



## Test Report

Product Name : Tablet PC  
Model No : T10L  
FCC ID : FKGMPCT10L1

Applicant : Twinhead International Corp  
Address : 10F,550 Rueiguand Rd Neihu,Taipei,Taiwan 114,ROC

Date of Receipt : 2010/03/30  
Issued Date : 2010/06/14  
Report No. : 104046R-HPUSP07V01  
Report Version : V1.0

The test results relate only to the samples tested.  
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This report must not be used to claim product endorsement by NVLAP any agency of the U.S. Government

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# Test Report Certification

Issued Date : 2010/06/14

Report No.: 104046R-HPUSP07V01



Accredited by NIST (NVLAP)

NVLAP Lab Code: 200533-0

Product Name : Tablet PC  
Applicant : Twinhead International Corp  
Address : 10F,550 Rueiguand Rd Neihu,Taipei,Taiwan 114,ROC  
Manufacturer : Twinhead International Corp  
Trade Name : Twinhead  
Model No. : T10L  
EUT Rated Voltage : AC 120V/60Hz  
EUT Test Voltage : AC 120V/60Hz  
Measurement Standard : FCC CFR Title 47 Part 2 22 24  
Measurement Reference : TIA/EIA 603-C  
Test Result : Complied

Test results relate only to the samples tested.

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## 1. GENERAL INFORMATION

### 1.1. EUT Description

Product Name	Tablet PC
Model No.	T10L
Trade Name	Twinhead
3G Modular	MFR: Sireera ; M/N : GOBI2000
Antenna Type	PIFA
TX Frequency	824MHz~849MHz(GSM 850/WCDMA Band V/CDMA 2000) 1850MHz ~ 1910MHz(PCS 1900/WCDMA Band II/CDMA 2000)
Rx Frequency	869MHz~894MHz(GSM 850/WCDMA Band V/CDMA 2000) 1930MHz ~ 1990MHz(PCS 1900/WCDMA Band II/CDMA 2000)
Function	GPRS/EGPRS/WCDMA/HSDPA/HSUPA/CDMA
Hardware version	RC
Software version	RC.05

Component	
Power Adapter	MFR: FSP, M/N: FSP065-RAB AC Input: 100-240Vac / 50-60Hz, 1.5A DC Output: 19V $\overline{=}$ 3.42A Cable Out: Non-Shielded 1.8m, 1 ferrite core bonded Cable In: Non-Shielded 1.8m

**1.2. Antenna List**

No.	MFR	Antenna Type	Part No.	Peak Gain
1	WGT	PIFA	TWT10GPPI01+G	1.64 dBi

**1.3. Operational Description**

The information contained within this report is intended to show verification of compliance of the 850/1900MHz Notebook to the requirements of 47CFR2, 22 and 24.

The EUT provide all functions described as above. The EUT is tested with maximum rated TX power via the Base Station simulator.

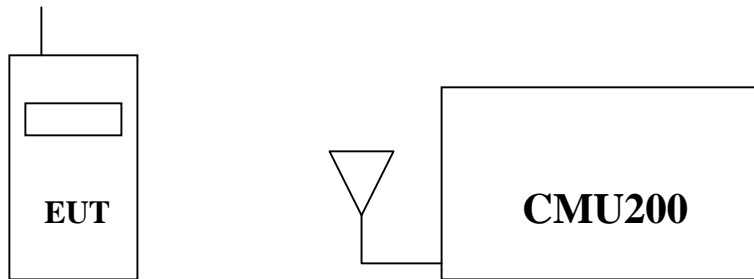
The device have co-located with WLAN card, but non-simultaneously transmit.

Quietek has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

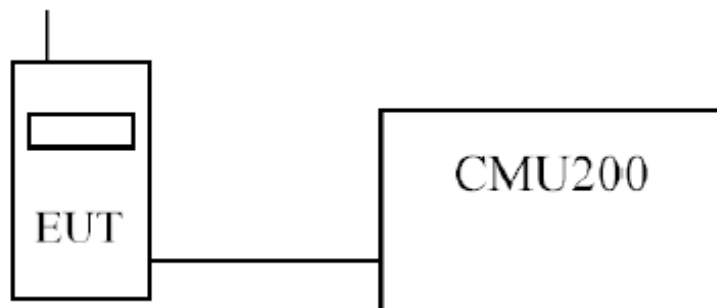
Test Mode	GSM 850 GPRS
	GSM 850 EGPRS
	PCS 1900 GPRS
	PCS 1900 EGPRS
	WCDMA BAND V
	WCDMA BAND V HSDPA
	WCDMA BAND V HSUPA
	WCDMA BAND II
	WCDMA BAND II HSDPA
	WCDMA BAND II HSUPA
	CDMA2000 1X BC0
	CDMA2000 1X BC1
	CDMA2000 1X EV-DO REL 0 BC
	CDMA2000 1X EV-DO REL 0 BC1
	CDMA2000 1X EV-DO REL A BC0
	CDMA2000 1X EV-DO REL A BC1

## 1.4. Configuration of tested System

(a) Configuration of Radiated measurement



(b) Configuration of Conducted measurement



## 1.5. EUT Setup Procedures

- (1) Setup the EUT and simulators as shown on 1.3
- (2) Turn on the power of all equipments.
- (3) The EUT was set to communicate with CMU200.
- (4) Repeat the above procedure (3).

**1.6. Test Facility**

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	23
Humidity (%RH)	25-75	52
Barometric pressure (mbar)	860-1060	982

Site Description: File on  
 Federal Communications Commission  
 FCC Engineering Laboratory  
 7435 Oakland Mills Road  
 Columbia, MD 21046  
 FCC Registration Number :92195



July 03, 2001 Accreditation on NVLAP  
 NVLAP Lab Code: 200533-0



Site Name: Quietek Corporation

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FCC Accreditation Number: TW1014



## 1.7. Type of Emission

GSM/GPRS/EGPRS: 250KG7W  
WCDMA/HSDPA/HSUPA: 4M20F9W  
CDMA 2000: 1M28F9W

## 1.8. Applied DC Voltages and Currents

According to FCC 2.1033 (c) (8).

The voltages and currents in the final RF stage is:

Voltage	3.3V
Current	673mA according to FCC 2.1033 (c) (8)



## 2. Peak Power Output

### 2.1. Test Equipment

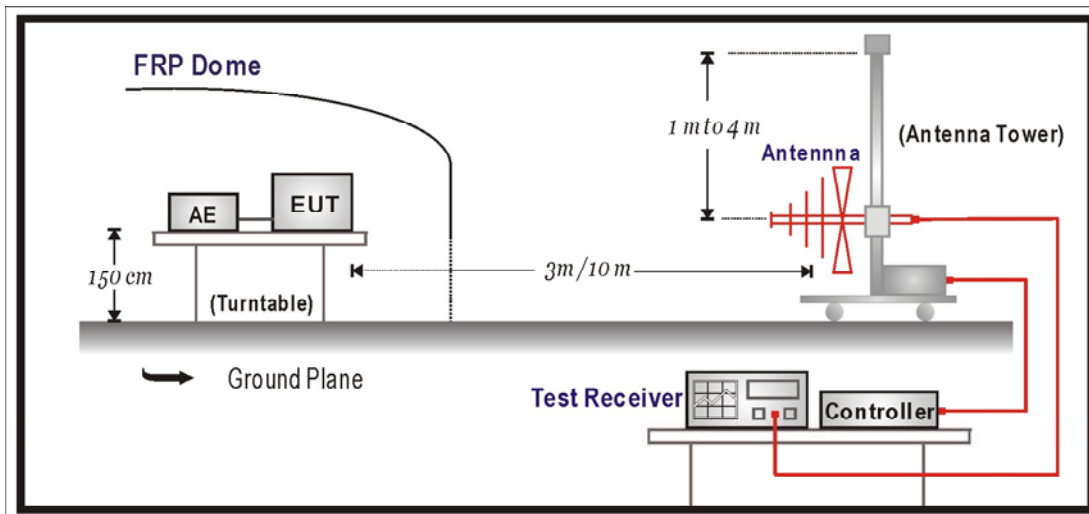
The following test equipments are used during the radiated emission test:

Test Site	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒OATS 3	Test Receiver	R & S	ESCS 30 / 100122	Feb., 2010
	Universal Radio Communication Tester	R & S	CMU200 / 104846	May., 2010
	Spectrum Analyzer	Agilent	N9020A/ MY48010570	Apr., 2010
	Pre-Amplifier	QTK	QTK-AMP-03 / 0003	N/A
	Bilog Antenna	SCHAFFNER	CBL6112B / 2697	May., 2010
	Horn Antenna	ETS	3115 / 0005-6160	Jul., 2009
	Pre-Amplifier	QTK	QTK-AMP-01 / 0001	Jul., 2009
☒CTR	Universal Radio Communication Tester	R & S	CMU200 / 104846	May., 2010

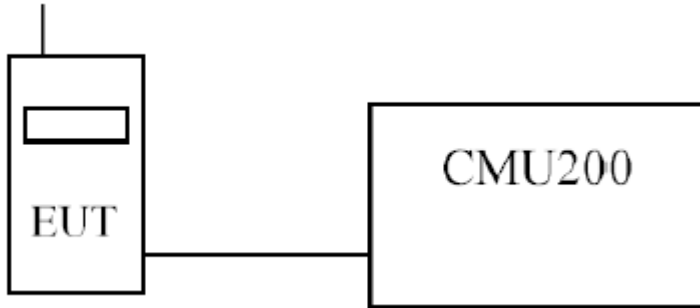
Note: 1. All equipments that need to be calibrated are with calibration period of 1 year.

### 2.2. Test Setup

#### Radiated Power Measurement



**Conducted Power Measurement**



**2.3. Limits**

<b>Cellular Band 850</b>	<b>&lt;7W</b>
<b>PCS Band 1900</b>	<b>&lt;2W or +33dBm</b>

**2.4. Test Procedure**

**➤RF Out Power (Radiated)**

The Spectrum Analyzer was tuned to the test frequency. The device was put into Transmit mode then rotated through 360 degrees until the highest power level was observed in both horizontal and vertical polarization. The device was then replaced with a substitution antenna, which input signal was adjusted until the received level matched that of the previously detected emission.

The EUT is tested with maximum rated TX power via the Base Station simulator.

**➤RF Out Power (Conducted)**

The EUT is tested with maximum rated TX power via the Base Station simulator, and the output power was measured at the antenna terminals of the EUT.

**2.5. Test Specification**

According to Part 2.1046, 22.913,24.232.

## 2.6. Test Result of Peak Power Output

Product	Tablet PC		
Test Mode	RF Output Power (Conducted)		
Date of Test	2010/06/01	Test Site	CTR

GPRS 850 (1Slot)				
Frequency (MHz)	Output Power (dBm)	Path Loss (dB)	Result (dBm)	Result (W)
824.2	31.85	0.4	32.25	1.68
836.4	31.95	0.4	<b>32.35</b>	<b>1.72</b>
848.8	31.85	0.4	32.25	1.68
EGPRS 850 (1Slot)				
Frequency (MHz)	Output Power (dBm)	Path Loss (dB)	Result (dBm)	Result (W)
824.2	27.06	0.4	27.46	0.56
836.4	27.13	0.4	<b>27.53</b>	<b>0.57</b>
848.8	27.01	0.4	27.41	0.55

GPRS 1900 (1Slot)				
Frequency (MHz)	Output Power (dBm)	Path Loss (dB)	Result (dBm)	Result (W)
1850.2	28.65	0.6	29.25	0.84
1880	28.70	0.6	<b>29.30</b>	<b>0.85</b>
1909.8	28.65	0.6	29.25	0.84
EGPRS 1900 (1Slot)				
Frequency (MHz)	Output Power (dBm)	Path Loss (dB)	Result (dBm)	Result (W)
1850.2	25.04	0.6	25.64	0.37
1880	25.16	0.6	<b>25.76</b>	<b>0.38</b>
1909.8	25.13	0.6	25.73	0.37

WCDMA V				
Frequency (MHz)	Output Power (dBm)	Path Loss (dB)	Result (dBm)	Result (W)
826.4	24.31	0.4	24.71	0.30
836.6	24.47	0.4	<b>24.87</b>	<b>0.31</b>
846.6	23.92	0.4	24.32	0.27

WCDMA V HSDPA								
Frequency (MHz)	Set 1		Set 2		Set 3		Set 4	
	Power (dBm)	Power (Watts)	Power (dBm)	Power (Watts)	Power (dBm)	Power (Watts)	Power (dBm)	Power (Watts)
826.4	24.43	0.28	23.78	0.24	23.62	0.23	23.61	0.23
836.6	<b>24.69</b>	<b>0.29</b>	24.18	0.26	23.81	0.24	24.11	0.26
846.6	24.46	0.28	24.20	0.26	24.08	0.26	24.04	0.25
$\beta_c$	2		12		15		15	
$\beta_d$	15		15		8		4	
$\Delta_{ACK}, \Delta_{NACK} \Delta_{CQI}$	8		8		8		8	

Cable loss: 0.4dB for 850MHz ; 0.6dB for 1900MHz

All HSDPA testing was done in Set1 configuration.

