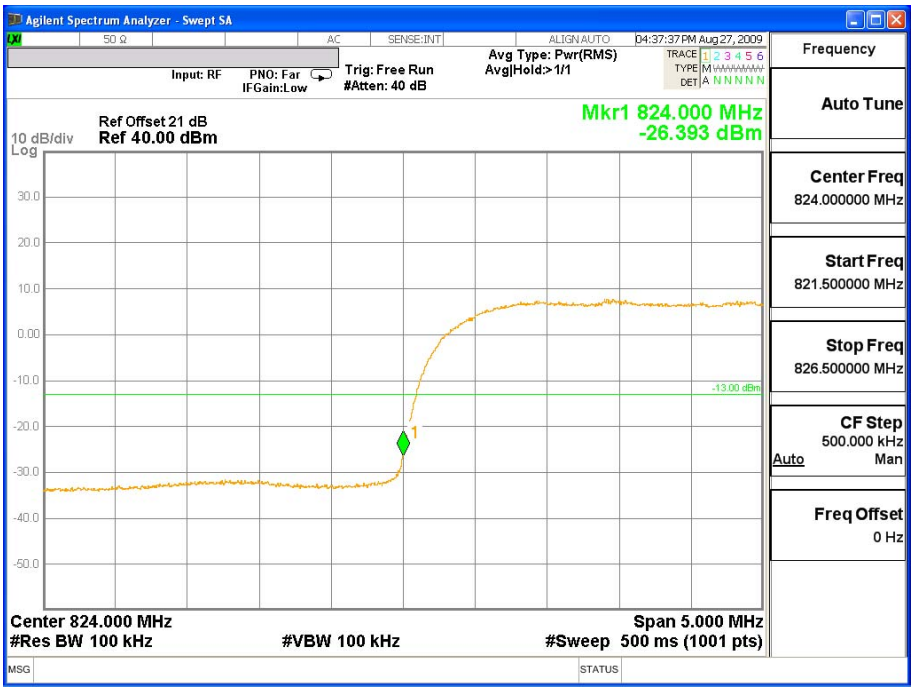
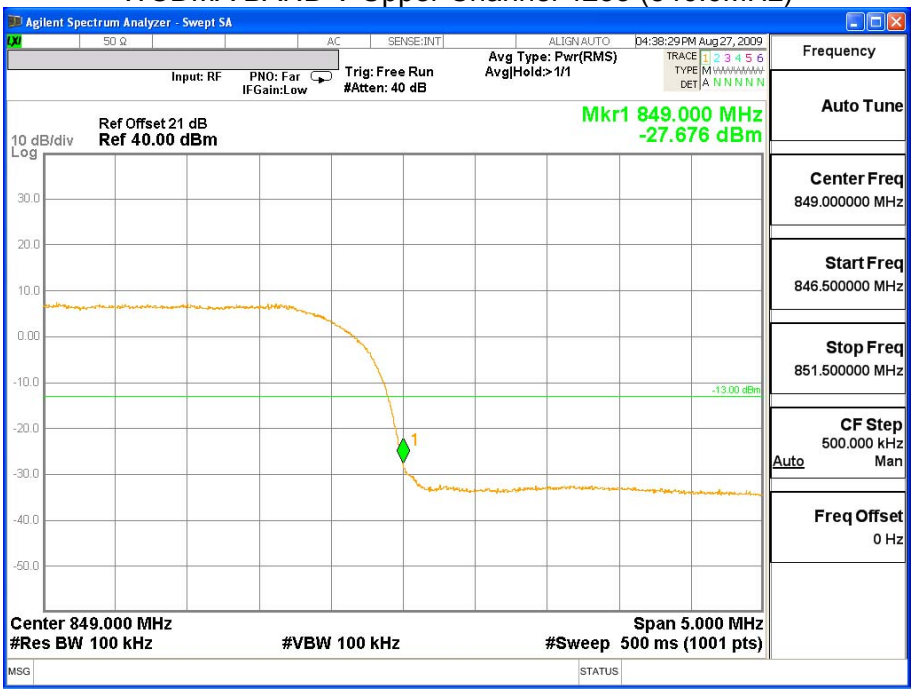
Product	Notebook		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2009/08/27	Test Site	CTR
Test Condition	Block Edge Test (WCDMA BAND V)		

WCDMA BAND V Lower Channel 4132 (826.4MHz)

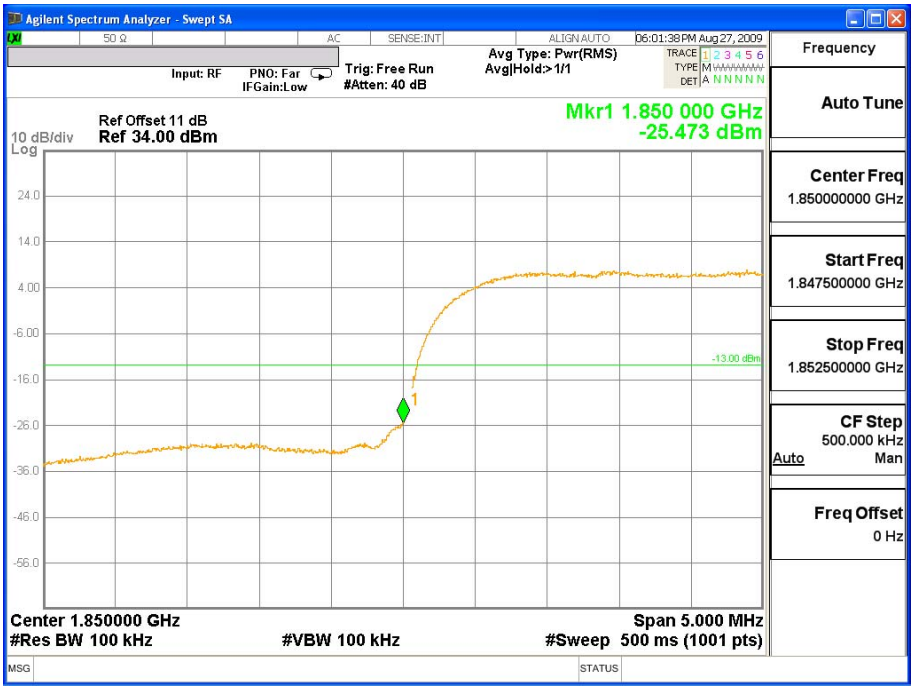


WCDMA BAND V Upper Channel 4233 (846.6MHz)

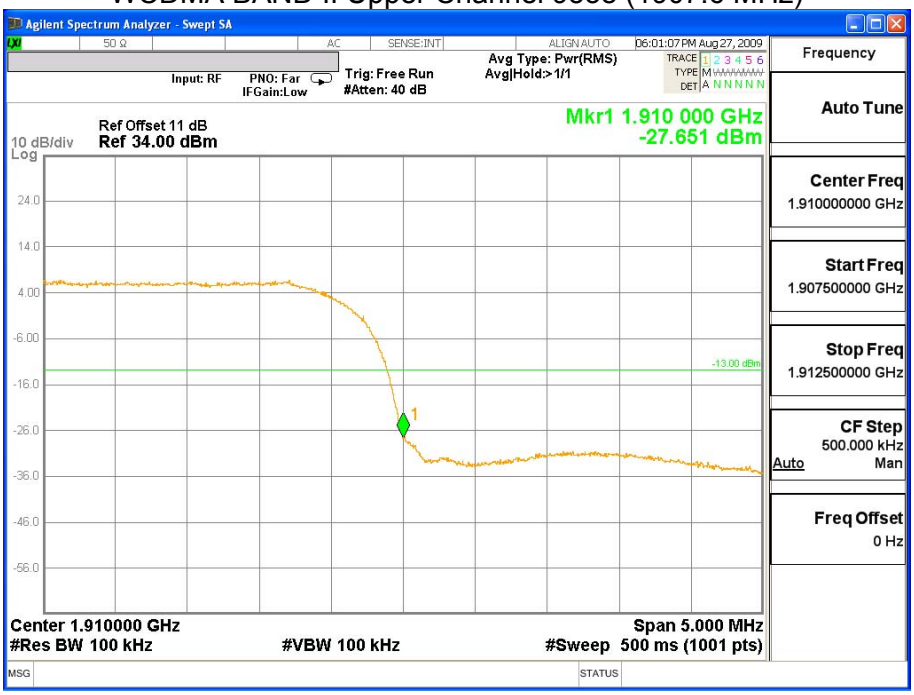


Product	Notebook		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2009/08/27	Test Site	CTR
Test Condition	Block Edge Test (WCDMA BAND II)		

WCDMA BAND II Lower Channel 9262 (1852.4MHz)



WCDMA BAND II Upper Channel 9538 (1907.6 MHz)



5. Spurious Emission

5.1. Test Equipment

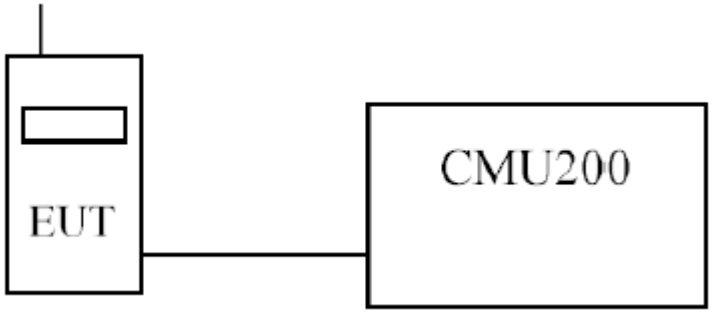
The following test equipments are used during the radiated emission test:

Test Site	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒CTR	Spectrum Analyzer (9K-26.5GHz)	Agilent	N9020A/MY48010570	Apr., 2009
	Dual Directional couple	Agilent	778D-012/50550	Aug , 2009
	Directional coupler	Agilent	87300C/ MY44300353	Aug ., 2009
☒SITE3	Universal Radio Communication Tester	R & S	CMU200 / 104846	May ., 2009
	Bilog Antenna	Schaffner Chase	CBL6112B/2921	Aug ., 2009
	Broadband Horn Antenna	Schwarzbeck	BBHA9170/497	Sep ., 2009
	Horn Antenna	Schwarzbeck	BBHA9120D/ 305	Sep ., 2009
	Pre-Amplifier	QTK	N/A	N/A
	Microwave Amplifier (0.5GHZ-26.5GHZ)	Agilent	83017A/ MY39500682	Aug ., 2009
	Spectrum Analyzer	Agilent	N9020A/ MY48010570	Apr., 2009
	Universal Radio Communication Tester	R & S	CMU200 / 104846	May ., 2009

