



FCC Radio Test Report

FCC ID: XXD-WSD3070-01

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

Issued Date : Dec. 08, 2009
Project No. : 0911C052B
Equipment : Vpuck(Video-puck)
Model Name : Vpuck(Video-puck)
Applicant : Orb Networks, Inc.
Address : 428 13th Street. 3rd Floor Oakland, CA 94612
United States
Manufacturer : Orb Networks, Inc.
Address : 428 13th Street. 3rd Floor Oakland, CA 94612
United States

Tested by:

Neutron Engineering Inc. EMC Laboratory

Date of Test:

Nov. 16, 2009 ~ Nov. 26, 2009

Testing Engineer :

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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 **R.O.C.**, 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: Vpuck(Video-puck)

Brand Name : Orb

Model Name : Vpuck(Video-puck)

Applicant: Orb Networks, Inc.

Factory: ZIONCOM TECHNOLOGY LIMITED

Address: Building A1~A2,Liantian Science and Technology Park,Xingyu Road Xingqiao Henggang Block Shajing Street, Baoan District, Shenzhen City, China.

Date of Test : Nov. 16, 2009 ~ Nov. 26, 2009

Test Item: ENGINEERING SAMPLE

Standards: FCC Part15, Subpart C(15.247) / ANCI C63.4 : 2003

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-FCCP-1-0911C052B) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of NVLAP and 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:

| FCC Part15 (15.247) , Subpart C | | | |
|--|---------------|-------------------------------------|----------|
| Standard | Section | Test Item | Judgment |
| | 15.207 | Conducted Emission | PASS |
| | 15.247 (c) | Antenna conducted Spurious Emission | PASS |
| | 15.247 (a)(2) | 6dB Bandwidth | PASS |
| | 15.247 (b) | Peak Output Power | PASS |
| | 15.247 (c) | Radiated Spurious Emission | PASS |
| | 15.247 (d) | Power Spectral Density | PASS |
| | 15.203 | Antenna Requirement | PASS |
| 1.1307 1.1310 2.1091 2.1093 | | RF Exposure Compliance | PASS |

NOTE:

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



2.1 TEST FACILITY

The test facilities used to collect the test data in this report is **C01/OS02** at the location of No.132-1, Lane 329, Sec. 2, Palian Road, Shijr City, Taipei, Taiwan.

Neutron's test firm number is 95335

2.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expended 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 |
|-----------|--------|-----------------------------|----------|------|
| C01 | ANSI | 150 KHz ~ 30MHz | 1.94 | |

B. Radiated Measurement :

| Test Site | Method | Measurement Frequency Range | Ant. H / V | U , (dB) | NOTE |
|-----------|--------|-----------------------------|------------|----------|------|
| OS-01 | ANSI | 30MHz ~ 200MHz | V | 3.82 | |
| | | 30MHz ~ 200MHz | H | 3.60 | |
| | | 200MHz ~ 1,000MHz | V | 3.86 | |
| | | 200MHz ~ 1,000MHz | H | 3.94 | |
| OS-02 | ANSI | 30MHz ~ 200MHz | V | 2.48 | |
| | | 30MHz ~ 200MHz | H | 2.16 | |
| | | 200MHz ~ 1,000MHz | V | 2.50 | |
| | | 200MHz ~ 1,000MHz | H | 2.66 | |



3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

| | | | | | | | | | | | | | | | | | | | |
|--|--|----------------------|---------------|------------------|---|-------------------------|--|-------------------|--|----------------------|--------------------|--------------------|---------------------|---------------|--|--|--|--------------|-----------------------------|
| Equipment | Vpuck(Video-puck) | | | | | | | | | | | | | | | | | | |
| Brand Name | Orb | | | | | | | | | | | | | | | | | | |
| Model Name | Vpuck(Video-puck) | | | | | | | | | | | | | | | | | | |
| OEM Brand/Model Name | N/A | | | | | | | | | | | | | | | | | | |
| Model Difference | Compared with the previous report(NEI-FCCP-0911C052), based on same product except the model name, brand name and applicant. | | | | | | | | | | | | | | | | | | |
| Product Description | The EUT is a Vpuck(Video-puck). <table border="1"><tr><td>Operation Frequency:</td><td>2412~2462 MHz</td></tr><tr><td>Modulation Type:</td><td>802.11b:CCK, DQPSK, DBPSK 802.11g:OFDM 802.11n:OFDM</td></tr><tr><td>Bit Rate of Transmitter</td><td>802.11b:11/5.5/2/1 Mbps 802.11g:54/48/36/24/18/12/9/6 Mbps Draft 802.11n:up to 150Mbps</td></tr><tr><td>Number Of Channel</td><td>11 CH, Please see Note 2. (please see page 9)</td></tr><tr><td>Antenna Designation:</td><td>Please see Note 3.</td></tr><tr><td>Antenna Gain(Peak)</td><td>(please see page 9)</td></tr><tr><td>Output Power:</td><td>802.11b:17.13 dBm 802.11g:13.38 dBm 802.11n(20MHz):13.24 dBm 802.11n(40MHz):12.70 dBm</td></tr><tr><td colspan="2">Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual.</td></tr><tr><td>Channel List</td><td>Please refer to the Note 2.</td></tr></table> | Operation Frequency: | 2412~2462 MHz | Modulation Type: | 802.11b:CCK, DQPSK, DBPSK 802.11g:OFDM 802.11n:OFDM | Bit Rate of Transmitter | 802.11b:11/5.5/2/1 Mbps 802.11g:54/48/36/24/18/12/9/6 Mbps Draft 802.11n:up to 150Mbps | Number Of Channel | 11 CH, Please see Note 2. (please see page 9) | Antenna Designation: | Please see Note 3. | Antenna Gain(Peak) | (please see page 9) | Output Power: | 802.11b:17.13 dBm 802.11g:13.38 dBm 802.11n(20MHz):13.24 dBm 802.11n(40MHz):12.70 dBm | Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual. | | Channel List | Please refer to the Note 2. |
| Operation Frequency: | 2412~2462 MHz | | | | | | | | | | | | | | | | | | |
| Modulation Type: | 802.11b:CCK, DQPSK, DBPSK 802.11g:OFDM 802.11n:OFDM | | | | | | | | | | | | | | | | | | |
| Bit Rate of Transmitter | 802.11b:11/5.5/2/1 Mbps 802.11g:54/48/36/24/18/12/9/6 Mbps Draft 802.11n:up to 150Mbps | | | | | | | | | | | | | | | | | | |
| Number Of Channel | 11 CH, Please see Note 2. (please see page 9) | | | | | | | | | | | | | | | | | | |
| Antenna Designation: | Please see Note 3. | | | | | | | | | | | | | | | | | | |
| Antenna Gain(Peak) | (please see page 9) | | | | | | | | | | | | | | | | | | |
| Output Power: | 802.11b:17.13 dBm 802.11g:13.38 dBm 802.11n(20MHz):13.24 dBm 802.11n(40MHz):12.70 dBm | | | | | | | | | | | | | | | | | | |
| Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual. | | | | | | | | | | | | | | | | | | | |
| Channel List | Please refer to the Note 2. | | | | | | | | | | | | | | | | | | |
| Power Source | DC Voltage supplied from Host System | | | | | | | | | | | | | | | | | | |
| Power Rating | I/P AC 120V/60Hz , O/P DC 5V | | | | | | | | | | | | | | | | | | |
| Connecting I/O Port(s) | Please refer to the User's Manual | | | | | | | | | | | | | | | | | | |
| Products Covered | N/A | | | | | | | | | | | | | | | | | | |
| EUT Modification(s) | N/A | | | | | | | | | | | | | | | | | | |

Note

:

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



2 CH 01 – CH 11 for 802.11b, 802.11g, 802.11n(20MHz)
3 CH 03 – CH 09 for 802.11n(40MHz)

| Channel List | | | | | | | |
|---------------------|-----------------|---------|-----------------|---------|-----------------|---------|-----------------|
| Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
| 01 | 2412 | 04 | 2427 | 07 | 2442 | 10 | 2457 |
| 02 | 2417 | 05 | 2432 | 08 | 2447 | 11 | 2462 |
| 03 | 2422 | 06 | 2437 | 09 | 2452 | | |

3 Table for Filed Antenna

| Ant. | Brand | Model Name | Antenna Type | Connector | Gain (dBi) |
|------|--------|-------------|--------------|-----------|------------|
| 1 | E.M.W. | E.M.W.-P9AG | CHIP ANT | N/A | -3.0 |

4 The EUT incorporates SISO function. Physically, the EUT chip Ralink (RT3070L) provides (1T1R).

| Modulated type | TX Function |
|----------------------|-------------|
| 802.11b | 1TX |
| 802.11g | 1TX |
| Draft 802.11n(20MHz) | 1TX |
| Draft 802.11n(40MHz) | 1TX |



3.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible 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 B MODE CHANNEL 01/06/11 |
| Mode 2 | TX G MODE CHANNEL 01/06/11 |
| Mode 3 | TX N MODE 20MHz CHANNEL 01/06/11 |
| Mode 4 | TX N MODE 40MHz CHANNEL 03/06/09 |
| Mode 5 | NORMAL LINK |

| For Conducted Test | |
|--------------------|-------------|
| Final Test Mode | Description |
| Mode 5 | NORMAL LINK |

| For Radiated Test | |
|-------------------|----------------------------------|
| Final Test Mode | Description |
| Mode 1 | TX B MODE CHANNEL 01/06/11 |
| Mode 2 | TX G MODE CHANNEL 01/06/11 |
| Mode 3 | TX N MODE 20MHz CHANNEL 01/06/11 |
| Mode 4 | TX N MODE 40MHz CHANNEL 03/06/09 |

Note:

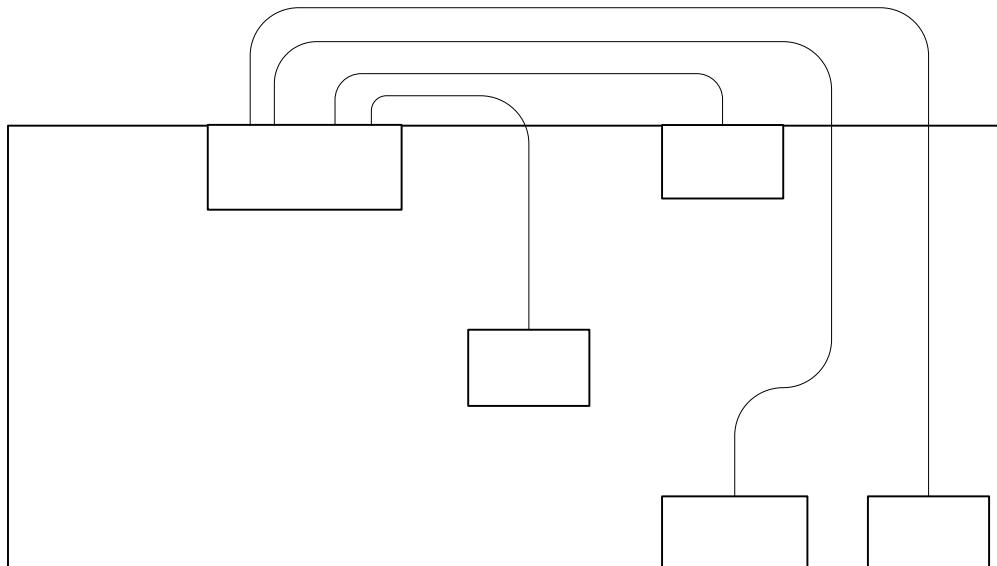
(1) The measurements are performed at the highest, middle, lowest available channels.

**3.3 TABLE OF PARAMETERS OF TEXT 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 WLAN

| Test software Version | Test Program: ART | | |
|-----------------------|-------------------|----------|----------|
| Frequency | 2412 MHz | 2437 MHz | 2462 MHz |
| IEEE 802.11b DSSS | 12 | 12 | 12 |
| IEEE 802.11g OFDM | 12 | 12 | 12 |
| 11N-20MHzHz-Ant.A | 12 | 12 | 12 |

| Test software Version | Test Program: MP-Test | | |
|-----------------------|-----------------------|----------|----------|
| Frequency | 2422 MHz | 2437 MHz | 2452 MHz |
| 11N-40MHzHz-Ant.A | 12 | 12 | 12 |

3.4 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

**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 | Vpuck(Video-puck) | Orb | Vpuck(Video-puck) | XXD-WSD3070-01 | N/A | EUT |
| E-2 | PC | Lenovo | H2510 | DOC | SS07999198 | |
| E-3 | LCD monitor | Dell | E177FPc | DOC | CNOFJ179-6418 0-6AG-1WNS | |
| E-4 | USB Keyboard | Dell | L100 | DOC | CNORH6596589 071T08NE | |
| E-5 | USB Mouse | Dell | M056UOA | DOC | FQJ000BS | |
| | | | | | | |

| Item | Shielded Type | Ferrite Core | Length | Note |
|------|---------------|--------------|--------|------|
| C-1 | YES | NO | 1.8M | |
| C-2 | NO | YES | 1.8M | |
| C-3 | YES | YES | 1.8M | |
| C-4 | YES | NO | 1.5M | |
| | | | | |

Note:

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



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 | 00042991 | Jan. 23, 2010 |
| 2 | LISN | EMCO | 3816/2 | 00042990 | Jan. 23, 2010 |
| 3 | Pulse Limiter | Electro-Metrics | EM-7600 | 112644 | Nov. 26, 2009 |
| 4 | 50Ω Terminator | N/A | N/A | N/A | May.12, 2010 |
| 5 | Test Cable | N/A | C01 | N/A | Nov. 26, 2009 |
| 6 | EMI Test Receiver | R&S | ESCI | 100082 | Mar. 06, 2010 |

Remark: " N/A" denotes No Model Name. , Serial No. or No Calibration specified.

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 |

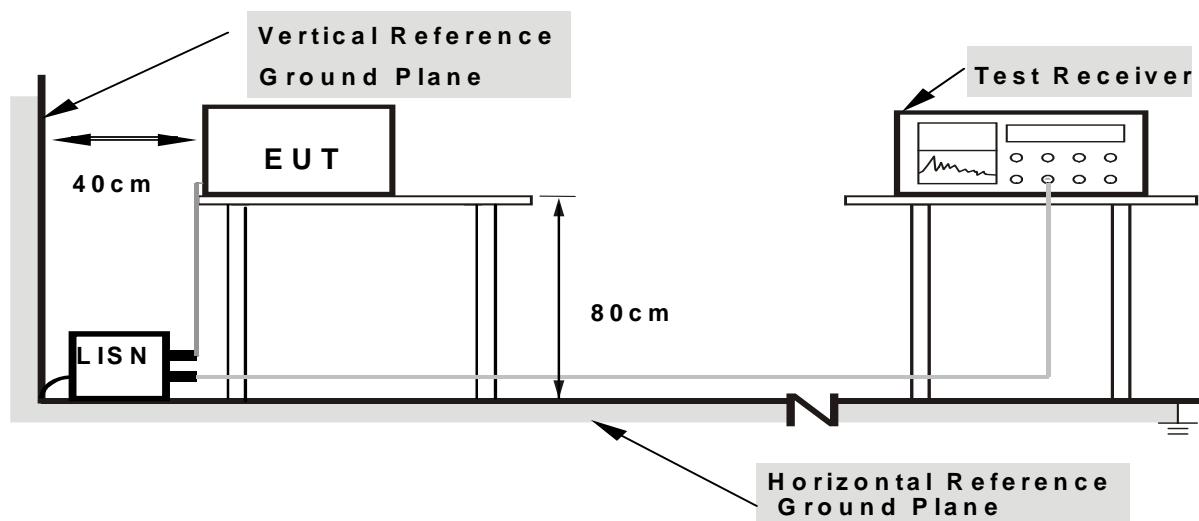
4.1.3 TEST PROCEDURE

- a. The EUT was placed 0.4 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. 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.
- c. 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.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. 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.



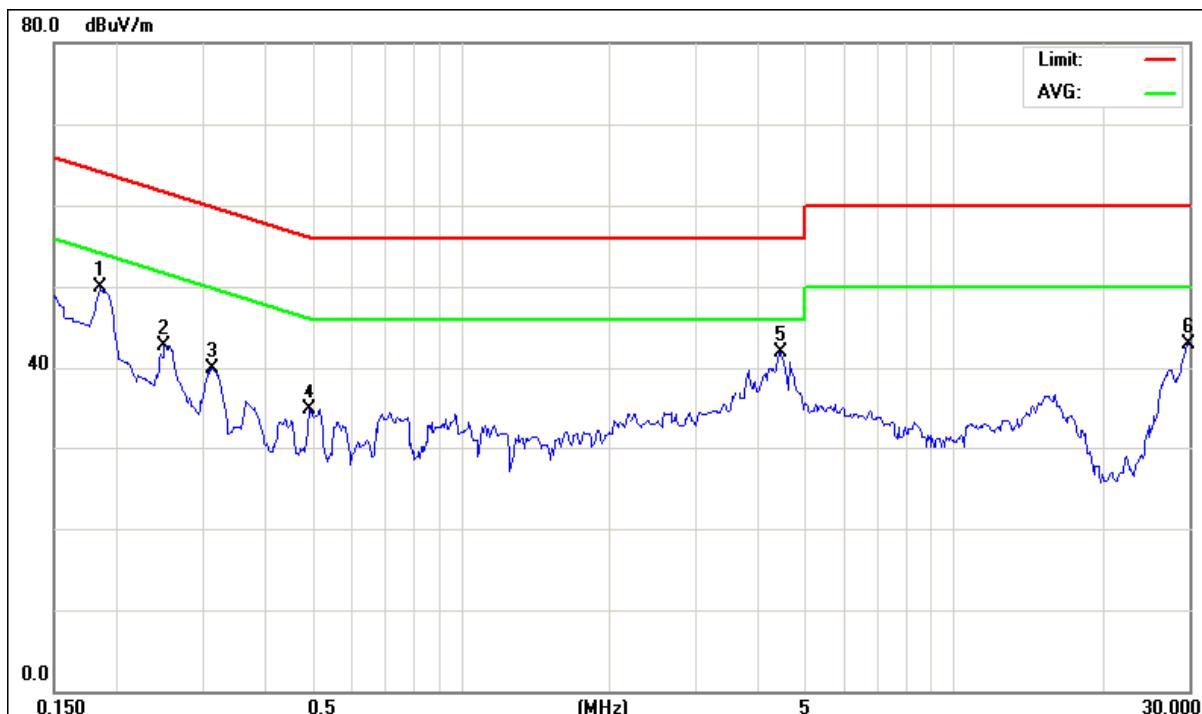
4.1.7 TEST RESULTS

| | | | |
|---------------|-------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 26 °C | Relative Humidity : | 60 % |
| Pressure : | 1010hPa | Test Power : | AC 120V/60Hz |
| Test Mode : | Normal Link | | |

| Freq. (MHz) | Terminal L/N | Measured(dBuV) | | Limits(dBuV) | | Margin (dB) | Note |
|----------------|-----------------|----------------|---------|--------------|---------|----------------|------|
| | | QP-Mode | AV-Mode | QP-Mode | AV-Mode | | |
| 0.19 | Line | 49.83 | * | 64.21 | 54.21 | -14.38 | (QP) |
| 0.25 | Line | 42.78 | * | 61.73 | 51.73 | -18.95 | (QP) |
| 0.31 | Line | 39.99 | * | 59.92 | 49.92 | -19.93 | (QP) |
| 0.49 | Line | 34.72 | * | 56.13 | 46.13 | -21.41 | (QP) |
| 4.43 | Line | 41.93 | * | 56.00 | 46.00 | -14.07 | (QP) |
| 29.71 | Line | 42.92 | * | 60.00 | 50.00 | -17.08 | (QP) |

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 : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 26 °C | Relative Humidity : | 60 % |
| Pressure : | 1010hPa | Test Power : | AC 120V/60Hz |
| Test Mode : | Normal Link | | |

| Freq. (MHz) | Terminal L/N | Measured(dBuV) | | Limits(dBuV) | | Margin (dB) | Note |
|----------------|-----------------|----------------|---------|--------------|---------|----------------|------|
| | | QP-Mode | AV-Mode | QP-Mode | AV-Mode | | |
| 0.15 | Neutral | 50.95 | * | 66.00 | 56.00 | -15.05 | (QP) |
| 0.19 | Neutral | 48.18 | * | 64.21 | 54.21 | -16.03 | (QP) |
| 0.25 | Neutral | 43.27 | * | 61.79 | 51.79 | -18.52 | (QP) |
| 0.32 | Neutral | 40.14 | * | 59.68 | 49.68 | -19.54 | (QP) |
| 4.47 | Neutral | 41.70 | * | 56.00 | 46.00 | -14.30 | (QP) |
| 29.76 | Neutral | 42.60 | * | 60.00 | 50.00 | -17.40 | (QP) |

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.





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 (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 |

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

| FREQUENCY (MHz) | Class A (dBuV/m) (at 3m) | | Class B (dBuV/m) (at 3m) | |
|-----------------|--------------------------|---------|--------------------------|---------|
| | PEAK | AVERAGE | PEAK | AVERAGE |
| Above 1000 | 80 | 60 | 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 Upper frequency of measurement used in the device or on which the device operates or tunes (MHz) | Range (MHz) |
|---|--|
| Below 1.705 | 30 |
| 1.705 – 108 | 1000 |
| 108 – 500 | 2000 |
| 500 – 1000 | 5000 |
| Above 1000 | 5 th harmonic of the highest frequency or 40 GHz, whichever is lower |

**4.2.2 MEASUREMENT INSTRUMENTS LIST AND SETTING**

| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
|------|-------------------------|------------------|-----------------|------------|------------------|
| 1 | Log-Bicon Antenna | Schwarzbeck | VULB 9160 | 3058 | Nov. 26, 2009 |
| 2 | Test Cable | N/A | 10M_OS02 | N/A | Nov. 26, 2009 |
| 3 | Test Cable | N/A | OS02-1/-2/-3 | N/A | Nov. 26, 2009 |
| 4 | Pre-Amplifier | Anritsu | MH648A | M09961 | Nov. 26, 2009 |
| 5 | EMI Test Receiver | R&S | ESCI | 100082 | Jan. 29, 2010 |
| 6 | Antenna Mast | Chance Most | CMTB-1.5 | N/A | N/A |
| 7 | Turn Table | Chance Most | CMTB-1.5 | N/A | N/A |
| 8 | Spectrum Analyzer | R&S | FSP_40 | 100129 | Jan. 06, 2010 |
| 9 | Horn Antenna | Schwarzbeck | BBHA9120D | 9120D-325 | Oct. 22, 2010 |
| 10 | Horn Antenna | Schwarzbeck | BBHA9170 | 9170187 | Oct. 22, 2010 |
| 11 | Microwave Pre_amplifier | Agilent | 8449B | 3008A01714 | Mar. 08 2010 |
| 12 | Microflex Cable | United Microwave | 57793 | 1m | Mar. 08, 2010 |
| 13 | Microflex Cable | United Microwave | A30A30-500 6 | 10M | Jul. 05, 2010 |

Remark: " N/A" denotes No Model Name / Serial No. and No Calibration specified.

| Spectrum Parameter | Setting |
|--|--|
| Attenuation | Auto |
| Start Frequency | 1000 MHz |
| Stop Frequency | 10th carrier harmonic |
| RB / VB (Emission in restricted band) | 1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average |

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



4.2.3 TEST PROCEDURE

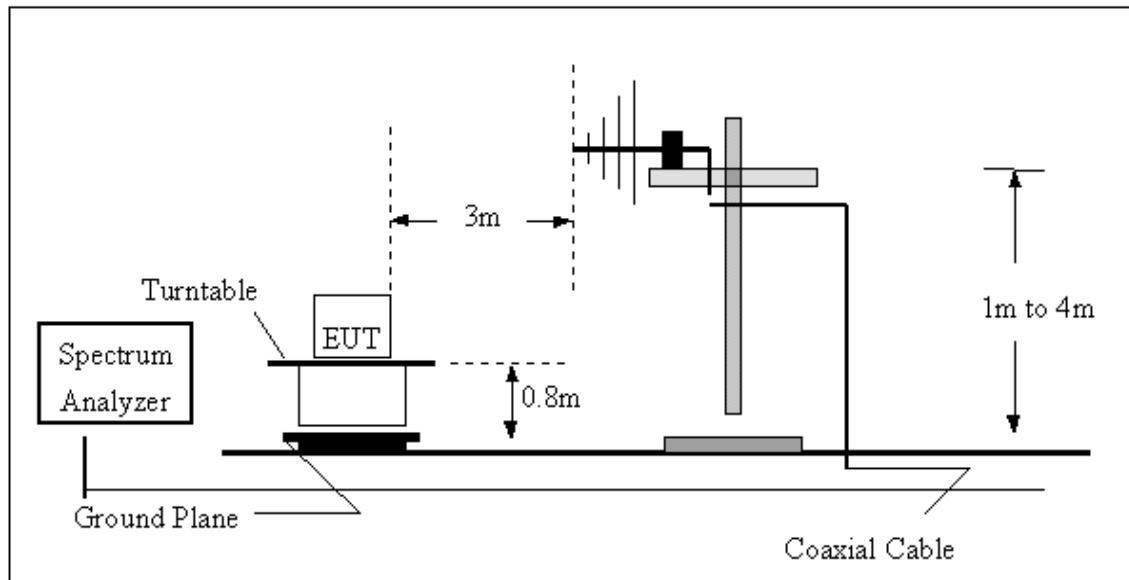
- a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter open area test site. The table was rotated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

4.2.4 DEVIATION FROM TEST STANDARD

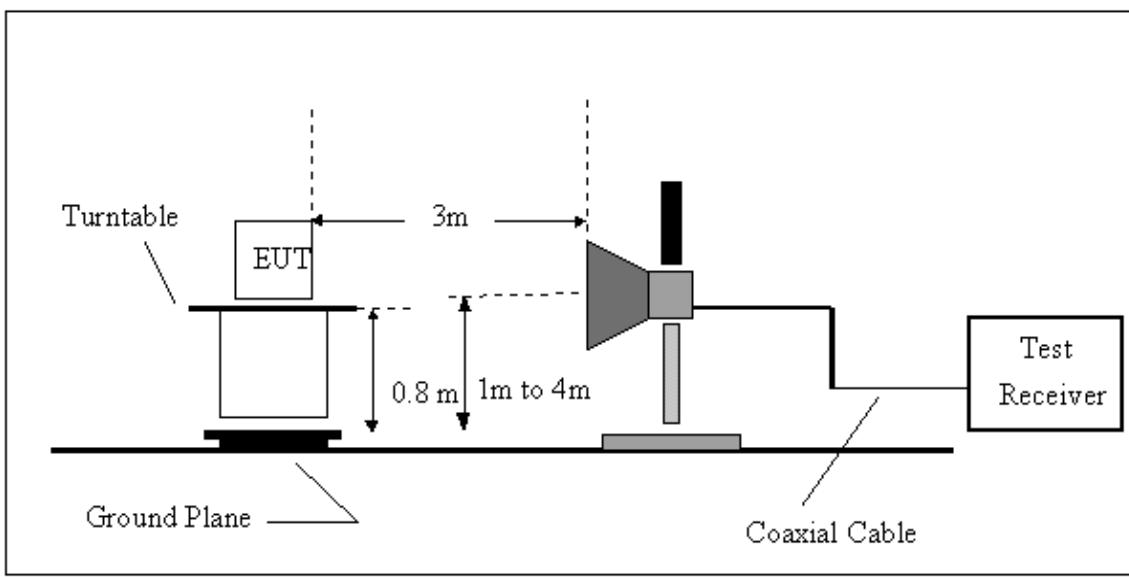
No deviation

4.2.5 TEST SETUP

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



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



4.2.6 EUT OPERATING 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.

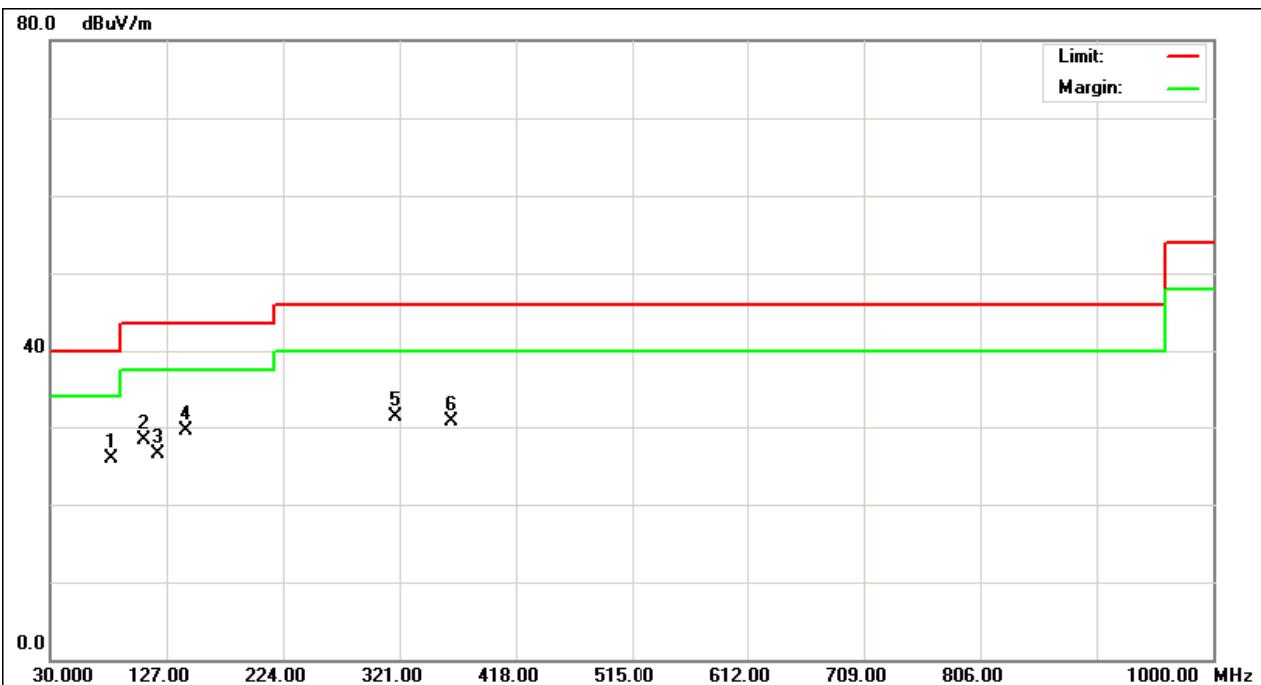
**4.2.7 TEST RESULTS (BETWEEN30 – 1000 MHZ)**

| | | | |
|---------------|-------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX B MODE 2412MHz | | |

| Freq. (MHz) | Ant. H/V | Reading(RA) (dBuV) | Corr.Factor(CF) (dB) | Measured(FS) (dBuV/m) | Limits(QP) (dBuV/m) | Margin (dB) | Note |
|----------------|-------------|-----------------------|-------------------------|--------------------------|------------------------|----------------|------|
| 80.44 | V | 45.66 | -19.71 | 25.95 | 40.00 | - 14.05 | |
| 107.60 | V | 45.29 | -17.05 | 28.24 | 43.50 | - 15.26 | |
| 119.24 | V | 42.38 | -15.89 | 26.49 | 43.50 | - 17.01 | |
| 142.52 | V | 43.66 | -14.20 | 29.46 | 43.50 | - 14.04 | |
| 318.09 | V | 43.25 | -11.99 | 31.26 | 46.00 | - 14.74 | |
| 364.65 | V | 41.87 | -11.07 | 30.80 | 46.00 | - 15.20 | |

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 .



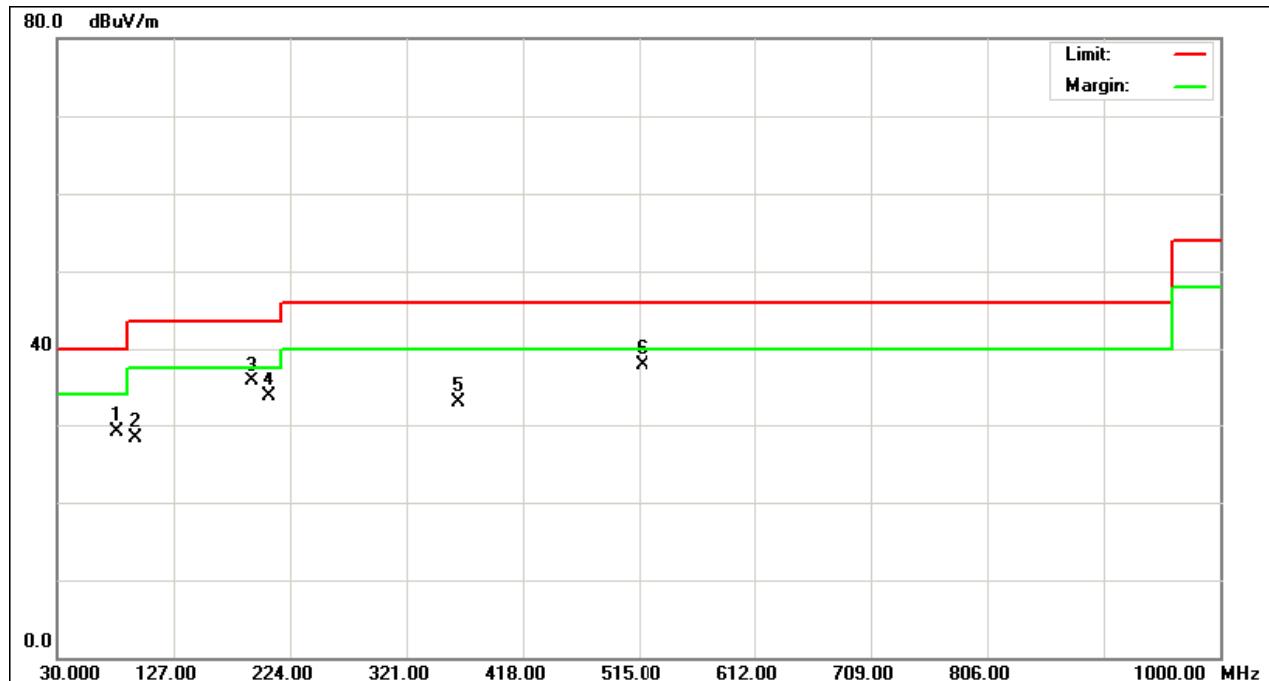


| | | | |
|---------------|-------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX B MODE 2412MHz | | |

| Freq. (MHz) | Ant. H/V | Reading(RA) (dBuV) | Corr.Factor(CF) (dB) | Measured(FS) (dBuV/m) | Limits(QP) (dBuV/m) | Margin (dB) | Note |
|----------------|-------------|-----------------------|-------------------------|--------------------------|------------------------|----------------|------|
| 79.47 | H | 48.74 | -19.58 | 29.16 | 40.00 | - 10.84 | |
| 94.99 | H | 46.87 | -18.50 | 28.37 | 43.50 | - 15.13 | |
| 191.99 | H | 51.89 | -16.20 | 35.69 | 43.50 | - 7.81 | |
| 206.54 | H | 50.23 | -16.43 | 33.80 | 43.50 | - 9.70 | |
| 364.65 | H | 43.96 | -11.07 | 32.89 | 46.00 | - 13.11 | |
| 517.91 | H | 46.24 | -8.33 | 37.91 | 46.00 | - 8.09 | |

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 .





