



FCC TEST REPORT

Product Name	GSM/GPRS Gateway
Model Name	H3G-700
Applicant	H3 SYSTEM Co., Ltd.
FCC ID	X59-H3G-700

ESTECH CO., LTD

Rm. 1015 World Venture Center, 426-5 Gasan-dong, Geumcheon-gu,
Seoul, 153-803, Korea. Tel:82-2-867-3201, Fax:82-2-867-3204



FCC Test Report

Report Number	ESTR1012-014			
Applicant	Company Name	H3 SYSTEM Co., Ltd.		
	Address	3F, 397-27, Doryong-dong, Yuseong-gu, Daejeon, R.O.Korea		
Product	Product Name	GSM/GPRS Gateway		
	Model No.	H3G-700	Manufacturer	H3 SYSTEM Co., Ltd.
	Serial No.	NONE	Country of origin	KOREA
Other	Issued Date	2010-12-21	Tested Date	2010-12-01 ~ 2010-12-20
Test Result	Pass			
Standard	FCC PART 24 Subpart E & PART 22 Subpart H			
Tested by	I.K.Hong/ Engineer (Signature)			
Approved by	Tag-Sun Park/Engineering manager (Signature)			
<div>ESTECH CO., LTD</div> <div>Rm. 1015 World Venture Center, 426-5 Gasan-dong, Geumcheon-gu, Seoul, 153-803, Korea. Tel:82-2-867-3201, Fax:82-2-867-3204</div>				
<p>o This is certified that the above mentioned products have been tested for the sample provided by client.</p> <p>o No part of this document may not be duplicated or reproduced by any means without the express written permission of Estech Co., Ltd.</p>				



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1. General Information

1.1 EUT Description

FCC ID	X59-H3G-700
Product Name	GSM/GPRS Gateway
Model Name	H3 SYSTEM Co., Ltd.
Frequency	1850.20 ~ 1909.80MHz(PCS1900), 824.2 ~ 848.8MHz(GSM850), 826.4 ~ 846.6MHz(WCDMA850) 1852.4 ~ 1907.6MHz(WCDMA1900)
Channel	PCS 1900(512/661/810), GSM 850 (128/190/251)
Modulation Type	GSM , GPRS
Power Rating	AC 110V



2. Laboratory Information

2.1 Laboratory Name Estech Co., Ltd.

2.2 Location

Head Office Rm. 1015, World Venture Center II, 426-5 Gasan-dong
 Geumcheon-gu, Seoul, 153-803. Korea.

EMC Lab(Ichon) 58-1, Osan-Ri, GaNam-Myon, YeoJoo-Gun, KyungKi-Do, Korea

EMC Lab(Yanggi) 97-1, Hoiuk-Ri Majang-Myon, Icheon-city, KyungKi-Do, Korea

2.3 Quality System Accredited by KOLAS(ISO/IEC 17025)

2.4 Major Accredited Mark



3. Summary of Test Results

Test Item	Standard	Result
RF Output Power	Part 22 & 24	PASS
Occupied Bandwidth		PASS
Spurious and Harmonic Emission at Antenna Terminal		PASS
Field Strength of Spurious Radiation		PASS
Frequency stability		PASS

4. RF Output Power

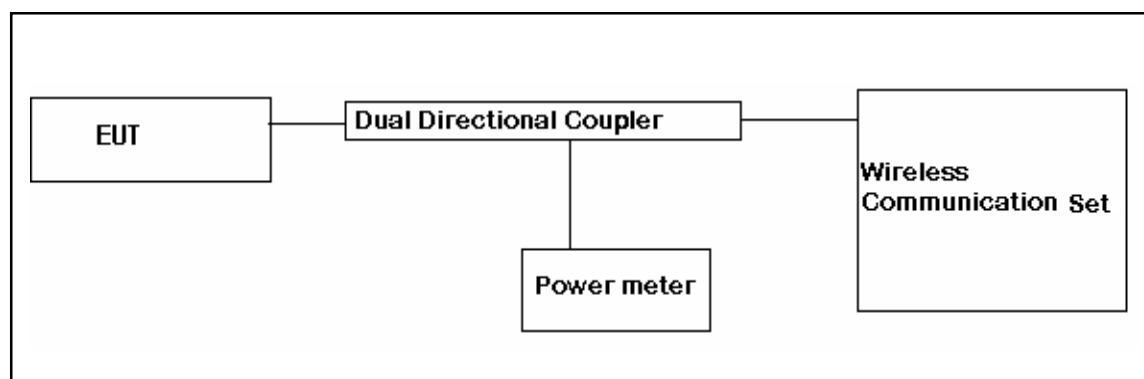
4.1 Test Procedure

The EUT was placed on a wooden turn table 3 meters from the receive antenna. The receive antenna height and turn table rotation was adjusted for the highest reading on the receive spectrum analyzer. For CDMA signals, a peak detector is used, with RBW = VBW = 3MHz. For AMPS, GSM, and NADC TDMA signals, a peak detector is used, with RBW = VBW = 1MHz. A Horn antenna was substituted in place of the EUT. This Horn antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. This spurious level is recorded. For reading 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

2. The RF output port of the EUT was connected to the dual directional coupler and Wireless communications test set connected dual directional coupler

The RF Power is measured Power meter This test was performed three channels (Low, High, Middle)

3. Test setup for RF Conducted measurement



4.2 Test Equipments

The following test equipments are used during tests

Equipment	Manufacturer	Model	Cal. Due Date
Spectrum Analyzer	ADVANTEST	R3273	2011-08-27
Signal Generator	HP	83620B	2011-02-01
Power Meter	HP	EPM-442A	2011-02-01
Wireless Communications Test Set	Agilent	E5515C	2011-02-01
Pre Amplifier	HP	8449B	2011-08-27
Horn Antenna	SCHWARZBECK	BBHA 9120 D	2011-07-17
Dual Directinal Coupler	HP	778D	2011-02-25



4.3. Test Results

4.3.1 PCS1900

(PCS 1900)

Ch No.	Freq (MHz)	Peak Power Meter(dBm)	Peak Power EIRP(dBm)
512	1850.20	26.22	23.10
661	1880.00	26.97	22.93
810	1909.80	26.88	22.64

FREQ (MHz)	Receiver Reading (dBuV)	Correction Factor (dB)		SG Reading (dBm)	EIRP (dBm)	Limit (dBm)	POL (H/V)
		Antenna gain(dBi)	Cable Loss (dB)				
1850.20	92.43	10.40	12.50	25.30	23.20	33	V
1880.00	94.30	10.43	12.60	25.30	23.13	33	V
1909.80	92.90	10.44	12.70	25.40	23.14	33	V

(PCS 1900 GPRS)

Ch No.	Freq (MHz)	Peak Power Meter(dBm)	Peak Power EIRP(dBm)
512	1850.20	25.63	23.20
661	1880.00	26.68	23.13
810	1909.80	27.36	23.14

FREQ (MHz)	Receiver Reading (dBuV)	Correction Factor (dB)		SG Reading (dBm)	EIRP (dBm)	Limit (dBm)	POL (H/V)
		Antenna gain(dBi)	Cable Loss (dB)				
1850.20	92.43	10.40	12.50	25.20	23.10	33	V
1880.00	94.30	10.43	12.60	25.10	22.93	33	V
1909.80	92.90	10.44	12.70	24.90	22.64	33	V



4.3.2 GSM 850

(GSM 850)

Ch No.	Freq (MHz)	Peak Power Meter(dBm)	Peak Power EIRP(dBm)
128	824.20	31.79	29.29
190	836.60	31.80	29.71
251	848.80	31.68	29.72

FREQ (MHz)	Receiver Reading (dBuV)	Correction Factor (dB)		SG Reading (dBm)	EIRP (dBm)	Limit (dBm)	POL (H/V)
		Antenna gain(dBi)	Cable Loss (dB)				
824.20	98.33	0.99	8.90	37.20	29.29	38.5	V
836.60	98.60	1.31	9.10	37.50	29.71	38.5	V
848.80	99.73	1.62	9.20	37.30	29.72	38.5	V

(GSM 850 GPRS)

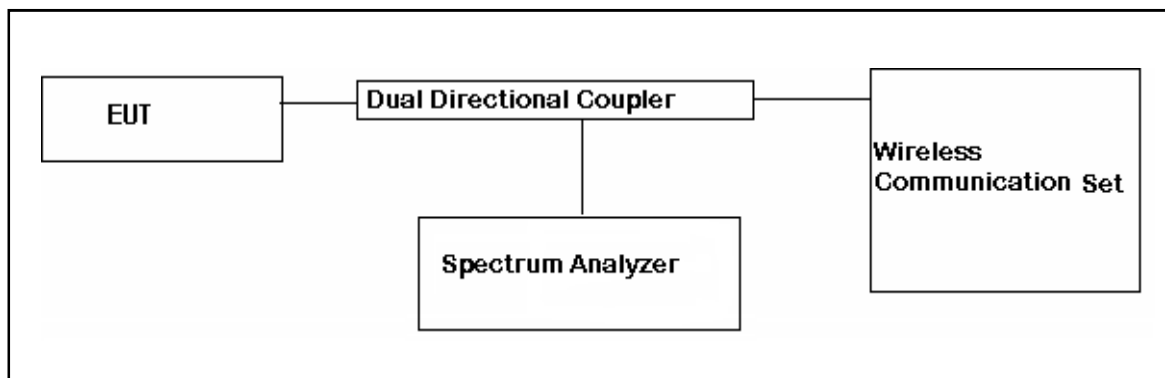
Ch No.	Freq (MHz)	Peak Power Meter(dBm)	Peak Power EIRP(dBm)
128	824.20	31.47	28.89
190	836.60	31.40	28.62
251	848.80	31.34	28.72

FREQ (MHz)	Receiver Reading (dBuV)	Correction Factor (dB)		SG Reading (dBm)	EIRP (dBm)	Limit (dBm)	POL (H/V)
		Antenna gain(dBi)	Cable Loss (dB)				
824.20	97.90	0.99	8.90	36.80	28.89	38.5	V
836.60	97.50	1.31	9.10	36.41	28.62	38.5	V
848.80	98.20	1.62	9.20	36.30	28.72	38.5	V

5. Occupied Bandwidth

5.1 Test Procedure

The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% of the Emission bandwidth.
The VBW is set to 3 times the RBW. The sweep time is coupled.



5.2 Test Equipments

The following test equipments are used during tests

Equipment	Manufacturer	Model	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	2011-09-14
Dual Directional Coupler	HP	778D	2011-02-25
Wireless Communications Test Set	Agilent	E5515C	2011-05-11

5.3 Test Results

5.3.1 PCS1900

(PCS 1900)

Channel	Frequency(MHz)	26dB Bandwidth(kHz)
512	1850.20	307.92
661	1880.00	314.61
810	1909.80	309.31

(PCS 1900 GPRS)

Channel	Frequency(MHz)	26dB Bandwidth(kHz)
512	1850.20	315.60
661	1880.00	300.68
810	1909.80	300.57



5.3.2 GSM850

(GSM 850)

Channel	Frequency(MHz)	26dB Bandwidth(kHz)
128	824.20	302.82
190	836.60	305.83
251	848.80	319.09

(GSM 850 GPRS)

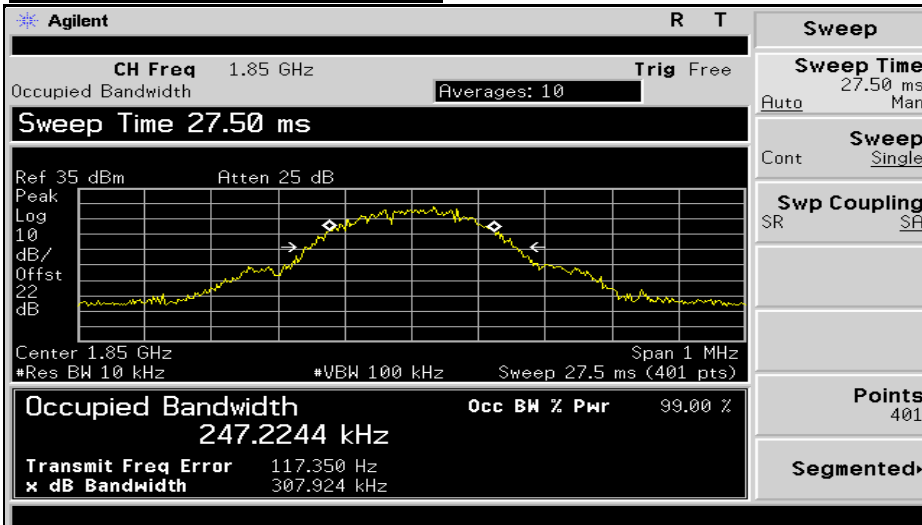
Channel	Frequency(MHz)	26dB Bandwidth(kHz)
128	824.20	300.94
190	836.60	300.68
251	848.80	300.57