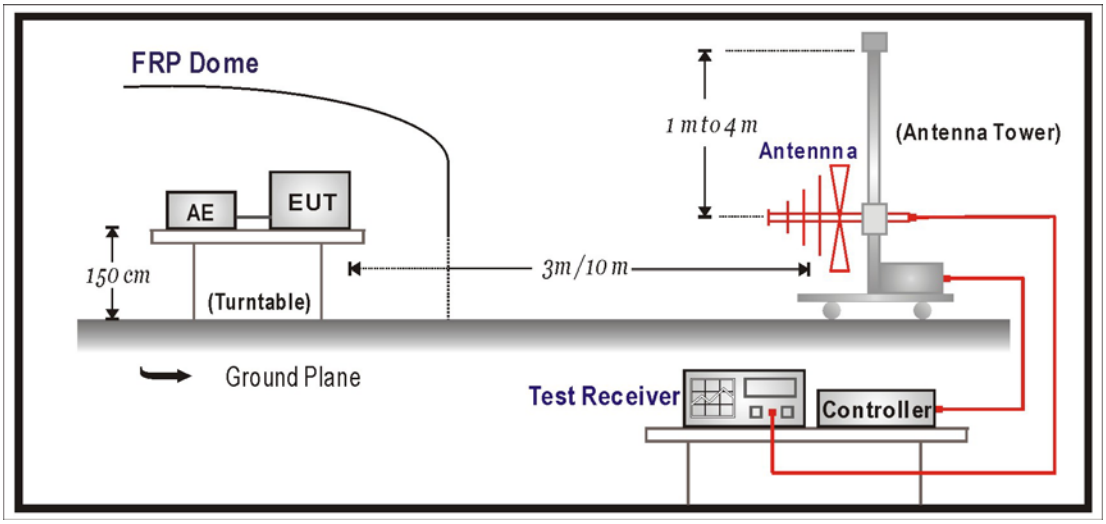
Note: All equipments that need to be calibrated are with calibration period of 1 year.

5.2. Test Setup

5.2.1.1 Spurious emissions at antenna terminals.



5.2.1.2 Field strength of spurious radiation.



5.3. Limits

Limit	**<-13dBm**

43 + 10Log(P) down on the carrier where P is the power in Watts.

5.4. Test Procedure

In accordance with Part 2.1051, the spurious emissions from the antenna terminal were measured. The transmitter output power was attenuated using a combination of filters and attenuators and the frequency spectrum investigated from 30MHz to 20GHz. The EUT was set to transmit on full power. The EUT was tested on bottom, middle and top channels for both power levels. The resolution and video bandwidth was set to 3MHz in accordance with Part 22.917&24.238. The spectrum analyzer detector was set to Max Hold.
In addition, measurements were made up to the 10^{th} harmonic of the fundamental.

The EUT is placed on a turn table which is 1.5 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.
Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to TIA/EIA 603-C on radiated measurement.

5.5. Test Specification

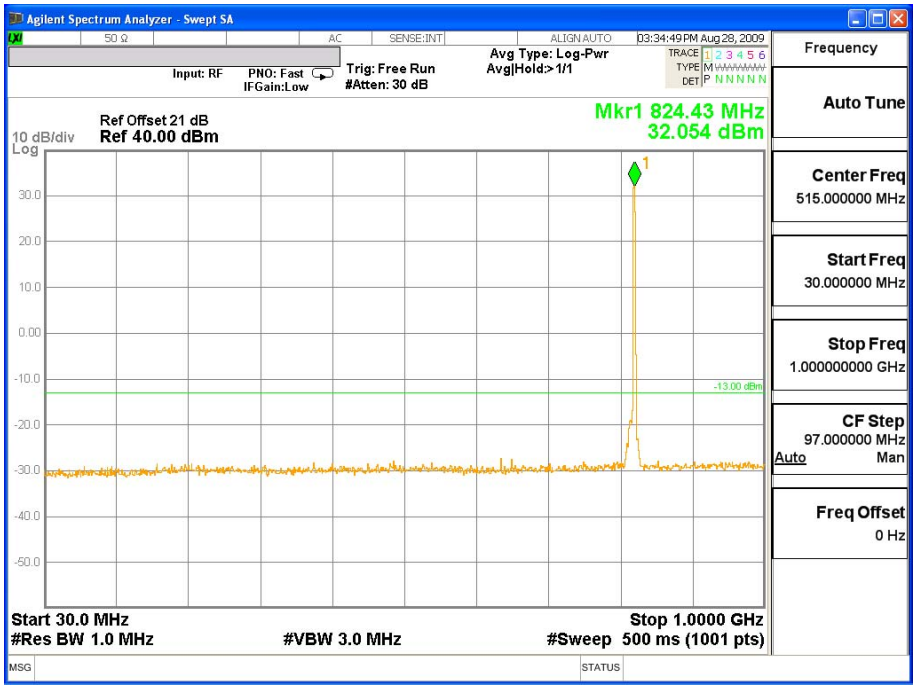
According to Part 2.1051, 2.1053, 22.917(a), 24.238(b).

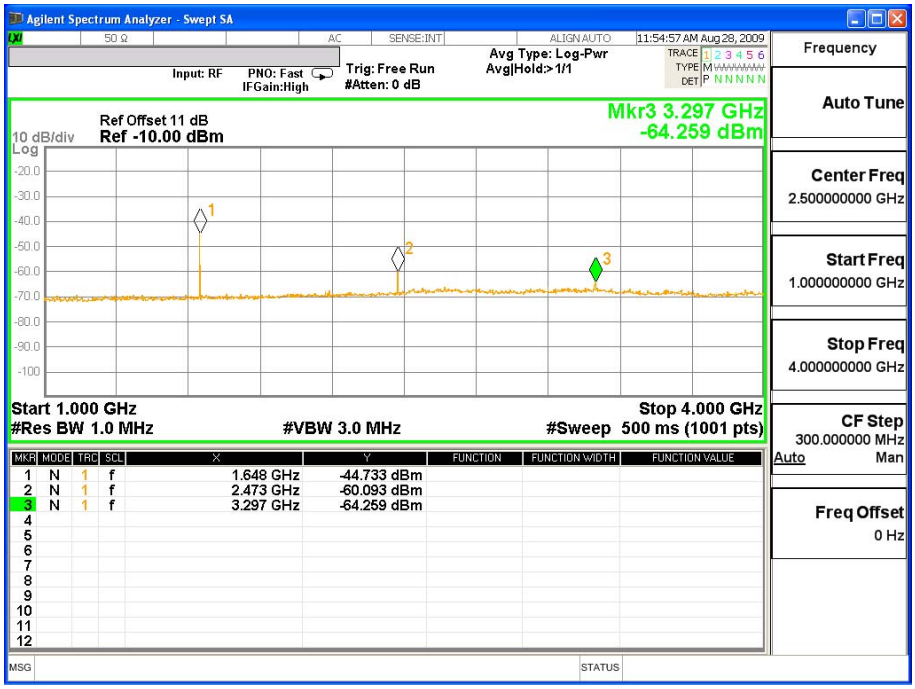
5.6. Test Result of Spurious Emission

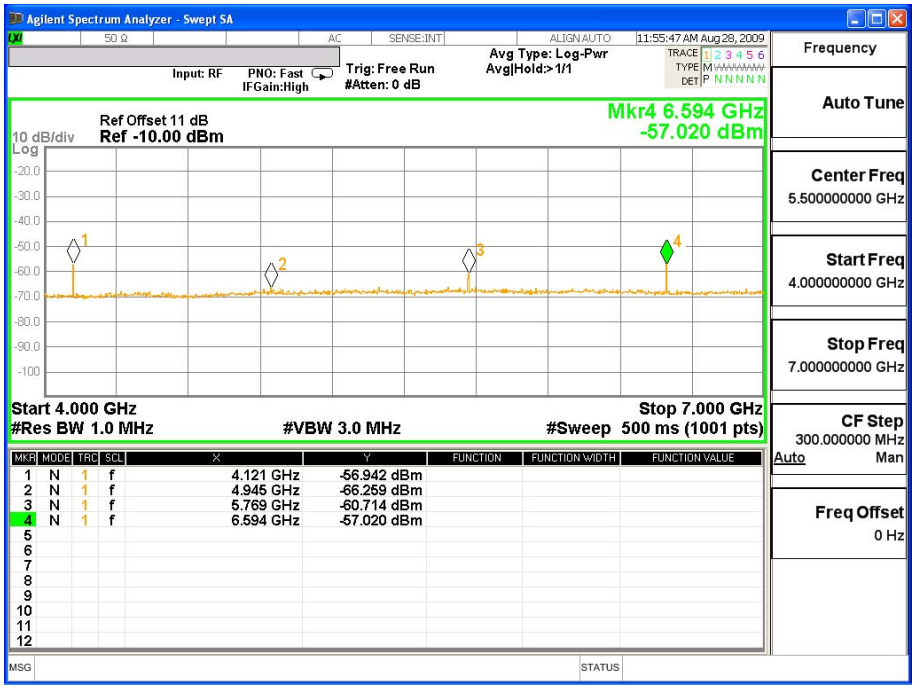
Product	Notebook		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2009/08/28	Test Site	CTR
Test Condition	GSM 850 GPRS	Test Range	30MHz~10GHz

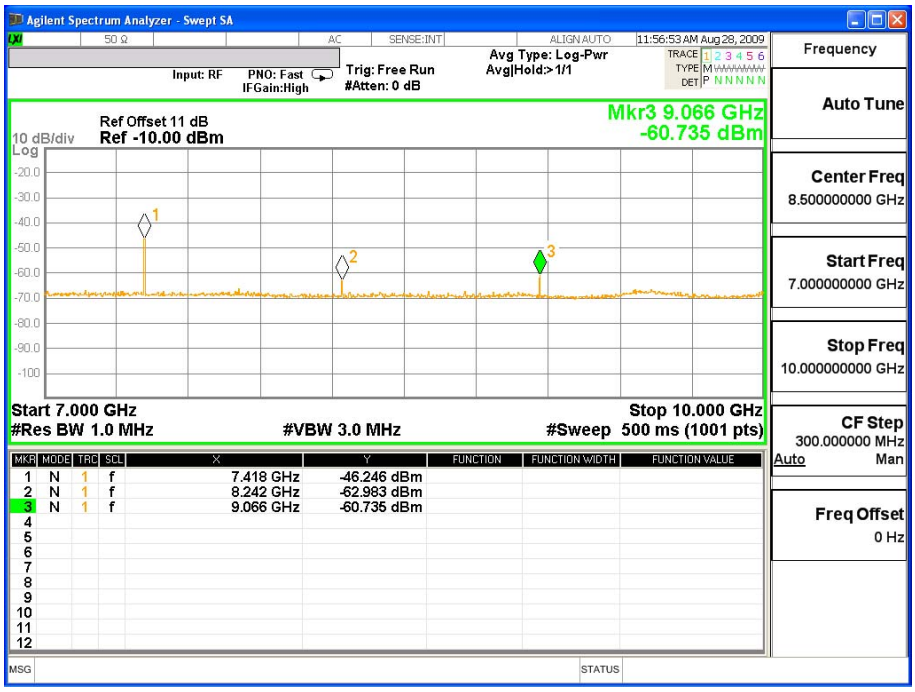
GSM 850 GPRS Low-Channel 128

Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
1648.4	-44.733	0.58	-44.153	-13
2472.6	-60.093	0.7	-59.393	-13
3296.8	-64.259	1.01	-63.249	-13
4121	-56.942	1.18	-55.762	-13
4945.2	-66.259	1.23	-65.029	-13
5769.4	-60.714	1.45	-59.264	-13
6593.6	-57.020	1.56	-55.460	-13
7417.8	-46.246	1.59	-44.656	-13
8242	-62.983	1.82	-61.163	-13




Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:54:57 AM Aug 28, 2009
Input: RF
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>1/1
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
Mkr3 3.297 GHz
-64.259 dBm
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 1.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 4.000 GHz
#Sweep 500 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 1.648 GHz -44.733 dBm
2 N 1 f 2.473 GHz -60.093 dBm
3 N 1 f 3.297 GHz -64.259 dBm
4
5
6
7
8
9
10
11
12
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.500000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
4.000000000 GHz
CF Step
300.000000 MHz
Auto
Man
Freq Offset
0 Hz

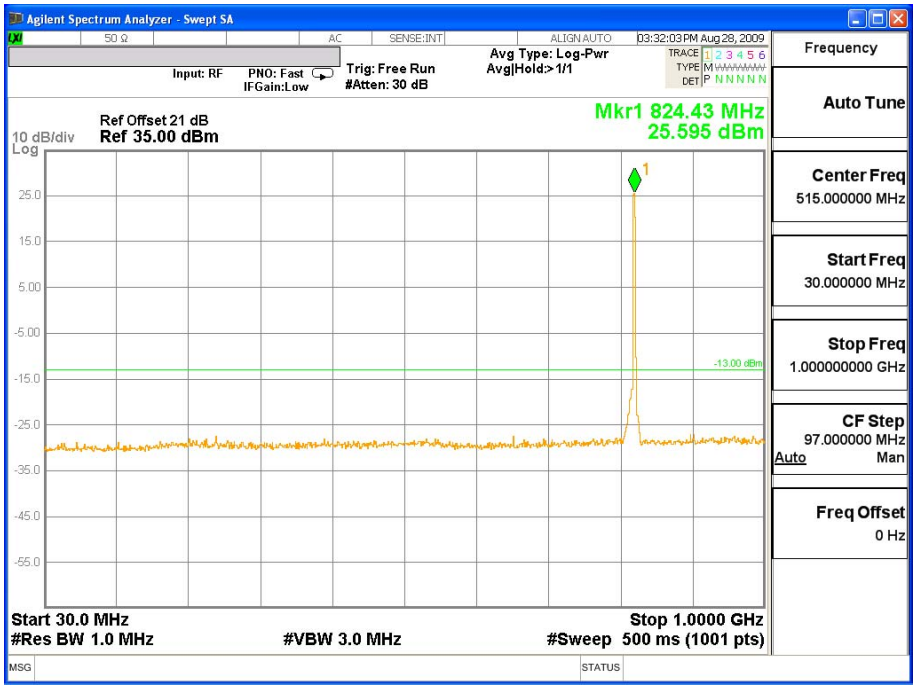

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:55:47 AM Aug 28, 2009
Input: RF
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>1/1
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
Mkr4 6.594 GHz
-57.020 dBm
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 4.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 7.000 GHz
#Sweep 500 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 4.121 GHz -56.942 dBm
2 N 1 f 4.945 GHz -66.259 dBm
3 N 1 f 5.769 GHz -60.714 dBm
4 N 1 f 6.594 GHz -57.020 dBm
5
6
7
8
9
10
11
12
MSG
STATUS
Frequency
Auto Tune
Center Freq
5.500000000 GHz
Start Freq
4.000000000 GHz
Stop Freq
7.000000000 GHz
CF Step
300.000000 MHz
Auto
Man
Freq Offset
0 Hz

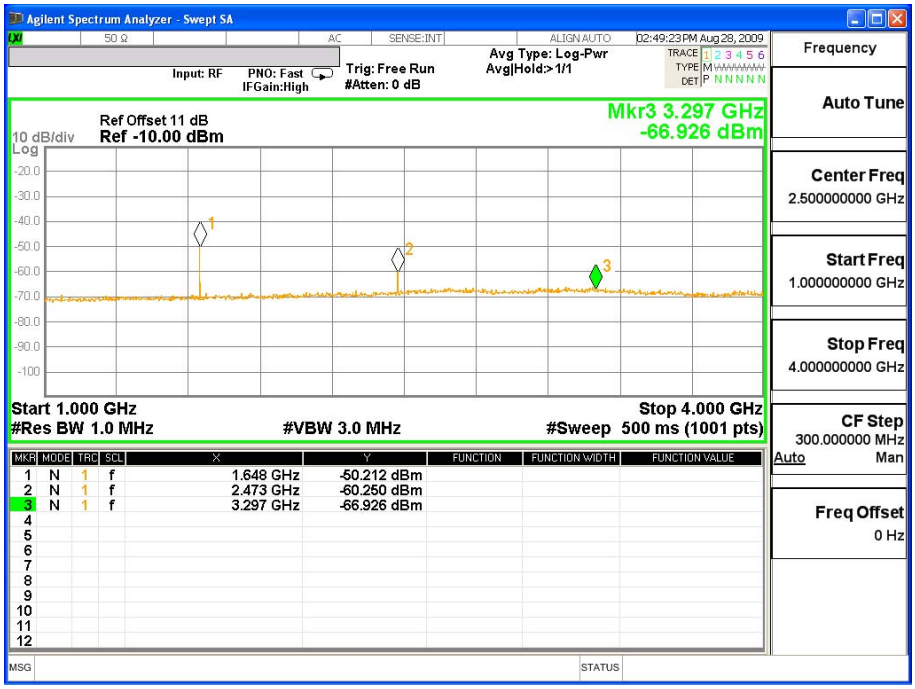

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:56:53 AM Aug 28, 2009
Input: RF
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>1/1
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Ref Offset 11 dB
10 dB/div
Log
Ref -10.00 dBm
Mkr3 9.066 GHz
-60.735 dBm
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 7.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 10.000 GHz
#Sweep 500 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 7.418 GHz -46.246 dBm
2 N 1 f 8.242 GHz -62.983 dBm
3 N 1 f 9.066 GHz -60.735 dBm
4
5
6
7
8
9
10
11
12
MSG
STATUS
Frequency
Auto Tune
Center Freq
8.500000000 GHz
Start Freq
7.000000000 GHz
Stop Freq
10.000000000 GHz
CF Step
300.000000 MHz
Auto
Man
Freq Offset
0 Hz

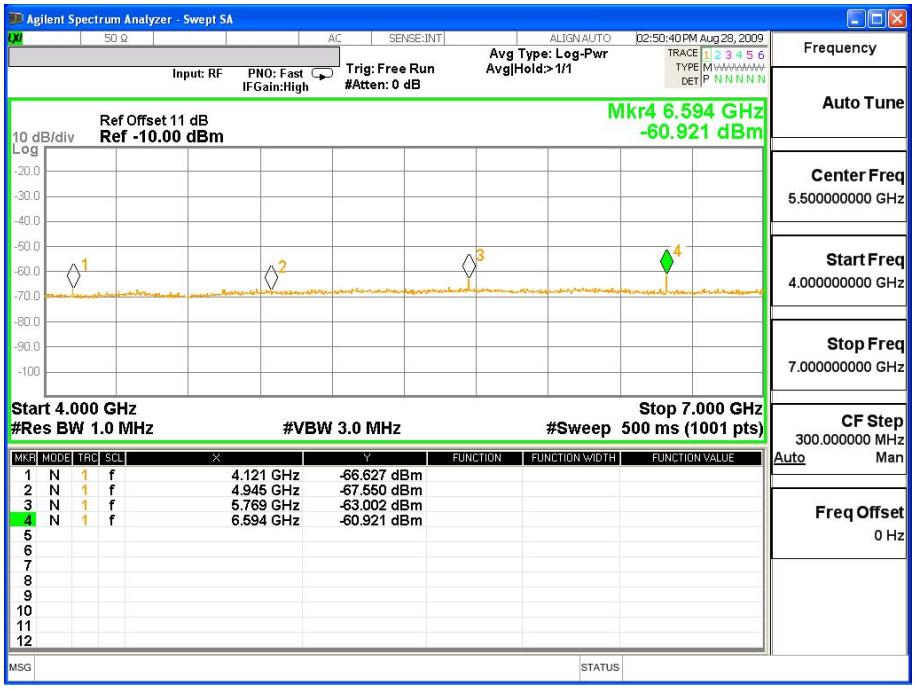
Product	Notebook		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2009/08/28	Test Site	CTR
Test Condition	GSM 850 EGPRS	Test Range	30MHz~10GHz

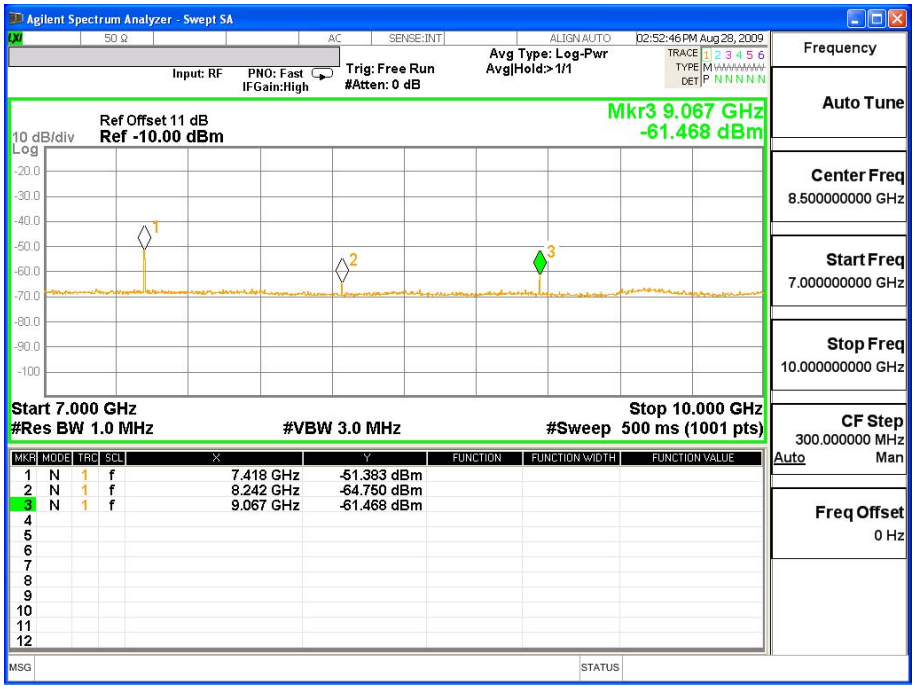
GSM 850 EGPRS Low-Channel 128

Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
1648.4	-50.212	0.58	-49.632	-13
2472.6	-60.250	0.7	-59.550	-13
3296.8	-66.926	1.01	-65.916	-13
4121	-66.627	1.18	-65.447	-13
4945.2	-67.550	1.23	-66.320	-13
5769.4	-63.002	1.45	-61.552	-13
6593.6	-60.921	1.56	-59.361	-13
7417.8	-51.383	1.59	-49.793	-13
8242	-64.973	1.82	-63.153	-13




Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:49:23 PM Aug 28, 2009
Input: RF
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>1/1
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
Mkr3 3.297 GHz
-66.926 dBm
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 1.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 4.000 GHz
#Sweep 500 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 1.648 GHz -50.212 dBm
2 N 1 f 2.473 GHz -60.250 dBm
3 N 1 f 3.297 GHz -66.926 dBm
4
5
6
7
8
9
10
11
12
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.500000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
4.000000000 GHz
CF Step
300.000000 MHz
Auto
Man
Freq Offset
0 Hz

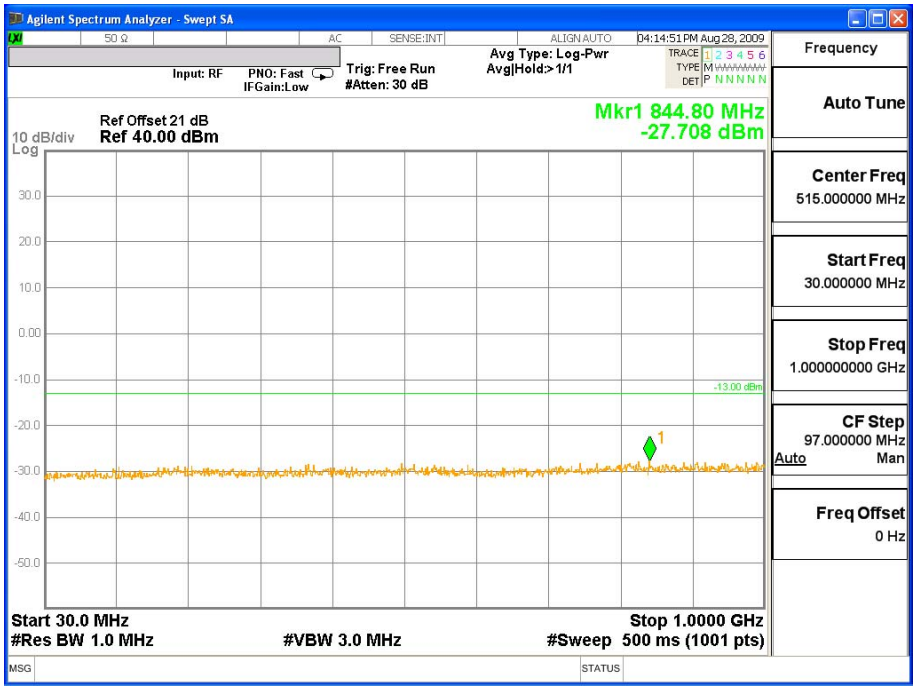

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:50:40 PM Aug 28, 2009
Input: RF
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>1/1
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
Mkr4 6.594 GHz
-60.921 dBm
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 4.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 7.000 GHz
#Sweep 500 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 4.121 GHz -66.627 dBm
2 N 1 f 4.945 GHz -67.550 dBm
3 N 1 f 5.769 GHz -63.002 dBm
4 N 1 f 6.594 GHz -60.921 dBm
5
6
7
8
9
10
11
12
MSG
STATUS
Frequency
Auto Tune
Center Freq
5.500000000 GHz
Start Freq
4.000000000 GHz
Stop Freq
7.000000000 GHz
CF Step
300.000000 MHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:52:46 PM Aug 28, 2009
Input: RF
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>1/1
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
Mkr3 9.067 GHz
-61.468 dBm
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 7.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 10.000 GHz
#Sweep 500 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 7.418 GHz -51.383 dBm
2 N 1 f 8.242 GHz -64.750 dBm
3 N 1 f 9.067 GHz -61.468 dBm
4
5
6
7
8
9
10
11
12
MSG
STATUS
Frequency
Auto Tune
Center Freq
8.500000000 GHz
Start Freq
7.000000000 GHz
Stop Freq
10.000000000 GHz
CF Step
300.000000 MHz
Auto
Man
Freq Offset
0 Hz

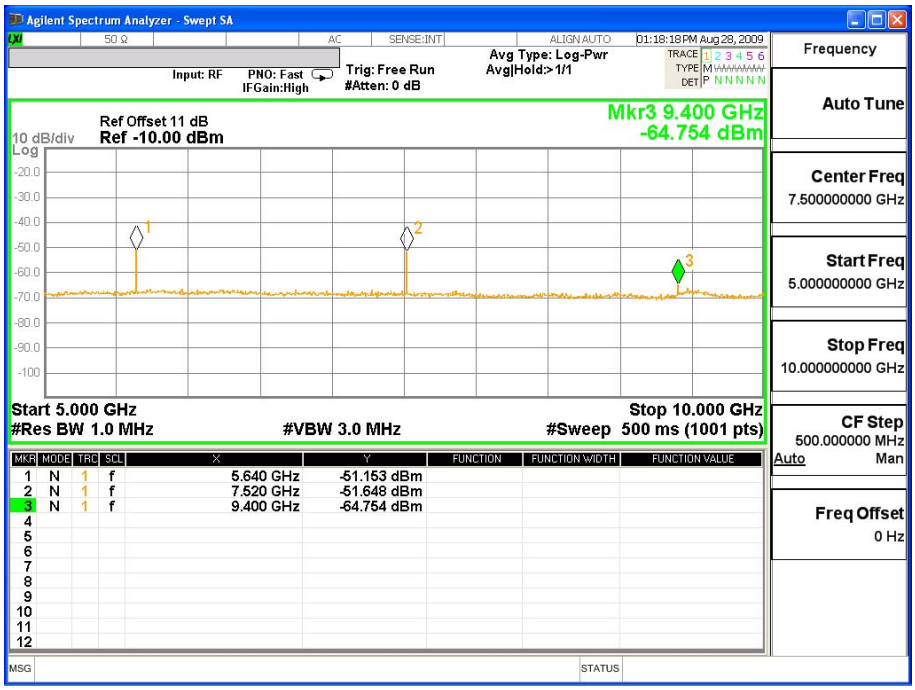
Product	Notebook		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2009/08/28	Test Site	CTR
Test Condition	PCS 1900 GPRS	Test Range	30MHz~20GHz

PCS 1900 GPRS Mid-Channel 661

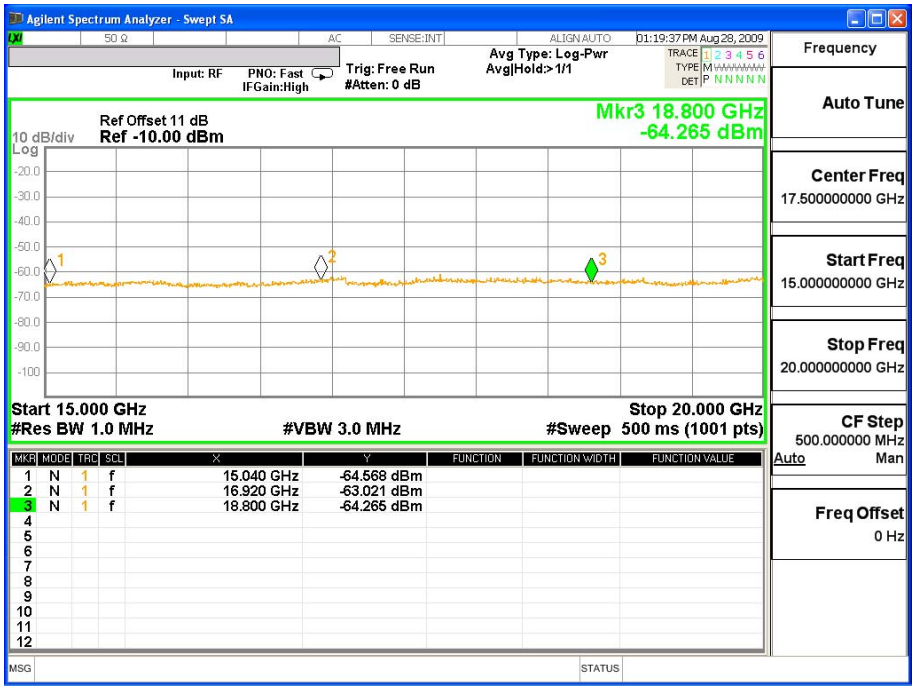
Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3760	-55.802	1.1	-54.702	-13
5640	-51.153	1.23	-49.923	-13
7520	-51.648	1.59	-50.058	-13
9400	-64.754	1.89	-62.864	-13
11280	-66.625	2.07	-64.555	-13
13160	-62.648	2.26	-60.388	-13
15040	-64.568	2.64	-61.928	-13
16920	-63.021	3.5	-59.521	-13
18800	-64.265	3.7	-60.565	-13




Agilent Spectrum Analyzer - Swept SA
01:17:35 PM Aug 28, 2009
Avg Type: Log-Pwr
Avg|Hold:>1/1
Input: RF
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Mkr1 3.760 GHz
-55.802 dBm
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
Start 1.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 5.000 GHz
#Sweep 500 ms (1001 pts)
1 N 1 f 3.760 GHz -55.802 dBm
Frequency
Auto Tune
Center Freq
3.000000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
5.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
01:18:18 PM Aug 28, 2009
Avg Type: Log-Pwr
Avg|Hold:>1/1
Input: RF
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Mkr3 9.400 GHz
-64.754 dBm
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
Start 5.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 10.000 GHz
#Sweep 500 ms (1001 pts)
1 N 1 f 5.640 GHz -51.153 dBm
2 N 1 f 7.520 GHz -51.648 dBm
3 N 1 f 9.400 GHz -64.754 dBm
Frequency
Auto Tune
Center Freq
7.500000000 GHz
Start Freq
5.000000000 GHz
Stop Freq
10.000000000 GHz
CF Step
500.000000 MHz
Auto
Man
Freq Offset
0 Hz

