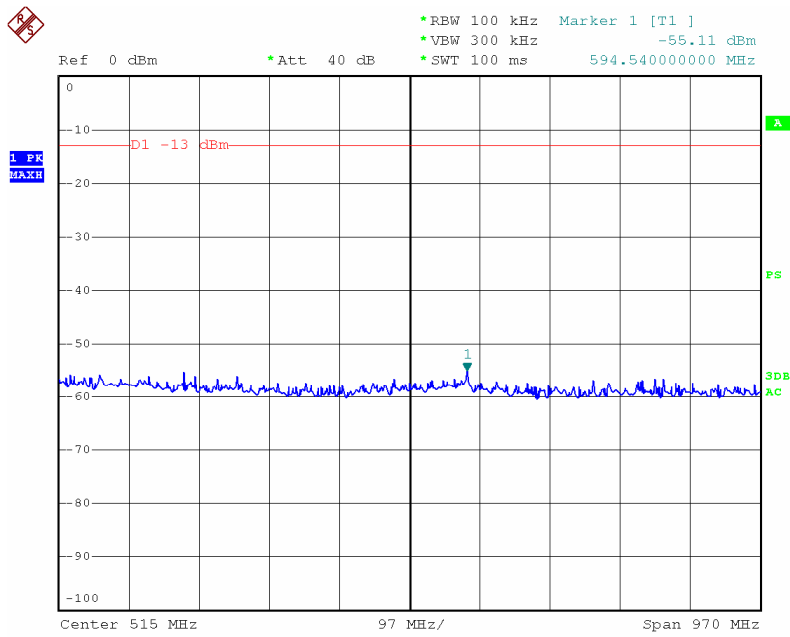
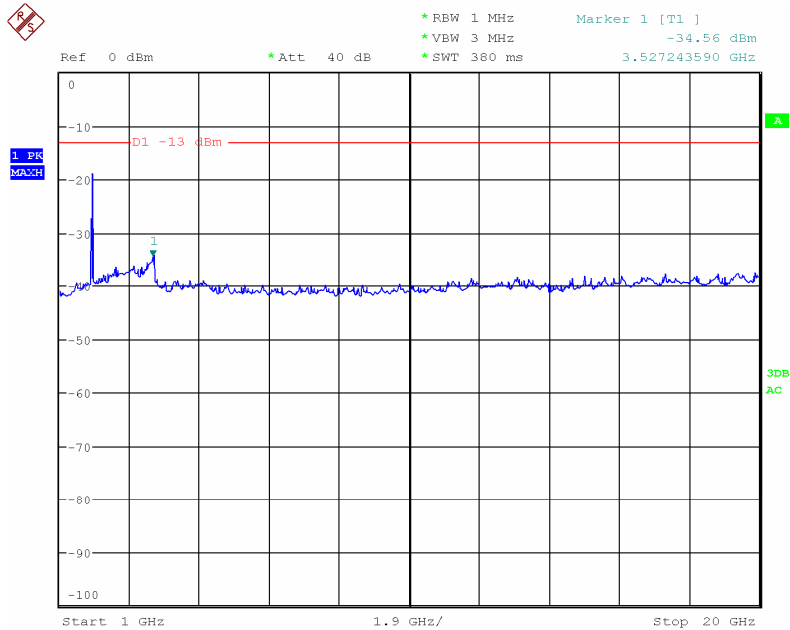


