

## FCC RADIO TEST REPORT

**Report Reference No.** ..... : NTEK-2011DG0806326E

**Compiled by (+ signature)** ..... : Jim He



**Approved by (+ signature)** ..... : Bovey Yang



**Applicant's name** ..... : Citygrow Energy Systems Limited

**Address** ..... : Rm 1417,14/F, Block A, Hi-Tech Industrial Centre, 5-21 Pak Tin Par Street, Tsuen Wan, N.T., Hong Kong

**Manufacture's Name** ..... : Mei Hua Electronics (Hui Zhou) Limited

**Address** ..... : Jinlong road (Qingxi section), Longmen, Huizhou, Guangdong, China

### Test specification:

**Standard** ..... : FCC Part15.249, RSS-210 Issue 8

**Test procedure** ..... : ANSI C63.4-2003, RSS-Gen Issue 3

### Test item description

**Product name** ..... : Two-Gang Key Pad

**FCC ID** ..... : ZY8CG201S2-KP

**IC** ..... : 7982B-CG201S2KP

**Trademark** ..... :

**Model and/or type reference** : CG201S2-KP

**Rating(s)** ..... : DC 6.0V

### Testing Laboratory information:

**Testing Laboratory Name** ..... : NTEK Testing Technology Co., Ltd

**Address** ..... : 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao'an District, Shenzhen P.R. China.

This device described above has been tested by NTEK Testing Technology Co., Ltd, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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**Testing** ..... :

**Date of receipt of test item** ..... : 17 Jul. 2011

**Date (s) of performance of tests** ..... : 18 Jul. 2011 ~02 Aug. 2011

**Date of Issue** ..... : 02 Aug. 2011

**Test Result** ..... : **Pass**

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## 1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15, Subpart C (15.249) & RSS-Gen Issue 3 & RSS-210 Issue 8			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	N/A	Note(1)
15.203	Antenna Requirement	Pass	
15.249	Radiated Spurious Emission	Pass	
15.249	Occupied Bandwidth	Pass	

NOTE:

(1) "N/A" denotes test is not applicable in this Test Report.

## 1.1 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement  $y \pm U$ , where expanded uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	Conducted Emission Test	$\pm 1.38\text{dB}$
2	Radiated Emission Test	$\pm 3.17\text{dB}$
3	RF power,conducted	$\pm 0.16\text{dB}$
4	Spurious emissions,conducted	$\pm 0.21\text{dB}$
5	All emissions,radiated(<1G)	$\pm 4.68\text{dB}$
6	All emissions,radiated(>1G)	$\pm 4.89\text{dB}$

## 2. GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF EUT

Equipment	Two-Gang Key Pad	
Trade Name	N/A	
Model Name	CG201S2-KP	
OEM Brand/Model Name	N/A	
Model Difference	N/A	
Product Description	The EUT is a Two-Gang Key Pad	
	Operation Frequency:	2405~2480 MHz
	Modulation Type:	QPSK
	Antenna Designation:	Printed ANT
	Antenna Gain(Peak)	2.0 dBi
Power Source	DC Voltage supplied from DC Power	
Power Rating	DC 6.0V	
Connecting I/O Port(s)	Please refer to the User's Manual	
Products Covered	N/A	
EUT Modification(s)	N/A	

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2.

Table for Filed Antenna

Ant	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
1	N/A	N/A	Printed Antenna	NA	2.0	Antenna

## 2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generated from EUT, the test system was pre-scanning tested based on the consideration of following EUT operation mode or test configuration mode which possibly have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	CH low
Mode 2	CH mid
Mode 3	CH high

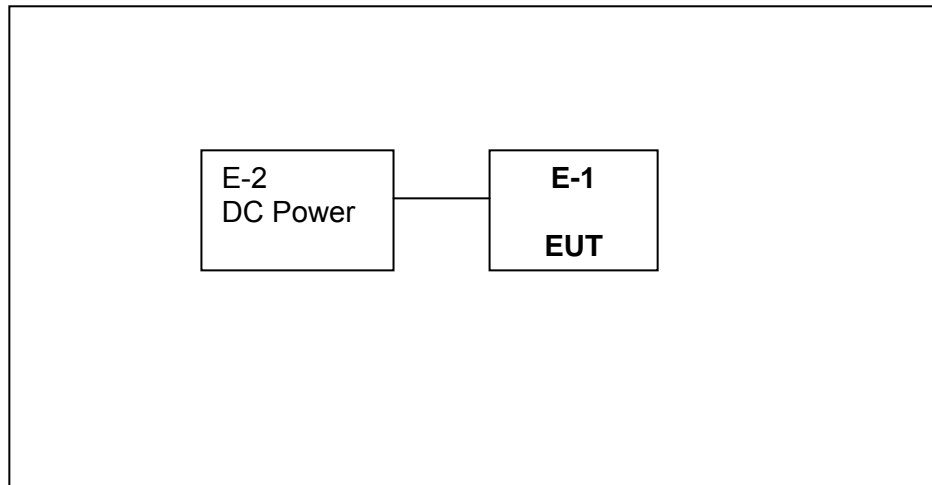
For Conducted Emission	
Final Test Mode	Description
-	"N/A" denotes test is not applicable in this Test Report

For Radiated Emission	
Final Test Mode	Description
Mode 1	CH low
Mode 2	CH mid
Mode 3	CH high

Note:

- (1) The measurements are performed at the highest, middle, lowest available channels.
- (2) The EUT use new battery.

### 2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



## 2.4 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID	Series No.	Note
E-1	Two-Gang Key Pad	N/A	CG201S2-KP	ZY8-CG201S2-KP	N/A	EUT
E-2	DC POWER	LWDQGS	PS-305DF	N/A	N/A	

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	NO	0.5m	

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.



## 2.4.1 EQUIPMENTS LIST FOR ALL TEST ITEMS

### Effective radiated power

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Jan. 06, 2012
2	Microwave Pre_amplifier	Agilent	8449B	3008A01714	Mar. 08, 2012
3	Microflex Cable	United Microwave	57793	1m	Mar. 08, 2012
4	Microflex Cable	United Microwave	A30A30-500 6	10M	Jul. 06, 2012
5	Horn Antenna	EMCO	3115	9605-4803	Jun. 05, 2012
6	Horn Ant	Schwarzbeck	BBHA 9170	9170-181	Oct. 23, 2012
7	Log-Bicon Antenna	MESS-ELEKTRONIK	VULB 9160	3058	Nov. 26, 2011
8	Test Cable	N/A	10M_OS02	N/A	Nov. 26, 2011
9	Test Cable	N/A	OS02-1/-2/-3	N/A	Nov. 26, 2011
10	Pre-Amplifier	Anritsu	MH648A	M09961	Nov. 26, 2011
11	Temperature & Humidity Chamber	GIANT FORCE	GTH-056P	GF-94454-1	Jul. 22, 2012
12	Signal Generator	R&S	SMT 06	832080/007	Jul. 31, 2011
13	Power Metter	ANRITSU	ML2487A	6K00001568	Oct. 26, 2011
14	Power Sensor (AV)	ANRITSU	ML2491A	030989	Feb. 09, 2012

### Peak power density

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Jan. 06, 2012
2	Signal Generator	R&S	SMT 06	832080/007	Jul. 31, 2011
3	Power Metter	ANRITSU	ML2487A	6K00001568	Oct. 26, 2011
4	Power Sensor (AV)	ANRITSU	ML2491A	030989	Feb. 09, 2012

### Spurious emissions

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Jan. 06, 2012
2	Microwave Pre_amplifier	Agilent	8449B	3008A01714	Mar. 08, 2012
3	Microflex Cable	United Microwave	57793	1m	Mar. 08, 2012
4	Microflex Cable	United Microwave	A30A30-500 6	10M	Jul. 06, 2012
5	Horn Antenna	EMCO	3115	9605-4803	Jun. 05, 2012
6	Horn Ant	Schwarzbeck	BBHA 9170	9170-181	Oct. 23, 2011
7	Log-Bicon Antenna	MESS-ELEKTRONIK	VULB 9160	3058	Nov. 26, 2011
8	Test Cable	N/A	10M_OS02	N/A	Nov. 26, 2011
9	Test Cable	N/A	OS02-1/-2/-3	N/A	Nov. 26, 2011
10	Pre-Amplifier	Anritsu	MH648A	M09961	Nov. 26, 2011

## Frequency range

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Jan. 06, 2012
2	Temperature & Humidity Chamber	GIANT FORCE	GTH-056P	GF-94454-1	Jul. 22, 2012

### **3. TEST RESULT**

#### **3.1 ANTENNA REQUIREMENT**

##### **3.1.1 STANDARD REQUIREMENT**

15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

##### **3.1.2 EUT ANTENNA**

The EUT antenna is integral Antenna. It comply with the standard requirement.