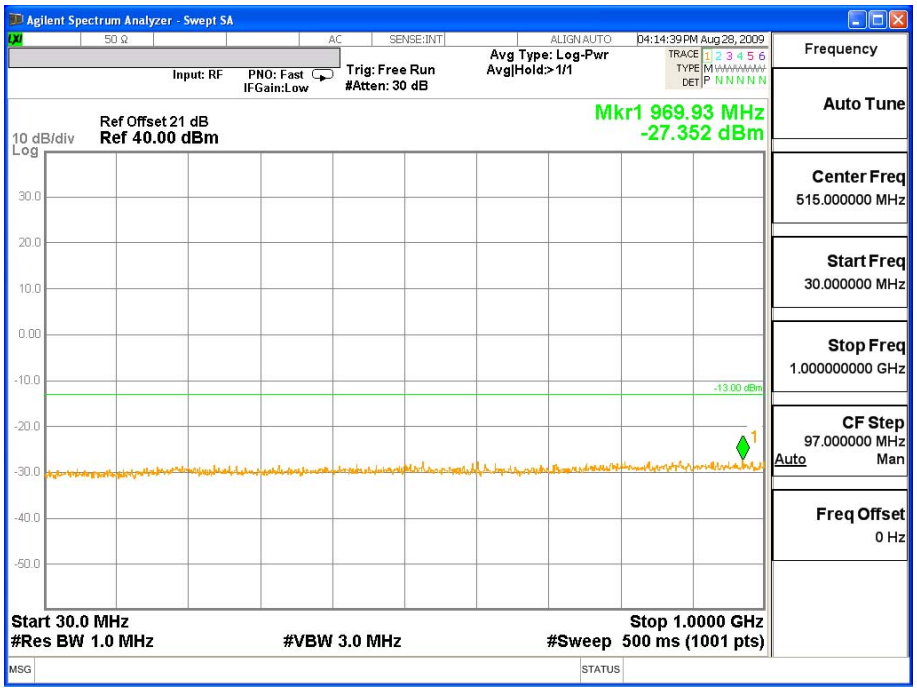

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
01:18:59 PM Aug 28, 2009
Input: RF
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>1/1
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
Mkr1 11.280 GHz
-66.625 dBm
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 10.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 15.000 GHz
#Sweep 500 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 11.280 GHz -66.625 dBm
2 N 1 f 13.160 GHz -62.648 dBm
3
4
5
6
7
8
9
10
11
12
MSG
STATUS
Frequency
Auto Tune
Center Freq
12.500000000 GHz
Start Freq
10.000000000 GHz
Stop Freq
15.000000000 GHz
CF Step
500.000000 MHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
01:19:37 PM Aug 28, 2009
Input: RF
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>1/1
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
Mkr3 18.800 GHz
-64.265 dBm
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
#Sweep 500 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 15.040 GHz -64.568 dBm
2 N 1 f 16.920 GHz -63.021 dBm
3 N 1 f 18.800 GHz -64.265 dBm
4
5
6
7
8
9
10
11
12
MSG
STATUS
Frequency
Auto Tune
Center Freq
17.500000000 GHz
Start Freq
15.000000000 GHz
Stop Freq
20.000000000 GHz
CF Step
500.000000 MHz
Auto
Man
Freq Offset
0 Hz

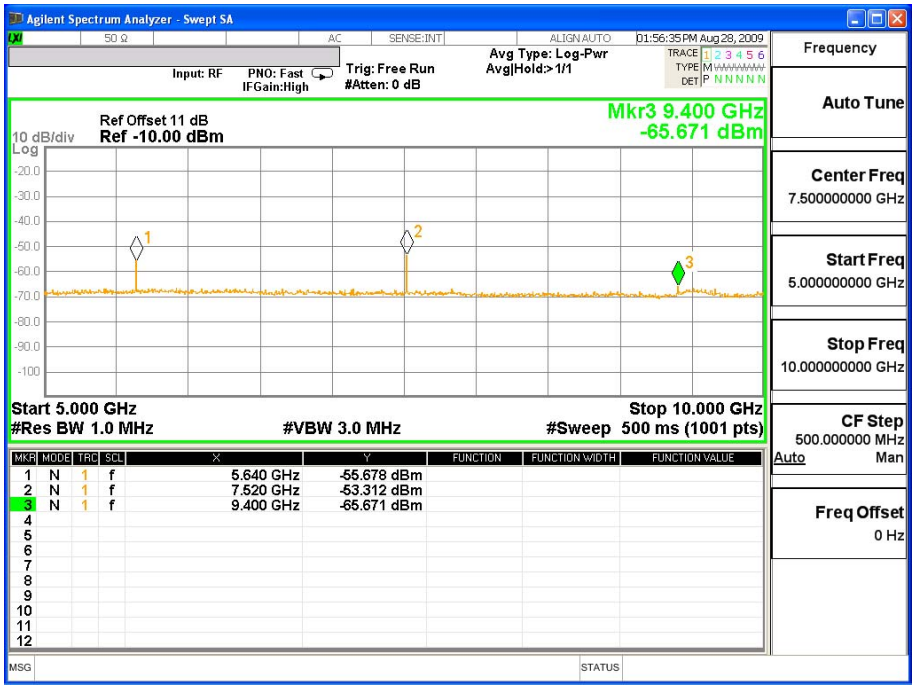
Product	Notebook		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2009/08/28	Test Site	CTR
Test Condition	PCS 1900 EGPRS	Test Range	30MHz~20GHz

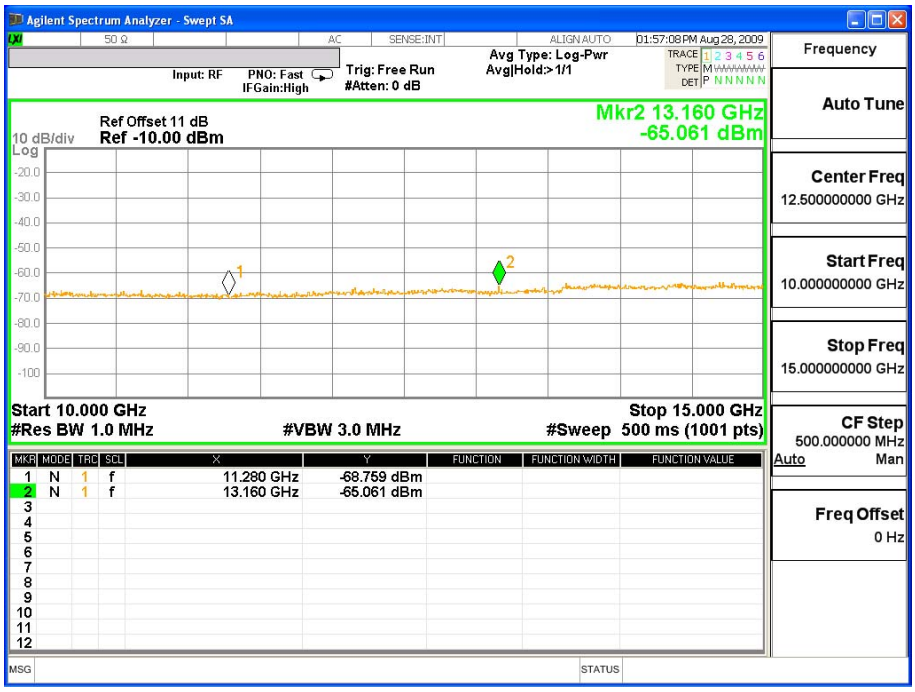
PCS 1900 EGPRS High-Channel 810

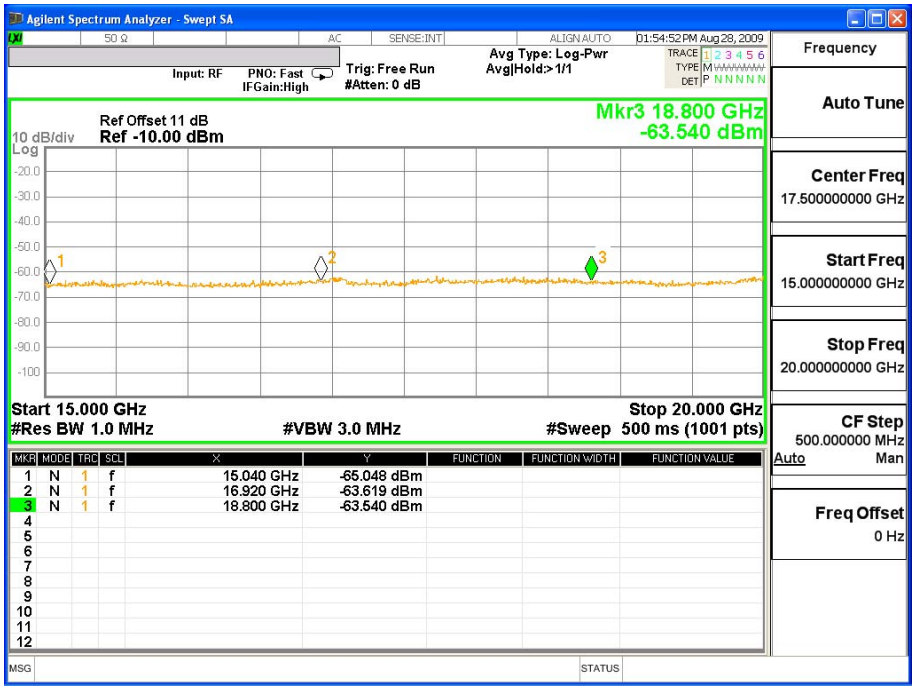
Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3760	-56.474	1.1	-55.374	-13
5640	-55.678	1.23	-54.448	-13
7520	-53.312	1.59	-51.722	-13
9400	-65.671	1.89	-63.781	-13
11280	-68.759	2.07	-66.689	-13
13160	-65.061	2.26	-62.801	-13
15040	-65.048	2.64	-62.408	-13
16920	-63.619	3.5	-60.119	-13
18800	-63.540	3.7	-59.840	-13




Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
01:55:57 PM Aug 28, 2009
Input: RF
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>1/1
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
Mkr1 3.760 GHz
-56.474 dBm
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 1.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 5.000 GHz
#Sweep 500 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 3.760 GHz -56.474 dBm
2
3
4
5
6
7
8
9
10
11
12
MSG
STATUS
Frequency
Auto Tune
Center Freq
3.000000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
5.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
01:56:35 PM Aug 28, 2009
Input: RF
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>1/1
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
Mkr3 9.400 GHz
-65.671 dBm
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 5.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 10.000 GHz
#Sweep 500 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 5.640 GHz -55.678 dBm
2 N 1 f 7.520 GHz -53.312 dBm
3 N 1 f 9.400 GHz -65.671 dBm
4
5
6
7
8
9
10
11
12
MSG
STATUS
Frequency
Auto Tune
Center Freq
7.500000000 GHz
Start Freq
5.000000000 GHz
Stop Freq
10.000000000 GHz
CF Step
500.000000 MHz
Auto
Man
Freq Offset
0 Hz