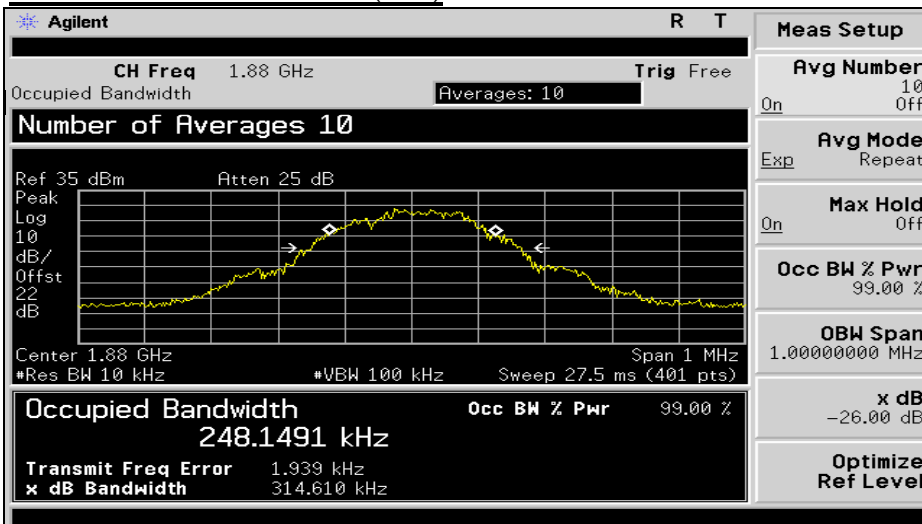
5.4 Test Plot

PCS 1900

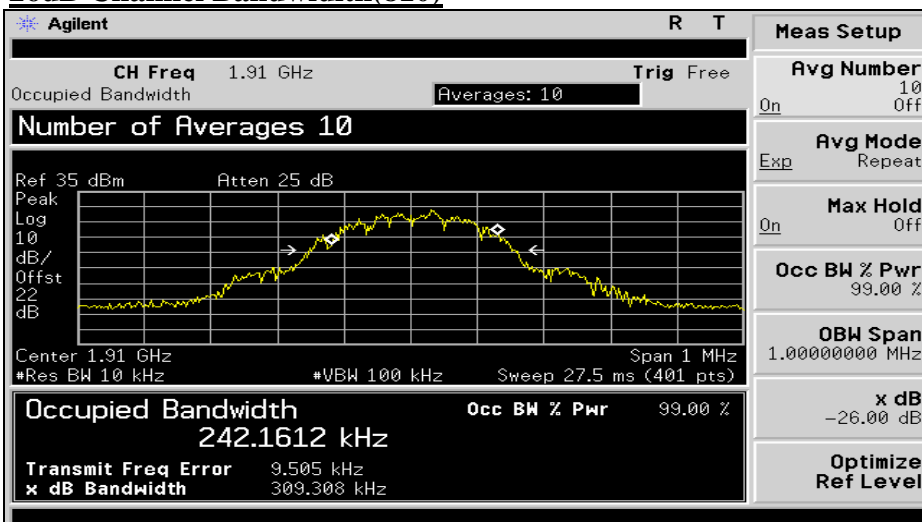
26dB Channel Bandwidth(512)



26dB Channel Bandwidth(661)

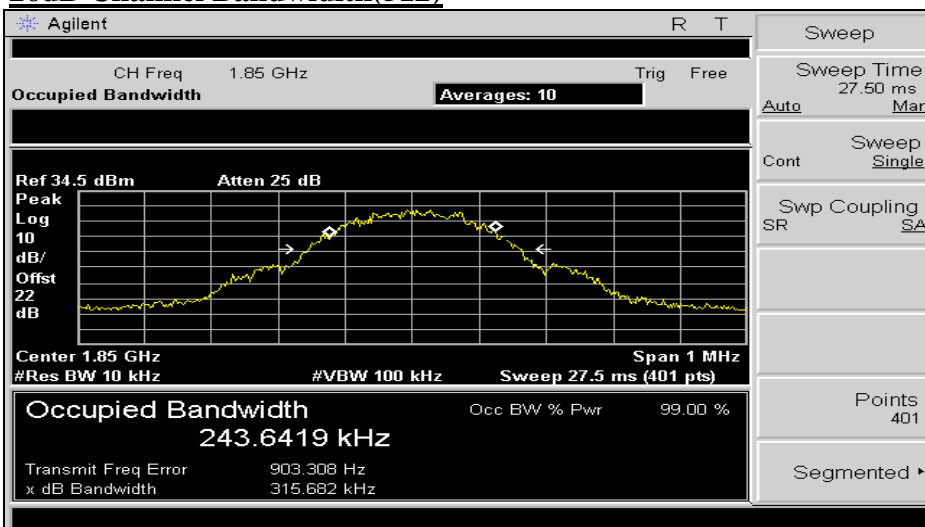


26dB Channel Bandwidth(810)

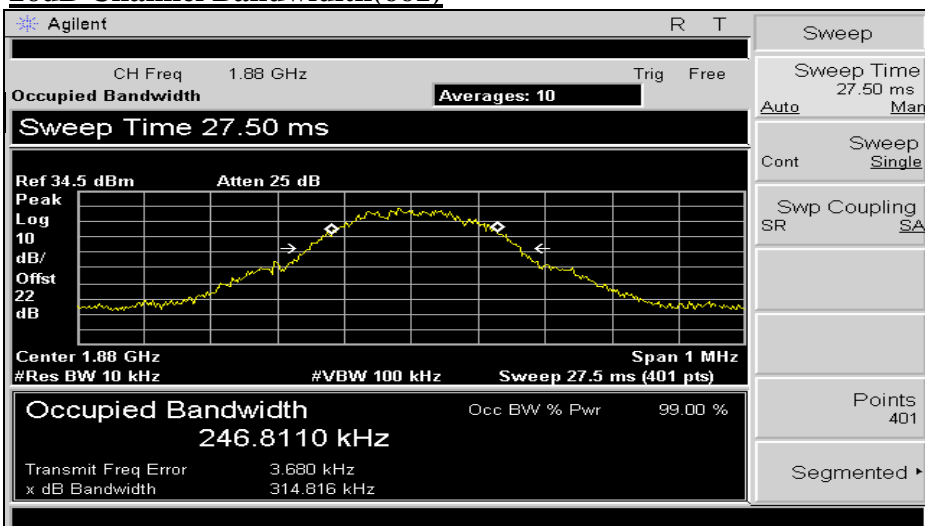


PCS 1900 GPRS

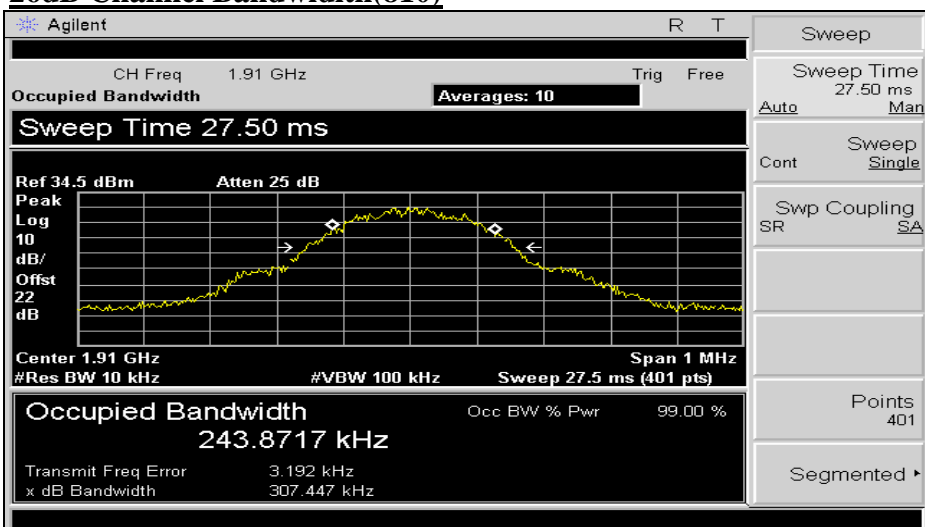
26dB Channel Bandwidth(512)



26dB Channel Bandwidth(661)



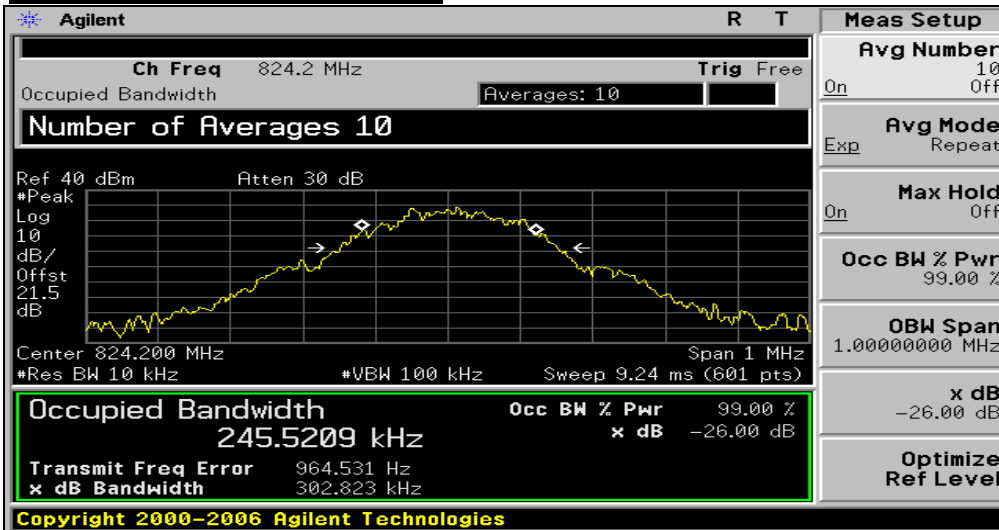
26dB Channel Bandwidth(810)





GSM 850

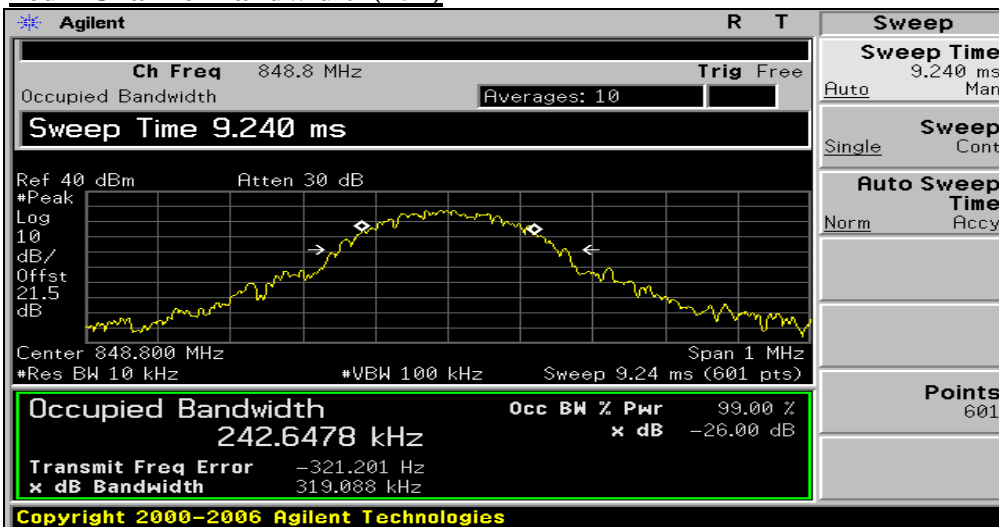
26dB Channel Bandwidth(128)



26dB Channel Bandwidth(190)



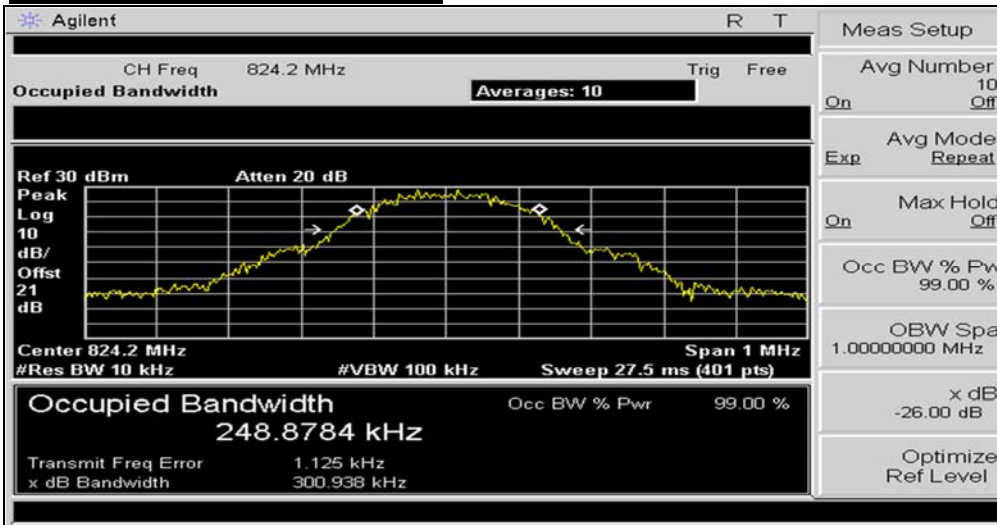
26dB Channel Bandwidth(251)



