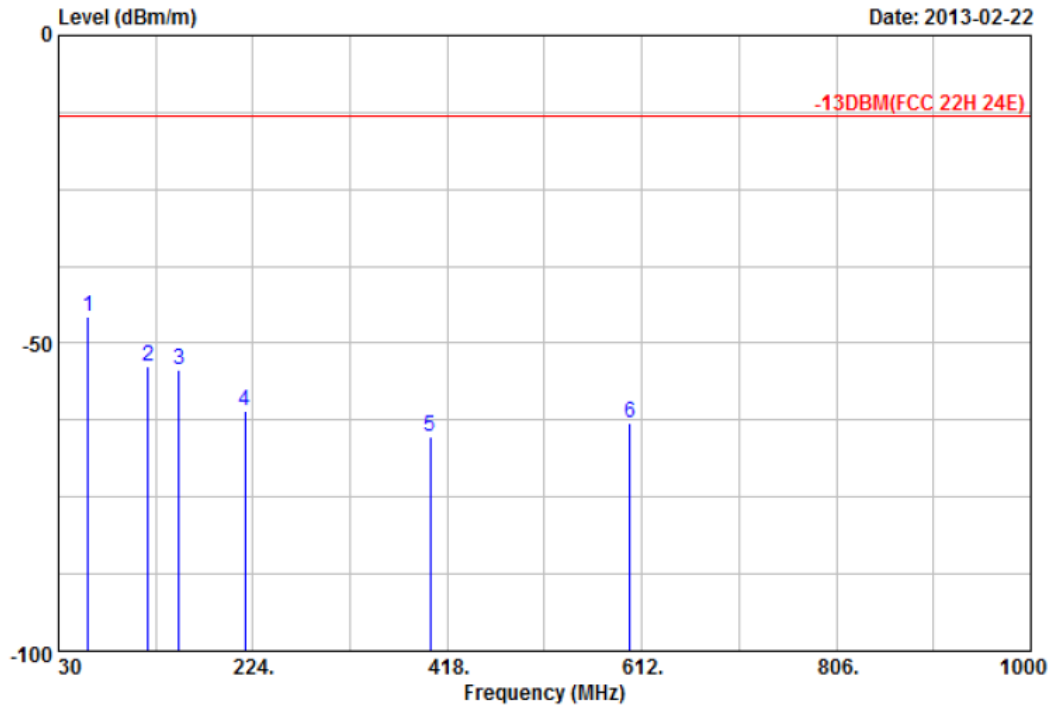
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	30.00	-66.23	15.10	-51.13	-13.00	-38.13	Peak	100	0
2	119.24	-35.86	-9.88	-45.74	-13.00	-32.74	Peak	100	0
3	148.34	-42.55	-7.47	-50.02	-13.00	-37.02	Peak	100	0
4	408.30	-47.32	-8.12	-55.44	-13.00	-42.44	Peak	100	0
5	456.80	-50.58	-6.69	-57.27	-13.00	-44.27	Peak	100	0
6	846.74	-29.10	-0.61	-29.71	-13.00	-16.71	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: VERTICAL
Test Mode	: WCDMA Band II, CH 9262	Temperature	: 21 °C
Test Date	: Feb. 22, 2013	Humidity	: 71 %



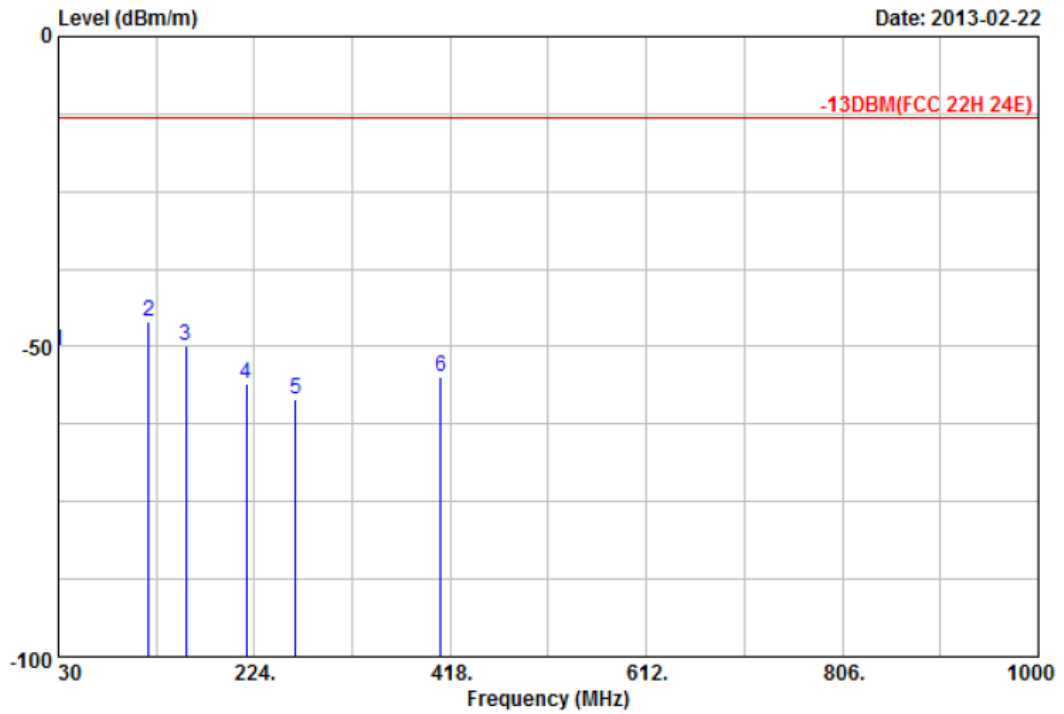
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	59.10	-49.74	3.98	-45.76	-13.00	-32.76	Peak	100	360
2	119.24	-47.15	-6.68	-53.83	-13.00	-40.83	Peak	100	360
3	150.28	-47.66	-6.64	-54.30	-13.00	-41.30	Peak	100	360
4	216.24	-46.60	-14.43	-61.03	-13.00	-48.03	Peak	100	360
5	400.54	-56.82	-8.36	-65.18	-13.00	-52.18	Peak	100	360
6	600.36	-58.57	-4.27	-62.84	-13.00	-49.84	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: HORIZONTAL
Test Mode	: WCDMA Band II, CH 9262	Temperature	: 21 °C
Test Date	: Feb. 22, 2013	Humidity	: 71 %



