



**Neutron Engineering Inc.**

## FCC/IC Radio Test Report

**FCC ID: 2AACP-0AK1**

**IC: 11115A-0AK1**

This report concerns (check one): ☒ Original Grant ☐ Class II Change

Issued Date : May. 21, 2013  
Project No. : 1303C010  
Equipment : TRANSIT  
Model Name : AK1  
Applicant : Strata Audio LLC.  
Address : 31368 Via Colinas, Suite 106, Westlake Village, CA  
91362, USA  
Manufacturer : Strata Audio LLC.  
Address : 31368 Via Colinas, Suite 106, Westlake Village, CA  
91362, USA

**Tested by:**

Neutron Engineering Inc. EMC Laboratory

**Date of Receipt:** May. 13, 2013

**Date of Test:**

May. 13, 2013 ~ May. 20, 2013

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### **Declaration**

**Neutron** represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with the standards traceable to National Measurement Laboratory (**NML**) of **CHINA**, or National Institute of Standards and Technology (**NIST**) of **U.S.A.**

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### **Limitation**

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.



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## **1. CERTIFICATION**

Equipment : TRANSIT  
Brand Name : Soen  
Model Name : AK1  
Applicant : Strata Audio LLC.  
Factory : Shenzhen Synchron Electronics Co., Ltd.  
Address : No. 9 Mei Li Road, Xia Mei Lin, Fu Tian Area, Shenzhen, Guangdong, China  
Date of Test : May. 13, 2013 ~ May. 20, 2013  
Test Item : ENGINEERING SAMPLE  
FCC Part15, Subpart C(15.247) / ANSI C63.4 : 2009  
Standards : FCC Public Notice DA 00-705, March 30, 2000.  
Canada RSS-210:2010  
RSS-GEN Issue 3, Dec 2010

The above equipment has been tested and found compliance with the requirement of the relative standards by Neutron Engineering Inc. EMC Laboratory.

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. NEI-FICP-1-1303C010) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of TAF according to the ISO-17025 quality assessment standard and technical standard(s).



## 2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

| <b>APPLIED STANDARD: 47 CFR Part 15, Subpart C; Canada RSS-210:2010</b> |                           |                                     |          |        |
|-------------------------------------------------------------------------|---------------------------|-------------------------------------|----------|--------|
| Standard Section                                                        |                           | Test Item                           | Judgment | Remark |
| <b>RSS-210<br/>RSS-GEN Issue<br/>3, Dec 2010</b>                        | <b>47 CFR<br/>Part 15</b> |                                     |          |        |
| RSS-GEN Issue 3, Dec 2010 7.2.4                                         | 15.207                    | Conducted Emission                  | PASS     |        |
| RSS-210, Issue 8, Annex 8, Section 8.5                                  | 15.247(d)                 | Antenna conducted Spurious Emission | PASS     |        |
| RSS-210, Issue 8, Annex 8, Section A8.1(b)                              | 15.247 (a)(1)             | Hopping Channel Separation          | PASS     |        |
| RSS-210 Annex 8 (A8.1b)                                                 | 15.247 (b)(1)             | Peak Output Power                   | PASS     |        |
| RSS-210, Issue 8, Annex 8, Section 8.5                                  | 15.247(d)<br>15.209       | Radiated Spurious Emission          | PASS     |        |
| RSS-210, Issue 8, Annex 8, Section A8.1(d)                              | 15.247 (a)(1)(iii)        | Number of Hopping Frequency         | PASS     |        |
| RSS-210, Issue 8, Annex 8, Section A8.1(d)                              | 15.247 (a)(1)(iii)        | Dwell Time                          | PASS     |        |
| RSS-GEN Issue 3, Dec 2010 7.2.2                                         | 15.205                    | Restricted Bands                    | PASS     |        |
| RSS-210, Issue 8, Annex 8, Section A8.4                                 | 15.203                    | Antenna Requirement                 | PASS     |        |

**NOTE:**

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

(2) According to FCC Public Notice DA 00-705, March 30, 2000.



## 2.1 TEST FACILITY

The test facilities used to collect the test data in this report is **DG-C02/DG-CB03** at the location of No.3,Jinshagang 1st Road, ShiXia, Dalang Town, Dong Guan, China.523792

Neutron's test firm number for FCC 319330

Neutron's test firm number for IC 4428B-1

## 2.2 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

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 %**.

### A. Conducted Measurement :

| Test Site | Method | Measurement Frequency Range | U , (dB) | NOTE |
|-----------|--------|-----------------------------|----------|------|
| DG-C02    | CISPR  | 150 KHz ~ 30MHz             | 1.94     |      |

### B. Radiated Measurement :

| Test Site | Method | Measurement Frequency Range | Ant. H / V | U,(dB) | NOTE |
|-----------|--------|-----------------------------|------------|--------|------|
| DG-CB03   | CISPR  | 30MHz ~ 200MHz              | V          | 3.82   |      |
|           |        | 30MHz ~ 200MHz              | H          | 3.60   |      |
|           |        | 200MHz ~ 1,000MHz           | V          | 3.86   |      |
|           |        | 200MHz ~ 1,000MHz           | H          | 3.94   |      |
|           |        | 1GHz~18GHz                  | V          | 3.12   |      |
|           |        | 1GHz~18GHz                  | H          | 3.68   |      |
|           |        | 18GHz~40GHz                 | V          | 4.15   |      |
|           |        | 18GHz~40GHz                 | H          | 4.14   |      |



### 3. GENERAL INFORMATION

#### 3.1 GENERAL DESCRIPTION OF EUT

|                        |                                                                                                                       |                                        |
|------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Equipment              | TRANSIT                                                                                                               |                                        |
| Brand Name             | Soen                                                                                                                  |                                        |
| Model Name For FCC     | AK1                                                                                                                   |                                        |
| Model Difference       | N/A                                                                                                                   |                                        |
| Product Description    | The EUT is a TRANSIT.                                                                                                 |                                        |
|                        | Operation Frequency                                                                                                   | 2402~2480 MHz                          |
|                        | Modulation Technology                                                                                                 | GFSK(1Mbps)                            |
|                        | Bit Rate of Transmitter                                                                                               | $\pi$ /4-DQPSK(2Mbps)<br>8-DPSK(3Mbps) |
|                        | Number of Channel                                                                                                     | 79 CH, Please see note 2.(Page 9)      |
|                        | Antenna Designation                                                                                                   | Please see note 3.(Page 9)             |
|                        | Antenna Gain(Peak)                                                                                                    |                                        |
|                        | Output Power                                                                                                          | 0.85 dBm (1Mbps)<br>-0.40 dBm (3Mbps)  |
|                        | More details of EUT technical specification, please refer to the User's Manual.                                       |                                        |
| Power Source           | #1 DC voltage supplied from Li-Ion Battery.<br>Battery Model: MLP525058<br>#2 DC voltage supplied from AC/DC adapter. |                                        |
| Power Rating           | #1 DC 3.7V 1600mAh<br>#2 I/P AC 100-240V~0.15A 50-60Hz O/P DC 5V 1A                                                   |                                        |
| Connecting I/O Port(s) | Please refer to the User's Manual                                                                                     |                                        |

**Note:**

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

2.

| Channel List |                 |         |                 |         |                 |
|--------------|-----------------|---------|-----------------|---------|-----------------|
| Channel      | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
| 00           | 2402            | 27      | 2429            | 54      | 2456            |
| 01           | 2403            | 28      | 2430            | 55      | 2457            |
| 02           | 2404            | 29      | 2431            | 56      | 2458            |
| 03           | 2405            | 30      | 2432            | 57      | 2459            |
| 04           | 2406            | 31      | 2433            | 58      | 2460            |
| 05           | 2407            | 32      | 2434            | 59      | 2461            |
| 06           | 2408            | 33      | 2435            | 60      | 2462            |
| 07           | 2409            | 34      | 2436            | 61      | 2463            |
| 08           | 2410            | 35      | 2437            | 62      | 2464            |
| 09           | 2411            | 36      | 2438            | 63      | 2465            |
| 10           | 2412            | 37      | 2439            | 64      | 2466            |
| 11           | 2413            | 38      | 2440            | 65      | 2467            |
| 12           | 2414            | 39      | 2441            | 66      | 2468            |
| 13           | 2415            | 40      | 2442            | 67      | 2469            |
| 14           | 2416            | 41      | 2443            | 68      | 2470            |
| 15           | 2417            | 42      | 2444            | 69      | 2471            |
| 16           | 2418            | 43      | 2445            | 70      | 2472            |
| 17           | 2419            | 44      | 2446            | 71      | 2473            |
| 18           | 2420            | 45      | 2447            | 72      | 2474            |
| 19           | 2421            | 46      | 2448            | 73      | 2475            |
| 20           | 2422            | 47      | 2449            | 74      | 2476            |
| 21           | 2423            | 48      | 2450            | 75      | 2477            |
| 22           | 2424            | 49      | 2451            | 76      | 2478            |
| 23           | 2425            | 50      | 2452            | 77      | 2479            |
| 24           | 2426            | 51      | 2453            | 78      | 2480            |
| 25           | 2427            | 52      | 2454            |         |                 |
| 26           | 2428            | 53      | 2455            |         |                 |

3.

Table for Filed Antenna

| Ant. | Brand | Model Name | Antenna Type    | Connector | Gain (dBi) |
|------|-------|------------|-----------------|-----------|------------|
| 1    | N/A   | N/A        | Printed Antenna | N/A       | 2.12       |

### 3.2 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       | TX Mode <b>NOTE (1)</b> |
| Mode 2       | Bluetooth               |

The EUT system operated these modes were found to be the worst case during the pre-scanning test as following:

| For Conducted Emission |             |
|------------------------|-------------|
| Final Test Mode        | Description |
| Mode 2                 | Bluetooth   |

| For Radiated Emission |                         |
|-----------------------|-------------------------|
| Final Test Mode       | Description             |
| Mode 1                | TX Mode <b>NOTE (1)</b> |

**Note:**

(1) The measurements are performed at the high, middle, low available channels.

### 3.3 TABLE OF PARAMETERS OF TEST SOFTWARE SETTING

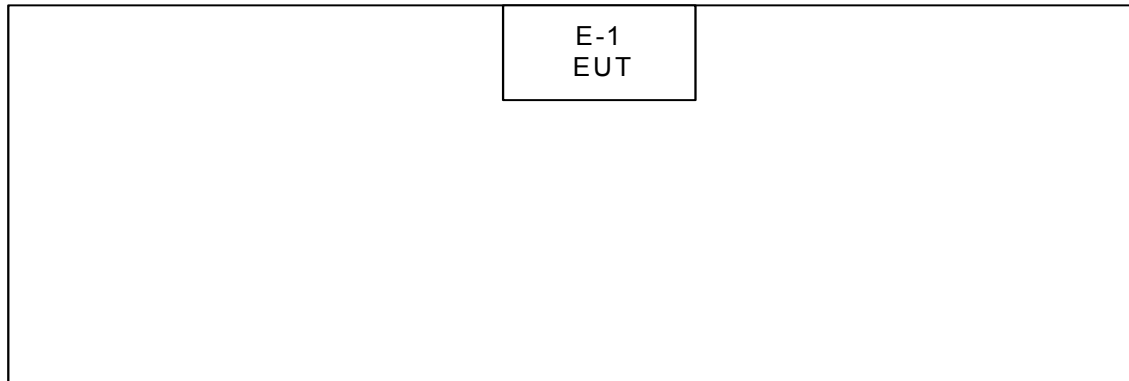
During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of FHSS

| Test software version | Bluetest |          |          |
|-----------------------|----------|----------|----------|
| Frequency             | 2402 MHz | 2441 MHz | 2480 MHz |
| Parameters-1Mbps      | 63       | 63       | 63       |
| Parameters-3Mbps      | 100      | 100      | 100      |

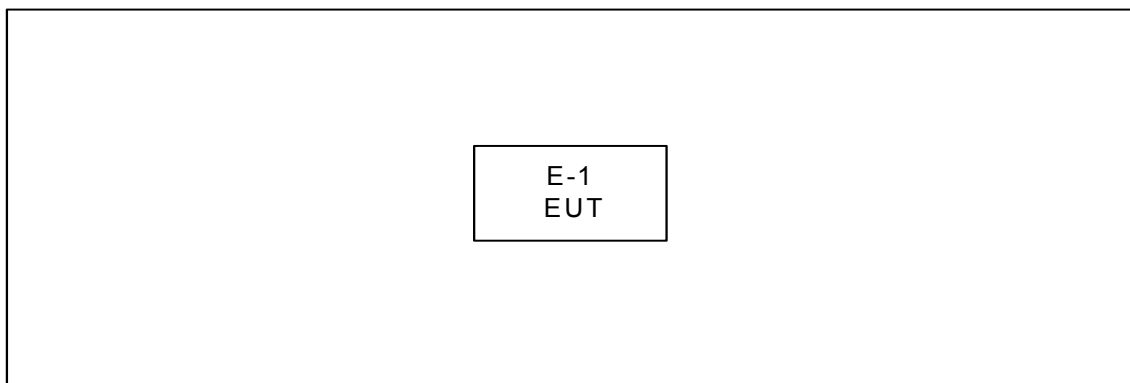


### 3.4 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

**Conducted:**



**Radiated:**





### 3.5 DESCRIPTION OF SUPPORT UNITS

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  | TRANSIT   | Soen      | AK1            | 2AACP-0AK1 | N/A        | EUT  |

| Item | Shielded Type | Ferrite Core | Length | Note |
|------|---------------|--------------|--------|------|
| -    | -             | -            | -      |      |

Note:

- (1) For detachable type I/O cable should be specified the length in m in 『Length』 column.



#### 4. EMC EMISSION TEST

##### 4.1 CONDUCTED EMISSION MEASUREMENT

##### 4.1.1 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       | 79.00          | 66.00   | 66 - 56 *      | 56 - 46 * | CISPR    |
| 0.50 -5.0       | 73.00          | 60.00   | 56.00          | 46.00     | CISPR    |
| 5.0 -30.0       | 73.00          | 60.00   | 60.00          | 50.00     | CISPR    |

|           |       |       |           |           |     |
|-----------|-------|-------|-----------|-----------|-----|
| 0.15 -0.5 | 79.00 | 66.00 | 66 - 56 * | 56 - 46 * | FCC |
| 0.50 -5.0 | 73.00 | 60.00 | 56.00     | 46.00     | FCC |
| 5.0 -30.0 | 73.00 | 60.00 | 60.00     | 50.00     | FCC |

Note:

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

##### 4.1.2 MEASUREMENT INSTRUMENTS LIST AND SETTING

| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
|------|-------------------|--------------|----------|------------|------------------|
| 1    | LISN              | EMCO         | 3816/2   | 00052765   | Apr. 25, 2014    |
| 2    | LISN              | R&S          | ENV216   | 100087     | Nov.16.2013      |
| 3    | Test Cable        | N/A          | C_17     | N/A        | Mar.15.2014      |
| 4    | EMI TEST RECEIVER | R&S          | ESCS30   | 826547/022 | Apr. 25, 2014    |
| 5    | 50Ω Terminator    | SHX          | TF2-3G-A | 08122902   | Apr. 25, 2014    |

Remark: "N/A" denotes no model name, serial no. or calibration specified.

All calibration period of Equipment List is One Year.

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    |

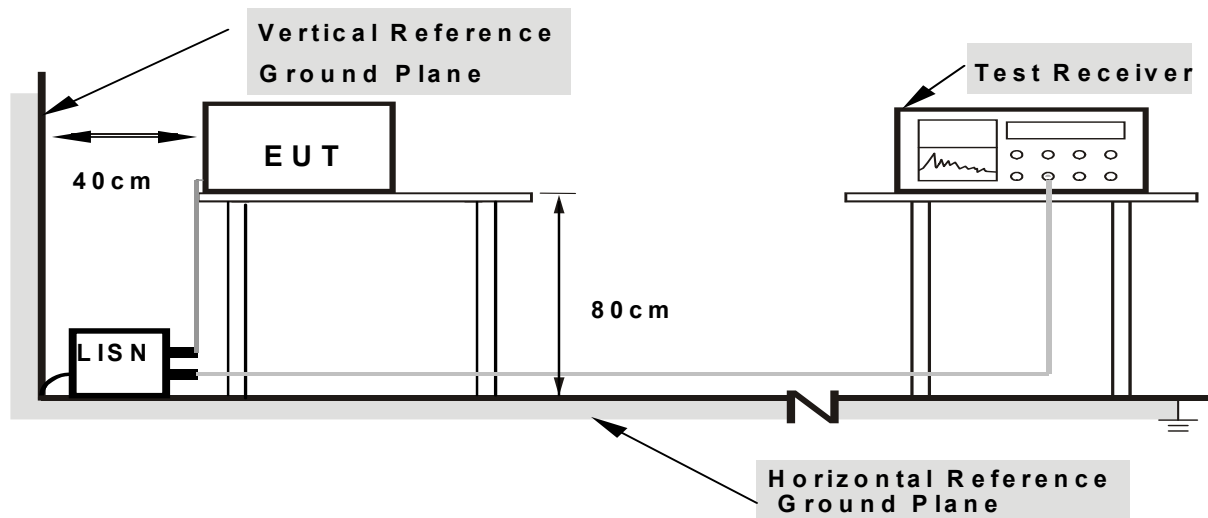
#### 4.1.3 TEST PROCEDURE

- The EUT was placed 0.8 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.

#### 4.1.4 DEVIATION FROM TEST STANDARD

No deviation

#### 4.1.5 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

#### 4.1.6 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

The EUT is continue Transmitter/Receive data or Hopping on mode.



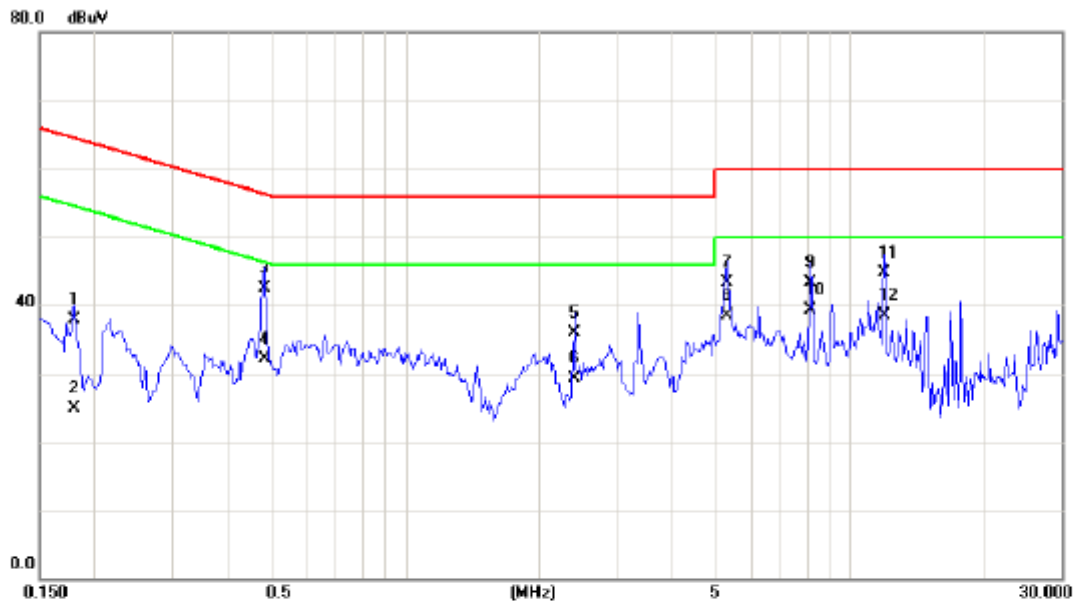
#### **4.1.7 TEST RESULTS**

**Remark**

- (1) All readings are QP Mode value unless otherwise stated AVG in column of『Note』. If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform. In this case, a “ \* ” marked in AVG Mode column of Interference Voltage Measured.
- (2) Measuring frequency range from 150KHz to 30MHz.



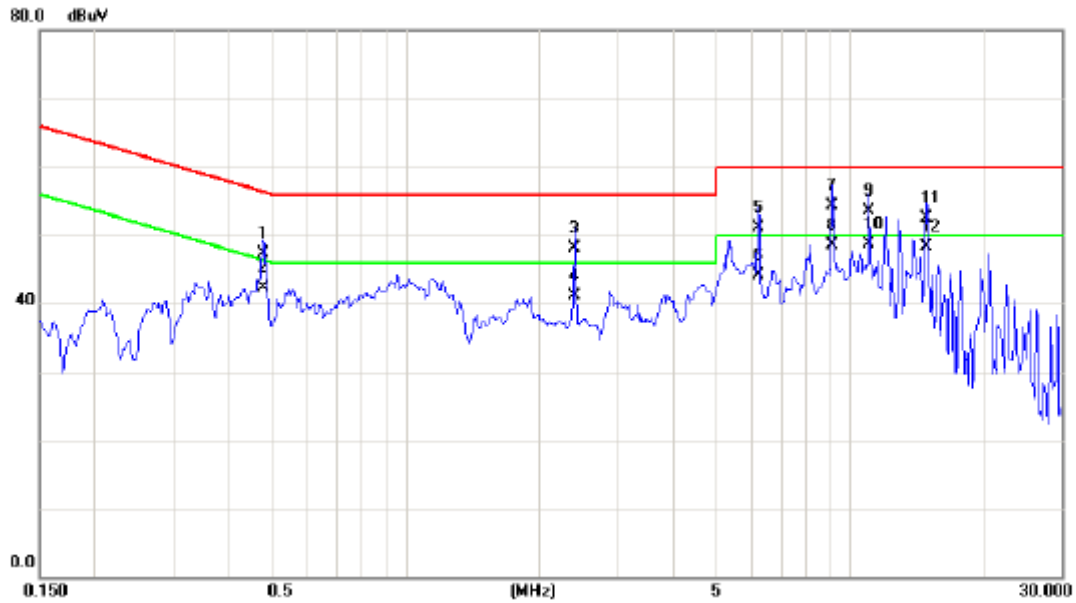
|              |              |                    |      |
|--------------|--------------|--------------------|------|
| EUT:         | TRANSIT      | Model Name :       | AK1  |
| Temperature: | 23 °C        | Relative Humidity: | 50 % |
| Test Power:  | AC 120V/60Hz | Phase:             | Line |
| Test Mode:   | Bluetooth    |                    |      |



| No. | Mk. | Freq.<br>MHz | Reading<br>Level<br>dBuV | Correct<br>Factor<br>dB | Measure-<br>ment<br>dBuV | Limit<br>dBuV | Over<br>dB | Detector | Comment |
|-----|-----|--------------|--------------------------|-------------------------|--------------------------|---------------|------------|----------|---------|
| 1   |     | 0.1796       | 28.28                    | 9.72                    | 38.00                    | 64.50         | -26.50     | QP       |         |
| 2   |     | 0.1796       | 15.28                    | 9.72                    | 25.00                    | 54.50         | -29.50     | AVG      |         |
| 3   |     | 0.4820       | 32.78                    | 9.75                    | 42.53                    | 56.30         | -13.77     | QP       |         |
| 4   |     | 0.4820       | 22.35                    | 9.75                    | 32.10                    | 46.30         | -14.20     | AVG      |         |
| 5   |     | 2.4000       | 26.12                    | 9.88                    | 36.00                    | 56.00         | -20.00     | QP       |         |
| 6   |     | 2.4000       | 19.35                    | 9.88                    | 29.23                    | 46.00         | -16.77     | AVG      |         |
| 7   |     | 5.2930       | 33.27                    | 9.94                    | 43.21                    | 60.00         | -16.79     | QP       |         |
| 8   |     | 5.2930       | 28.61                    | 9.94                    | 38.55                    | 50.00         | -11.45     | AVG      |         |
| 9   |     | 8.1562       | 33.21                    | 10.02                   | 43.23                    | 60.00         | -16.77     | QP       |         |
| 10  | *   | 8.1562       | 29.26                    | 10.02                   | 39.28                    | 50.00         | -10.72     | AVG      |         |
| 11  |     | 11.9763      | 34.57                    | 10.09                   | 44.66                    | 60.00         | -15.34     | QP       |         |
| 12  |     | 11.9763      | 28.35                    | 10.09                   | 38.44                    | 50.00         | -11.56     | AVG      |         |



|              |              |                    |         |
|--------------|--------------|--------------------|---------|
| EUT:         | TRANSIT      | Model Name :       | AK1     |
| Temperature: | 23 °C        | Relative Humidity: | 50 %    |
| Test Power:  | AC 120V/60Hz | Phase:             | Neutral |
| Test Mode:   | Bluetooth    |                    |         |



| No. | Mk. | Freq.<br>MHz | Reading<br>Level<br>dBuV | Correct<br>Factor<br>dB | Measure-<br>ment<br>dBuV | Limit<br>dBuV | Over<br>dB | Detector | Comment |
|-----|-----|--------------|--------------------------|-------------------------|--------------------------|---------------|------------|----------|---------|
| 1   |     | 0.4786       | 37.53                    | 9.75                    | 47.28                    | 56.36         | -9.08      | QP       |         |
| 2   |     | 0.4786       | 32.53                    | 9.75                    | 42.28                    | 46.36         | -4.08      | AVG      |         |
| 3   |     | 2.4000       | 38.20                    | 9.89                    | 48.09                    | 56.00         | -7.91      | QP       |         |
| 4   |     | 2.4000       | 31.21                    | 9.89                    | 41.10                    | 46.00         | -4.90      | AVG      |         |
| 5   |     | 6.2381       | 41.12                    | 9.97                    | 51.09                    | 60.00         | -8.91      | QP       |         |
| 6   |     | 6.2381       | 34.13                    | 9.97                    | 44.10                    | 50.00         | -5.90      | AVG      |         |
| 7   |     | 9.1171       | 44.24                    | 10.06                   | 54.30                    | 60.00         | -5.70      | QP       |         |
| 8   |     | 9.1171       | 38.35                    | 10.06                   | 48.41                    | 50.00         | -1.59      | AVG      |         |
| 9   |     | 11.0390      | 43.43                    | 10.11                   | 53.54                    | 60.00         | -6.46      | QP       |         |
| 10  | *   | 11.0390      | 38.56                    | 10.11                   | 48.67                    | 50.00         | -1.33      | AVG      |         |
| 11  |     | 14.8866      | 42.24                    | 10.20                   | 52.44                    | 60.00         | -7.56      | QP       |         |
| 12  |     | 14.8866      | 38.20                    | 10.20                   | 48.40                    | 50.00         | -1.60      | AVG      |         |



## 4.2 RADIATED EMISSION MEASUREMENT

### 4.2.1 RADIATED EMISSION LIMITS (Frequency Range 9kHz-1000MHz)

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

| Frequencies<br>(MHz) | Field Strength<br>(micorvolts/meter) | Measurement Distance<br>(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                                |

### LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

| FREQUENCY (MHz) | (dBuV/m) (at 3M) |         |
|-----------------|------------------|---------|
|                 | PEAK             | AVERAGE |
| Above 1000      | 74               | 54      |

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

### FREQUENCY RANGE OF RADIATED MEASUREMENT (For unintentional radiators)

| Highest frequency generated or<br>Upper frequency of<br>measurement used in the device<br>or on which the device operates<br>or tunes (MHz) | Range (MHz)                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Below 1.705                                                                                                                                 | 30                                                                                 |
| 1.705 – 108                                                                                                                                 | 1000                                                                               |
| 108 – 500                                                                                                                                   | 2000                                                                               |
| 500 – 1000                                                                                                                                  | 5000                                                                               |
| Above 1000                                                                                                                                  | 5 <sup>th</sup> harmonic of the highest frequency or 40 GHz,<br>whichever is lower |



#### 4.2.2 MEASUREMENT INSTRUMENTS LIST AND SETTING

| Item | Kind of Equipment       | Manufacturer | Type No.  | Serial No. | Calibrated until |
|------|-------------------------|--------------|-----------|------------|------------------|
| 1    | Antenna                 | Schwarbeck   | VULB9160  | 9160-3232  | Apr. 25, 2014    |
| 2    | Amplifier               | HP           | 8447D     | 2944A09673 | Apr. 25, 2014    |
| 3    | Test Receiver           | R&S          | ESCI      | 100382     | Apr. 25, 2014    |
| 4    | Test Cable              | N/A          | C-01_CB03 | N/A        | Jun.30.2013      |
| 5    | Antenna                 | ETS          | 3115      | 00075789   | Apr. 25, 2014    |
| 6    | Amplifier               | Agilent      | 8449B     | 3008A02274 | Apr. 25, 2014    |
| 7    | Spectrum                | Agilent      | E4408B    | US39240143 | Nov. 16.2013     |
| 8    | Test Cable              | HUBER+SUHNER | C-45      | N/A        | May.01.2014      |
| 9    | Controller              | CT           | SC100     | N/A        | N/A              |
| 10   | Horn Antenna            | EMCO         | 3115      | 9605-4803  | Apr. 25, 2014    |
| 11   | Active Loop Antenna     | R&S          | HFH2-Z2   | 830749/020 | Apr. 25, 2014    |
| 12   | Broad-Band Horn Antenna | Schwarzbeck  | BBHA 9170 | 9170319    | Oct.12.2013      |



***Neutron Engineering Inc.***



**4.2.7  
TEST  
RESULT  
S  
(BELOW  
30MHZ) □  
••**

|               |                        |                    |      |
|---------------|------------------------|--------------------|------|
| EUT:          | TRANSIT                | Model Name:        | AK1  |
| Temperature:  | 24 °C                  | Relative Humidity: | 46 % |
| Test Voltage: | AC120V/60Hz            |                    |      |
| Test Mode:    | TX 2402MHz –CH00-1Mbps |                    |      |

| Freq.<br>(MHz) | Ant.<br>0°/90° | Reading(RA)<br>(dBuV) | Corr.Factor(CF)<br>(dB) | Measured(FS)<br>(dBuV/m) | Limits(QP)<br>(dBuV/m) | Margin<br>(dB) | Note |
|----------------|----------------|-----------------------|-------------------------|--------------------------|------------------------|----------------|------|
| 0.1267         | 0°             | 30.58                 | 20.97                   | 51.55                    | 105.55                 | -54.00         | PEAK |
| 0.1267         | 0°             | 19.24                 | 20.97                   | 40.21                    | 105.55                 | -65.34         | AVG  |
| 0.8515         | 0°             | 27.352                | 23.76                   | 51.11                    | 125.55                 | -74.44         | QP   |
| 1.0272         | 0°             | 27.848                | 19.60                   | 47.45                    | 67.37                  | -19.93         | QP   |
| 3.7113         | 0°             | 26.63                 | 18.97                   | 45.60                    | 69.54                  | -23.94         | QP   |
| 6.7289         | 0°             | 25.58                 | 18.06                   | 43.64                    | 69.54                  | -25.90         | QP   |
| 8.5132         | 0°             | 26.85                 | 17.92                   | 44.77                    | 69.54                  | -24.77         | QP   |

| Freq.<br>(MHz) | Ant.<br>0°/90° | Reading(RA)<br>(dBuV) | Corr.Factor(CF)<br>(dB) | Measured(FS)<br>(dBuV/m) | Limits(QP)<br>(dBuV/m) | Margin<br>(dB) | Note |
|----------------|----------------|-----------------------|-------------------------|--------------------------|------------------------|----------------|------|
| 0.3451         | 90°            | 19.23                 | 20.17                   | 39.40                    | 96.85                  | -57.44         | PEAK |
| 0.3451         | 90°            | 31.12                 | 21.19                   | 52.31                    | 116.85                 | -64.54         | AVG  |
| 0.8436         | 90°            | 25.63                 | 20.23                   | 45.86                    | 69.08                  | -23.23         | QP   |
| 2.5135         | 90°            | 23.89                 | 19.19                   | 43.08                    | 69.54                  | -26.46         | QP   |
| 5.8562         | 90°            | 27.12                 | 18.13                   | 45.25                    | 69.54                  | -24.29         | QP   |
| 7.4541         | 90°            | 25.42                 | 18.00                   | 43.42                    | 69.54                  | -26.12         | QP   |
| 12.7537        | 90°            | 24.09                 | 17.97                   | 42.06                    | 69.54                  | -27.48         | QP   |

Remark :

- (1) The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.
- (2) Distance extrapolation factor =  $40 \log (\text{specific distance} / \text{test distance})$  (dB);.
- (3) Limit line = specific limits (dBuV) + distance extrapolation factor..



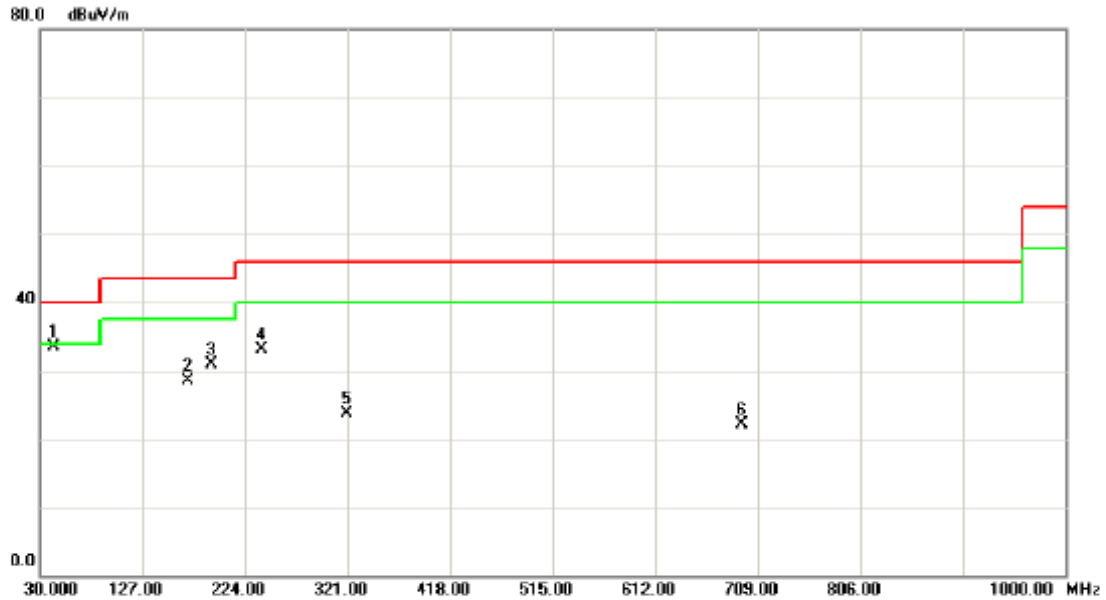
#### **4.2.8 TEST RESULTS (BETWEEN 30 – 1000 MHZ)**

Remark :

- (1) Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Mode or Peak Mode with Detector BW=120KHz ; SPA setting in RBW=120KHz, VBW =120KHz, Swp. Time = 0.3 sec./MHz.
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
- (3) Measuring frequency range from 30MHz to 1000MHz.
- (4) If the peak scan value lower limit more than 20dB, then this signal data does not show in table.



