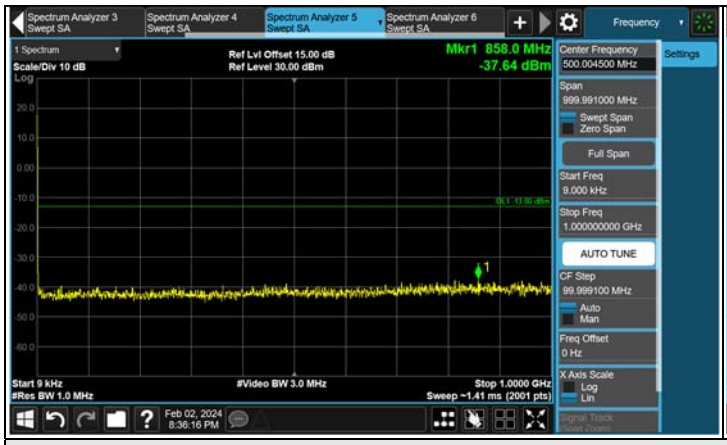
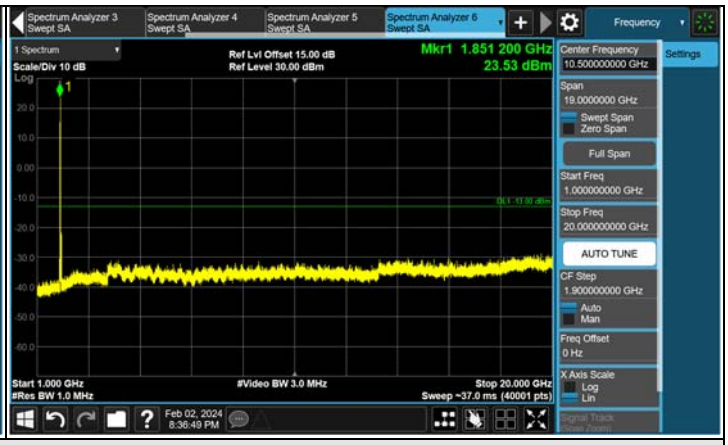
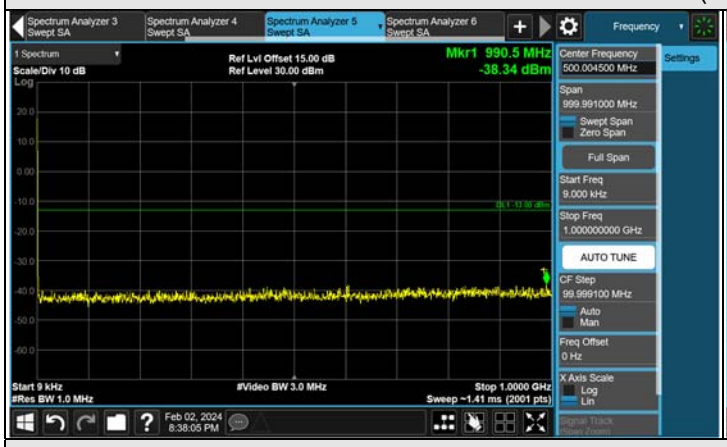
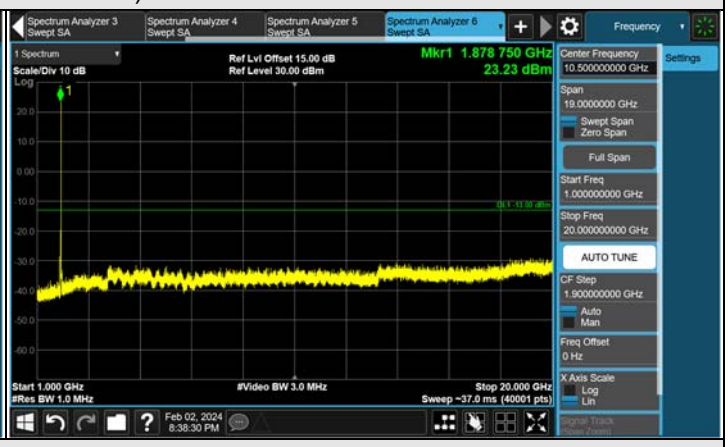
HSDPA



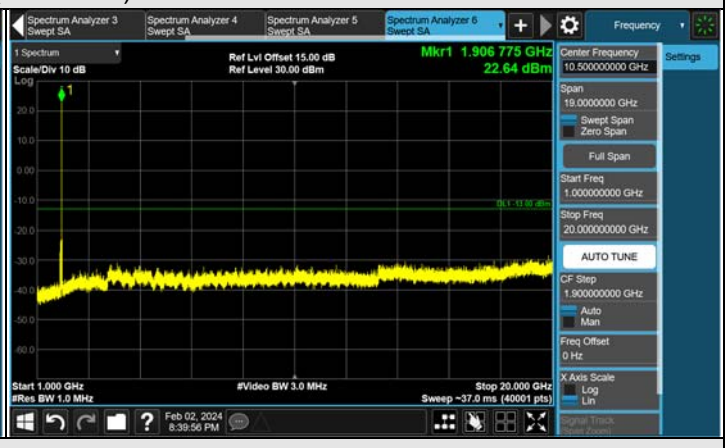


CH 9262 (1852.4 MHz)



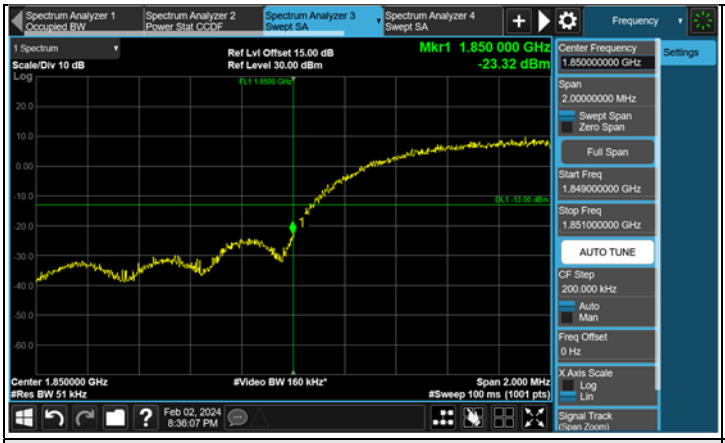


CH 9400 (1880 MHz)

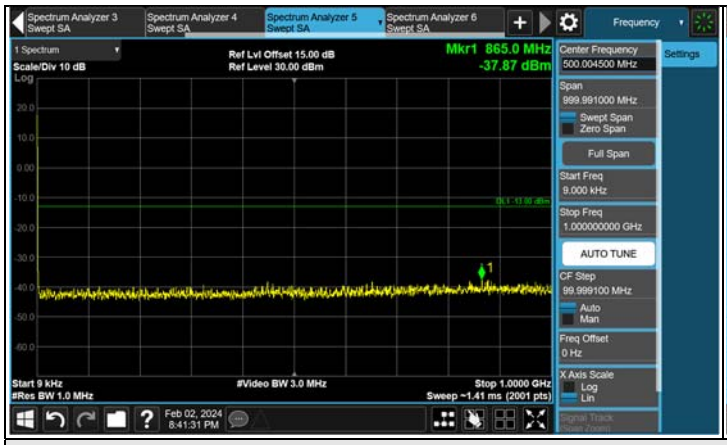


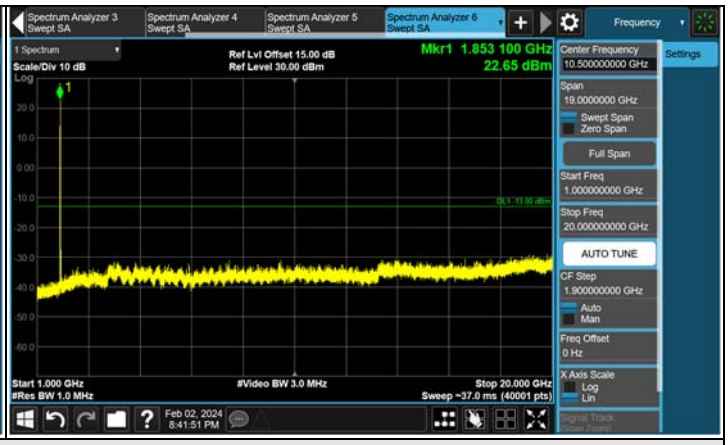
CH 9538 (1907.6 MHz)

Note: The signal at 9 kHz is IF signal from spectrum analyzer.

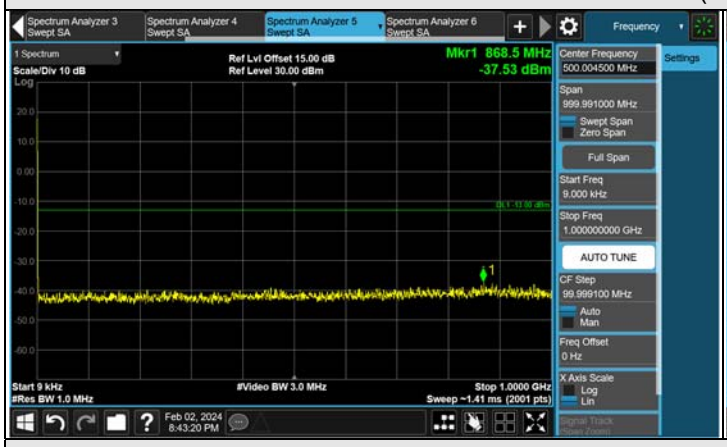
	
CH 9262 (1852.4 MHz)	CH 9538 (1907.6 MHz)

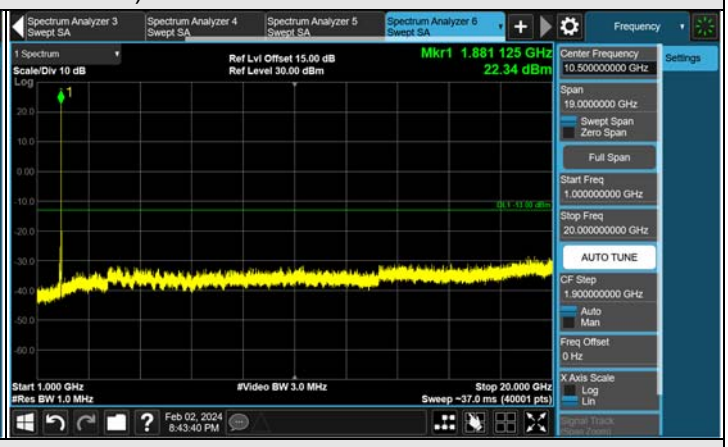
HSUPA



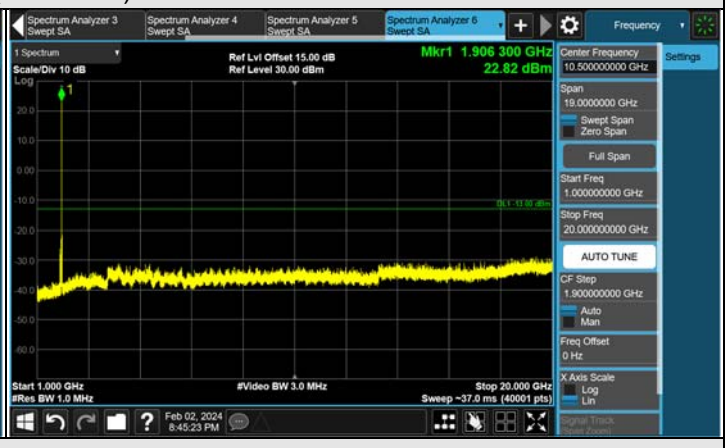


CH 9262 (1852.4 MHz)