### 3.2 CONDUCTED EMISSION MEASUREMENT

#### 3.2.1 POWER LINE CONDUCTED EMISSION Limits (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)		Standard
	Quasi-peak	Average	Quasi-peak	Average	
0.15 -0.5			66 - 56 *	56 - 46 *	CISPR
0.50 -5.0			56.00	46.00	CISPR
5.0 -30.0			60.00	50.00	CISPR

0.15 -0.5			66 - 56 *	56 - 46 *	LP002.
0.50 -5.0			56.00	46.00	LP002.
5.0 -30.0			60.00	50.00	LP002.

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " \* " mark ed band means the limit ation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

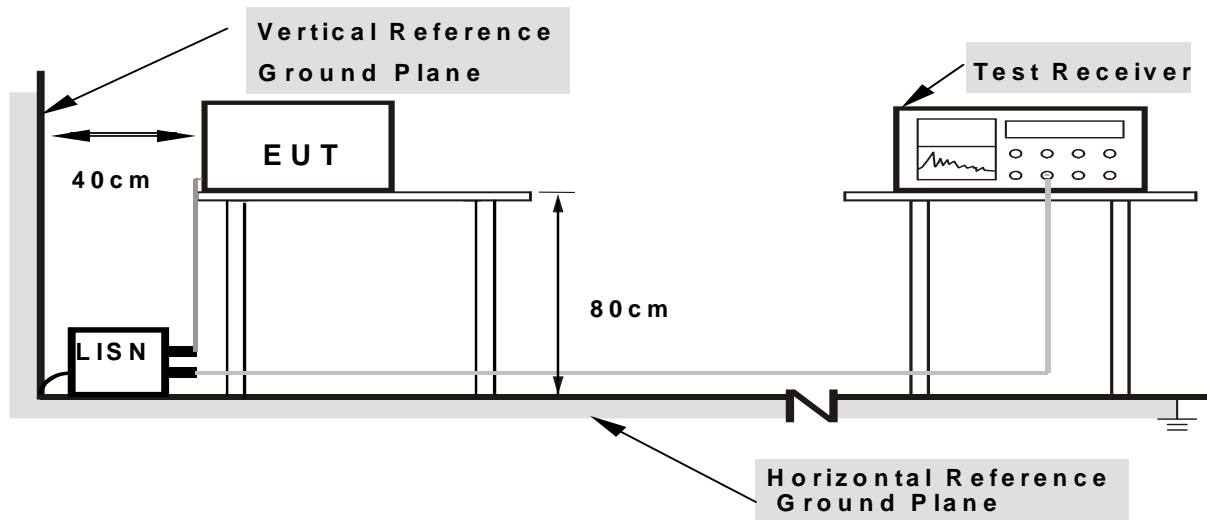
### 3.2.2 TEST PROCEDURE

- The EUT was placed 0.4 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- LISN at least 80 cm from nearest part of EUT chassis.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

### 3.2.3 DEVIATION FROM TEST STANDARD

No deviation

### 3.2.4 TEST SETUP



**Note: 1.**Support units were connected to second LISN.

**2.**Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

### 3.2.5 TEST RESULT

Cause the EUT only employ battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines. Measurements to demonstrate compliance with the conducted limits are not required for devices

### 3.3 RADIATED EMISSION MEASUREMENT

#### 3.3.1 Radiated Emission Limits ( FCC 15.209 )

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Note:

- (1) The tighter limit applies at the band edges.
- (2) Emission level (dBuV/m)=20log Emission level (uV/m).

#### LIMITS OF RADIATED EMISSION MEASUREMENT ( FCC 15.249)

Frequency of Emission (MHz)	Field Strength of fundamental ((millivolts /meter)	Field Strength of Harmonics (microvolts/meter)
2400 - 2483.5	50	500

Notes:

- (1) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (emission in restricted band)	1MHz / 1MHz for Peak

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

### **3.3.2 TEST PROCEDURE**

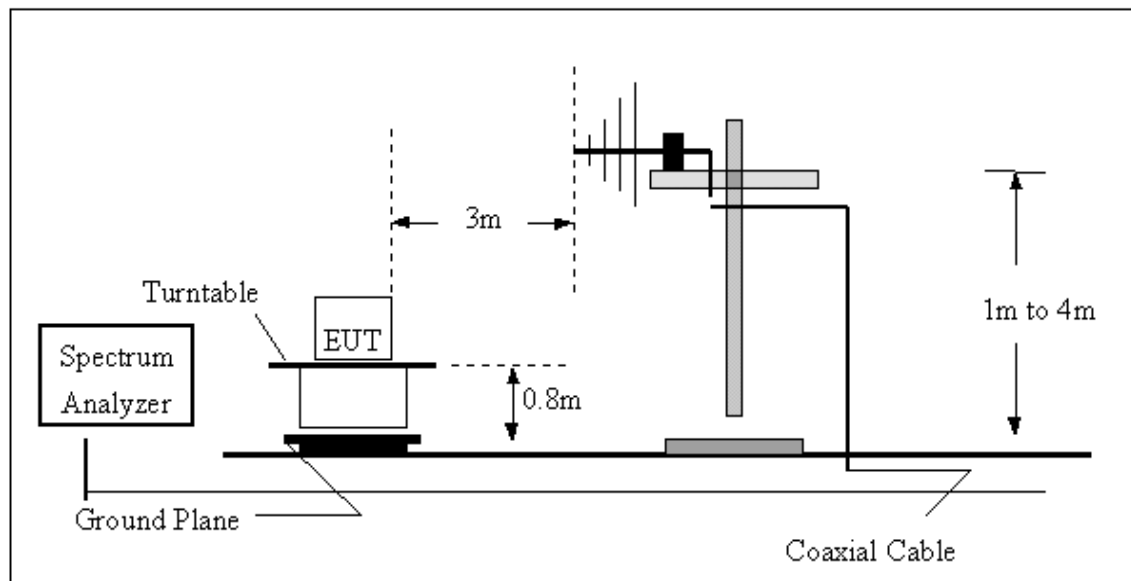
- a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3m meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement. performed pretest to three orthogonal axis.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

### **3.3.3 DEVIATION FROM TEST STANDARD**

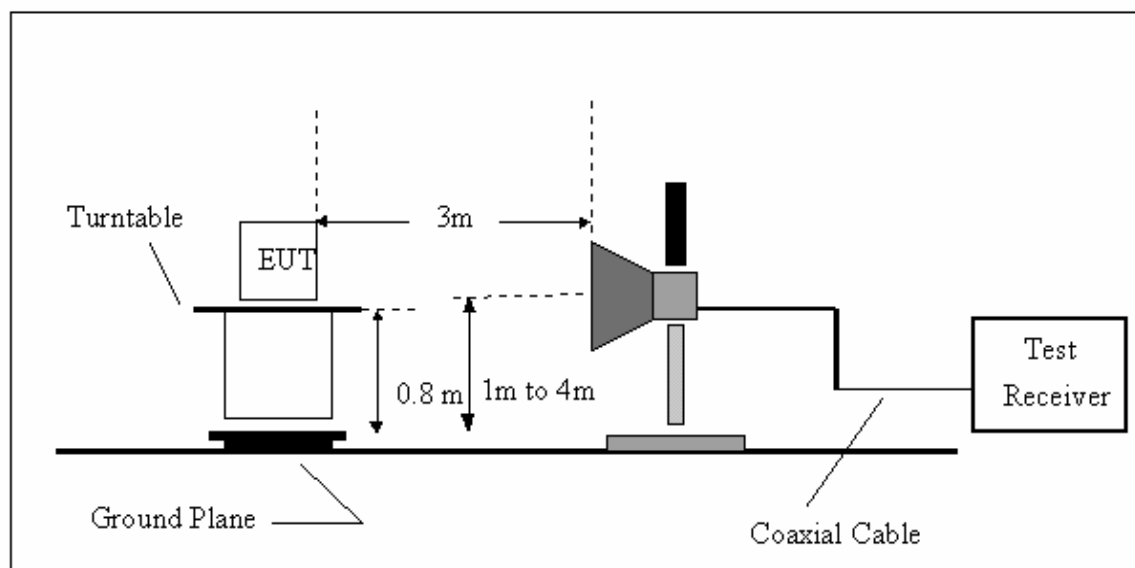
No deviation

### 3.3.4 TEST SETUP

(A) Radiated Emission Test Set-Up, Frequency Below 1000MHz



(B) Radiated Emission Test Set-Up Frequency Above 1 GHz





### 3.3.5 TEST RESULTS (BLOW 30MHz)

not detected blow 30MHz.