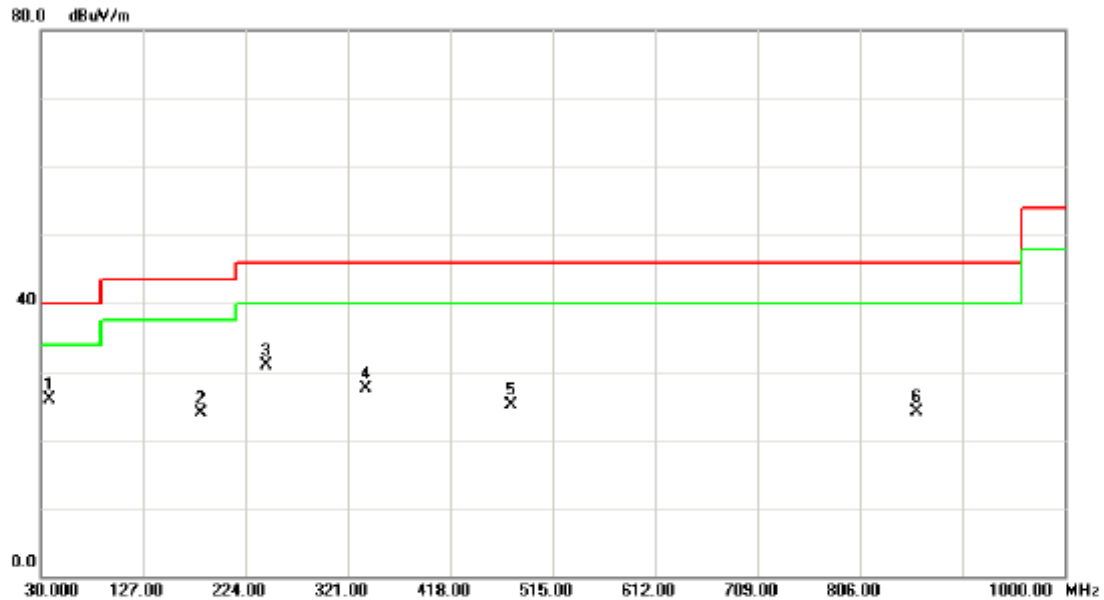
|              |                        |                    |          |
|--------------|------------------------|--------------------|----------|
| EUT:         | TRANSIT                | Model Name:        | AK1      |
| Temperature: | 24 °C                  | Relative Humidity: | 56 %     |
| Test Power:  | AC120V/60Hz            | Phase:             | Vertical |
| Test Mode:   | TX 2402MHz –CH00-1Mbps |                    |          |



| No. | Mk. | Freq.<br>MHz | Reading<br>Level<br>dBuV | Correct<br>Factor<br>dB | Measure-<br>ment<br>dBuV/m | Limit<br>dBuV/m | Over<br>dB | Detector | Comment |
|-----|-----|--------------|--------------------------|-------------------------|----------------------------|-----------------|------------|----------|---------|
| 1   | *   | 43.5800      | 52.54                    | -19.03                  | 33.51                      | 40.00           | -6.49      | peak     |         |
| 2   |     | 169.6800     | 49.53                    | -21.00                  | 28.53                      | 43.50           | -14.97     | peak     |         |
| 3   |     | 191.9900     | 54.90                    | -23.99                  | 30.91                      | 43.50           | -12.59     | peak     |         |
| 4   |     | 240.4900     | 52.34                    | -19.23                  | 33.11                      | 46.00           | -12.89     | peak     |         |
| 5   |     | 320.0300     | 40.91                    | -17.23                  | 23.68                      | 46.00           | -22.32     | peak     |         |
| 6   |     | 694.4500     | 29.70                    | -7.55                   | 22.15                      | 46.00           | -23.85     | peak     |         |



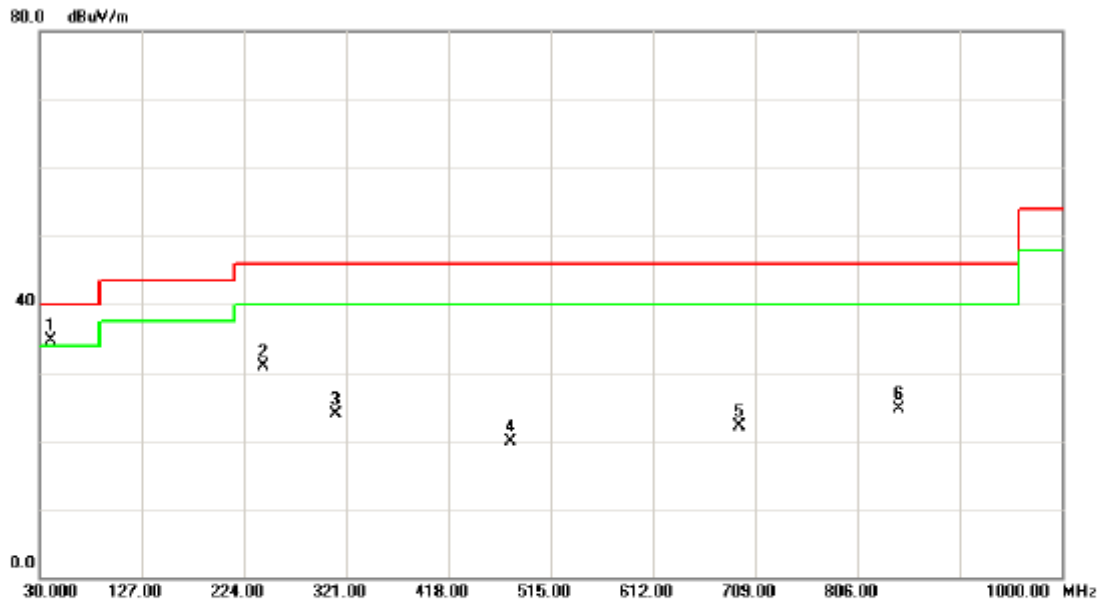
|              |                        |                    |            |
|--------------|------------------------|--------------------|------------|
| EUT:         | TRANSIT                | Model Name:        | AK1        |
| Temperature: | 24 °C                  | Relative Humidity: | 56 %       |
| Test Power:  | AC120V/60Hz            | Phase:             | Horizontal |
| Test Mode:   | TX 2402MHz –CH00-1Mbps |                    |            |



| No. | Mk. | Freq.<br>MHz | Reading<br>Level<br>dBuV | Correct<br>Factor<br>dB | Measure-<br>ment<br>dBuV/m | Limit<br>dBuV/m | Over<br>dB | Detector | Comment |
|-----|-----|--------------|--------------------------|-------------------------|----------------------------|-----------------|------------|----------|---------|
| 1   | *   | 37.7600      | 40.19                    | -14.36                  | 25.83                      | 40.00           | -14.17     | peak     |         |
| 2   |     | 181.3200     | 47.10                    | -23.14                  | 23.96                      | 43.50           | -19.54     | peak     |         |
| 3   |     | 244.3700     | 49.95                    | -19.07                  | 30.88                      | 46.00           | -15.12     | peak     |         |
| 4   |     | 338.4600     | 44.73                    | -17.26                  | 27.47                      | 46.00           | -18.53     | peak     |         |
| 5   |     | 475.2300     | 38.32                    | -13.25                  | 25.07                      | 46.00           | -20.93     | peak     |         |
| 6   |     | 859.3500     | 29.18                    | -5.12                   | 24.06                      | 46.00           | -21.94     | peak     |         |



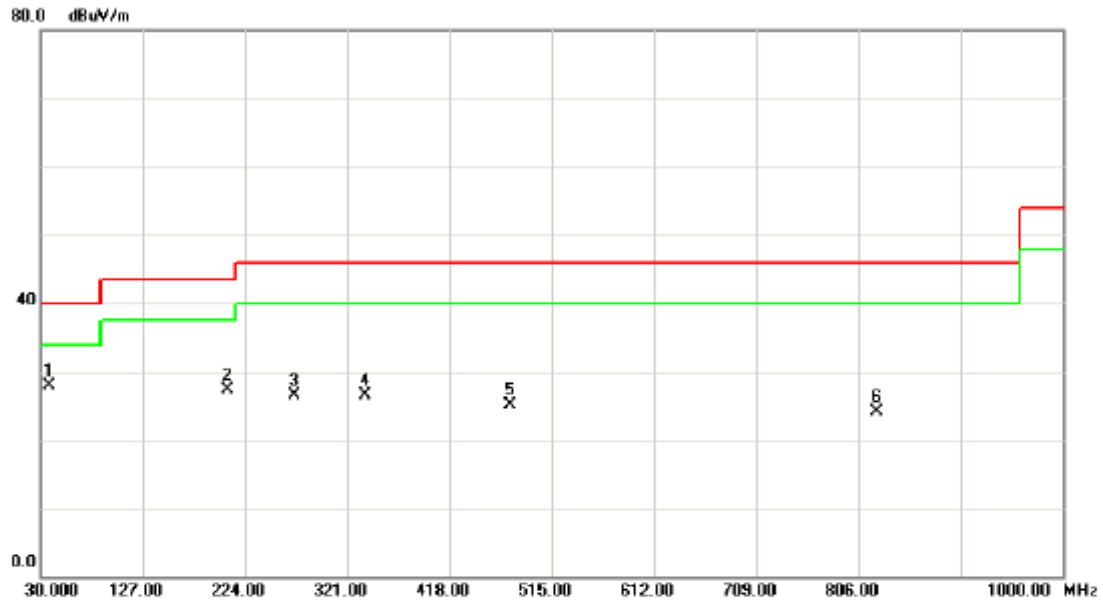
|              |                        |                    |          |
|--------------|------------------------|--------------------|----------|
| EUT:         | TRANSIT                | Model Name:        | AK1      |
| Temperature: | 24 °C                  | Relative Humidity: | 56 %     |
| Test Power:  | AC120V/60Hz            | Phase:             | Vertical |
| Test Mode:   | TX 2441MHz –CH39-1Mbps |                    |          |



| No. | Mk. | Freq.<br>MHz | Reading<br>Level<br>dBuV | Correct<br>Factor<br>dB | Measure-<br>ment<br>dBuV/m | Limit<br>dBuV/m | Over<br>dB | Detector | Comment |
|-----|-----|--------------|--------------------------|-------------------------|----------------------------|-----------------|------------|----------|---------|
| 1   | *   | 40.6700      | 51.44                    | -16.72                  | 34.72                      | 40.00           | -5.28      | peak     |         |
| 2   |     | 242.4300     | 50.12                    | -19.14                  | 30.98                      | 46.00           | -15.02     | peak     |         |
| 3   |     | 311.3000     | 41.17                    | -17.21                  | 23.96                      | 46.00           | -22.04     | peak     |         |
| 4   |     | 476.2000     | 33.19                    | -13.22                  | 19.97                      | 46.00           | -26.03     | peak     |         |
| 5   |     | 694.4500     | 29.70                    | -7.55                   | 22.15                      | 46.00           | -23.85     | peak     |         |
| 6   |     | 845.7700     | 29.84                    | -5.06                   | 24.78                      | 46.00           | -21.22     | peak     |         |



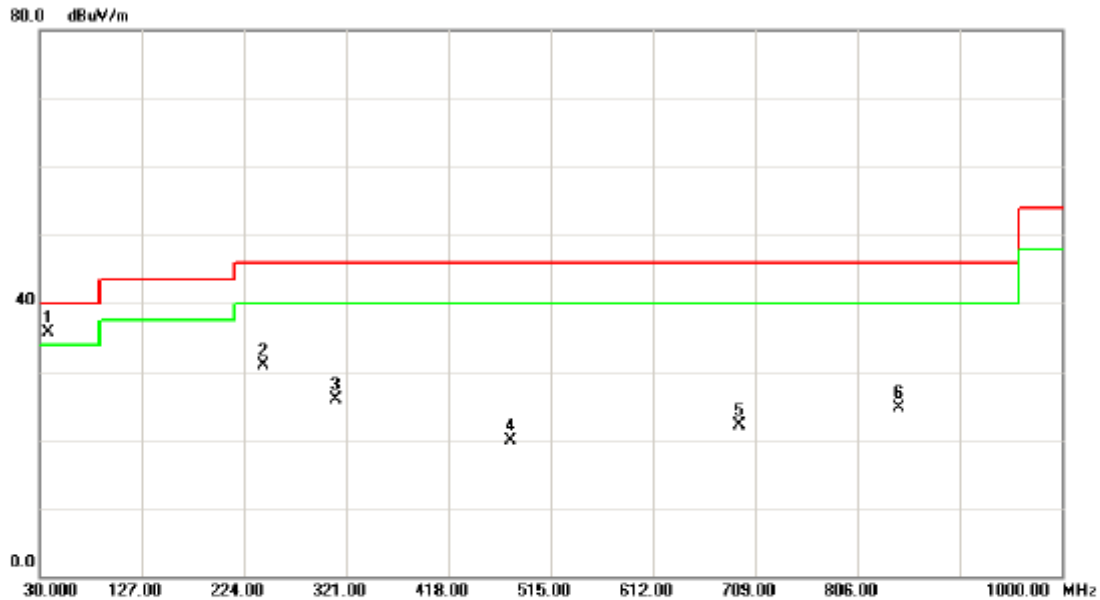
|              |                        |                    |            |
|--------------|------------------------|--------------------|------------|
| EUT:         | TRANSIT                | Model Name:        | AK1        |
| Temperature: | 24 °C                  | Relative Humidity: | 56 %       |
| Test Power:  | AC120V/60Hz            | Phase:             | Horizontal |
| Test Mode:   | TX 2441MHz –CH39-1Mbps |                    |            |



| No. | Mk. | Freq.<br>MHz | Reading<br>Level<br>dBuV | Correct<br>Factor<br>dB | Measure-<br>ment<br>dBuV/m | Limit<br>dBuV/m | Over<br>dB | Detector | Comment |
|-----|-----|--------------|--------------------------|-------------------------|----------------------------|-----------------|------------|----------|---------|
| 1   | *   | 37.7600      | 42.19                    | -14.36                  | 27.83                      | 40.00           | -12.17     | peak     |         |
| 2   |     | 207.5100     | 50.34                    | -23.12                  | 27.22                      | 43.50           | -16.28     | peak     |         |
| 3   |     | 270.5600     | 43.84                    | -17.38                  | 26.46                      | 46.00           | -19.54     | peak     |         |
| 4   |     | 338.4600     | 43.73                    | -17.26                  | 26.47                      | 46.00           | -19.53     | peak     |         |
| 5   |     | 475.2300     | 38.32                    | -13.25                  | 25.07                      | 46.00           | -20.93     | peak     |         |
| 6   |     | 823.4600     | 29.58                    | -5.57                   | 24.01                      | 46.00           | -21.99     | peak     |         |



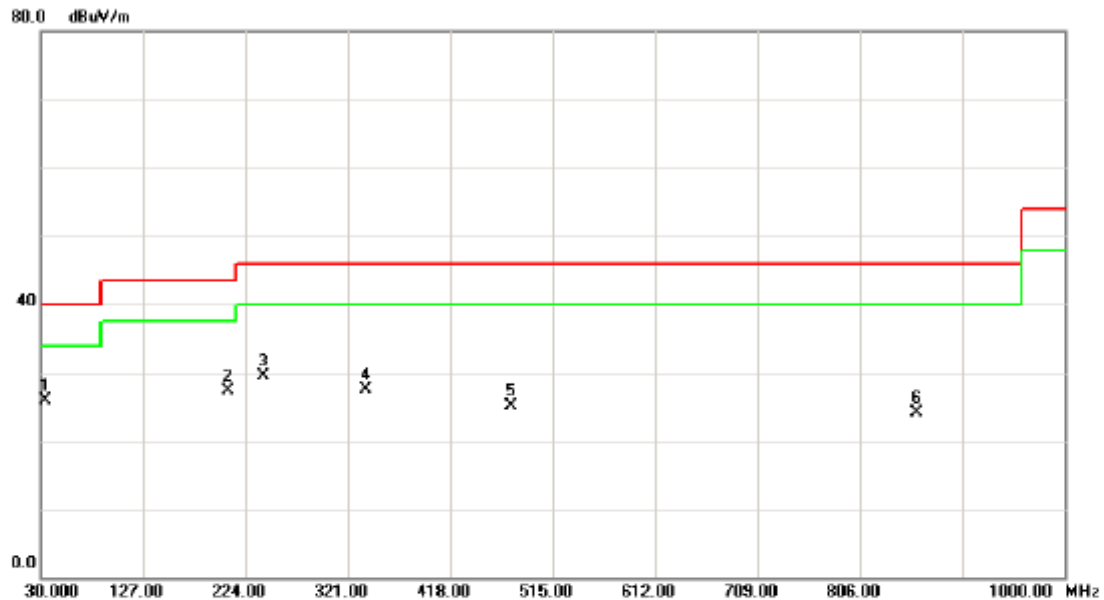
|              |                        |                    |          |
|--------------|------------------------|--------------------|----------|
| EUT:         | TRANSIT                | Model Name:        | AK1      |
| Temperature: | 24 °C                  | Relative Humidity: | 56 %     |
| Test Power:  | AC120V/60Hz            | Phase:             | Vertical |
| Test Mode:   | TX 2480MHz –CH78-1Mbps |                    |          |



| No. | Mk. | Freq.<br>MHz | Reading<br>Level<br>dBuV | Correct<br>Factor<br>dB | Measure-<br>ment<br>dBuV/m | Limit<br>dBuV/m | Over<br>dB | Detector | Comment |
|-----|-----|--------------|--------------------------|-------------------------|----------------------------|-----------------|------------|----------|---------|
| 1   | *   | 37.7600      | 50.04                    | -14.36                  | 35.68                      | 40.00           | -4.32      | peak     |         |
| 2   |     | 242.4300     | 50.12                    | -19.14                  | 30.98                      | 46.00           | -15.02     | peak     |         |
| 3   |     | 311.3000     | 43.17                    | -17.21                  | 25.96                      | 46.00           | -20.04     | peak     |         |
| 4   |     | 476.2000     | 33.19                    | -13.22                  | 19.97                      | 46.00           | -26.03     | peak     |         |
| 5   |     | 694.4500     | 29.70                    | -7.55                   | 22.15                      | 46.00           | -23.85     | peak     |         |
| 6   |     | 845.7700     | 29.84                    | -5.06                   | 24.78                      | 46.00           | -21.22     | peak     |         |



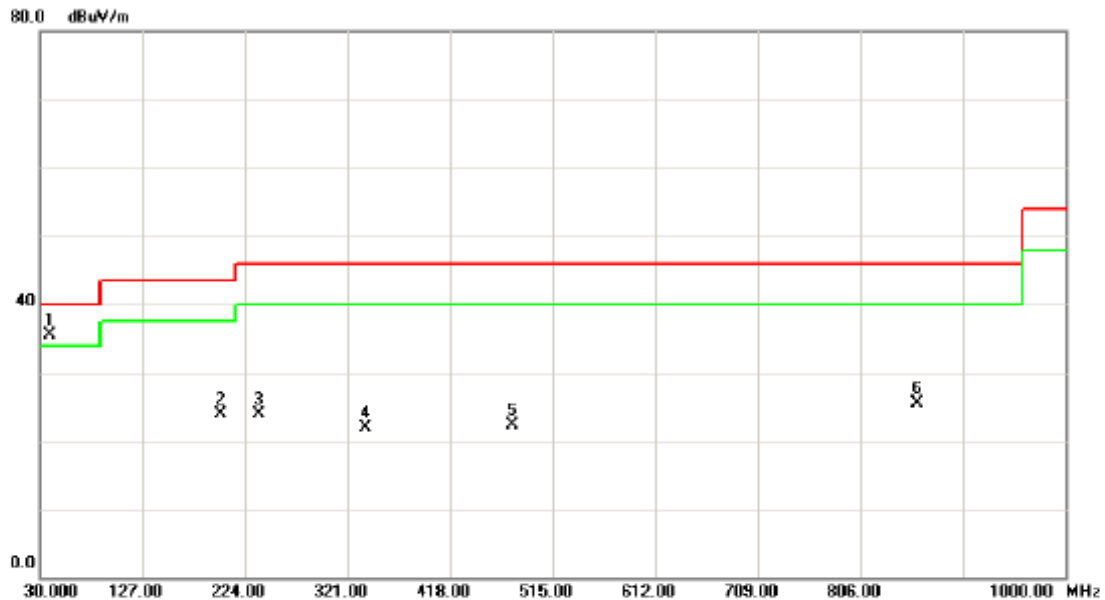
|              |                        |                    |            |
|--------------|------------------------|--------------------|------------|
| EUT:         | TRANSIT                | Model Name:        | AK1        |
| Temperature: | 24 °C                  | Relative Humidity: | 56 %       |
| Test Power:  | AC120V/60Hz            | Phase:             | Horizontal |
| Test Mode:   | TX 2480MHz –CH78-1Mbps |                    |            |



| No. | Mk. | Freq.<br>MHz | Reading<br>Level<br>dBuV | Correct<br>Factor<br>dB | Measure-<br>ment<br>dBuV/m | Limit<br>dBuV/m | Over<br>dB | Detector | Comment |
|-----|-----|--------------|--------------------------|-------------------------|----------------------------|-----------------|------------|----------|---------|
| 1   | *   | 34.8500      | 39.94                    | -14.08                  | 25.86                      | 40.00           | -14.14     | peak     |         |
| 2   |     | 207.5100     | 50.34                    | -23.12                  | 27.22                      | 43.50           | -16.28     | peak     |         |
| 3   |     | 241.4600     | 48.60                    | -19.18                  | 29.42                      | 46.00           | -16.58     | peak     |         |
| 4   |     | 338.4600     | 44.73                    | -17.26                  | 27.47                      | 46.00           | -18.53     | peak     |         |
| 5   |     | 475.2300     | 38.32                    | -13.25                  | 25.07                      | 46.00           | -20.93     | peak     |         |
| 6   |     | 859.3500     | 29.18                    | -5.12                   | 24.06                      | 46.00           | -21.94     | peak     |         |



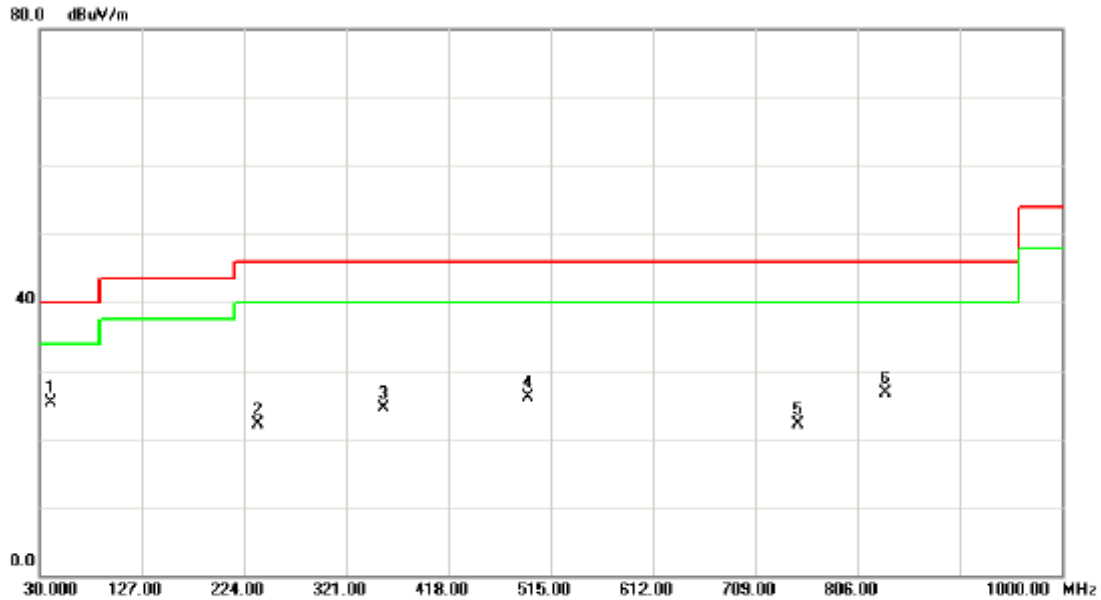
|              |                        |                    |          |
|--------------|------------------------|--------------------|----------|
| EUT:         | TRANSIT                | Model Name:        | AK1      |
| Temperature: | 24 °C                  | Relative Humidity: | 56 %     |
| Test Power:  | AC120V/60Hz            | Phase:             | Vertical |
| Test Mode:   | TX 2402MHz –CH00-3Mbps |                    |          |



| No. | Mk. | Freq.<br>MHz | Reading<br>Level<br>dBuV | Correct<br>Factor<br>dB | Measure-<br>ment<br>dBuV/m | Limit<br>dBuV/m | Over<br>dB | Detector | Comment |
|-----|-----|--------------|--------------------------|-------------------------|----------------------------|-----------------|------------|----------|---------|
| 1   | *   | 39.7000      | 51.49                    | -15.90                  | 35.59                      | 40.00           | -4.41      | peak     |         |
| 2   |     | 200.7200     | 47.56                    | -23.73                  | 23.83                      | 43.50           | -19.67     | peak     |         |
| 3   |     | 237.5800     | 43.41                    | -19.50                  | 23.91                      | 46.00           | -22.09     | peak     |         |
| 4   |     | 338.4600     | 39.09                    | -17.26                  | 21.83                      | 46.00           | -24.17     | peak     |         |
| 5   |     | 476.2000     | 35.56                    | -13.22                  | 22.34                      | 46.00           | -23.66     | peak     |         |
| 6   |     | 859.3500     | 30.53                    | -5.12                   | 25.41                      | 46.00           | -20.59     | peak     |         |



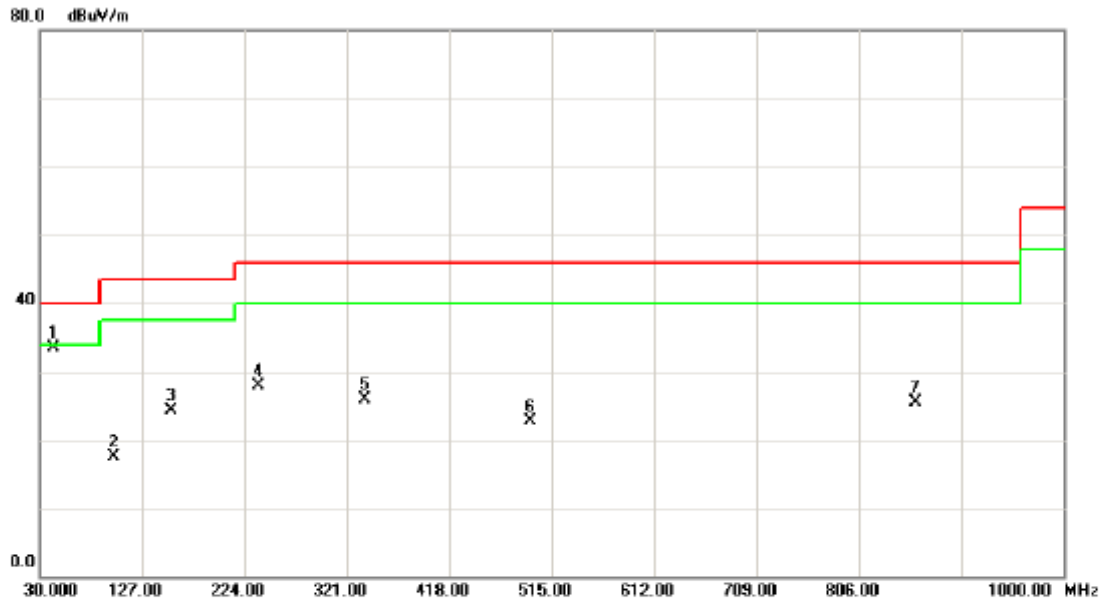
|              |                        |                    |            |
|--------------|------------------------|--------------------|------------|
| EUT:         | TRANSIT                | Model Name:        | AK1        |
| Temperature: | 24 °C                  | Relative Humidity: | 56 %       |
| Test Power:  | AC120V/60Hz            | Phase:             | Horizontal |
| Test Mode:   | TX 2402MHz –CH00-3Mbps |                    |            |



| No. | Mk. | Freq.<br>MHz | Reading<br>Level<br>dBuV | Correct<br>Factor<br>dB | Measure-<br>ment<br>dBuV/m | Limit<br>dBuV/m | Over<br>dB | Detector | Comment |
|-----|-----|--------------|--------------------------|-------------------------|----------------------------|-----------------|------------|----------|---------|
| 1   | *   | 40.6700      | 42.00                    | -16.72                  | 25.28                      | 40.00           | -14.72     | peak     |         |
| 2   |     | 237.5800     | 41.59                    | -19.50                  | 22.09                      | 46.00           | -23.91     | peak     |         |
| 3   |     | 356.8900     | 41.37                    | -16.84                  | 24.53                      | 46.00           | -21.47     | peak     |         |
| 4   |     | 493.6600     | 38.69                    | -12.65                  | 26.04                      | 46.00           | -19.96     | peak     |         |
| 5   |     | 749.7400     | 30.52                    | -8.45                   | 22.07                      | 46.00           | -23.93     | peak     |         |
| 6   |     | 832.1900     | 32.13                    | -5.38                   | 26.75                      | 46.00           | -19.25     | peak     |         |



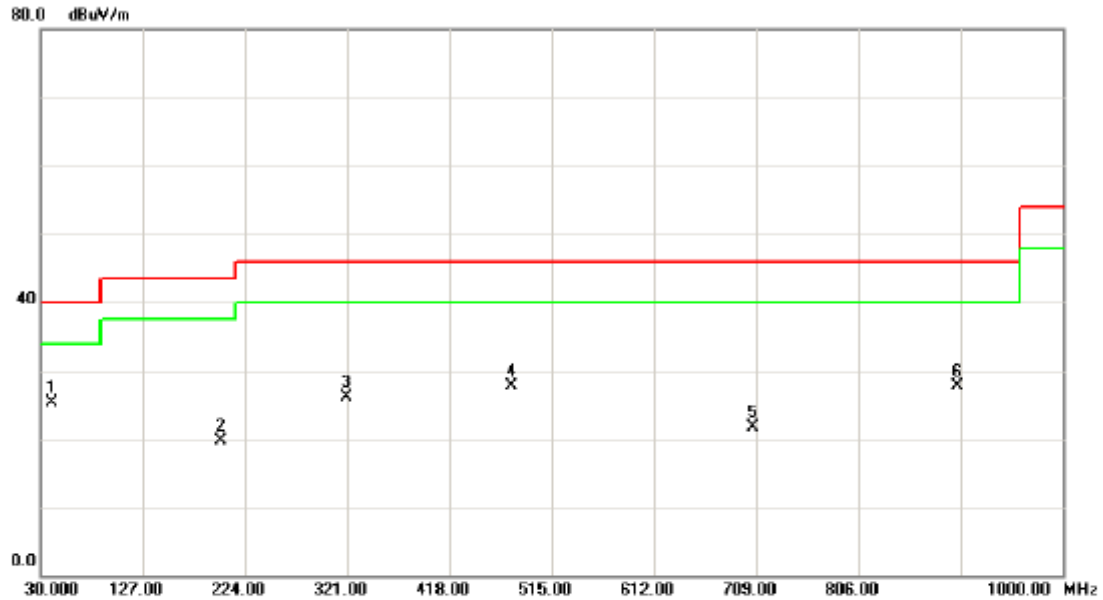
|              |                        |                    |          |
|--------------|------------------------|--------------------|----------|
| EUT:         | TRANSIT                | Model Name:        | AK1      |
| Temperature: | 24 °C                  | Relative Humidity: | 56 %     |
| Test Power:  | AC120V/60Hz            | Phase:             | Vertical |
| Test Mode:   | TX 2441MHz –CH39-3Mbps |                    |          |



| No. | Mk. | Freq.<br>MHz | Reading<br>Level<br>dBuV | Correct<br>Factor<br>dB | Measure-<br>ment<br>dBuV/m | Limit<br>dBuV/m | Over<br>dB | Detector | Comment |
|-----|-----|--------------|--------------------------|-------------------------|----------------------------|-----------------|------------|----------|---------|
| 1   | *   | 43.5800      | 52.50                    | -19.03                  | 33.47                      | 40.00           | -6.53      | peak     |         |
| 2   |     | 100.8100     | 40.93                    | -23.52                  | 17.41                      | 43.50           | -26.09     | peak     |         |
| 3   |     | 154.1600     | 46.11                    | -21.90                  | 24.21                      | 43.50           | -19.29     | peak     |         |
| 4   |     | 237.5800     | 47.41                    | -19.50                  | 27.91                      | 46.00           | -18.09     | peak     |         |
| 5   |     | 338.4600     | 43.09                    | -17.26                  | 25.83                      | 46.00           | -20.17     | peak     |         |
| 6   |     | 494.6300     | 35.39                    | -12.62                  | 22.77                      | 46.00           | -23.23     | peak     |         |
| 7   |     | 859.3500     | 30.53                    | -5.12                   | 25.41                      | 46.00           | -20.59     | peak     |         |



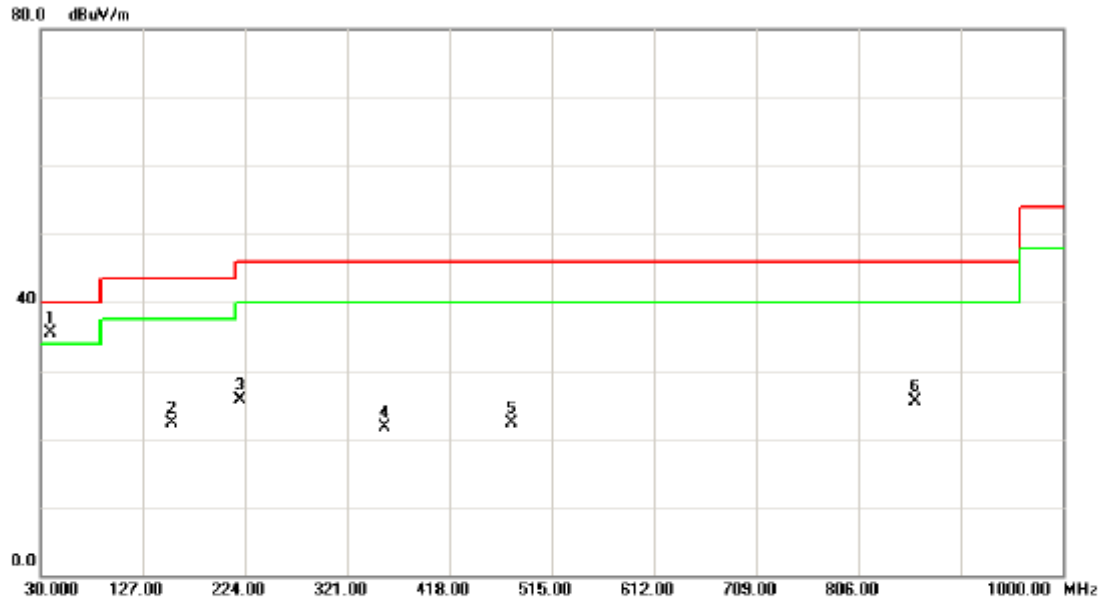
|              |                        |                    |            |
|--------------|------------------------|--------------------|------------|
| EUT:         | TRANSIT                | Model Name:        | AK1        |
| Temperature: | 24 °C                  | Relative Humidity: | 56 %       |
| Test Power:  | AC120V/60Hz            | Phase:             | Horizontal |
| Test Mode:   | TX 2441MHz –CH39-3Mbps |                    |            |



| No. | Mk. | Freq.<br>MHz | Reading<br>Level<br>dBuV | Correct<br>Factor<br>dB | Measure-<br>ment<br>dBuV/m | Limit<br>dBuV/m | Over<br>dB | Detector | Comment |
|-----|-----|--------------|--------------------------|-------------------------|----------------------------|-----------------|------------|----------|---------|
| 1   | *   | 40.6700      | 42.00                    | -16.72                  | 25.28                      | 40.00           | -14.72     | peak     |         |
| 2   |     | 200.7200     | 43.45                    | -23.73                  | 19.72                      | 43.50           | -23.78     | peak     |         |
| 3   |     | 320.0300     | 43.24                    | -17.23                  | 26.01                      | 46.00           | -19.99     | peak     |         |
| 4   |     | 476.2000     | 40.93                    | -13.22                  | 27.71                      | 46.00           | -18.29     | peak     |         |
| 5   |     | 705.1200     | 29.02                    | -7.41                   | 21.61                      | 46.00           | -24.39     | peak     |         |
| 6   |     | 900.0900     | 33.44                    | -5.76                   | 27.68                      | 46.00           | -18.32     | peak     |         |



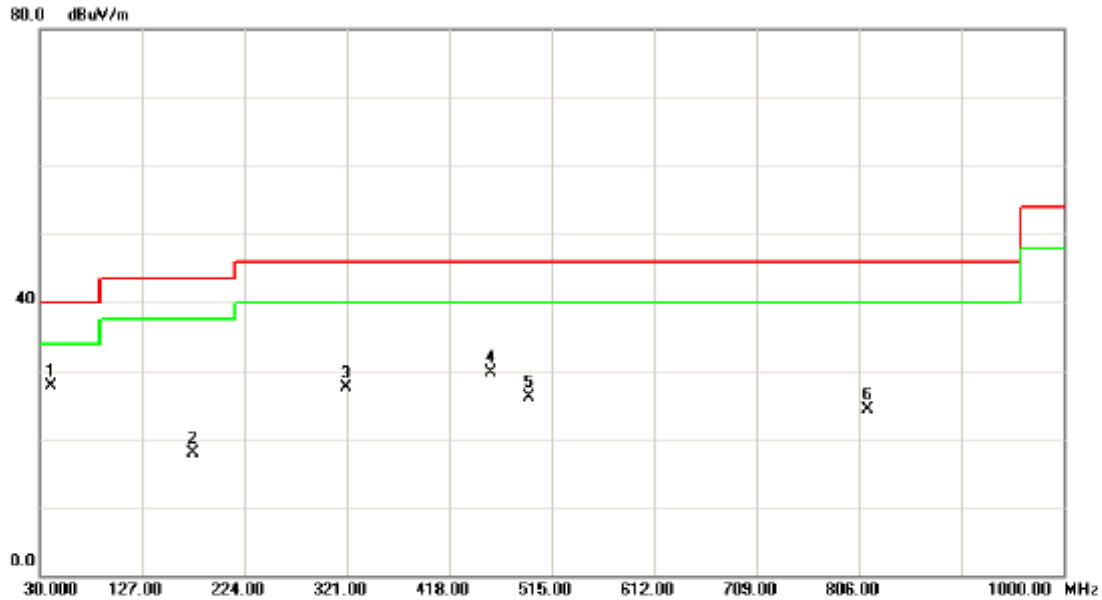
|              |                        |                    |          |
|--------------|------------------------|--------------------|----------|
| EUT:         | TRANSIT                | Model Name:        | AK1      |
| Temperature: | 24 °C                  | Relative Humidity: | 56 %     |
| Test Power:  | AC120V/60Hz            | Phase:             | Vertical |
| Test Mode:   | TX 2480MHz –CH78-3Mbps |                    |          |



| No. | Mk. | Freq.<br>MHz | Reading<br>Level<br>dBuV | Correct<br>Factor<br>dB | Measure-<br>ment<br>dBuV/m | Limit<br>dBuV/m | Over<br>dB | Detector | Comment |
|-----|-----|--------------|--------------------------|-------------------------|----------------------------|-----------------|------------|----------|---------|
| 1   | *   | 39.7000      | 51.49                    | -15.90                  | 35.59                      | 40.00           | -4.41      | peak     |         |
| 2   |     | 154.1600     | 44.11                    | -21.90                  | 22.21                      | 43.50           | -21.29     | peak     |         |
| 3   |     | 219.1500     | 47.81                    | -22.08                  | 25.73                      | 46.00           | -20.27     | peak     |         |
| 4   |     | 356.8900     | 38.46                    | -16.84                  | 21.62                      | 46.00           | -24.38     | peak     |         |
| 5   |     | 476.2000     | 35.56                    | -13.22                  | 22.34                      | 46.00           | -23.66     | peak     |         |
| 6   |     | 859.3500     | 30.53                    | -5.12                   | 25.41                      | 46.00           | -20.59     | peak     |         |



|              |                        |                    |            |
|--------------|------------------------|--------------------|------------|
| EUT:         | TRANSIT                | Model Name:        | AK1        |
| Temperature: | 24 °C                  | Relative Humidity: | 56 %       |
| Test Power:  | AC120V/60Hz            | Phase:             | Horizontal |
| Test Mode:   | TX 2480MHz –CH78-3Mbps |                    |            |



| No. | Mk. | Freq.<br>MHz | Reading<br>Level<br>dBuV | Correct<br>Factor<br>dB | Measure-<br>ment<br>dBuV/m | Limit<br>dBuV/m | Over<br>dB | Detector | Comment |
|-----|-----|--------------|--------------------------|-------------------------|----------------------------|-----------------|------------|----------|---------|
| 1   | *   | 40.6700      | 44.50                    | -16.72                  | 27.78                      | 40.00           | -12.22     | peak     |         |
| 2   |     | 175.5000     | 40.04                    | -22.11                  | 17.93                      | 43.50           | -25.57     | peak     |         |
| 3   |     | 320.0300     | 44.74                    | -17.23                  | 27.51                      | 46.00           | -18.49     | peak     |         |
| 4   |     | 457.7700     | 43.59                    | -13.82                  | 29.77                      | 46.00           | -16.23     | peak     |         |
| 5   |     | 493.6600     | 38.69                    | -12.65                  | 26.04                      | 46.00           | -19.96     | peak     |         |
| 6   |     | 814.7300     | 30.06                    | -5.78                   | 24.28                      | 46.00           | -21.72     | peak     |         |



#### 4.2.9 TEST RESULTS (ABOVE 1000 MHZ)

|               |                          |                     |             |
|---------------|--------------------------|---------------------|-------------|
| EUT :         | TRANSIT                  | Model Name :        | AK1         |
| Temperature : | 24 °C                    | Relative Humidity : | 58 %        |
| Pressure :    | 1010 hPa                 | Test Voltage :      | AC120V/60Hz |
| Test Mode :   | TX 2402MHz – CH 00-1Mbps |                     |             |

| Freq.<br>(MHz) | Ant.Pol.<br>H/V | Reading        |              | Ant./CF<br>CF(dB) | Act.             |                | Limit            |                | Margin           |                | Note       |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------------------|----------------|------------|
|                |                 | Peak<br>(dBuV) | AV<br>(dBuV) |                   | Peak<br>(dBuV/m) | AV<br>(dBuV/m) | Peak<br>(dBuV/m) | AV<br>(dBuV/m) | Peak<br>(dBuV/m) | AV<br>(dBuV/m) |            |
| 2390.00        | V               | 22.30          | 10.86        | 31.91             | 54.21            | 42.77          | 74.00            | 54.00          | -19.79           | -11.23         | X/E        |
| <b>2402.00</b> | <b>V</b>        | <b>63.69</b>   | <b>27.05</b> | <b>31.90</b>      | <b>95.59</b>     | <b>58.95</b>   |                  |                |                  |                | <b>X/F</b> |
| 4804.10        | V               | 43.59          | 29.86        | 5.21              | 48.80            | 35.07          | 74.00            | 54.00          | -25.20           | -18.93         | X/H        |

