

Product	Tablet PC		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2010/06/03	Test Site	OATS 3
Test Condition	Channel 600 (CDMA2000 1X BC1)	Test Range	30M ~20GHz

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

### Horizontal Emissions

3760.000	-33.504	-47.080	2.530	12.600	-37.010	-13
5640.000	-44.841	-52.231	3.050	13.100	-42.181	-13
7520.000	-56.658	-55.762	3.650	11.500	-47.912	-13
9405.000	-60.375	-58.612	3.850	12.000	-50.462	-13
11280.000	-60.274	-57.541	4.580	12.000	-50.121	-13

### Vertical Emissions

3760.000	-36.154	-49.372	2.530	12.600	-39.302	-13
5640.000	-44.923	-52.625	3.050	13.100	-42.575	-13
7520.000	-53.803	-52.411	3.650	11.500	-44.561	-13
9400.000	-59.737	-57.875	3.850	12.000	-49.725	-13
11280.000	-60.170	-55.487	4.580	12.000	-48.067	-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	Tablet PC		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2010/06/03	Test Site	OATS 3
Test Condition	Channel 1013 (CDMA2000 1X EV-DO REL 0 BC0)	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

1664.000	-46.769	-61.726	1.630	9.800	-53.556	-13
2474.100	-45.434	-58.545	2.100	10.600	-50.045	-13
3326.000	-54.494	-68.992	2.350	12.300	-59.042	-13
4123.500	-57.112	-68.721	2.700	12.600	-58.821	-13
4948.200	-59.146	-68.726	2.830	12.700	-58.856	-13
5772.900	-56.454	-62.970	3.200	13.000	-53.170	-13

### Vertical Emissions

1649.400	-48.640	-62.818	1.630	9.800	-54.648	-13
2474.100	-35.401	-49.898	2.100	10.600	-41.398	-13
3323.000	-54.731	-68.695	2.350	12.300	-58.745	-13
4123.500	-57.538	-69.062	2.700	12.600	-59.162	-13
4948.200	-59.494	-68.324	2.830	12.700	-58.454	-13
5772.900	-58.966	-66.426	3.200	13.000	-56.626	-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	Tablet PC		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2010/06/03	Test Site	OATS 3
Test Condition	Channel 25 (CDMA2000 1X EV-DO REL 0 BC1)	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

3700.000	-38.589	-52.778	2.530	12.600	-42.708	-13
5555.000	-37.286	-44.881	3.050	13.100	-34.831	-13
7405.000	-56.308	-55.694	3.650	11.500	-47.844	-13
9256.250	-60.416	-59.393	3.850	12.000	-51.243	-13
11107.500	-60.338	-57.479	4.580	12.000	-50.059	-13

### Vertical Emissions

3700.000	-43.391	-57.231	2.530	12.600	-47.161	-13
5555.000	-38.031	-45.614	3.050	13.100	-35.564	-13
7405.000	-55.508	-54.084	3.650	11.500	-46.234	-13
9256.250	-58.753	-57.756	3.850	12.000	-49.606	-13
11107.500	-61.383	-56.270	4.580	12.000	-48.850	-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	Tablet PC		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2010/06/03	Test Site	OATS 3
Test Condition	Channel 1013 (CDMA2000 1X EV-DO REL A BC0)	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

1661.000	-48.501	-63.490	1.630	9.800	-55.320	-13
2474.100	-44.980	-58.091	2.100	10.600	-49.591	-13
3329.000	-54.201	-68.700	2.350	12.300	-58.750	-13
4123.500	-57.137	-68.746	2.700	12.600	-58.846	-13
4948.200	-59.233	-68.813	2.830	12.700	-58.943	-13
5770.000	-55.141	-61.667	3.200	13.000	-51.867	-13