### 3.3.6 TEST RESULTS (BETWEEN 30 – 1000 MHZ)

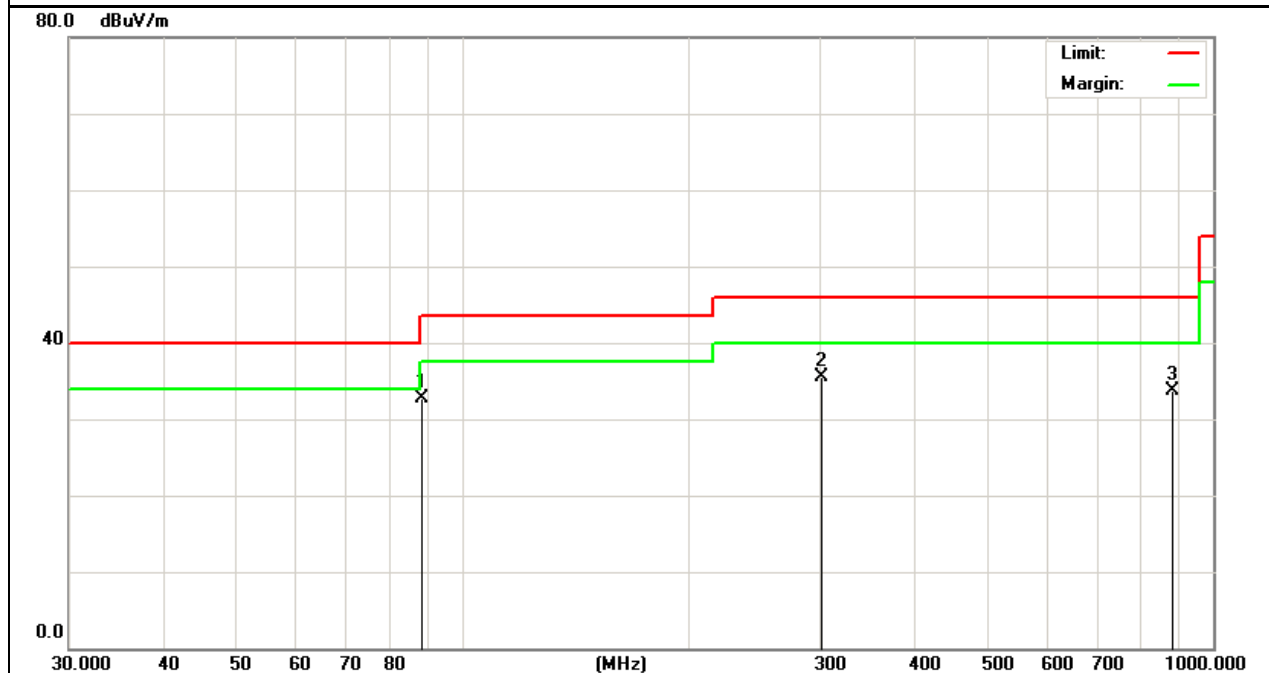
EUT :	Two-Gang Key Pad	Model Name :	CG201S2-KP
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2011-07-28
Test Mode :	TX	Polarization :	Horizontal
Test Power :	DC 6.0V		

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree
1		88.4500	22.90	9.76	32.66	43.50	-10.84	QP	
2	*	300.8800	18.79	16.75	35.54	46.00	-10.46	QP	
3		880.1700	5.26	28.40	33.66	46.00	-12.34	QP	

Remark:

Measurement Level = Reading Level + Factor

Factor=Ant Gain - Cable Loss



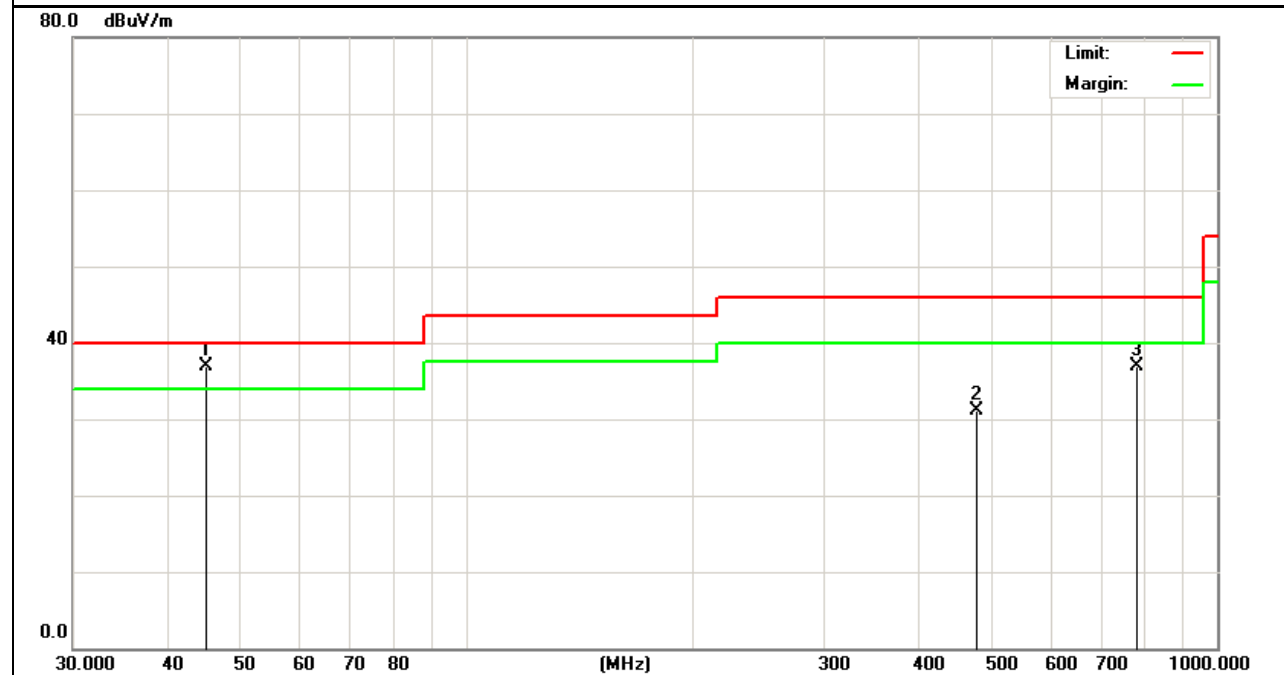
EUT :	Two-Gang Key Pad	Model Name :	CG201S2-KP
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2011-07-28
Test Mode :	TX	Polarization :	Vertical
Test Power :	DC 6.0V		

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Antenna Height cm	Table Degree degree
1	*	45.1500	25.58	11.40	36.98	40.00	-3.02	QP		
2		478.1900	10.56	20.55	31.11	46.00	-14.89	QP		
3		780.1800	9.11	27.84	36.95	46.00	-9.05	QP		

Remark:

Measurement Level = Reading Level + Factor

Factor=Ant Gain - Cable Loss



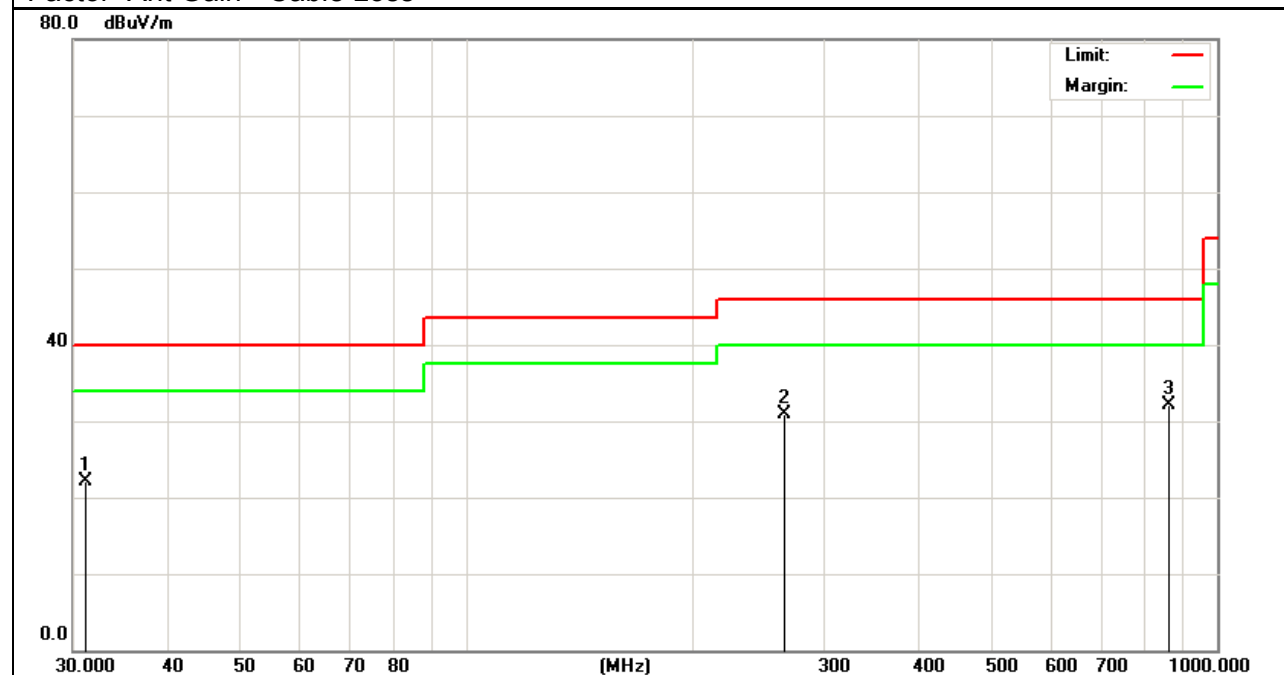
EUT :	Two-Gang Key Pad	Model Name :	CG201S2-KP
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2011-07-28
Test Mode :	RX	Polarization :	Horizontal
Test Power :	DC 6.0V		