WCDMA V HSUPA										
Frequency (MHz)	Set 1		Set 2		Set 3		Set 4		Set 5	
	Power (dBm)	Power (Watts)	Power (dBm)	Power (Watts)	Power (dBm)	Power (Watts)	Power (dBm)	Power (Watts)	Power (dBm)	Power (Watts)
826.4	23.79	0.24	22.70	0.19	22.72	0.19	22.63	0.18	23.28	0.21
836.6	<b>24.06</b>	<b>0.25</b>	22.40	0.17	22.62	0.18	22.96	0.20	23.45	0.22
846.6	24.02	0.25	22.71	0.19	22.88	0.19	23.06	0.20	23.32	0.21
$\beta_c$	11		6		15		2		15	
$\beta_d$	15		15		9		15		15	
$\Delta_{ACK}, \Delta_{NACK} \Delta_{CQI}$	8		8		8		8		8	
AGV	20		12		15		17		21	

Cable loss: 0.4dB for 850MHz ; 0.6dB for 1900MHz

Note:All HSDPA testing was done in Set1 configuration.

WCDMA II				
Frequency (MHz)	Output Power (dBm)	Path Loss (dB)	Result (dBm)	Result (W)
1852.4	24.11	0.6	24.71	0.30
1880	24.29	0.6	<b>24.89</b>	<b>0.31</b>
1907.6	23.91	0.6	24.51	0.28

WCDMA II HSDPA								
Frequency (MHz)	Set 1		Set 2		Set 3		Set 4	
	Power (dBm)	Power (Watts)	Power (dBm)	Power (Watts)	Power (dBm)	Power (Watts)	Power (dBm)	Power (Watts)
1852.4	24.68	0.29	24.01	0.25	23.88	0.24	23.85	0.24
1880	<b>24.84</b>	<b>0.30</b>	24.11	0.26	24.28	0.27	23.93	0.25
1907.6	24.13	0.26	24.07	0.26	24.01	0.25	23.96	0.25
$\beta_c$	2		12		15		15	
$\beta_d$	15		15		8		4	
$\Delta_{ACK}, \Delta_{NACK} \Delta_{CQI}$	8		8		8		8	

Cable loss: 0.4dB for 850MHz ; 0.6dB for 1900MHz

All HSDPA testing was done in Set1 configuration.

WCDMA II HSUPA										
Frequency (MHz)	Set 1		Set 2		Set 3		Set 4		Set 5	
	Power (dBm)	Power (Watts)	Power (dBm)	Power (Watts)	Power (dBm)	Power (Watts)	Power (dBm)	Power (Watts)	Power (dBm)	Power (Watts)
1852.4	23.71	0.23	22.52	0.18	24.02	0.25	23.29	0.21	23.16	0.21
1880	<b>24.37</b>	<b>0.27</b>	23.03	0.20	23.45	0.22	23.21	0.21	23.64	0.23
1907.6	23.60	0.23	22.09	0.16	23.55	0.23	22.42	0.17	23.59	0.23
$\beta_c$	11		6		15		2		15	
$\beta_d$	15		15		9		15		15	
$\Delta_{ACK}, \Delta_{NACK} \Delta_{CQI}$	8		8		8		8		8	
AGV	20		12		15		17		21	

Cable loss: 0.4dB for 850MHz ; 0.6dB for 1900MHz

Note: All HSUPA testing was done in Set1 configuration.

MODE	Test cast			BC0 (850MHz)					
				Conducted power (dBm/W)					
	Num	FWD RC/TAP	REV RC/TAP	1013		384		777	
dBm				Walt	dBm	Walt	dBm	Walt	
1x	1	RC1	RC1(SO2)	24.64	0.29	24.60	0.29	24.53	0.28
	2	RC1	RC1(SO55)	24.73	0.30	24.49	0.28	24.51	0.28
	3	RC2	RC2(SO9)	24.54	0.28	24.53	0.28	24.48	0.28
	4	RC2	RC2(SO55)	24.51	0.28	24.66	0.29	24.45	0.28
	5	RC3	RC3(SO55)	24.82	0.30	<b>24.86</b>	<b>0.31</b>	24.85	0.31
	6	RC3	RC3(SO32)	24.81	0.30	24.80	0.30	24.86	0.31
1x EV-DO Rel 0	7a	FTAP rate =307kbps (2 slot)	RTAP rate = 9.6kbps	24.07	0.26	24.14	0.26	24.00	0.25
	7b		RTAP rate = 19.2kbps	24.06	0.25	24.07	0.26	23.98	0.25
	7c		RTAP rate = 38.4kbps	<b>24.21</b>	<b>0.26</b>	24.18	0.26	24.04	0.25
	7d		RTAP rate = 76.8kbps	24.14	0.26	24.17	0.26	24.03	0.25
	7e		RTAP rate = 153.6kbps	24.09	0.26	24.12	0.26	23.99	0.25
1x EV-DO Rev A	8a	FETAP rate=307kbps (2slot)	RETAP-payload size = 128	24.66	0.29	24.61	0.29	24.50	0.28
	8b		RETAP-payload size =256	<b>24.70</b>	<b>0.30</b>	24.57	0.29	24.54	0.28
	8c		RETAP-payload size =512	24.56	0.29	24.48	0.28	24.40	0.28
	8d		RETAP-payload size =768	24.47	0.28	24.41	0.28	24.32	0.27
	8e		RETAP-payload size =1024	24.46	0.28	24.39	0.27	24.33	0.27
	8f		RETAP-payload size =1536	24.39	0.27	24.44	0.28	24.35	0.27
	8g		RETAP-payload size =2048	24.49	0.28	24.46	0.28	24.46	0.28
	8h		RETAP-payload size =3072	24.50	0.28	24.43	0.28	24.39	0.27
	8i		RETAP-payload size =4096	24.56	0.29	24.40	0.28	24.25	0.27
	8j		RETAP-payload size =6144	24.29	0.27	24.24	0.27	24.16	0.26
	8k		RETAP-payload size =8192	24.42	0.28	24.44	0.28	24.14	0.26
8l	RETAP-payload size =12288	24.27	0.27	24.21	0.26	24.15	0.26		

MODE	Test cast			BC1 (1900MHz)					
				Conducted power (dBm/W)					
	Num	FWD RC/TAP	REV RC/TAP	25		600		1175	
dBm				Walt	dBm	Walt	dBm	Walt	
1x	1	RC1	RC1(SO2)	<b>24.82</b>	<b>0.30</b>	24.78	0.30	24.62	0.29
	2	RC1	RC1(SO55)	24.57	0.29	24.76	0.30	24.58	0.29
	3	RC2	RC2(SO9)	24.54	0.28	24.64	0.29	24.39	0.27
	4	RC2	RC2(SO55)	24.51	0.28	24.63	0.29	24.57	0.29
	5	RC3	RC3(SO55)	24.63	0.29	24.76	0.30	24.15	0.26
	6	RC3	RC3(SO32)	24.78	0.30	24.76	0.30	24.17	0.26
1x EV-DO Rel 0	7a	FTAP rate =307kbps (2 slot)	RTAP rate = 9.6kbps	24.22	0.26	<b>24.31</b>	<b>0.27</b>	23.76	0.24
	7b		RTAP rate = 19.2kbps	24.15	0.26	24.23	0.26	23.62	0.23
	7c		RTAP rate = 38.4kbps	24.04	0.25	24.23	0.26	23.61	0.23
	7d		RTAP rate = 76.8kbps	24.04	0.25	24.25	0.27	23.62	0.23
	7e		RTAP rate = 153.6kbps	24.02	0.25	24.26	0.27	23.61	0.23
1x EV-DO Rev A	8a	FETAP rate=307kbps (2slot)	RETAP-payload size = 128	24.50	0.28	<b>24.65</b>	<b>0.29</b>	24.11	0.26
	8b		RETAP-payload size =256	24.44	0.28	24.59	0.29	24.03	0.25
	8c		RETAP-payload size =512	24.46	0.28	24.55	0.29	23.87	0.24
	8d		RETAP-payload size =768	24.45	0.28	24.54	0.28	24.00	0.25
	8e		RETAP-payload size =1024	24.49	0.28	24.57	0.29	24.15	0.26
	8f		RETAP-payload size =1536	24.52	0.28	24.56	0.29	24.02	0.25
	8g		RETAP-payload size =2048	24.45	0.28	24.57	0.29	23.81	0.24
	8h		RETAP-payload size =3072	24.32	0.27	24.53	0.28	23.92	0.25
	8i		RETAP-payload size =4096	24.40	0.28	24.49	0.28	23.81	0.24
	8j		RETAP-payload size =6144	24.46	0.28	24.36	0.27	23.80	0.24
	8k		RETAP-payload size =8192	24.29	0.27	24.40	0.28	23.84	0.24
8l	RETAP-payload size =12288	24.34	0.27	24.42	0.28	23.73	0.24		

Product	Tablet PC		
Test Mode	RF Output Power (Radiated)		
Date of Test	2010/06/01	Test Site	OATS 3
Test Condition	GSM 850 GPRS		

### Maximum Power-GSM 850 GPRS

Frequency (MHz)	Reading Level (dBm)	Substitution Level (dBm)	Substitution Antenna Gain (dBd)	Cable Loss (dB)	Result ERP (dBm)	Result ERP (W)
824.2	20.571	23.50	4.45	0.51	27.44	0.55
836.4	20.874	23.81	4.45	0.51	27.75	0.60
848.8	21.019	23.96	4.45	0.51	<b>27.90</b>	<b>0.62</b>

Note:

1. The EUT meets the requirements of FCC CFR 47: Part 22, Section 22.913(a) for Effective Radiated Power.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz
3. Result ERP = Substitution Level + Substitution Antenna Gain - Cable Loss



Product	Tablet PC		
Test Mode	RF Output Power (Radiated)		
Date of Test	2010/06/01	Test Site	OATS 3
Test Condition	GSM 850 EGPRS		

**Maximum Power-GSM 850 EGPRS**

Frequency (MHz)	Reading Level (dBm)	Substitution Level (dBm)	Substitution Antenna Gain (dBd)	Cable Loss (dB)	Result ERP (dBm)	Result ERP (W)
824.2	19.348	22.25	4.45	0.51	26.19	0.42
836.4	19.566	22.47	4.45	0.51	26.41	0.44
848.8	19.819	22.73	4.45	0.51	<b>26.67</b>	<b>0.46</b>

## Note:

1. The EUT meets the requirements of FCC CFR 47: Part 22, Section 22.913(a) for Effective Radiated Power.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz
3. Result ERP = Substitution Level + Substitution Antenna Gain - Cable Loss

Product	Tablet PC		
Test Mode	RF Output Power (Radiated)		
Date of Test	2010/06/01	Test Site	OATS 3
Test Condition	PCS 1900 GPRS		

**Maximum Power-PCS 1900 GPRS**

Frequency (MHz)	Reading Level (dBm)	Substitution Level (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dB)	Result EIRP (dBm)	Result EIRP (W)
1850.2	-9.054	21.633	10.4	1.02	<b>31.013</b>	<b>1.26</b>
1880.0	-10.188	20.714	10.4	1.02	30.094	1.02
1909.8	-9.648	21.293	10.4	1.02	30.673	1.17

## Note:

1. The EUT meets the requirements of FCC CFR 47: Part 24, Section 24.232(b) for Effective Isotropically Radiated Power.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz
3. Result EIRP = Substitution Level + Substitution Antenna Gain - Cable Loss

Product	Tablet PC		
Test Mode	RF Output Power (Radiated)		
Date of Test	2010/06/01	Test Site	OATS 3
Test Condition	PCS 1900 EGPRS		

**Maximum Power-PCS 1900 EGPRS**

Frequency (MHz)	Reading Level (dBm)	Substitution Level (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dB)	Result EIRP (dBm)	Result EIRP (W)
1850.2	-9.344	21.343	10.4	1.02	<b>30.723</b>	<b>1.18</b>
1880.0	-10.700	20.202	10.4	1.02	29.582	0.91
1909.8	-10.327	20.614	10.4	1.02	29.994	1.00

## Note:

1. The EUT meets the requirements of FCC CFR 47: Part 24, Section 24.232(b) for Effective Isotropically Radiated Power.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz
3. Result EIRP = Substitution Level + Substitution Antenna Gain - Cable Loss

Product	Tablet PC		
Test Mode	RF Output Power (Radiated)		
Date of Test	2010/06/01	Test Site	OATS 3
Test Condition	WCDMA BAND V		

**Maximum Power- WCDMA BAND V**

Frequency (MHz)	Reading Level (dBm)	Substitution Level (dBm)	Substitution Antenna Gain (dBd)	Cable Loss (dB)	Result ERP (dBm)	Result ERP (W)
826.4	17.050	19.90	4.45	0.51	23.84	0.24
836.6	18.544	21.42	4.45	0.51	<b>25.36</b>	<b>0.34</b>
846.6	16.514	19.36	4.45	0.51	23.30	0.21

## Note:

1. The EUT meets the requirements of FCC CFR 47: Part 22, Section 22.913(a) for Effective Radiated Power.
2. Receiver setting (Peak Detector) : RBW:5MHz; VBW:5MHz
3. Result ERP = Substitution Level + Substitution Antenna Gain - Cable Loss

Product	Tablet PC		
Test Mode	RF Output Power (Radiated)		
Date of Test	2010/06/01	Test Site	OATS 3
Test Condition	WCDMA BAND V HSDPA		