PCS-GSM uplink (middle frequency) 30MHz-1GHz



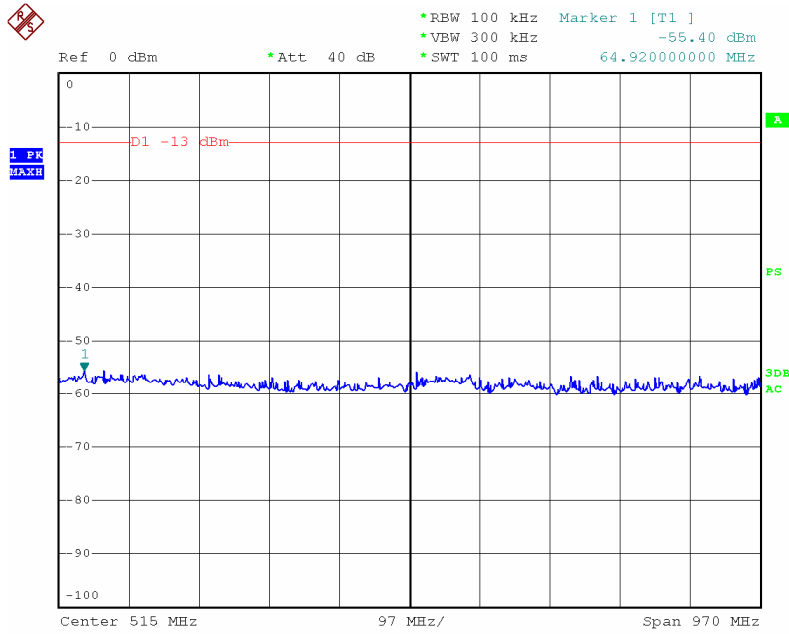
Date: 9.MAY.2012 16:33:25

PCS-GSM uplink(middle frequency) Above 1GHz



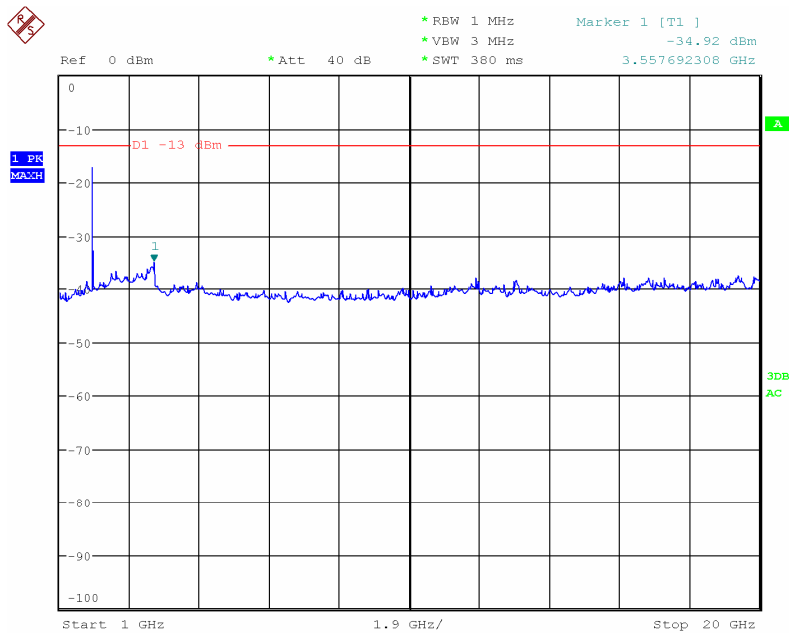
Date: 7.JUN.2012 19:49:50

PCS-GSM uplink (highest frequency) 30MHz-1GHz



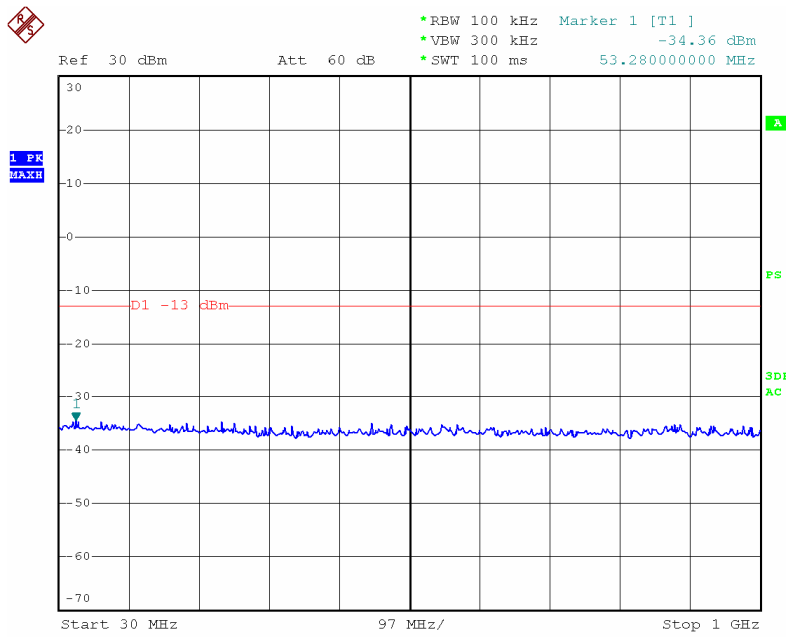
Date: 9.MAY.2012 16:33:49

PCS-GSM uplink (highest frequency) Above 1GHz



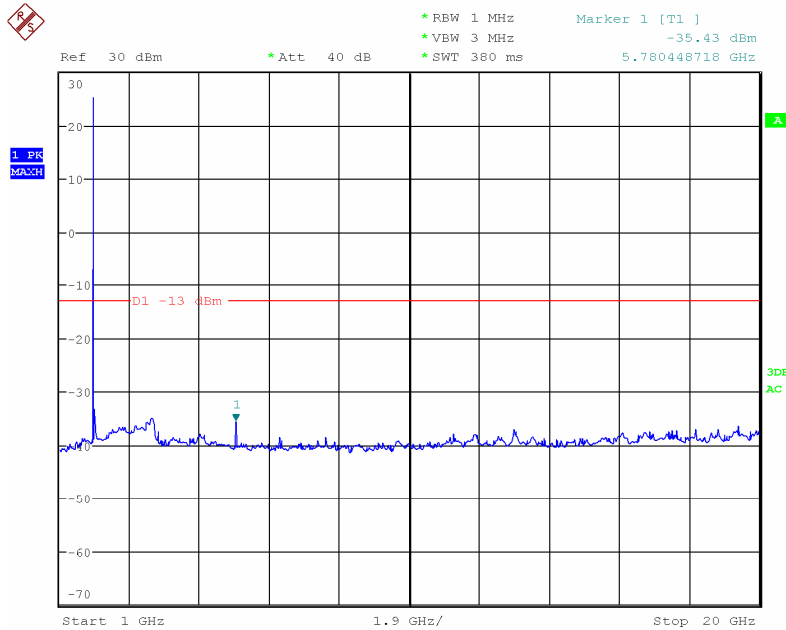
Date: 7.JUN.2012 19:50:30

PCS-EDGE downlink (lowest frequency) 30MHz-1GHz



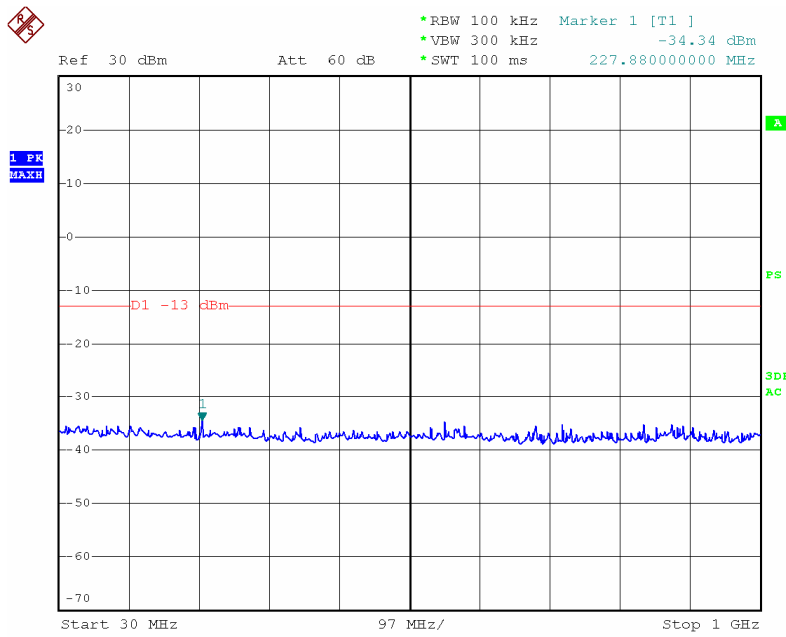
Date: 7.MAY.2012 19:35:00

PCS-EDGE downlink (lowest frequency) Above 1GHz



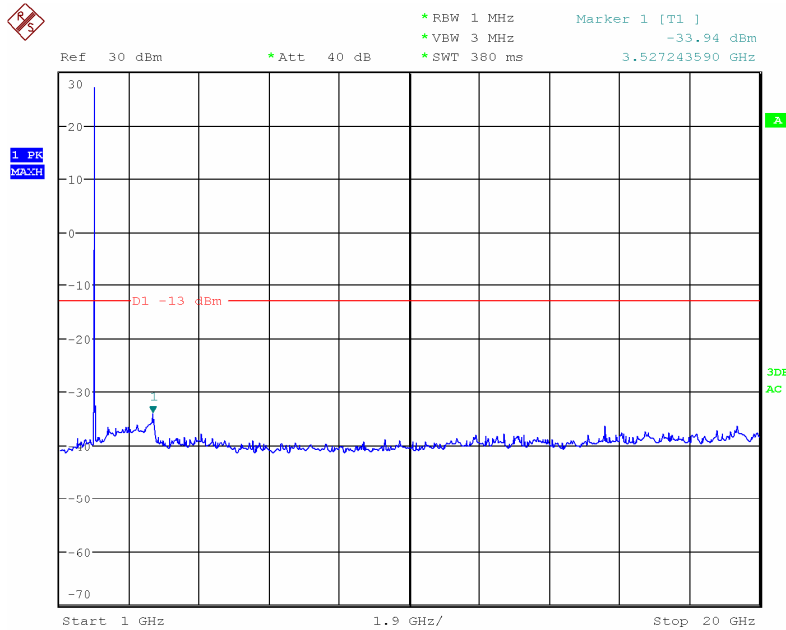
Date: 7.JUN.2012 19:58:58

PCS-EDGE downlink (middle frequency) 30MHz-1GHz



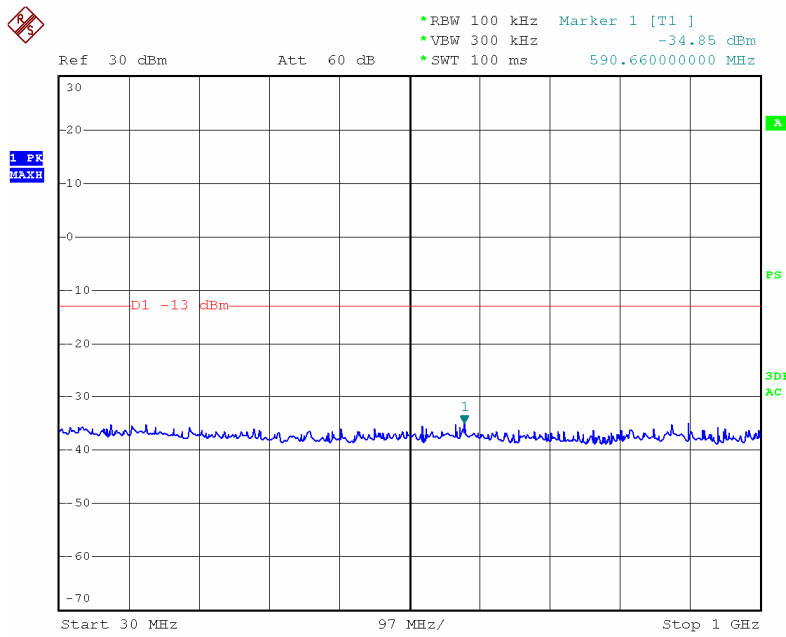
Date: 7.MAY.2012 19:35:36

PCS-EDGE downlink (middle frequency) Above 1GHz



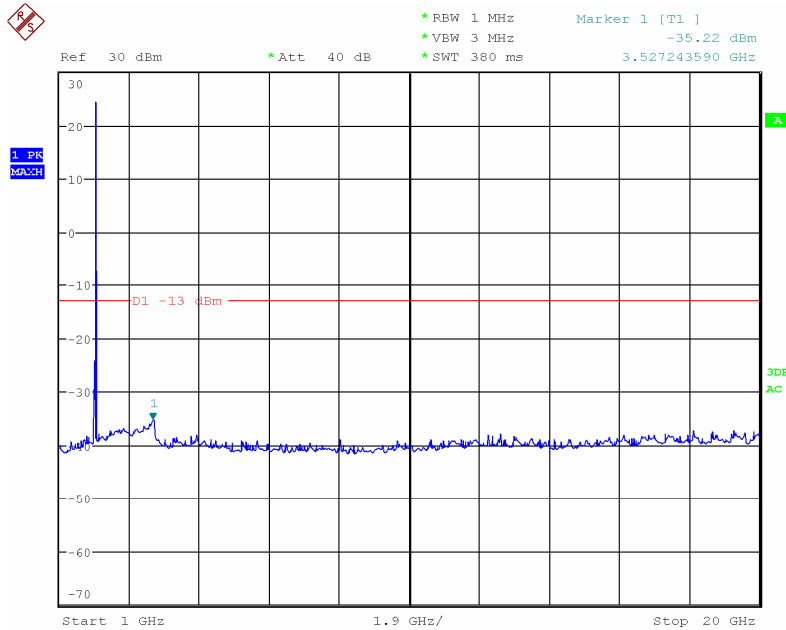
Date: 7.JUN.2012 19:59:35

PCS-EDGE downlink (highest frequency) 30MHz-1GHz



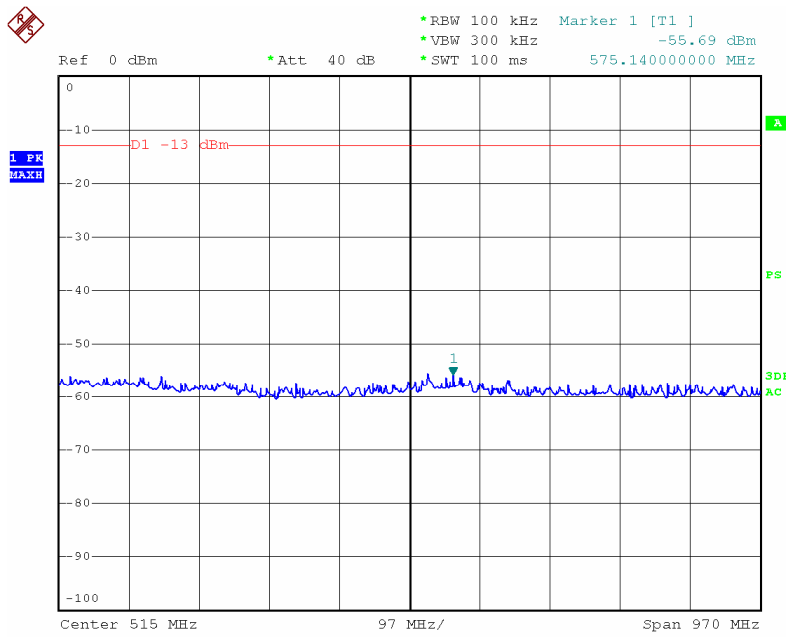
Date: 7.MAY.2012 19:36:05

PCS-EDGE downlink (highest frequency) Above 1GHz



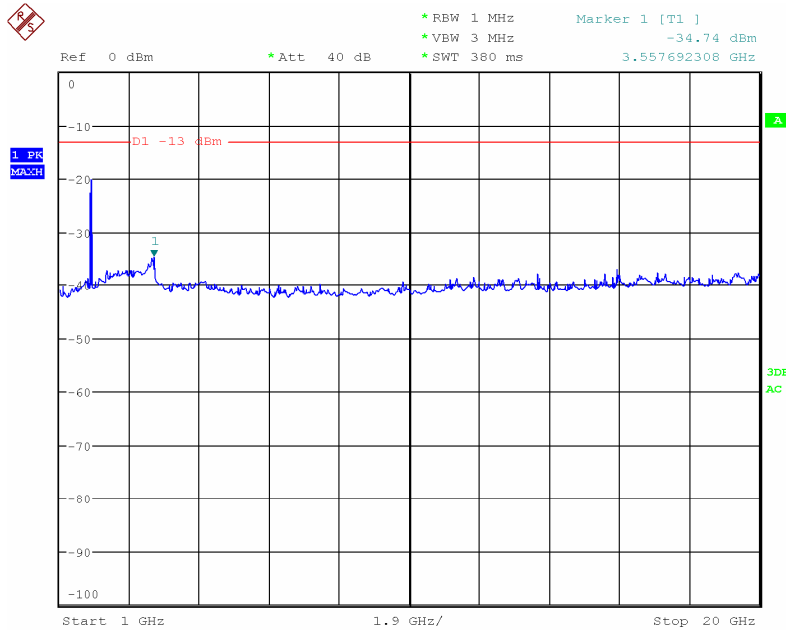
Date: 7.JUN.2012 20:00:02

PCS-EDGE uplink (lowest frequency) 30MHz-1GHz



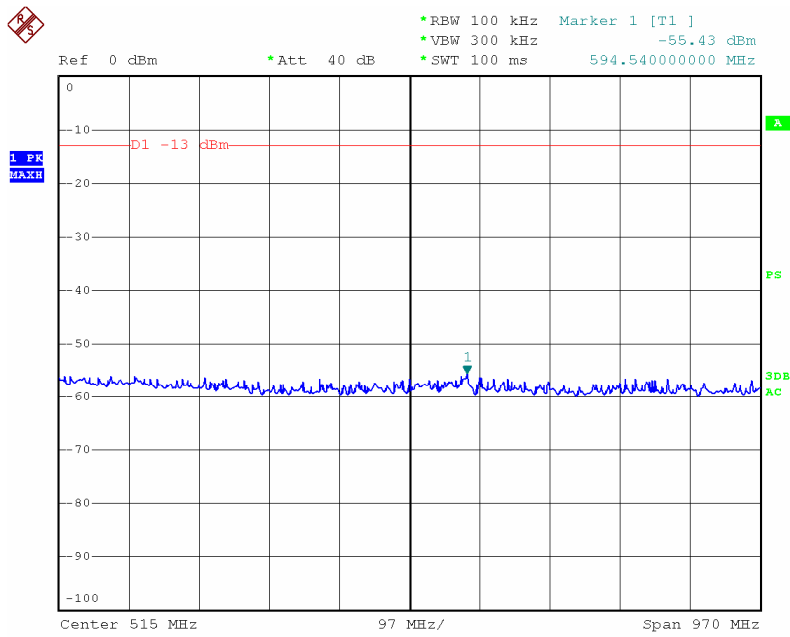
Date: 9.MAY.2012 16:35:01

PCS-EDGE uplink (lowest frequency) Above 1GHz



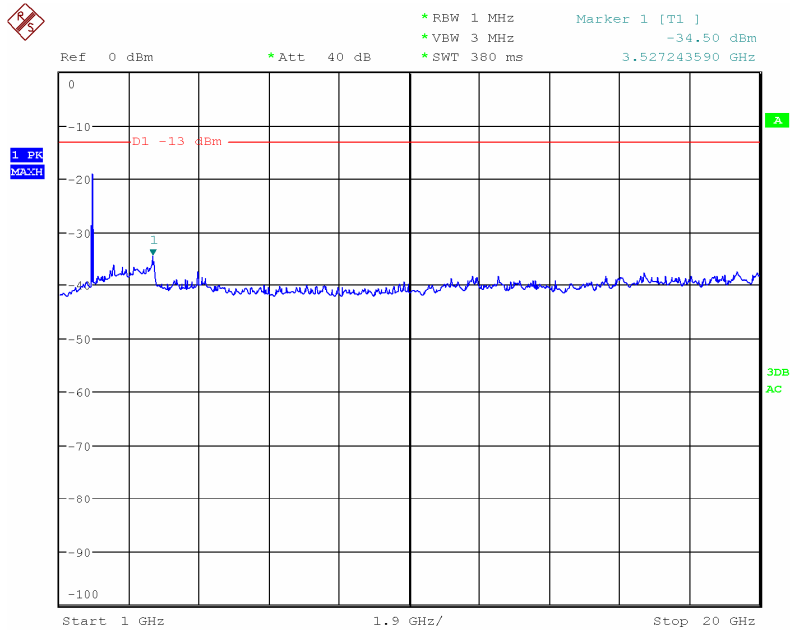
Date: 7.JUN.2012 19:51:44

PCS-EDGE uplink (middle frequency) 30MHz-1GHz



