

FCC 47 CFR PART 22H and 24E

RF Test Report

Product Type : Module
Applicant : Telit Communications S.p.A.
Address : Viale Stazione di Prosecco 5/b, Trieste, 34010, Italy
Trade Name : Telit
Model Number : HE910-NAG V2, HE910-NA V2
Test Specification : FCC 47 CFR PART 22H: Oct, 2012
FCC 47 CFR PART 24E: Oct, 2012
CANADA RSS-132 ISSUE 3: Jan. 2013
CANADA RSS-133 ISSUE 6: Jan. 2013
Canada RSS-Gen ISSUE 3: Dec., 2010
ANSI/TIA-603-C-2004
Application Purpose : Original
Receive Date : Jul. 17, 2013
Test Period : Jul. 23 ~ Aug. 02, 2013; Dec. 13 ~ Dec. 16, 2013
Issue Date : Dec. 30, 2013

Issue by

A Test Lab Techno Corp.
No. 140-1, Changan Street, Bade City,
Taoyuan County 334, Taiwan R.O.C.
Tel : +886-3-2710188 / Fax : +886-3-2710190



Taiwan Accreditation Foundation accreditation number: 1330

Note: This report shall not be reproduced except in full, without the written approval of A Test Lab Techno Corp. This document may be altered or revised by A Test Lab Techno Corp. personnel only, and shall be noted in the revision section of the document. The client should not use it to claim product endorsement by TAF, or any government agencies. The test results in the report only apply to the tested sample.

Revision History

Rev.	Issue Date	Revisions	Revised By
00	Sep. 02, 2013	Initial Issue	
01	Oct. 28, 2013	Revised RF output power.	Joyce Liao
02	Nov. 27, 2013	Revised antenna information.	Joyce Liao
03	Dec. 30, 2013	Revised test results.	Joyce Liao

Verification of Compliance

Issued Date: 12/30/2013

Product Type : Module
Applicant : Telit Communications S.p.A.
Address : Viale Stazione di Prosecco 5/b, Trieste, 34010, Italy
Trade Name : Telit
Model Number : HE910-NAG V2, HE910-NA V2
FCC ID : RI7HE910NAV2
IC : 5131A-HE910NAV2
EUT Rated Voltage : DC 3.4V / 3.8V / 4.2V
Test Voltage : DC 3.8V
Applicable Standard : FCC 47 CFR PART 22H: Oct, 2012
FCC 47 CFR PART 24E: Oct, 2012
CANADA RSS-132 ISSUE 3: Jan. 2013
CANADA RSS-133 ISSUE 6: Jan. 2013
Canada RSS-Gen ISSUE 3: Dec., 2010
ANSI/TIA-603-C-2004

Application Purpose : Original

Test Result : Complied

Performing Lab. : A Test Lab Techno Corp.
No. 140-1, Changan Street, Bade City,
Taoyuan County 334, Taiwan R.O.C.
Tel : +886-3-2710188 / Fax : +886-3-2710190



Taiwan Accreditation Foundation accreditation number: 1330
<http://www.atl-lab.com.tw/e-index.htm>

The above equipment was tested by A Test Lab Techno Corp. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4: 2009 and the energy emitted by the sample tested as described in this report is in compliance with the requirements of FCC Rules Part 22H, Part 24E.

The test results of this report relate only to the tested sample identified in this report.

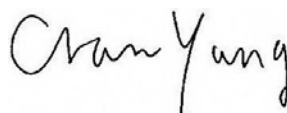

Approved By :  : Reviewed By : 
(Manager) (Cran Yang) (Testing Engineer) (Fly Lu)

TABLE OF CONTENTS

1	General Information	6
1.1.	EUT Description	6
1.2.	Mode of Operation.....	7
1.3.	EUT Exercise Software	7
1.4.	Configuration of Test System Details	7
1.5.	Test Site Environment	8
1.6.	Summary of Test Result	8
2	RF Output Power Test	9
2.1.	Limit	9
2.2.	Test Instruments	9
2.3.	Test Setup.....	9
2.4.	Test Procedure	9
2.5.	Uncertainty	9
2.6.	Test Result.....	10
3	Effective Radiated Power / Equivalent Isotropic Radiated Power Test.....	14
3.1.	Limit	14
3.2.	Test Instruments	14
3.3.	Test Setup.....	14
3.4.	Test Procedure	14
3.5.	Uncertainty	14
3.6.	Test Result.....	15
4	Occupied Bandwidth Test.....	17
4.1.	Limit	17
4.2.	Test Instruments	17
4.3.	Setup	17
4.4.	Test Procedure	18
4.5.	Uncertainty	18
4.6.	Test Result.....	18
4.7.	Test Graphs	19
5	Band Edge Test	25
5.1.	Limit	25
5.2.	Test Instruments	25
5.3.	Setup	25
5.4.	Test Procedure	26
5.5.	Uncertainty	26
5.6.	Test Result.....	26
5.7.	Test Graphs	27

6	Conducted Spurious Emission Test	31
6.1.	Limit	31
6.2.	Test Instruments	31
6.3.	Setup	31
6.4.	Test Procedure	32
6.5.	Uncertainty	32
6.6.	Test Result.....	32
7	Field Strength of Spurious Radiation Test	101
7.1.	Limit	101
7.2.	Test Instruments	101
7.3.	Setup	102
7.4.	Test Procedure	102
7.5.	Uncertainty	103
7.6.	Test Result.....	104
8	Frequency Stability (Temperature & Voltage Variation) Test	117
8.1.	Limit	117
8.2.	Test Instruments	117
8.3.	Setup	117
8.4.	Test Procedure	118
8.5.	Uncertainty	118
8.6.	Test Result.....	119

1 General Information

1.1. EUT Description

Applicant		Telit Communications S.p.A.			
Applicant Address		Viale Stazione di Prosecco 5/b, Trieste, 34010, Italy			
Manufacturer		Telit Communications S.p.A.			
Manufacturer Address		Via Stazione di Prosecco, 5/B 34010 Sgonico Italy			
Product Type		Module			
Trade Name		Telit			
Model Number		HE910-NAG V2, HE910-NA V2			
FCC ID		R17HE910NAV2			
IC		5131A-HE910NAV2			
IMEI No.		356369050006682			
Mode	GSM/GPRS/ EGPRS/DTM	Band	UL Frequency (MHz)	DL Frequency (MHz)	Modulation
		850	824.2 ~ 848.8	869.2 ~ 893.8	GMSK/8PSK
		1900	1850.2 ~ 1909.8	1930.2 ~ 1989.8	GMSK/8PSK
	WCDMA (RMC12.2K)/ HSDPA/ HSUPA/	Band	UL Frequency (MHz)	DL Frequency (MHz)	Modulation
		II	1852.4 ~ 1907.6	1932.4 ~ 1987.6	QPSK
		V	826.4 ~ 846.6	871.4 ~ 891.6	QPSK
Channel Control		Auto			
Type of Antenna		Dipole antenna			
Antenna Gain (dBi)		GSM/GPRS/EGPRS/DTM 850 : 7.43 dBi GSM/GPRS/EGPRS/DTM 1900 : 3.00 dBi WCDMA/ HSDPA/ HSUPA/HSPA+ Band II : 3.00 dBi WCDMA/ HSDPA/ HSUPA/HSPA+ Band V : 8.45 dBi			
Max. RF Output power		GSM/GPRS 850 : 32.79 dBm / 1.901 W EGPRS 850 : 29.23 dBm / 0.838 W GSM/GPRS 1900 : 29.79 dBm / 0.953 W EGPRS 1900 : 28.39 dBm / 0.690 W DTM 850 : 32.42 dBm / 1.746 W DTM 1900 : 29.39 dBm / 0.869 W WCDMA/ HSDPA/ HSUPA/HSPA+ Band II : 27.26 dBm / 0.532 W WCDMA/ HSDPA/ HSUPA/HSPA+ Band V : 27.76 dBm / 0.597 W			
Max. ERP/EIRP		GSM/GPRS 850 : 38.07 dBm / 6.41 W EGPRS 850 : 34.51 dBm / 2.82 W GSM/GPRS 1900 : 32.79 dBm / 1.90 W EGPRS 1900 : 31.39 dBm / 1.38 W WCDMA Band II : 30.26 dBm / 1.06 W WCDMA Band V : 34.06 dBm / 2.55 W			
Emission Designator		GSM/GPRS 850 : 242KGXW EGPRS 850 : 247KG7W GSM/GPRS 1900 : 242KGXW EGPRS 1900 : 247KG7W WCDMA Band II : 4M15F9W WCDMA Band V : 4M16F9W			

1.2. Mode of Operation

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

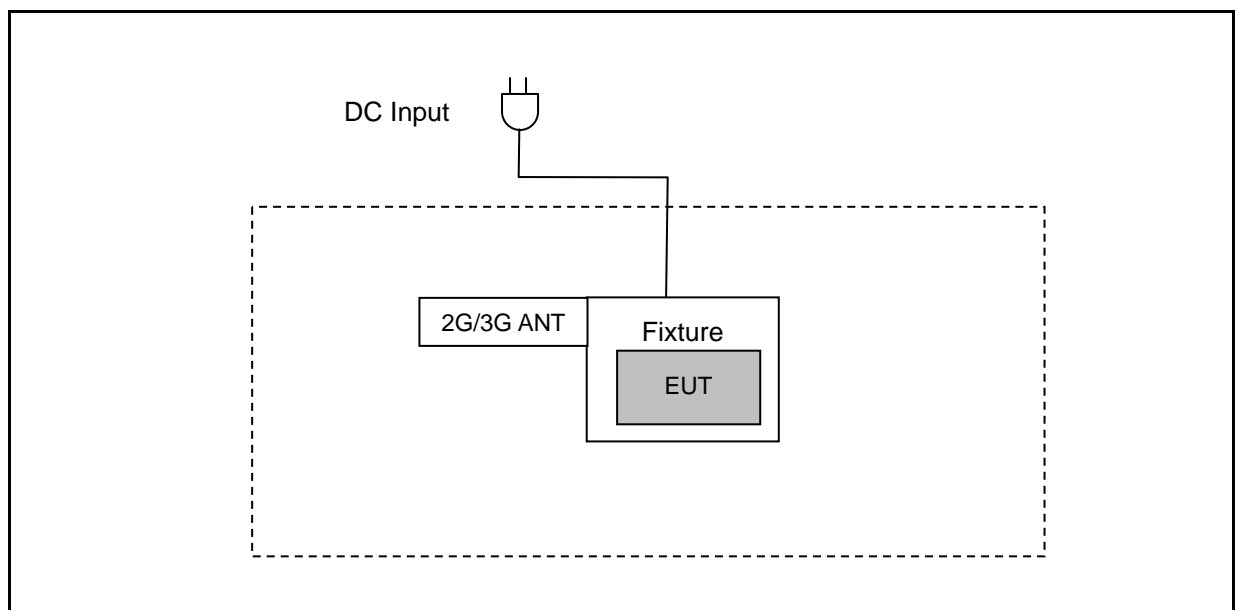
Test Mode
Mode 1: GSM 850 Link Mode
Mode 2: GSM 1900 Link Mode
Mode 3: EGPRS 850 Link Mode
Mode 4: EGPRS 1900 Link Mode
Mode 5: WCDMA Band II Link Mode
Mode 6: WCDMA Band V Link Mode
Mode 7: Receive Link Mode

Note: Regards to the frequency band operation: the lowest, middle and highest frequency of channel were selected to perform the test, then shown on this report.

1.3. EUT Exercise Software

1	Setup the EUT and Base Station (CMU200) as shown on 1.4.
2	Turn on the power of all equipment.

1.4. Configuration of Test System Details



1.5. Test Site Environment

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	26
Humidity (%RH)	25-75	60
Barometric pressure (mbar)	860-1060	950

1.6. Summary of Test Result

Description	FCC Rule	IC Rule	Limit	Result
Conducted Output Power	§2.1046	N/A	N/A	Pass
Effective Radiated Power	§22.913(a)(2)	RSS-132(4.4) SRSP-503(5.1.3)	< 7 Watts for FCC (<6.3 Watts for IC)	Pass
Equivalent Isotropic Radiated Power	§24.232(c)	RSS-133 (6.4) SRSP-510(5.1.2)	< 2 Watts	Pass
Occupied Bandwidth	§2.1049 §22.917(a) §24.238(a)	RSS-Gen (4.6.1)	N/A	Pass
Band Edge Measurement	§2.1051 §22.917(a) §24.238(a)	RSS-132 (4.5.1)RSS-133 (6.5.1)	< 43+10log ₁₀ (P[Watts])	Pass
Conducted Spurious Emission	§2.1051 §22.917(a) §24.238(a)	RSS-132 (4.5.1) RSS-133 (6.5.1)	< 43+10log ₁₀ (P[Watts])	Pass
Field Strength of Spurious Radiation	§2.1053 §22.917(a) §24.238(a)	RSS-132 (4.5.1) RSS-133 (6.5.1) RSS-Gen (4.10)	< 43+10log ₁₀ (P[Watts])	Pass
Frequency Stability for Temperature & Voltage	§2.1055 §22.355 §24.235	RSS-132(4.3) RSS-133(6.3)	< 2.5 ppm	Pass

2 RF Output Power Test

2.1. Limit

N/A

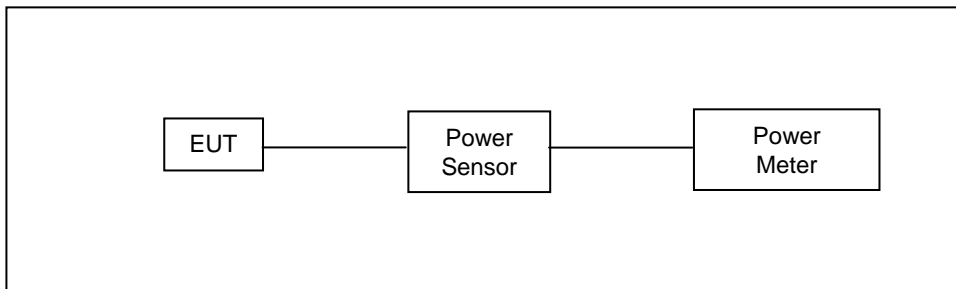
2.2. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Universal Radio Communication Tester	R & S	CMU200	109369	08/07/2012	(2)
Single Channel PK Power Sensor	Agilent	N1911A	MY45101619	12/15/2011	(2)
Wideband Power Meter	Agilent	N1921A	MY45241957	12/15/2011	(2)
Test Site	ATL	TE05	TE05	N.C.R.	-----

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

Note: N.C.R. = No Calibration Request.

2.3. Test Setup



2.4. Test Procedure

The measurement is made according to ANSI/TIA-603-C-2004 as follows:

1. The transmitter output was connected to power meter and base station through Power Divider.
2. Set base station for EUT at GSM 850: PCL=5 and PCS 1900: PCL=0.
3. Set base station for EUT at WCDMA Band V and WCDMA Band II, power level was set to maximum.
4. Select lowest, middle, and highest channels for each band.

2.5. Uncertainty

The measurement uncertainty is defined as for RF output power measurement is 1.2 dB.

2.6. Test Result

Model Number	HE910-NAG V2						
Test Item	RF Output Power						
Date of Test	07/23/2013			Test Site		TE05	
Bands	Modulation Type	Data Rate	Frequency (MHz)	Burst Average Power		Peak Power	
				(dBm)	(W)	(dBm)	(W)
GSM 850	GMSK	-----	824.2	32.44	1.754	32.67	1.850
			836.6	32.58	1.811	32.79	1.901
			848.8	32.34	1.714	32.53	1.791
GRRS 850 Multi Class :10 Max Up:2 Max Down:4 Sum:5	GMSK	4Down1Up (Duty Factor 1/8)	824.2	32.32	1.706	32.61	1.824
			836.6	32.46	1.762	32.70	1.862
			848.8	32.22	1.667	32.43	1.750
		3Down2Up (Duty Factor 2/8)	824.2	32.25	1.679	32.52	1.786
			836.6	32.36	1.722	32.60	1.820
			848.8	32.15	1.641	32.33	1.710
EGPRS 850 Multi Class :10 Max Up:2 Max Down:4 Sum:5	8PSK	4Down1Up (Duty Factor 1/8)	824.2	26.10	0.407	29.15	0.822
			836.6	26.19	0.416	29.23	0.838
			848.8	26.02	0.400	29.10	0.813
		3Down2Up (Duty Factor 2/8)	824.2	26.04	0.402	29.05	0.804
			836.6	26.08	0.406	29.10	0.813
			848.8	26.03	0.401	28.98	0.791
DTM 850 (GSM+ GPRS) Multi Class :9 Max Up:2 Max Down:4 Sum:5	GMSK	3Down2Up (Duty Factor 2/8)	824.2	32.06	1.607	32.33	1.710
			836.6	32.15	1.641	32.42	1.746
			848.8	32.06	1.607	32.19	1.656
DTM 850 (GSM+ EGPRS) Multi Class :9 Max Up:2 Max Down:3 Sum:5	GMSK+ 8PSK	3Down2Up (Duty Factor 2/8)	824.2	26.24	0.421	32.26	1.683
			836.6	26.35	0.432	32.39	1.734
			848.8	26.06	0.404	32.15	1.641

Note: The peak power testing result was used peak detector.

Model Number	HE910-NAG V2						
Test Item	RF Output Power						
Date of Test	07/23/2013			Test Site		TE05	
Bands	Modulation Type	Data Rate	Frequency (MHz)	Burst Average Power		Peak Power	
				(dBm)	(W)	(dBm)	(W)
GSM 1900	GMSK	-----	1850.20	29.44	0.879	29.72	0.938
			1880.00	29.47	0.885	29.79	0.953
			1909.80	29.41	0.873	29.70	0.933
GRRS 1900 Multi Class :10 Max Up:2 Max Down:4 Sum:5	GMSK	4Down1Up (Duty Factor 1/8)	1850.20	29.32	0.855	29.60	0.912
			1880.00	29.37	0.865	29.65	0.923
			1909.80	29.31	0.853	29.56	0.904
		3Down2Up (Duty Factor 2/8)	1850.20	29.21	0.834	29.46	0.883
			1880.00	29.27	0.845	29.55	0.902
			1909.80	29.19	0.830	29.42	0.875
EGPRS 1900 Multi Class :10 Max Up:2 Max Down:4 Sum:6	8PSK	4Down1Up (Duty Factor 1/8)	1850.20	25.13	0.326	28.33	0.681
			1880.00	25.16	0.328	28.39	0.690
			1909.80	25.09	0.323	28.29	0.675
		3Down2Up (Duty Factor 2/8)	1850.20	25.02	0.318	28.19	0.659
			1880.00	25.06	0.321	28.26	0.670
			1909.80	25.07	0.321	28.19	0.659
DTM 1900 (GSM+ GPRS) Multi Class :9 Max Up:2 Max Down:3 Sum:5	GMSK	3Down2Up (Duty Factor 2/8)	1850.2	29.06	0.805	29.31	0.853
			1909.8	29.12	0.817	29.39	0.869
			1909.8	29.01	0.796	29.24	0.839
DTM 1900 (GSM+ EGPRS) Multi Class :9 Max Up:2 Max Down:3 Sum:5	GMSK+ 8PSK	3Down2Up (Duty Factor 2/8)	1850.2	25.03	0.318	29.39	0.869
			1909.8	25.06	0.321	29.36	0.863
			1909.8	25.10	0.324	29.26	0.843

Note: The peak power testing result was used peak detector.

Model Number	HE910-NAG V2						
Test Item	RF Output Power						
Date of Test	07/23/2013			Test Site		TE05	
Bands	Modulation Type	Sub-Test	Frequency (MHz)	Burst Average Power		Peak Power	
				(dBm)	(W)	(dBm)	(W)
WCDMA Band II	QPSK	-----	1852.4	23.75	0.237	27.26	0.532
			1880.0	23.69	0.234	27.16	0.520
			1907.6	23.36	0.217	26.95	0.495
HSDPA Band II	QPSK	1	1852.4	22.74	0.188	26.24	0.421
			1880.0	22.65	0.184	26.15	0.412
			1907.6	22.32	0.171	25.92	0.391
		2	1852.4	22.71	0.187	26.21	0.418
			1880.0	22.61	0.182	26.11	0.408
			1907.6	22.30	0.170	25.90	0.389
		3	1852.4	22.23	0.167	25.73	0.374
			1880.0	22.16	0.164	25.66	0.368
			1907.6	21.80	0.151	25.40	0.347
		4	1852.4	22.21	0.166	25.71	0.372
			1880.0	22.13	0.163	25.63	0.366
			1907.6	21.81	0.152	25.41	0.348
HSUPA/HSPA+ Band II	QPSK	1	1852.4	22.46	0.176	26.11	0.408
			1880.0	22.37	0.173	26.01	0.399
			1907.6	22.23	0.167	25.81	0.381
		2	1852.4	20.43	0.110	24.14	0.259
			1880.0	20.36	0.109	24.00	0.251
			1907.6	20.23	0.105	23.81	0.240
		3	1852.4	21.45	0.140	25.14	0.327
			1880.0	21.33	0.136	25.00	0.316
			1907.6	21.23	0.133	24.81	0.303
		4	1852.4	20.42	0.110	24.10	0.257
			1880.0	20.30	0.107	24.00	0.251
			1907.6	20.22	0.105	23.80	0.240
		5	1852.4	22.41	0.174	26.07	0.405
			1880.0	22.36	0.172	25.94	0.393
			1907.6	22.21	0.166	25.79	0.379

Note: The peak power testing result was used peak detector.

Model Number	HE910-NAG V2						
Test Item	RF Output Power						
Date of Test	07/23/2013			Test Site		TE05	
Bands	Modulation Type	Sub-Test	Frequency (MHz)	Burst Average Power		Peak Power	
				(dBm)	(W)	(dBm)	(W)
WCDMA Band V	QPSK	-----	826.4	23.99	0.251	27.76	0.597
			836.6	23.97	0.249	27.58	0.573
			846.6	23.92	0.247	27.51	0.564
HSDPA Band V	QPSK	1	826.4	22.98	0.199	26.75	0.473
			836.6	22.94	0.197	26.55	0.452
			846.6	22.88	0.194	26.43	0.440
		2	826.4	22.96	0.198	26.73	0.471
			836.6	22.91	0.195	26.52	0.449
			846.6	22.86	0.193	26.41	0.438
		3	826.4	22.45	0.176	26.28	0.425
			836.6	22.43	0.175	26.04	0.402
			846.6	22.39	0.173	25.94	0.393
		4	826.4	22.47	0.177	26.25	0.422
			836.6	22.43	0.175	26.04	0.402
			846.6	22.35	0.172	25.90	0.389
HSUPA/HSPA+ Band V	QPSK	1	826.4	22.47	0.177	26.66	0.463
			836.6	22.34	0.171	26.43	0.440
			846.6	22.26	0.168	26.10	0.407
		2	826.4	20.48	0.112	24.65	0.292
			836.6	20.33	0.108	24.41	0.276
			846.6	20.26	0.106	24.13	0.259
		3	826.4	21.46	0.140	25.63	0.366
			836.6	21.34	0.136	25.42	0.348
			846.6	21.24	0.133	25.13	0.326
		4	826.4	20.44	0.111	24.66	0.292
			836.6	20.31	0.107	24.39	0.275
			846.6	20.24	0.106	24.12	0.258
		5	826.4	22.47	0.177	26.64	0.461
			836.6	22.31	0.170	26.40	0.437
			846.6	22.25	0.168	26.13	0.410

Note: The peak power testing result was used peak detector.

3 Effective Radiated Power / Equivalent Isotropic Radiated Power Test

3.1. Limit

For FCC Part 22.913(a)(2): The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

For FCC Part 24.232(b): The EIRP of mobile transmitters and auxiliary test transmitters must not exceed 2 Watts.

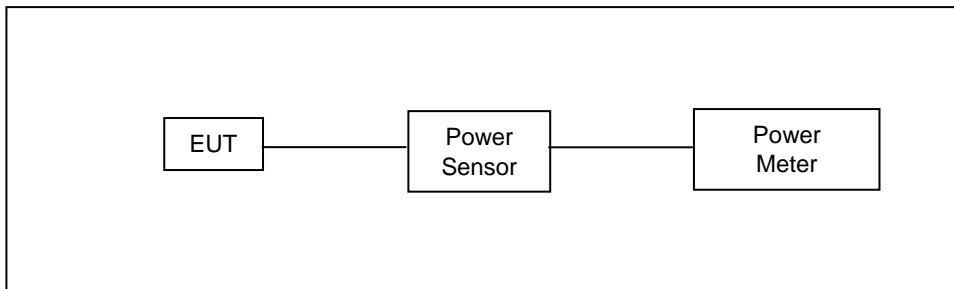
3.2. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Universal Radio Communication Tester	R & S	CMU200	109369	08/07/2012	(2)
Single Channel PK Power Sensor	Agilent	N1911A	MY45101619	12/15/2011	(2)
Wideband Power Meter	Agilent	N1921A	MY45241957	12/15/2011	(2)
Test Site	ATL	TE05	TE05	N.C.R.	-----

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

Note: N.C.R. = No Calibration Request.

3.3. Test Setup



3.4. Test Procedure

The measurement is made according to ANSI/TIA-603-C-2004 as follows:

5. The transmitter output was connected to power meter and base station through Power Divider.
6. Set base station for EUT at GSM 850: PCL=5 and PCS 1900: PCL=0.
7. Set base station for EUT at WCDMA Band V and WCDMA Band II, power level was set to maximum.
8. Select lowest, middle, and highest channels for each band.

3.5. Uncertainty

The measurement uncertainty is defined as for RF output power measurement is 1.2 dB.

3.6. Test Result

Model Number	HE910-NAG V2						
Test Item	ERP/EIRP						
Date of Test	12/16/2013				Test Site	TE01	
Bands	Modulation Type	Frequency (MHz)	Peak Conducted power (dBm)	Antenna Gain (dBi)	ERP		Limit
					(dBm)	(W)	
GSM 850	GMSK	824.2	32.67	7.43	37.95	6.24	< 7W
		836.6	32.79	7.43	38.07	6.41	< 7W
		848.8	32.53	7.43	37.81	6.04	< 7W
EGPRS 850	8PSK	824.2	29.15	7.43	34.43	2.77	< 7W
		836.6	29.23	7.43	34.51	2.82	< 7W
		848.8	29.10	7.43	34.38	2.74	< 7W

Model Number	HE910-NAG V2						
Test Item	ERP/EIRP						
Date of Test	12/16/2013				Test Site	TE01	
Bands	Modulation Type	Frequency (MHz)	Peak Conducted power (dBm)	Antenna Gain (dBi)	EIRP		Limit
					(dBm)	(W)	
GSM 1900	GMSK	1850.20	29.72	3.00	32.72	1.87	< 2W
		1880.00	29.79	3.00	32.79	1.90	< 2W
		1909.80	29.70	3.00	32.70	1.86	< 2W
EGPRS 1900	8PSK	1850.20	28.33	3.00	31.33	1.36	< 2W
		1880.00	28.39	3.00	31.39	1.38	< 2W
		1909.80	28.29	3.00	31.29	1.35	< 2W

Model Number	HE910-NAG V2						
Test Item	ERP/EIRP						
Date of Test	12/16/2013				Test Site	TE01	
Bands	Modulation Type	Frequency (MHz)	Peak Conducted power (dBm)	Antenna Gain (dBi)	EIRP		Limit
					(dBm)	(W)	
WCDMA Band II	QPSK	1852.4	27.26	3.00	30.26	1.06	< 2W
		1880.0	27.16	3.00	30.16	1.04	< 2W
		1907.6	26.95	3.00	29.95	0.99	< 2W

Note: ERP = Peak Conducted power + Antenna Gain - 2.15, EIRP = Peak Conducted power + Antenna Gain

Model Number	HE910-NAG V2						
Test Item	ERP/EIRP						
Date of Test	12/16/2013				Test Site	TE01	
Bands	Modulation Type	Frequency (MHz)	Peak Conducted power (dBm)	Antenna Gain (dBi)	ERP		Limit
					(dBm)	(W)	
WCDMA Band V	QPSK	826.4	27.76	8.45	34.06	2.55	< 7W
		836.6	27.58	8.45	33.88	2.44	< 7W
		846.6	27.51	8.45	33.81	2.40	< 7W

Note: ERP = Peak Conducted power + Antenna Gain - 2.15, EIRP = Peak Conducted power + Antenna Gain

4 Occupied Bandwidth Test

4.1. Limit

The Occupied Bandwidth Limit:

N/A.

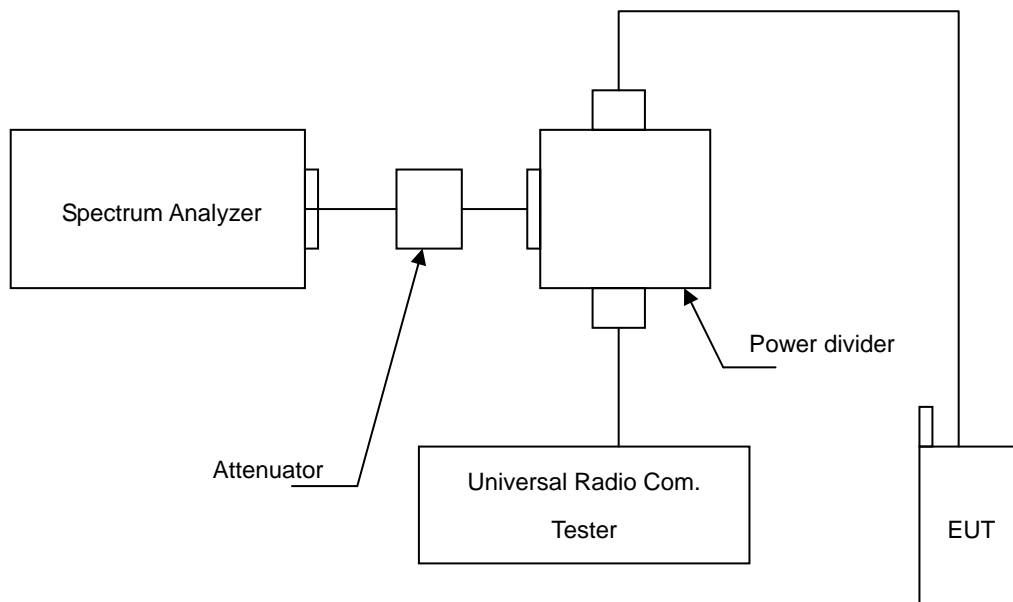
4.2. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Universal Radio Communication Tester	R & S	CMU200	109369	08/07/2012	(2)
Spectrum Analyzer	Agilent	E4445A	MY46181986	05/16/2013	(1)
Attenuator	RADIALL	R41572000	0603033073	N.C.R.	-----
Power Divider	Agilent	87302C	3239A00760	N.C.R.	-----
Test Site	ATL	TE05	TE05	N.C.R.	-----

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

Note: N.C.R. = No Calibration Request.

4.3. Setup



4.4. Test Procedure

The measurement is made according to FCC rules part 22 and 24:

1. The EUT was connected to Spectrum Analyzer and Base Station via Power Divider.
2. The occupied bandwidth of middle channel for the highest and lowest RF powers was measured.

4.5. Uncertainty

The measurement uncertainty is defined as $\pm 10\text{Hz}$

4.6. Test Result

Model Number	HE910-NAG V2				
Test Item	Occupied Bandwidth				
Date of Test	07/23/2013			Test Site	TE05
Bands	Channel	Frequency (MHz)	99% Bandwidth (kHz)	Note	
GSM 850	128	824.2	238.8494	RBW:10KHz , VBW:30KHz	
	190	836.6	241.6386	RBW:10KHz , VBW:30KHz	
	251	848.8	238.8121	RBW:10KHz , VBW:30KHz	
GSM 1900	512	1850.20	238.5641	RBW:10KHz , VBW:30KHz	
	661	1880.00	241.6056	RBW:10KHz , VBW:30KHz	
	810	1909.80	240.7851	RBW:10KHz , VBW:30KHz	
EGPRS 850	128	824.2	246.2807	RBW:10KHz , VBW:30KHz	
	190	836.6	247.0385	RBW:10KHz , VBW:30KHz	
	251	848.8	244.7057	RBW:10KHz , VBW:30KHz	
EGPRS 1900	512	1850.20	239.1566	RBW:10KHz , VBW:30KHz	
	661	1880.00	247.4903	RBW:10KHz , VBW:30KHz	
	810	1909.80	242.9633	RBW:10KHz , VBW:30KHz	

Model Number	HE910-NAG V2				
Test Item	Occupied Bandwidth				
Date of Test	07/23/2013			Test Site	TE05
Bands	Channel	Frequency (MHz)	99% Bandwidth (MHz)	Note	
WCDMA Band II	9262	1852.4	4.1419	RBW:100KHz , VBW:300KHz	
	9400	1880.0	4.1511	RBW:100KHz , VBW:300KHz	
	9538	1907.6	4.1487	RBW:100KHz , VBW:300KHz	
WCDMA Band V	4132	826.4	4.1171	RBW:100KHz , VBW:300KHz	
	4183	836.6	4.1439	RBW:100KHz , VBW:300KHz	
	4233	846.6	4.1405	RBW:100KHz , VBW:300KHz	

4.7. Test Graphs

Mode 1: GSM 850 Link Mode	
824.2 MHz	<p>Agilent R T Freq/Channel</p> <p>Ch Freq 824.2 MHz Trig Free</p> <p>Center Freq 824.200000 MHz</p> <p>Start Freq 823.700000 MHz</p> <p>Stop Freq 824.700000 MHz</p> <p>CF Step 100.000000 kHz</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track 0n Off</p> <p>Ref 40 dBm Atten 40 dB</p> <p>#Peak Log 10 dB/Offst 13.4 dB</p> <p>Center 824.200 MHz Span 1 MHz</p> <p>#Res BW 10 kHz #VBW 30 kHz Sweep 9.56 ms (601 pts)</p> <p>Occupied Bandwidth 238.8494 kHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB Bandwidth 307.823 kHz x dB -26.00 dB</p> <p>Transmit Freq Error 955.489 Hz</p> <p>Copyright 2000-2005 Agilent Technologies</p>
836.6 MHz	<p>Agilent T Freq/Channel</p> <p>Ch Freq 836.6 MHz Trig Free</p> <p>Center Freq 836.600000 MHz</p> <p>Start Freq 836.100000 MHz</p> <p>Stop Freq 837.100000 MHz</p> <p>CF Step 100.000000 kHz</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track 0n Off</p> <p>Ref 40 dBm Atten 40 dB</p> <p>#Peak Log 10 dB/Offst 13.4 dB</p> <p>Center 836.600 MHz Span 1 MHz</p> <p>#Res BW 10 kHz #VBW 30 kHz Sweep 9.56 ms (601 pts)</p> <p>Occupied Bandwidth 241.6386 kHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB Bandwidth 313.375 kHz x dB -26.00 dB</p> <p>Transmit Freq Error 660.740 Hz</p> <p>Copyright 2000-2005 Agilent Technologies</p>
848.8 MHz	<p>Agilent T Freq/Channel</p> <p>Ch Freq 848.8 MHz Trig Free</p> <p>Center Freq 848.800000 MHz</p> <p>Start Freq 848.300000 MHz</p> <p>Stop Freq 849.300000 MHz</p> <p>CF Step 100.000000 kHz</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track 0n Off</p> <p>Ref 40 dBm Atten 40 dB</p> <p>#Peak Log 10 dB/Offst 13.4 dB</p> <p>Start 848.300 MHz Stop 849.300 MHz</p> <p>#Res BW 10 kHz #VBW 30 kHz Sweep 9.56 ms (601 pts)</p> <p>Occupied Bandwidth 238.8121 kHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB Bandwidth 303.998 kHz x dB -26.00 dB</p> <p>Transmit Freq Error 1.632 kHz</p> <p>Copyright 2000-2005 Agilent Technologies</p>

Mode 2: GSM 1900 Link Mode	
1850.20 MHz	<p>Agilent T Freq/Channel</p> <p>Ch Freq 1.8502 GHz Trig Free</p> <p>Center Freq 1.85020000 GHz</p> <p>Start Freq 1.84970000 GHz</p> <p>Stop Freq 1.85070000 GHz</p> <p>CF Step 100.000000 kHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Ref 40 dBm Atten 40 dB</p> <p>#Peak 10 dB/Offst 13.7 dB</p> <p>Center 1.850 200 GHz Span 1 MHz</p> <p>#Res BW 10 kHz #VBW 30 kHz Sweep 9.56 ms (601 pts)</p> <p>Occupied Bandwidth 238.5641 kHz</p> <p>Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error 1.258 kHz</p> <p>x dB Bandwidth 305.564 kHz</p> <p>Copyright 2000-2005 Agilent Technologies</p>
1880.00 MHz	<p>Agilent T Freq/Channel</p> <p>Ch Freq 1.88 GHz Trig Free</p> <p>Center Freq 1.88000000 GHz</p> <p>Start Freq 1.87950000 GHz</p> <p>Stop Freq 1.88050000 GHz</p> <p>CF Step 100.000000 kHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Ref 40 dBm Atten 40 dB</p> <p>#Peak 10 dB/Offst 13.7 dB</p> <p>Center 1.880 000 GHz Span 1 MHz</p> <p>#Res BW 10 kHz #VBW 30 kHz Sweep 9.56 ms (601 pts)</p> <p>Occupied Bandwidth 241.6056 kHz</p> <p>Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error -401.993 Hz</p> <p>x dB Bandwidth 303.618 kHz</p> <p>Copyright 2000-2005 Agilent Technologies</p>
1909.80 MHz	<p>Agilent T Freq/Channel</p> <p>Ch Freq 1.9098 GHz Trig Free</p> <p>Center Freq 1.90980000 GHz</p> <p>Start Freq 1.90930000 GHz</p> <p>Stop Freq 1.91030000 GHz</p> <p>CF Step 100.000000 kHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Ref 40 dBm Atten 40 dB</p> <p>#Peak 10 dB/Offst 13.7 dB</p> <p>Center 1.909 800 GHz Span 1 MHz</p> <p>#Res BW 10 kHz #VBW 30 kHz Sweep 9.56 ms (601 pts)</p> <p>Occupied Bandwidth 240.7851 kHz</p> <p>Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error 31.583 Hz</p> <p>x dB Bandwidth 301.979 kHz</p> <p>Copyright 2000-2005 Agilent Technologies</p>

Mode 3: EGPRS 850 Link Mode	
824.2 MHz	<p>Agilent T Freq/Channel</p> <p>Ch Freq 824.2 MHz Trig Free</p> <p>Center Freq 824.200000 MHz</p> <p>Start Freq 823.700000 MHz</p> <p>Stop Freq 824.700000 MHz</p> <p>CF Step 100.000000 kHz</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Ref 40 dBm Atten 40 dB</p> <p>#Peak 10 dB/Offst 13.4 dB</p> <p>Center 824.200 MHz Span 1 MHz</p> <p>#Res BW 10 kHz #VBW 30 kHz Sweep 9.56 ms (601 pts)</p> <p>Occupied Bandwidth 246.2807 kHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB Bandwidth 317.985 kHz x dB -26.00 dB</p> <p>Transmit Freq Error 1.937 kHz</p> <p>x dB Bandwidth 317.985 kHz</p> <p>Copyright 2000-2005 Agilent Technologies</p>
836.6 MHz	<p>Agilent T Freq/Channel</p> <p>Ch Freq 836.6 MHz Trig Free</p> <p>Center Freq 836.600000 MHz</p> <p>Start Freq 836.100000 MHz</p> <p>Stop Freq 837.100000 MHz</p> <p>CF Step 100.000000 kHz</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Ref 40 dBm Atten 40 dB</p> <p>#Peak 10 dB/Offst 13.4 dB</p> <p>Center 836.600 MHz Span 1 MHz</p> <p>#Res BW 10 kHz #VBW 30 kHz Sweep 9.56 ms (601 pts)</p> <p>Occupied Bandwidth 247.0385 kHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB Bandwidth 314.809 kHz x dB -26.00 dB</p> <p>Transmit Freq Error -434.222 Hz</p> <p>x dB Bandwidth 314.809 kHz</p> <p>Copyright 2000-2005 Agilent Technologies</p>
848.8 MHz	<p>Agilent T Freq/Channel</p> <p>Ch Freq 848.8 MHz Trig Free</p> <p>Center Freq 848.800000 MHz</p> <p>Start Freq 848.300000 MHz</p> <p>Stop Freq 849.300000 MHz</p> <p>CF Step 100.000000 kHz</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Ref 40 dBm Atten 40 dB</p> <p>#Peak 10 dB/Offst 13.4 dB</p> <p>Center 848.800 MHz Span 1 MHz</p> <p>#Res BW 10 kHz #VBW 30 kHz Sweep 9.56 ms (601 pts)</p> <p>Occupied Bandwidth 244.7057 kHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB Bandwidth 310.877 kHz x dB -26.00 dB</p> <p>Transmit Freq Error -191.158 Hz</p> <p>x dB Bandwidth 310.877 kHz</p> <p>Copyright 2000-2005 Agilent Technologies</p>

Mode 4: EGPRS 1900 Link Mode	
1850.20 MHz	
1880.00 MHz	
1909.80 MHz	

Mode 5: WCDMA Band II Link Mode	
1850.20 MHz	<p>Agilent T Freq/Channel</p> <p>Ch Freq 1.8524 GHz Trig Free</p> <p>Center Freq 1.85240000 GHz</p> <p>Start Freq 1.84740000 GHz</p> <p>Stop Freq 1.85740000 GHz</p> <p>CF Step 1.00000000 MHz</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On</p> <p>Ref 40 dBm Atten 40 dB</p> <p>#Peak 10 dB/Offst 13.7 dB</p> <p>Center 1.85240 GHz Span 10 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 1 ms (601 pts)</p> <p>Occupied Bandwidth 4.1419 MHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB Bandwidth 4.664 MHz x dB -26.00 dB</p> <p>Transmit Freq Error -52.988 Hz</p> <p>Copyright 2000-2005 Agilent Technologies</p>
1880.00 MHz	<p>Agilent T Freq/Channel</p> <p>Ch Freq 1.88 GHz Trig Free</p> <p>Center Freq 1.88000000 GHz</p> <p>Start Freq 1.87500000 GHz</p> <p>Stop Freq 1.88500000 GHz</p> <p>CF Step 1.00000000 MHz</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On</p> <p>Ref 40 dBm Atten 40 dB</p> <p>#Peak 10 dB/Offst 13.7 dB</p> <p>Center 1.88000 GHz Span 10 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 1 ms (601 pts)</p> <p>Occupied Bandwidth 4.1511 MHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB Bandwidth 4.678 MHz x dB -26.00 dB</p> <p>Transmit Freq Error 14.711 kHz</p> <p>Copyright 2000-2005 Agilent Technologies</p>
1909.80 MHz	<p>Agilent T Freq/Channel</p> <p>Ch Freq 1.9076 GHz Trig Free</p> <p>Center Freq 1.90760000 GHz</p> <p>Start Freq 1.90260000 GHz</p> <p>Stop Freq 1.91260000 GHz</p> <p>CF Step 1.00000000 MHz</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On</p> <p>Ref 40 dBm Atten 40 dB</p> <p>#Peak 10 dB/Offst 13.7 dB</p> <p>Center 1.90760 GHz Span 10 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 1 ms (601 pts)</p> <p>Occupied Bandwidth 4.1487 MHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB Bandwidth 4.637 MHz x dB -26.00 dB</p> <p>Transmit Freq Error 19.980 kHz</p> <p>Copyright 2000-2005 Agilent Technologies</p>

Mode 6: WCDMA Band V Link Mode	
826.4 MHz	<p>Agilent T</p> <p>Ch Freq 826.4 MHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 40 dBm Atten 40 dB</p> <p>#Peak Log 10 dB/Offst 13.4 dB</p> <p>Center 826.40 MHz Span 10 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 1 ms (601 pts)</p> <p>Occupied Bandwidth 4.1171 MHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB Bandwidth 4.641 MHz x dB -26.00 dB</p> <p>Transmit Freq Error 6.271 kHz</p> <p>Copyright 2000-2005 Agilent Technologies</p> <p>Freq/Channel</p> <p>Center Freq 826.400000 MHz</p> <p>Start Freq 821.400000 MHz</p> <p>Stop Freq 831.400000 MHz</p> <p>CF Step 1.00000000 MHz</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p>
836.6 MHz	<p>Agilent T</p> <p>Ch Freq 836.6 MHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 40 dBm Atten 40 dB</p> <p>#Peak Log 10 dB/Offst 13.4 dB</p> <p>Center 836.60 MHz Span 10 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 1 ms (601 pts)</p> <p>Occupied Bandwidth 4.1439 MHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB Bandwidth 4.677 MHz x dB -26.00 dB</p> <p>Transmit Freq Error -3.435 kHz</p> <p>Copyright 2000-2005 Agilent Technologies</p> <p>Freq/Channel</p> <p>Center Freq 836.600000 MHz</p> <p>Start Freq 831.600000 MHz</p> <p>Stop Freq 841.600000 MHz</p> <p>CF Step 1.00000000 MHz</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p>
846.6 MHz	<p>Agilent T</p> <p>Ch Freq 846.6 MHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 40 dBm Atten 40 dB</p> <p>#Peak Log 10 dB/Offst 13.4 dB</p> <p>Center 846.60 MHz Span 10 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 1 ms (601 pts)</p> <p>Occupied Bandwidth 4.1405 MHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB Bandwidth 4.661 MHz x dB -26.00 dB</p> <p>Transmit Freq Error -2.438 kHz</p> <p>Copyright 2000-2005 Agilent Technologies</p> <p>Freq/Channel</p> <p>Center Freq 846.600000 MHz</p> <p>Start Freq 841.600000 MHz</p> <p>Stop Freq 851.600000 MHz</p> <p>CF Step 1.00000000 MHz</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p>

5 Band Edge Test

5.1. Limit

The Band Edge Limit:

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10\log(P)$ dB.