### Vertical Emissions

1649.400	-54.300	-68.478	1.630	9.800	-60.308	-13
2474.100	-46.481	-60.978	2.100	10.600	-52.478	-13
3298.800	-56.849	-70.845	2.350	12.300	-60.895	-13
4123.500	-59.379	-70.903	2.700	12.600	-61.003	-13
4948.200	-59.606	-68.436	2.830	12.700	-58.566	-13
5770.000	-57.733	-65.200	3.200	13.000	-55.400	-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	Tablet PC		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2010/06/03	Test Site	OATS 3
Test Condition	Channel 1175 (CDMA2000 1X EV-DO REL A BC1)	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

3816.000	-37.503	-50.631	2.530	12.600	-40.561	-13
5725.000	-43.287	-50.234	3.050	13.100	-40.184	-13
7635.000	-56.425	-55.178	3.650	11.500	-47.328	-13
9543.750	-58.558	-58.533	3.850	12.000	-50.383	-13
11453.000	-59.954	-55.210	4.580	12.000	-47.790	-13

### Vertical Emissions

3816.000	-39.527	-52.271	2.530	12.600	-42.201	-13
5725.000	-50.615	-58.450	3.050	13.100	-48.400	-13
7635.000	-55.169	-53.066	3.650	11.500	-45.216	-13
9543.750	-58.545	-58.126	3.850	12.000	-49.976	-13
11453.000	-59.166	-52.894	4.580	12.000	-45.474	-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

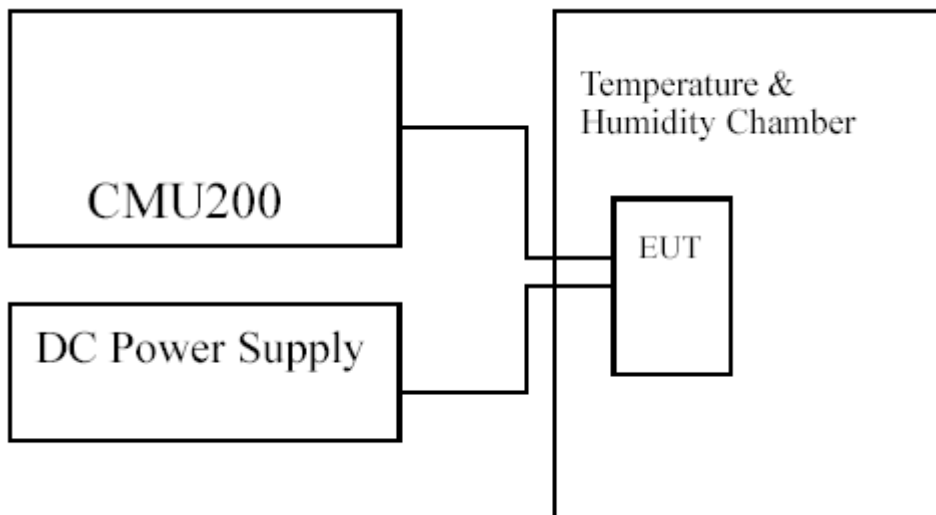
### 6.1. Test Equipment

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., 2010
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	<math>\pm 2.5\text{ppm}</math>
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#### 6.4. Test Procedure

The frequency stability of transmitter is measured by:

- (a) Temperature: The temperature is varied from  $-30^{\circ}\text{C}$  to  $50^{\circ}\text{C}$  in  $10^{\circ}\text{C}$  increment 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	Tablet PC		
Test Mode	Frequency Stability Under Temperature Variations & Voltage Variations		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	GSM 850 GPRS / Channel 189	Test Range	-30°C ~+50°C

#### Frequency Stability Under Temperature Variations

Temperature Interval(°C)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
-30	0.836	16	±2.09
-20	0.836	-39	±2.09
-10	0.836	-27	±2.09
0	0.836	31	±2.09
10	0.836	-22	±2.09
20	0.836	-29	±2.09
30	0.836	-30	±2.09
40	0.836	-46	±2.09
50	0.836	32	±2.09