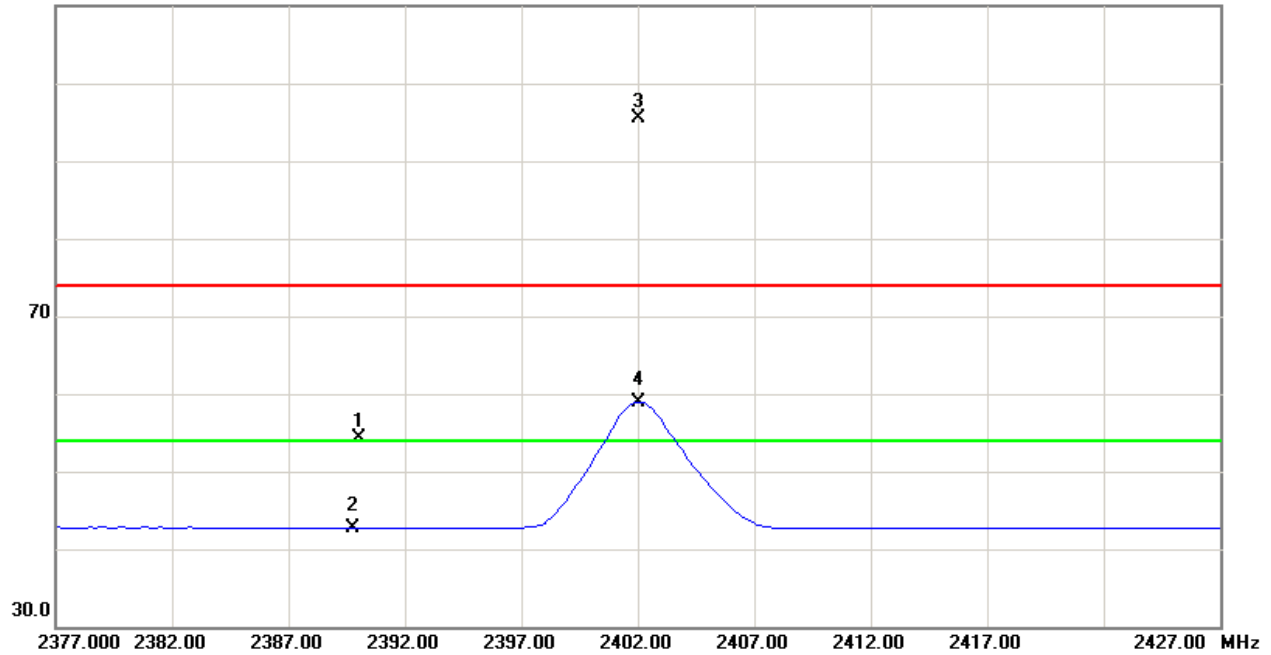
**Remark :**

- (1) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency. "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission .
- (4) Data of measurement within this frequency range shown " \* " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis :  
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

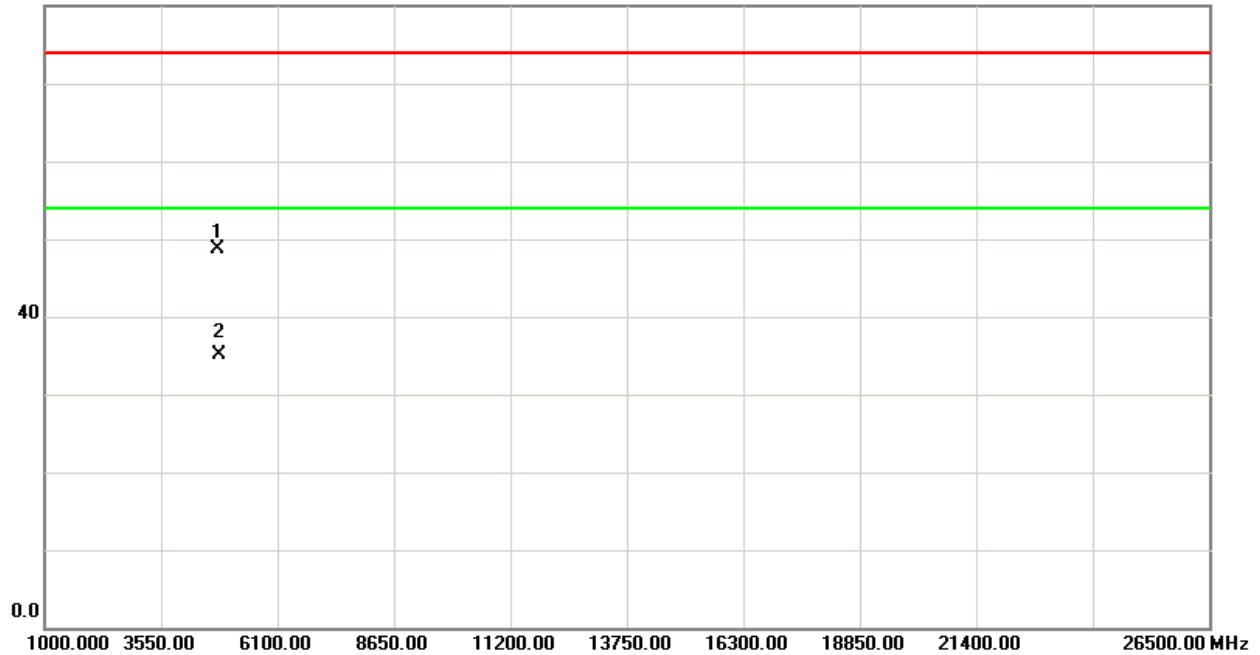


TX CH00(Above 1000 MHz, Vertical)

110.0 dBuV/m



80.0 dBuV/m





|               |                          |                     |             |
|---------------|--------------------------|---------------------|-------------|
| EUT :         | TRANSIT                  | Model Name :        | AK1         |
| Temperature : | 24 °C                    | Relative Humidity : | 58 %        |
| Pressure :    | 1010hPa                  | Test Voltage :      | AC120V/60Hz |
| Test Mode :   | TX 2402MHz – CH 00-1Mbps |                     |             |

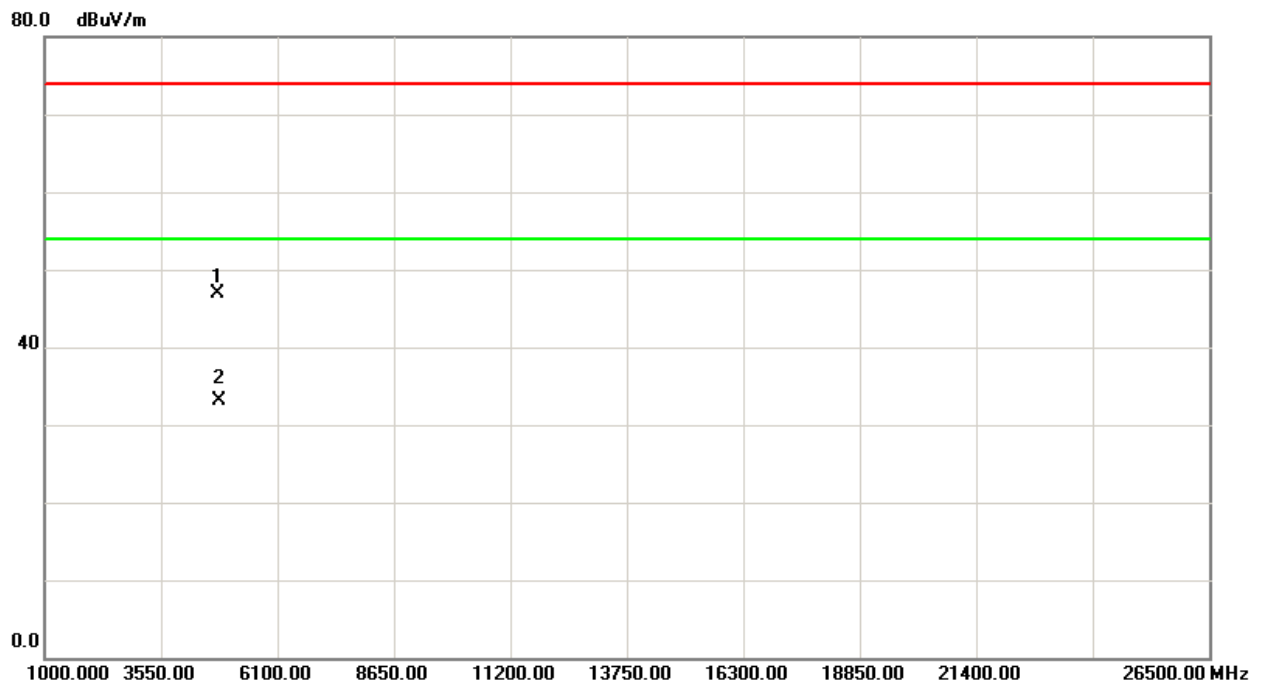
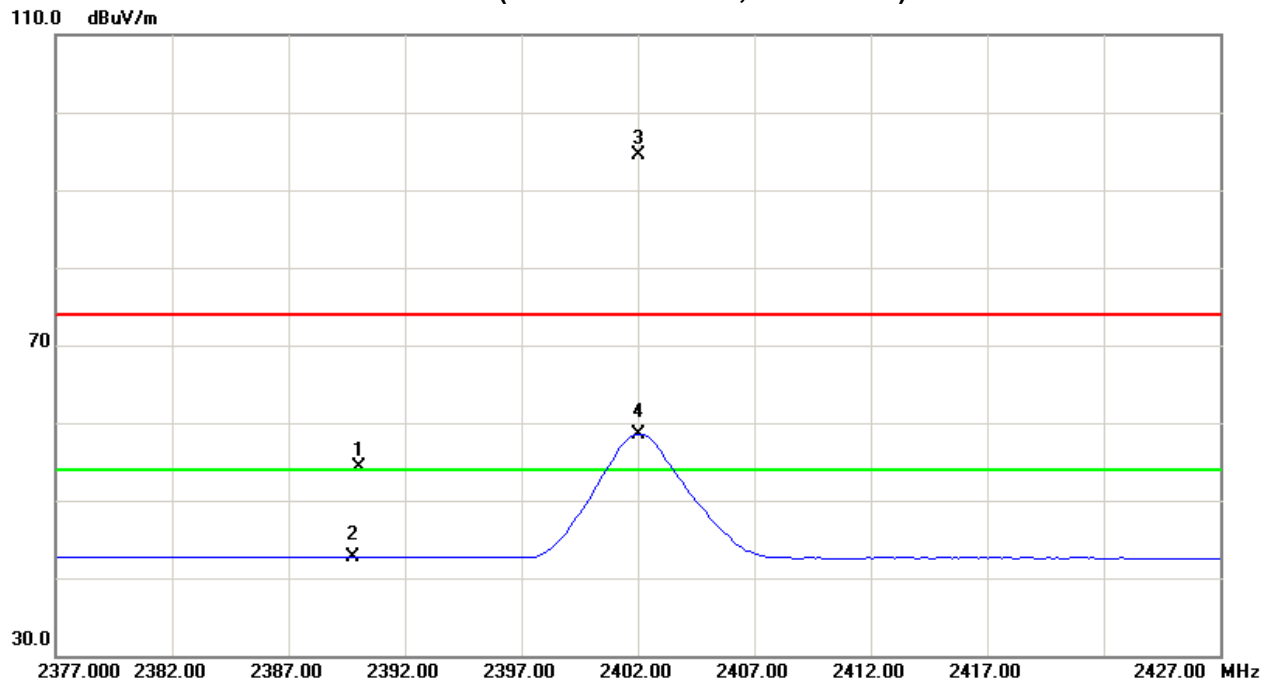
| Freq.<br>(MHz) | Ant.Pol.<br>H/V | Reading        |              | Ant./CF<br>CF(dB) | Act.             |                | Limit            |                | Margin           |                | Note       |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------------------|----------------|------------|
|                |                 | Peak<br>(dBuV) | AV<br>(dBuV) |                   | Peak<br>(dBuV/m) | AV<br>(dBuV/m) | Peak<br>(dBuV/m) | AV<br>(dBuV/m) | Peak<br>(dBuV/m) | AV<br>(dBuV/m) |            |
| 2390.00        | H               | 22.41          | 10.75        | 31.91             | 54.32            | 42.66          | 74.00            | 54.00          | -19.68           | -11.34         | X/E        |
| <b>2402.00</b> | <b>H</b>        | <b>62.67</b>   | <b>26.70</b> | <b>31.90</b>      | <b>94.57</b>     | <b>58.60</b>   |                  |                |                  |                | <b>X/F</b> |
| 4804.21        | H               | 41.73          | 27.89        | 5.21              | 46.94            | 33.10          | 74.00            | 54.00          | -27.06           | -20.90         | X/H        |

**Remark :**

- (1) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency. "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission .
- (4) Data of measurement within this frequency range shown " \* " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis :  
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna



TX CH00(Above 1000 MHz, Horizontal)





|               |                        |                     |             |
|---------------|------------------------|---------------------|-------------|
| EUT :         | TRANSIT                | Model Name :        | AK1         |
| Temperature : | 24 °C                  | Relative Humidity : | 58 %        |
| Pressure :    | 1010 hPa               | Test Voltage :      | AC120V/60Hz |
| Test Mode :   | TX 2441MHz –CH39-1Mbps |                     |             |

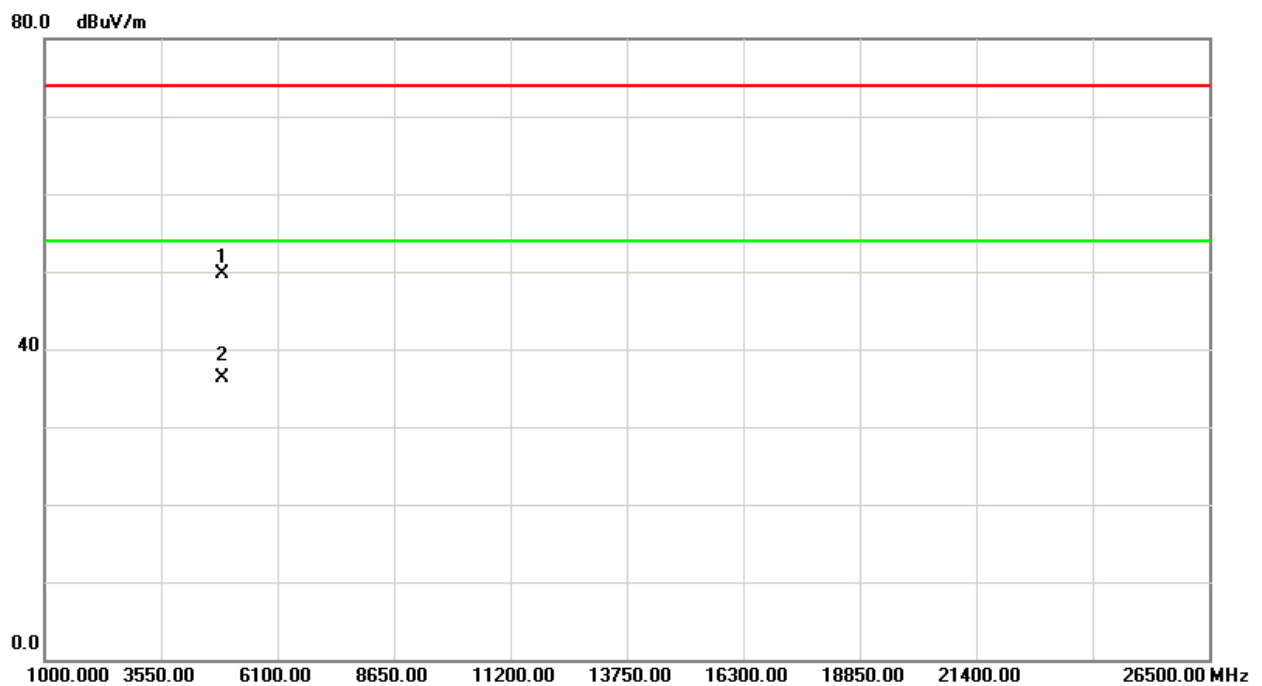
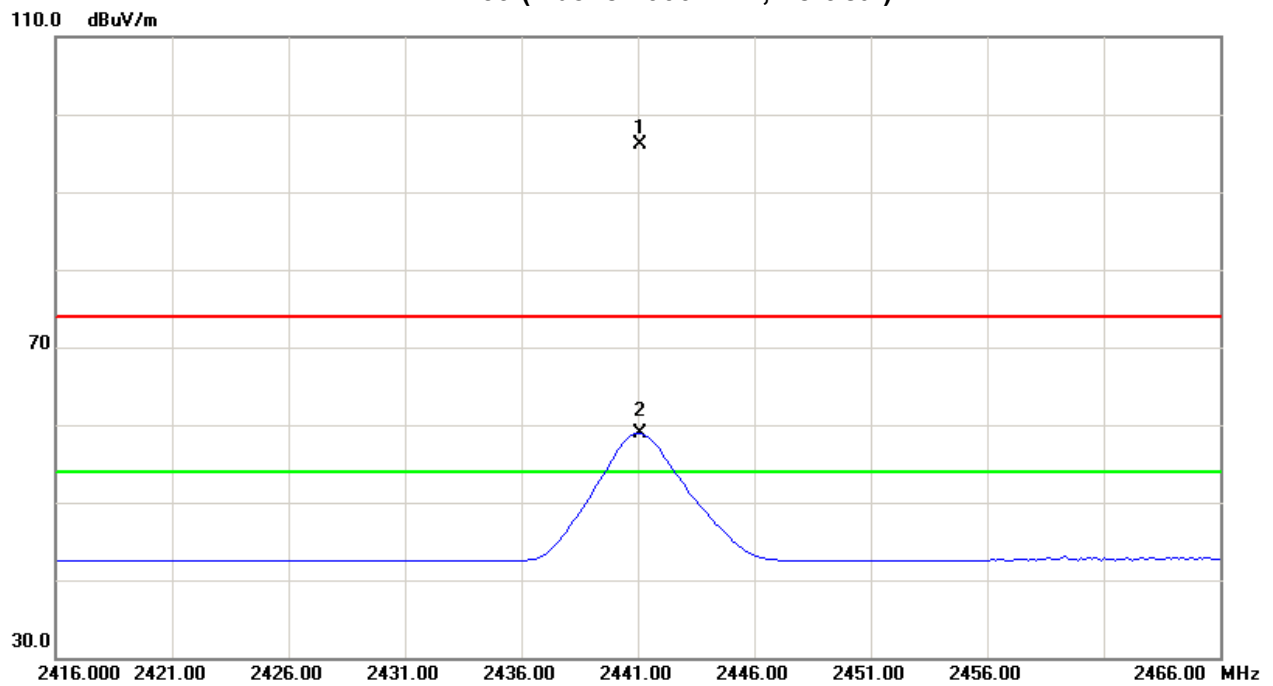
| Freq.          | Ant.Pol. | Reading      |              | Ant./CF      | Act.         |              | Limit    |          | Margin   |          | Note       |
|----------------|----------|--------------|--------------|--------------|--------------|--------------|----------|----------|----------|----------|------------|
|                |          | Peak         | AV           |              | Peak         | AV           | Peak     | AV       | Peak     | AV       |            |
| (MHz)          | H/V      | (dBuV)       | (dBuV)       | CF(dB)       | (dBuV/m)     | (dBuV/m)     | (dBuV/m) | (dBuV/m) | (dBuV/m) | (dBuV/m) |            |
| <b>2441.13</b> | <b>V</b> | <b>64.17</b> | <b>27.01</b> | <b>31.85</b> | <b>96.02</b> | <b>58.86</b> |          |          |          |          | <b>X/F</b> |
| 4882.10        | V        | 44.12        | 30.76        | 5.50         | 49.62        | 36.26        | 74.00    | 54.00    | -24.38   | -17.74   | X/H        |

**Remark :**

- (1) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency. "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission .
- (4) Data of measurement within this frequency range shown " \* " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis :  
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna



TX CH39 (Above 1000 MHz, Vertical)





|               |                        |                     |             |
|---------------|------------------------|---------------------|-------------|
| EUT :         | TRANSIT                | Model Name :        | AK1         |
| Temperature : | 24 °C                  | Relative Humidity : | 58 %        |
| Pressure :    | 1010 hPa               | Test Voltage :      | AC120V/60Hz |
| Test Mode :   | TX 2441MHz –CH39-1Mbps |                     |             |

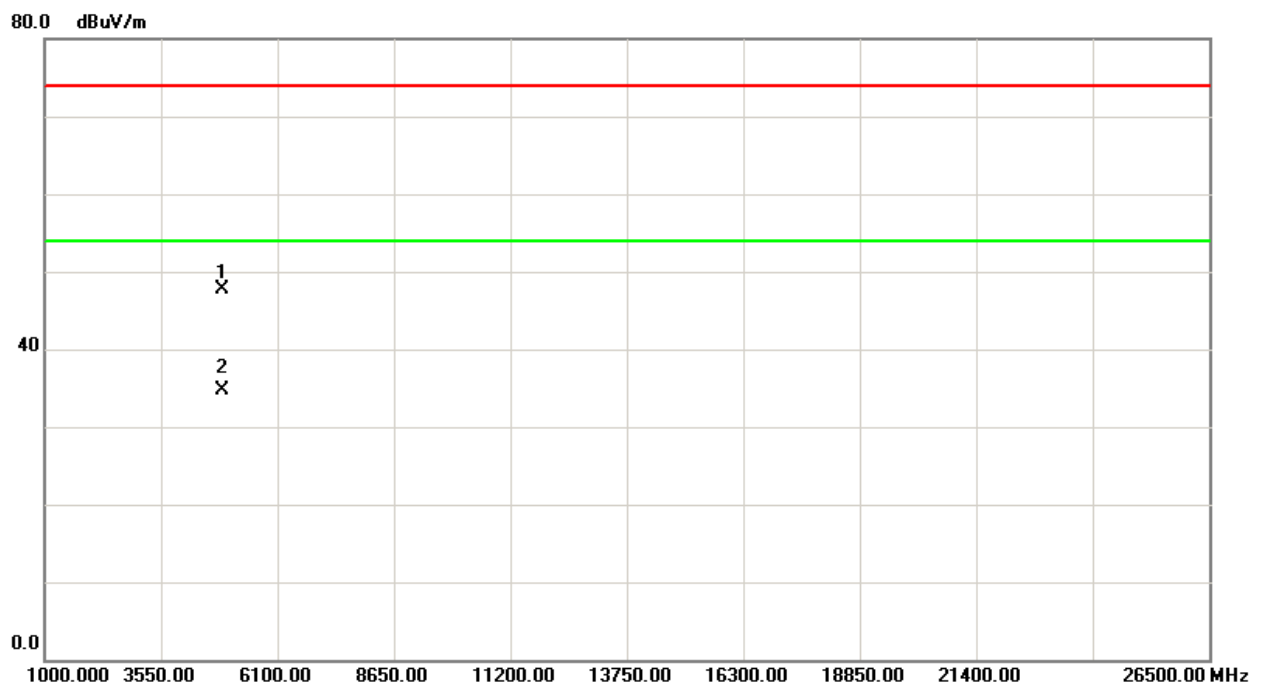
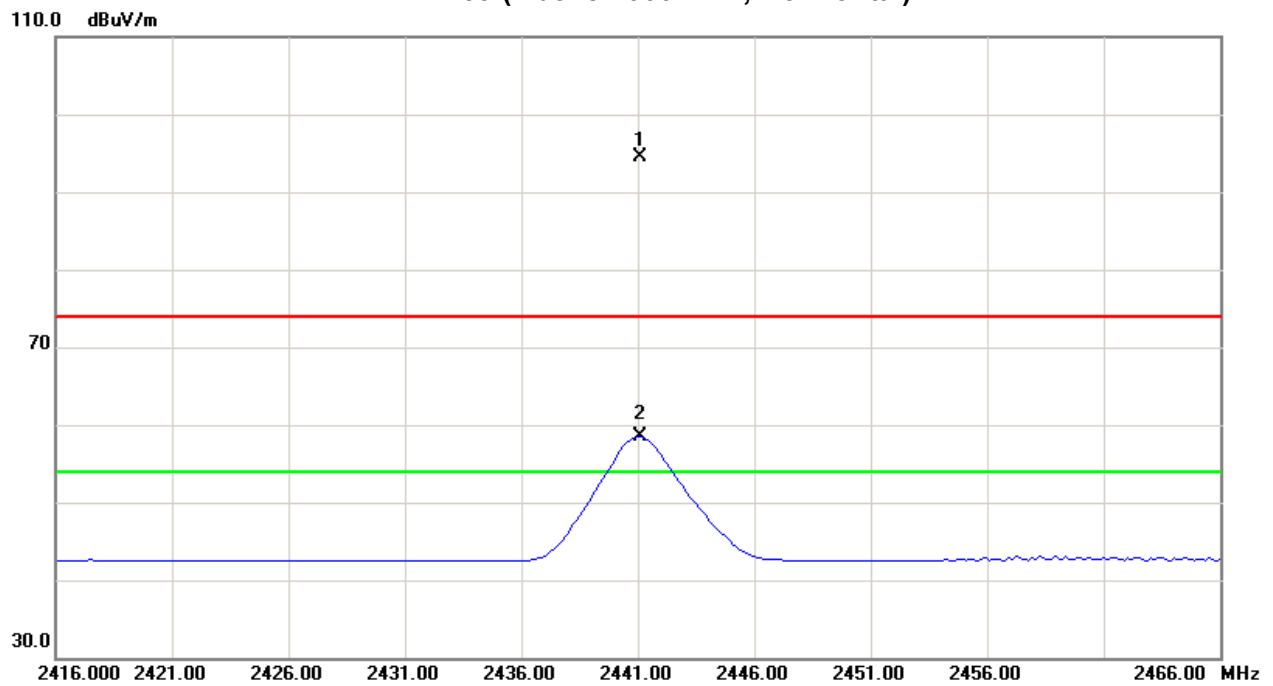
| Freq.          | Ant.Pol. | Reading      |              | Ant./CF      | Act.         |              | Limit    |          | Margin   |          | Note       |
|----------------|----------|--------------|--------------|--------------|--------------|--------------|----------|----------|----------|----------|------------|
|                |          | Peak         | AV           |              | Peak         | AV           | Peak     | AV       | Peak     | AV       |            |
| (MHz)          | H/V      | (dBuV)       | (dBuV)       | CF(dB)       | (dBuV/m)     | (dBuV/m)     | (dBuV/m) | (dBuV/m) | (dBuV/m) | (dBuV/m) |            |
| <b>2441.13</b> | <b>H</b> | <b>62.73</b> | <b>26.56</b> | <b>31.85</b> | <b>94.58</b> | <b>58.41</b> |          |          |          |          | <b>X/F</b> |
| 4882.12        | H        | 42.25        | 29.24        | 5.50         | 47.75        | 34.74        | 74.00    | 54.00    | -26.25   | -19.26   | X/H        |

**Remark :**

- (1) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency. "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission .
- (4) Data of measurement within this frequency range shown " \* " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis :  
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna



TX CH39 (Above 1000 MHz, Horizontal)





|               |                        |                     |             |
|---------------|------------------------|---------------------|-------------|
| EUT :         | TRANSIT                | Model Name :        | AK1         |
| Temperature : | 24 °C                  | Relative Humidity : | 58 %        |
| Pressure :    | 1010hPa                | Test Voltage :      | AC120V/60Hz |
| Test Mode :   | TX 2480MHz –CH78-1Mbps |                     |             |

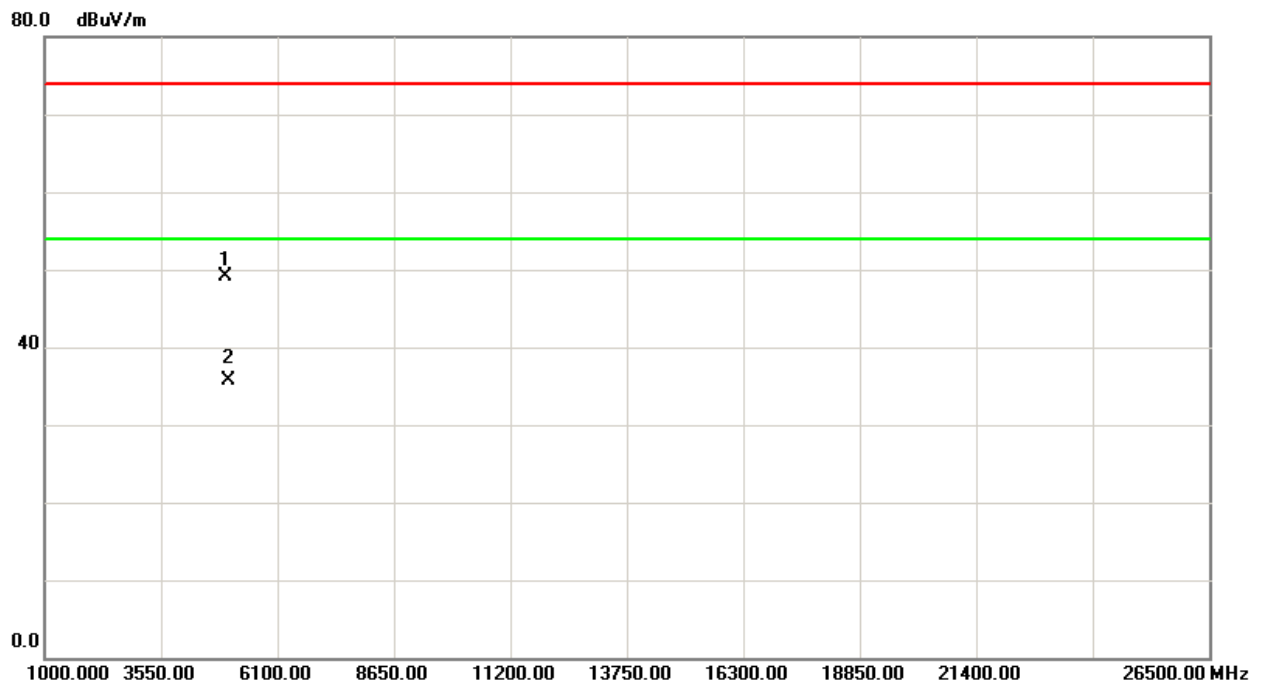
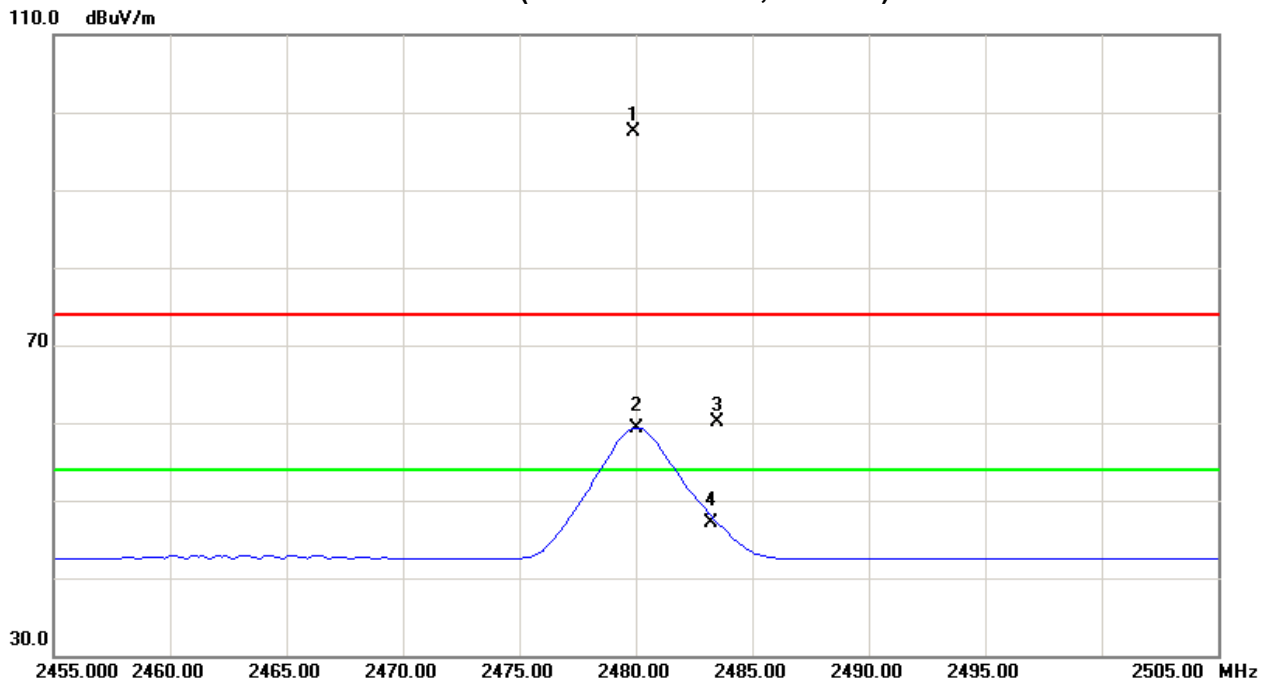
| Freq.          | Ant.Pol. | Reading      |              | Ant./CF      | Act.         |              | Limit    |          | Margin   |          | Note       |
|----------------|----------|--------------|--------------|--------------|--------------|--------------|----------|----------|----------|----------|------------|
|                |          | Peak         | AV           |              | Peak         | AV           | Peak     | AV       | Peak     | AV       |            |
| (MHz)          | H/V      | (dBuV)       | (dBuV)       | CF(dB)       | (dBuV/m)     | (dBuV/m)     | (dBuV/m) | (dBuV/m) | (dBuV/m) | (dBuV/m) |            |
| <b>2479.88</b> | <b>V</b> | <b>65.74</b> | <b>27.59</b> | <b>31.80</b> | <b>97.54</b> | <b>59.39</b> |          |          |          |          | <b>X/F</b> |
| 2483.50        | V        | 28.25        | 15.39        | 31.80        | 60.05        | 47.19        | 74.00    | 54.00    | -13.95   | -6.81    | X/E        |
| 4959.80        | V        | 43.23        | 29.86        | 5.78         | 49.01        | 35.64        | 74.00    | 54.00    | -24.99   | -18.36   | X/H        |

**Remark :**

- (1) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency. "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission .
- (4) Data of measurement within this frequency range shown " \* " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis :  
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna



TX CH78 (Above 1000 MHz, Vertical)





|               |                        |                     |             |
|---------------|------------------------|---------------------|-------------|
| EUT :         | TRANSIT                | Model Name :        | AK1         |
| Temperature : | 24 °C                  | Relative Humidity : | 58 %        |
| Pressure :    | 1010 hPa               | Test Voltage :      | AC120V/60Hz |
| Test Mode :   | TX 2480MHz –CH78-1Mbps |                     |             |

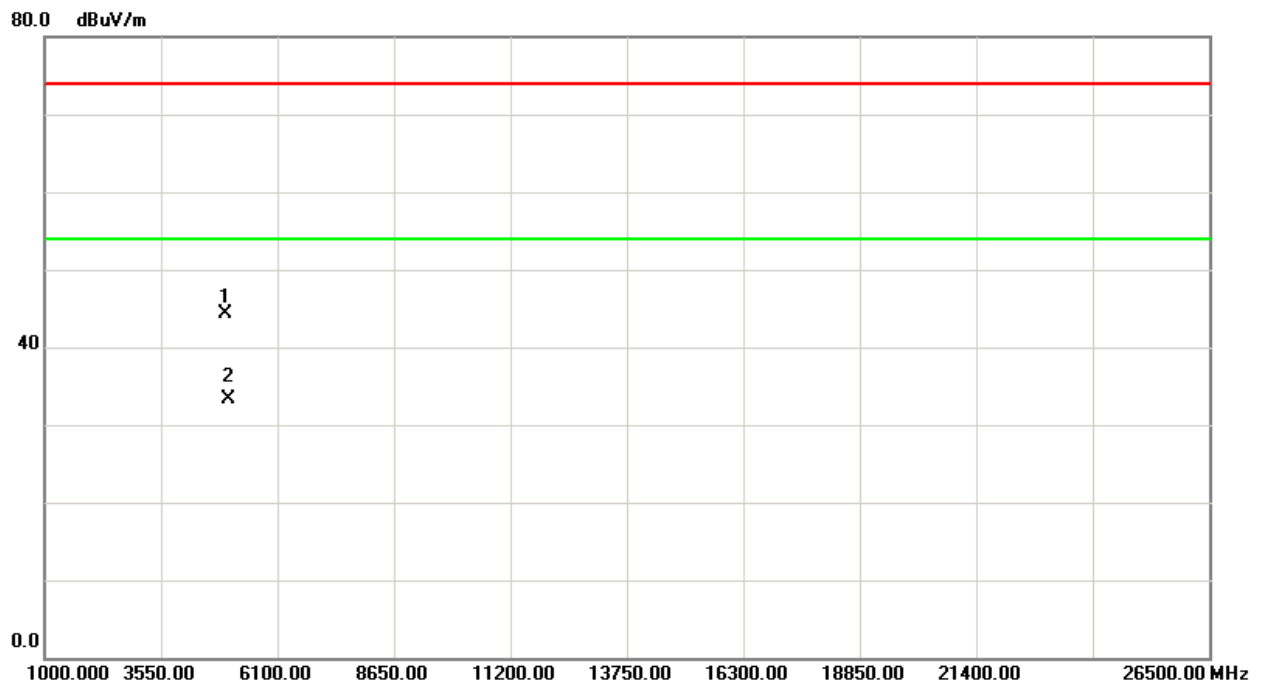
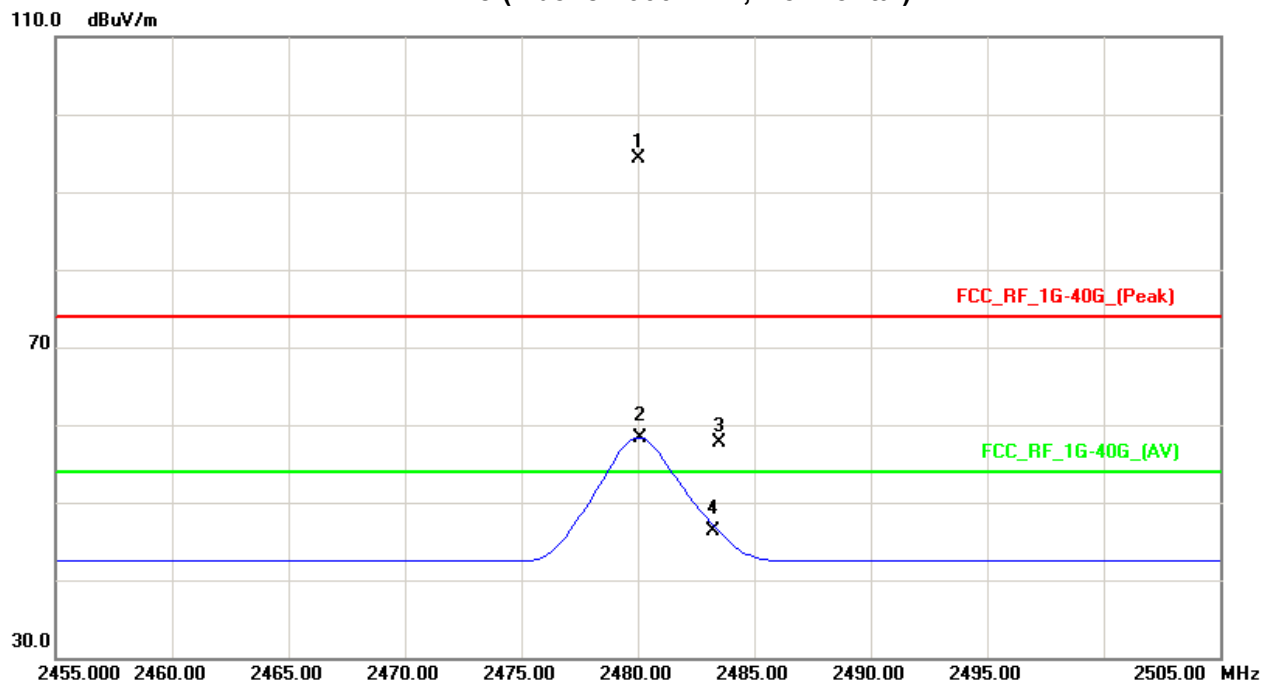
| Freq.          | Ant.Pol. | Reading      |              | Ant./CF      | Act.         |              | Limit    |          | Margin   |          | Note       |
|----------------|----------|--------------|--------------|--------------|--------------|--------------|----------|----------|----------|----------|------------|
|                |          | Peak         | AV           |              | Peak         | AV           | Peak     | AV       | Peak     | AV       |            |
| (MHz)          | H/V      | (dBuV)       | (dBuV)       | CF(dB)       | (dBuV/m)     | (dBuV/m)     | (dBuV/m) | (dBuV/m) | (dBuV/m) | (dBuV/m) |            |
| <b>2480.00</b> | <b>H</b> | <b>62.56</b> | <b>26.54</b> | <b>31.80</b> | <b>94.36</b> | <b>58.34</b> |          |          |          |          | <b>X/F</b> |
| 2483.50        | H        | 25.94        | 14.47        | 31.80        | 57.74        | 46.27        | 74.00    | 54.00    | -16.26   | -7.73    | X/E        |
| 4960.70        | H        | 38.58        | 27.43        | 5.79         | 44.37        | 33.22        | 74.00    | 54.00    | -29.63   | -20.78   | X/H        |