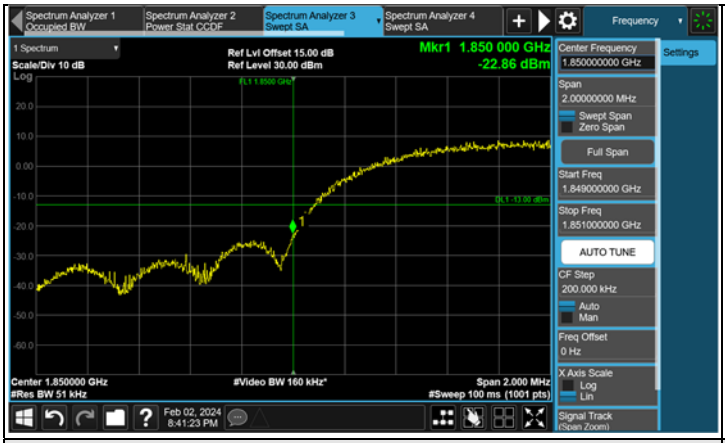


CH 9400 (1880 MHz)



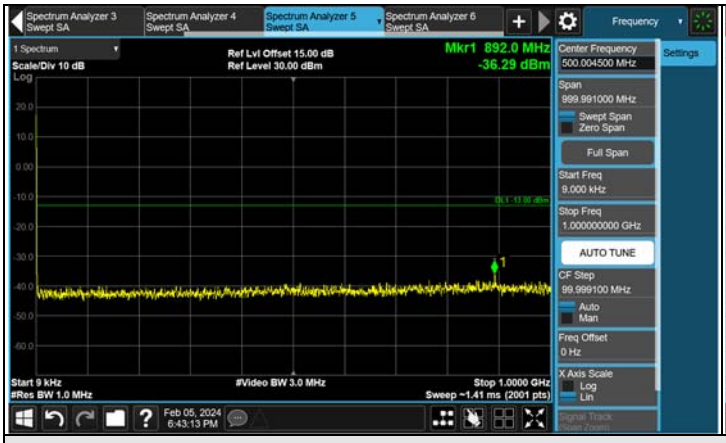
CH 9538 (1907.6 MHz)

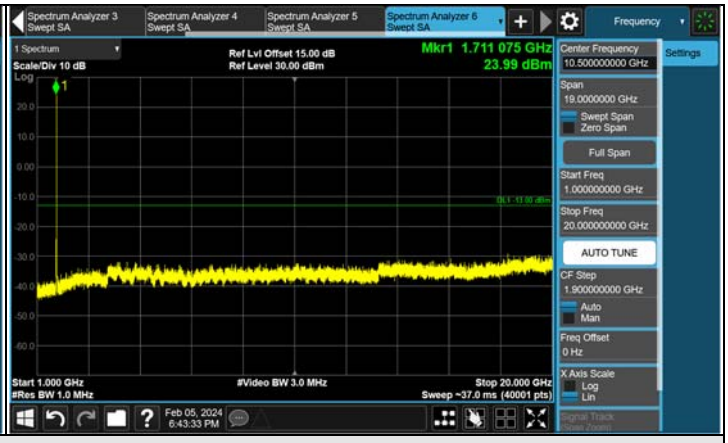
Note: The signal at 9 kHz is IF signal from spectrum analyzer.

	
CH 9262 (1852.4 MHz)	CH 9538 (1907.6 MHz)

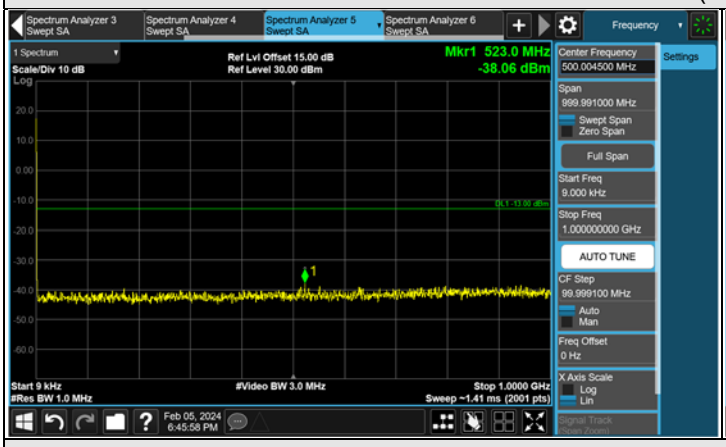
7.5.4 WCDMA Band 4

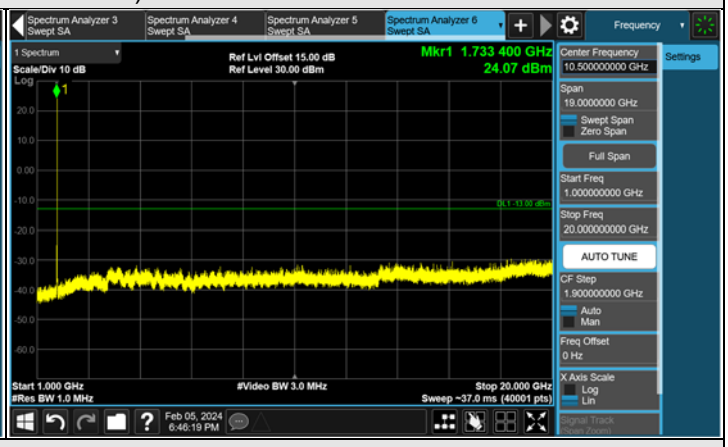
WCDMA



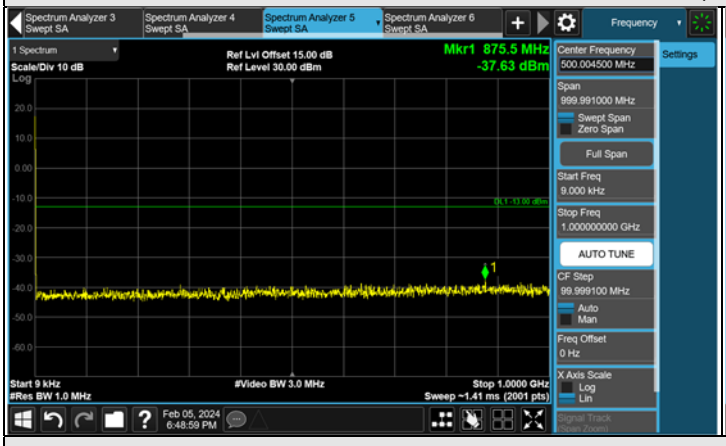


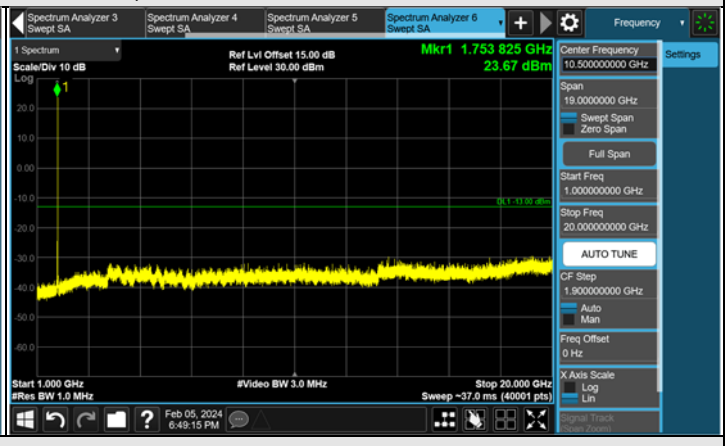
CH 1312 (1712.4 MHz)





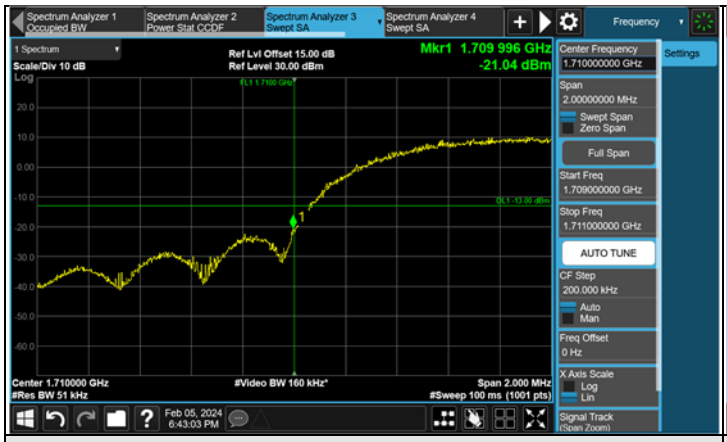
CH 1413 (1732.6 MHz)





CH 1513 (1752.6 MHz)

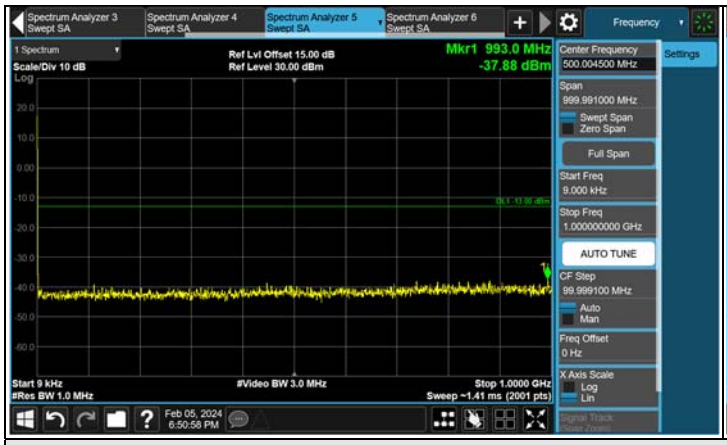
Note: The signal at 9 kHz is IF signal from spectrum analyzer.

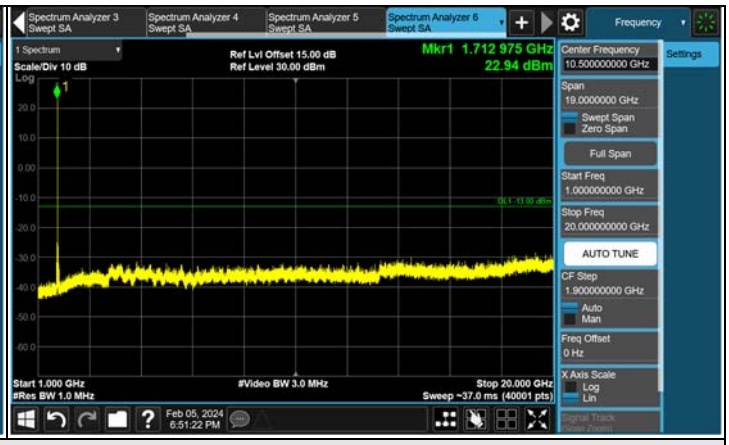


CH 1312 (1712.4 MHz)

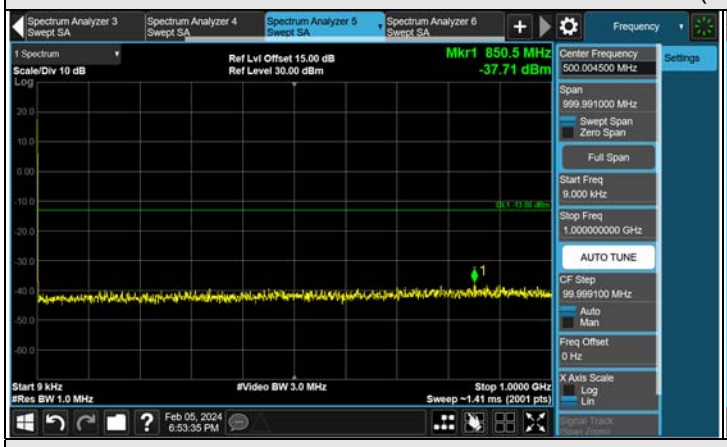
CH 1513 (1752.6 MHz)