#### Voltage Variations

DC Voltage (V)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
138	0.836	-26	±2.09
120	0.836	-29	±2.09
102	0.836	-17	±2.09



Product	Tablet PC		
Test Mode	Frequency Stability Under Temperature Variations & Voltage Variations		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	GSM 850 EGPRS / Channel 189	Test Range	-30°C ~+50°C

#### Frequency Stability Under Temperature Variations

Temperature Interval(°C)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
-30	0.836	27	±2.09
-20	0.836	-36	±2.09
-10	0.836	25	±2.09
0	0.836	27	±2.09
10	0.836	18	±2.09
20	0.836	-16	±2.09
30	0.836	-20	±2.09
40	0.836	-19	±2.09
50	0.836	-32	±2.09

#### Voltage Variations

DC Voltage (V)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
138	0.836	14	±2.09
120	0.836	-16	±2.09
102	0.836	13	±2.09

Product	Tablet PC		
Test Mode	Frequency Stability Under Temperature Variations & Voltage Variations		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	PCS 1900 GPRS / Channel 661	Test Range	-30°C ~+50°C

#### Frequency Stability Under Temperature Variations

Temperature Interval(°C)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
-30	1.88	-68	±4.7
-20	1.88	35	±4.7
-10	1.88	40	±4.7
0	1.88	-43	±4.7
10	1.88	-48	±4.7
20	1.88	-46	±4.7
30	1.88	-39	±4.7
40	1.88	-36	±4.7
50	1.88	-48	±4.7

#### Voltage Variations

DC Voltage (V)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
138	1.88	-52	±4.7
120	1.88	-46	±4.7
102	1.88	-40	±4.7

Product	Tablet PC		
Test Mode	Frequency Stability Under Temperature Variations & Voltage Variations		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	PCS 1900 EGPRS / Channel 661	Test Range	-30°C ~+50°C

#### Frequency Stability Under Temperature Variations

Temperature Interval(°C)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
-30	1.88	-67	±4.7
-20	1.88	-32	±4.7
-10	1.88	41	±4.7
0	1.88	46	±4.7
10	1.88	35	±4.7
20	1.88	29	±4.7
30	1.88	27	±4.7
40	1.88	-45	±4.7
50	1.88	43	±4.7

#### Voltage Variations

DC Voltage (V)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
138	1.88	26	±4.7
120	1.88	29	±4.7
102	1.88	40	±4.7

Product	Tablet PC		
Test Mode	Frequency Stability Under Temperature Variations & Voltage Variations		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	WCDMA BAND V / Channel 4183	Test Range	-30°C ~+50°C

#### Frequency Stability Under Temperature Variations

Temperature Interval(°C)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
-30	0.836	-21	±2.09
-20	0.836	-18	±2.09
-10	0.836	-30	±2.09
0	0.836	-23	±2.09
10	0.836	-19	±2.09
20	0.836	-21	±2.09
30	0.836	-28	±2.09
40	0.836	-22	±2.09
50	0.836	41	±2.09

#### Voltage Variations

DC Voltage (V)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
138	0.836	-23	±2.09
120	0.836	-21	±2.09
102	0.836	-27	±2.09

Product	Tablet PC		
Test Mode	Frequency Stability Under Temperature Variations & Voltage Variations		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	WCDMA BAND V HSDPA / Channel 4183	Test Range	-30°C ~+50°C

#### Frequency Stability Under Temperature Variations

Temperature Interval(°C)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
-30	0.836	-18	±2.09
-20	0.836	-23	±2.09
-10	0.836	15	±2.09
0	0.836	24	±2.09
10	0.836	19	±2.09
20	0.836	-16	±2.09
30	0.836	-27	±2.09
40	0.836	17	±2.09
50	0.836	26	±2.09

#### Voltage Variations

DC Voltage (V)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
138	0.836	-17	±2.09
120	0.836	-16	±2.09
102	0.836	-14	±2.09