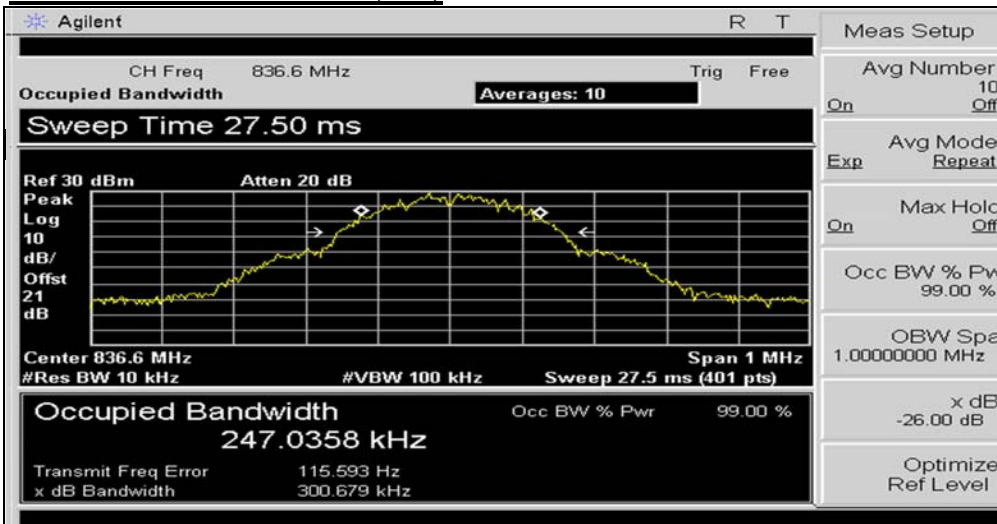


GSM 850 GPRS

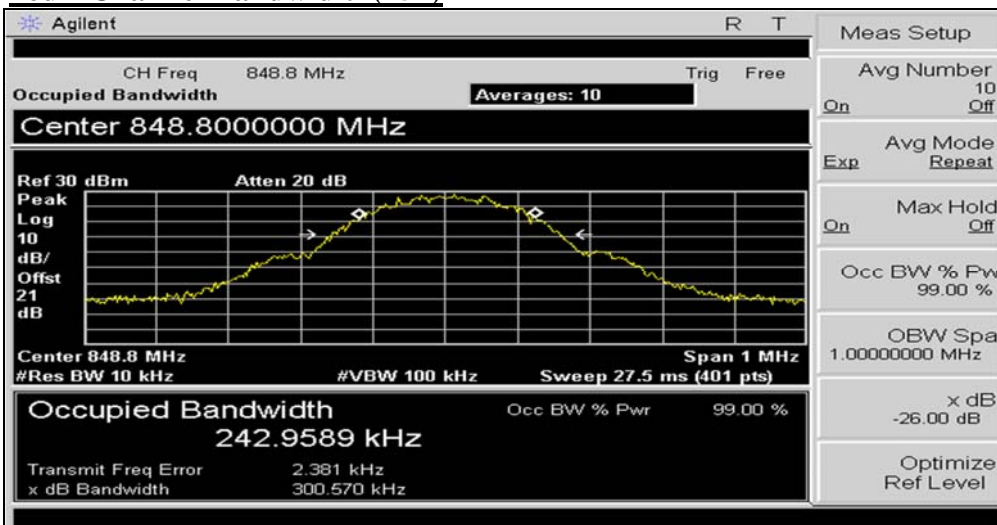
26dB Channel Bandwidth(128)



26dB Channel Bandwidth(190)



26dB Channel Bandwidth(251)



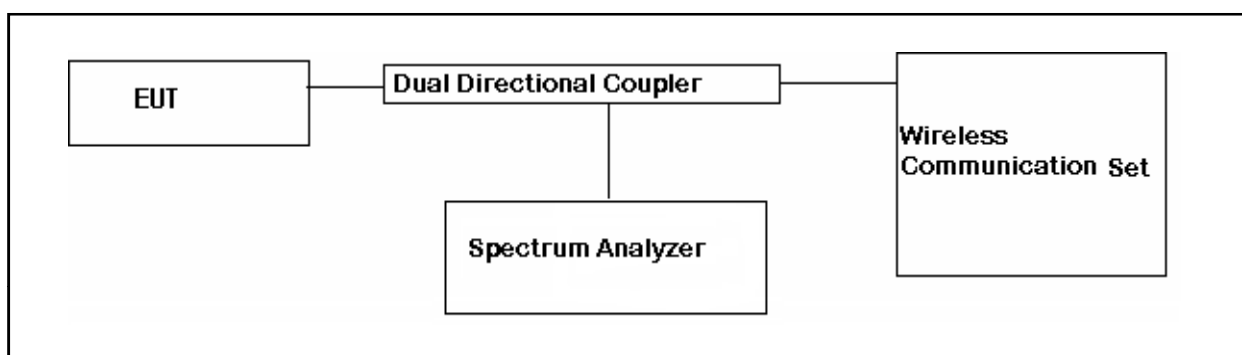
6. Spurious and Harmonic Emission at Antenna Terminal

6.1 Test Procedure

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to 10GHz. Set the RES BW to 1% of the emission bandwidth to show compliance with the -13dBm, limit, in the 1MHz bands immediately outside and adjacent to the top and bottom edges of the frequency block.

For the Out-of-Band measurements a 1MHz RBW was used to scan from 10MHz to 10xfo of the fundamental carrier for all frequency block. A display line was placed at -13dBm to show compliance for spurious, and harmonics.

22.917(f): Mobile emission in base frequency range. The mean power of any emissions appearing in the base station frequency range from cellular mobile transmitter operated must be attenuated to a level not to exceed -80dBm at the transmit antenna connector.



6.2 Test Equipments

The following test equipments are used during tests

Equipment	Manufacturer	Model	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	2011-09-14
Dual Directional Coupler	HP	778D	2011-02-25
Wireless Communications Test Set	Agilent	E5515C	2011-05-11

6.3 Test Results

6.3.1 PCS 1900

PCS 1900 (Spurious Emission: Band Edge)

Channel	Frequency	Result	Limit	Margin
512	1850.20	-17.19	-13.00	4.19
810	1909.80	-18.77	-13.00	5.77

PCS 1900 (Spurious Emission: Out of Band)

Channel	Frequency	Result	Limit	Margin
512	1850.20	-19.44	-13.00	6.44
661	1880.00	-20.81	-13.00	7.81
810	1909.80	-19.28	-13.00	6.28



PCS 1900 GPRS (Spurious Emission: Band Edge)

Channel	Frequency	Result	Limit	Margin
512	1850.20	-19.34	-13.00	6.34
810	1909.80	-19.22	-13.00	6.22

PCS 1900 GPRS (Spurious Emission: Out of Band)

Channel	Frequency	Result	Limit	Margin
512	1850.20	-20.31	-13.00	7.31
661	1880.00	-20.48	-13.00	7.48
810	1909.80	-20.23	-13.00	7.23

GSM 850

GSM 850 (Spurious Emission: Band Edge)

Channel	Frequency	Result	Limit	Margin
128	824.20	-14.00	-13.00	1.00
251	848.80	-16.56	-13.00	3.56

GSM 850 (Spurious Emission: Out of Band)

Channel	Frequency	Result	Limit	Margin
128	824.20	-20.26	-13.00	7.26
190	836.60	-18.96	-13.00	5.96
251	848.80	-19.48	-13.00	6.48

GSM 850 GPRS (Spurious Emission: Band Edge)

Channel	Frequency	Result	Limit	Margin
128	824.20	-14.61	-13.00	1.61
251	848.80	-15.38	-13.00	2.38

GSM 850 GPRS (Spurious Emission: Out of Band)

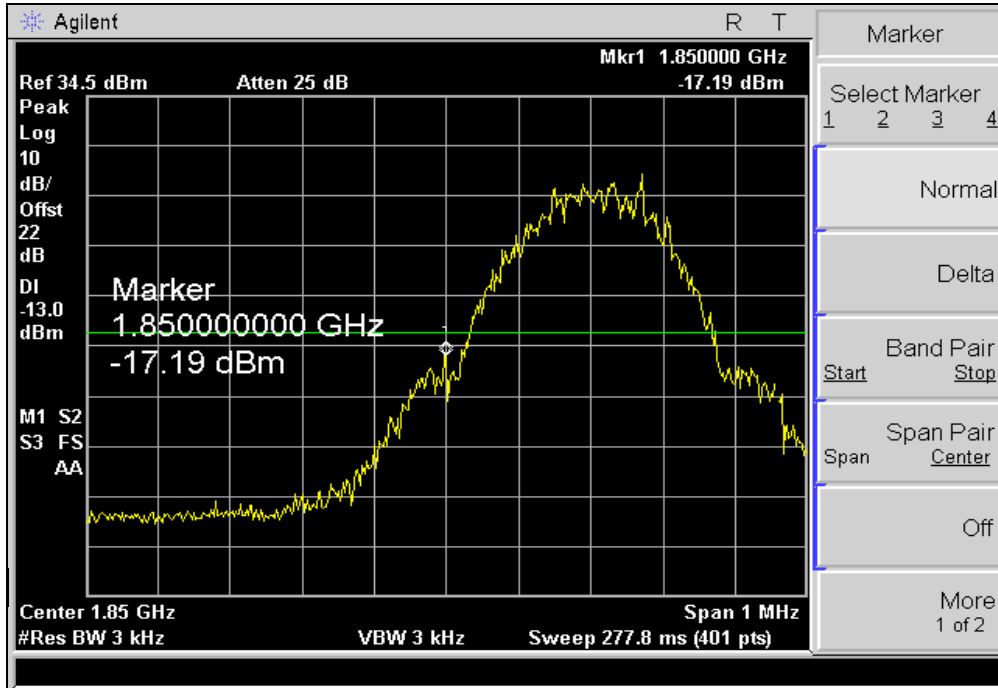
Channel	Frequency	Result	Limit	Margin
128	824.20	-20.36	-13.00	7.36
190	836.60	-20.00	-13.00	7.00
251	848.80	-19.90	-13.00	6.90



6.5 Test Plot

PCS 1900

PLOT OF EMISSION (PCS 1900):BAND EDGE (CH512)



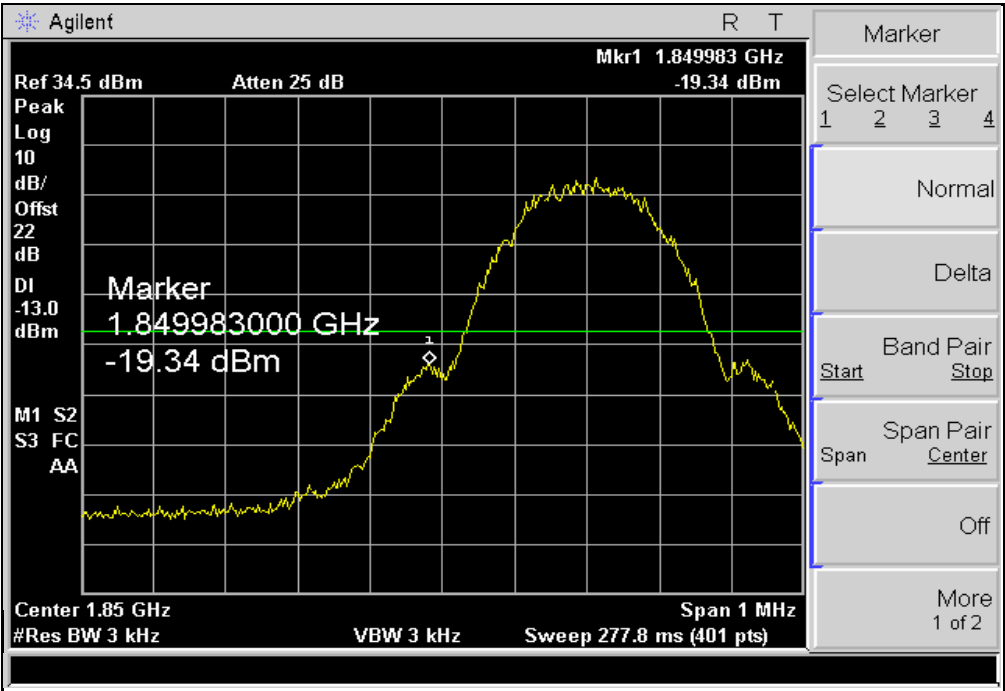
PLOT OF EMISSION (PCS 1900):BAND EDGE (CH810)



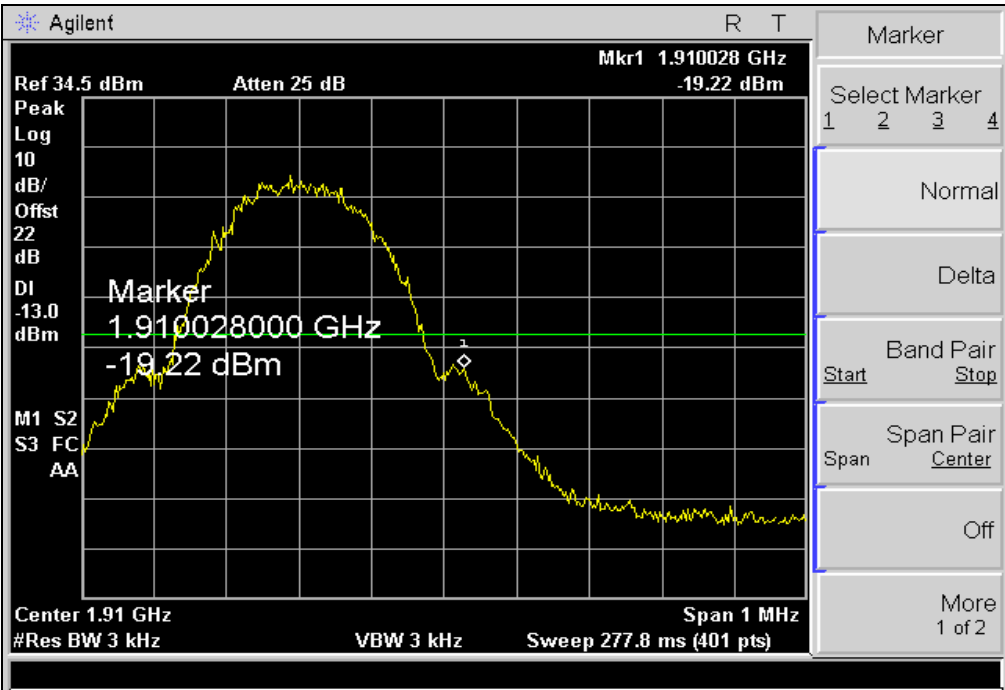


PCS1900 GPRS

PLOT OF EMISSION (PC S1900 GPRS):BAND EDGE (CH512)