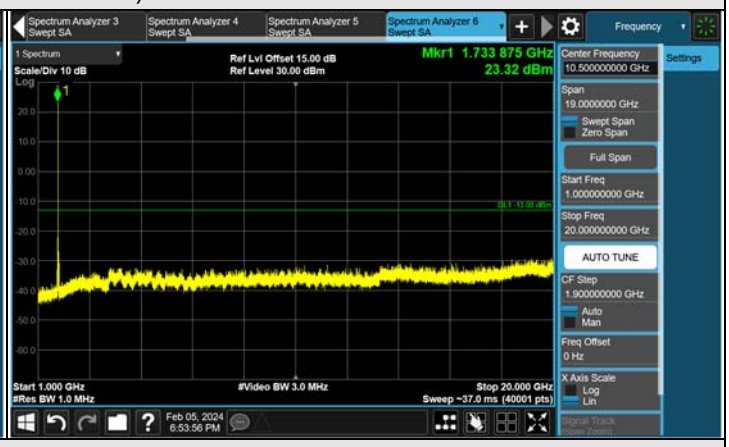
HSDPA



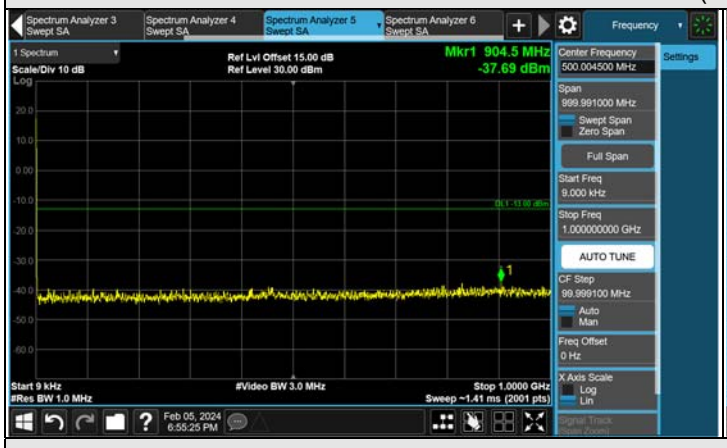


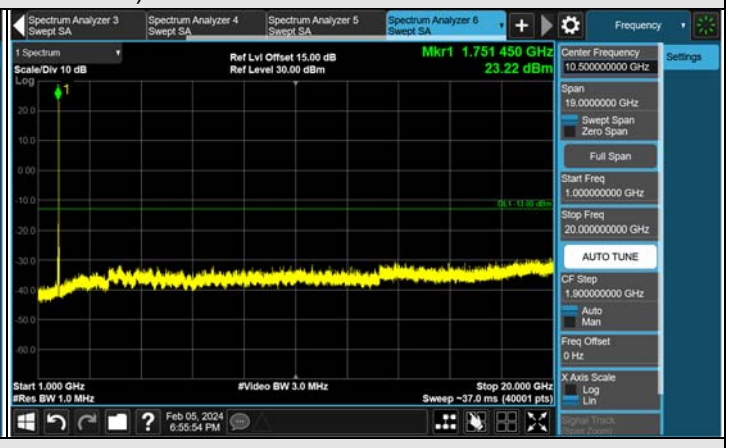
CH 1312 (1712.4 MHz)





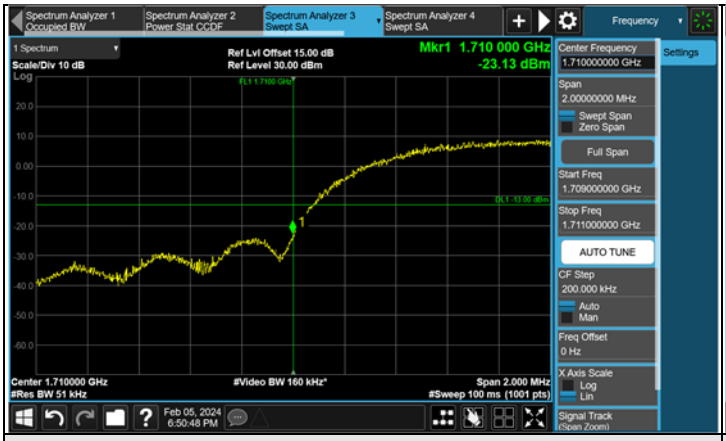
CH 1413 (1732.6 MHz)



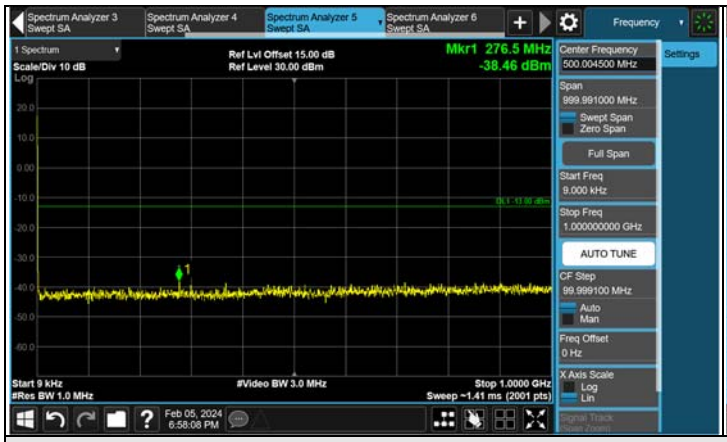


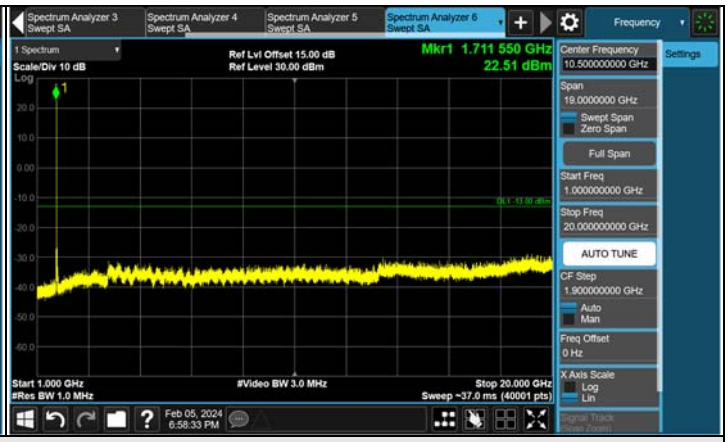
CH 1513 (1752.6 MHz)

Note: The signal at 9 kHz is IF signal from spectrum analyzer.

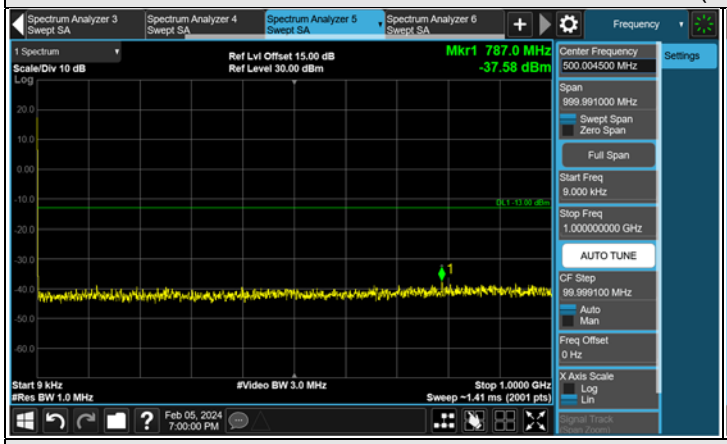
	
CH 1312 (1712.4 MHz)	CH 1513 (1752.6 MHz)

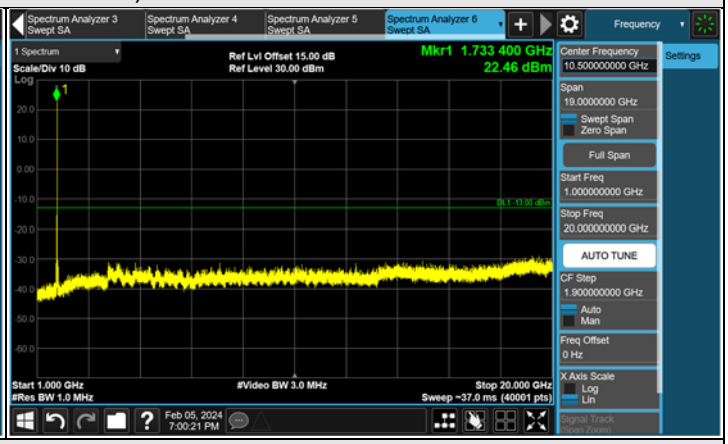
HSUPA



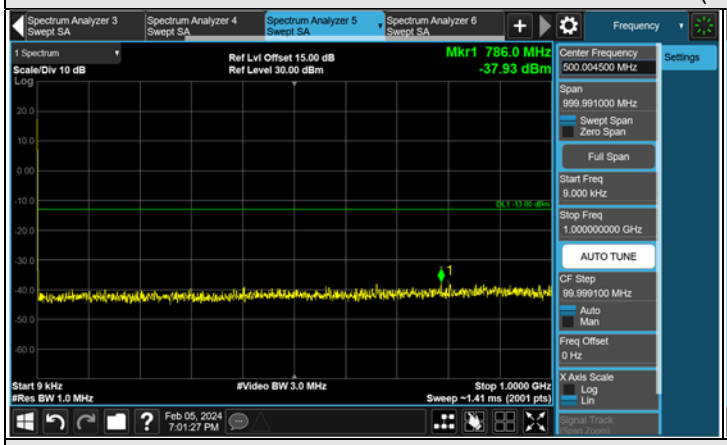


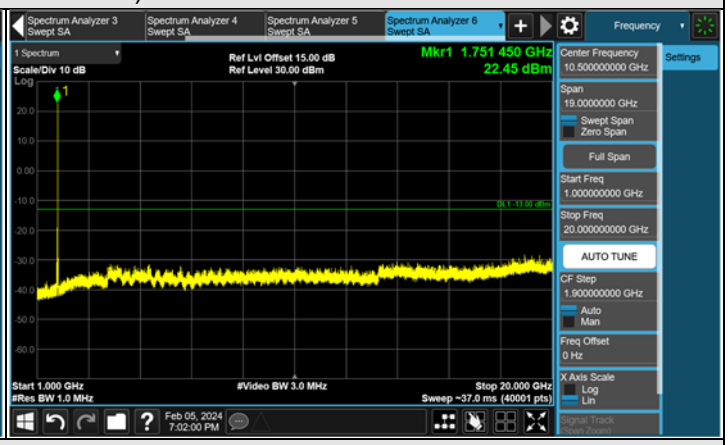
CH 1312 (1712.4 MHz)





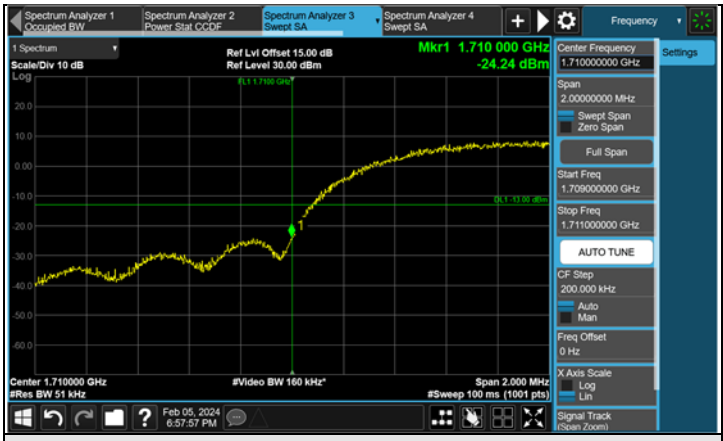
CH 1413 (1732.6 MHz)





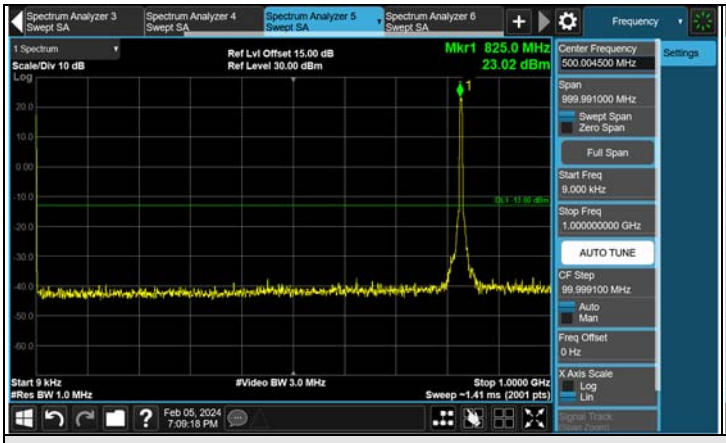
CH 1513 (1752.6 MHz)

Note: The signal at 9 kHz is IF signal from spectrum analyzer.