4.2.8 TEST RESULTS (ABOVE 1000 MHZ)

| | | | |
|---------------|-------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX B MODE 2412MHz | | |

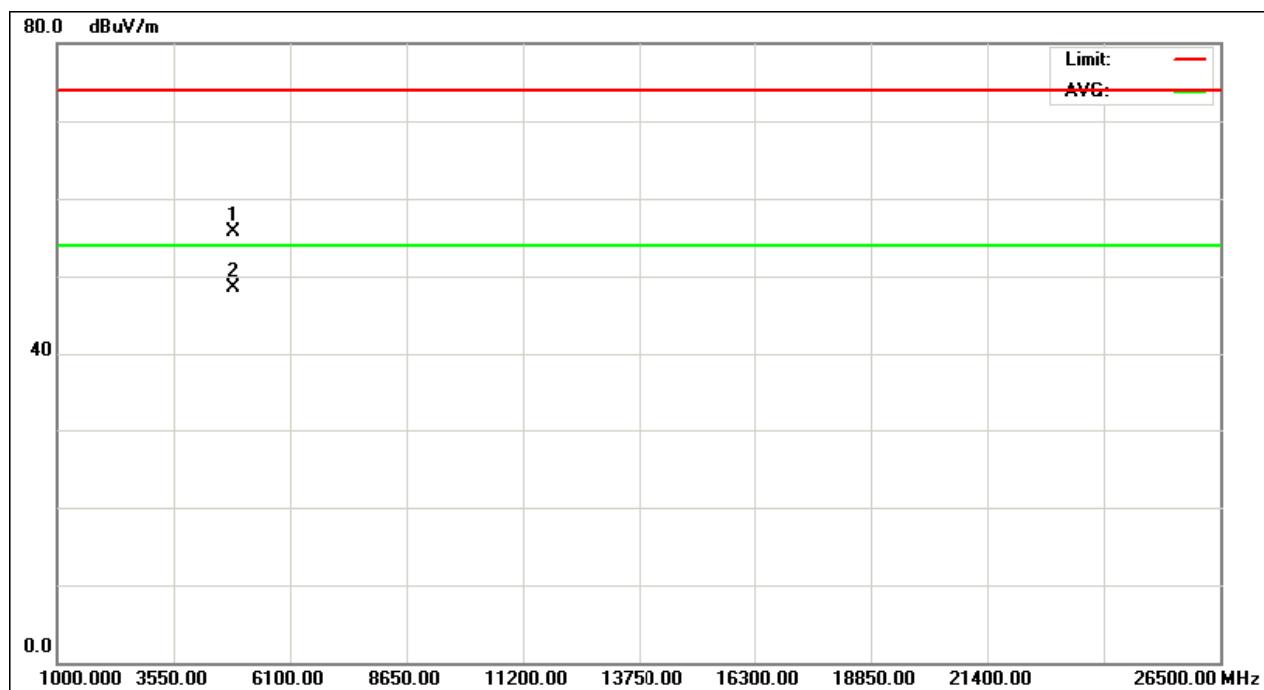
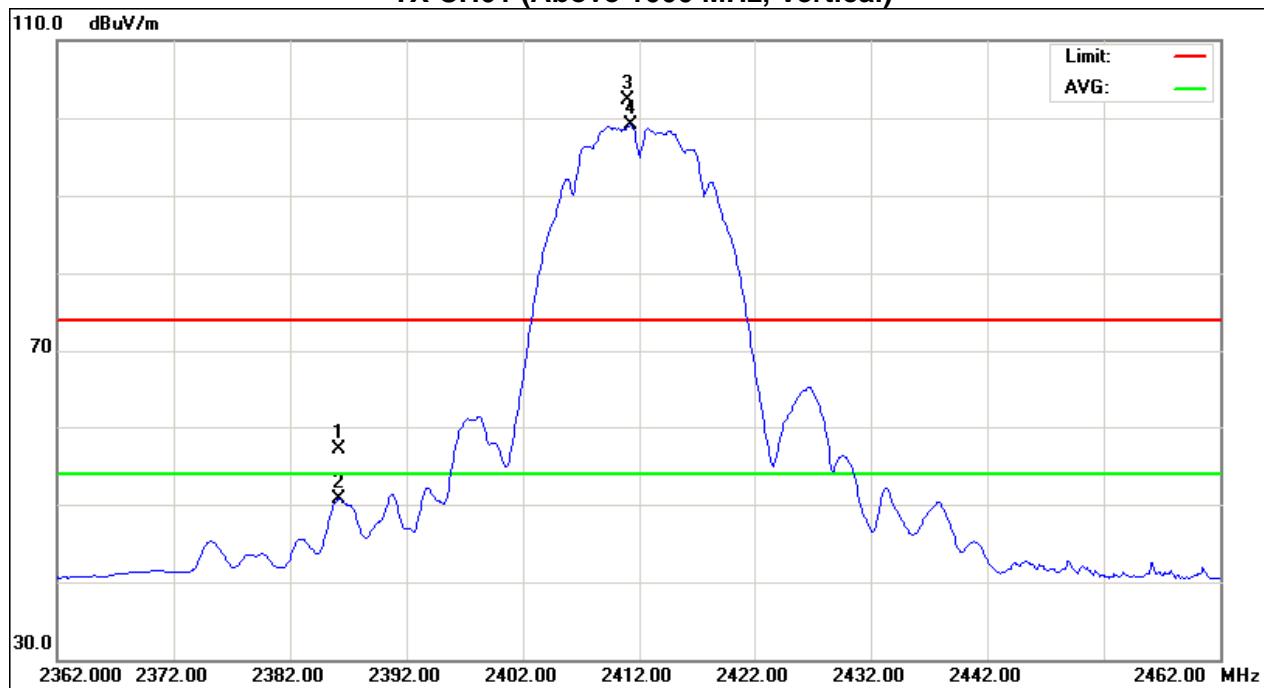
| Freq. (MHz) | Ant.Pol. H/V | Reading | | Ant./CF CF(dB) | Act. | | Limit | | Note |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------------|
| | | Peak (dBuV) | AV (dBuV) | | Peak (dBuV/m) | AV (dBuV/m) | Peak (dBuV/m) | AV (dBuV/m) | |
| 2386.20 | V | 25.18 | 18.77 | 31.92 | 57.10 | 50.69 | 74.00 | 54.00 | X/E |
| 2411.00 | V | 70.51 | 67.16 | 31.89 | 102.40 | 99.05 | | | X/F |
| 4825.63 | V | 50.62 | 43.51 | 5.06 | 55.68 | 48.57 | 74.00 | 54.00 | 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 CH01 (Above 1000 MHz, Vertical)





| | | | |
|---------------|-------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX B MODE 2412MHz | | |

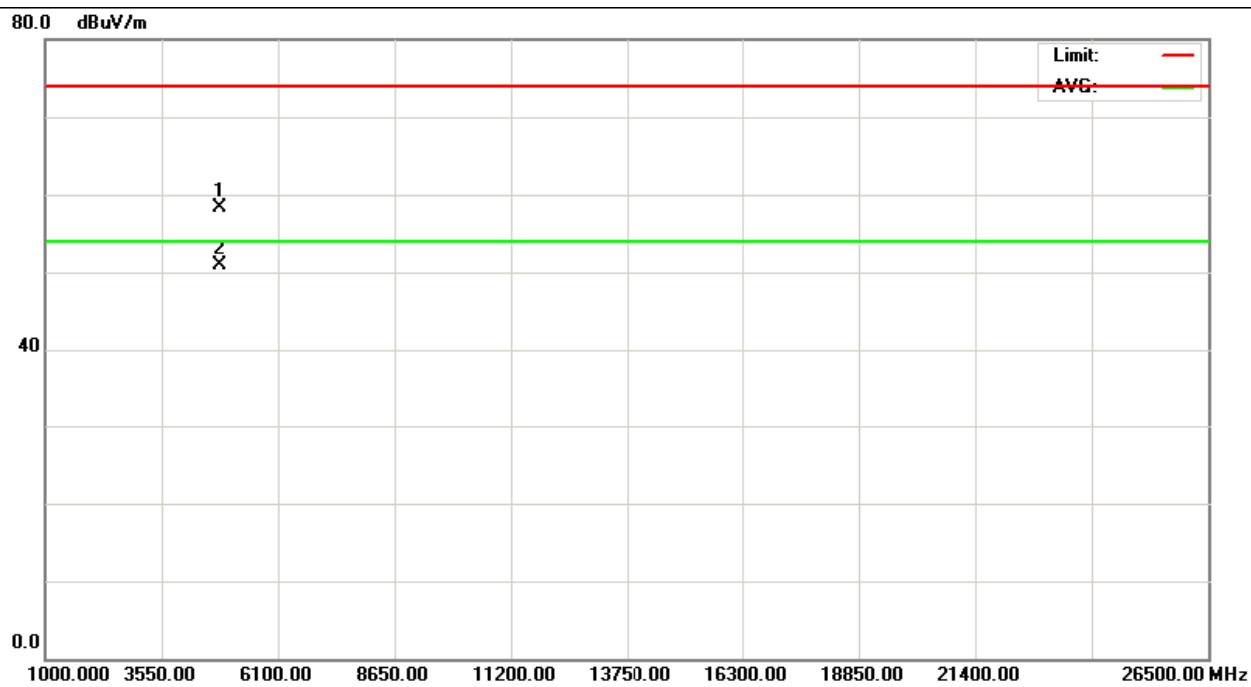
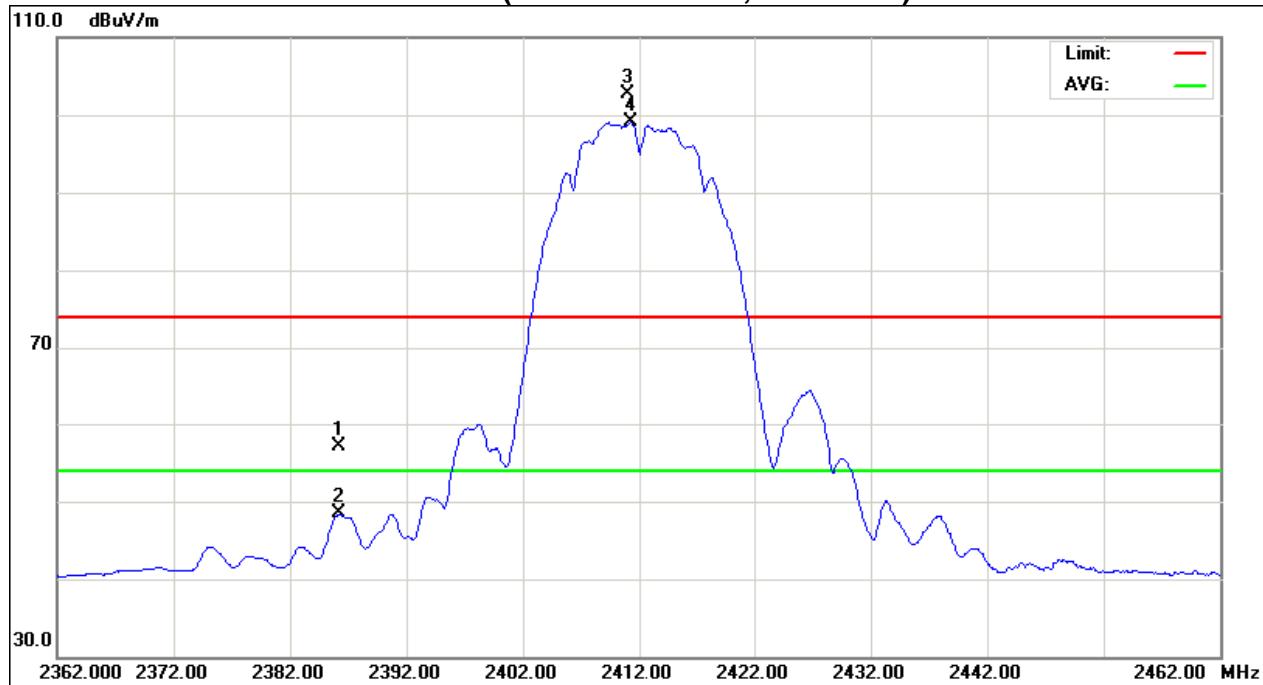
| Freq. (MHz) | Ant.Pol. H/V | Reading | | Ant./CF CF(dB) | Act. | | Limit | | Note |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------------|
| | | Peak (dBuV) | AV (dBuV) | | Peak (dBuV/m) | AV (dBuV/m) | Peak (dBuV/m) | AV (dBuV/m) | |
| 2386.20 | H | 25.21 | 16.58 | 31.92 | 57.13 | 48.50 | 74.00 | 54.00 | X/E |
| 2411.00 | H | 70.76 | 67.17 | 31.89 | 102.65 | 99.06 | | | X/F |
| 4824.77 | H | 53.21 | 45.82 | 5.06 | 58.27 | 50.88 | 74.00 | 54.00 | 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 CH01 (Above 1000 MHz, Horizontal)





| | | | |
|---------------|-------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX B MODE 2437MHz | | |

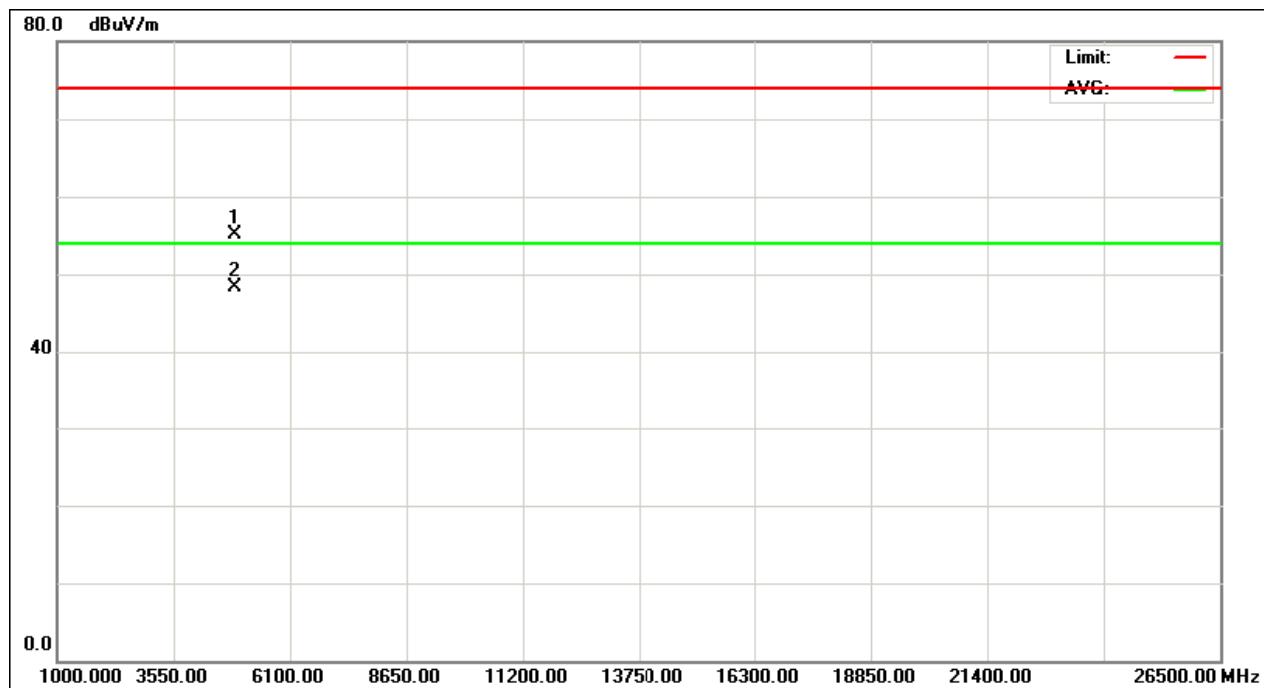
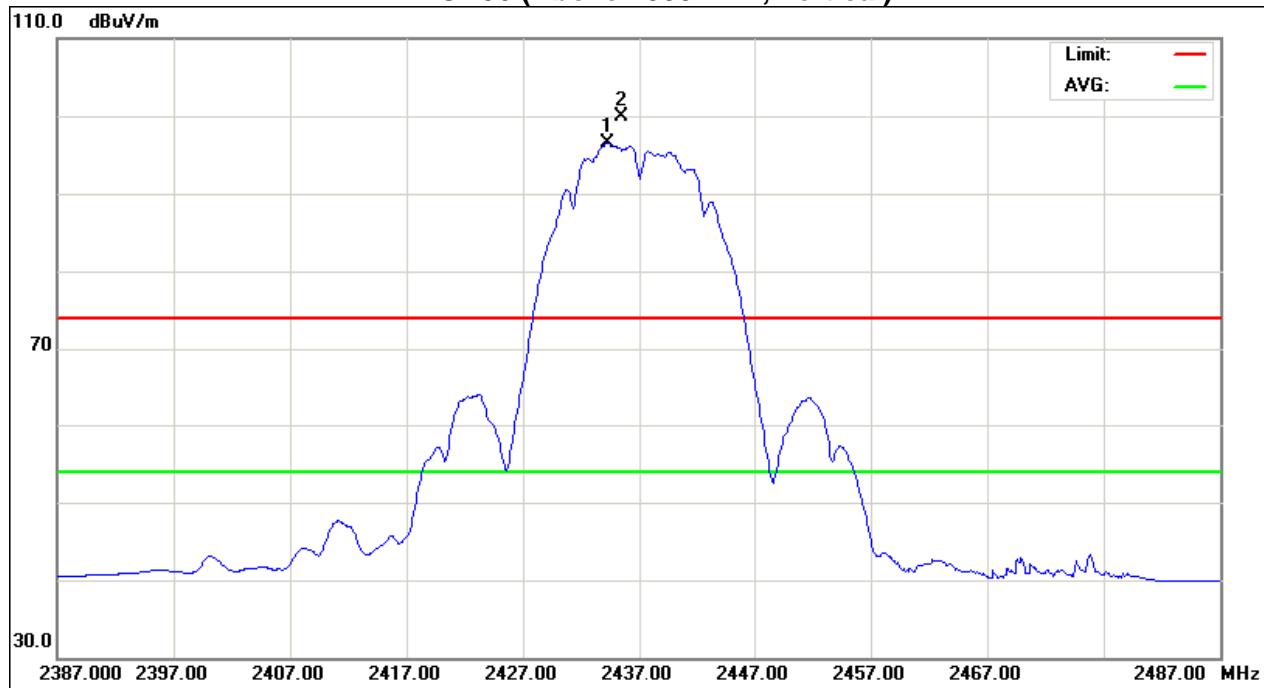
| Freq. (MHz) | Ant.Pol. H/V | Reading | | Ant./CF CF(dB) | Act. | | Limit | | Note |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------|
| | | Peak (dBuV) | AV (dBuV) | | Peak (dBuV/m) | AV (dBuV/m) | Peak (dBuV/m) | AV (dBuV/m) | |
| 2434.30 | V | 67.97 | 64.68 | 31.86 | 99.83 | 96.54 | | | X/F |
| 4872.85 | V | 49.98 | 43.04 | 5.18 | 55.16 | 48.22 | 74.00 | 54.00 | 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 CH06 (Above 1000 MHz, Vertical)





| | | | |
|---------------|-------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX B MODE 2437MHz | | |

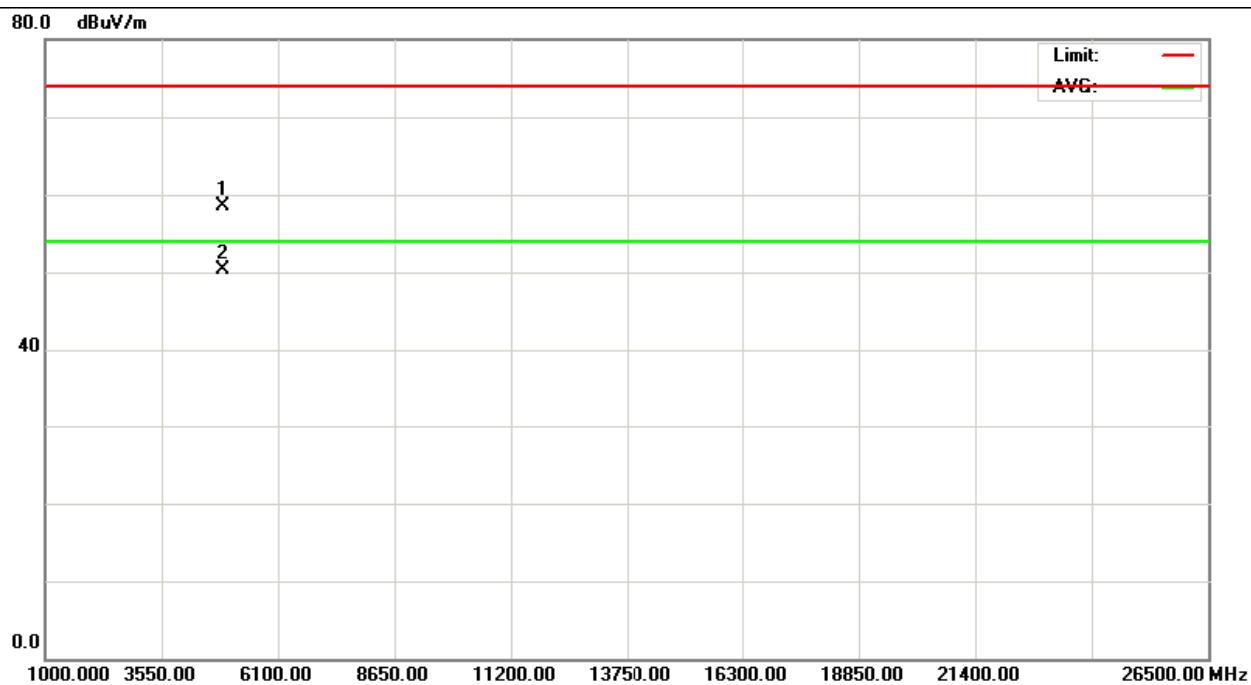
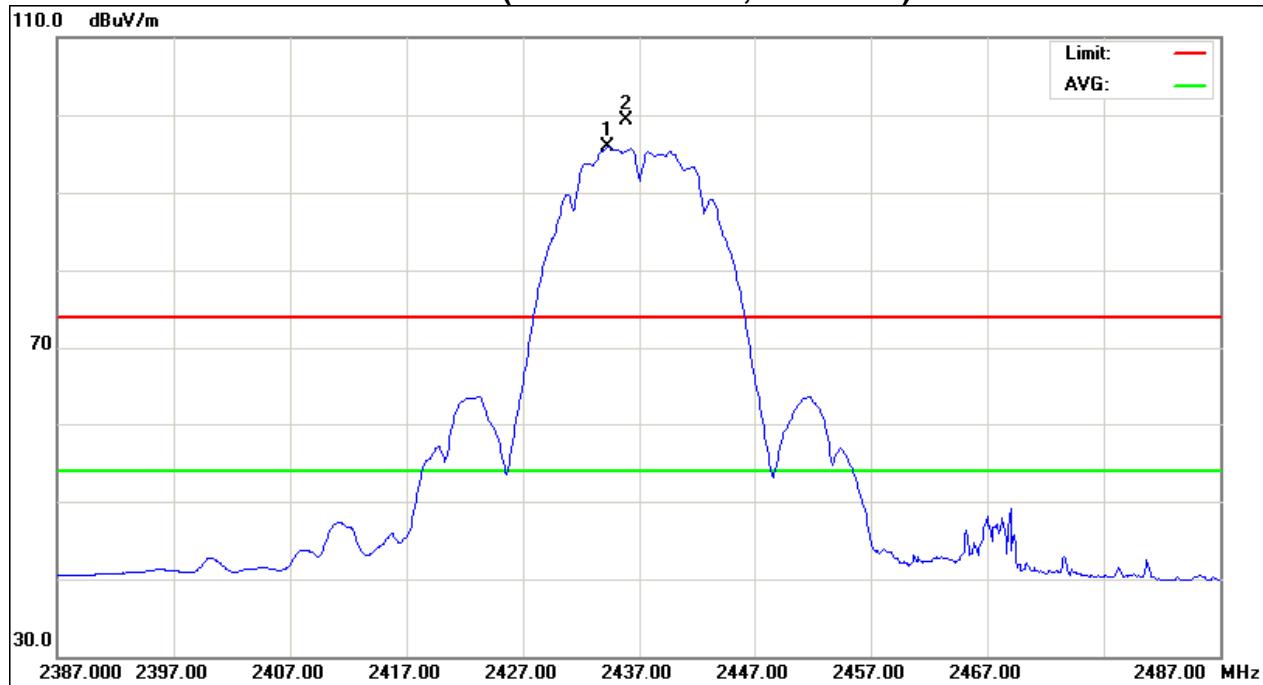
| Freq. (MHz) | Ant.Pol. H/V | Reading | | Ant./CF CF(dB) | Act. | | Limit | | Note |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------|
| | | Peak (dBuV) | AV (dBuV) | | Peak (dBuV/m) | AV (dBuV/m) | Peak (dBuV/m) | AV (dBuV/m) | |
| 2434.30 | H | 67.38 | 64.08 | 31.86 | 99.24 | 95.94 | | | X/F |
| 4875.68 | H | 53.32 | 45.07 | 5.18 | 58.50 | 50.25 | 74.00 | 54.00 | 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 CH06 (Above 1000 MHz, Horizontal)





| | | | | | |
|---------------|-------------------|--|---------------------|-------------------|--|
| EUT : | Vpuck(Video-puck) | | Model Name : | Vpuck(Video-puck) | |
| Temperature : | 22 °C | | Relative Humidity : | 45 % | |
| Pressure : | 1010 hPa | | Test Voltage : | AC 120V/60Hz | |
| Test Mode : | TX B MODE 2462MHz | | | | |

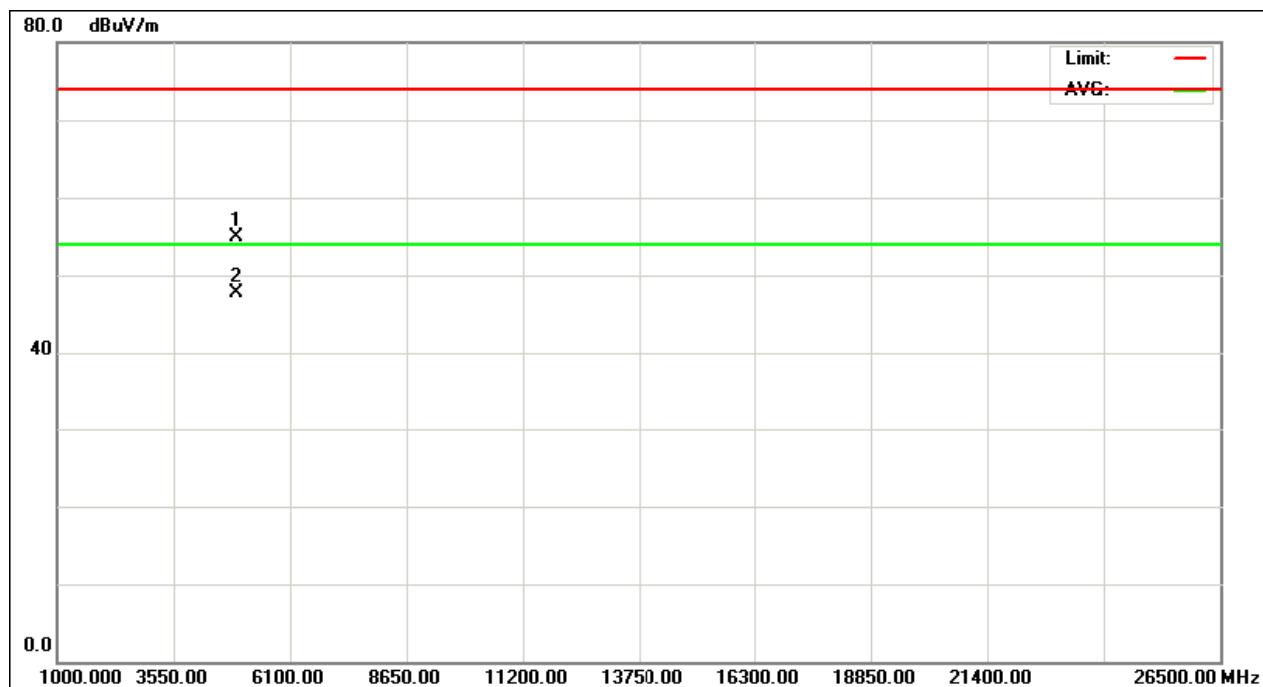
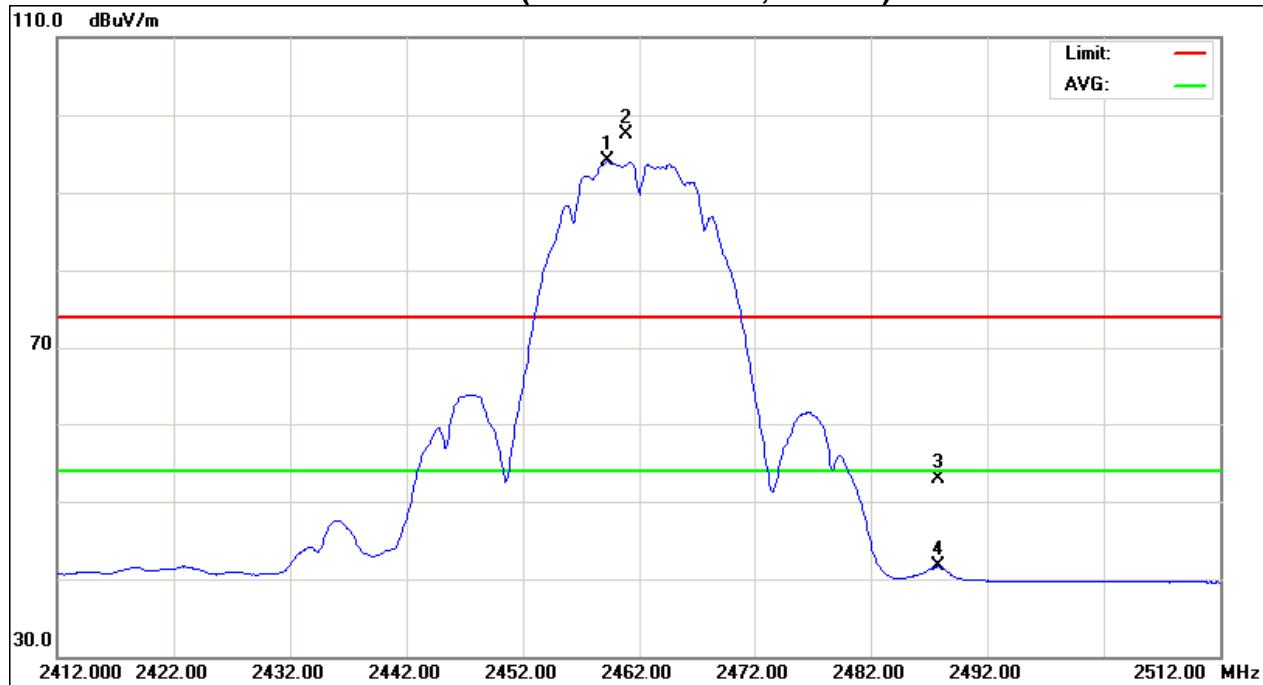
| Freq. | Ant.Pol. | Reading | | Ant./CF | Act. | | Limit | | Note |
|---------|----------|---------|--------|---------|----------|----------|----------|----------|------|
| | | Peak | AV | | Peak | AV | Peak | AV | |
| (MHz) | H/V | (dBuV) | (dBuV) | CF(dB) | (dBuV/m) | (dBuV/m) | (dBuV/m) | (dBuV/m) | X/F |
| 2460.90 | V | 65.64 | 62.23 | 31.83 | 97.47 | 94.06 | | | |
| 2487.80 | V | 21.03 | 9.83 | 31.79 | 52.82 | 41.62 | 74.00 | 54.00 | X/E |
| 4924.89 | V | 49.65 | 42.44 | 5.30 | 54.95 | 47.74 | 74.00 | 54.00 | 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 CH11 (Above 1000 MHz, Vertical)





| | | | | | |
|---------------|-------------------|--|---------------------|-------------------|--|
| EUT : | Vpuck(Video-puck) | | Model Name : | Vpuck(Video-puck) | |
| Temperature : | 22 °C | | Relative Humidity : | 45 % | |
| Pressure : | 1010 hPa | | Test Voltage : | AC 120V/60Hz | |
| Test Mode : | TX B MODE 2462MHz | | | | |

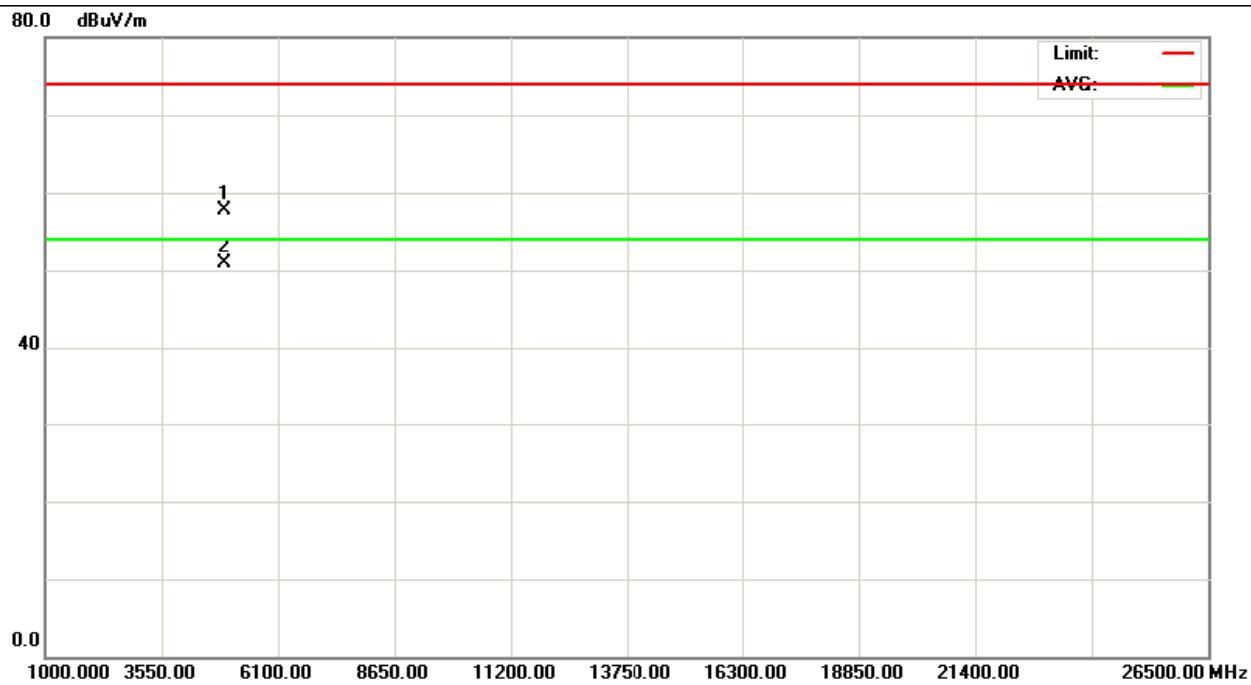
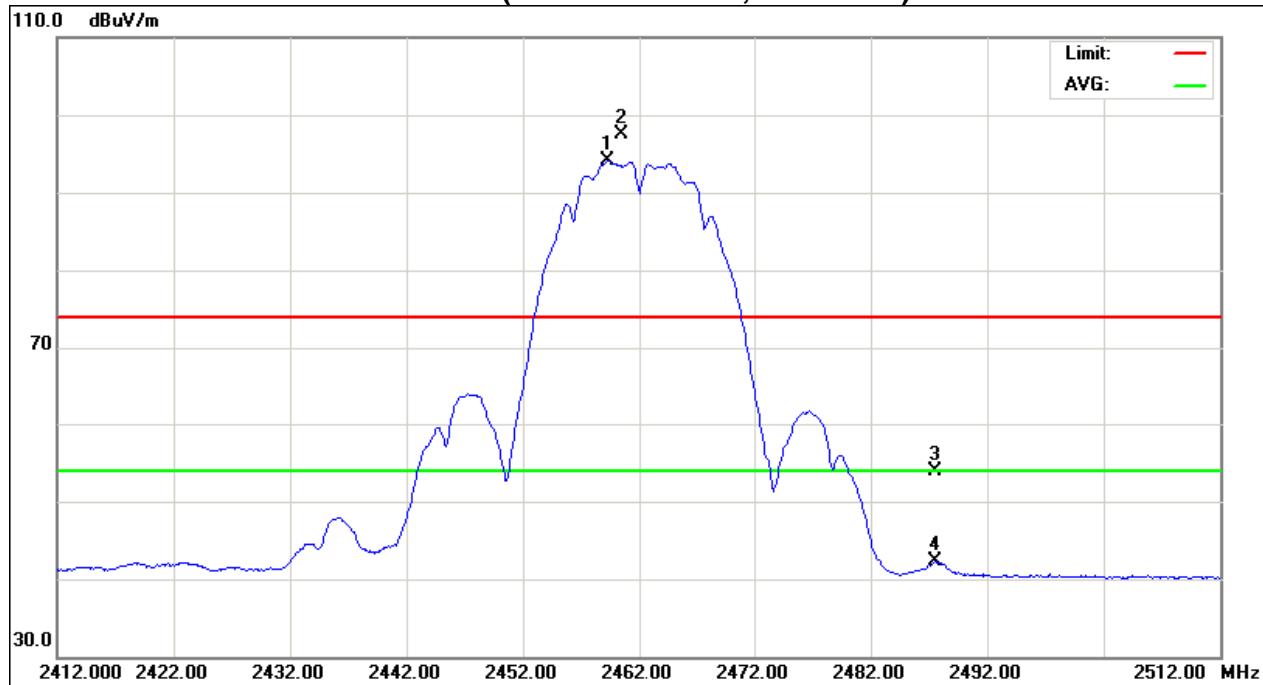
| Freq. (MHz) | Ant.Pol. H/V | Reading | | Ant./CF CF(dB) | Act. | | Limit | | Note |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------|
| | | Peak (dBuV) | AV (dBuV) | | Peak (dBuV/m) | AV (dBuV/m) | Peak (dBuV/m) | AV (dBuV/m) | |
| 2460.50 | H | 65.61 | 62.25 | 31.83 | 97.44 | 94.08 | | | X/F |
| 2487.50 | H | 22.04 | 10.47 | 31.80 | 53.84 | 42.27 | 74.00 | 54.00 | X/E |
| 4925.87 | H | 52.36 | 45.61 | 5.30 | 57.66 | 50.91 | 74.00 | 54.00 | 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 CH11 (Above 1000 MHz, Horizontal)





| | | | |
|---------------|-------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX G MODE 2412MHz | | |

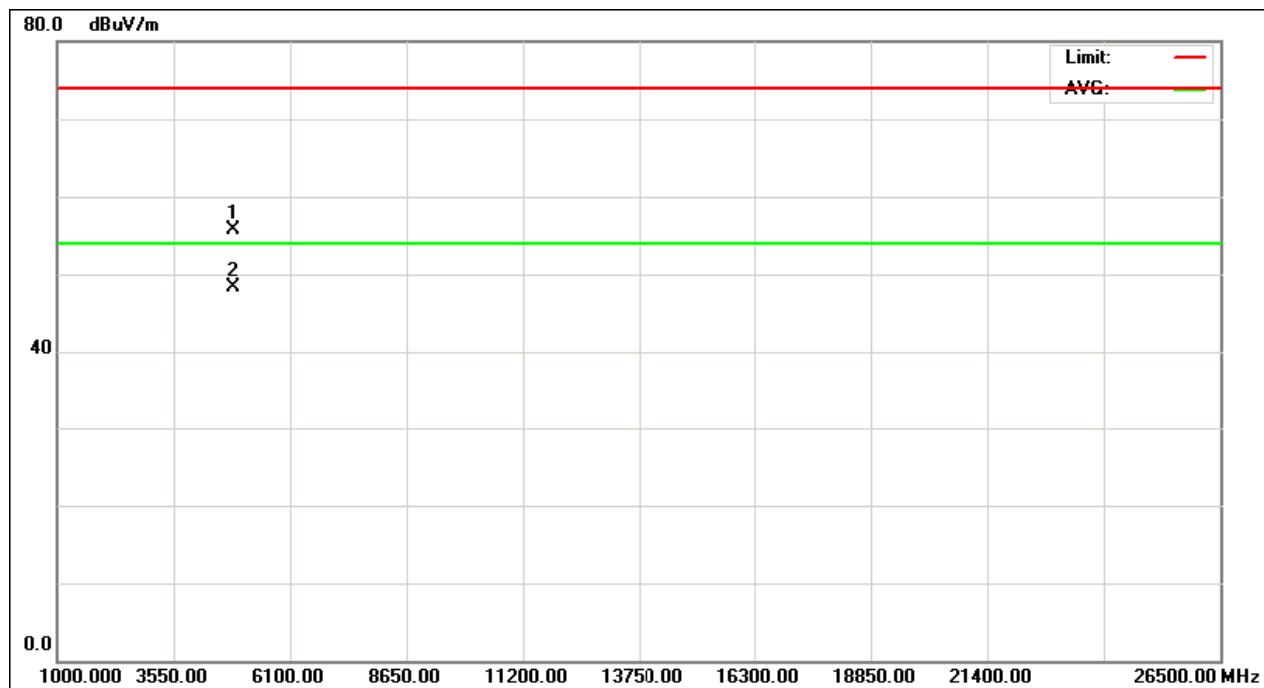
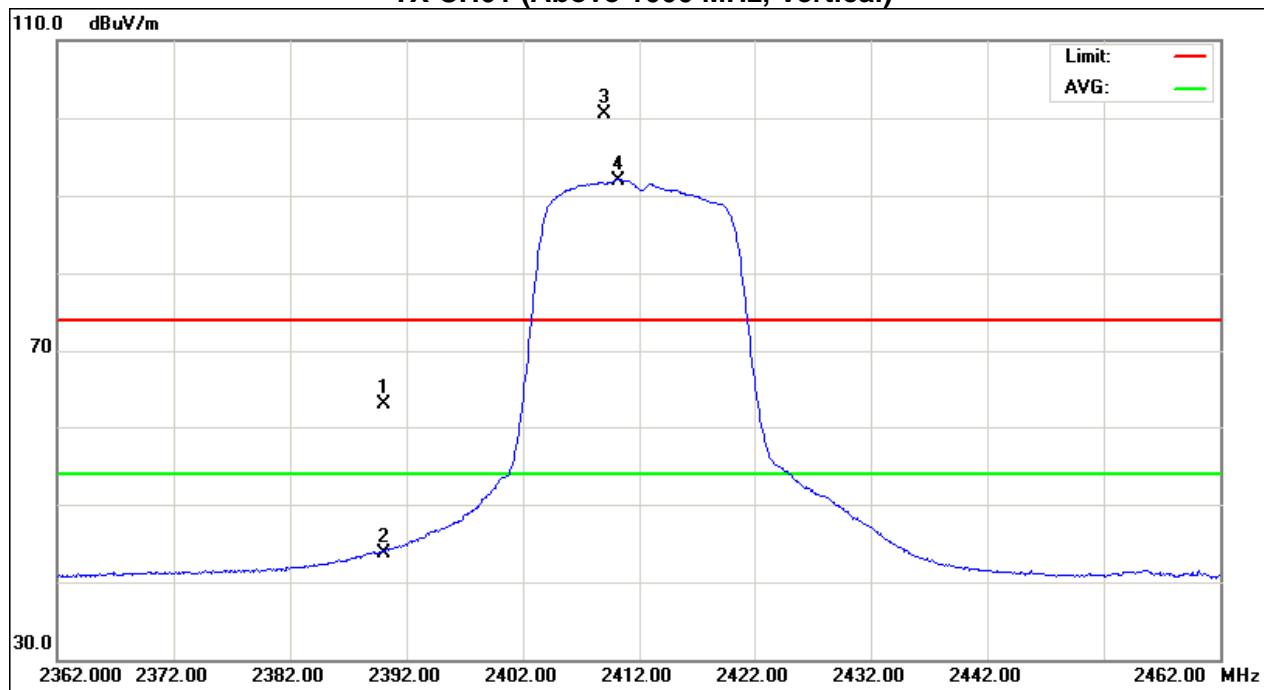
| Freq. (MHz) | Ant.Pol. H/V | Reading | | Ant./CF CF(dB) | Act. | | Limit | | Note |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------------|
| | | Peak (dBuV) | AV (dBuV) | | Peak (dBuV/m) | AV (dBuV/m) | Peak (dBuV/m) | AV (dBuV/m) | |
| 2390.00 | V | 30.95 | 11.79 | 31.91 | 62.86 | 43.70 | 74.00 | 54.00 | X/E |
| 2410.20 | V | 68.59 | 60.07 | 31.89 | 100.48 | 91.96 | | | X/F |
| 4826.57 | V | 50.74 | 43.21 | 5.06 | 55.80 | 48.27 | 74.00 | 54.00 | 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 CH01 (Above 1000 MHz, Vertical)





| | | | |
|---------------|-------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX G MODE 2412MHz | | |