**Remark :**

- (1) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency. "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission .
- (4) Data of measurement within this frequency range shown " \* " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis :  
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna



TX CH78 (Above 1000 MHz, Horizontal)





|               |                          |                     |             |
|---------------|--------------------------|---------------------|-------------|
| EUT :         | TRANSIT                  | Model Name :        | AK1         |
| Temperature : | 24 °C                    | Relative Humidity : | 58 %        |
| Pressure :    | 1010 hPa                 | Test Voltage :      | AC120V/60Hz |
| Test Mode :   | TX 2402MHz – CH 00-3Mbps |                     |             |

| Freq.<br>(MHz) | Ant.Pol.<br>H/V | Reading        |              | Ant./CF<br>CF(dB) | Act.             |                | Limit            |                | Margin           |                | Note       |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------------------|----------------|------------|
|                |                 | Peak<br>(dBuV) | AV<br>(dBuV) |                   | Peak<br>(dBuV/m) | AV<br>(dBuV/m) | Peak<br>(dBuV/m) | AV<br>(dBuV/m) | Peak<br>(dBuV/m) | AV<br>(dBuV/m) |            |
| 2390.00        | V               | 21.22          | 10.62        | 31.91             | 53.13            | 42.53          | 74.00            | 54.00          | -20.87           | -11.47         | X/E        |
| <b>2402.00</b> | <b>V</b>        | <b>62.07</b>   | <b>25.89</b> | <b>31.90</b>      | <b>93.97</b>     | <b>57.79</b>   |                  |                |                  |                | <b>X/F</b> |
| 4804.04        | V               | 43.88          | 30.04        | 5.21              | 49.09            | 35.25          | 74.00            | 54.00          | -24.91           | -18.75         | X/H        |

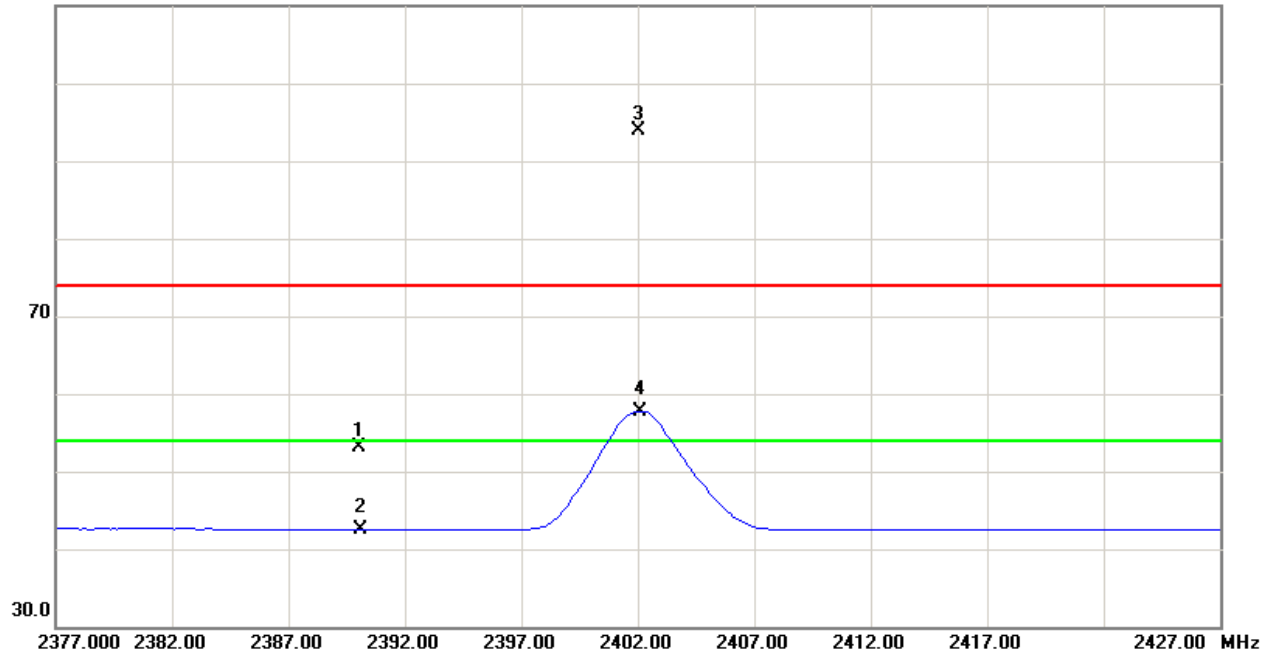
**Remark :**

- (1) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency. "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission .
- (4) Data of measurement within this frequency range shown " \* " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis :  
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

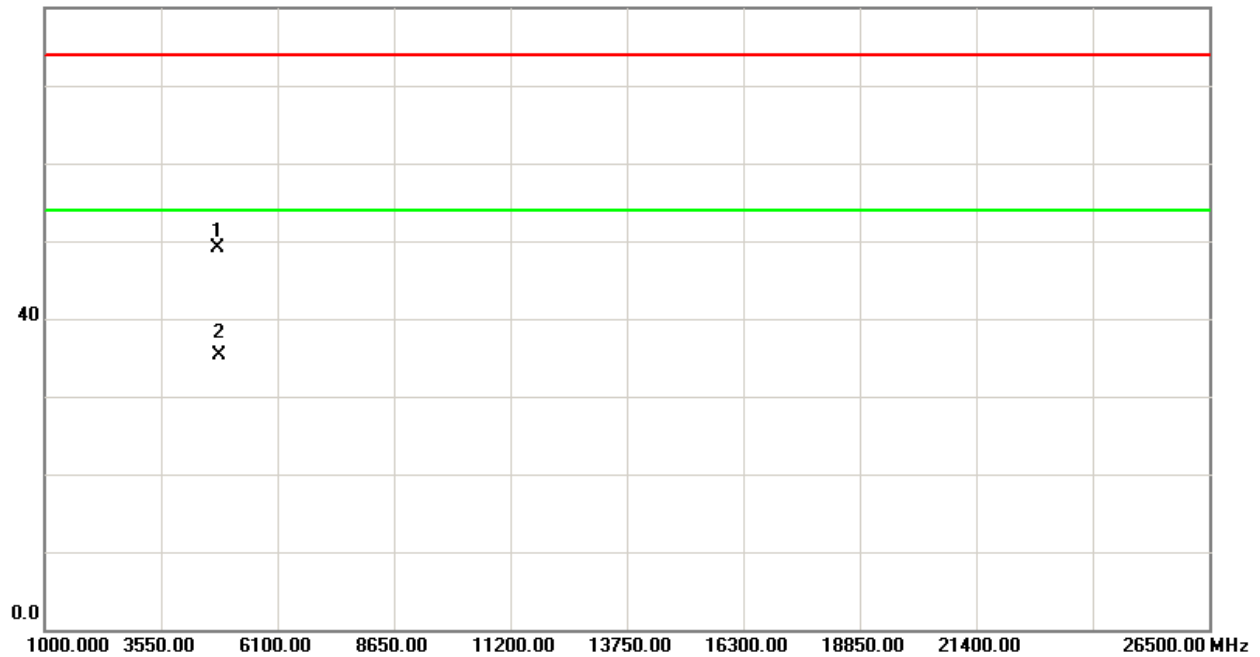


TX CH00(Above 1000 MHz, Vertical)

110.0 dBuV/m



80.0 dBuV/m





|               |                          |                     |             |
|---------------|--------------------------|---------------------|-------------|
| EUT :         | TRANSIT                  | Model Name :        | AK1         |
| Temperature : | 24 °C                    | Relative Humidity : | 58 %        |
| Pressure :    | 1010hPa                  | Test Voltage :      | AC120V/60Hz |
| Test Mode :   | TX 2402MHz – CH 00-3Mbps |                     |             |

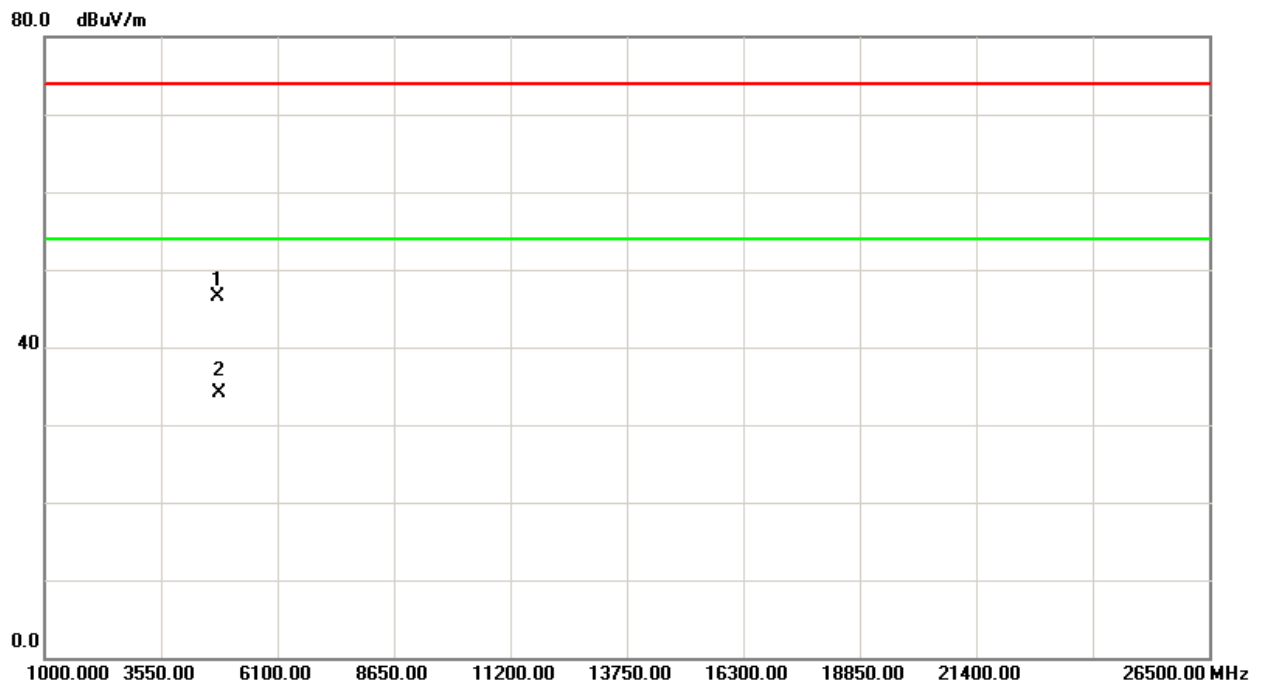
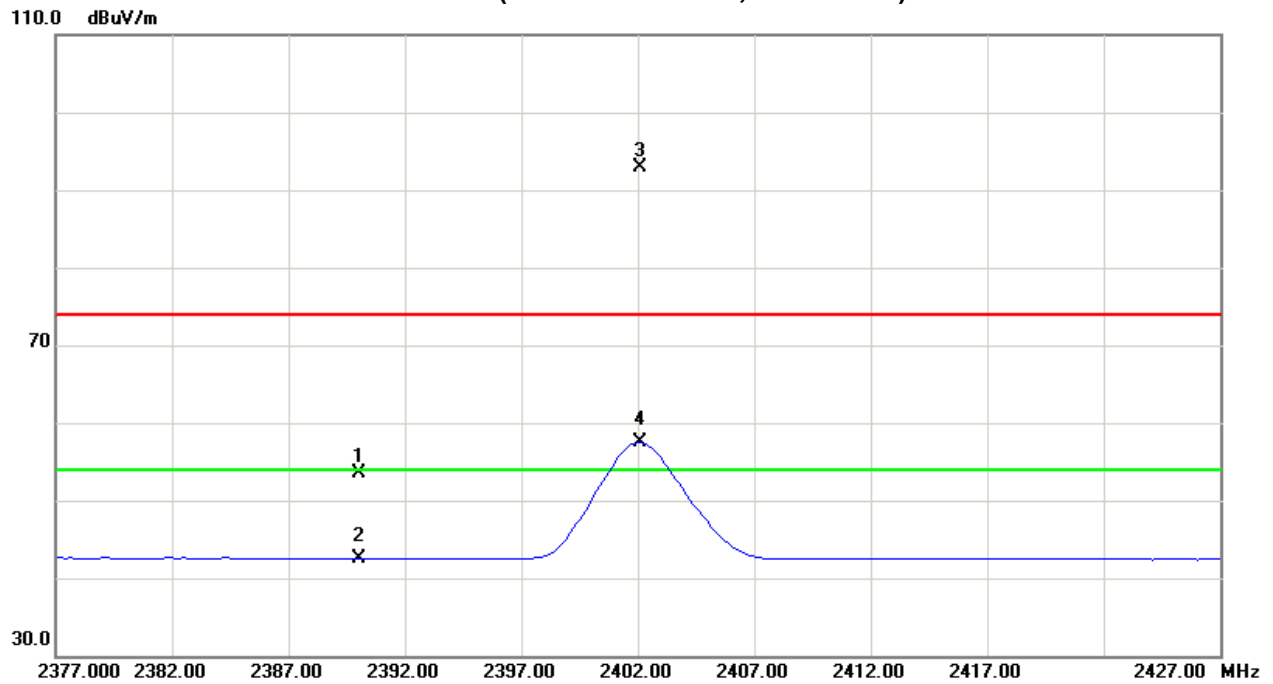
| Freq.<br>(MHz) | Ant.Pol.<br>H/V | Reading        |              | Ant./CF<br>CF(dB) | Act.             |                | Limit            |                | Margin           |                | Note       |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------------------|----------------|------------|
|                |                 | Peak<br>(dBuV) | AV<br>(dBuV) |                   | Peak<br>(dBuV/m) | AV<br>(dBuV/m) | Peak<br>(dBuV/m) | AV<br>(dBuV/m) | Peak<br>(dBuV/m) | AV<br>(dBuV/m) |            |
| 2390.00        | H               | 21.66          | 10.63        | 31.91             | 53.57            | 42.54          | 74.00            | 54.00          | -20.43           | -11.46         | X/E        |
| <b>2402.13</b> | <b>H</b>        | <b>61.05</b>   | <b>25.53</b> | <b>31.90</b>      | <b>92.95</b>     | <b>57.43</b>   |                  |                |                  |                | <b>X/F</b> |
| 4804.23        | H               | 41.24          | 28.94        | 5.21              | 46.45            | 34.15          | 74.00            | 54.00          | -27.55           | -19.85         | X/H        |

**Remark :**

- (1) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency. "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission .
- (4) Data of measurement within this frequency range shown " \* " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis :  
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna



TX CH00(Above 1000 MHz, Horizontal)





|               |                        |                     |             |
|---------------|------------------------|---------------------|-------------|
| EUT :         | TRANSIT                | Model Name :        | AK1         |
| Temperature : | 24 °C                  | Relative Humidity : | 58 %        |
| Pressure :    | 1010 hPa               | Test Voltage :      | AC120V/60Hz |
| Test Mode :   | TX 2441MHz –CH39-3Mbps |                     |             |

| Freq.          | Ant.Pol. | Reading      |              | Ant./CF      | Act.         |              | Limit    |          | Margin   |          | Note       |
|----------------|----------|--------------|--------------|--------------|--------------|--------------|----------|----------|----------|----------|------------|
|                |          | Peak         | AV           |              | Peak         | AV           | Peak     | AV       | Peak     | AV       |            |
| (MHz)          | H/V      | (dBuV)       | (dBuV)       | CF (dB)      | (dBuV/m)     | (dBuV/m)     | (dBuV/m) | (dBuV/m) | (dBuV/m) | (dBuV/m) |            |
| <b>2441.13</b> | <b>V</b> | <b>64.16</b> | <b>26.46</b> | <b>31.85</b> | <b>96.01</b> | <b>58.31</b> |          |          |          |          | <b>X/F</b> |
| 4882.13        | V        | 42.02        | 29.01        | 5.50         | 47.52        | 34.51        | 74.00    | 54.00    | -26.48   | -19.49   | X/H        |

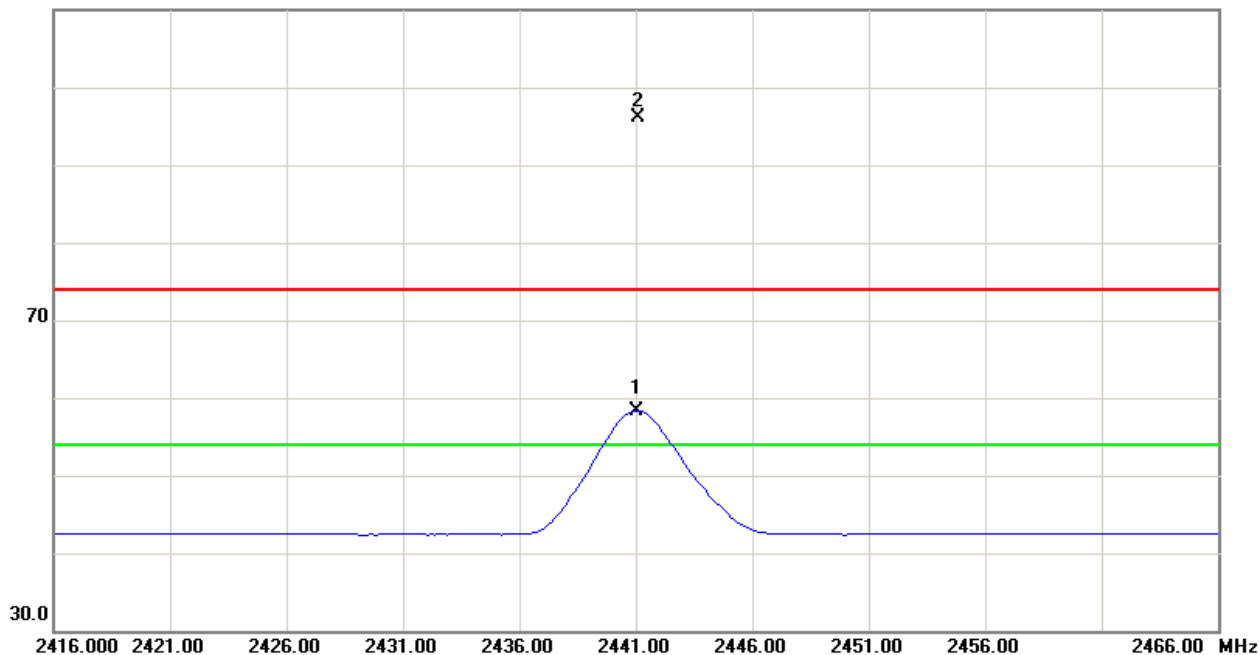
**Remark :**

- (1) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency. "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission .
- (4) Data of measurement within this frequency range shown " \* " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis :  
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

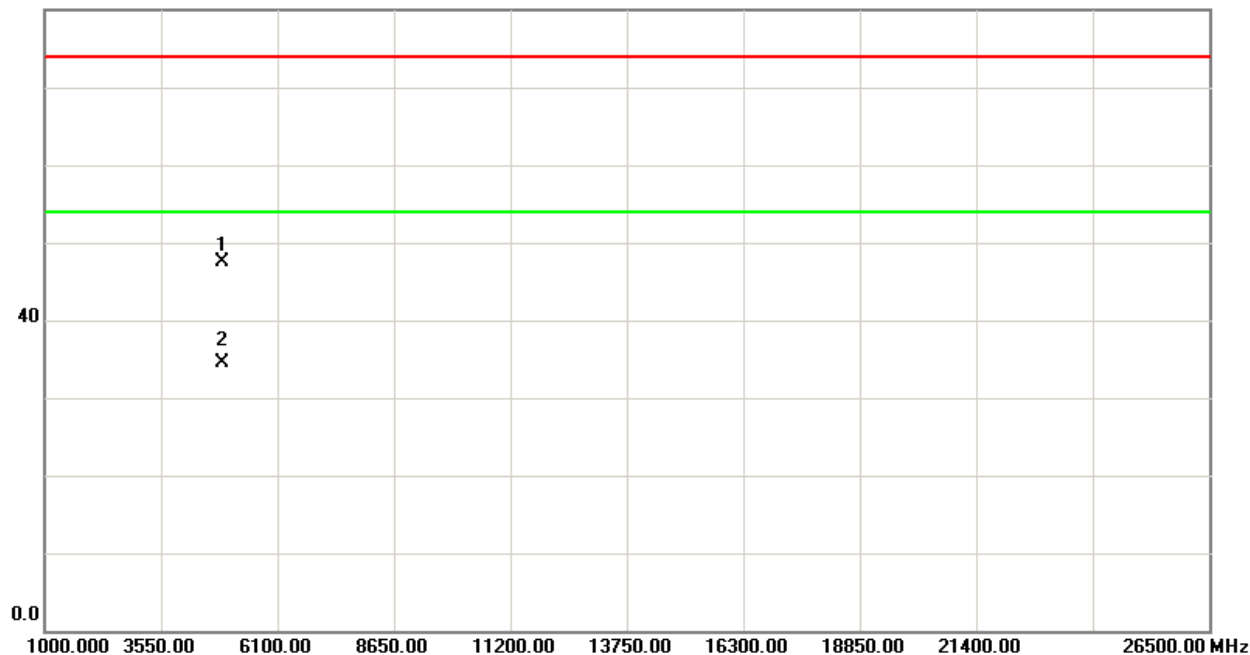


TX CH39 (Above 1000 MHz, Vertical)

110.0 dBuV/m



80.0 dBuV/m





|               |                        |                     |             |
|---------------|------------------------|---------------------|-------------|
| EUT :         | TRANSIT                | Model Name :        | AK1         |
| Temperature : | 24 °C                  | Relative Humidity : | 58 %        |
| Pressure :    | 1010 hPa               | Test Voltage :      | AC120V/60Hz |
| Test Mode :   | TX 2441MHz –CH39-3Mbps |                     |             |

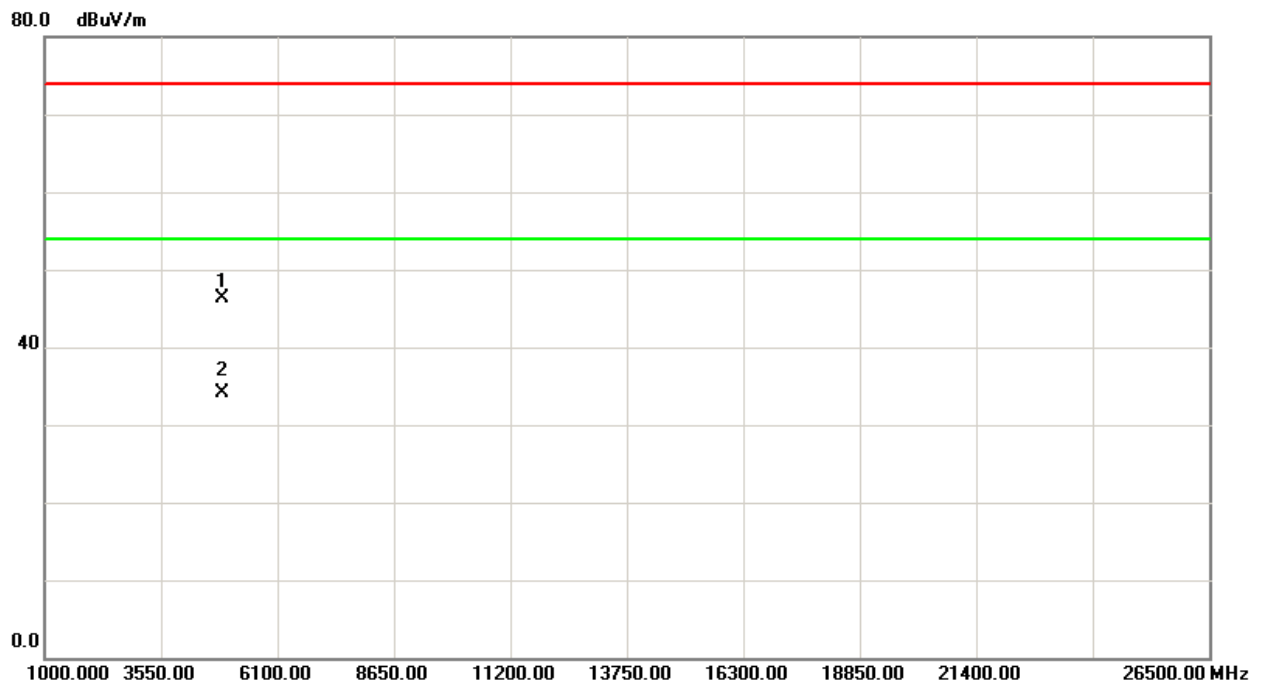
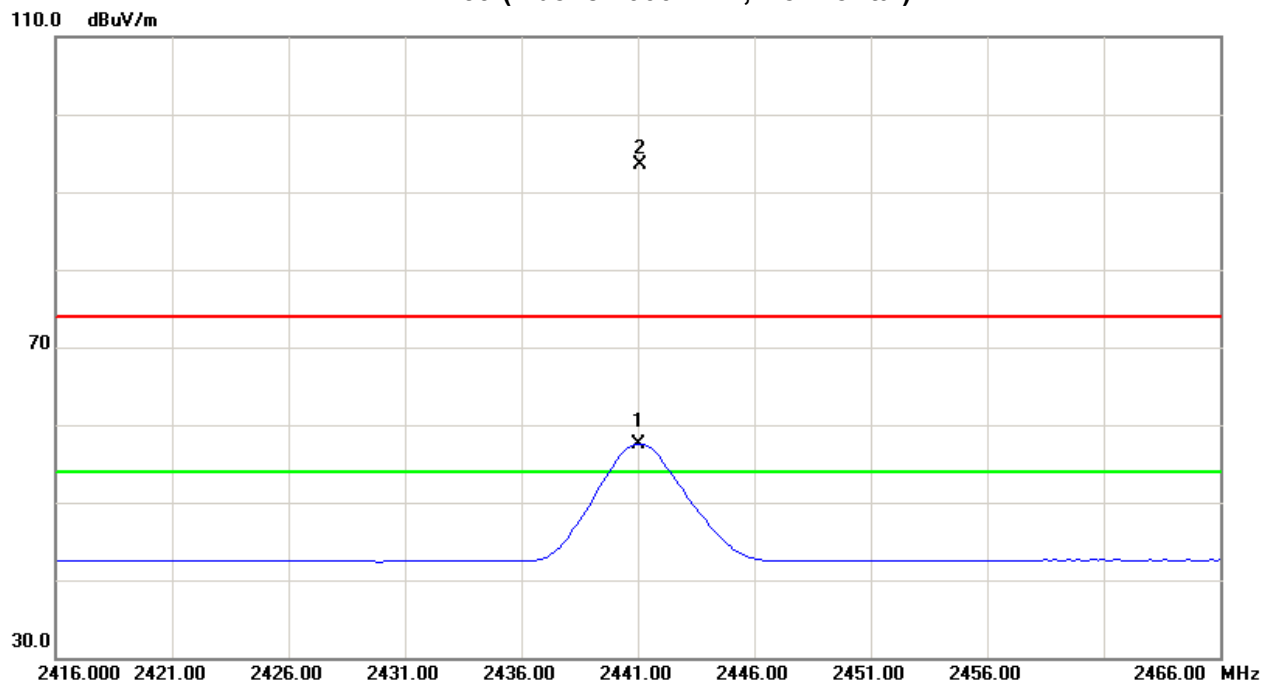
| Freq.          | Ant.Pol. | Reading      |              | Ant./CF      | Act.         |              | Limit    |          | Margin   |          | Note       |
|----------------|----------|--------------|--------------|--------------|--------------|--------------|----------|----------|----------|----------|------------|
|                |          | Peak         | AV           |              | Peak         | AV           | Peak     | AV       | Peak     | AV       |            |
| (MHz)          | H/V      | (dBuV)       | (dBuV)       | CF(dB)       | (dBuV/m)     | (dBuV/m)     | (dBuV/m) | (dBuV/m) | (dBuV/m) | (dBuV/m) |            |
| <b>2441.13</b> | <b>H</b> | <b>61.71</b> | <b>25.71</b> | <b>31.85</b> | <b>93.56</b> | <b>57.56</b> |          |          |          |          | <b>X/F</b> |
| 4882.05        | H        | 40.87        | 28.54        | 5.50         | 46.37        | 34.04        | 74.00    | 54.00    | -27.63   | -19.96   | X/H        |

**Remark :**

- (1) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency. "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission .
- (4) Data of measurement within this frequency range shown " \* " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis :  
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna



TX CH39 (Above 1000 MHz, Horizontal)





|               |                        |                     |             |
|---------------|------------------------|---------------------|-------------|
| EUT :         | TRANSIT                | Model Name :        | AK1         |
| Temperature : | 24 °C                  | Relative Humidity : | 58 %        |
| Pressure :    | 1010hPa                | Test Voltage :      | AC120V/60Hz |
| Test Mode :   | TX 2480MHz –CH78-3Mbps |                     |             |

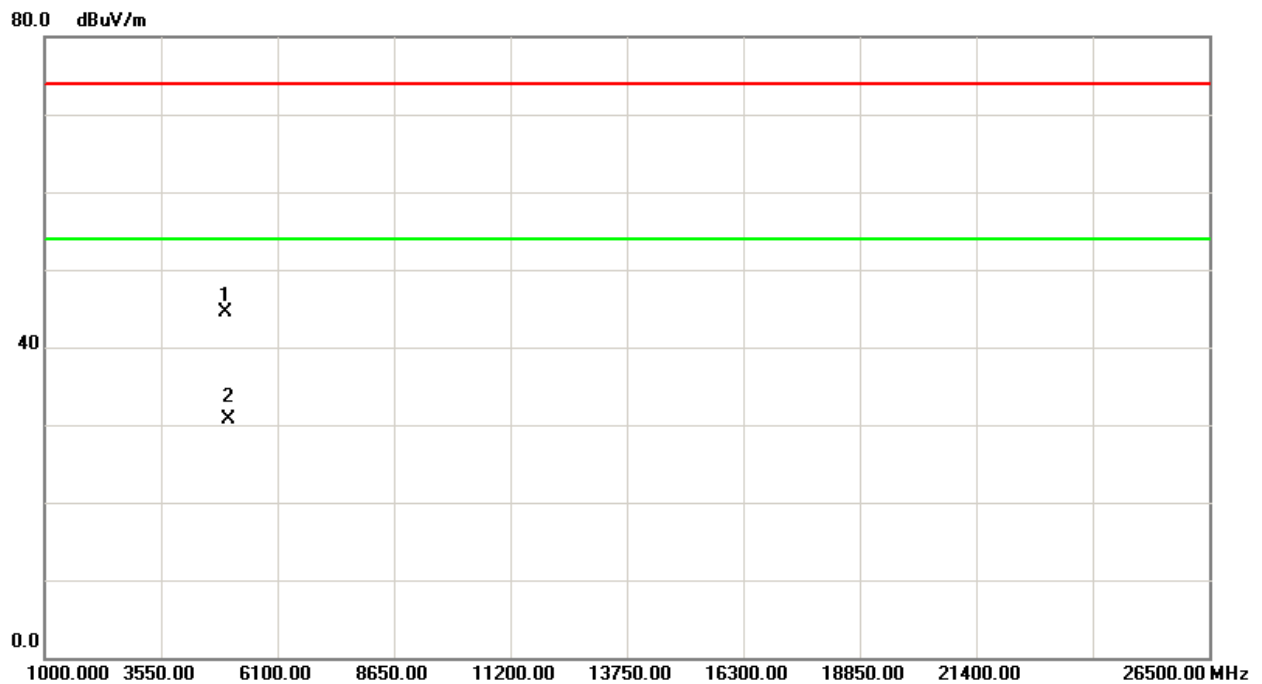
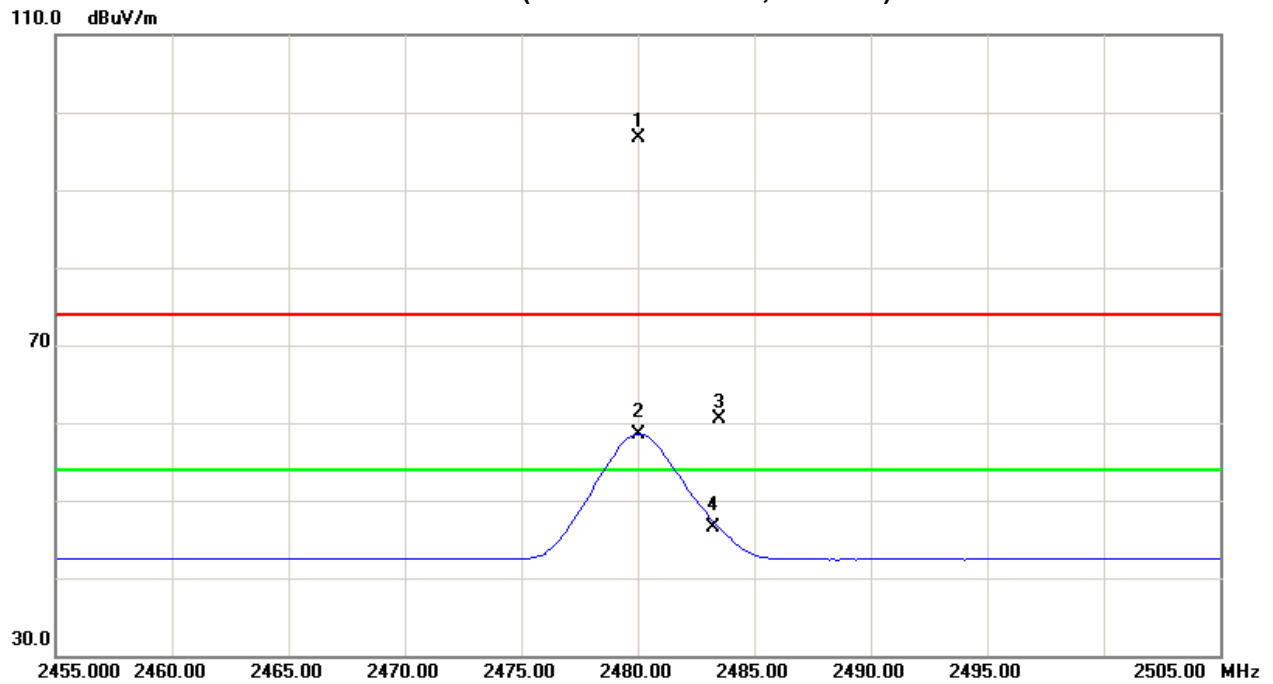
| Freq.          | Ant.Pol. | Reading      |              | Ant./CF      | Act.         |              | Limit    |          | Margin   |          | Note       |
|----------------|----------|--------------|--------------|--------------|--------------|--------------|----------|----------|----------|----------|------------|
|                |          | Peak         | AV           |              | Peak         | AV           | Peak     | AV       | Peak     | AV       |            |
| (MHz)          | H/V      | (dBuV)       | (dBuV)       | CF(dB)       | (dBuV/m)     | (dBuV/m)     | (dBuV/m) | (dBuV/m) | (dBuV/m) | (dBuV/m) |            |
| <b>2480.00</b> | <b>V</b> | <b>64.83</b> | <b>26.71</b> | <b>31.80</b> | <b>96.63</b> | <b>58.51</b> |          |          |          |          | <b>X/F</b> |
| 2483.50        | V        | 28.63        | 14.74        | 31.80        | 60.43        | 46.54        | 74.00    | 54.00    | -13.57   | -7.46    | X/E        |
| 4960.10        | V        | 38.80        | 24.92        | 5.78         | 44.58        | 30.70        | 74.00    | 54.00    | -29.42   | -23.30   | X/H        |

**Remark :**

- (1) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency. "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission .
- (4) Data of measurement within this frequency range shown " \* " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis :  
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna



TX CH78 (Above 1000 MHz, Vertical)





|               |                        |                     |             |
|---------------|------------------------|---------------------|-------------|
| EUT :         | TRANSIT                | Model Name :        | AK1         |
| Temperature : | 24 °C                  | Relative Humidity : | 58 %        |
| Pressure :    | 1010 hPa               | Test Voltage :      | AC120V/60Hz |
| Test Mode :   | TX 2480MHz –CH78-3Mbps |                     |             |

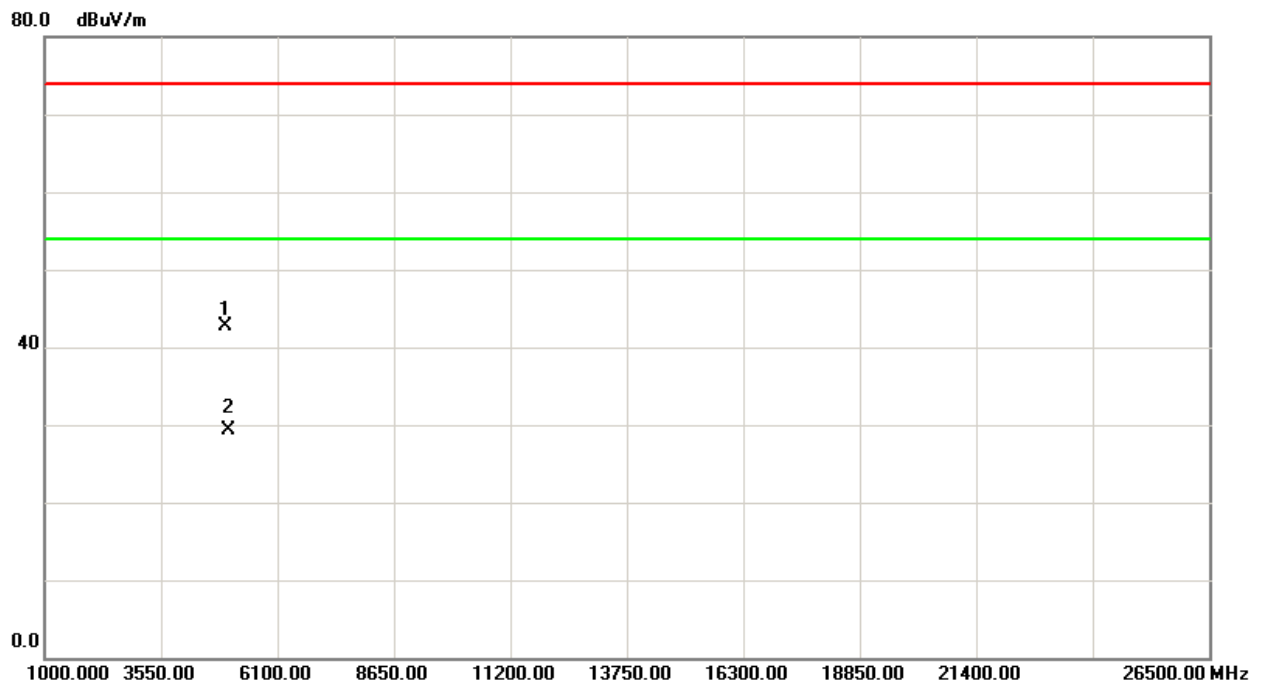
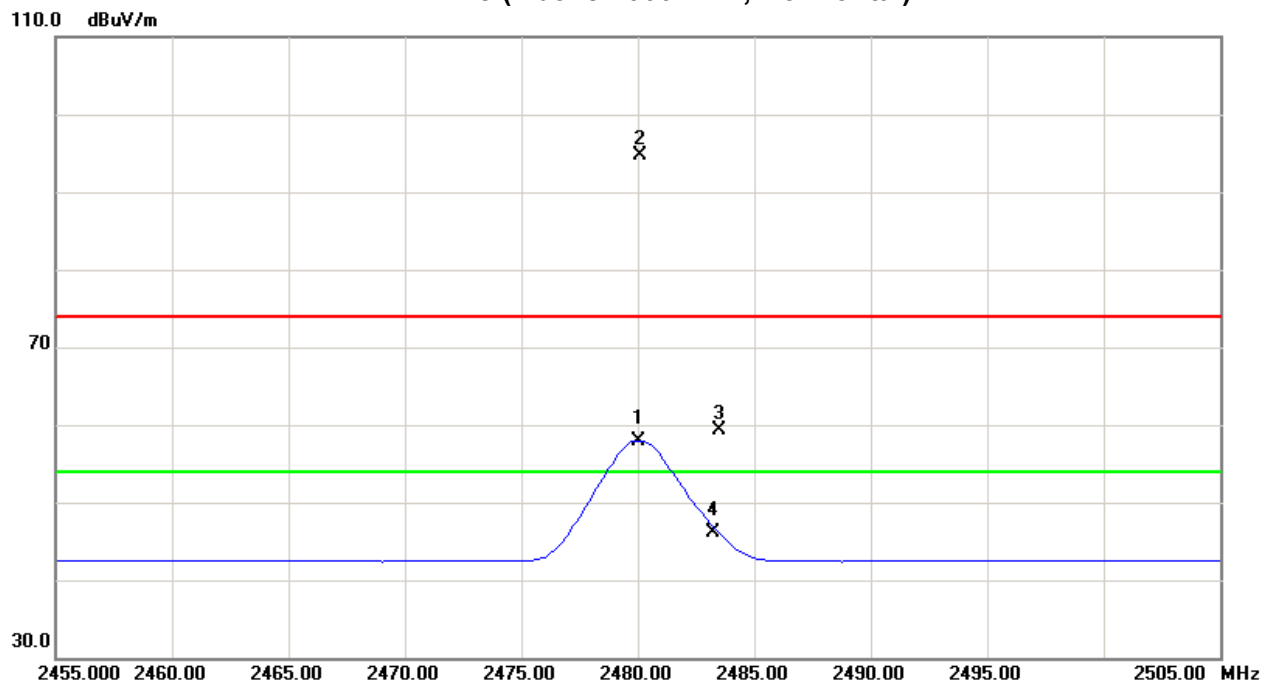
| Freq.          | Ant.Pol. | Reading      |              | Ant./CF      | Act.         |              | Limit    |          | Margin   |          | Note       |
|----------------|----------|--------------|--------------|--------------|--------------|--------------|----------|----------|----------|----------|------------|
|                |          | Peak         | AV           |              | Peak         | AV           | Peak     | AV       | Peak     | AV       |            |
| (MHz)          | H/V      | (dBuV)       | (dBuV)       | CF(dB)       | (dBuV/m)     | (dBuV/m)     | (dBuV/m) | (dBuV/m) | (dBuV/m) | (dBuV/m) |            |
| <b>2480.13</b> | <b>H</b> | <b>63.00</b> | <b>26.16</b> | <b>31.80</b> | <b>94.80</b> | <b>57.96</b> |          |          |          |          | <b>X/F</b> |
| 2483.50        | H        | 27.55        | 14.25        | 31.80        | 59.35        | 46.05        | 74.00    | 54.00    | -14.65   | -7.95    | X/E        |
| 4960.10        | H        | 37.00        | 23.45        | 5.78         | 42.78        | 29.23        | 74.00    | 54.00    | -31.22   | -24.77   | X/H        |

**Remark :**

- (1) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency. "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission .
- (4) Data of measurement within this frequency range shown " \* " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis :  
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna



TX CH78 (Above 1000 MHz, Horizontal)





## 5. NUMBER OF HOPPING CHANNEL

### 5.1 APPLIED PROCEDURES / LIMIT

| FCC Part15 (15.247) , Subpart C |                           |                       |        |
|---------------------------------|---------------------------|-----------------------|--------|
| Section                         | Test Item                 | Frequency Range (MHz) | Result |
| 15.247<br>(a)(1)(iii)           | Number of Hopping Channel | 2400-2483.5           | PASS   |

### 5.1.1 MEASUREMENT INSTRUMENTS LIST AND SETTING

| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
|------|-------------------|--------------|----------|------------|------------------|
| 1    | Spectrum Analyzer | R&S          | FSP 40   | 100185     | Nov. 16.2013     |

Remark: "N/A" denotes no model name, serial no. or calibration specified.  
All calibration period of Equipment List is One Year.

| Spectrum Parameters | Setting                     |
|---------------------|-----------------------------|
| Attenuation         | Auto                        |
| Span Frequency      | > Operating Frequency Range |
| RB                  | 100 kHz                     |
| VB                  | 100 kHz                     |
| Detector            | Peak                        |
| Trace               | Max Hold                    |
| Sweep Time          | Auto                        |

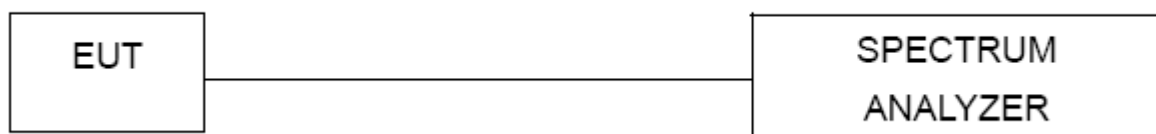
### 5.1.2 TEST PROCEDURE

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

### 5.1.3 DEVIATION FROM STANDARD

No deviation.