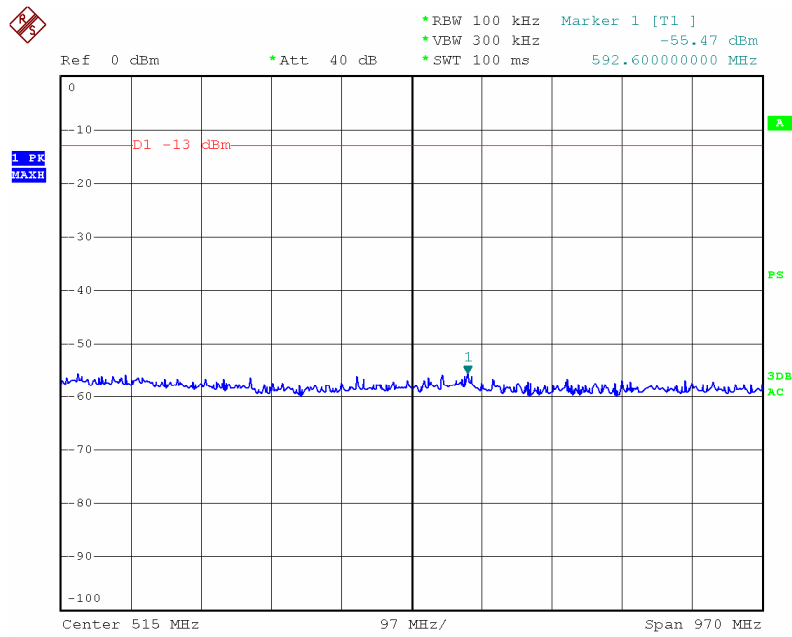
Date: 9.MAY.2012 16:34:45

PCS-EDGE uplink(middle frequency) Above 1GHz



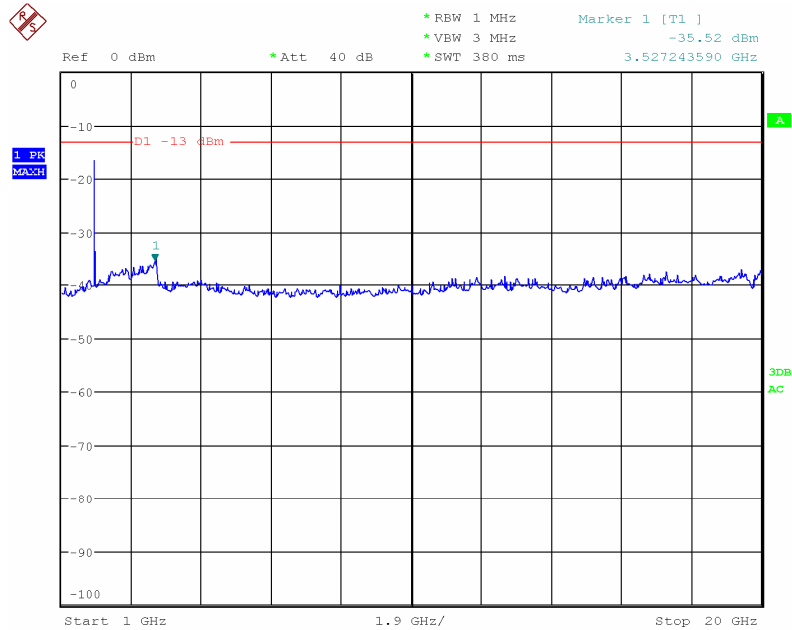
Date: 7.JUN.2012 19:51:19

PCS-EDGE uplink (highest frequency) 30MHz-1GHz



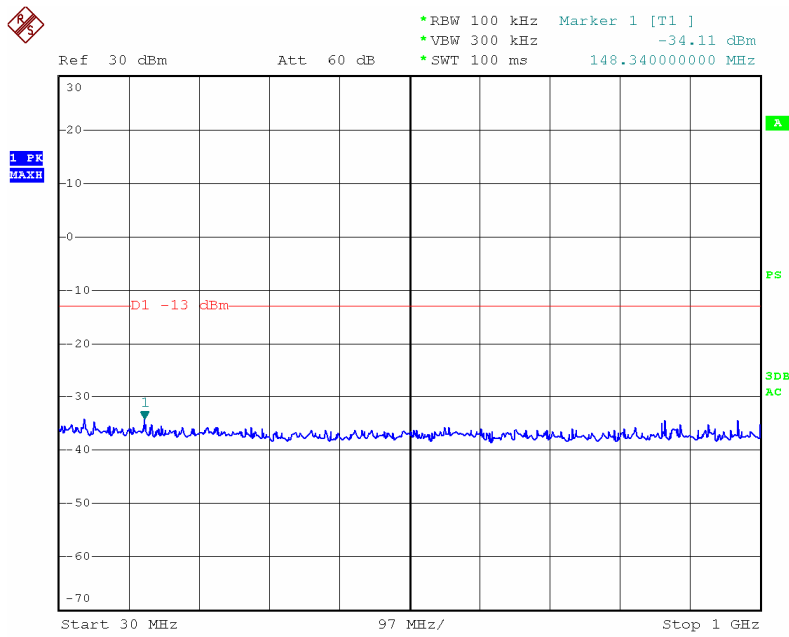
Date: 9.MAY.2012 16:34:22

PCS-EDGE uplink (highest frequency) Above 1GHz



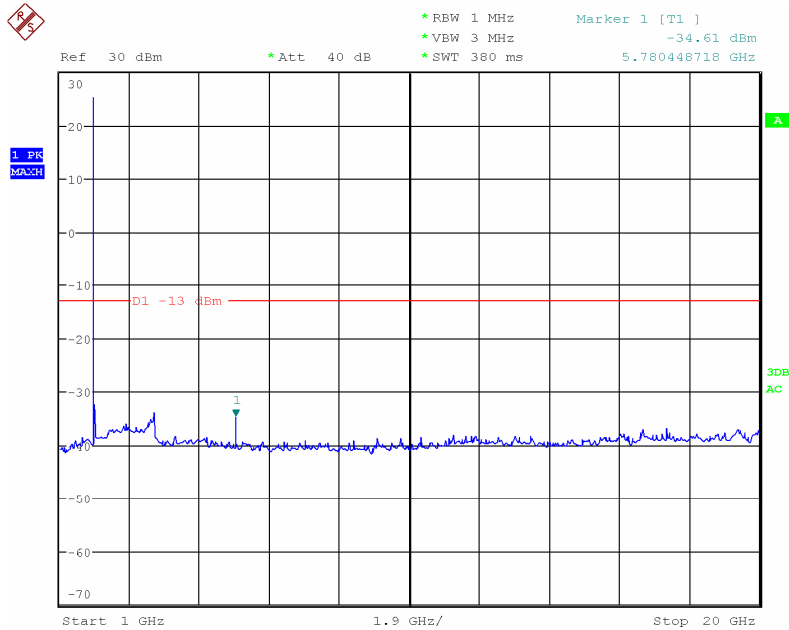
Date: 7.JUN.2012 19:50:55

PCS-CDMA2000 downlink (lowest frequency) 30MHz-1GHz



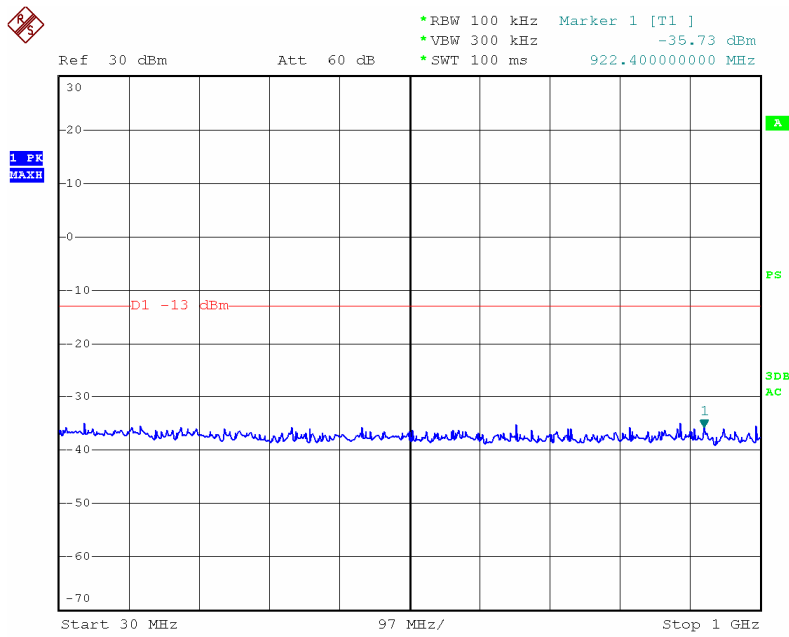
Date: 7.MAY.2012 19:38:12

PCS-CDMA2000 downlink (lowest frequency) Above 1GHz



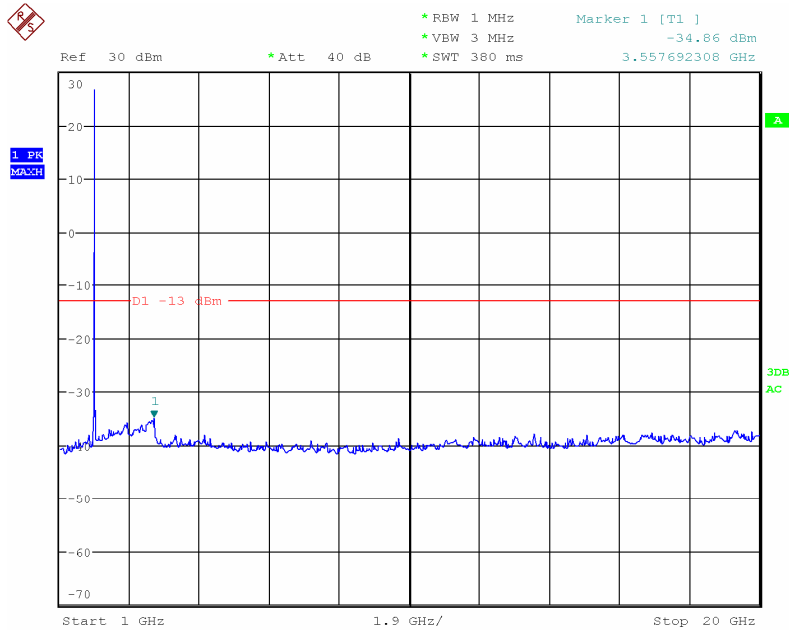
Date: 7.JUN.2012 20:03:54

PCS-CDMA2000 downlink (middle frequency) 30MHz-1GHz



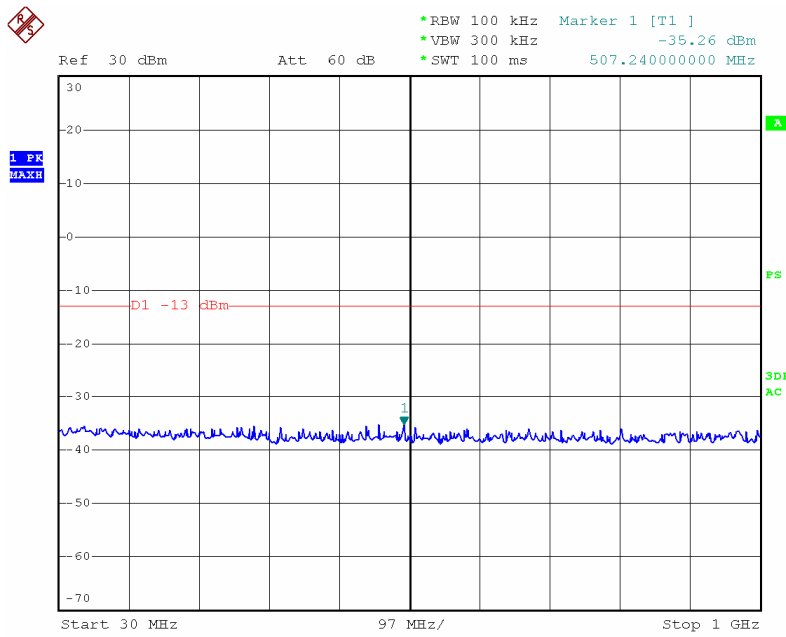
Date: 7.MAY.2012 19:38:37

PCS-CDMA2000 downlink (middle frequency) Above 1GHz



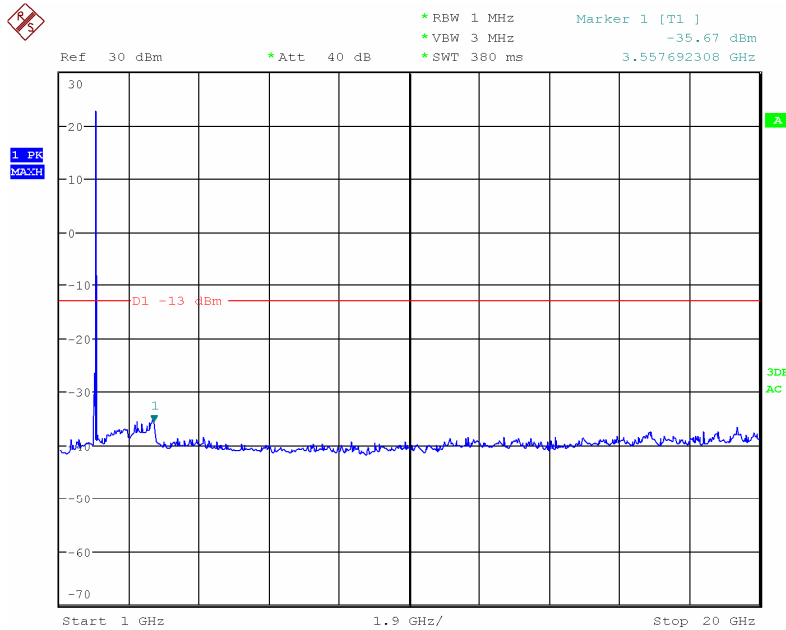
Date: 7.JUN.2012 20:04:25

PCS-CDMA2000 downlink (highest frequency) 30MHz-1GHz



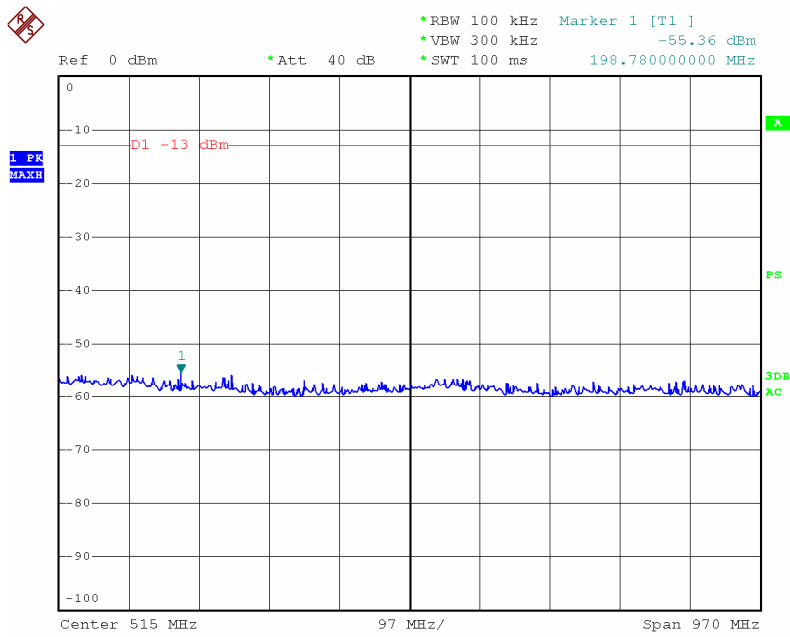
Date: 7.MAY.2012 19:38:58

PCS-CDMA2000 downlink (highest frequency) Above 1GHz



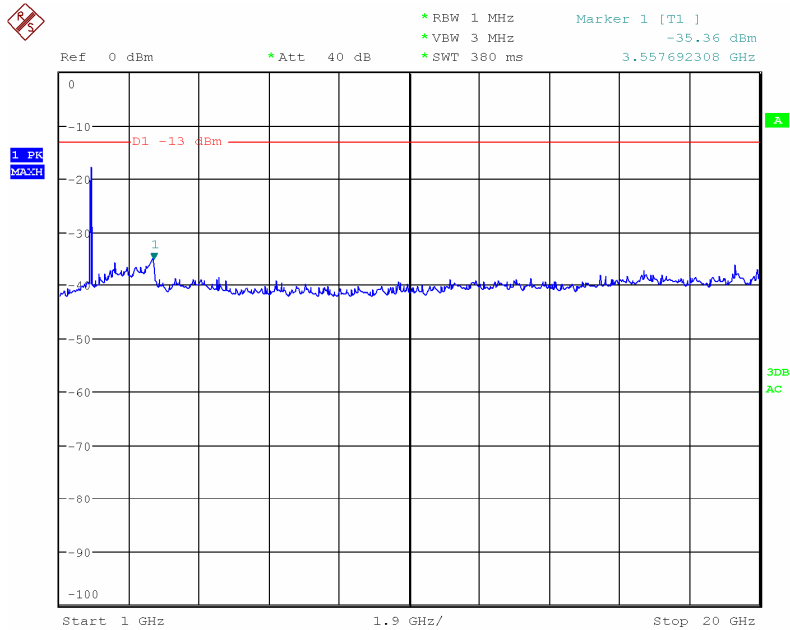
Date: 7.JUN.2012 20:04:49

PCS-CDMA2000 uplink (lowest frequency) 30MHz-1GHz



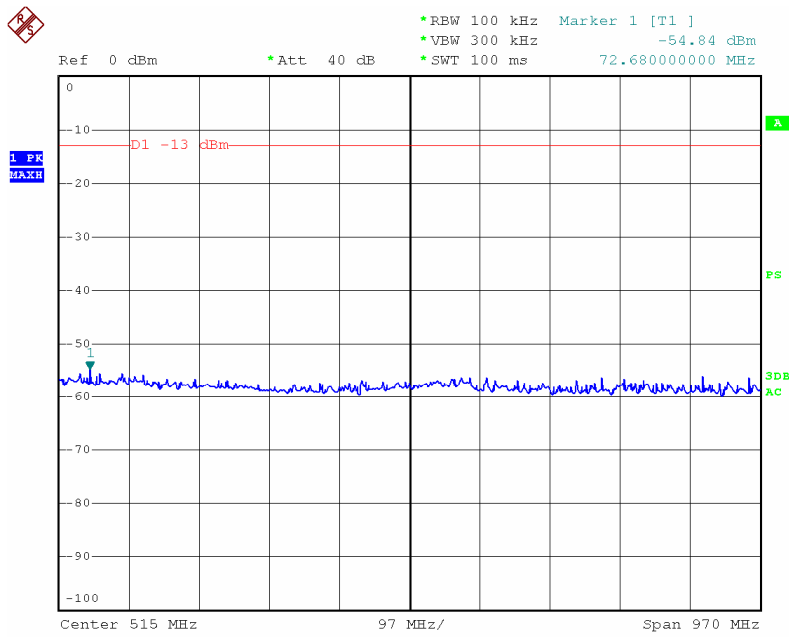
Date: 9.MAY.2012 16:32:30

PCS-CDMA2000 uplink (lowest frequency) Above 1GHz



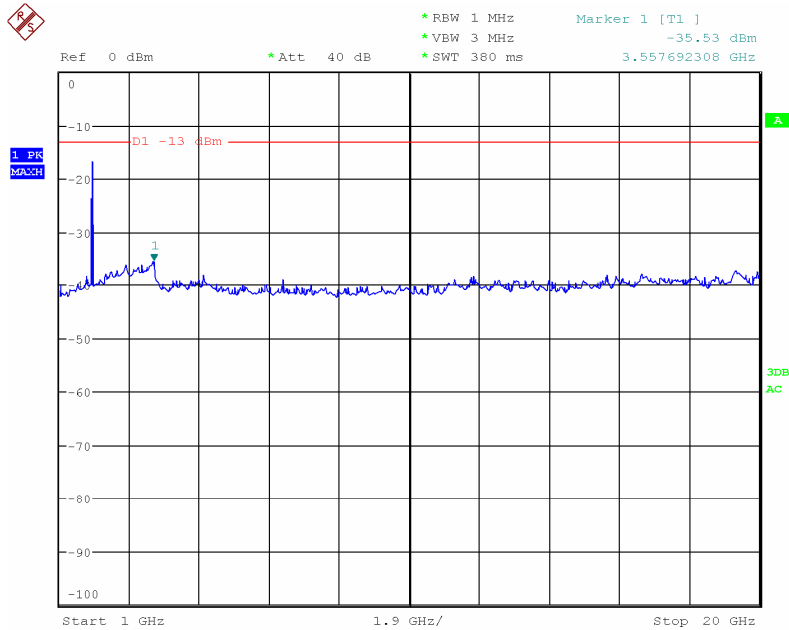
Date: 7.JUN.2012 19:48:24

PCS-CDMA2000 uplink (middle frequency) 30MHz-1GHz