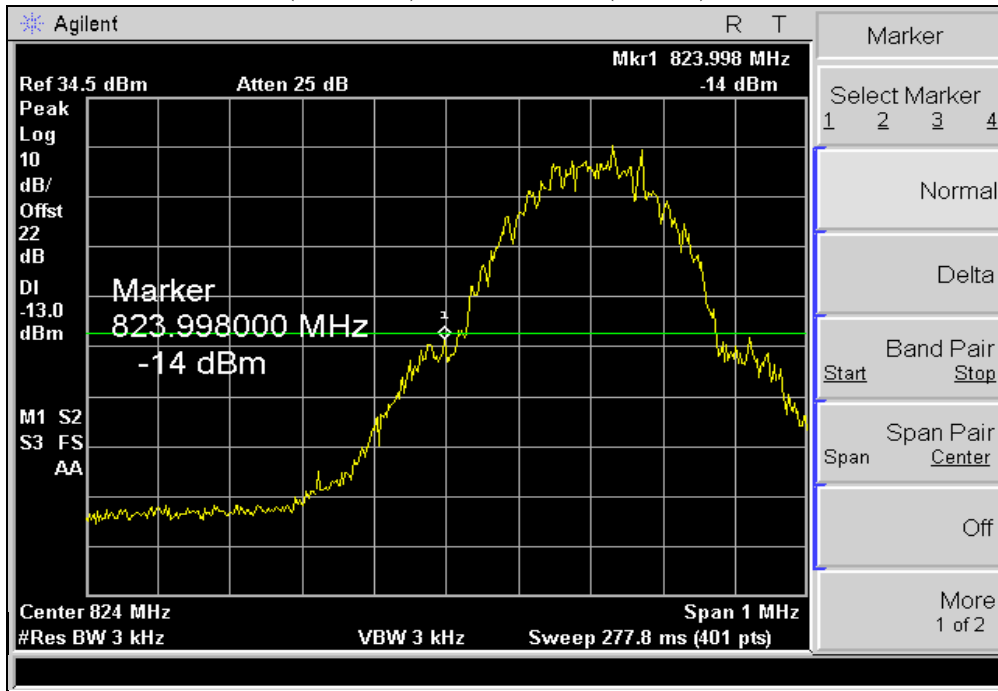
PLOT OF EMISSION (PCS 1900 GPRS):BAND EDGE (CH810)



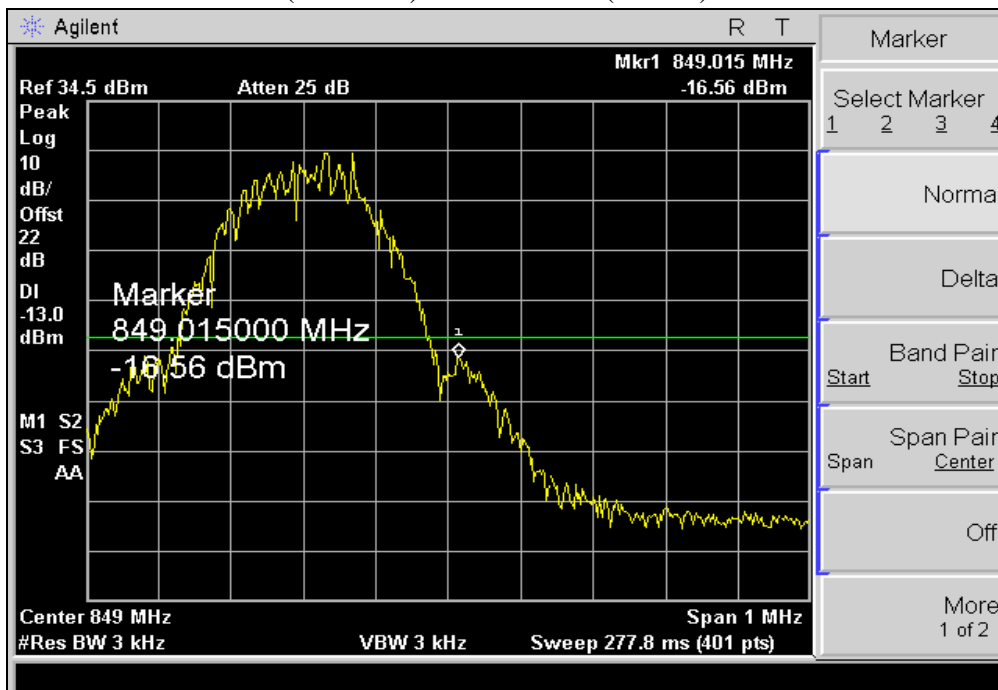


GSM 850

PLOT OF EMISSION (GSM 850):BAND EDGE (CH128)



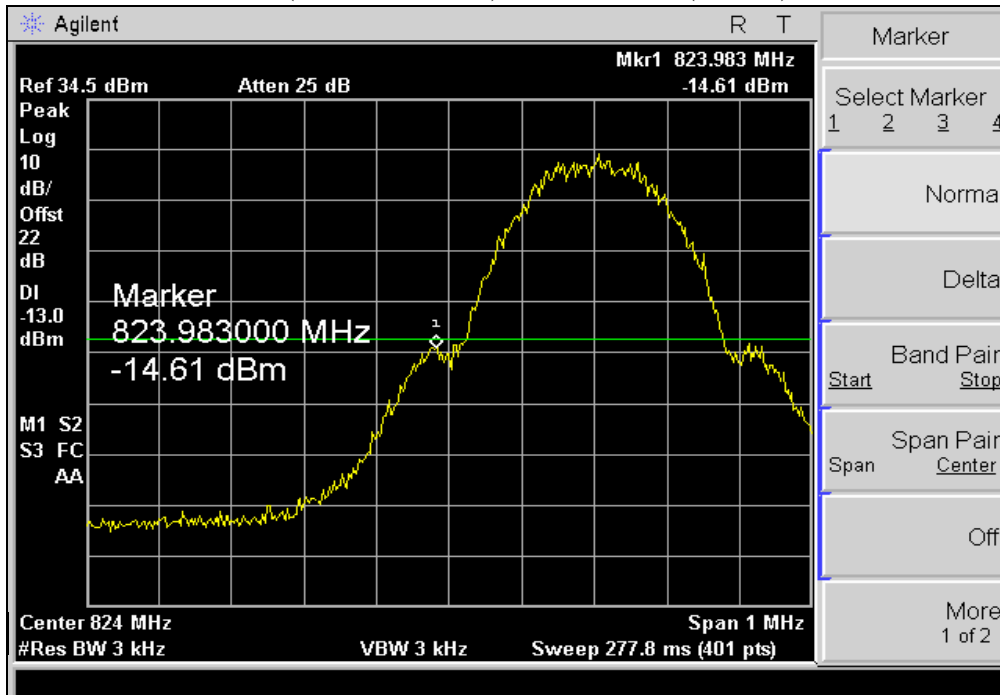
PLOT OF EMISSION (GSM 850):BAND EDGE (CH251)



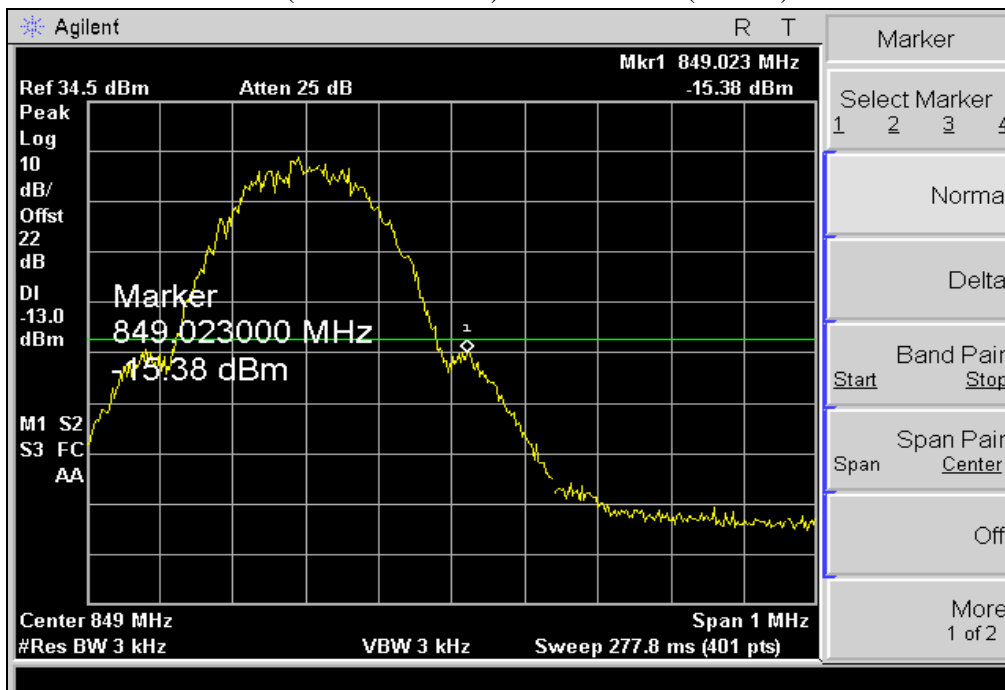


GSM 850

PLOT OF EMISSION (GSM 850 GPRS):BAND EDGE (CH128)



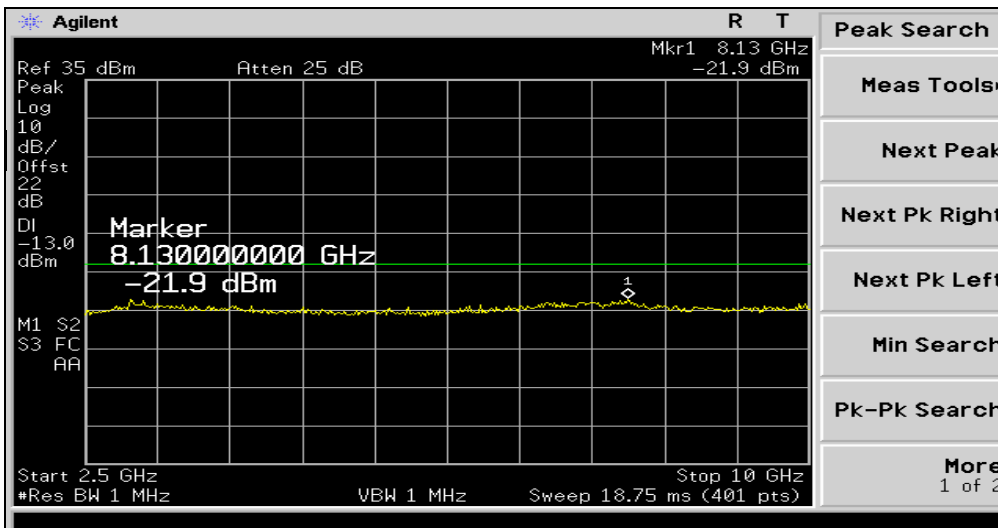
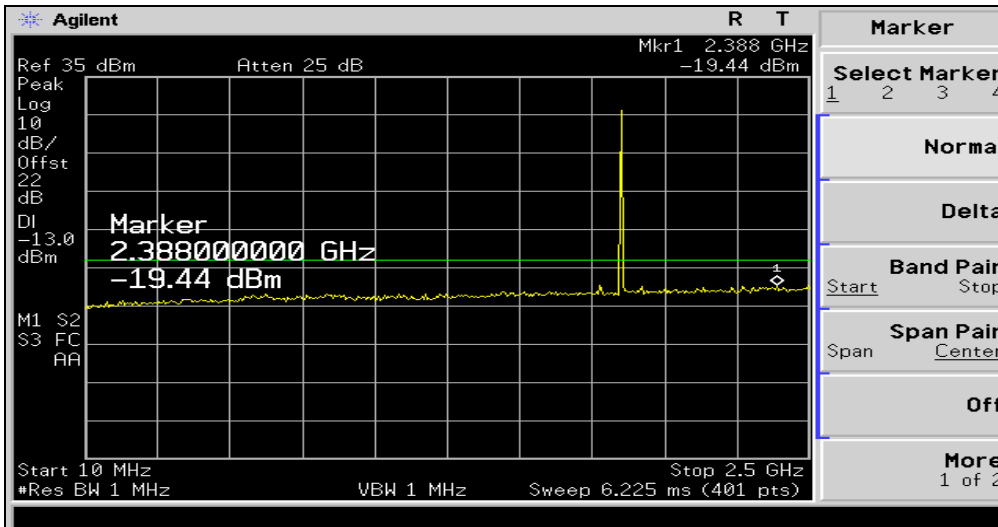
PLOT OF EMISSION (GSM 850 GPRS):BAND EDGE (CH251)