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree
1		31.1600	10.55	11.64	22.19	40.00	-17.81	QP	
2		265.2300	15.30	15.57	30.87	46.00	-15.13	QP	
3	*	860.7400	4.91	27.27	32.18	46.00	-13.82	QP	

#### Remark:

Measurement Level = Reading Level + Factor

Factor=Ant Gain - Cable Loss



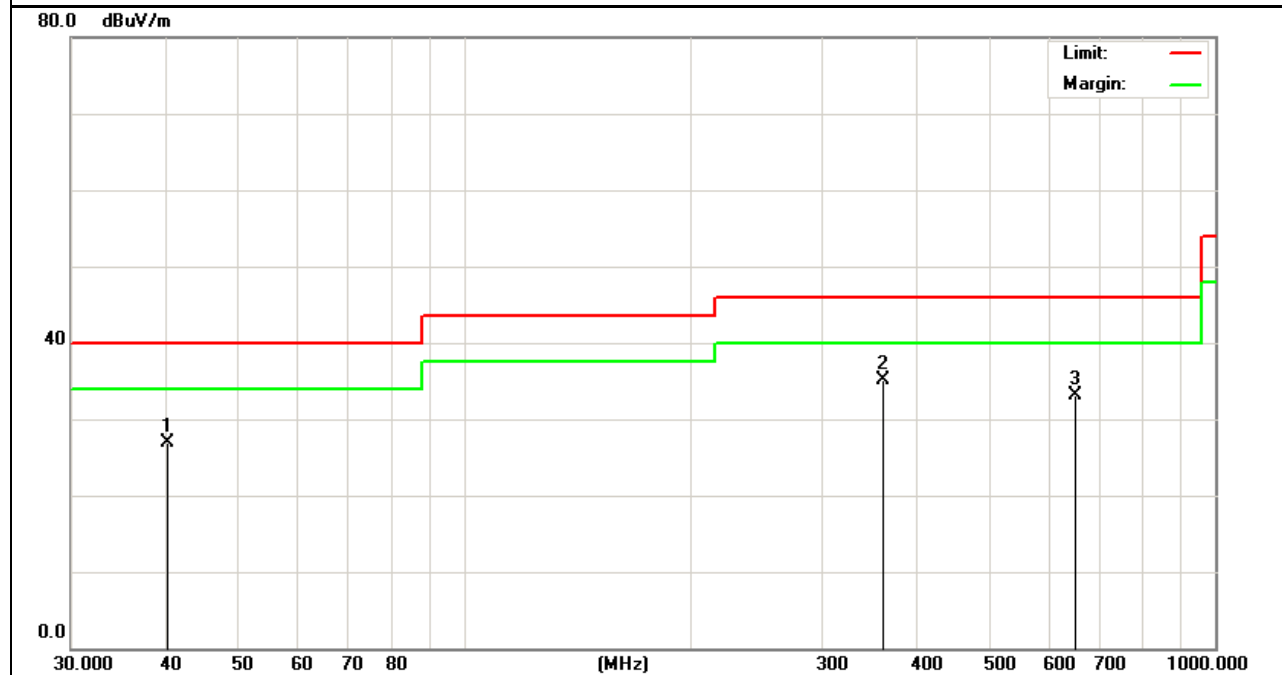
EUT :	Two-Gang Key Pad	Model Name :	CG201S2-KP
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2011-07-28
Test Mode :	RX	Polarization :	Vertical
Test Power :	DC 6.0V		

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree
1		40.2900	16.25	10.74	26.99	40.00	-13.01	QP	
2	*	360.8400	16.65	18.53	35.18	46.00	-10.82	QP	
3		650.1800	6.22	26.89	33.11	46.00	-12.89	QP	

Remark:

Measurement Level = Reading Level + Factor

Factor=Ant Gain - Cable Loss



### 3.3.7 TEST RESULTS (ABOVE 1000 MHZ)

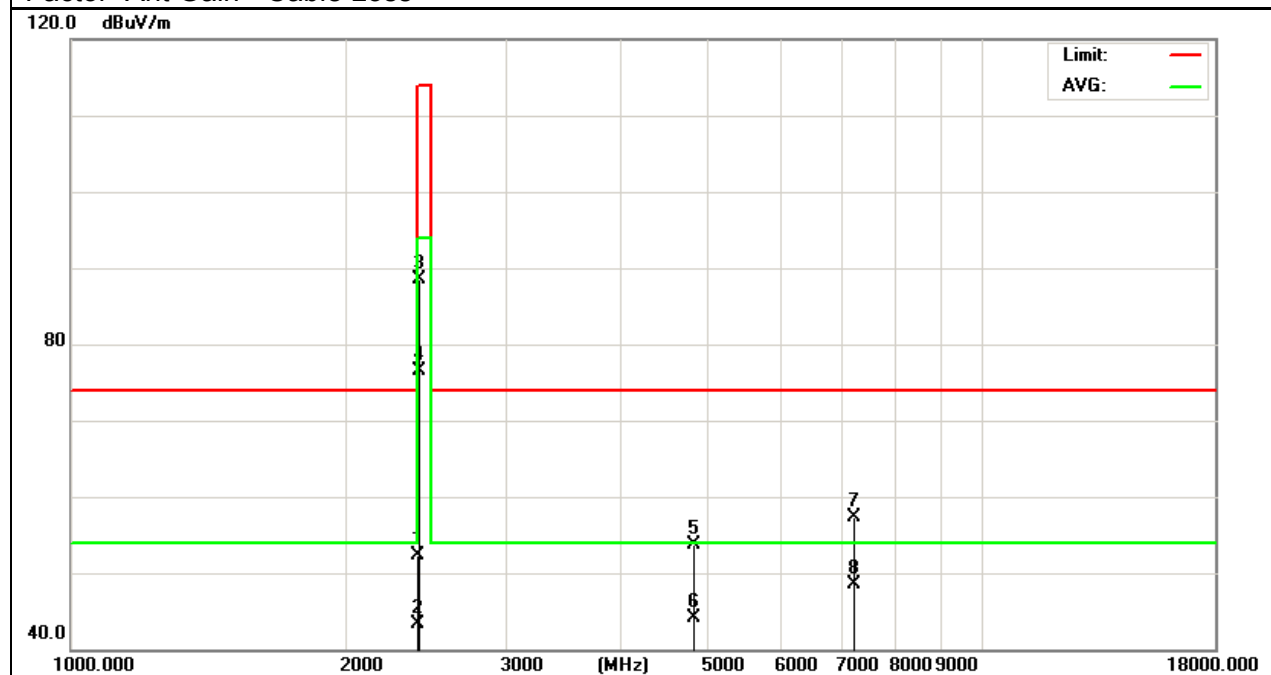
EUT :	Two-Gang Key Pad	Model Name :	CG201S2-KP
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2011-07-29
Test Mode :	TX 2405MHz	Polarization :	Horizontal
Test Power :	DC 6.0V		

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1	2400.000	19.74	32.65	52.39	74.00	-21.61			peak
2	2400.000	10.61	32.65	43.26	54.00	-10.74			AVG
3	2405.000	55.74	32.69	88.43	114.0	-25.57			peak
4	2405.000	43.85	32.69	76.54	94.00	-17.46			AVG
5	4810.000	9.78	44.02	53.80	74.00	-20.20			peak
6	4810.000	0.15	44.02	44.17	54.00	-9.83			AVG
7	7215.000	9.78	47.53	57.31	74.00	-16.69			peak
8 *	7215.000	1.02	47.53	48.55	54.00	-5.45			AVG