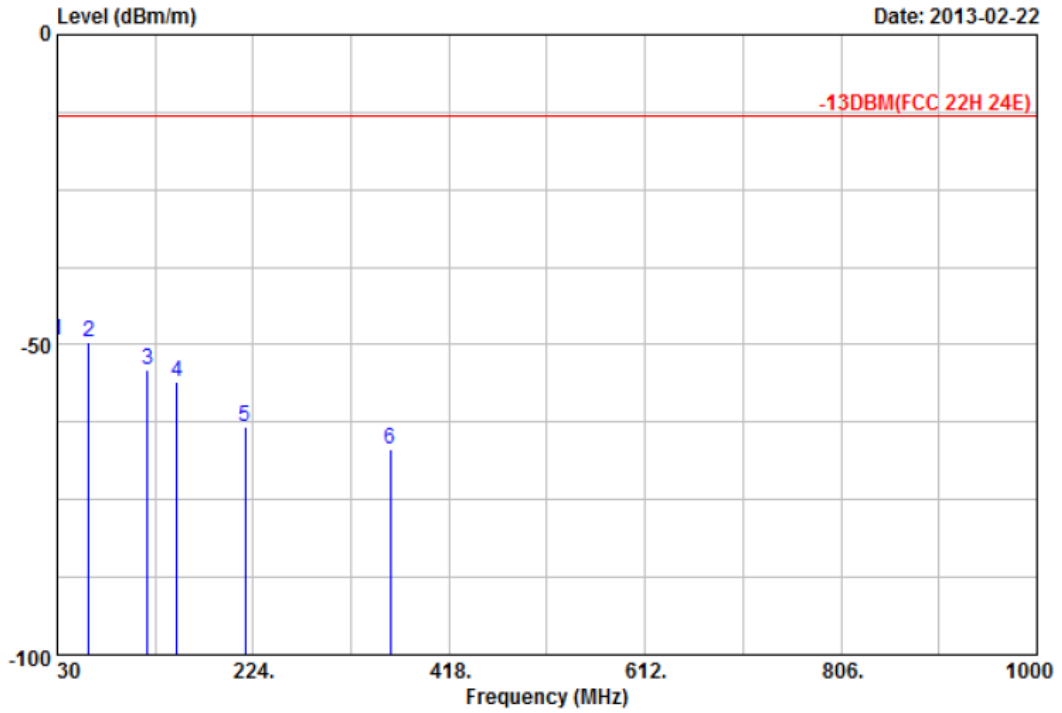
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	30.00	-65.91	15.10	-50.81	-13.00	-37.81	Peak	100	0
2	119.24	-36.17	-9.88	-46.05	-13.00	-33.05	Peak	100	0
3	156.10	-41.33	-8.54	-49.87	-13.00	-36.87	Peak	100	0
4	216.24	-39.76	-16.32	-56.08	-13.00	-43.08	Peak	100	0
5	264.74	-45.21	-13.22	-58.43	-13.00	-45.43	Peak	100	0
6	408.30	-46.75	-8.12	-54.87	-13.00	-41.87	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: VERTICAL
Test Mode	: WCDMA Band II, CH 9400	Temperature	: 21 °C
Test Date	: Feb. 22, 2013	Humidity	: 71 %



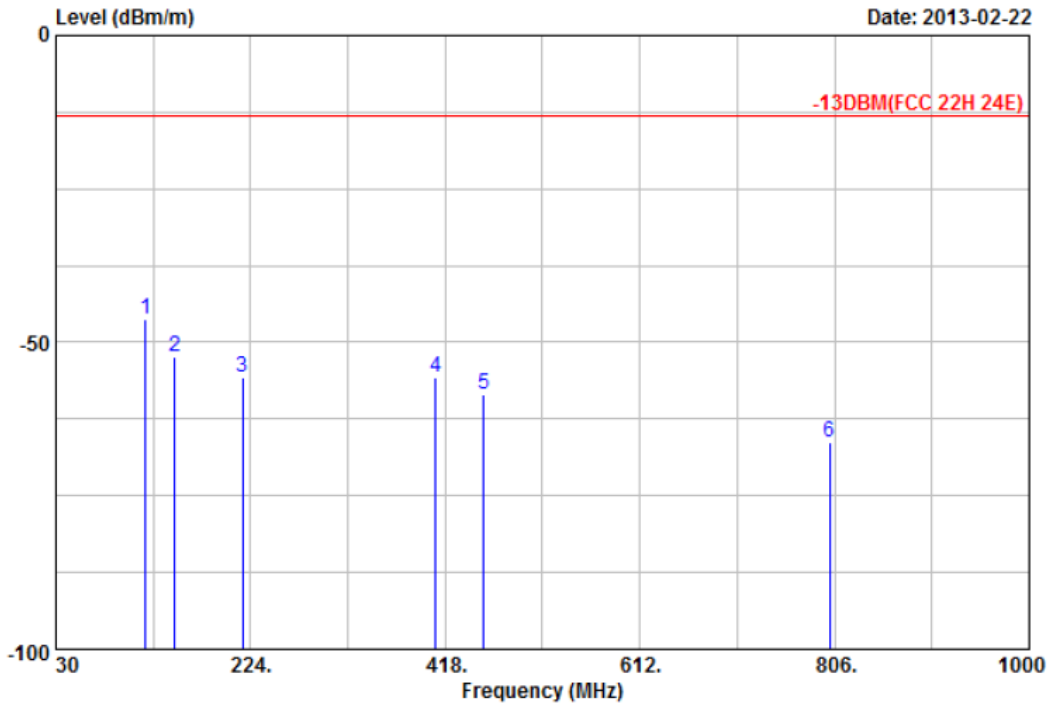
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	30.00	-60.08	10.75	-49.33	-13.00	-36.33	Peak	100	360
2	61.04	-53.16	3.47	-49.69	-13.00	-36.69	Peak	100	360
3	119.24	-47.28	-6.68	-53.96	-13.00	-40.96	Peak	100	360
4	148.34	-49.45	-6.59	-56.04	-13.00	-43.04	Peak	100	360
5	216.24	-48.82	-14.43	-63.25	-13.00	-50.25	Peak	100	360
6	359.80	-58.71	-8.27	-66.98	-13.00	-53.98	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: HORIZONTAL
Test Mode	: WCDMA Band II, CH 9400	Temperature	: 21 °C
Test Date	: Feb. 22, 2013	Humidity	: 71 %



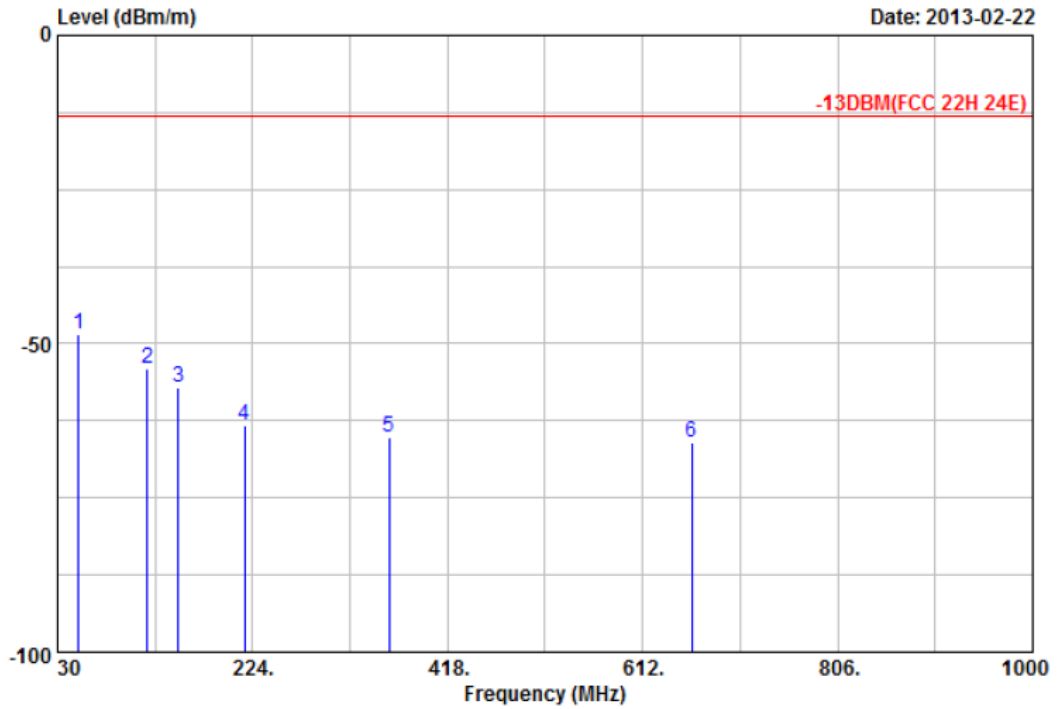
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	119.24	-36.29	-9.88	-46.17	-13.00	-33.17	Peak	100	0
2	148.34	-44.83	-7.47	-52.30	-13.00	-39.30	Peak	100	0
3	216.24	-39.44	-16.32	-55.76	-13.00	-42.76	Peak	100	0
4	408.30	-47.64	-8.12	-55.76	-13.00	-42.76	Peak	100	0
5	456.80	-51.88	-6.69	-58.57	-13.00	-45.57	Peak	100	0
6	801.15	-66.63	0.28	-66.35	-13.00	-53.35	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: VERTICAL
Test Mode	: WCDMA Band II, CH 9538	Temperature	: 21 °C
Test Date	: Feb. 22, 2013	Humidity	: 71 %