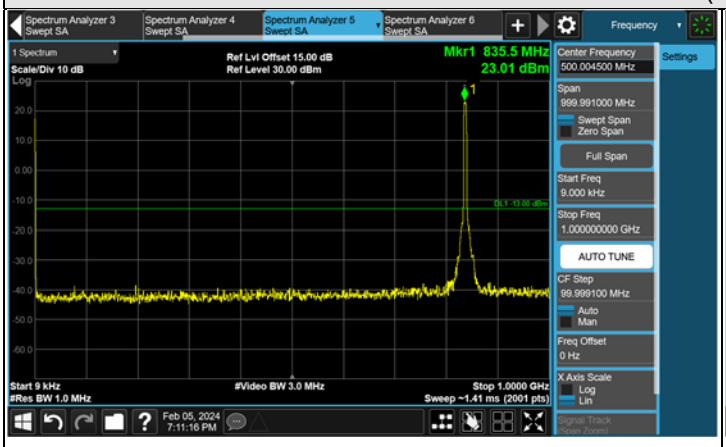
	
CH 1312 (1712.4 MHz)	CH 1513 (1752.6 MHz)

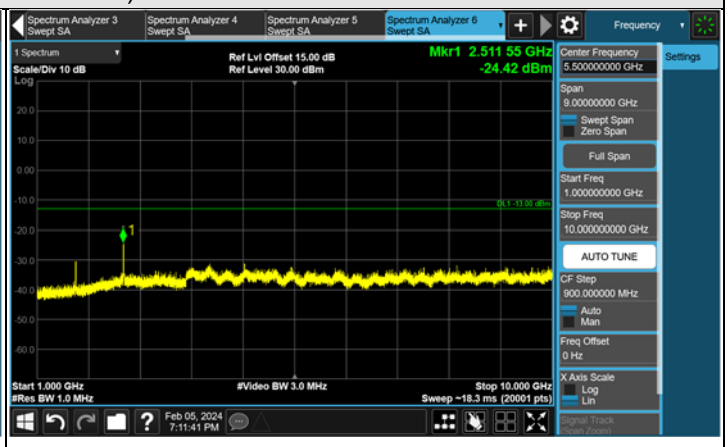
7.5.5 WCDMA Band 5

WCDMA

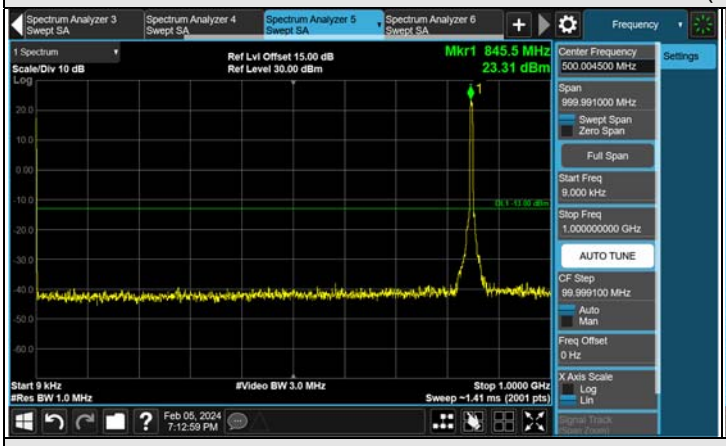


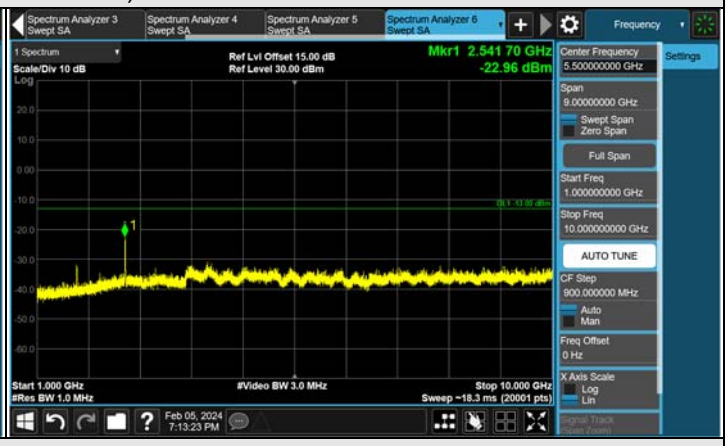
CH 4132 (826.4 MHz)





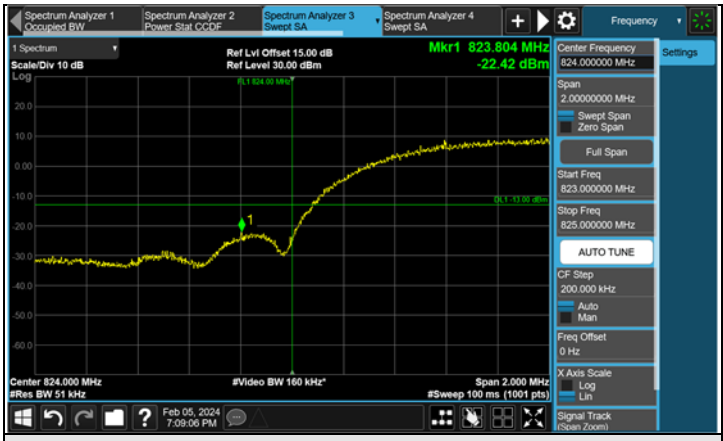
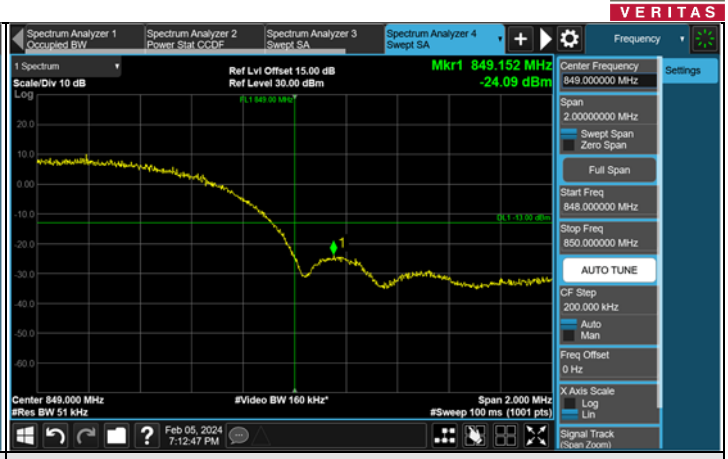
CH 4182 (836.4 MHz)



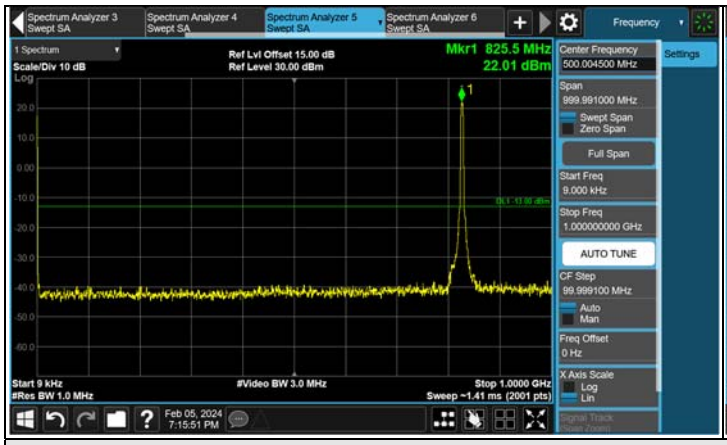


CH 4223 (846.6 MHz)

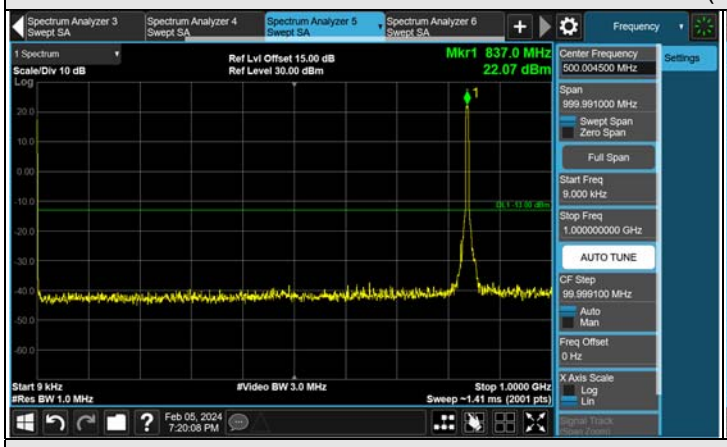
Note: The signal at 9 kHz is IF signal from spectrum analyzer.

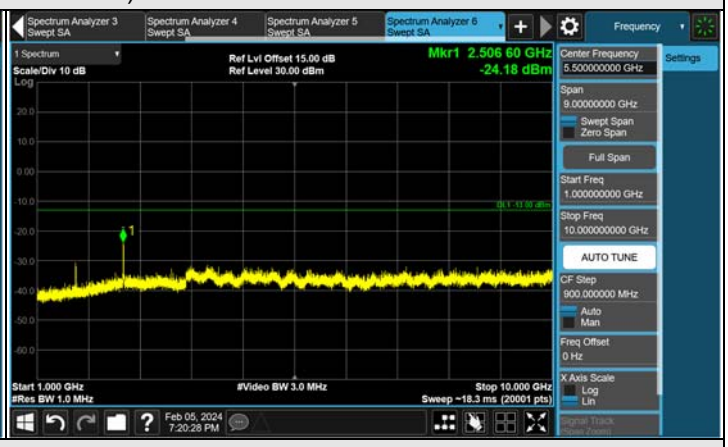
	
CH 4132 (826.4 MHz)	CH 4223 (846.6 MHz)

HSDPA

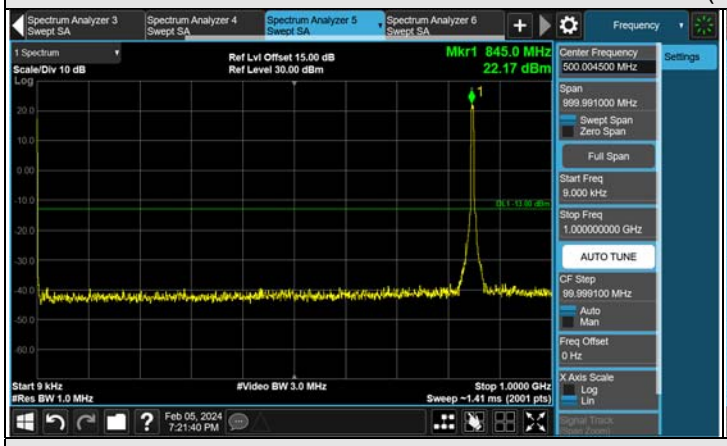


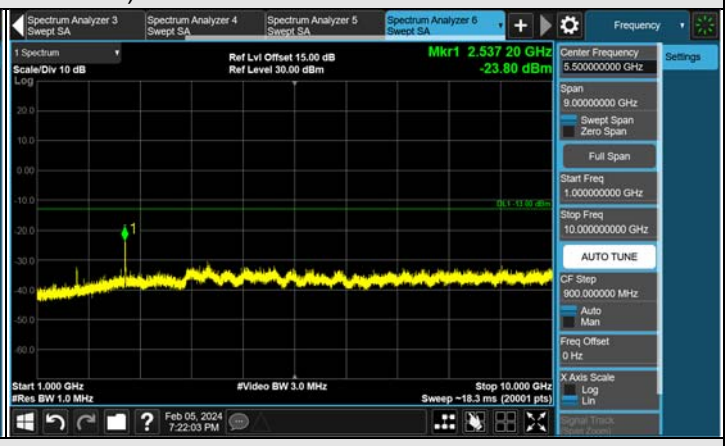
CH 4132 (826.4 MHz)