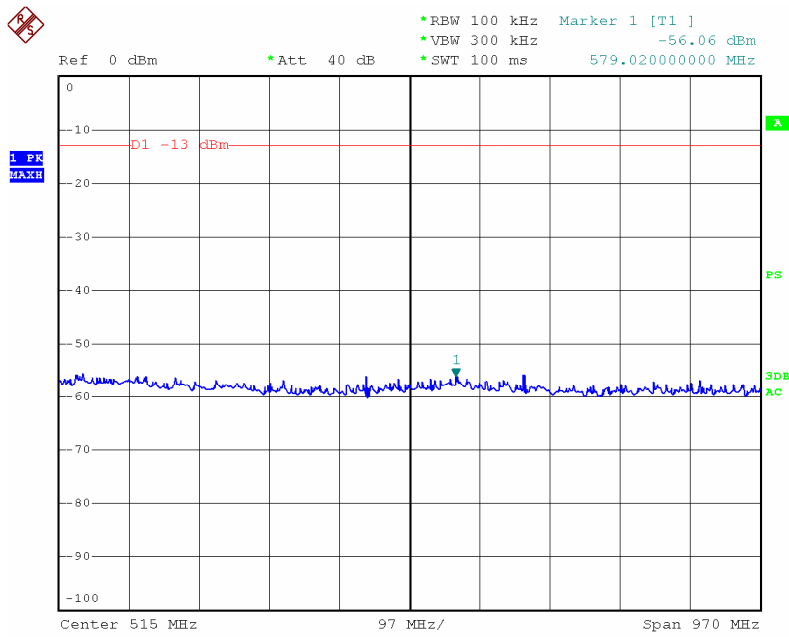
Date: 9.MAY.2012 16:32:10

PCS-CDMA2000 uplink(middle frequency) Above 1GHz



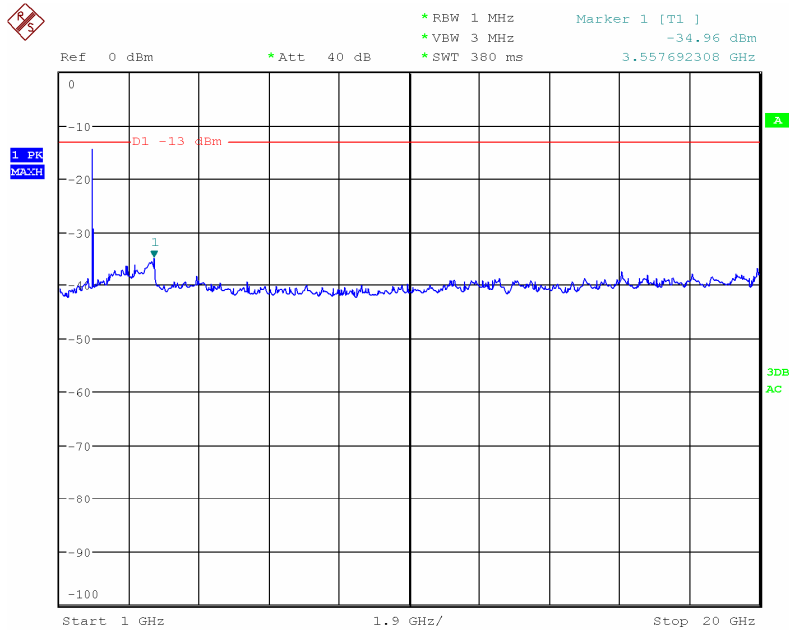
Date: 7.JUN.2012 19:47:58

PCS-CDMA2000 uplink (highest frequency) 30MHz-1GHz



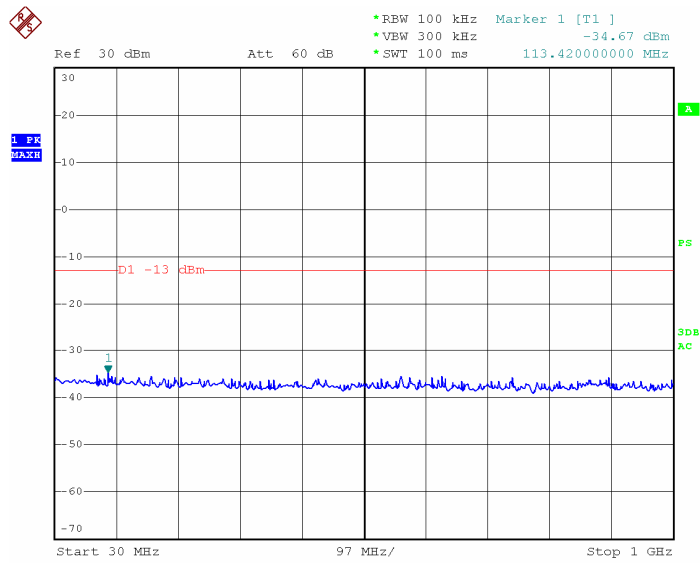
Date: 9.MAY.2012 16:31:41

PCS-CDMA2000 uplink (highest frequency) Above 1GHz



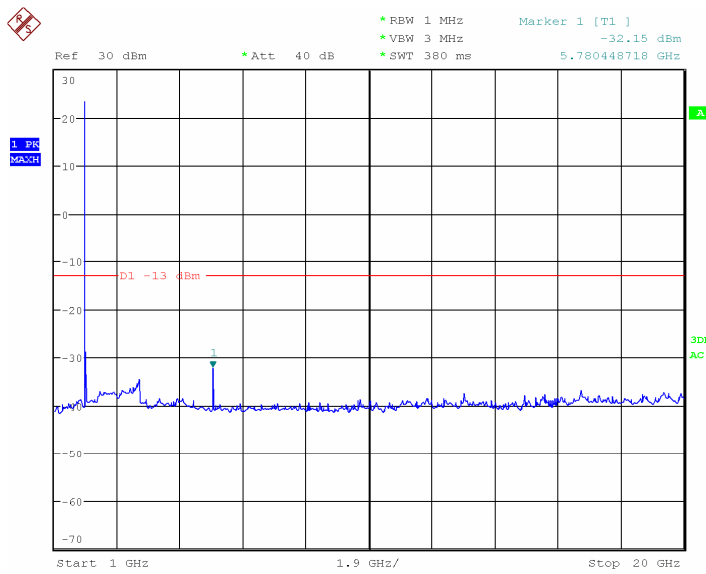
Date: 7.JUN.2012 19:47:32

PCS-WCDMA downlink (lowest frequency)30MHz-1GHz



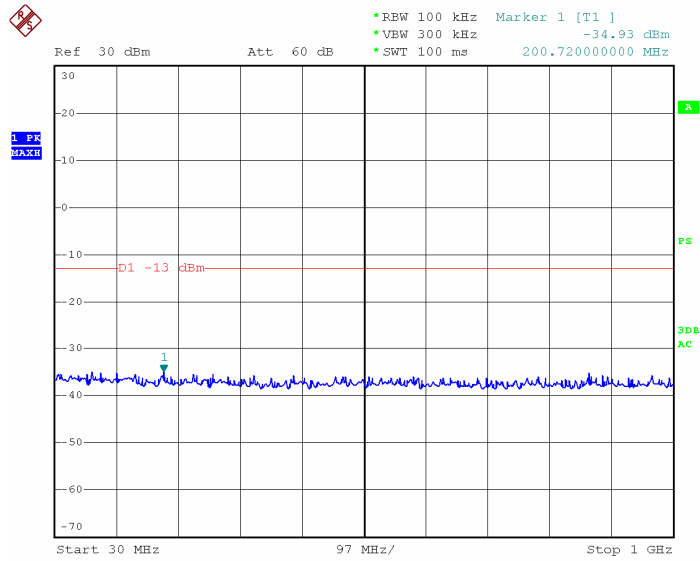
Date: 7.MAY.2012 19:40:32

PCS-WCDMA downlink (lowest frequency) Above 1GHz



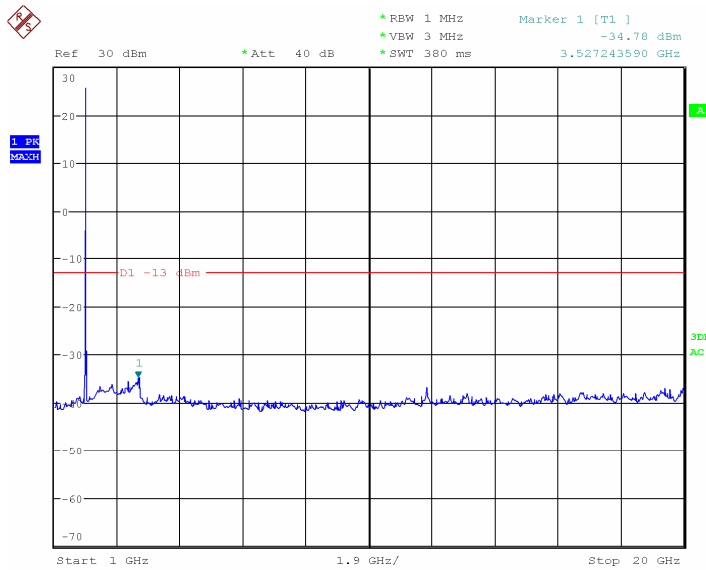
Date: 7.JUN.2012 20:07:58

PCS-WCDMA downlink (middle frequency)30MHz-1GHz



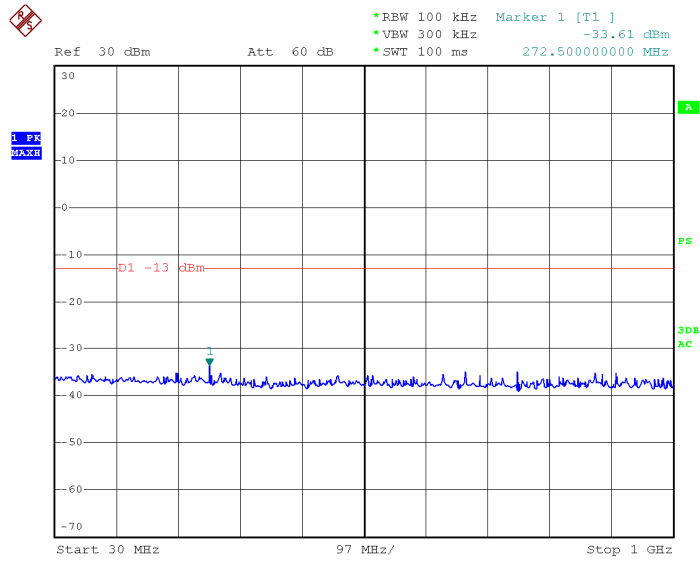
Date: 7.MAY.2012 19:40:09

PCS-WCDMA downlink (middle frequency) Above 1GHz



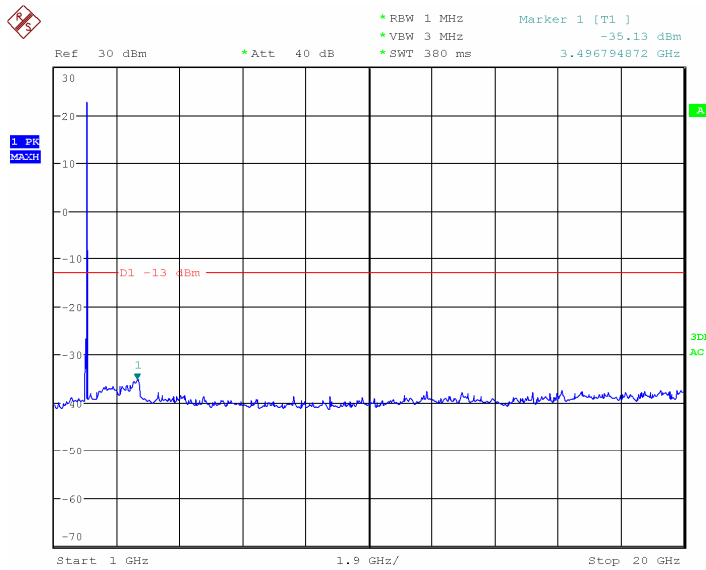
Date: 7.JUN.2012 20:06:38

PCS-WCDMA downlink (highest frequency)30MHz-1GHz



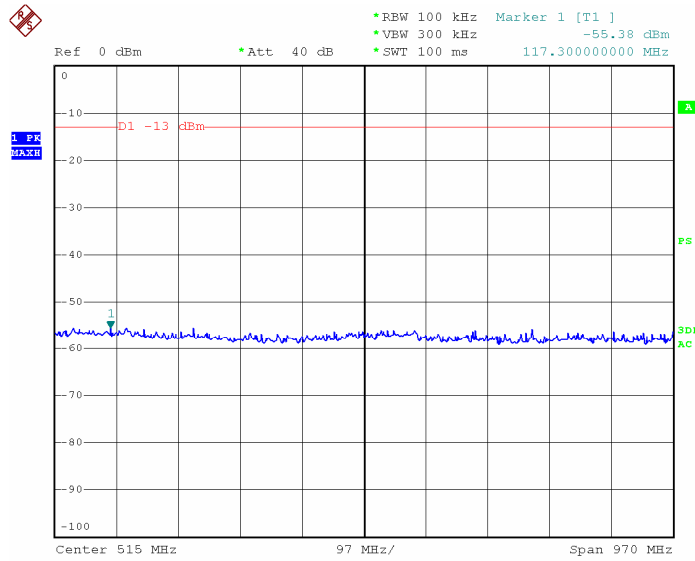
Date: 7.MAY.2012 19:39:44

PCS-WCDMA downlink (highest frequency) Above 1GHz



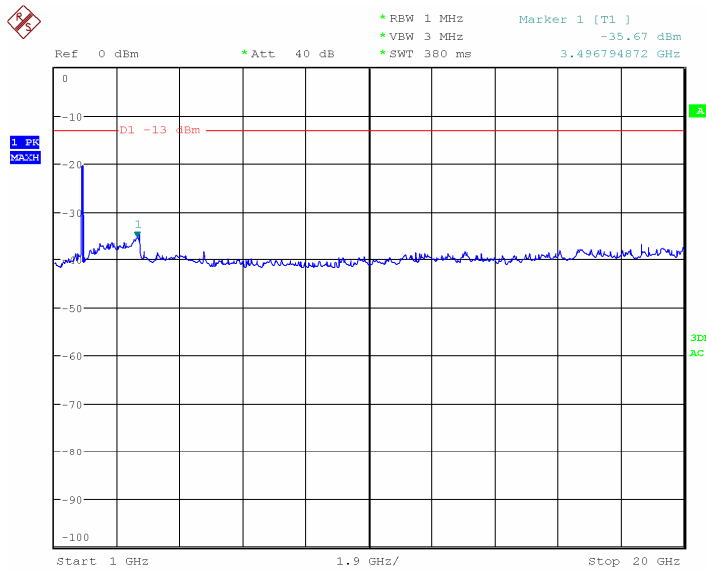
Date: 7.JUN.2012 20:06:12

PCS-WCDMA uplink (lowest frequency) 30MHz-1GHz



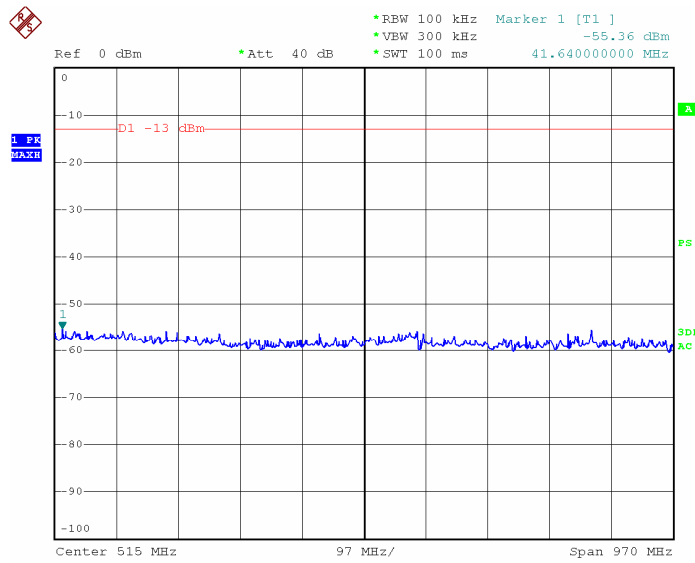
Date: 9.MAY.2012 16:30:17

PCS-WCDMA uplink (lowest frequency) Above 1GHz



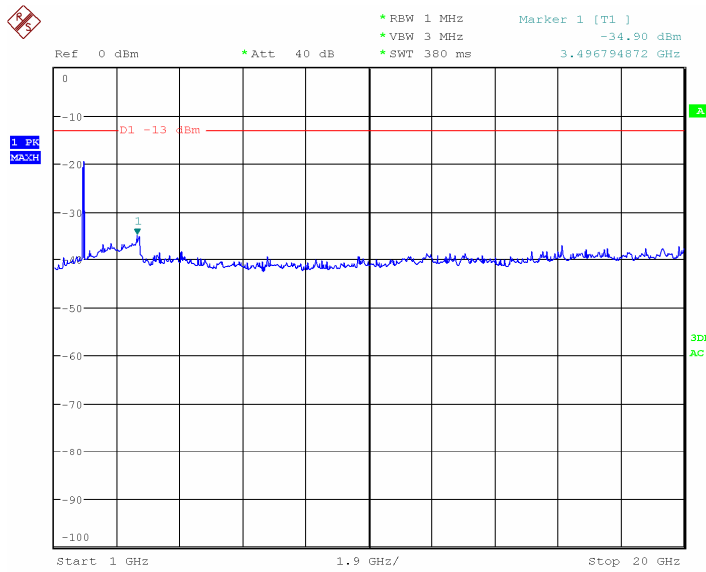
Date: 7.JUN.2012 19:46:05

PCS-WCDMA uplink (middle frequency) 30MHz-1GHz



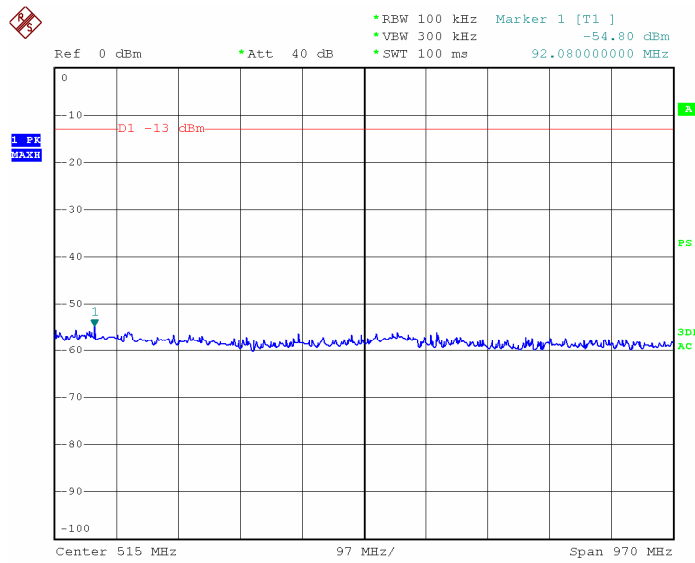