**Maximum Power- WCDMA BAND V HSDPA**

Frequency (MHz)	Reading Level (dBm)	Substitution Level (dBm)	Substitution Antenna Gain (dBd)	Cable Loss (dB)	Result ERP (dBm)	Result ERP (W)
826.4	17.284	20.13	4.45	0.51	<b>24.07</b>	<b>0.26</b>
836.6	16.296	19.14	4.45	0.51	23.08	0.20
846.6	16.456	19.30	4.45	0.51	23.24	0.21

## Note:

1. The EUT meets the requirements of FCC CFR 47: Part 22, Section 22.913(a) for Effective Radiated Power.
2. Receiver setting (Peak Detector) : RBW:5MHz; VBW:5MHz
3. Result ERP = Substitution Level + Substitution Antenna Gain - Cable Loss

Product	Tablet PC		
Test Mode	RF Output Power (Radiated)		
Date of Test	2010/06/01	Test Site	OATS 3
Test Condition	WCDMA BAND V HSUPA		

**Maximum Power- WCDMA BAND V HSUPA**

Frequency (MHz)	Reading Level (dBm)	Substitution Level (dBm)	Substitution Antenna Gain (dBd)	Cable Loss (dB)	Result ERP (dBm)	Result ERP (W)
826.4	17.340	20.19	4.45	0.51	<b>24.13</b>	<b>0.26</b>
836.6	16.927	19.77	4.45	0.51	23.71	0.23
846.6	16.725	19.57	4.45	0.51	23.51	0.22

## Note:

1. The EUT meets the requirements of FCC CFR 47: Part 22, Section 22.913(a) for Effective Radiated Power.
2. Receiver setting (Peak Detector) : RBW:5MHz; VBW:5MHz
3. Result ERP = Substitution Level + Substitution Antenna Gain - Cable Loss

Product	Tablet PC		
Test Mode	RF Output Power (Radiated)		
Date of Test	2010/06/01	Test Site	OATS 3
Test Condition	WCDMA BAND II		

**Maximum Power- WCDMA BAND II**

Frequency (MHz)	Reading Level (dBm)	Substitution Level (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dB)	Result EIRP (dBm)	Result EIRP (W)
1852.4	-10.705	19.999	10.4	1.02	<b>29.379</b>	<b>0.87</b>
1880	-11.440	19.462	10.4	1.02	28.842	0.77
1907.6	-12.363	18.577	10.4	1.02	27.957	0.62

## Note:

1. The EUT meets the requirements of FCC CFR 47: Part 24, Section 24.232(b) for Effective Isotropically Radiated Power.
2. Receiver setting (Peak Detector) : RBW:5MHz; VBW:5MHz
3. Result EIRP = Substitution Level + Substitution Antenna Gain - Cable Loss

Product	Tablet PC		
Test Mode	RF Output Power (Radiated)		
Date of Test	2010/06/01	Test Site	OATS 3
Test Condition	WCDMA BAND II HSDPA		

**Maximum Power- WCDMA BAND II HSDPA**

Frequency (MHz)	Reading Level (dBm)	Substitution Level (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dB)	Result EIRP (dBm)	Result EIRP (W)
1852.4	-10.646	20.058	10.4	1.02	<b>29.438</b>	<b>0.88</b>
1880	-11.934	18.968	10.4	1.02	28.348	0.68
1907.6	-12.049	18.891	10.4	1.02	28.271	0.67

## Note:

1. The EUT meets the requirements of FCC CFR 47: Part 24, Section 24.232(b) for Effective Isotropically Radiated Power.
2. Receiver setting (Peak Detector) : RBW:5MHz; VBW:5MHz
3. Result EIRP = Substitution Level + Substitution Antenna Gain - Cable Loss



Product	Tablet PC		
Test Mode	RF Output Power (Radiated)		
Date of Test	2010/06/01	Test Site	OATS 3
Test Condition	WCDMA BAND II HSUPA		

**Maximum Power- WCDMA BAND II HSUPA**

Frequency (MHz)	Reading Level (dBm)	Substitution Level (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dB)	Result EIRP (dBm)	Result EIRP (W)
1852.4	-10.706	19.998	10.4	1.02	<b>29.378</b>	<b>0.87</b>
1880	-11.088	19.814	10.4	1.02	29.194	0.83
1907.6	-11.336	19.604	10.4	1.02	28.984	0.79

## Note:

1. The EUT meets the requirements of FCC CFR 47: Part 24, Section 24.232(b) for Effective Isotropically Radiated Power.
2. Receiver setting (Peak Detector) : RBW:5MHz; VBW:5MHz
3. Result EIRP = Substitution Level + Substitution Antenna Gain - Cable Loss

Product	Tablet PC		
Test Mode	RF Output Power (Radiated)		
Date of Test	2010/06/01	Test Site	OATS 3
Test Condition	CDMA 1X (BC0)		

**Maximum Power- CDMA 1X (BC0)**

Frequency (MHz)	Reading Level (dBm)	Substitution Level (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dB)	Result EIRP (dBm)	Result EIRP (W)
824.70	17.354	20.21	4.45	0.51	<b>24.15</b>	<b>0.26</b>
836.52	16.850	19.70	4.45	0.51	23.64	0.23
848.31	16.332	19.18	4.45	0.51	23.12	0.21

## Note:

1. The EUT meets the requirements of FCC CFR 47: Part 24, Section 24.232(b) for Effective Isotropically Radiated Power.
2. Receiver setting (Peak Detector) : RBW:3MHz; VBW:3MHz
3. Result EIRP = Substitution Level + Substitution Antenna Gain - Cable Loss

Product	Tablet PC		
Test Mode	RF Output Power (Radiated)		
Date of Test	2010/06/01	Test Site	OATS 3
Test Condition	CDMA 1X EV-DO REL 0 (BC0)		

**Maximum Power- CDMA 1X EV-DO REL 0 (BC0)**

Frequency (MHz)	Reading Level (dBm)	Substitution Level (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dB)	Result EIRP (dBm)	Result EIRP (W)
824.70	17.452	20.31	4.45	0.51	<b>24.25</b>	<b>0.27</b>
836.52	17.028	19.87	4.45	0.51	23.81	0.24
848.31	16.571	19.42	4.45	0.51	23.36	0.22

## Note:

1. The EUT meets the requirements of FCC CFR 47: Part 24, Section 24.232(b) for Effective Isotropically Radiated Power.
2. Receiver setting (Peak Detector) : RBW:3MHz; VBW:3MHz
3. Result EIRP = Substitution Level + Substitution Antenna Gain - Cable Loss

Product	Tablet PC		
Test Mode	RF Output Power (Radiated)		
Date of Test	2010/06/01	Test Site	OATS 3
Test Condition	CDMA 1X EV-DO REL A (BC0)		

**Maximum Power- CDMA 1X EV-DO REL A (BC0)**

Frequency (MHz)	Reading Level (dBm)	Substitution Level (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dB)	Result EIRP (dBm)	Result EIRP (W)
824.70	17.910	20.77	4.45	0.51	<b>24.71</b>	<b>0.30</b>
836.52	17.238	20.09	4.45	0.51	24.03	0.25
848.31	17.059	19.91	4.45	0.51	23.85	0.24

## Note:

1. The EUT meets the requirements of FCC CFR 47: Part 24, Section 24.232(b) for Effective Isotropically Radiated Power.
2. Receiver setting (Peak Detector) : RBW:3MHz; VBW:3MHz
3. Result EIRP = Substitution Level + Substitution Antenna Gain - Cable Loss

Product	Tablet PC		
Test Mode	RF Output Power (Radiated)		
Date of Test	2010/06/01	Test Site	OATS 3
Test Condition	CDMA 1X (BC1)		

**Maximum Power- CDMA 1X (BC1)**

Frequency (MHz)	Reading Level (dBm)	Substitution Level (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dB)	Result EIRP (dBm)	Result EIRP (W)
1851.25	-11.783	18.912	10.4	1.02	28.292	0.67
1880.00	-11.889	19.013	10.4	1.02	<b>28.393</b>	<b>0.69</b>
1908.75	-12.106	18.834	10.4	1.02	28.214	0.66

## Note:

1. The EUT meets the requirements of FCC CFR 47: Part 24, Section 24.232(b) for Effective Isotropically Radiated Power.
2. Receiver setting (Peak Detector) : RBW:3MHz; VBW:3MHz
3. Result EIRP = Substitution Level + Substitution Antenna Gain - Cable Loss

Product	Tablet PC		
Test Mode	RF Output Power (Radiated)		
Date of Test	2010/06/01	Test Site	OATS 3
Test Condition	CDMA 1X EV-DO REL 0 (BC1)		

**Maximum Power- CDMA 1X EV-DO REL 0 (BC1)**

Frequency (MHz)	Reading Level (dBm)	Substitution Level (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dB)	Result EIRP (dBm)	Result EIRP (W)
1851.25	-10.426	20.269	10.4	1.02	<b>29.649</b>	<b>0.92</b>
1880.00	-11.005	19.897	10.4	1.02	29.277	0.85
1908.75	-11.233	19.707	10.4	1.02	29.087	0.81

## Note:

1. The EUT meets the requirements of FCC CFR 47: Part 24, Section 24.232(b) for Effective Isotropically Radiated Power.
2. Receiver setting (Peak Detector) : RBW:3MHz; VBW:3MHz
3. Result EIRP = Substitution Level + Substitution Antenna Gain - Cable Loss

Product	Tablet PC		
Test Mode	RF Output Power (Radiated)		
Date of Test	2010/06/01	Test Site	OATS 3
Test Condition	CDMA 1X EV-DO REL A (BC1)		

**Maximum Power- CDMA 1X EV-DO REL A (BC1)**

Frequency (MHz)	Reading Level (dBm)	Substitution Level (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dB)	Result EIRP (dBm)	Result EIRP (W)
1851.25	-10.422	20.273	10.4	1.02	29.653	0.92
1880.00	-10.938	19.964	10.4	1.02	29.344	0.86
1908.75	-10.414	20.526	10.4	1.02	<b>29.906</b>	<b>0.98</b>

## Note:

1. The EUT meets the requirements of FCC CFR 47: Part 24, Section 24.232(b) for Effective Isotropically Radiated Power.
2. Receiver setting (Peak Detector) : RBW:3MHz; VBW:3MHz
3. Result EIRP = Substitution Level + Substitution Antenna Gain - Cable Loss

### 3. Occupied Bandwidth

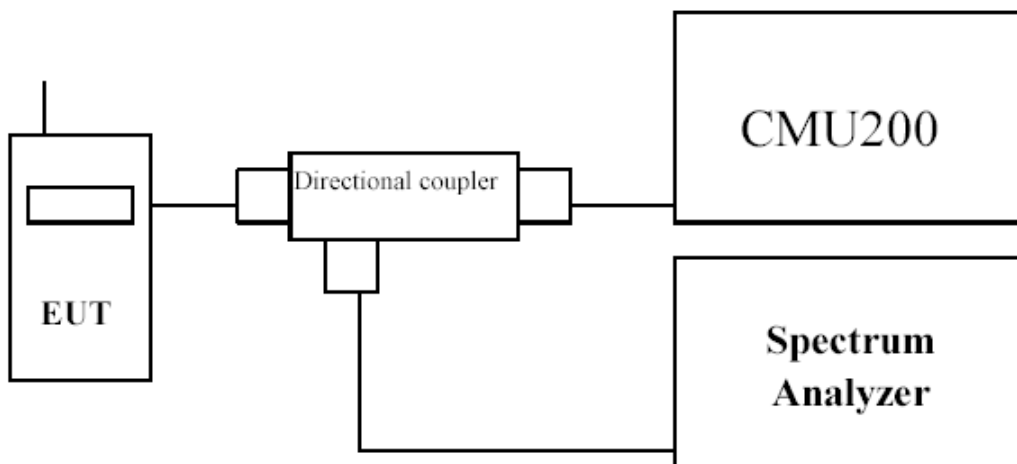
#### 3.1. Test Equipment

The following test equipments are used during the occupied bandwidth tests:

Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Spectrum Analyzer (9K-26.5GHz)	Agilent	N9020A/MY48010570	Apr., 2010
Universal Radio Communication Tester	R & S	CMU200 / 104846	May., 2010
Directional coupler	Agilent	87300C / MY44300353	Aug., 2009
Directional coupler	Agilent	778D-012/ 50550	Aug., 2009

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

#### 3.2. Test Setup



#### 3.3. Test Procedure

The EUT is tested with maximum rated TX power via the Base Station simulator, and the occupied bandwidth was measured at the antenna terminals of the EUT.

The Resolution BW of the analyzer is set to 1 % of the emission bandwidth. The EUT's occupied bandwidth is measured as the width of the signal between two points, one below the carrier center frequency and one above the carrier frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

The plots below show the resultant display from the Spectrum Analyzer.



### **3.4. Test Specification**

According to Part 2.1049, 22.917(b), 24.238(b).