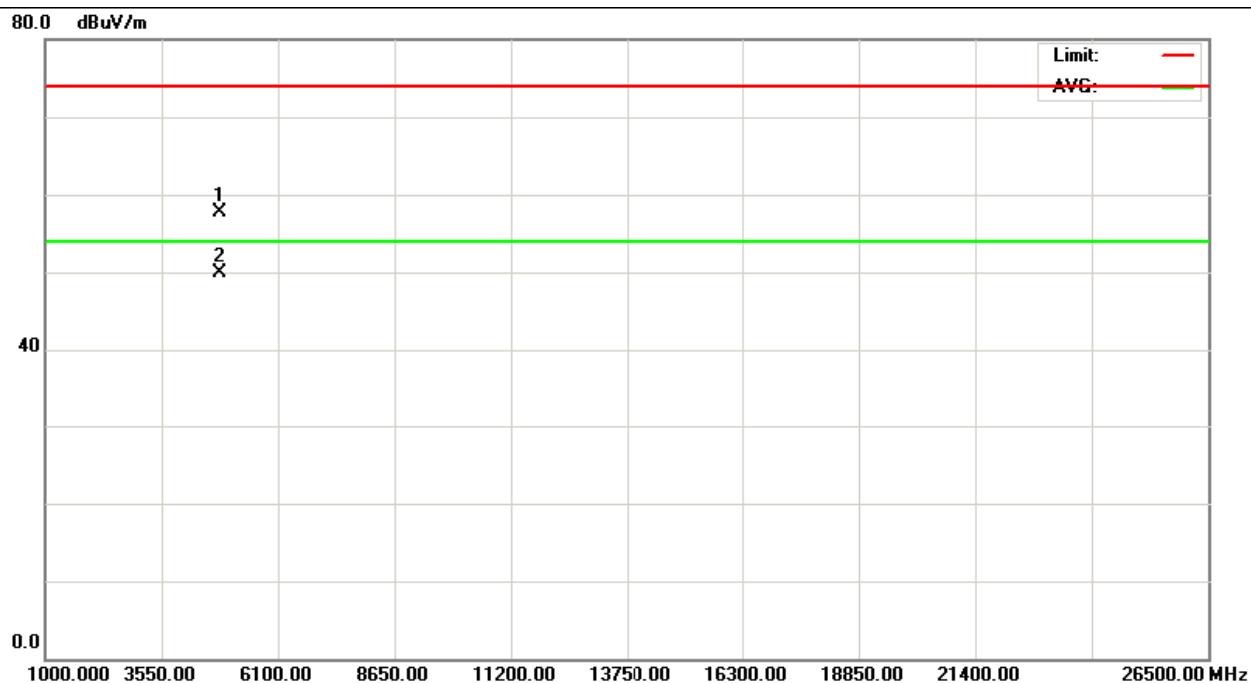
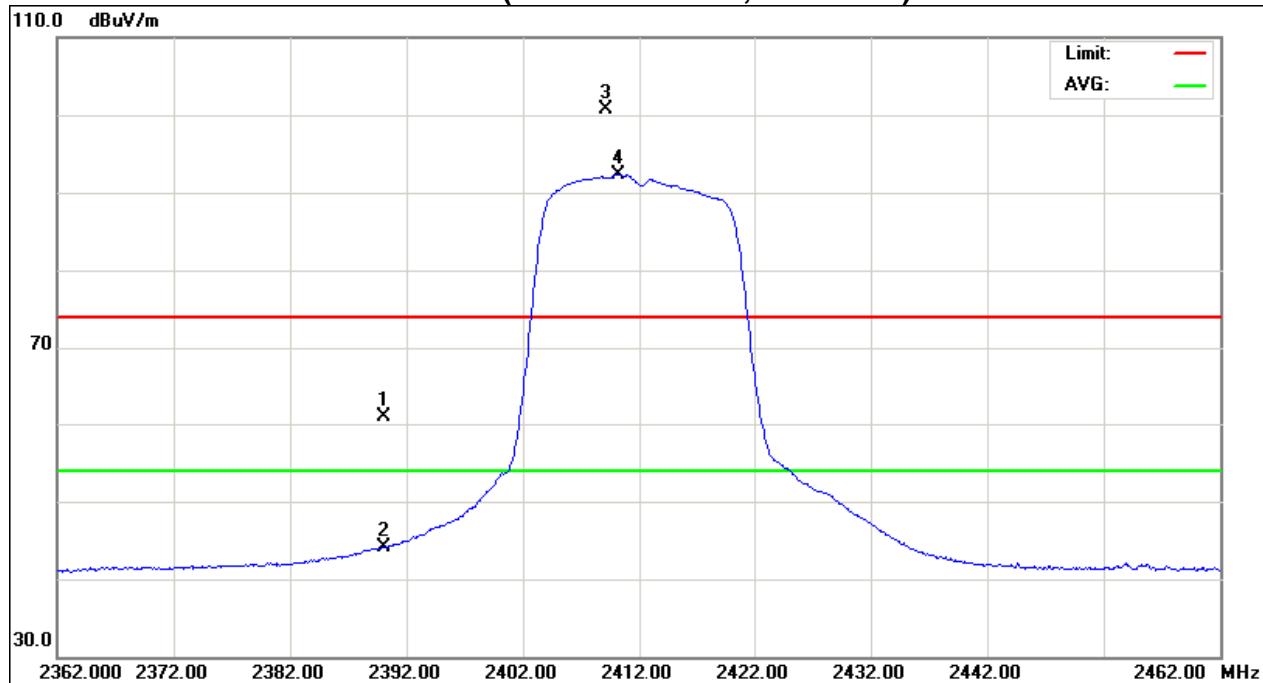
| Freq. (MHz) | Ant.Pol. H/V | Reading | | Ant./CF CF(dB) | Act. | | Limit | | Note |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------------|
| | | Peak (dBuV) | AV (dBuV) | | Peak (dBuV/m) | AV (dBuV/m) | Peak (dBuV/m) | AV (dBuV/m) | |
| 2390.00 | H | 28.62 | 11.79 | 32.30 | 60.92 | 44.09 | 74.00 | 54.00 | X/E |
| 2409.10 | H | 68.47 | 60.07 | 32.30 | 100.77 | 92.37 | | | X/F |
| 4824.98 | H | 52.63 | 44.87 | 5.06 | 57.69 | 49.93 | 74.00 | 54.00 | 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 CH01 (Above 1000 MHz, Horizontal)





| | | | |
|---------------|-------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX G MODE 2437MHz | | |

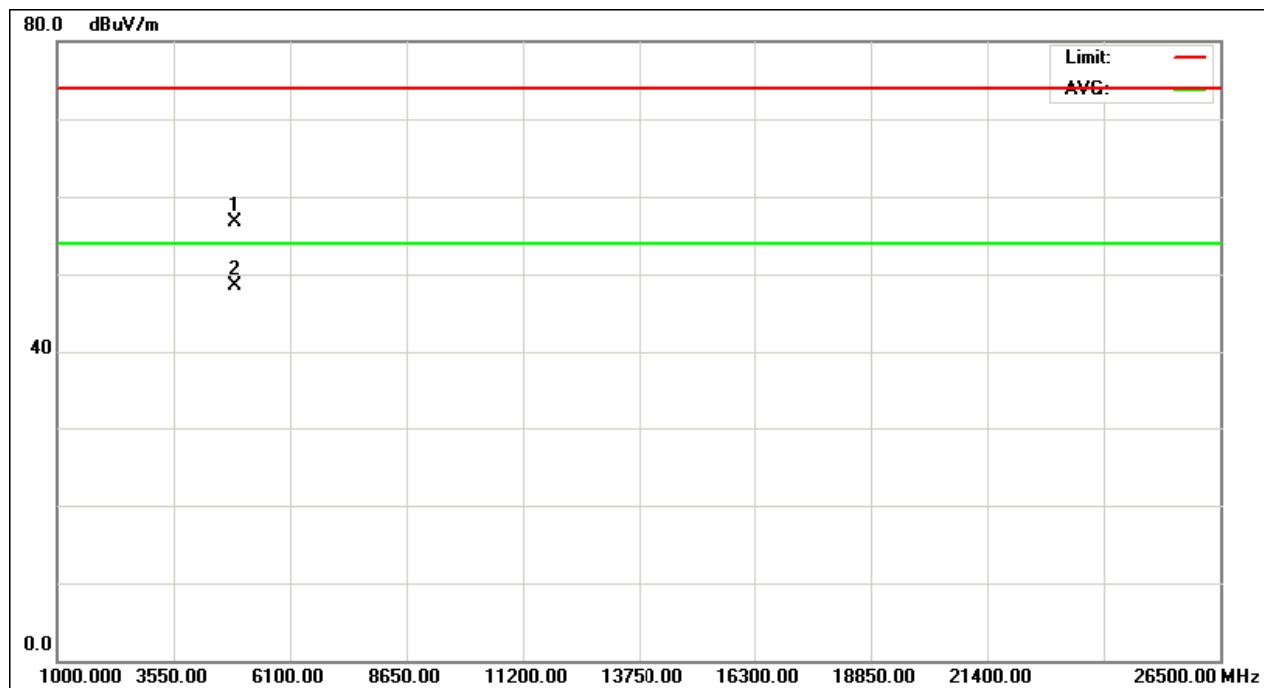
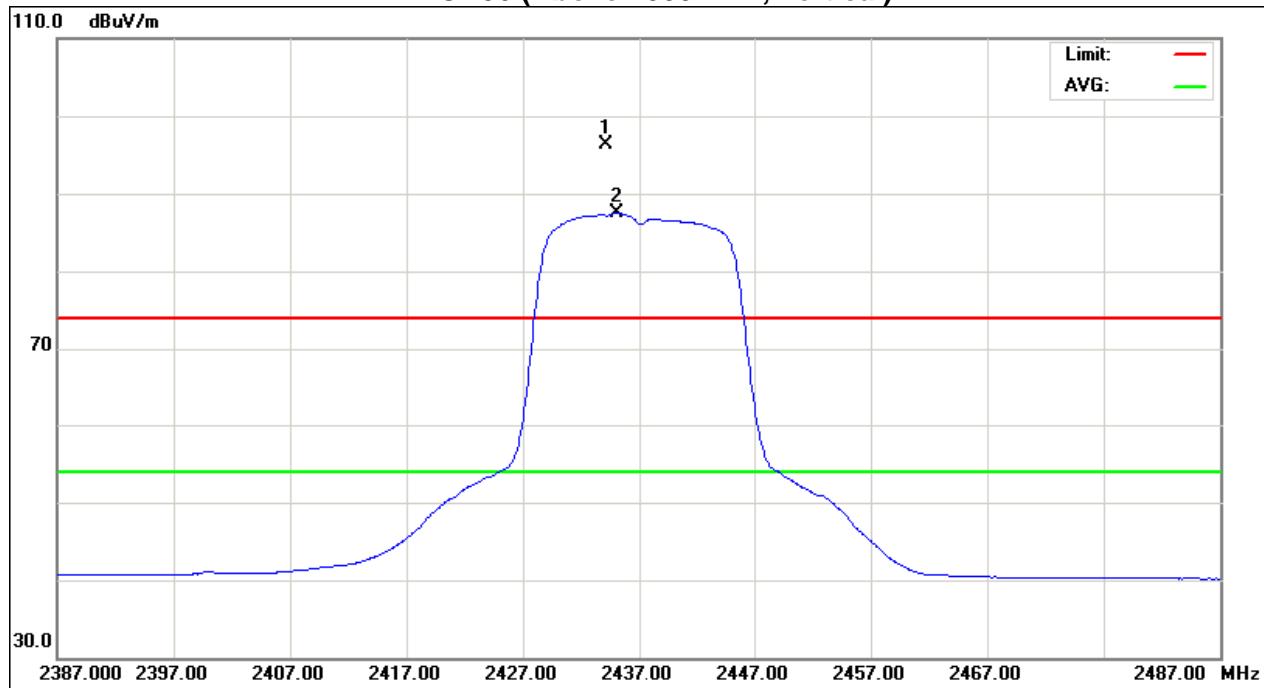
| Freq. (MHz) | Ant.Pol. H/V | Reading | | Ant./CF CF(dB) | Act. | | Limit | | Note |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------|
| | | Peak (dBuV) | AV (dBuV) | | Peak (dBuV/m) | AV (dBuV/m) | Peak (dBuV/m) | AV (dBuV/m) | |
| 2434.10 | V | 63.96 | 55.23 | 32.30 | 96.26 | 87.52 | | | X/F |
| 4873.12 | V | 51.54 | 43.31 | 5.18 | 56.72 | 48.49 | 74.00 | 54.00 | 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 CH06 (Above 1000 MHz, Vertical)





| | | | |
|---------------|-------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX G MODE 2437MHz | | |

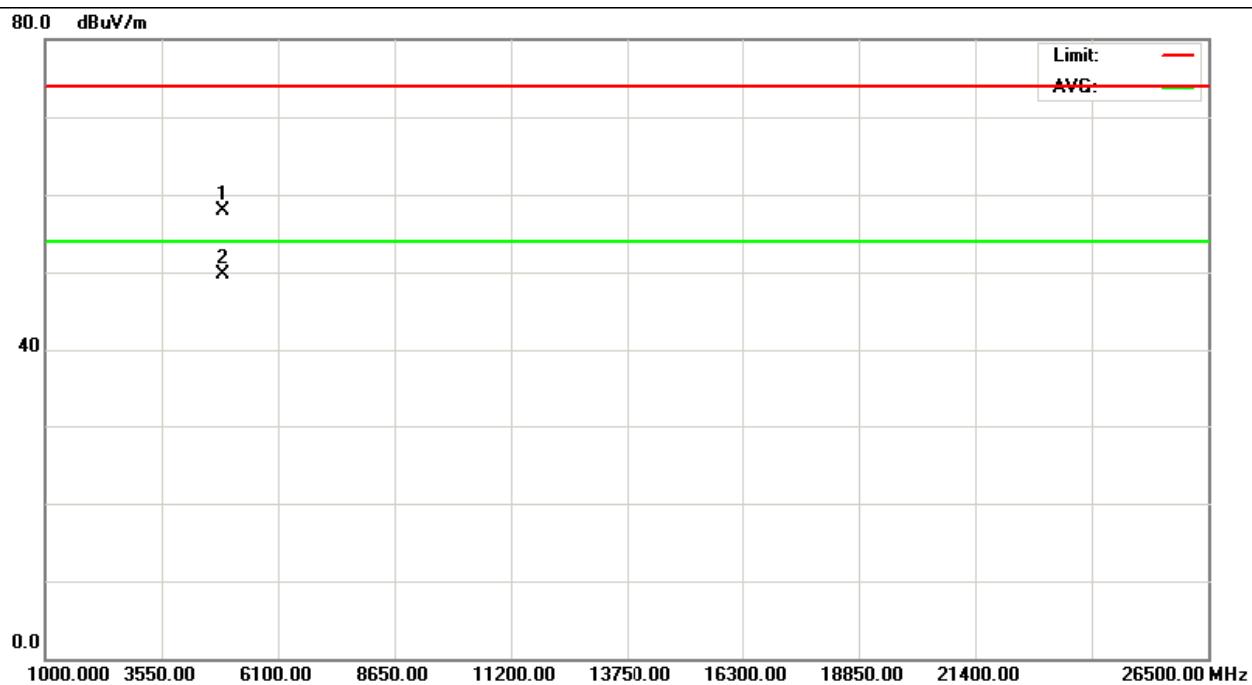
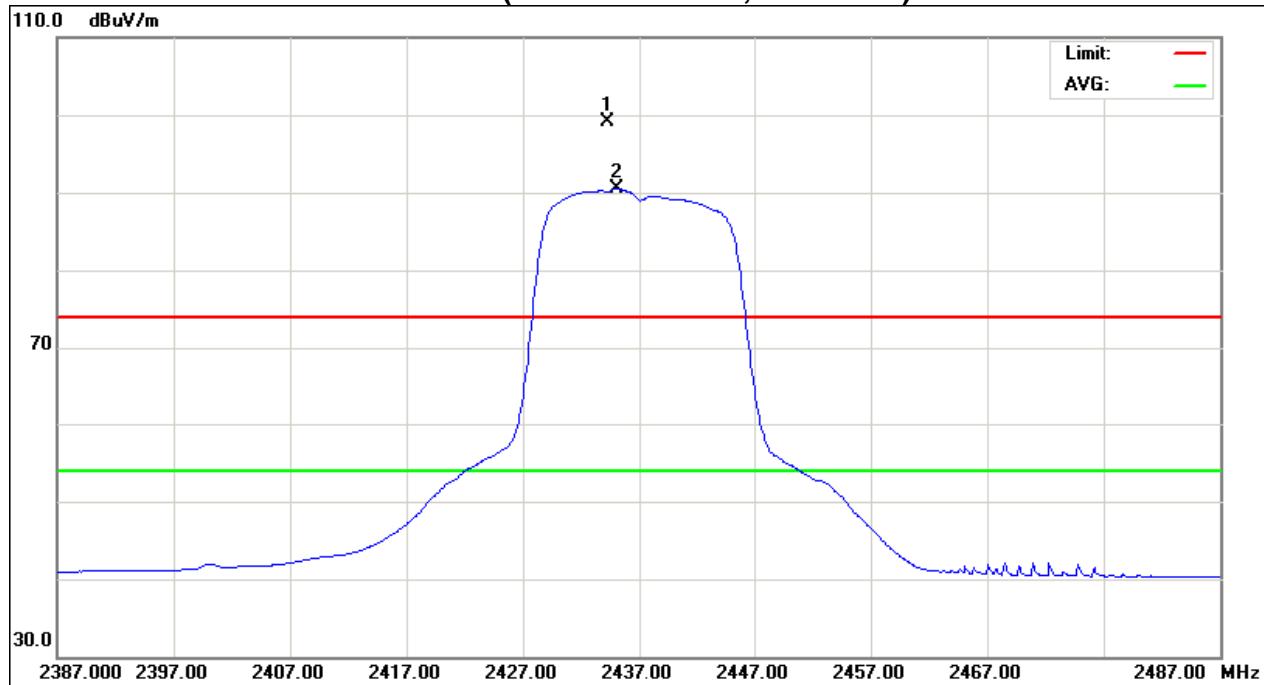
| Freq. (MHz) | Ant.Pol. H/V | Reading | | Ant./CF CF(dB) | Act. | | Limit | | Note |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------|
| | | Peak (dBuV) | AV (dBuV) | | Peak (dBuV/m) | AV (dBuV/m) | Peak (dBuV/m) | AV (dBuV/m) | |
| 2434.20 | H | 66.88 | 58.21 | 32.30 | 99.18 | 90.50 | | | X/F |
| 4875.28 | H | 52.68 | 44.43 | 5.18 | 57.86 | 49.61 | 74.00 | 54.00 | 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 CH06 (Above 1000 MHz, Horizontal)





| | | | |
|---------------|-------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX G MODE 2462MHz | | |

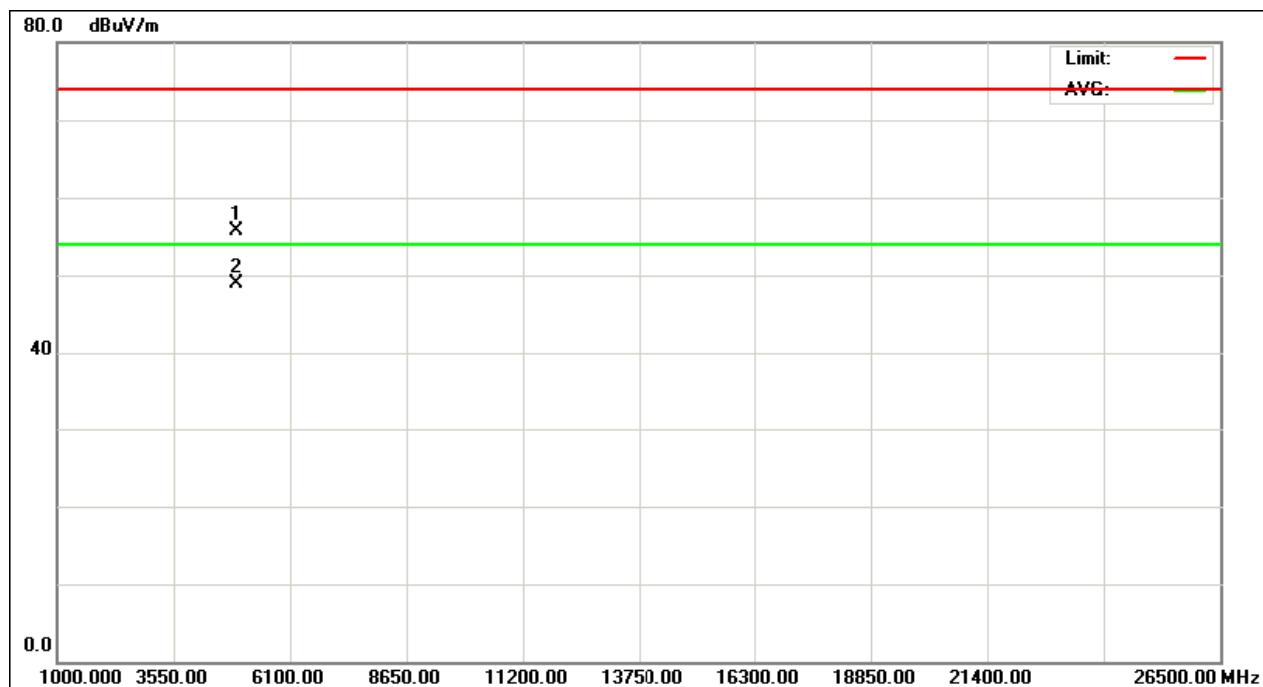
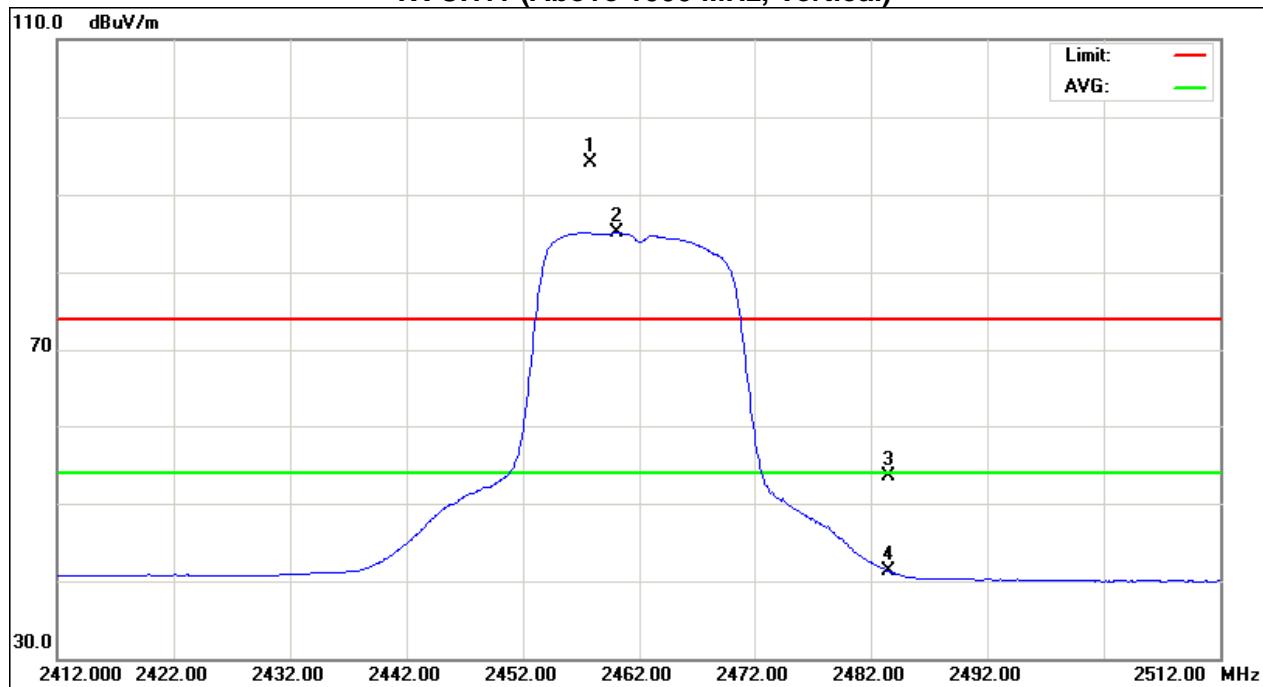
| Freq. | Ant.Pol. | Reading | | Ant./CF | Act. | | Limit | | Note |
|----------------|----------|--------------|--------------|--------------|--------------|--------------|----------|----------|------------|
| | | Peak | AV | | Peak | AV | Peak | AV | |
| (MHz) | H/V | (dBuV) | (dBuV) | CF(dB) | (dBuV/m) | (dBuV/m) | (dBuV/m) | (dBuV/m) | |
| 2460.10 | V | 61.75 | 52.87 | 32.29 | 94.04 | 85.16 | | | X/F |
| 2483.50 | V | 21.22 | 8.98 | 32.29 | 53.51 | 41.27 | 74.00 | 54.00 | X/E |
| 4925.72 | V | 50.36 | 43.58 | 5.3 | 55.66 | 48.88 | 74.00 | 54.00 | 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 CH11 (Above 1000 MHz, Vertical)





| | | | |
|---------------|-------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX G MODE 2462MHz | | |

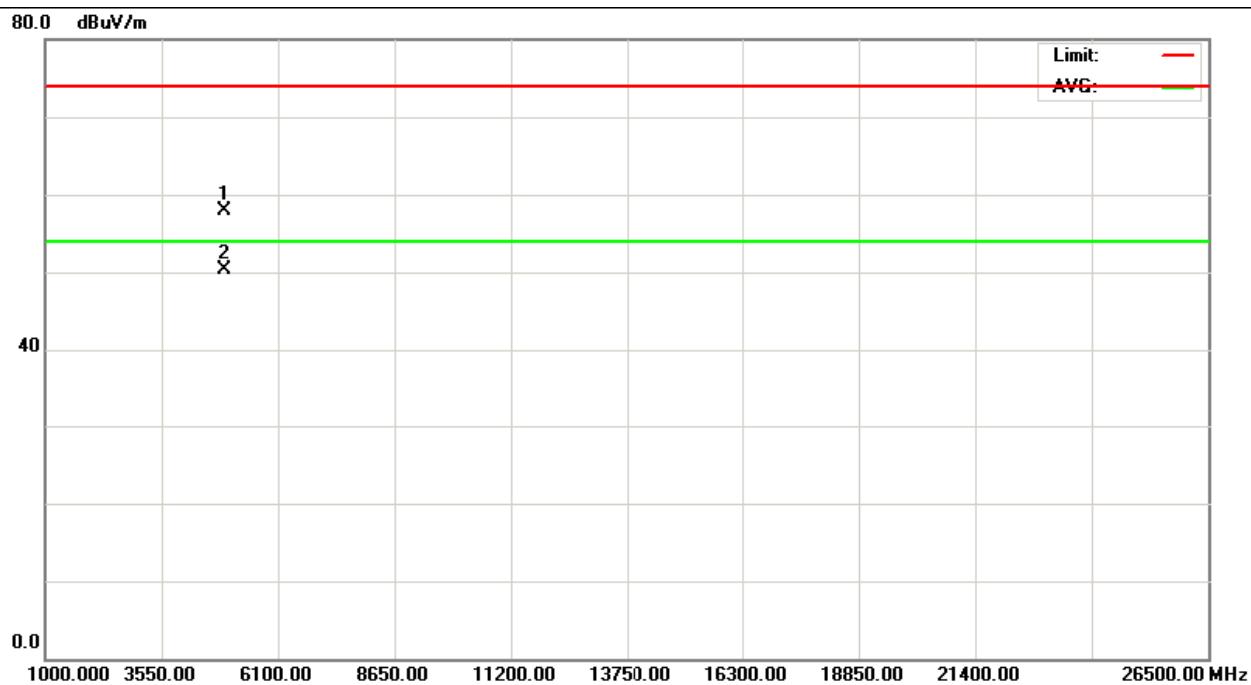
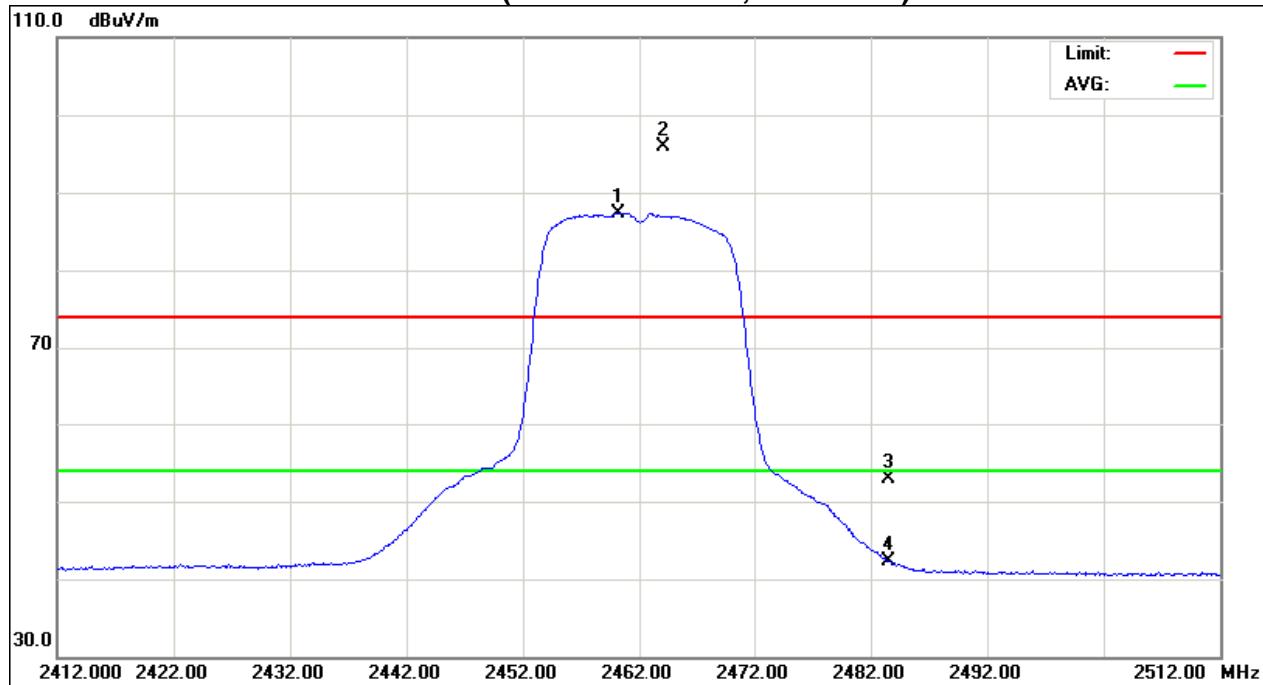
| Freq. (MHz) | Ant.Pol. H/V | Reading | | Ant./CF CF(dB) | Act. | | Limit | | Note |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------|
| | | Peak (dBuV) | AV (dBuV) | | Peak (dBuV/m) | AV (dBuV/m) | Peak (dBuV/m) | AV (dBuV/m) | |
| 2460.20 | H | 63.56 | 55.11 | 32.29 | 95.85 | 87.40 | | | X/F |
| 2483.50 | H | 20.61 | 10.07 | 32.29 | 52.90 | 42.36 | 74.00 | 54.00 | X/E |
| 4922.88 | H | 52.64 | 45.01 | 5.30 | 57.94 | 50.31 | 74.00 | 54.00 | 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 CH11 (Above 1000 MHz, Horizontal)





| | | | |
|---------------|-------------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX N MODE-20MHz 2412MHz | | |

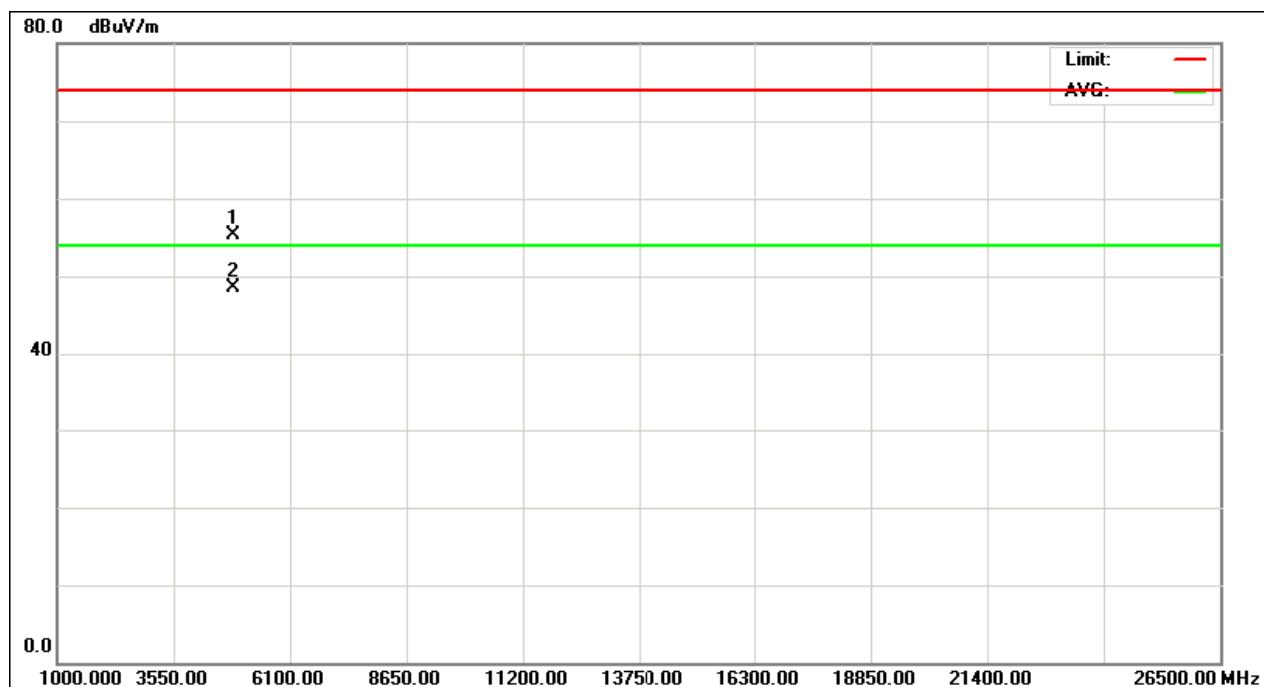
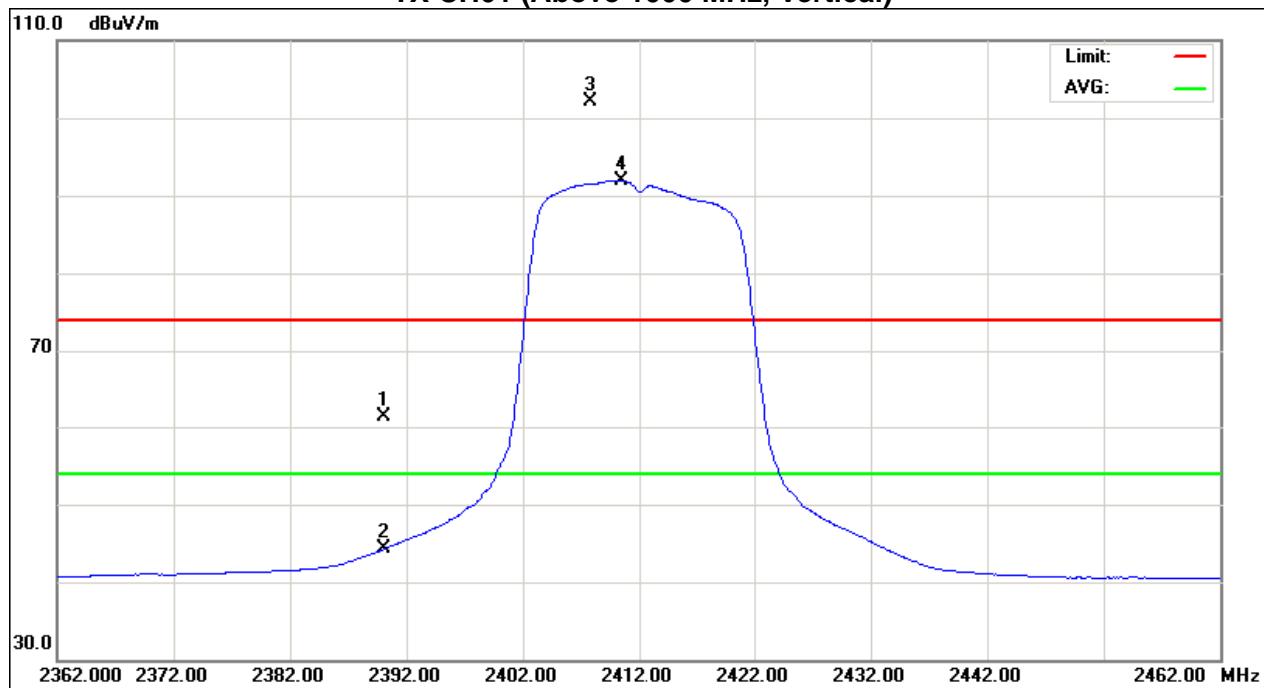
| Freq. (MHz) | Ant.Pol. H/V | Reading | | Ant./CF CF(dB) | Act. | | Limit | | Note |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------------|
| | | Peak (dBuV) | AV (dBuV) | | Peak (dBuV/m) | AV (dBuV/m) | Peak (dBuV/m) | AV (dBuV/m) | |
| 2390.00 | V | 29.03 | 11.95 | 32.30 | 61.33 | 44.25 | 74.00 | 54.00 | X/E |
| 2407.80 | V | 69.85 | 59.67 | 32.30 | 102.15 | 91.97 | | | X/F |
| 4825.69 | V | 50.33 | 43.51 | 5.06 | 55.39 | 48.57 | 74.00 | 54.00 | 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 CH01 (Above 1000 MHz, Vertical)





| | | | |
|---------------|-------------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX N MODE-20MHz 2412MHz | | |