### 5.1.4 TEST SETUP



### 5.1.5 EUT OPERATION CONDITIONS

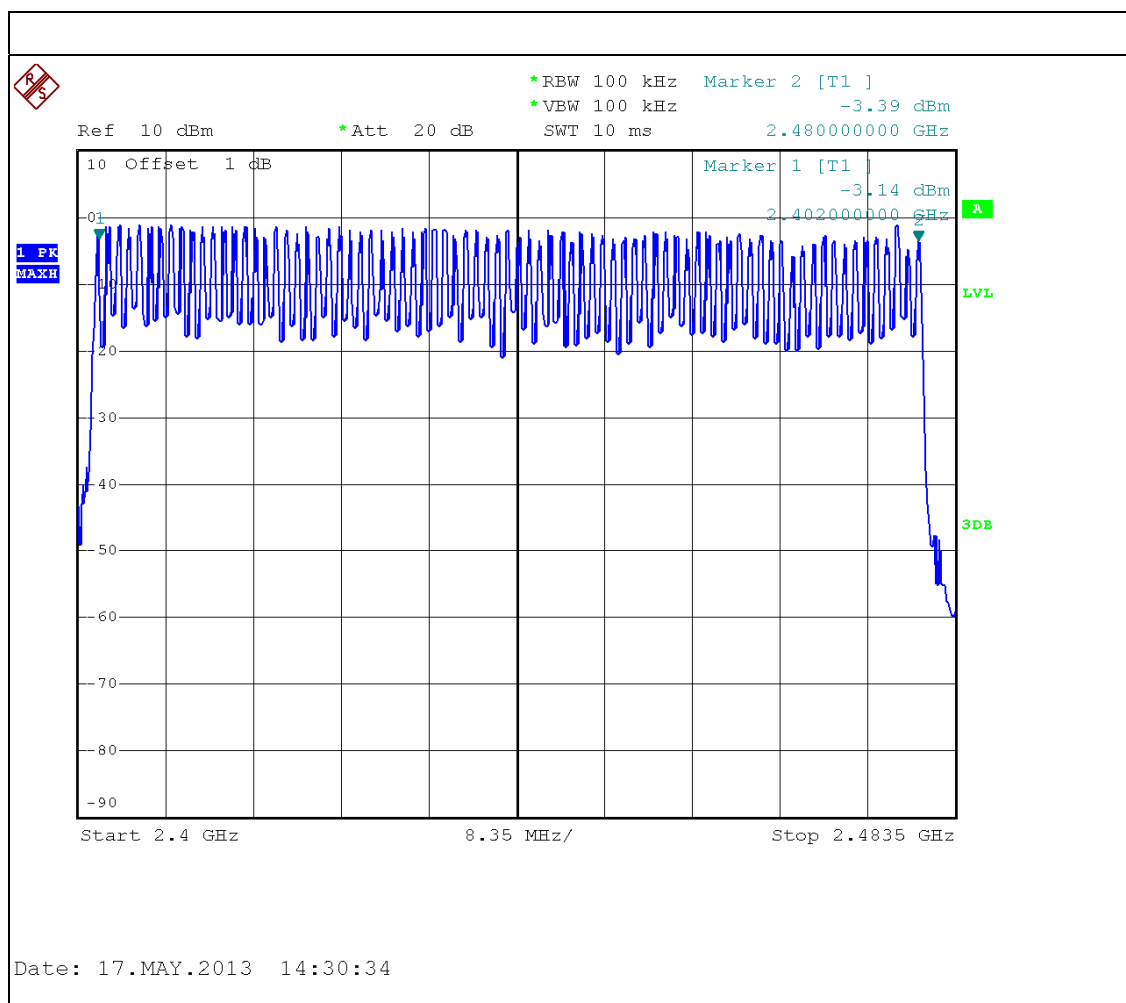
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.



### 5.1.6 TEST RESULTS

|               |                     |                     |             |
|---------------|---------------------|---------------------|-------------|
| EUT :         | TRANSIT             | Model Name :        | AK1         |
| Temperature : | 24 °C               | Relative Humidity : | 58 %        |
| Pressure :    | 1009 hPa            | Test Voltage :      | AC120V/60Hz |
| Test Mode :   | Hopping Mode -1Mbps |                     |             |

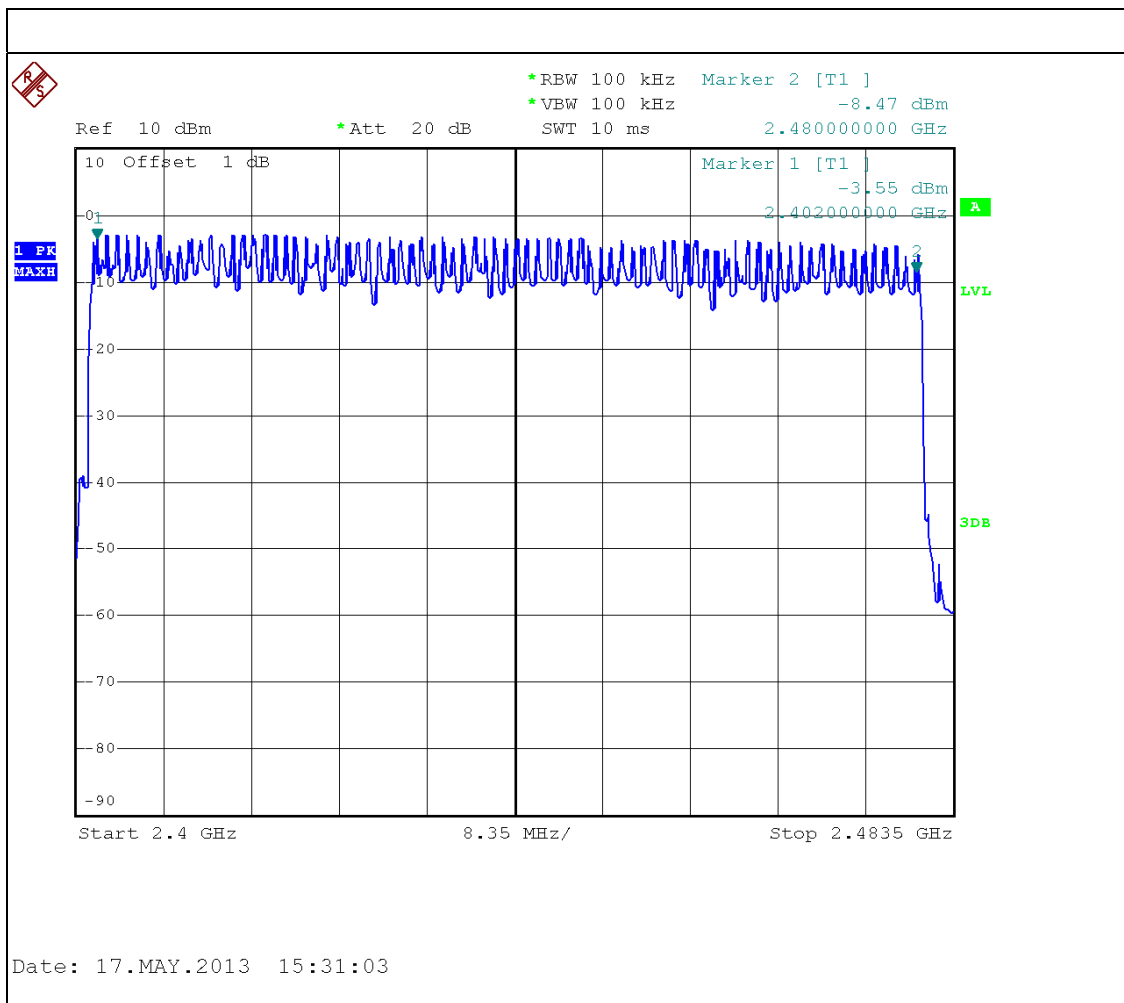
|                           |    |
|---------------------------|----|
| Number of Hopping Channel | 79 |
|---------------------------|----|





|               |                     |                     |             |
|---------------|---------------------|---------------------|-------------|
| EUT :         | TRANSIT             | Model Name :        | AK1         |
| Temperature : | 24 °C               | Relative Humidity : | 58 %        |
| Pressure :    | 1009 hPa            | Test Voltage :      | AC120V/60Hz |
| Test Mode :   | Hopping Mode -3Mbps |                     |             |

|                           |    |
|---------------------------|----|
| Number of Hopping Channel | 79 |
|---------------------------|----|



**6. AVERAGE TIME OF OCCUPANCY****6.1 APPLIED PROCEDURES / LIMIT**

| FCC Part15 (15.247) , Subpart C |                           |        |                       |        |
|---------------------------------|---------------------------|--------|-----------------------|--------|
| Section                         | Test Item                 | Limit  | Frequency Range (MHz) | Result |
| 15.247<br>(a)(1)(iii)           | Average Time of Occupancy | 0.4sec | 2400-2483.5           | PASS   |

**6.1.1 MEASUREMENT INSTRUMENTS LIST**

| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
|------|-------------------|--------------|----------|------------|------------------|
| 1    | Spectrum Analyzer | R&S          | FSP 40   | 100185     | Nov. 16.2013     |

Remark: "N/A" denotes no model name, serial no. or calibration specified.

All calibration period of Equipment List is One Year.

**6.1.2 TEST PROCEDURE**

- a. The transmitter output (antenna port) was connected to the spectrum analyzer
- b. Set RBW of spectrum analyzer to 1MHz and VBW to 1MHz.
- c. Use a video trigger with the trigger level set to enable triggering only on full pulses.
- d. Sweep Time is more than once pulse time.
- e. Set the center frequency on any frequency would be measure and set the frequency span to zero span.
- f. Measure the maximum time duration of one single pulse.
- g. Set the EUT for DH5, DH3 and DH1 packet transmitting.
- h. Measure the maximum time duration of one single pulse.
- i. DH5 Packet permit maximum  $1600 / 79 / 6 = 3.37$  hops per second in each channel (5 time slots TX, 1 time slot RX). So, the dwell time is the time duration of the pulse times  $3.37 \times 31.6 = 106.6$  within 31.6 seconds.
- j. DH3 Packet permit maximum  $1600 / 79 / 4 = 5.06$  hops per second in each channel (3 time slots TX, 1 time slot RX). So, the dwell time is the time duration of the pulse times  $5.06 \times 31.6 = 160$  within 31.6 seconds.
- k. DH1 Packet permit maximum  $1600 / 79 / 2 = 10.12$  hops per second in each channel (1 time slot RX, 1 time slot TX). So, the dwell time is the time duration of the pulse times  $10.12 \times 31.6 = 320$  within 31.6 seconds.

**6.1.3 DEVIATION FROM STANDARD**

No deviation.



#### **6.1.4 TEST SETUP**



#### **6.1.5 EUT OPERATION CONDITIONS**

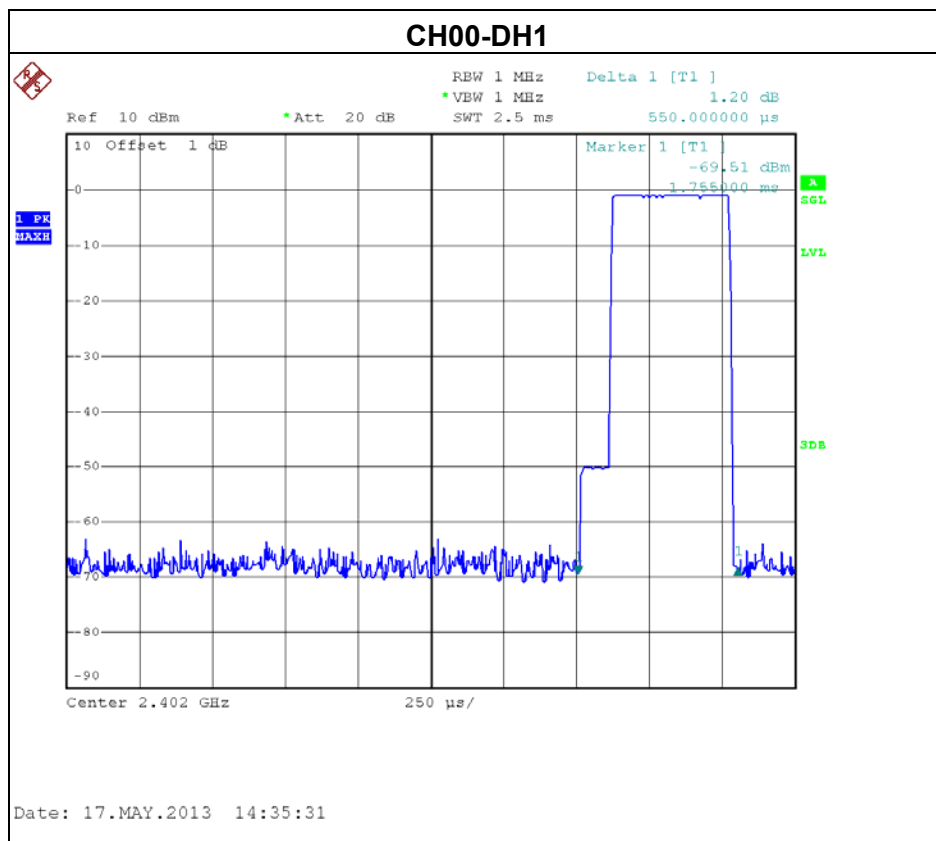
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

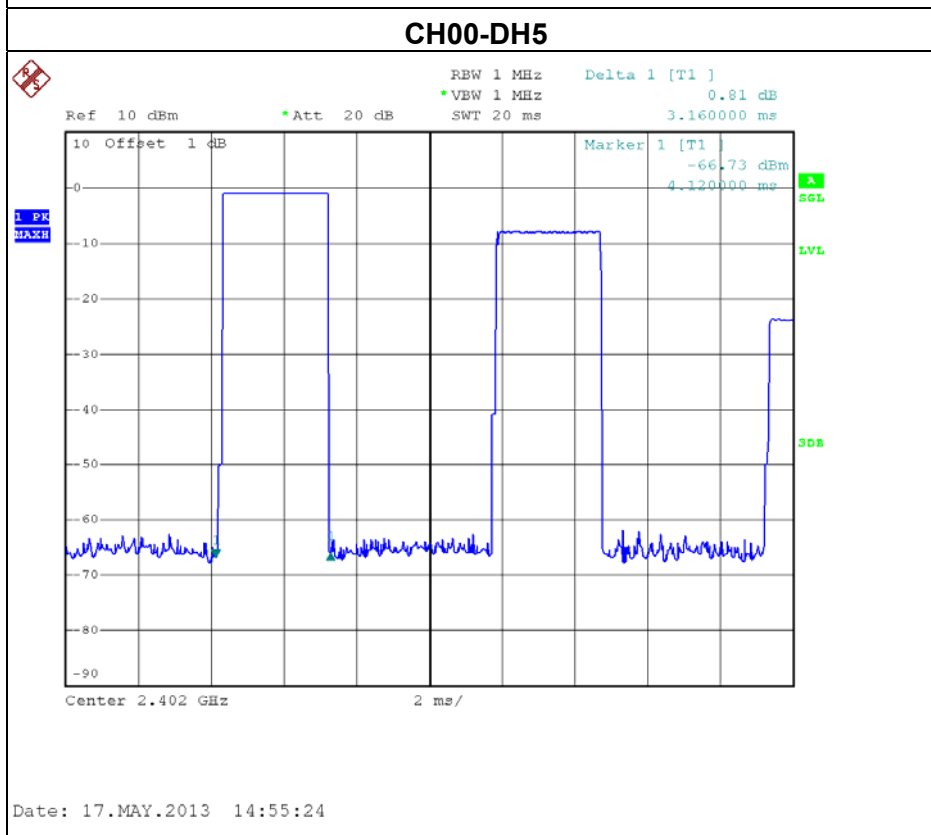
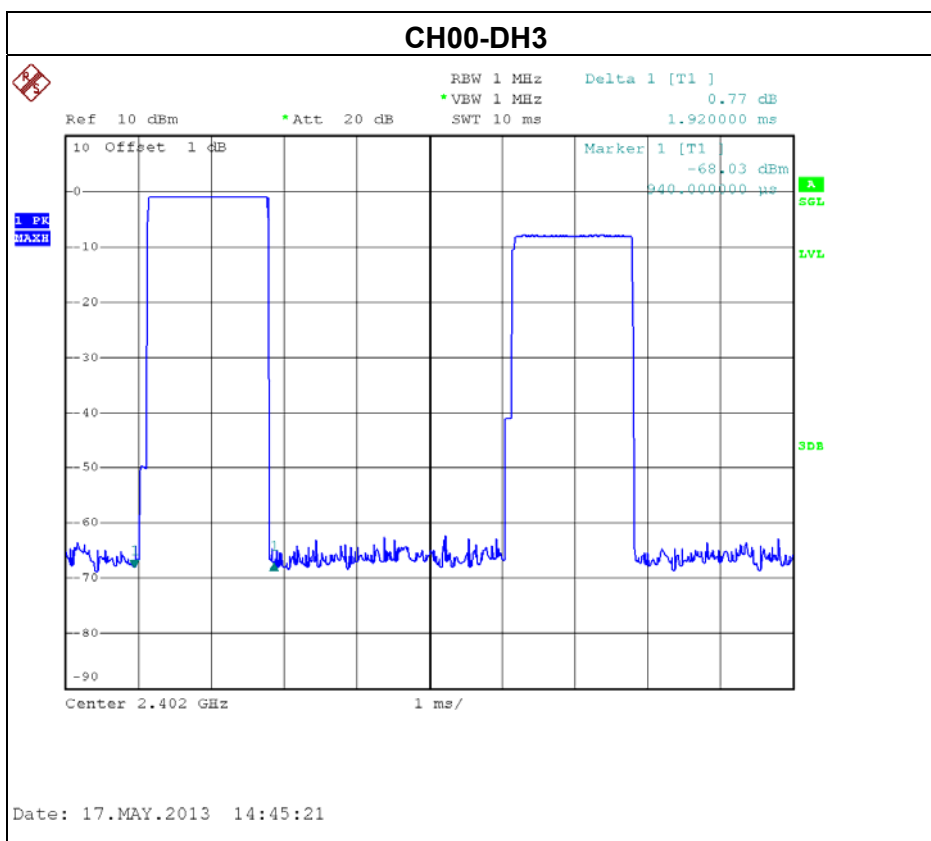


### 6.1.6 TEST RESULTS

|               |                         |                     |             |
|---------------|-------------------------|---------------------|-------------|
| EUT :         | TRANSIT                 | Model Name :        | AK1         |
| Temperature : | 24 °C                   | Relative Humidity : | 58 %        |
| Pressure :    | 1009 hPa                | Test Voltage :      | AC120V/60Hz |
| Test Mode :   | CH00-DH1/DH3/DH5 -1Mbps |                     |             |

| Data Packet | Frequency | Pulse Duration<br>(ms) | Dwell Time<br>(s) | Limits<br>(s) |
|-------------|-----------|------------------------|-------------------|---------------|
| DH5         | 2402 MHz  | 3.1600                 | 0.3371            | 0.4000        |
| DH3         | 2402 MHz  | 1.9200                 | 0.3072            | 0.4000        |
| DH1         | 2402 MHz  | 0.5500                 | 0.1760            | 0.4000        |

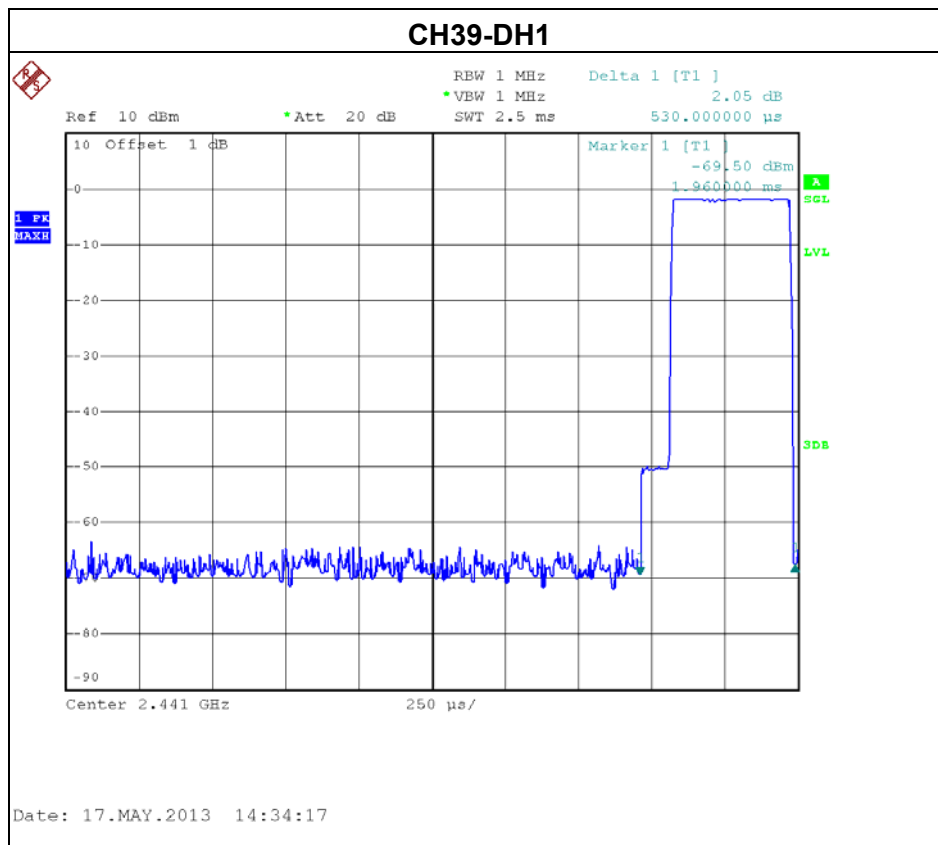


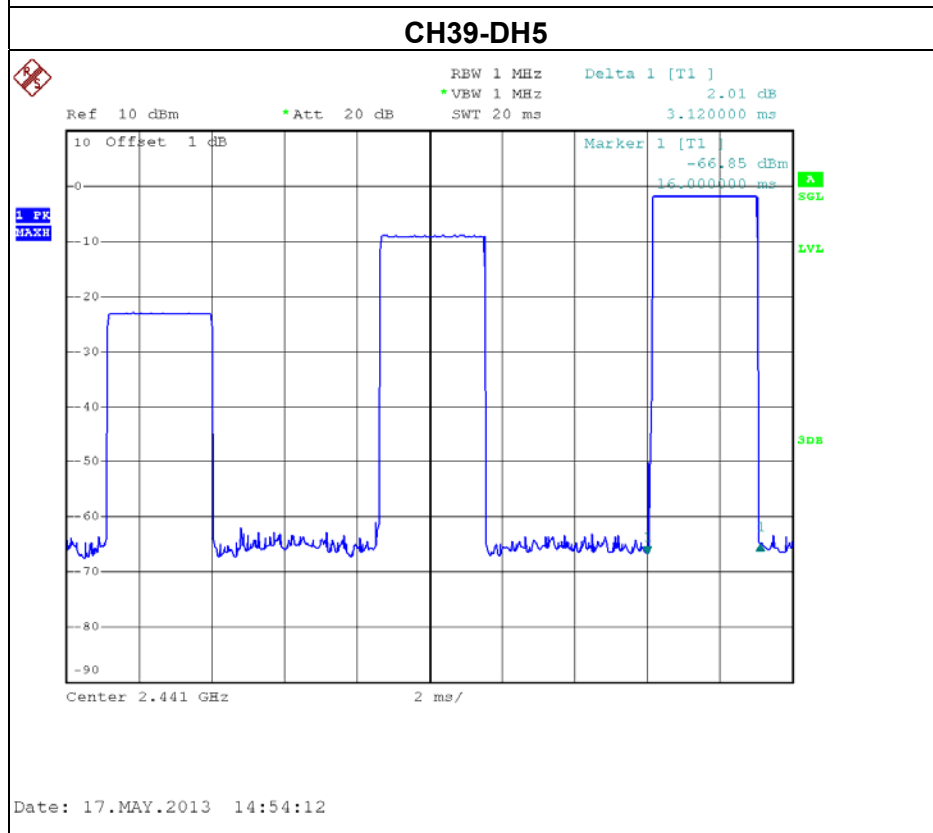
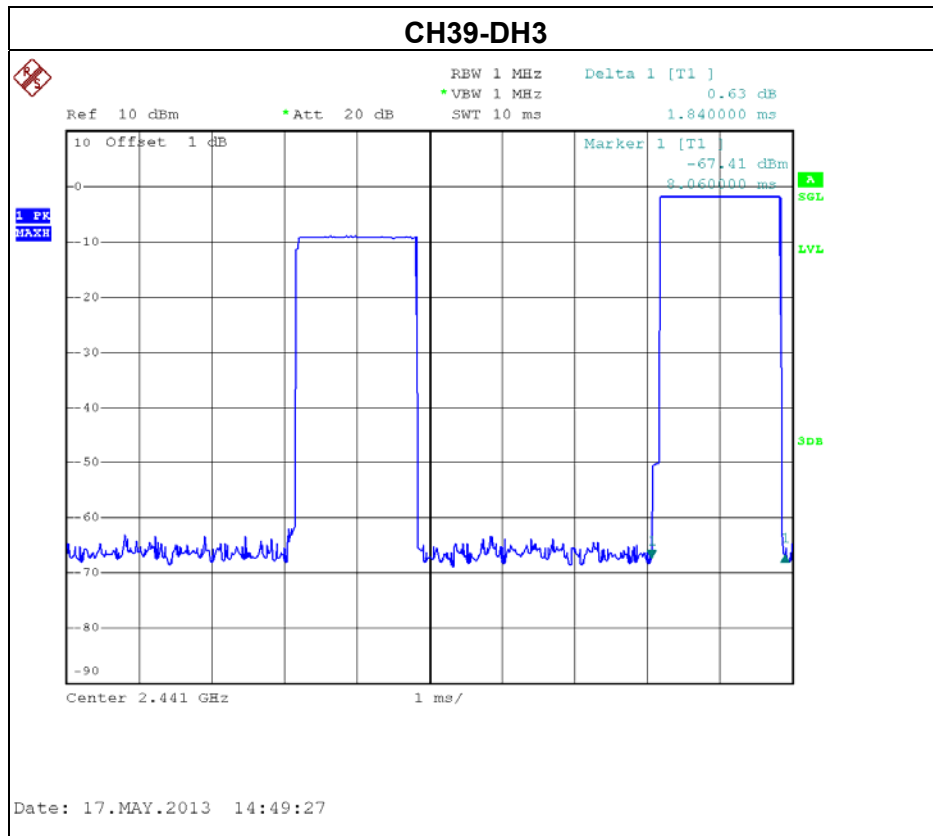




|               |                          |                     |             |
|---------------|--------------------------|---------------------|-------------|
| EUT :         | TRANSIT                  | Model Name :        | AK1         |
| Temperature : | 24 °C                    | Relative Humidity : | 58 %        |
| Pressure :    | 1009 hPa                 | Test Voltage :      | AC120V/60Hz |
| Test Mode :   | CH39 -DH1/DH3/DH5 -1Mbps |                     |             |

| Data Packet | Frequency | Pulse Duration<br>(ms) | Dwell Time<br>(s) | Limits<br>(s) |
|-------------|-----------|------------------------|-------------------|---------------|
| DH5         | 2441 MHz  | 3.1200                 | 0.3328            | 0.4000        |
| DH3         | 2441 MHz  | 1.8400                 | 0.2944            | 0.4000        |
| DH1         | 2441 MHz  | 0.5300                 | 0.1696            | 0.4000        |

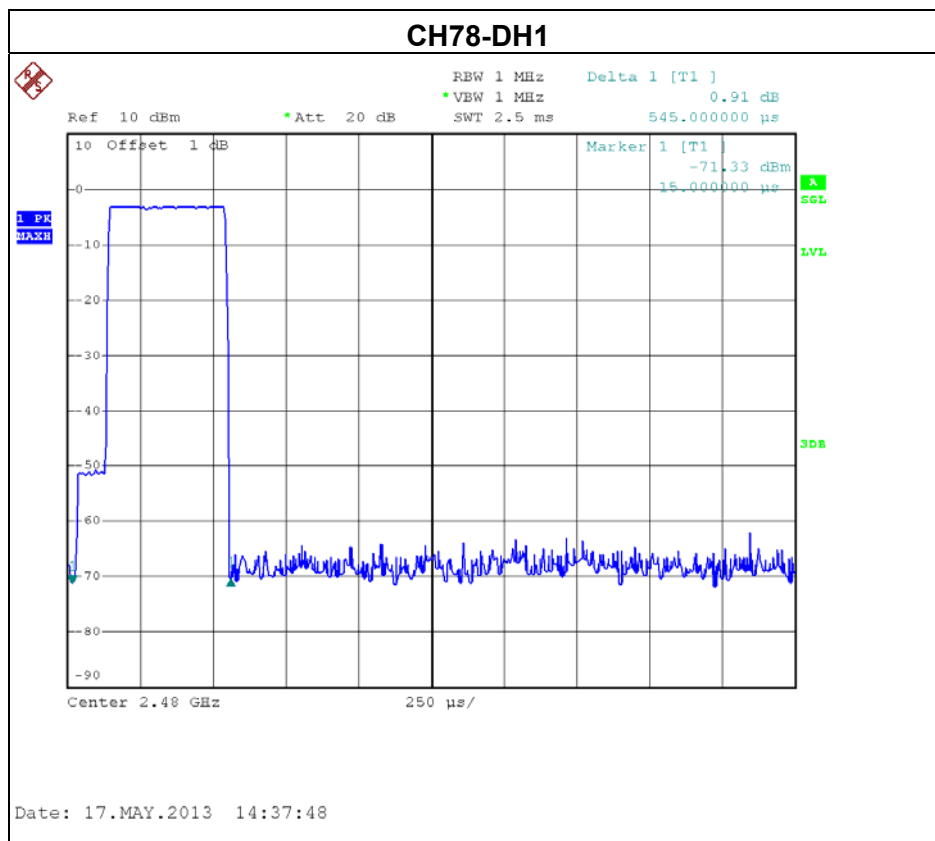


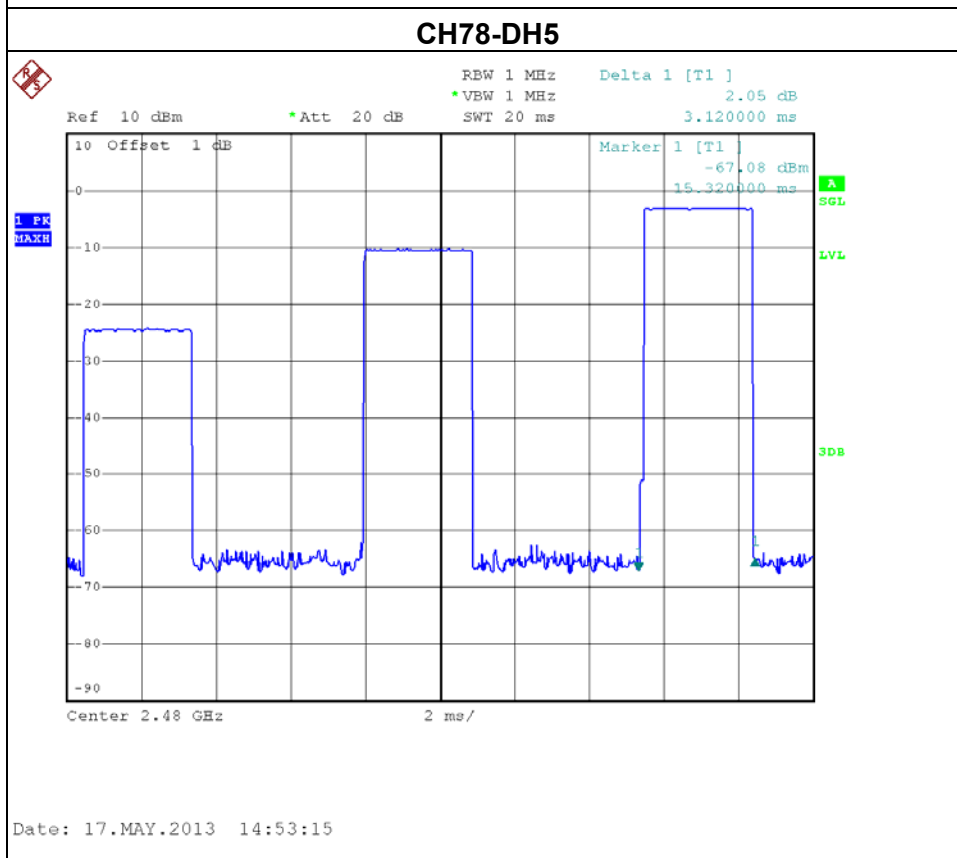
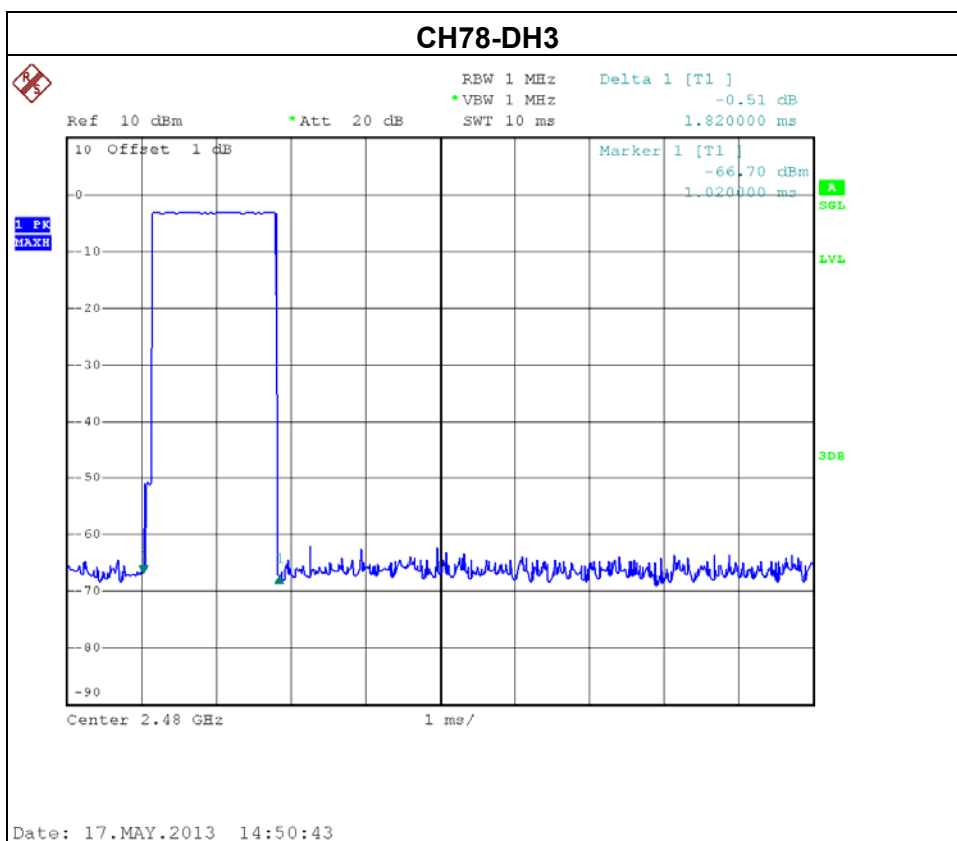




|               |                         |                     |             |
|---------------|-------------------------|---------------------|-------------|
| EUT :         | TRANSIT                 | Model Name :        | AK1         |
| Temperature : | 24 °C                   | Relative Humidity : | 58 %        |
| Pressure :    | 1009 hPa                | Test Voltage :      | AC120V/60Hz |
| Test Mode :   | CH78 -DH1/DH3/DH5-1Mbps |                     |             |

| Data Packet | Frequency | Pulse Duration (ms) | Dwell Time (s) | Limits (s) |
|-------------|-----------|---------------------|----------------|------------|
| DH5         | 2480 MHz  | 3.1200              | 0.3328         | 0.4000     |
| DH3         | 2480 MHz  | 1.8200              | 0.2912         | 0.4000     |
| DH1         | 2480 MHz  | 0.5450              | 0.1744         | 0.4000     |