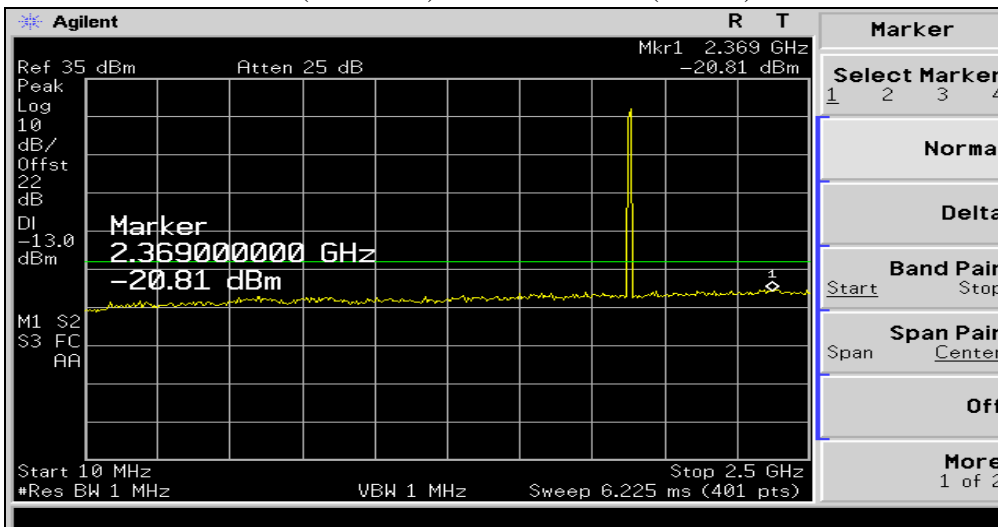


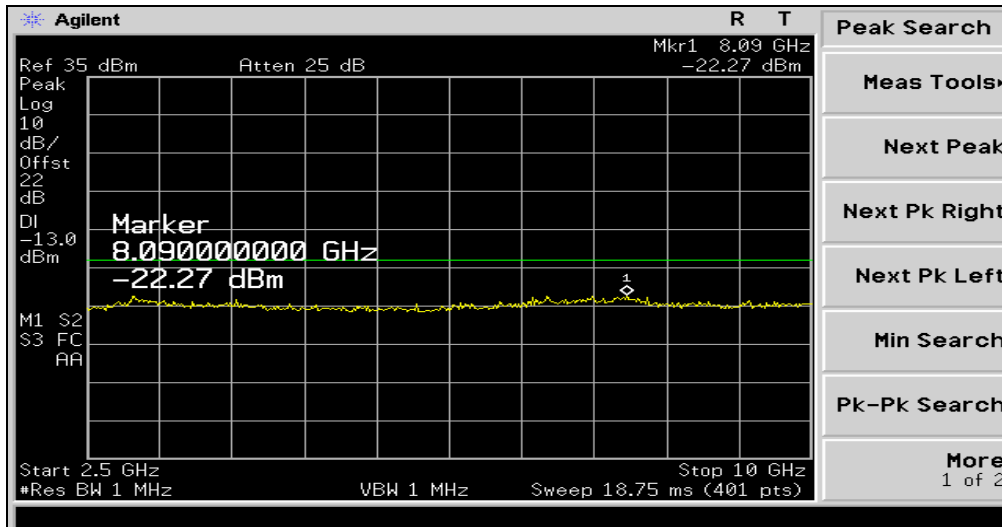
PCS1900

PLOTS OF EMISSION (PCS 1900): OUT OF BAND(CH512)

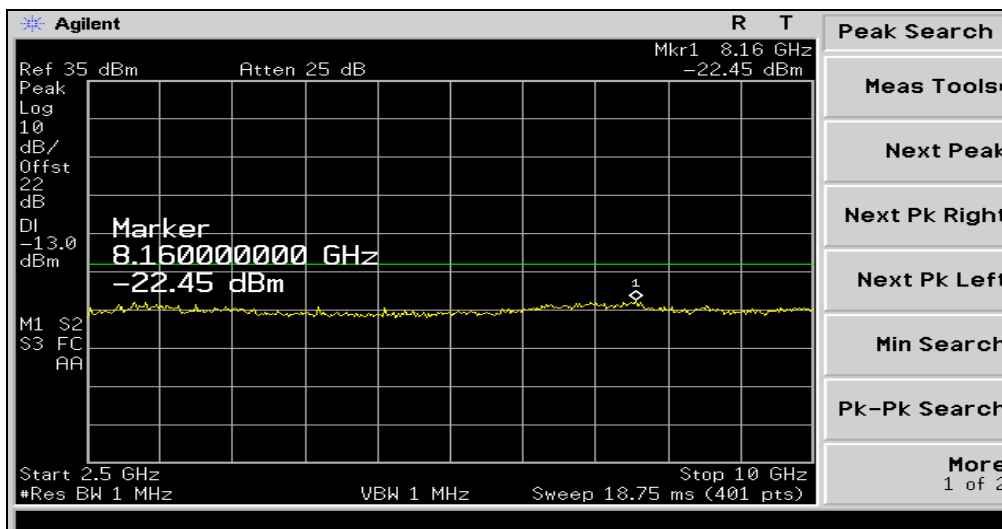
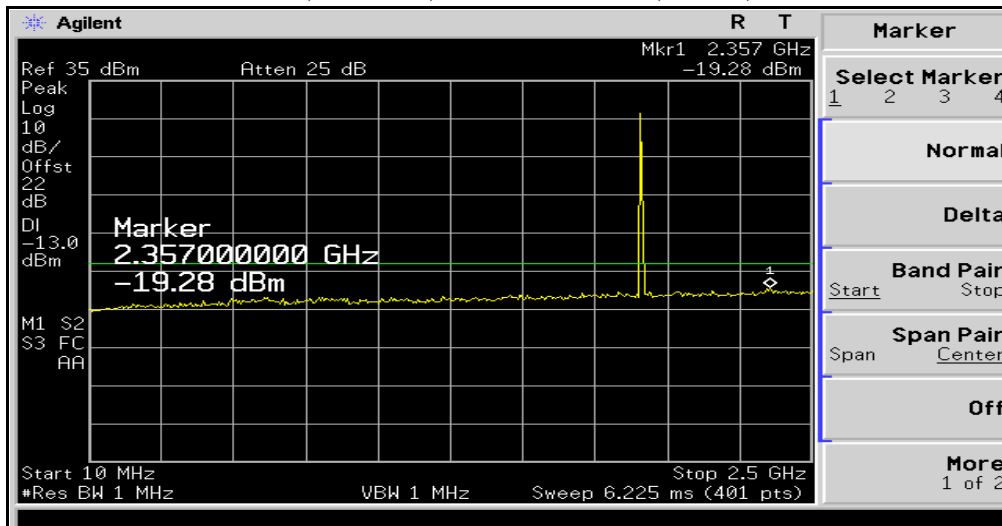


PLOTS OF EMISSION (PCS 1900): OUT OF BAND(CH661)





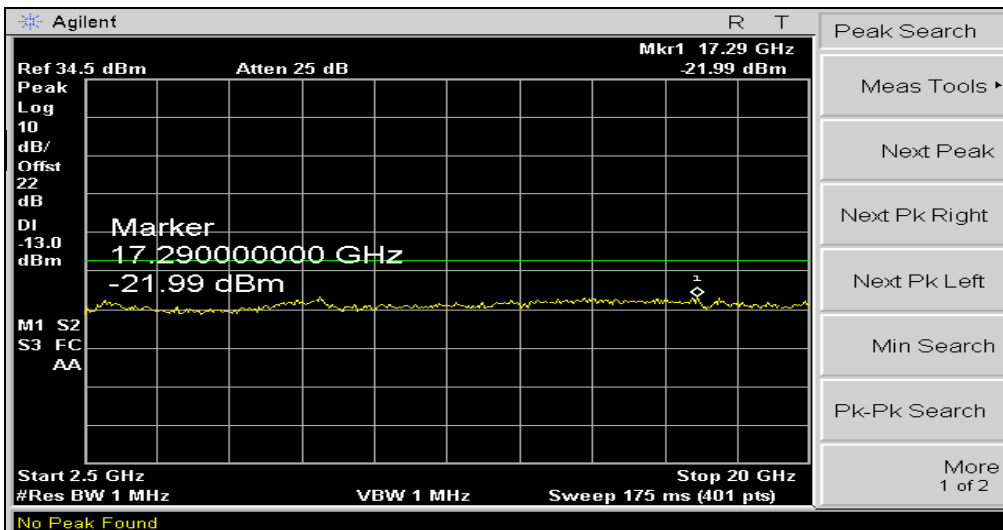
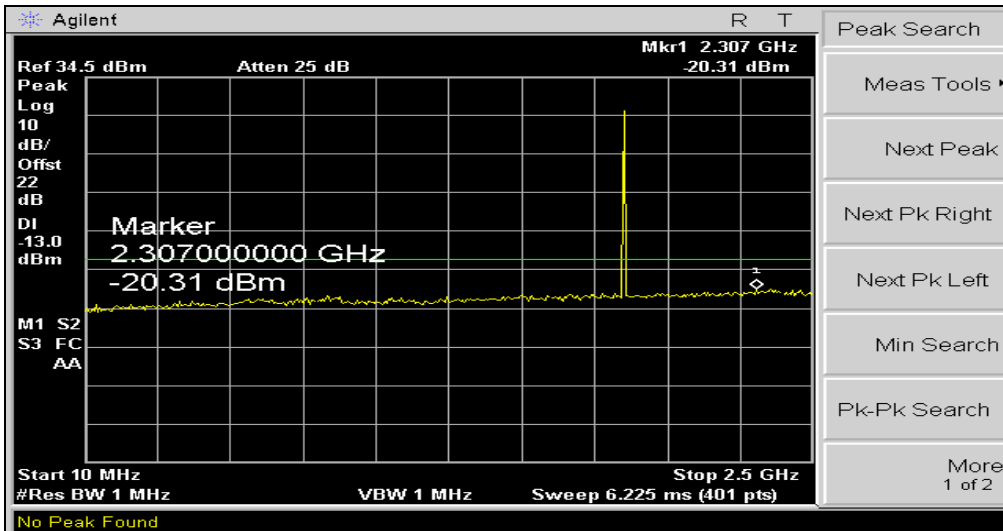
PLOTS OF EMISSION (PCS 1900): OUT OF BAND(CH810)



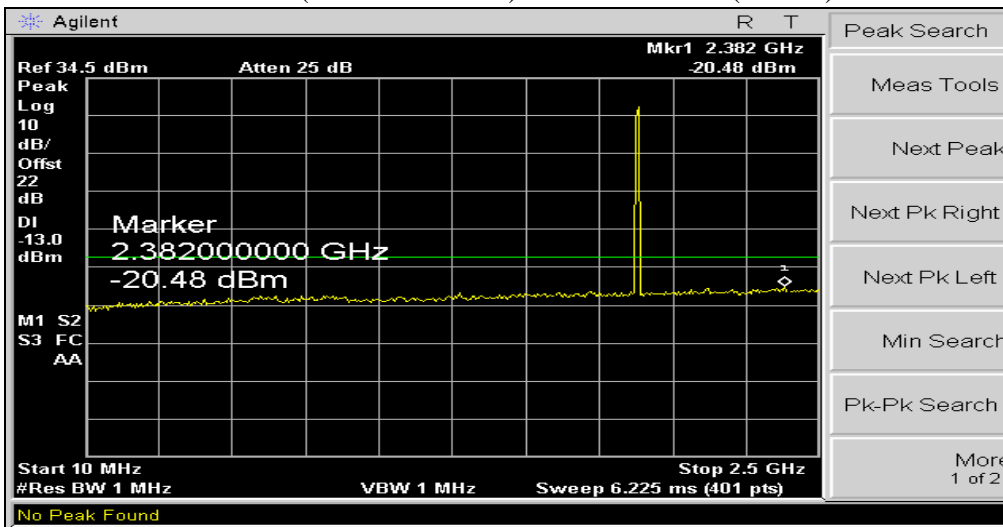


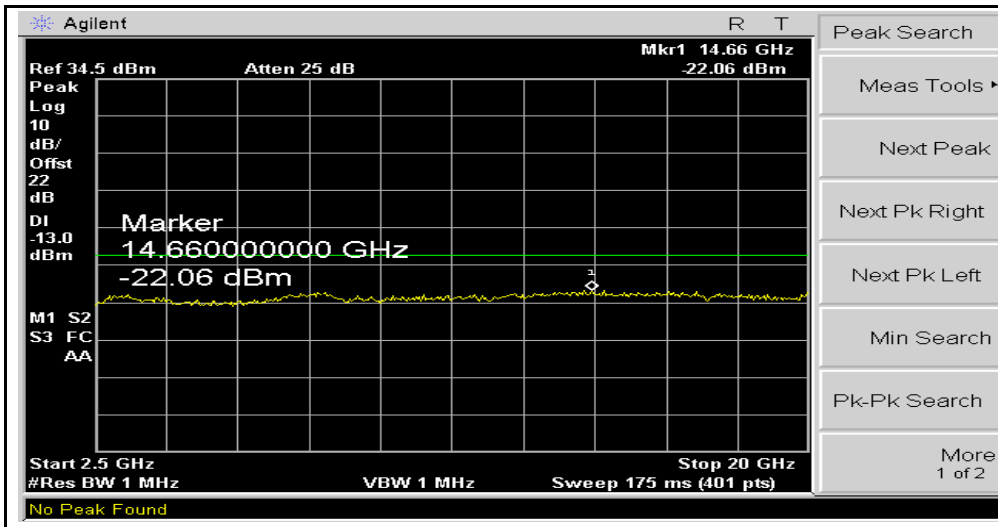
PCS 1900 GPRS

PLOTS OF EMISSION (PCS 1900 GPRS): OUT OF BAND(CH512)