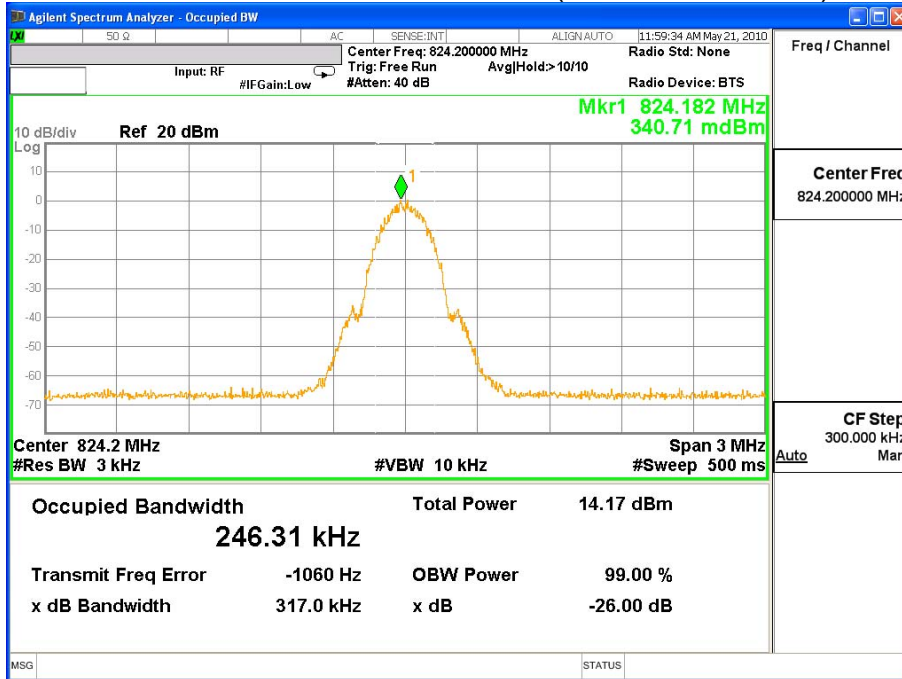
### 3.5. Test Result of Occupied Bandwidth

Test Mode	Channel & TX Frequency (MHz)	99% Occupied Bandwidth (MHz)	26 dB bandwidth (MHz)	Required Limit (KHz)	Result
GSM 850 GPRS	128(824.2)	0.24631	0.3170	N/A	Pass
	189(836.4)	0.24235	0.3086	N/A	Pass
	251(848.8)	0.24260	0.3117	N/A	Pass
GSM 850 EGPRS	128(824.2)	0.23880	0.3136	N/A	Pass
	189(836.4)	0.24328	0.3040	N/A	Pass
	251(848.8)	0.24595	0.3103	N/A	Pass
PCS 1900 GPRS	512(1850.2)	0.24327	0.3148	N/A	Pass
	661(1880)	0.24405	0.3108	N/A	Pass
	810(1909.8)	0.24248	0.3177	N/A	Pass
PCS 1900 EGPRS	512(1850.2)	0.24207	0.3067	N/A	Pass
	661(1880)	0.24566	0.3124	N/A	Pass
	810(1909.8)	0.24283	0.2890	N/A	Pass
WCDMA V RMC	4132(826.4)	4.2025	4.717	N/A	Pass
	4183(836.6)	4.1981	4.714	N/A	Pass
	4233(846.6)	4.2019	4.720	N/A	Pass
WCDMA V HSDPA	4132(826.4)	4.2017	4.718	N/A	Pass
	4183(836.6)	4.1980	4.714	N/A	Pass
	4233(846.6)	4.2003	4.713	N/A	Pass
WCDMA V HSUPA	4132(826.4)	4.2007	4.721	N/A	Pass
	4183(836.6)	4.1956	4.710	N/A	Pass
	4233(846.6)	4.2010	4.719	N/A	Pass
WCDMA II RMC	9262(1852.4)	4.1944	4.700	N/A	Pass
	9400(1880)	4.1954	4.701	N/A	Pass
	9538(1907.6)	4.1860	4.702	N/A	Pass
WCDMA II HSDPA	9262(1852.4)	4.1974	4.701	N/A	Pass

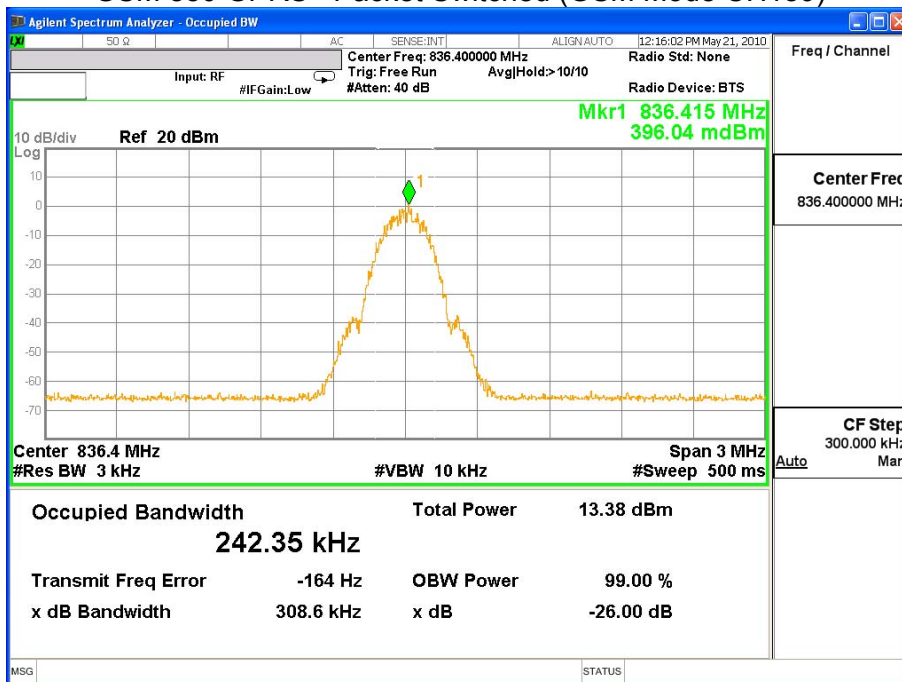
	9400(1880)	4.1921	4.702	N/A	Pass
	9538(1907.6)	4.1852	4.701	N/A	Pass
WCDMA II HSUPA	9262(1852.4)	4.1944	4.700	N/A	Pass
	9400(1880)	4.1911	4.706	N/A	Pass
	9538(1907.6)	4.1847	4.701	N/A	Pass
CDMA 1X (BC0)	1013	1.2791	1.434	N/A	Pass
	384	1.2789	1.434	N/A	Pass
	777	1.2786	1.438	N/A	Pass
CDMA 1X (BC1)	25	1.2799	1.438	N/A	Pass
	600	1.2810	1.439	N/A	Pass
	1175	1.2845	1.452	N/A	Pass
CDMA 1X EV-DO REL 0 (BC0)	1013	1.2798	1.431	N/A	Pass
	384	1.2773	1.428	N/A	Pass
	777	1.2802	1.433	N/A	Pass
CDMA 1X EV-DO REL 0 (BC1)	25	1.2759	1.438	N/A	Pass
	600	1.2783	1.436	N/A	Pass
	1175	1.2781	1.437	N/A	Pass
CDMA 1X EV-DO REL A (BC0)	1013	1.2830	1.448	N/A	Pass
	384	1.2814	1.446	N/A	Pass
	777	1.2836	1.451	N/A	Pass
CDMA 1X EV-DO REL A (BC1)	25	1.2839	1.447	N/A	Pass
	600	1.2850	1.449	N/A	Pass
	1175	1.2844	1.442	N/A	Pass

Product	Tablet PC		
Test Mode	Occupied Bandwidth		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	GSM 850 GPRS		

GSM 850 GPRS - Packet Switched (GSM Mode CH 128)

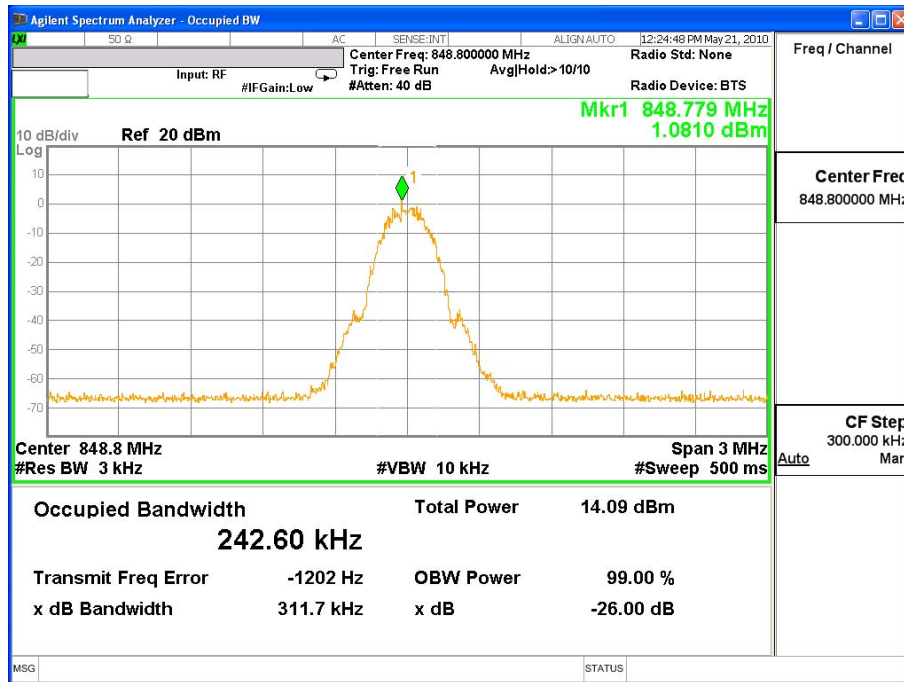


GSM 850 GPRS - Packet Switched (GSM Mode CH189)



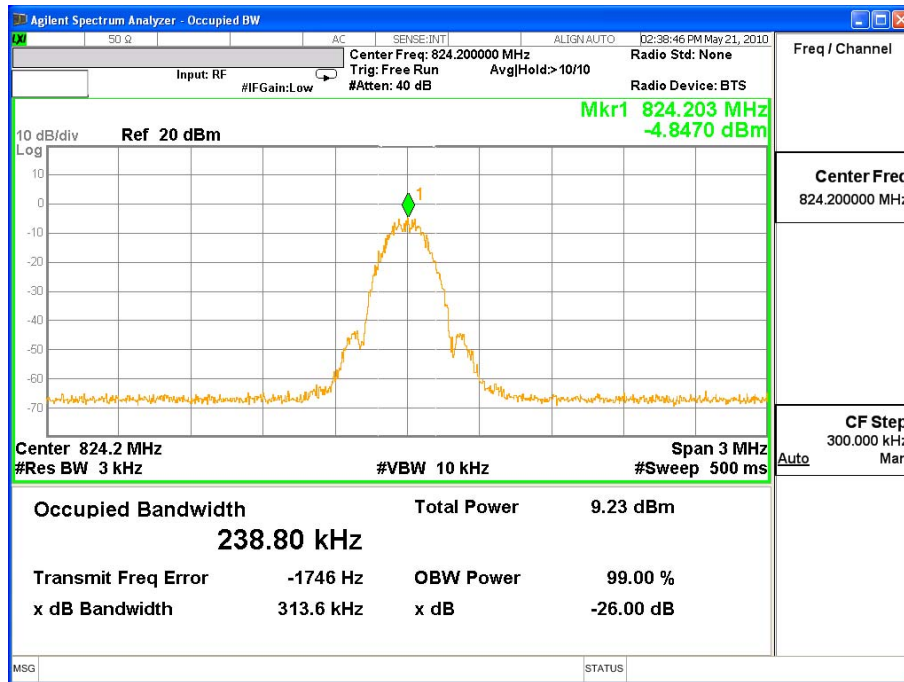
Product	Tablet PC		
Test Mode	Occupied Bandwidth		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	GSM 850 GPRS		

GSM 850 GPRS - Packet Switched (GSM Mode CH 251)

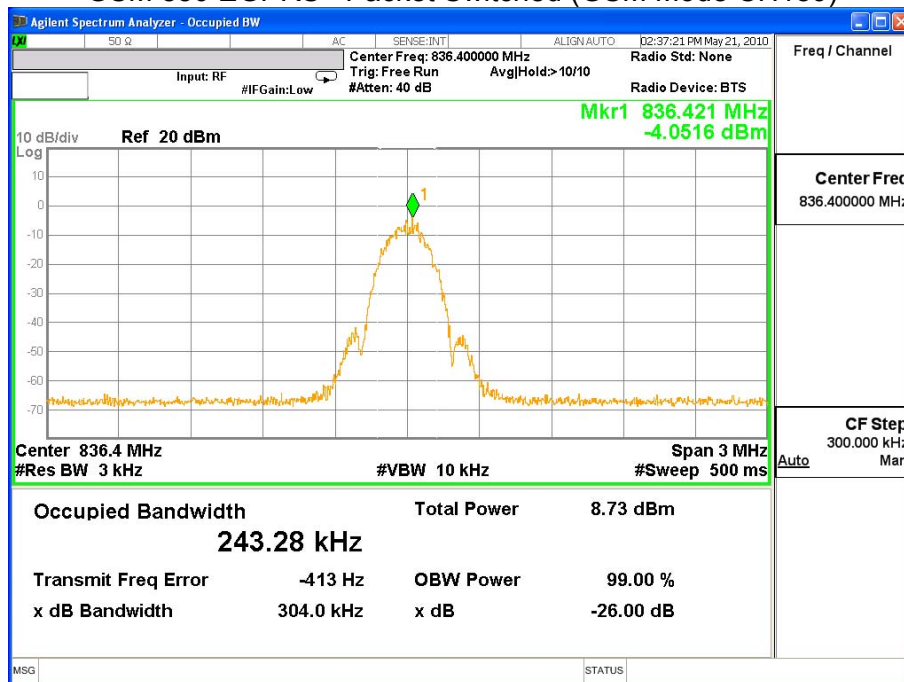


Product	Tablet PC		
Test Mode	Occupied Bandwidth		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	GSM 850 EGPRS		