Product	Tablet PC		
Test Mode	Frequency Stability Under Temperature Variations & Voltage Variations		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	WCDMA BAND V HSUPA / Channel 4183	Test Range	-30°C ~+50°C

#### Frequency Stability Under Temperature Variations

Temperature Interval(°C)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
-30	0.836	-17	±2.09
-20	0.836	-22	±2.09
-10	0.836	29	±2.09
0	0.836	-22	±2.09
10	0.836	-20	±2.09
20	0.836	-24	±2.09
30	0.836	-27	±2.09
40	0.836	-25	±2.09
50	0.836	-19	±2.09

#### Voltage Variations

DC Voltage (V)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
138	0.836	-31	±2.09
120	0.836	-24	±2.09
102	0.836	-29	±2.09

Product	Tablet PC		
Test Mode	Frequency Stability Under Temperature Variations & Voltage Variations		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	WCDMA BAND II / Channel 9400	Test Range	-30°C ~+50°C

#### Frequency Stability Under Temperature Variations

Temperature Interval(°C)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
-30	1.88	-34	±4.7
-20	1.88	21	±4.7
-10	1.88	33	±4.7
0	1.88	-26	±4.7
10	1.88	-31	±4.7
20	1.88	-34	±4.7
30	1.88	-30	±4.7
40	1.88	29	±4.7
50	1.88	36	±4.7

#### Voltage Variations

DC Voltage (V)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
138	1.88	29	±4.7
120	1.88	-34	±4.7
102	1.88	37	±4.7

Product	Tablet PC		
Test Mode	Frequency Stability Under Temperature Variations & Voltage Variations		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	WCDMA BAND II HSDPA / Channel 9400	Test Range	-30°C ~+50°C

#### Frequency Stability Under Temperature Variations

Temperature Interval(°C)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
-30	1.88	32	±4.7
-20	1.88	-33	±4.7
-10	1.88	26	±4.7
0	1.88	23	±4.7
10	1.88	30	±4.7
20	1.88	-34	±4.7
30	1.88	28	±4.7
40	1.88	-30	±4.7
50	1.88	-37	±4.7

#### Voltage Variations

DC Voltage (V)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
138	1.88	29	±4.7
120	1.88	-34	±4.7
102	1.88	31	±4.7



Product	Tablet PC		
Test Mode	Frequency Stability Under Temperature Variations & Voltage Variations		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	WCDMA BAND II HSUPA / Channel 9400	Test Range	-30°C ~+50°C

#### Frequency Stability Under Temperature Variations

Temperature Interval(°C)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
-30	1.88	-34	±4.7
-20	1.88	-31	±4.7
-10	1.88	37	±4.7
0	1.88	40	±4.7
10	1.88	32	±4.7
20	1.88	38	±4.7
30	1.88	-36	±4.7
40	1.88	32	±4.7
50	1.88	-30	±4.7

#### Voltage Variations

DC Voltage (V)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
138	1.88	-32	±4.7
120	1.88	38	±4.7
102	1.88	31	±4.7

Product	Tablet PC		
Test Mode	Frequency Stability Under Temperature Variations & Voltage Variations		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	CDMA2000 1X BC0 / Channel 384	Test Range	-30°C ~+50°C

#### Frequency Stability Under Temperature Variations

Temperature Interval(°C)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
-30	0.837	32	±2.09
-20	0.837	29	±2.09
-10	0.837	-26	±2.09
0	0.837	19	±2.09
10	0.837	30	±2.09
20	0.837	27	±2.09
30	0.837	12	±2.09
40	0.837	25	±2.09
50	0.837	27	±2.09

#### Voltage Variations

DC Voltage (V)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
138	0.837	-20	±2.09
120	0.837	27	±2.09
102	0.837	-12	±2.09