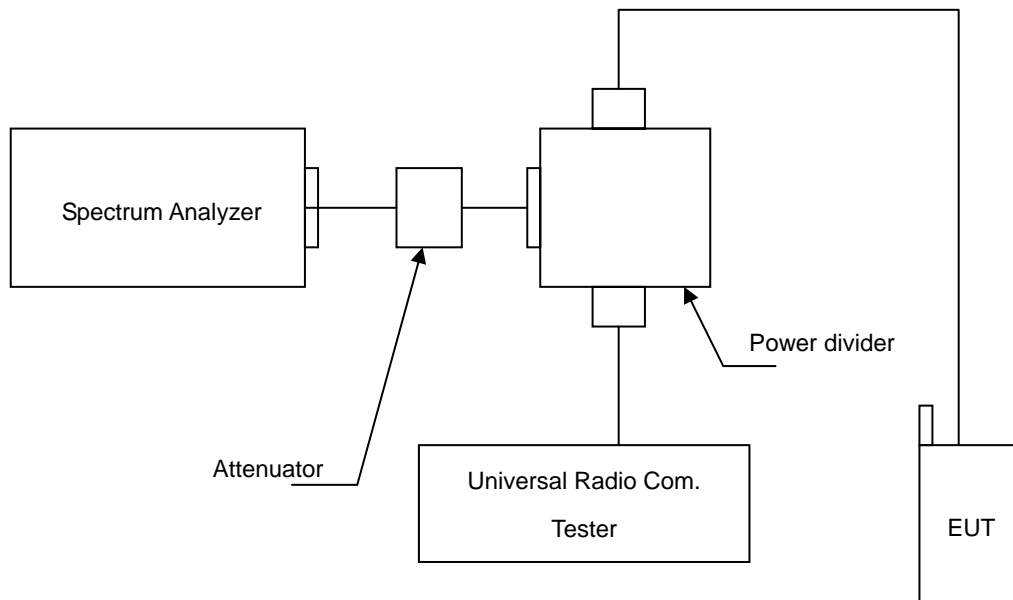
5.2. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Universal Radio Communication Tester	R & S	CMU200	109369	08/07/2012	(2)
Spectrum Analyzer	Agilent	E4445A	MY46181986	05/16/2013	(1)
Attenuator	RADIALL	R41572000	0603033073	N.C.R.	-----
Power Divider	Agilent	87302C	3239A00760	N.C.R.	-----
Test Site	ATL	TE05	TE05	N.C.R.	-----

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

Note: N.C.R. = No Calibration Request.

5.3. Setup



5.4. Test Procedure

The measurement is made according to FCC rules part 22 and 24:

3. The EUT was connected to Spectrum Analyzer and Base Station via Power Divider.
4. The band edge of low and high channels for the highest RF powers within the transmitting frequency band were measured. Setting RBW as roughly BW/100.
5. The band edge setting:
 - a. RB=10 kHz; VB=30 kHz for GSM 850 and PCS 1900.
 - b. RB=100 kHz; VB=300 kHz for WCDMA Band V and WCDMA Band II.

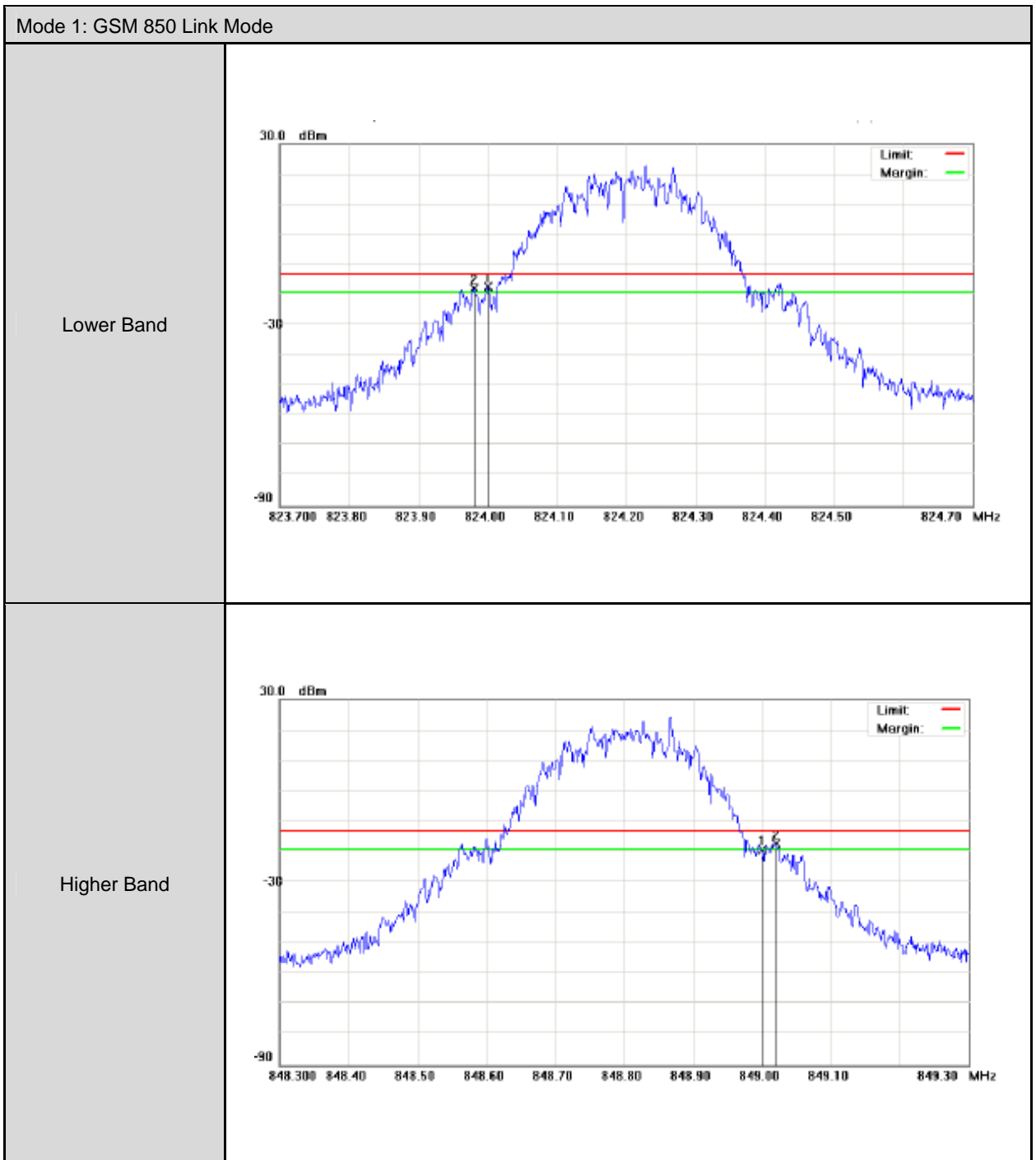
5.5. Uncertainty

The measurement uncertainty is defined as $\pm 10\text{Hz}$

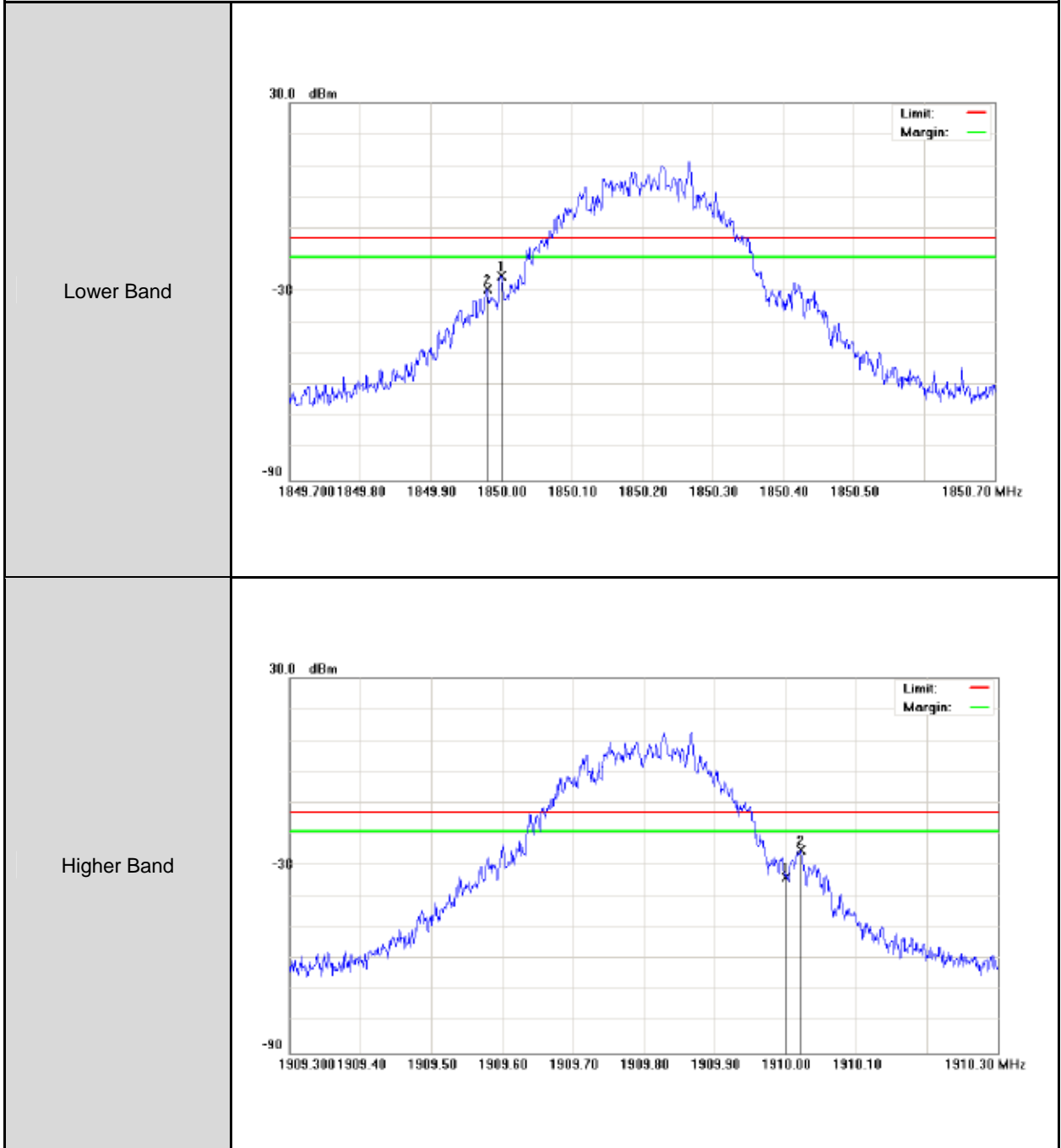
5.6. Test Result

Model Number		HE910-NAG V2				
Test Item		Band Edge				
Date of Test		07/23/2013			Test Site	TE05
Bands		Channel	Frequency (MHz)	Bandwidth (dBm)	Limit (dBm)	Result
GSM 850	Lower	128	824.0000	-17.27	-13	Pass
	Higher	251	849.0000	-17.20	-13	Pass
GSM 1900	Lower	512	1850.000	-25.00	-13	Pass
	Higher	810	1910.000	-25.18	-13	Pass
WCDMA Band II	Lower	9262	1850.000	-30.45	-13	Pass
	Higher	9538	1910.000	-28.07	-13	Pass
WCDMA Band V	Lower	4132	824.0000	-20.52	-13	Pass
	Higher	4233	849.0000	-21.10	-13	Pass

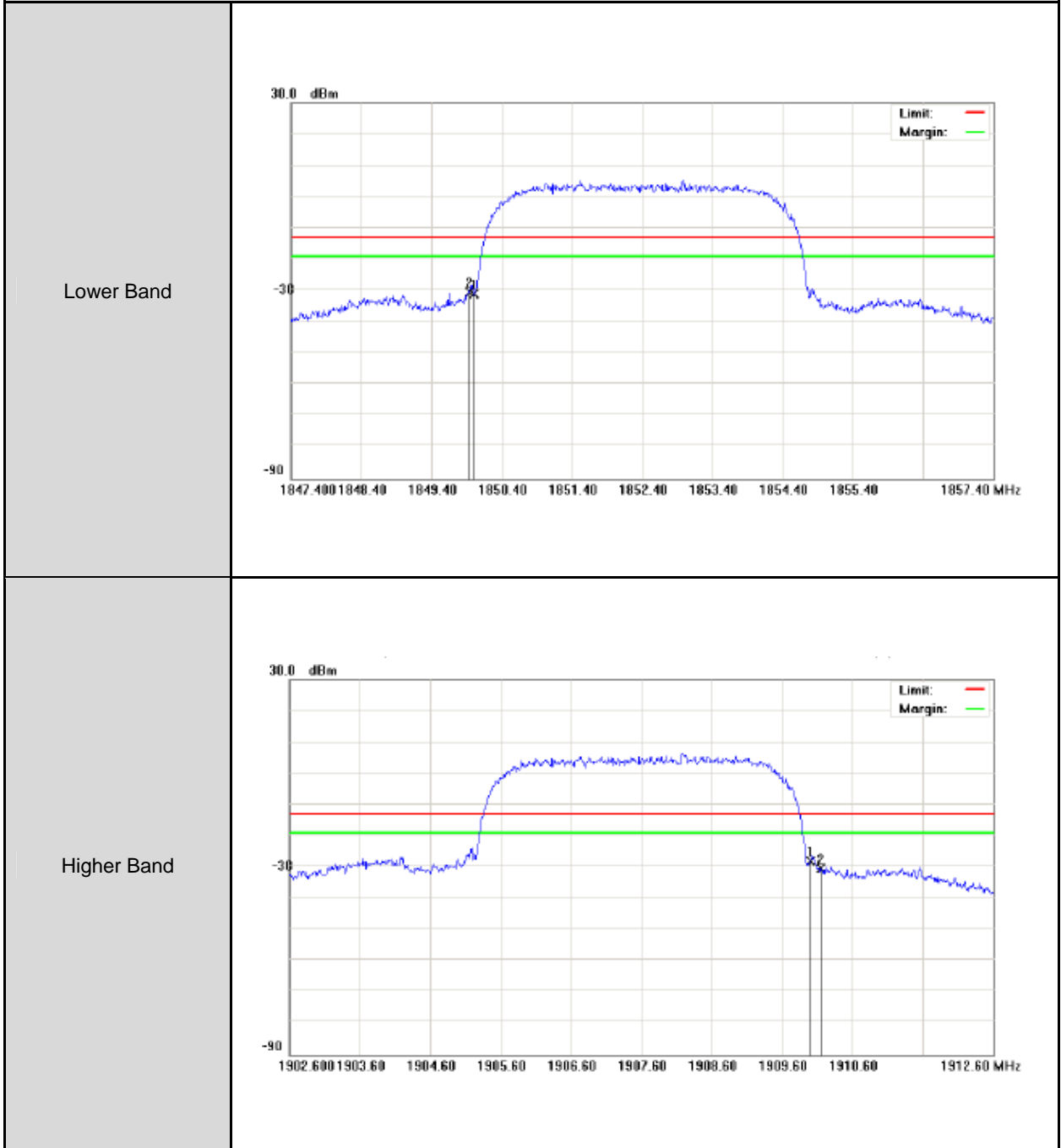
5.7. Test Graphs



Mode 2: GSM 1900 Link Mode

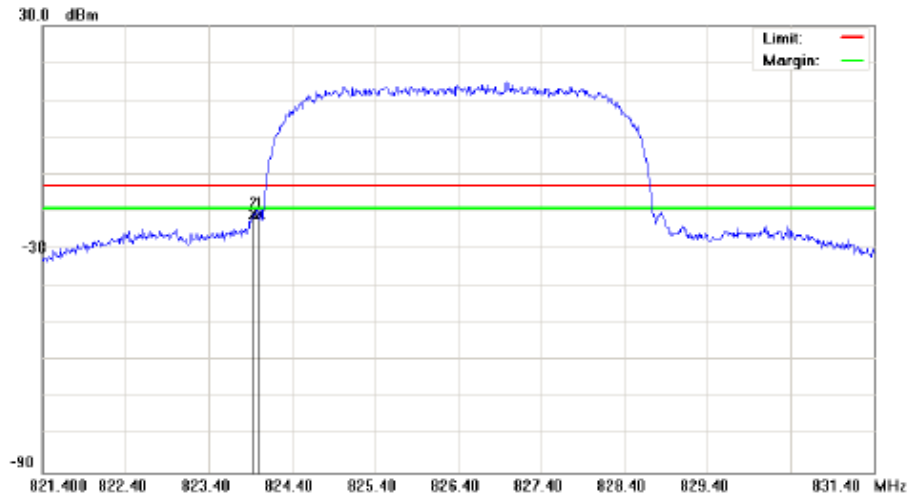


Mode 5: WCDMA Band II Link Mode

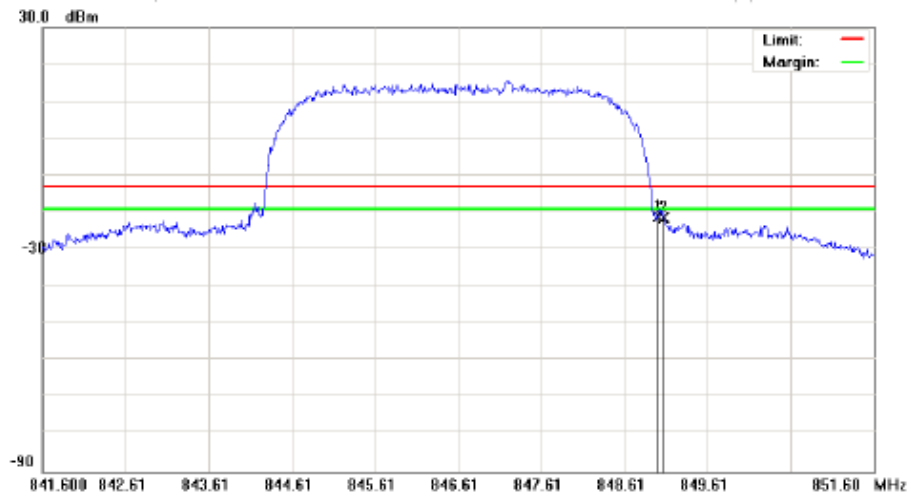


Mode 6: WCDMA Band V Link Mode

Lower Band



Higher Band



6 Conducted Spurious Emission Test

6.1. Limit

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10\log(P)$ dB.

6.2. Test Instruments

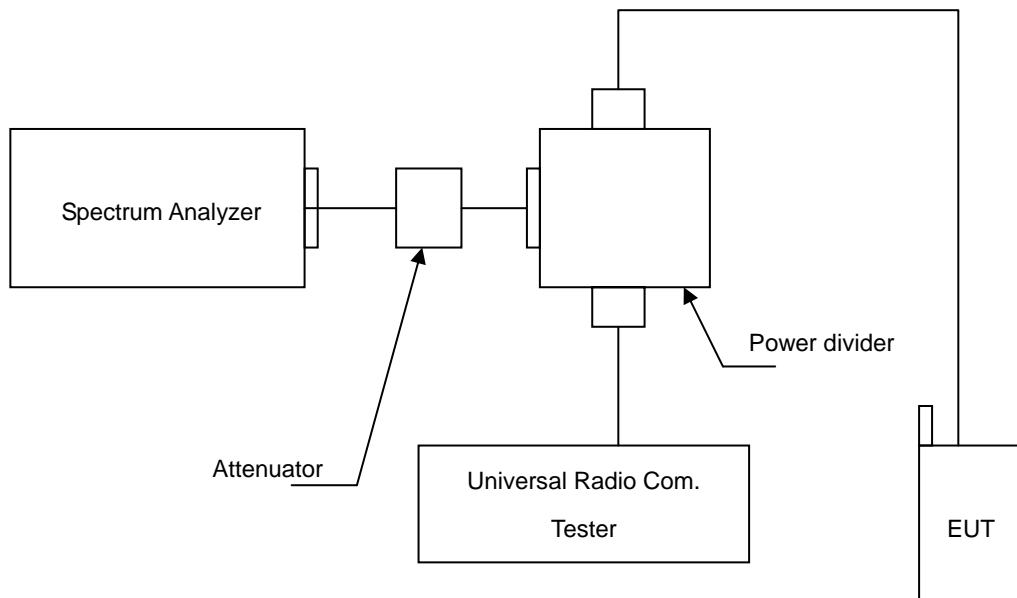
Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Universal Radio Communication Tester	R & S	CMU200	109369	08/07/2012	(2)
Spectrum Analyzer	Agilent	E4445A	MY46181986	05/16/2013	(1)
Attenuator	RADIALL	R41572000	0603033073	N.C.R.	-----
Power Divider	Agilent	87302C	3239A00760	N.C.R.	-----
Test Site	ATL	TE05	TE05	N.C.R.	-----

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

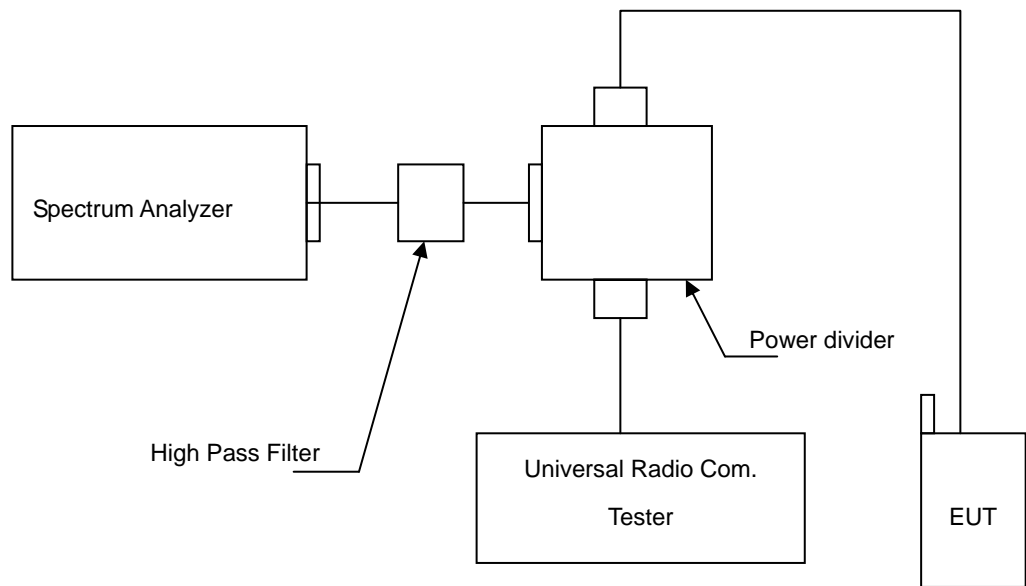
Note: N.C.R. = No Calibration Request.

6.3. Setup

Below 2.8GHz



Above 2.8GHz



6.4. Test Procedure

1. The EUT was connected to Spectrum Analyzer and Base Station via Power Divider.
2. The middle channel for the highest RF power within the transmitting frequency was measured.
3. The conducted spurious emission for the whole frequency range was taken.
4. Test setting at GSM 850 RB>100 kHz, VB>100 kHz; PCS 1900 RB>1MHz, VB>1MHz.

6.5. Uncertainty

The measurement uncertainty is evaluated as ± 2.24 dB.

6.6. Test Result

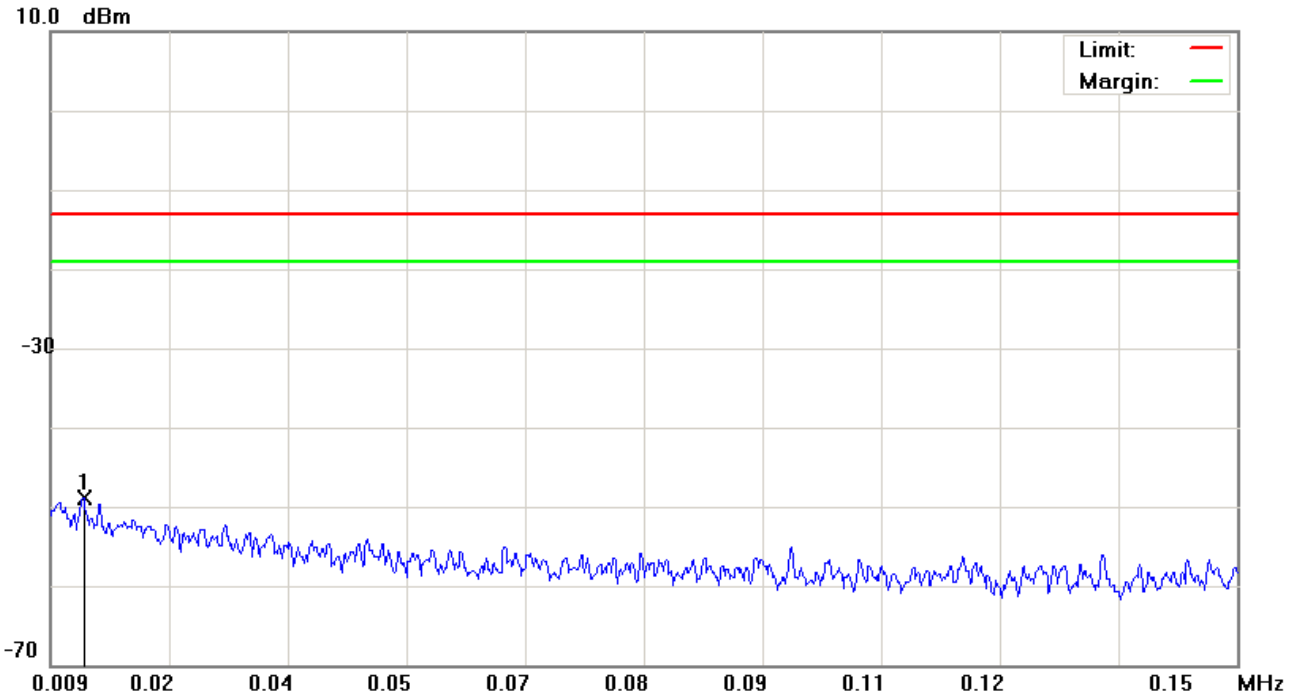
Model Number	HE910-NAG V2		
Test Item	Conducted Emission		
Test Mode	Mode 1 / Mode 2 / Mode 4 / Mode 5		
Date of Test	07/23/2013	Test Site	TE05

File :HE910-NAG V2(CH128)

Data :#1

Date: 2013/7/23

Time: 下午 04:38:40



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 1 KHz VBW: 3 KHz
M/N: HE910-NAG V2		
Mode: GSM 850		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.0130	-79.48	30.56	-48.92	-13.00	-35.92	peak		

*:Maximum data x:Over limit !:over margin

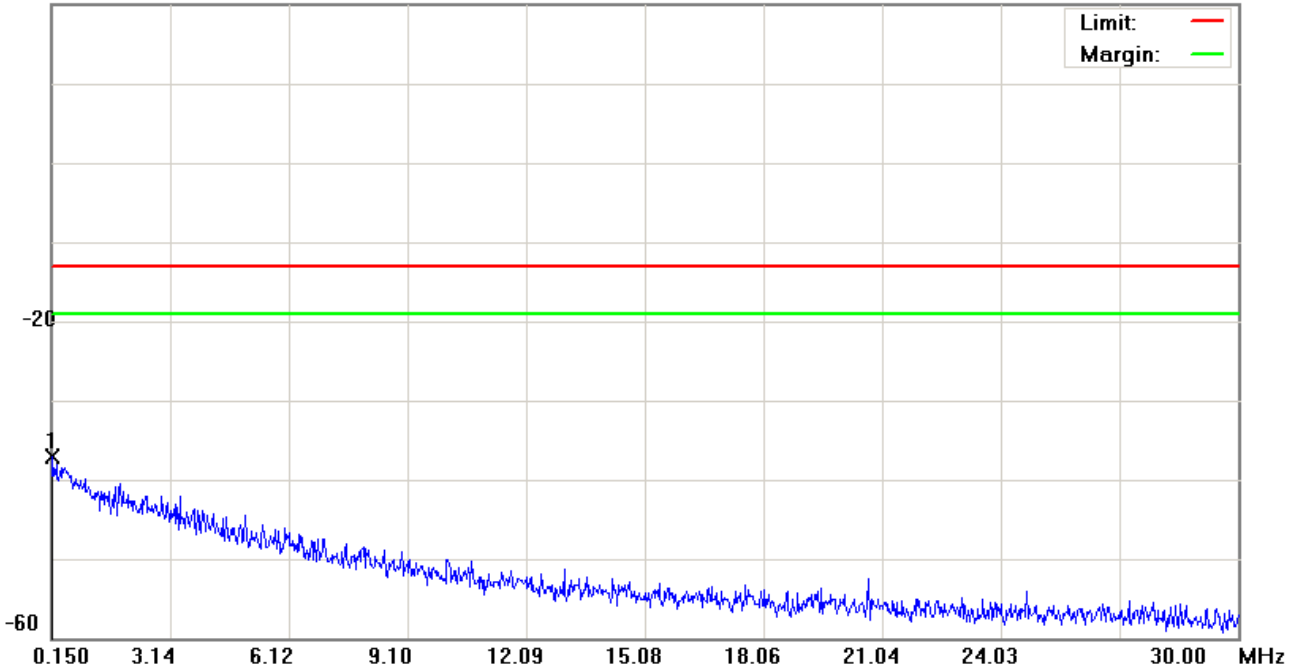
File :HE910-NAG V2(CH128)

Data :#2

Date: 2013/7/23

Time: 下午 04:39:04

20.0 dBm



Site: site #1	Polarization: <i>Conducted po</i>	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 10 KHz VBW: 30 KHz
M/N: HE910-NAG V2		
Mode: GSM 850		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.1798	-67.90	30.75	-37.15	-13.00	-24.15	peak		

*:Maximum data x:Over limit !:over margin

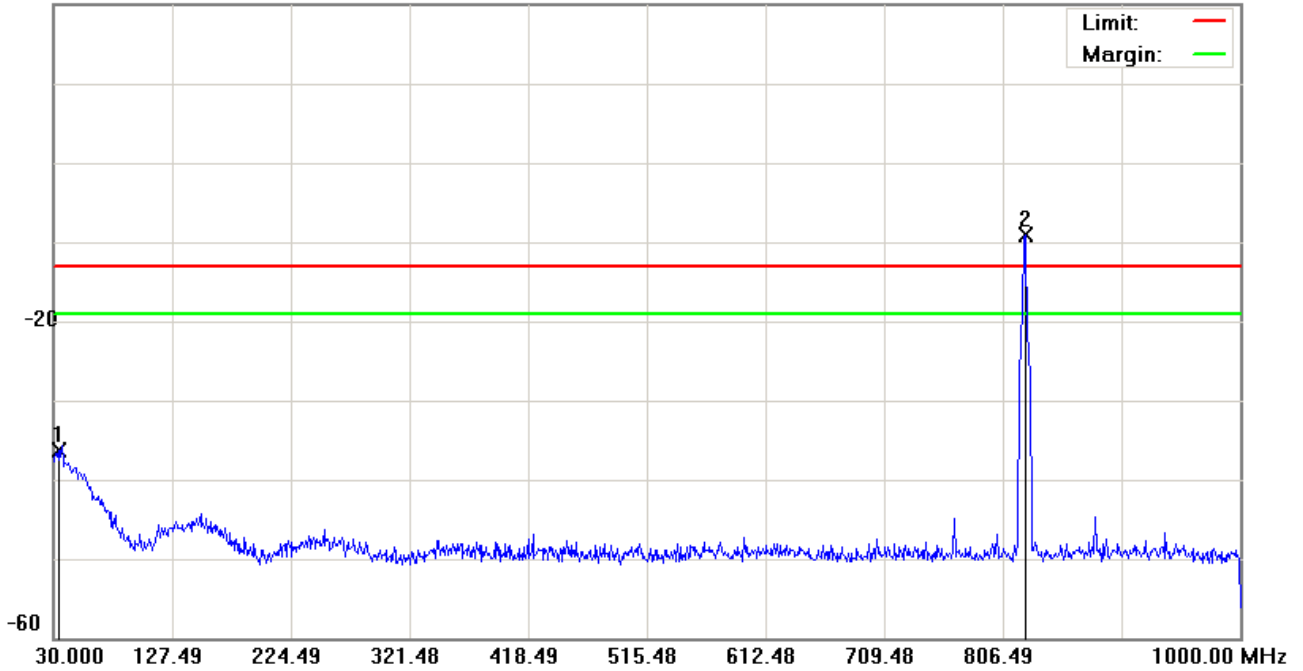
File :HE910-NAG V2(CH128)

Data :#3

Date: 2013/7/23

Time: 下午 04:39:28

20.0 dBm



Site: site #1

 Polarization: *Conducted po*

Temperature: 26 °C

Limit: FCC Part 22 conducted(9k-12.75G)

Power: DC 3.8V

Humidity: 60 %

EUT: Module

Distance:

RBW: 100 KHz VBW: 300 KHz

M/N: HE910-NAG V2

Mode: GSM 850

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector	Antenna Height cm	Table Degree degree	Comment
1		33.8800	-53.12	16.77	-36.35	-13.00	-23.35	peak			
2	*	824.4300	-12.98	3.84	-9.14	-13.00	3.86	peak			Tx