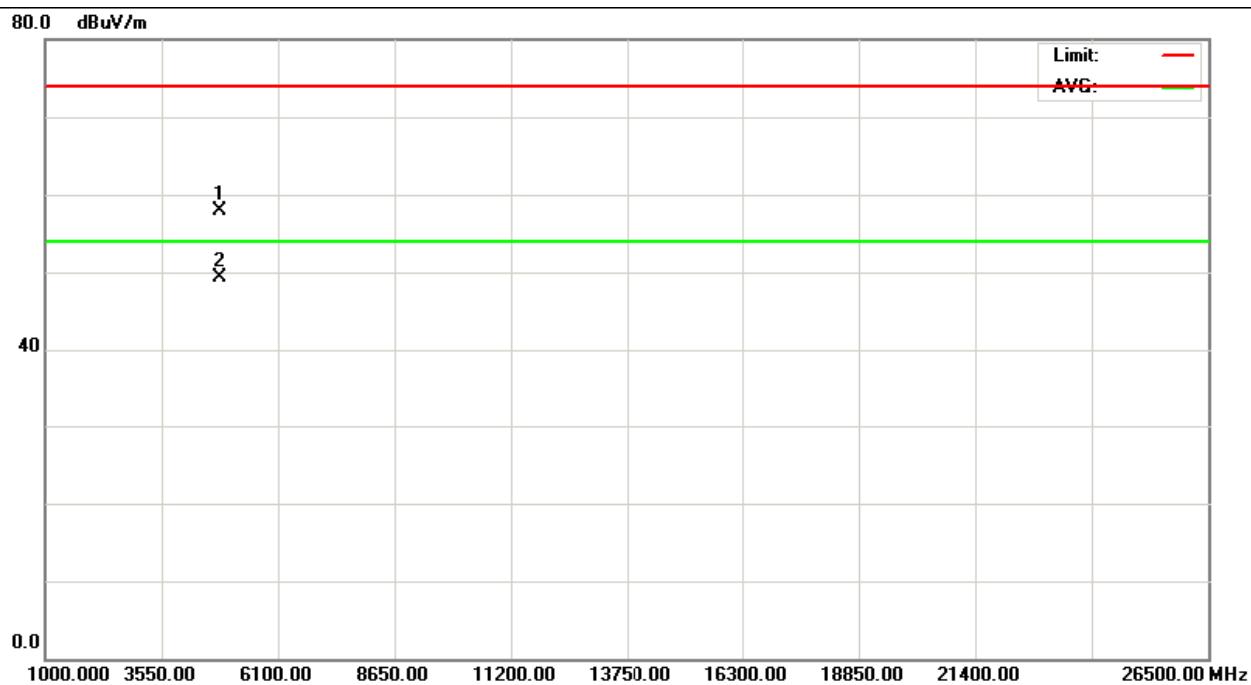
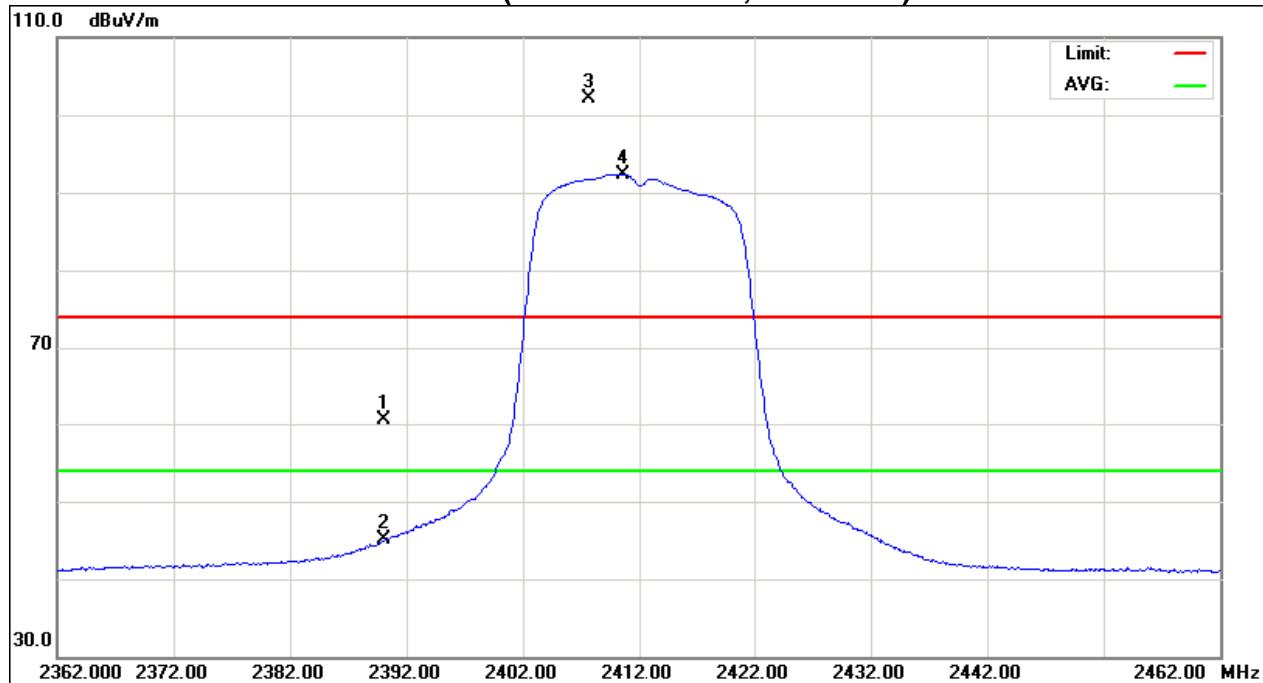
| Freq. (MHz) | Ant.Pol. H/V | Reading | | Ant./CF CF(dB) | Act. | | Limit | | Note |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------------|
| | | Peak (dBuV) | AV (dBuV) | | Peak (dBuV/m) | AV (dBuV/m) | Peak (dBuV/m) | AV (dBuV/m) | |
| 2390.00 | H | 28.14 | 12.78 | 32.30 | 60.44 | 45.08 | 74.00 | 54.00 | X/E |
| 2407.70 | H | 69.85 | 60.10 | 32.30 | 102.15 | 92.40 | | | X/F |
| 4823.37 | H | 52.87 | 44.18 | 5.06 | 57.93 | 49.24 | 74.00 | 54.00 | 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 CH01 (Above 1000 MHz, Horizontal)





| | | | |
|---------------|-------------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX N MODE-20MHz 2437MHz | | |

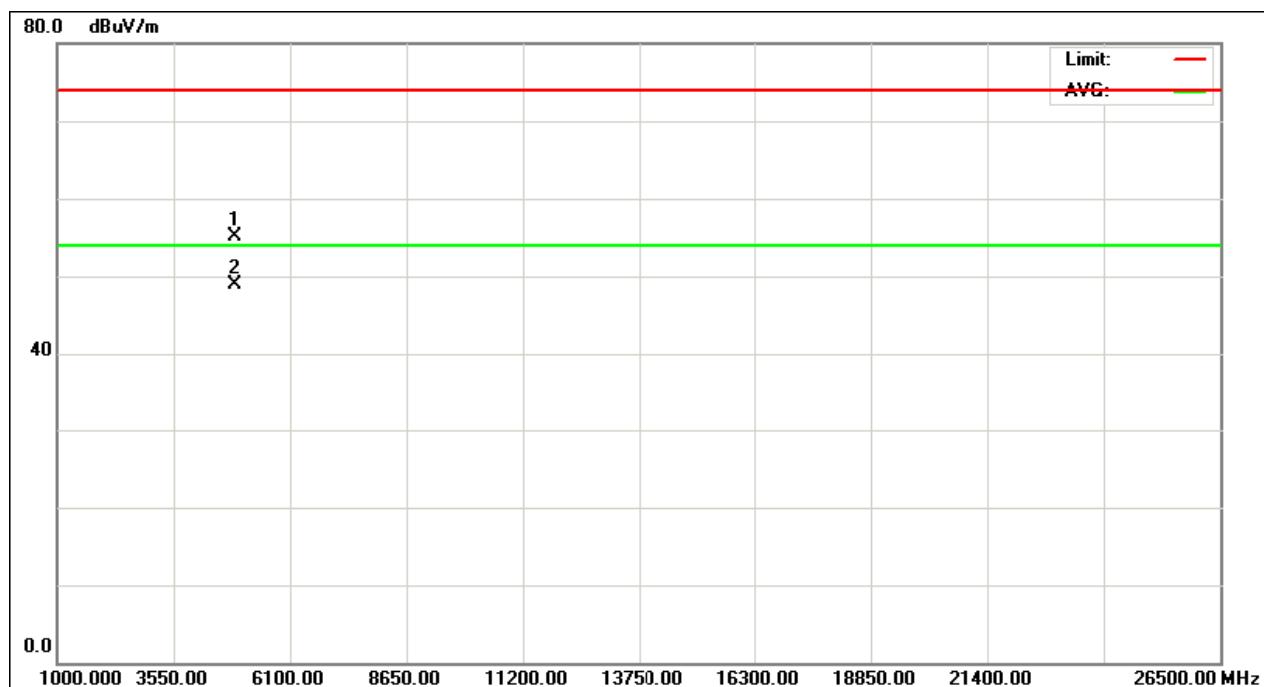
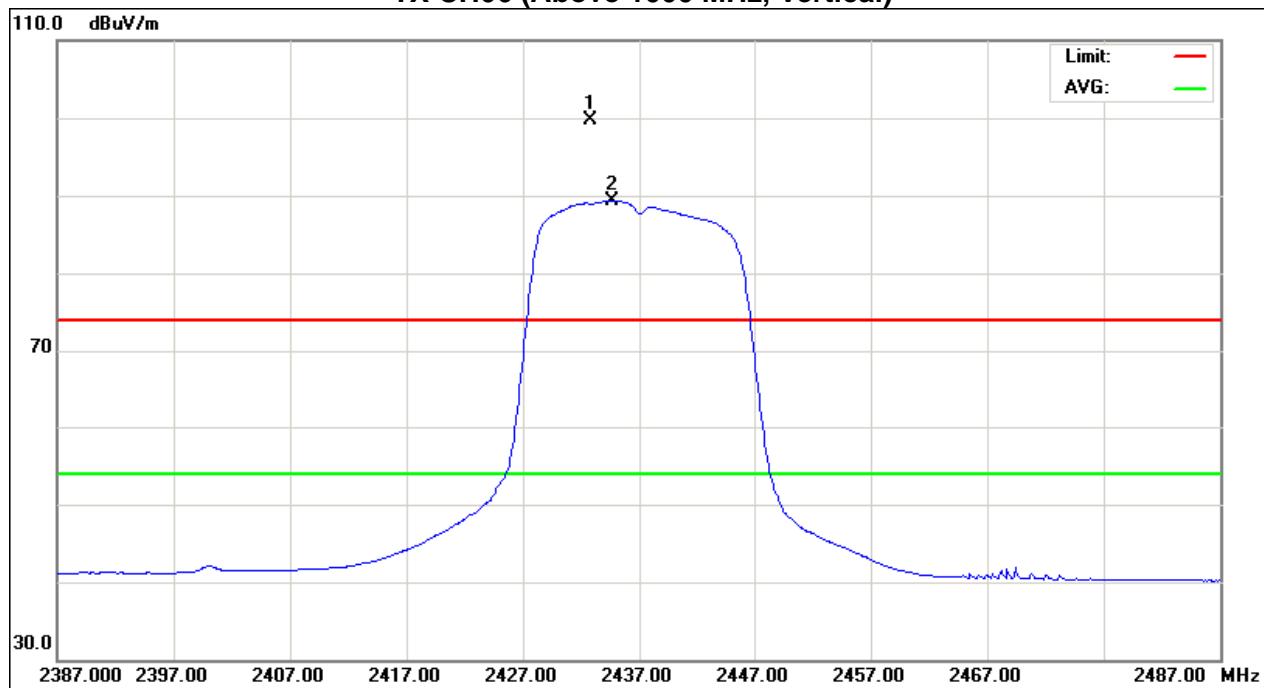
| Freq. (MHz) | Ant.Pol. H/V | Reading | | Ant./CF CF(dB) | Act. | | Limit | | Note |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------|
| | | Peak (dBuV) | AV (dBuV) | | Peak (dBuV/m) | AV (dBuV/m) | Peak (dBuV/m) | AV (dBuV/m) | |
| 2434.60 | V | 67.44 | 57.00 | 32.30 | 99.74 | 89.30 | | | X/F |
| 4874.98 | V | 49.88 | 43.65 | 5.18 | 55.06 | 48.83 | 74.00 | 54.00 | 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 CH06 (Above 1000 MHz, Vertical)





| | | | |
|---------------|-------------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX N MODE-20MHz 2437MHz | | |

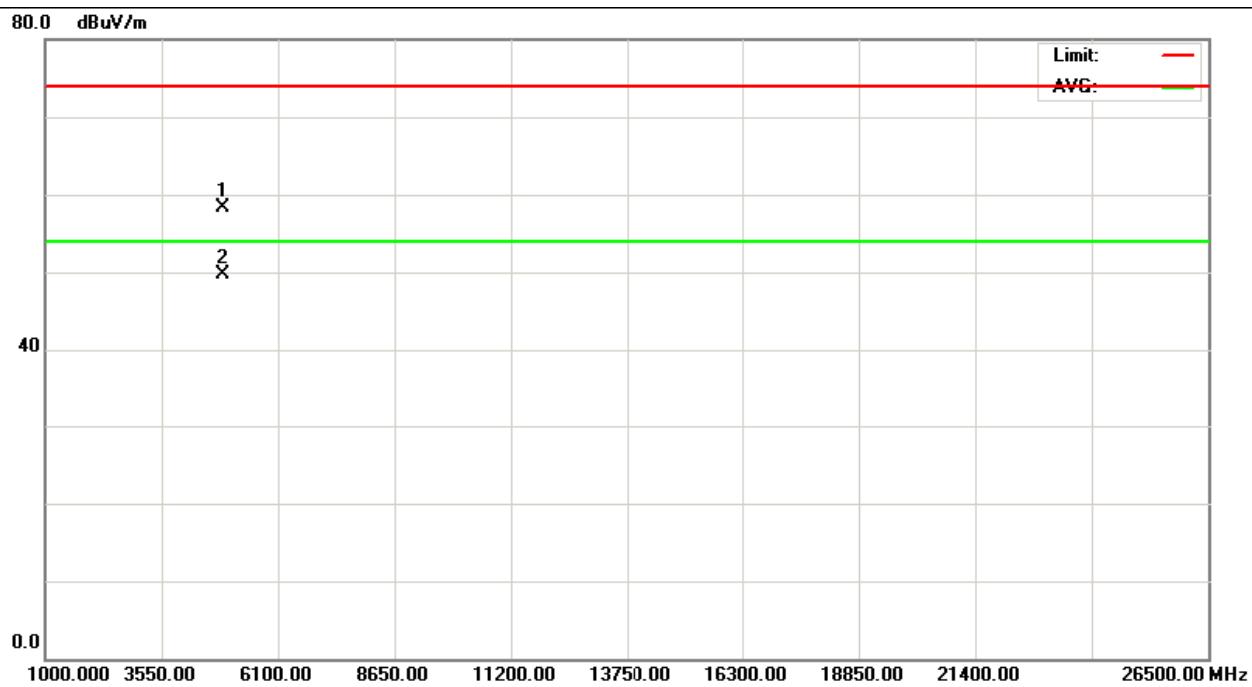
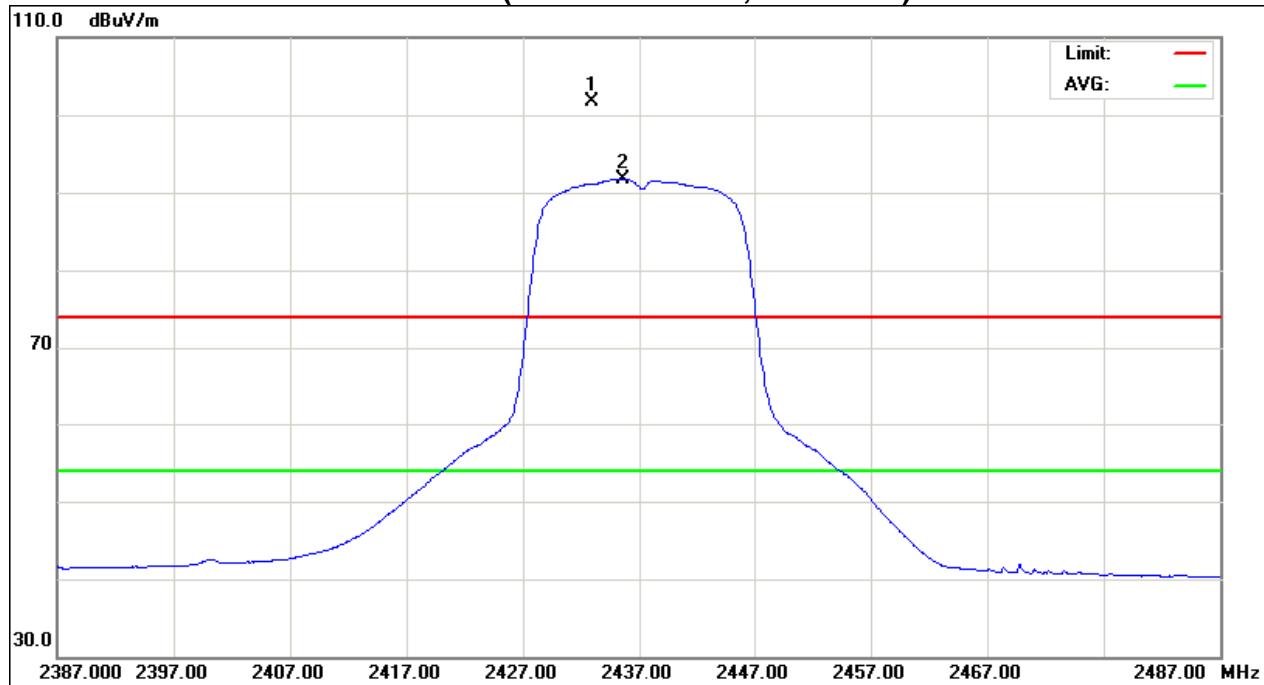
| Freq. (MHz) | Ant.Pol. | Reading | | Ant./CF CF(dB) | Act. | | Limit | | Note |
|----------------|----------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------|
| | | Peak (dBuV) | AV (dBuV) | | Peak (dBuV/m) | AV (dBuV/m) | Peak (dBuV/m) | AV (dBuV/m) | |
| 2432.90 | H | 69.32 | 59.44 | 32.30 | 101.62 | 91.73 | | | X/F |
| 4872.69 | H | 53.21 | 44.58 | 5.18 | 58.39 | 49.76 | 74.00 | 54.00 | 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 CH06 (Above 1000 MHz, Horizontal)





| | | | |
|---------------|-------------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX N MODE-20MHz 2462MHz | | |

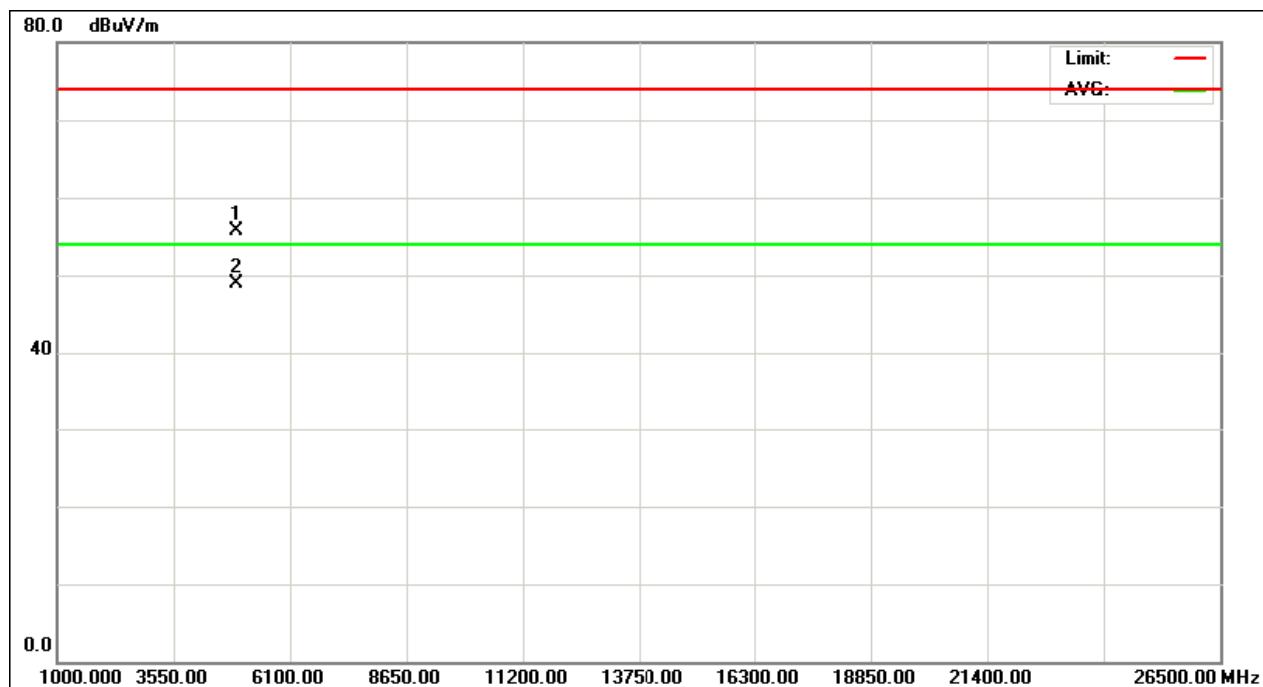
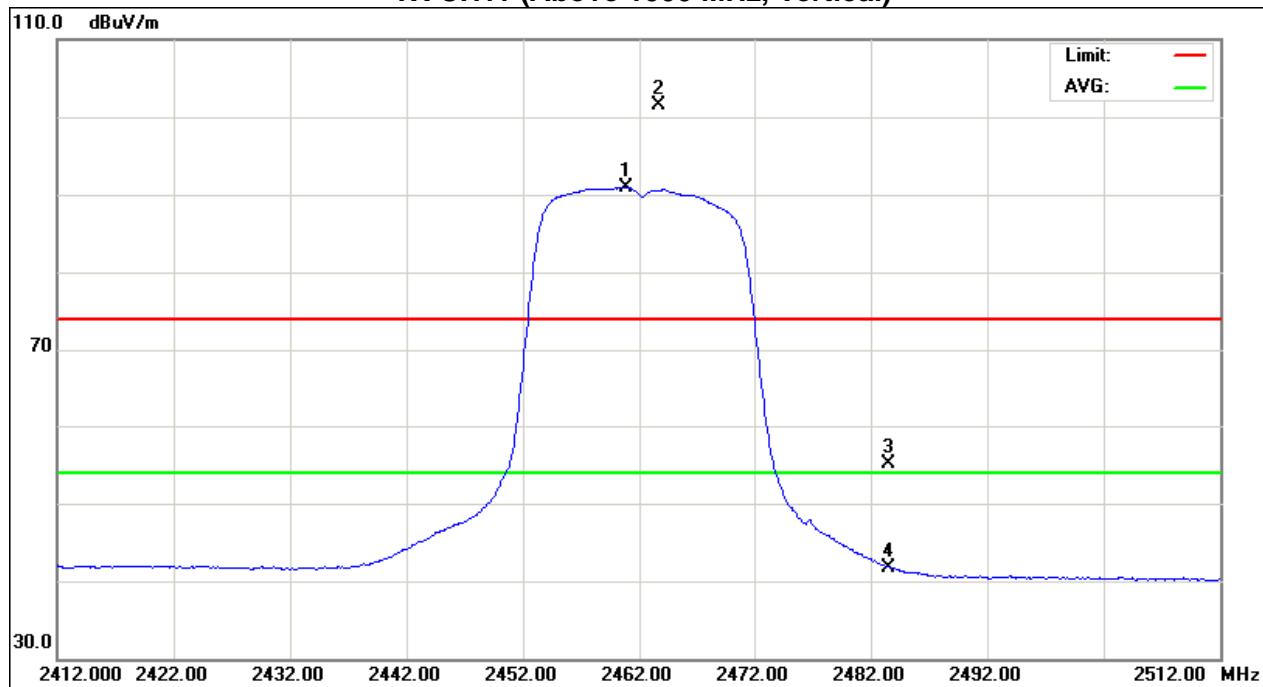
| Freq. | Ant.Pol. | Reading | | Ant./CF | Act. | | Limit | | Note |
|----------------|----------|--------------|--------------|--------------|---------------|--------------|----------|----------|------------|
| | | Peak | AV | | Peak | AV | Peak | AV | |
| (MHz) | H/V | (dBuV) | (dBuV) | CF(dB) | (dBuV/m) | (dBuV/m) | (dBuV/m) | (dBuV/m) | |
| 2460.80 | V | 69.14 | 58.61 | 32.29 | 101.43 | 90.90 | | | X/F |
| 2483.50 | V | 22.86 | 9.45 | 32.29 | 55.15 | 41.74 | 74.00 | 54.00 | X/E |
| 4926.38 | V | 50.36 | 43.54 | 5.30 | 55.66 | 48.84 | 74.00 | 54.00 | 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 CH11 (Above 1000 MHz, Vertical)





| | | | |
|---------------|-------------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX N MODE-20MHz 2462MHz | | |

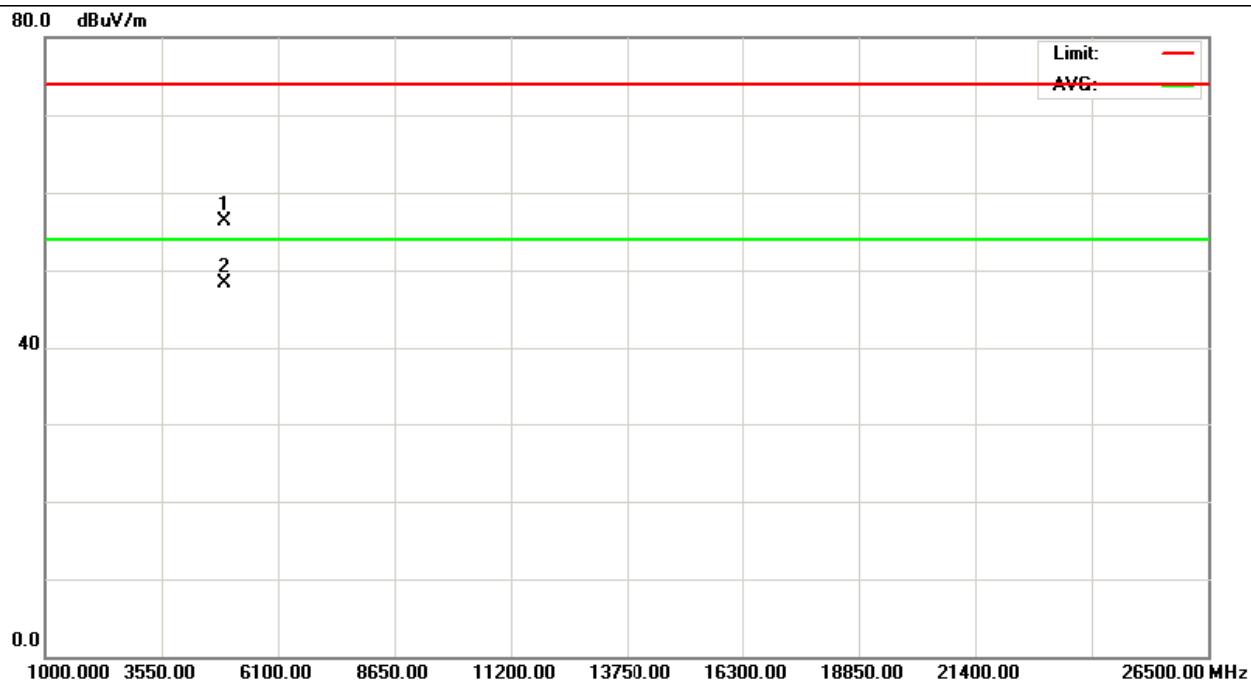
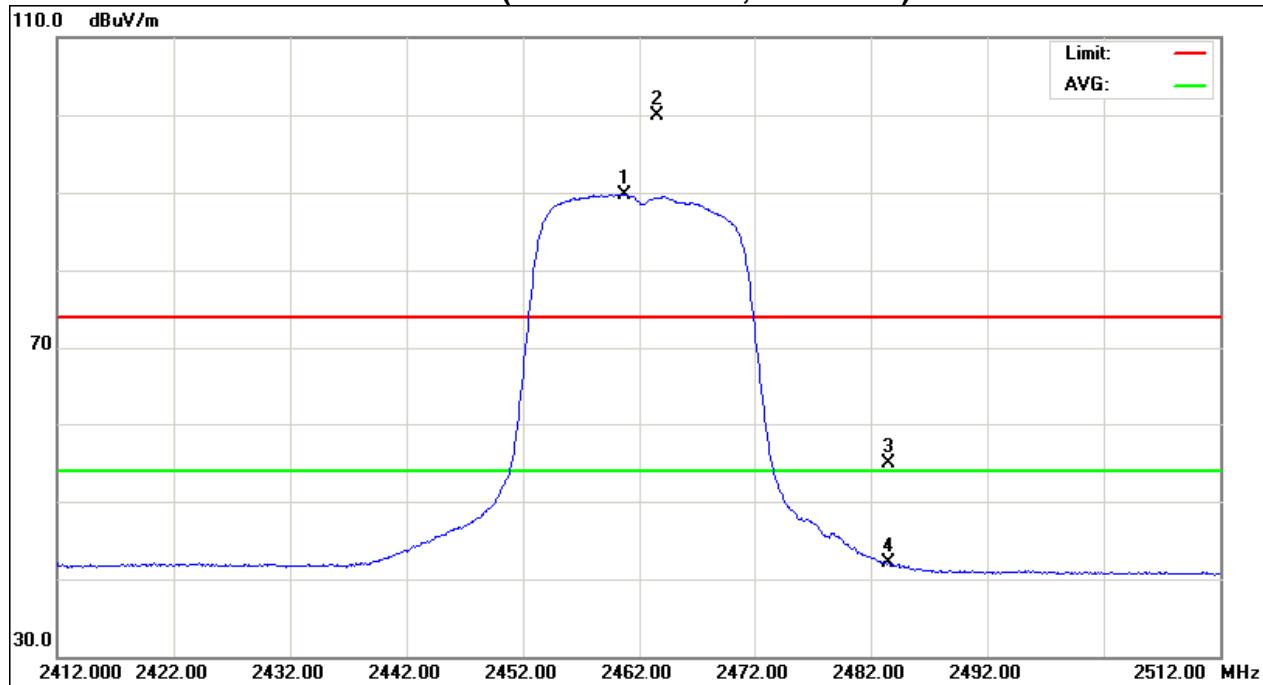
| Freq. (MHz) | Ant.Pol. H/V | Reading | | Ant./CF CF(dB) | Act. | | Limit | | Note |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------|
| | | Peak (dBuV) | AV (dBuV) | | Peak (dBuV/m) | AV (dBuV/m) | Peak (dBuV/m) | AV (dBuV/m) | |
| 2460.70 | H | 67.60 | 57.45 | 32.29 | 99.89 | 89.74 | | | X/F |
| 2483.50 | H | 22.68 | 9.73 | 32.29 | 54.97 | 42.02 | 74.00 | 54.00 | X/E |
| 4924.87 | H | 51.00 | 43.00 | 5.30 | 56.30 | 48.30 | 74.00 | 54.00 | 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 CH11 (Above 1000 MHz, Horizontal)





| | | | |
|---------------|-------------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX N MODE-40MHz 2422MHz | | |

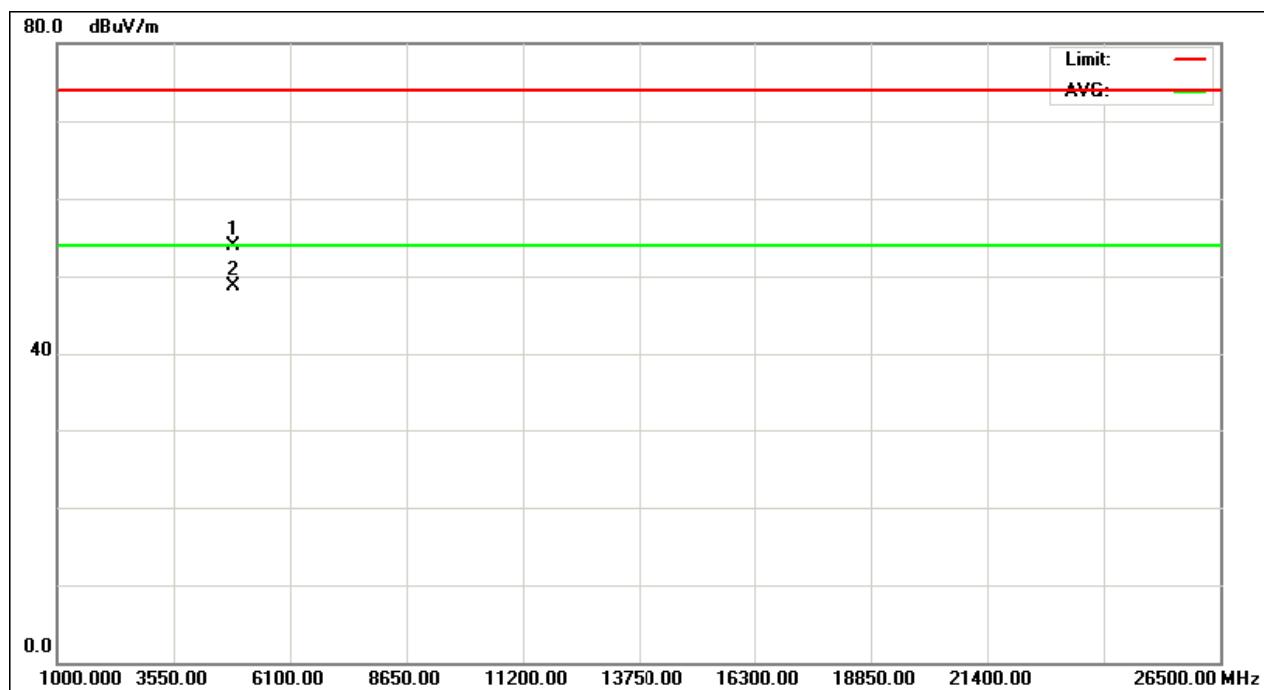
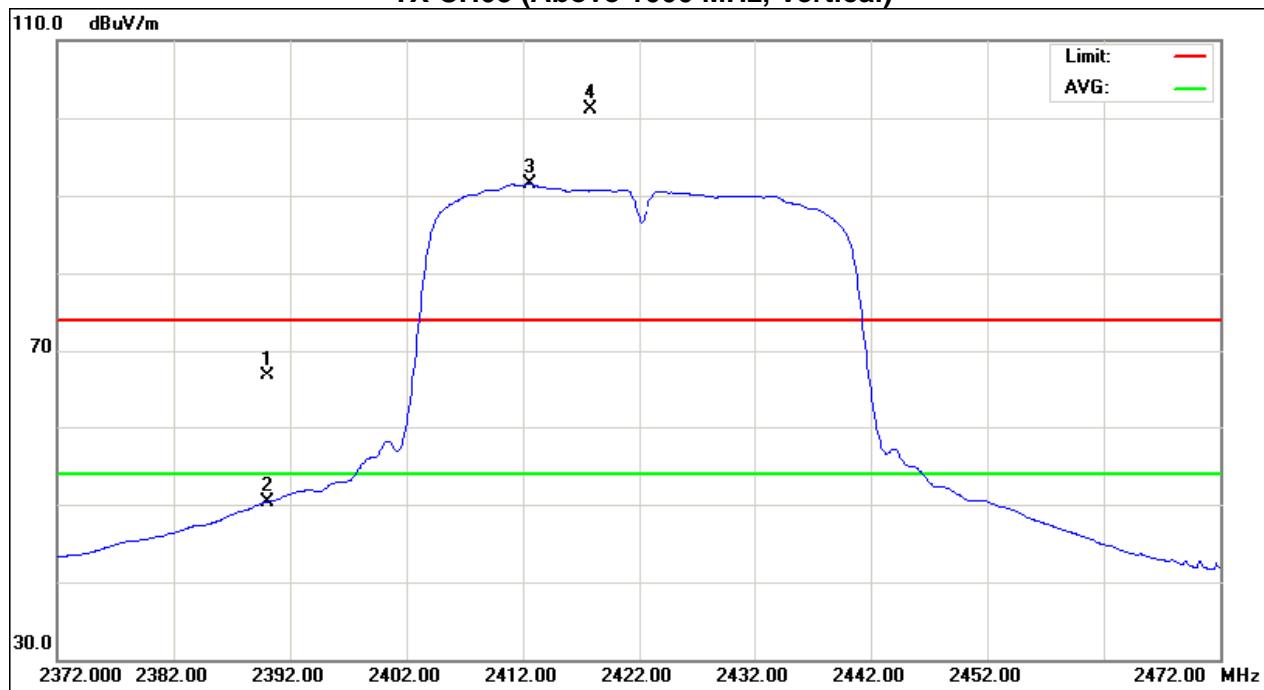
| Freq. (MHz) | Ant.Pol. H/V | Reading | | Ant./CF CF(dB) | Act. | | Limit | | Note |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------------|
| | | Peak (dBuV) | AV (dBuV) | | Peak (dBuV/m) | AV (dBuV/m) | Peak (dBuV/m) | AV (dBuV/m) | |
| 2390.00 | V | 34.33 | 18.02 | 32.30 | 66.63 | 50.32 | 74.00 | 54.00 | X/E |
| 2412.60 | V | 68.86 | 59.13 | 32.30 | 101.16 | 91.43 | | | X/F |
| 4849.45 | V | 48.69 | 43.55 | 5.12 | 53.81 | 48.67 | 74.00 | 54.00 | 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 CH03 (Above 1000 MHz, Vertical)





| | | | |
|---------------|-------------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX N MODE-40MHz 2422MHz | | |