GSM 850 EGPRS - Packet Switched (GSM Mode CH 128)

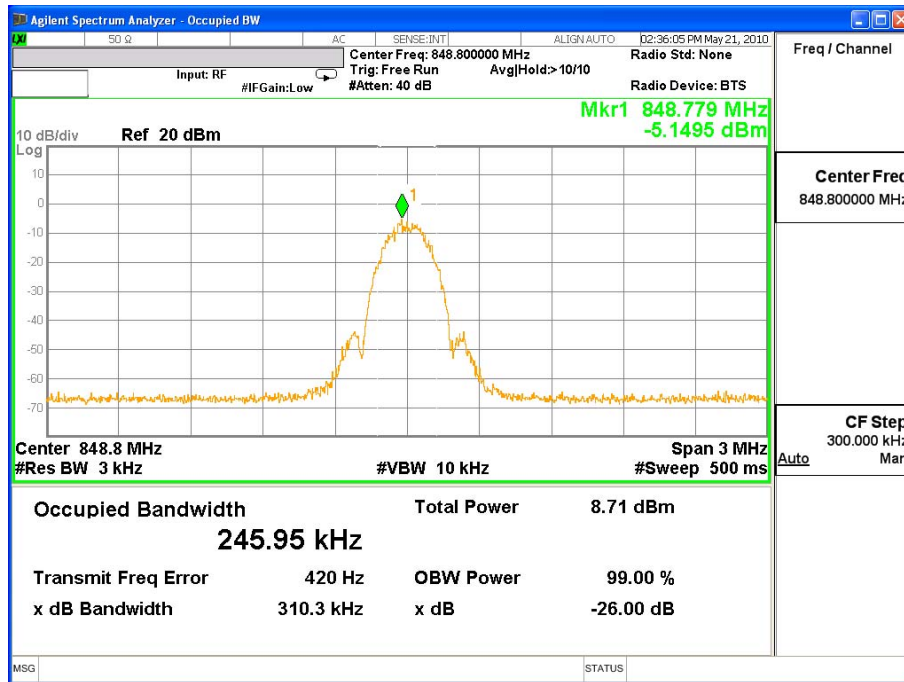


GSM 850 EGPRS - Packet Switched (GSM Mode CH189)



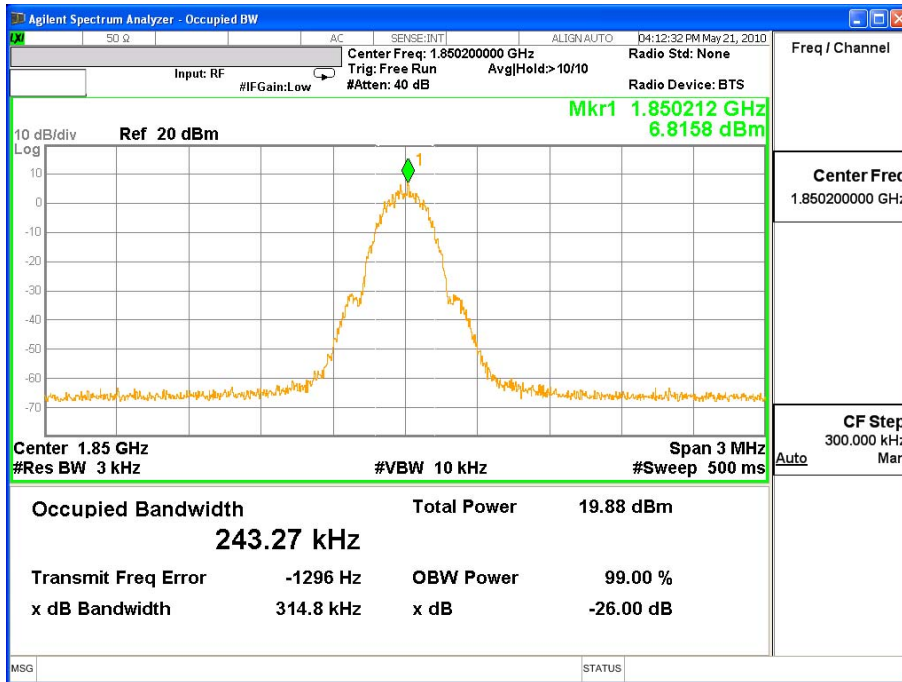
Product	Tablet PC		
Test Mode	Occupied Bandwidth		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	GSM 850 EGPRS		

GSM 850 EGPRS - Packet Switched (GSM Mode CH 251)

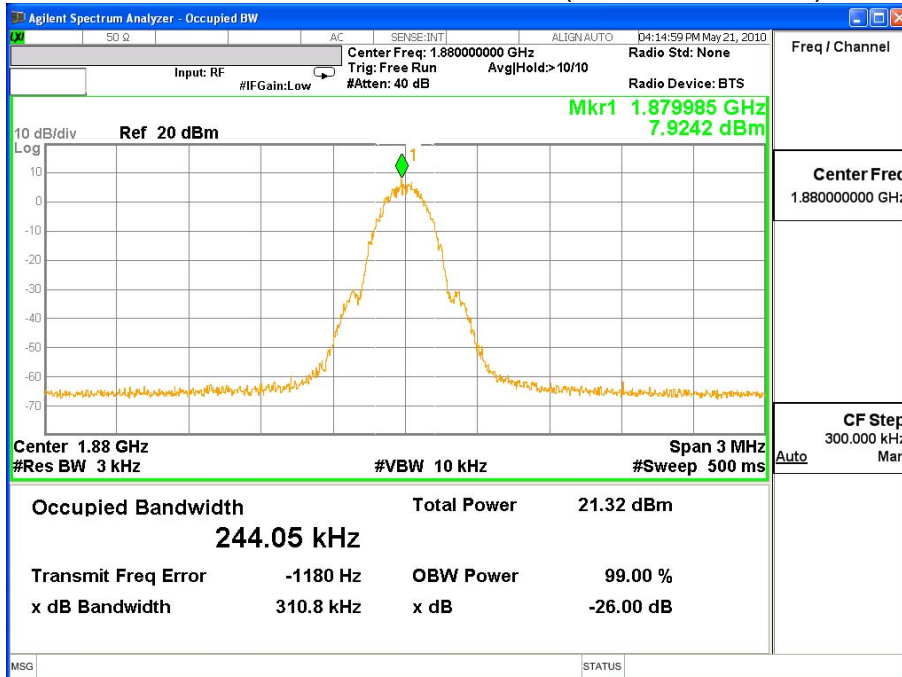


Product	Tablet PC		
Test Mode	Occupied Bandwidth		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	PCS1900 GPRS		

PCS1900 GPRS - Packet Switched (PCS Mode CH 512)



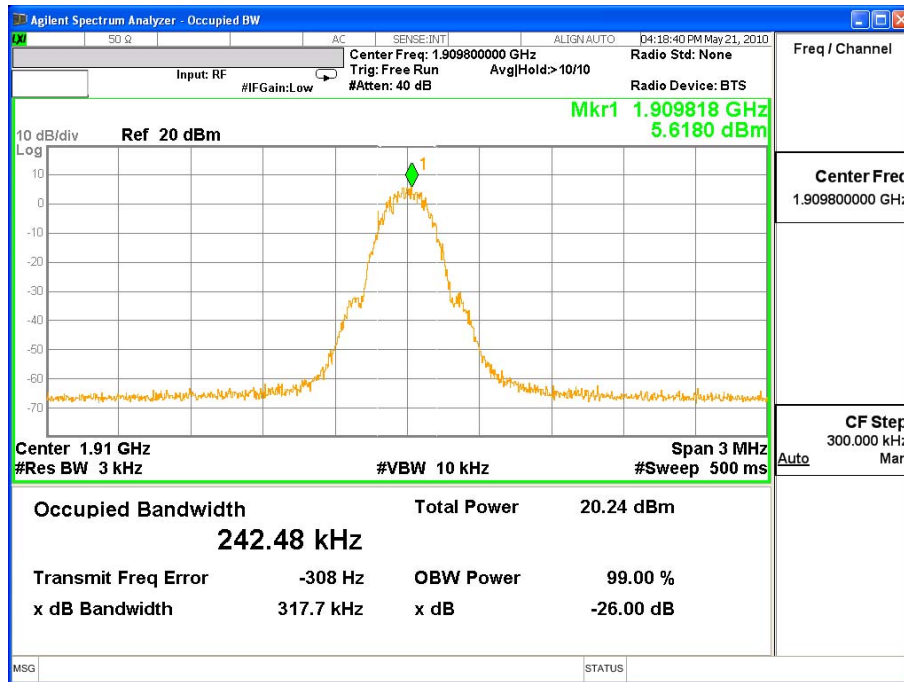
PCS1900 GPRS - Packet Switched (PCS Mode CH661)





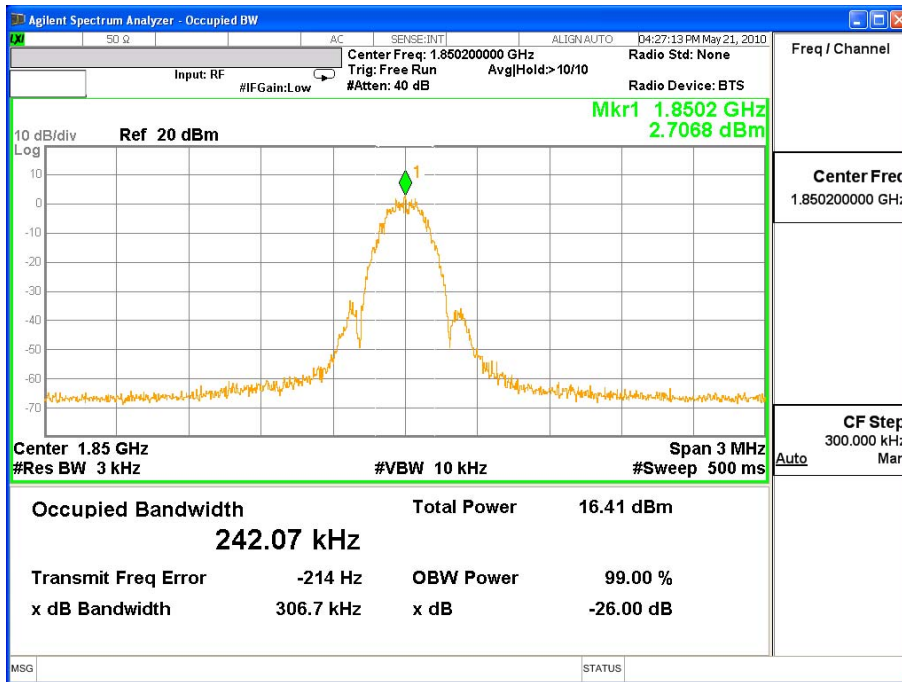
Product	Tablet PC		
Test Mode	Occupied Bandwidth		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	PCS1900 GPRS		

PCS1900 GPRS - Packet Switched (PCS Mode CH 810)

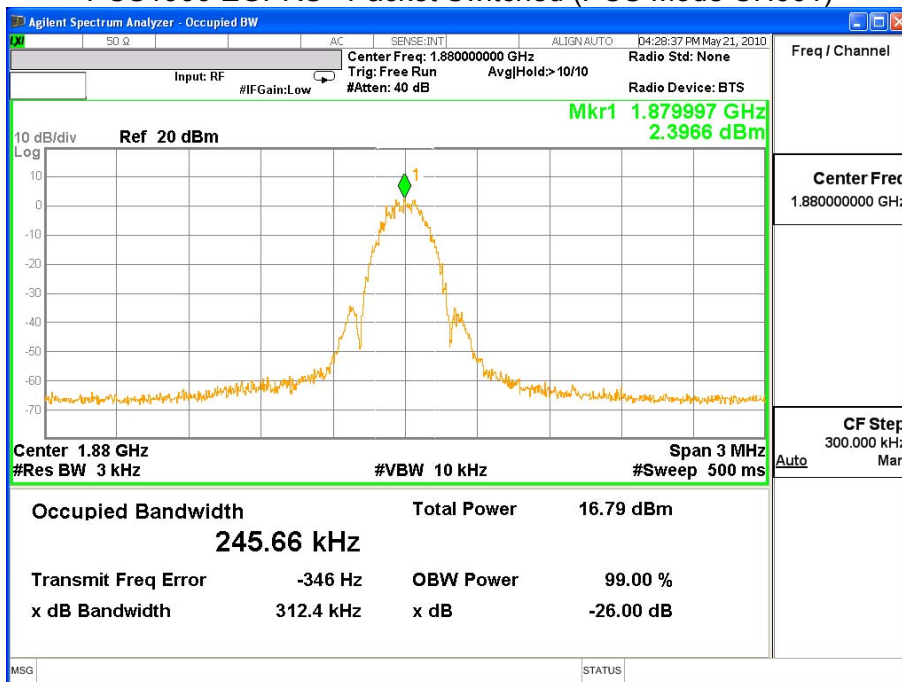


Product	Tablet PC		
Test Mode	Occupied Bandwidth		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	PCS1900 EGPRS		