Date: 9.MAY.2012 16:30:42

PCS-WCDMA uplink(middle frequency) Above 1GHz



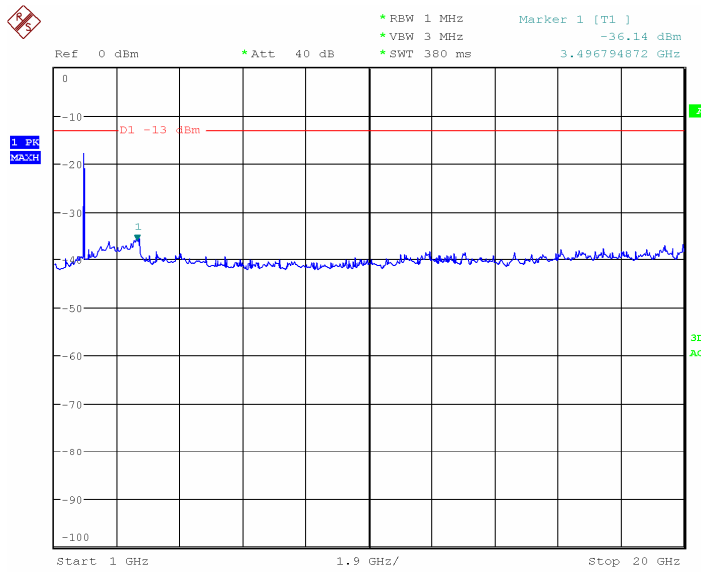
Date: 7.JUN.2012 19:46:33

PCS-WCDMA uplink (highest frequency) 30MHz-1GHz



Date: 9.MAY.2012 16:31:09

PCS-WCDMA uplink (highest frequency) Above 1GHz



Date: 7.JUN.2012 19:47:00

PCS -LTE-QPSK downlink (middle frequency) 30MHz-1GHz



PCS -LTE-QPSK downlink (middle frequency) Above 1GHz



PCS -LTE-QPSK downlink (highest frequency) 30MHz-1GHz



PCS -LTE-QPSK downlink (highest frequency) Above 1GHz



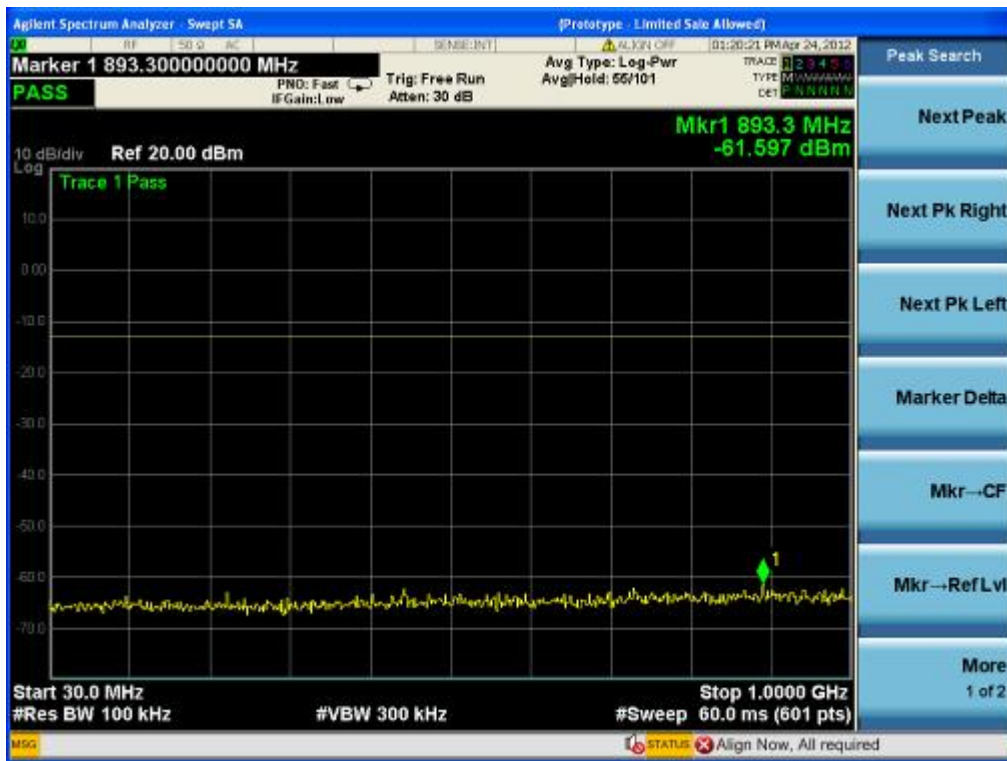
PCS -LTE-QPSK uplink (lowest frequency) 30MHz-1GHz



PCS -LTE-QPSK uplink (lowest frequency) Above 1GHz



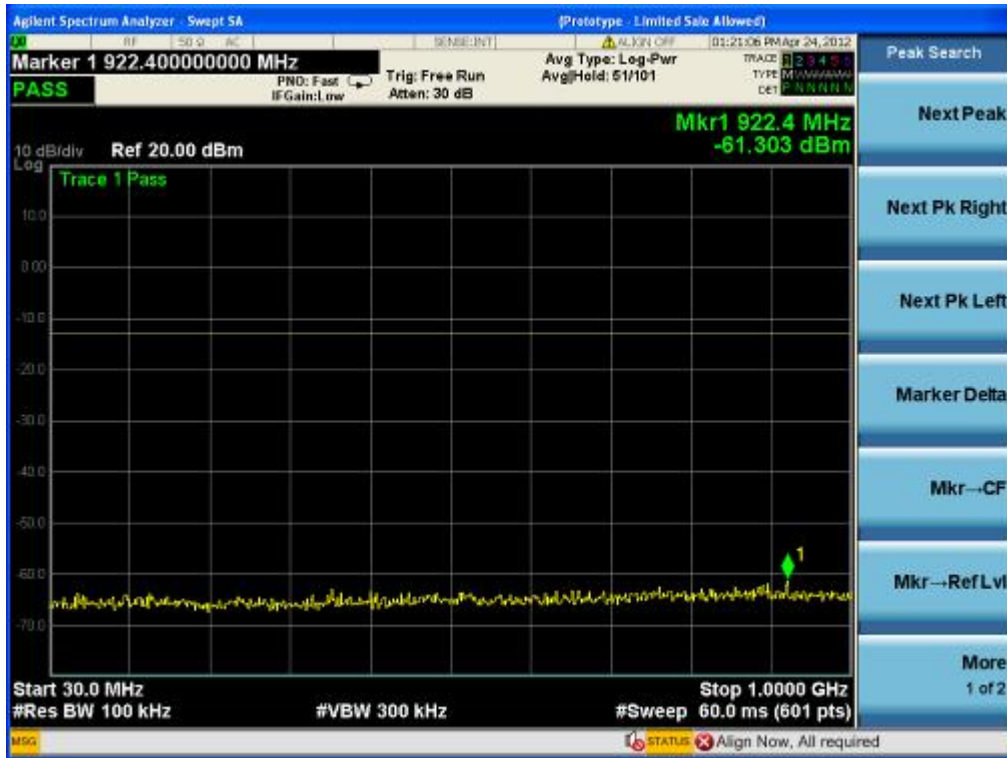
PCS -LTE-QPSK uplink (middle frequency) 30MHz-1GHz



PCS -LTE-QPSK uplink(middle frequency) Above 1GHz



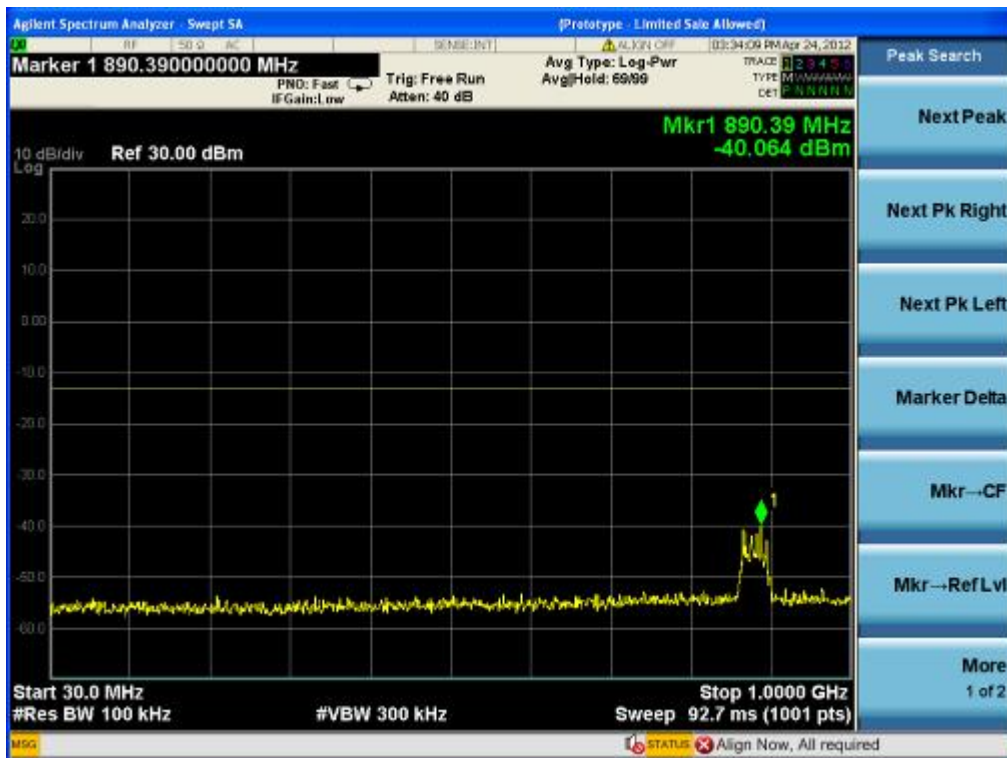
PCS -LTE-QPSK uplink (highest frequency) 30MHz-1GHz



PCS -LTE-QPSK uplink (highest frequency) Above 1GHz



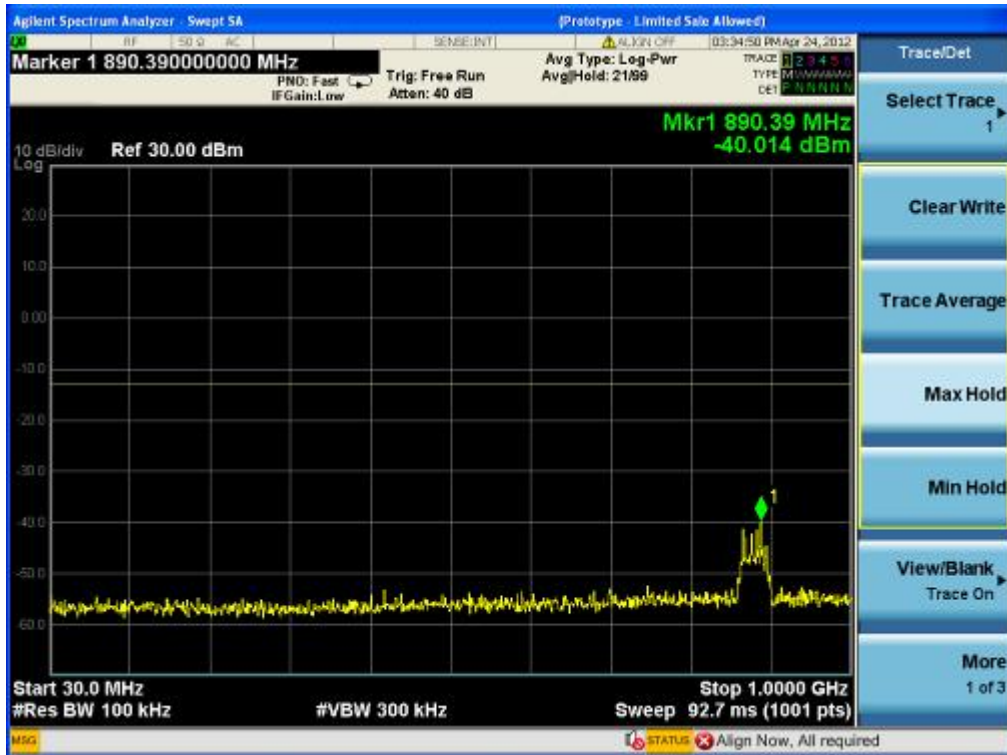
PCS-LTE-16QAM downlink (lowest frequency) 30MHz-1GHz



PCS -LTE-16QAM downlink (lowest frequency) Above 1GHz



PCS -LTE-16QAM downlink (middle frequency) 30MHz-1GHz



PCS -LTE-16QAM downlink (middle frequency) Above 1GHz



PCS -LTE-16QAM downlink (highest frequency) 30MHz-1GHz



PCS -LTE-16QAM downlink (highest frequency) Above 1GHz



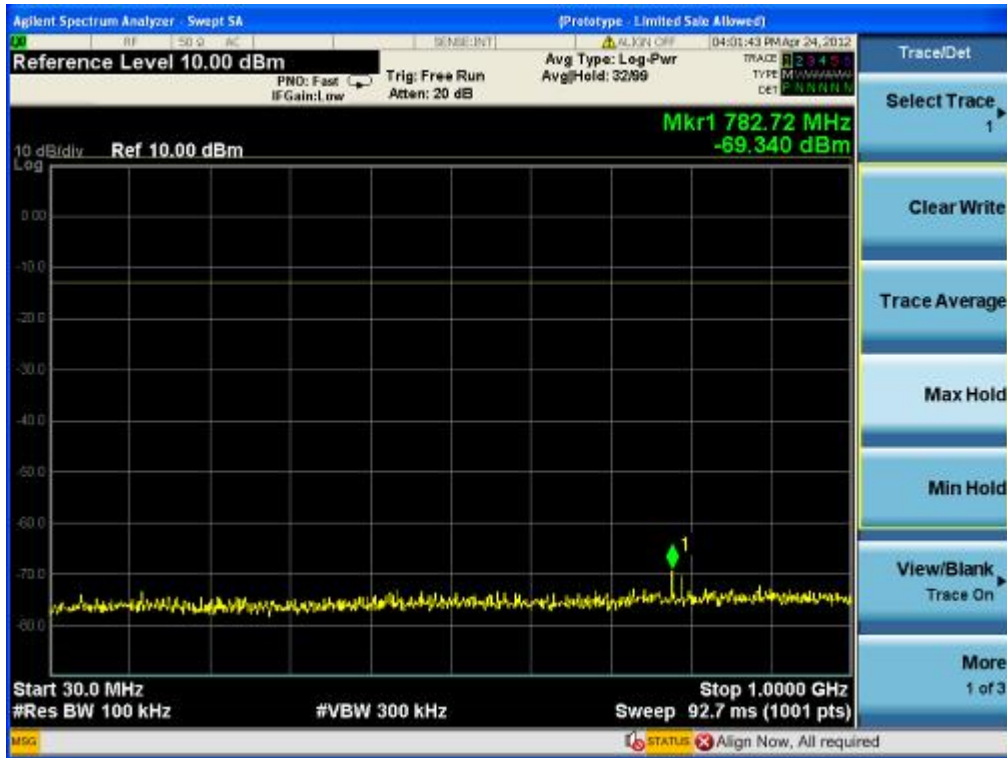
PCS -LTE-16QAM uplink (lowest frequency) 30MHz-1GHz