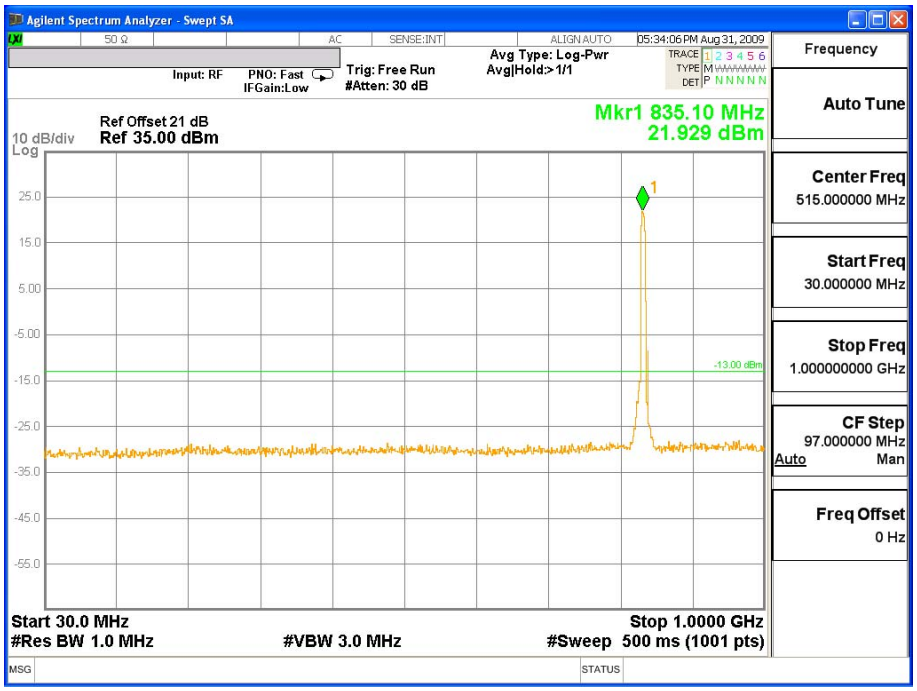

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
01:57:08 PM Aug 28, 2009
Input: RF
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>1/1
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Mkr2 13.160 GHz
-65.061 dBm
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 10.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 15.000 GHz
#Sweep 500 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 11.280 GHz -68.759 dBm
2 N 1 f 13.160 GHz -65.061 dBm
3
4
5
6
7
8
9
10
11
12
MSG
STATUS
Frequency
Auto Tune
Center Freq
12.500000000 GHz
Start Freq
10.000000000 GHz
Stop Freq
15.000000000 GHz
CF Step
500.000000 MHz
Auto
Man
Freq Offset
0 Hz

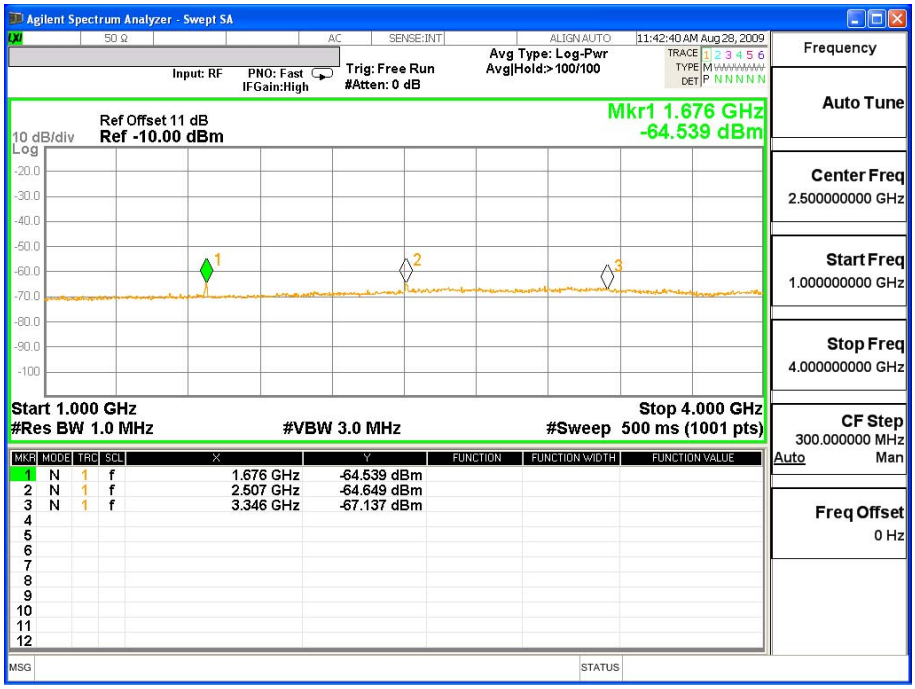

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
01:54:52 PM Aug 28, 2009
Input: RF
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>1/1
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Mkr3 18.800 GHz
-63.540 dBm
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
#Sweep 500 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 15.040 GHz -65.048 dBm
2 N 1 f 16.920 GHz -63.619 dBm
3 N 1 f 18.800 GHz -63.540 dBm
4
5
6
7
8
9
10
11
12
MSG
STATUS
Frequency
Auto Tune
Center Freq
17.500000000 GHz
Start Freq
15.000000000 GHz
Stop Freq
20.000000000 GHz
CF Step
500.000000 MHz
Auto
Man
Freq Offset
0 Hz

Product	Notebook		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2009/08/28	Test Site	CTR
Test Condition	WCDMA BAND V	Test Range	30MHz~10GHz

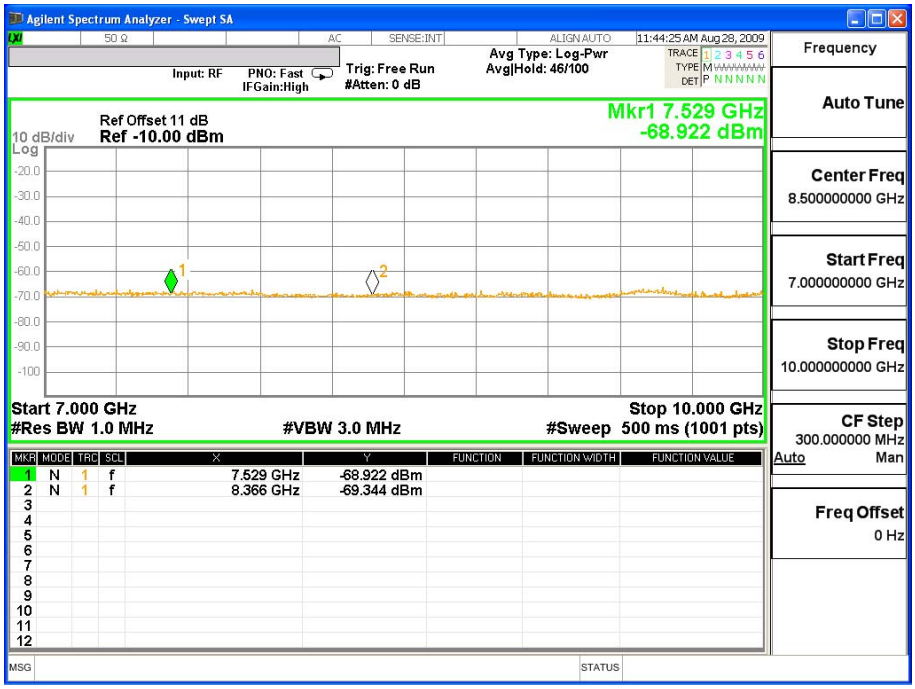
WCDMA BAND V Mid-Channel 4183

Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
1673.2	-64.539	0.58	-63.959	-13
2509.8	-64.649	0.7	-63.949	-13
3346.4	-67.137	1.01	-66.127	-13
4183	-69.835	1.18	-68.655	-13
5019.6	-68.560	1.23	-67.330	-13
5856.2	-67.726	1.45	-66.276	-13
6692.8	-68.459	1.56	-66.899	-13
7529.4	-68.922	1.59	-67.332	-13
8366	-69.344	1.82	-67.524	-13




Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:42:40 AM Aug 28, 2009
Input: RF
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Mkr1 1.676 GHz
-64.539 dBm
Start 1.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 4.000 GHz
#Sweep 500 ms (1001 pts)
1 N 1 f 1.676 GHz -64.539 dBm
2 N 1 f 2.507 GHz -64.649 dBm
3 N 1 f 3.346 GHz -67.137 dBm
Frequency
Auto Tune
Center Freq
2.500000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
4.000000000 GHz
CF Step
300.000000 MHz
Auto
Man
Freq Offset
0 Hz

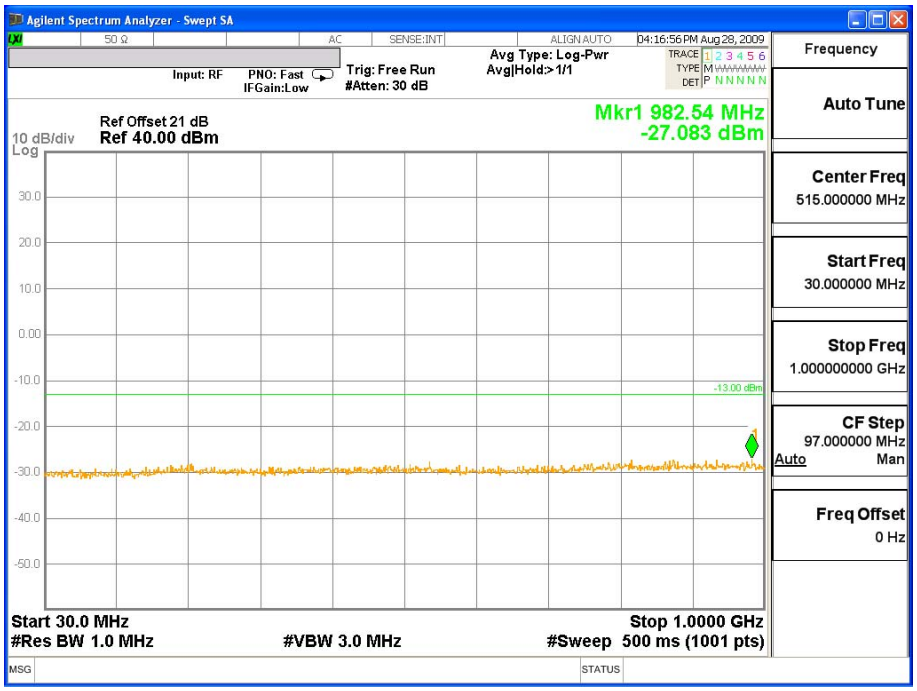

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:43:48 AM Aug 28, 2009
Input: RF
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold: 83/100
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Mkr4 6.693 GHz
-68.459 dBm
Start 4.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 7.000 GHz
#Sweep 500 ms (1001 pts)
1 N 1 f 4.183 GHz -69.835 dBm
2 N 1 f 5.020 GHz -68.560 dBm
3 N 1 f 5.856 GHz -67.726 dBm
4 N 1 f 6.693 GHz -68.459 dBm
Frequency
Auto Tune
Center Freq
5.500000000 GHz
Start Freq
4.000000000 GHz
Stop Freq
7.000000000 GHz
CF Step
300.000000 MHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:44:25 AM Aug 28, 2009
Input: RF
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold: 46/100
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
Mkr1 7.529 GHz
-68.922 dBm
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 7.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 10.000 GHz
#Sweep 500 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 7.529 GHz -68.922 dBm
2 N 1 f 8.366 GHz -69.344 dBm
MSG
STATUS
Frequency
Auto Tune
Center Freq
8.500000000 GHz
Start Freq
7.000000000 GHz
Stop Freq
10.000000000 GHz
CF Step
300.000000 MHz
Auto
Man
Freq Offset
0 Hz