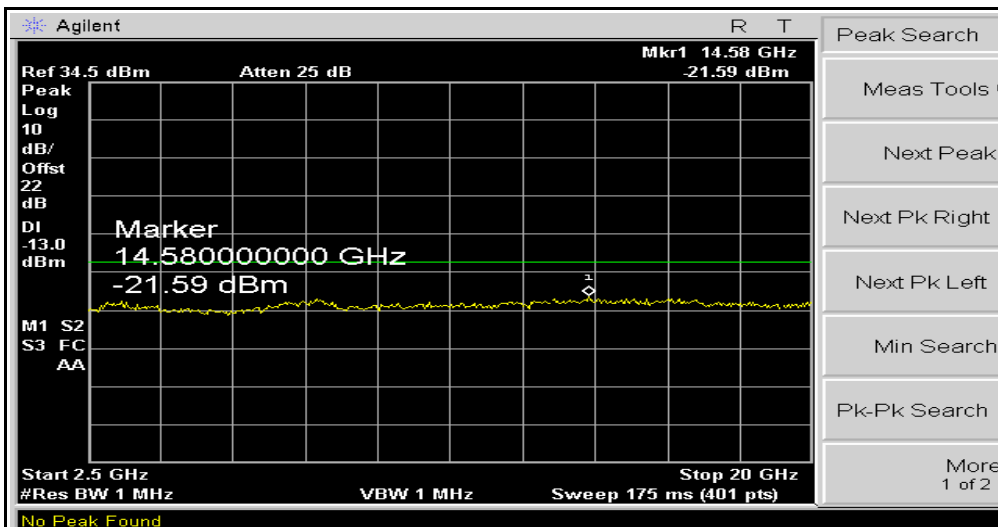
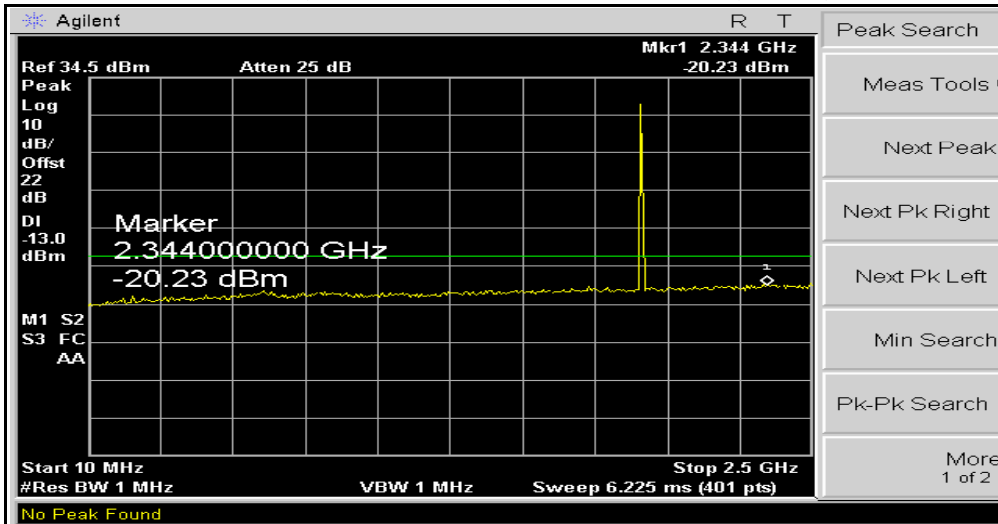


PLOTS OF EMISSION (PCS 1900 GPRS): OUT OF BAND(CH661)





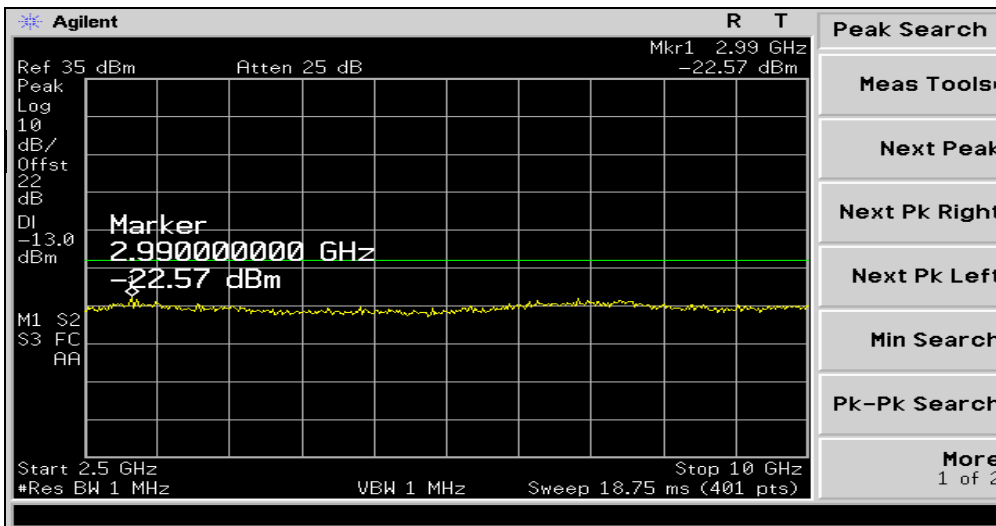
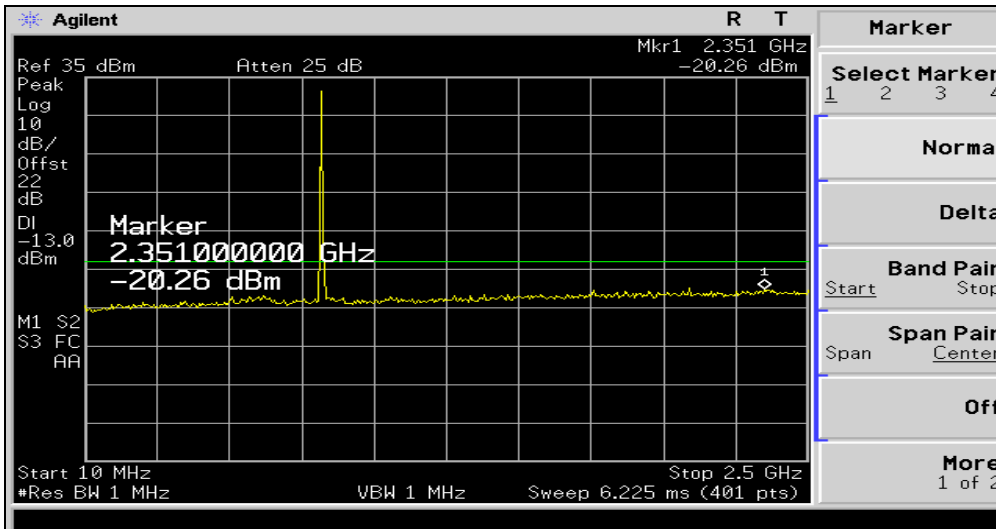
PLOTS OF EMISSION (PCS 1900 GPRS): OUT OF BAND(CH810)



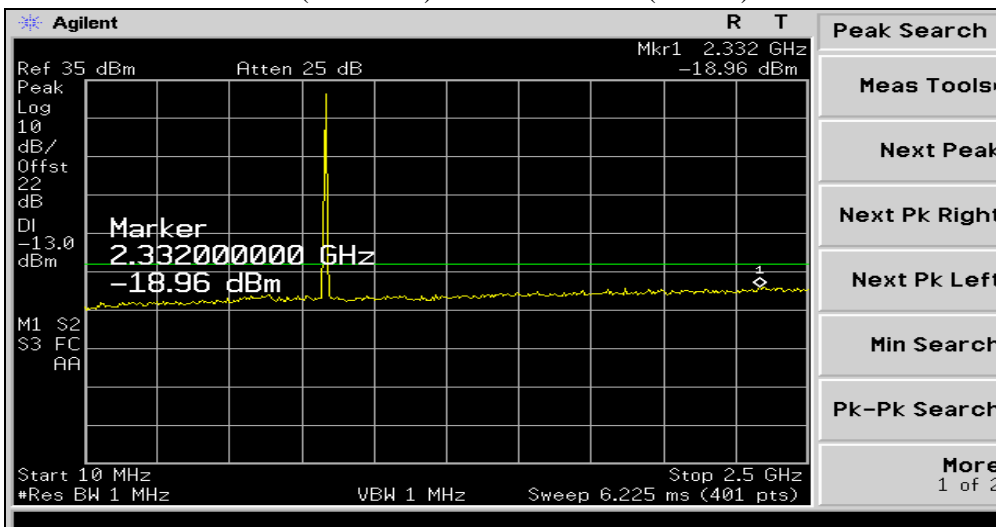


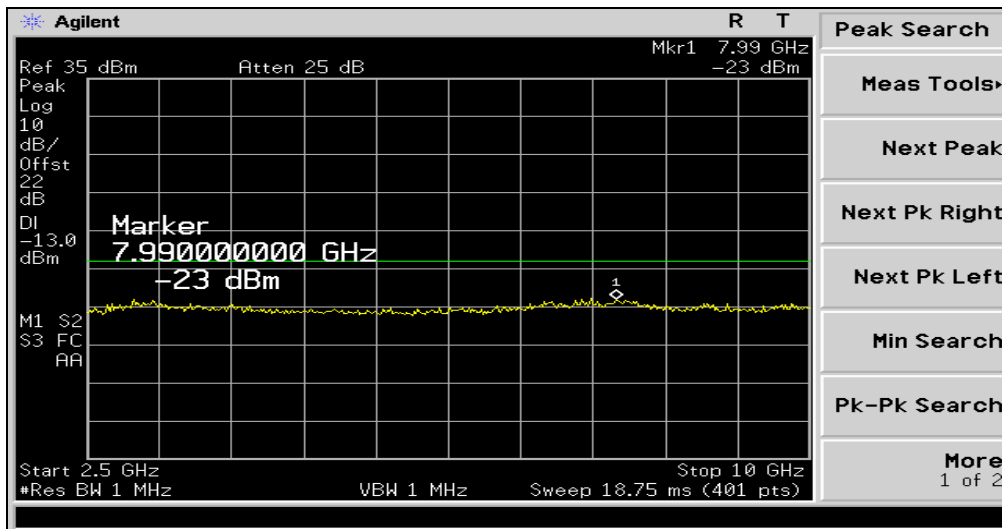
GSM 850

PLOTS OF EMISSION (GSM 850): OUT OF BAND(CH128)

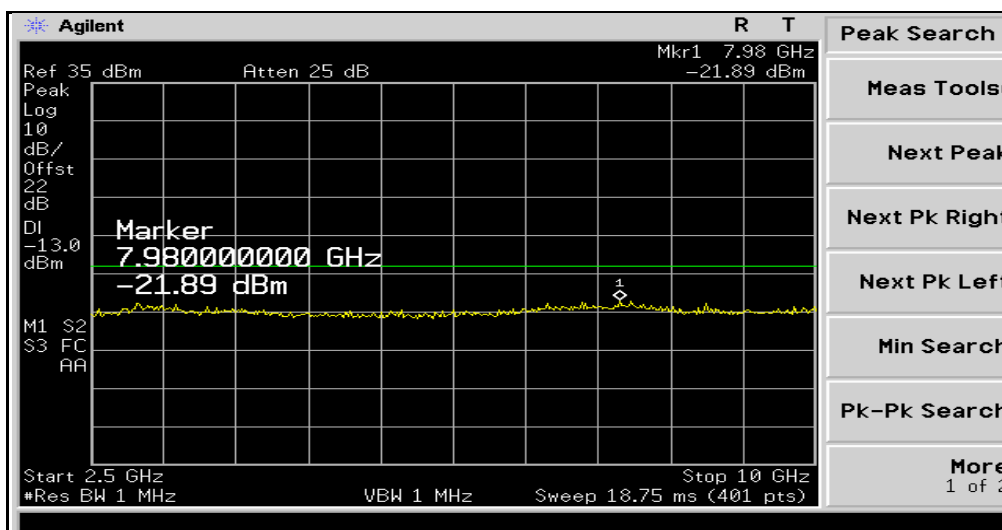
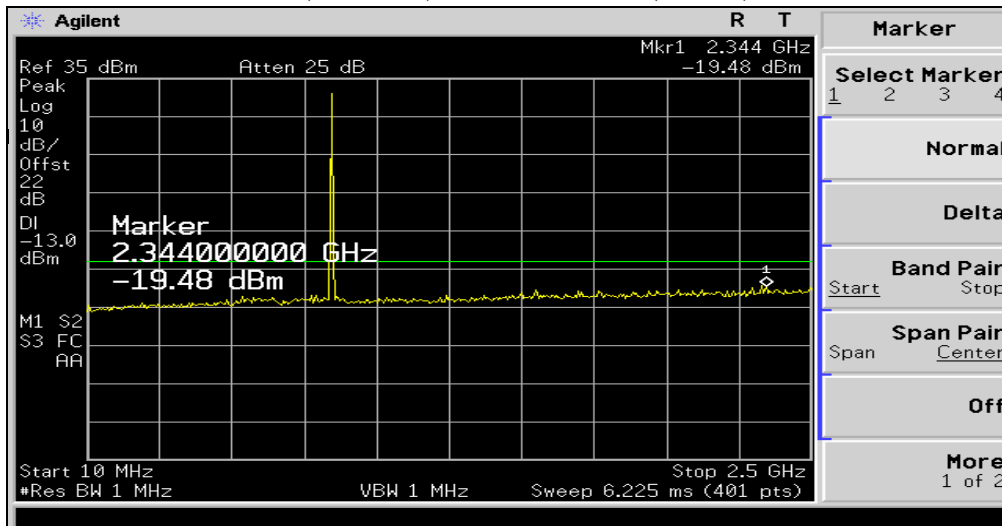