PCS -LTE-16QAM uplink (lowest frequency) Above 1GHz



PCS -LTE-16QAM uplink (middle frequency) 30MHz-1GHz



PCS -LTE-16QAM uplink(middle frequency) Above 1GHz



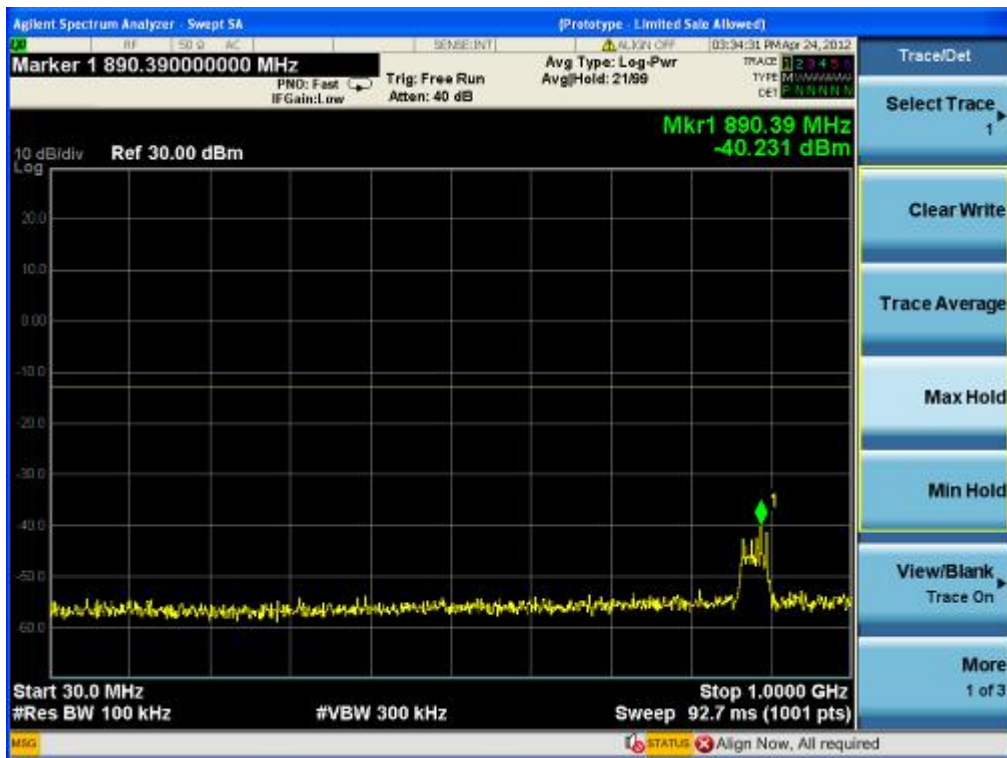
PCS -LTE-16QAM uplink (highest frequency) 30MHz-1GHz



PCS -LTE-16QAM uplink (highest frequency) Above 1GHz



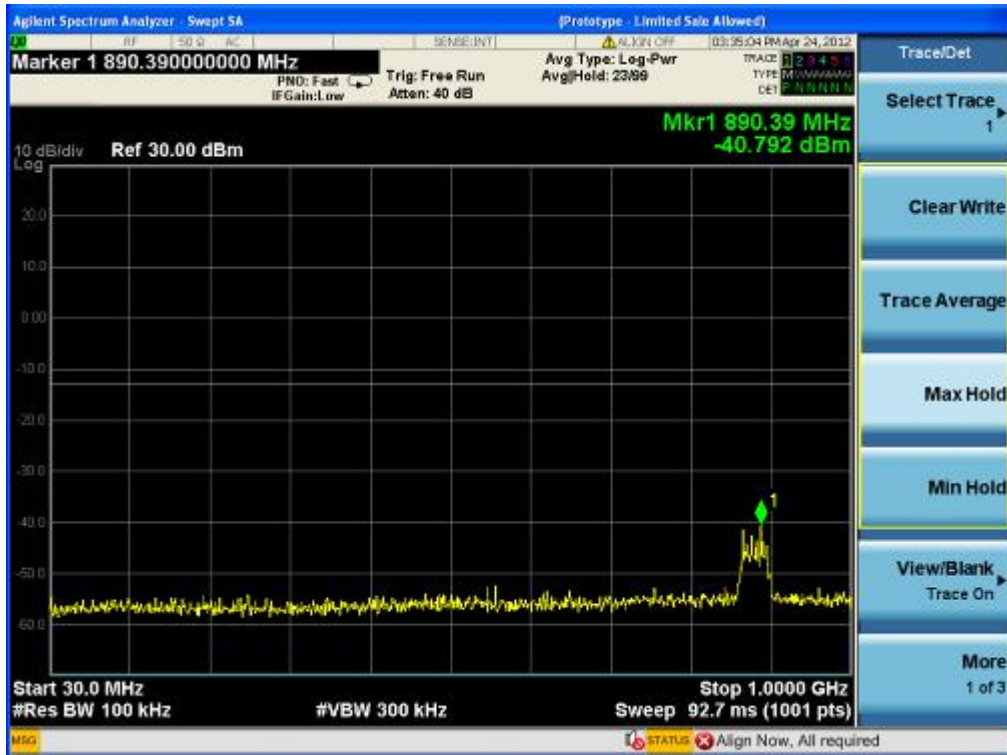
PCS-LTE-64QAM downlink (lowest frequency) 30MHz-1GHz



PCS -LTE-64QAM downlink (lowest frequency) Above 1GHz



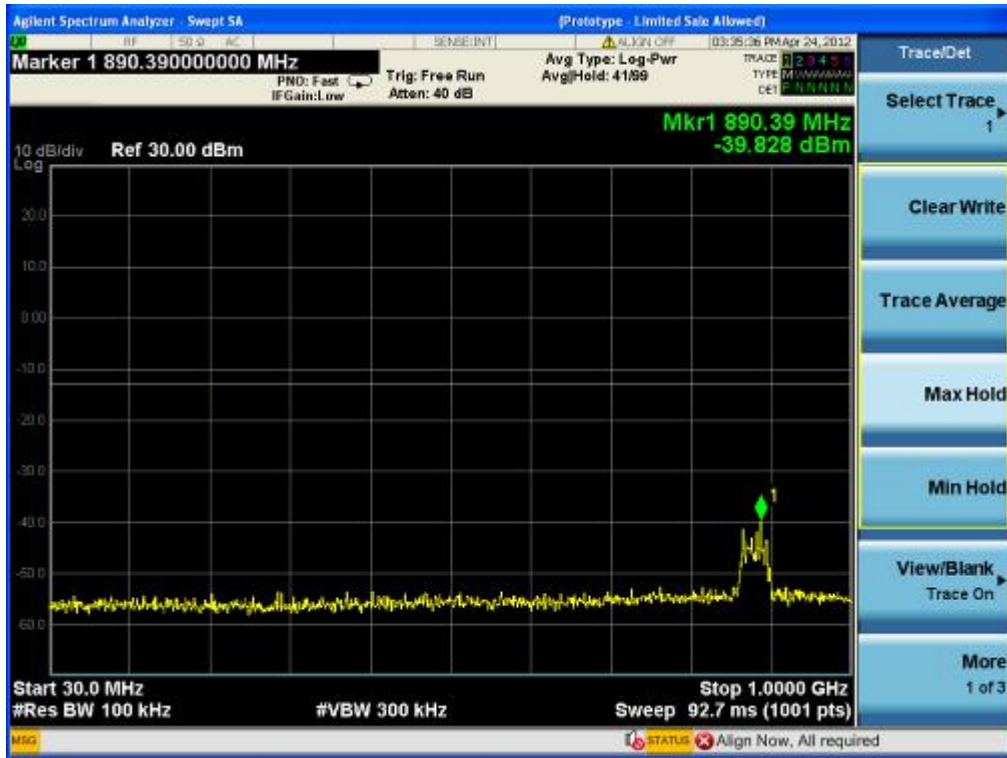
PCS -LTE-64QAM downlink (middle frequency) 30MHz-1GHz



PCS -LTE-64QAM downlink (middle frequency) Above 1GHz



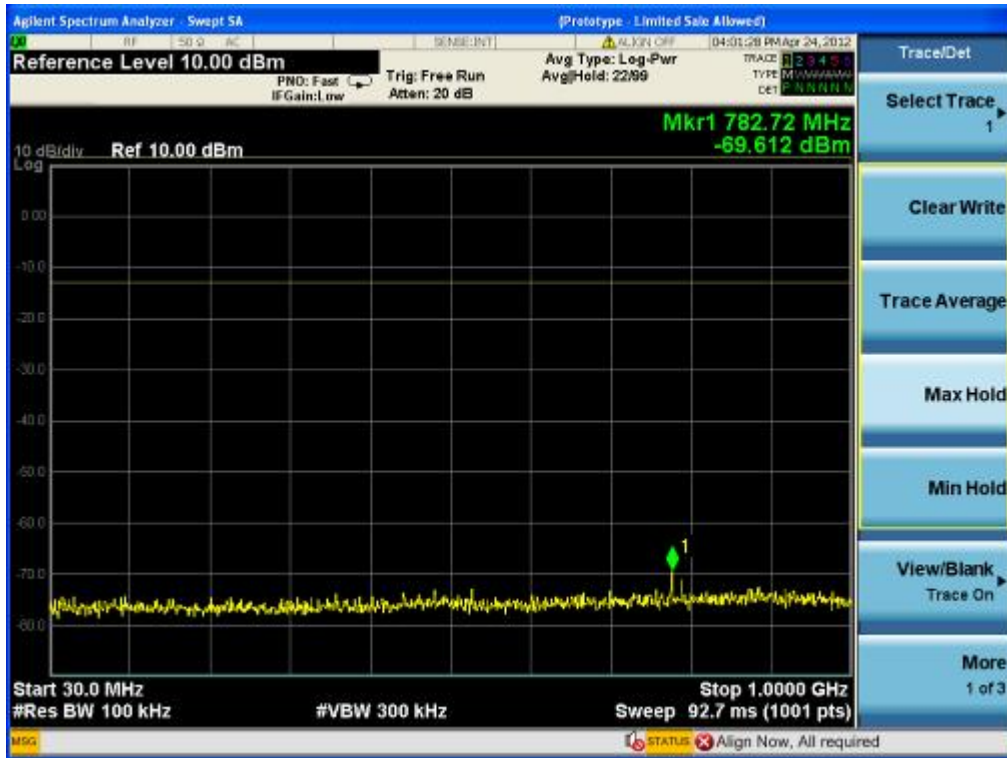
PCS -LTE-64QAM downlink (highest frequency) 30MHz-1GHz



PCS -LTE-64QAM downlink (highest frequency) Above 1GHz



PCS -LTE-64QAM uplink (lowest frequency) 30MHz-1GHz



PCS -LTE-64QAM uplink (lowest frequency) Above 1GHz



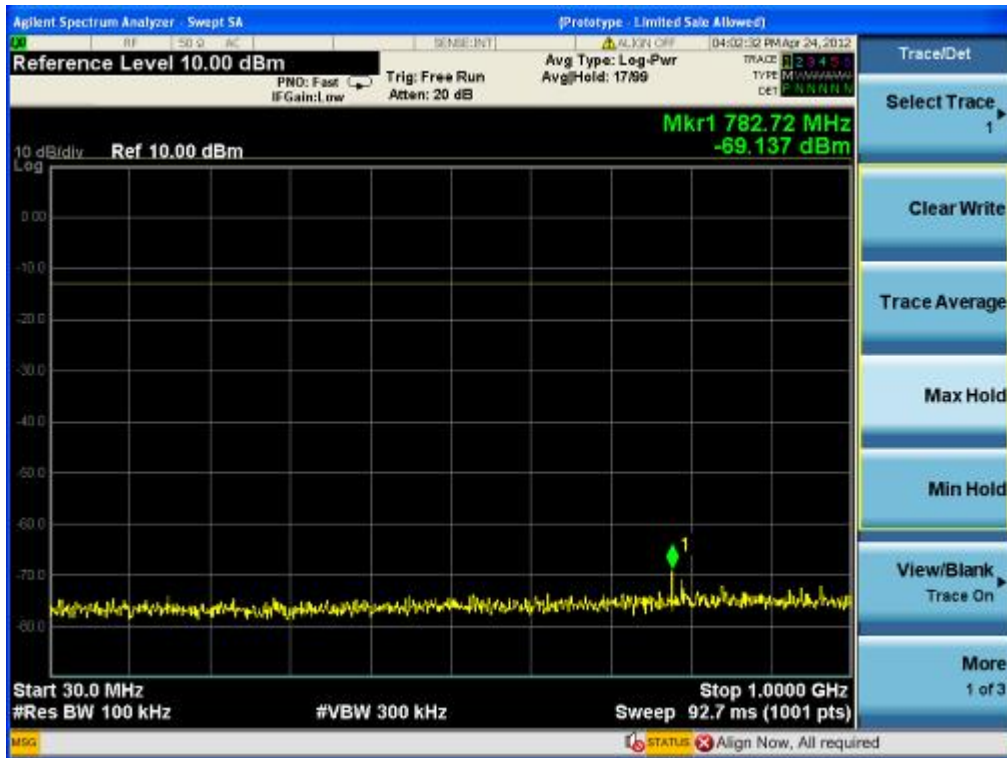
PCS -LTE-64QAM uplink (middle frequency) 30MHz-1GHz



PCS -LTE-64QAM uplink(middle frequency) Above 1GHz



PCS -LTE-64QAM uplink (highest frequency) 30MHz-1GHz



PCS -LTE-64QAM uplink (highest frequency) Above 1GHz



4.2.3 BAND EDGE

Test Date: 05 May, 2012

Test Method: FCC part 2.1051

Test Requirement: FCC part 22.917(b)& FCC part 24.238(b)&FCC 27.53

22.917(b): Emission limitations for cellular equipment: Compliance with these rules is based on the use of measurement 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 may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 100 kHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

24.238(b): Emission limitations for Broadband PCS equipment.

Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1MHz 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 may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power

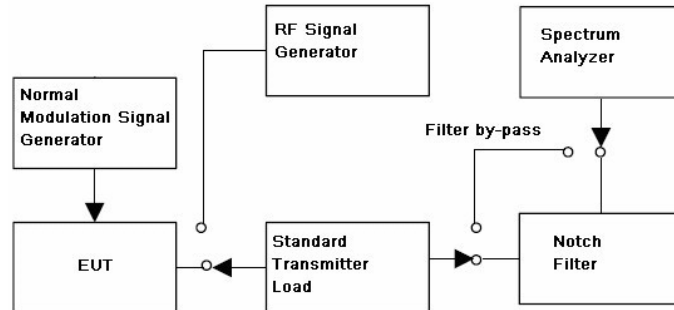
27.53 The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10\log(P)$ dB.

Status The output power of EUT be set to maximum value, the gain of EUT be set to maximum value by software through the manufacture

Conditions Normal

Application 850MHz DL and UL ports,
1900MHz DL and UL ports

Test configuration



Test

Procedure:

Conducted Emission test procedure:

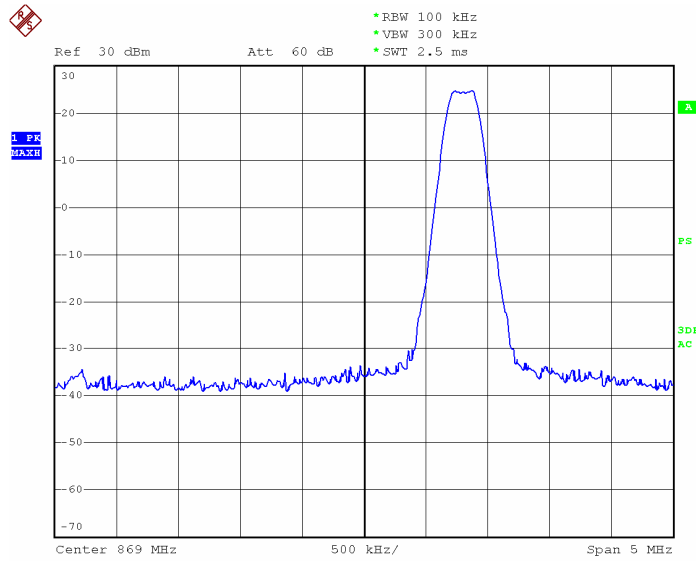
- a) Connect the equipment as illustrated, when the output power is over the max value of the Spectrum Analyzer, add the attenuator to avoid destroying the facility.
- b) Set the center frequency of the Spectrum Analyzer to the assigned transmitter frequency, key the transmitter, and set the level of the carrier to the full scale reference line.
- c) Do not apply any tone to modulate the EUT
- d) Adjust the Spectrum Analyzer for the following setting :
 - 1) Resolution Bandwidth, (base the standard, apply the different set). here is 100KHZ for frequency band less than 1GHZ, 1MHz for frequency over 1GHZ;
 - 2) Video Bandwidth refer to standard requirement
- e) Adjust the center frequency of the spectrum analyzer for incremental coverage of the range from:
Use spectrum analyzer channel power measurement
 - 1) the lowest radio frequency generated in the equipment, it can be 9KHZ base the test method, here select 30MHz as lowest frequency start point;
 - 2) the highest radio frequency shall higher than 10 times of carrier frequency.
- f) Record the frequencies and levels of carrier power

Remark

The notch filter is used for avoid the EUT fundamental carrier output power making the spectrum overload and the harmonic spurious brought it. When the EUT fundamental carrier is not enough to make the status, the notch filter could be not used.