Remark:

Measurement Level = Reading Level + Factor

Factor=Ant Gain - Cable Loss



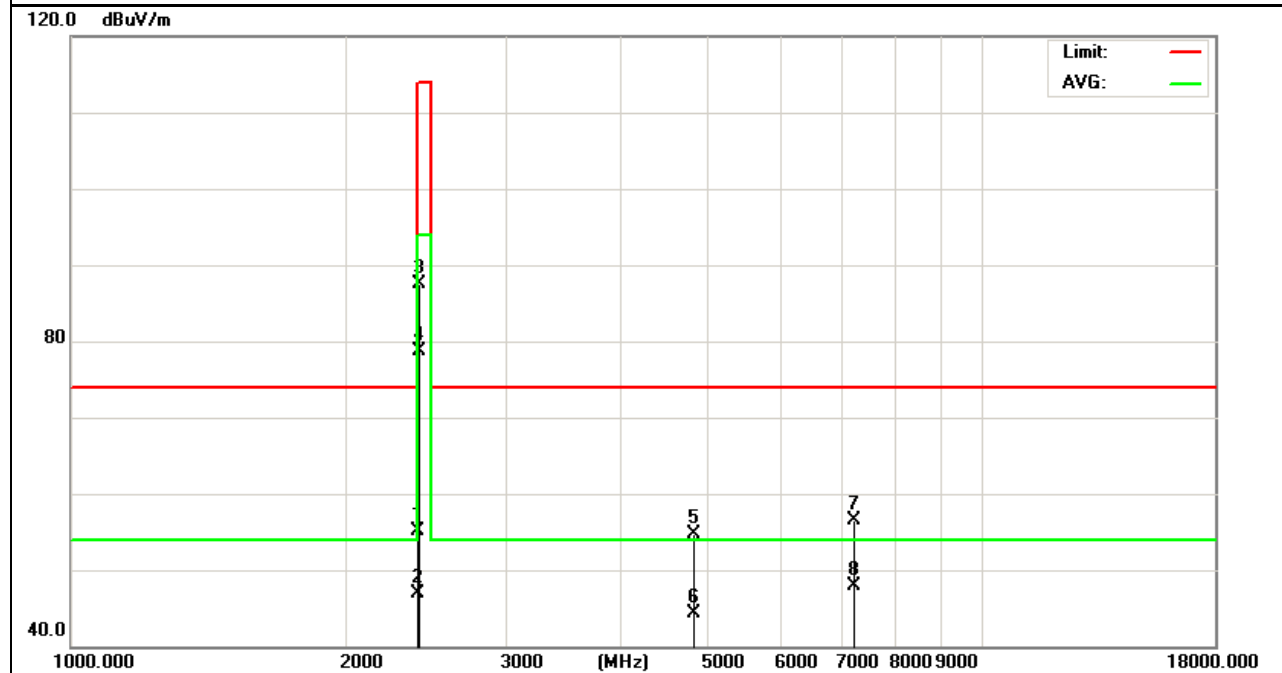
EUT :	Two-Gang Key Pad	Model Name :	CG201S2-KP
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2011-07-29
Test Mode :	TX 2405MHz	Polarization :	Vertical
Test Power :	DC 6.0V		

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Antenna Height cm	Table Degree degree	Comment
1	2400.000	22.47	32.65	55.12	74.00	-18.88	peak			
2	2400.000	14.20	32.65	46.85	54.00	-7.15	AVG			
3	2405.000	54.71	32.69	87.40	114.0	-26.60	peak			
4	2405.000	45.93	32.69	78.62	94.00	-15.38	AVG			
5	4810.000	10.74	44.02	54.76	74.00	-19.24	peak			
6	4810.000	0.25	44.02	44.27	54.00	-9.73	AVG			
7	7215.000	8.88	47.53	56.41	74.00	-17.59	peak			
8 *	7215.000	0.41	47.53	47.94	54.00	-6.06	AVG			

Remark:

Measurement Level = Reading Level + Factor

Factor=Ant Gain - Cable Loss



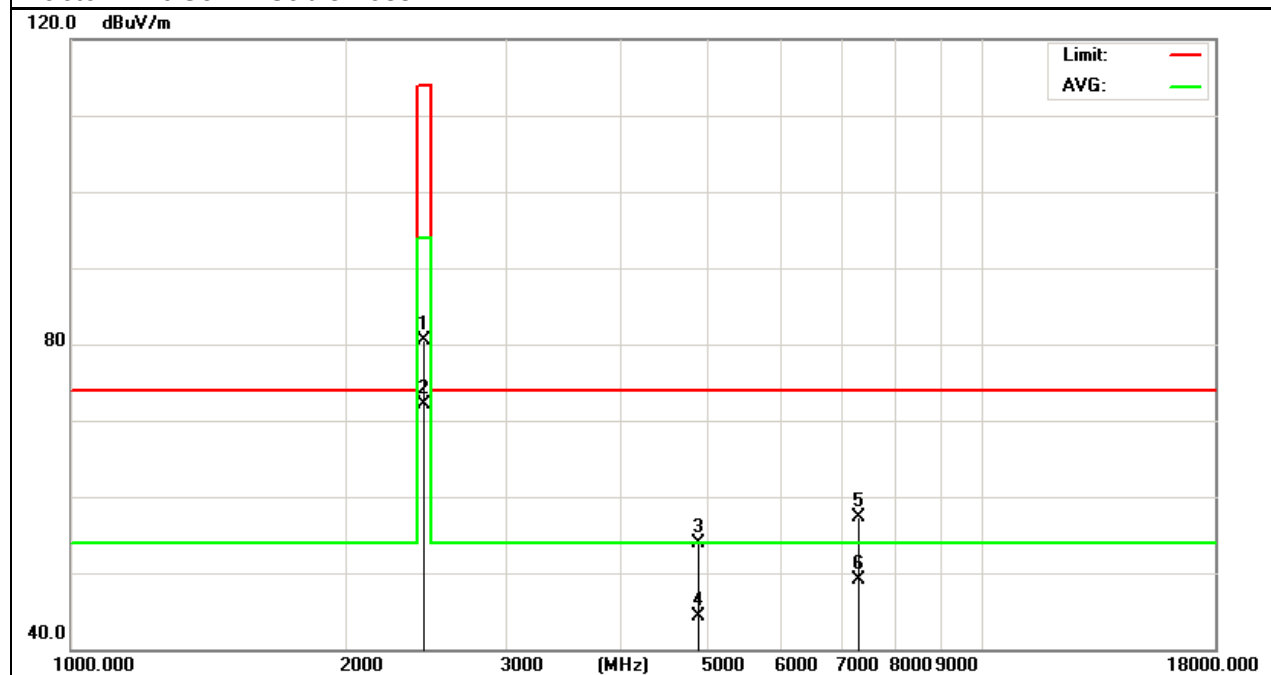
EUT :	Two-Gang Key Pad	Model Name :	CG201S2-KP
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2011-07-29
Test Mode :	TX 2440MHz	Polarization :	Horizontal
Test Power :	DC 6.0V		

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Antenna Height cm	Table Degree degree	Comment
1		2440.000	47.56	32.94	80.50	114.0	-33.50	peak			
2		2440.000	39.20	32.94	72.14	94.00	-21.86	AVG			
3		4880.000	9.77	44.07	53.84	74.00	-20.16	peak			
4		4880.000	0.28	44.07	44.35	54.00	-9.65	AVG			
5		7320.000	9.31	48.00	57.31	74.00	-16.69	peak			
6	*	7320.000	1.17	48.00	49.17	54.00	-4.83	AVG			

Remark:

Measurement Level = Reading Level + Factor

Factor=Ant Gain - Cable Loss



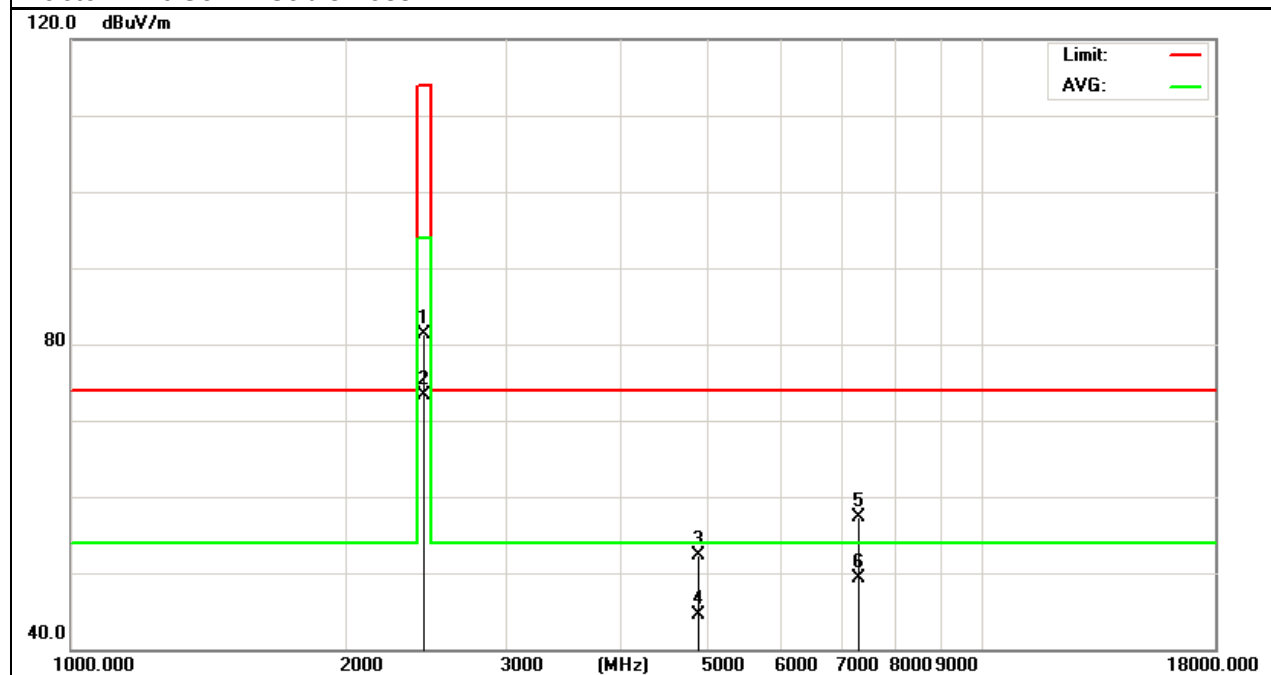
EUT :	Two-Gang Key Pad	Model Name :	CG201S2-KP
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2011-07-29
Test Mode :	TX 2440MHz	Polarization :	Vertical
Test Power :	DC 6.0V		

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Antenna Height cm	Table Degree	Comment
1		2440.000	48.35	32.94	81.29	114.0	-32.71	peak			
2		2440.000	40.32	32.94	73.26	94.00	-20.74	AVG			
3		4880.000	8.23	44.07	52.30	74.00	-21.70	peak			
4		4880.000	0.49	44.07	44.56	54.00	-9.44	AVG			
5		7320.000	9.31	48.00	57.31	74.00	-16.69	peak			
6	*	7320.000	1.22	48.00	49.22	54.00	-4.78	AVG			

Remark:

Measurement Level = Reading Level + Factor

Factor=Ant Gain - Cable Loss





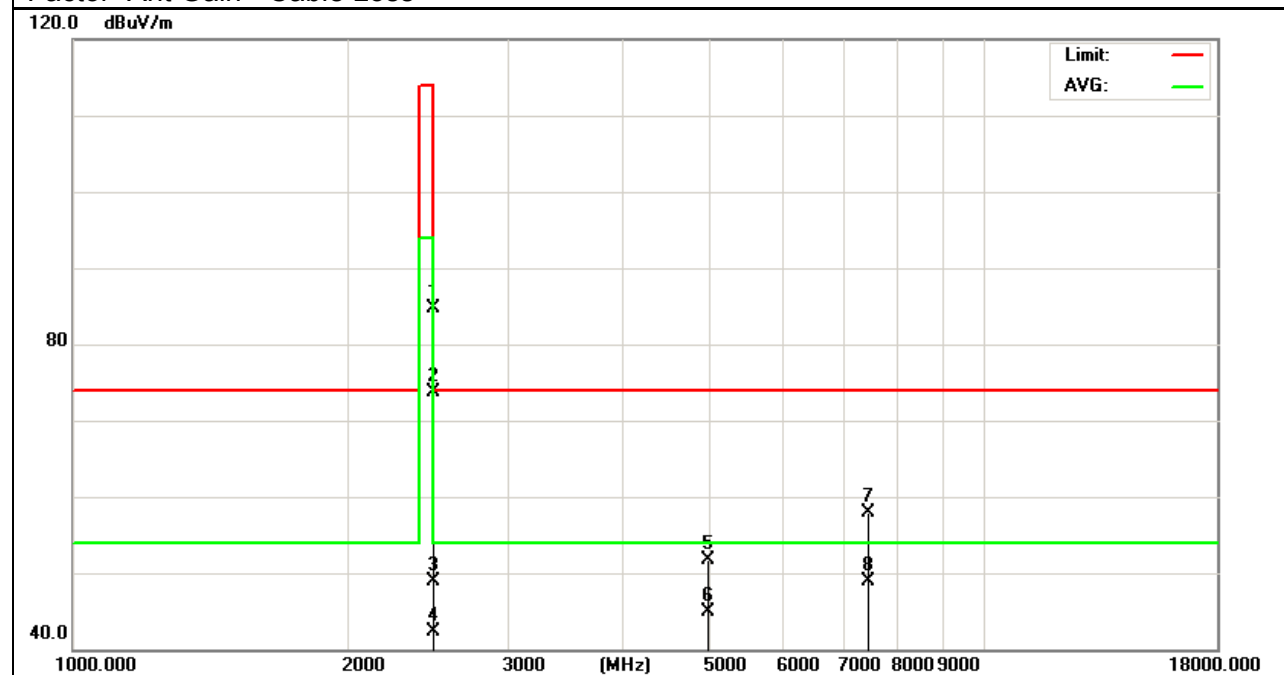
EUT :	Two-Gang Key Pad	Model Name :	CG201S2-KP
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2011-07-29
Test Mode :	TX 2480MHz	Polarization :	Horizontal
Test Power :	DC 6.0V		

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Antenna Height cm	Table Degree degree	Comment
1		2480.000	51.56	33.24	84.80	114.0	-29.20	peak			
2		2480.000	40.44	33.24	73.68	94.00	-20.32	AVG			
3		2483.500	15.65	33.27	48.92	74.00	-25.08	peak			
4		2483.500	8.94	33.27	42.21	54.00	-11.79	AVG			
5		4960.000	7.65	44.11	51.76	74.00	-22.24	peak			
6		4960.000	0.85	44.11	44.96	54.00	-9.04	AVG			
7		7440.000	9.41	48.55	57.96	74.00	-16.04	peak			
8	*	7440.000	0.26	48.55	48.81	54.00	-5.19	AVG			

Remark:

Measurement Level = Reading Level + Factor

Factor=Ant Gain - Cable Loss



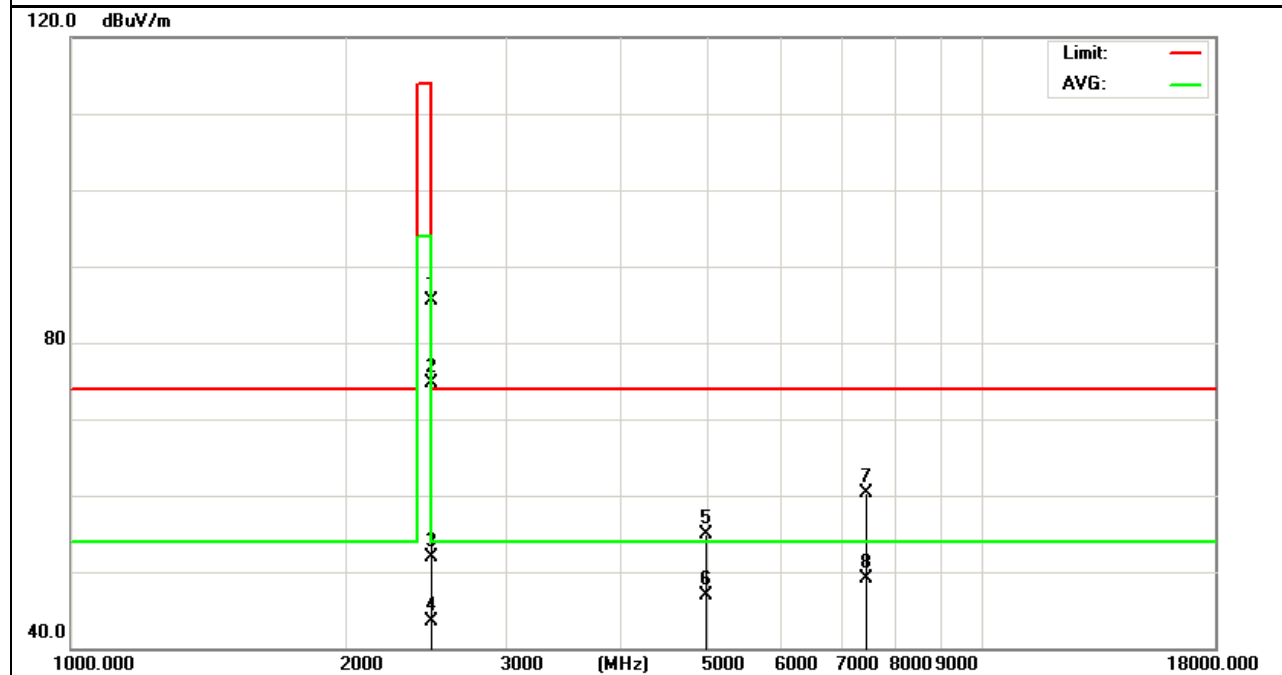
EUT :	Two-Gang Key Pad	Model Name :	CG201S2-KP
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	1010 hPa	Test Date :	2011-07-29
Test Mode :	TX 2480MHz	Polarization :	Vertical
Test Power :	DC 6.0V		