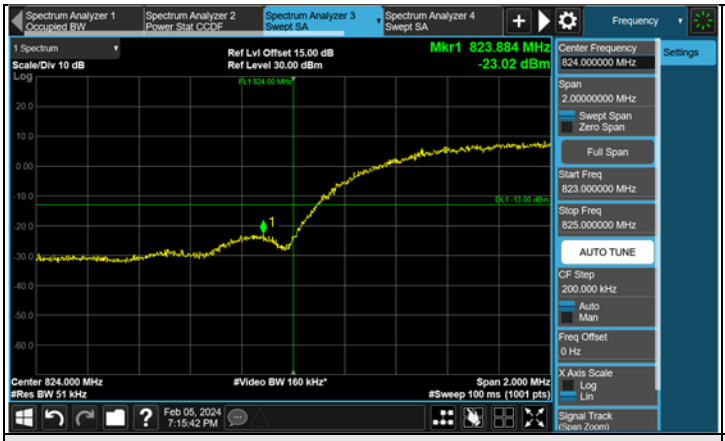
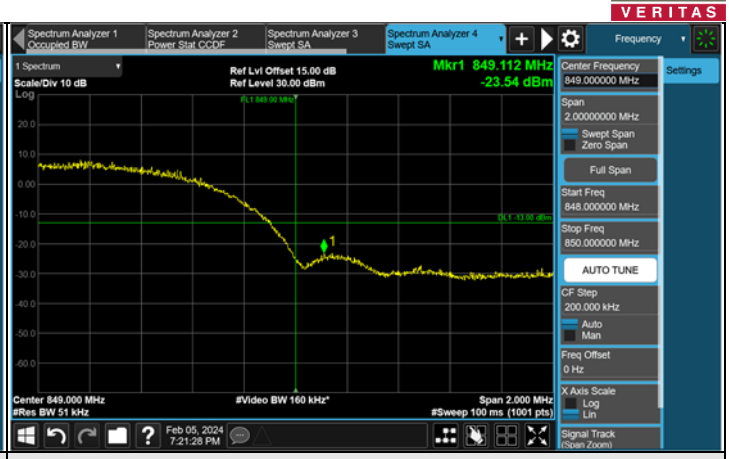
CH 4182 (836.4 MHz)



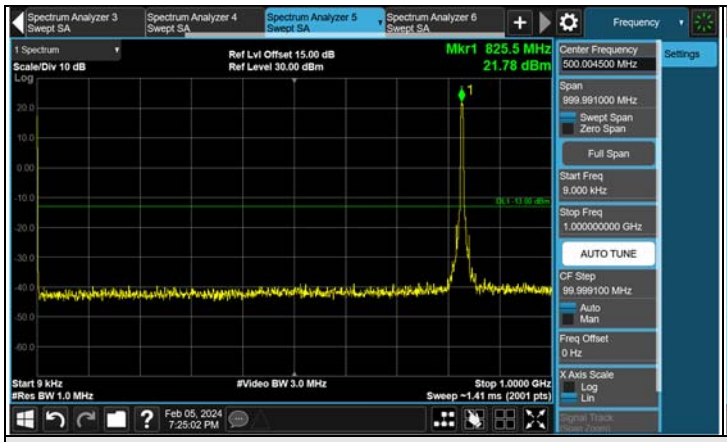


CH 4223 (846.6 MHz)

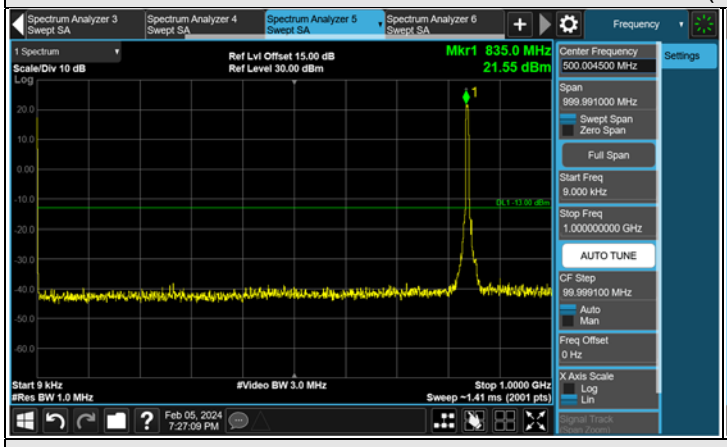
Note: The signal at 9 kHz is IF signal from spectrum analyzer.

	
CH 4132 (826.4 MHz)	CH 4223 (846.6 MHz)

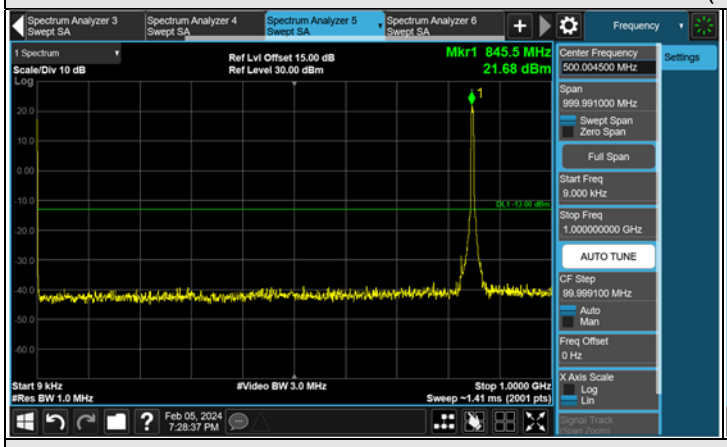
HSUPA



CH 4132 (826.4 MHz)

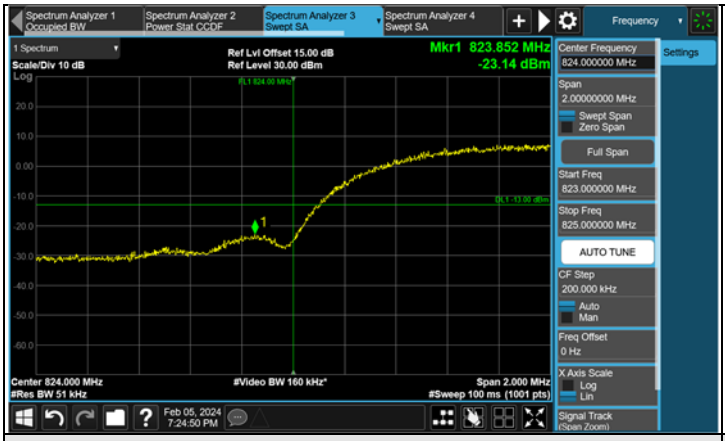


CH 4182 (836.4 MHz)



CH 4223 (846.6 MHz)

Note: The signal at 9 kHz is IF signal from spectrum analyzer.

	
CH 4132 (826.4 MHz)	CH 4223 (846.6 MHz)

7.6 Radiated Spurious Emissions below 1GHz

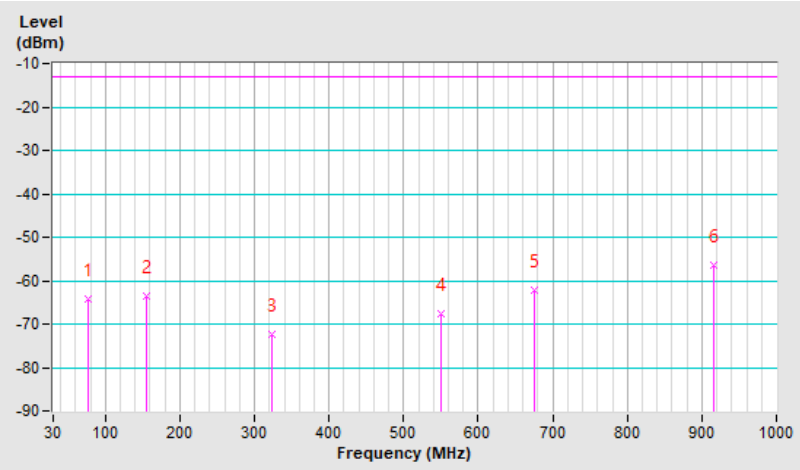
7.6.1 GSM 850

RF Mode	GSM 850	Channel	CH 189：836.40 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 78% RH
Tested By	Vincent Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	77.53	-64.24	-13.00	-51.24	2.00 H	50	49.95	-114.19
2	156.10	-63.57	-13.00	-50.57	1.00 H	104	46.50	-110.07
3	323.91	-72.30	-13.00	-59.30	1.50 H	252	36.38	-108.68
4	550.89	-67.52	-13.00	-54.52	1.00 H	2	36.09	-103.61
5	676.02	-62.32	-13.00	-49.32	2.00 H	259	38.78	-101.10
6	915.61	-56.29	-13.00	-43.29	1.50 H	231	41.68	-97.97

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9kHz~30MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

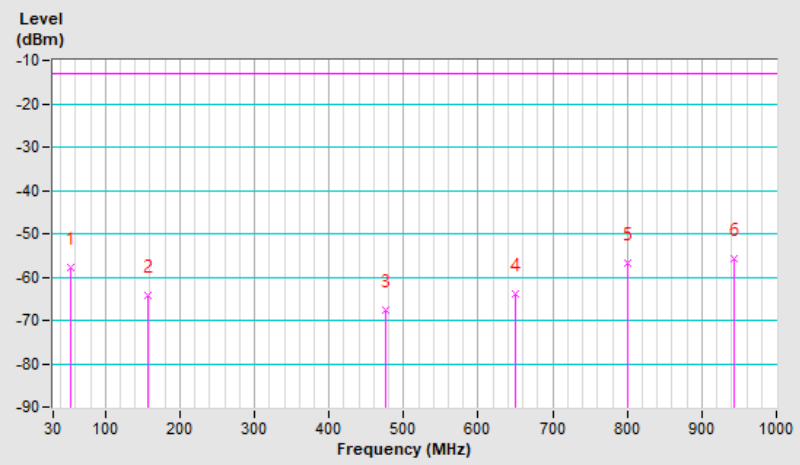


RF Mode	GSM 850	Channel	CH 189：836.40 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 78% RH
Tested By	Vincent Chen		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	53.28	-57.68	-13.00	-44.68	1.50 V	324	52.33	-110.01
2	157.07	-64.24	-13.00	-51.24	1.00 V	218	45.78	-110.02
3	475.23	-67.76	-13.00	-54.76	2.00 V	53	37.22	-104.98
4	649.83	-63.75	-13.00	-50.75	1.00 V	70	37.69	-101.44
5	800.18	-56.82	-13.00	-43.82	1.50 V	155	41.70	-98.52
6	943.74	-55.76	-13.00	-42.76	2.00 V	352	41.91	-97.67

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



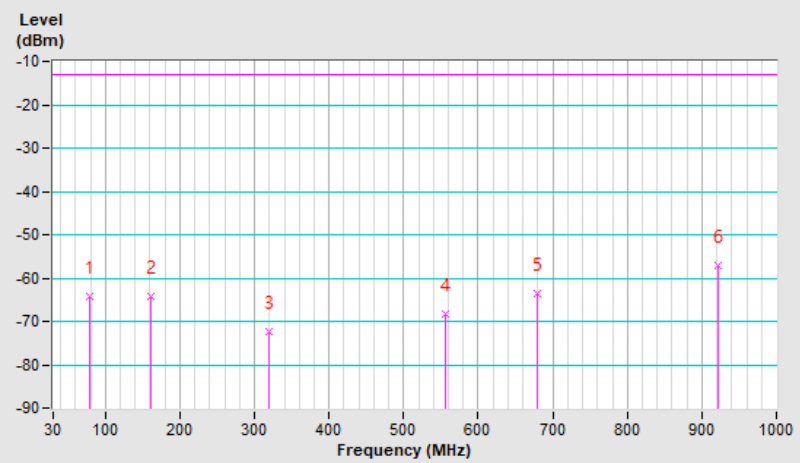
7.6.2 EDGE 850

RF Mode	EDGE 850	Channel	CH 189：836.40 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 60% RH
Tested By	Charles Hsiao		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	78.54	-64.39	-13.00	-51.39	1.05 H	55	50.54	-114.93
2	160.55	-64.17	-13.00	-51.17	1.74 H	44	45.95	-110.12
3	320.25	-72.33	-13.00	-59.33	1.54 H	109	36.78	-109.11
4	555.55	-68.44	-13.00	-55.44	1.57 H	103	35.43	-103.87
5	680.19	-63.39	-13.00	-50.39	1.64 H	101	38.09	-101.48
6	922.22	-57.00	-13.00	-44.00	1.00 H	214	40.66	-97.66