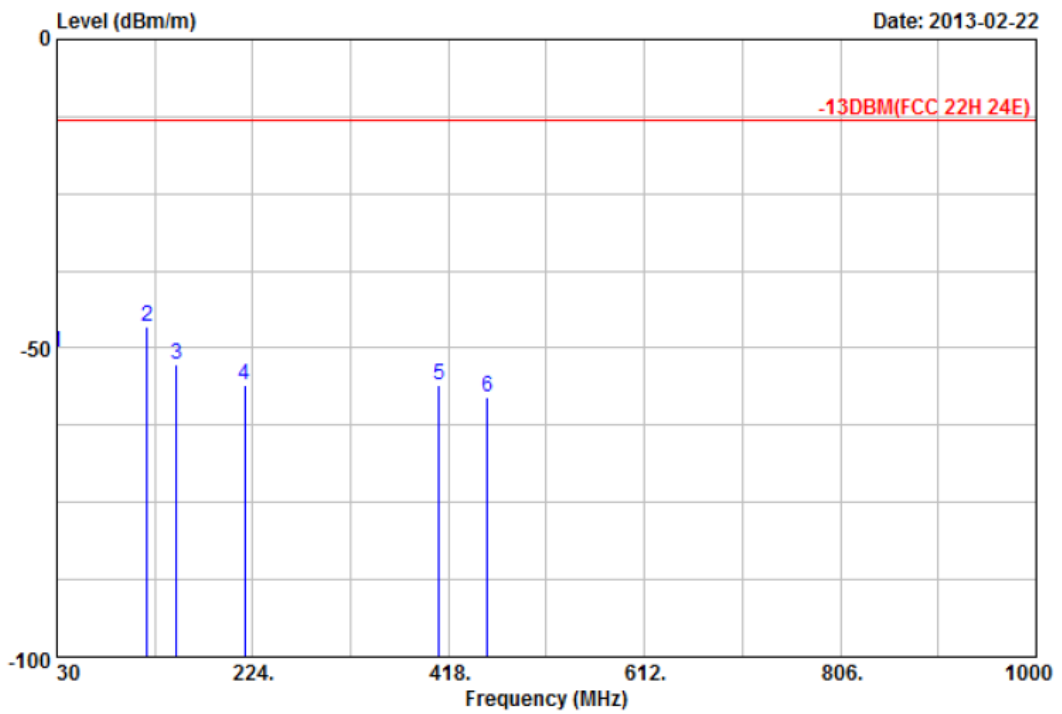
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	51.34	-54.56	6.01	-48.55	-13.00	-35.55	Peak	100	360
2	119.24	-47.29	-6.68	-53.97	-13.00	-40.97	Peak	100	360
3	150.28	-50.42	-6.64	-57.06	-13.00	-44.06	Peak	100	360
4	216.24	-48.86	-14.43	-63.29	-13.00	-50.29	Peak	100	360
5	359.80	-56.89	-8.27	-65.16	-13.00	-52.16	Peak	100	360
6	660.50	-63.74	-2.19	-65.93	-13.00	-52.93	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: HORIZONTAL
Test Mode	: WCDMA Band II, CH 9538	Temperature	: 21 °C
Test Date	: Feb. 22, 2013	Humidity	: 71 %



Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	30.00	-65.88	15.10	-50.78	-13.00	-37.78	Peak	100	0
2	119.24	-36.58	-9.88	-46.46	-13.00	-33.46	Peak	100	0
3	148.34	-45.27	-7.47	-52.74	-13.00	-39.74	Peak	100	0
4	216.24	-39.64	-16.32	-55.96	-13.00	-42.96	Peak	100	0
5	408.30	-47.84	-8.12	-55.96	-13.00	-42.96	Peak	100	0
6	456.80	-51.12	-6.69	-57.81	-13.00	-44.81	Peak	100	0

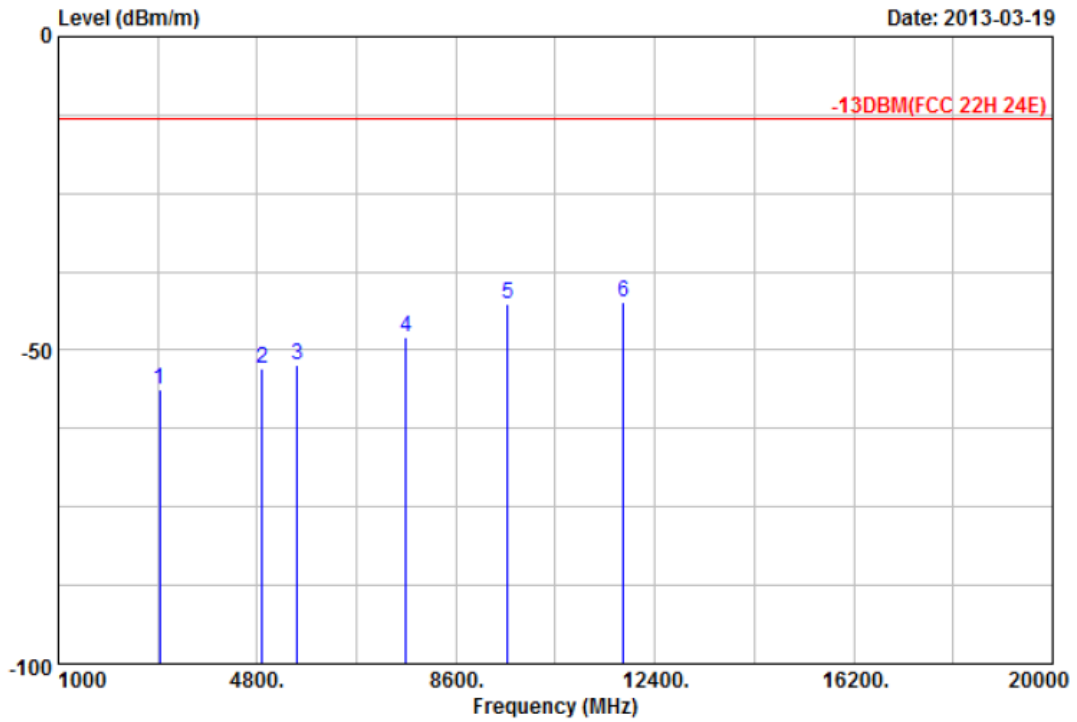
Notes:

1. Result = Read Value + Factor
2. The data is worse case.



9.5.4 Test Result and Data (1GHz ~ 20GHz)

Power	: DC 7.4V	Pol/Phase	: VERTICAL
Test Mode	: WCDMA Band V, CH 4132	Temperature	: 22 °C
Test Date	: Feb. 22, 2013	Humidity	: 66 %



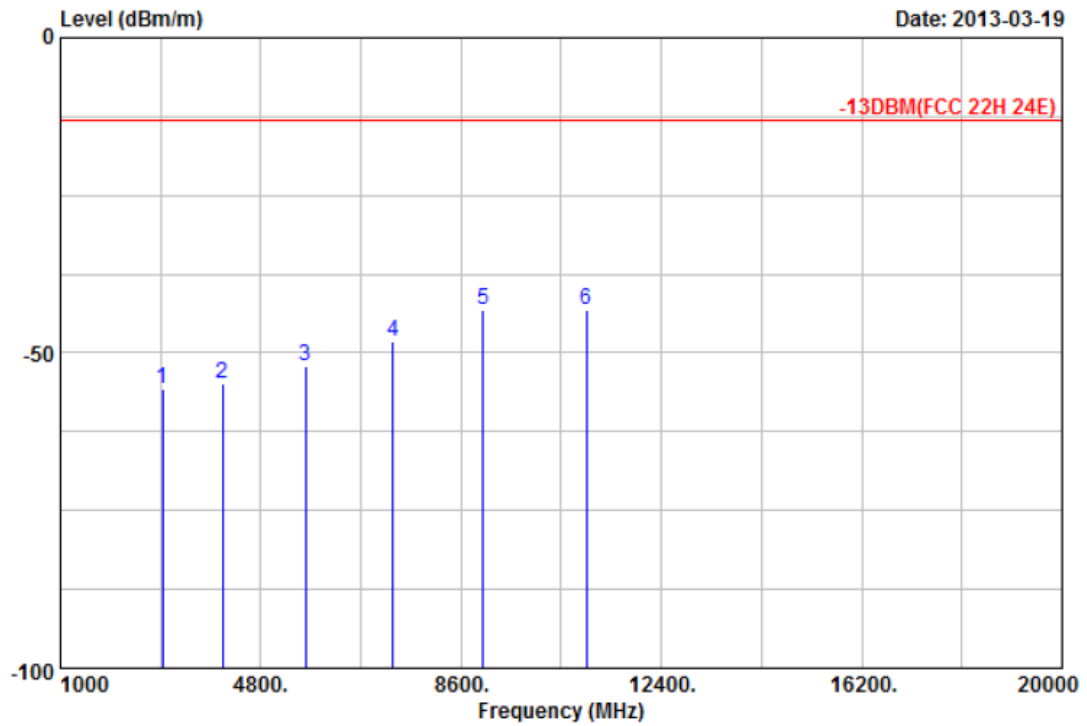
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	2938.00	-63.30	7.10	-56.20	-13.00	-43.20	Peak	100	360
2	4895.00	-67.01	14.17	-52.84	-13.00	-39.84	Peak	100	360
3	5560.00	-67.80	15.42	-52.38	-13.00	-39.38	Peak	100	360
4	7650.00	-67.06	19.27	-47.79	-13.00	-34.79	Peak	100	360
5	9588.00	-65.59	23.06	-42.53	-13.00	-29.53	Peak	100	360
6	11792.00	-67.10	24.69	-42.41	-13.00	-29.41	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: HORIZONTAL
Test Mode	: WCDMA Band V, CH 4132	Temperature	: 22 °C
Test Date	: Mar. 19, 2013	Humidity	: 66 %



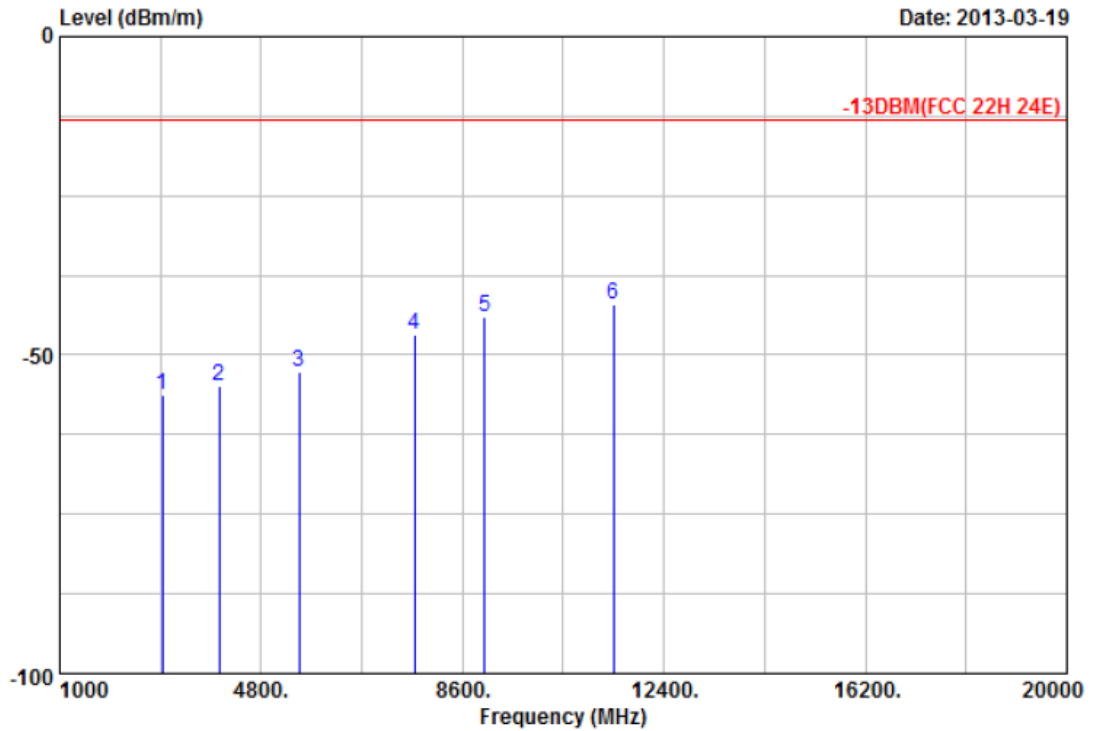
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	2938.00	-62.75	7.10	-55.65	-13.00	-42.65	Peak	100	0
2	4078.00	-67.40	12.61	-54.79	-13.00	-41.79	Peak	100	0
3	5655.00	-67.64	15.45	-52.19	-13.00	-39.19	Peak	100	0
4	7308.00	-66.52	18.44	-48.08	-13.00	-35.08	Peak	100	0
5	9018.00	-65.95	22.72	-43.23	-13.00	-30.23	Peak	100	0
6	10975.00	-66.63	23.38	-43.25	-13.00	-30.25	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: VERTICAL
Test Mode	: WCDMA Band V, CH 4180	Temperature	: 22 °C
Test Date	: Mar. 19, 2013	Humidity	: 66 %