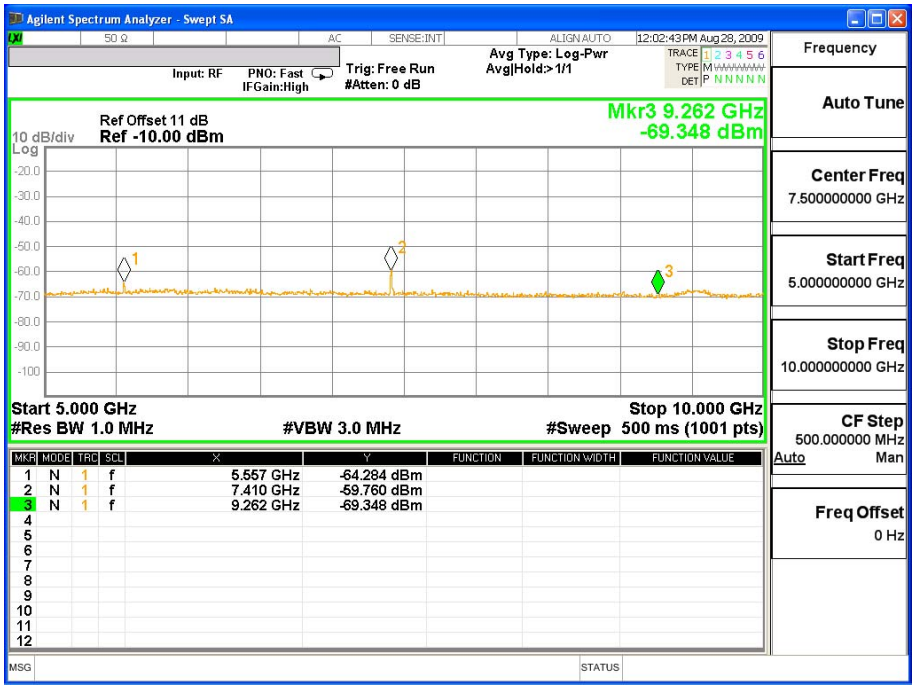
Product	Notebook		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2009/08/28	Test Site	CTR
Test Condition	WCDMA BAND II	Test Range	30MHz~20GHz

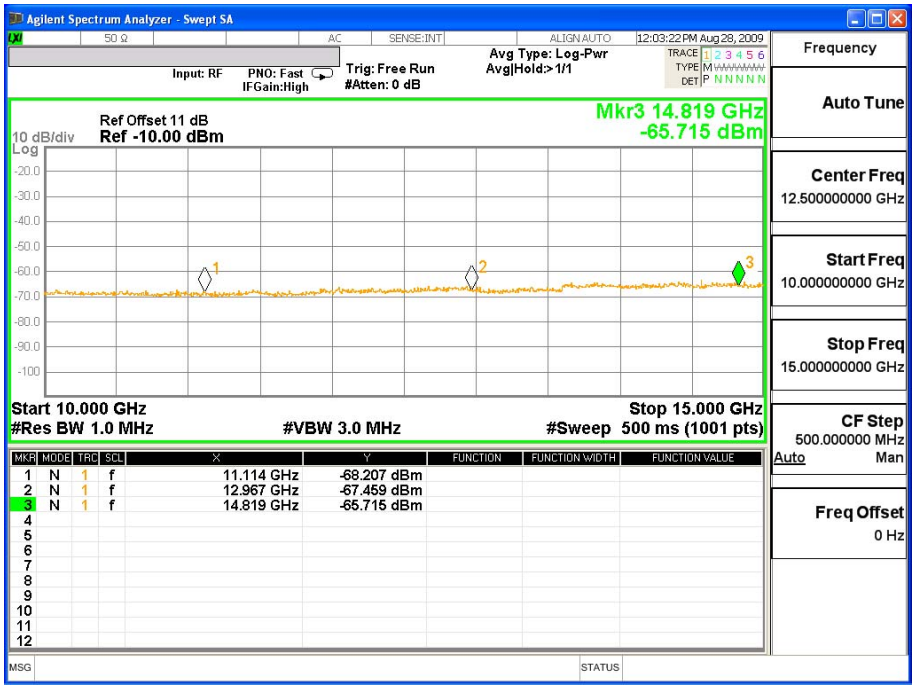
WCDMA BAND II Low-Channel 9262

Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3704.8	-50.090	1.1	-48.990	-13
5557.2	-64.284	1.23	-63.054	-13
7409.6	-59.760	1.59	-58.170	-13
9262	-69.348	1.89	-67.458	-13
11114.4	-68.207	2.07	-66.137	-13
12966.8	-67.459	2.26	-65.199	-13
14819.2	-65.715	2.64	-63.075	-13
16671.6	-64.663	3.5	-61.163	-13
18524	-62.477	3.7	-58.777	-13




Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
12:02:09 PM Aug 28, 2009
Input: RF
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>1/1
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
Mkr1 3.705 GHz
-50.090 dBm
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 1.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 5.000 GHz
#Sweep 500 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 3.705 GHz -50.090 dBm
2
3
4
5
6
7
8
9
10
11
12
MSG
STATUS
Frequency
Auto Tune
Center Freq
3.000000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
5.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
12:02:43 PM Aug 28, 2009
Input: RF
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>1/1
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
Mkr3 9.262 GHz
-69.348 dBm
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 5.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 10.000 GHz
#Sweep 500 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 5.557 GHz -64.284 dBm
2 N 1 f 7.410 GHz -59.760 dBm
3 N 1 f 9.262 GHz -69.348 dBm
4
5
6
7
8
9
10
11
12
MSG
STATUS
Frequency
Auto Tune
Center Freq
7.500000000 GHz
Start Freq
5.000000000 GHz
Stop Freq
10.000000000 GHz
CF Step
500.000000 MHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
12:03:22 PM Aug 28, 2009
Input: RF
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>1/1
Frequency
Auto Tune
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Mkr3 14.819 GHz
-65.715 dBm
Center Freq
12.500000000 GHz
Start Freq
10.000000000 GHz
Stop Freq
15.000000000 GHz
Start 10.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 15.000 GHz
#Sweep 500 ms (1001 pts)
CF Step
500.000000 MHz
Auto
Man
Freq Offset
0 Hz
1 N 1 f 11.114 GHz -68.207 dBm
2 N 1 f 12.967 GHz -67.459 dBm
3 N 1 f 14.819 GHz -65.715 dBm
MSG
STATUS


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
12:03:56 PM Aug 28, 2009
Input: RF
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>1/1
Frequency
Auto Tune
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Mkr2 18.524 GHz
-62.477 dBm
Center Freq
17.500000000 GHz
Start Freq
15.000000000 GHz
Stop Freq
20.000000000 GHz
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
#Sweep 500 ms (1001 pts)
CF Step
500.000000 MHz
Auto
Man
Freq Offset
0 Hz
1 N 1 f 16.672 GHz -64.663 dBm
2 N 1 f 18.524 GHz -62.477 dBm
MSG
STATUS

Product	Notebook		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2009/08/28	Test Site	OATS 1
Test Condition	Channel 128 (GSM 850 GPRS)	Test Range	30MHz~10GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)

Horizontal Emissions

1648.4	-53.531	-56.50	1.630	9.800	-48.33	-13
2472.6	-38.912	-34.59	2.100	10.600	-26.09	-13
3296.8	-58.253	-58.47	2.350	12.300	-48.52	-13
4121	-52.864	-46.83	2.700	12.600	-36.93	-13
4945.2	-59.58	-53.98	2.830	12.700	-44.11	-13
5769.4	-58.994	-51.23	3.200	13.000	-41.43	-13

Vertical Emissions

1663	-53.409	-56.11	1.630	9.800	-47.94	-13
2472.6	-46.021	-42.82	2.100	10.600	-34.32	-13
3296.8	-57.597	-57.79	2.350	12.300	-47.84	-13
4121	-57.902	-54.85	2.700	12.600	-44.95	-13
4945.2	-59.548	-53.93	2.830	12.700	-44.06	-13
5769.4	-58.982	-51.54	3.200	13.000	-41.74	-13

Note:

1. Receiver setting (Peak Detector) : RBW:3MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 6 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

Product	Notebook		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2009/08/28	Test Site	OATS 1
Test Condition	Channel 128 (GSM 850 EGPRS)	Test Range	30MHz~10GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)

Horizontal Emissions

1697.6	-54.235	-57.63	1.630	9.800	-49.46	-13
2546.4	-50.936	-48.52	2.100	10.600	-40.02	-13
3395.2	-58.192	-58.36	2.350	12.300	-48.41	-13
4244	-58.627	-55.53	2.700	12.600	-45.63	-13
5092.8	-59.801	-54.44	2.830	12.700	-44.57	-13
5941.6	-59.905	-53.31	3.200	13.000	-43.51	-13

Vertical Emissions

1697.6	-53.586	-56.40	1.630	9.800	-48.23	-13
2546.4	-45.242	-41.90	2.100	10.600	-33.40	-13
3395.2	-57.809	-58.18	2.350	12.300	-48.23	-13
4244	-58.909	-56.72	2.700	12.600	-46.82	-13
5092.8	-59.528	-53.89	2.830	12.700	-44.02	-13
5941.6	-60.52	-54.15	3.200	13.000	-44.35	-13

Note:

1. Receiver setting (Peak Detector) : RBW:3MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 6 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

Product	Notebook		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2009/08/28	Test Site	OATS 1
Test Condition	Channel 810 (PCS1900 GPRS)	Test Range	30MHz~20GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)

Horizontal Emissions

3819.6	-53.112	-63.086	2.530	12.600	-53.016	-13
5729.4	-57.597	-62.299	3.050	13.100	-52.249	-13
7639.2	-63.221	-62.492	3.650	11.500	-54.642	-13
9549	-60.766	-55.213	3.850	12.000	-47.063	-13
11458.8	-61.598	-57.557	4.580	12.000	-50.137	-13

Vertical Emissions

3819.6	-55.366	-65.121	2.530	12.600	-55.051	-13
5729.4	-52.417	-56.186	3.050	13.100	-46.136	-13
7639.2	-61.571	-61.024	3.650	11.500	-53.174	-13
9549	-61.100	-54.941	3.850	12.000	-46.791	-13
11458.8	-61.476	-57.440	4.580	12.000	-50.020	-13

Note:

1. Receiver setting (Peak Detector) : RBW:3MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 12GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