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

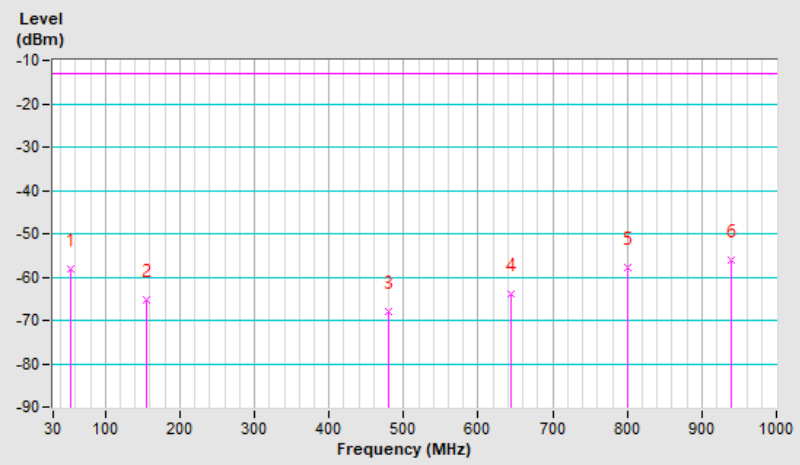


RF Mode	EDGE 850	Channel	CH 189：836.40 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 60% RH
Tested By	Charles Hsiao		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	54.22	-58.06	-13.00	-45.06	1.05 V	110	52.61	-110.67
2	154.44	-65.21	-13.00	-52.21	1.35 V	111	44.80	-110.01
3	480.14	-67.94	-13.00	-54.94	1.54 V	112	37.18	-105.12
4	644.15	-64.03	-13.00	-51.03	1.56 V	6	37.60	-101.63
5	799.84	-57.94	-13.00	-44.94	1.74 V	154	41.60	-99.54
6	940.14	-56.22	-13.00	-43.22	1.35 V	329	41.23	-97.45

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



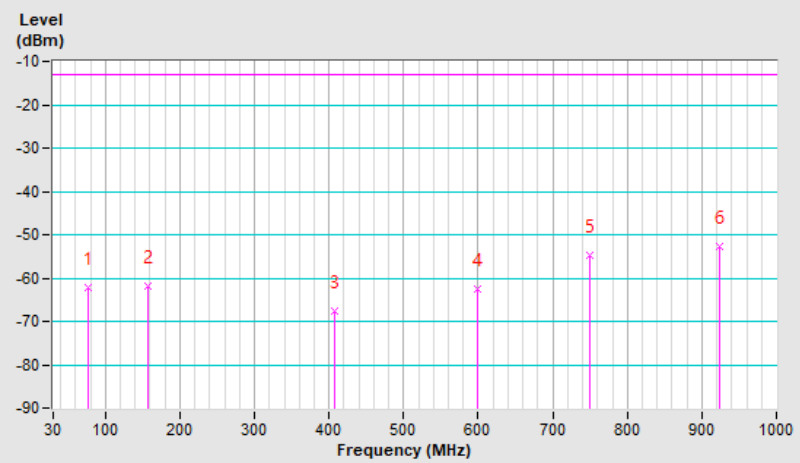
7.6.3 PCS 1900

RF Mode	PCS 1900	Channel	CH 661：1880.00 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 78% RH
Tested By	Vincent Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	77.53	-62.05	-13.00	-49.05	2.00 H	18	49.99	-112.04
2	157.07	-61.74	-13.00	-48.74	1.00 H	95	46.13	-107.87
3	408.30	-67.66	-13.00	-54.66	1.50 H	2	37.06	-104.72
4	598.42	-62.38	-13.00	-49.38	1.00 H	179	38.05	-100.43
5	748.77	-54.77	-13.00	-41.77	2.00 H	360	41.88	-96.65
6	923.37	-52.84	-13.00	-39.84	1.50 H	194	42.84	-95.68

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

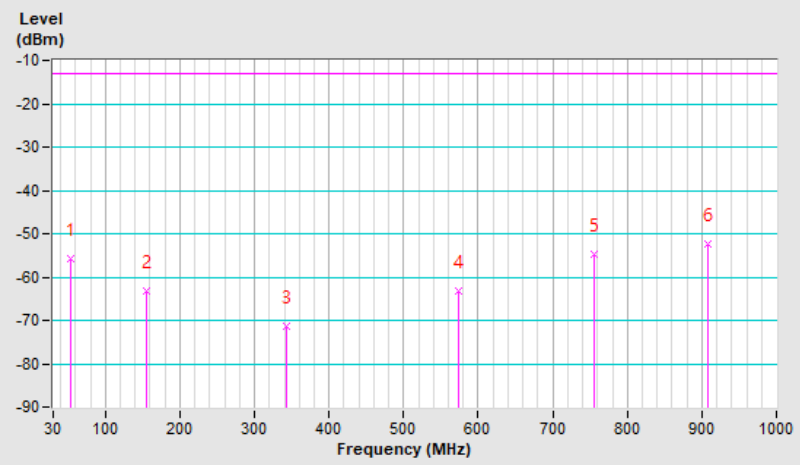


RF Mode	PCS 1900	Channel	CH 661：1880.00 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 78% RH
Tested By	Vincent Chen		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	53.28	-55.77	-13.00	-42.77	2.00 V	263	52.09	-107.86
2	156.10	-63.23	-13.00	-50.23	1.00 V	213	44.69	-107.92
3	343.31	-71.39	-13.00	-58.39	1.50 V	203	35.04	-106.43
4	574.17	-63.26	-13.00	-50.26	1.00 V	285	37.75	-101.01
5	755.56	-54.90	-13.00	-41.90	2.00 V	273	41.61	-96.51
6	**908.82**	**-52.46**	**-13.00**	**-39.46**	**1.00 V**	**195**	**43.43**	**-95.89**

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



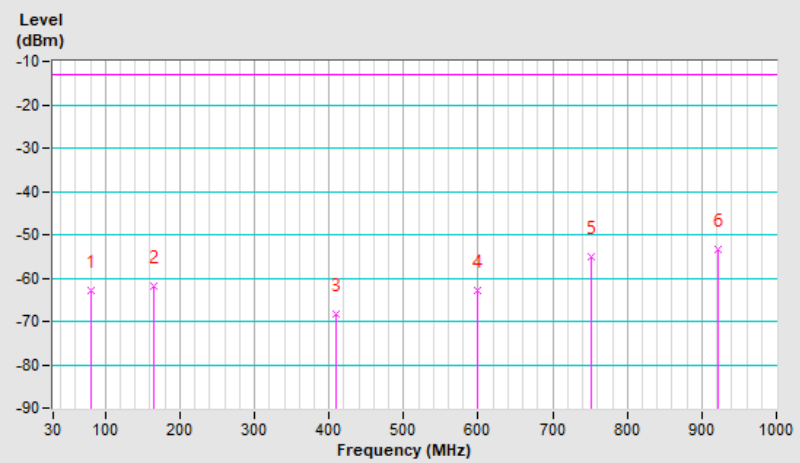
7.6.4 EDGE 1900

RF Mode	EDGE 1900	Channel	CH 661：1880.00 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 60% RH
Tested By	Charles Hsiao		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	79.94	-62.77	-13.00	-49.77	1.12 H	214	50.35	-113.12
2	164.15	-62.03	-13.00	-49.03	1.35 H	207	46.01	-108.04
3	410.00	-68.14	-13.00	-55.14	1.15 H	244	36.71	-104.85
4	599.92	-63.03	-13.00	-50.03	1.54 H	100	37.27	-100.30
5	750.84	-55.14	-13.00	-42.14	1.97 H	160	42.46	-97.60
6	922.21	-53.39	-13.00	-40.39	1.51 H	11	42.12	-95.51

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

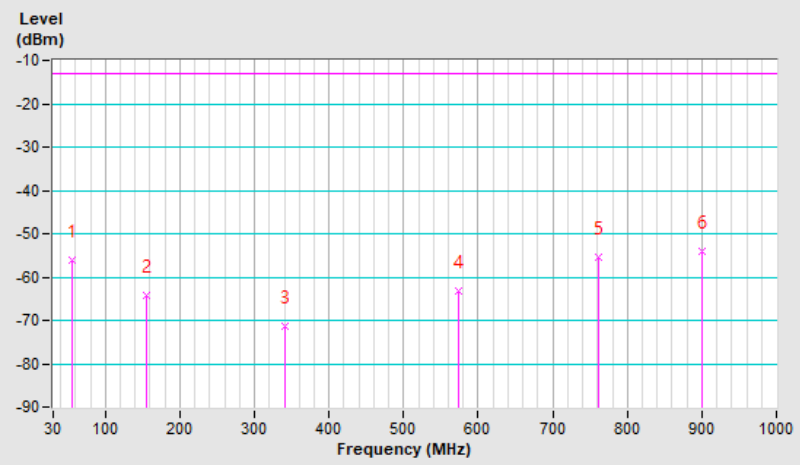


RF Mode	EDGE 1900	Channel	CH 661：1880.00 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 60% RH
Tested By	Charles Hsiao		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	55.41	-56.27	-13.00	-43.27	1.65 V	5	52.17	-108.44
2	155.54	-64.37	-13.00	-51.37	1.44 V	105	43.55	-107.92
3	341.15	-71.45	-13.00	-58.45	1.56 V	206	35.14	-106.59
4	574.44	-63.30	-13.00	-50.30	1.24 V	200	37.79	-101.09
5	760.65	-55.26	-13.00	-42.26	1.01 V	100	42.29	-97.55
6	900.63	-54.12	-13.00	-41.12	1.01 V	141	41.89	-96.01

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



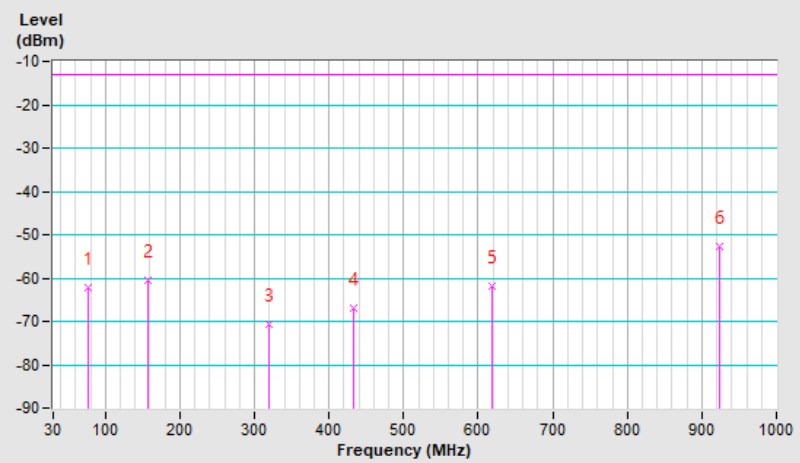
7.6.5 WCDMA Band 2

RF Mode	WCDMA Band II	Channel	CH 9400：1880.00 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 78% RH
Tested By	Vincent Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	77.53	-62.14	-13.00	-49.14	2.00 H	18	49.90	-112.04
2	157.07	-60.45	-13.00	-47.45	1.00 H	102	47.42	-107.87
3	320.03	-70.70	-13.00	-57.70	1.50 H	254	35.92	-106.62
4	432.55	-67.01	-13.00	-54.01	1.00 H	303	36.87	-103.88
5	618.79	-61.76	-13.00	-48.76	2.00 H	229	38.08	-99.84
6	924.34	-52.73	-13.00	-39.73	1.50 H	282	42.92	-95.65

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9kHz~30MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