*:Maximum data x:Over limit !:over margin

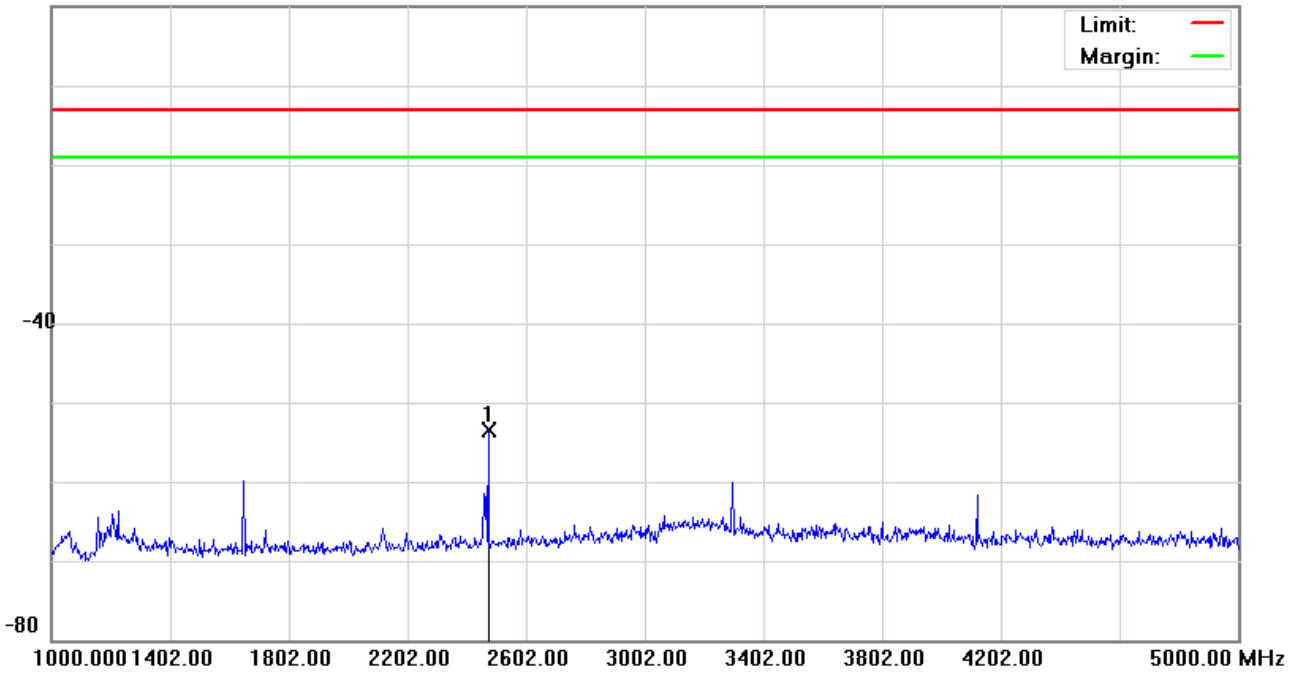
File :HE910-NAG V2(CH128)

Data :#4

Date: 2013/7/23

Time: 下午 05:36:13

0.0 dBm



Site: site #1

 Polarization: *Conducted po*

Temperature: 26 °C

Limit: FCC Part 22 conducted(9k-12.75G)

Power: DC 3.8V

Humidity: 60 %

EUT: Module

Distance:

RBW: 1000 KHz VBW: 3000 KHz

M/N: HE910-NAG V2

Mode: GSM 850

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2472.000	-58.03	4.45	-53.58	-13.00	-40.58	peak		

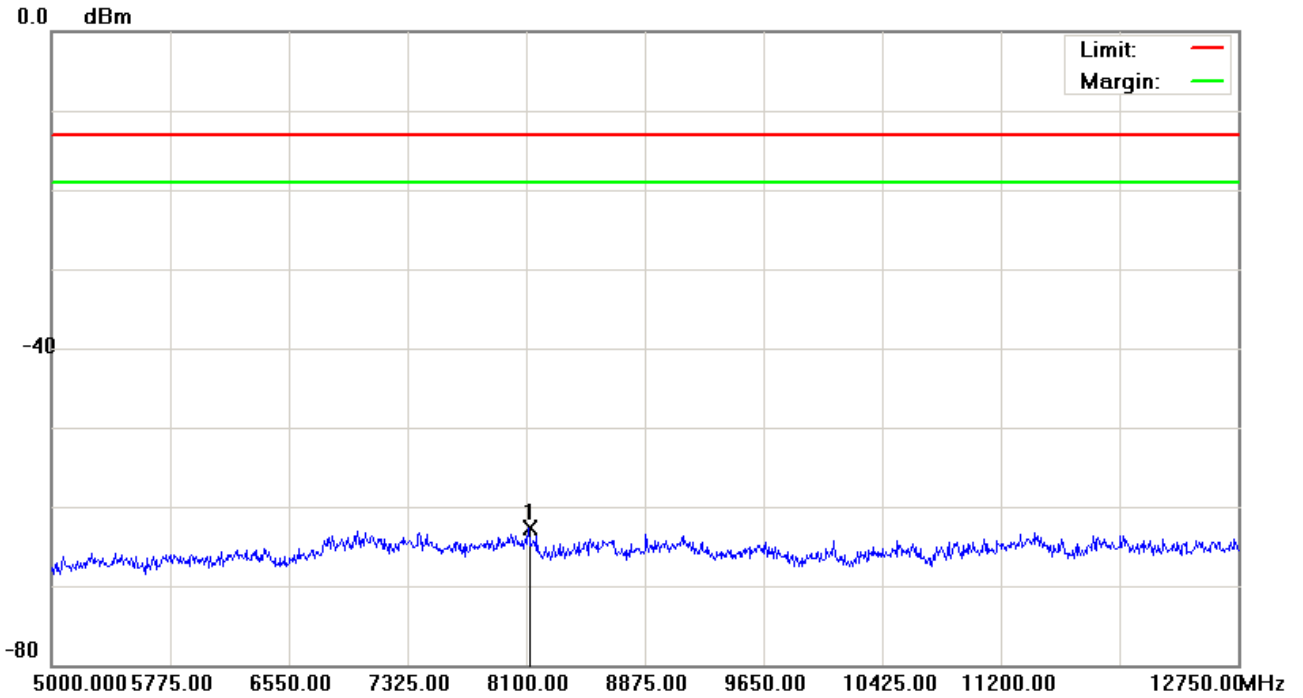
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH128)

Data :#5

Date: 2013/7/23

Time: 下午 05:36:35



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 1000 KHz VBW: 3000 KHz
M/N: HE910-NAG V2		
Mode: GSM 850		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	8119.375	-68.45	5.75	-62.70	-13.00	-49.70	peak		

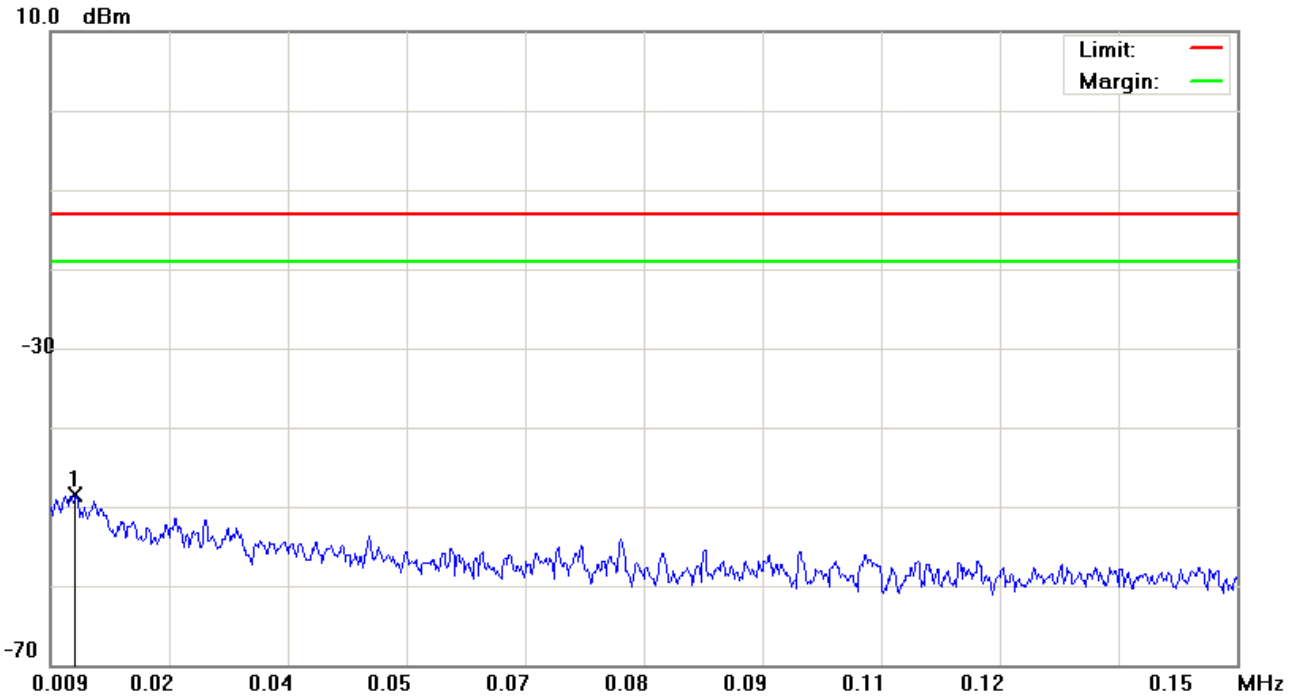
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH190)

Data :#1

Date: 2013/7/23

Time: 下午 04:52:25



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 1 KHz VBW: 3 KHz
M/N: HE910-NAG V2		
Mode: GSM 850		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.0120	-79.15	30.57	-48.58	-13.00	-35.58	peak		

*:Maximum data x:Over limit !:over margin

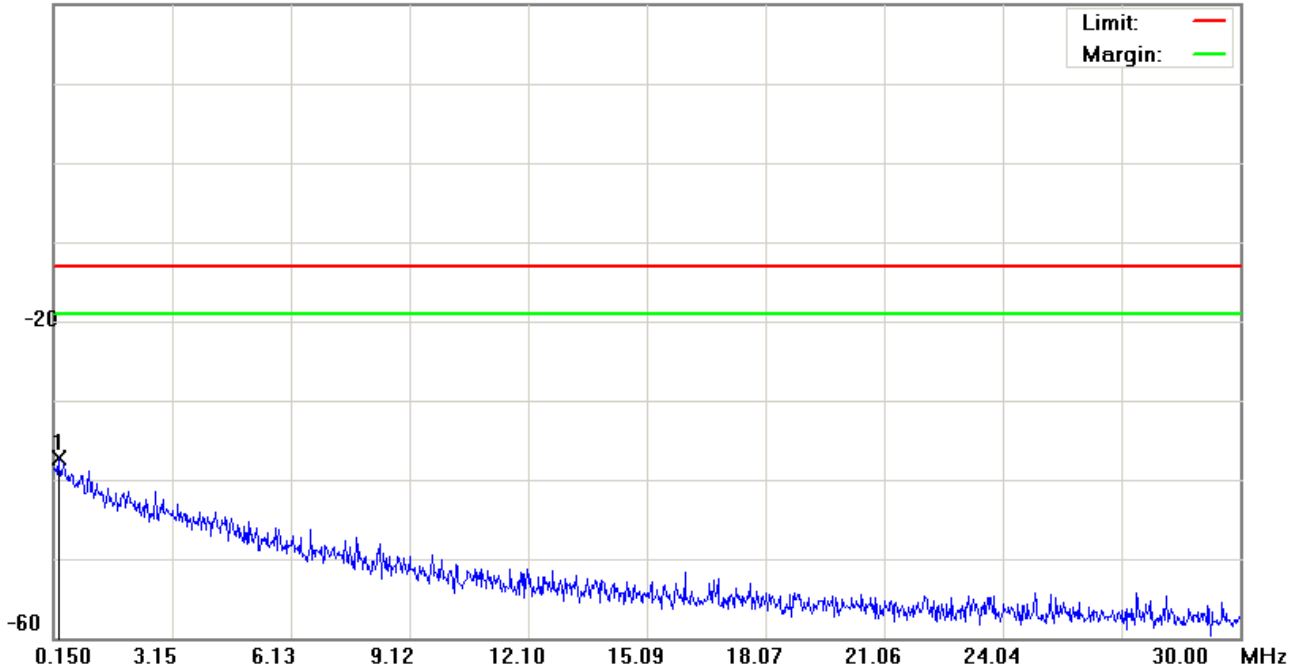
File :HE910-NAG V2(CH190)

Data :#2

Date: 2013/7/23

Time: 下午 04:52:49

20.0 dBm



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 10 KHz VBW: 30 KHz
M/N: HE910-NAG V2		
Mode: GSM 850		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.2843	-68.85	31.61	-37.24	-13.00	-24.24	peak		

*:Maximum data x:Over limit !:over margin

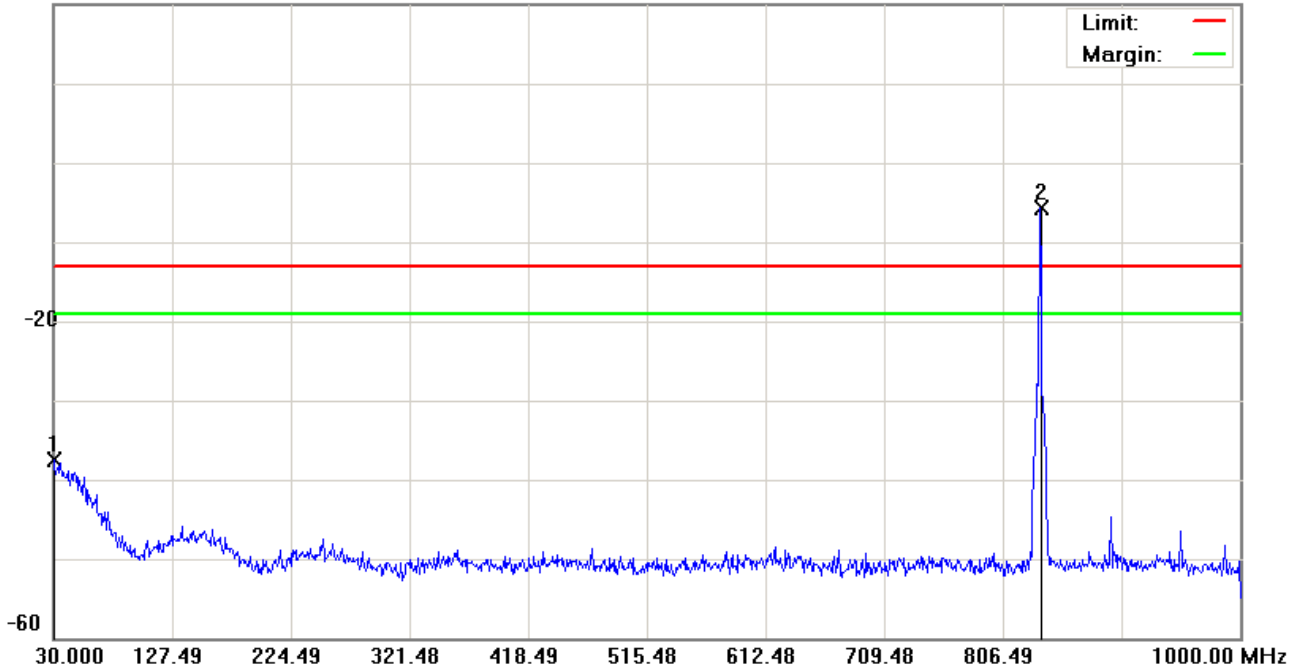
File :HE910-NAG V2(CH190)

Data :#3

Date: 2013/7/23

Time: 下午 04:53:13

20.0 dBm



Site: site #1

 Polarization: *Conducted po*

Temperature: 26 °C

Limit: FCC Part 22 conducted(9k-12.75G)

Power: DC 3.8V

Humidity: 60 %

EUT: Module

Distance:

RBW: 100 KHz VBW: 300 KHz

M/N: HE910-NAG V2

Mode: GSM 850

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector	Antenna Height cm	Table Degree degree	Comment
1		30.4850	-54.63	17.16	-37.47	-13.00	-24.47	peak			
2	*	836.5550	-9.66	3.96	-5.70	-13.00	7.30	peak			Tx

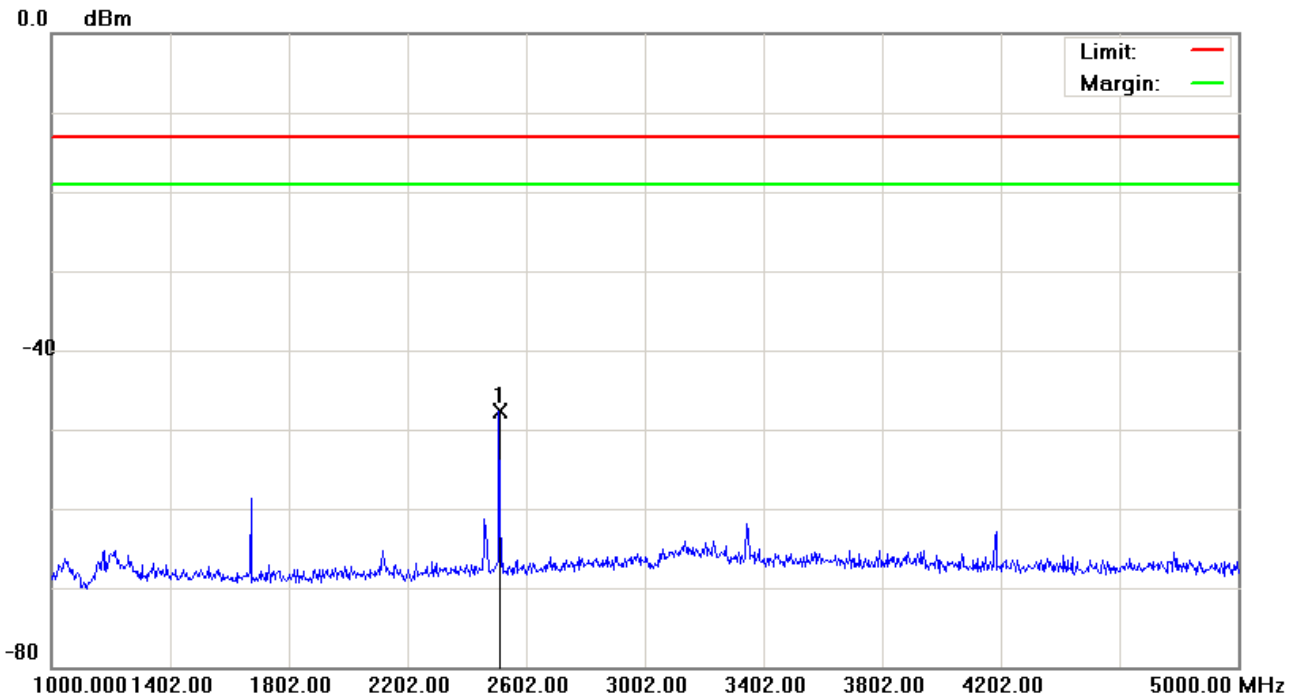
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH190)

Data :#4

Date: 2013/7/23

Time: 下午 05:37:13



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 1000 KHz VBW: 3000 KHz
M/N: HE910-NAG V2		
Mode: GSM 850		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2510.000	-52.02	4.36	-47.66	-13.00	-34.66	peak		

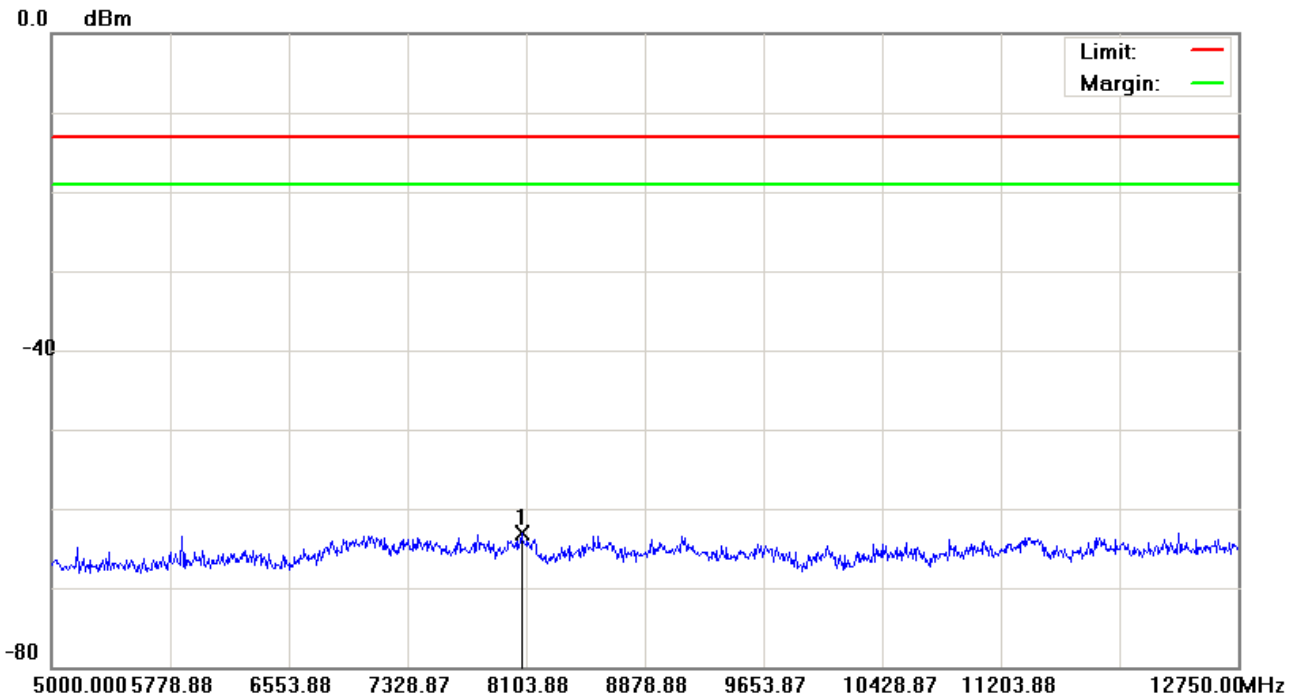
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH190)

Data :#5

Date: 2013/7/23

Time: 下午 05:37:36



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 1000 KHz VBW: 3000 KHz
M/N: HE910-NAG V2		
Mode: GSM 850		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	8072.875	-68.62	5.44	-63.18	-13.00	-50.18	peak		

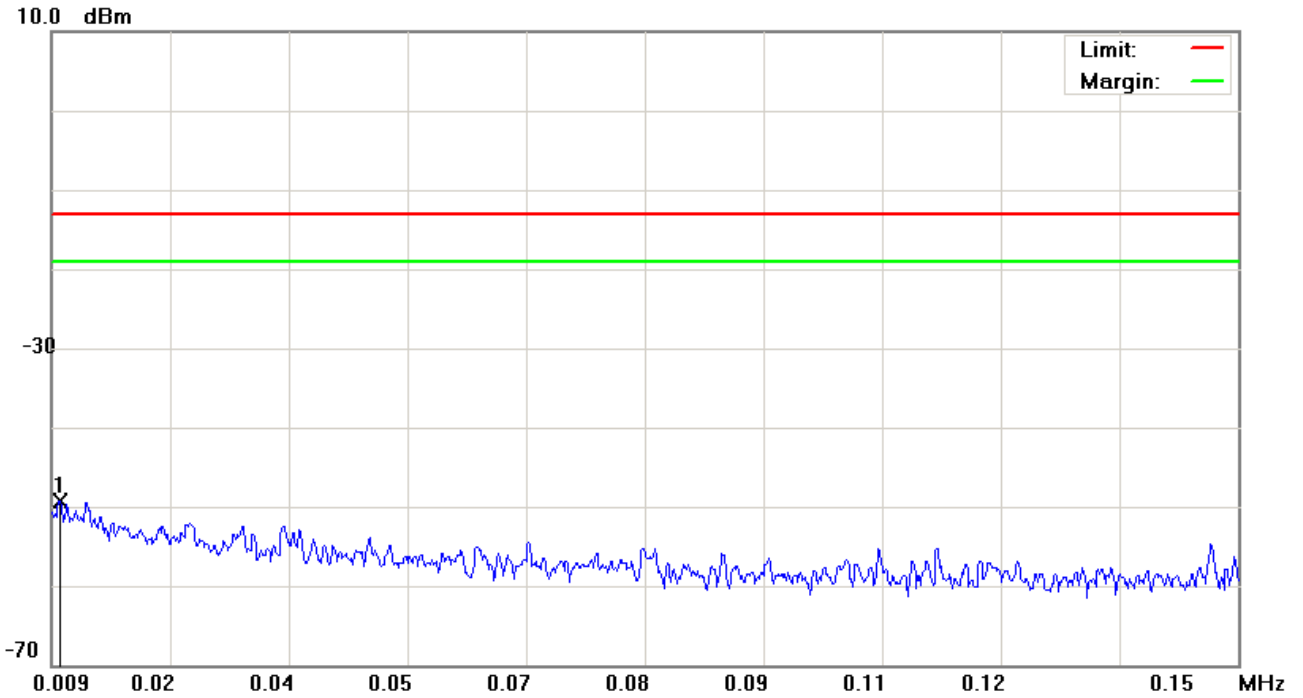
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH251)

Data :#1

Date: 2013/7/23

Time: 下午 04:59:05



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 1 KHz VBW: 3 KHz
M/N: HE910-NAG V2		
Mode: GSM 850		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.0100	-79.79	30.58	-49.21	-13.00	-36.21	peak		

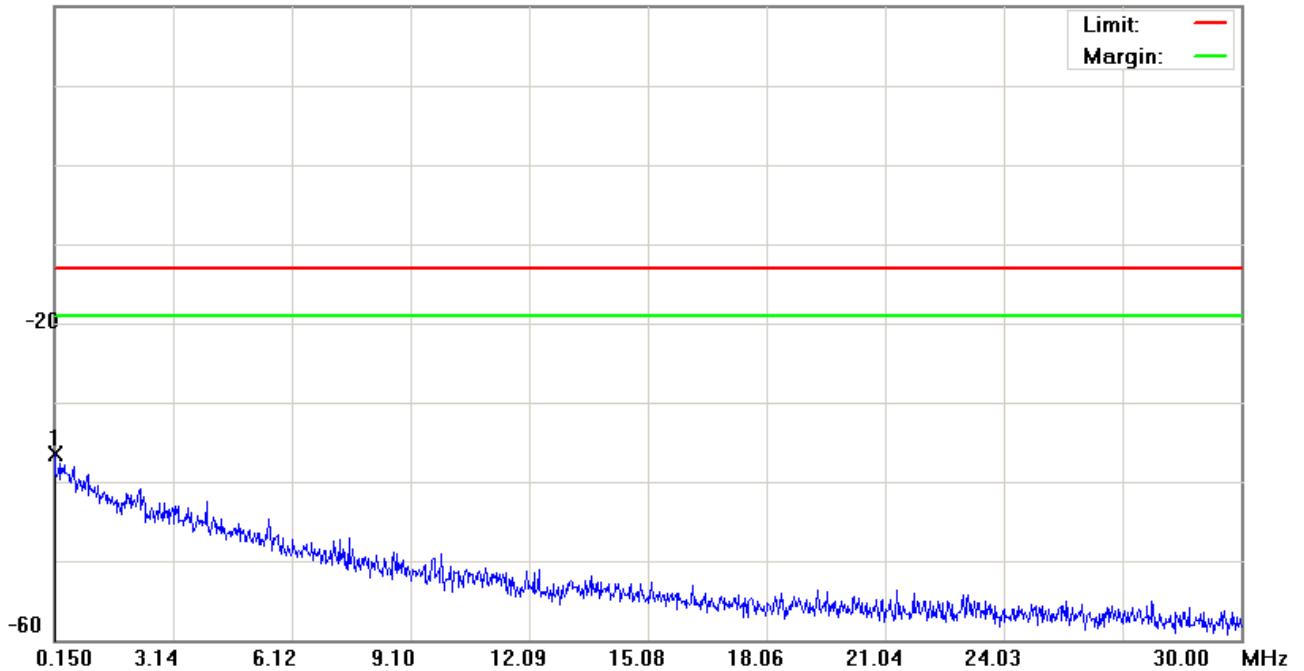
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH251)

Data :#2

Date: 2013/7/23

Time: 下午 04:59:29

20.0 dBm


Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 10 KHz VBW: 30 KHz
M/N: HE910-NAG V2		
Mode: GSM 850		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.1500	-66.97	30.51	-36.46	-13.00	-23.46	peak		

*:Maximum data x:Over limit !:over margin

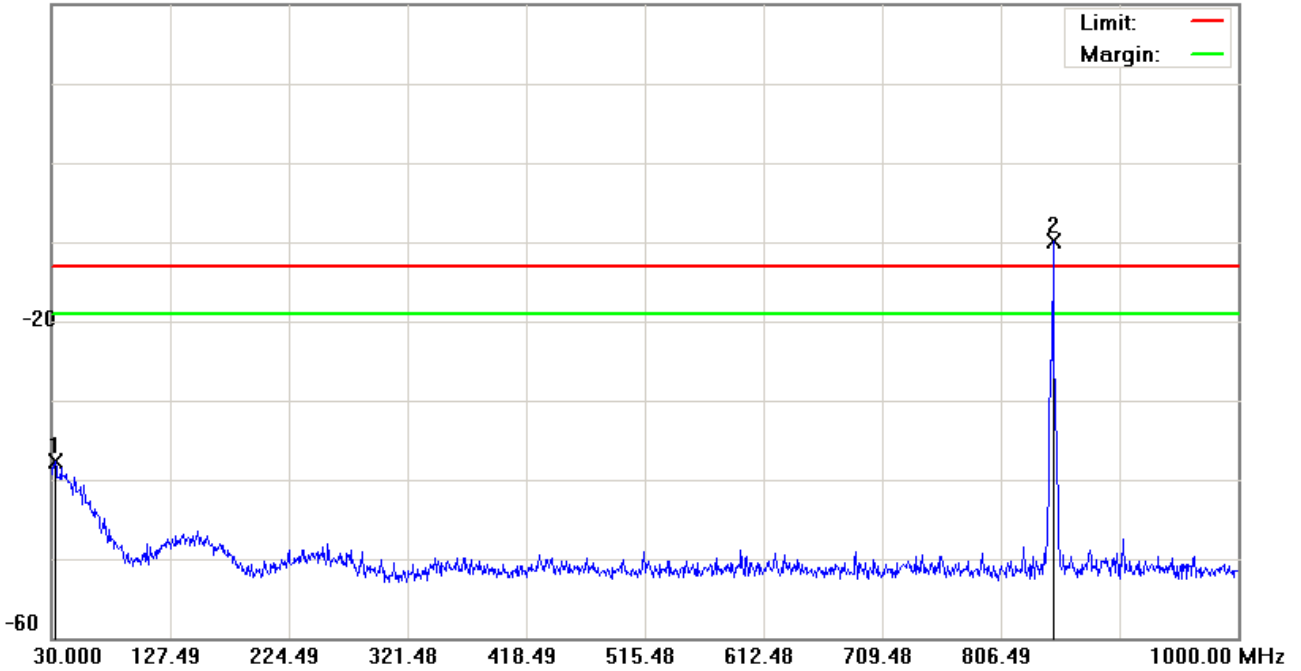
File :HE910-NAG V2(CH251)

Data :#3

Date: 2013/7/23

Time: 下午 04:59:53

20.0 dBm



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 100 KHz VBW: 300 KHz
M/N: HE910-NAG V2		
Mode: GSM 850		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1		32.9100	-54.65	16.88	-37.77	-13.00	-24.77	peak		
2	*	848.6800	-13.85	3.98	-9.87	-13.00	3.13	peak		Tx

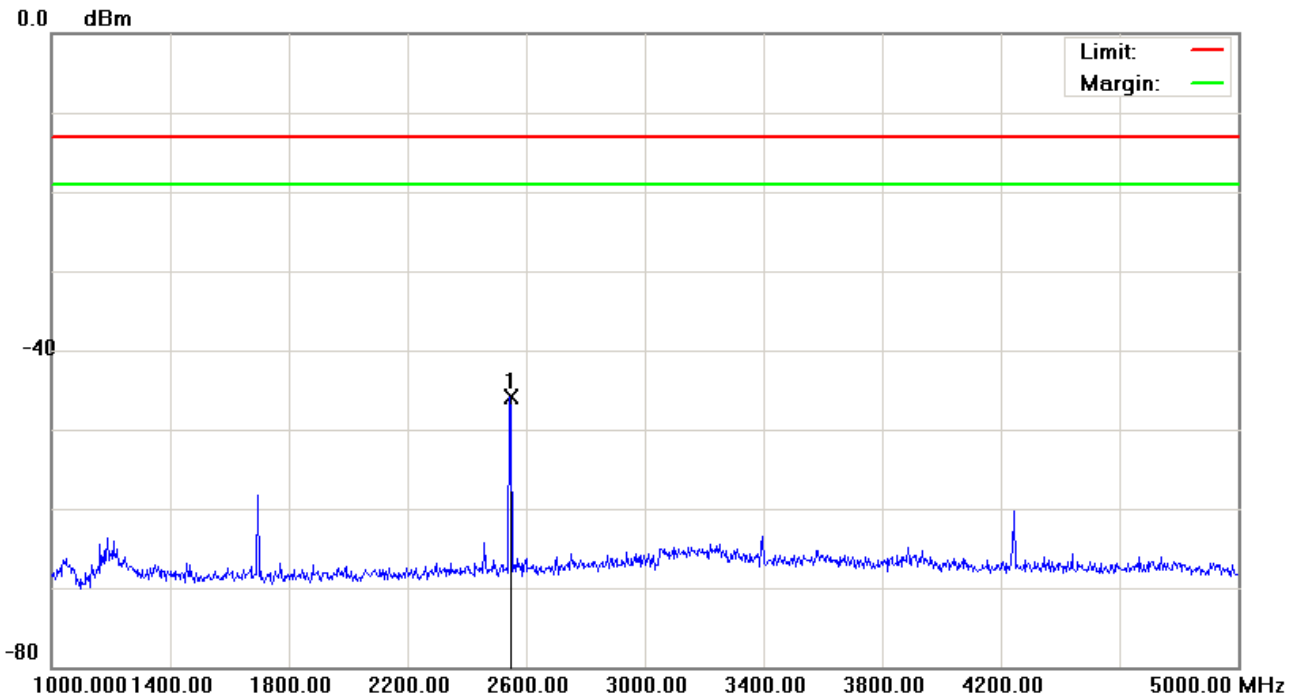
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH251)

Data :#4

Date: 2013/7/23

Time: 下午 05:38:34



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 1000 KHz VBW: 3000 KHz
M/N: HE910-NAG V2		
Mode: GSM 850		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2546.000	-50.30	4.45	-45.85	-13.00	-32.85	peak		

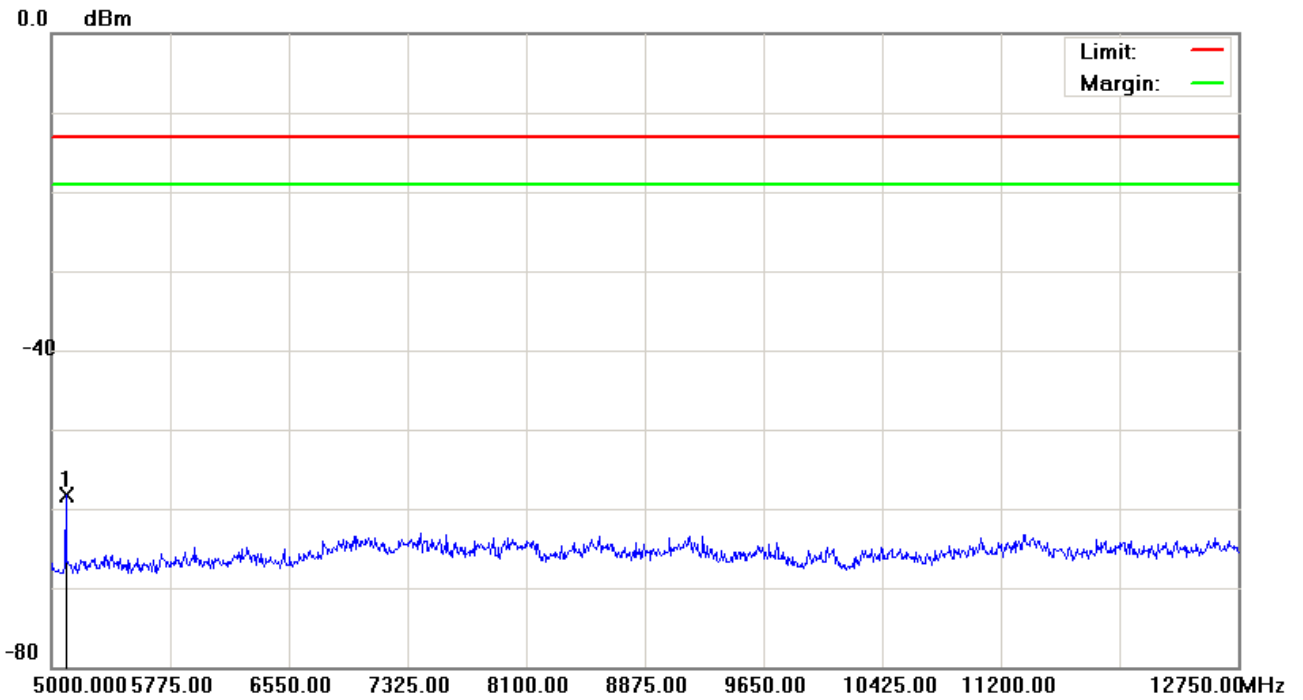
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH251)

Data :#5

Date: 2013/7/23

Time: 下午 05:38:57



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 1000 KHz VBW: 3000 KHz
M/N: HE910-NAG V2		
Mode: GSM 850		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	5093.000	-62.86	4.52	-58.34	-13.00	-45.34	peak		

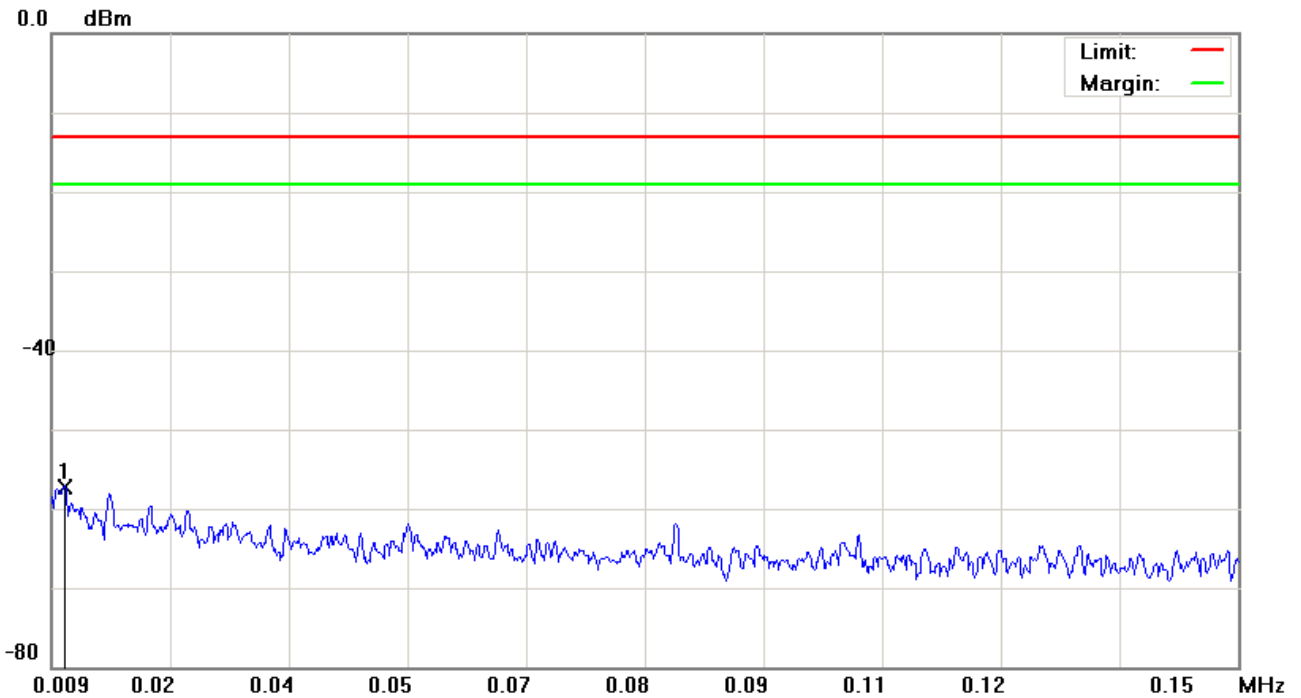
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH512)

Data :#1

Date: 2013/7/23

Time: 下午 04:28:23



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 1 KHz VBW: 3 KHz
M/N: HE910-NAG V2		
Mode: GSM 1900		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.0106	-68.54	11.34	-57.20	-13.00	-44.20			peak