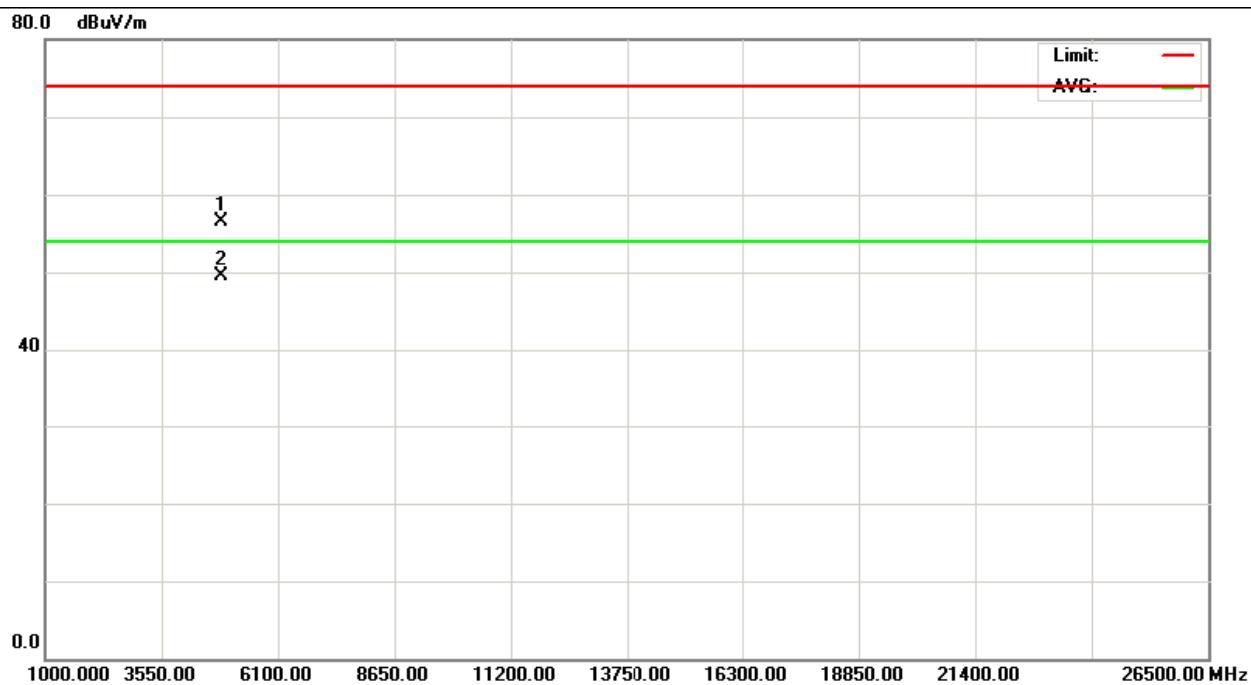
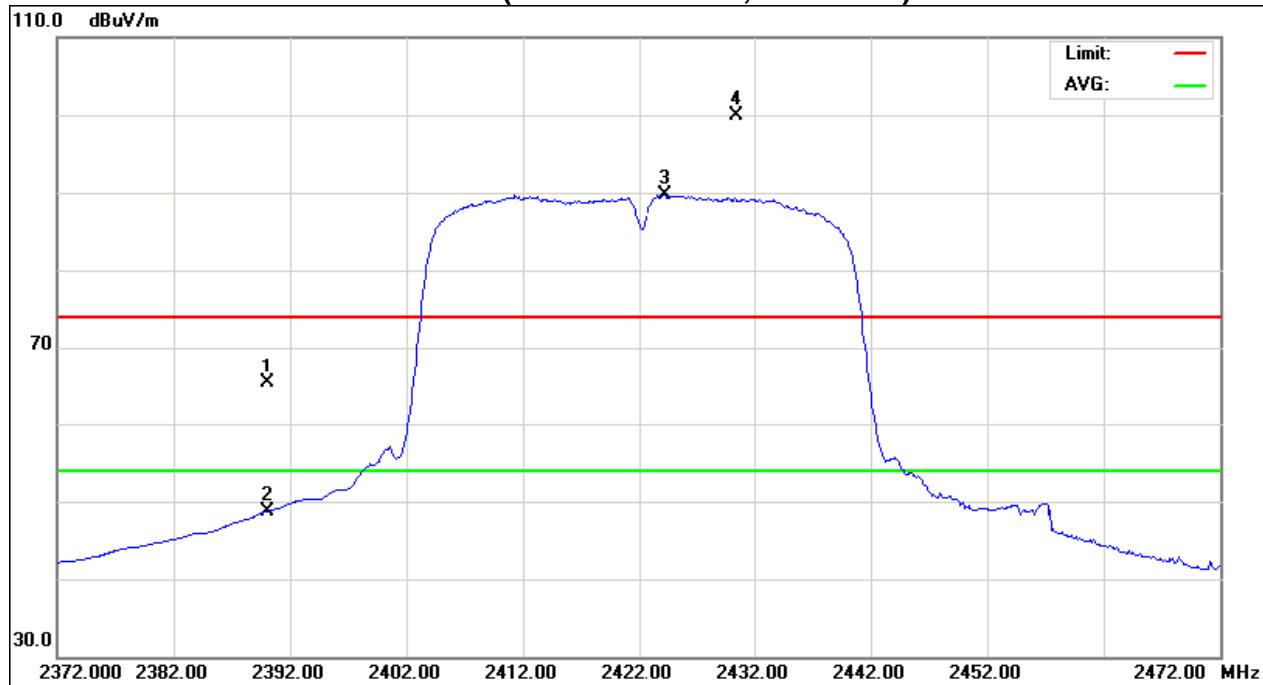
| Freq. (MHz) | Ant.Pol. H/V | Reading | | Ant./CF CF(dB) | Act. | | Limit | | Note |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------------|
| | | Peak (dBuV) | AV (dBuV) | | Peak (dBuV/m) | AV (dBuV/m) | Peak (dBuV/m) | AV (dBuV/m) | |
| 2390.00 | H | 33.00 | 16.42 | 32.30 | 65.30 | 48.72 | 74.00 | 54.00 | X/E |
| 2430.50 | H | 67.56 | 57.45 | 32.30 | 99.86 | 89.75 | | | X/F |
| 4850.00 | H | 51.36 | 44.32 | 5.12 | 56.48 | 49.44 | 74.00 | 54.00 | 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 CH03 (Above 1000 MHz, Horizontal)





| | | | |
|---------------|-------------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX N MODE-40MHz 2437MHz | | |

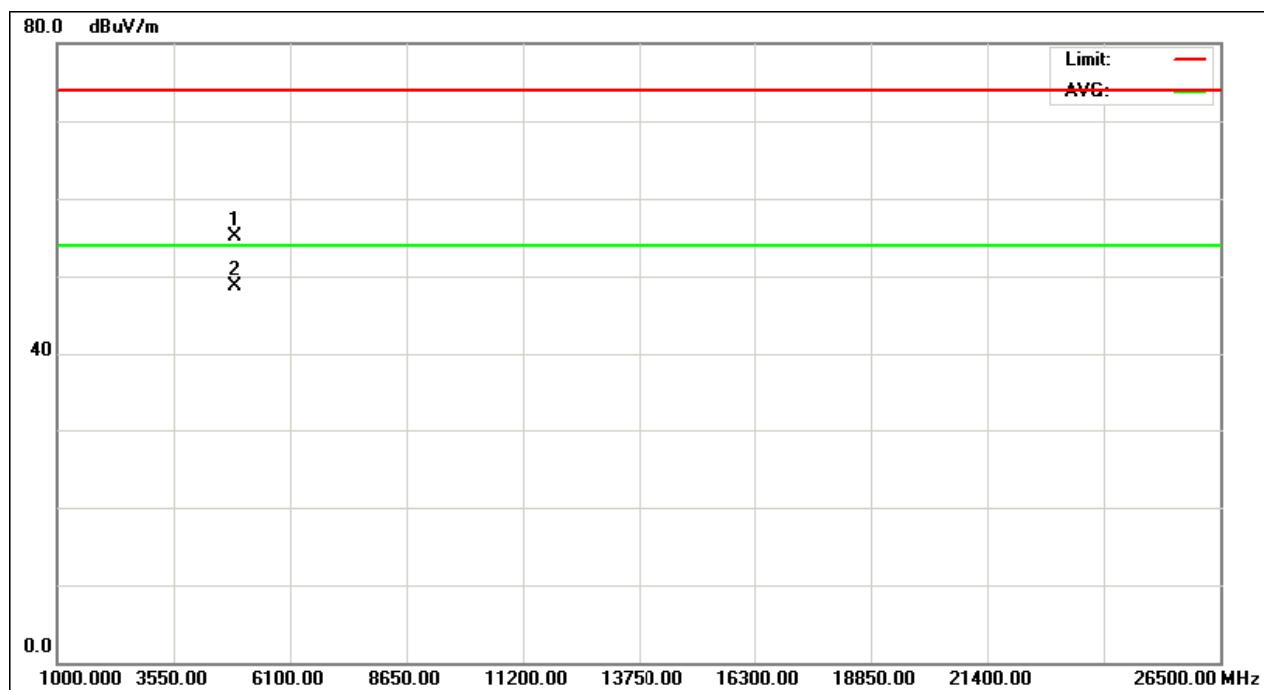
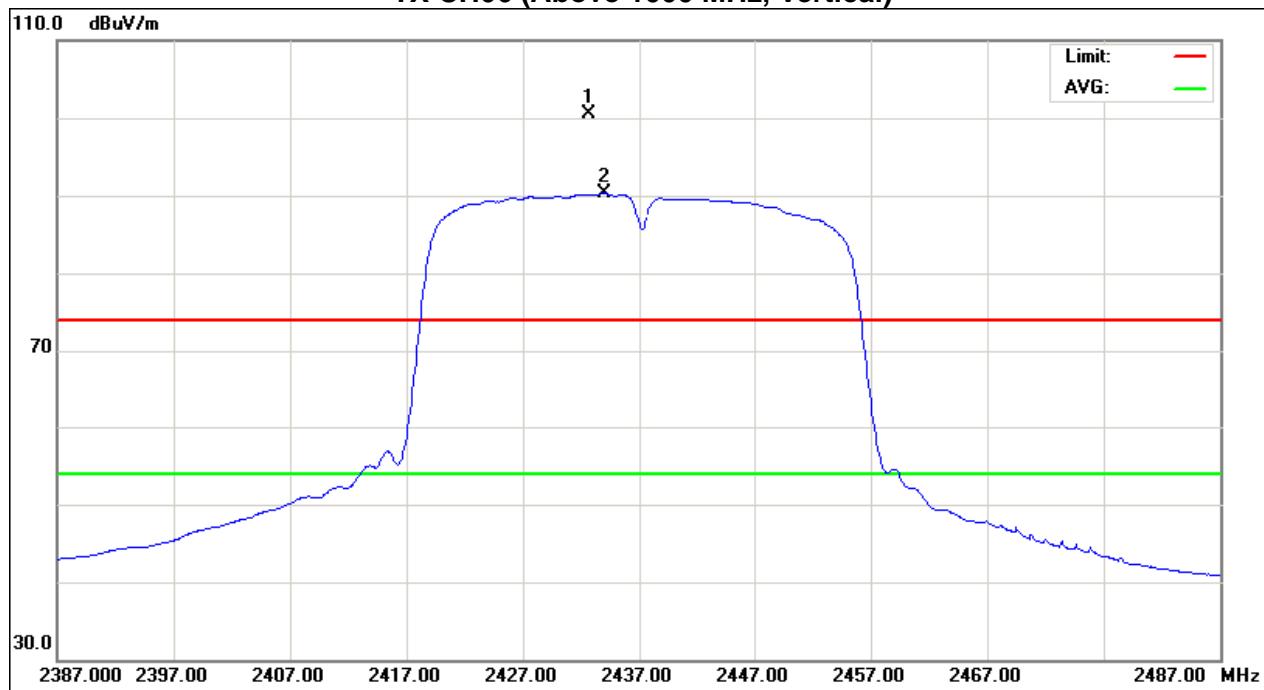
| Freq. (MHz) | Ant.Pol. H/V | Reading | | Ant./CF CF(dB) | Act. | | Limit | | Note |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------|
| | | Peak (dBuV) | AV (dBuV) | | Peak (dBuV/m) | AV (dBuV/m) | Peak (dBuV/m) | AV (dBuV/m) | |
| 2432.60 | V | 68.19 | 57.91 | 32.30 | 100.49 | 90.21 | | | X/F |
| 4876.65 | V | 49.87 | 43.44 | 5.18 | 55.05 | 48.62 | 74.00 | 54.00 | 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 CH06 (Above 1000 MHz, Vertical)





| | | | |
|---------------|-------------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX N MODE-40MHz 2437MHz | | |

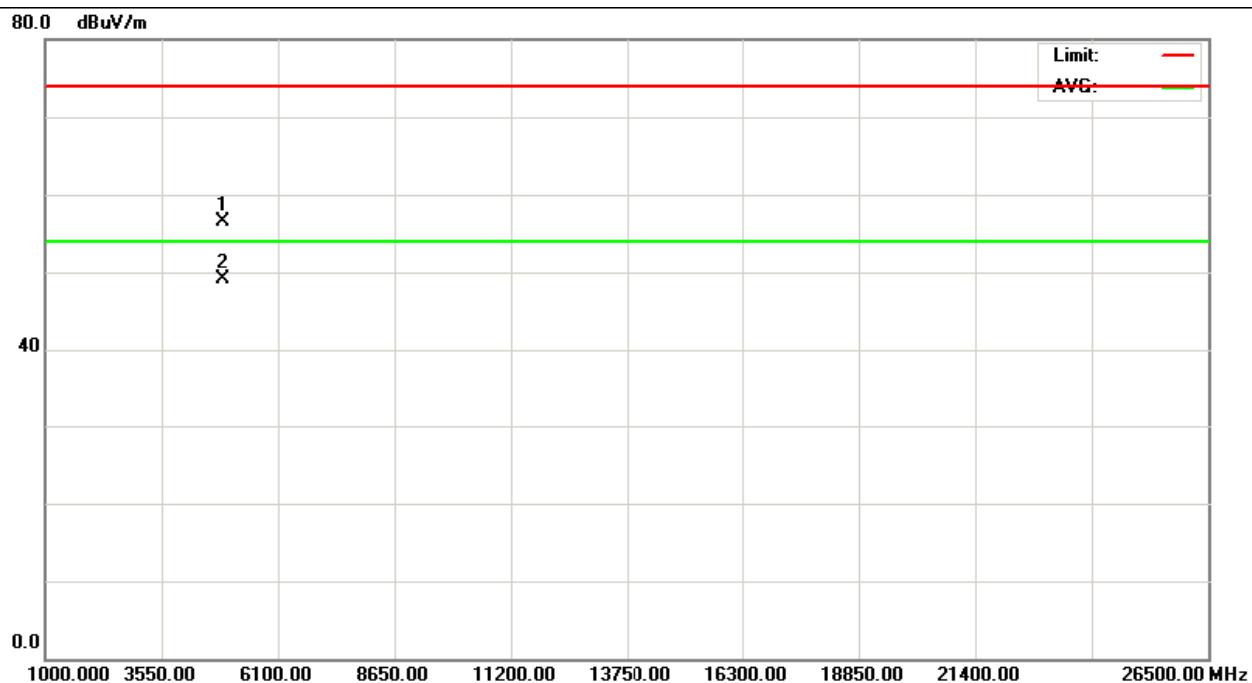
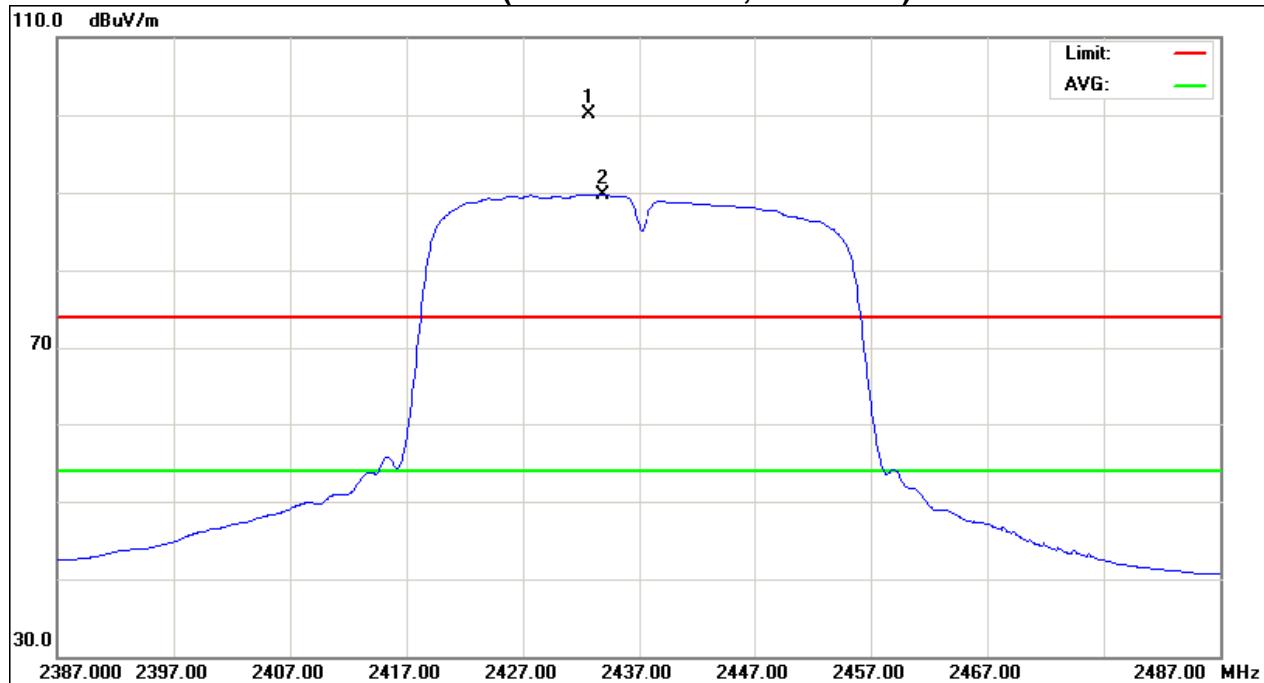
| Freq. (MHz) | Ant.Pol. | Reading | | Ant./CF CF(dB) | Act. | | Limit | | Note |
|----------------|----------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------|
| | | Peak (dBuV) | AV (dBuV) | | Peak (dBuV/m) | AV (dBuV/m) | Peak (dBuV/m) | AV (dBuV/m) | |
| 2432.70 | H | 67.89 | 57.42 | 32.30 | 100.19 | 89.72 | | | X/F |
| 4876.87 | H | 51.33 | 43.89 | 5.18 | 56.51 | 49.07 | 74.00 | 54.00 | 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 CH06 (Above 1000 MHz, Horizontal)





| | | | |
|---------------|-------------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX N MODE-40MHz 2452MHz | | |

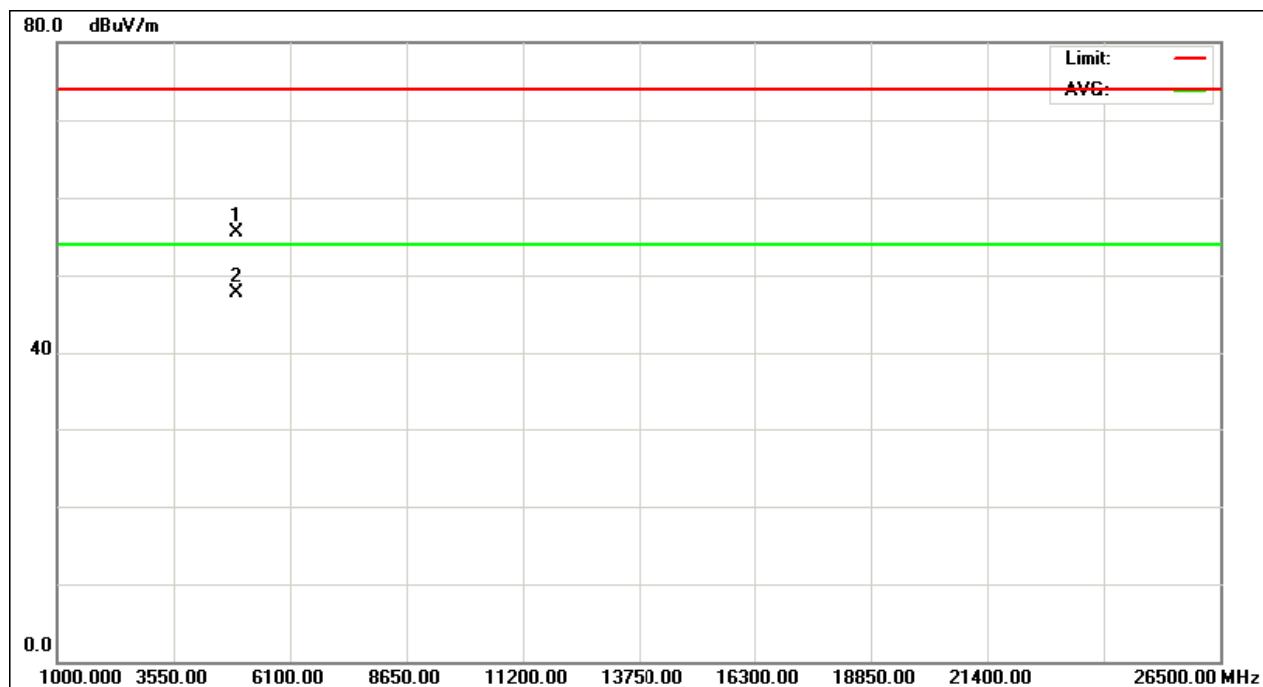
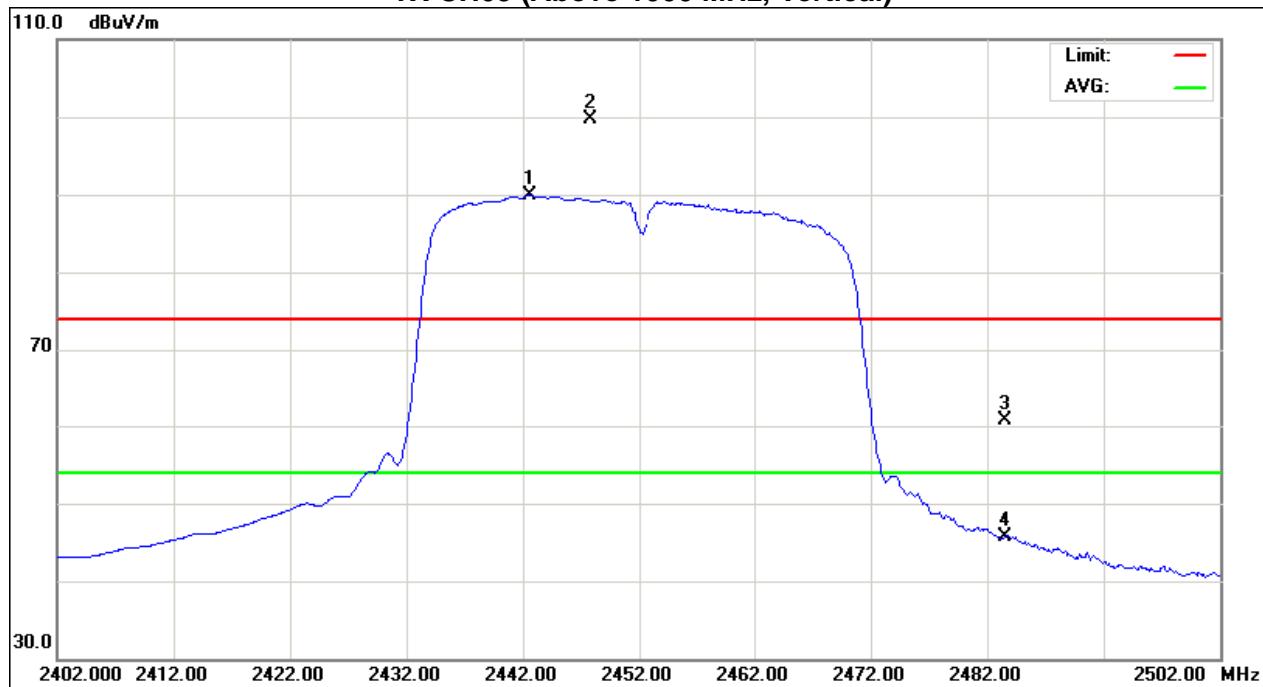
| Freq. | Ant.Pol. | Reading | | Ant./CF | Act. | | Limit | | Note |
|----------------|----------|--------------|--------------|--------------|--------------|--------------|----------|----------|------------|
| | | Peak | AV | | Peak | AV | Peak | AV | |
| (MHz) | H/V | (dBuV) | (dBuV) | CF(dB) | (dBuV/m) | (dBuV/m) | (dBuV/m) | (dBuV/m) | |
| 2442.60 | V | 67.43 | 57.61 | 32.30 | 99.72 | 89.91 | | | X/F |
| 2483.50 | V | 28.44 | 13.45 | 32.29 | 60.73 | 45.74 | 74.00 | 54.00 | X/E |
| 4906.87 | V | 50.20 | 42.36 | 5.26 | 55.46 | 47.62 | 74.00 | 54.00 | 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 CH09 (Above 1000 MHz, Vertical)





| | | | |
|---------------|-------------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX N MODE-40MHz 2452MHz | | |

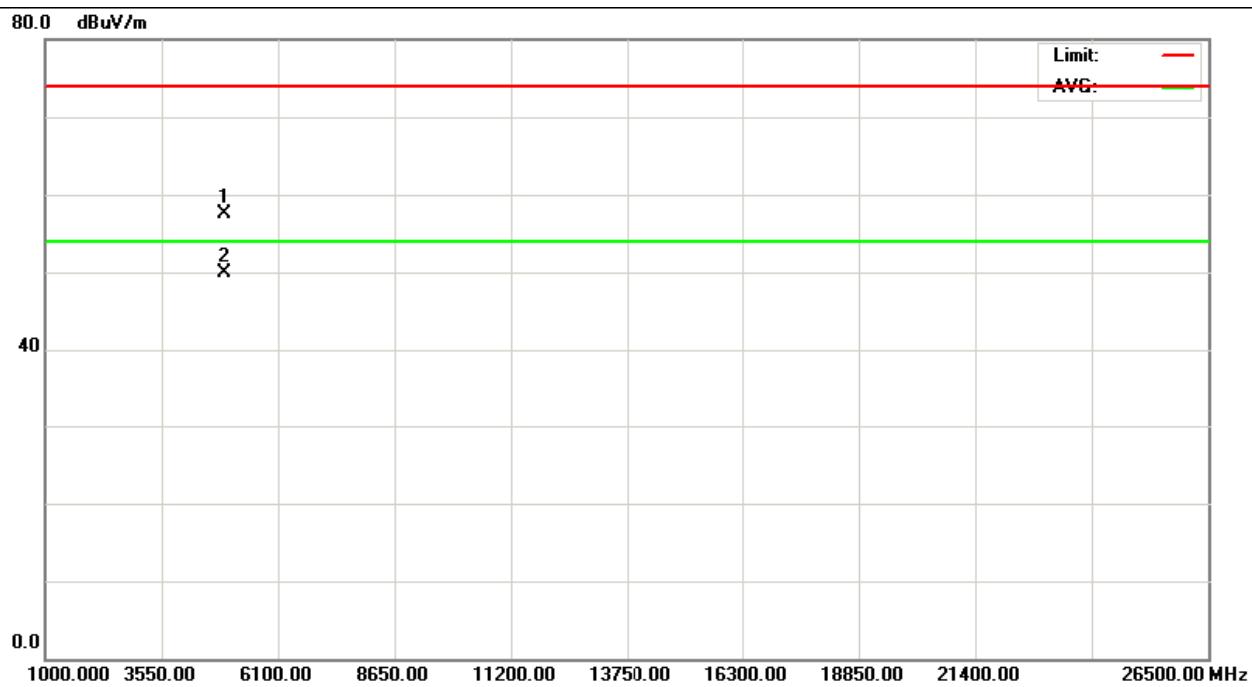
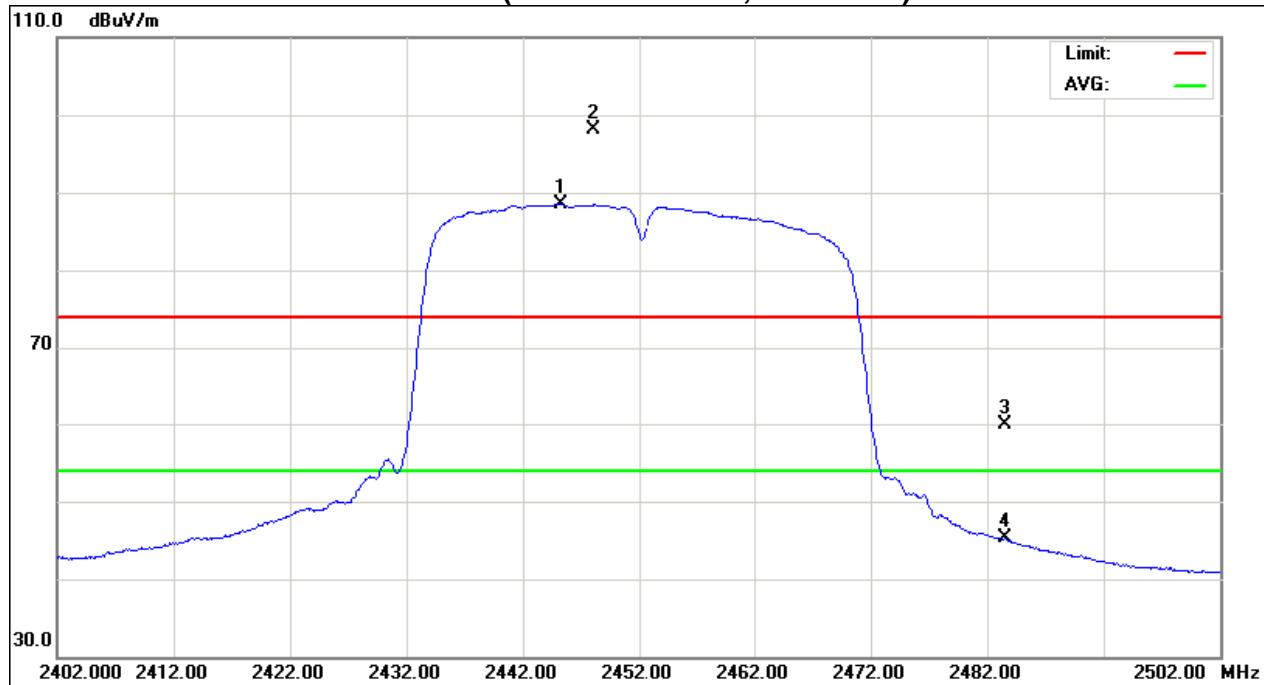
| Freq. (MHz) | Ant.Pol. H/V | Reading | | Ant./CF CF(dB) | Act. | | Limit | | Note |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------|
| | | Peak (dBuV) | AV (dBuV) | | Peak (dBuV/m) | AV (dBuV/m) | Peak (dBuV/m) | AV (dBuV/m) | |
| 2448.00 | H | 65.88 | 56.16 | 32.29 | 98.17 | 88.45 | | | X/F |
| 2483.50 | H | 27.69 | 12.93 | 32.29 | 59.98 | 45.22 | 74.00 | 54.00 | X/E |
| 4902.54 | H | 52.17 | 44.61 | 5.26 | 57.43 | 49.87 | 74.00 | 54.00 | 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 CH09 (Above 1000 MHz, Horizontal)



**4.2.9 TEST RESULTS (RESTRICTED BANDS REQUIREMENTS)**

| | | | | | | | |
|---------------|--|--|---------------------|-------------------|--|--|--|
| EUT : | Vpuck(Video-puck) | | Model Name : | Vpuck(Video-puck) | | | |
| Temperature : | 22 °C | | Relative Humidity : | 45 % | | | |
| Pressure : | 1010 hPa | | Test Voltage : | AC 120V/60Hz | | | |
| Test Mode : | TX B MODE 2412MHz/2462MHz (Vertical) | | | | | | |
| Note : | <p>1. The transmitter was setup to transmit at the lowest channel (CH01). Then the field strength was measured at 2310-2390 MHz.</p> <p>2. The transmitter was setup to transmit at the highest channel (CH11). Then the field strength was measured at 2483.5-2500 MHz.</p> | | | | | | |

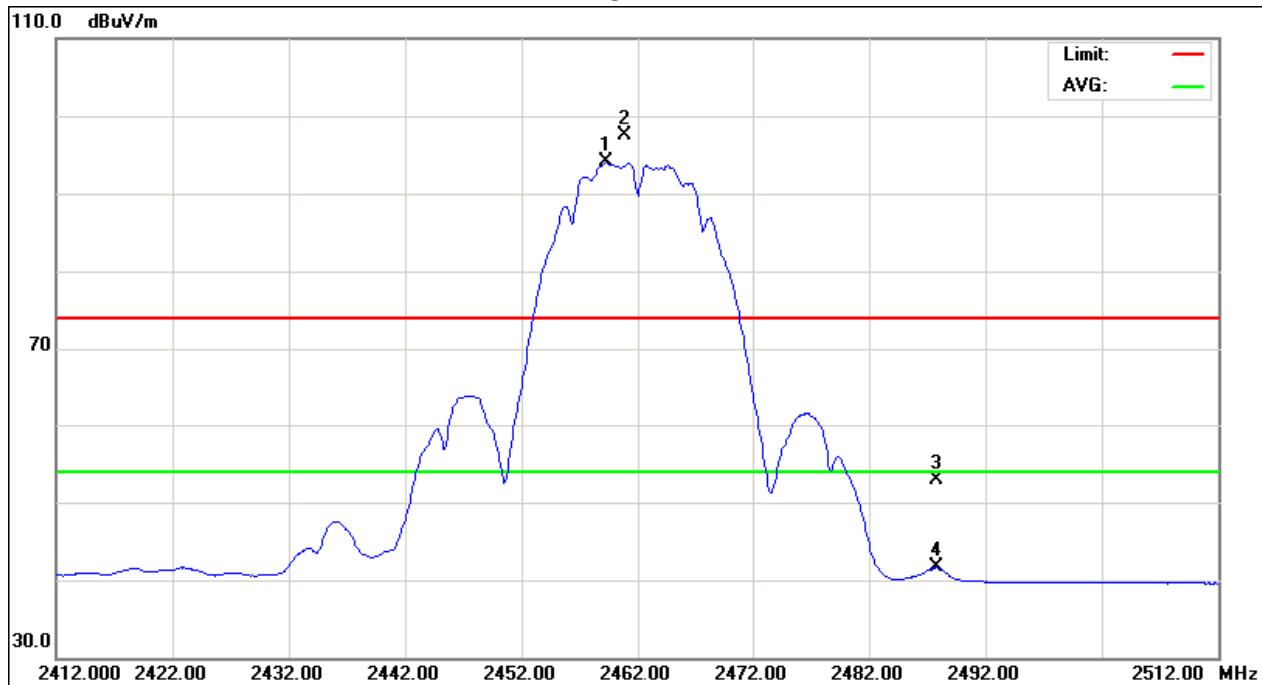
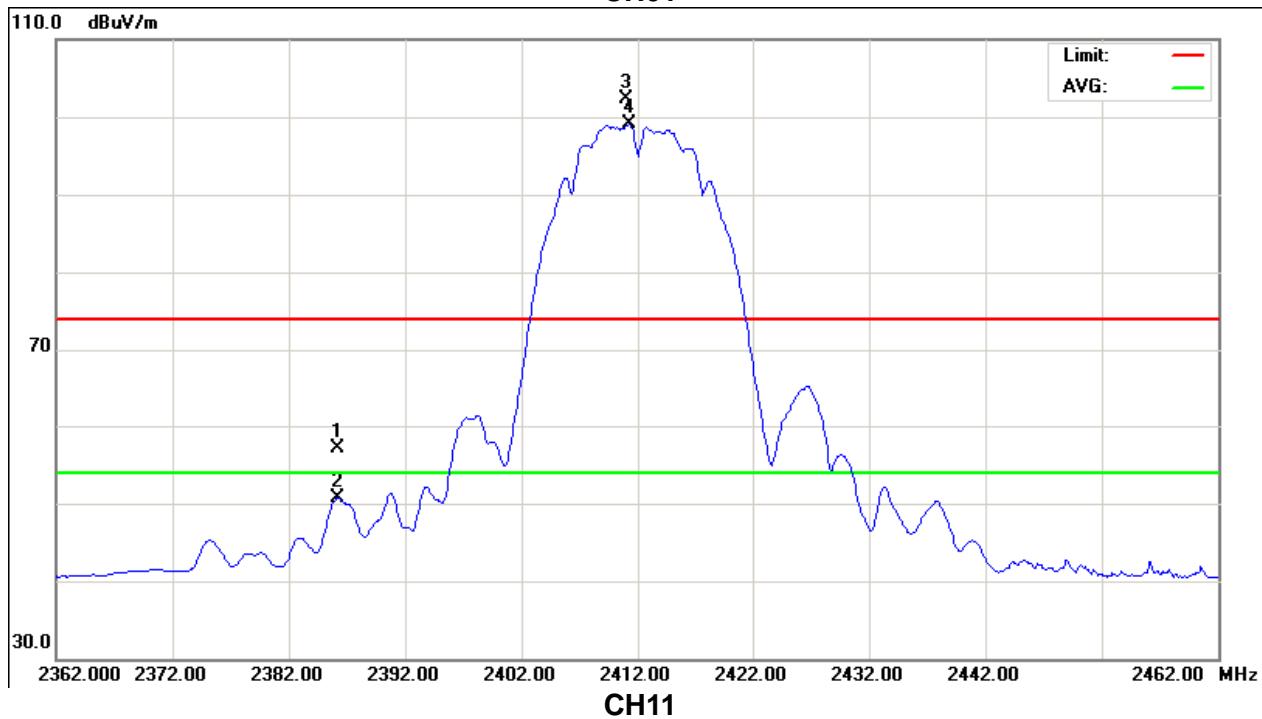
| Freq. (MHz) | Ant.Pol. H/V | Reading | | Ant./CF CF(dB) | Act. | | Limit | | Note |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------|
| | | Peak (dBuV) | AV (dBuV) | | Peak (dBuV/m) | AV (dBuV/m) | Peak (dBuV/m) | AV (dBuV/m) | |
| 2386.20 | V | 25.18 | 18.77 | 31.92 | 57.10 | 50.69 | 74.00 | 54.00 | CH01 |
| 2487.80 | V | 21.03 | 9.83 | 31.79 | 52.82 | 41.62 | 74.00 | 54.00 | CH11 |

Remark :

- (1) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission °.
- (2) EUT Orthogonal Axis :
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (3) 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



**Restricted Bands Requirements, Vertical
CH01**





| | | | |
|---------------|---|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX B MODE 2412MHz/2462MHz (Horizontal) | | |
| Note : | 1. The transmitter was setup to transmit at the lowest channel (CH01). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was setup to transmit at the highest channel (CH11). Then the field strength was measured at 2483.5-2500 MHz. | | |