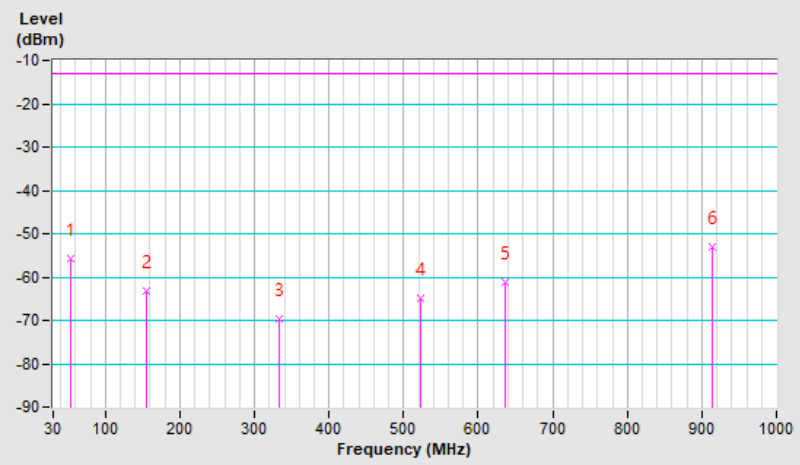


RF Mode	WCDMA Band II	Channel	CH 9400：1880.00 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 78% RH
Tested By	Vincent Chen		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	53.28	-55.68	-13.00	-42.68	1.00 V	317	52.18	-107.86
2	156.10	-63.32	-13.00	-50.32	1.00 V	114	44.60	-107.92
3	333.61	-69.60	-13.00	-56.60	1.50 V	120	36.82	-106.42
4	523.73	-64.86	-13.00	-51.86	1.00 V	282	36.68	-101.54
5	637.22	-61.02	-13.00	-48.02	2.00 V	135	38.44	-99.46
6	914.64	-52.93	-13.00	-39.93	1.50 V	117	42.91	-95.84

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9kHz~30MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



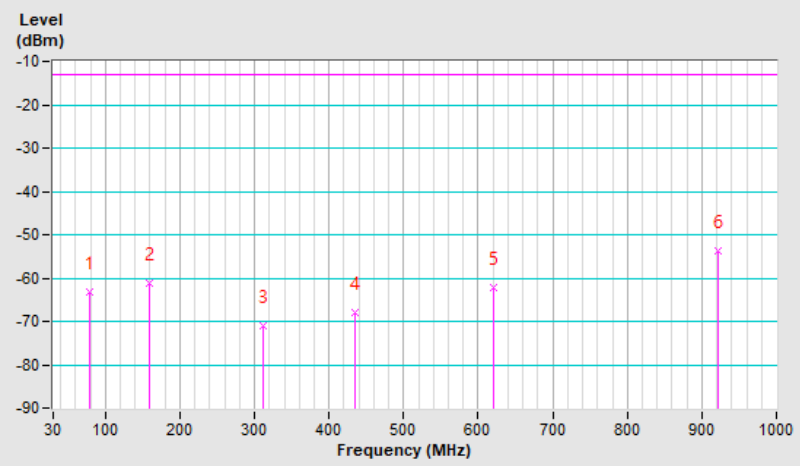
7.6.6 WCDMA Band 4

RF Mode	WCDMA Band IV	Channel	CH 1413：1732.60 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 78% RH
Tested By	Charles Hsiao		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	78.44	-63.12	-13.00	-50.12	1.05 H	112	49.64	-112.76
2	159.95	-61.11	-13.00	-48.11	1.14 H	15	46.81	-107.92
3	311.15	-71.14	-13.00	-58.14	1.05 H	100	36.15	-107.29
4	435.56	-68.11	-13.00	-55.11	1.95 H	211	35.89	-104.00
5	620.25	-62.26	-13.00	-49.26	1.63 H	332	37.66	-99.92
6	921.11	-53.88	-13.00	-40.88	1.57 H	7	41.67	-95.55

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9kHz~30MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

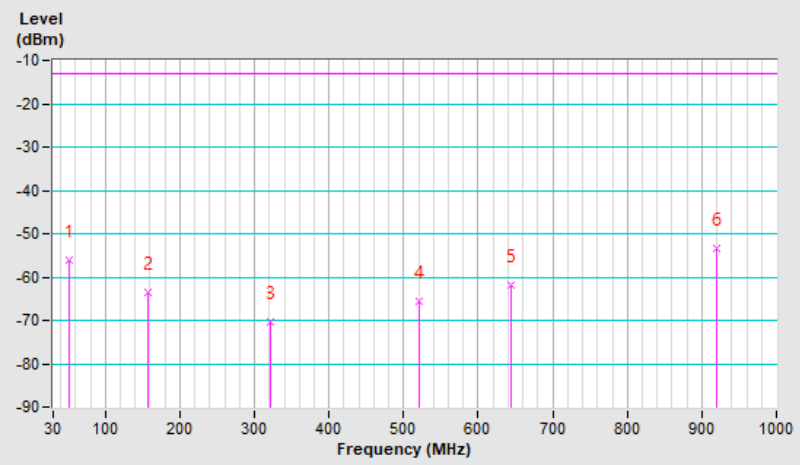


RF Mode	WCDMA Band IV	Channel	CH 1413：1732.60 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 78% RH
Tested By	Charles Hsiao		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	52.21	-56.00	-13.00	-43.00	1.21 V	111	52.28	-108.28
2	157.84	-63.44	-13.00	-50.44	1.57 V	104	44.47	-107.91
3	322.16	-70.32	-13.00	-57.32	1.34 V	195	36.57	-106.89
4	519.95	-65.55	-13.00	-52.55	1.57 V	102	36.83	-102.38
5	644.18	-61.74	-13.00	-48.74	1.54 V	4	37.74	-99.48
6	920.25	-53.36	-13.00	-40.36	1.56 V	334	42.21	-95.57

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9kHz~30MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



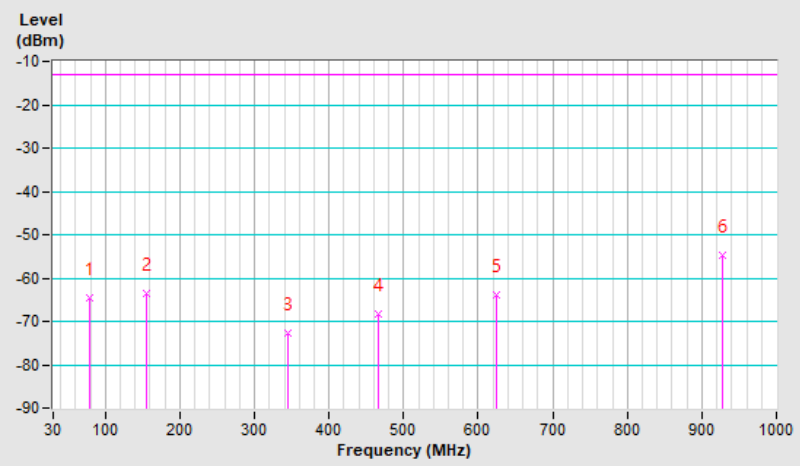
7.6.7 WCDMA Band 5

RF Mode	WCDMA Band V	Channel	CH 4182：836.40 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 78% RH
Tested By	Vincent Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	78.45	-64.53	-13.00	-51.53	2.00 H	23	49.87	-114.40
2	154.36	-63.65	-13.00	-50.65	1.00 H	135	46.35	-110.00
3	345.58	-72.79	-13.00	-59.79	2.00 H	267	35.78	-108.57
4	465.25	-68.45	-13.00	-55.45	1.50 H	256	36.72	-105.17
5	625.47	-64.03	-13.00	-51.03	1.50 H	230	37.81	-101.84
6	928.41	-54.91	-13.00	-41.91	1.00 H	252	42.86	-97.77

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9kHz~30MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

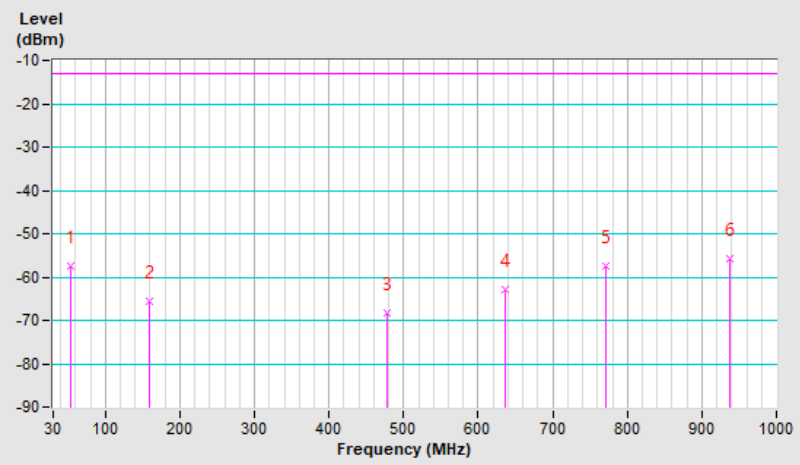


RF Mode	WCDMA Band V	Channel	CH 4182：836.40 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 78% RH
Tested By	Vincent Chen		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	53.28	-57.58	-13.00	-44.58	1.00 V	10	52.43	-110.01
2	159.01	-65.55	-13.00	-52.55	1.00 V	232	44.45	-110.00
3	478.14	-68.30	-13.00	-55.30	1.50 V	182	36.65	-104.95
4	637.22	-62.94	-13.00	-49.94	1.00 V	139	38.67	-101.61
5	771.08	-57.39	-13.00	-44.39	2.00 V	55	41.13	-98.52
6	937.92	-55.68	-13.00	-42.68	1.50 V	165	42.07	-97.75

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9kHz~30MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



7.7 Radiated Spurious Emissions above 1GHz

7.7.1 GSM 850

RF Mode	GSM 850	Channel	CH 128：824.2 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 78% RH
Tested By	Vincent Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1648.40	-51.98	-13.00	-38.98	1.54 H	198	65.53	-117.51
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1648.40	-54.27	-13.00	-41.27	1.76 V	167	63.24	-117.51

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

RF Mode	GSM 850	Channel	CH 189：836.4 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 78% RH
Tested By	Vincent Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1672.80	-51.80	-13.00	-38.80	1.55 H	200	65.63	-117.43
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1672.80	-53.93	-13.00	-40.93	1.74 V	165	63.50	-117.43

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

RF Mode	GSM 850	Channel	CH 251：848.8 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 78% RH
Tested By	Vincent Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1697.60	-51.84	-13.00	-38.84	1.55 H	204	65.52	-117.36
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1697.60	-53.96	-13.00	-40.96	1.74 V	167	63.40	-117.36

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

7.7.2 EDGE 850

RF Mode	EDGE 850	Channel	CH 128：824.2 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 60% RH
Tested By	Charles Hsiao		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1648.40	-54.10	-13.00	-41.10	1.55 H	200	49.75	-103.85
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1648.40	-56.55	-13.00	-43.55	1.80 V	145	47.30	-103.85

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

RF Mode	EDGE 850	Channel	CH 189：836.4 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 60% RH
Tested By	Charles Hsiao		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1672.80	-53.11	-13.00	-40.11	1.56 H	201	50.74	-103.85
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1672.80	-55.88	-13.00	-42.88	1.75 V	160	47.97	-103.85

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

RF Mode	EDGE 850	Channel	CH 251：848.8 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 60% RH
Tested By	Charles Hsiao		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1697.60	-53.03	-13.00	-40.03	1.56 H	201	50.81	-103.84
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1697.60	-55.87	-13.00	-42.87	1.75 V	161	47.97	-103.84

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

7.7.3 PCS 1900

RF Mode	PCS 1900	Channel	CH 512：1850.2 MHz
Frequency Range	1 GHz ~ 20 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 78% RH
Tested By	Vincent Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3700.40	-49.92	-13.00	-36.92	1.71 H	137	59.57	-109.49
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3700.40	-51.34	-13.00	-38.34	1.21 V	203	58.15	-109.49

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

RF Mode	PCS 1900	Channel	CH 661：1880 MHz
Frequency Range	1 GHz ~ 20 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 78% RH
Tested By	Vincent Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	**3760.00**	**-49.10**	**-13.00**	**-36.10**	**1.78 H**	**134**	**60.03**	**-109.13**
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3760.00	-50.71	-13.00	-37.71	1.31 V	207	58.42	-109.13