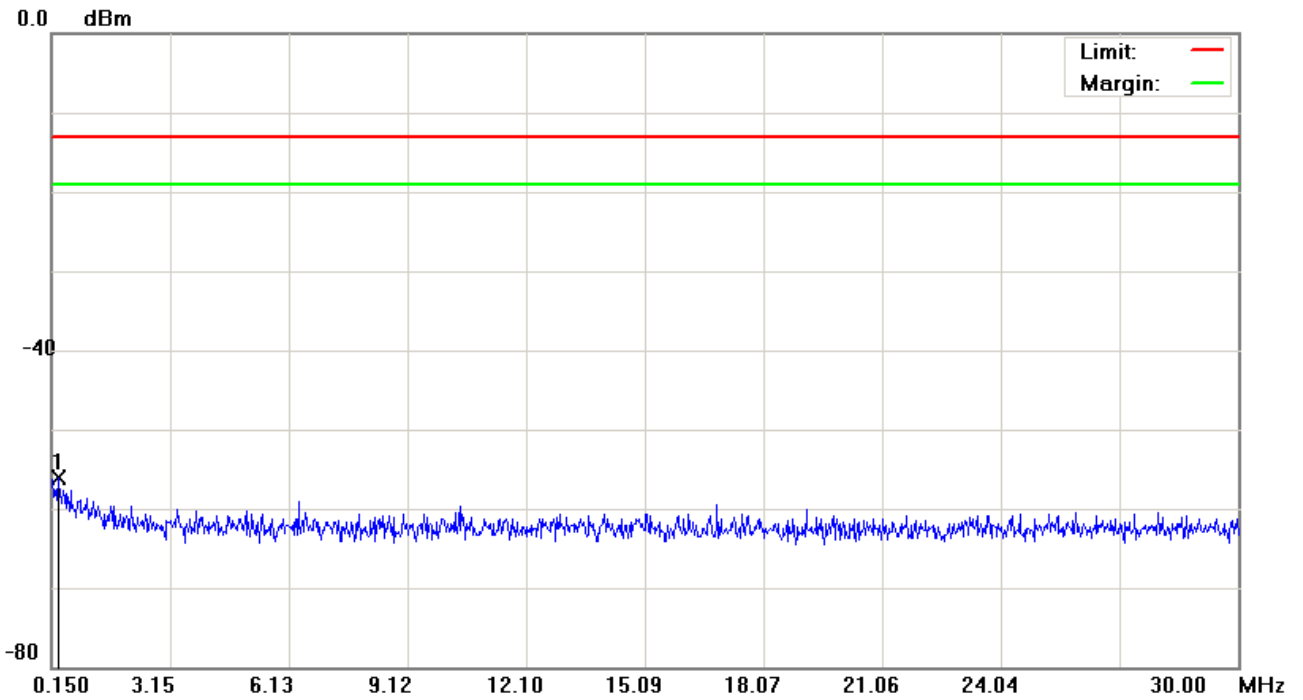
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH512)

Data :#2

Date: 2013/7/23

Time: 下午 04:28:47



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 10 KHz VBW: 30 KHz
M/N: HE910-NAG V2		
Mode: GSM 1900		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.3291	-68.85	12.67	-56.18	-13.00	-43.18	peak		

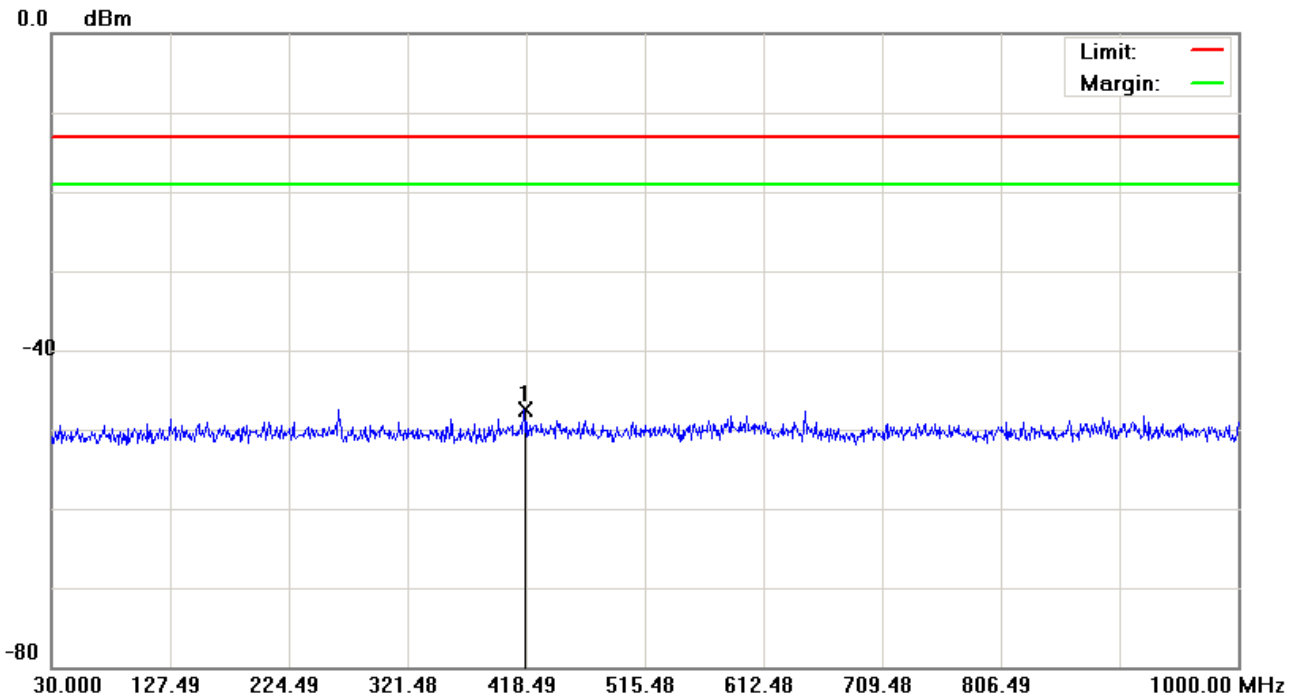
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH512)

Data :#3

Date: 2013/7/23

Time: 下午 04:29:11



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 100 KHz VBW: 300 KHz
M/N: HE910-NAG V2		
Mode: GSM 1900		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	416.5450	-60.71	13.23	-47.48	-13.00	-34.48	peak		

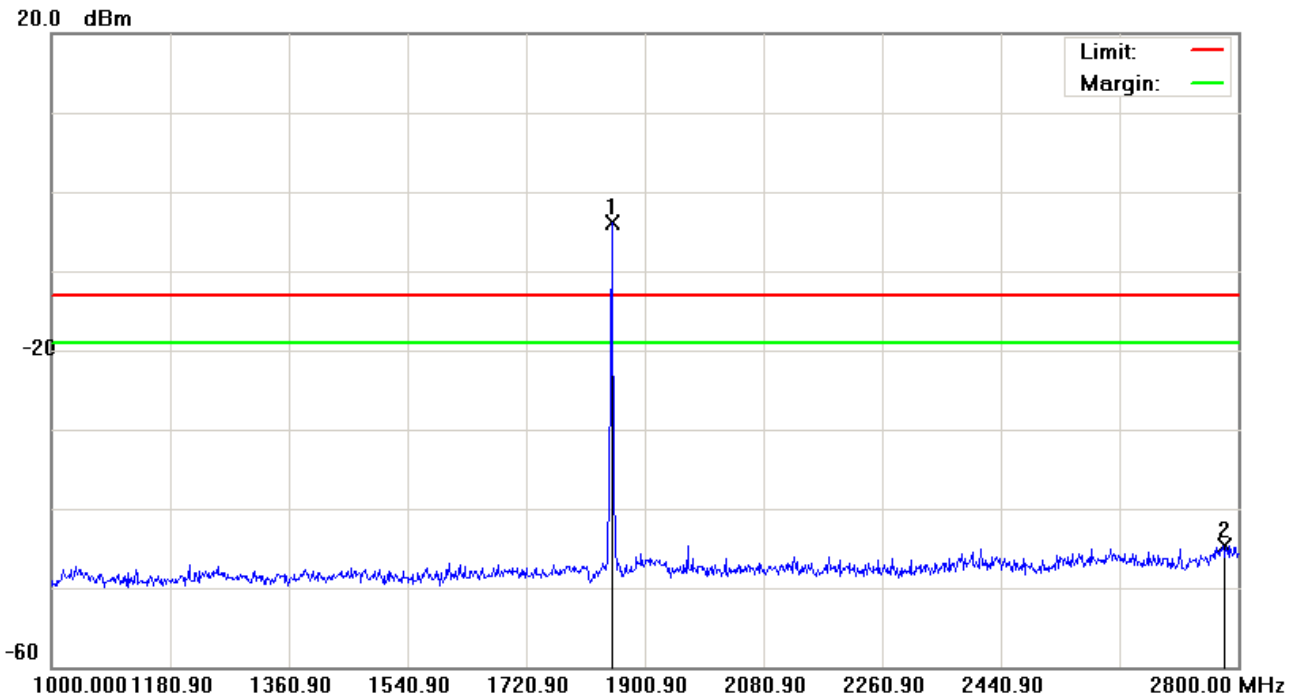
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH512)

Data :#4

Date: 2013/7/23

Time: 下午 04:33:42



Site: site #1

 Polarization: *Conducted po*

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 60 %

EUT: Module

Distance:

RBW: 1000 KHz VBW: 3000 KHz

M/N: HE910-NAG V2

Mode: GSM 1900

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	1850.500	-8.21	4.26	-3.95	-13.00	9.05	peak		Tx
2		2777.500	-50.51	5.84	-44.67	-13.00	-31.67	peak		

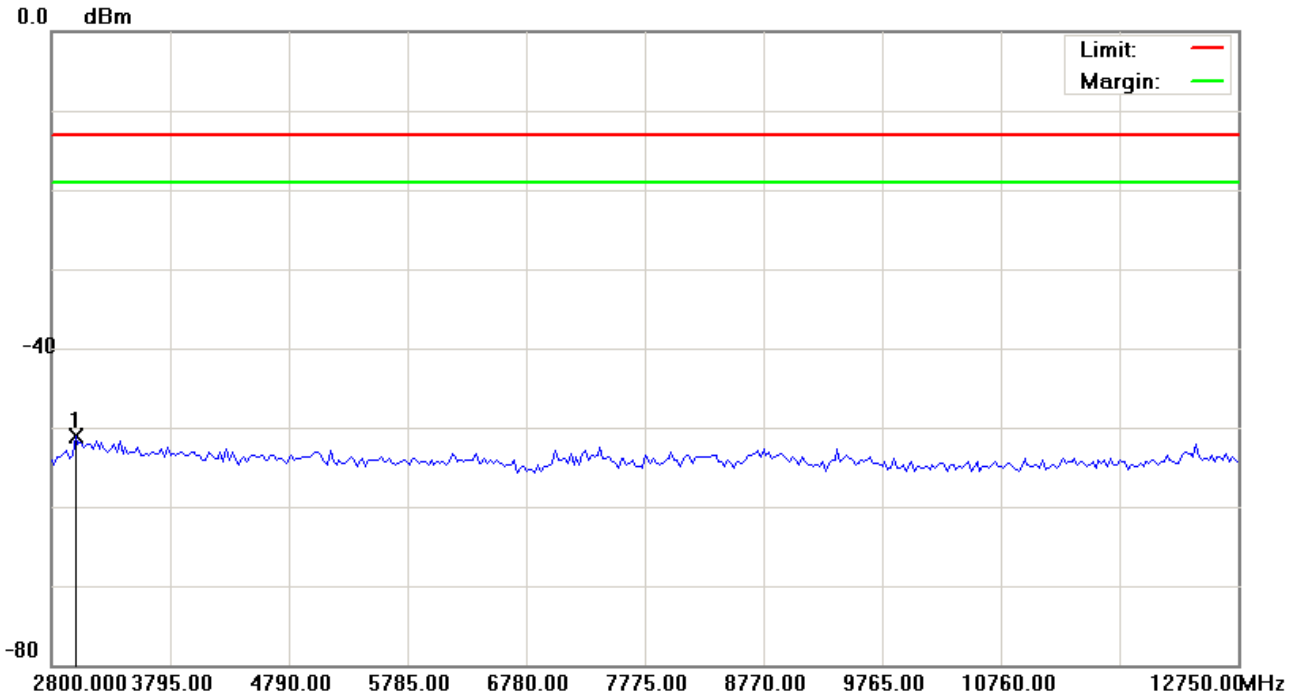
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH512)

Data :#5

Date: 2013/7/23

Time: 下午 05:30:58



Site: site #1

 Polarization: *Conducted po*

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 60 %

EUT: Module

Distance:

RBW: 1000 KHz VBW: 3000 KHz

M/N: HE910-NAG V2

Mode: GSM 1900

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2999.000	-56.55	5.48	-51.07	-13.00	-38.07	peak		

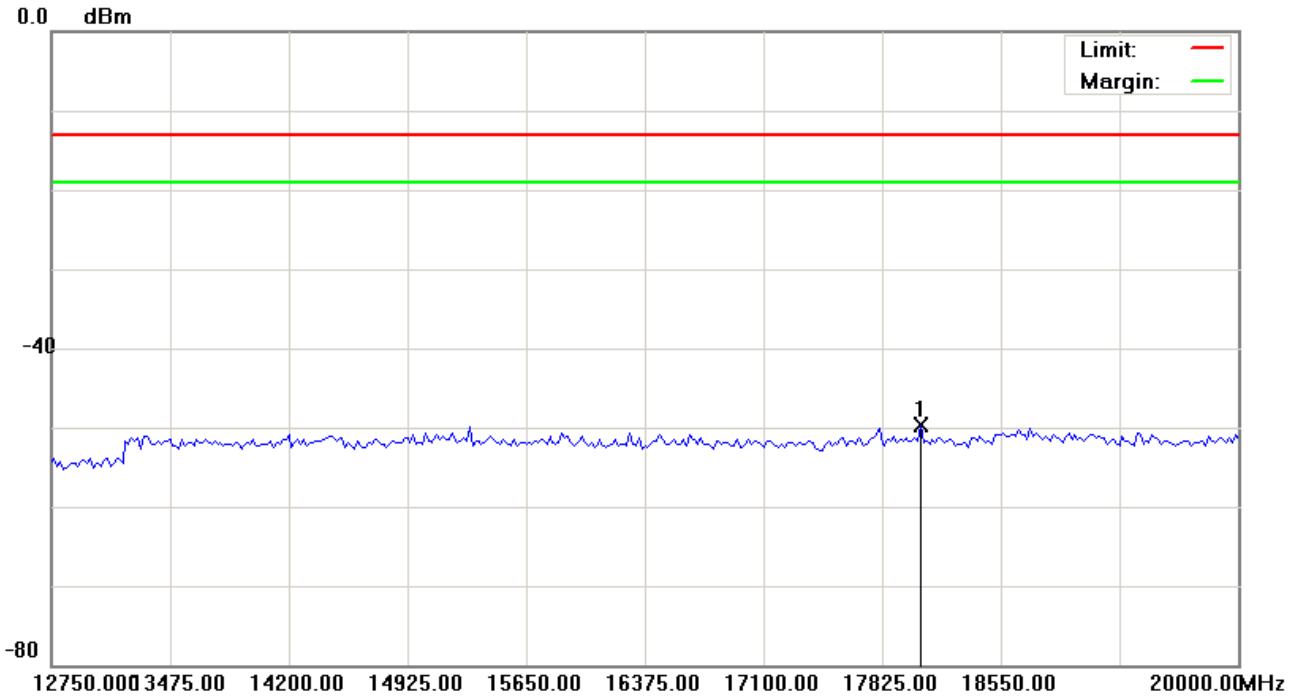
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH512)

Data :#6

Date: 2013/7/23

Time: 下午 05:31:17



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 1000 KHz VBW: 3000 KHz
M/N: HE910-NAG V2		
Mode: GSM 1900		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	18060.625	-56.57	6.89	-49.68	-13.00	-36.68	peak		

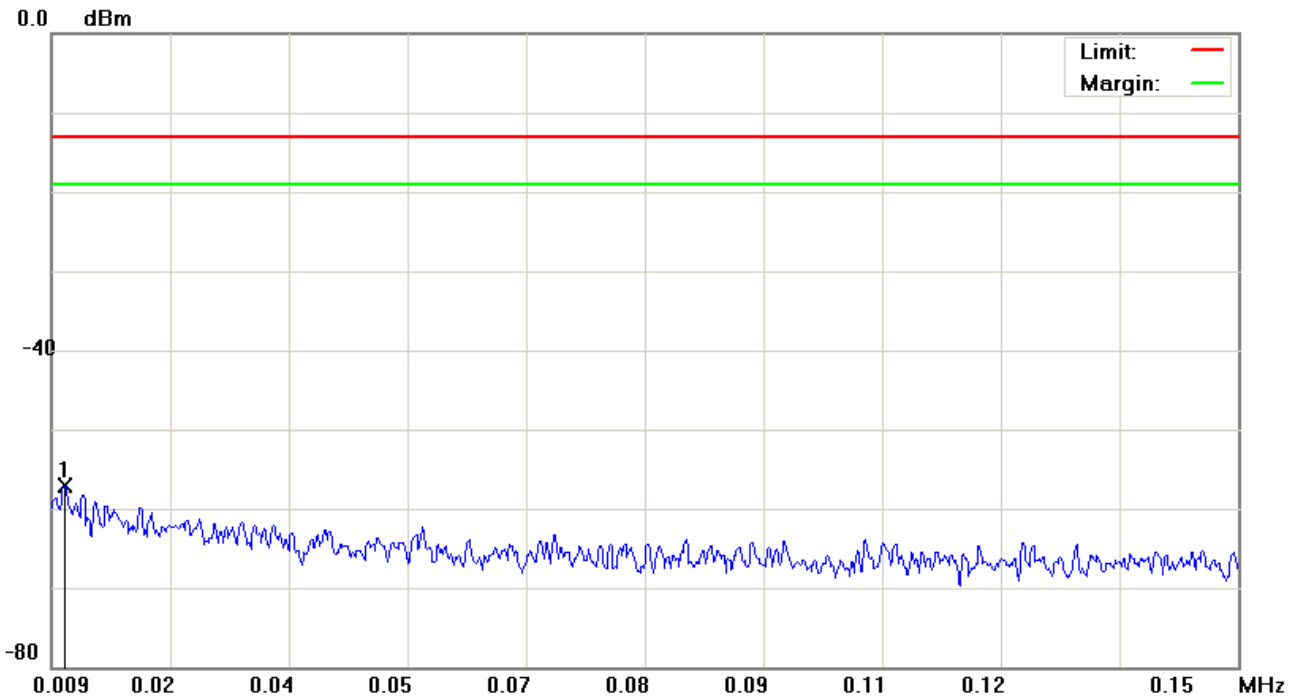
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH661)

Data :#1

Date: 2013/7/23

Time: 下午 04:30:01



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 1 KHz VBW: 3 KHz
M/N: HE910-NAG V2		
Mode: GSM 1900		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.0106	-68.40	11.34	-57.06	-13.00	-44.06	peak		

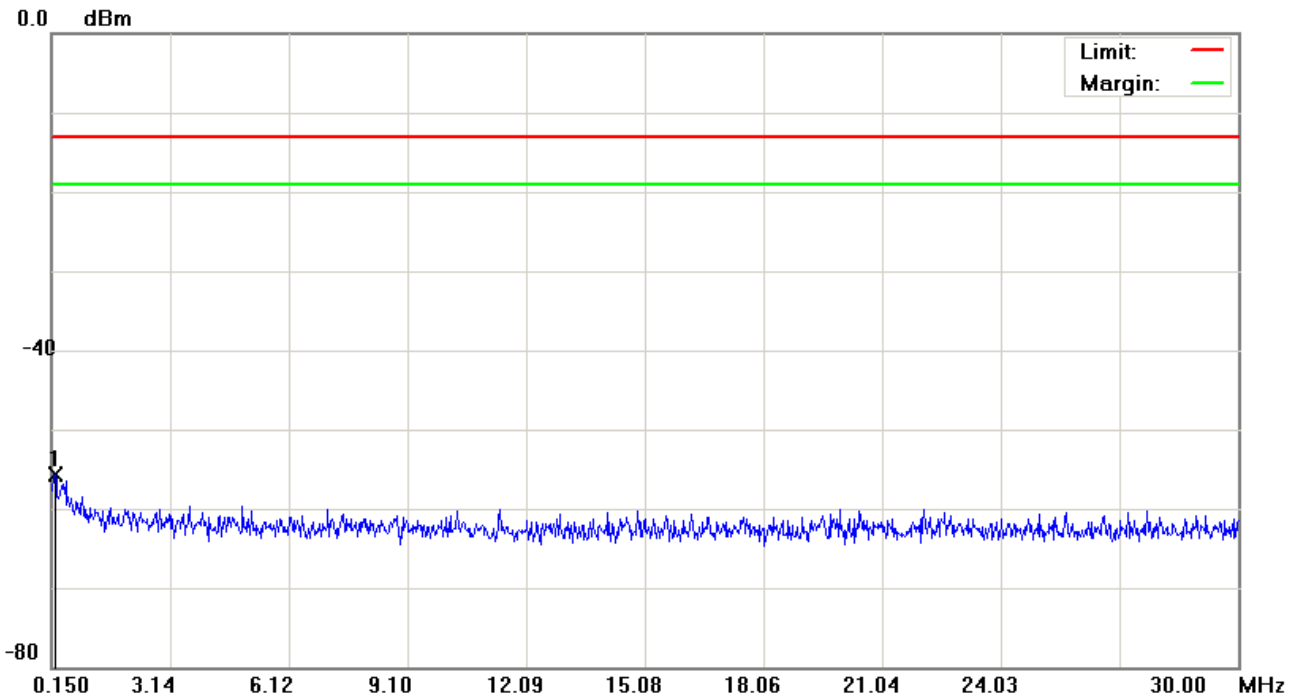
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH661)

Data :#2

Date: 2013/7/23

Time: 下午 04:30:25



Site: site #1

 Polarization: **Conducted po**

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 60 %

EUT: Module

Distance:

RBW: 10 KHz VBW: 30 KHz

M/N: HE910-NAG V2

Mode: GSM 1900

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.2395	-68.20	12.50	-55.70	-13.00	-42.70	peak		

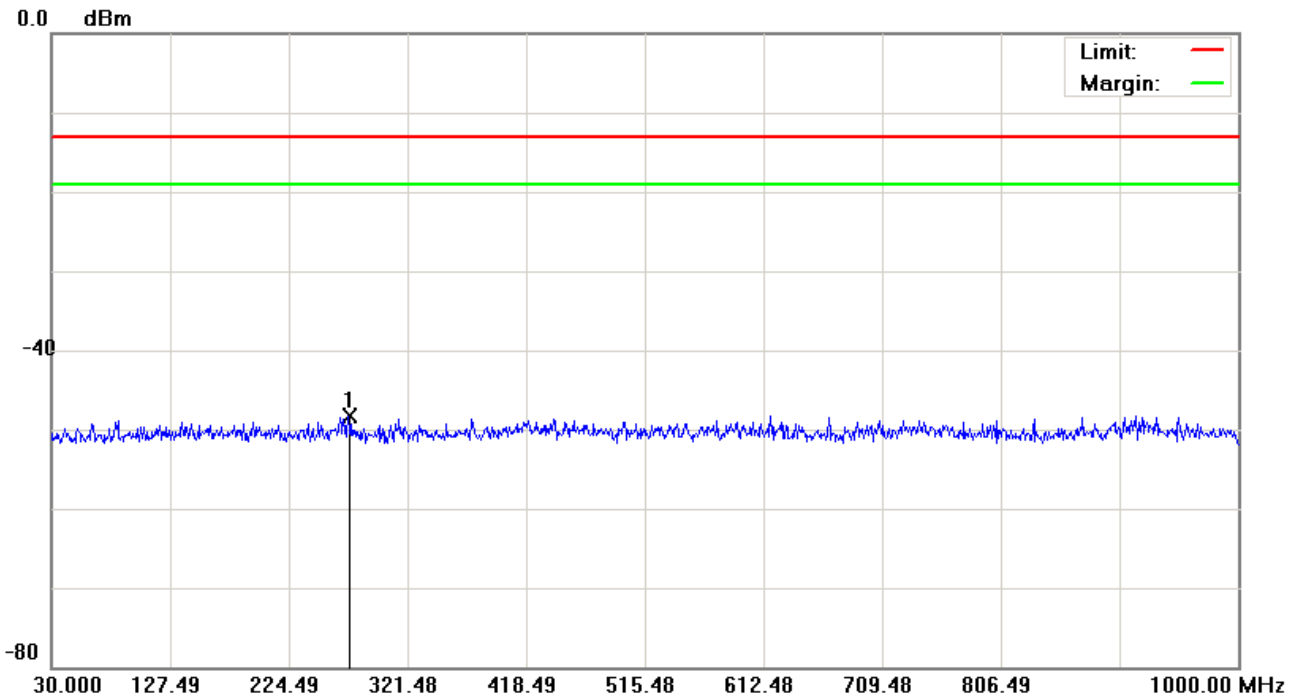
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH661)

Data :#3

Date: 2013/7/23

Time: 下午 04:30:48



Site: site #1

 Polarization: **Conducted po**

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 60 %

EUT: Module

Distance:

RBW: 100 KHz VBW: 300 KHz

M/N: HE910-NAG V2

Mode: GSM 1900

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	cm	degree	Comment
1	*	272.9850	-61.53	13.31	-48.22	-13.00	-35.22	peak		

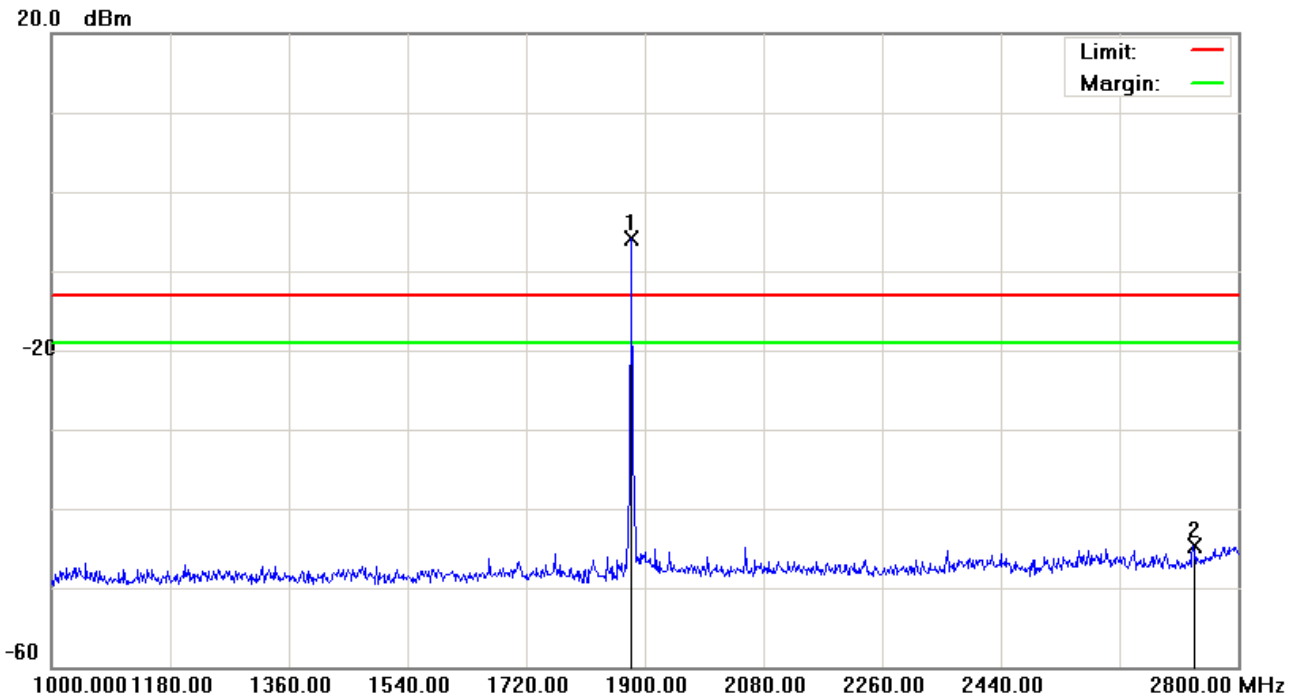
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH661)

Data :#4

Date: 2013/7/23

Time: 下午 04:35:03



Site: site #1

 Polarization: *Conducted po*

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 60 %

EUT: Module

Distance:

RBW: 1000 KHz VBW: 3000 KHz

M/N: HE910-NAG V2

Mode: GSM 1900

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	1880.200	-10.63	4.65	-5.98	-13.00	7.02	peak		Tx
2		2732.500	-49.75	4.99	-44.76	-13.00	-31.76	peak		

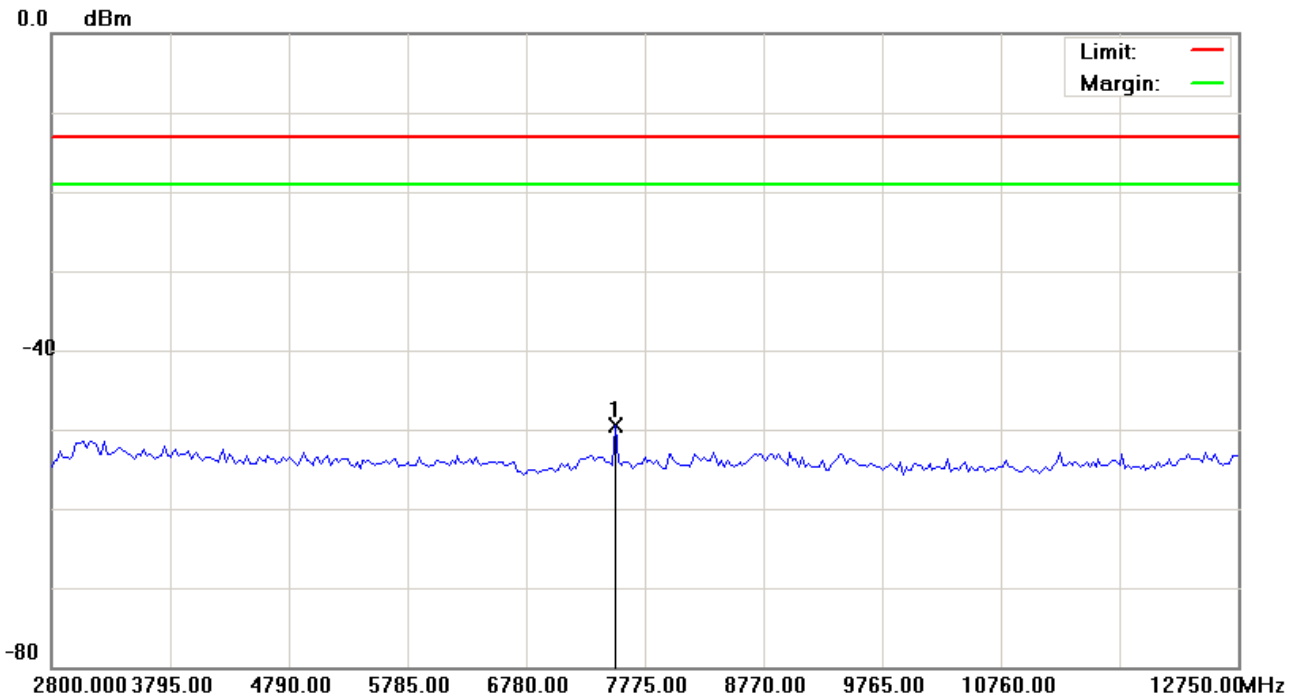
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH661)

Data :#5

Date: 2013/7/23

Time: 下午 05:32:33



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 1000 KHz VBW: 3000 KHz
M/N: HE910-NAG V2		
Mode: GSM 1900		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	7526.250	-54.47	5.05	-49.42	-13.00	-36.42	peak		

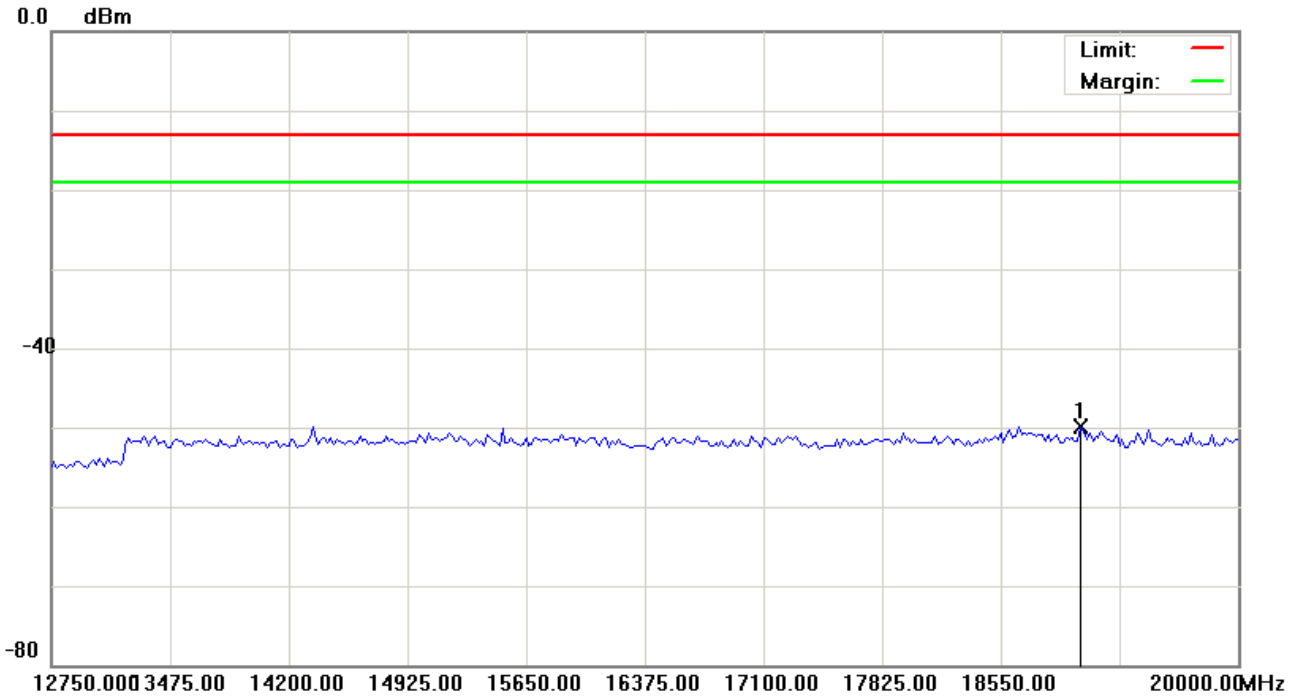
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH661)

Data :#6

Date: 2013/7/23

Time: 下午 05:32:52



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 1000 KHz VBW: 3000 KHz
M/N: HE910-NAG V2		
Mode: GSM 1900		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	19039.375	-56.98	7.17	-49.81	-13.00	-36.81	peak		

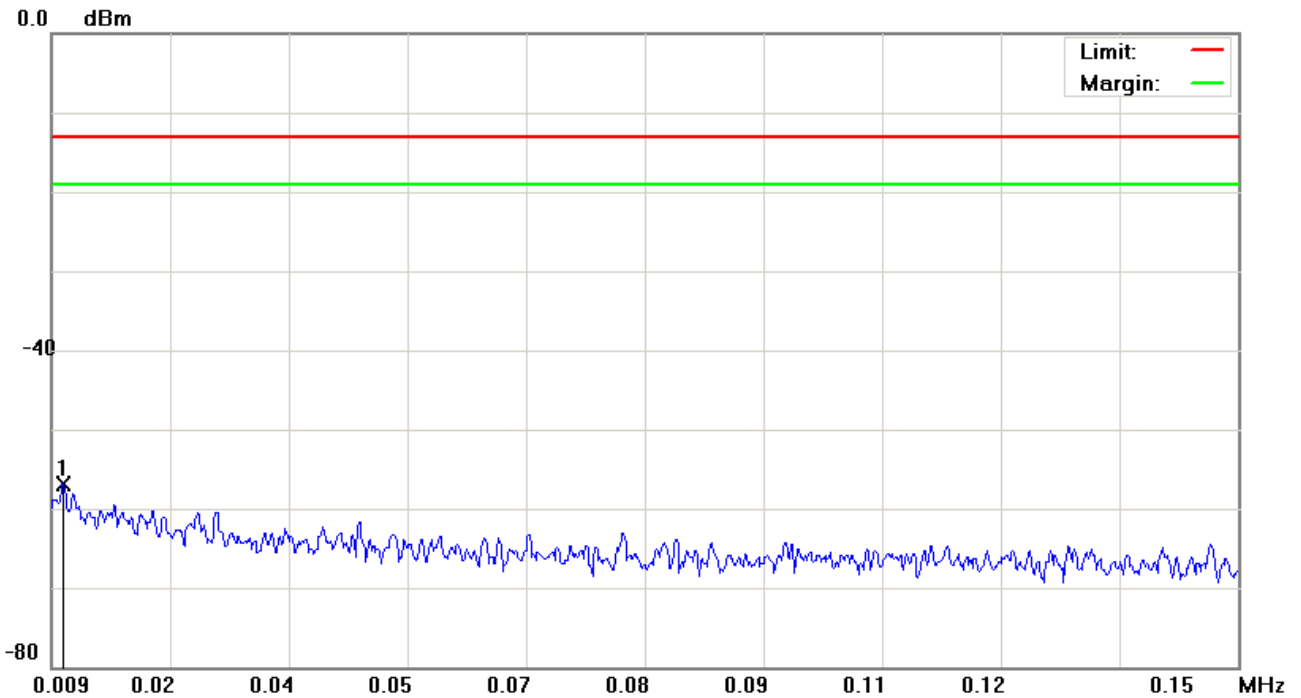
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH810)

Data :#1

Date: 2013/7/23

Time: 下午 04:31:33



Site: site #1

 Polarization: *Conducted po*

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 60 %

EUT: Module

Distance:

RBW: 1 KHz VBW: 3 KHz

M/N: HE910-NAG V2

Mode: GSM 1900

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.0104	-68.23	11.34	-56.89	-13.00	-43.89	peak		

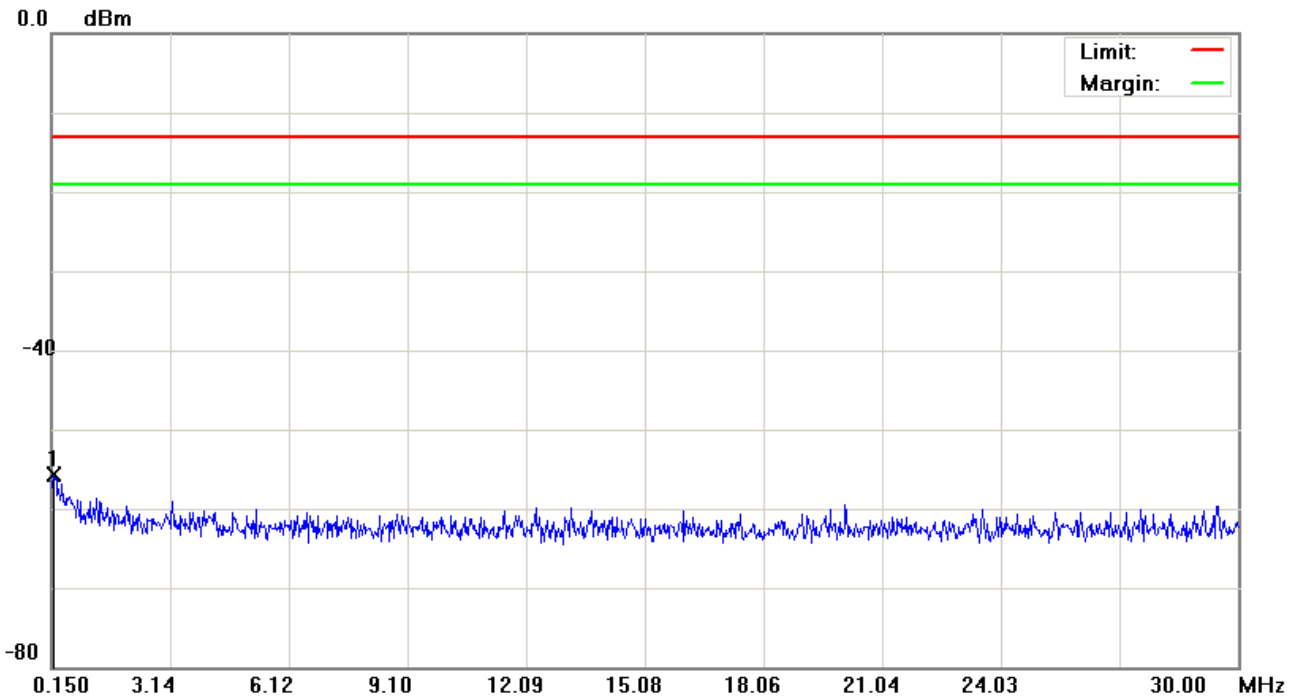
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH810)