PCS1900 EGPRS - Packet Switched (PCS Mode CH 512)

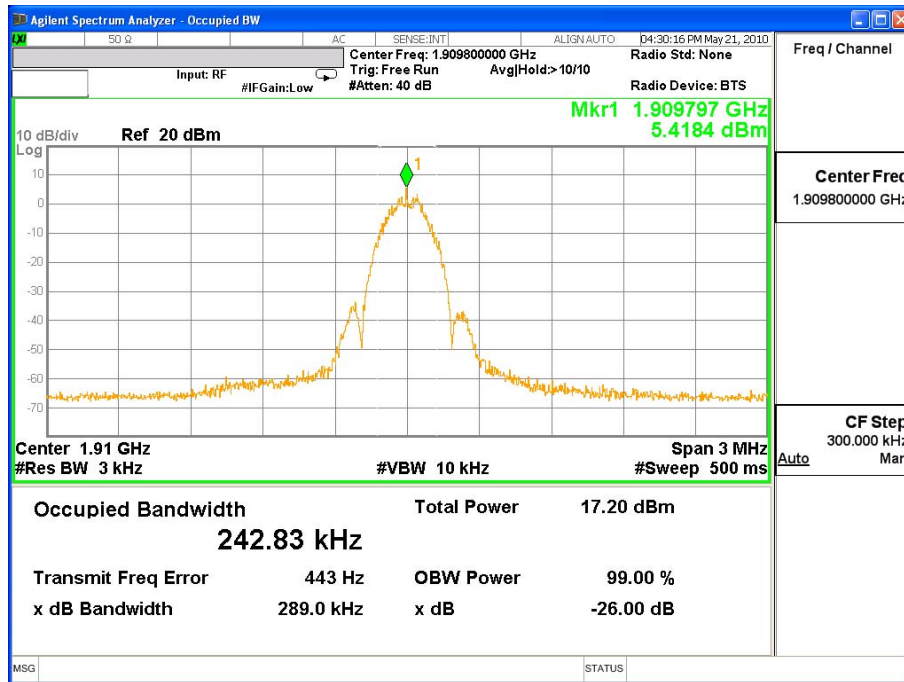


PCS1900 EGPRS - Packet Switched (PCS Mode CH661)



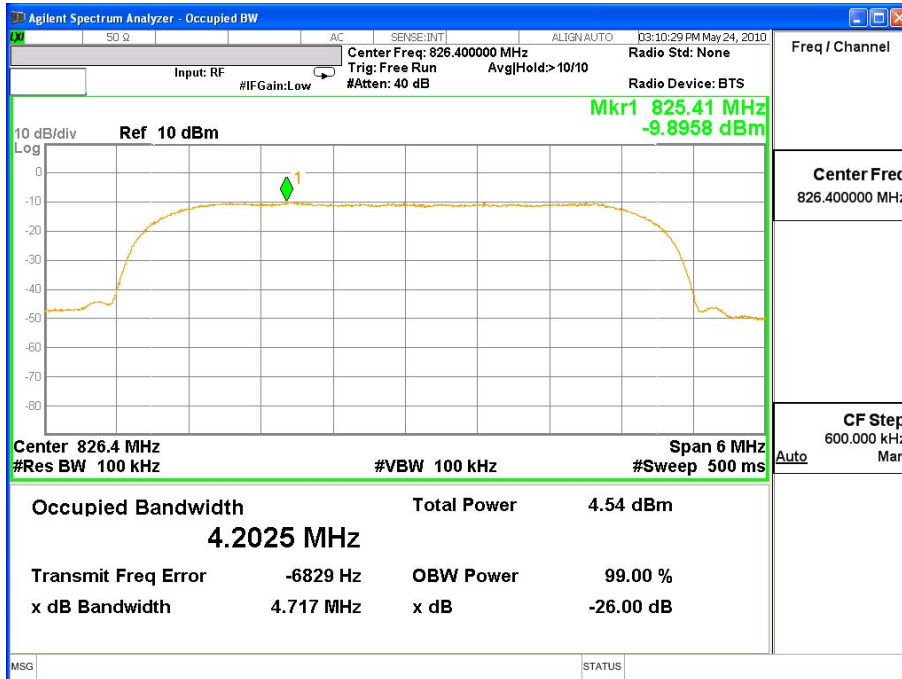
Product	Tablet PC		
Test Mode	Occupied Bandwidth		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	PCS1900 EGPRS		

PCS1900 EGPRS - Packet Switched (PCS Mode CH 810)

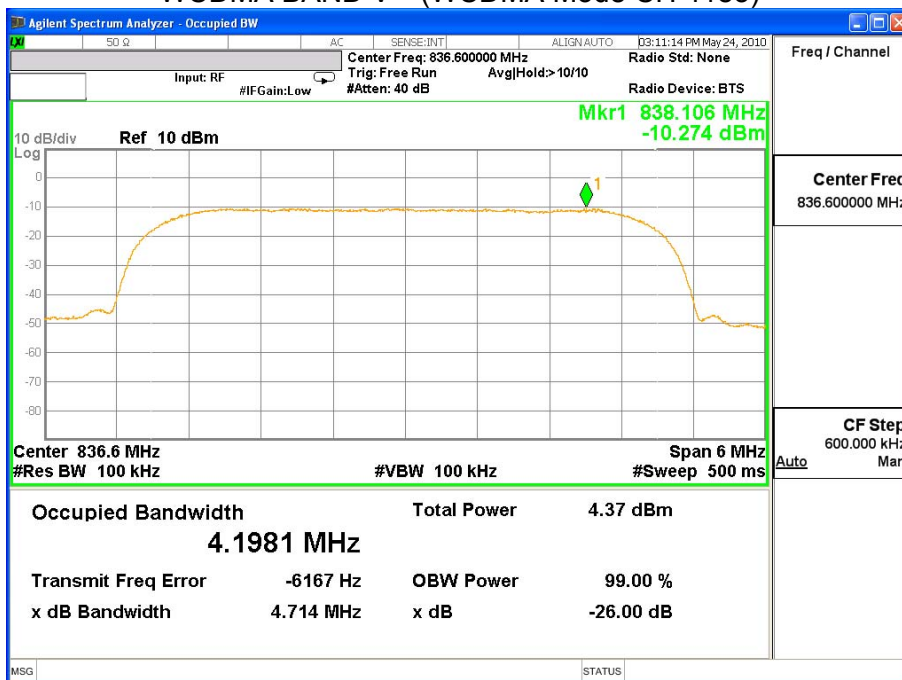


Product	Tablet PC		
Test Mode	Occupied Bandwidth		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	WCDMA BAND V		

WCDMA BAND V (WCDMA Mode CH 4132)

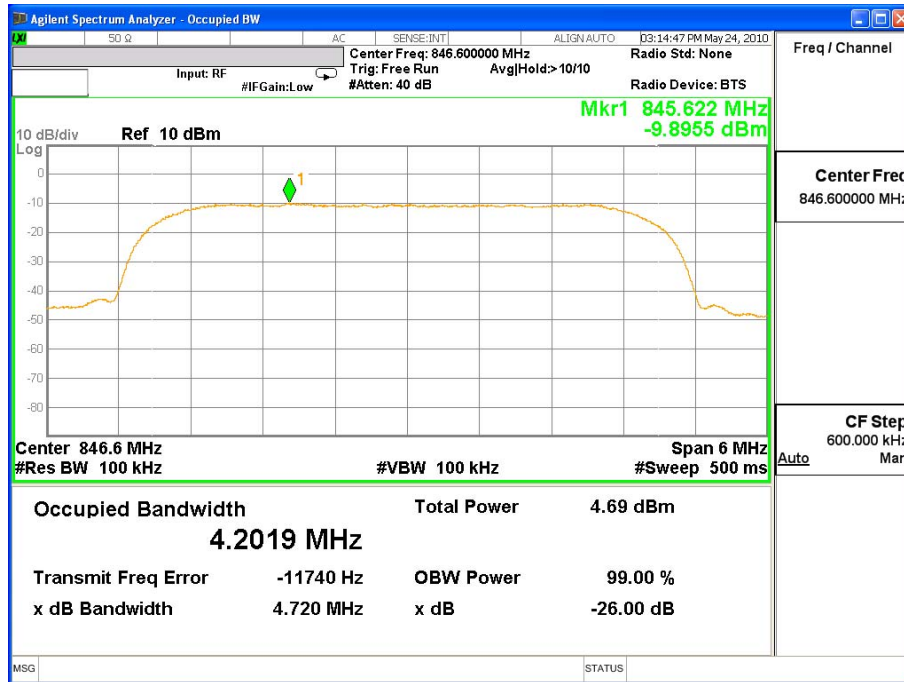


WCDMA BAND V (WCDMA Mode CH 4183)



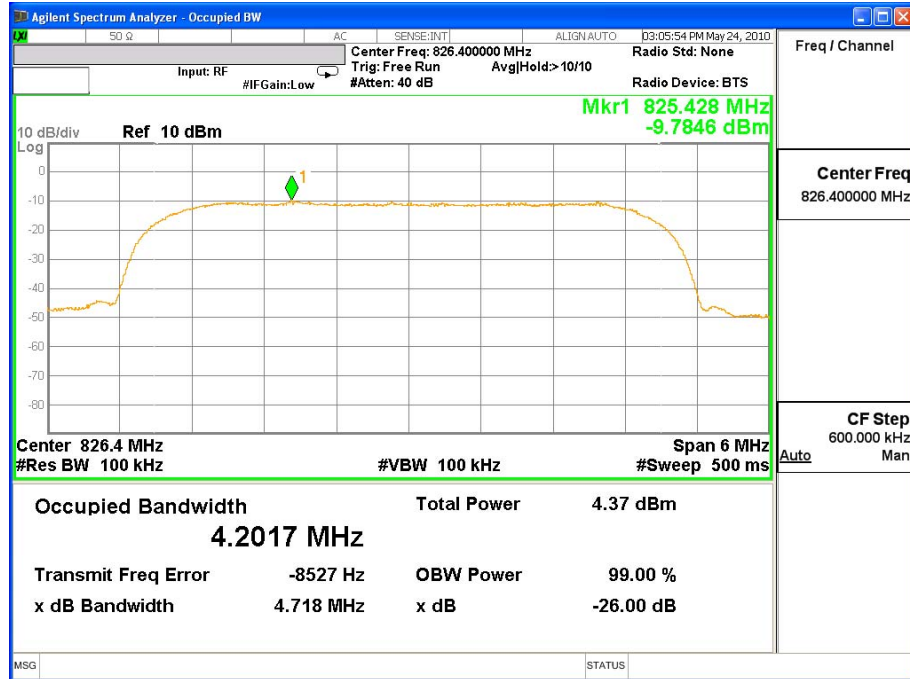
Product	Tablet PC		
Test Mode	Occupied Bandwidth		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	WCDMA BAND V		

WCDMA BAND V (WCDMA Mode CH 4233)

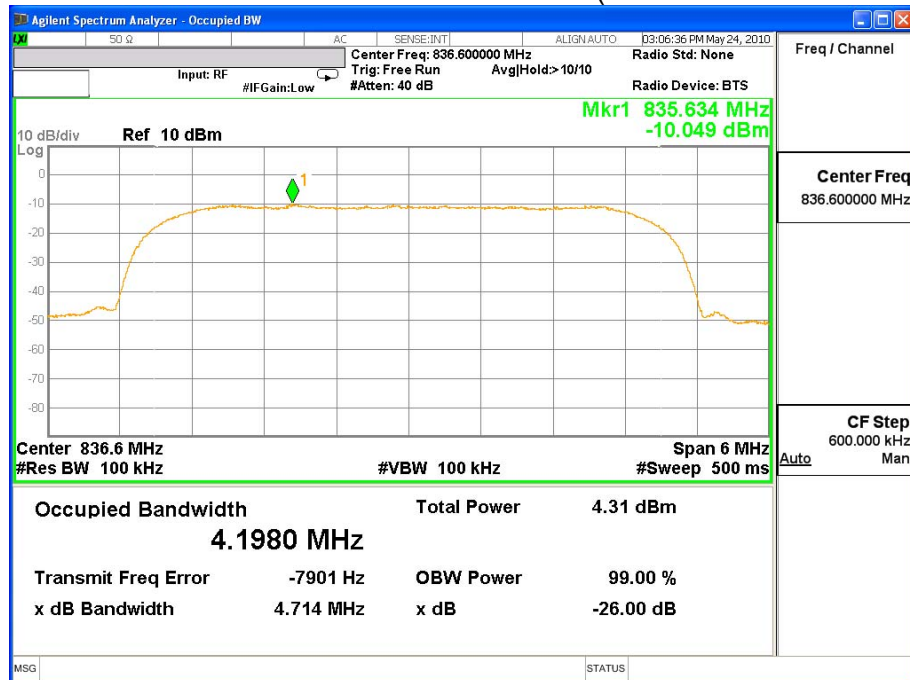


Product	Tablet PC		
Test Mode	Occupied Bandwidth		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	WCDMA BAND V HSDPA		