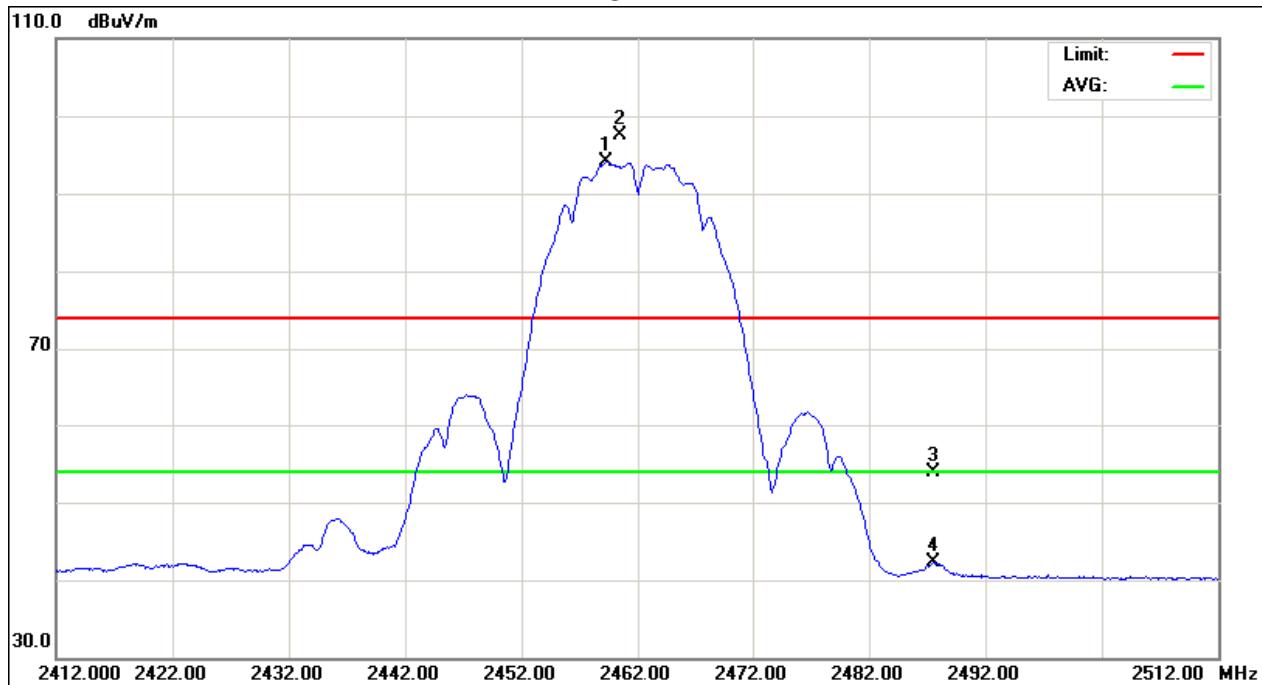
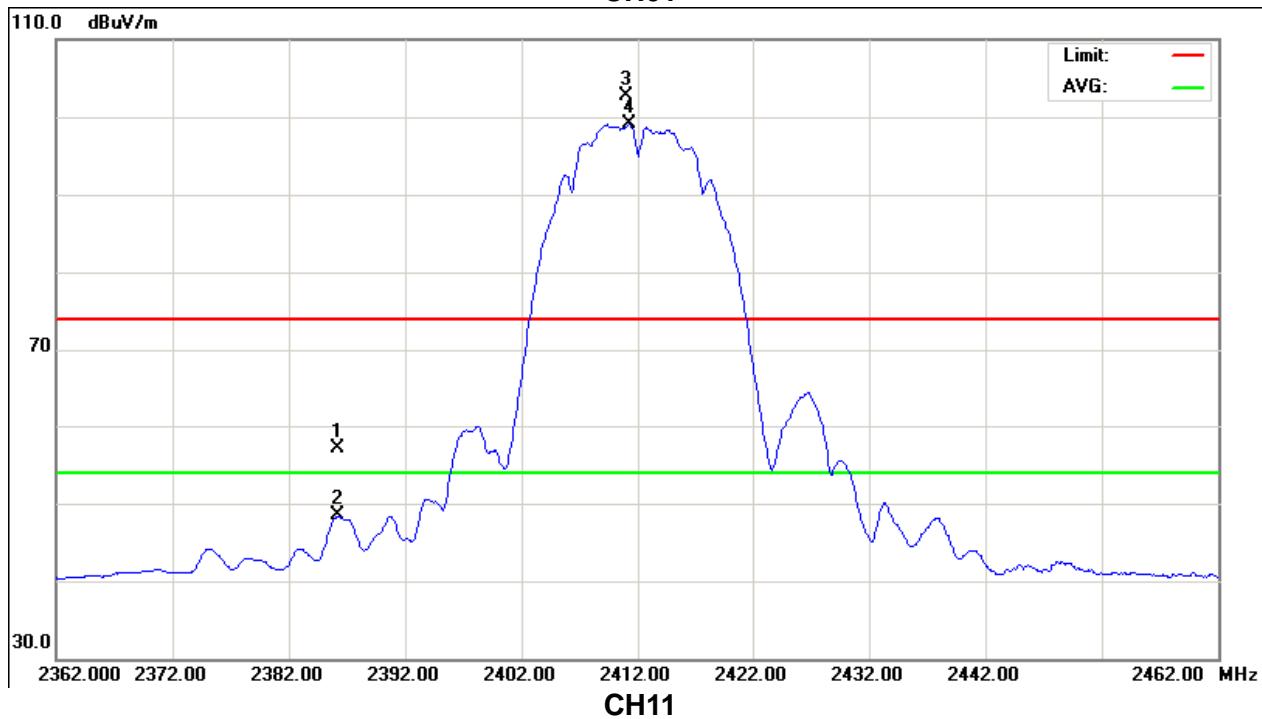
| Freq. (MHz) | Ant.Pol. H/V | Reading | | Ant./CF | Act. | | Limit | | Note |
|----------------|-----------------|----------------|--------------|---------|----------------|----------------|------------------|----------------|------|
| | | Peak (dBuV) | AV (dBuV) | | Peak CF(dB) | AV (dBuV/m) | Peak (dBuV/m) | AV (dBuV/m) | |
| 2386.20 | H | 25.21 | 16.58 | 31.92 | 57.13 | 48.50 | 74.00 | 54.00 | CH01 |
| 2487.50 | H | 22.04 | 10.47 | 31.80 | 53.84 | 42.27 | 74.00 | 54.00 | CH11 |

Remark :

- (1) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission .
- (2) EUT Orthogonal Axis :
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (3) 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



**Restricted Bands Requirements, Horizontal
CH01**





| | | | |
|---------------|---|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX G MODE 2412MHz/2462MHz (Vertical) | | |
| Note : | 1. The transmitter was setup to transmit at the lowest channel (CH01). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was setup to transmit at the highest channel (CH11). Then the field strength was measured at 2483.5-2500 MHz. | | |

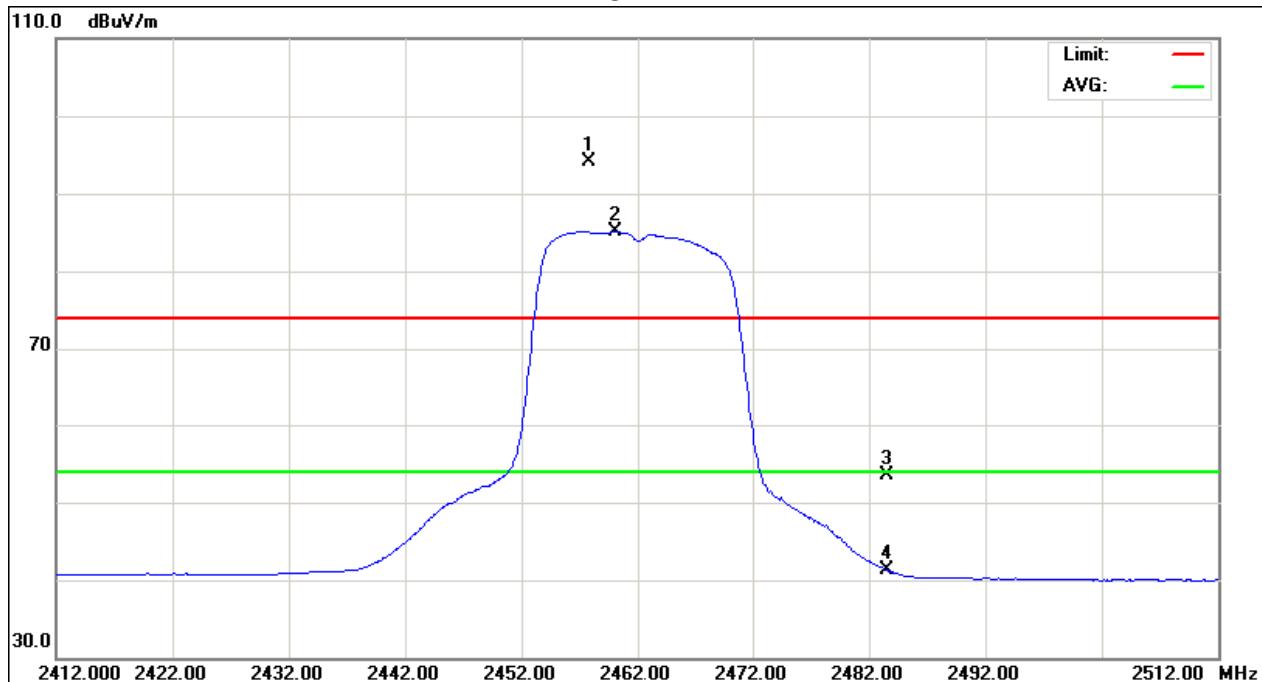
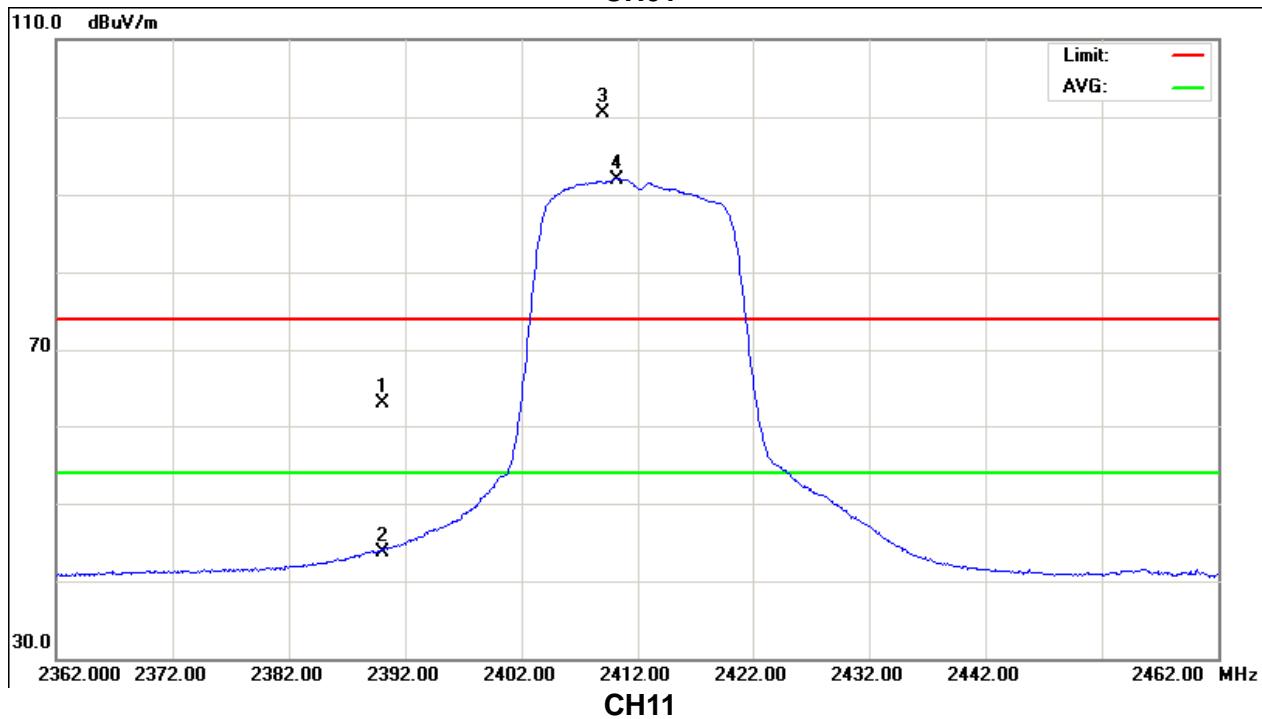
| Freq. (MHz) | Ant.Pol. H/V | Reading | | Ant./CF CF(dB) | Act. | | Limit | | Note |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------|
| | | Peak (dBuV) | AV (dBuV) | | Peak (dBuV/m) | AV (dBuV/m) | Peak (dBuV/m) | AV (dBuV/m) | |
| 2390.00 | V | 30.95 | 11.79 | 31.91 | 62.86 | 43.70 | 74.00 | 54.00 | CH01 |
| 2483.50 | V | 21.22 | 8.98 | 32.29 | 53.51 | 41.27 | 74.00 | 54.00 | CH11 |

Remark :

- (1) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission °.
- (2) EUT Orthogonal Axis :
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (3) 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



**Restricted Bands Requirements, Vertical
CH01**





| | | | |
|---------------|---|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX G MODE 2412MHz/2462MHz (Horizontal) | | |
| Note : | 1. The transmitter was setup to transmit at the lowest channel (CH01). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was setup to transmit at the highest channel (CH11). Then the field strength was measured at 2483.5-2500 MHz. | | |

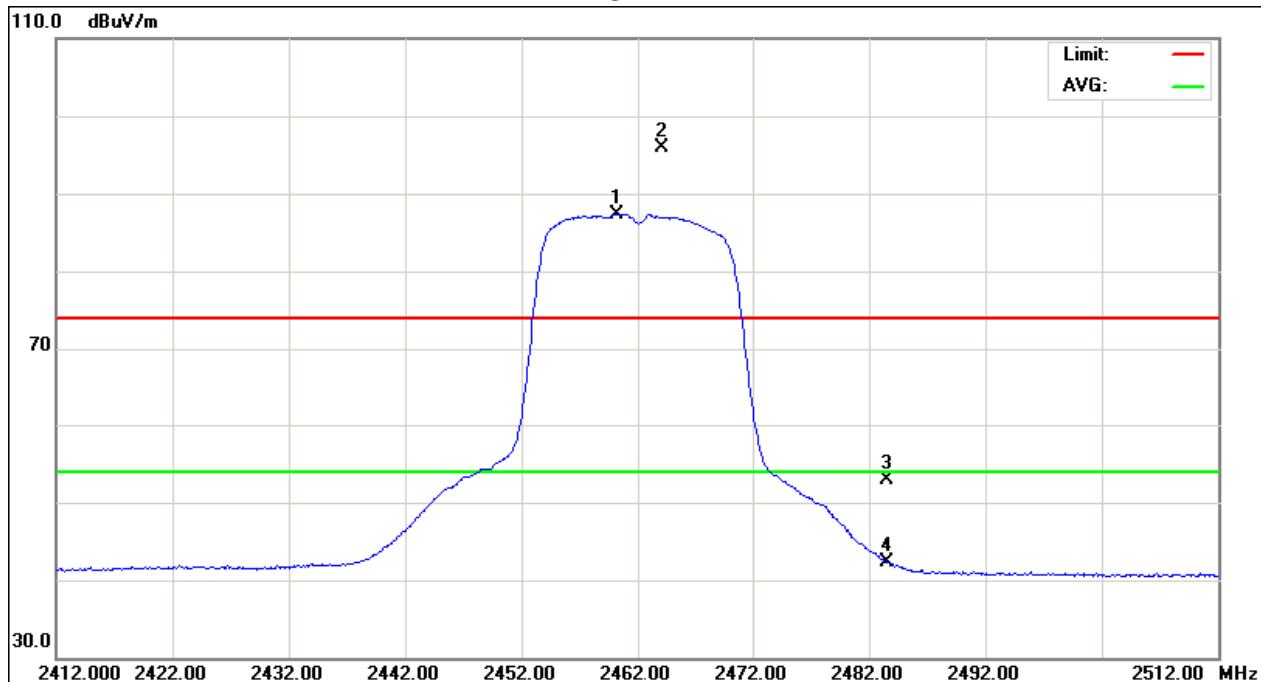
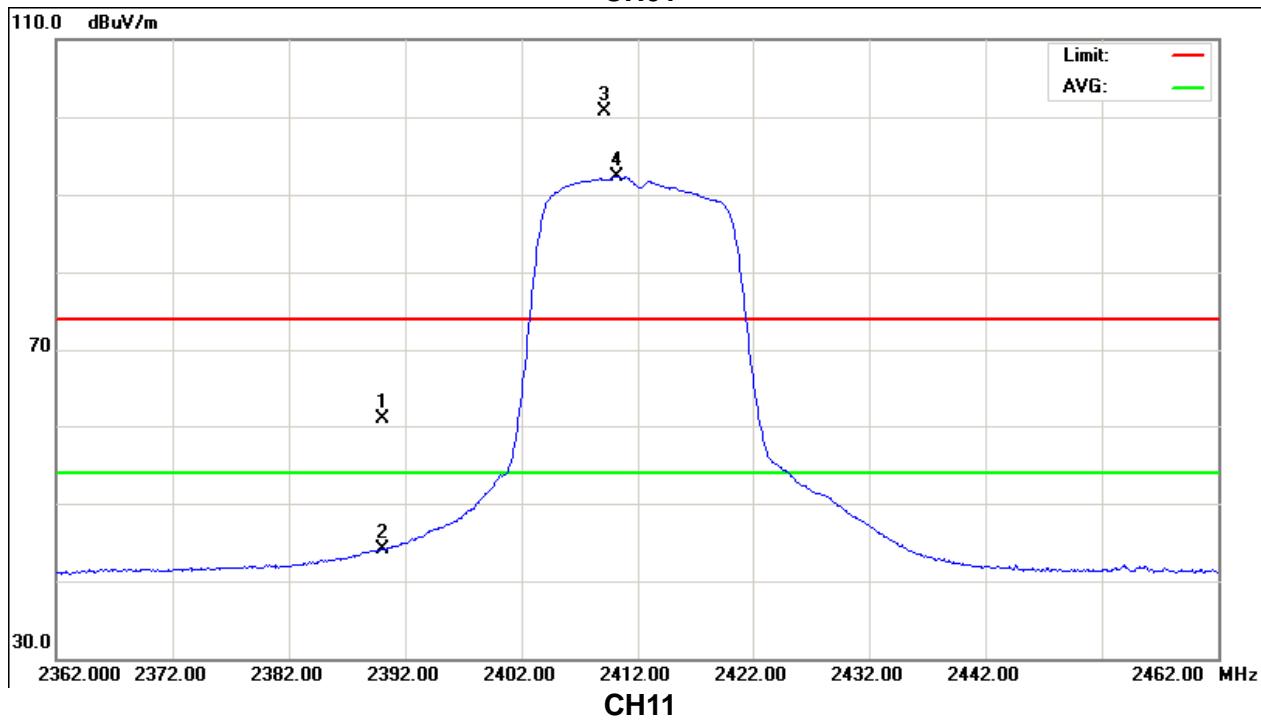
| Freq. (MHz) | Ant.Pol. H/V | Reading | | Ant./CF CF(dB) | Act. | | Limit | | Note |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------|
| | | Peak (dBuV) | AV (dBuV) | | Peak (dBuV/m) | AV (dBuV/m) | Peak (dBuV/m) | AV (dBuV/m) | |
| 2390.00 | H | 28.62 | 11.79 | 32.30 | 60.92 | 44.09 | 74.00 | 54.00 | CH01 |
| 2483.50 | H | 20.61 | 10.07 | 32.29 | 52.90 | 42.36 | 74.00 | 54.00 | CH11 |

Remark :

- (1) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission °.
- (2) EUT Orthogonal Axis :
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (3) 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



**Restricted Bands Requirements, Horizontal
CH01**





| | | | | | | | |
|---------------|---|--|---------------------|-------------------|--|--|--|
| EUT : | Vpuck(Video-puck) | | Model Name : | Vpuck(Video-puck) | | | |
| Temperature : | 22 °C | | Relative Humidity : | 45 % | | | |
| Pressure : | 1010 hPa | | Test Voltage : | AC 120V/60Hz | | | |
| Test Mode : | TX N MODE-20MHz 2412MHz/2462MHz (Vertical) | | | | | | |
| Note : | 1. The transmitter was setup to transmit at the lowest channel (CH01). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was setup to transmit at the highest channel (CH11). Then the field strength was measured at 2483.5-2500 MHz. | | | | | | |

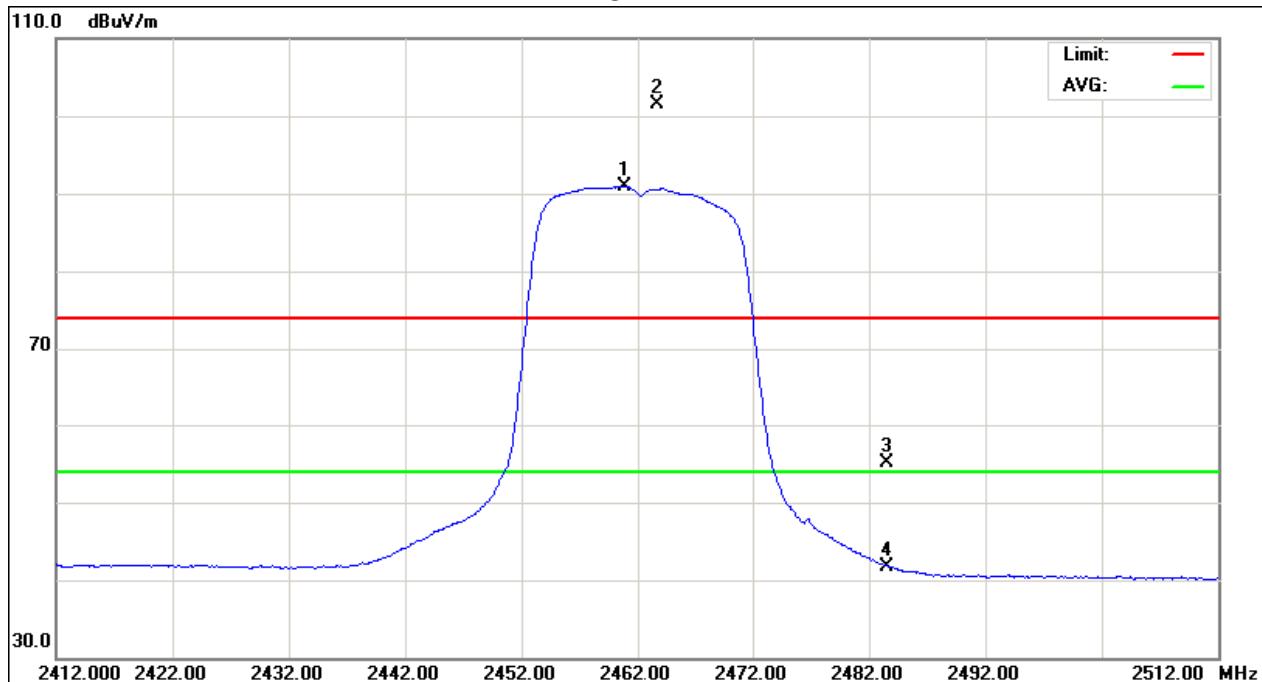
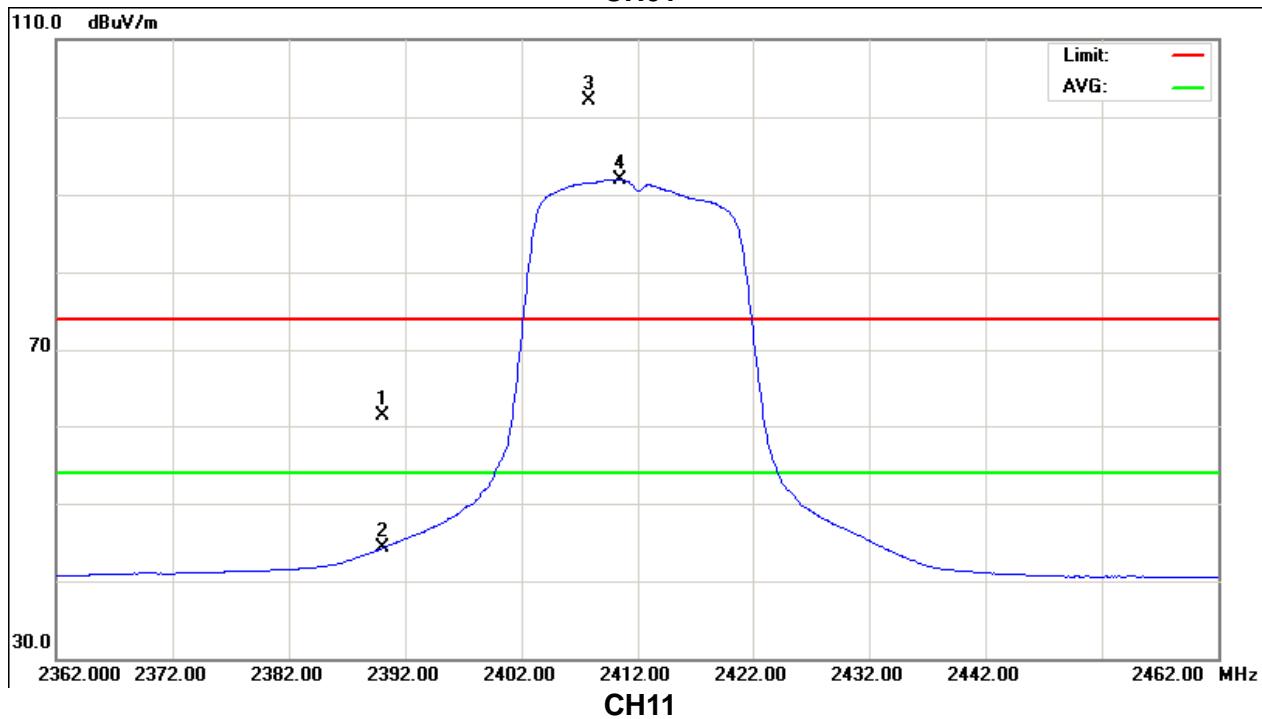
| Freq. (MHz) | Ant.Pol. H/V | Reading | | Ant./CF CF(dB) | Act. | | Limit | | Note |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------|
| | | Peak (dBuV) | AV (dBuV) | | Peak (dBuV/m) | AV (dBuV/m) | Peak (dBuV/m) | AV (dBuV/m) | |
| 2390.00 | V | 29.03 | 11.95 | 32.30 | 61.33 | 44.25 | 74.00 | 54.00 | CH01 |
| 2483.50 | V | 22.86 | 9.45 | 32.29 | 55.15 | 41.74 | 74.00 | 54.00 | CH11 |

Remark :

- (1) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission.
- (2) EUT Orthogonal Axis :
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (3) 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



**Restricted Bands Requirements, Vertical
CH01**





| | | | |
|---------------|---|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX N MODE-20MHz 2412MHz/2462MHz (Horizontal) | | |
| Note : | 1. The transmitter was setup to transmit at the lowest channel (CH01). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was setup to transmit at the highest channel (CH11). Then the field strength was measured at 2483.5-2500 MHz. | | |

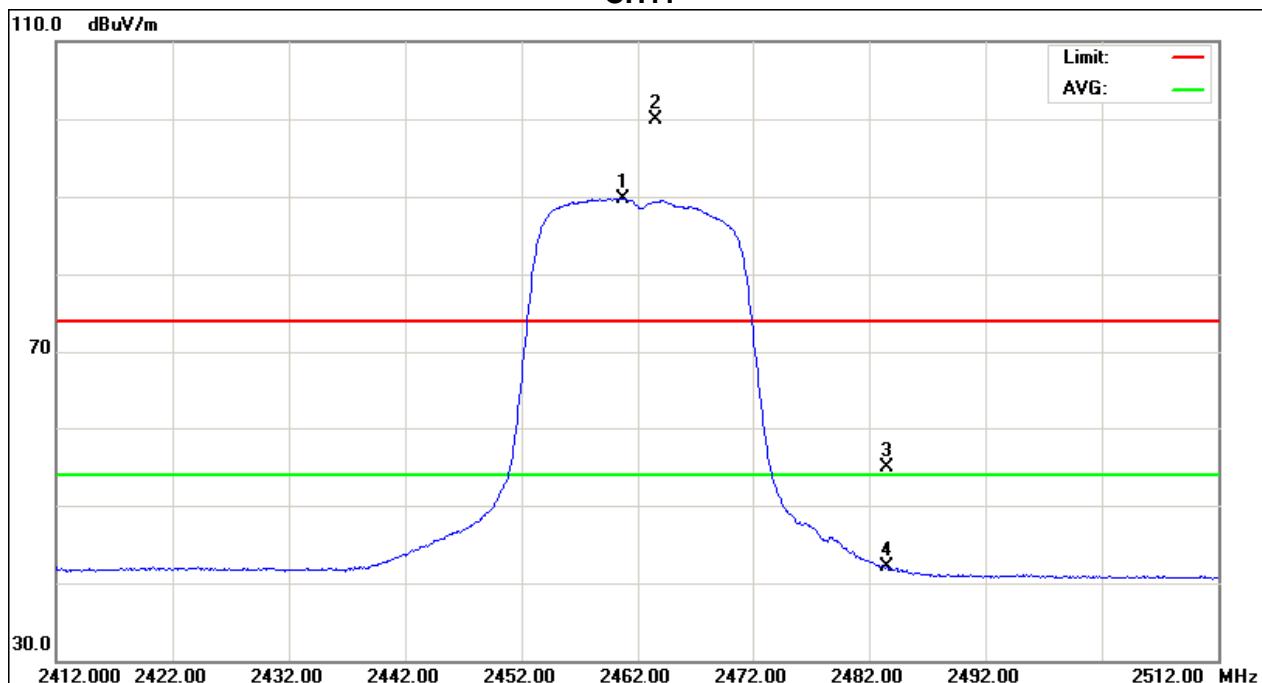
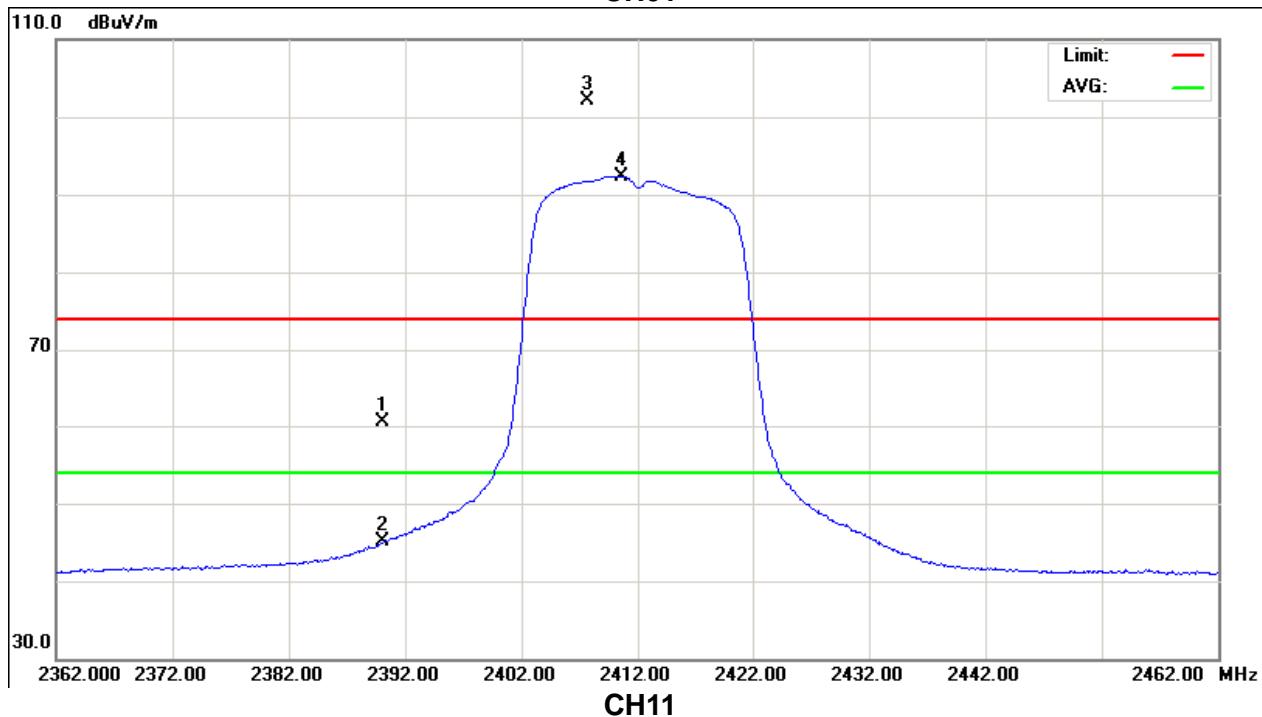
| Freq. (MHz) | Ant.Pol. H/V | Reading | | Ant./CF CF(dB) | Act. | | Limit | | Note |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------|
| | | Peak (dBuV) | AV (dBuV) | | Peak (dBuV/m) | AV (dBuV/m) | Peak (dBuV/m) | AV (dBuV/m) | |
| 2390.00 | H | 28.14 | 12.78 | 32.30 | 60.44 | 45.08 | 74.00 | 54.00 | CH01 |
| 2483.50 | H | 22.68 | 9.73 | 32.29 | 54.97 | 42.02 | 74.00 | 54.00 | CH11 |

Remark :

- (1) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission °.
- (2) EUT Orthogonal Axis :
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (3) 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



Restricted Bands Requirements, Horizontal CH01





| | | | |
|---------------|---|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX N MODE-40MHz 2422MHz/2452MHz (Vertical) | | |
| Note : | 1. The transmitter was setup to transmit at the lowest channel (CH03). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was setup to transmit at the highest channel (CH09). Then the field strength was measured at 2483.5-2500 MHz. | | |

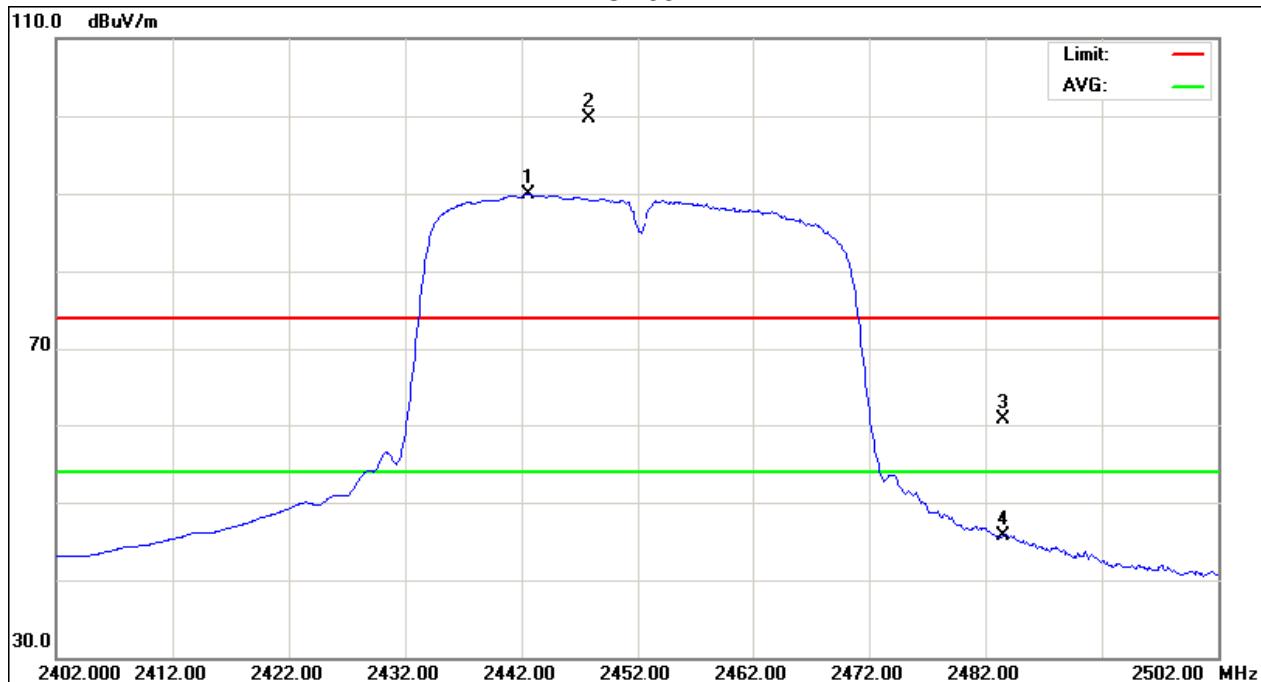
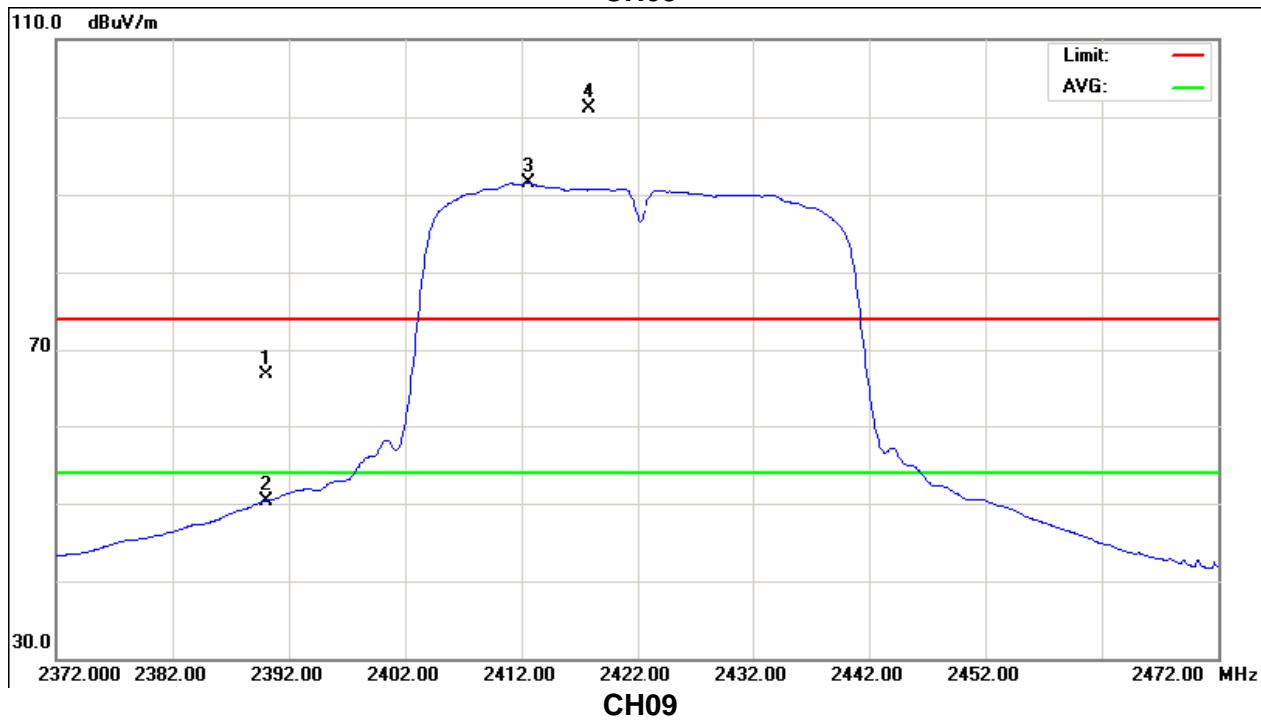
| Freq. (MHz) | Ant.Pol. H/V | Reading | | Ant./CF CF(dB) | Act. | | Limit | | Note |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------|
| | | Peak (dBuV) | AV (dBuV) | | Peak (dBuV/m) | AV (dBuV/m) | Peak (dBuV/m) | AV (dBuV/m) | |
| 2390.00 | V | 34.33 | 18.02 | 32.30 | 66.63 | 50.32 | 74.00 | 54.00 | CH03 |
| 2483.50 | V | 28.44 | 13.45 | 32.29 | 60.73 | 45.74 | 74.00 | 54.00 | CH09 |

Remark :

- (1) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission °.
- (2) EUT Orthogonal Axis :
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (3) 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



**Restricted Bands Requirements, Vertical
CH03**





| | | | |
|---------------|---|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 22 °C | Relative Humidity : | 45 % |
| Pressure : | 1010 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX N MODE-40MHz 2422MHz/2452MHz (Horizontal) | | |
| Note : | 1. The transmitter was setup to transmit at the lowest channel (CH03). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was setup to transmit at the highest channel (CH09). Then the field strength was measured at 2483.5-2500 MHz. | | |