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Antenna Height cm	Table Degree	Comment
1		2480.000	52.35	33.24	85.59	114.0	-28.41	peak			
2		2480.000	41.44	33.24	74.68	94.00	-19.32	AVG			
3		2483.500	18.65	33.27	51.92	74.00	-22.08	peak			
4		2483.500	10.31	33.27	43.58	54.00	-10.42	AVG			
5		4960.000	10.87	44.11	54.98	74.00	-19.02	peak			
6		4960.000	2.73	44.11	46.84	54.00	-7.16	AVG			
7		7440.000	11.74	48.55	60.29	74.00	-13.71	peak			
8	*	7440.000	0.56	48.55	49.11	54.00	-4.89	AVG			

Remark:

Measurement Level = Reading Level + Factor

Factor=Ant Gain - Cable Loss



#### 4. BANDWIDTH TEST

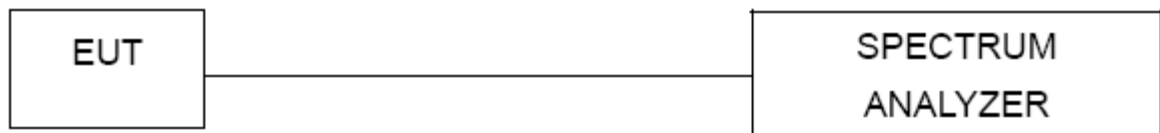
##### 4.1 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting : RBW= 100KHz, VBW $\geq$ RBW, Sweep time = Auto.

##### 4.2 DEVIATION FROM STANDARD

No deviation.

##### 4.3 TEST SETUP

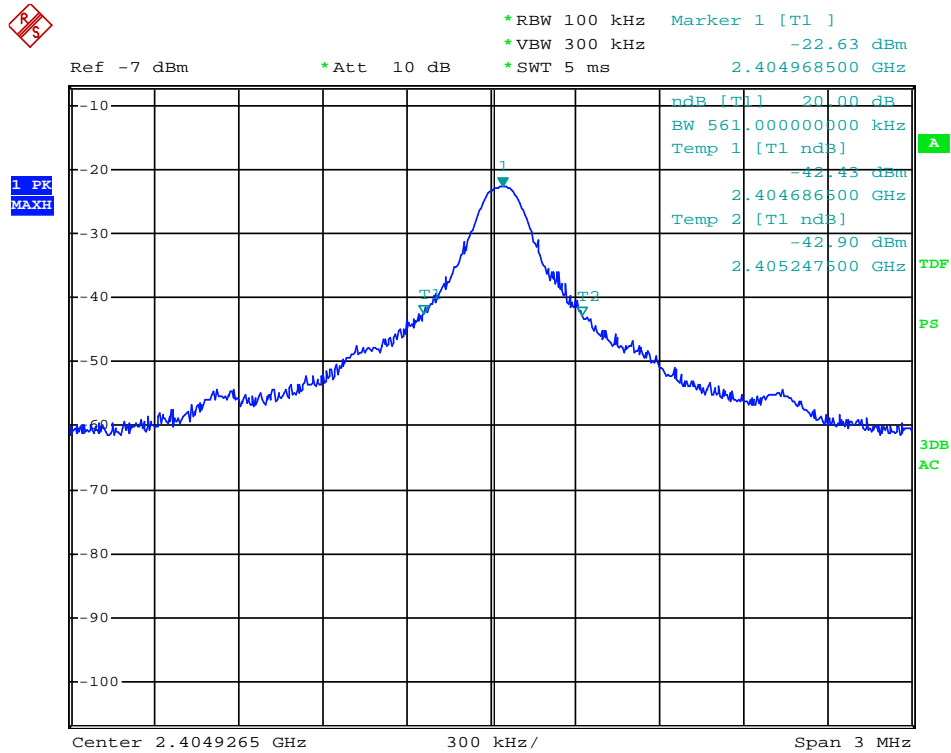


#### 4.4 TEST RESULTS

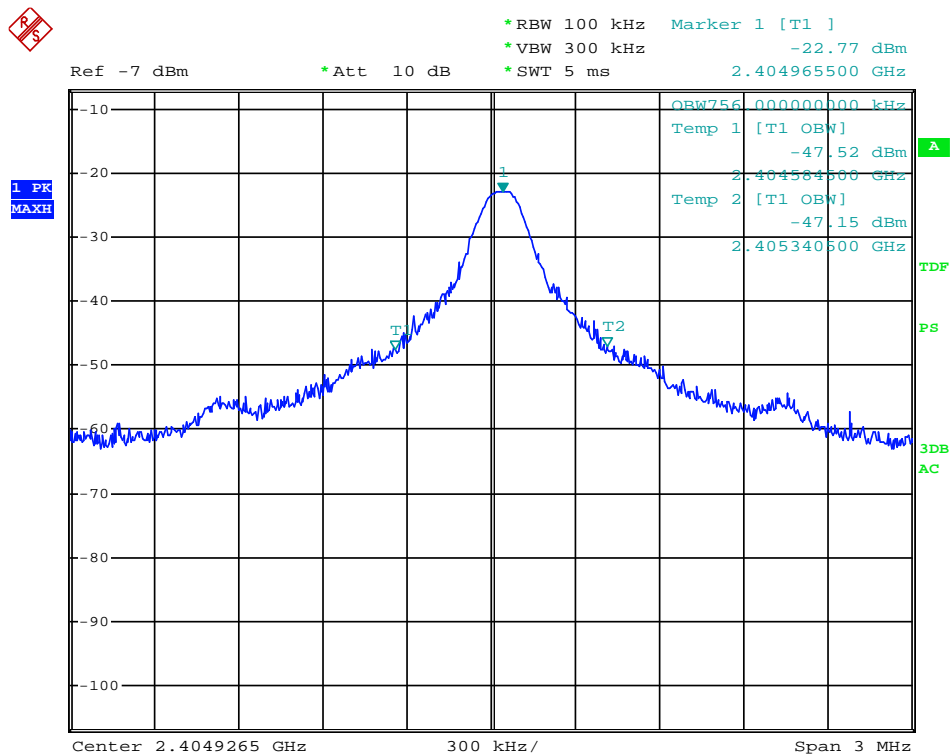
EUT :	Two-Gang Key Pad	Model Name :	CG201S2-KP
Temperature :	26 °C	Relative Humidity :	53%
Pressure :	1020 hPa	Test Power :	DC 6.0V
Test Mode :	TX CH low/mid/hig		

Test Channel	Frequency (MHz)	20 dBc Bandwidth (MHz)	99% Bandwidth (MHz)
CH01	2405	0.561	0.756
CH011	2440	0.535	0.675
CH05	2480	0.520	0.680