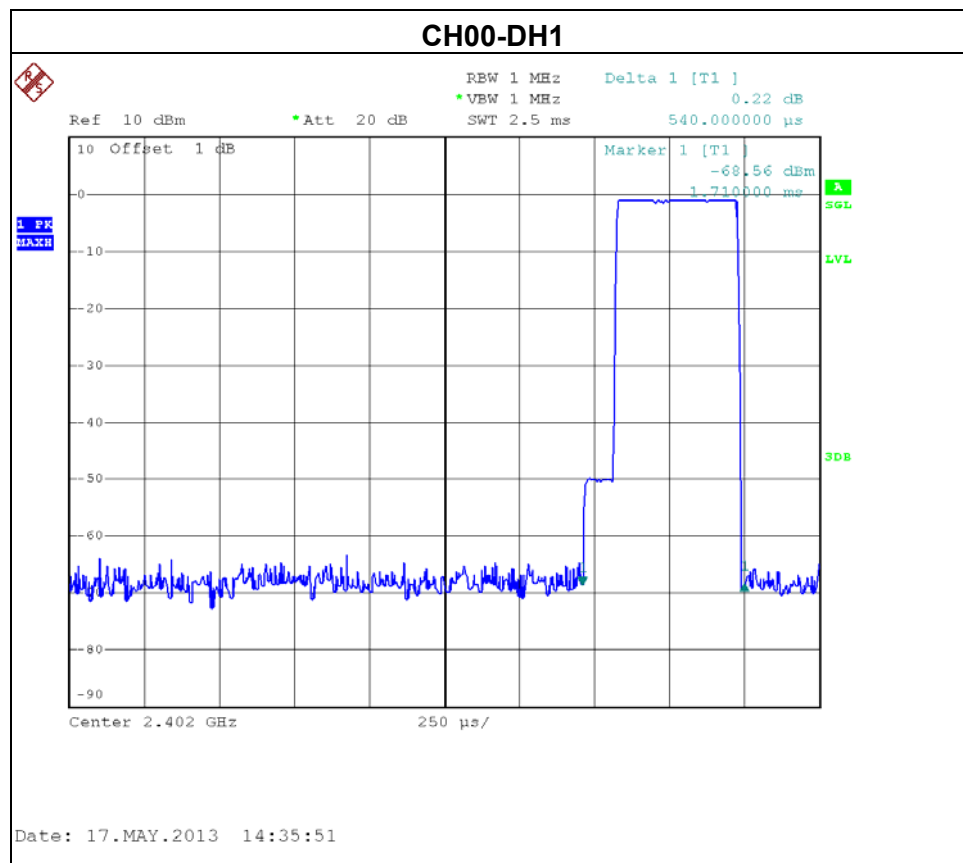


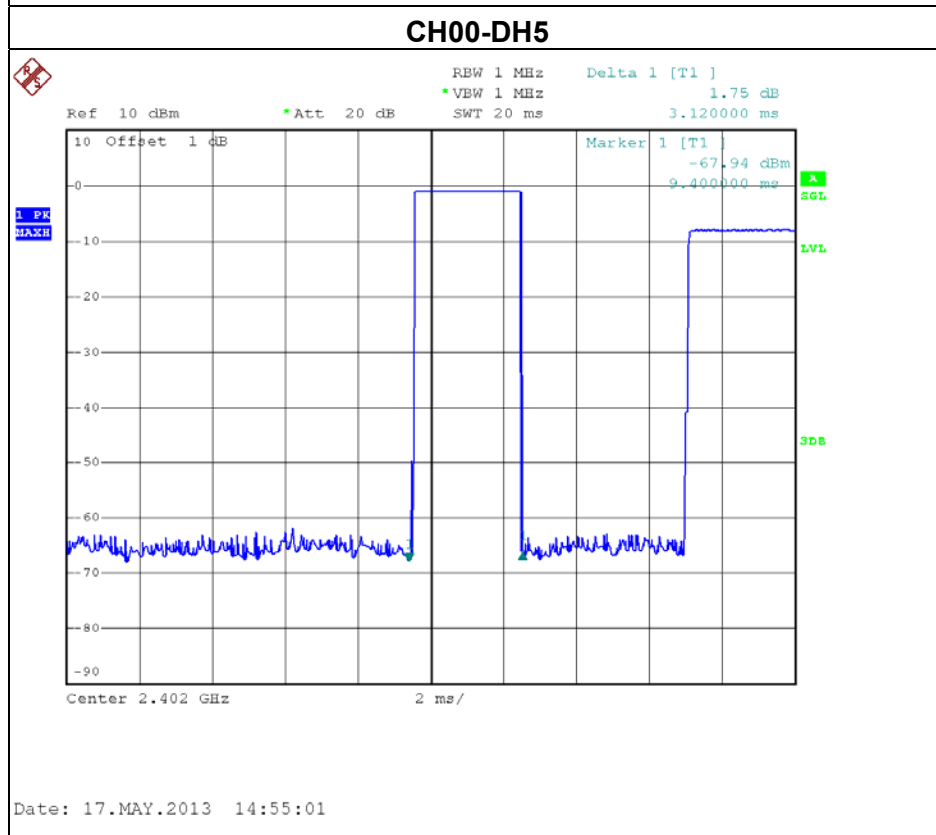
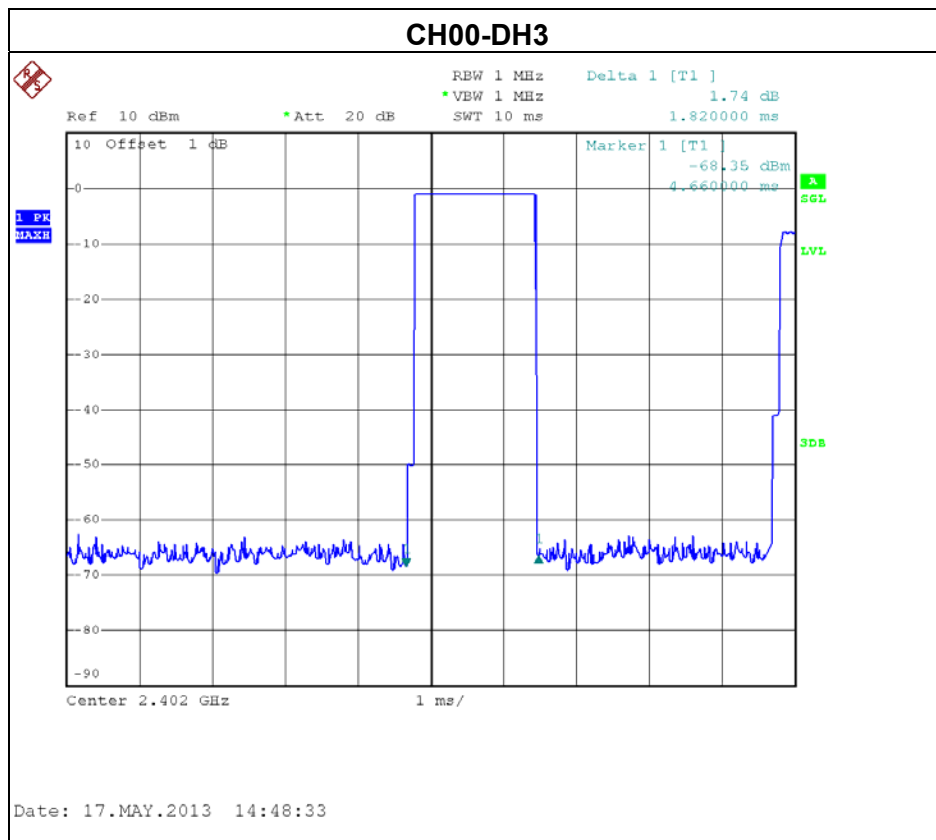




|               |                         |                     |             |
|---------------|-------------------------|---------------------|-------------|
| EUT :         | TRANSIT                 | Model Name :        | AK1         |
| Temperature : | 24 °C                   | Relative Humidity : | 58 %        |
| Pressure :    | 1009 hPa                | Test Voltage :      | AC120V/60Hz |
| Test Mode :   | CH00-DH1/DH3/DH5 -3Mbps |                     |             |

| Data Packet | Frequency | Pulse Duration<br>(ms) | Dwell Time<br>(s) | Limits<br>(s) |
|-------------|-----------|------------------------|-------------------|---------------|
| DH5         | 2402 MHz  | 3.1200                 | 0.3328            | 0.4000        |
| DH3         | 2402 MHz  | 1.8200                 | 0.2912            | 0.4000        |
| DH1         | 2402 MHz  | 0.5400                 | 0.1728            | 0.4000        |

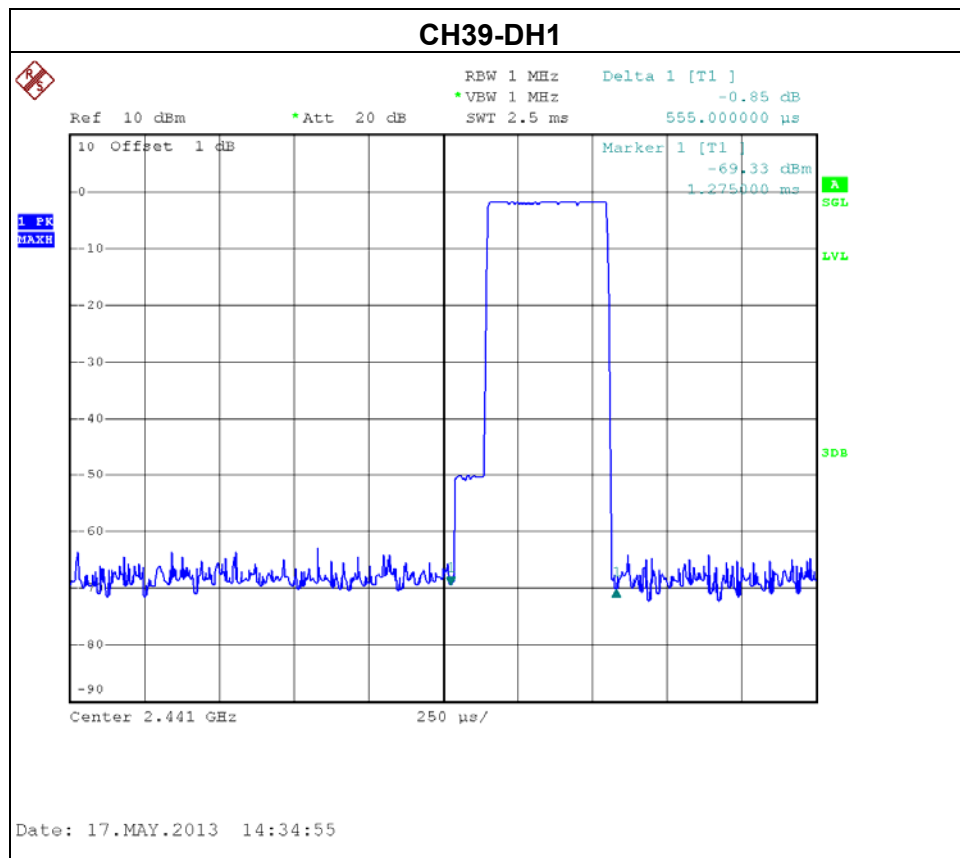


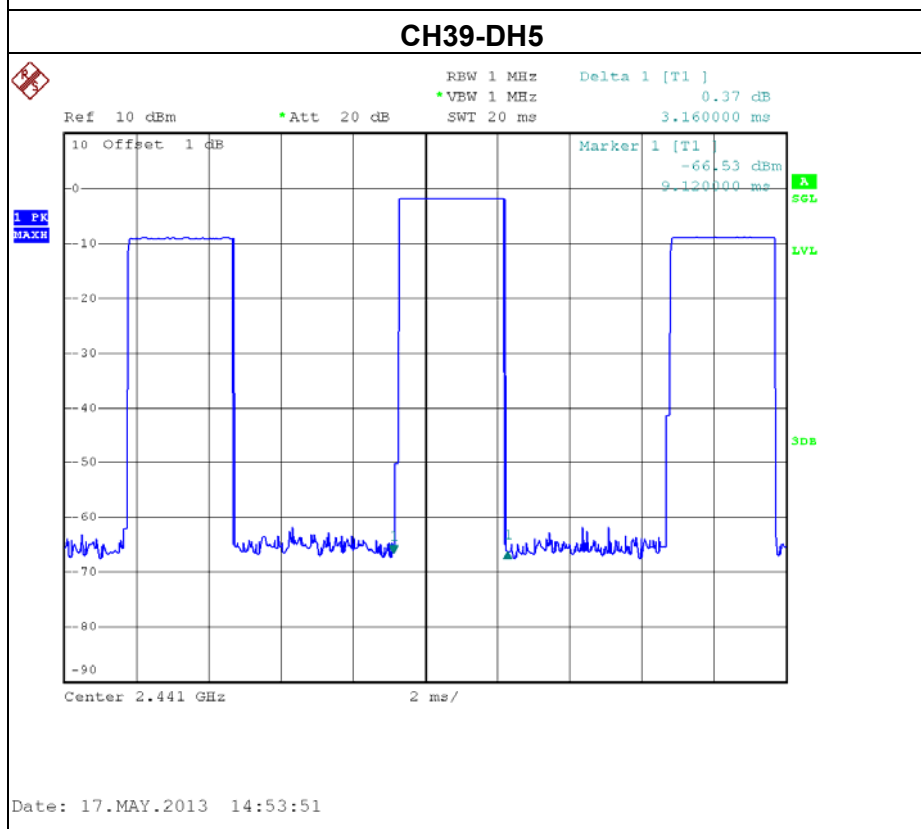
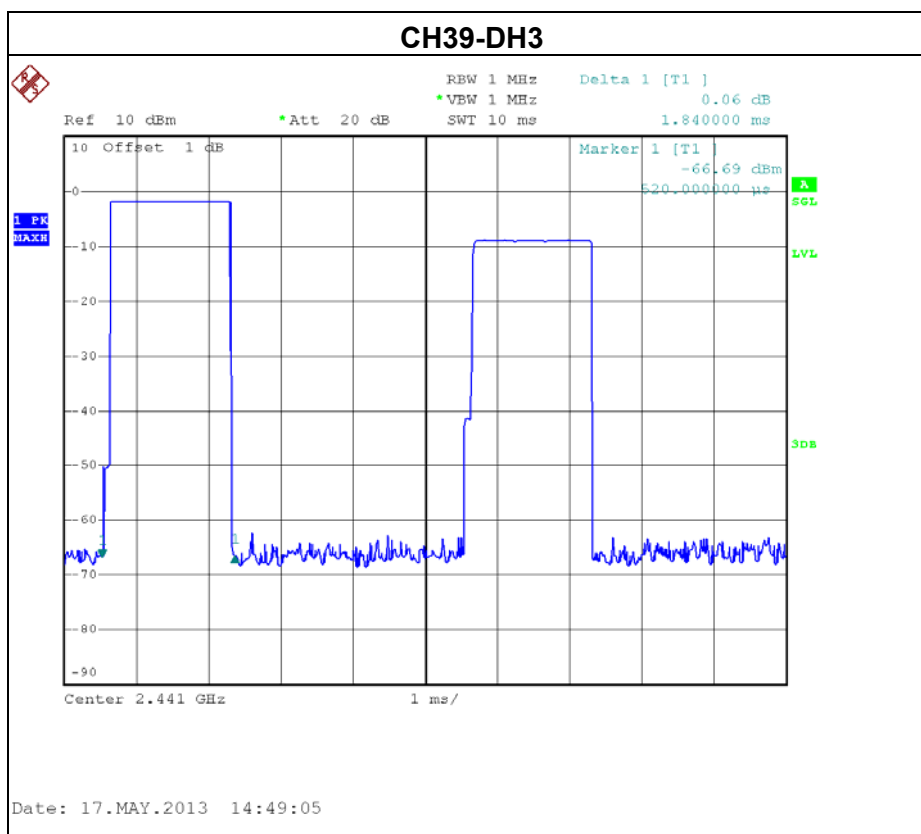




|               |                          |                     |             |
|---------------|--------------------------|---------------------|-------------|
| EUT :         | TRANSIT                  | Model Name :        | AK1         |
| Temperature : | 24 °C                    | Relative Humidity : | 58 %        |
| Pressure :    | 1009 hPa                 | Test Voltage :      | AC120V/60Hz |
| Test Mode :   | CH39 -DH1/DH3/DH5 -3Mbps |                     |             |

| Data Packet | Frequency | Pulse Duration<br>(ms) | Dwell Time<br>(s) | Limits<br>(s) |
|-------------|-----------|------------------------|-------------------|---------------|
| DH5         | 2441 MHz  | 3.1600                 | 0.3371            | 0.4000        |
| DH3         | 2441 MHz  | 1.8400                 | 0.2944            | 0.4000        |
| DH1         | 2441 MHz  | 0.5550                 | 0.1776            | 0.4000        |

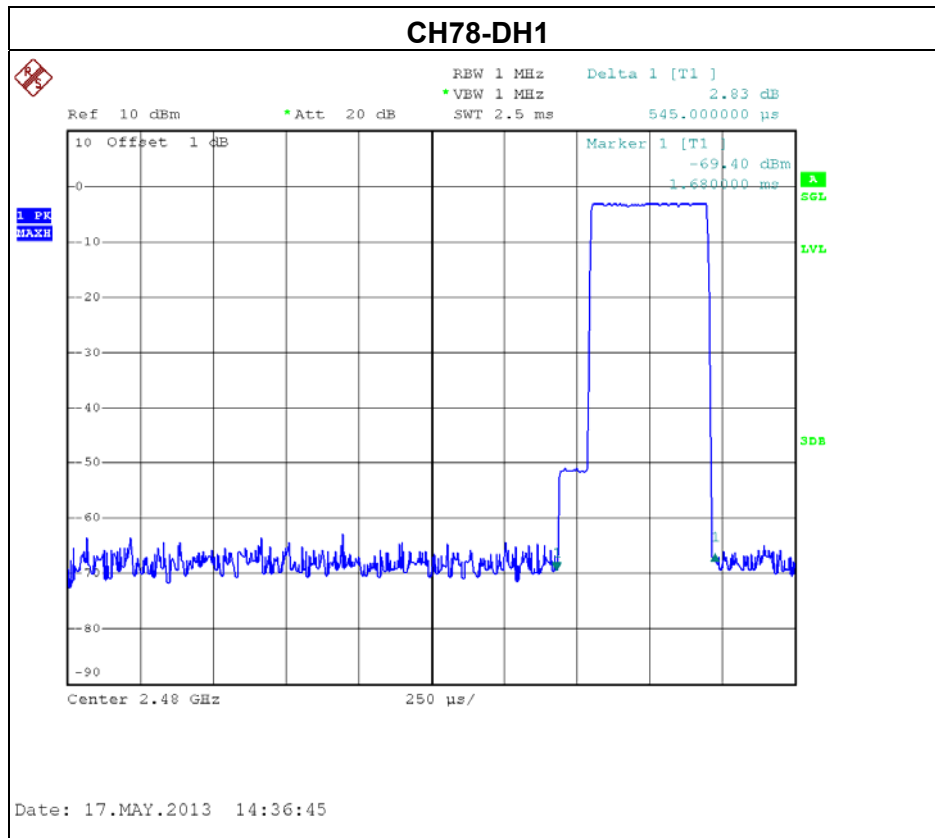






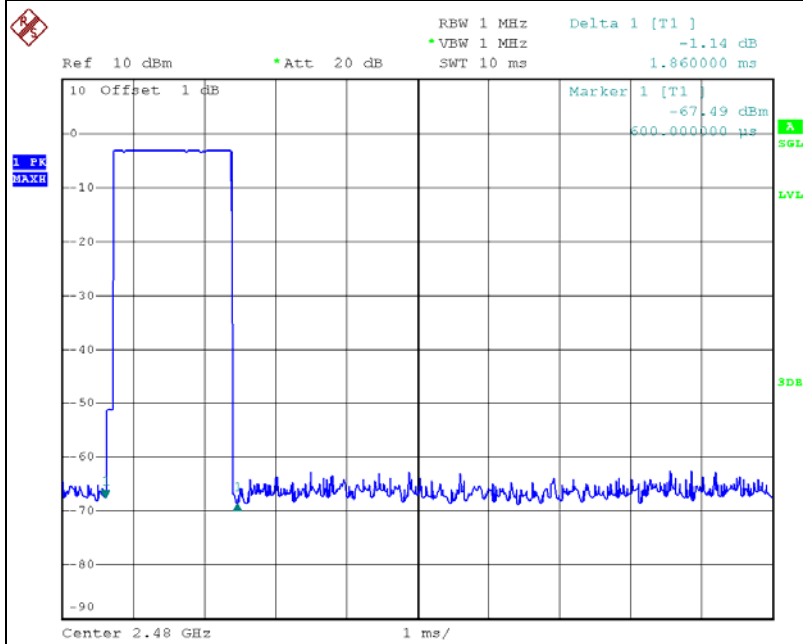
|               |                         |                     |             |
|---------------|-------------------------|---------------------|-------------|
| EUT :         | TRANSIT                 | Model Name :        | AK1         |
| Temperature : | 24 °C                   | Relative Humidity : | 58 %        |
| Pressure :    | 1009 hPa                | Test Voltage :      | AC120V/60Hz |
| Test Mode :   | CH78 -DH1/DH3/DH5-3Mbps |                     |             |

| Data Packet | Frequency | Pulse Duration<br>(ms) | Dwell Time<br>(s) | Limits<br>(s) |
|-------------|-----------|------------------------|-------------------|---------------|
| DH5         | 2480 MHz  | 3.1200                 | 0.3328            | 0.4000        |
| DH3         | 2480 MHz  | 1.8600                 | 0.2976            | 0.4000        |
| DH1         | 2480 MHz  | 0.5450                 | 0.1744            | 0.4000        |



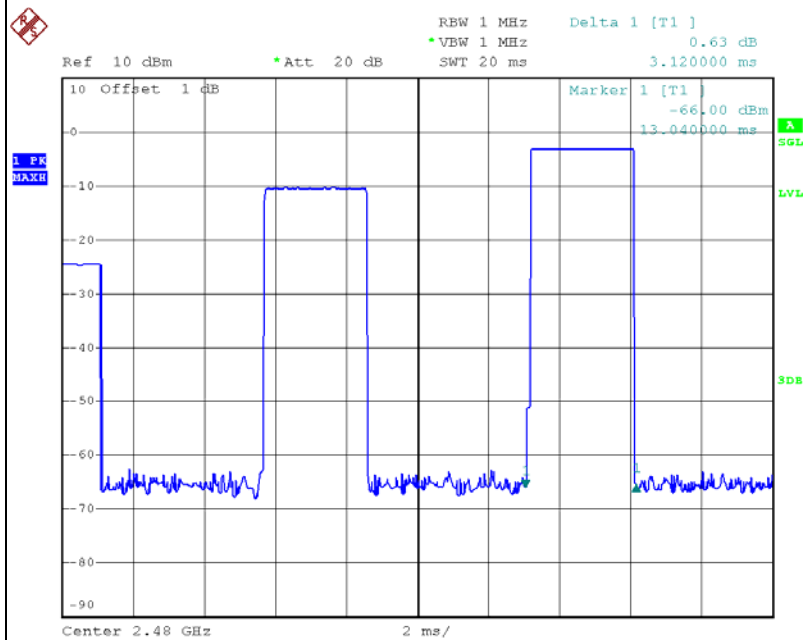


### CH78-DH3



Date: 17.MAY.2013 14:50:19

### CH78-DH5



Date: 17.JAN.2012 14:52:26

## 7. HOPPING CHANNEL SEPARATION MEASUREMENT

### 7.1 APPLIED PROCEDURES / LIMIT

Frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater.

#### 7.1.1 MEASUREMENT INSTRUMENTS LIST AND SETTING

| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
|------|-------------------|--------------|----------|------------|------------------|
| 1    | Spectrum Analyzer | R&S          | FSP 40   | 100185     | Nov. 16.2013     |

Remark: "N/A" denotes no model name, serial no. or calibration specified.

All calibration period of Equipment List is One Year.

| Spectrum Parameter | Setting                                       |
|--------------------|-----------------------------------------------|
| Attenuation        | Auto                                          |
| Span Frequency     | > Measurement Bandwidth or Channel Separation |
| RB                 | 30 kHz                                        |
| VB                 | 100 kHz                                       |
| Detector           | Peak                                          |
| Trace              | Max Hold                                      |
| Sweep Time         | Auto                                          |

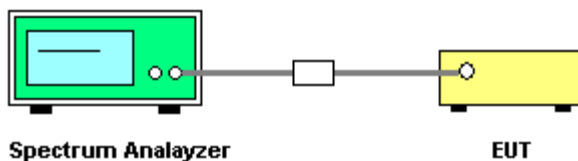
#### 7.1.2 TEST PROCEDURE

- a. The EUT must have its hopping function enabled
- b. Span = wide enough to capture the peaks of two adjacent channels
  - Resolution (or IF) Bandwidth (RBW)  $\geq$  1% of the span
  - Video (or Average) Bandwidth (VBW)  $\geq$  RBW
  - Sweep = auto
  - Detector function = peak
  - Trace = max hold

#### 7.1.3 DEVIATION FROM STANDARD

No deviation.

#### 7.1.4 TEST SETUP



#### 7.1.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in hopping mode.

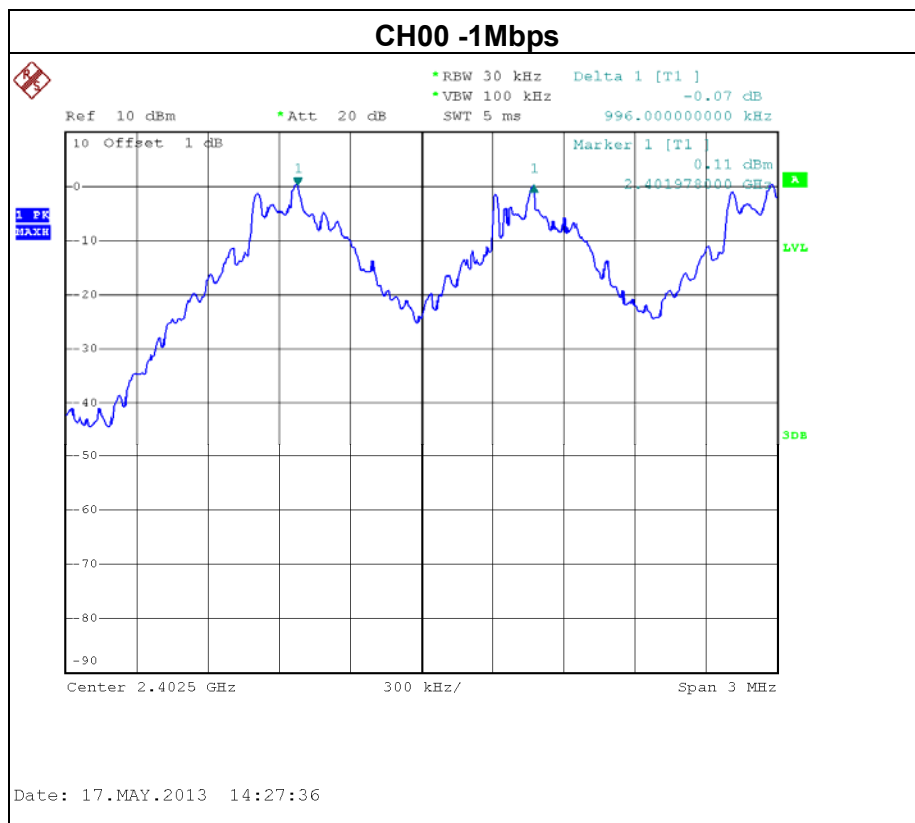


### 7.1.6 TEST RESULTS

|               |                         |                     |             |
|---------------|-------------------------|---------------------|-------------|
| EUT :         | TRANSIT                 | Model Name :        | AK1         |
| Temperature : | 24 °C                   | Relative Humidity : | 58 %        |
| Pressure :    | 1009 hPa                | Test Voltage :      | AC120V/60Hz |
| Test Mode :   | CH00 / CH39 /CH78-1Mbps |                     |             |

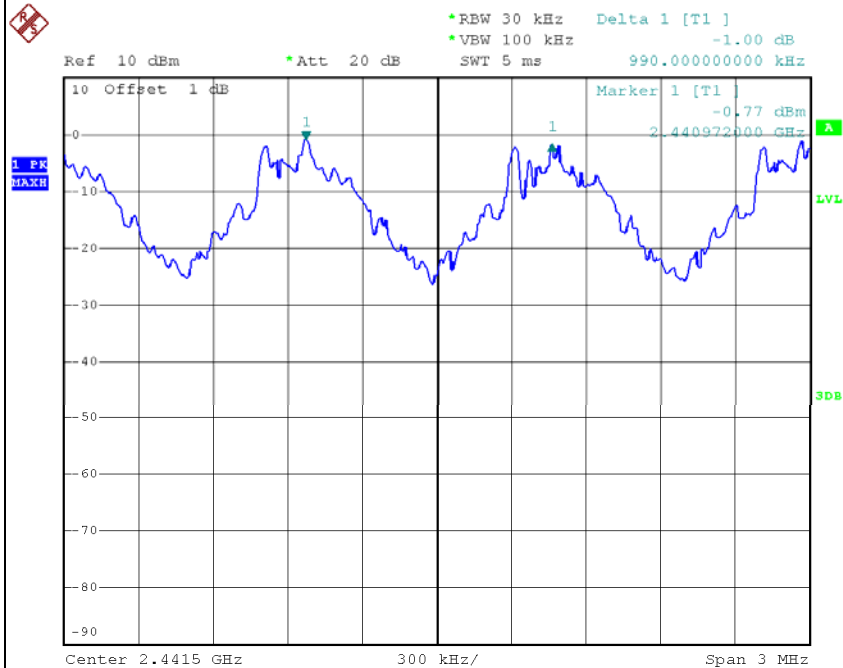
| Frequency | Ch. Separation (MHz) | 20dB Bandwidth (MHz) | Result   |
|-----------|----------------------|----------------------|----------|
| 2402 MHz  | 0.996                | 0.860                | Complies |
| 2441 MHz  | 0.990                | 0.840                | Complies |
| 2480 MHz  | 0.990                | 0.850                | Complies |

**Ch. Separation Limits: >20dB bandwidth or >2/3 of 20dB bandwidth**



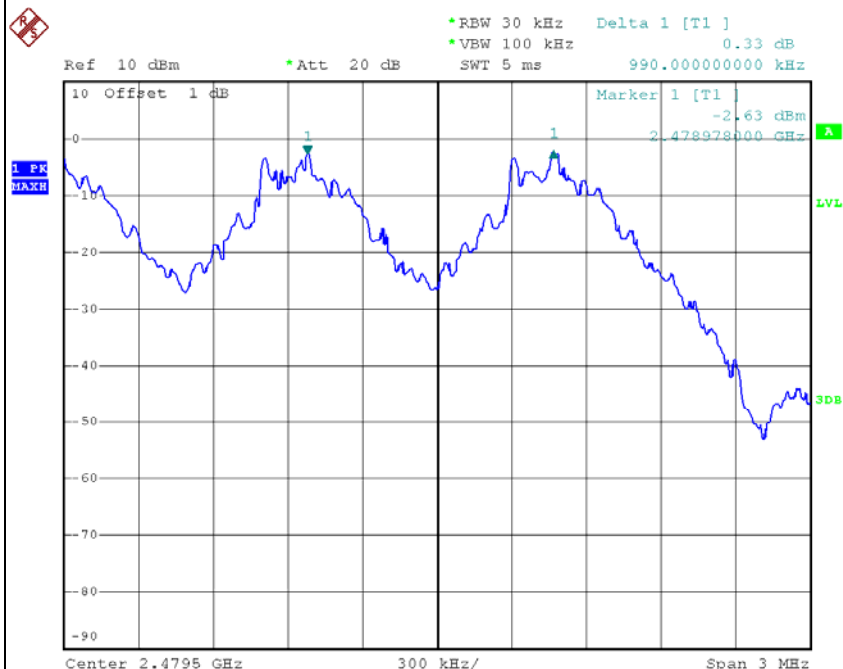


### CH39 -1Mbps



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### CH78 -1Mbps



Date: 17.MAY.2013 14:28:47



| Frequency | Ch. Separation (MHz) | 20dB Bandwidth (MHz) | Result   |
|-----------|----------------------|----------------------|----------|
| 2402 MHz  | 1.002                | 1.210                | Complies |
| 2441 MHz  | 1.002                | 1.220                | Complies |
| 2480 MHz  | 0.996                | 1.220                | Complies |

**CH00 -3Mbps**

Ref 10 dBm \*Att 20 dB SWT 5 ms

RBW 30 kHz Delta 1 [T1]  
 VBW 100 kHz -0.21 dB  
 1.002000000 MHz

10 Offset 1 dB

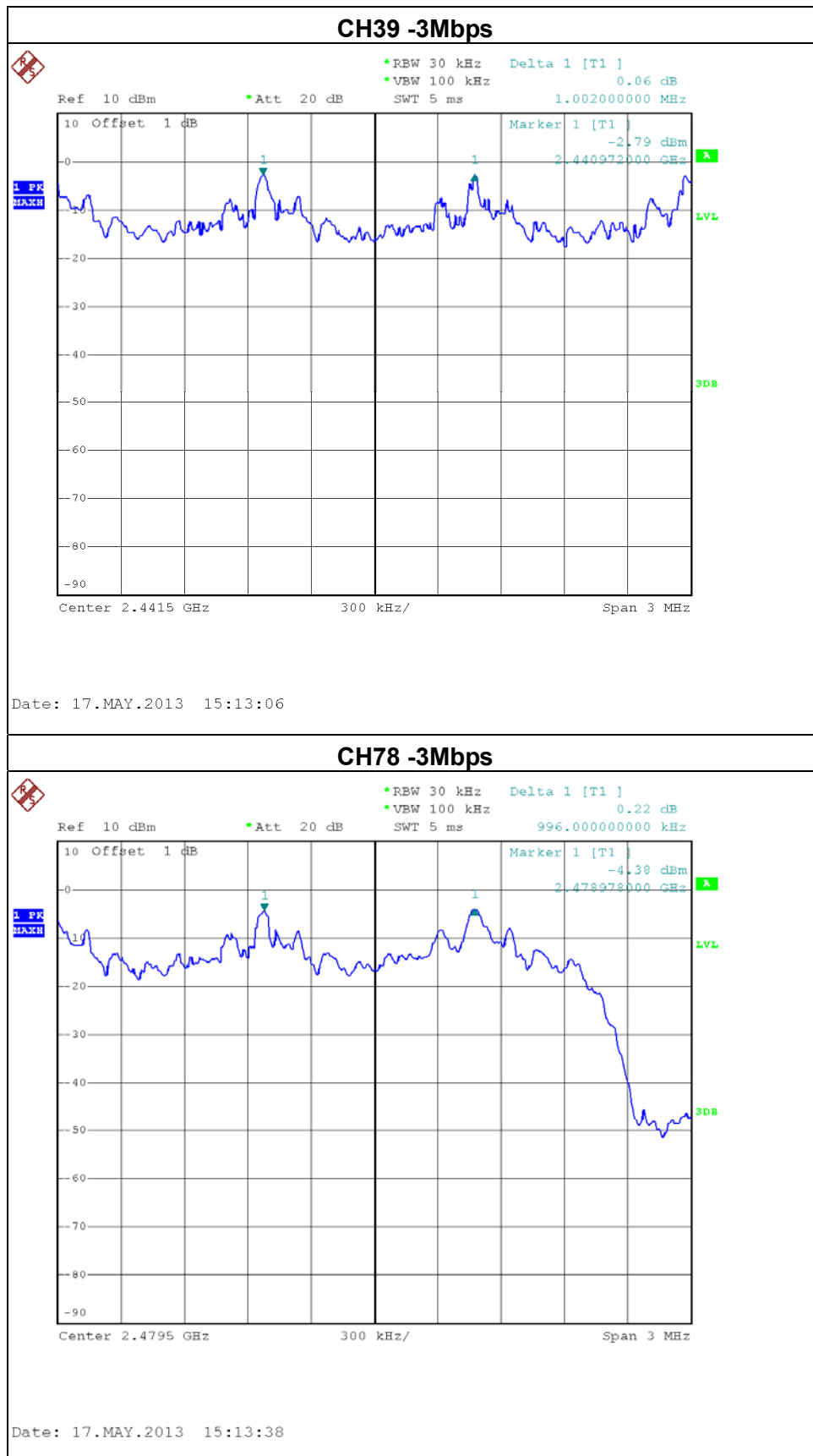
Marker 1 [T1]  
 -1.76 dBm  
 2.401972000 GHz

1 PK MAX

3dB

Center 2.4025 GHz 300 kHz/ Span 3 MHz

Date: 17.MAY.2013 15:12:36





## 8. BANDWIDTH TEST

### 8.1 APPLIED PROCEDURES / LIMIT

| FCC Part15 (15.247) , Subpart C |           |                       |
|---------------------------------|-----------|-----------------------|
| Section                         | Test Item | Frequency Range (MHz) |
| 15.247<br>(a)(2)                | Bandwidth | 2400-2483.5           |

#### 8.1.1 MEASUREMENT INSTRUMENTS LIST AND SETTING

| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
|------|-------------------|--------------|----------|------------|------------------|
| 1    | Spectrum Analyzer | R&S          | FSP 40   | 100185     | Nov. 16.2013     |

Remark: "N/A" denotes no model name, serial no. or calibration specified.