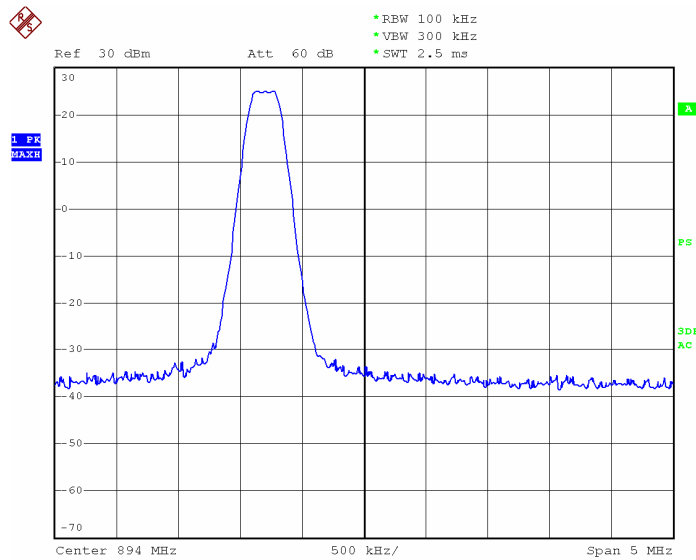
Cellular Band

850MHz-GSM one signal input down link-Lower Edge



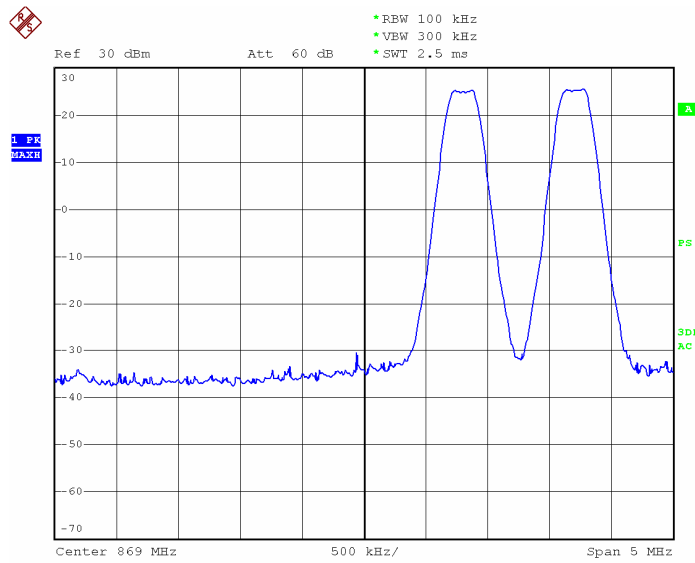
Date: 7.MAY.2012 20:04:03

850MHz-GSM one signal input down link-Upper Edge



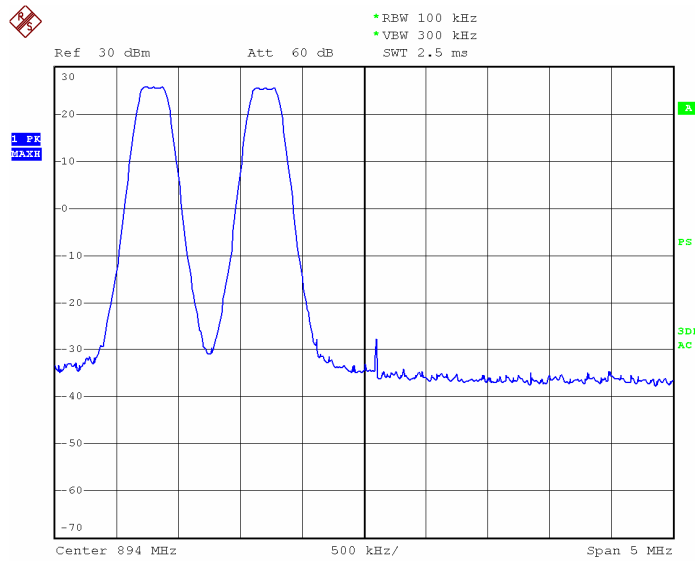
Date: 7.MAY.2012 20:03:19

850MHz-GSM two signal input down link-Lower Edge



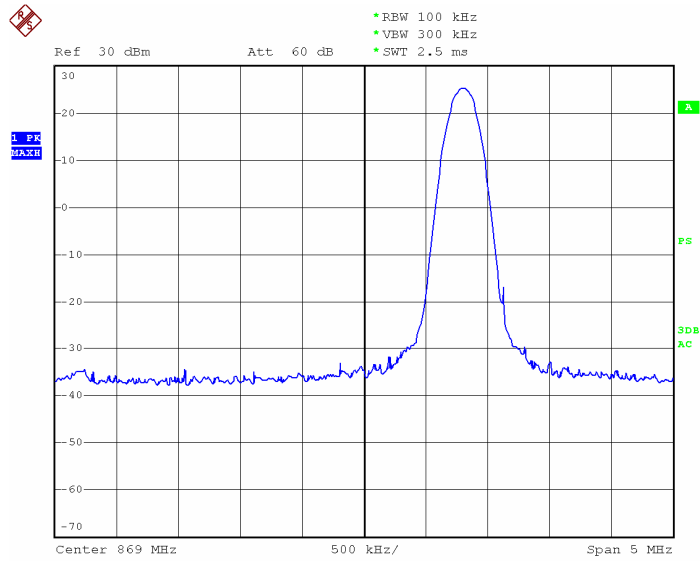
Date: 8.MAY.2012 14:06:30

850MHz-GSM two signal input down link-Upper Edge



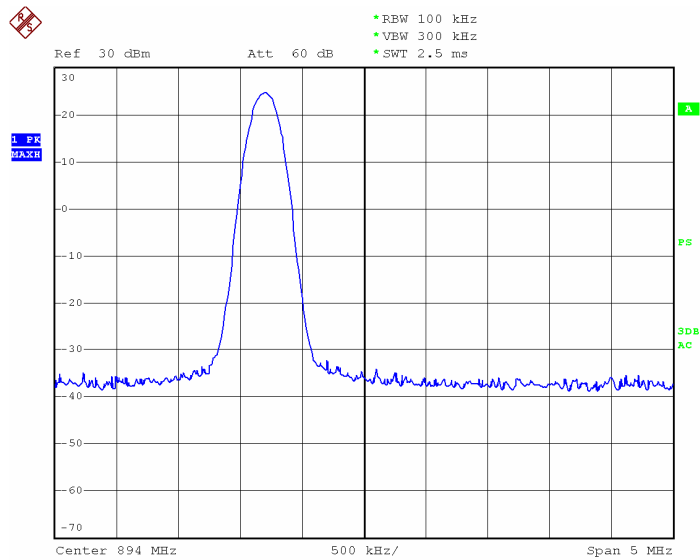
Date: 8.MAY.2012 14:09:39

850MHz-EDGE one signal input down link-Lower Edge



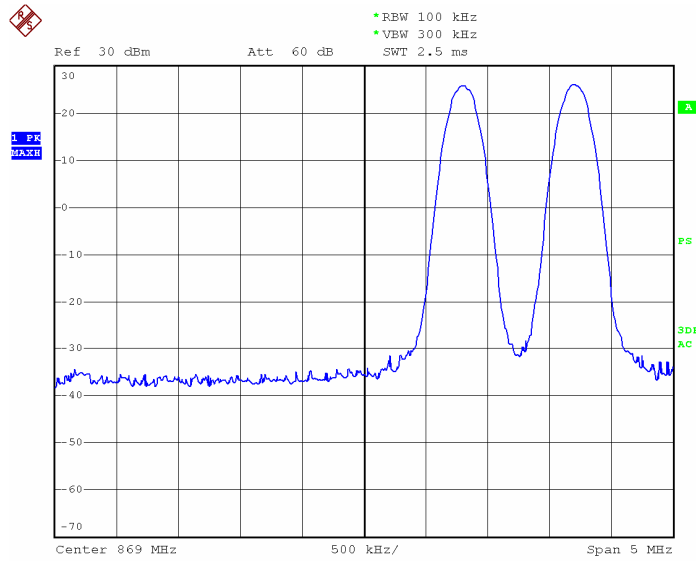
Date: 7.MAY.2012 20:00:53

850MHz-EDGE one signal input down link-Upper Edge



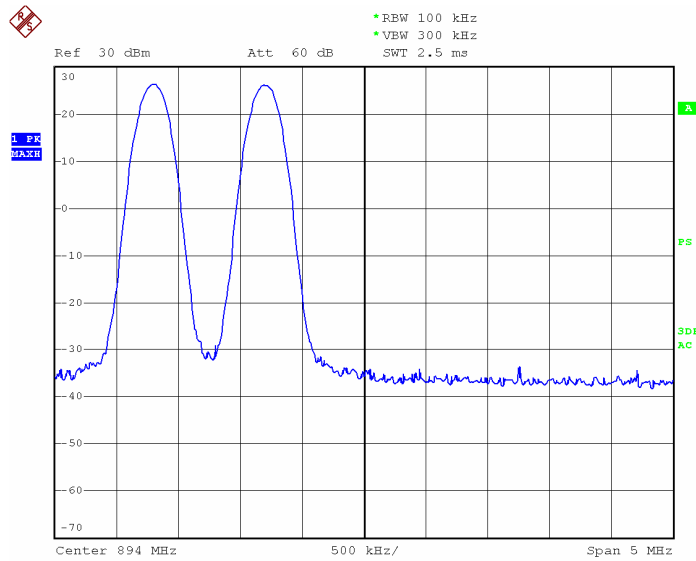
Date: 7.MAY.2012 20:01:53

850MHz-EDGE two signal input down link-Lower Edge



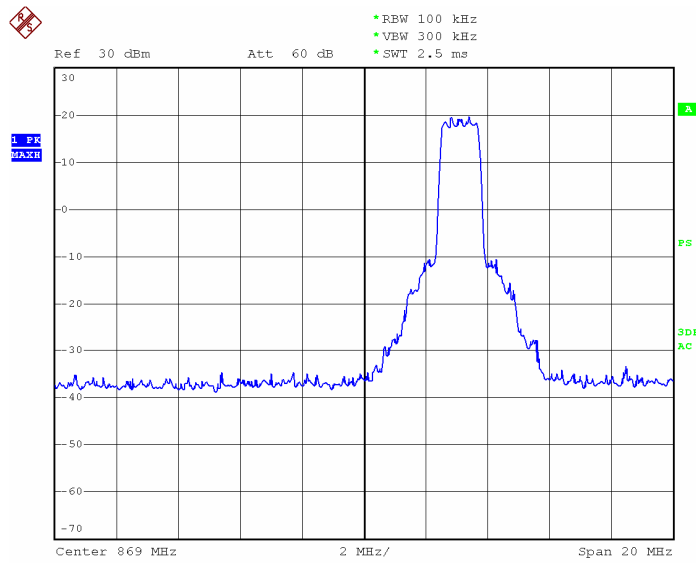
Date: 8.MAY.2012 14:13:08

850MHz-EDGE two signal input down link-Upper Edge



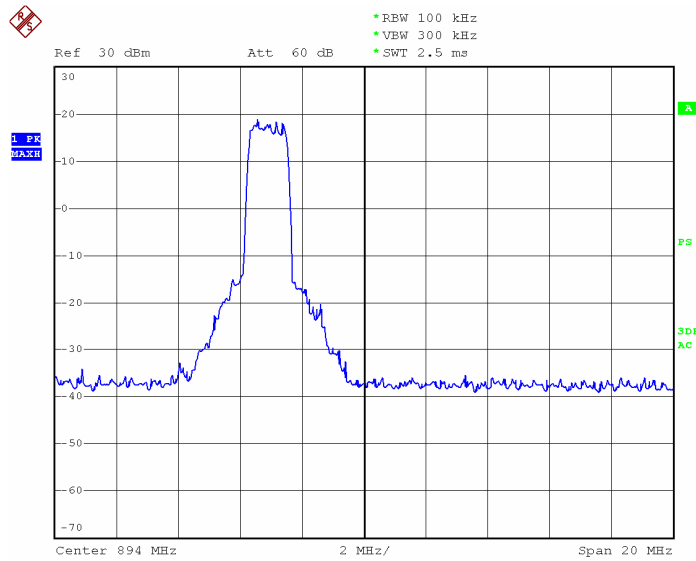
Date: 8.MAY.2012 14:12:14

850MHz-CDMA2000 one signal input down link-Lower Edge



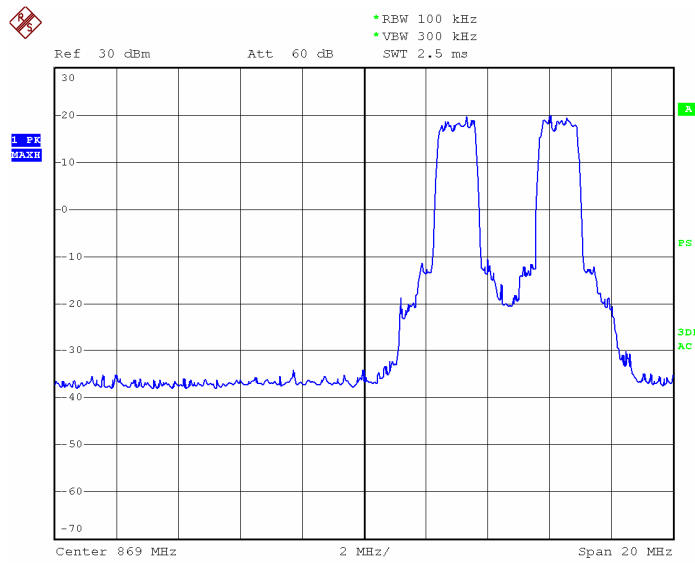
Date: 7.MAY.2012 20:07:39

850MHz-CDMA2000 one signal input down link-Upper Edge



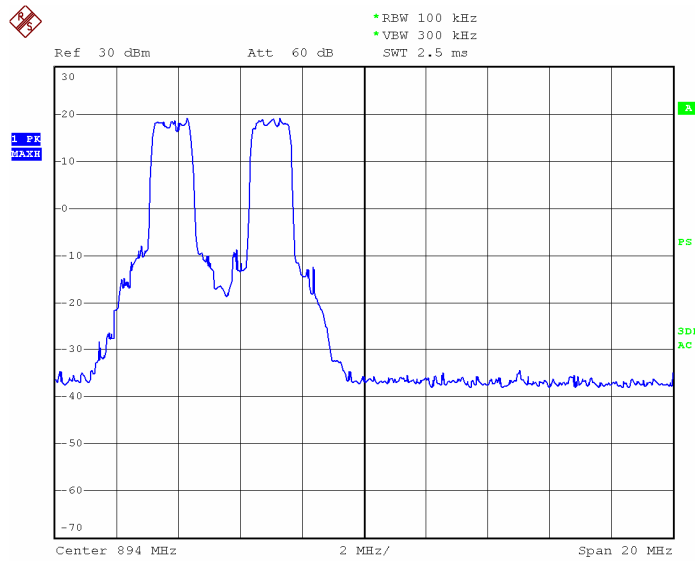
Date: 7.MAY.2012 20:08:51

850MHz-CDMA2000 two signal input down link-Lower Edge



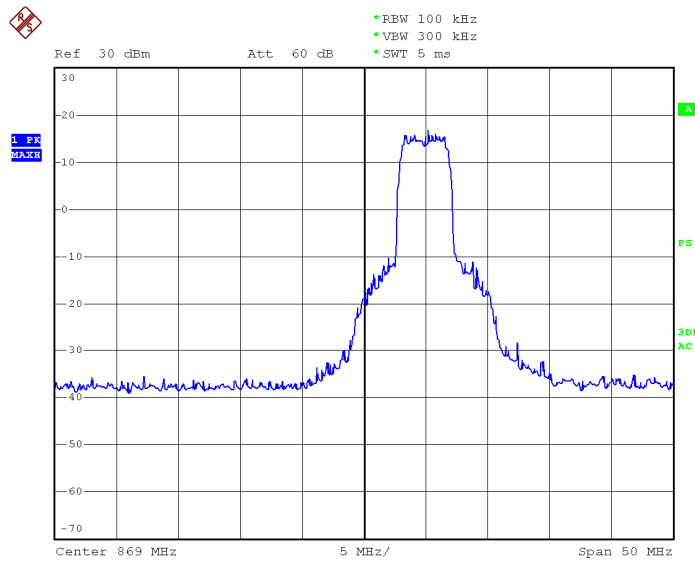
Date: 8.MAY.2012 14:22:04

850MHz-CDMA2000 two signal input down link-Upper Edge



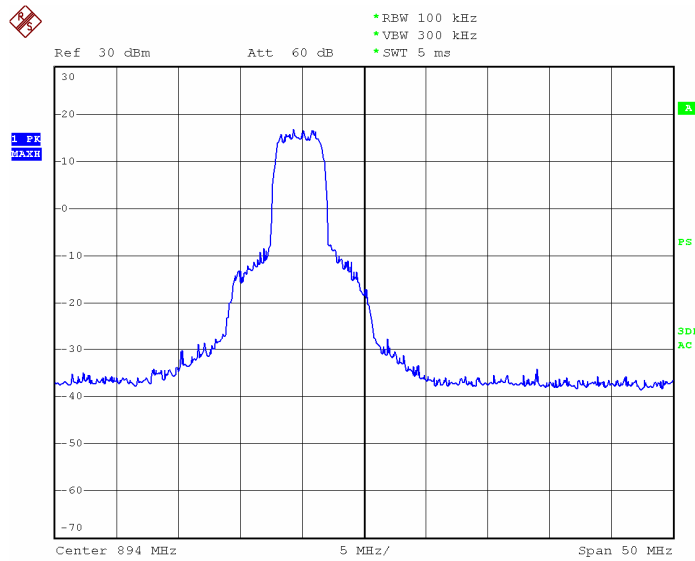
Date: 8.MAY.2012 14:23:21

850MHz-WCDMA one signal input down link-Lower Edge



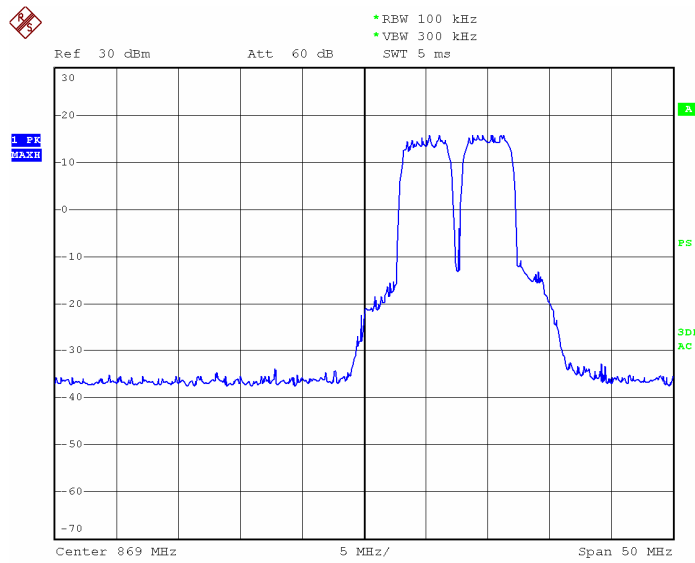
Date: 7.MAY.2012 20:13:12

850MHz-WCDMA one signal input down link-Upper Edge



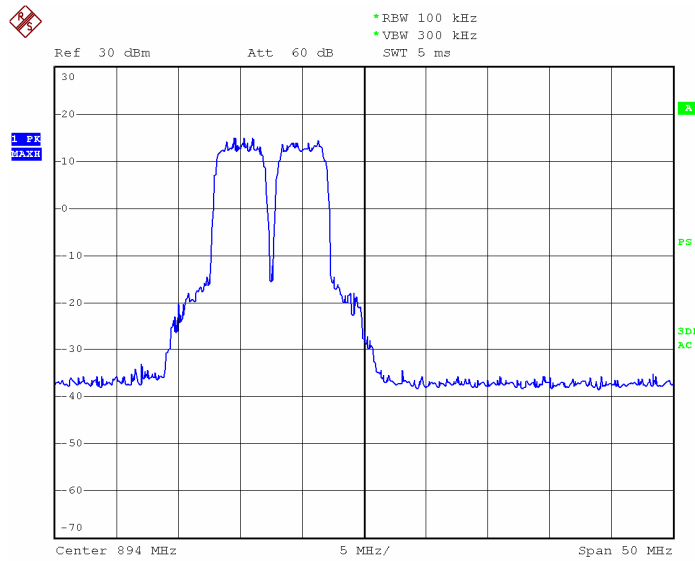
Date: 7.MAY.2012 20:12:28

850MHz-WCDMA two signal input down link-Lower Edge



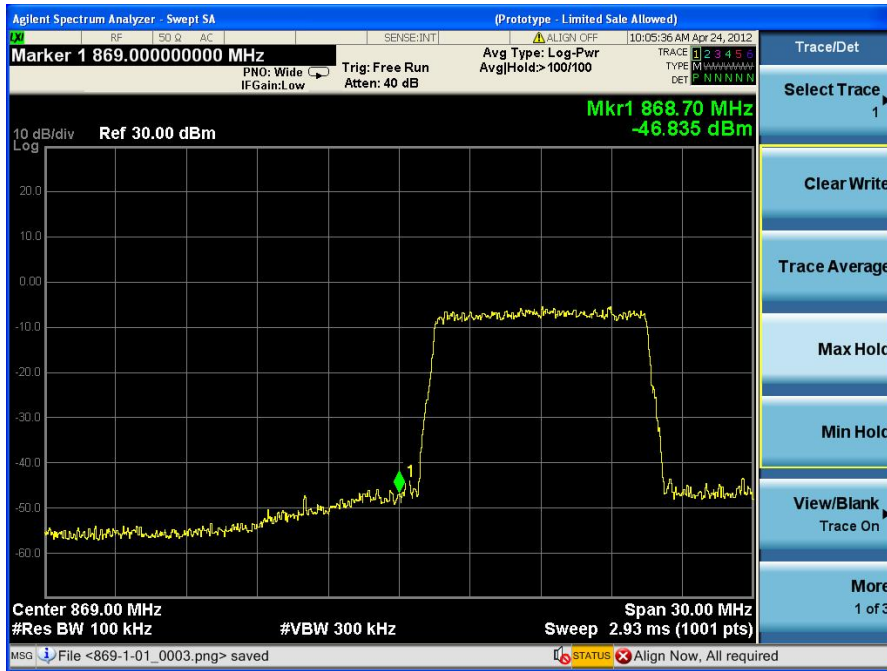
Date: 8.MAY.2012 14:55:37

850MHz-WCDMA two signal input down link-Upper Edge

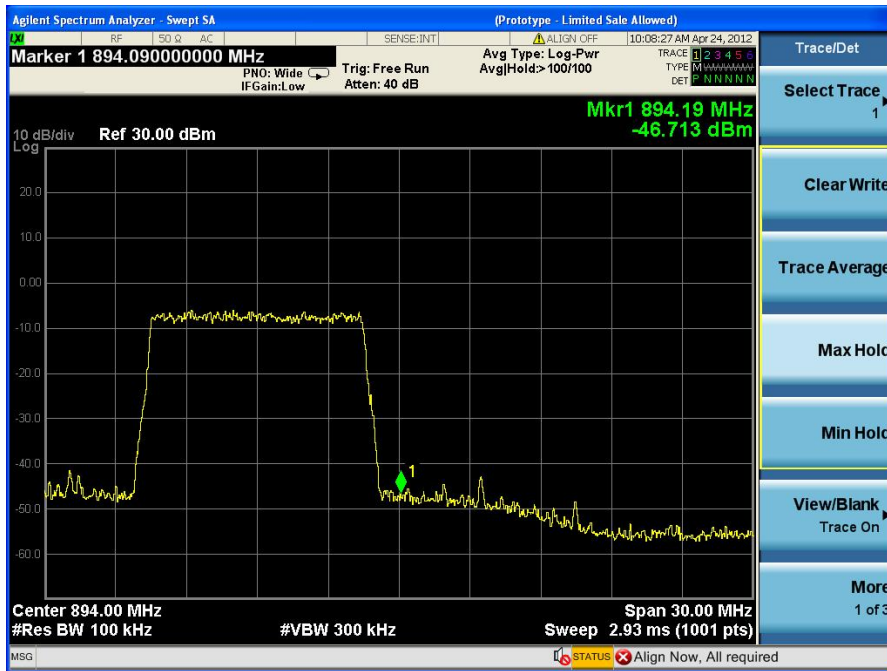


Date: 8.MAY.2012 14:53:09

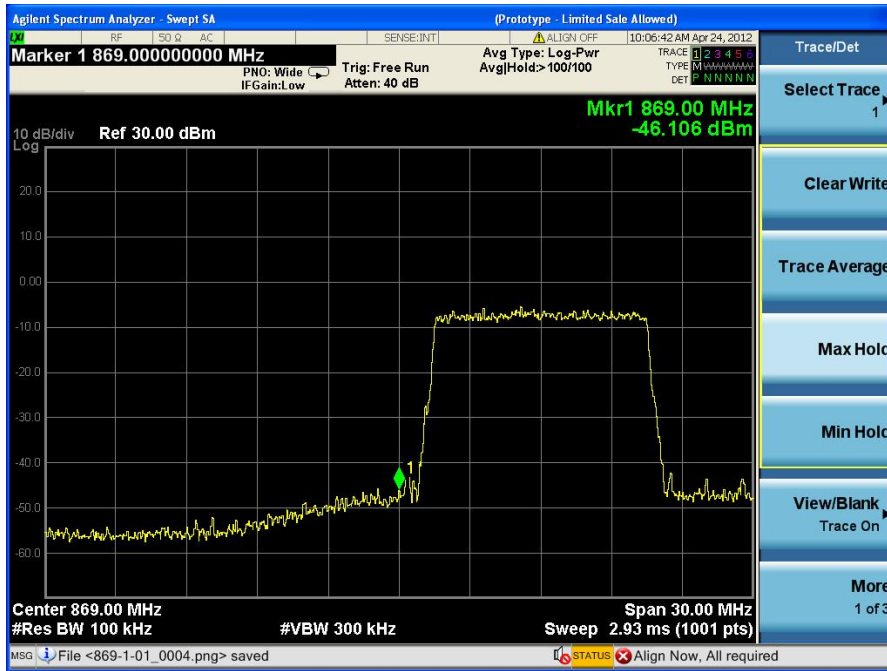
850MHz-LTE-QPSK one signal input down link-Lower Edge



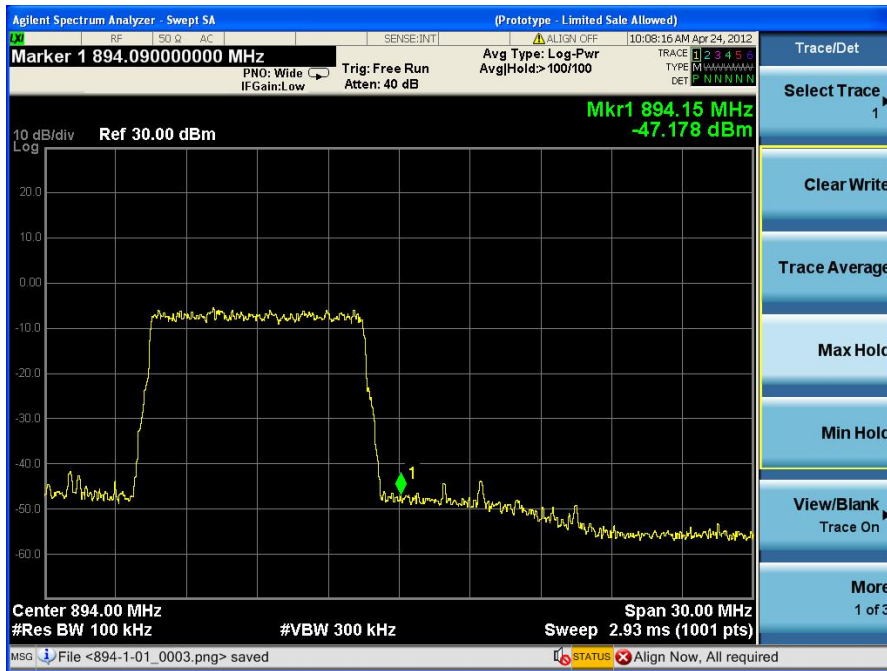
850MHz-LTE-QPSK one signal input down link-Upper Edge



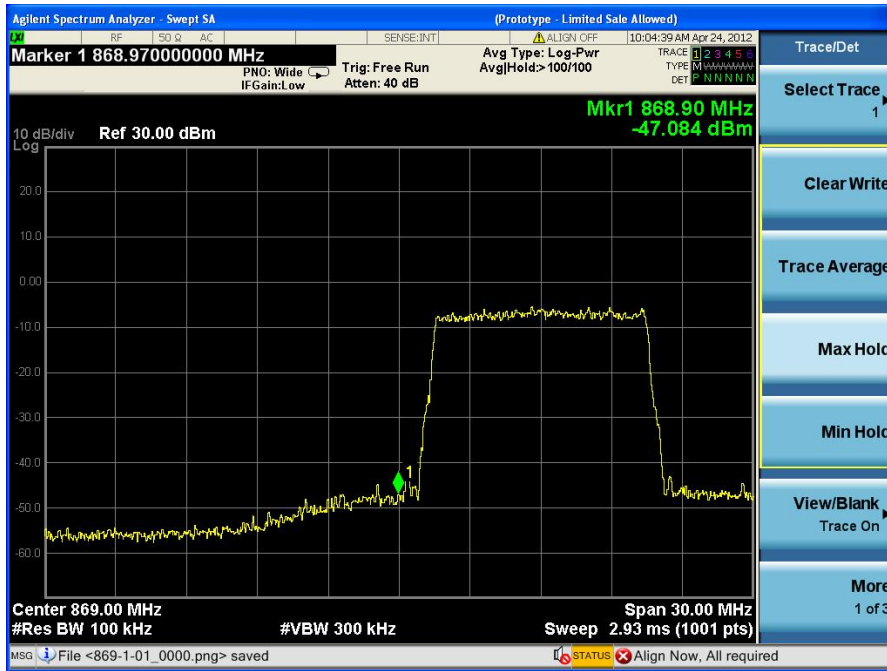
850MHz-LTE-16QAMone signal input down link-Lower Edge



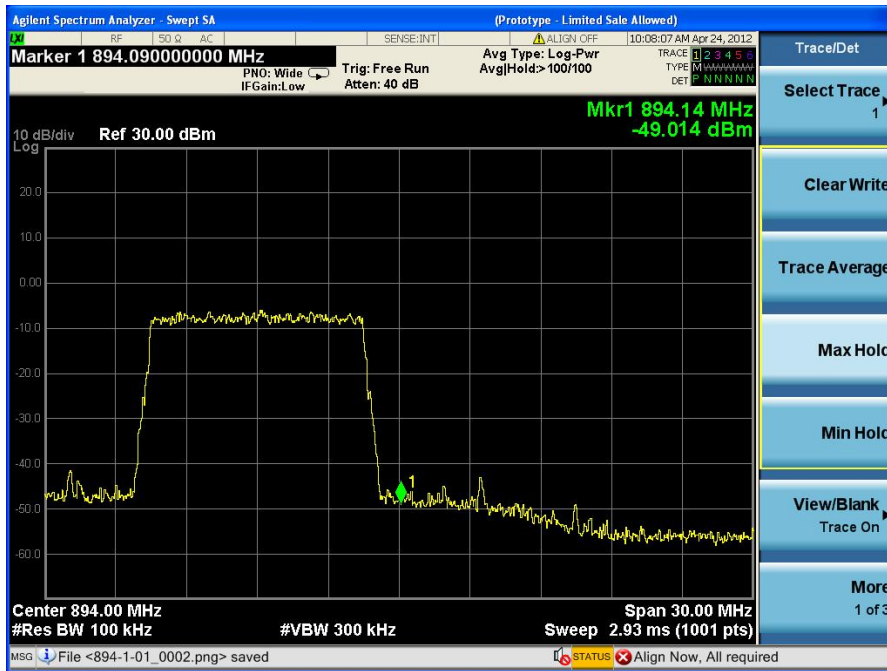
850MHz-LTE-16QAM one signal input down link-Upper Edge



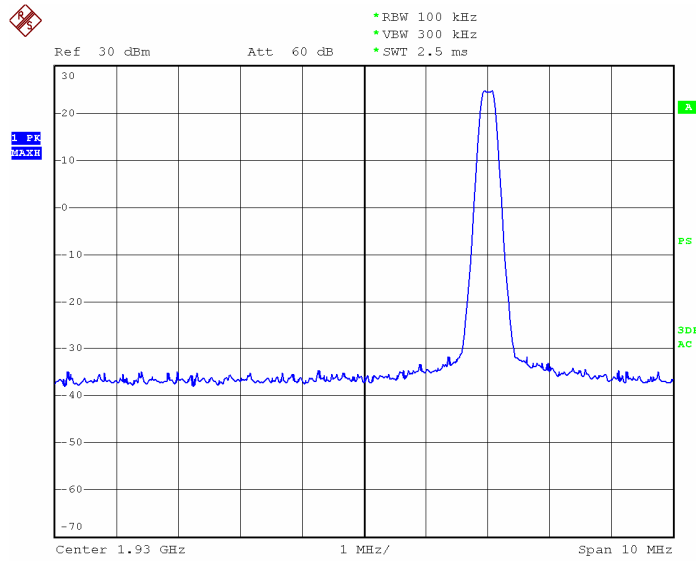
850MHz-LTE-64QAM one signal input down link-Lower Edge