PLOTS OF EMISSION (GSM 850): OUT OF BAND(CH190)





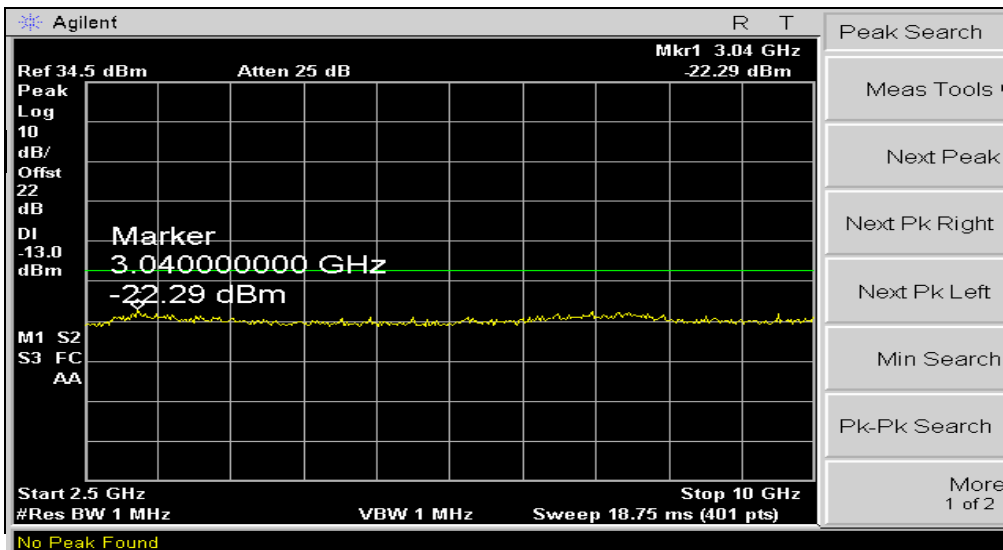
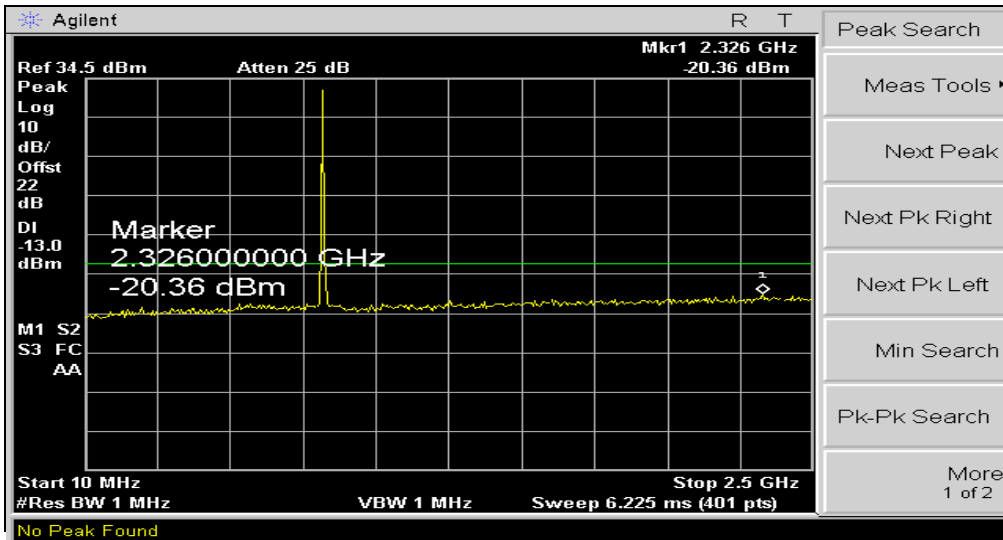
PLOTS OF EMISSION (GSM 850): OUT OF BAND(CH251)



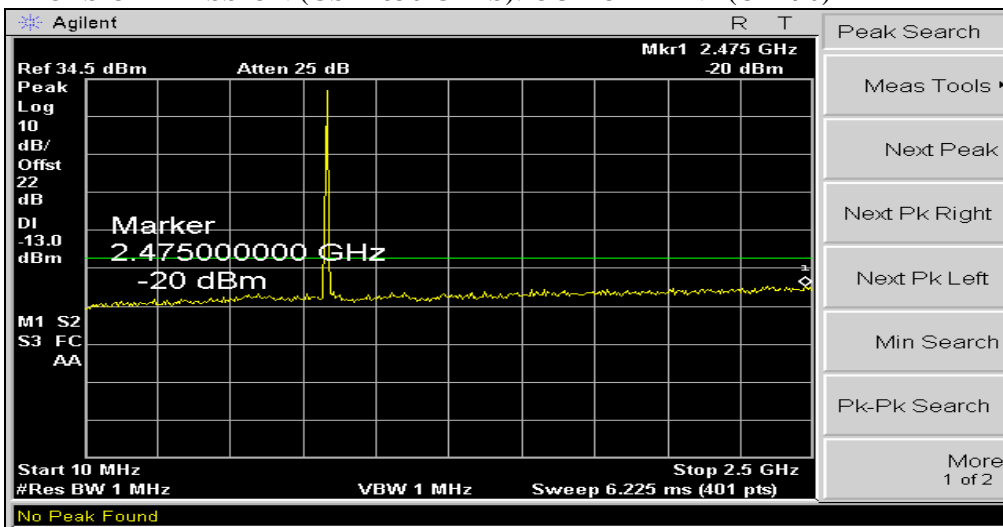


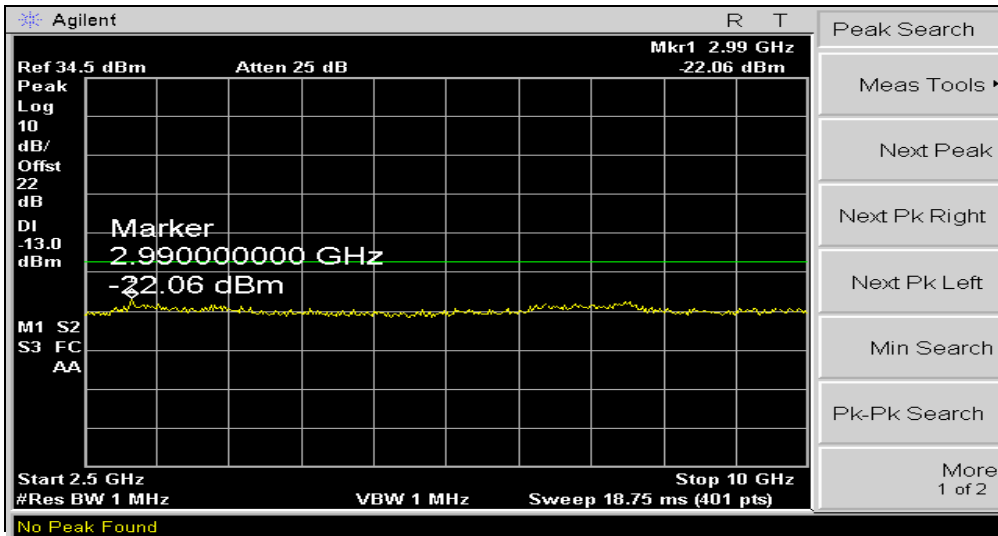
GSM 850 GPRS

PLOTS OF EMISSION (GSM 850 GPRS): OUT OF BAND(CH128)

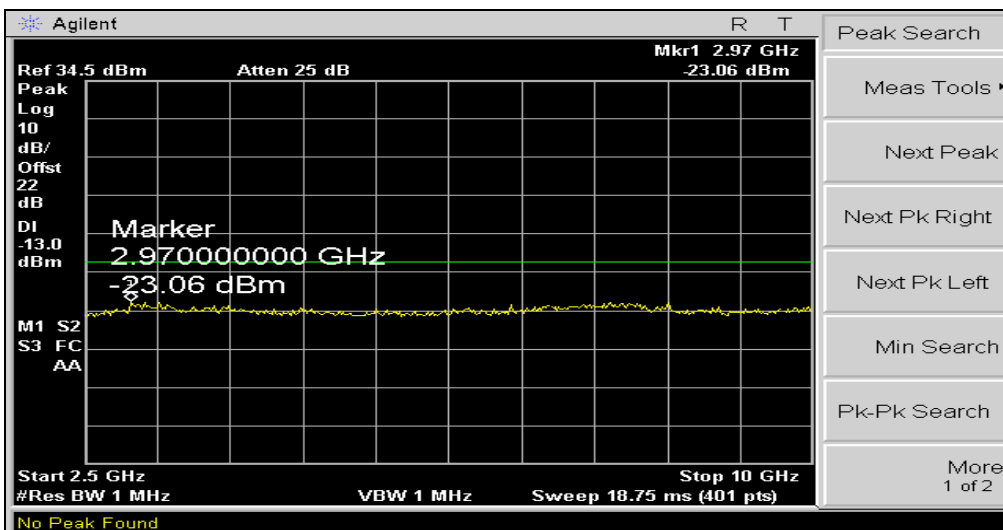
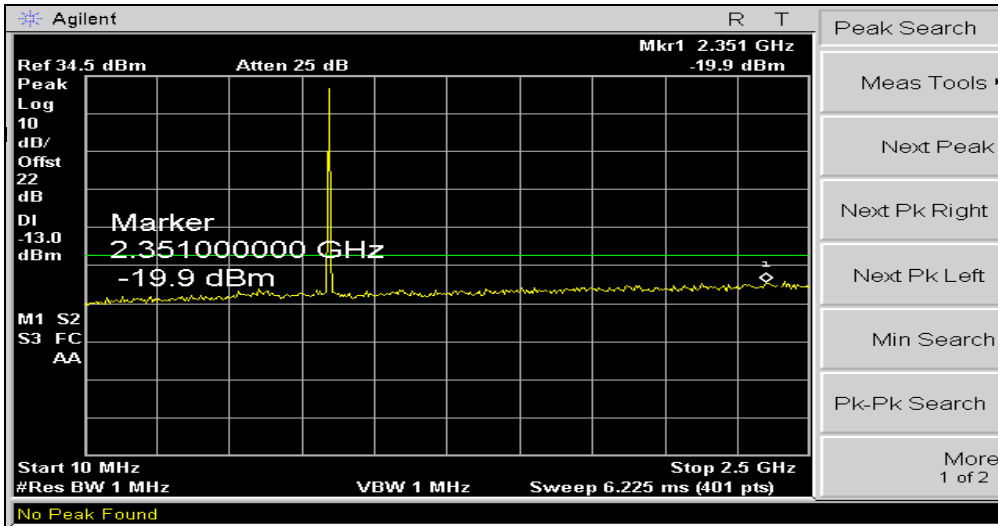


PLOTS OF EMISSION (GSM 850 GPRS): OUT OF BAND(CH190)





PLOTS OF EMISSION (GSM 850 GPRS): OUT OF BAND(CH251)



7. Field Strength of Spurious Radiation

7.1 Test Procedure according to ANSI/TIA/EIA 603 Clause 3.2.12 & FCC 22.917(h)

Radiation and harmonic emission are measured outdoors at our 3 meters test range. The equipment under test is placed on a wooden turntable 3 meters from the receive antenna. The receive antenna height and turntable rotations were adjusted for the highest reading on the receive spectrum analyzer (or receiver). A half wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator with the level of the signal generator being adjusted to obtain the same receive spectrum analyzer reading. This level is recorded. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

7.2 Test Equipments

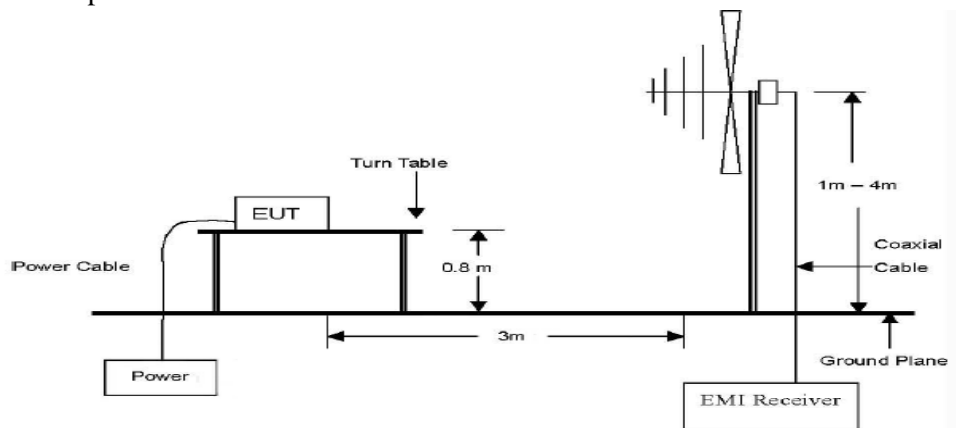
The following test equipments are used during tests

Equipment	Manufacturer	Model	Cal. Due Date
Spectrum Analyzer	ADVANTEST	R3273	2011-08-27
Signal Generator	HP	83620B	2011-02-01
Wireless Communications Test Set	Agilent	E5515C	2011-02-01
Pre Amplifier	HP	847F	2011-08-27
Horn Antenna	SCHWARZBECK	BBHA 9120 D	2011-07-17

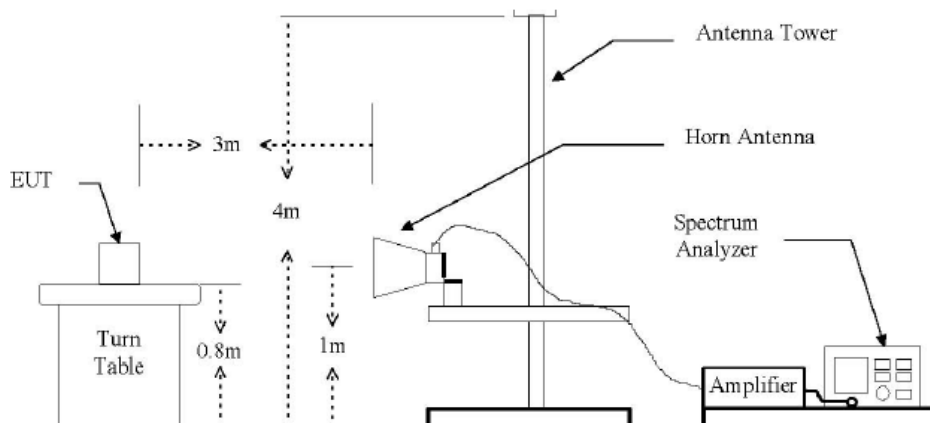
* The TX signal isn't detected from 3rd harmonics.