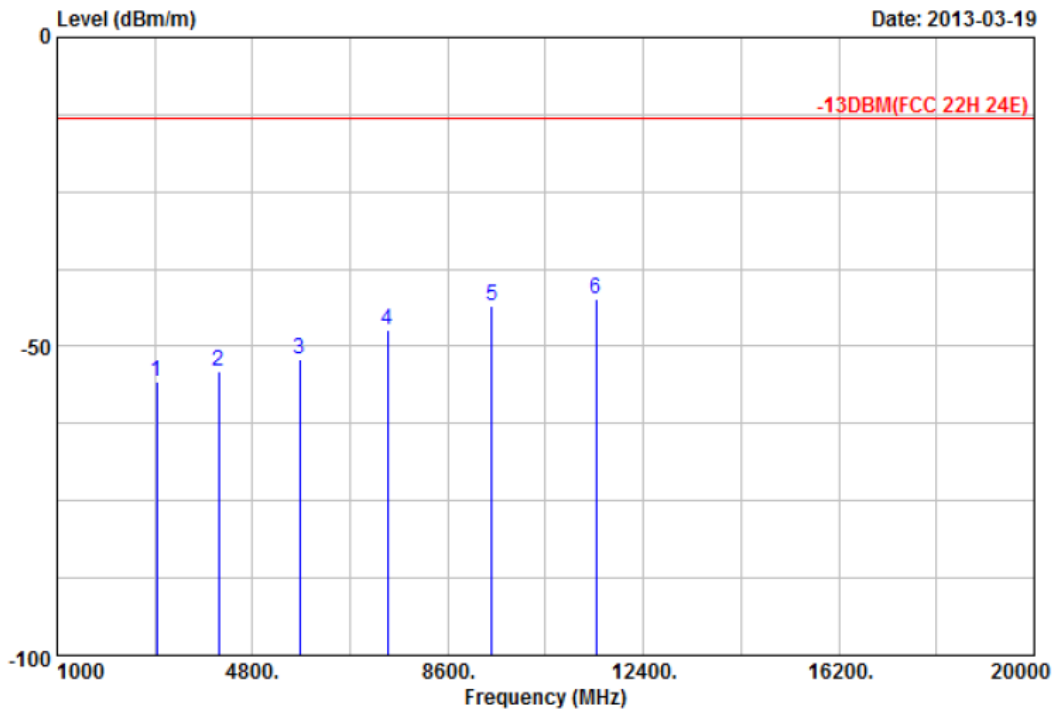
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	2938.00	-63.25	7.10	-56.15	-13.00	-43.15	Peak	100	360
2	4002.00	-67.41	12.57	-54.84	-13.00	-41.84	Peak	100	360
3	5522.00	-67.95	15.41	-52.54	-13.00	-39.54	Peak	100	360
4	7688.00	-66.05	19.27	-46.78	-13.00	-33.78	Peak	100	360
5	9018.00	-66.73	22.72	-44.01	-13.00	-31.01	Peak	100	360
6	11450.00	-66.72	24.75	-41.97	-13.00	-28.97	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: HORIZONTAL
Test Mode	: WCDMA Band V, CH 4180	Temperature	: 22 °C
Test Date	: Mar. 19, 2013	Humidity	: 66 %



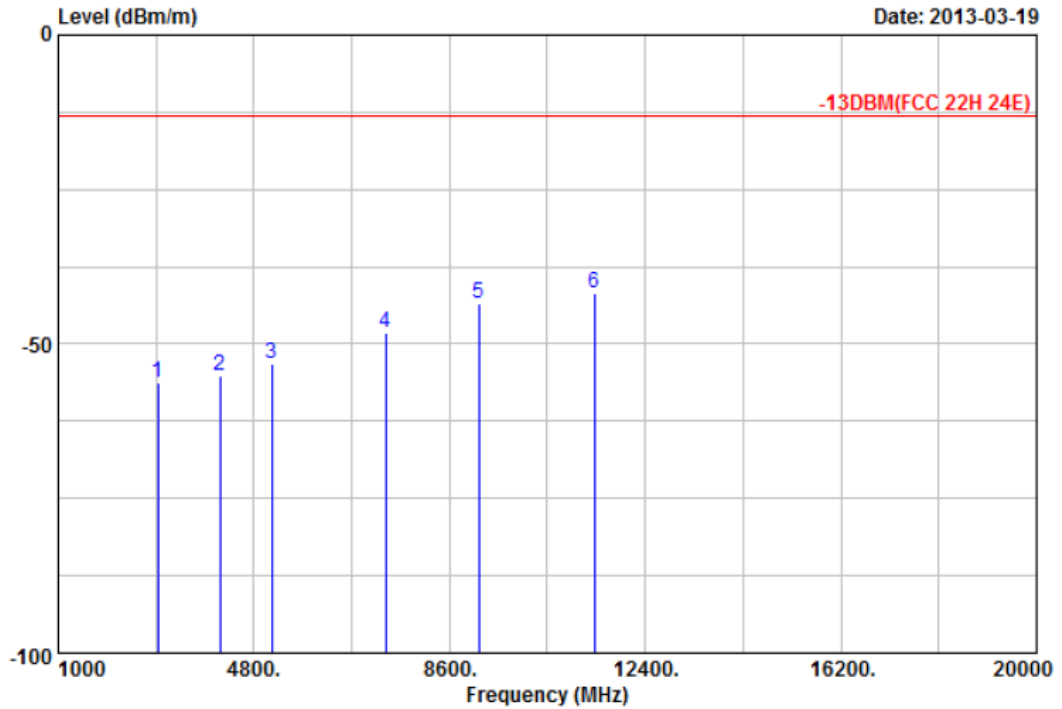
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	2938.00	-62.93	7.10	-55.83	-13.00	-42.83	Peak	100	0
2	4135.00	-66.78	12.64	-54.14	-13.00	-41.14	Peak	100	0
3	5712.00	-67.58	15.47	-52.11	-13.00	-39.11	Peak	100	0
4	7422.00	-66.20	18.91	-47.29	-13.00	-34.29	Peak	100	0
5	9455.00	-66.51	23.02	-43.49	-13.00	-30.49	Peak	100	0
6	11488.00	-67.25	24.86	-42.39	-13.00	-29.39	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: VERTICAL
Test Mode	: WCDMA Band V, CH 4233	Temperature	: 22 °C
Test Date	: Mar. 19, 2013	Humidity	: 66 %