WCDMA BAND V HSDPA - Packet Switched (HSDPA Mode CH 4132)

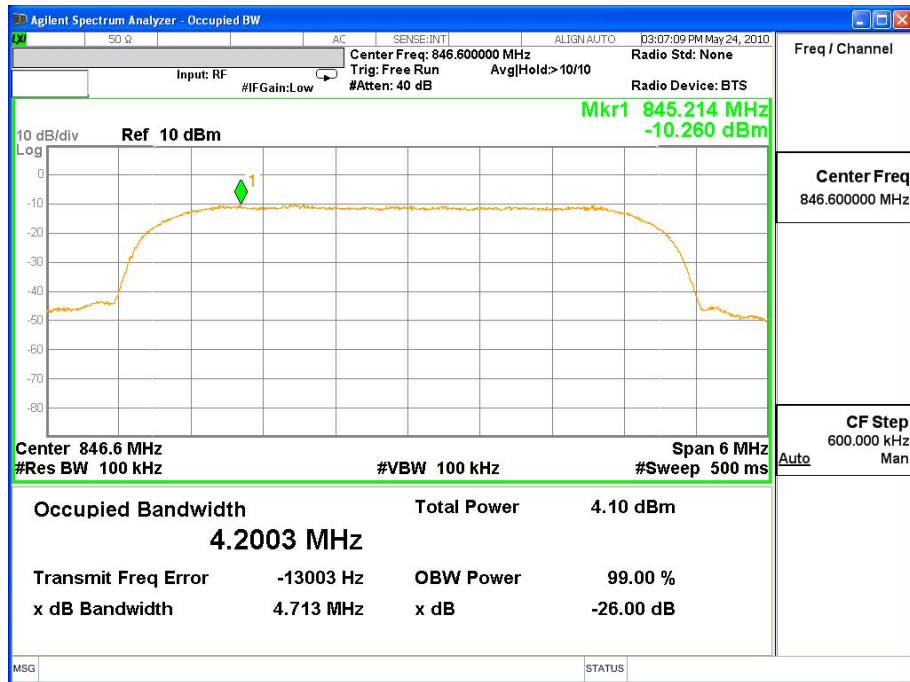


WCDMA BAND V HSDPA - Packet Switched (HSDPA Mode CH 4183)



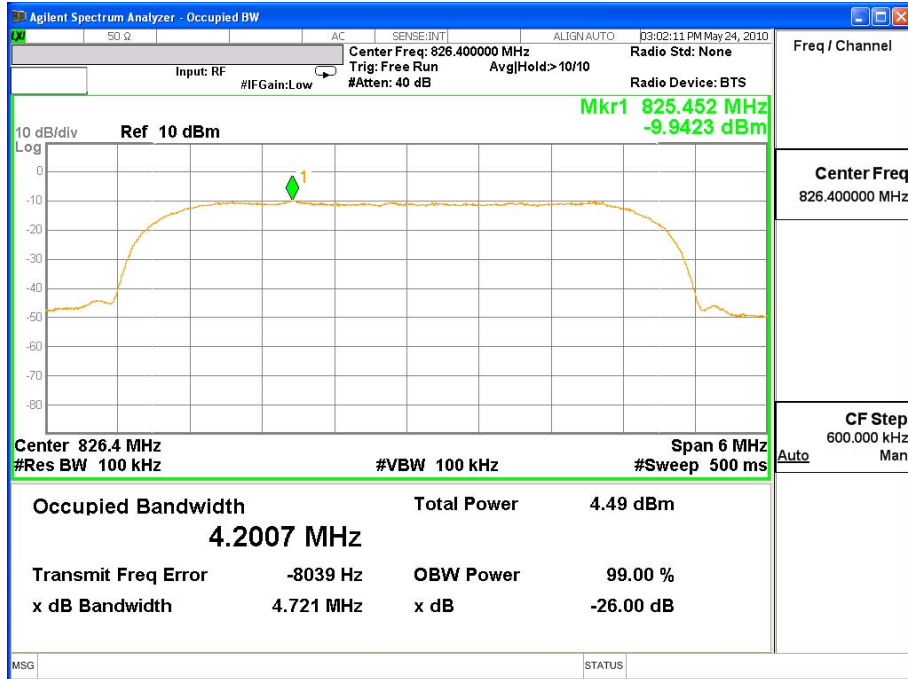
Product	Tablet PC		
Test Mode	Occupied Bandwidth		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	WCDMA BAND V HSDPA		

WCDMA BAND V HSDPA - Packet Switched (HSDPA Mode CH 4233)

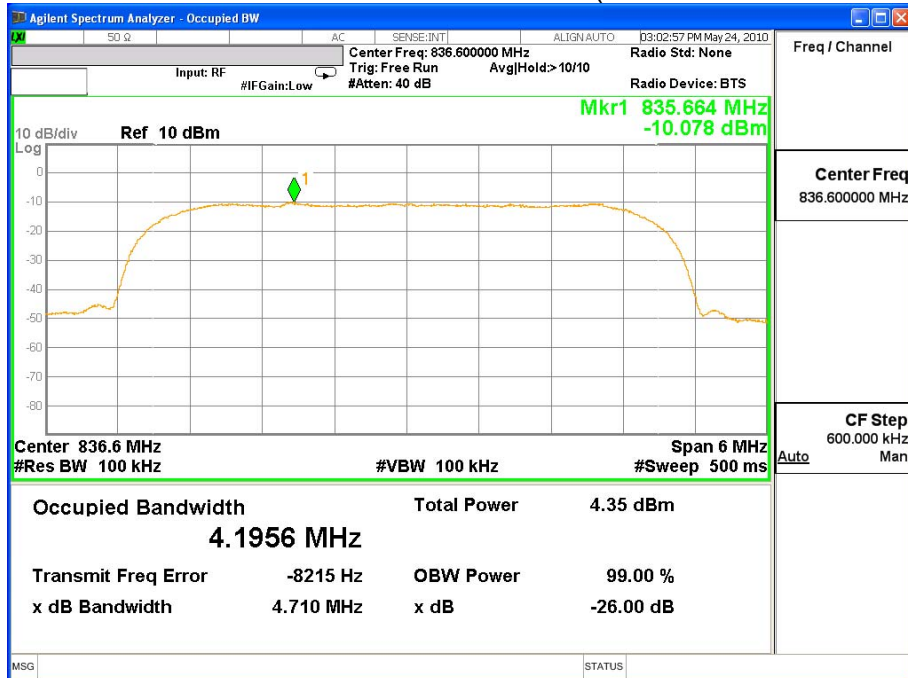


Product	Tablet PC		
Test Mode	Occupied Bandwidth		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	WCDMA BAND V HSUPA		

WCDMA BAND V HSUPA - Packet Switched (HSUPA Mode CH 4132)



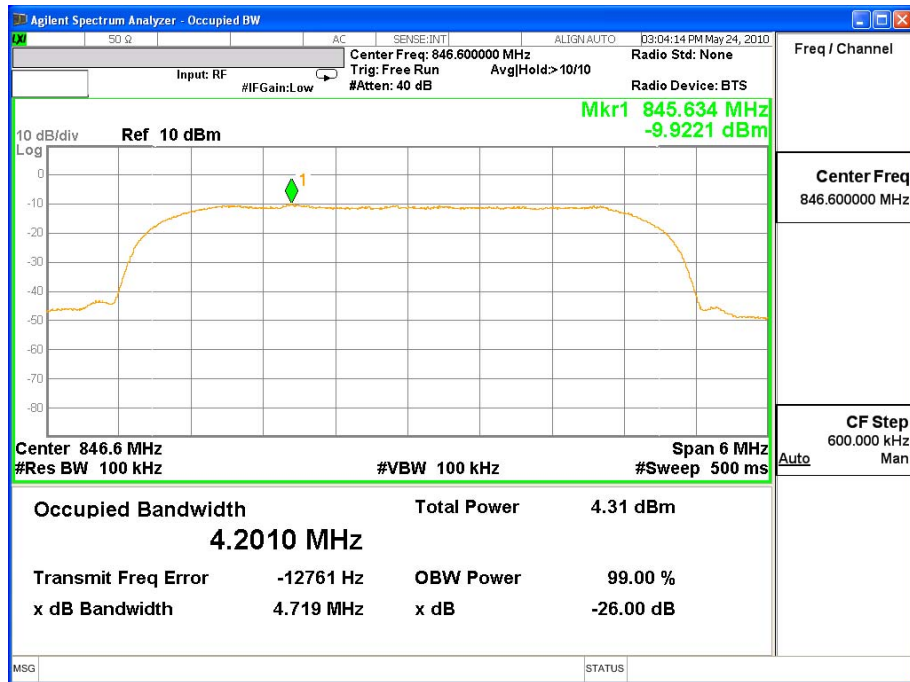
WCDMA BAND V HSUPA - Packet Switched (HSUPA Mode CH 4183)





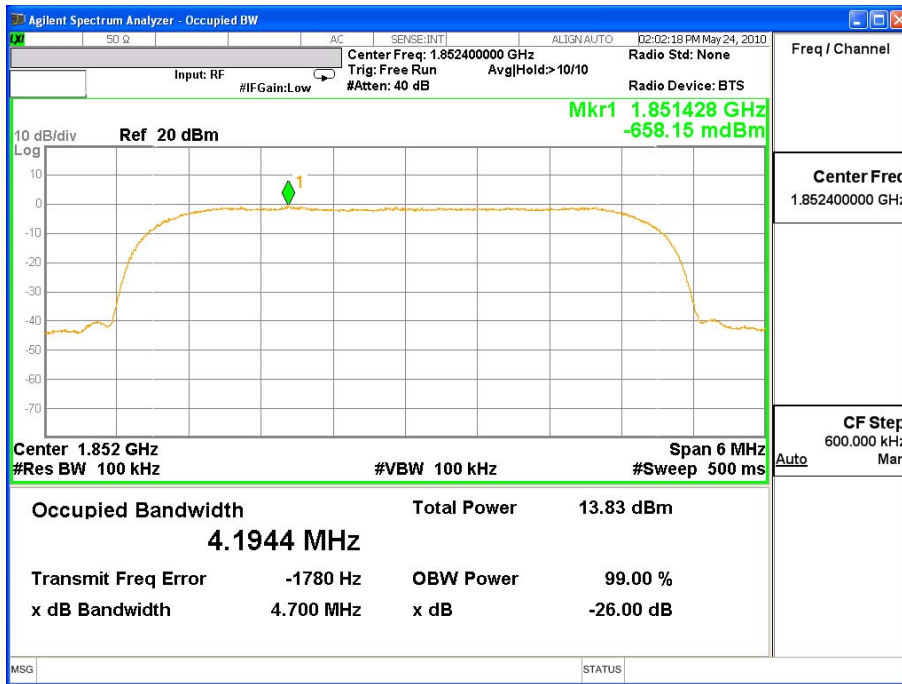
Product	Tablet PC		
Test Mode	Occupied Bandwidth		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	WCDMA BAND V HSUPA		

WCDMA BAND V HSUPA - Packet Switched (HSUPA Mode CH 4233)

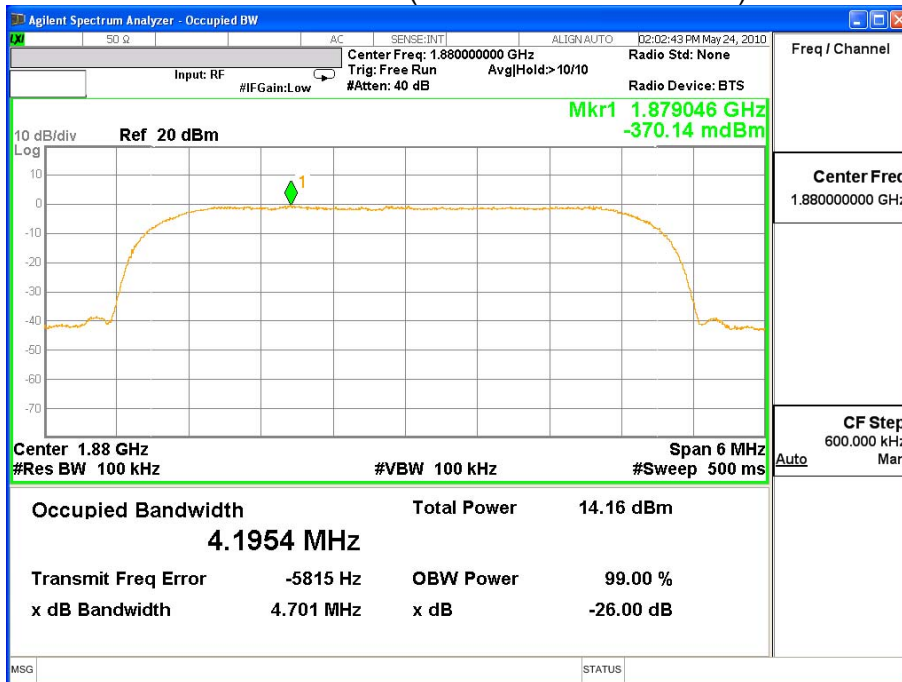


Product	Tablet PC		
Test Mode	Occupied Bandwidth		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	WCDMA BAND II		

WCDMA BAND II (WCDMA Mode CH 9262)