All calibration period of Equipment List is One Year.

| Spectrum Parameter | Setting                                                 |
|--------------------|---------------------------------------------------------|
| Attenuation        | Auto                                                    |
| Span Frequency     | > Measurement Bandwidth or Channel Separation           |
| RB                 | 30 kHz (20dB Bandwidth) / 30 kHz (Channel Separation)   |
| VB                 | 100 kHz (20dB Bandwidth) / 100 kHz (Channel Separation) |
| Detector           | Peak                                                    |
| Trace              | Max Hold                                                |
| Sweep Time         | Auto                                                    |

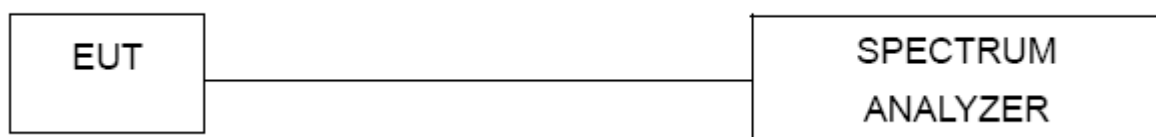
#### 8.1.2 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- Spectrum Setting : RBW= 30KHz, VBW=100KHz, Sweep time = Auto.

#### 8.1.3 DEVIATION FROM STANDARD

No deviation.

#### 8.1.4 TEST SETUP



#### 8.1.5 EUT OPERATION CONDITIONS

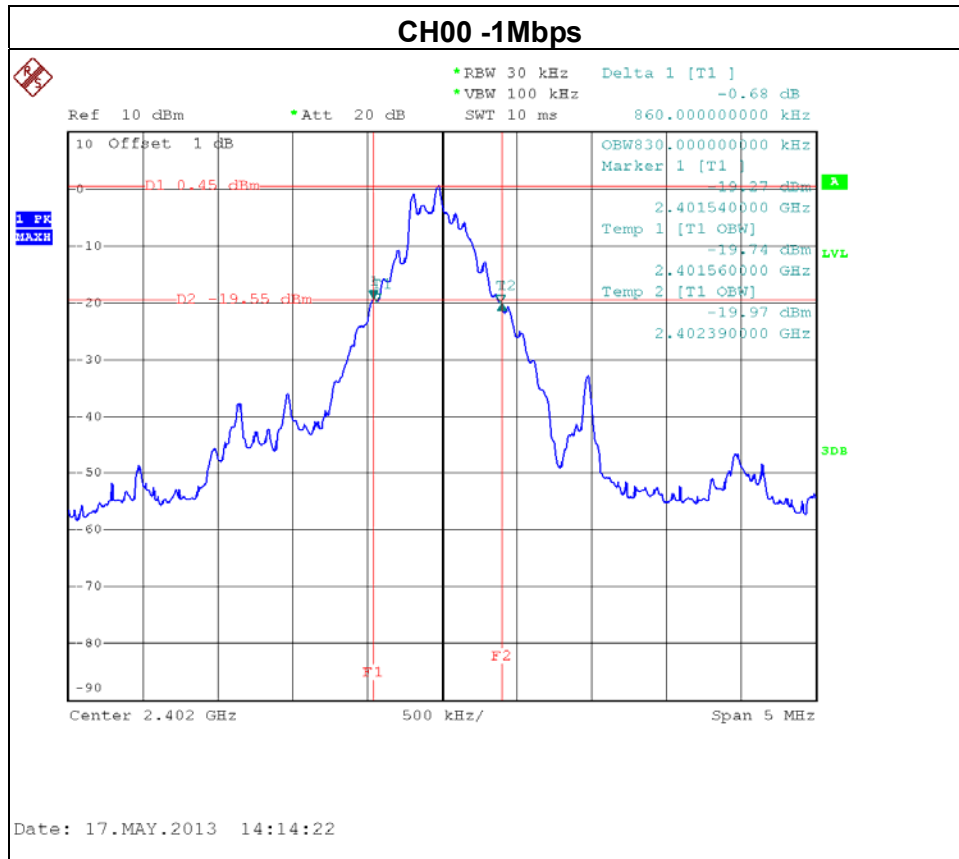
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.



### 8.1.6 TEST RESULTS

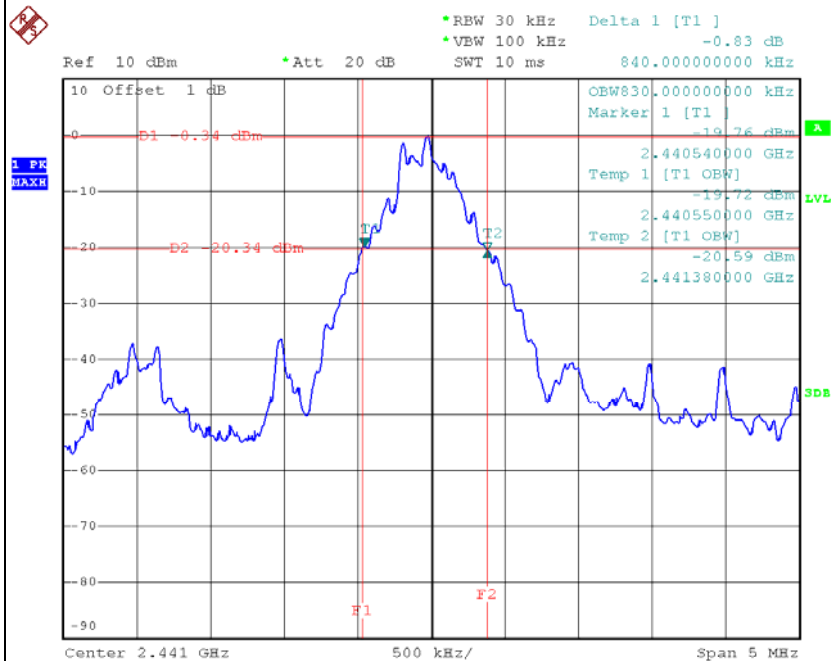
|               |                         |                     |             |
|---------------|-------------------------|---------------------|-------------|
| EUT :         | TRANSIT                 | Model Name :        | AK1         |
| Temperature : | 24 °C                   | Relative Humidity : | 58 %        |
| Pressure :    | 1009 hPa                | Test Voltage :      | AC120V/60Hz |
| Test Mode :   | CH00 / CH39 /CH78-1Mbps |                     |             |

| Frequency | 20dB Bandwidth (MHz) | 99% Occupied Bandwidth (MHz) | Result |
|-----------|----------------------|------------------------------|--------|
| 2402 MHz  | 0.860                | 0.830                        | PASS   |
| 2441 MHz  | 0.840                | 0.830                        | PASS   |
| 2480 MHz  | 0.850                | 0.820                        | PASS   |



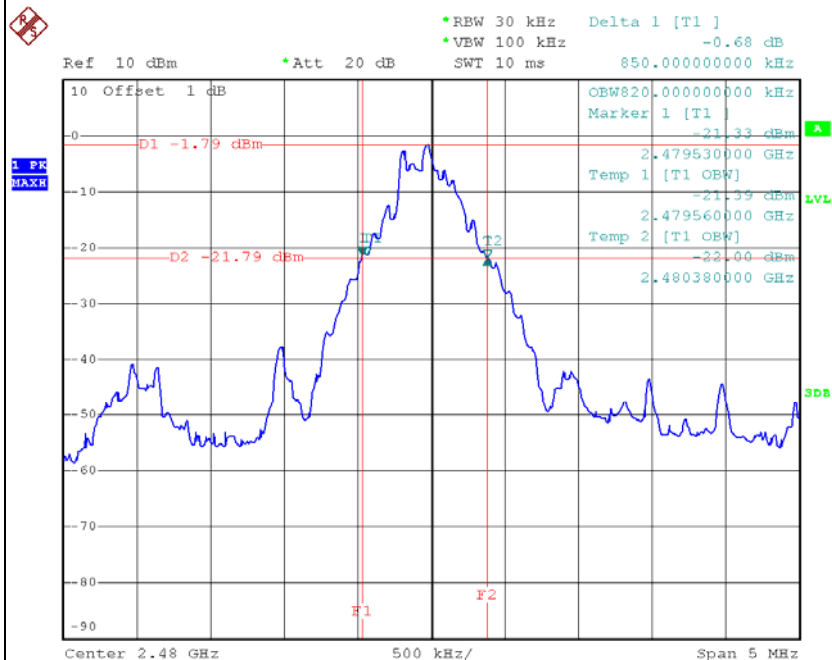


### CH39 -1Mbps



Date: 17.MAY.2013 14:11:58

### CH78 -1Mbps

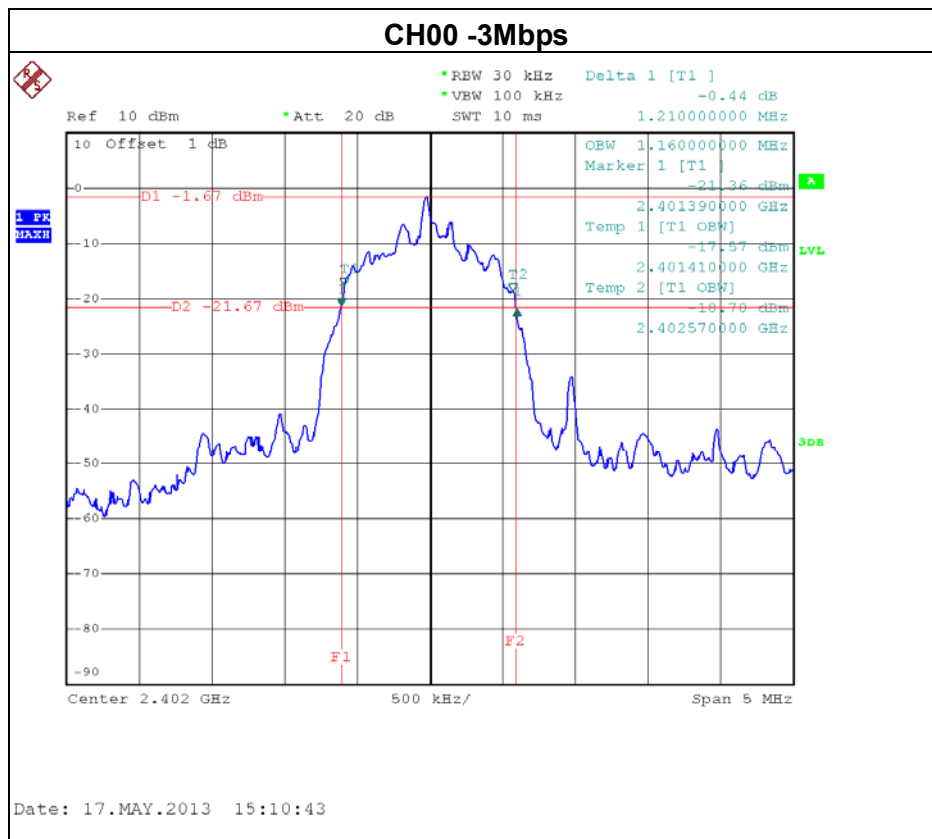


Date: 17.MAY.2013 14:13:14



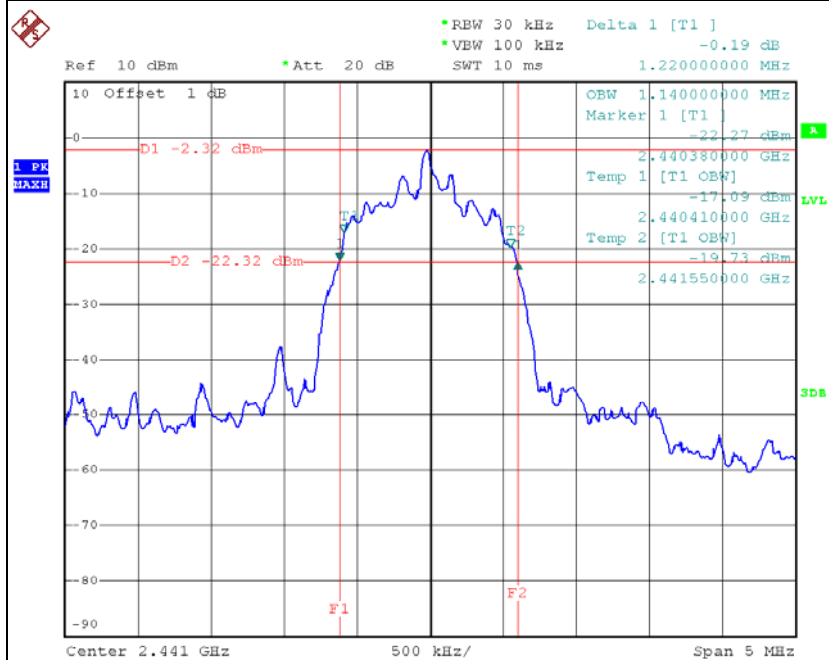
|               |                         |                     |             |
|---------------|-------------------------|---------------------|-------------|
| EUT :         | TRANSIT                 | Model Name :        | AK1         |
| Temperature : | 24 °C                   | Relative Humidity : | 58 %        |
| Pressure :    | 1009 hPa                | Test Voltage :      | AC120V/60Hz |
| Test Mode :   | CH00 / CH39 /CH78-3Mbps |                     |             |

| Frequency | 20dB Bandwidth (MHz) | 99% Occupied Bandwidth (MHz) | Result |
|-----------|----------------------|------------------------------|--------|
| 2402 MHz  | 1.210                | 1.160                        | PASS   |
| 2441 MHz  | 1.220                | 1.140                        | PASS   |
| 2480 MHz  | 1.220                | 1.150                        | PASS   |



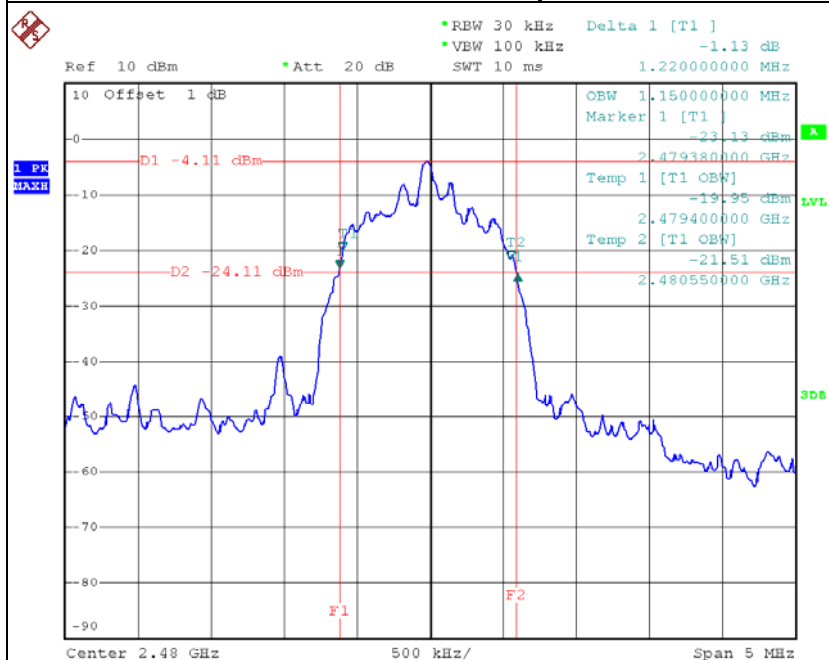


### CH39 -3Mbps



Date: 17.MAY.2013 15:03:23

### CH78 -3Mbps



Date: 17.MAY.2013 15:02:02



## 9. PEAK OUTPUT POWER TEST

### 9.1 APPLIED PROCEDURES / LIMIT

| FCC Part15 (15.247) , Subpart C |                   |                     |                       |        |
|---------------------------------|-------------------|---------------------|-----------------------|--------|
| Section                         | Test Item         | Limit               | Frequency Range (MHz) | Result |
| 15.247 (b)(1)                   | Peak Output Power | 0.125 watt or 21dBm | 2400-2483.5           | PASS   |

#### 9.1.1 MEASUREMENT INSTRUMENTS LIST AND SETTING

| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
|------|-------------------|--------------|----------|------------|------------------|
| 1    | Spectrum Analyzer | R&S          | FSP 40   | 100185     | Nov. 16.2013     |

Remark: "N/A" denotes no model name, serial no. or calibration specified.

All calibration period of Equipment List is One Year.

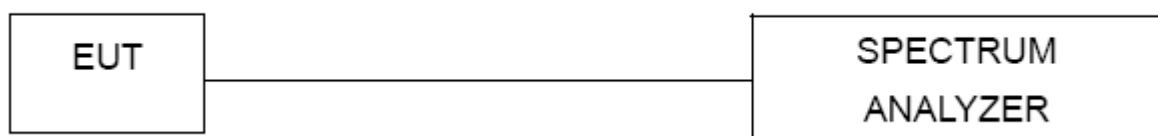
#### 9.1.2 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- Spectrum Setting : RBW= 3MHz, VBW= 3MHz, Sweep time = Auto.

#### 9.1.3 DEVIATION FROM STANDARD

No deviation.

#### 9.1.4 TEST SETUP



#### 9.1.5 EUT OPERATION CONDITIONS

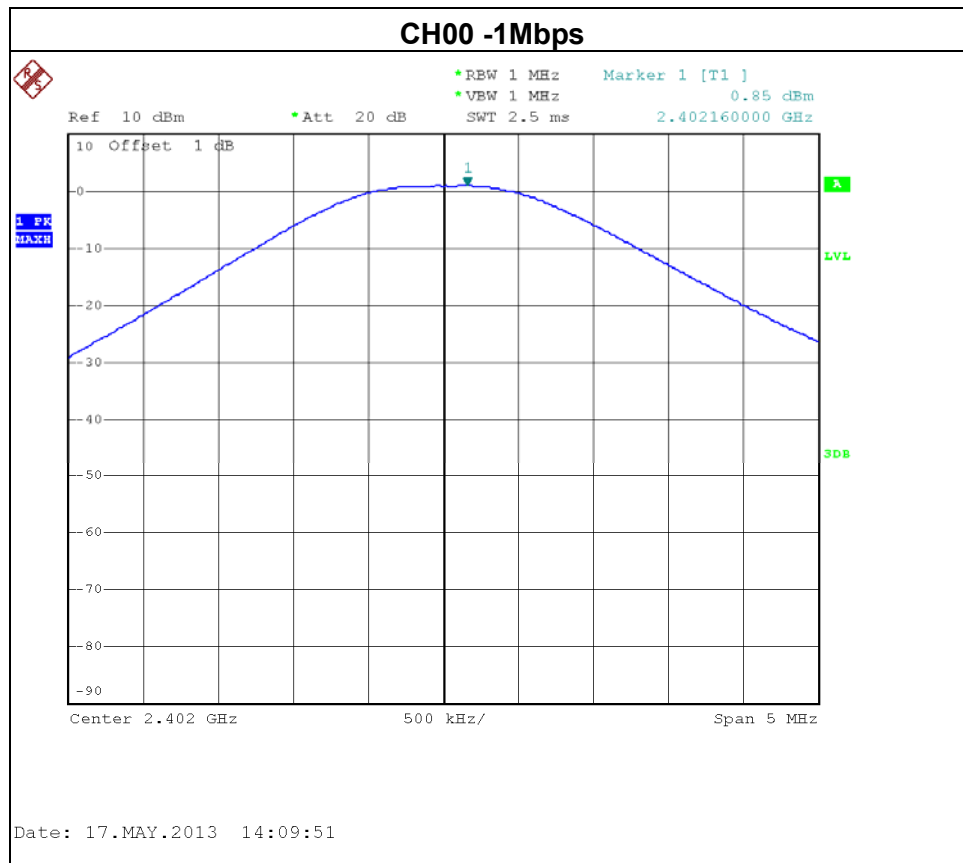
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

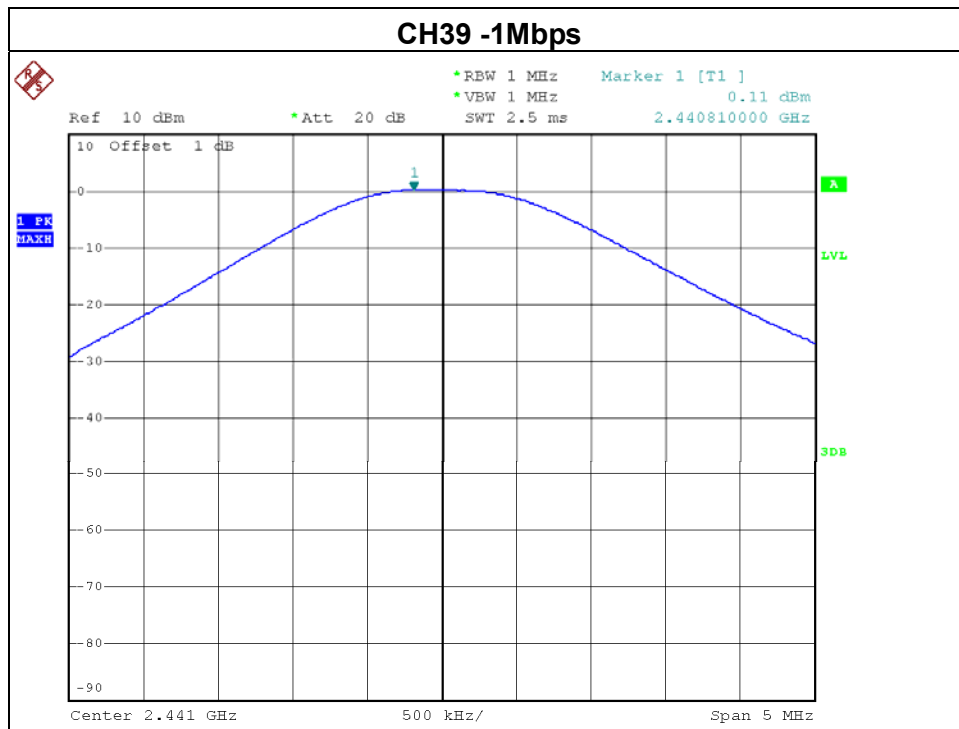


### 9.1.6 TEST RESULTS

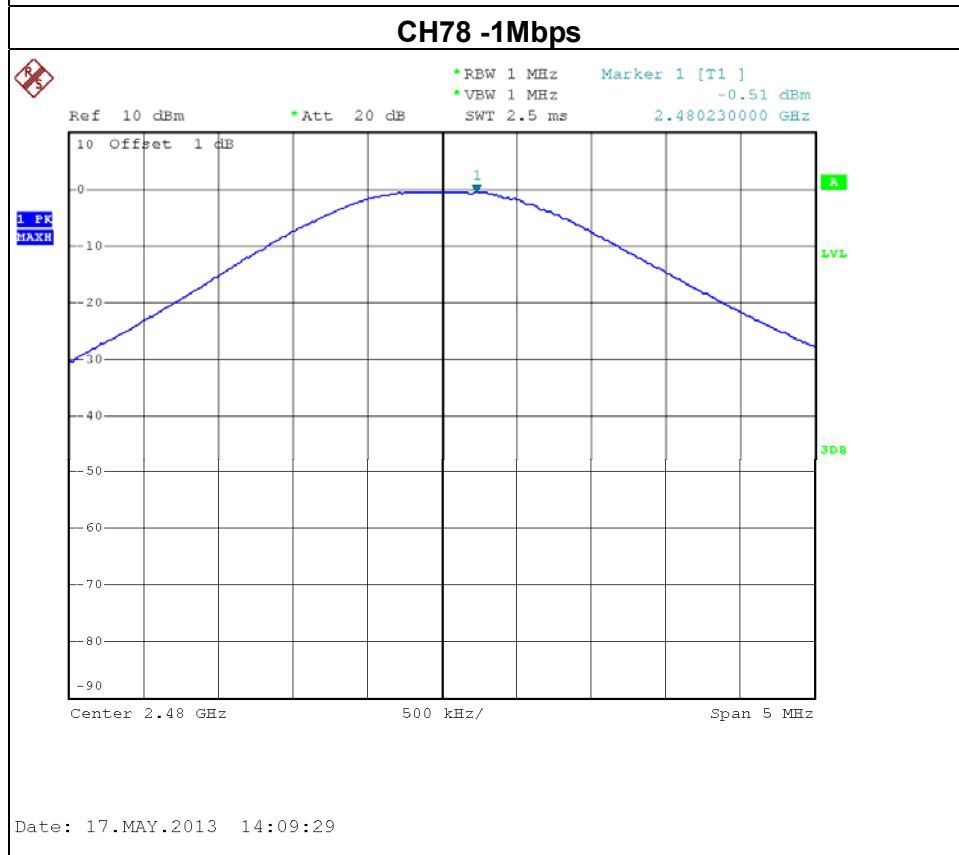
|               |                         |                     |             |
|---------------|-------------------------|---------------------|-------------|
| EUT :         | TRANSIT                 | Model Name :        | AK1         |
| Temperature : | 24 °C                   | Relative Humidity : | 58 %        |
| Pressure :    | 1009 hPa                | Test Voltage :      | AC120V/60Hz |
| Test Mode :   | CH00/ CH39 /CH78 -1Mbps |                     |             |

| Test Channel | Frequency (MHz) | Peak Output Power (dBm) | LIMIT (dBm) | LIMIT (W) |
|--------------|-----------------|-------------------------|-------------|-----------|
| CH00         | 2402            | 0.85                    | 21          | 0.125     |
| CH39         | 2441            | 0.11                    | 21          | 0.125     |
| CH78         | 2480            | -0.51                   | 21          | 0.125     |





Date: 17.MAY.2013 14:10:06

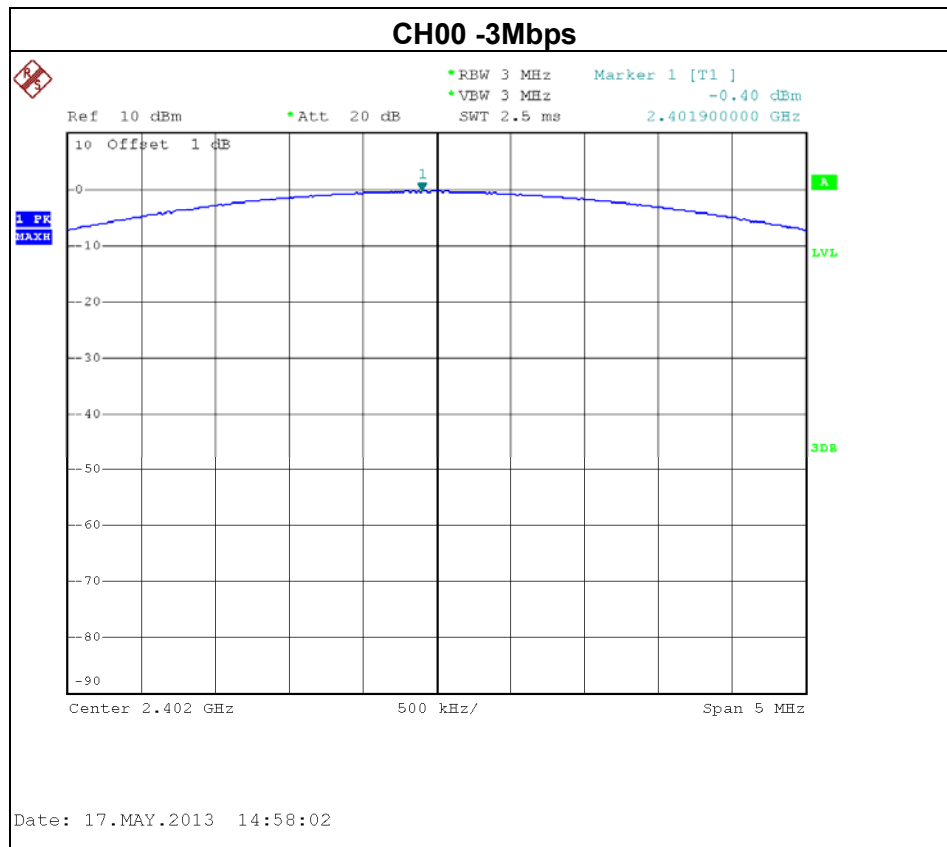


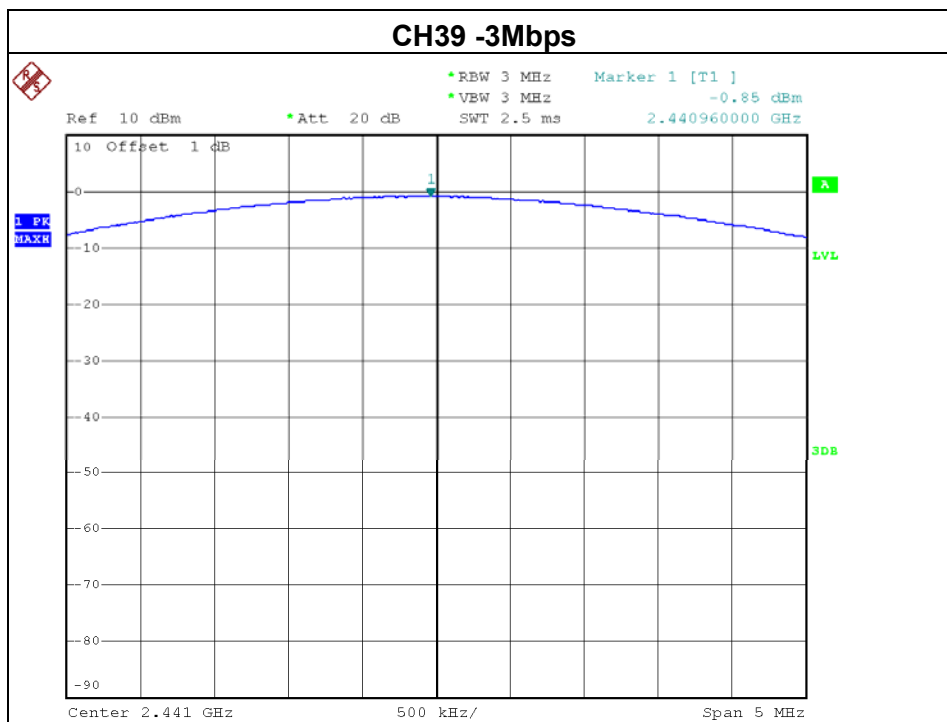
Date: 17.MAY.2013 14:09:29



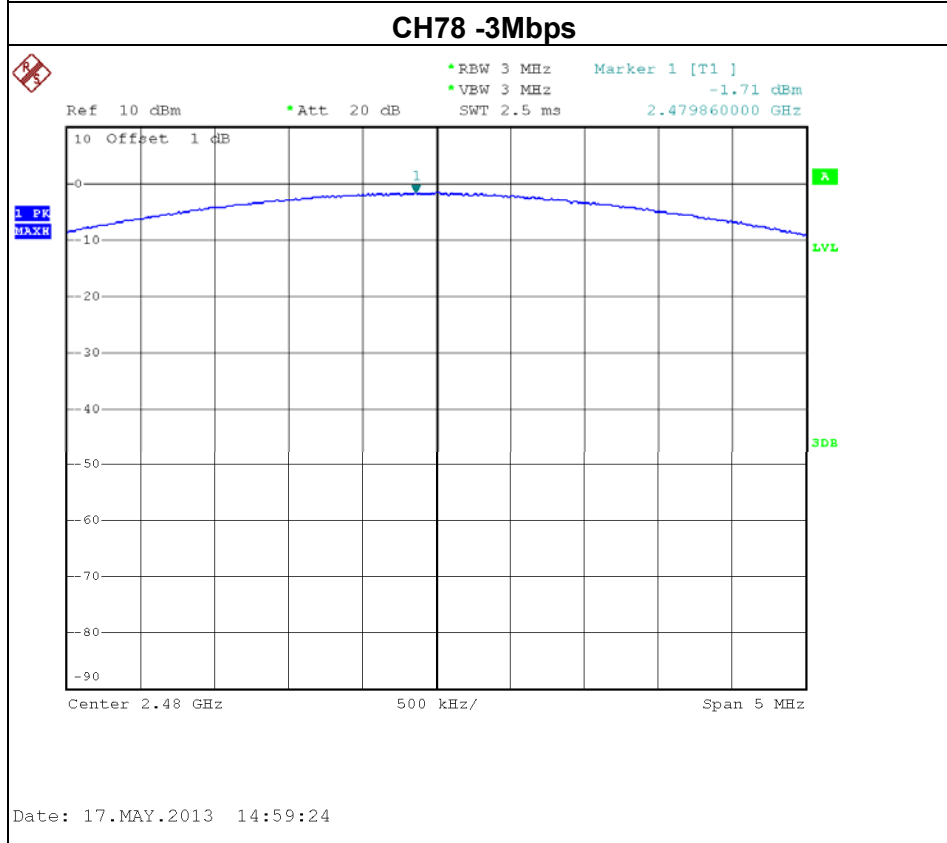
|               |                         |                     |             |
|---------------|-------------------------|---------------------|-------------|
| EUT :         | TRANSIT                 | Model Name :        | AK1         |
| Temperature : | 24 °C                   | Relative Humidity : | 58 %        |
| Pressure :    | 1009 hPa                | Test Voltage :      | AC120V/60Hz |
| Test Mode :   | CH00/ CH39 /CH78 -3Mbps |                     |             |

| Test Channel | Frequency (MHz) | Peak Output Power (dBm) | LIMIT (dBm) | LIMIT (W) |
|--------------|-----------------|-------------------------|-------------|-----------|
| CH00         | 2402            | -0.40                   | 21          | 0.125     |
| CH39         | 2441            | -0.85                   | 21          | 0.125     |
| CH78         | 2480            | -1.71                   | 21          | 0.125     |





Date: 17.MAY.2013 14:58:43



Date: 17.MAY.2013 14:59:24



## 10. ANTENNA CONDUCTED SPURIOUS EMISSION

### 10.1 APPLIED PROCEDURES / LIMIT

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

| Frequencies (MHz) | Field Strength (micorvolts/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                             |

#### 10.1.1 MEASUREMENT INSTRUMENTS LIST AND SETTING

| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
|------|-------------------|--------------|----------|------------|------------------|
| 1    | Spectrum Analyzer | R&S          | FSP 40   | 100185     | Nov. 16.2013     |

Remark: "N/A" denotes no model name, serial no. or calibration specified.

All calibration period of Equipment List is One Year.

#### 10.1.2 TEST PROCEDURE

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

#### 10.1.3 DEVIATION FROM STANDARD

No deviation.

#### 10.1.4 TEST SETUP



#### 10.1.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.



### 10.1.6 TEST RESULTS

|               |                                                   |                     |             |
|---------------|---------------------------------------------------|---------------------|-------------|
| EUT :         | TRANSIT                                           | Model Name :        | AK1         |
| Temperature : | 24 °C                                             | Relative Humidity : | 58 %        |
| Pressure :    | 1009 hPa                                          | Test Voltage :      | AC120V/60Hz |
| Test Mode :   | CH00 / CH39/ CH78-1Mbps & Hopping on mode (1Mbps) |                     |             |

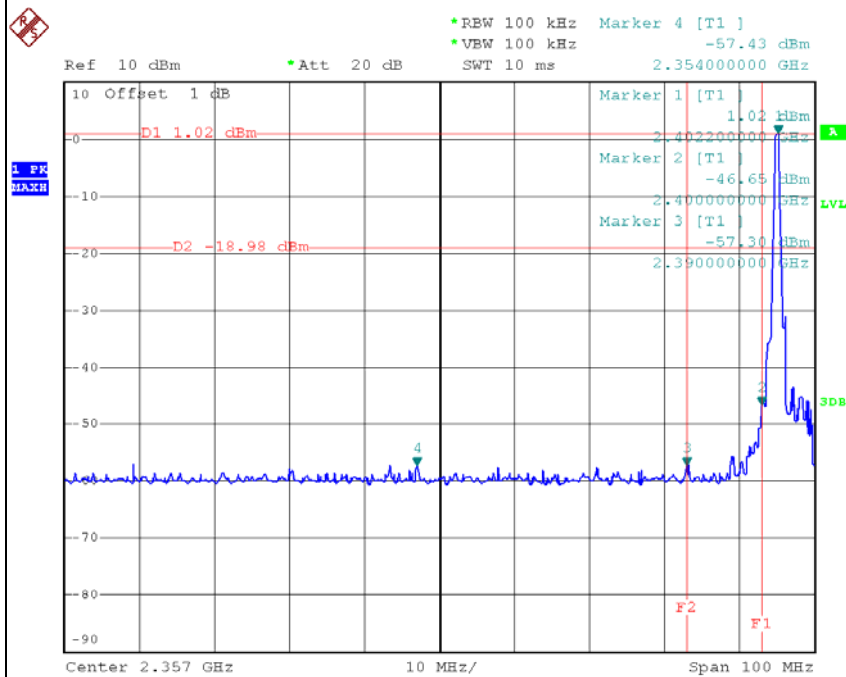
| The max. radio frequency power in any 100kHz bandwidth outside the frequency band |            | The max. radio frequency power in any 100 kHz bandwidth within the frequency band. |            |
|-----------------------------------------------------------------------------------|------------|------------------------------------------------------------------------------------|------------|
| FREQUENCY(MHz)                                                                    | POWER(dBm) | FREQUENCY(MHz)                                                                     | POWER(dBm) |
| 2399.72                                                                           | -46.65     | 2483.50                                                                            | -54.85     |

#### Result

In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.