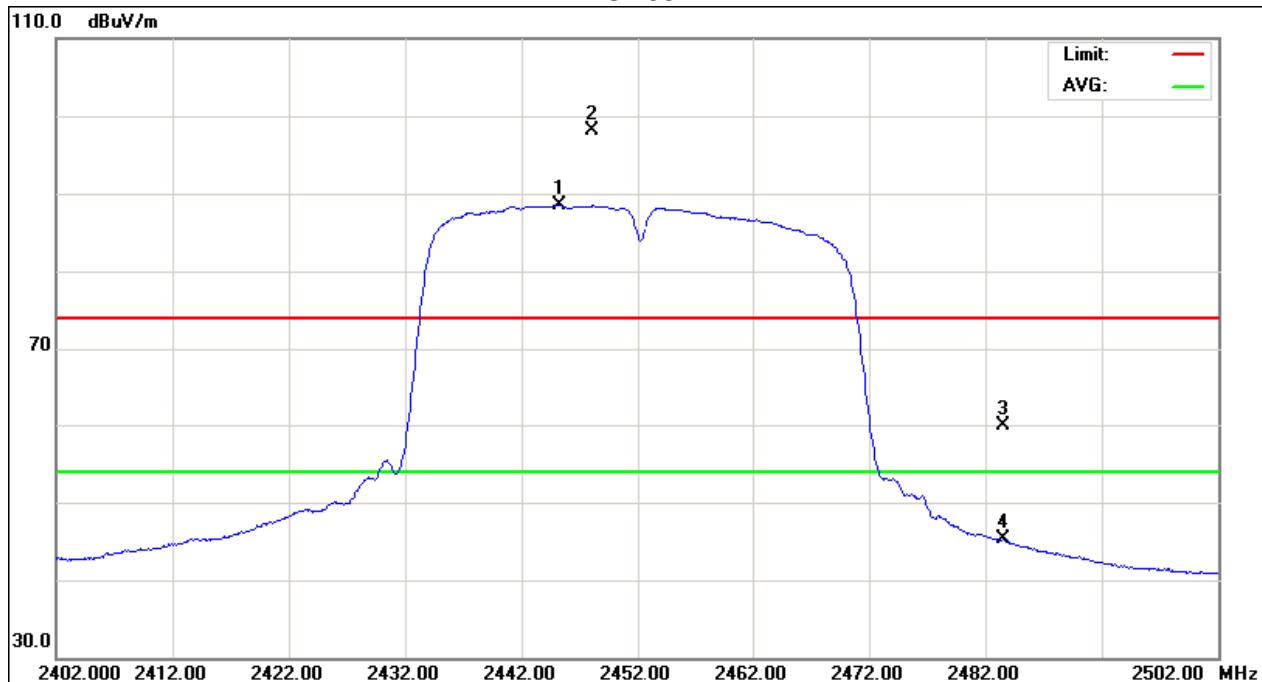
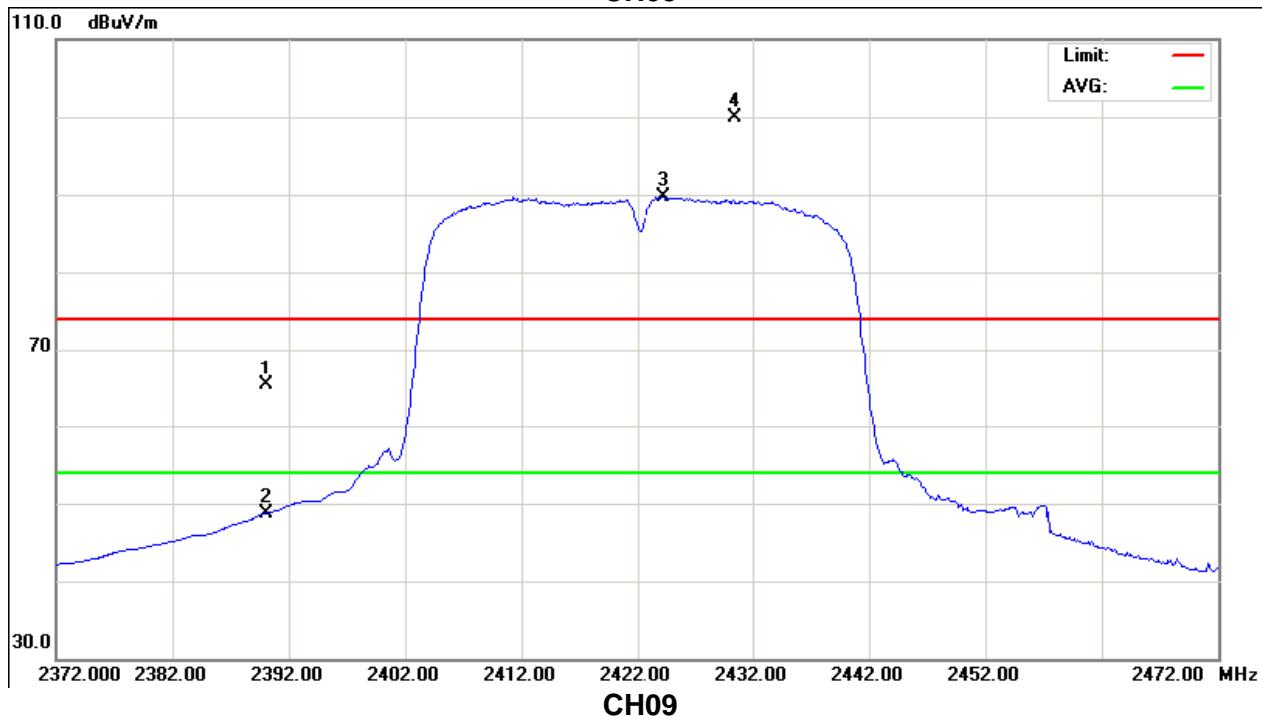
| Freq. (MHz) | Ant.Pol. H/V | Reading | | Ant./CF CF(dB) | Act. | | Limit | | Note |
|----------------|-----------------|----------------|--------------|-------------------|------------------|----------------|------------------|----------------|------|
| | | Peak (dBuV) | AV (dBuV) | | Peak (dBuV/m) | AV (dBuV/m) | Peak (dBuV/m) | AV (dBuV/m) | |
| 2390.00 | H | 33.00 | 16.42 | 32.30 | 65.30 | 48.72 | 74.00 | 54.00 | CH03 |
| 2483.50 | H | 27.69 | 12.93 | 32.29 | 59.98 | 45.22 | 74.00 | 54.00 | CH09 |

Remark :

- (1) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission °.
- (2) EUT Orthogonal Axis :
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (3) 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



**Restricted Bands Requirements, Horizontal
CH03**





5. BANDWIDTH TEST

5.1 Applied procedures / limit

| FCC Part15 (15.247) , Subpart C | | | | |
|---------------------------------|-----------|------------------------------|-----------------------|--------|
| Section | Test Item | Limit | Frequency Range (MHz) | Result |
| 15.247 (a)(2) | Bandwidth | >= 500KHz (6dB bandwidth) | 2400-2483.5 | PASS |

5.1.1 MEASUREMENT INSTRUMENTS LIST

| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
|------|-------------------|--------------|----------|------------|------------------|
| 1 | Spectrum Analyzer | R&S | FSP_40 | 100129 | Jan. 06, 2010 |

Remark: " N/A" denotes No Model Name. , Serial No. or No Calibration specified.

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 = 20 ms.

5.1.3 DEVIATION FROM STANDARD

No deviation.



5.1.4 TEST SETUP



5.1.5 EUT OPERATION CONDITIONS

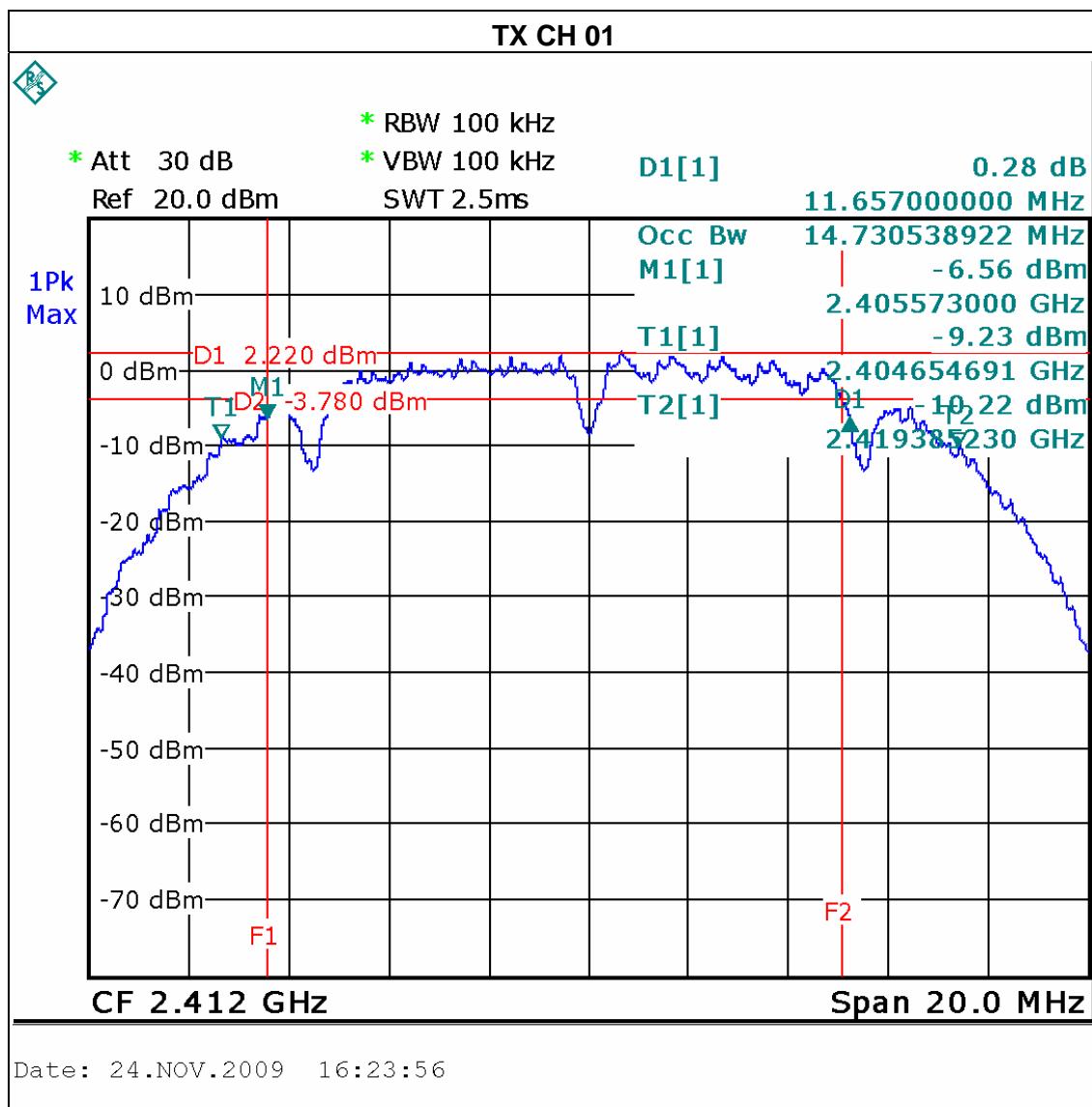
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

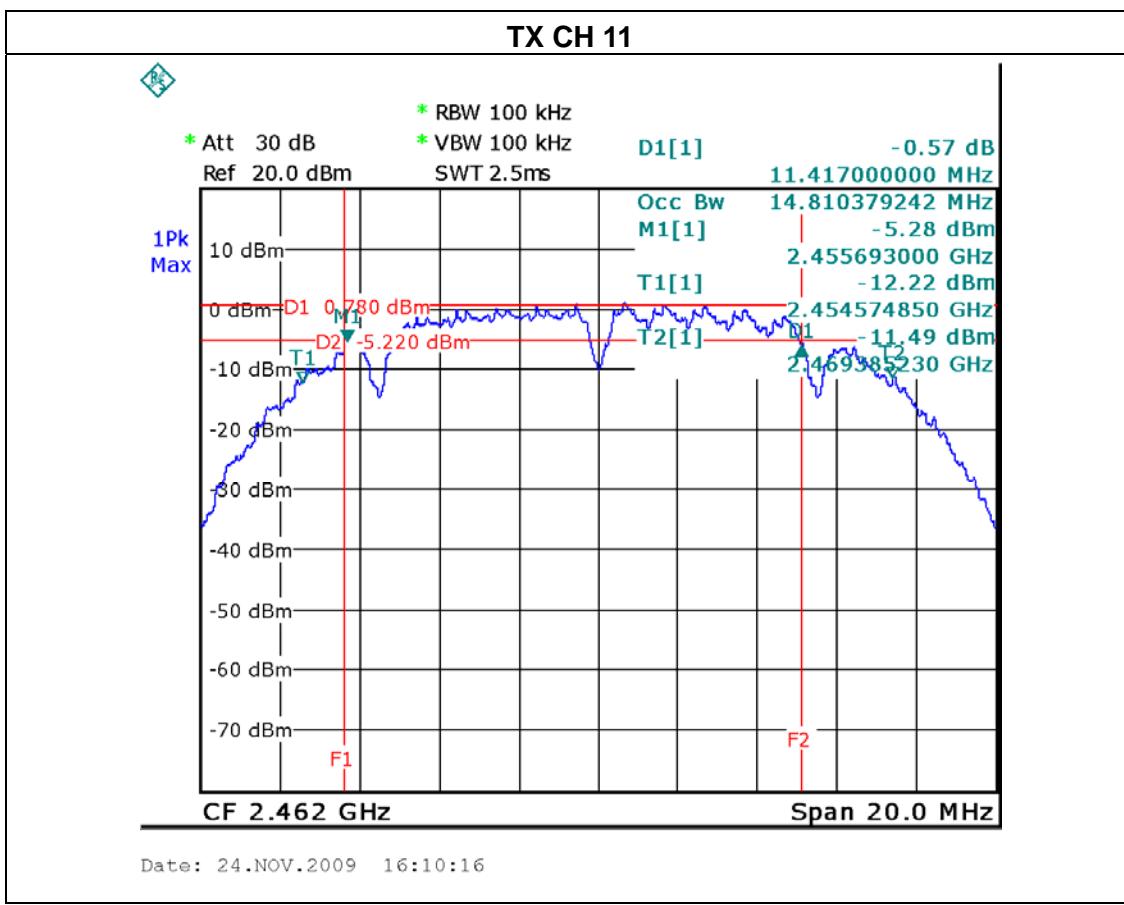
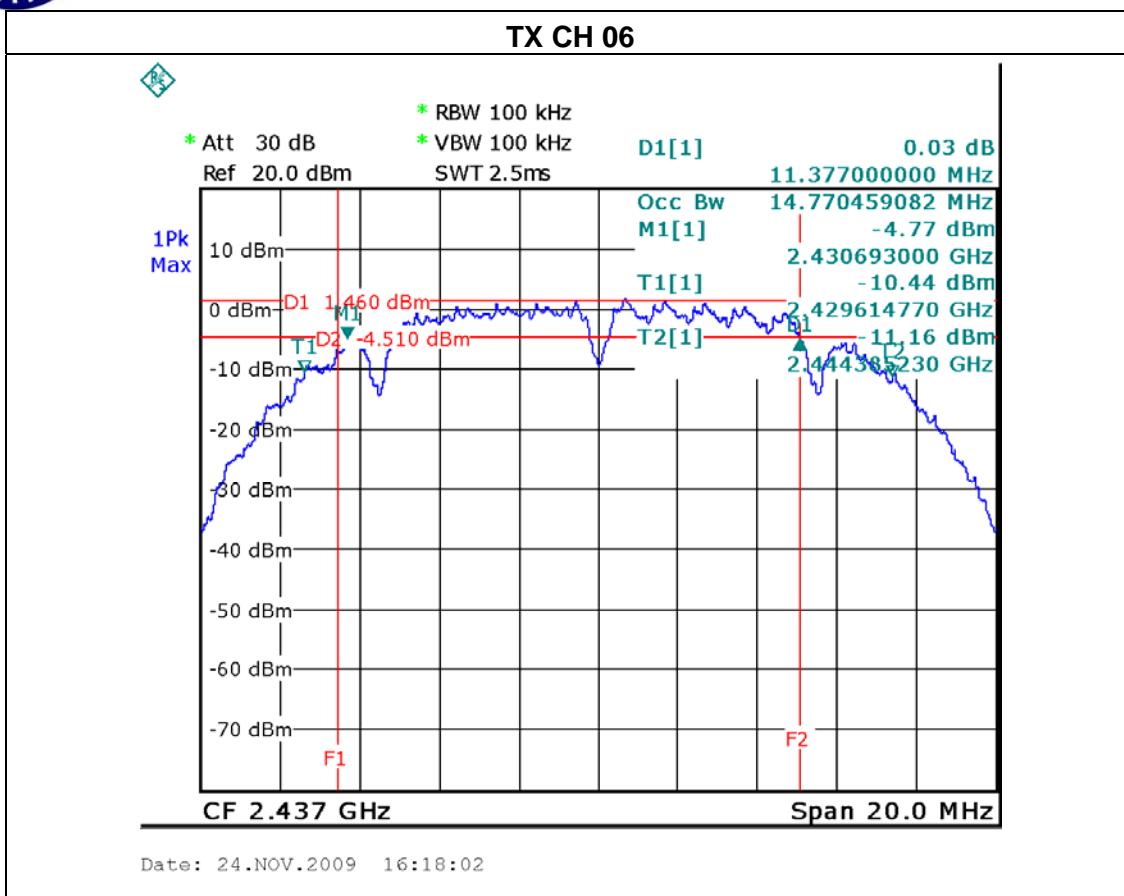


5.1.6 TEST RESULTS

| | | | |
|---------------|-----------------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 24 °C | Relative Humidity : | 60 % |
| Pressure : | 1016 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX B MODE /CH01, CH06, CH11 | | |

| Test Channel | Frequency (MHz) | Bandwidth (MHz) | 99% Occupied BW (MHz) | LIMIT (MHz) |
|--------------|-----------------|-----------------|-----------------------|-------------|
| CH01 | 2412 | 11.66 | 14.73 | >=500KHz |
| CH06 | 2437 | 11.38 | 14.77 | >=500KHz |
| CH11 | 2462 | 11.42 | 14.81 | >=500KHz |

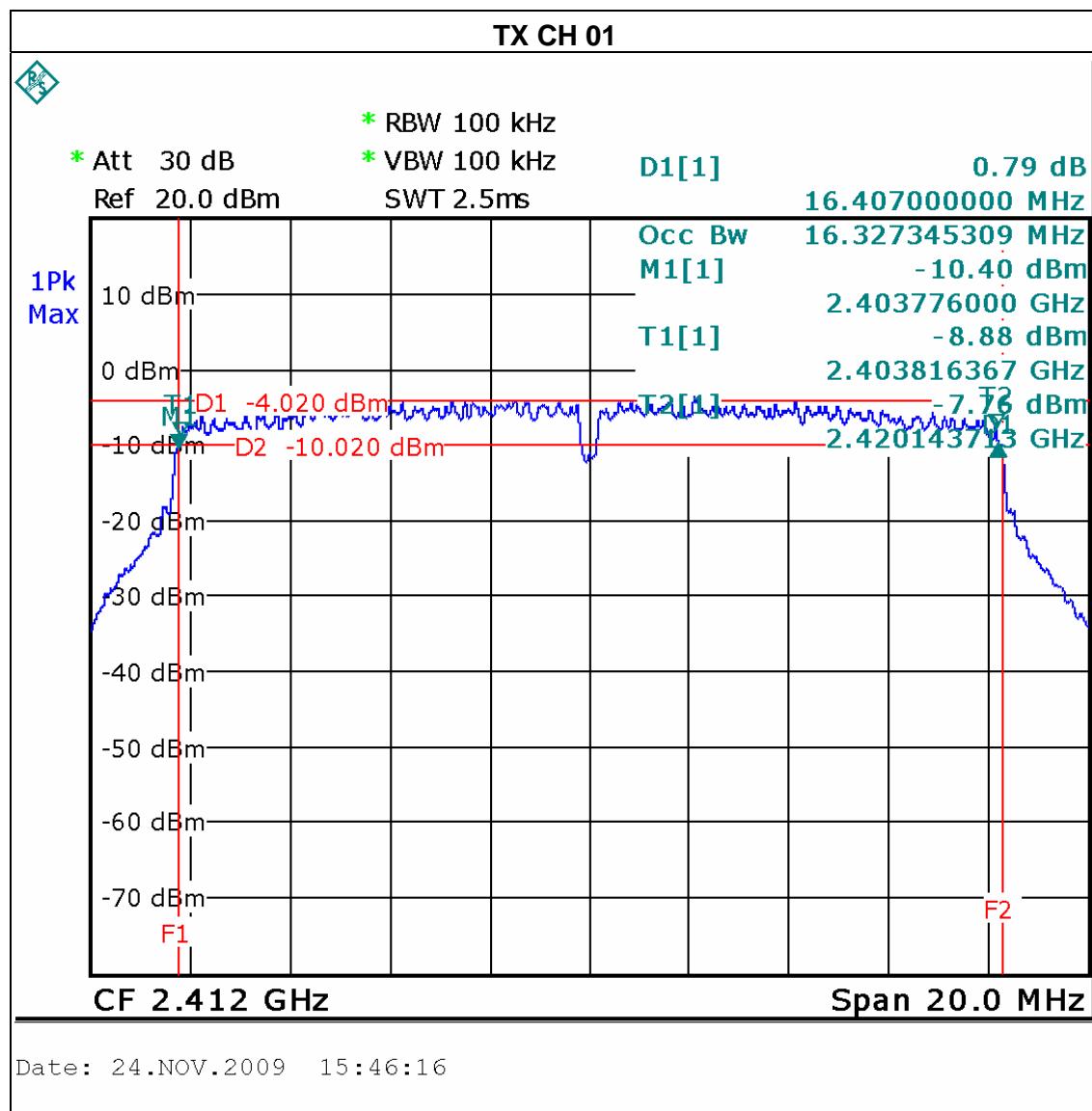


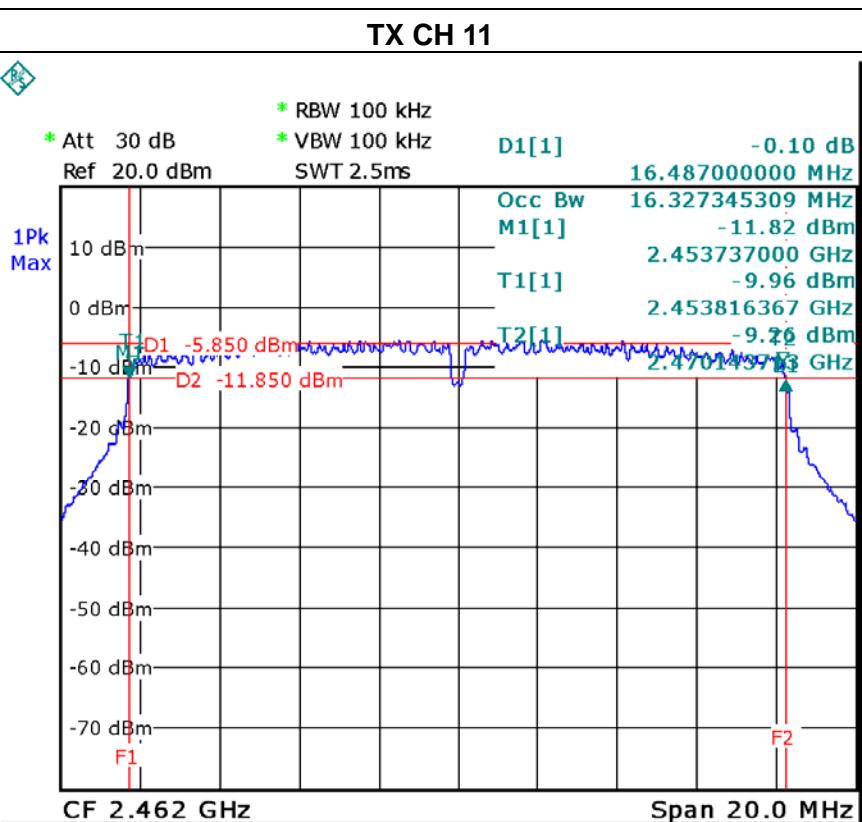
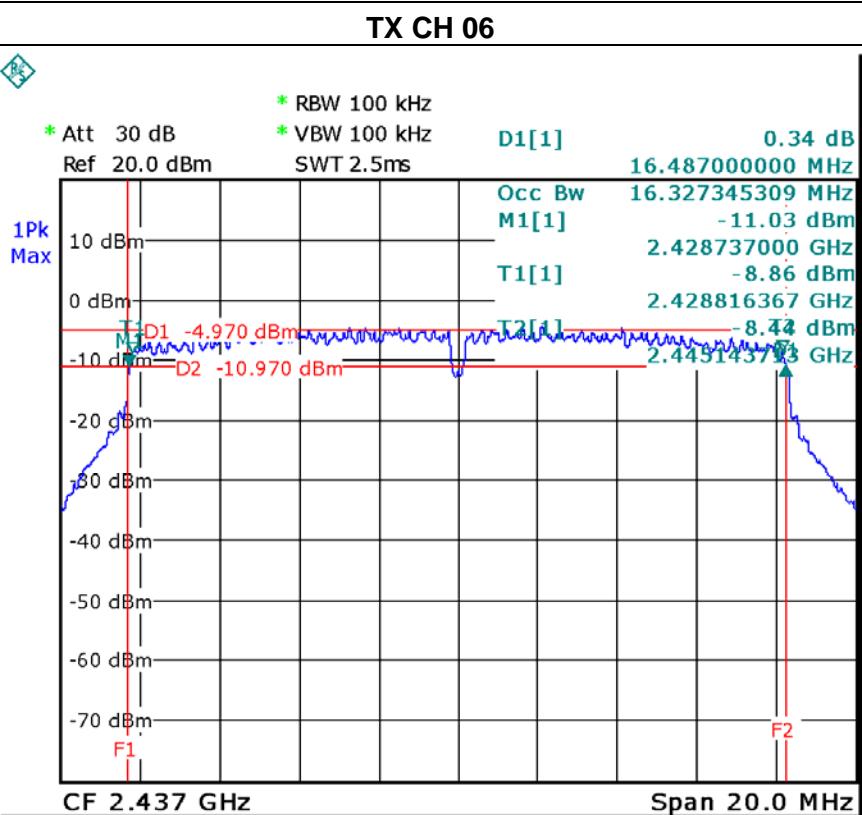




| | | | |
|---------------|-----------------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 24 °C | Relative Humidity : | 60 % |
| Pressure : | 1016 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX G MODE /CH01, CH06, CH11 | | |

| Test Channel | Frequency (MHz) | Bandwidth (MHz) | 99% Occupied BW (MHz) | LIMIT (MHz) |
|--------------|-----------------|-----------------|-----------------------|-------------|
| CH01 | 2412 | 16.41 | 16.33 | >=500KHz |
| CH06 | 2437 | 16.49 | 16.33 | >=500KHz |
| CH11 | 2462 | 16.49 | 16.32 | >=500KHz |

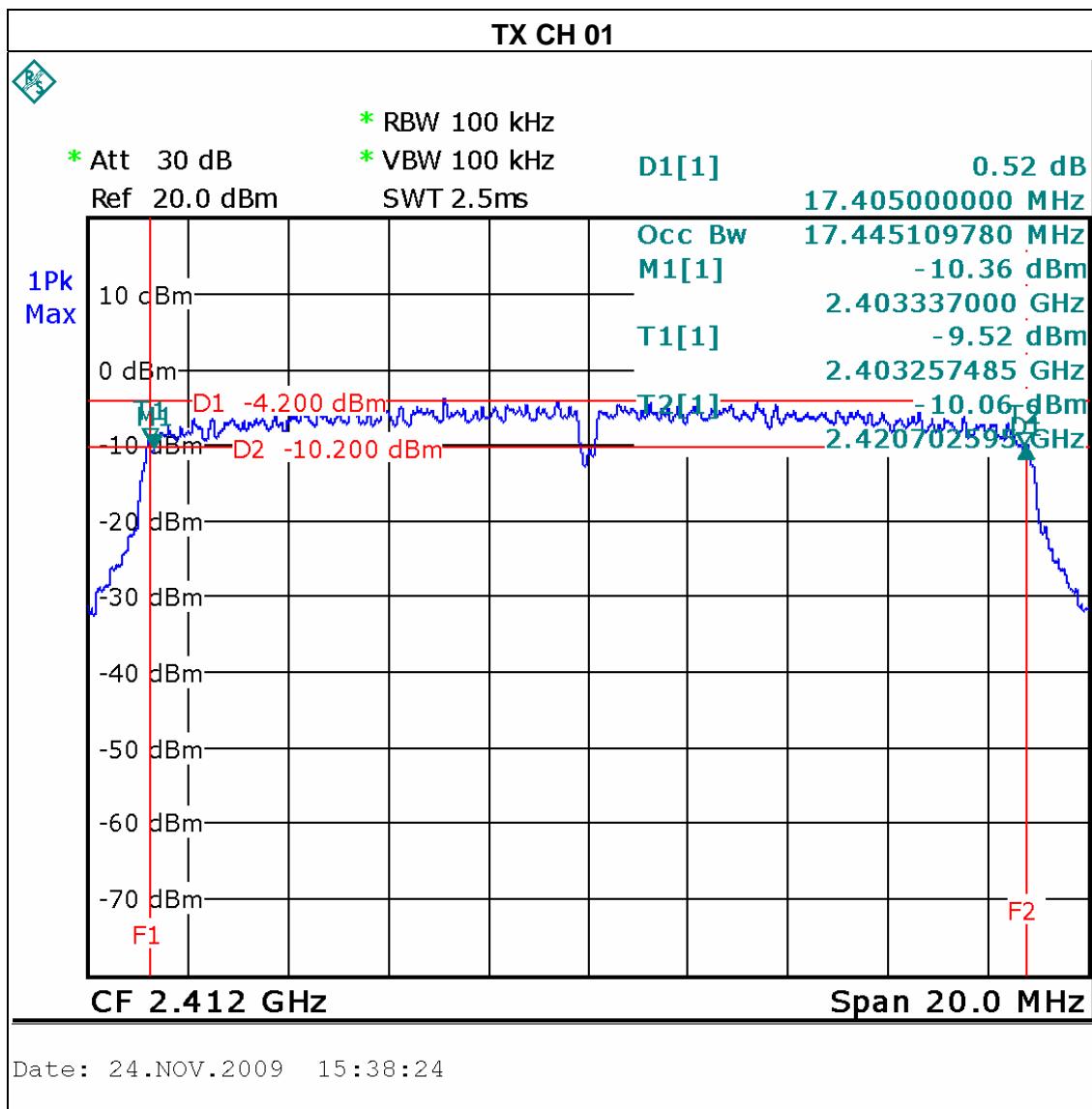


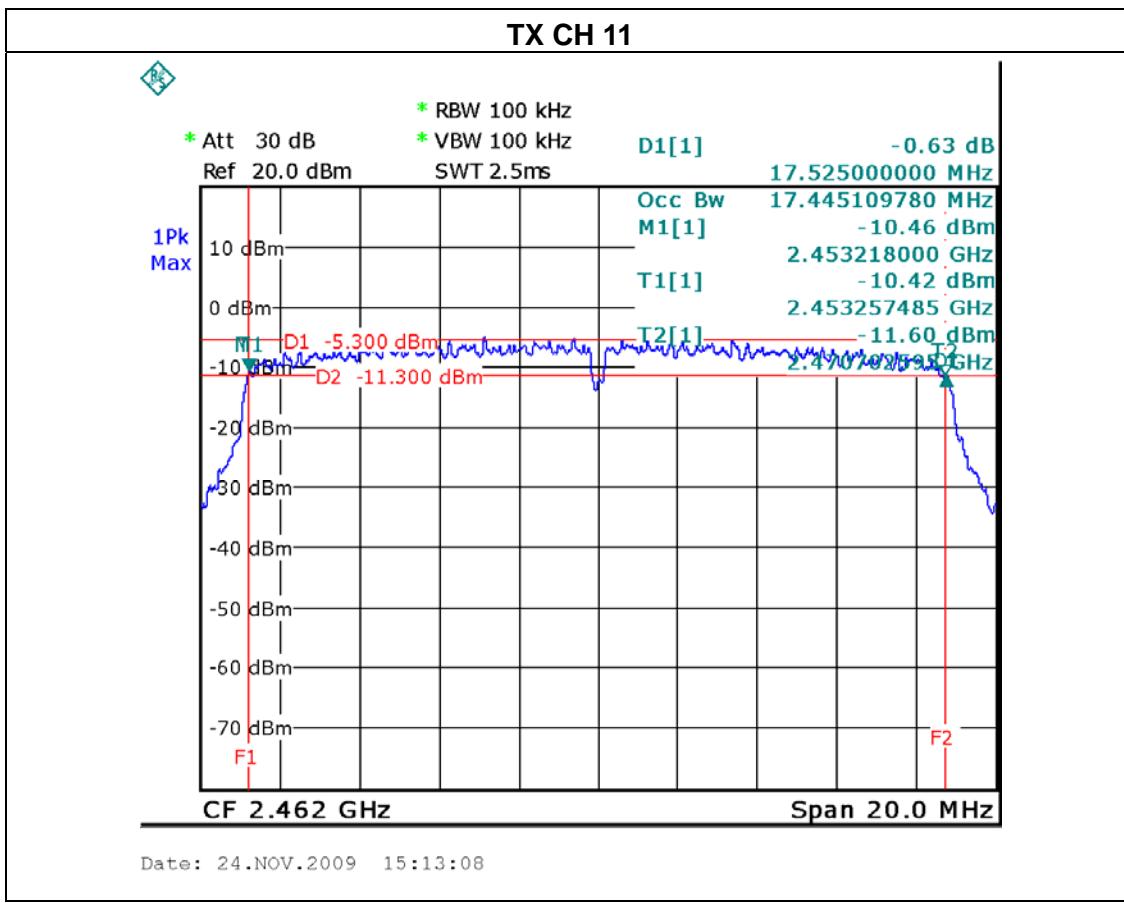
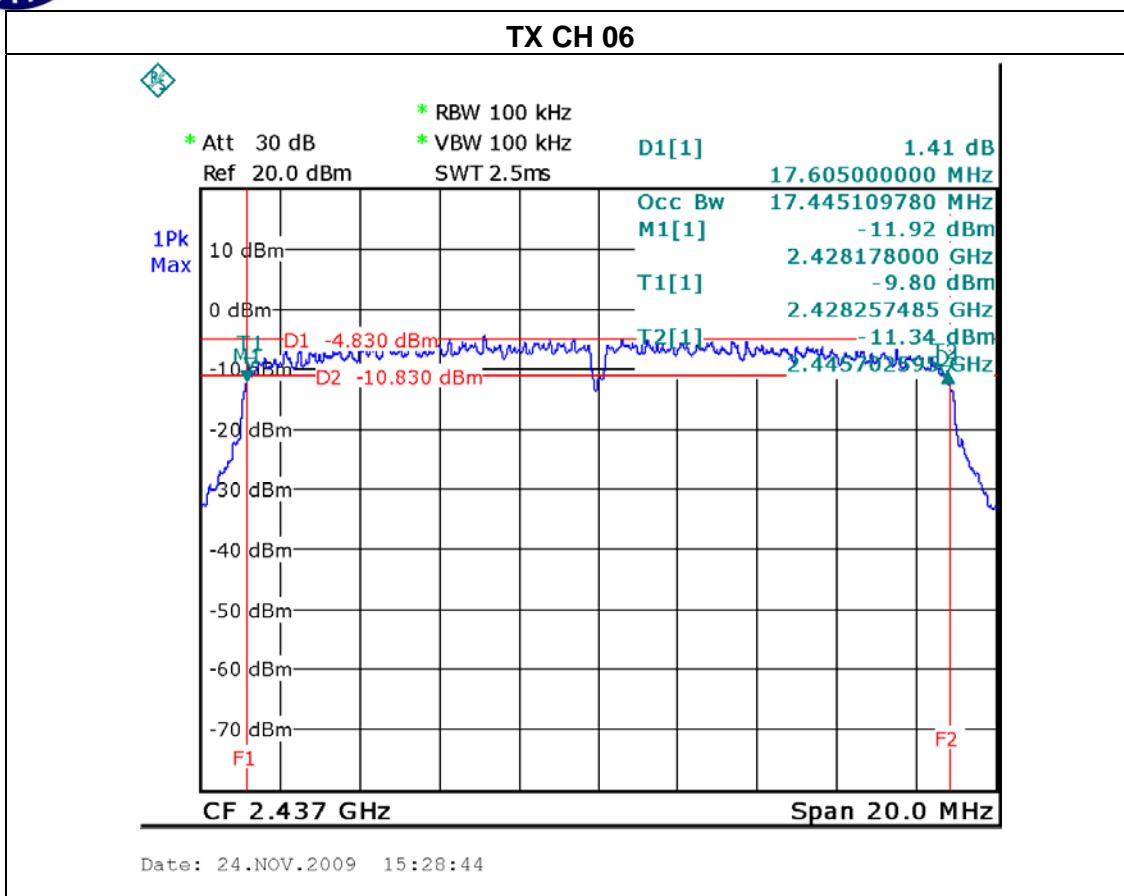




| | | | |
|---------------|-----------------------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 24 °C | Relative Humidity : | 60 % |
| Pressure : | 1016 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX N MODE-20MHz /CH01, CH06, CH11 | | |

| Test Channel | Frequency (MHz) | Bandwidth (MHz) | 99% Occupied BW (MHz) | LIMIT (MHz) |
|--------------|-----------------|-----------------|-----------------------|-------------|
| CH01 | 2412 | 17.41 | 17.45 | >=500KHz |
| CH06 | 2437 | 17.61 | 17.45 | >=500KHz |
| CH11 | 2462 | 17.53 | 17.45 | >=500KHz |