Data :#2

Date: 2013/7/23

Time: 下午 04:31:56



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 10 KHz VBW: 30 KHz
M/N: HE910-NAG V2		
Mode: GSM 1900		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.2097	-68.11	12.44	-55.67	-13.00	-42.67	peak		

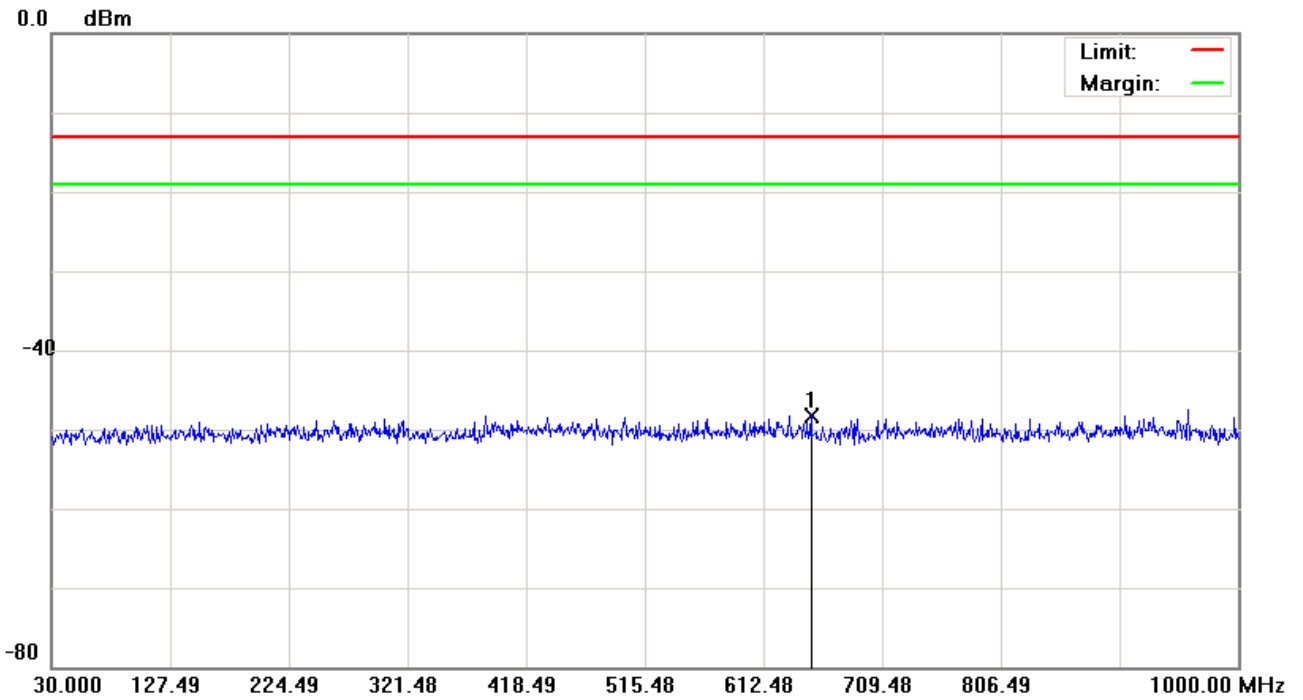
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH810)

Data :#3

Date: 2013/7/23

Time: 下午 04:32:20



Site: site #1

 Polarization: **Conducted po**

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 60 %

EUT: Module

Distance:

RBW: 100 KHz VBW: 300 KHz

M/N: HE910-NAG V2

Mode: GSM 1900

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	650.8000	-61.33	13.13	-48.20	-13.00	-35.20	peak		

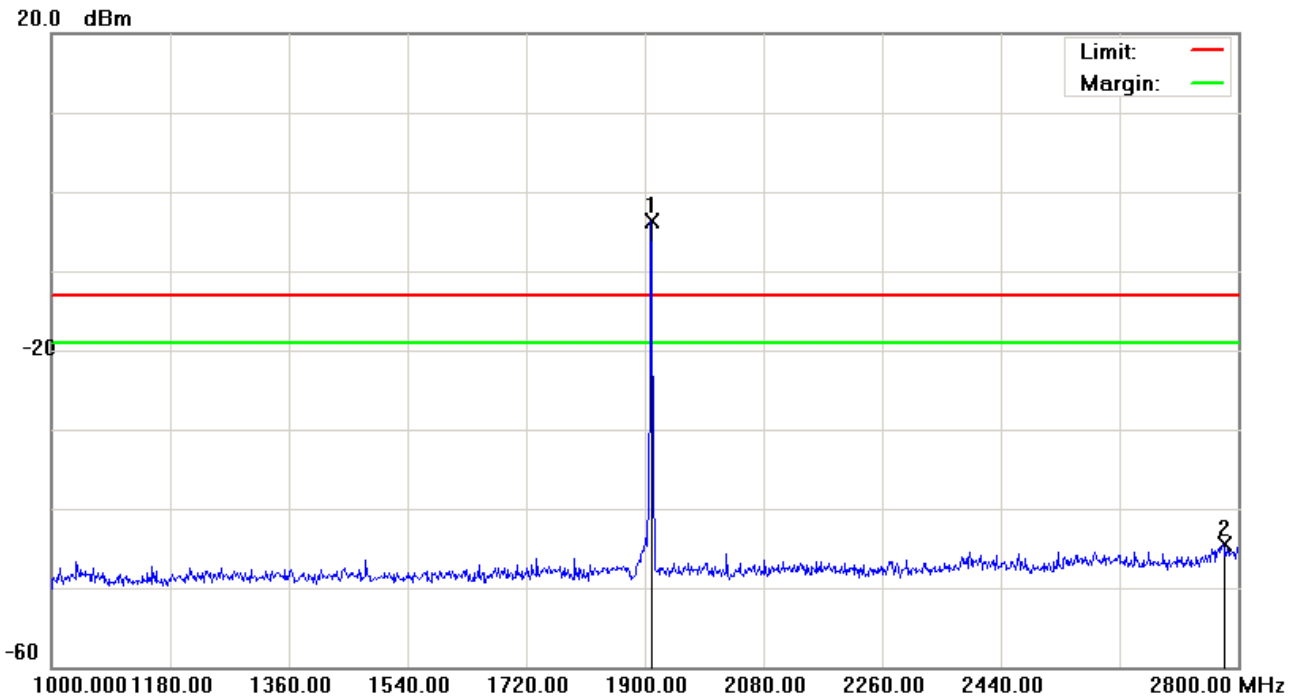
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH810)

Data :#4

Date: 2013/7/23

Time: 下午 04:36:23



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 1000 KHz VBW: 3000 KHz
M/N: HE910-NAG V2		
Mode: GSM 1900		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	1909.900	-9.35	5.71	-3.64	-13.00	9.36	peak		Tx
2		2777.500	-50.39	5.84	-44.55	-13.00	-31.55	peak		

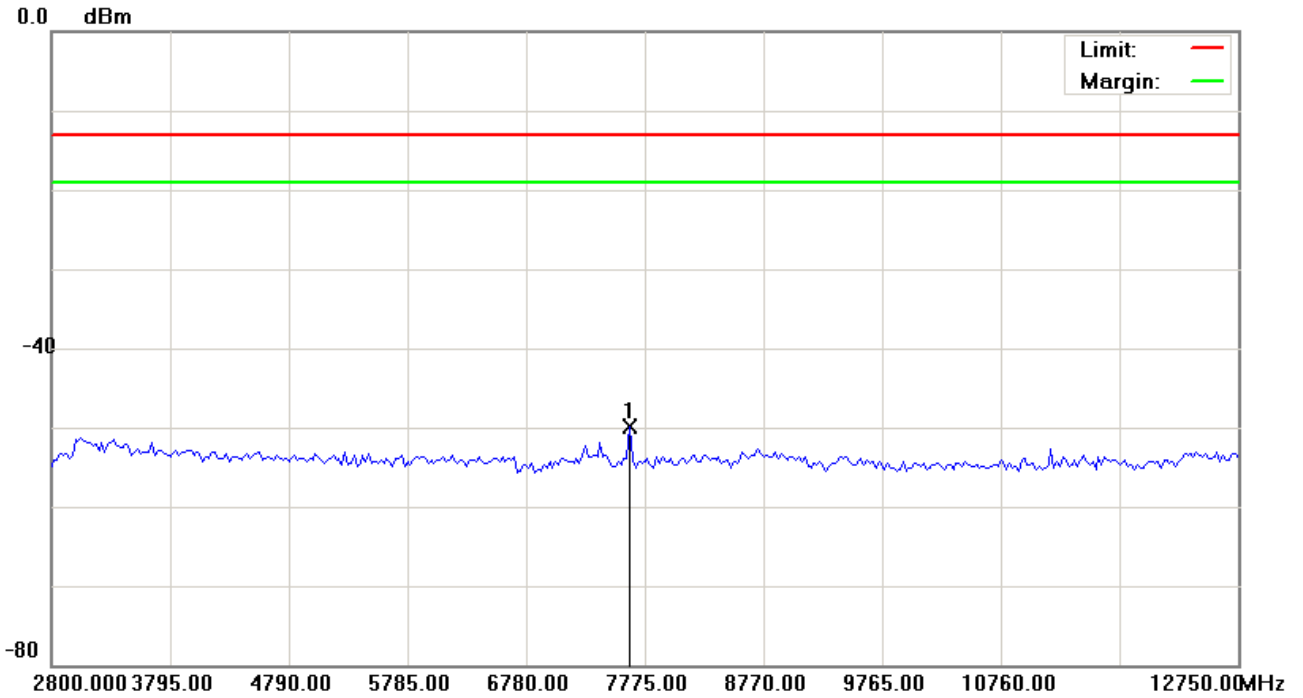
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH810)

Data :#5

Date: 2013/7/23

Time: 下午 05:33:31

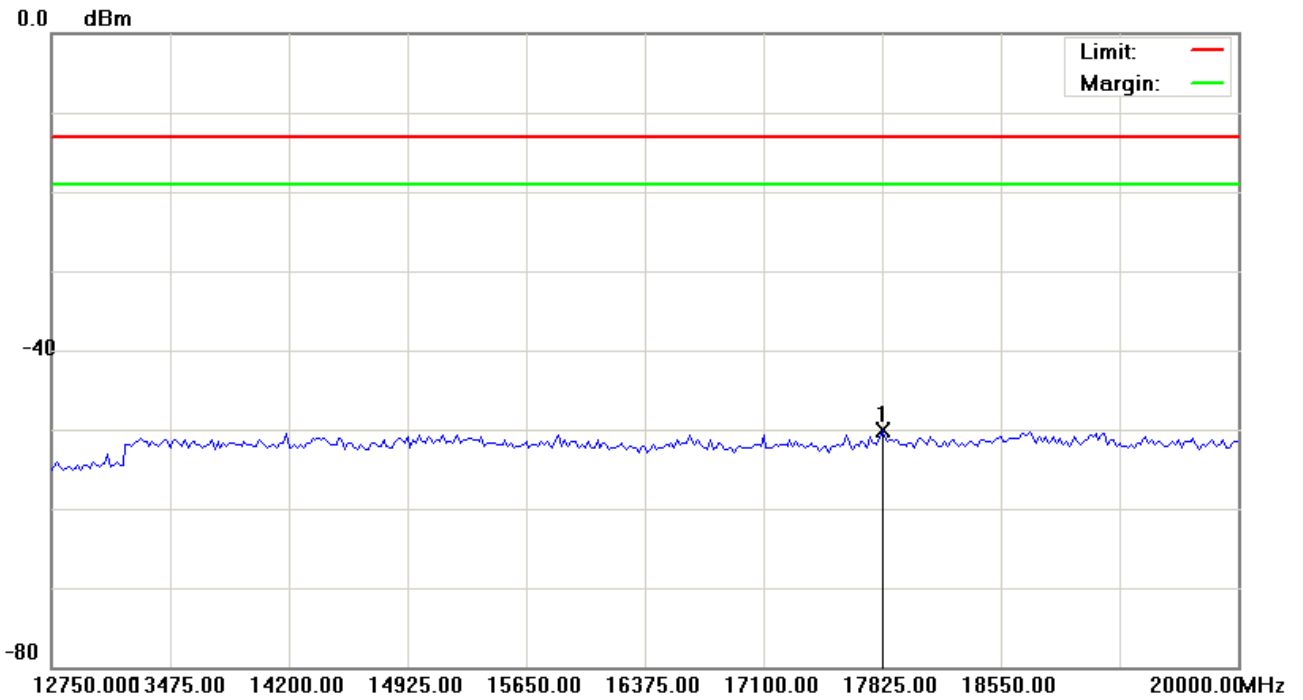


Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 1000 KHz VBW: 3000 KHz
M/N: HE910-NAG V2		
Mode: GSM 1900		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	7650.625	-55.04	5.10	-49.94	-13.00	-36.94	peak		

*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH810) Data :#6 Date: 2013/7/23 Time: 下午 05:33:50



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 1000 KHz VBW: 3000 KHz
M/N: HE910-NAG V2		
Mode: GSM 1900		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	17825.000	-56.82	6.82	-50.00	-13.00	-37.00	peak		

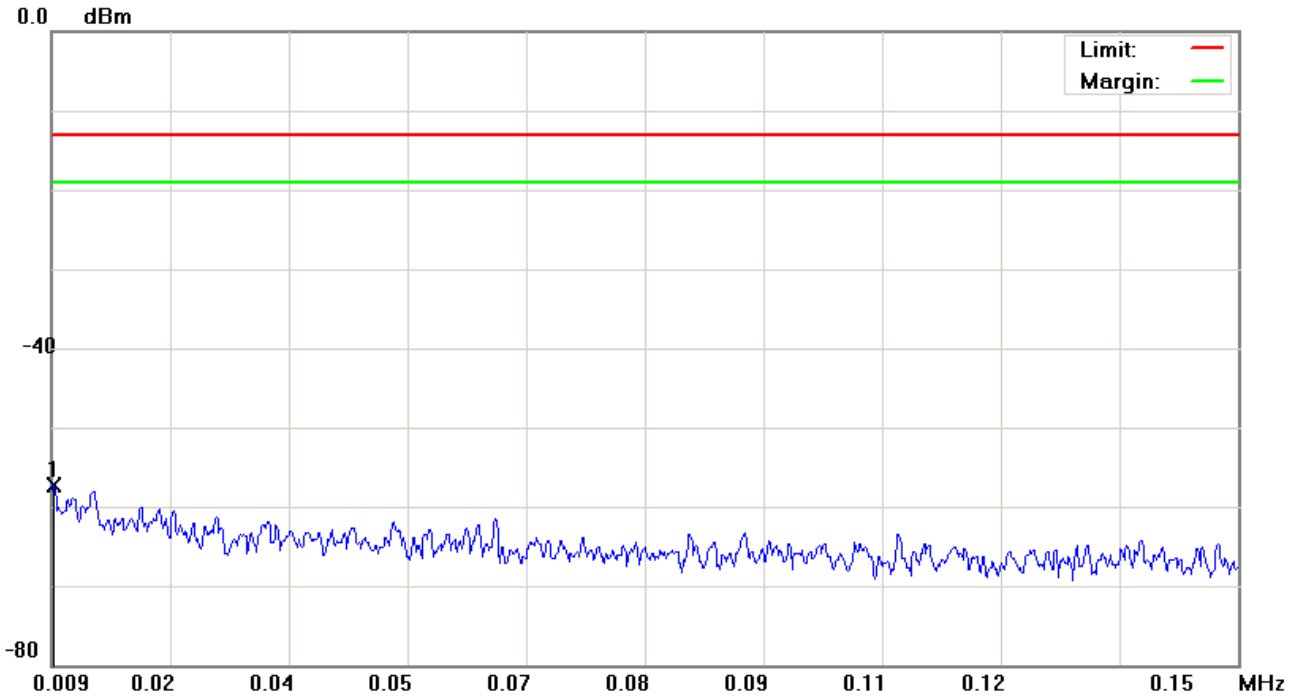
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH9262)

Data :#1

Date: 2013/7/23

Time: 下午 04:17:25



Site: site #1

 Polarization: *Conducted po*

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 60 %

EUT: Module

Distance:

RBW: 1 KHz VBW: 3 KHz

M/N: HE910-NAG V2

Mode: WCDMA Band II

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.0092	-68.60	11.32	-57.28	-13.00	-44.28	peak		

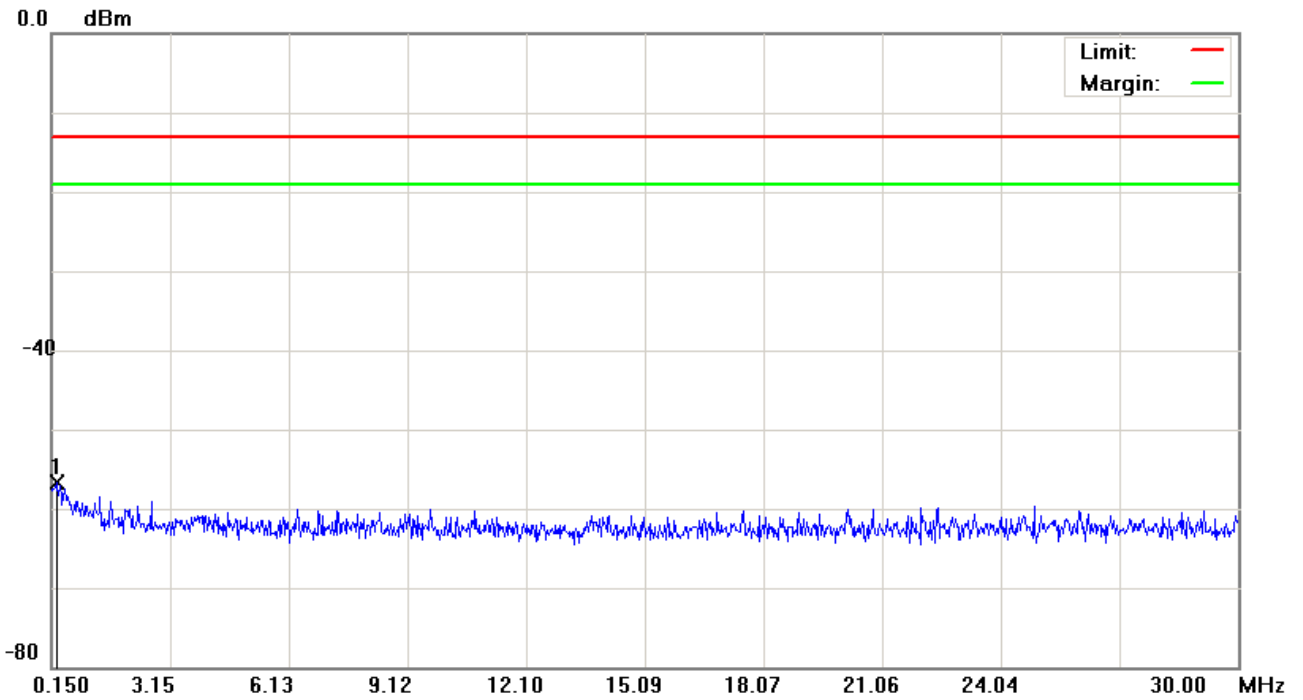
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH9262)

Data :#2

Date: 2013/7/23

Time: 下午 04:17:49



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 10 KHz VBW: 30 KHz
M/N: HE910-NAG V2		
Mode: WCDMA Band II		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.2843	-69.27	12.59	-56.68	-13.00	-43.68	peak		

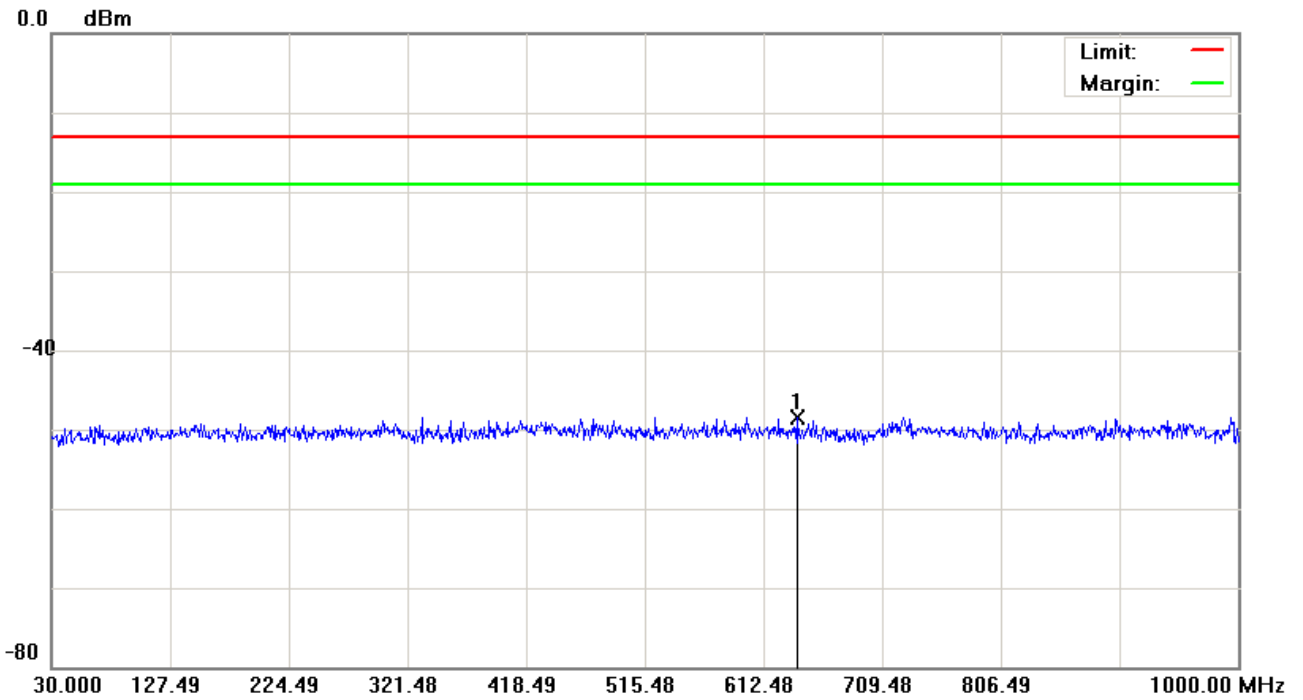
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH9262)

Data :#3

Date: 2013/7/23

Time: 下午 04:18:12



Site: site #1

 Polarization: **Conducted po**

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 60 %

EUT: Module

Distance:

RBW: 100 KHz VBW: 300 KHz

M/N: HE910-NAG V2

Mode: WCDMA Band II

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	639.1600	-61.55	13.12	-48.43	-13.00	-35.43	peak		

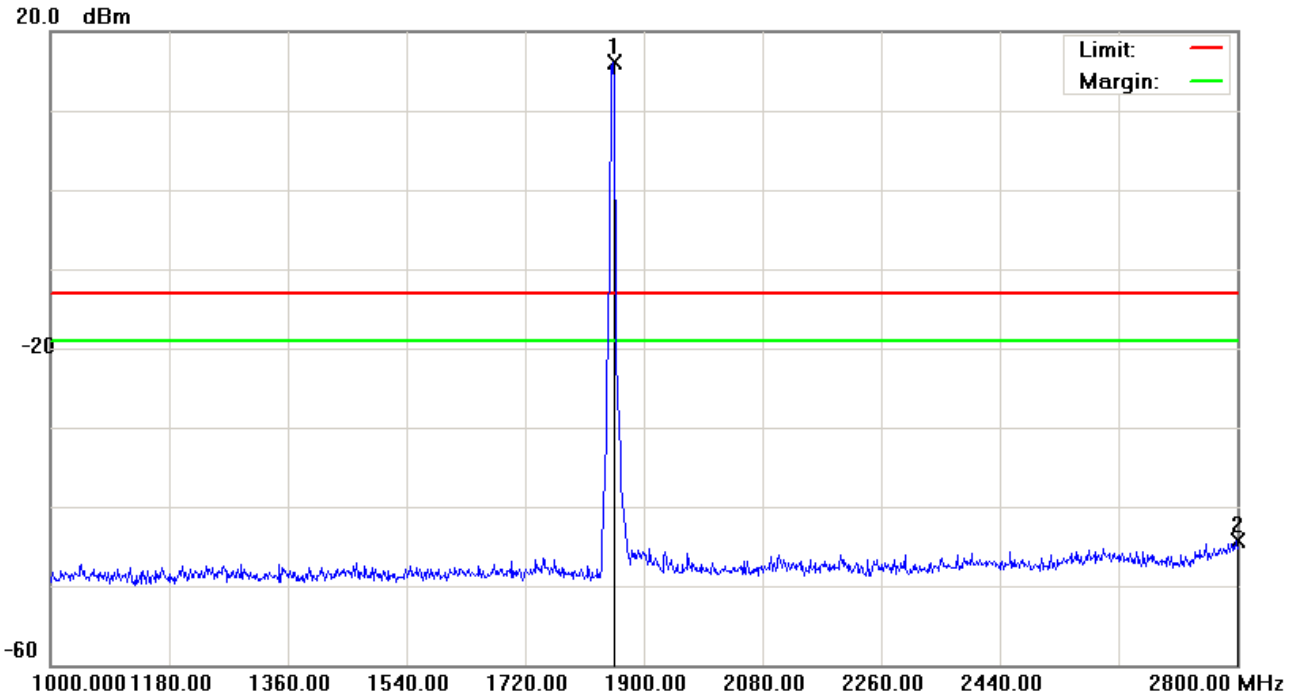
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH9262)

Data :#4

Date: 2013/7/23

Time: 下午 04:23:06



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 1000 KHz VBW: 3000 KHz
M/N: HE910-NAG V2		
Mode: WCDMA Band II		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	1854.100	11.76	4.28	16.04	-13.00	29.04	peak		Tx
2		2799.100	-50.25	5.91	-44.34	-13.00	-31.34	peak		

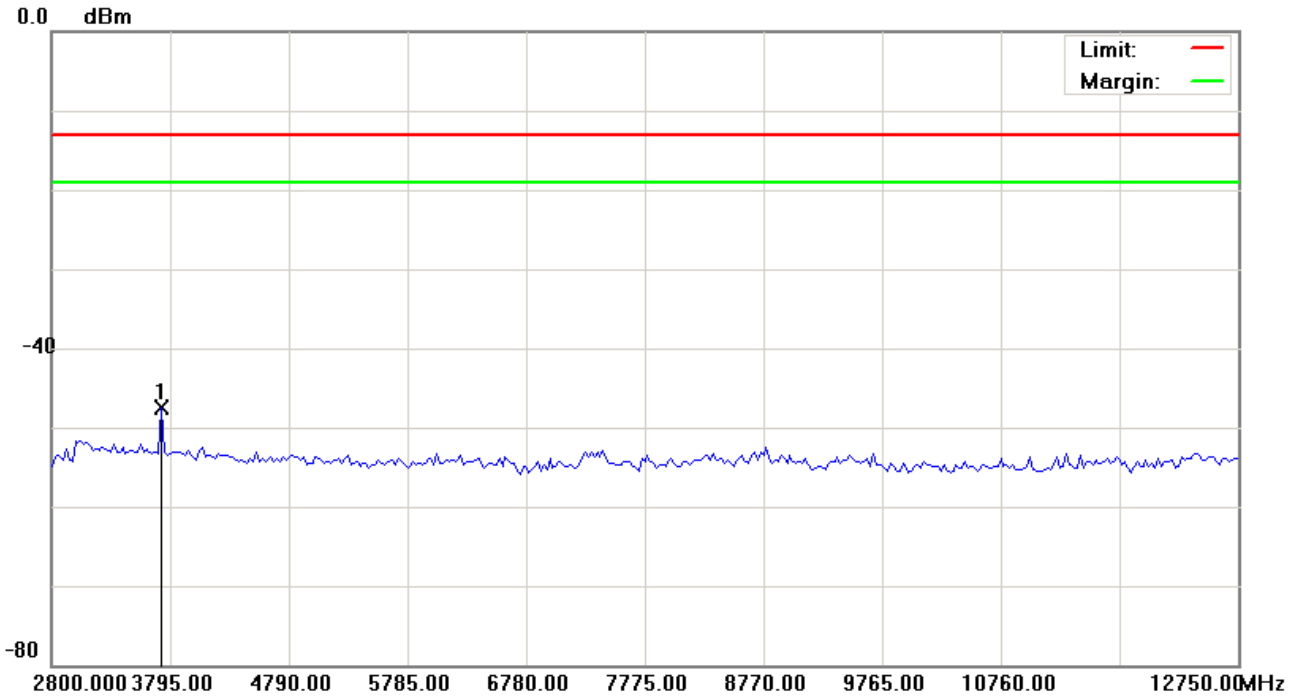
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH9262)

Data :#5

Date: 2013/7/23

Time: 下午 05:25:46



Site: site #1

 Polarization: *Conducted po*

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 60 %

EUT: Module

Distance:

RBW: 1000 KHz VBW: 3000 KHz

M/N: HE910-NAG V2

Mode: WCDMA Band II

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	3720.375	-52.45	4.88	-47.57	-13.00	-34.57	peak		

*:Maximum data x:Over limit !:over margin

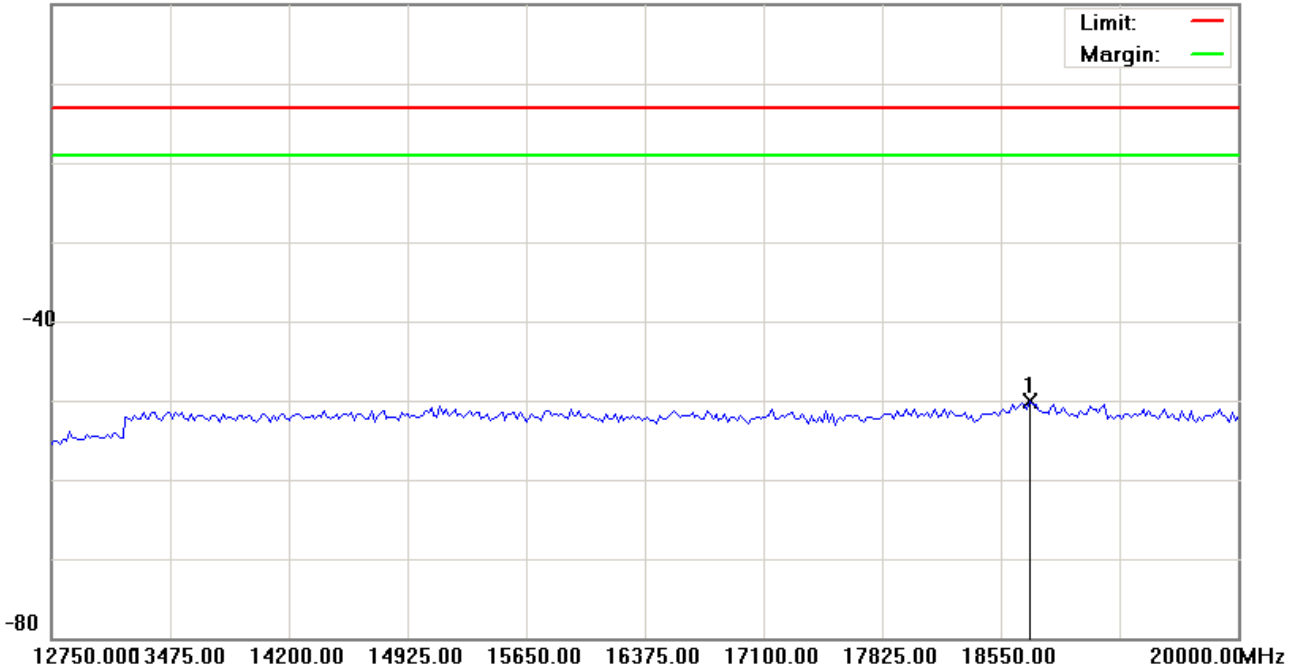
File :HE910-NAG V2(CH9262)

Data :#6

Date: 2013/7/23

Time: 下午 05:26:06

0.0 dBm



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 1000 KHz VBW: 3000 KHz
M/N: HE910-NAG V2		
Mode: WCDMA Band II		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	18731.250	-57.14	7.08	-50.06	-13.00	-37.06	peak		

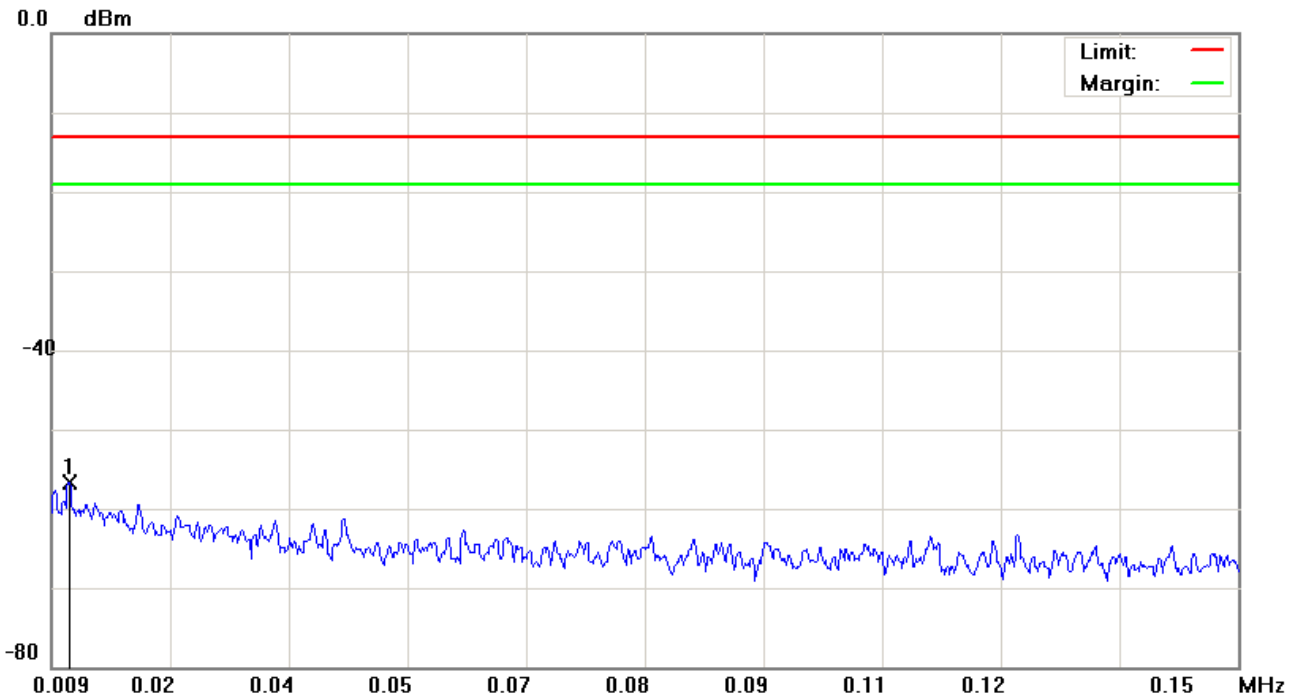
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH9400)

Data :#1

Date: 2013/7/23

Time: 下午 04:18:58



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 1 KHz VBW: 3 KHz
M/N: HE910-NAG V2		
Mode: WCDMA Band II		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.0111	-68.02	11.35	-56.67	-13.00	-43.67	peak		

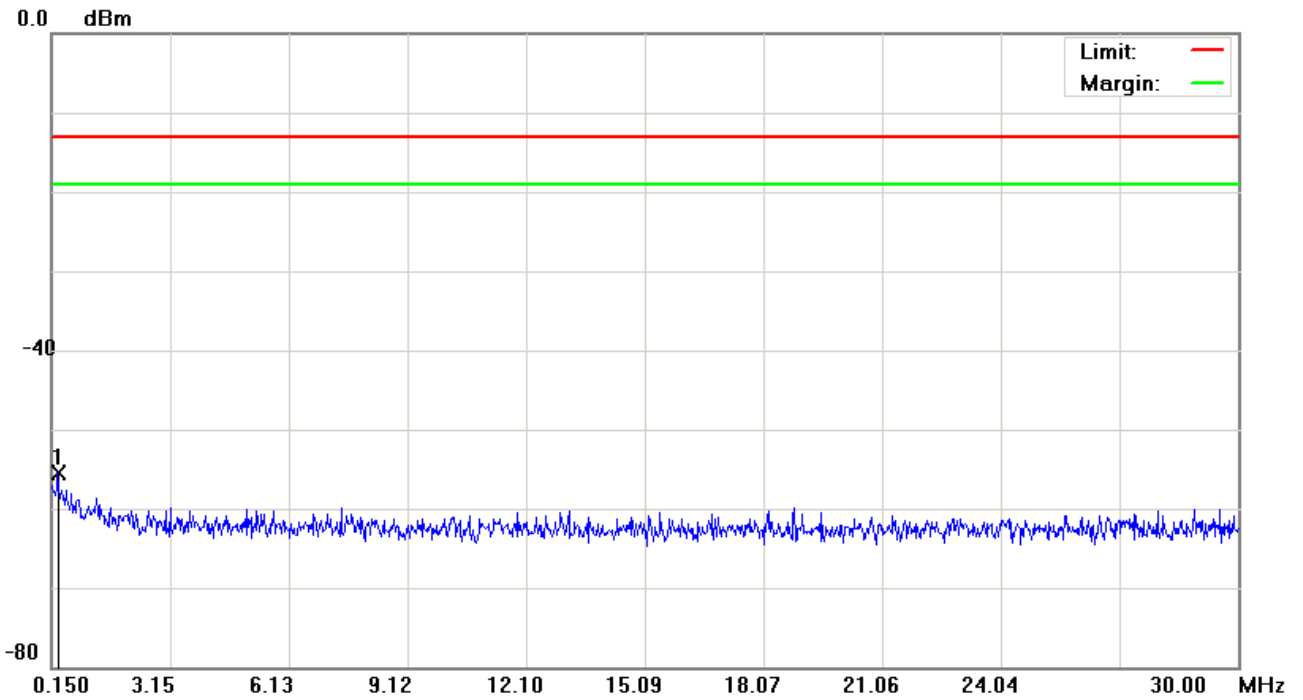
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH9400)

Data :#2

Date: 2013/7/23

Time: 下午 04:19:22



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 10 KHz VBW: 30 KHz
M/N: HE910-NAG V2		
Mode: WCDMA Band II		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.3141	-68.18	12.65	-55.53	-13.00	-42.53	peak		