### The Lowest Channel:2405MHz

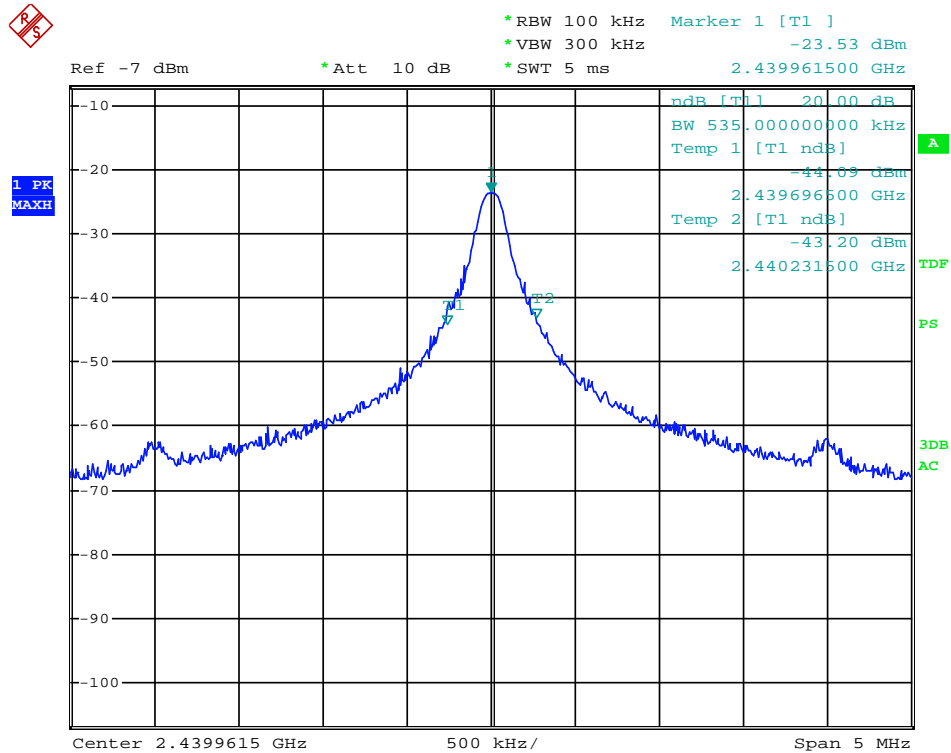


Date: 2.AUG.2011 05:49:05

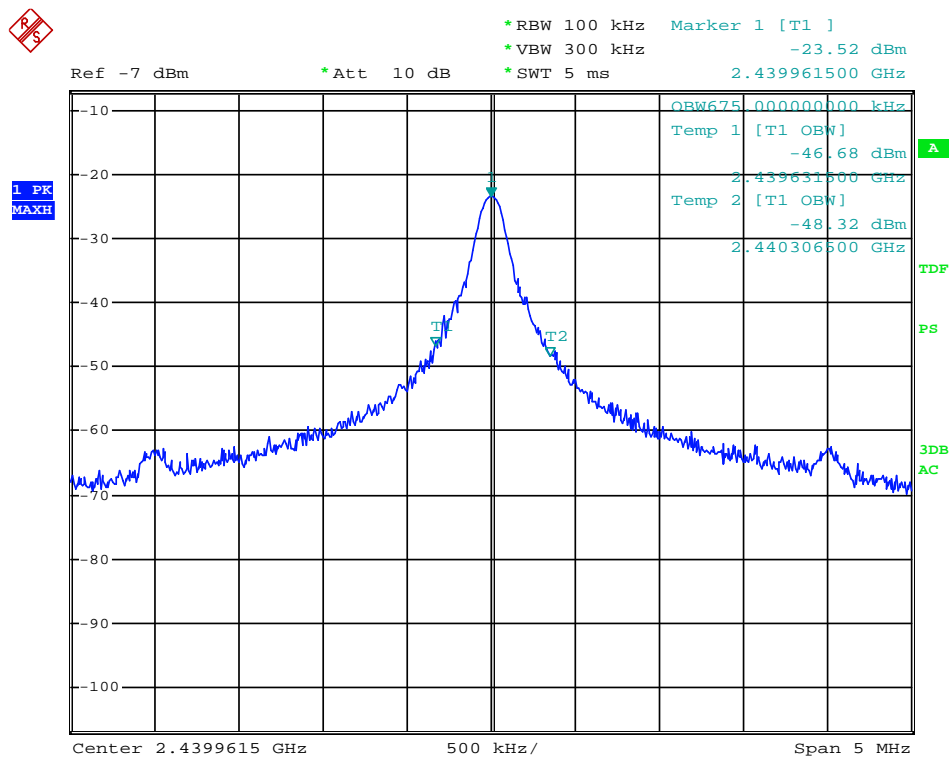


Date: 2.AUG.2011 05:50:01

### The Middle Channel:2440MHz

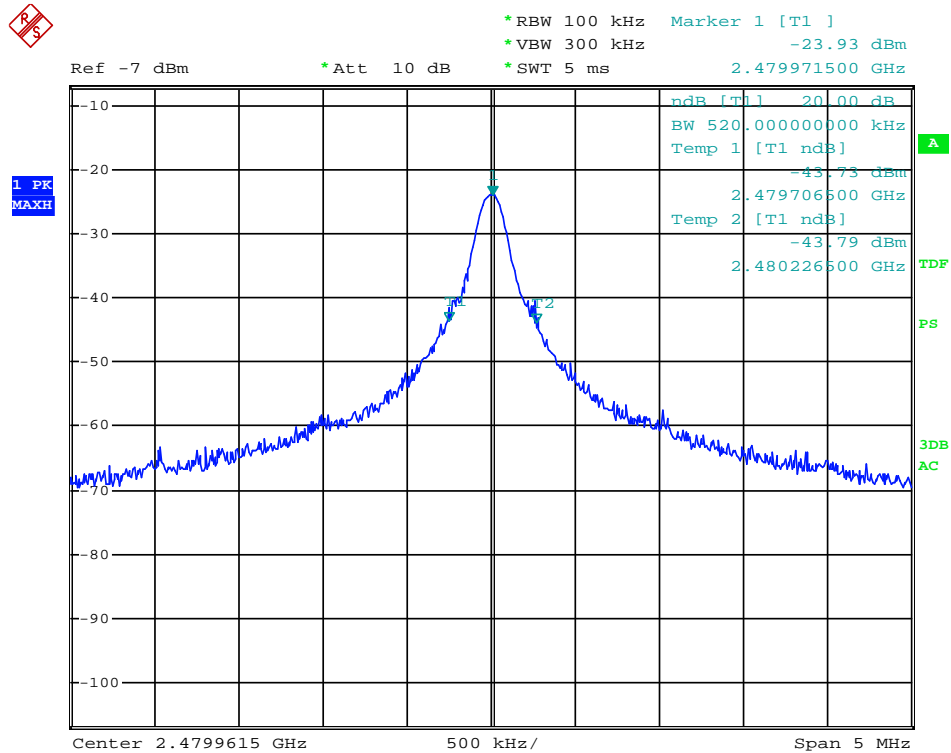


Date: 2.AUG.2011 05:55:57

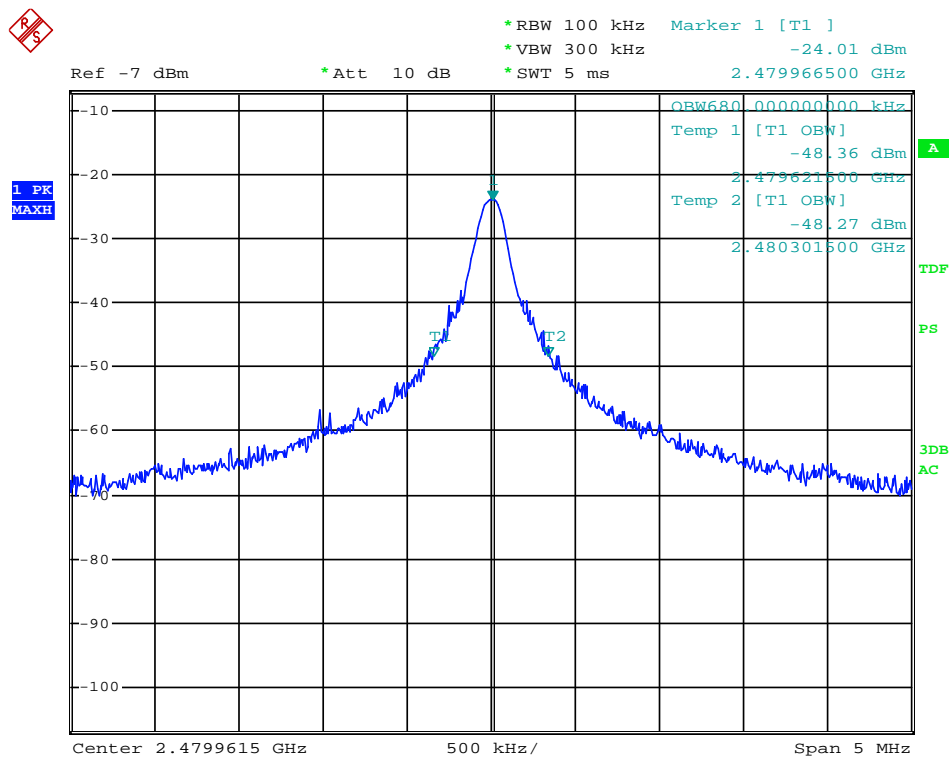


Date: 2.AUG.2011 05:56:33

### The Middle Channel:2480MHz



Date: 2.AUG.2011 05:59:56



Date: 2.AUG.2011 06:00:14

## 5. EUT TEST PHOTO

### Radiated Measurement Photos