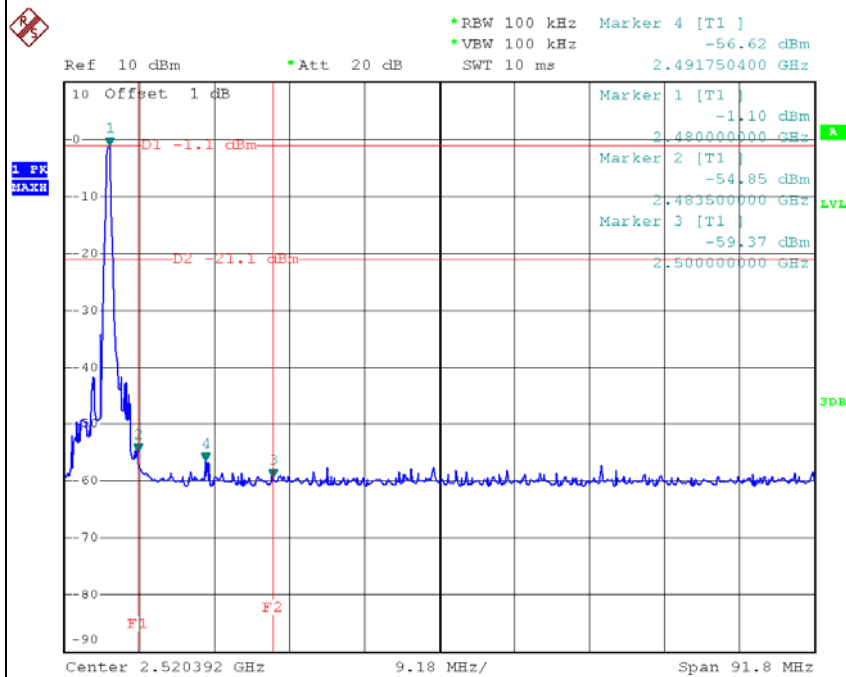


### CH00 (Lower) -1Mbps



Date: 17.MAY.2013 14:17:14

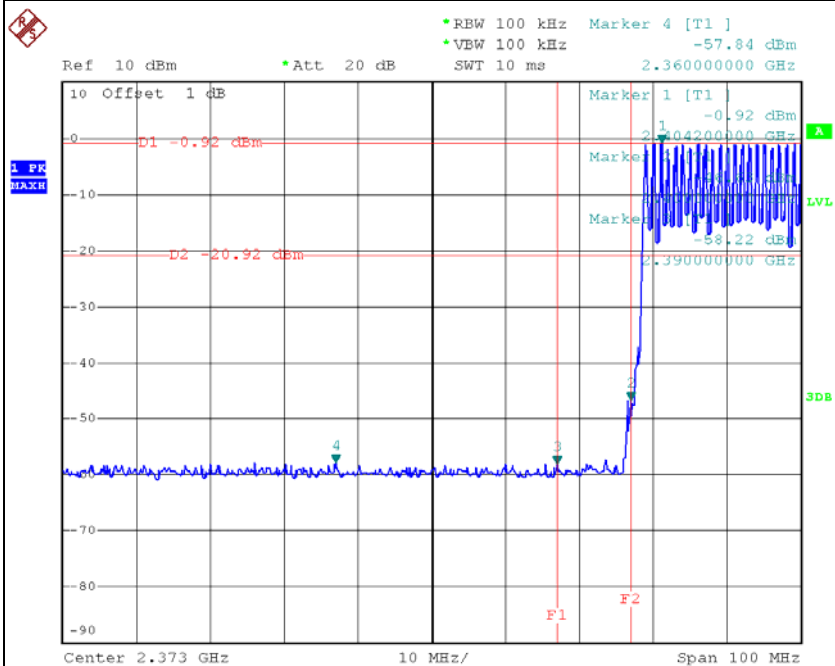
### CH78 (upper) -1Mbps



Date: 17.MAY.2013 14:23:11

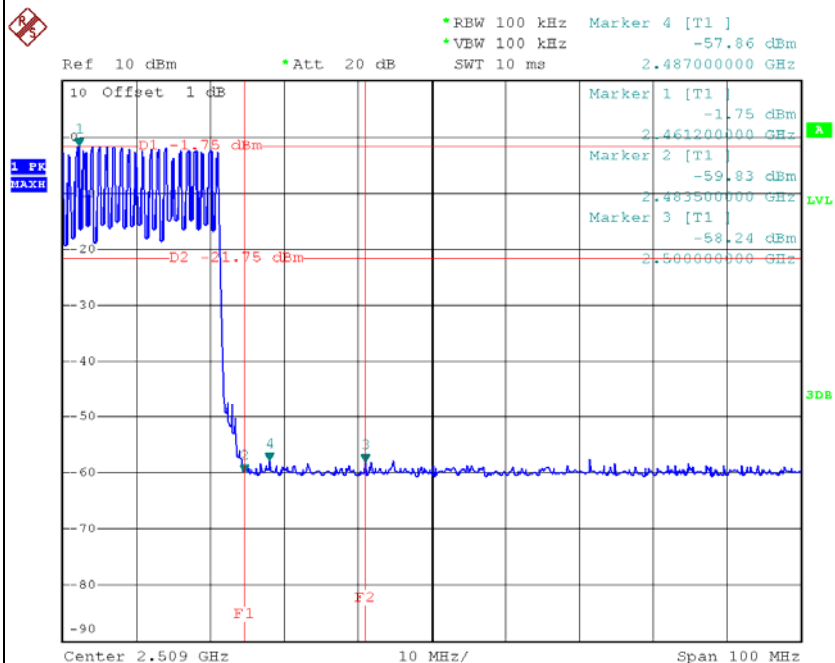


### Hopping on mode (1Mbps- Lower )

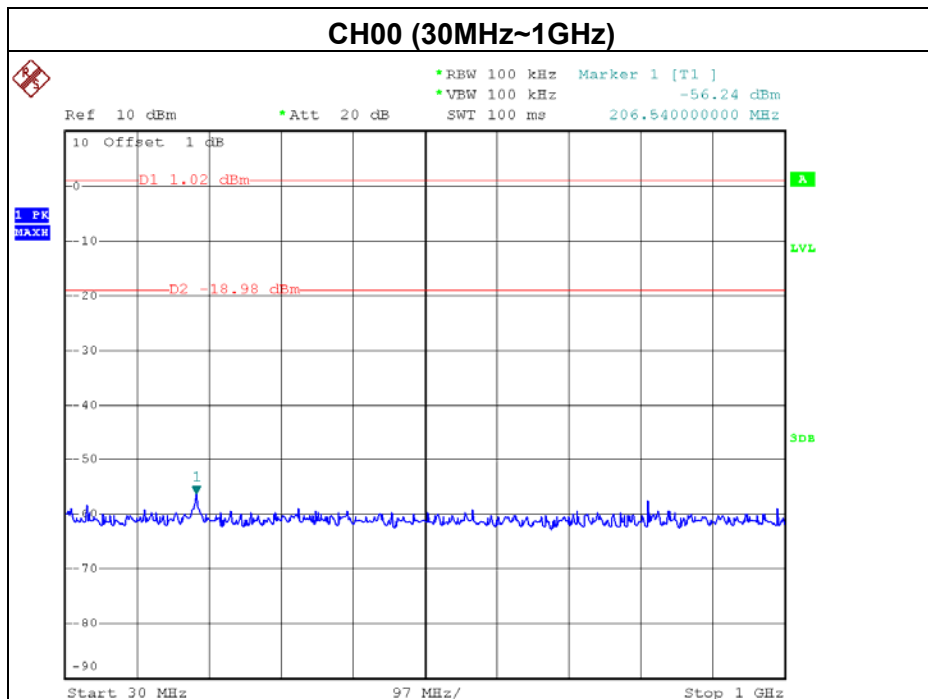


Date: 17.MAY.2013 15:33:41

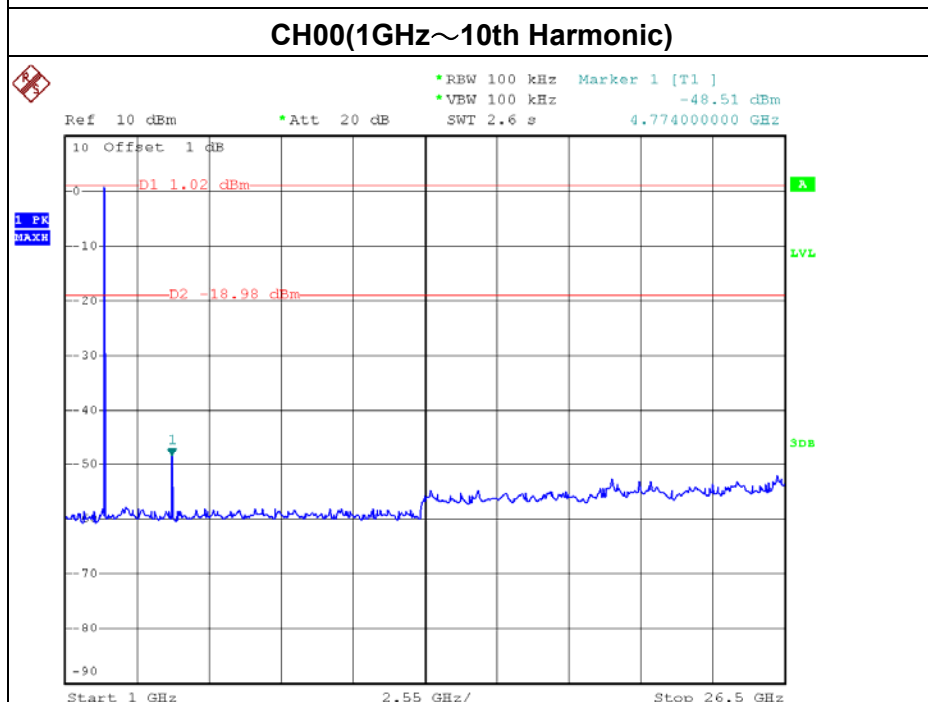
### Hopping on mode (1Mbps- upper )



Date: 17.MAY.2013 15:35:49



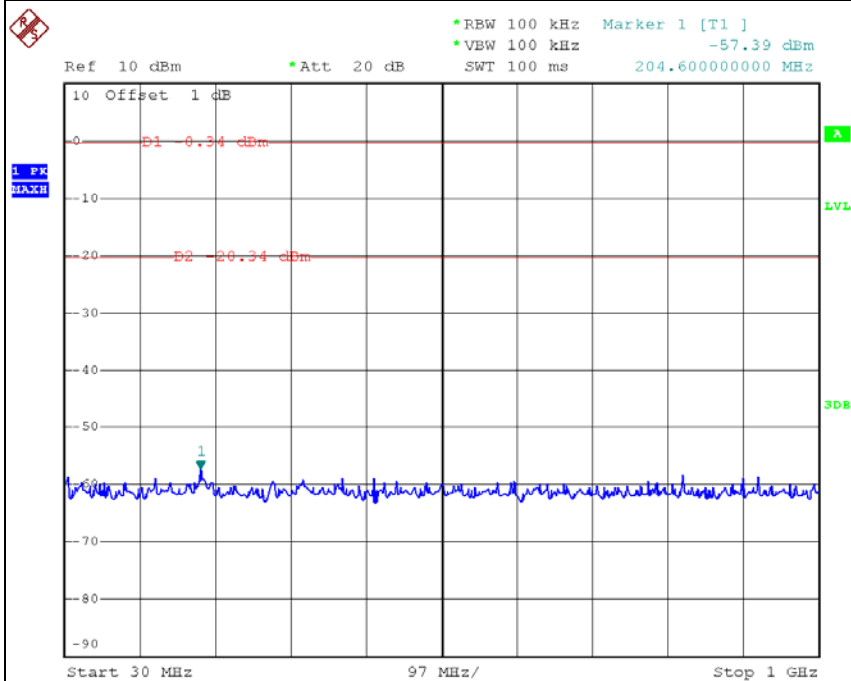
Date: 17.MAY.2013 14:17:44



Date: 17.MAY.2013 14:18:54

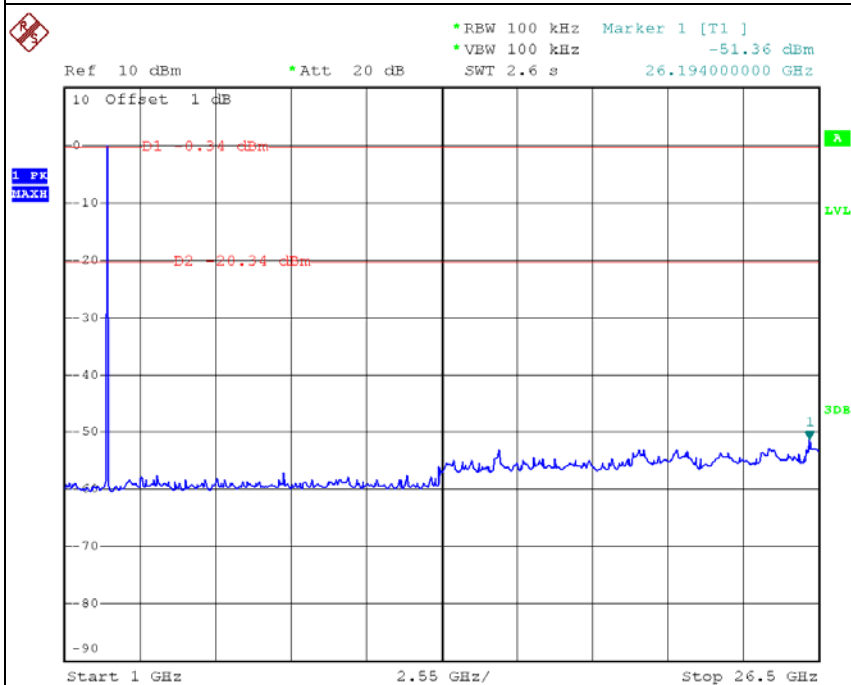


### CH39 (30MHz~1GHz)

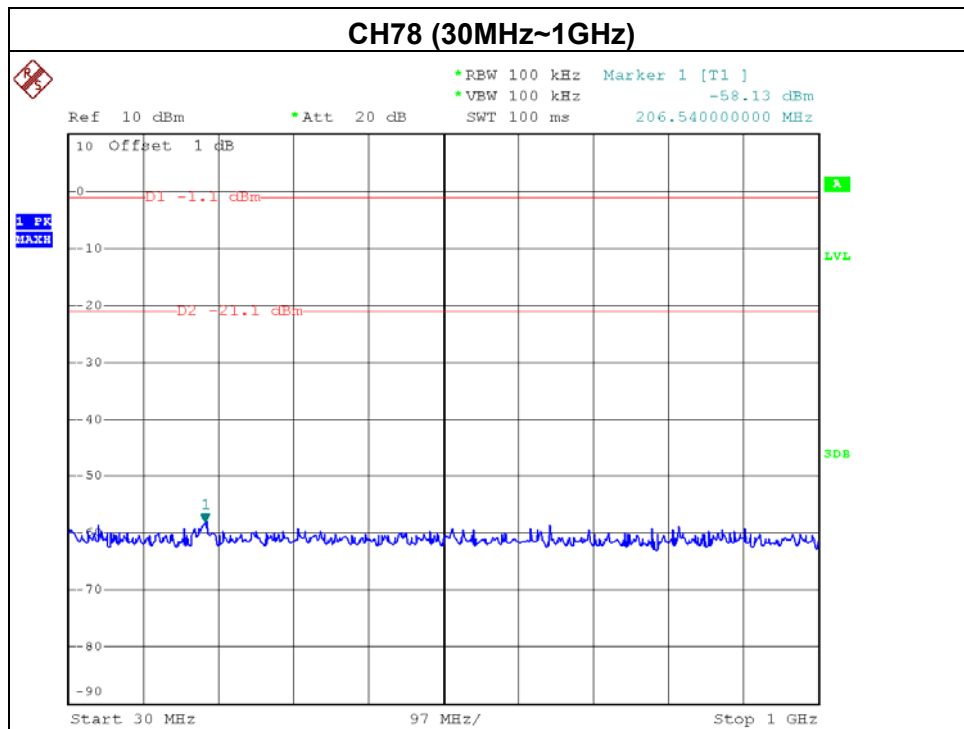


Date: 17.MAY.2013 14:21:35

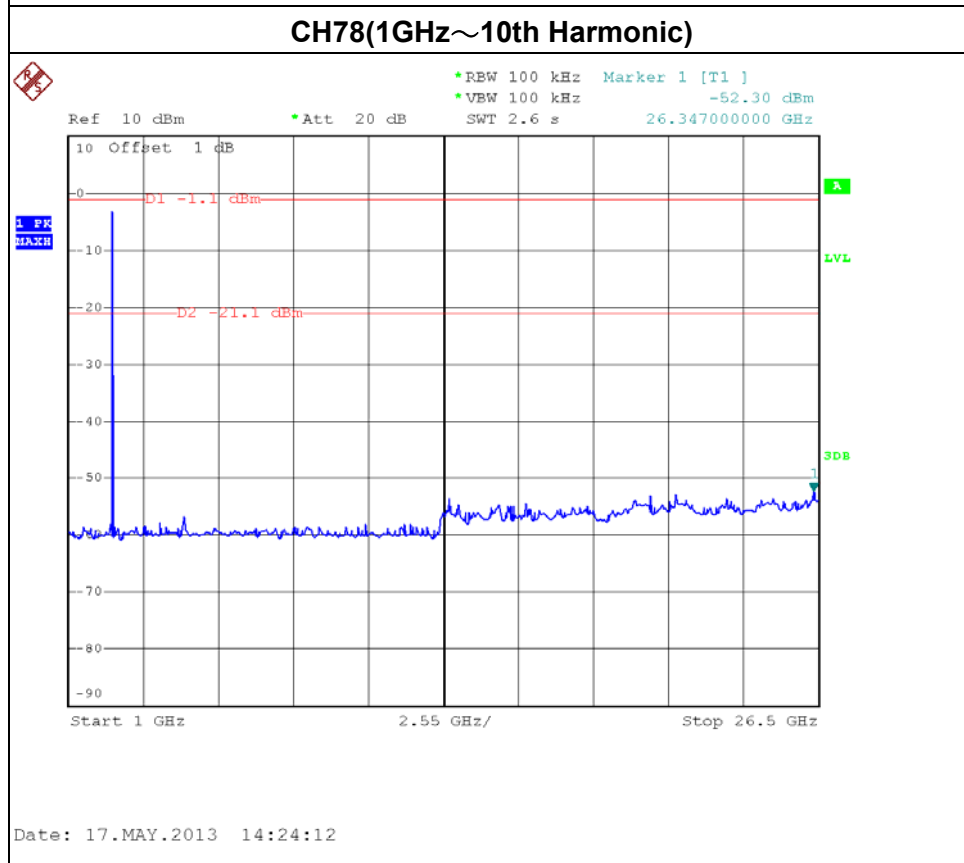
### CH39(1GHz~10th Harmonic)



Date: 17.MAY.2013 14:20:55



Date: 17.MAY.2013 14:23:37



Date: 17.MAY.2013 14:24:12



|               |                                                    |                     |             |
|---------------|----------------------------------------------------|---------------------|-------------|
| EUT :         | TRANSIT                                            | Model Name :        | AK1         |
| Temperature : | 24 °C                                              | Relative Humidity : | 58 %        |
| Pressure :    | 1009 hPa                                           | Test Voltage :      | AC120V/60Hz |
| Test Mode :   | CH00 / CH39/ CH78 -3Mbps & Hopping on mode (3Mbps) |                     |             |

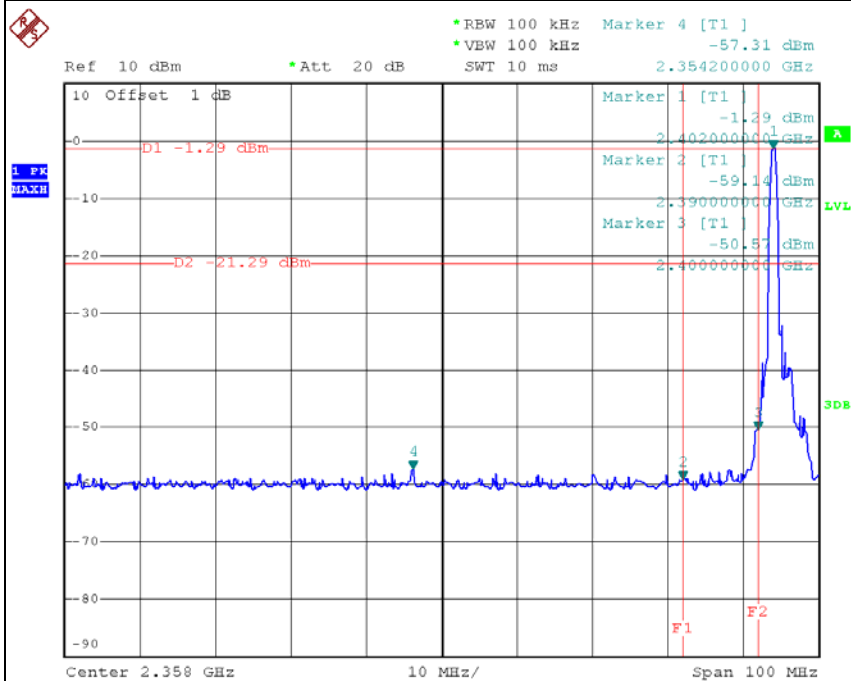
|                                                                                   |            |                                                                                    |            |
|-----------------------------------------------------------------------------------|------------|------------------------------------------------------------------------------------|------------|
| The max. radio frequency power in any 100kHz bandwidth outside the frequency band |            | The max. radio frequency power in any 100 kHz bandwidth within the frequency band. |            |
| FREQUENCY(MHz)                                                                    | POWER(dBm) | FREQUENCY(MHz)                                                                     | POWER(dBm) |
| 2400.00                                                                           | -50.57     | 2483.50                                                                            | -56.58     |

**Result**

In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.

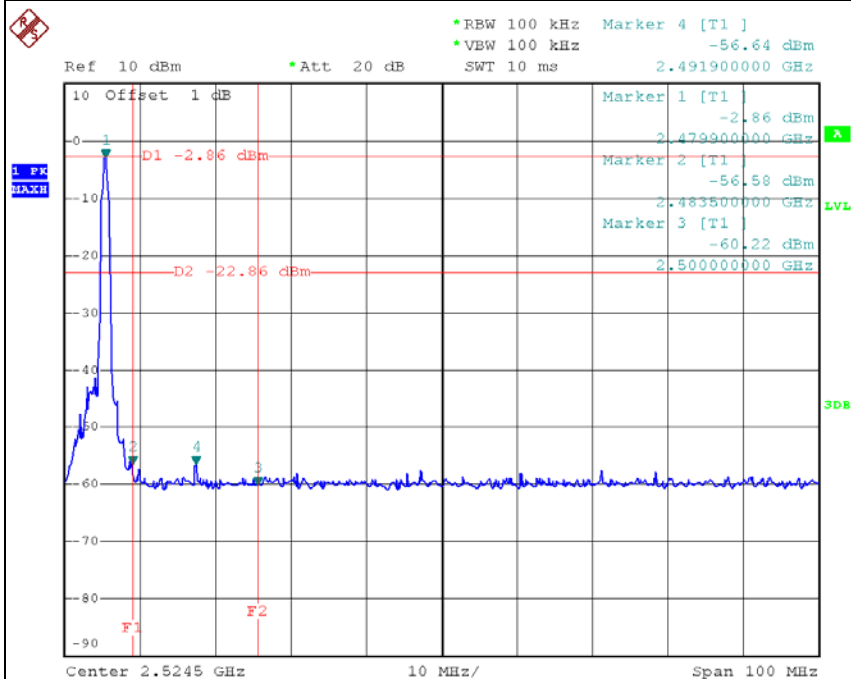


### CH00 (Lower) -3Mbps



Date: 17.MAY.2013 15:21:21

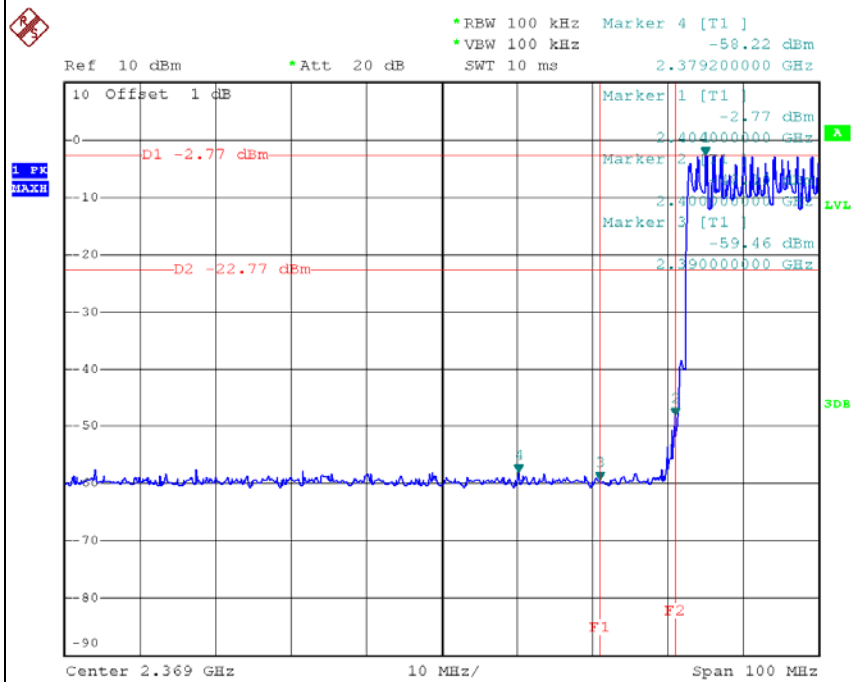
### CH 78 (Upper) -3Mbps



Date: 17.MAY.2013 15:15:32

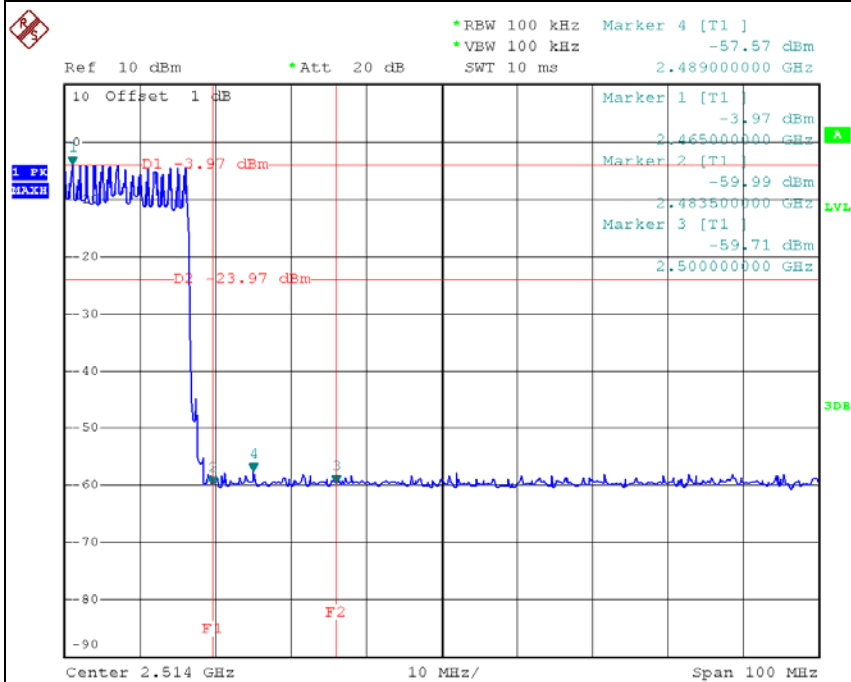


### Hopping on mode (3Mbps- Lower )

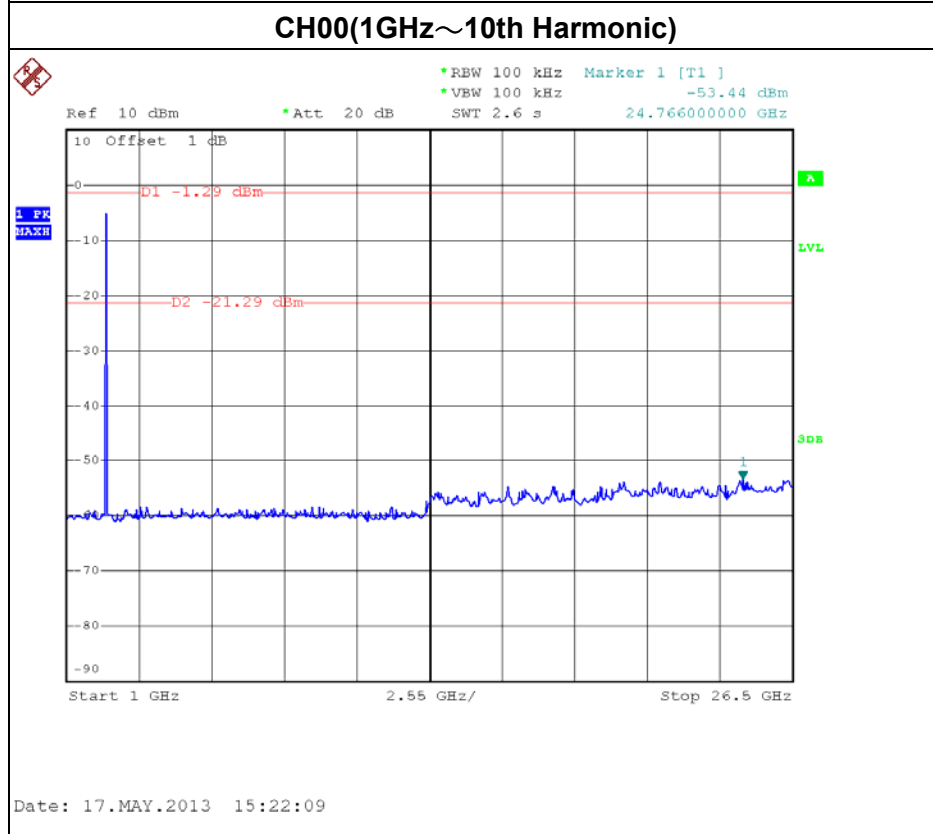
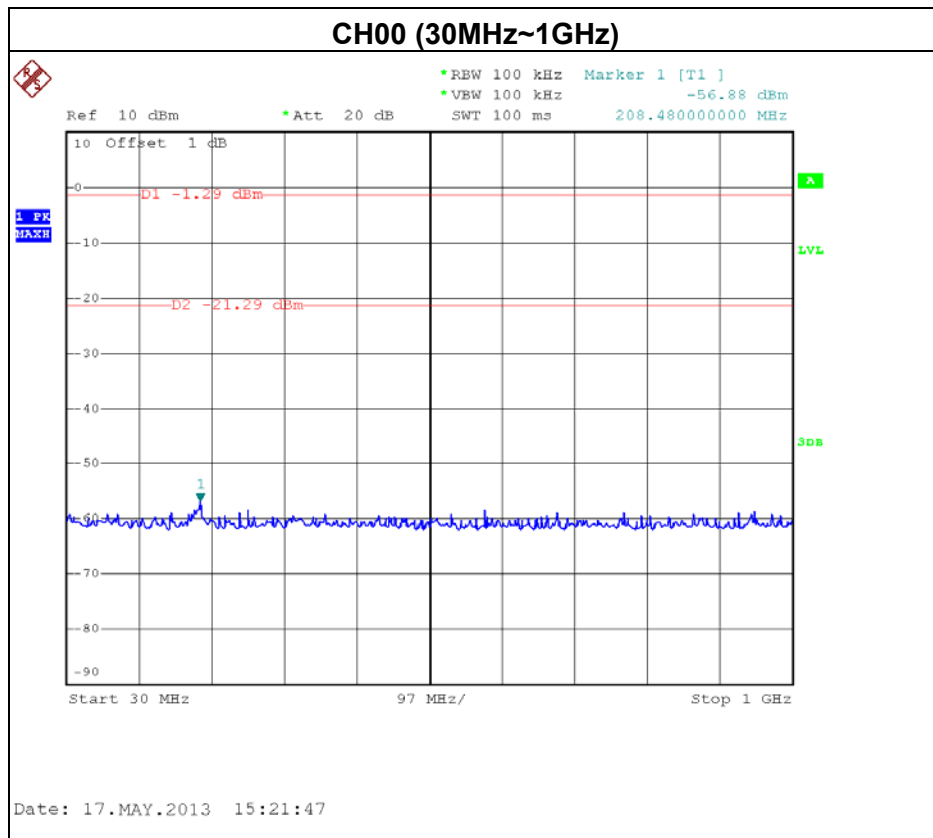


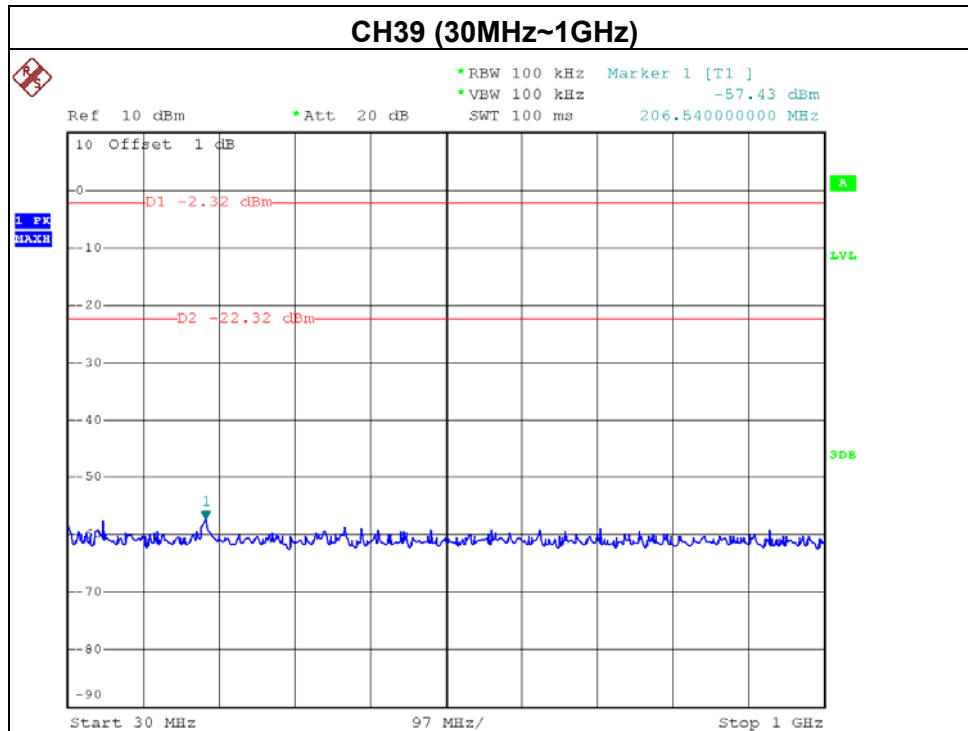
Date: 17.MAY.2013 15:25:03

### Hopping on mode (3Mbps-upper)

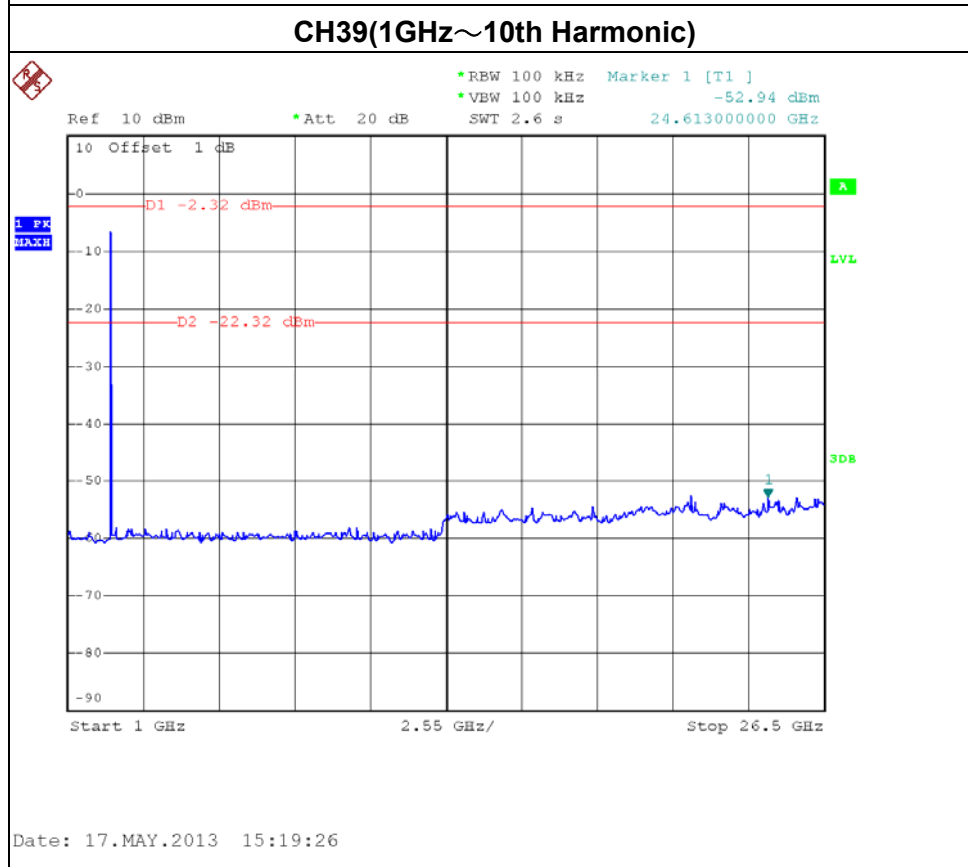


Date: 17.MAY.2013 15:28:16

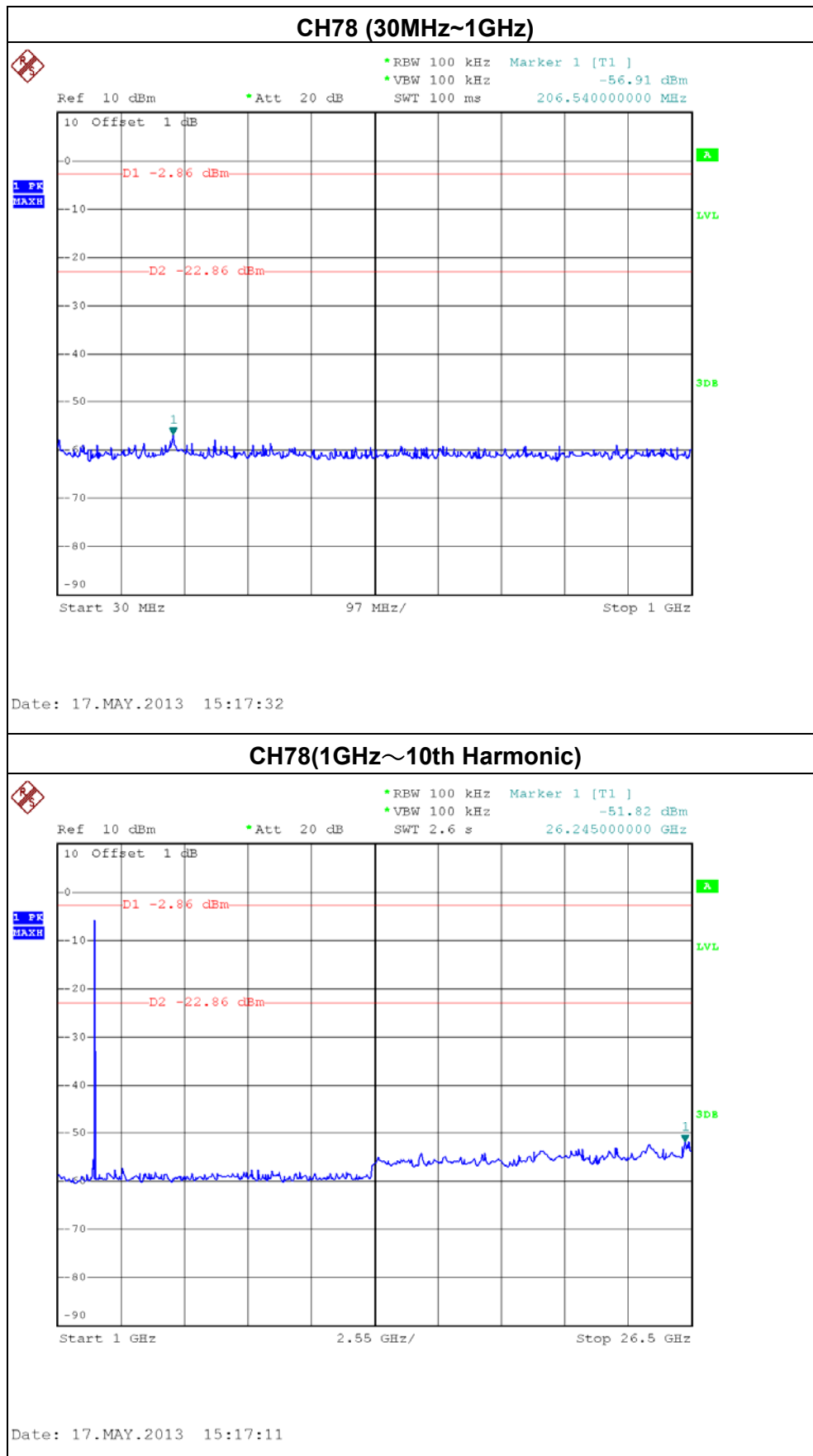




Date: 17.MAY.2013 15:18:47



Date: 17.MAY.2013 15:19:26





## 11. EUT TEST PHOTO

### Conducted Measurement Photos



**Radiated Measurement Photos  
9K~30MHz**



**Radiated Measurement Photos  
30M~1000MHz**



**Radiated Measurement Photos  
Above 1000MHz**