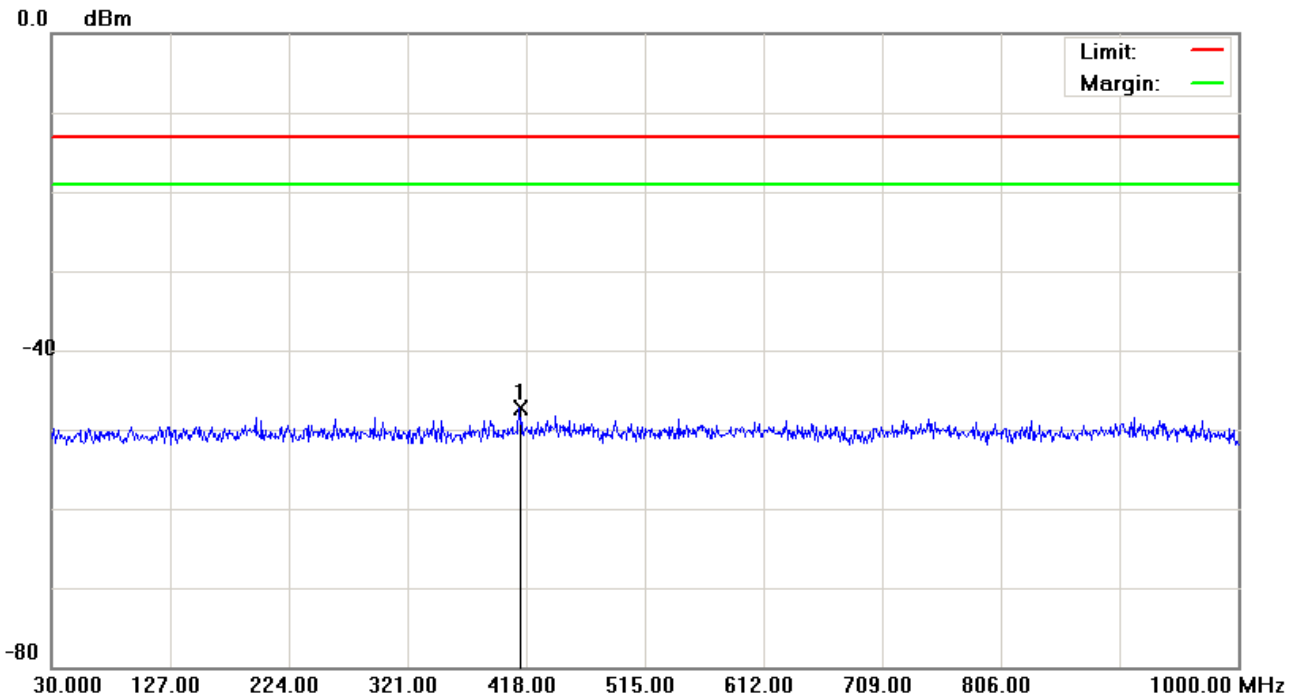
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH9400)

Data :#3

Date: 2013/7/23

Time: 下午 04:19:45



Site: site #1

 Polarization: *Conducted po*

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 60 %

EUT: Module

Distance:

RBW: 100 KHz VBW: 300 KHz

M/N: HE910-NAG V2

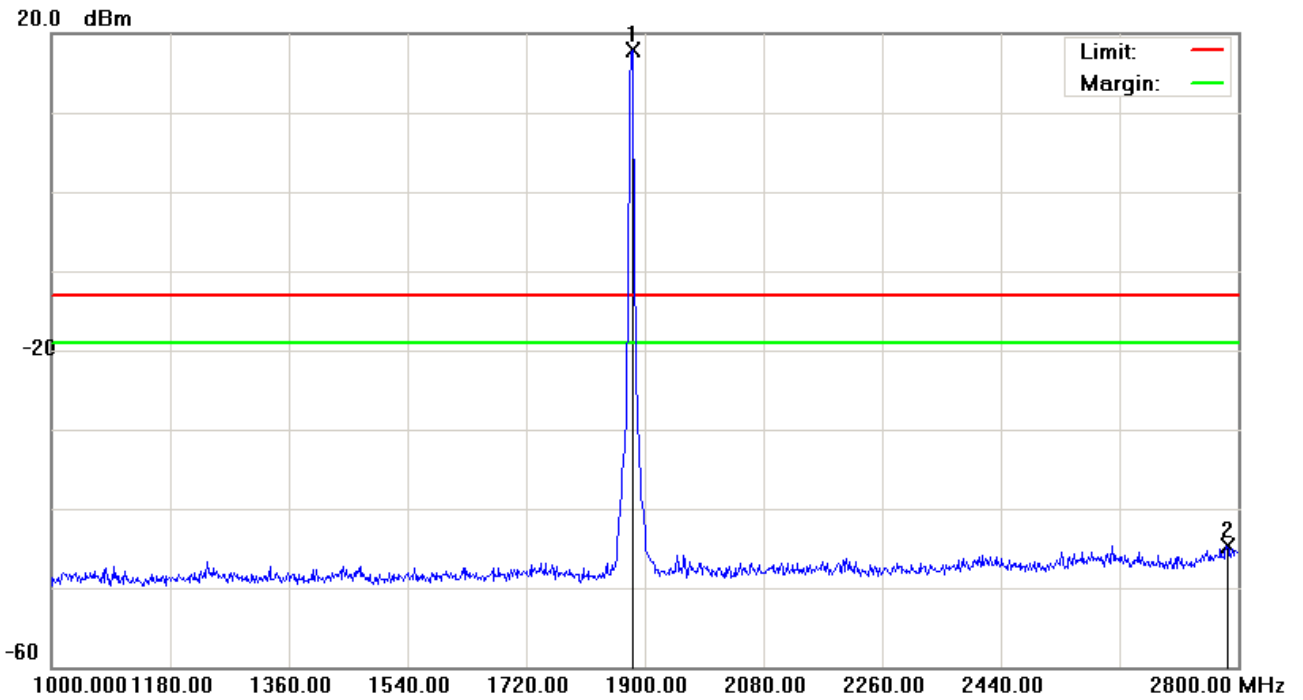
Mode: WCDMA Band II

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	412.6650	-60.48	13.23	-47.25	-13.00	-34.25	peak		

*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH9400) Data :#4 Date: 2013/7/23 Time: 下午 04:24:10



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 1000 KHz VBW: 3000 KHz
M/N: HE910-NAG V2		
Mode: WCDMA Band II		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	1882.000	13.06	4.83	17.89	-13.00	30.89	peak		Tx
2		2782.900	-50.54	5.88	-44.66	-13.00	-31.66	peak		

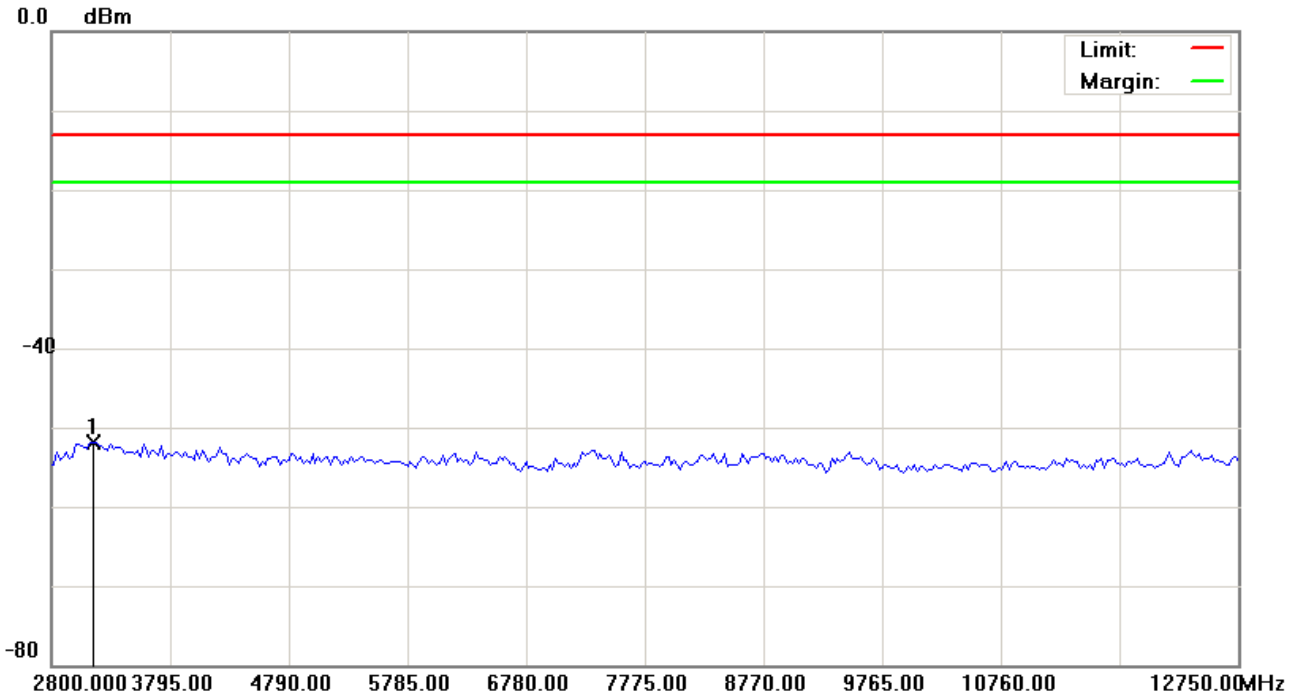
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH9400)

Data :#5

Date: 2013/7/23

Time: 下午 05:26:45



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 1000 KHz VBW: 3000 KHz
M/N: HE910-NAG V2		
Mode: WCDMA Band II		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	3148.250	-57.10	5.27	-51.83	-13.00	-38.83	peak		

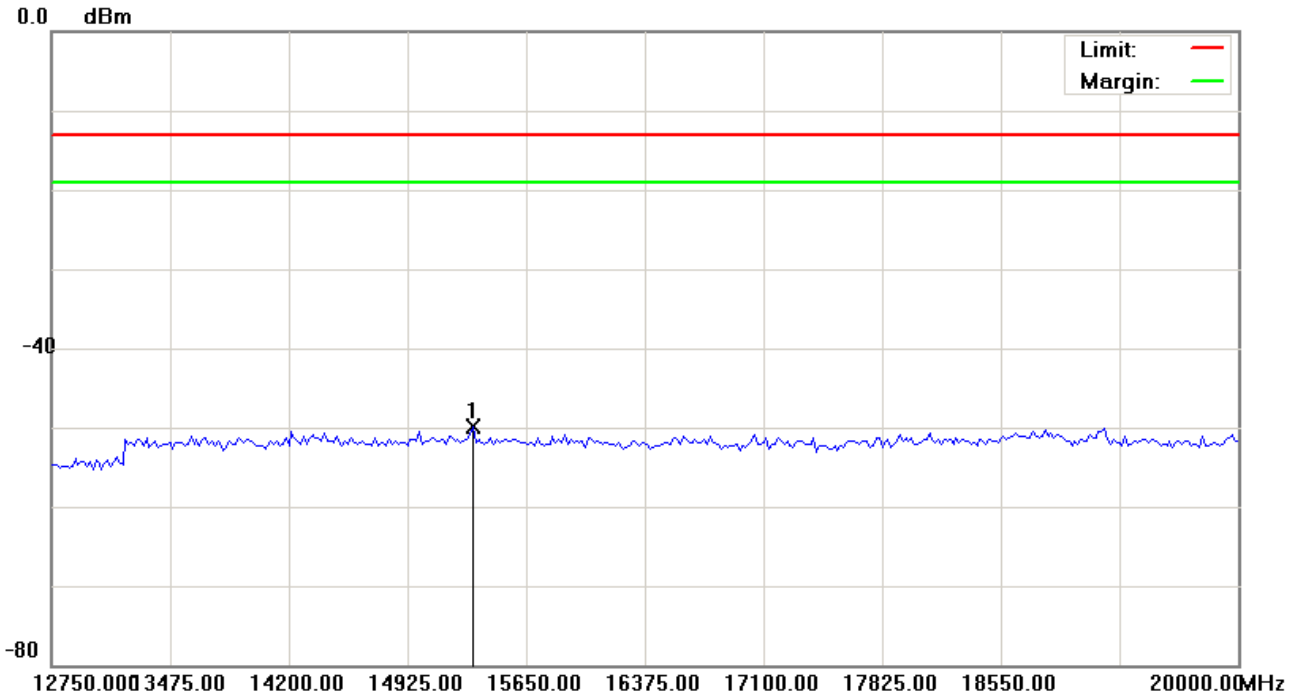
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH9400)

Data :#6

Date: 2013/7/23

Time: 下午 05:27:04



Site: site #1

 Polarization: **Conducted po**

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 60 %

EUT: Module

Distance:

RBW: 1000 KHz VBW: 3000 KHz

M/N: HE910-NAG V2

Mode: WCDMA Band II

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	15323.750	-56.08	6.10	-49.98	-13.00	-36.98	peak		

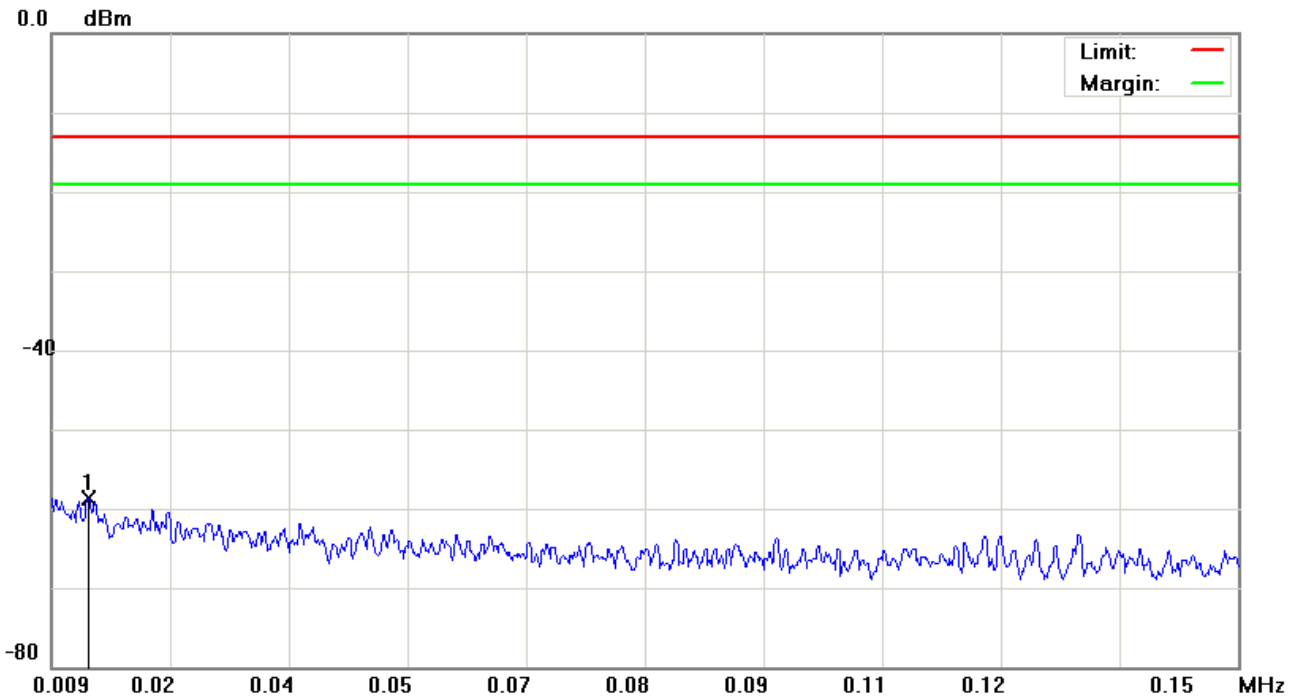
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH9538)

Data :#1

Date: 2013/7/23

Time: 下午 04:20:31



Site: site #1

 Polarization: *Conducted po*

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 60 %

EUT: Module

Distance:

RBW: 1 KHz VBW: 3 KHz

M/N: HE910-NAG V2

Mode: WCDMA Band II

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.0134	-70.13	11.37	-58.76	-13.00	-45.76	peak		

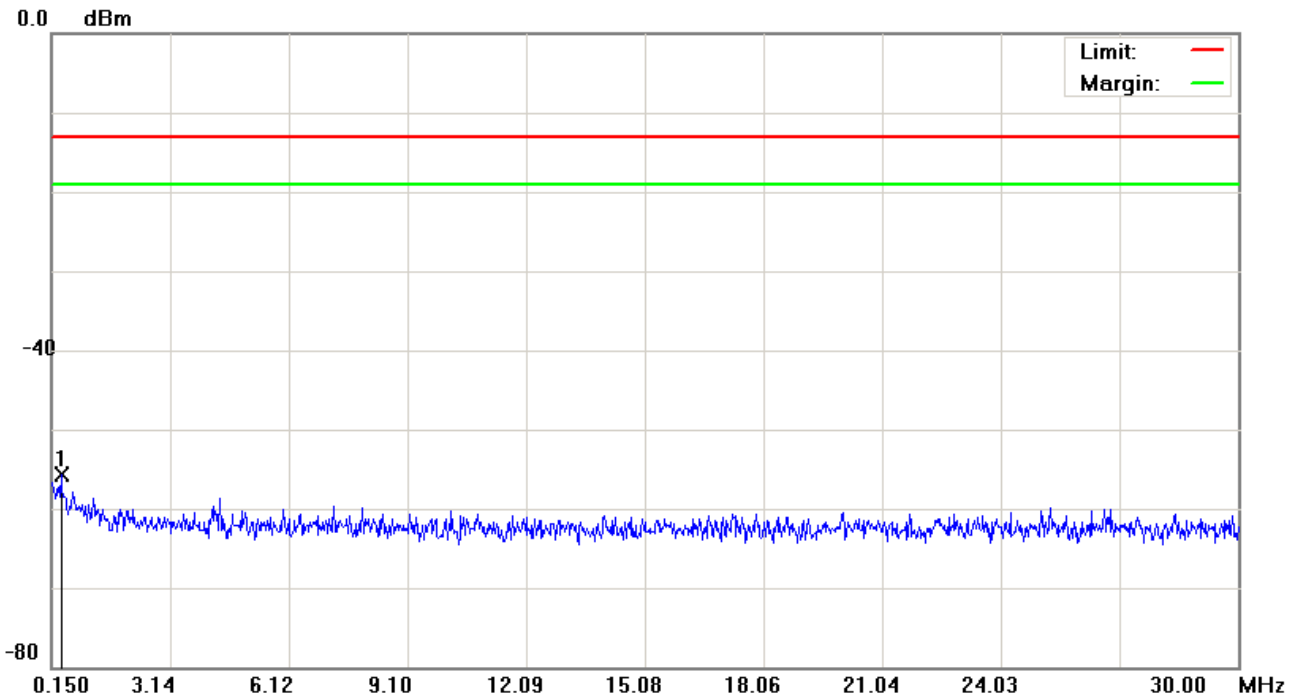
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH9538)

Data :#2

Date: 2013/7/23

Time: 下午 04:20:55



Site: site #1

 Polarization: *Conducted po*

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 60 %

EUT: Module

Distance:

RBW: 10 KHz VBW: 30 KHz

M/N: HE910-NAG V2

Mode: WCDMA Band II

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.4037	-68.60	12.82	-55.78	-13.00	-42.78	peak		

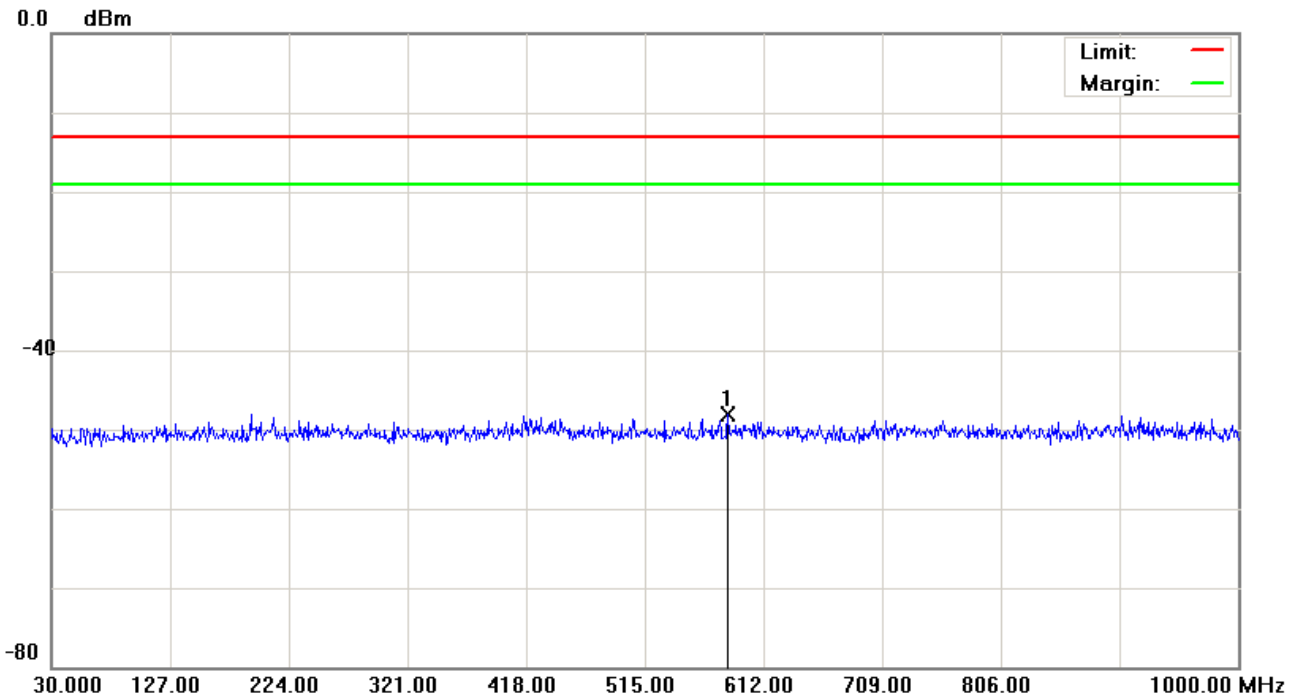
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH9538)

Data :#3

Date: 2013/7/23

Time: 下午 04:21:19



Site: site #1

 Polarization: **Conducted po**

Temperature: 26 °C

Limit: FCC Part 24 conducted(9k-26.5G)

Power: DC 3.8V

Humidity: 60 %

EUT: Module

Distance:

RBW: 100 KHz VBW: 300 KHz

M/N: HE910-NAG V2

Mode: WCDMA Band II

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	582.9000	-61.25	13.18	-48.07	-13.00	-35.07	peak		

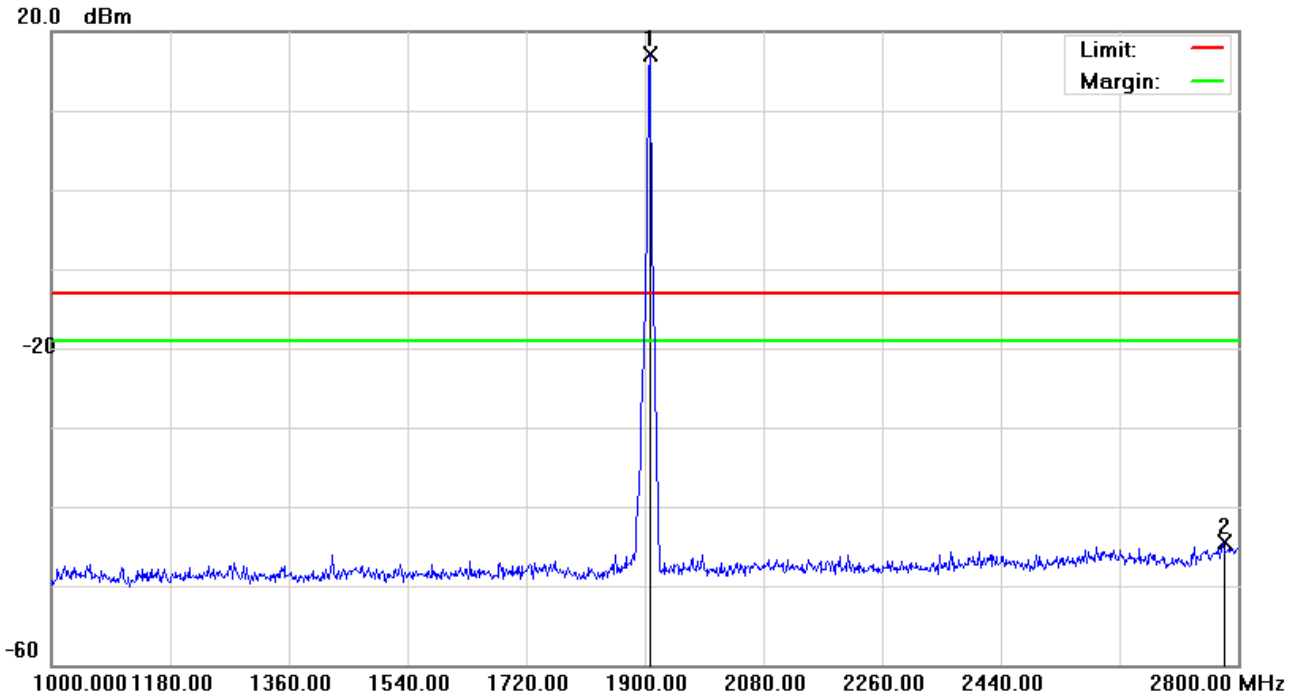
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH9538)

Data :#4

Date: 2013/7/23

Time: 下午 04:25:15



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 1000 KHz VBW: 3000 KHz
M/N: HE910-NAG V2		
Mode: WCDMA Band II		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	1909.000	11.26	5.80	17.06	-13.00	30.06	peak		Tx
2		2777.500	-50.29	5.84	-44.45	-13.00	-31.45	peak		

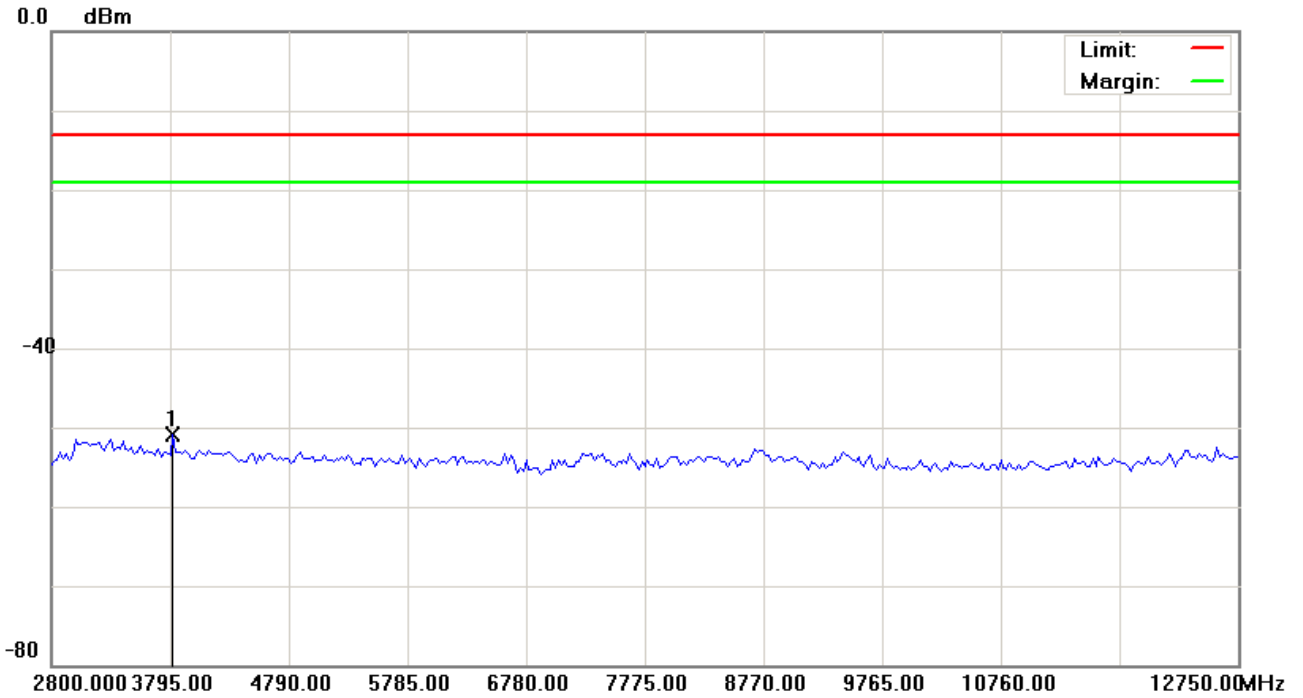
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH9538)

Data :#5

Date: 2013/7/23

Time: 下午 05:28:17



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 1000 KHz VBW: 3000 KHz
M/N: HE910-NAG V2		
Mode: WCDMA Band II		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	3819.875	-55.72	4.91	-50.81	-13.00	-37.81	peak		

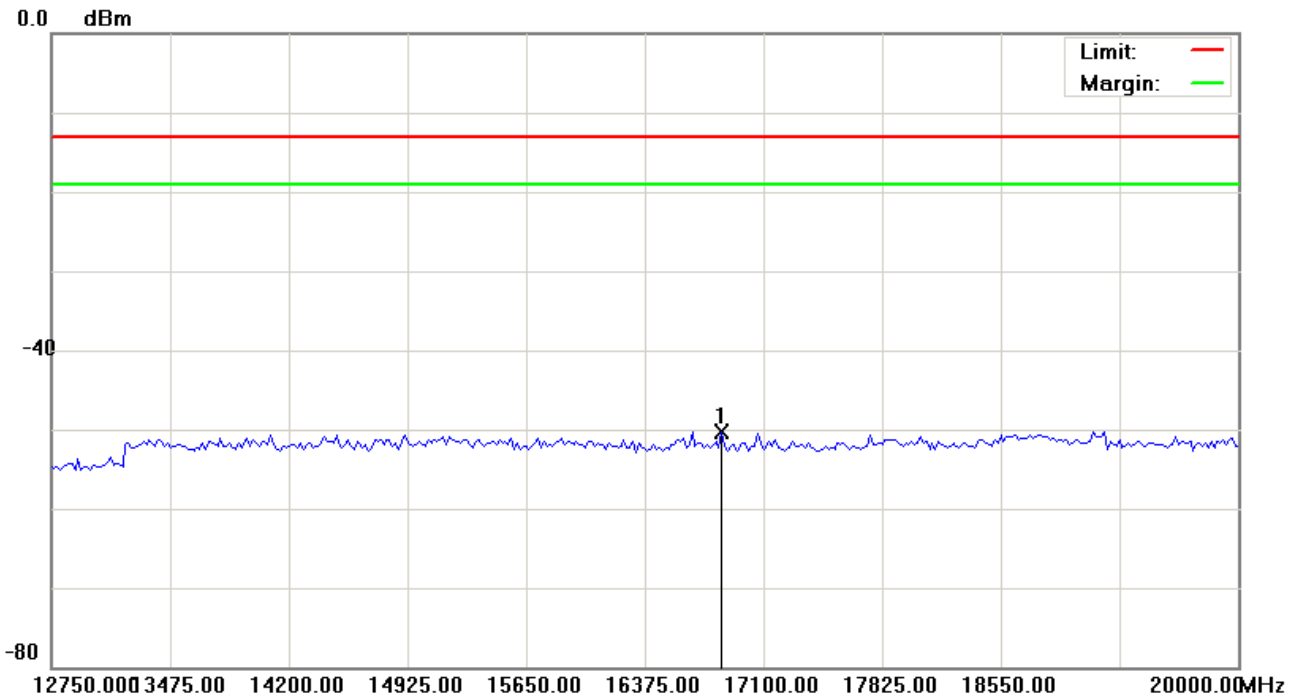
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH9538)

Data :#6

Date: 2013/7/23

Time: 下午 05:28:37



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 24 conducted(9k-26.5G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 1000 KHz VBW: 3000 KHz
M/N: HE910-NAG V2		
Mode: WCDMA Band II		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	16846.250	-56.80	6.54	-50.26	-13.00	-37.26	peak		

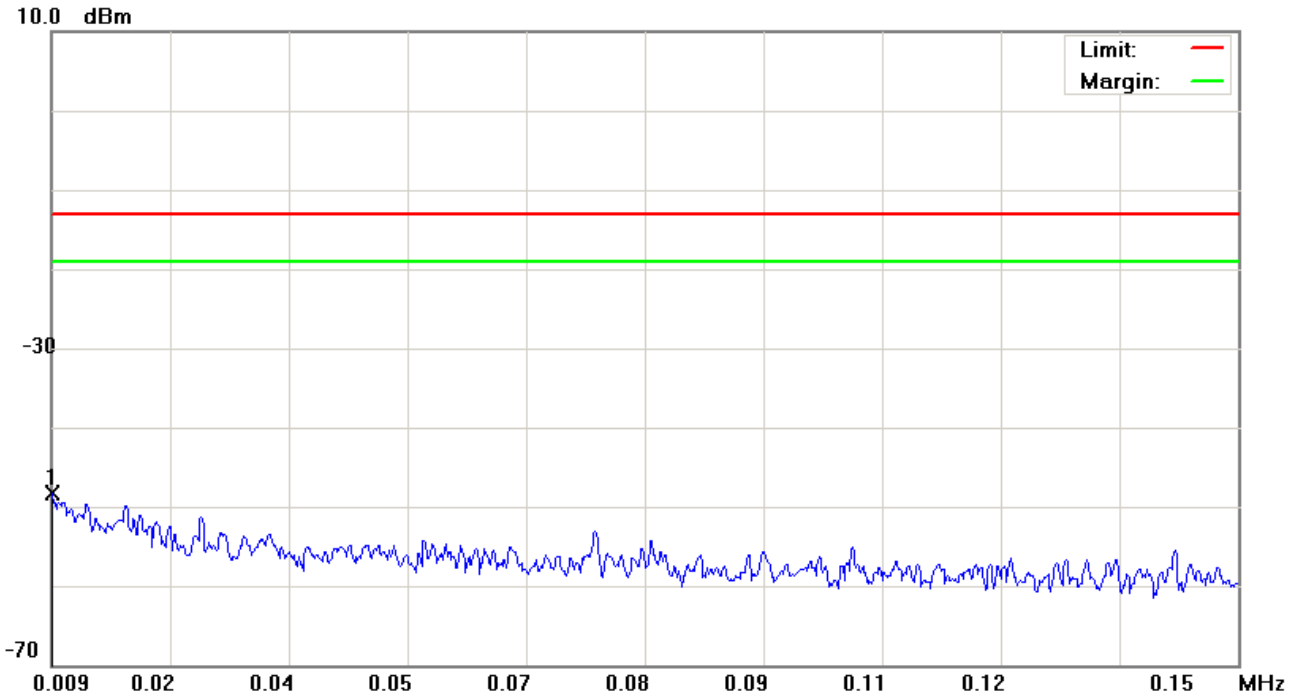
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH4132)

Data :#1

Date: 2013/7/23

Time: 下午 05:02:56



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 1 KHz VBW: 3 KHz
M/N: HE910-NAG V2		
Mode: WCDMA Band V		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.0090	-78.83	30.58	-48.25	-13.00	-35.25	peak		

*:Maximum data x:Over limit !:over margin

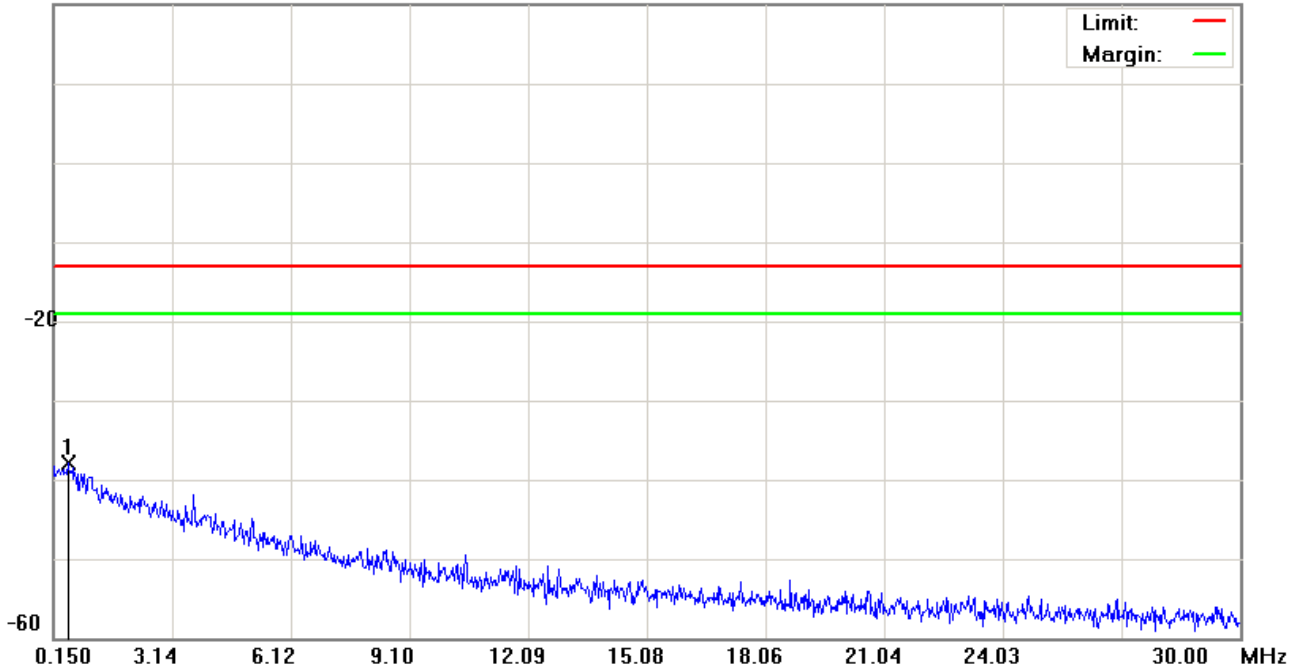
File :HE910-NAG V2(CH4132)

Data :#2

Date: 2013/7/23

Time: 下午 05:03:20

20.0 dBm



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 10 KHz VBW: 30 KHz
M/N: HE910-NAG V2		
Mode: WCDMA Band V		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.5082	-69.95	32.02	-37.93	-13.00	-24.93	peak		

*:Maximum data x:Over limit !:over margin

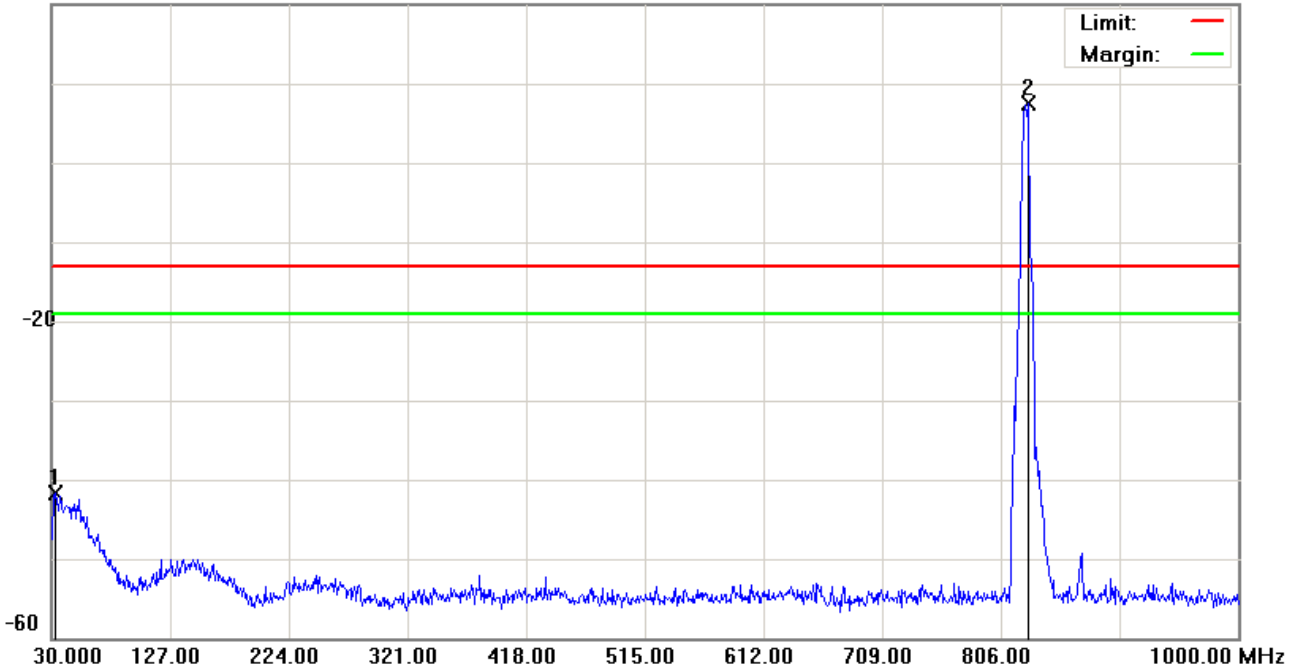
File :HE910-NAG V2(CH4132)