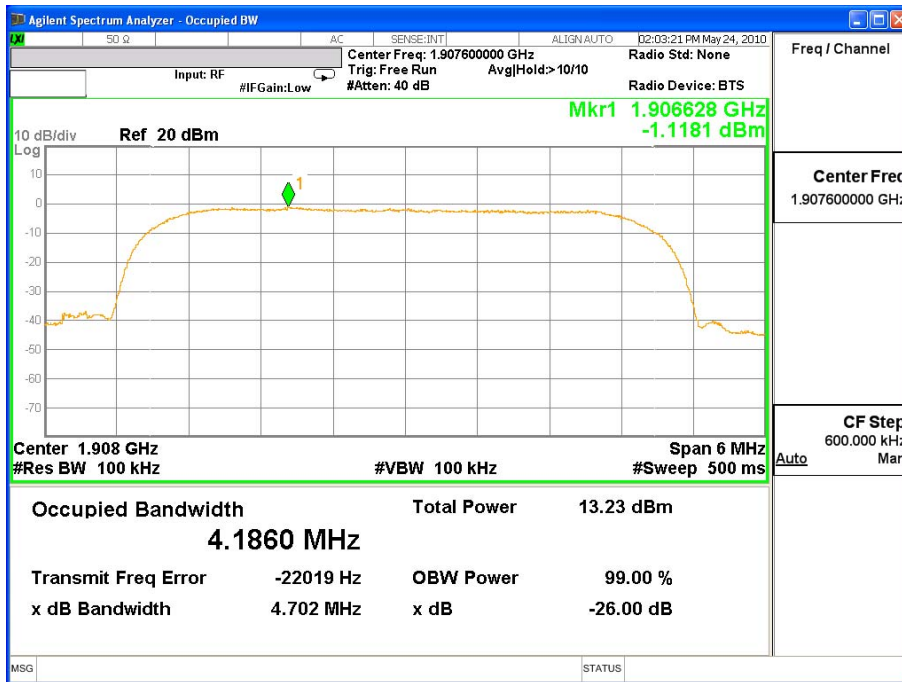


WCDMA BAND II (WCDMA Mode CH 9400)



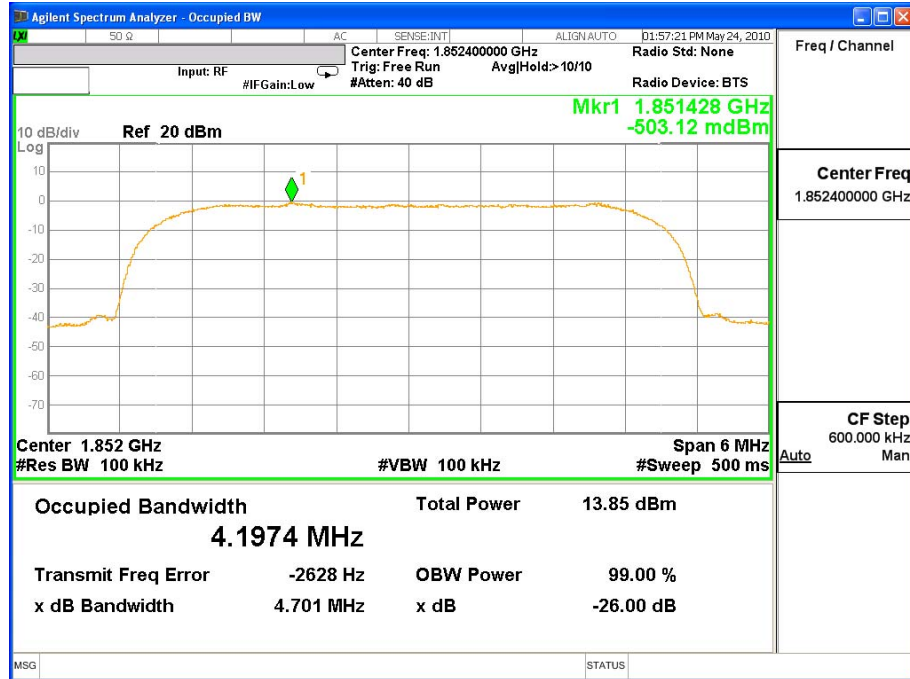
Product	Tablet PC		
Test Mode	Occupied Bandwidth		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	WCDMA BAND II		

WCDMA BAND II (WCDMA Mode CH 9538)

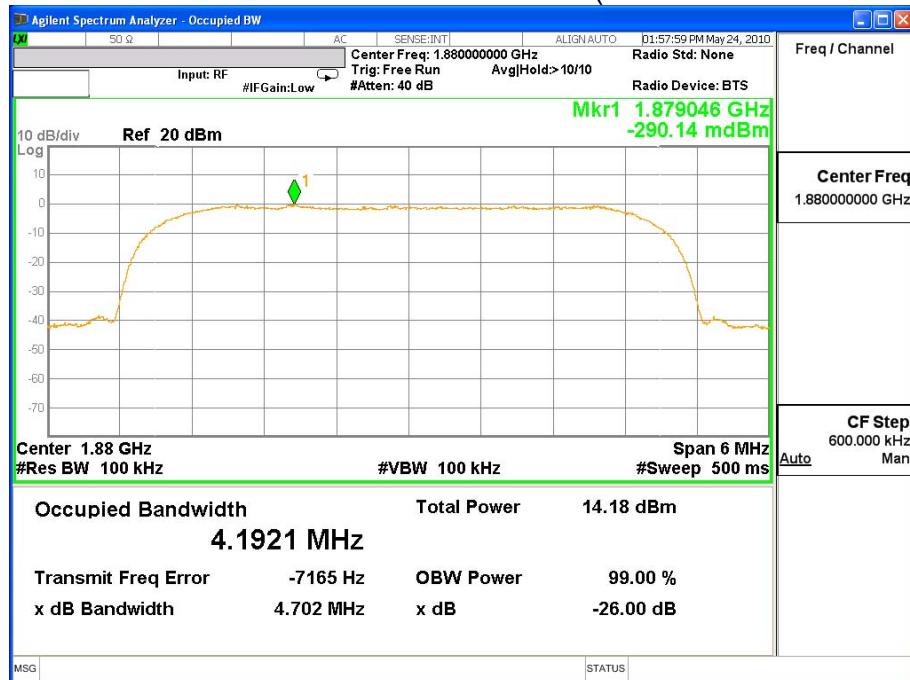


Product	Tablet PC		
Test Mode	Occupied Bandwidth		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	WCDMA BAND II HSDPA		

WCDMA BAND II HSDPA - Packet Switched (HSDPA Mode CH 9262)

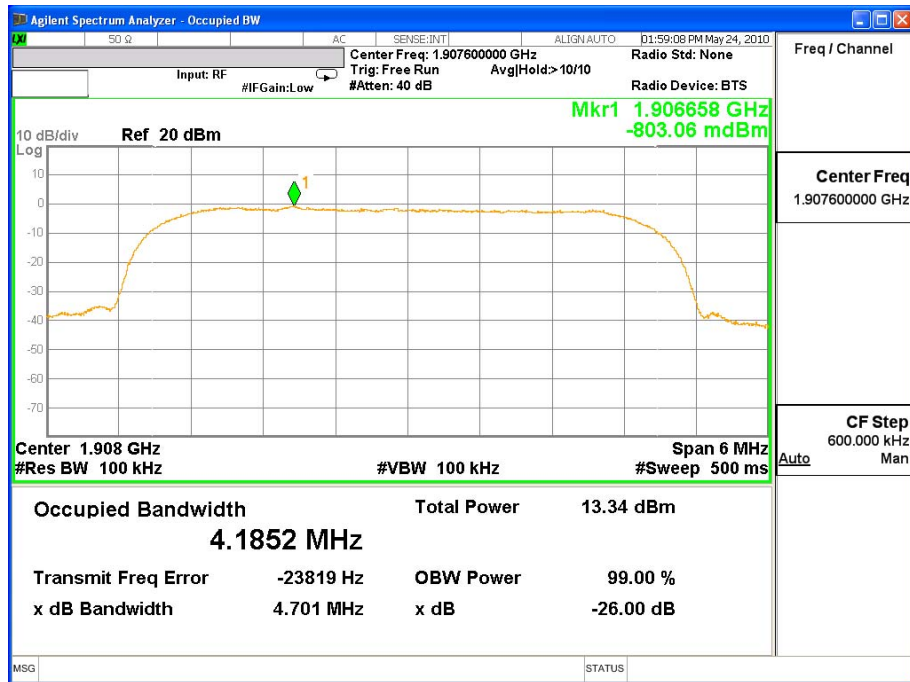


WCDMA BAND II HSDPA - Packet Switched (HSDPA Mode CH 9400)



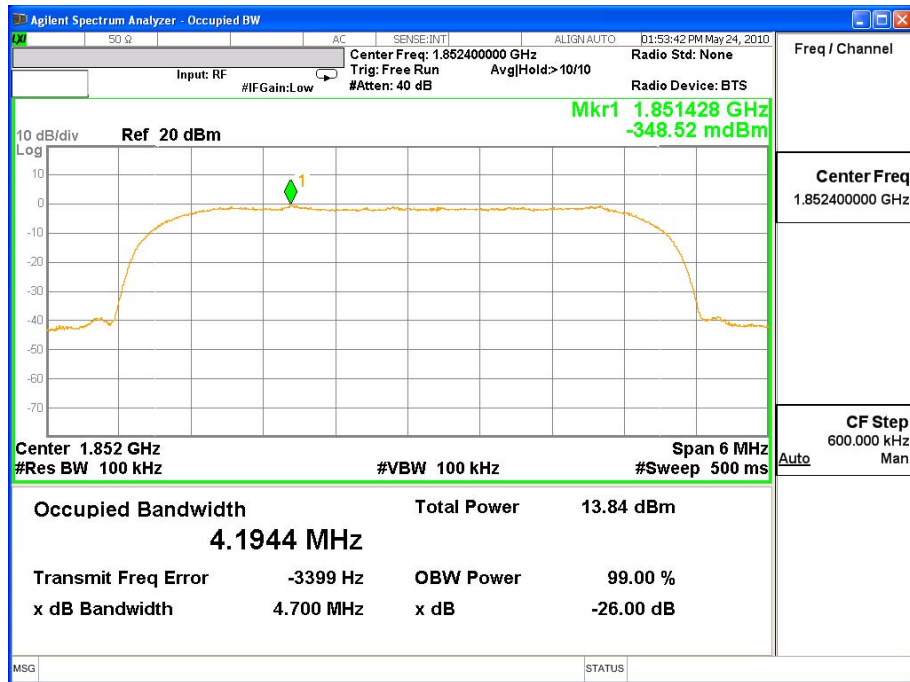
Product	Tablet PC		
Test Mode	Occupied Bandwidth		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	WCDMA BAND II HSDPA		

WCDMA BAND II HSDPA - Packet Switched (HSDPA Mode CH 9538)

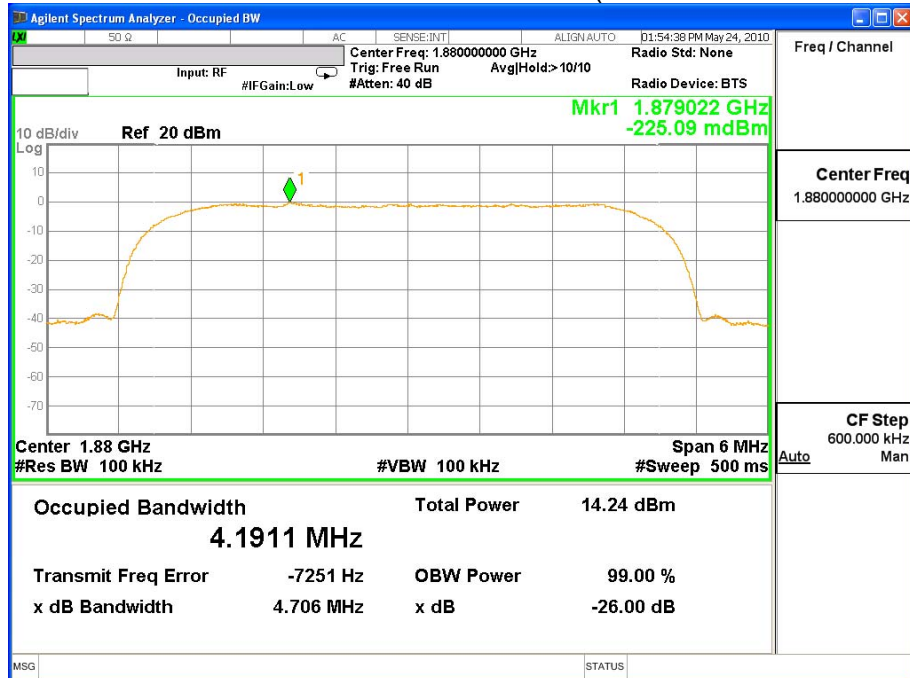


Product	Tablet PC		
Test Mode	Occupied Bandwidth		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	WCDMA BAND II HSUPA		

WCDMA BAND II HSUPA - Packet Switched (HSUPA Mode CH 9262)



WCDMA BAND II HSUPA - Packet Switched (HSUPA Mode CH 9400)



Product	Tablet PC		
Test Mode	Occupied Bandwidth		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	WCDMA BAND II HSUPA		

WCDMA BAND II HSUPA - Packet Switched (HSUPA Mode CH 9538)