Product	Tablet PC		
Test Mode	Frequency Stability Under Temperature Variations & Voltage Variations		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	CDMA2000 1X EV-DO REL 0 BC0 / Channel 384	Test Range	-30°C ~+50°C

#### Frequency Stability Under Temperature Variations

Temperature Interval(°C)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
-30	0.837	-26	±2.09
-20	0.837	23	±2.09
-10	0.837	31	±2.09
0	0.837	16	±2.09
10	0.837	14	±2.09
20	0.837	9	±2.09
30	0.837	18	±2.09
40	0.837	15	±2.09
50	0.837	-21	±2.09

#### Voltage Variations

DC Voltage (V)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
138	0.837	11	±2.09
120	0.837	9	±2.09
102	0.837	6	±2.09

Product	Tablet PC		
Test Mode	Frequency Stability Under Temperature Variations & Voltage Variations		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	CDMA2000 1X EV-DO REL A BC0 / Channel 384	Test Range	-30°C ~+50°C

#### Frequency Stability Under Temperature Variations

Temperature Interval(°C)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
-30	0.837	19	±2.09
-20	0.837	20	±2.09
-10	0.837	15	±2.09
0	0.837	12	±2.09
10	0.837	20	±2.09
20	0.837	7	±2.09
30	0.837	10	±2.09
40	0.837	-14	±2.09
50	0.837	15	±2.09

#### Voltage Variations

DC Voltage (V)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
138	0.837	9	±2.09
120	0.837	7	±2.09
102	0.837	6	±2.09

Product	Tablet PC		
Test Mode	Frequency Stability Under Temperature Variations & Voltage Variations		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	CDMA2000 1X BC1/ Channel 600	Test Range	-30°C ~+50°C

#### Frequency Stability Under Temperature Variations

Temperature Interval(°C)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
-30	1.88	-58	±4.7
-20	1.88	-48	±4.7
-10	1.88	-42	±4.7
0	1.88	39	±4.7
10	1.88	28	±4.7
20	1.88	46	±4.7
30	1.88	20	±4.7
40	1.88	31	±4.7
50	1.88	57	±4.7

#### Voltage Variations

DC Voltage (V)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
138	1.88	20	±4.7
120	1.88	46	±4.7
102	1.88	45	±4.7

Product	Tablet PC		
Test Mode	Frequency Stability Under Temperature Variations & Voltage Variations		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	CDMA2000 1X EV-DO REL 0 BC1 / Channel 600	Test Range	-30°C ~+50°C

#### Frequency Stability Under Temperature Variations

Temperature Interval(°C)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
-30	1.88	39	±4.7
-20	1.88	-42	±4.7
-10	1.88	-36	±4.7
0	1.88	-40	±4.7
10	1.88	-31	±4.7
20	1.88	17	±4.7
30	1.88	-14	±4.7
40	1.88	19	±4.7
50	1.88	25	±4.7

#### Voltage Variations

DC Voltage (V)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
138	1.88	16	±4.7
120	1.88	17	±4.7
102	1.88	21	±4.7

Product	Tablet PC		
Test Mode	Frequency Stability Under Temperature Variations & Voltage Variations		
Date of Test	2010/06/03	Test Site	CTR
Test Condition	CDMA2000 1X EV-DO REL A BC1 / Channel 600	Test Range	-30°C ~+50°C

#### Frequency Stability Under Temperature Variations

Temperature Interval(°C)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
-30	1.88	-47	±4.7
-20	1.88	-38	±4.7
-10	1.88	-45	±4.7
0	1.88	37	±4.7
10	1.88	-41	±4.7
20	1.88	22	±4.7
30	1.88	17	±4.7
40	1.88	29	±4.7
50	1.88	-38	±4.7

#### Voltage Variations

DC Voltage (V)	Test Frequency (GHz)	Deviation (Hz)	Limit (KHz)
138	1.88	34	±4.7
120	1.88	22	±4.7
102	1.88	18	±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