Data :#3

Date: 2013/7/23

Time: 下午 05:03:44

20.0 dBm



Site: site #1

 Polarization: *Conducted po*

Temperature: 26 °C

Limit: FCC Part 22 conducted(9k-12.75G)

Power: DC 3.8V

Humidity: 60 %

EUT: Module

Distance:

RBW: 100 KHz VBW: 300 KHz

M/N: HE910-NAG V2

Mode: WCDMA Band V

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1		32.9100	-58.60	16.88	-41.72	-13.00	-28.72	peak		
2	*	828.3100	3.71	3.88	7.59	-13.00	20.59	peak		Tx

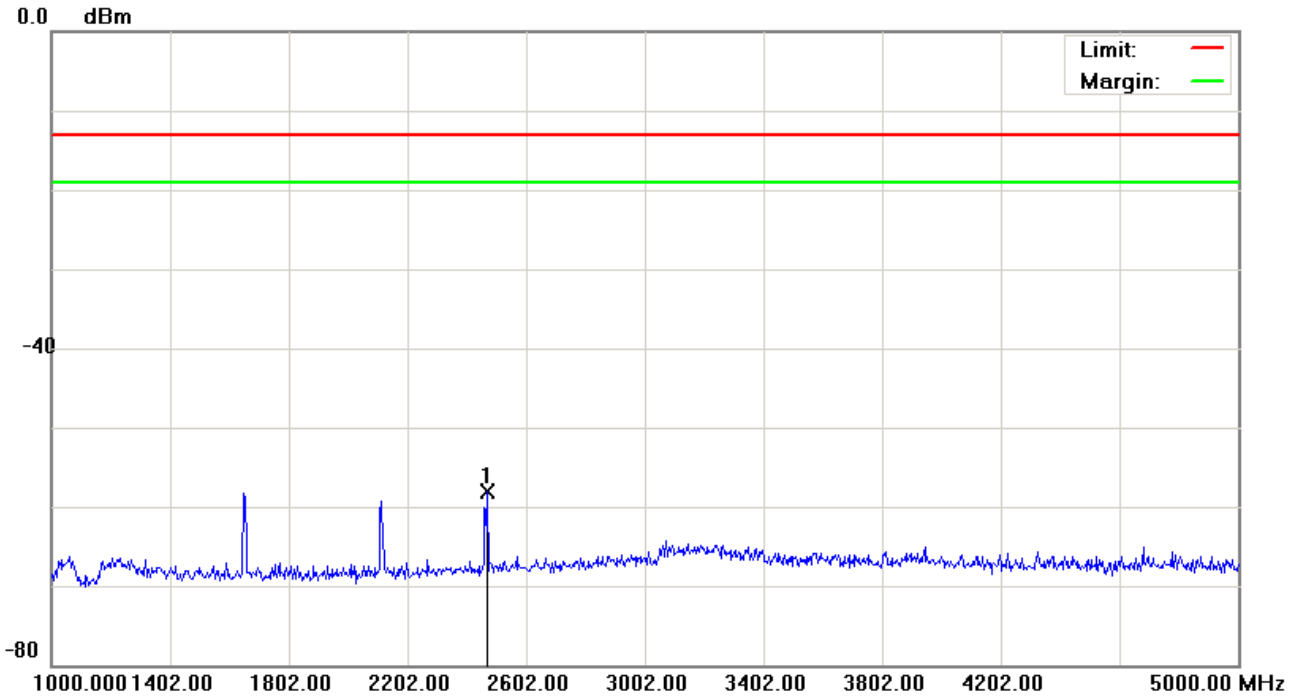
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH4132)

Data :#4

Date: 2013/7/23

Time: 下午 05:16:55



Site: site #1

 Polarization: *Conducted po*

Temperature: 26 °C

Limit: FCC Part 22 conducted(9k-12.75G)

Power: DC 3.8V

Humidity: 60 %

EUT: Module

Distance:

RBW: 1000 KHz VBW: 3000 KHz

M/N: HE910-NAG V2

Mode: WCDMA Band V

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2468.000	-62.60	4.47	-58.13	-13.00	-45.13	peak		

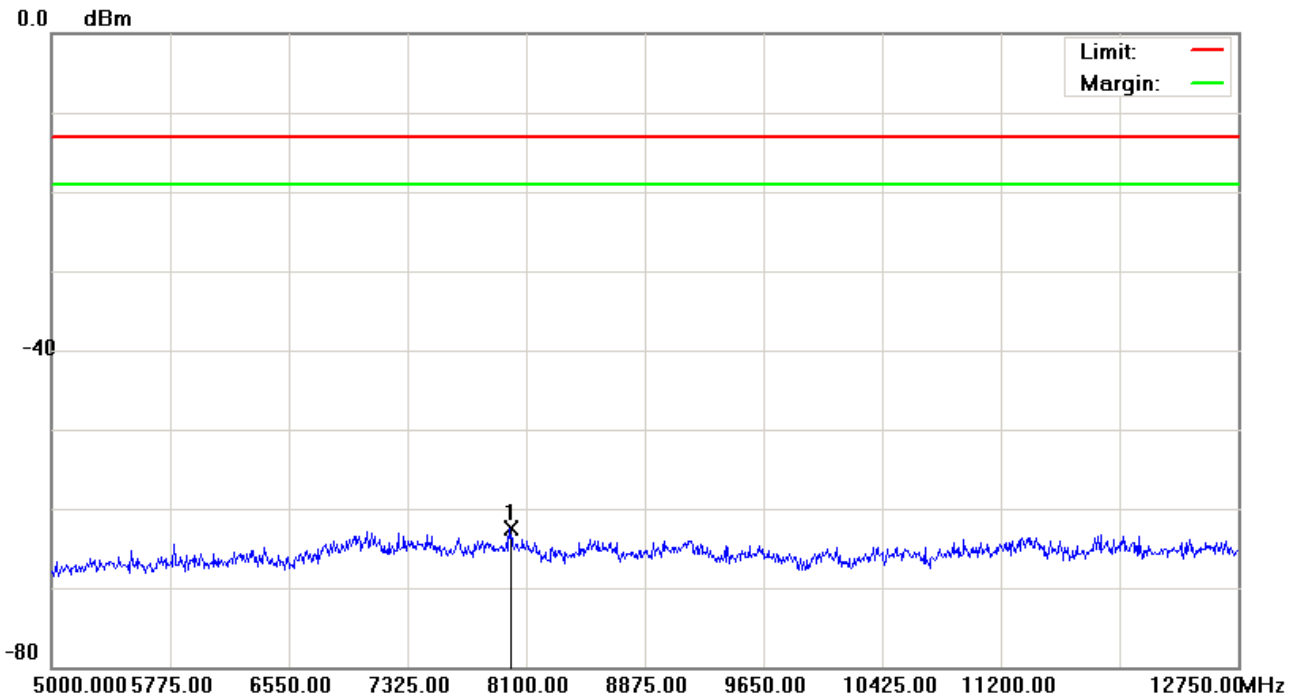
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH4132)

Data :#5

Date: 2013/7/23

Time: 下午 05:17:17



Site: site #1

 Polarization: *Conducted po*

Temperature: 26 °C

Limit: FCC Part 22 conducted(9k-12.75G)

Power: DC 3.8V

Humidity: 60 %

EUT: Module

Distance:

RBW: 1000 KHz VBW: 3000 KHz

M/N: HE910-NAG V2

Mode: WCDMA Band V

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	7995.375	-68.03	5.53	-62.50	-13.00	-49.50	peak		

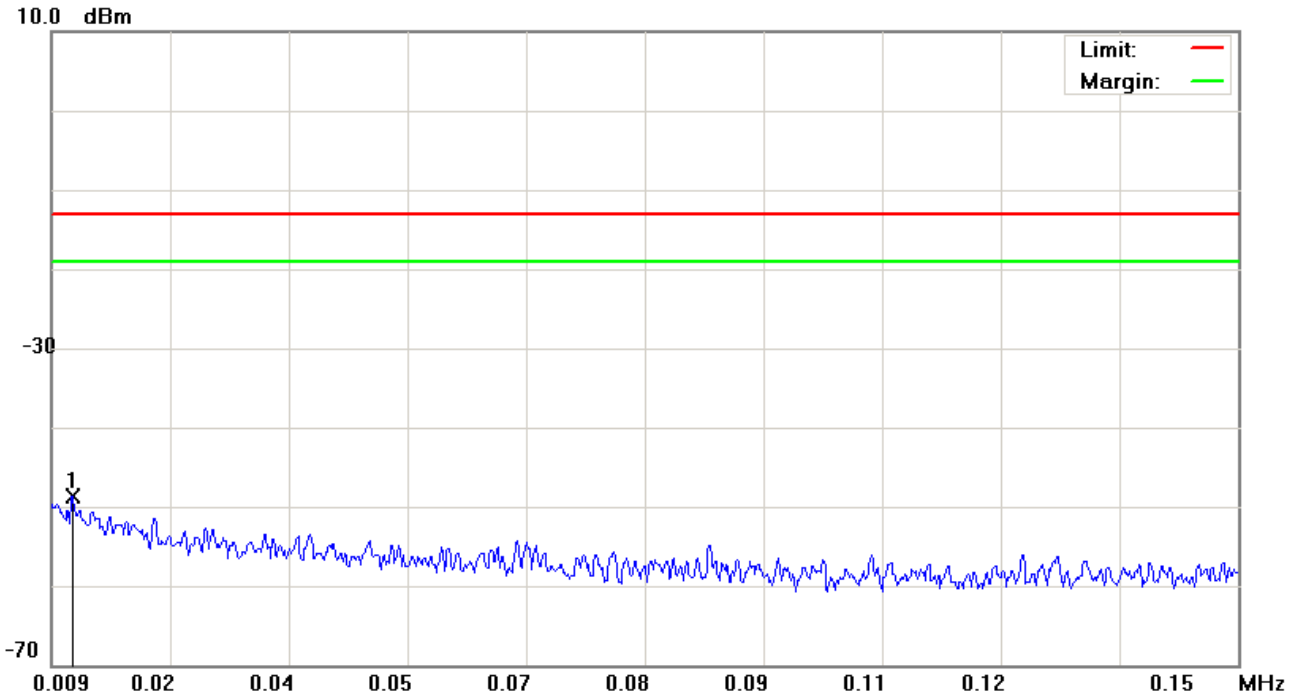
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH4183)

Data :#1

Date: 2013/7/23

Time: 下午 05:05:34



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 1 KHz VBW: 3 KHz
M/N: HE910-NAG V2		
Mode: WCDMA Band V		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.0115	-79.22	30.57	-48.65	-13.00	-35.65	peak		

*:Maximum data x:Over limit !:over margin

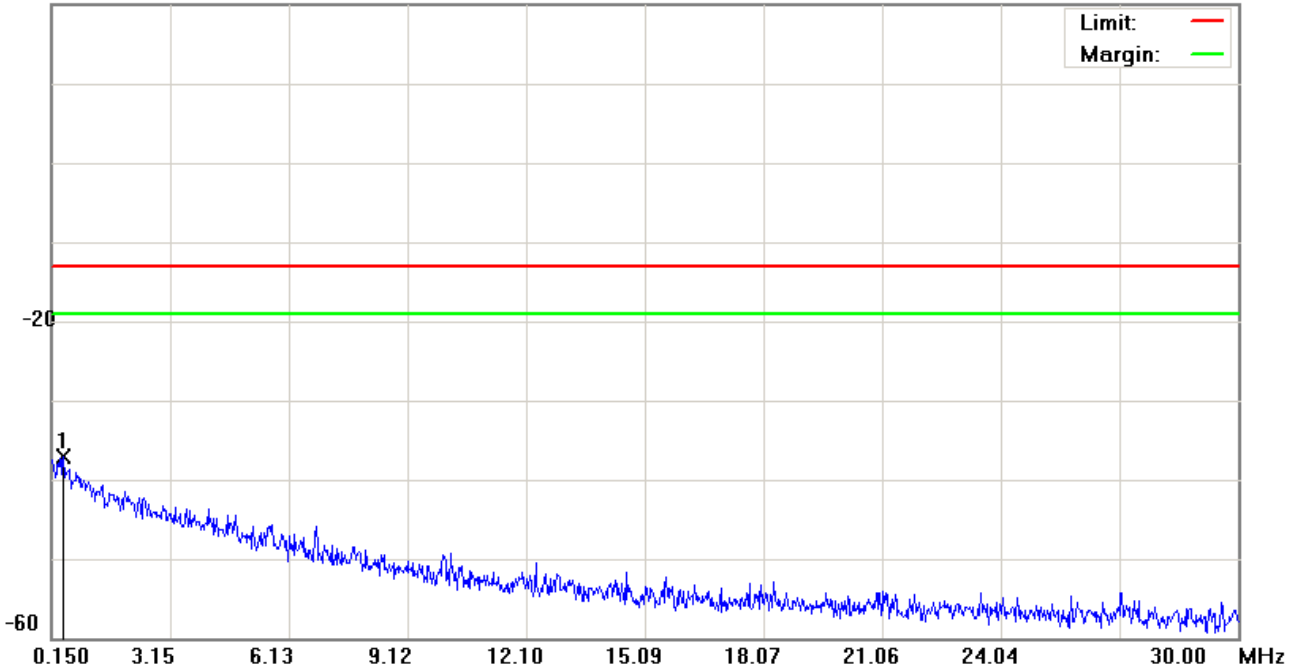
File :HE910-NAG V2(CH4183)

Data :#2

Date: 2013/7/23

Time: 下午 05:05:58

20.0 dBm



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 10 KHz VBW: 30 KHz
M/N: HE910-NAG V2		
Mode: WCDMA Band V		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.4485	-69.03	31.96	-37.07	-13.00	-24.07	peak		

*:Maximum data x:Over limit !:over margin

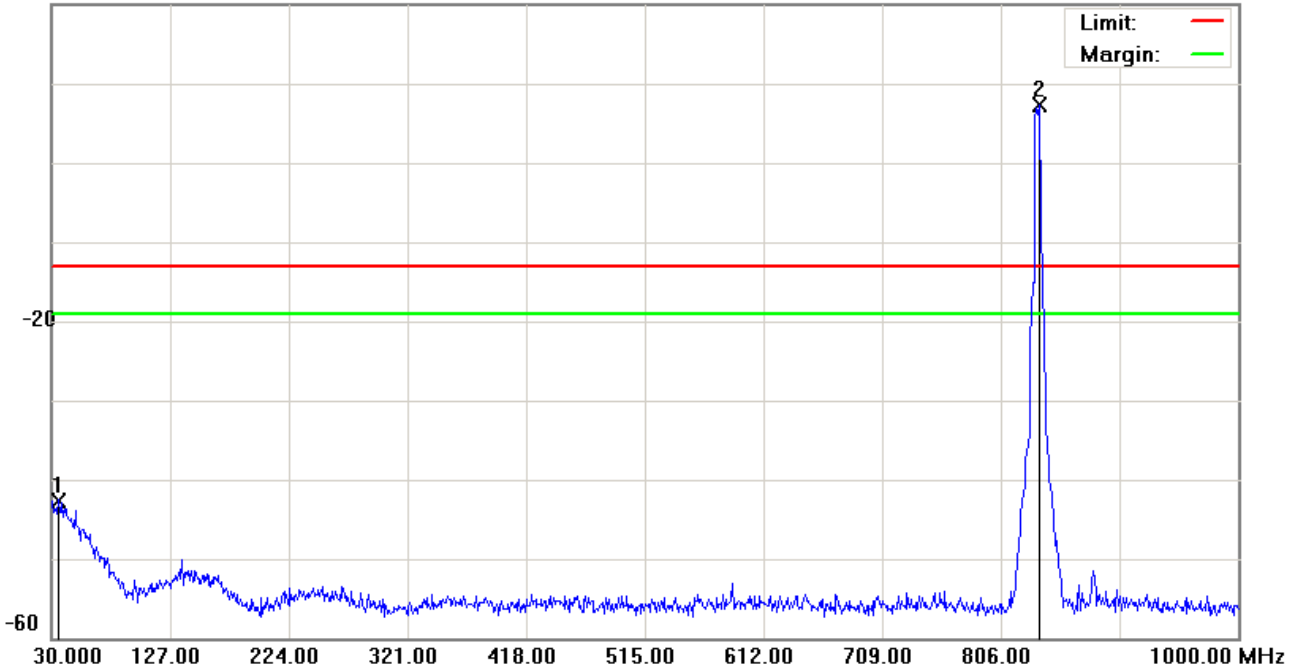
File :HE910-NAG V2(CH4183)

Data :#3

Date: 2013/7/23

Time: 下午 05:06:21

20.0 dBm



Site: site #1

 Polarization: *Conducted po*

Temperature: 26 °C

Limit: FCC Part 22 conducted(9k-12.75G)

Power: DC 3.8V

Humidity: 60 %

EUT: Module

Distance:

RBW: 100 KHz VBW: 300 KHz

M/N: HE910-NAG V2

Mode: WCDMA Band V

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1		35.8200	-59.15	16.55	-42.60	-13.00	-29.60	peak		
2	*	838.0100	3.39	3.97	7.36	-13.00	20.36	peak		Tx

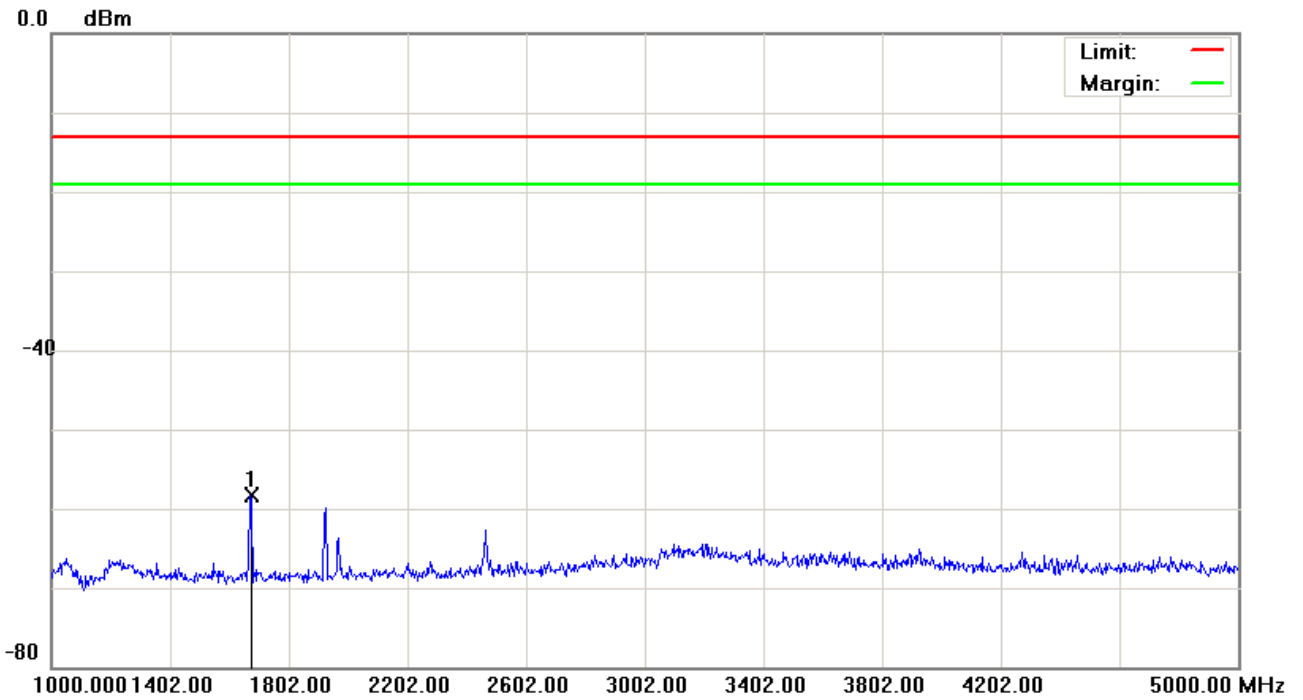
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH4183)

Data :#4

Date: 2013/7/23

Time: 下午 05:18:14



Site: site #1

 Polarization: *Conducted po*

Temperature: 26 °C

Limit: FCC Part 22 conducted(9k-12.75G)

Power: DC 3.8V

Humidity: 60 %

EUT: Module

Distance:

RBW: 1000 KHz VBW: 3000 KHz

M/N: HE910-NAG V2

Mode: WCDMA Band V

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	1670.000	-62.72	4.46	-58.26	-13.00	-45.26	peak		

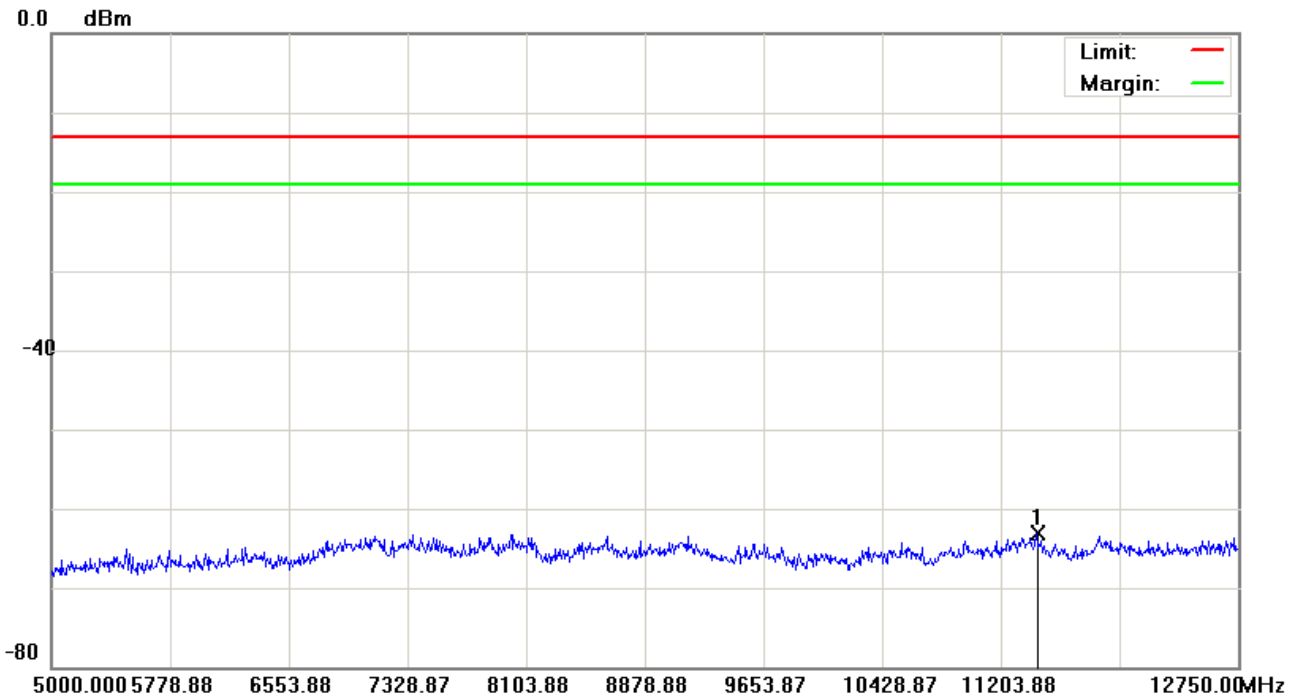
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH4183)

Data :#5

Date: 2013/7/23

Time: 下午 05:18:37



Site: site #1

 Polarization: *Conducted po*

Temperature: 26 °C

Limit: FCC Part 22 conducted(9k-12.75G)

Power: DC 3.8V

Humidity: 60 %

EUT: Module

Distance:

RBW: 1000 KHz VBW: 3000 KHz

M/N: HE910-NAG V2

Mode: WCDMA Band V

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	11436.375	-68.61	5.57	-63.04	-13.00	-50.04	peak		

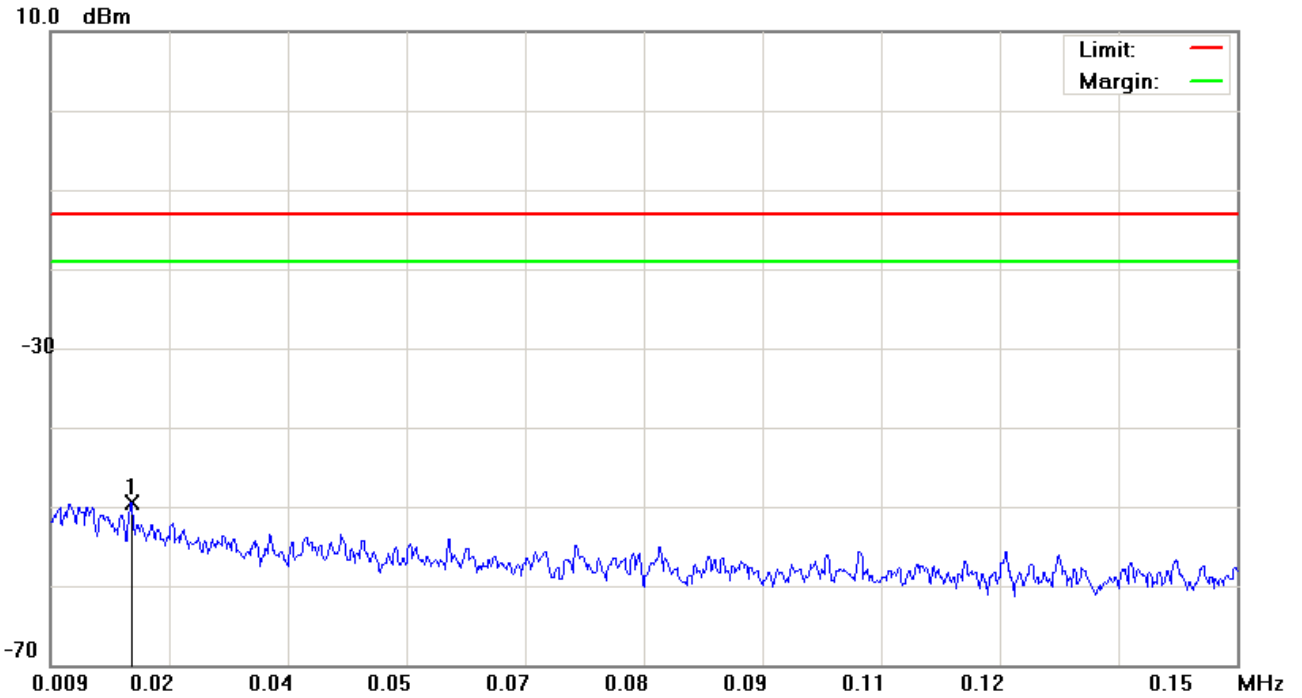
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH4233)

Data :#1

Date: 2013/7/23

Time: 下午 05:11:20



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 1 KHz VBW: 3 KHz
M/N: HE910-NAG V2		
Mode: WCDMA Band V		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.0186	-80.02	30.54	-49.48	-13.00	-36.48			peak

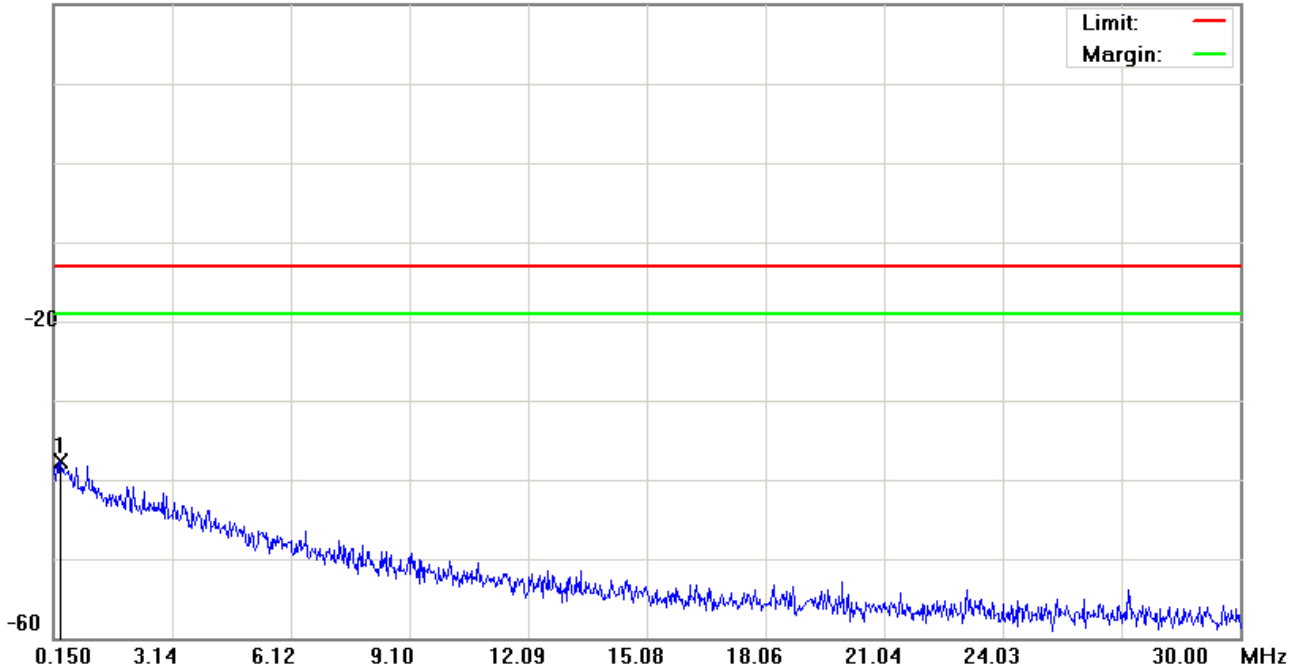
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH4233)

Data :#2

Date: 2013/7/23

Time: 下午 05:11:44

20.0 dBm


Site: site #1	Polarization: <i>Conducted po</i>	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 10 KHz VBW: 30 KHz
M/N: HE910-NAG V2		
Mode: WCDMA Band V		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	0.3141	-69.48	31.82	-37.66	-13.00	-24.66	peak		

*:Maximum data x:Over limit !:over margin

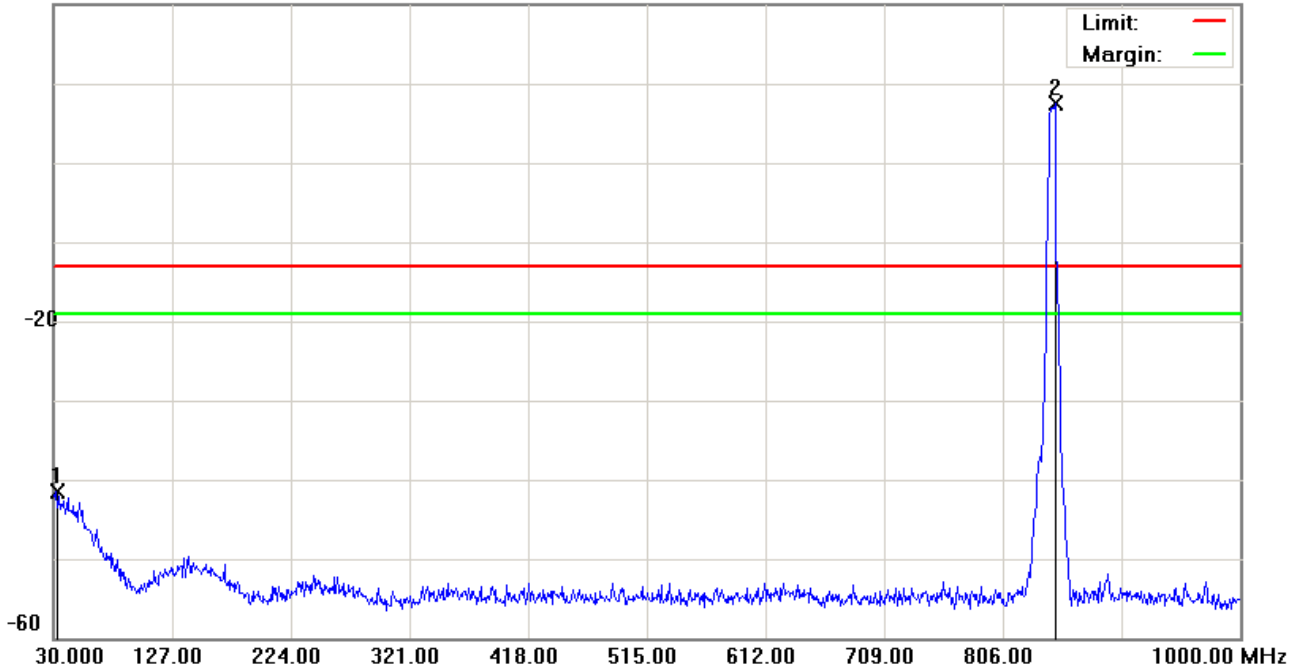
File :HE910-NAG V2(CH4233)

Data :#3

Date: 2013/7/23

Time: 下午 05:12:08

20.0 dBm



Site: site #1

 Polarization: *Conducted po*

Temperature: 26 °C

Limit: FCC Part 22 conducted(9k-12.75G)

Power: DC 3.8V

Humidity: 60 %

EUT: Module

Distance:

RBW: 100 KHz VBW: 300 KHz

M/N: HE910-NAG V2

Mode: WCDMA Band V

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector	Antenna Height cm	Table Degree degree	Comment
1		32.4250	-58.37	16.94	-41.43	-13.00	-28.43	peak			
2	*	848.6800	3.48	3.98	7.46	-13.00	20.46	peak			Tx

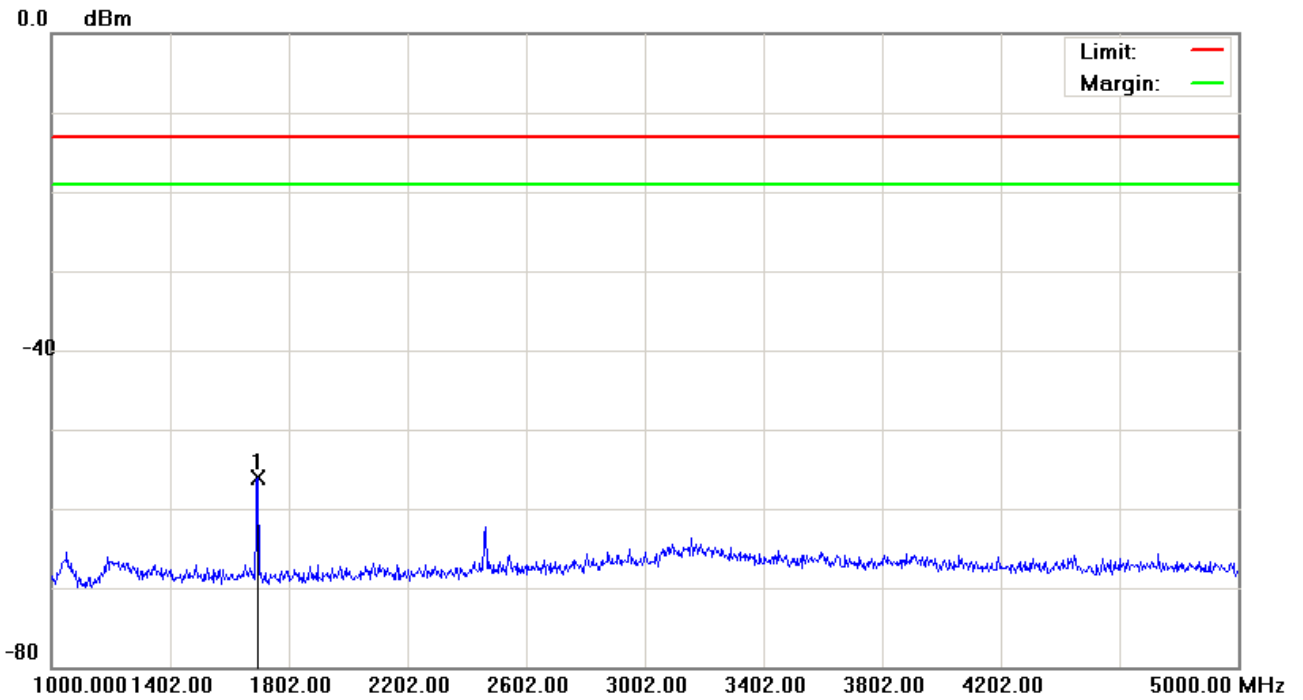
*:Maximum data x:Over limit !:over margin

File :HE910-NAG V2(CH4233)

Data :#4

Date: 2013/7/23

Time: 下午 05:19:31



Site: site #1

 Polarization: *Conducted po*

Temperature: 26 °C

Limit: FCC Part 22 conducted(9k-12.75G)

Power: DC 3.8V

Humidity: 60 %

EUT: Module

Distance:

RBW: 1000 KHz VBW: 3000 KHz

M/N: HE910-NAG V2

Mode: WCDMA Band V

Note:

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	1696.000	-60.65	4.48	-56.17	-13.00	-43.17	peak		

*:Maximum data x:Over limit !:over margin

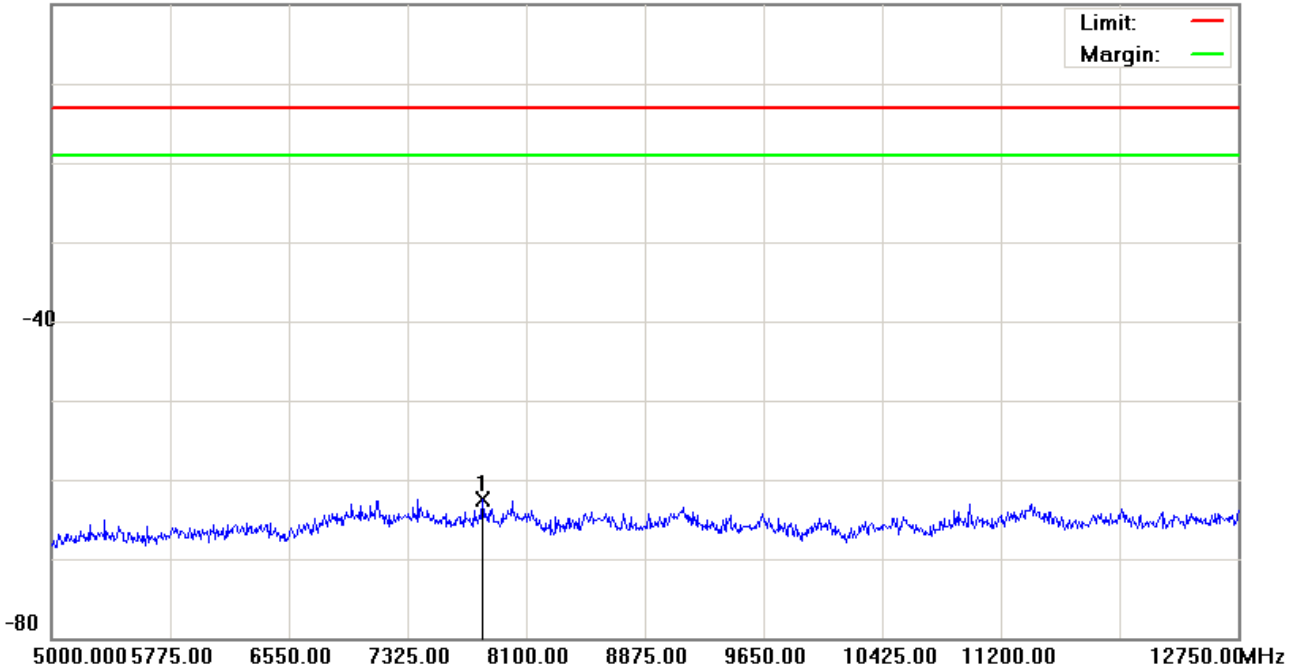
File :HE910-NAG V2(CH4233)