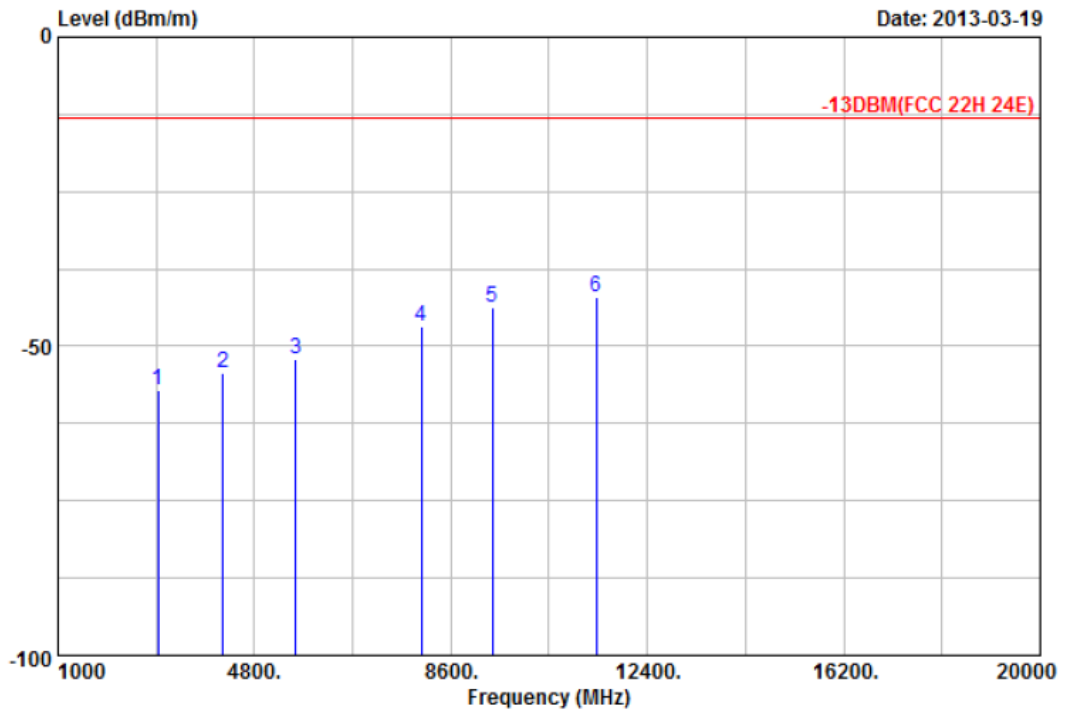
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	2938.00	-63.42	7.10	-56.32	-13.00	-43.32	Peak	100	360
2	4135.00	-67.81	12.64	-55.17	-13.00	-42.17	Peak	100	360
3	5142.00	-68.12	14.94	-53.18	-13.00	-40.18	Peak	100	360
4	7365.00	-66.80	18.68	-48.12	-13.00	-35.12	Peak	100	360
5	9170.00	-66.28	22.83	-43.45	-13.00	-30.45	Peak	100	360
6	11412.00	-66.43	24.64	-41.79	-13.00	-28.79	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: HORIZONTAL
Test Mode	: WCDMA Band V, CH 4233	Temperature	: 22 °C
Test Date	: Mar. 19, 2013	Humidity	: 66 %



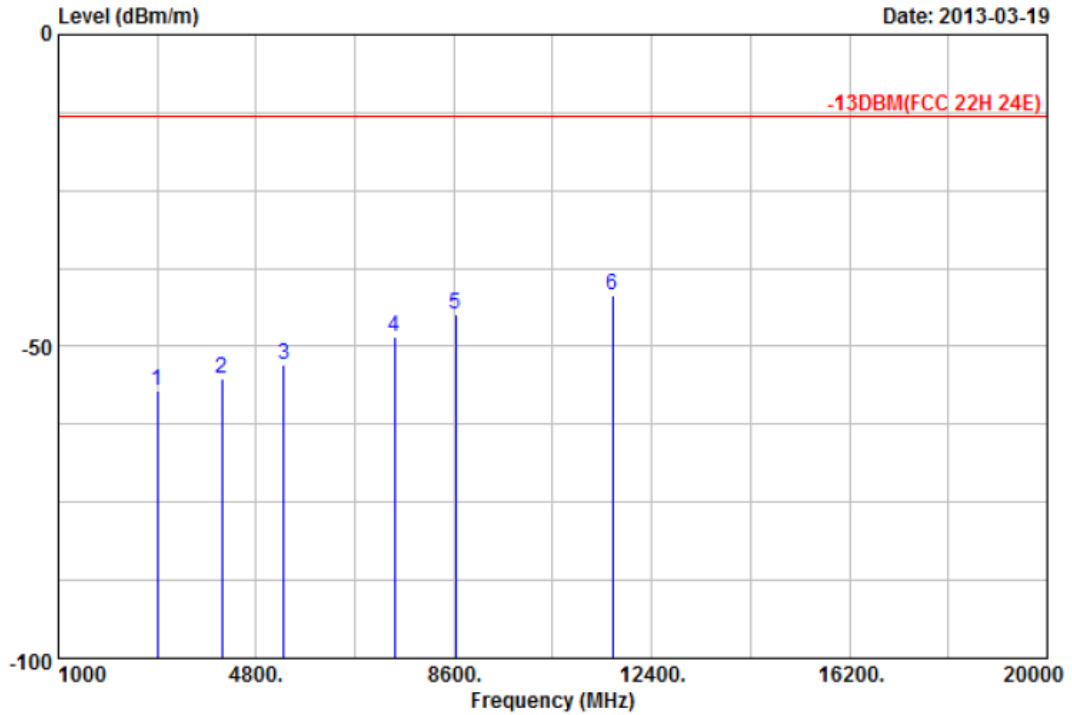
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	2938.00	-64.26	7.10	-57.16	-13.00	-44.16	Peak	100	0
2	4192.00	-67.12	12.67	-54.45	-13.00	-41.45	Peak	100	0
3	5598.00	-67.50	15.43	-52.07	-13.00	-39.07	Peak	100	0
4	8030.00	-66.15	19.47	-46.68	-13.00	-33.68	Peak	100	0
5	9398.00	-66.85	22.98	-43.87	-13.00	-30.87	Peak	100	0
6	11412.00	-66.73	24.64	-42.09	-13.00	-29.09	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: VERTICAL
Test Mode	: WCDMA Band II, CH 9262	Temperature	: 22 °C
Test Date	: Mar. 19, 2013	Humidity	: 66 %



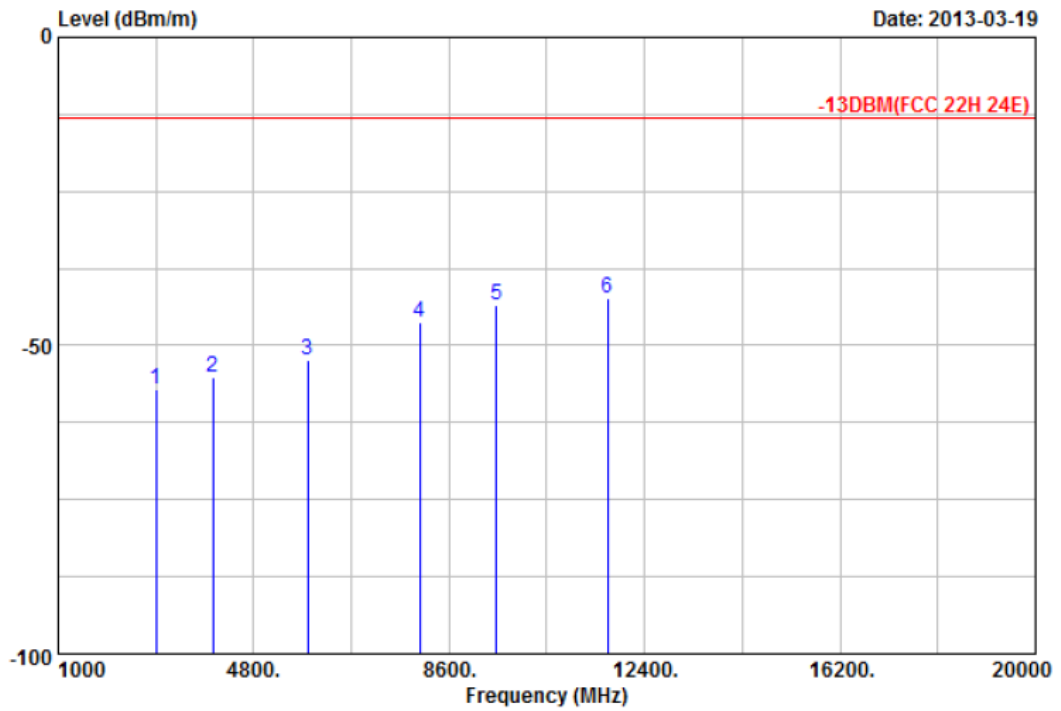
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	2900.00	-63.84	6.74	-57.10	-13.00	-44.10	Peak	100	360
2	4135.00	-67.90	12.64	-55.26	-13.00	-42.26	Peak	100	360
3	5332.00	-67.59	14.72	-52.87	-13.00	-39.87	Peak	100	360
4	7460.00	-67.45	19.07	-48.38	-13.00	-35.38	Peak	100	360
5	8638.00	-66.90	21.94	-44.96	-13.00	-31.96	Peak	100	360
6	11640.00	-66.70	24.80	-41.90	-13.00	-28.90	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: HORIZONTAL
Test Mode	: WCDMA Band II, CH 9262	Temperature	: 22 °C
Test Date	: Mar. 19, 2013	Humidity	: 66 %