850MHz-LTE-64QAM one signal input down link-Upper Edge

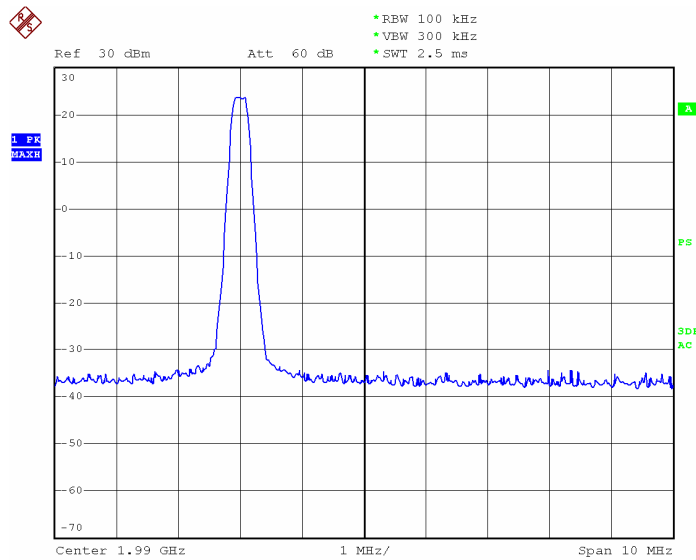


1900MHz-GSM one signal input down link-Lower Edge



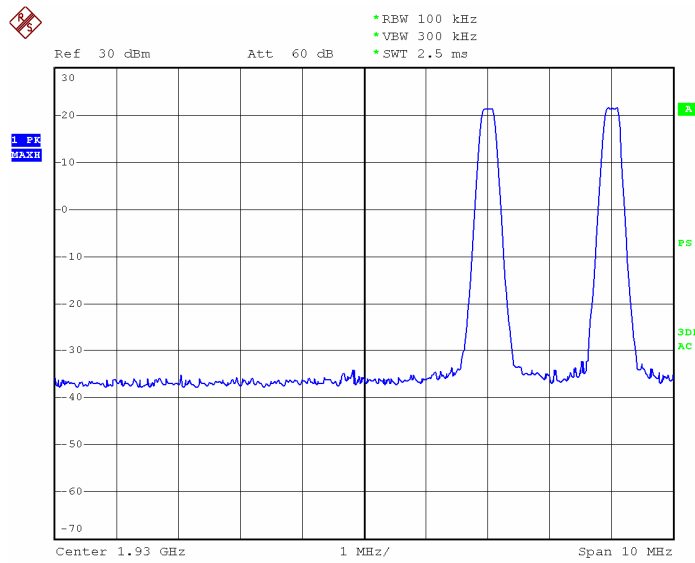
Date: 7.MAY.2012 20:15:37

1900MHz-GSM one signal input down link-Upper Edge



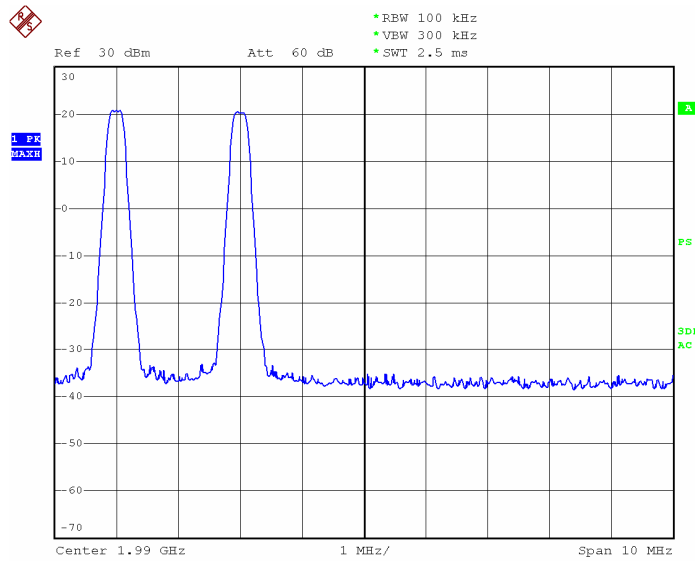
Date: 7.MAY.2012 20:16:14

1900MHz-GSM two signal input down link-Lower Edge



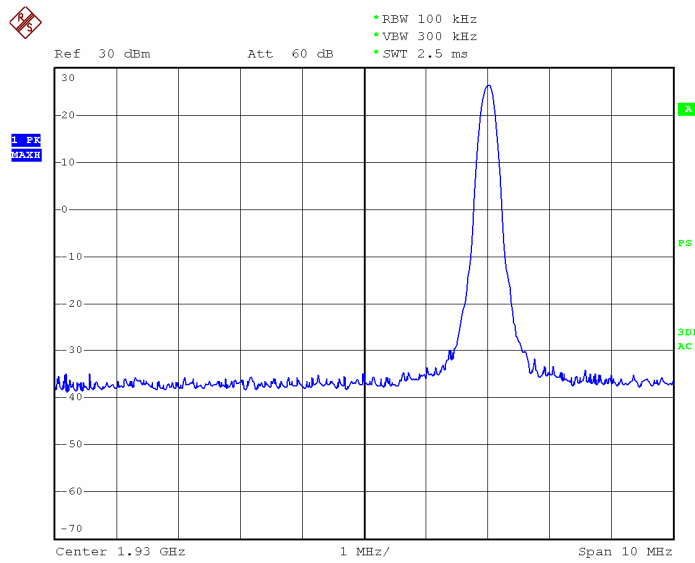
Date: 8.MAY.2012 15:05:55

1900MHz-GSM two signal input down link-Upper Edge



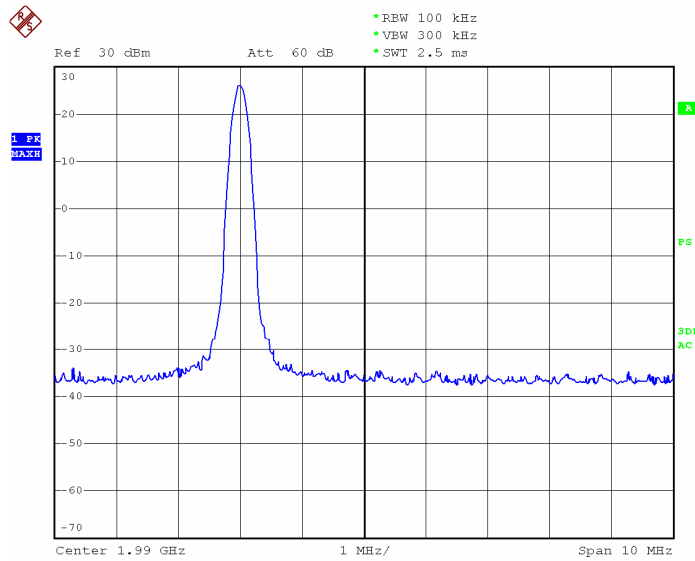
Date: 8.MAY.2012 15:06:38

1900MHz-EDGE one signal input down link-Lower Edge



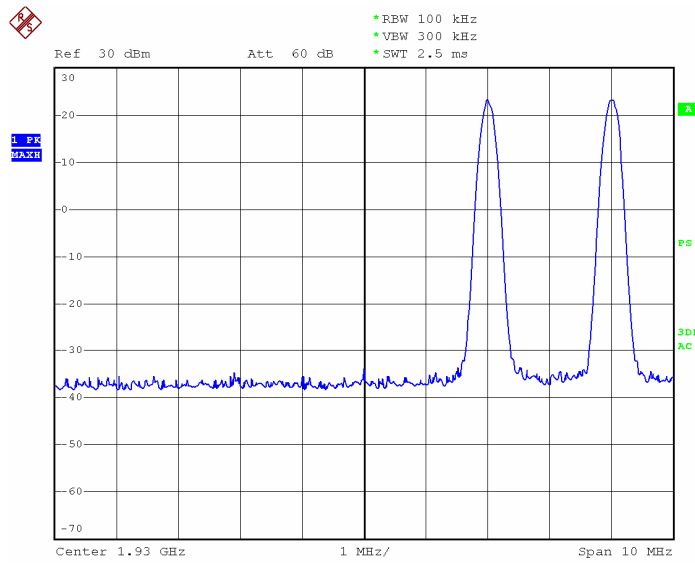
Date: 7.MAY.2012 20:17:25

1900MHz-EDGE one signal input down link-Upper Edge



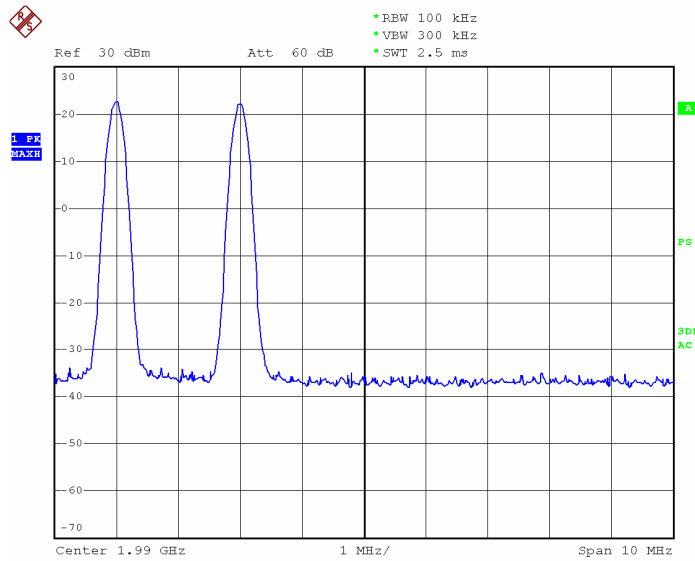
Date: 7.MAY.2012 20:16:58

1900MHz-EDGE two signal input down link-Lower Edge



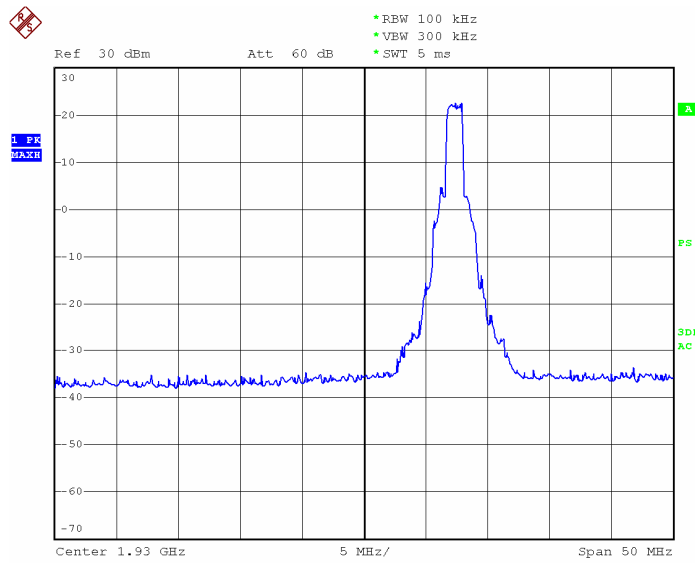
Date: 8.MAY.2012 15:08:11

1900MHz-EDGE two signal input down link-Upper Edge



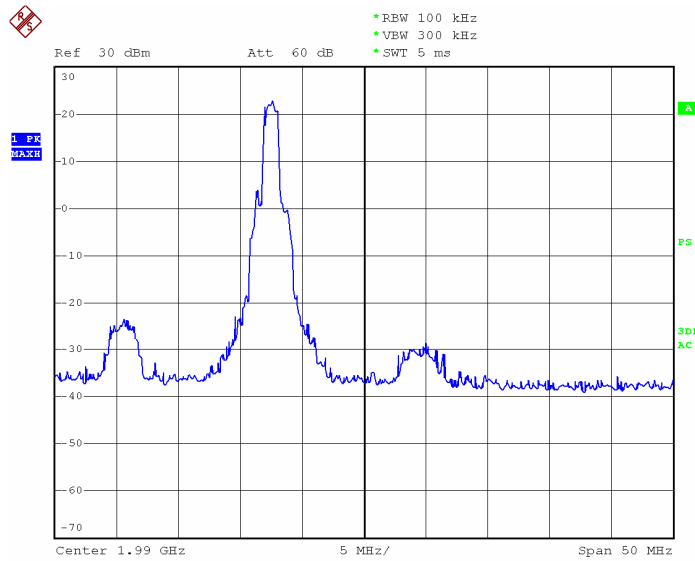
Date: 8.MAY.2012 15:07:37

1900MHz-CDMA2000 one signal input down link-Lower Edge



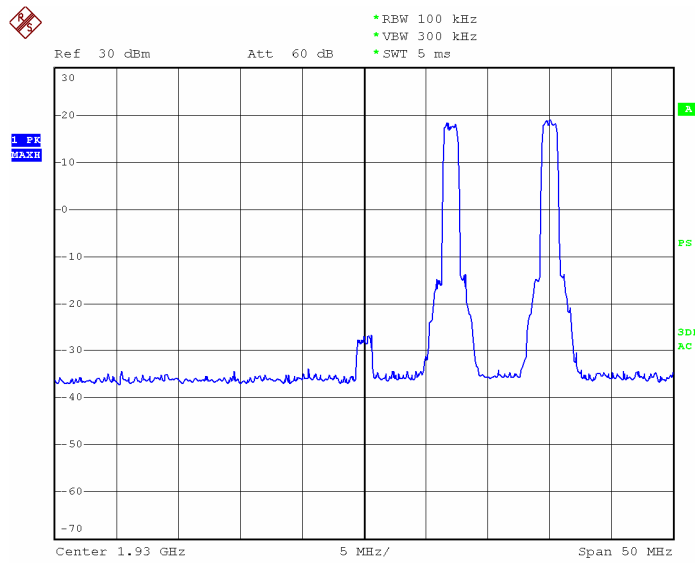
Date: 7.MAY.2012 20:20:12

1900MHz-CDMA2000 one signal input down link-Upper Edge



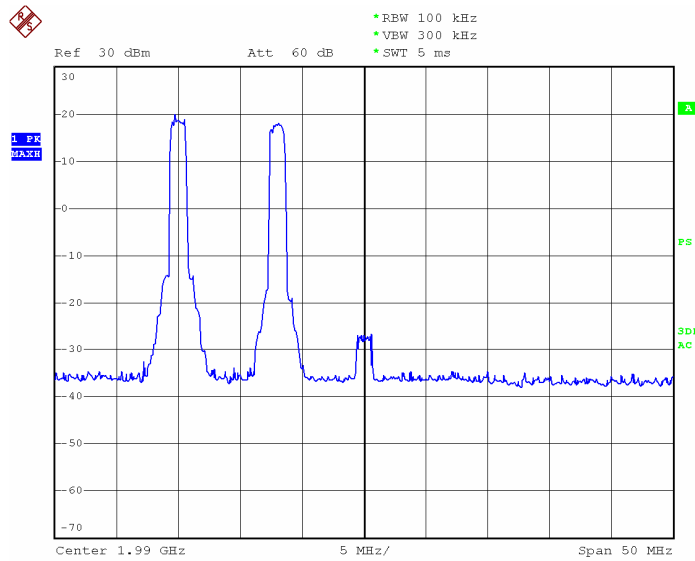
Date: 7.MAY.2012 20:21:29

1900MHz-CDMA2000 two signal input down link-Lower Edge



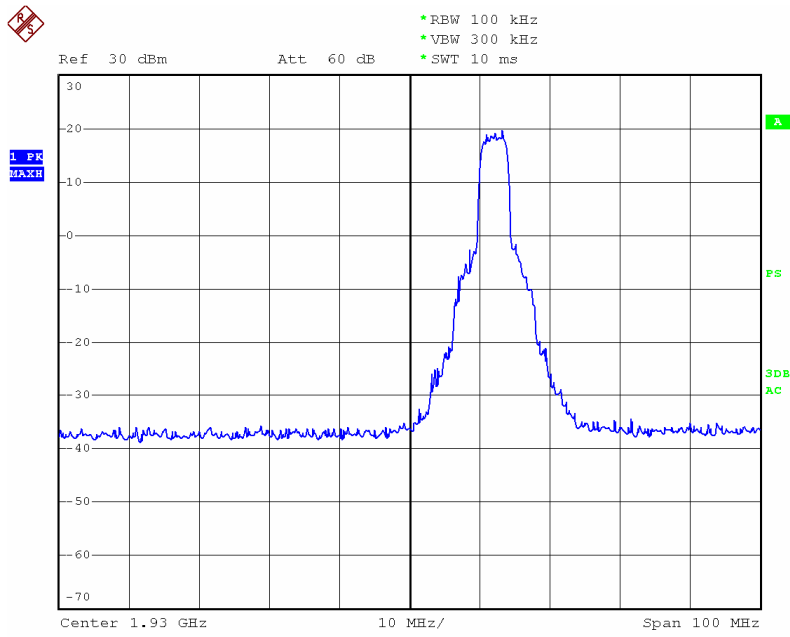
Date: 8.MAY.2012 15:16:28

1900MHz-CDMA2000 two signal input down link-Upper Edge

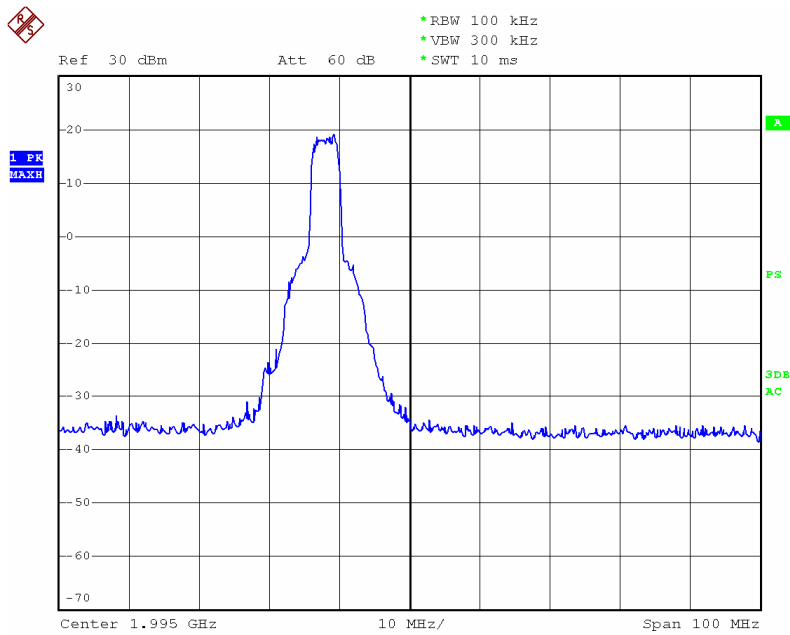


Date: 8.MAY.2012 15:18:14

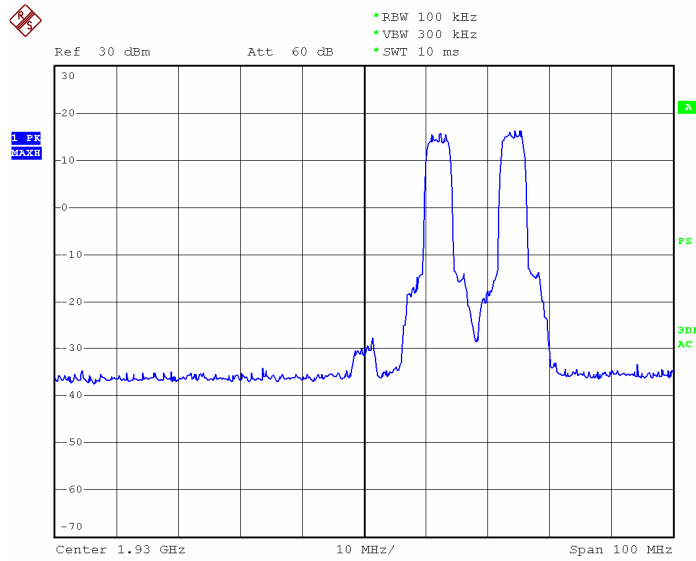
1900MHz-WCDMA one signal input down link-Lower Edge



1900MHz-WCDMA one signal input down link-Upper Edge

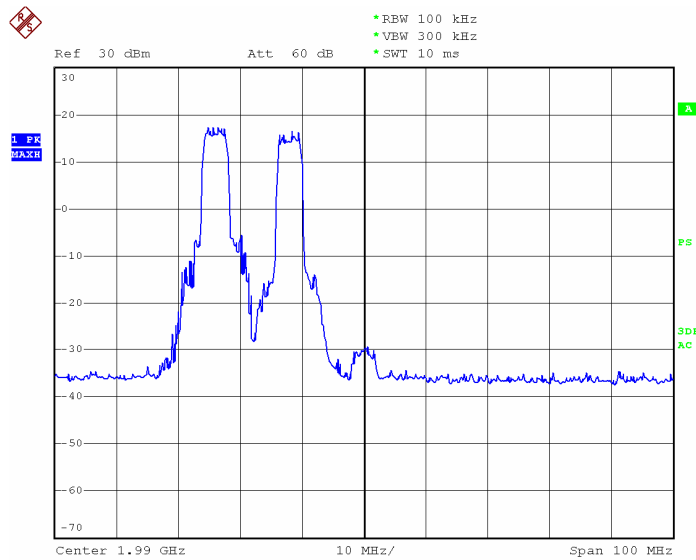


1900MHz-WCDMA two signal input down link-Lower Edge



Date: 8.MAY.2012 15:23:48

1900MHz-WCDMA two signal input down link-Upper Edge



Date: 8.MAY.2012 15:21:23

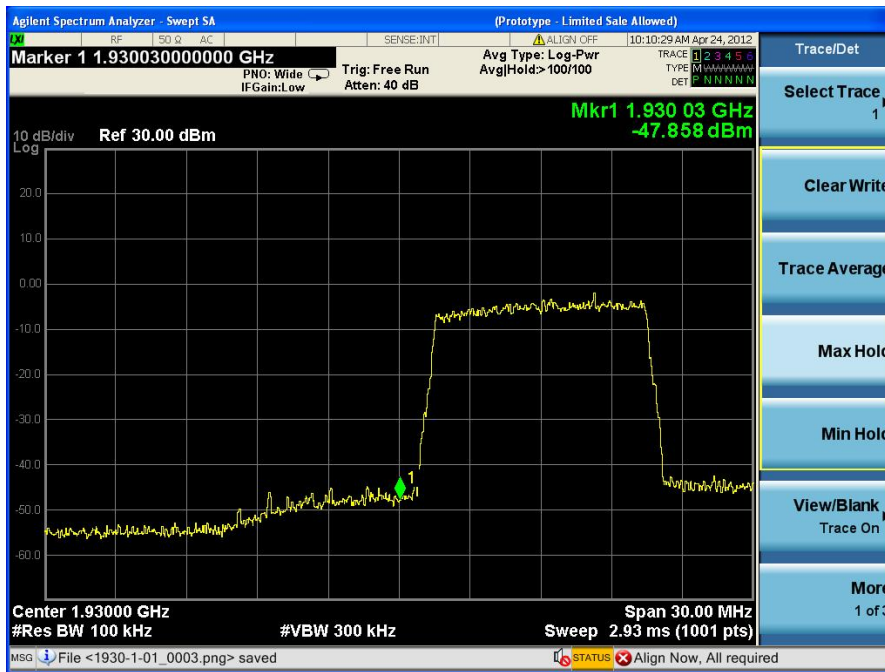
1900MHz-LTE-QPSK one signal input down link-Lower Edge



1900MHz- LTE-QPSK one signal input down link-Upper Edge



1900MHz-LTE-16QAM one signal input down link-Lower Edge



1900MHz- LTE-16QAM one signal input down link-Upper Edge



1900MHz-LTE-64QAM one signal input down link-Lower Edge



1900MHz- LTE-64QAM one signal input down link-Upper Edge



4.2.4 RADIATED SPURIOUS EMISSIONS

Test Date: 05 May, 2012

Test Method: FCC part 2.1053

Test Requirement: FCC part 22.917(a)& FCC part 24.238(a)&FCC 27.53
22.917(a): 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 $43 + 10\log(P)$ dB.
24.238(a) 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 $43 + 10\log(P)$ dB.
27.53 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 $43 + 10\log(P)$ dB.

Status The output power of EUT be set to maximum value,the gain of EUT be set to maximum value by software through the manufacture

Condition Normal conditions

Application Enclosure

Test Configuration:

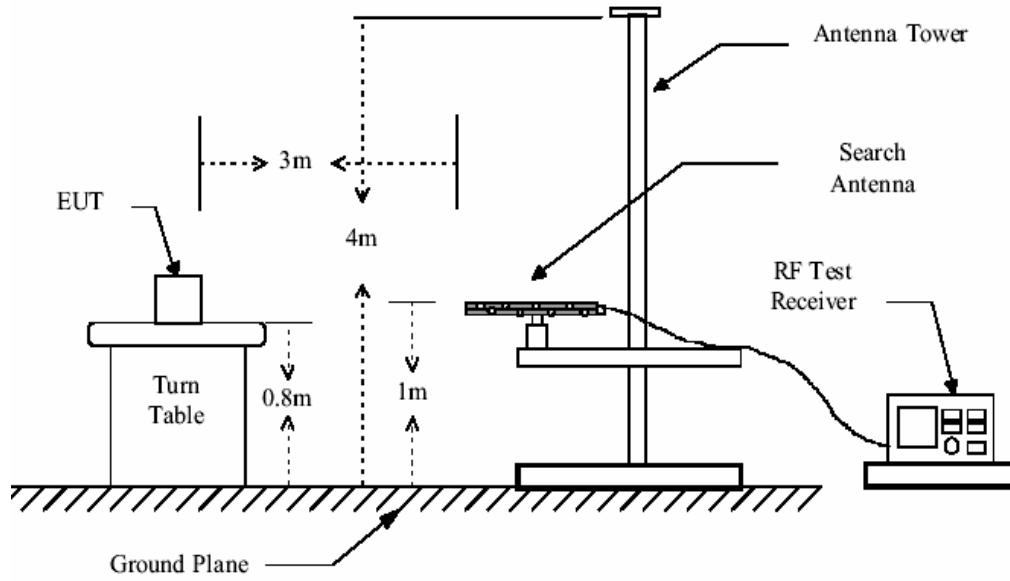


Figure 1. 30 MHz to 1GHz radiated emissions test configuration

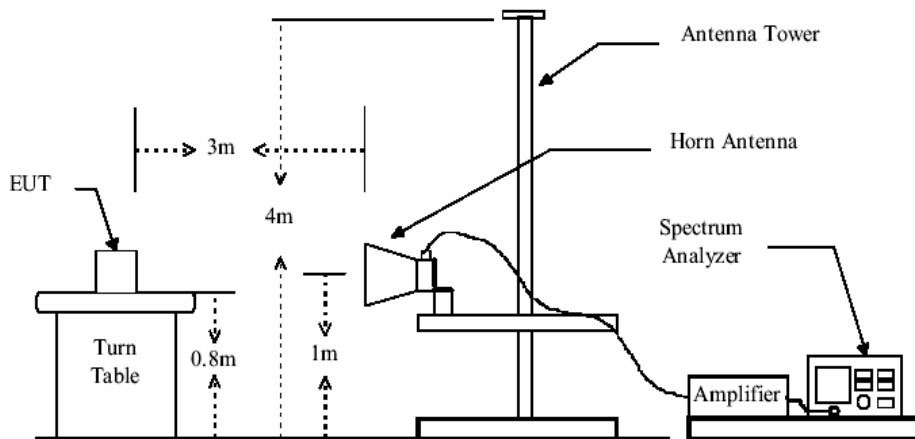


Figure 2. Above 1GHz radiated emissions test configuration