Data :#5

Date: 2013/7/23

Time: 下午 05:19:54

0.0 dBm



Site: site #1	Polarization: Conducted po	Temperature: 26 °C
Limit: FCC Part 22 conducted(9k-12.75G)	Power: DC 3.8V	Humidity: 60 %
EUT: Module	Distance:	RBW: 1000 KHz VBW: 3000 KHz
M/N: HE910-NAG V2		
Mode: WCDMA Band V		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	7813.250	-67.93	5.35	-62.58	-13.00	-49.58	peak		

*:Maximum data x:Over limit !:over margin

Band	CH	Frequency (MHz)	Measurement (dBm)	Antanna Gain (dBi)	EIRP (dBm)	ERP (dBm)	Limit (dBm)	Over (dB)
GSM850	128	0.0130	-48.92	7.43	-41.49	-43.64	-13.00	-30.64
		0.1798	-37.15	7.43	-29.72	-31.87	-13.00	-18.87
		33.8800	-36.35	7.43	-28.92	-31.07	-13.00	-18.07
		2472.0000	-53.58	7.43	-46.15		-13.00	-33.15
		8119.3750	-62.70	7.43	-55.27		-13.00	-42.27
	190	0.0120	-48.58	7.43	-41.15	-43.30	-13.00	-30.30
		0.2843	-37.24	7.43	-29.81	-31.96	-13.00	-18.96
		30.4850	-37.47	7.43	-30.04	-32.19	-13.00	-19.19
		2510.0000	-47.66	7.43	-40.23		-13.00	-27.23
		8072.8750	-63.18	7.43	-55.75		-13.00	-42.75
	251	0.0100	-49.21	7.43	-41.78	-43.93	-13.00	-30.93
		0.1500	-36.46	7.43	-29.03	-31.18	-13.00	-18.18
		32.9100	-37.77	7.43	-30.34	-32.49	-13.00	-19.49
		2546.0000	-45.85	7.43	-38.42		-13.00	-25.42
		5093.0000	-58.34	7.43	-50.91		-13.00	-37.91

Band	CH	Frequency (MHz)	Measurement (dBm)	Antanna Gain (dBi)	EIRP (dBm)	ERP (dBm)	Limit (dBm)	Over (dB)
GSM1900	512	0.0106	-57.20	3.00	-54.20	-56.35	-13.00	-43.35
		0.3291	-56.18	3.00	-53.18	-55.33	-13.00	-42.33
		416.5450	-47.48	3.00	-44.48	-46.63	-13.00	-33.63
		2777.5000	-44.67	3.00	-41.67		-13.00	-28.67
		2999.0000	-51.07	3.00	-48.07		-13.00	-35.07
		18060.6250	-49.68	3.00	-46.68		-13.00	-33.68
	661	0.0106	-57.06	3.00	-54.06	-56.21	-13.00	-43.21
		0.2395	-55.70	3.00	-52.70	-54.85	-13.00	-41.85
		272.9850	-48.22	3.00	-45.22	-47.37	-13.00	-34.37
		2732.5000	-44.76	3.00	-41.76		-13.00	-28.76
		7526.2500	-49.42	3.00	-46.42		-13.00	-33.42
		19039.3750	-49.81	3.00	-46.81		-13.00	-33.81
	810	0.0104	-56.89	3.00	-53.89	-56.04	-13.00	-43.04
		0.2097	-55.67	3.00	-52.67	-54.82	-13.00	-41.82
		650.8000	-48.20	3.00	-45.20	-47.35	-13.00	-34.35
		2777.5000	-44.55	3.00	-41.55		-13.00	-28.55
		7650.6250	-49.94	3.00	-46.94		-13.00	-33.94
		17825.0000	-50.00	3.00	-47.00		-13.00	-34.00

Band	CH	Frequency (MHz)	Measurement (dBm)	Antanna Gain (dBi)	EIRP (dBm)	ERP (dBm)	Limit (dBm)	Over (dB)
WCDMA Band II	9262	0.0092	-57.28	3.00	-54.28	-56.43	-13.00	-43.43
		0.2843	-56.68	3.00	-53.68	-55.83	-13.00	-42.83
		639.1600	-48.43	3.00	-45.43	-47.58	-13.00	-34.58
		2799.1000	-44.34	3.00	-41.34	/	-13.00	-28.34
		3720.3750	-47.57	3.00	-44.57	/	-13.00	-31.57
		18731.2500	-50.06	3.00	-47.06	/	-13.00	-34.06
	9400	0.0111	-56.67	3.00	-53.67	-55.82	-13.00	-42.82
		0.3141	-55.53	3.00	-52.53	-54.68	-13.00	-41.68
		412.6650	-47.25	3.00	-44.25	-46.40	-13.00	-33.40
		2782.9000	-44.66	3.00	-41.66	/	-13.00	-28.66
		3148.2500	-51.83	3.00	-48.83	/	-13.00	-35.83
		15323.7500	-49.98	3.00	-46.98	/	-13.00	-33.98
	9538	0.0134	-58.76	3.00	-55.76	-57.91	-13.00	-44.91
		0.4037	-55.78	3.00	-52.78	-54.93	-13.00	-41.93
		582.9000	-48.07	3.00	-45.07	-47.22	-13.00	-34.22
		2777.5000	-44.45	3.00	-41.45	/	-13.00	-28.45
		3819.8750	-50.81	3.00	-47.81	/	-13.00	-34.81
		16846.2500	-50.26	3.00	-47.26	/	-13.00	-34.26

Band	CH	Frequency (MHz)	Measurement (dBm)	Antanna Gain (dBi)	EIRP (dBm)	ERP (dBm)	Limit (dBm)	Over (dB)
WCDMA Band V	4132	0.0090	-48.25	8.45	-39.80	-41.95	-13.00	-28.95
		0.5082	-37.93	8.45	-29.48	-31.63	-13.00	-18.63
		32.9100	-41.72	8.45	-33.27	-35.42	-13.00	-22.42
		2468.0000	-58.13	8.45	-49.68	/	-13.00	-36.68
		7995.3750	-62.50	8.45	-54.05	/	-13.00	-41.05
	4183	0.0115	-48.65	8.45	-40.20	-42.35	-13.00	-29.35
		0.4485	-37.07	8.45	-28.62	-30.77	-13.00	-17.77
		35.8200	-42.60	8.45	-34.15	-36.30	-13.00	-23.30
		1670.0000	-58.26	8.45	-49.81	/	-13.00	-36.81
		11436.3750	-63.04	8.45	-54.59	/	-13.00	-41.59
	4233	0.0186	-49.48	8.45	-41.03	-43.18	-13.00	-30.18
		0.3141	-37.66	8.45	-29.21	-31.36	-13.00	-18.36
		32.4250	-41.43	8.45	-32.98	-35.13	-13.00	-22.13
		1696.0000	-56.17	8.45	-47.72	/	-13.00	-34.72
		7813.2500	-62.58	8.45	-54.13	/	-13.00	-41.13

7 Field Strength of Spurious Radiation Test

7.1. Limit

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10\log(P)$ dB.

It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10th harmonic.

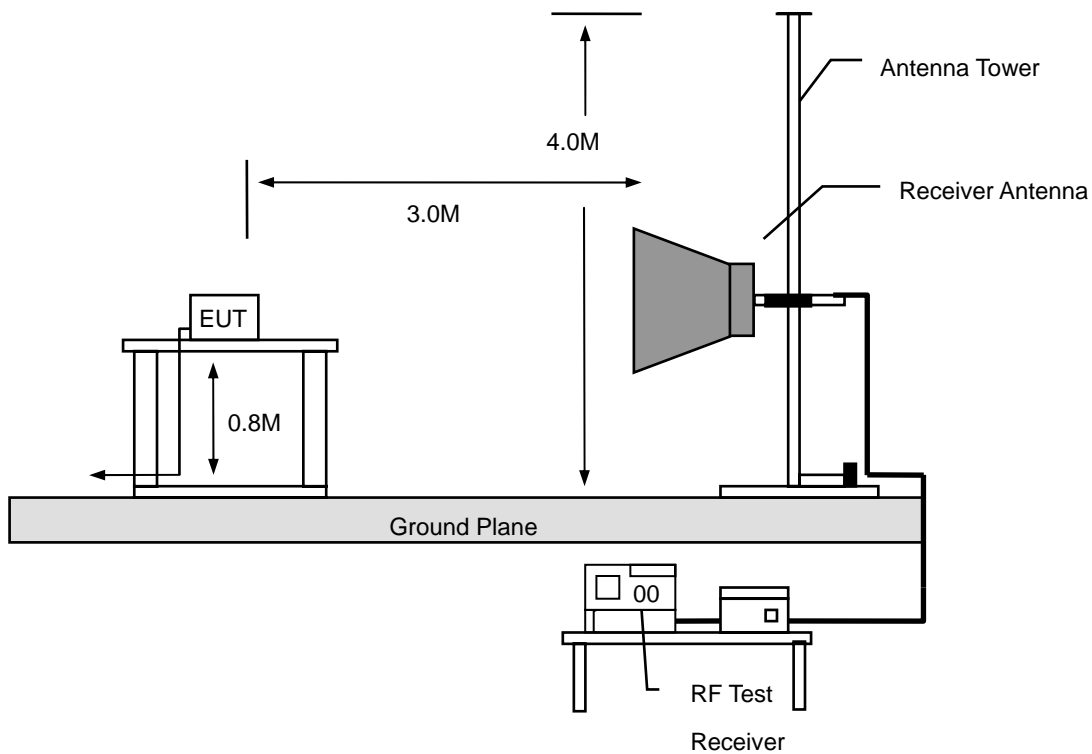
7.2. Test Instruments

3 Meter Chamber					
Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
RF Pre-selector	Agilent	N9039A	MY46520256	01/21/2013	(2)
Spectrum Analyzer	Agilent	E4446A	MY46180578	01/21/2013	(1)
Pre Amplifier	Agilent	8449B	3008A02237	02/21/2013	(1)
Pre Amplifier	Agilent	8447D	2944A10961	02/21/2013	(1)
Broadband Antenna (30MHz~1GHz)	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	9163-270	07/01/2013	(1)
Horn Antenna (1~18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	9120D-550	06/10/2013	(1)
Horn Antenna (18~40GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9170	9170-320	06/13/2013	(1)
Test Site	ATL	TE01	888001	08/28/2012	(1)

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

Note: N.C.R. = No Calibration Request.

7.3. Setup



7.4. Test Procedure

Final radiation measurements were made on a three-meter, Semi Anechoic Chamber. The EUT system was placed on a nonconductive turntable which is 0.8 meters height, top surface 1.0 x 1.5 meter. The spectrum was examined from 250 MHz to 2.5 GHz in order to cover the whole spectrum below 10th harmonic which could generate from the EUT. During the test, EUT was set to transmit continuously & Measurements spectrum range from 30 MHz to 26.5 GHz is investigated.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, and then the video bandwidth is set to 1 MHz for peak measurements and 10 Hz for average measurements.

A nonconductive material surrounded the EUT to supporting the EUT for standing on three orthogonal planes. At each condition, the EUT was rotated 360 degrees, and the antenna was raised and lowered from one to four meters to find the maximum emission levels. Measurements were taken using both horizontal and vertical antenna polarization.

SCHWARZBECK MESS-ELEKTRONIK Biconilog Antenna (mode VULB9163) at 3 Meter and the SCHWARZBECK Double Ridged Guide Antenna (model BBHA9120D&9170) was used in frequencies 1 – 26.5 GHz at a distance of 1 meter. All test results were extrapolated to equivalent signal at 3 meters utilizing an inverse linear distance extrapolation Factor (20dB/decade).

For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

Appropriate preamplifiers were used for improving sensitivity and precautions were taken to avoid overloading or desensitizing the spectrum analyzer. No post – detector video filters were used in the test.

The spectrum analyzer's 6 dB bandwidth was set to 1 MHz, and the analyzer was operated in the peak detection mode, for frequencies both below and up 1 GHz. The average levels were obtained by subtracting the duty cycle correction factor from the peak readings.

The following procedures were used to convert the emission levels measured in decibels referenced to 1 microvolt (dBuV) into field intensity in micro volts pre meter (uV/m).

The actual field intensity in decibels referenced to 1 microvolt in to field intensity in micro volts per meter (dBuV/m).

The actual field intensity in decibels referenced to 1 microvolt per meter (dBuV/m) is determined by algebraically adding the measured reading in dBuV, the antenna factor (dB), and cable loss (dB) and Subtracting the gain of preamplifier (dB) is auto calculate in spectrum analyzer.

(1) $\text{Amplitude (dBuV/m)} = \text{FI (dBuV)} + \text{AF (dBuV)} + \text{CL (dBuV)} - \text{Gain (dB)}$

FI= Reading of the field intensity.

AF= Antenna factor.

CL= Cable loss.

P.S Amplitude is auto calculate in spectrum analyzer.

(2) $\text{Actual Amplitude (dBuV/m)} = \text{Amplitude (dBuV)} - \text{Dis(dB)}$

The FCC specified emission limits were calculated according the EUT operating frequency and by following linear interpolation equations:

(a) For fundamental frequency : Transmitter Output < +30dBm

(b) For spurious frequency : Spurious emission limits = fundamental emission limit /10

7.5. Uncertainty

The measurement uncertainty is defined as for Field Strength of Spurious Radiation measurement is ± 3.072 dB.

7.6. Test Result

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.8V
Model Number:	HE910-NAG V2	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	1	Date:	12/13/2013
Frequency:	824.2 MHz	Test By:	Fly Lu

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
156.0000	-73.93	0.18	-73.75	-13.00	-60.75	peak	H
237.5000	-78.91	-1.80	-80.71	-13.00	-67.71	peak	H
375.0000	-77.08	0.59	-76.49	-13.00	-63.49	peak	H
514.0000	-82.73	7.46	-75.27	-13.00	-62.27	peak	H
660.0000	-83.68	7.16	-76.52	-13.00	-63.52	peak	H
769.5000	-82.70	9.61	-73.09	-13.00	-60.09	peak	H
2812.000	-70.65	17.28	-53.37	-13.00	-40.37	peak	H
4768.000	-72.77	22.52	-50.25	-13.00	-37.25	peak	H
6988.000	-72.53	32.60	-39.93	-13.00	-26.93	peak	H
149.0000	-74.66	7.98	-66.68	-13.00	-53.68	peak	V
211.0000	-82.04	8.58	-73.46	-13.00	-60.46	peak	V
288.0000	-80.74	1.63	-79.11	-13.00	-66.11	peak	V
378.5000	-76.27	1.68	-74.59	-13.00	-61.59	peak	V
536.0000	-82.35	4.03	-78.32	-13.00	-65.32	peak	V
700.0000	-82.00	10.19	-71.81	-13.00	-58.81	peak	V
2836.000	-70.71	19.05	-51.66	-13.00	-38.66	peak	V
4756.000	-71.47	26.66	-44.81	-13.00	-31.81	peak	V
6964.000	-71.42	30.47	-40.95	-13.00	-27.95	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.8V
Model Number:	HE910-NAG V2	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	1	Date:	12/13/2013
Frequency:	836.6 MHz	Test By:	Fly Lu

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
156.0000	-72.32	0.18	-72.14	-13.00	-59.14	peak	H
229.0000	-80.16	-0.88	-81.04	-13.00	-68.04	peak	H
359.5000	-75.92	0.03	-75.89	-13.00	-62.89	peak	H
459.0000	-79.39	4.57	-74.82	-13.00	-61.82	peak	H
598.5000	-80.28	7.91	-72.37	-13.00	-59.37	peak	H
768.5000	-82.01	9.56	-72.45	-13.00	-59.45	peak	H
2896.000	-70.71	17.47	-53.24	-13.00	-40.24	peak	H
4732.000	-73.25	22.32	-50.93	-13.00	-37.93	peak	H
6772.000	-73.53	31.66	-41.87	-13.00	-28.87	peak	H
150.0000	-74.73	7.87	-66.86	-13.00	-53.86	peak	V
208.0000	-81.93	9.19	-72.74	-13.00	-59.74	peak	V
382.0000	-82.60	1.60	-81.00	-13.00	-68.00	peak	V
534.0000	-82.03	3.92	-78.11	-13.00	-65.11	peak	V
660.5000	-82.03	9.40	-72.63	-13.00	-59.63	peak	V
784.5000	-82.80	11.41	-71.39	-13.00	-58.39	peak	V
3508.000	-69.54	23.11	-46.43	-13.00	-33.43	peak	V
5920.000	-73.78	27.78	-46.00	-13.00	-33.00	peak	V
7552.000	-72.41	31.01	-41.40	-13.00	-28.40	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.8V
Model Number:	HE910-NAG V2	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	1	Date:	12/13/2013
Frequency:	848.8 MHz	Test By:	Fly Lu

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
156.0000	-72.19	0.18	-72.01	-13.00	-59.01	peak	H
240.0000	-76.36	-2.09	-78.45	-13.00	-65.45	peak	H
369.0000	-73.69	0.38	-73.31	-13.00	-60.31	peak	H
524.0000	-80.47	7.78	-72.69	-13.00	-59.69	peak	H
630.0000	-80.40	7.27	-73.13	-13.00	-60.13	peak	H
741.5000	-80.83	8.27	-72.56	-13.00	-59.56	peak	H
3028.000	-69.84	17.81	-52.03	-13.00	-39.03	peak	H
4804.000	-71.90	22.71	-49.19	-13.00	-36.19	peak	H
6844.000	-72.44	31.98	-40.46	-13.00	-27.46	peak	H
148.5000	-75.61	8.03	-67.58	-13.00	-54.58	peak	V
214.5000	-81.80	7.30	-74.50	-13.00	-61.50	peak	V
373.5000	-82.49	1.88	-80.61	-13.00	-67.61	peak	V
535.5000	-81.84	4.00	-77.84	-13.00	-64.84	peak	V
661.0000	-84.31	9.39	-74.92	-13.00	-61.92	peak	V
758.0000	-83.03	10.92	-72.11	-13.00	-59.11	peak	V
2896.000	-70.46	19.48	-50.98	-13.00	-37.98	peak	V
4780.000	-71.90	26.70	-45.20	-13.00	-32.20	peak	V
6988.000	-72.43	30.54	-41.89	-13.00	-28.89	peak	V

Standard:	FCC Part 24	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.8V
Model Number:	HE910-NAG V2	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	2	Date:	12/13/2013
Frequency:	1850.2 MHz	Test By:	Fly Lu

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
157.5000	-73.97	0.67	-73.30	-13.00	-60.30	peak	H
234.0000	-72.93	-1.38	-74.31	-13.00	-61.31	peak	H
430.0000	-75.74	3.67	-72.07	-13.00	-59.07	peak	H
560.0000	-81.08	7.81	-73.27	-13.00	-60.27	peak	H
680.0000	-80.63	7.02	-73.61	-13.00	-60.61	peak	H
861.5000	-82.33	13.04	-69.29	-13.00	-56.29	peak	H
2812.000	-69.61	17.28	-52.33	-13.00	-39.33	peak	H
4720.000	-73.28	22.27	-51.01	-13.00	-38.01	peak	H
6448.000	-73.13	30.22	-42.91	-13.00	-29.91	peak	H
150.0000	-74.88	7.87	-67.01	-13.00	-54.01	peak	V
289.5000	-82.23	1.77	-80.46	-13.00	-67.46	peak	V
380.5000	-82.65	1.63	-81.02	-13.00	-68.02	peak	V
553.0000	-81.59	4.33	-77.26	-13.00	-64.26	peak	V
669.0000	-81.83	9.46	-72.37	-13.00	-59.37	peak	V
858.5000	-82.85	11.59	-71.26	-13.00	-58.26	peak	V
3028.000	-70.67	20.39	-50.28	-13.00	-37.28	peak	V
4468.000	-72.10	26.09	-46.01	-13.00	-33.01	peak	V
6892.000	-73.39	30.27	-43.12	-13.00	-30.12	peak	V

Standard:	FCC Part 24	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.8V
Model Number:	HE910-NAG V2	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	2	Date:	12/13/2013
Frequency:	1880.0 MHz	Test By:	Fly Lu

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
156.5000	-74.48	0.33	-74.15	-13.00	-61.15	peak	H
234.0000	-73.39	-1.38	-74.77	-13.00	-61.77	peak	H
414.0000	-80.99	3.16	-77.83	-13.00	-64.83	peak	H
555.5000	-81.48	7.91	-73.57	-13.00	-60.57	peak	H
663.0000	-81.89	7.13	-74.76	-13.00	-61.76	peak	H
870.5000	-81.77	13.13	-68.64	-13.00	-55.64	peak	H
2932.000	-70.85	17.57	-53.28	-13.00	-40.28	peak	H
4732.000	-72.89	22.32	-50.57	-13.00	-37.57	peak	H
6748.000	-74.83	31.55	-43.28	-13.00	-30.28	peak	H
149.5000	-74.05	7.93	-66.12	-13.00	-53.12	peak	V
215.5000	-84.02	6.94	-77.08	-13.00	-64.08	peak	V
353.5000	-83.15	2.02	-81.13	-13.00	-68.13	peak	V
474.5000	-80.85	2.20	-78.65	-13.00	-65.65	peak	V
625.5000	-82.56	8.81	-73.75	-13.00	-60.75	peak	V
837.0000	-82.03	11.34	-70.69	-13.00	-57.69	peak	V
3040.000	-69.09	20.46	-48.63	-13.00	-35.63	peak	V
4756.000	-72.93	26.66	-46.27	-13.00	-33.27	peak	V
6832.000	-73.37	30.13	-43.24	-13.00	-30.24	peak	V

Standard:	FCC Part 24	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.8V
Model Number:	HE910-NAG V2	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	2	Date:	12/13/2013
Frequency:	1909.8 MHz	Test By:	Fly Lu

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
156.0000	-74.51	0.18	-74.33	-13.00	-61.33	peak	H
234.0000	-73.15	-1.38	-74.53	-13.00	-61.53	peak	H
430.0000	-74.24	3.67	-70.57	-13.00	-57.57	peak	H
553.0000	-80.14	7.97	-72.17	-13.00	-59.17	peak	H
755.0000	-80.76	8.87	-71.89	-13.00	-58.89	peak	H
882.0000	-82.25	13.29	-68.96	-13.00	-55.96	peak	H
2944.000	-70.37	17.60	-52.77	-13.00	-39.77	peak	H
4732.000	-73.49	22.32	-51.17	-13.00	-38.17	peak	H
6868.000	-73.47	32.08	-41.39	-13.00	-28.39	peak	H
156.0000	-76.55	10.76	-65.79	-13.00	-52.79	peak	V
220.0000	-79.87	5.29	-74.58	-13.00	-61.58	peak	V
360.0000	-79.18	2.43	-76.75	-13.00	-63.75	peak	V
509.0000	-81.13	2.91	-78.22	-13.00	-65.22	peak	V
619.0000	-81.43	8.83	-72.60	-13.00	-59.60	peak	V
832.5000	-82.52	11.32	-71.20	-13.00	-58.20	peak	V
3028.000	-70.73	20.39	-50.34	-13.00	-37.34	peak	V
4732.000	-72.68	26.62	-46.06	-13.00	-33.06	peak	V
6832.000	-71.64	30.13	-41.51	-13.00	-28.51	peak	V

Standard:	FCC Part 24	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.8V
Model Number:	HE910-NAG V2	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	5	Date:	12/13/2013
Frequency:	1852.4 MHz	Test By:	Fly Lu

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
158.0000	-73.87	0.82	-73.05	-13.00	-60.05	peak	H
230.0000	-82.77	-0.92	-83.69	-13.00	-70.69	peak	H
419.0000	-83.15	3.39	-79.76	-13.00	-66.76	peak	H
563.0000	-82.55	7.77	-74.78	-13.00	-61.78	peak	H
725.5000	-82.51	7.68	-74.83	-13.00	-61.83	peak	H
866.5000	-82.58	13.08	-69.50	-13.00	-56.50	peak	H
3040.000	-70.01	17.85	-52.16	-13.00	-39.16	peak	H
4816.000	-70.00	22.78	-47.22	-13.00	-34.22	peak	H
6796.000	-73.55	31.76	-41.79	-13.00	-28.79	peak	H
149.5000	-75.55	7.93	-67.62	-13.00	-54.62	peak	V
293.0000	-82.83	2.07	-80.76	-13.00	-67.76	peak	V
376.5000	-82.30	1.78	-80.52	-13.00	-67.52	peak	V
522.0000	-83.36	3.23	-80.13	-13.00	-67.13	peak	V
668.5000	-83.20	9.46	-73.74	-13.00	-60.74	peak	V
831.5000	-84.19	11.32	-72.87	-13.00	-59.87	peak	V
3004.000	-70.40	20.25	-50.15	-13.00	-37.15	peak	V
4768.000	-73.11	26.69	-46.42	-13.00	-33.42	peak	V
6916.000	-74.39	30.33	-44.06	-13.00	-31.06	peak	V

Standard:	FCC Part 24	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.8V
Model Number:	HE910-NAG V2	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	5	Date:	12/13/2013
Frequency:	1880.0 MHz	Test By:	Fly Lu

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
157.5000	-73.15	0.67	-72.48	-13.00	-59.48	peak	H
241.5000	-80.21	-2.40	-82.61	-13.00	-69.61	peak	H
415.5000	-80.32	3.23	-77.09	-13.00	-64.09	peak	H
510.5000	-81.05	7.32	-73.73	-13.00	-60.73	peak	H
665.5000	-79.58	7.12	-72.46	-13.00	-59.46	peak	H
815.5000	-81.11	11.76	-69.35	-13.00	-56.35	peak	H
2932.000	-69.23	17.57	-51.66	-13.00	-38.66	peak	H
4684.000	-72.51	22.06	-50.45	-13.00	-37.45	peak	H
6784.000	-73.56	31.71	-41.85	-13.00	-28.85	peak	H
151.5000	-75.88	8.59	-67.29	-13.00	-54.29	peak	V
213.5000	-83.74	7.67	-76.07	-13.00	-63.07	peak	V
377.0000	-83.82	1.75	-82.07	-13.00	-69.07	peak	V
513.5000	-82.00	2.99	-79.01	-13.00	-66.01	peak	V
684.5000	-82.37	9.70	-72.67	-13.00	-59.67	peak	V
854.0000	-82.05	11.53	-70.52	-13.00	-57.52	peak	V
3076.000	-70.04	20.66	-49.38	-13.00	-36.38	peak	V
4816.000	-71.94	26.78	-45.16	-13.00	-32.16	peak	V
6928.000	-73.75	30.37	-43.38	-13.00	-30.38	peak	V

Standard:	FCC Part 24	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.8V
Model Number:	HE910-NAG V2	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	5	Date:	12/13/2013
Frequency:	1907.6 MHz	Test By:	Fly Lu

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
154.0000	-72.38	-0.47	-72.85	-13.00	-59.85	peak	H
234.0000	-72.93	-1.38	-74.31	-13.00	-61.31	peak	H
458.0000	-78.06	4.55	-73.51	-13.00	-60.51	peak	H
605.0000	-81.21	7.88	-73.33	-13.00	-60.33	peak	H
791.5000	-81.56	10.78	-70.78	-13.00	-57.78	peak	H
950.0000	-82.13	14.84	-67.29	-13.00	-54.29	peak	H
2992.000	-71.01	17.72	-53.29	-13.00	-40.29	peak	H
4708.000	-73.28	22.19	-51.09	-13.00	-38.09	peak	H
6700.000	-73.56	31.34	-42.22	-13.00	-29.22	peak	H
150.0000	-74.75	7.87	-66.88	-13.00	-53.88	peak	V
293.0000	-81.22	2.07	-79.15	-13.00	-66.15	peak	V
445.0000	-83.45	1.53	-81.92	-13.00	-68.92	peak	V
576.0000	-83.68	5.60	-78.08	-13.00	-65.08	peak	V
714.0000	-82.96	10.66	-72.30	-13.00	-59.30	peak	V
913.5000	-83.66	11.45	-72.21	-13.00	-59.21	peak	V
2992.000	-70.14	20.17	-49.97	-13.00	-36.97	peak	V
4756.000	-71.47	26.66	-44.81	-13.00	-31.81	peak	V
6892.000	-73.77	30.27	-43.50	-13.00	-30.50	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.8V
Model Number:	HE910-NAG V2	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	6	Date:	12/13/2013
Frequency:	826.4 MHz	Test By:	Fly Lu

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
150.0000	-71.96	-1.74	-73.70	-13.00	-60.70	peak	H
221.5000	-76.57	-0.57	-77.14	-13.00	-64.14	peak	H
328.5000	-79.11	-0.77	-79.88	-13.00	-66.88	peak	H
450.0000	-80.51	4.26	-76.25	-13.00	-63.25	peak	H
591.5000	-80.81	7.80	-73.01	-13.00	-60.01	peak	H
764.0000	-81.90	9.32	-72.58	-13.00	-59.58	peak	H
3136.000	-70.25	18.10	-52.15	-13.00	-39.15	peak	H
4720.000	-73.86	22.27	-51.59	-13.00	-38.59	peak	H
6820.000	-72.82	31.88	-40.94	-13.00	-27.94	peak	H
150.0000	-74.11	7.87	-66.24	-13.00	-53.24	peak	V
213.5000	-83.34	7.67	-75.67	-13.00	-62.67	peak	V
376.5000	-76.72	1.78	-74.94	-13.00	-61.94	peak	V
503.0000	-79.85	2.79	-77.06	-13.00	-64.06	peak	V
601.5000	-81.16	7.57	-73.59	-13.00	-60.59	peak	V
700.5000	-81.49	10.20	-71.29	-13.00	-58.29	peak	V
2836.000	-70.05	19.05	-51.00	-13.00	-38.00	peak	V
4756.000	-72.80	26.66	-46.14	-13.00	-33.14	peak	V
6844.000	-73.57	30.16	-43.41	-13.00	-30.41	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.8V
Model Number:	HE910-NAG V2	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	6	Date:	12/13/2013
Frequency:	836.6 MHz	Test By:	Fly Lu

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
157.5000	-73.32	0.67	-72.65	-13.00	-59.65	peak	H
226.0000	-79.17	-0.76	-79.93	-13.00	-66.93	peak	H
378.5000	-82.38	0.71	-81.67	-13.00	-68.67	peak	H
491.5000	-80.14	6.45	-73.69	-13.00	-60.69	peak	H
630.0000	-81.50	7.27	-74.23	-13.00	-61.23	peak	H
778.5000	-82.24	10.10	-72.14	-13.00	-59.14	peak	H
2884.000	-70.52	17.45	-53.07	-13.00	-40.07	peak	H
4720.000	-72.59	22.27	-50.32	-13.00	-37.32	peak	H
6652.000	-73.25	31.13	-42.12	-13.00	-29.12	peak	H
140.5000	-75.74	8.88	-66.86	-13.00	-53.86	peak	V
211.5000	-82.71	8.40	-74.31	-13.00	-61.31	peak	V
379.0000	-83.07	1.67	-81.40	-13.00	-68.40	peak	V
553.0000	-81.20	4.33	-76.87	-13.00	-63.87	peak	V
693.0000	-82.81	9.97	-72.84	-13.00	-59.84	peak	V
778.0000	-82.22	11.25	-70.97	-13.00	-57.97	peak	V
2860.000	-70.10	19.22	-50.88	-13.00	-37.88	peak	V
4732.000	-71.81	26.62	-45.19	-13.00	-32.19	peak	V
6916.000	-73.17	30.33	-42.84	-13.00	-29.84	peak	V

Standard:	FCC Part 22	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.8V
Model Number:	HE910-NAG V2	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	6	Date:	12/13/2013
Frequency:	846.6 MHz	Test By:	Fly Lu

Frequency (MHz)	Reading (dBm)	Correct Factor (dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Remark	Ant.Polar. H / V
153.5000	-72.72	-0.62	-73.34	-13.00	-60.34	peak	H
225.0000	-80.30	-0.72	-81.02	-13.00	-68.02	peak	H
369.0000	-83.63	0.38	-83.25	-13.00	-70.25	peak	H
505.5000	-82.49	7.15	-75.34	-13.00	-62.34	peak	H
638.0000	-82.40	6.91	-75.49	-13.00	-62.49	peak	H
774.5000	-83.84	9.90	-73.94	-13.00	-60.94	peak	H
2908.000	-71.46	17.51	-53.95	-13.00	-40.95	peak	H
4768.000	-73.17	22.52	-50.65	-13.00	-37.65	peak	H
6700.000	-73.20	31.34	-41.86	-13.00	-28.86	peak	H
148.0000	-75.17	8.09	-67.08	-13.00	-54.08	peak	V
211.0000	-83.24	8.58	-74.66	-13.00	-61.66	peak	V
373.5000	-81.99	1.88	-80.11	-13.00	-67.11	peak	V
533.5000	-82.57	3.88	-78.69	-13.00	-65.69	peak	V
644.5000	-83.07	8.79	-74.28	-13.00	-61.28	peak	V
782.0000	-82.63	11.34	-71.29	-13.00	-58.29	peak	V
2860.000	-71.06	19.22	-51.84	-13.00	-38.84	peak	V
4432.000	-72.24	25.95	-46.29	-13.00	-33.29	peak	V
6916.000	-74.72	30.33	-44.39	-13.00	-31.39	peak	V

Standard:	RSS-Gen	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.8V
Model Number:	HE910-NAG V2	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Mode:	7	Date:	12/13/2013
		Test By:	Fly Lu

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
2813.000	36.46	5.70	42.16	74.00	-31.84	peak	H
4563.000	35.05	11.45	46.50	74.00	-27.50	peak	H
6425.000	31.94	17.45	49.39	74.00	-24.61	peak	H
2918.000	35.61	5.94	41.55	74.00	-32.45	peak	V
4626.000	33.18	11.60	44.78	74.00	-29.22	peak	V
6397.000	33.45	17.36	50.81	74.00	-23.19	peak	V

8 Frequency Stability (Temperature & Voltage Variation) Test

8.1. Limit

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within $\pm 0.00025\%$ ($\pm 2.5\text{ppm}$) of the center frequency.

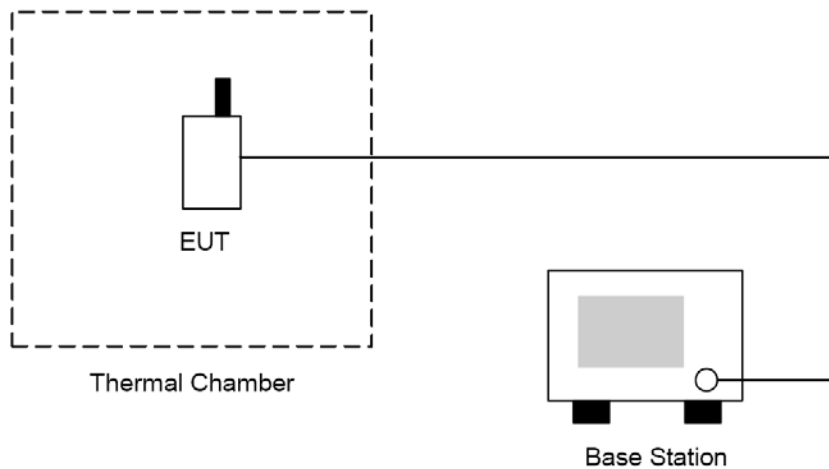
8.2. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Universal Radio Communication Tester	R & S	CMU200	109369	08/07/2012	(2)
Temperature & Humidity Chamber	TAICHY	MHU-225LA	980729	08/07/2012	(1)
Test Site	ATL	TE05	TE05	N.C.R.	-----

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

Note: N.C.R. = No Calibration Request.

8.3. Setup



8.4. Test Procedure

The measurement is made according to FCC rules part 22 and 24:

1. The EUT and test equipment were set up as shown on the following section.
2. With all power removed, the temperature was decreased to -30°C and permitted to stabilize for three hours. Power was applied and the maximum change in frequency was note within one minute.
3. With power OFF, the temperature was raised in 10°C steps. The sample was permitted to stabilize at each step for at least one-half hour. Power was applied and the maximum frequency change was noted within one minute.
4. The EUT was placed in a temperature chamber at $25 \pm 5^{\circ}\text{C}$ and connected as the following section.
5. The power supply voltage to the EUT was varied from BEP to 115% of the nominal value measured at the input to the EUT.
6. The temperature tests were performed for the worst case.
7. Test data was recorded.

8.5. Uncertainty

The measurement uncertainty is defined as for Frequency Stability (Temperature Variation) measurement is $\pm 10\text{Hz}$.

8.6. Test Result

Model Number	HE910-NAG V2					
Test Item	Frequency Stability (Temperature & Voltage Variation)					
Test Mode	Mode 1					
Date of Test	07/23/2013				Test Site	TE05
Level	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
Normal	3.80	-30	-29	-0.035	±2.5	Pass
Normal	3.80	-20	-23	-0.027	±2.5	Pass
Normal	3.80	-10	-19	-0.023	±2.5	Pass
Normal	3.80	0	-20	-0.024	±2.5	Pass
Normal	3.80	10	-25	-0.030	±2.5	Pass
Battery full point	4.20	20	-27	-0.032	±2.5	Pass
Normal	3.80	20	-49	-0.059	±2.5	Pass
Battery cut-off point	3.40	20	-18	-0.022	±2.5	Pass
Normal	3.80	30	-51	-0.061	±2.5	Pass
Normal	3.80	40	-24	-0.029	±2.5	Pass
Normal	3.80	50	16	0.019	±2.5	Pass

Model Number	HE910-NAG V2					
Test Item	Frequency Stability (Temperature & Voltage Variation)					
Test Mode	Mode 2					
Date of Test	07/23/2013				Test Site	TE05
Level	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
Normal	3.80	-30	-20	-0.011	±2.5	Pass
Normal	3.80	-20	-27	-0.014	±2.5	Pass
Normal	3.80	-10	-19	-0.010	±2.5	Pass
Normal	3.80	0	-21	-0.011	±2.5	Pass
Normal	3.80	10	-26	-0.014	±2.5	Pass
Battery full point	4.20	20	28	0.015	±2.5	Pass
Normal	3.80	20	51	0.027	±2.5	Pass
Battery cut-off point	3.40	20	39	0.021	±2.5	Pass
Normal	3.80	30	-20	-0.011	±2.5	Pass
Normal	3.80	40	-25	-0.013	±2.5	Pass
Normal	3.80	50	-19	-0.010	±2.5	Pass

Model Number	HE910-NAG V2					
Test Item	Frequency Stability (Temperature & Voltage Variation)					
Test Mode	Mode 5					
Date of Test	07/23/2013				Test Site	TE05
Level	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
Normal	3.80	-30	-10	-0.012	±2.5	Pass
Normal	3.80	-20	-22	-0.026	±2.5	Pass
Normal	3.80	-10	-19	-0.023	±2.5	Pass
Normal	3.80	0	-15	-0.018	±2.5	Pass
Normal	3.80	10	-17	-0.020	±2.5	Pass
Battery full point	4.20	20	-33	-0.039	±2.5	Pass
Normal	3.80	20	-6	-0.007	±2.5	Pass
Battery cut-off point	3.40	20	-15	-0.018	±2.5	Pass
Normal	3.80	30	-16	-0.019	±2.5	Pass
Normal	3.80	40	-29	-0.035	±2.5	Pass
Normal	3.80	50	-12	-0.014	±2.5	Pass

Model Number	HE910-NAG V2					
Test Item	Frequency Stability (Temperature & Voltage Variation)					
Test Mode	Mode 6					
Date of Test	07/23/2013				Test Site	TE05
Level	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
Normal	3.80	-30	-19	-0.010	±2.5	Pass
Normal	3.80	-20	-26	-0.014	±2.5	Pass
Normal	3.80	-10	-18	-0.010	±2.5	Pass
Normal	3.80	0	19	0.010	±2.5	Pass
Normal	3.80	10	-32	-0.017	±2.5	Pass
Battery full point	4.20	20	-29	-0.015	±2.5	Pass
Normal	3.80	20	-25	-0.013	±2.5	Pass
Battery cut-off point	3.40	20	8	0.004	±2.5	Pass
Normal	3.80	30	-25	-0.013	±2.5	Pass
Normal	3.80	40	-9	-0.005	±2.5	Pass
Normal	3.80	50	17	0.009	±2.5	Pass