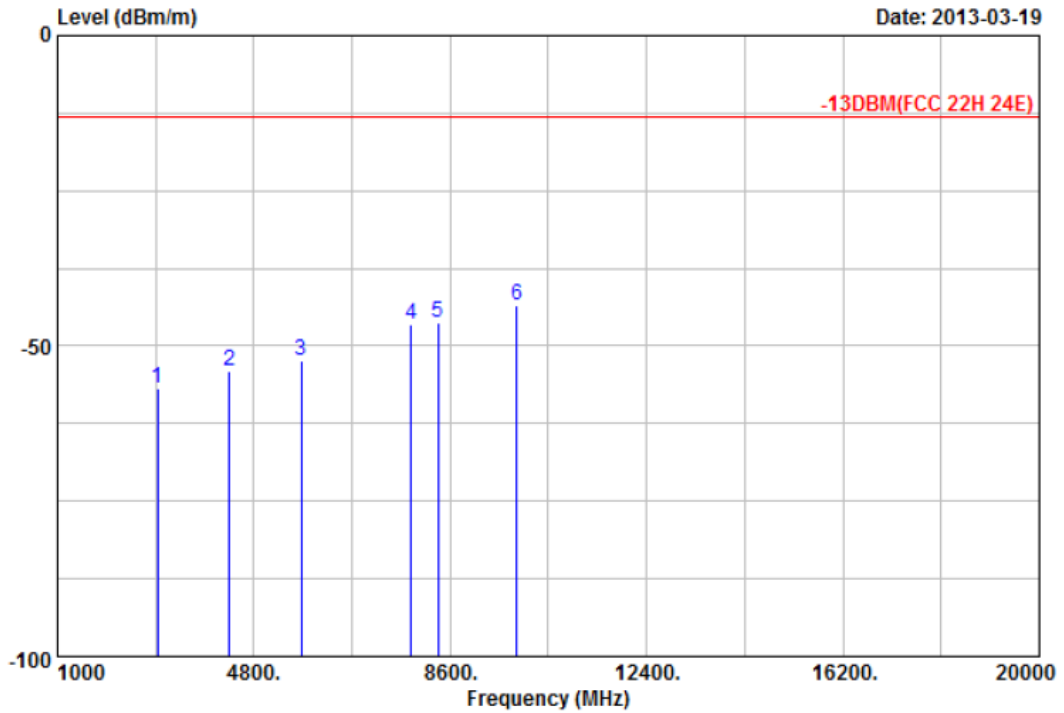
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	2900.00	-63.76	6.74	-57.02	-13.00	-44.02	Peak	100	0
2	4002.00	-67.61	12.57	-55.04	-13.00	-42.04	Peak	100	0
3	5845.00	-67.75	15.52	-52.23	-13.00	-39.23	Peak	100	0
4	8030.00	-65.81	19.47	-46.34	-13.00	-33.34	Peak	100	0
5	9512.00	-66.48	23.05	-43.43	-13.00	-30.43	Peak	100	0
6	11678.00	-67.08	24.77	-42.31	-13.00	-29.31	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: VERTICAL
Test Mode	: WCDMA Band II, CH 9400	Temperature	: 22 °C
Test Date	: Mar. 19, 2013	Humidity	: 66 %



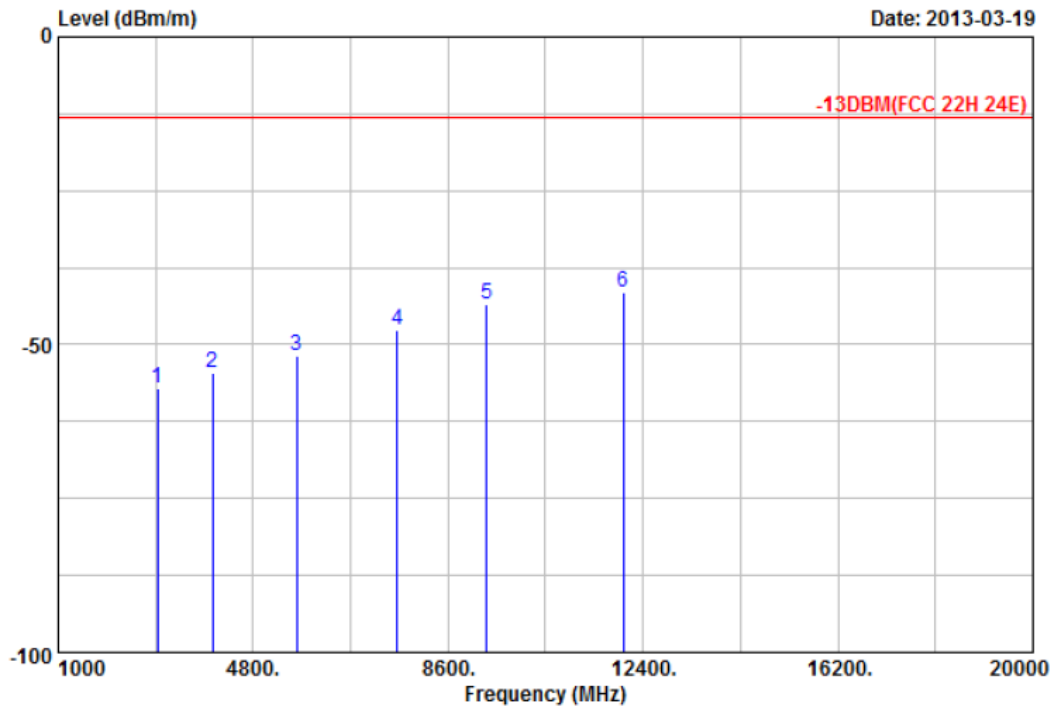
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	2938.00	-63.81	7.10	-56.71	-13.00	-43.71	Peak	100	360
2	4325.00	-66.84	12.74	-54.10	-13.00	-41.10	Peak	100	360
3	5712.00	-67.84	15.47	-52.37	-13.00	-39.37	Peak	100	360
4	7840.00	-65.78	19.30	-46.48	-13.00	-33.48	Peak	100	360
5	8372.00	-67.43	21.06	-46.37	-13.00	-33.37	Peak	100	360
6	9892.00	-66.56	23.07	-43.49	-13.00	-30.49	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: HORIZONTAL
Test Mode	: WCDMA Band II, CH 9400	Temperature	: 22 °C
Test Date	: Mar. 19, 2013	Humidity	: 66 %