Product	Notebook		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2009/08/28	Test Site	OATS 1
Test Condition	Channel 810 (PCS1900 EGPRS)	Test Range	30MHz~20GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)
Horizontal Emissions						
3819.6	-54.483	-64.457	2.530	12.600	-54.387	-13
5729.4	-56.730	-61.432	3.050	13.100	-51.382	-13
7639.2	-60.678	-59.949	3.650	11.500	-52.099	-13
9549	-61.302	-55.749	3.850	12.000	-47.599	-13
11458.8	-62.010	-57.969	4.580	12.000	-50.549	-13
Vertical Emissions						
3819.6	-56.069	-65.824	2.530	12.600	-55.754	-13
5729.4	-56.266	-60.035	3.050	13.100	-49.985	-13
7639.2	-60.950	-60.403	3.650	11.500	-52.553	-13
9549	-61.149	-54.990	3.850	12.000	-46.840	-13
11458.8	-61.186	-57.150	4.580	12.000	-49.730	-13

Note:

1. Receiver setting (Peak Detector) : RBW:3MHz; VBW:3MHz
    1. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
    2. Spurious emissions past 12GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

Product	Notebook		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2009/08/28	Test Site	OATS 1
Test Condition	Channel 4132 (WCDMA BAND V)	Test Range	30MHz~10GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)

Horizontal Emissions

1673.2	-56.888	-62.32	1.630	9.800	-54.15	-13
2509.8	-51.261	-48.94	2.100	10.600	-40.44	-13
3346.4	-58.33	-58.60	2.350	12.300	-48.65	-13
4183	-59.656	-57.75	2.700	12.600	-47.85	-13
5019.6	-60.597	-56.00	2.830	12.700	-46.13	-13
5856.2	-59.284	-51.89	3.200	13.000	-42.09	-13

Vertical Emissions

1673.2	-55.166	-58.90	1.630	9.800	-50.73	-13
2509.8	-53.123	-51.95	2.100	10.600	-43.45	-13
3346.4	-58.127	-58.76	2.350	12.300	-48.81	-13
4183	-58.583	-56.10	2.700	12.600	-46.20	-13
5019.6	-59.996	-54.84	2.830	12.700	-44.97	-13
5856.2	-59.518	-52.45	3.200	13.000	-42.65	-13

Note:

1. Receiver setting (Peak Detector) : RBW:3MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 6 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

Product	Notebook		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2009/08/28	Test Site	OATS 1
Test Condition	Channel 9262 (WCDMA BAND II)	Test Range	30MHz~20GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)

Horizontal Emissions

3815.2	-39.851	-49.872	2.530	12.600	-39.802	-13
5722.8	-59.691	-64.427	3.050	13.100	-54.377	-13
7630.4	-61.003	-60.319	3.650	11.500	-52.469	-13
9538	-62.486	-56.800	3.850	12.000	-48.650	-13
11445.6	-61.368	-57.438	4.580	12.000	-50.018	-13

Vertical Emissions

3815.2	-40.045	-49.850	2.530	12.600	-39.780	-13
5722.8	-59.765	-63.534	3.050	13.100	-53.484	-13
7630.4	-60.291	-59.744	3.650	11.500	-51.894	-13
9538	-61.367	-55.208	3.850	12.000	-47.058	-13
11445.6	-61.472	-57.532	4.580	12.000	-50.112	-13

Note:

1. Receiver setting (Peak Detector) : RBW:3MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 12GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

6. Frequency Stability Under Temperature & Voltage Variations

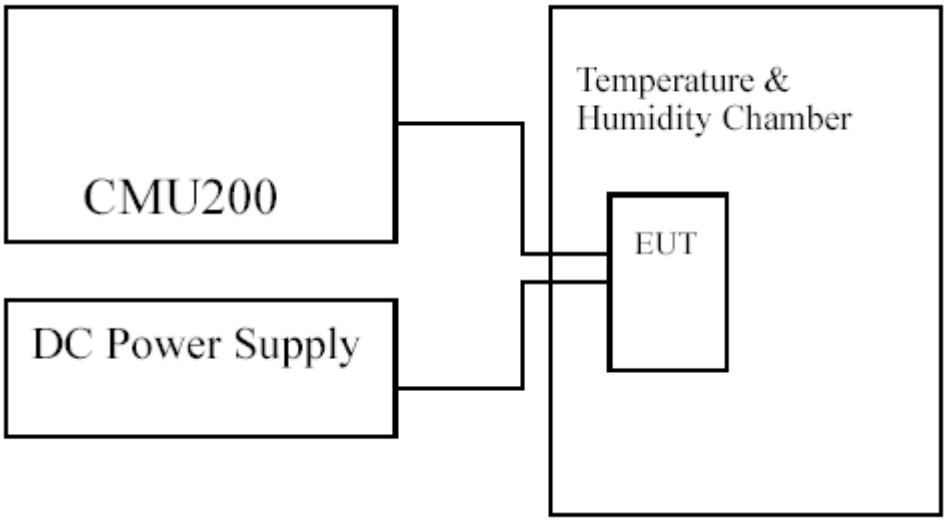
6.1. Test Equipment

The following test equipments are used during the frequency stability test:

Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Universal Radio Communication Tester	R & S	CMU200 / 104846	May., 2009
Standard Temperature & Humidity Chamber	WIT	TH-1S-B / 108210	Aug., 2009
DC Power Supply	Topward	6303D / 670302	N/A

Note: All equipments upon which need to be calibrated are with calibration period of 1 year

6.2. Test Setup



6.3. Limits

Limit	**<±2.5ppm**

6.4. Test Procedure

The frequency stability of transmitter is measured by:

(a) Temperature: The temperature is varied from -30°C to 50°C in 10°C increament using a standard temperature & Humidity chamber.

(b) Primary Supply Voltage: The primary supply voltage is varied 85% to 115% of the nominal value for non hand-carried equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating endpoint which shall be specified by the manufacturer.

The EUT was connected via the base station simulator. Universal Radio Communication Tester, (CMU200), was used to measure The Frequency Error. The maximum result of measurements was recorded.

6.5. Test Specification

According to Part 2.1055,22.355,24.235

6.6. Test Result of Frequency Stability Under Temperature Variations

Product	Notebook		
Test Mode	Frequency Stability Under Temperature Variations & Voltage Variations		
Date of Test	2009/09/03	Test Site	CTR
Test Condition	GSM 850 GPRS / Channel 189	Test Range	-30℃~+50℃

Frequency Stability Under Temperature Variations

Temperature Interval(℃)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
-30	0.836	37	±2.09
-20	0.836	-33	±2.09
-10	0.836	-37	±2.09
0	0.836	-36	±2.09
10	0.836	-34	±2.09
20	0.836	-21	±2.09
30	0.836	-43	±2.09
40	0.836	-45	±2.09
50	0.836	-41	±2.09

Voltage Variations

AC Voltage (V)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
102	0.836	-17	±2.09
120	0.836	-21	±2.09
138	0.836	-22	±2.09

Product	Notebook		
Test Mode	Frequency Stability Under Temperature Variations & Voltage Variations		
Date of Test	2009/09/03	Test Site	CTR
Test Condition	GSM 850 EGPRS / Channel 189	Test Range	-30℃~+50℃

Frequency Stability Under Temperature Variations

Temperature Interval(℃)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
-30	0.836	32	±2.09
-20	0.836	-37	±2.09
-10	0.836	-35	±2.09
0	0.836	-31	±2.09
10	0.836	-33	±2.09
20	0.836	-19	±2.09
30	0.836	-51	±2.09
40	0.836	-40	±2.09
50	0.836	-24	±2.09

Voltage Variations

AC Voltage (V)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
102	0.836	-20	±2.09
120	0.836	-19	±2.09
138	0.836	-23	±2.09

.Product	Notebook		
Test Mode	Frequency Stability Under Temperature Variations & Voltage Variations		
Date of Test	2009/09/03	Test Site	CTR
Test Condition	PCS 1900 GPRS / Channel 661	Test Range	-30℃~+50℃

Frequency Stability Under Temperature Variations

Temperature Interval(℃)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
-30	1.88	47	±4.7
-20	1.88	-54	±4.7
-10	1.88	-61	±4.7
0	1.88	-58	±4.7
10	1.88	-90	±4.7
20	1.88	-62	±4.7
30	1.88	-58	±4.7
40	1.88	-46	±4.7
50	1.88	-51	±4.7

Voltage Variations

AC Voltage (V)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
102	1.88	-69	±4.7
120	1.88	-62	±4.7
138	1.88	56	±4.7

.Product	Notebook		
Test Mode	Frequency Stability Under Temperature Variations & Voltage Variations		
Date of Test	2009/09/03	Test Site	CTR
Test Condition	PCS 1900 EGPRS / Channel 661	Test Range	-30℃~+50℃

Frequency Stability Under Temperature Variations

Temperature Interval(℃)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
-30	1.88	31	±4.7
-20	1.88	-56	±4.7
-10	1.88	-59	±4.7
0	1.88	-53	±4.7
10	1.88	-43	±4.7
20	1.88	-47	±4.7
30	1.88	-57	±4.7
40	1.88	-44	±4.7
50	1.88	-41	±4.7

Voltage Variations

AC Voltage (V)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
102	1.88	-53	±4.7
120	1.88	-47	±4.7
138	1.88	-53	±4.7

Product	Notebook		
Test Mode	Frequency Stability Under Temperature Variations & Voltage Variations		
Date of Test	2009/09/03	Test Site	CTR
Test Condition	WCDMA BAND V / Channel 4183	Test Range	-30℃~+50℃

Frequency Stability Under Temperature Variations

Temperature Interval(℃)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
-30	0.836	-13	±2.09
-20	0.836	-24	±2.09
-10	0.836	-17	±2.09
0	0.836	-19	±2.09
10	0.836	-15	±2.09
20	0.836	-24	±2.09
30	0.836	-29	±2.09
40	0.836	16	±2.09
50	0.836	-40	±2.09

Voltage Variations

AC Voltage (V)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
102	0.836	-21	±2.09
120	0.836	-24	±2.09
138	0.836	20	±2.09

.Product	Notebook		
Test Mode	Frequency Stability Under Temperature Variations & Voltage Variations		
Date of Test	2009/09/03	Test Site	CTR
Test Condition	WCDMA BAND II / Channel 9400	Test Range	-30℃~+50℃

Frequency Stability Under Temperature Variations

Temperature Interval(℃)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
-30	1.88	31	±4.7
-20	1.88	-30	±4.7
-10	1.88	-49	±4.7
0	1.88	-42	±4.7
10	1.88	-38	±4.7
20	1.88	-48	±4.7
30	1.88	-36	±4.7
40	1.88	-28	±4.7
50	1.88	-53	±4.7

Voltage Variations

AC Voltage (V)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
102	1.88	-36	±4.7
120	1.88	-48	±4.7
138	1.88	37	±4.7

7. EMI Reduction Method During Compliance Testing

No modification was made during testing.

Attachment 1: EUT Test Photographs

Attachment 2: EUT Detailed Photographs