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

RF Mode	PCS 1900	Channel	CH 810：1909.8 MHz
Frequency Range	1 GHz ~ 20 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 78% RH
Tested By	Vincent Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3819.60	-49.43	-13.00	-36.43	1.70 H	138	59.53	-108.96
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3819.60	-50.71	-13.00	-37.71	1.26 V	205	58.25	-108.96

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

7.7.4 EDGE 1900

RF Mode	EDGE 1900	Channel	CH 512：1850.2 MHz
Frequency Range	1 GHz ~ 20 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 60% RH
Tested By	Charles Hsiao		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3700.40	-51.17	-13.00	-38.17	1.70 H	140	44.33	-95.50
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3700.40	-53.64	-13.00	-40.64	1.20 V	211	41.86	-95.50

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

RF Mode	EDGE 1900	Channel	CH 661：1880 MHz
Frequency Range	1 GHz ~ 20 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 60% RH
Tested By	Charles Hsiao		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3760.00	-51.14	-13.00	-38.14	1.80 H	133	43.97	-95.11
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3760.00	-52.22	-13.00	-39.22	1.30 V	204	42.89	-95.11

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

RF Mode	EDGE 1900	Channel	CH 810：1909.8 MHz
Frequency Range	1 GHz ~ 20 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 60% RH
Tested By	Charles Hsiao		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3819.60	-51.12	-13.00	-38.12	1.65 H	141	43.79	-94.91
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3819.60	-52.88	-13.00	-39.88	1.30 V	201	42.03	-94.91

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

7.7.5 WCDMA Band 2

RF Mode	WCDMA Band II	Channel	CH 9262：1852.4 MHz
Frequency Range	1 GHz ~ 20 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 78% RH
Tested By	Vincent Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3704.80	-50.04	-13.00	-37.04	1.30 H	206	59.41	-109.45
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3704.80	-52.66	-13.00	-39.66	2.38 V	104	56.79	-109.45

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

RF Mode	WCDMA Band II	Channel	CH 9400：1880 MHz
Frequency Range	1 GHz ~ 20 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 78% RH
Tested By	Vincent Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3760.00	-49.55	-13.00	-36.55	1.35 H	206	59.58	-109.13
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3760.00	-51.87	-13.00	-38.87	2.43 V	106	57.26	-109.13

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

RF Mode	WCDMA Band II	Channel	CH 9538：1907.6 MHz
Frequency Range	1 GHz ~ 20 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 78% RH
Tested By	Vincent Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3815.20	-49.71	-13.00	-36.71	1.39 H	207	59.26	-108.97
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3815.20	-52.08	-13.00	-39.08	2.37 V	107	56.89	-108.97

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

7.7.6 WCDMA Band 4

RF Mode	WCDMA Band IV	Channel	CH 1312：1712.4 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 78% RH
Tested By	Charles Hsiao		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3424.80	-50.26	-13.00	-37.26	1.54 H	330	46.08	-96.34
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3424.80	-51.35	-13.00	-38.35	2.50 V	220	44.99	-96.34

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

RF Mode	WCDMA Band IV	Channel	CH 1413：1732.6 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 78% RH
Tested By	Charles Hsiao		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3465.20	-50.00	-13.00	-37.00	1.55 H	321	46.32	-96.32
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3465.20	-51.41	-13.00	-38.41	2.55 V	248	44.91	-96.32

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

RF Mode	WCDMA Band IV	Channel	CH 1513：1752.6 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 78% RH
Tested By	Charles Hsiao		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3505.20	-50.54	-13.00	-37.54	1.52 H	321	45.59	-96.13
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3505.20	-52.22	-13.00	-39.22	2.60 V	235	43.91	-96.13

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

7.7.7 WCDMA Band 5

RF Mode	WCDMA Band V	Channel	CH 4132：826.4 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 78% RH
Tested By	Vincent Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1652.80	-57.46	-13.00	-44.46	1.23 H	103	60.03	-117.49
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1652.80	-60.28	-13.00	-47.28	1.82 V	159	57.21	-117.49

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

RF Mode	WCDMA Band V	Channel	CH 4182：836.4 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 78% RH
Tested By	Vincent Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1672.80	-57.09	-13.00	-44.09	1.20 H	103	60.34	-117.43
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1672.80	-59.80	-13.00	-46.80	1.78 V	152	57.63	-117.43

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

RF Mode	WCDMA Band V	Channel	CH 4233：846.6 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 78% RH
Tested By	Vincent Chen		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1693.20	-57.20	-13.00	-44.20	1.16 H	103	60.17	-117.37
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1693.20	-60.20	-13.00	-47.20	1.78 V	152	57.17	-117.37

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

7.8 Frequency Stability

Environmental Conditions:	22°C, 68% RH	Tested By:	Willy Cheng

7.8.1 GSM850

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 128 (824.2 MHz)		CH 251 (848.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.40	824.200002	0.002	848.800002	0.002
3.87	824.199996	-0.005	848.799998	-0.002
3.60	824.199996	-0.005	848.800004	0.005

Note: The applicant defined the normal working voltage is from 3.60 to 4.40 Vdc.

Frequency Stability Versus Temperature				
Temperature (℃)	CH 128 (824.2 MHz)		CH 251 (848.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	824.200004	0.005	848.799998	-0.002
-20	824.200004	0.005	848.799999	-0.001
-10	824.200002	0.002	848.799996	-0.005
0	824.200003	0.004	848.799997	-0.004
10	824.200001	0.001	848.799998	-0.002
20	824.199997	-0.004	848.800001	0.001
30	824.199996	-0.005	848.800001	0.001
40	824.200001	0.001	848.800003	0.004
50	824.200003	0.004	848.799998	-0.002

7.8.2 EDGE850

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 128 (824.2 MHz)		CH 251 (848.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.40	824.199996	-0.005	848.799998	-0.002
3.87	824.200002	0.002	848.799997	-0.004
3.60	824.199998	-0.002	848.800004	0.005

Note: The applicant defined the normal working voltage is from 3.60 to 4.40 Vdc.

Frequency Stability Versus Temperature				
Temperature (℃)	CH 128 (824.2 MHz)		CH 251 (848.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	824.199998	-0.002	848.800003	0.004
-20	824.200003	0.004	848.800004	0.005
-10	824.199999	-0.001	848.799999	-0.001
0	824.199996	-0.005	848.799999	-0.001
10	824.199999	-0.001	848.799997	-0.004
20	824.200003	0.004	848.799998	-0.002
30	824.200003	0.004	848.799998	-0.002
40	824.200001	0.001	848.800002	0.002
50	824.199997	-0.004	848.800002	0.002

7.8.3 GSM1900

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 512 (1850.2 MHz)		CH 810 (1909.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.40	1850.200001	0.001	1909.799997	-0.002
3.87	1850.199997	-0.002	1909.800004	0.002
3.60	1850.200002	0.001	1909.799997	-0.002

Note: The applicant defined the normal working voltage is from 3.60 to 4.40 Vdc.

Frequency Stability Versus Temperature				
Temperature (℃)	CH 512 (1850.2 MHz)		CH 810 (1909.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1850.199997	-0.002	1909.799996	-0.002
-20	1850.199996	-0.002	1909.799998	-0.001
-10	1850.199998	-0.001	1909.799997	-0.002
0	1850.200001	0.001	1909.800003	0.002
10	1850.200002	0.001	1909.800004	0.002
20	1850.199998	-0.001	1909.799999	-0.001
30	1850.200004	0.002	1909.800003	0.002
40	1850.200002	0.001	1909.800003	0.002
50	1850.199998	-0.001	1909.800001	0.001

7.8.4 EDGE1900

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 512 (1850.2 MHz)		CH 810 (1909.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.40	1850.200002	0.001	1909.799997	-0.002
3.87	1850.199997	-0.002	1909.799998	-0.001
3.60	1850.200001	0.001	1909.799998	-0.001

Note: The applicant defined the normal working voltage is from 3.60 to 4.40 Vdc.

Frequency Stability Versus Temperature				
Temperature (℃)	CH 512 (1850.2 MHz)		CH 810 (1909.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1850.200004	0.002	1909.799998	-0.001
-20	1850.199997	-0.002	1909.799999	-0.001
-10	1850.200003	0.002	1909.800001	0.001
0	1850.200004	0.002	1909.799997	-0.002
10	1850.200004	0.002	1909.799999	-0.001
20	1850.199999	-0.001	1909.799997	-0.002
30	1850.200004	0.002	1909.800001	0.001
40	1850.200003	0.002	1909.799996	-0.002
50	1850.200001	0.001	1909.800004	0.002

7.8.5 WCDMA Band 2

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 9262 (1852.4 MHz)		CH 9538 (1907.6 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.40	1852.400004	0.002	1907.599998	-0.001
3.87	1852.400003	0.002	1907.599996	-0.002
3.60	1852.399996	-0.002	1907.599997	-0.002

Note: The applicant defined the normal working voltage is from 3.60 to 4.40 Vdc.

Frequency Stability Versus Temperature				
Temperature (℃)	CH 9262 (1852.4 MHz)		CH 9538 (1907.6 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1852.399996	-0.002	1907.600002	0.001
-20	1852.400004	0.002	1907.600003	0.002
-10	1852.400004	0.002	1907.599999	-0.001
0	1852.399999	-0.001	1907.599997	-0.002
10	1852.400004	0.002	1907.600002	0.001
20	1852.400003	0.002	1907.600004	0.002
30	1852.399999	-0.001	1907.599997	-0.002
40	1852.400001	0.001	1907.600001	0.001
50	1852.399997	-0.002	1907.599998	-0.001

7.8.6 WCDMA Band 4

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 1312 (1712.4 MHz)		CH 1513 (1752.6 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.40	1712.400002	0.0012	1752.600001	0.0006
3.87	1712.399996	-0.0023	1752.599999	-0.0006
3.60	1712.400004	0.0023	1752.600004	0.0023

Note: The applicant defined the normal working voltage is from 3.60 to 4.40 Vdc.

Frequency Stability Versus Temperature				
Temperature (℃)	CH 1312 (1712.4 MHz)		CH 1513 (1752.6 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1712.400003	0.0018	1752.599999	-0.0006
-20	1712.399999	-0.0006	1752.599997	-0.0017
-10	1712.400002	0.0012	1752.600001	0.0006
0	1712.399996	-0.0023	1752.599999	-0.0006
10	1712.400001	0.0006	1752.599999	-0.0006
20	1712.399999	-0.0006	1752.600002	0.0011
30	1712.399998	-0.0012	1752.599997	-0.0017
40	1712.399999	-0.0006	1752.599996	-0.0023
50	1712.400001	0.0006	1752.599998	-0.0011

7.8.7 WCDMA Band 5

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 4132 (826.4 MHz)		CH 4223 (846.6 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.40	826.399996	-0.005	846.600002	0.002
3.87	826.399998	-0.002	846.600002	0.002
3.60	826.400004	0.005	846.599996	-0.005

Note: The applicant defined the normal working voltage is from 3.60 to 4.40 Vdc.

Frequency Stability Versus Temperature				
Temperature (℃)	CH 4132 (826.4 MHz)		CH 4223 (846.6 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	826.399998	-0.002	846.600003	0.004
-20	826.400002	0.002	846.600004	0.005
-10	826.400004	0.005	846.600001	0.001
0	826.399999	-0.001	846.599999	-0.001
10	826.400002	0.002	846.599997	-0.004
20	826.399996	-0.005	846.600004	0.005
30	826.400001	0.001	846.599999	-0.001
40	826.400004	0.005	846.599997	-0.004
50	826.400004	0.005	846.600002	0.002

8 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)

9 Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

Lin Kou EMC/RF Lab
Tel: 886-2-26052180
Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab
Tel: 886-3-6668565
Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety Lab
Tel: 886-3-3183232
Fax: 886-3-3270892

Email: service.adt@bureauveritas.com
Web Site: http://ee.bureauveritas.com.tw

The address and road map of all our labs can be found in our web site also.

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