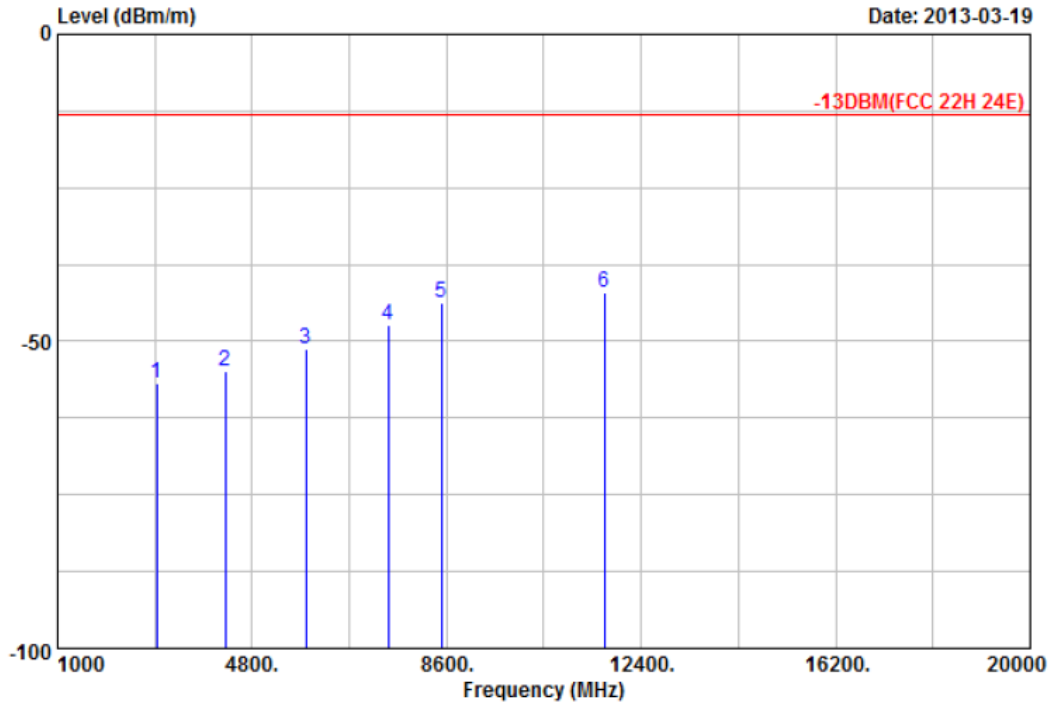
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	2938.00	-64.10	7.10	-57.00	-13.00	-44.00	Peak	100	0
2	4002.00	-67.25	12.57	-54.68	-13.00	-41.68	Peak	100	0
3	5655.00	-67.39	15.45	-51.94	-13.00	-38.94	Peak	100	0
4	7612.00	-66.98	19.26	-47.72	-13.00	-34.72	Peak	100	0
5	9360.00	-66.41	22.95	-43.46	-13.00	-30.46	Peak	100	0
6	12020.00	-66.01	24.53	-41.48	-13.00	-28.48	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: VERTICAL
Test Mode	: WCDMA Band II, CH 9538	Temperature	: 22 °C
Test Date	: Mar. 19, 2013	Humidity	: 66 %

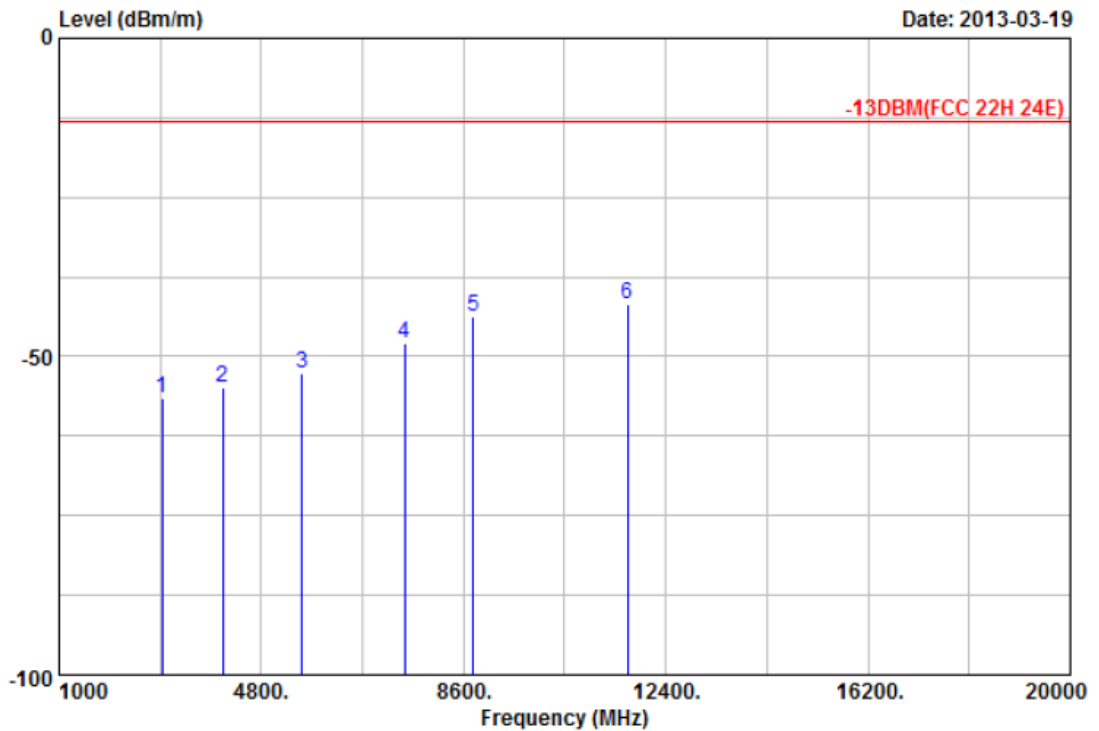


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	2938.00	-64.06	7.10	-56.96	-13.00	-43.96	Peak	100	360
2	4268.00	-67.58	12.71	-54.87	-13.00	-41.87	Peak	100	360
3	5845.00	-66.65	15.52	-51.13	-13.00	-38.13	Peak	100	360
4	7460.00	-66.41	19.07	-47.34	-13.00	-34.34	Peak	100	360
5	8505.00	-65.51	21.66	-43.85	-13.00	-30.85	Peak	100	360
6	11678.00	-66.94	24.77	-42.17	-13.00	-29.17	Peak	100	360

- Notes:
1. Result = Read Value + Factor
 2. The data is worse case.



Power	: DC 7.4V	Pol/Phase	: HORIZONTAL
Test Mode	: WCDMA Band II, CH 9538	Temperature	: 22 °C
Test Date	: Mar. 19, 2013	Humidity	: 66 %



Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBm	dB	dBm	dBm	dB		cm	Deg
1	2938.00	-63.62	7.10	-56.52	-13.00	-43.52	Peak	100	0
2	4078.00	-67.54	12.61	-54.93	-13.00	-41.93	Peak	100	0
3	5560.00	-67.98	15.42	-52.56	-13.00	-39.56	Peak	100	0
4	7498.00	-67.01	19.23	-47.78	-13.00	-34.78	Peak	100	0
5	8790.00	-65.99	22.26	-43.73	-13.00	-30.73	Peak	100	0
6	11678.00	-66.51	24.77	-41.74	-13.00	-28.74	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. The data is worse case.