7.3 Test Setup

Test setup for 30MHz to 1GHz



Test setup for above 1GHz





7.3 Test Results

PCS 1900

PCS 1900 (CH512)

Mesured output power: 26.22dBm = 0.419W, Limit: $43+10\log_{10}(W)= 39.22\text{dBc}$

Frequency (MHz)	Receiver Reading(dBuV)	Correction Factor(dB)		EIRP(dBm)		dBc	Polarity
		AG(dBi)	CL(dB)	SG Reading	Result		
3700.40	46.73	12.69	19.10	-31.00	-37.41	60.51	V

PCS 1900 (CH661)

Mesured output power: 26.97dBm = 0.498W, Limit: $43+10\log_{10}(W)= 39.97\text{dBc}$

Frequency (MHz)	Receiver Reading(dBuV)	Correction Factor(dB)		EIRP(dBm)		dBc	Polarity
		AG(dBi)	CL(dB)	SG Reading	Result		
3760.00	45.82	12.75	19.50	-30.50	-37.25	60.18	V

PCS 1900 (CH810)

Mesured output power: 26.88dBm = 0.488W, Limit: $43+10\log_{10}(W)= 39.88\text{dBc}$

Frequency (MHz)	Receiver Reading(dBuV)	Correction Factor(dB)		EIRP(dBm)		dBc	Polarity
		AG(dBi)	CL(dB)	SG Reading	Result		
3819.60	46.11	12.75	19.50	-31.80	-38.55	61.19	V



PCS1900 GPRS

PCS 1900 GPRS (CH512)

Mesured output power: 25.63dBm = 0.366W, Limit: $43+10\log_{10}(W)$ = 38.63dBc

Frequency (MHz)	Receiver Reading(dBuV)	Correction Factor(dB)		EIRP(dBm)		dBc	Polarity
		AG(dBi)	CL(dB)	SG Reading	Result		
3700.40	46.99	12.69	19.10	-37.31	-37.31	60.51	V

PCS 1900 GPRS (CH661)

Mesured output power: 26.68dBm = 0.466W, Limit: $43+10\log_{10}(W)$ = 39.68dBc

Frequency (MHz)	Receiver Reading(dBuV)	Correction Factor(dB)		EIRP(dBm)		dBc	Polarity
		AG(dBi)	CL(dB)	SG Reading	Result		
3760.00	46.30	12.75	19.50	-30.90	-38.35	61.48	V

PCS 1900 GPRS (CH810)

Mesured output power: 27.36dBm = 0.545W, Limit: $43+10\log_{10}(W)$ = 40.36dBc

Frequency (MHz)	Receiver Reading(dBuV)	Correction Factor(dB)		EIRP(dBm)		dBc	Polarity
		AG(dBi)	CL(dB)	SG Reading	Result		
3819.60	45.70	12.75	19.50	-31.20	-37.95	64.69	V



GSM 850

GSM 850 (CH128)

Mesured output power: 31.79dBm = 1.510W, Limit: $43+10\log_{10}(W)= 44.79\text{dBc}$

Frequency (MHz)	Receiver Reading(dBuV)	Correction Factor(dB)		EIRP(dBm)		dBc	Polarity
		AG(dBd)	CL(dB)	SG Reading	Result		
1648.40	66.12	9.77	11.60	-28.50	-30.33	59.62	V
2472.60	58.10	10.49	14.80	-27.40	-31.71	61.00	V

GSM 850 (CH190)

Mesured output power: 31.80dBm = 1.514W, Limit: $43+10\log_{10}(W)= 44.80\text{dBc}$

Frequency (MHz)	Receiver Reading(dBuV)	Correction Factor(dB)		EIRP(dBm)		dBc	Polarity
		AG(dBd)	CL(dB)	SG Reading	Result		
1673.20	69.33	9.94	11.70	-25.50	-27.26	56.97	V
2509.80	57.25	10.62	15.00	-27.90	-32.28	61.99	v

GSM 850 (CH251)

Mesured output power: 31.68dBm = 1.472W, Limit: $43+10\log_{10}(W)= 44.68\text{dBc}$

Frequency (MHz)	Receiver Reading(dBuV)	Correction Factor(dB)		EIRP(dBm)		dBc	Polarity
		AG(dBd)	CL(dB)	SG Reading	Result		
1697.60	73.73	10.12	11.80	-21.00	-22.68	52.40	V
2546.40	62.39	10.68	15.10	-22.20	-26.62	56.34	V



GSM 850 GPRS

GSM 850 GPRS (CH128)

Mesured output power: $31.47\text{dBm} = 1.403\text{W}$, Limit: $43+10\log_{10}(\text{W}) = 44.47\text{dBc}$

Frequency (MHz)	Receiver Reading(dBuV)	Correction Factor(dB)		EIRP(dBm)		dBc	Polarity
		AG(dBd)	CL(dB)	SG Reading	Result		
1648.40	63.00	9.77	11.60	-31.30	-33.13	62.02	V
2472.60	54.62	10.49	14.80	-30.90	-35.21	63.83	V

GSM 850 GPRS (CH190)

Mesured output power: $31.40\text{dBm} = 1.380\text{W}$, Limit: $43+10\log_{10}(\text{W}) = 44.40\text{dBc}$

Frequency (MHz)	Receiver Reading(dBuV)	Correction Factor(dB)		EIRP(dBm)		dBc	Polarity
		AG(dBd)	CL(dB)	SG Reading	Result		
1673.20	65.80	9.94	11.70	-29.00	-30.76	59.38	V
2509.80	54.66	10.62	15.00	-30.50	-34.88	63.50	V

GSM 850 GPRS (CH251)

Mesured output power: $31.34\text{dBm} = 1.361\text{W}$, Limit: $43+10\log_{10}(\text{W}) = 44.34\text{dBc}$

Frequency (MHz)	Receiver Reading(dBuV)	Correction Factor(dB)		EIRP(dBm)		dBc	Polarity
		AG(dBd)	CL(dB)	SG Reading	Result		
1697.60	69.90	10.12	11.80	-24.80	-26.48	55.20	V
2546.40	58.80	10.68	15.10	-25.80	-30.22	58.94	V

8. Frequency stability

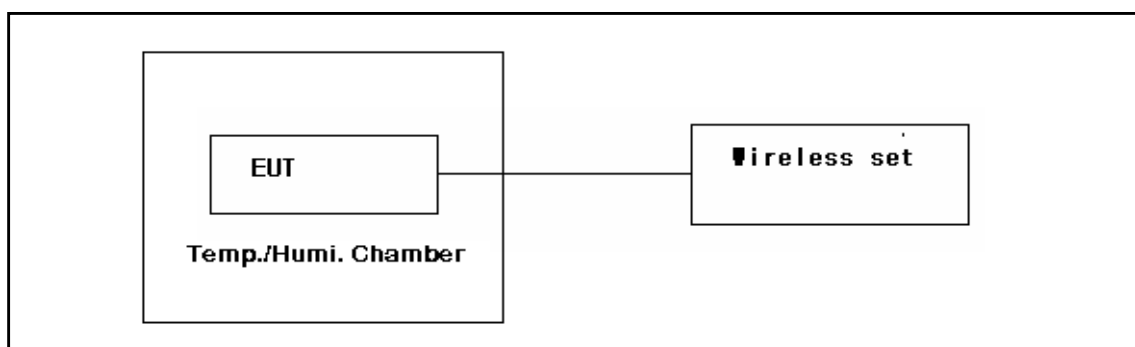
8.1 Test Procedure

The frequency stability of the transmitter is measured by:

a) **Temperature:** The temperature is varied from -30℃ to +60℃ using an environmental chamber.

b) **Primary Supply Voltage:** The primary supply voltage is varied from 85% to 115% of the voltage normally at the input to the device or at the power supply terminals if cables are not normally supplied.

※ The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within ± 2.5 ppm of the center frequency.



8.2 Test Equipments

The following test equipments are used during tests

Equipment	Manufacturer	Model	Cal. Due Date
Communications Test	Agilent	E5515C	2011-05-11
Tem/Hum Chamber	Myung Technology	SM-150-2	2011-02-09



8.3 Test Results

PCS 1900

Operting Frequency :	1,880,000,000
Channel :	661
Reference Voltage :	110V
Deviatin Limit :	0.00025

Voltage (%)	Power (AC)	Temperature (℃)	Frequency (Hz)	Deviation
100	110V	+20℃ (Ref)	1,880,000,003	0.000000
100		-30	1,879,999,988	0.000001
100		-20	1,879,999,973	0.000002
100		-10	1,879,999,977	0.000001
100		0	1,879,999,985	0.000001
100		10	1,879,999,979	0.000001
100		20	1,880,000,003	0.000000
100		25	1,879,999,988	0.000001
100		30	1,879,999,996	0.000000
100		40	1,879,999,966	0.000002
100		50	1,879,999,985	0.000001
100		60	1,879,999,982	0.000001
85	93.5V	20	1,879,999,974	0.000002
115	126.5V	20	1,879,999,970	0.000002
EndPoint	16V	20	1,879,999,963	0.000002



PCS1900 (GPRS)

Operting Frequency :	1,880,000,000
Channel :	661
Reference Voltage :	110V
Deviatin Limit :	0.00025

Voltage (%)	Power (AC)	Temperature (℃)	Frequency (Hz)	Deviation
100	110V	+20℃ (Ref)	1,880,000,001	0.000000
100		-30	1,879,999,975	0.000001
100		-20	1,879,999,985	0.000001
100		-10	1,879,999,976	0.000001
100		0	1,879,999,975	0.000001
100		10	1,879,999,955	0.000002
100		20	1,880,000,001	0.000000
100		25	1,879,999,999	0.000000
100		30	1,879,999,973	0.000001
100		40	18,799,999,684	899.999983
100		50	1,879,999,982	0.000001
100		60	1,879,999,989	0.000001
85	93.5V	20	1,879,999,955	0.000002
115	126.5V	20	1,879,999,949	0.000003
EndPoint	16V	20	1,879,999,934	0.000004



GSM 850

Operting Frequency :	836,600,000
Channel :	190
Reference Voltage :	110V
Deviatin Limit :	0.00025

Voltage (%)	Power (AC)	Temperature (°C)	Frequency (Hz)	Deviation
100	110V	+20℃ (Ref)	836,599,995	0.000000
100		-30	836,599,985	0.000001
100		-20	836,599,979	0.000002
100		-10	836,599,988	0.000001
100		0	836,599,980	0.000002
100		10	836,599,969	0.000003
100		20	836,599,995	0.000000
100		25	836,599,963	0.000004
100		30	836,599,988	0.000001
100		40	836,599,954	0.000005
100		50	836,599,969	0.000003
100		60	836,599,982	0.000002
85	93.5V	20	836,599,995	0.000000
115	126.5V	20	836,599,981	0.000002
EndPoint	16V	20	836,599,989	0.000001



GSM 850 (GPRS)

Operting Frequency :	836,600,000
Channel :	190
Reference Voltage :	110V
Deviatin Limit :	0.00025

Voltage (%)	Power (AC)	Temperature (°C)	Frequency (Hz)	Deviation
100	110V	+20℃ (Ref)	836,599,992	0.000000
100		-30	836,599,977	0.000002
100		-20	836,599,963	0.000003
100		-10	836,599,971	0.000003
100		0	836,599,977	0.000002
100		10	836,599,962	0.000004
100		20	836,599,992	0.000000
100		25	836,599,970	0.000003
100		30	836,599,976	0.000002
100		40	836,599,963	0.000003
100		50	836,599,965	0.000003
100		60	836,599,988	0.000000
85	93.5V	20	836,599,991	0.000000
115	126.5V	20	836,599,985	0.000001
EndPoint	16V	20	836,599,971	0.000003