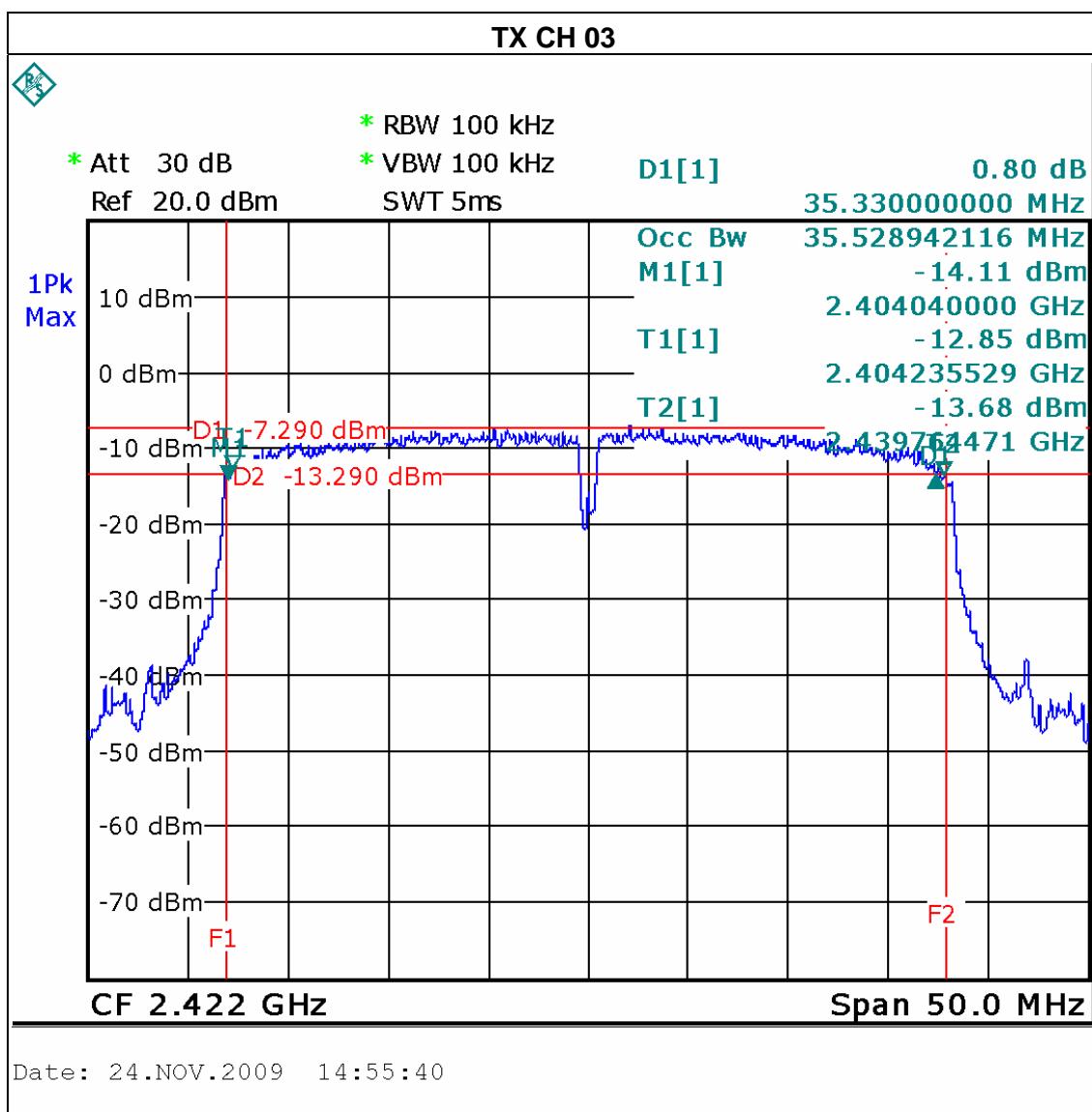


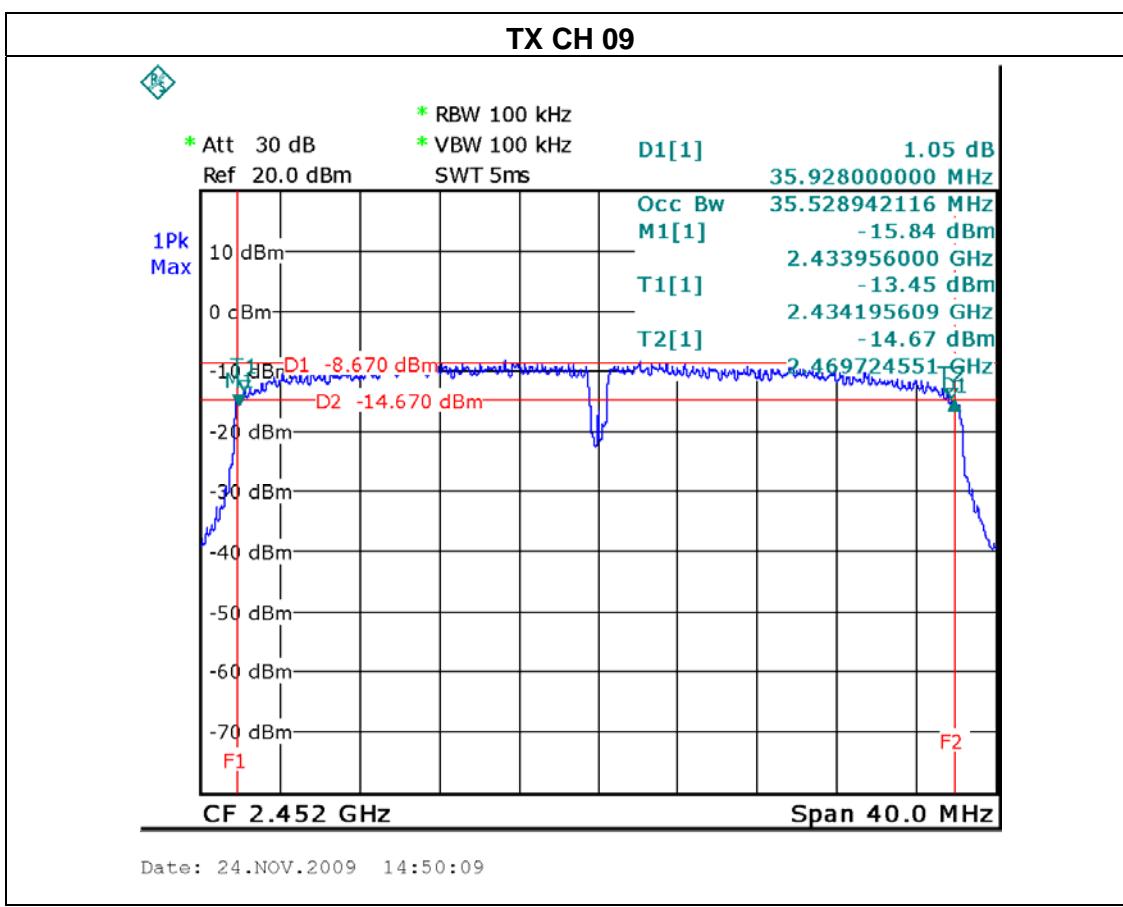
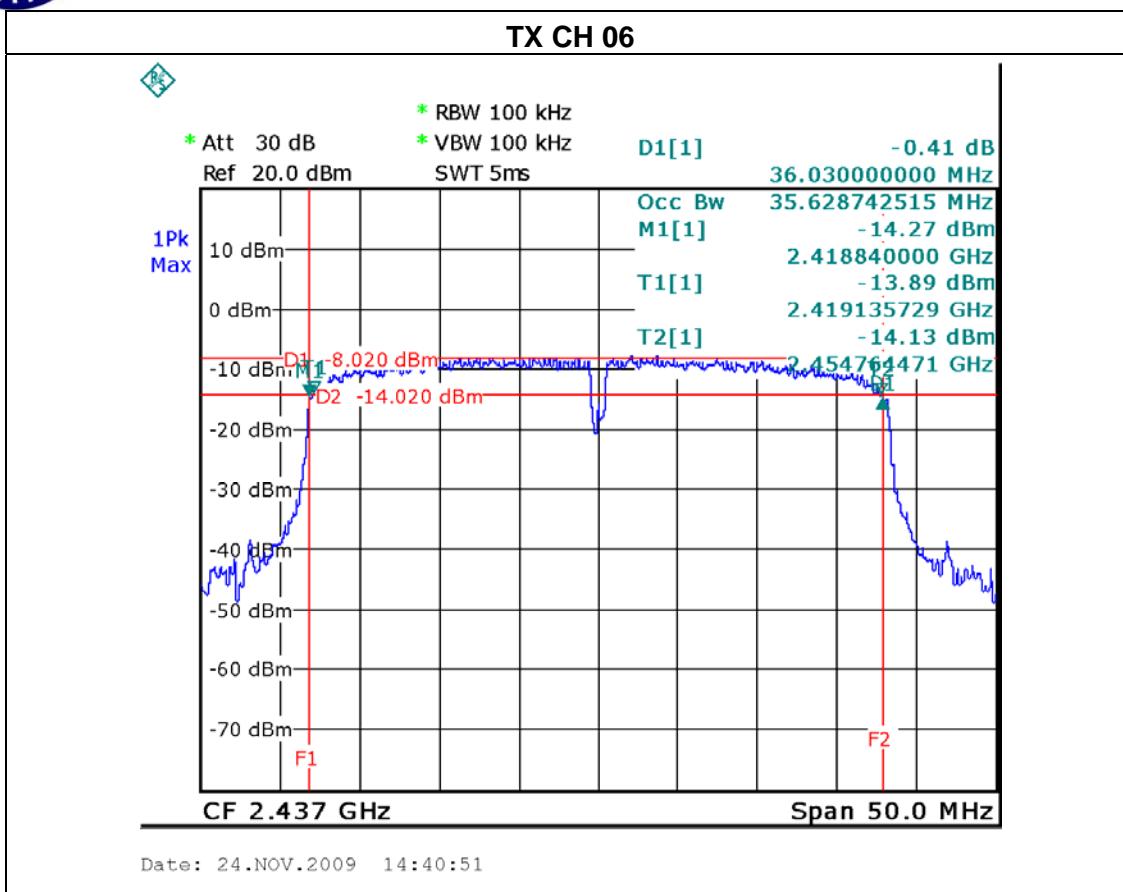




| | | | |
|---------------|-----------------------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 24 °C | Relative Humidity : | 60 % |
| Pressure : | 1016 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX N MODE-40MHz /CH03, CH06, CH09 | | |

| Test Channel | Frequency (MHz) | Bandwidth (MHz) | 99% Occupied BW (MHz) | LIMIT (MHz) |
|--------------|-----------------|-----------------|-----------------------|-------------|
| CH03 | 2422 | 35.33 | 35.53 | >=500KHz |
| CH06 | 2437 | 36.03 | 35.63 | >=500KHz |
| CH09 | 2452 | 35.93 | 35.53 | >=500KHz |







6. PEAK OUTPUT POWER TEST

6.1 Applied procedures / limit

| FCC Part15 (15.247) , Subpart C | | | | |
|---------------------------------|-------------------|-----------------|-----------------------|--------|
| Section | Test Item | Limit | Frequency Range (MHz) | Result |
| 15.247 (b)(1) | Peak Output Power | 1 watt or 30dBm | 2400-2483.5 | PASS |

6.1.1 MEASUREMENT INSTRUMENTS LIST

| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
|------|--------------------|--------------|----------|------------|------------------|
| 1 | Power Meter | Anritsu | ML2487A | 6K00004714 | Feb. 11, 2010 |
| 2 | Power Meter Sensor | Anritsu | MA2491A | 34138 | Feb. 11, 2010 |

Remark: " N/A" denotes No Model Name. , Serial No. or No Calibration specified.

6.1.2 TEST PROCEDURE

- The EUT was directly connected to the power meter and antenna output port as show in the block diagram below,

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 : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 24 °C | Relative Humidity : | 60 % |
| Pressure : | 1016 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX B MODE /CH01, CH06, CH11 | | |

| Test Channel | Frequency (MHz) | Peak Output Power (dBm) | LIMIT (dBm) | LIMIT (W) |
|--------------|-----------------|-------------------------|-------------|-----------|
| CH01 | 2412 MHz | 16.70 | 30 | 1 |
| CH06 | 2437 MHz | 17.13 | 30 | 1 |
| CH11 | 2462 MHz | 16.65 | 30 | 1 |

| | | | |
|---------------|-----------------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 24 °C | Relative Humidity : | 60 % |
| Pressure : | 1016 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX G MODE /CH01, CH06, CH11 | | |

| Test Channel | Frequency (MHz) | Peak Output Power (dBm) | LIMIT (dBm) | LIMIT (W) |
|--------------|-----------------|-------------------------|-------------|-----------|
| CH01 | 2412 MHz | 13.21 | 30 | 1 |
| CH06 | 2437 MHz | 13.38 | 30 | 1 |
| CH11 | 2462 MHz | 12.76 | 30 | 1 |



| | | | |
|---------------|-----------------------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 24 °C | Relative Humidity : | 60 % |
| Pressure : | 1016 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX N MODE-20MHz /CH01, CH06, CH11 | | |

| Test Channel | Frequency (MHz) | Peak Output Power (dBm) | LIMIT (dBm) | LIMIT (W) |
|--------------|-----------------|-------------------------|-------------|-----------|
| CH01 | 2412 MHz | 13.13 | 30 | 1 |
| CH06 | 2437 MHz | 13.24 | 30 | 1 |
| CH11 | 2462 MHz | 12.65 | 30 | 1 |

| | | | |
|---------------|-----------------------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 24 °C | Relative Humidity : | 60 % |
| Pressure : | 1016 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX N MODE-40MHz /CH03, CH06, CH09 | | |

| Test Channel | Frequency (MHz) | Peak Output Power (dBm) | LIMIT (dBm) | LIMIT (W) |
|--------------|-----------------|-------------------------|-------------|-----------|
| CH03 | 2422 MHz | 12.54 | 30 | 1 |
| CH06 | 2437 MHz | 12.34 | 30 | 1 |
| CH09 | 2452 MHz | 12.70 | 30 | 1 |



7. ANTENNA CONDUCTED SPURIOUS EMISSION

7.1 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 |

7.1.1 MEASUREMENT INSTRUMENTS LIST

| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
|------|-------------------|--------------|----------|------------|------------------|
| 1 | Spectrum Analyzer | R&S | FSP_40 | 100129 | Jan. 06, 2010 |

Remark: " N/A " denotes No Model Name. , Serial No. or No Calibration specified.

The following table is the setting of the spectrum analyzer.

| Spectrum Parameter | Setting |
|---------------------------------------|--|
| Attenuation | Auto |
| Span Frequency | 100 MHz |
| RB / VB (emission in restricted band) | 1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average |
| RB / VB (other emission) | 100 KHz /100 KHz for Peak |

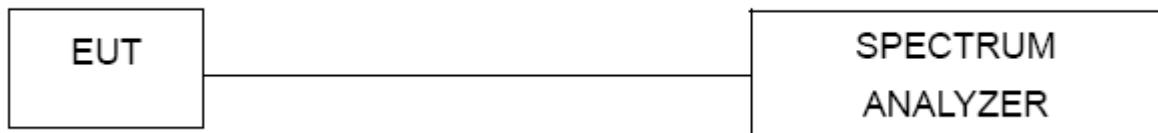
7.1.2 TEST PROCEDURE

- 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 = 10 ms.

7.1.3 DEVIATION FROM STANDARD

No deviation.

7.1.4 TEST SETUP





7.1.5 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.

**7.1.6 TEST RESULTS**

| | | | |
|---------------|-----------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 24 °C | Relative Humidity : | 60 % |
| Pressure : | 1016 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX B MODE /CH01, CH11 | | |

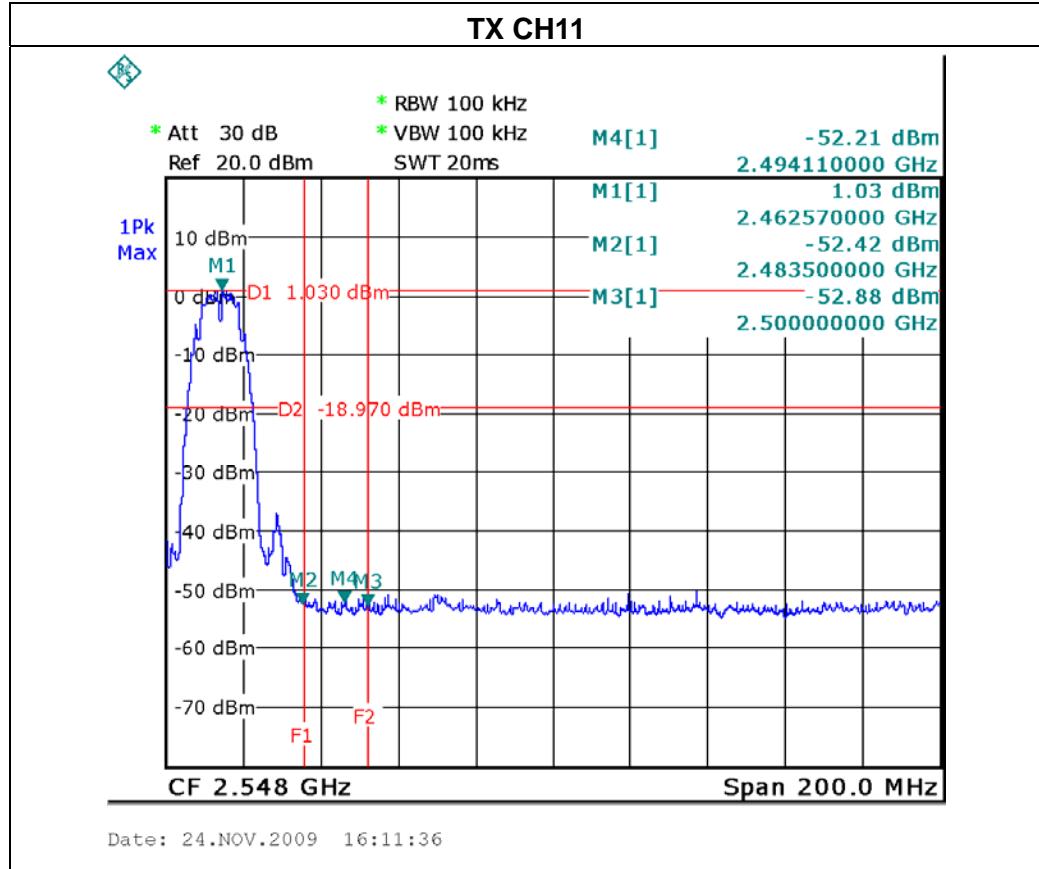
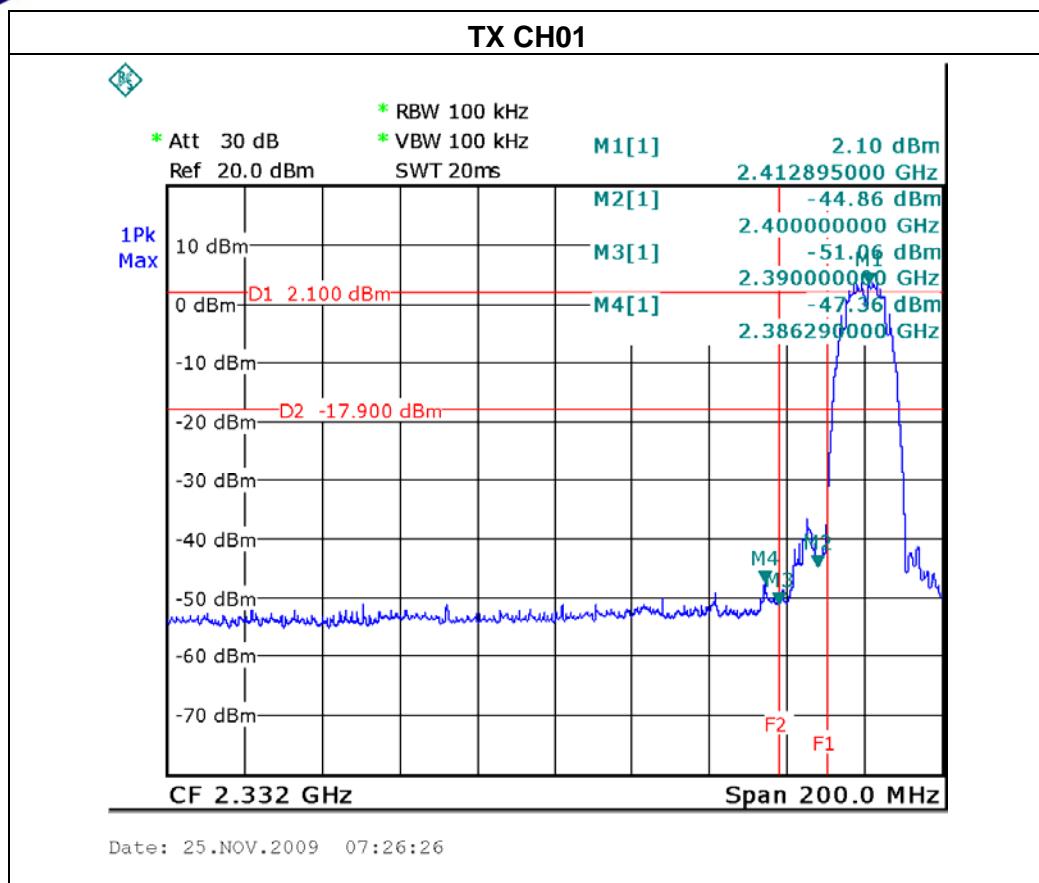
Channel of Worst Data: CH01

| | |
|---|--|
| 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) |
|----------------|------------|----------------|------------|
| 2386.29 | -47.36 | 2494.11 | -52.21 |

Result

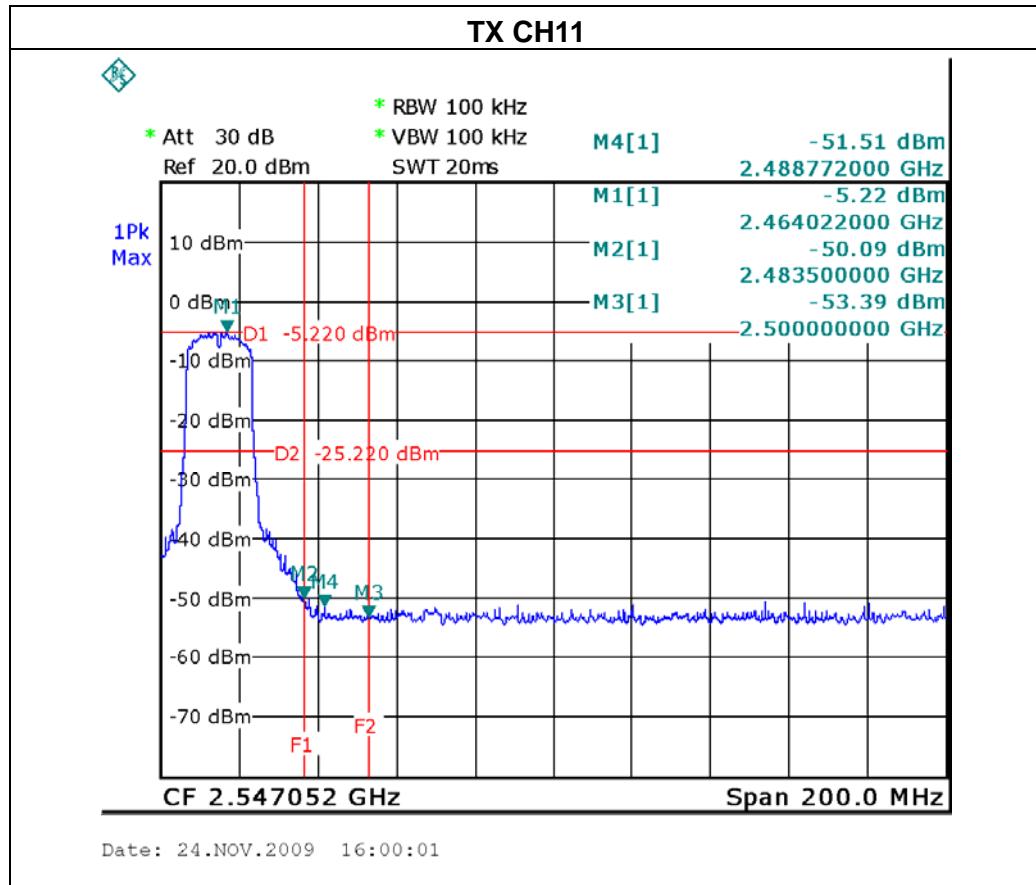
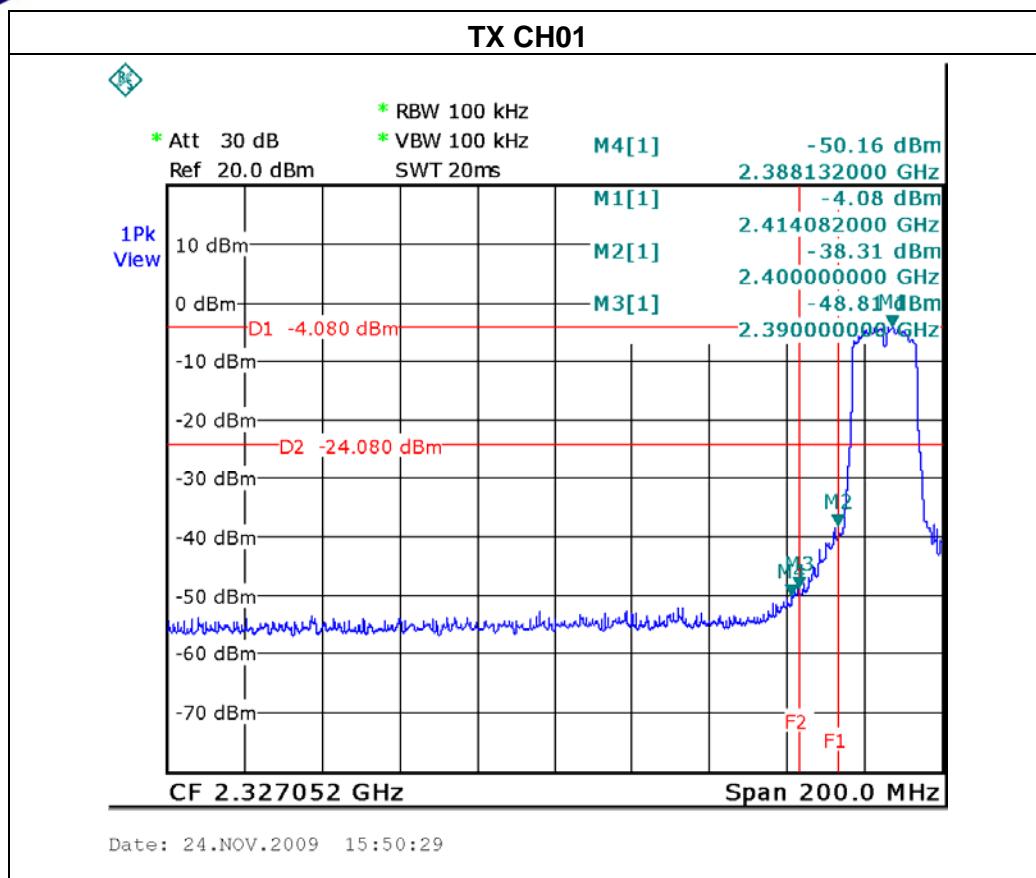
In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest lever of the desired power.





| | | | |
|---------------|-----------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 24 °C | Relative Humidity : | 60 % |
| Pressure : | 1016 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX G MODE /CH01, CH11 | | |

| Channel of Worst Data: CH01 | | | |
|---|------------|--|------------|
| 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) |
| 2390.00 | -48.81 | 2483.50 | -50.09 |
| 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 lever of the desired power. | | | |



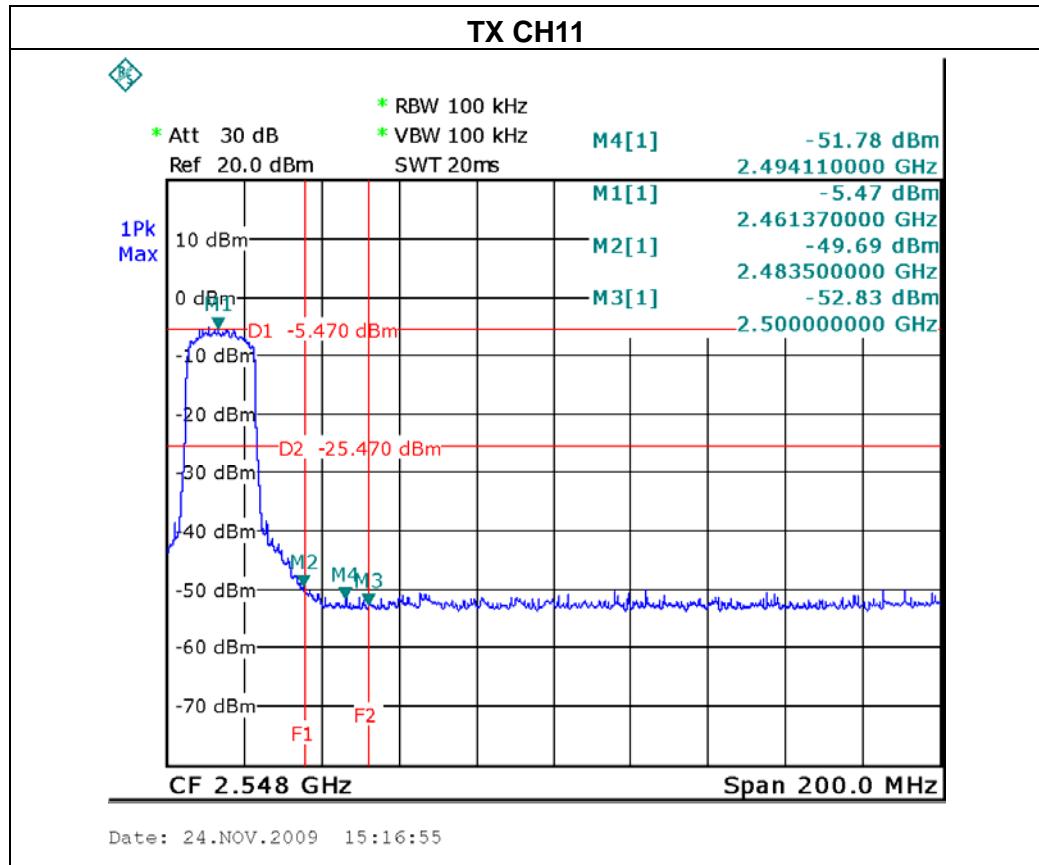
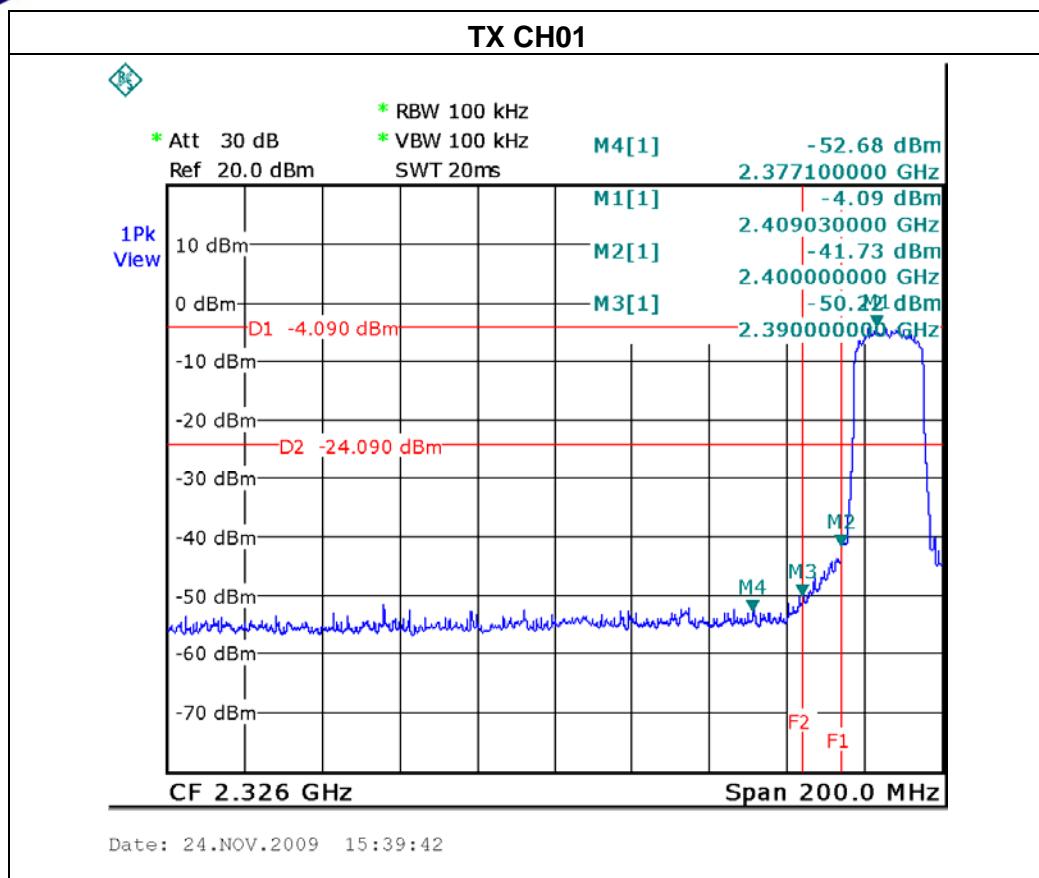


| | | | |
|---------------|-----------------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 24 °C | Relative Humidity : | 60 % |
| Pressure : | 1016 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX N MODE-20MHz /CH01, CH11 | | |

Channel of Worst Data: CH11

| | | | |
|---|------------|--|------------|
| 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) |
| 2390.00 | -50.21 | 2483.50 | -49.69 |
| Result | | | |

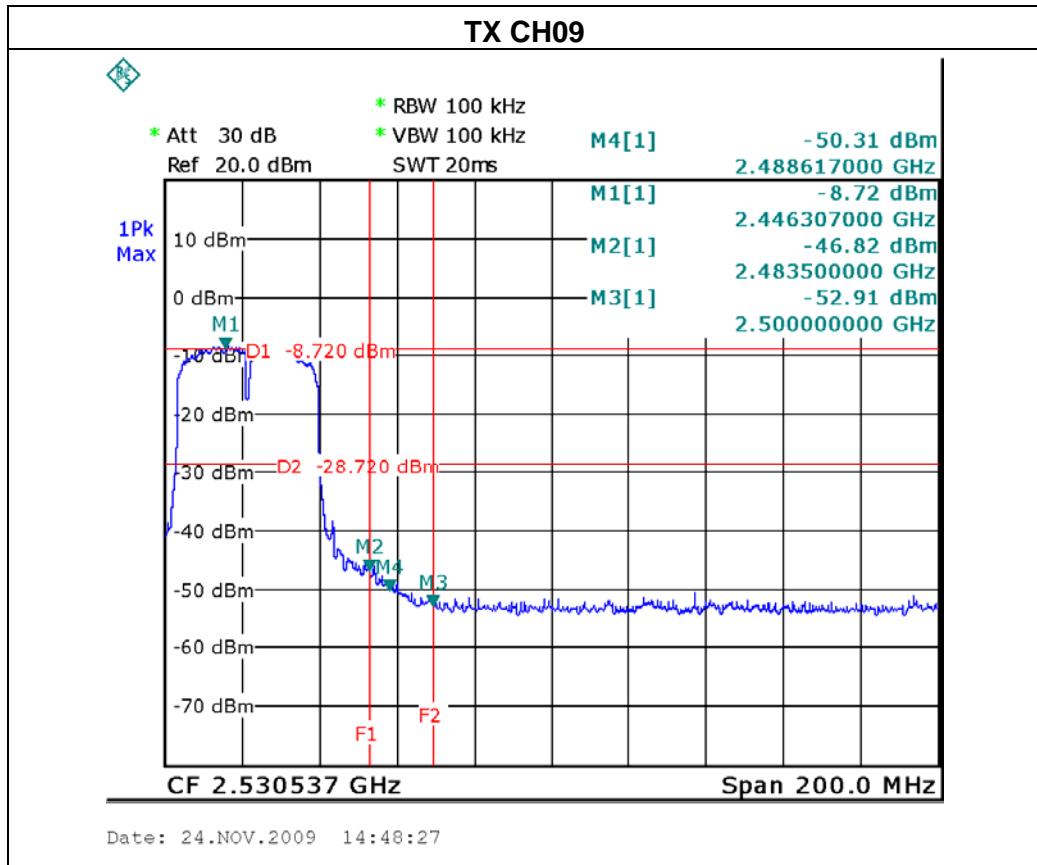
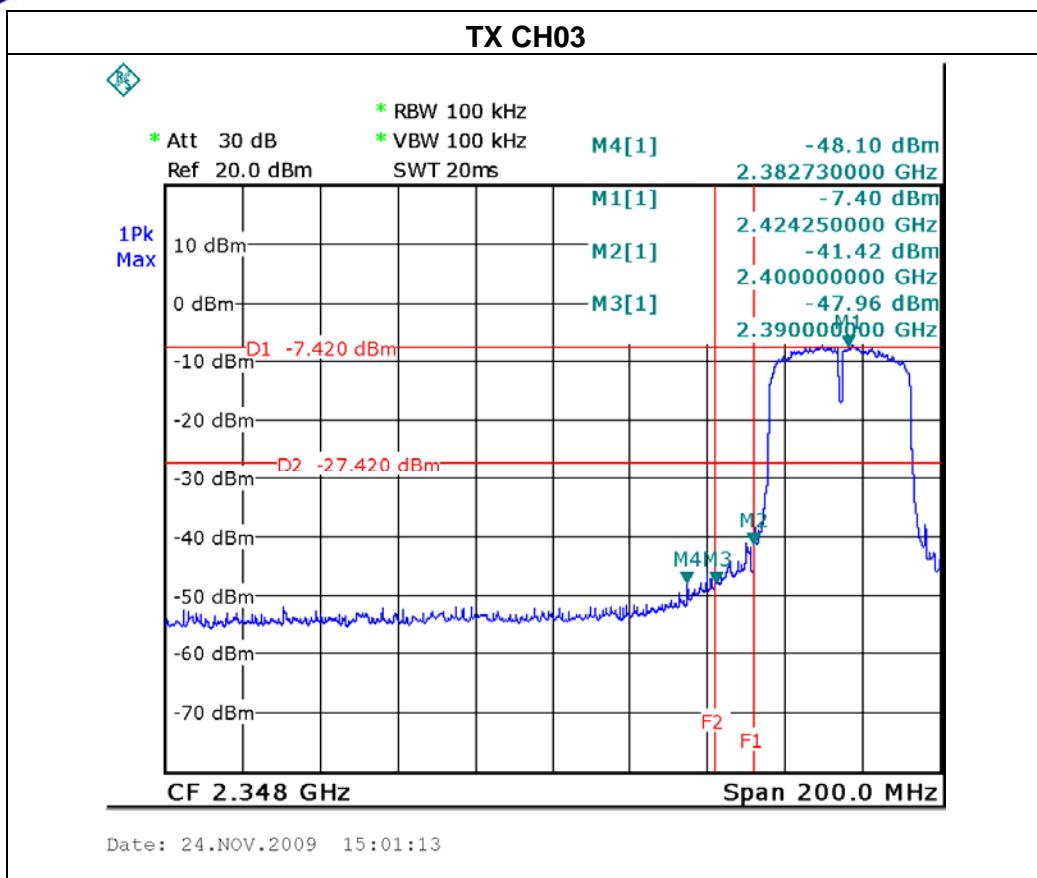
In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest lever of the desired power.





| | | | |
|---------------|-----------------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 24 °C | Relative Humidity : | 60 % |
| Pressure : | 1016 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX N MODE-40MHz /CH03, CH09 | | |

| Channel of Worst Data: CH09 | | | |
|---|------------|--|------------|
| 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) |
| 2390.00 | -47.96 | 2483.50 | -46.82 |
| 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 lever of the desired power. | | | |





8. POWER SPECTRAL DENSITY TEST

8.1 Applied procedures / limit

| FCC Part15 (15.247) , Subpart C | | | | |
|---------------------------------|------------------------|------------------------|-----------------------|--------|
| Section | Test Item | Limit | Frequency Range (MHz) | Result |
| 15.247 (d) | Power Spectral Density | 8 dBm (in any 3KHz) | 2400-2483.5 | PASS |

8.1.1 MEASUREMENT INSTRUMENTS LIST

| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
|------|-------------------|--------------|----------|------------|------------------|
| 1 | Spectrum Analyzer | R&S | FSP_40 | 100129 | Jan. 06, 2010 |

Remark: " N/A " denotes No Model Name. , Serial No. or No Calibration specified.

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=3KHz, VBW=30 KHz, Sweep time = 500s.

8.1.3 DEVIATION FROM STANDARD

No deviation.

8.1.4 TEST SETUP



8.1.5 EUT OPERATION CONDITIONS

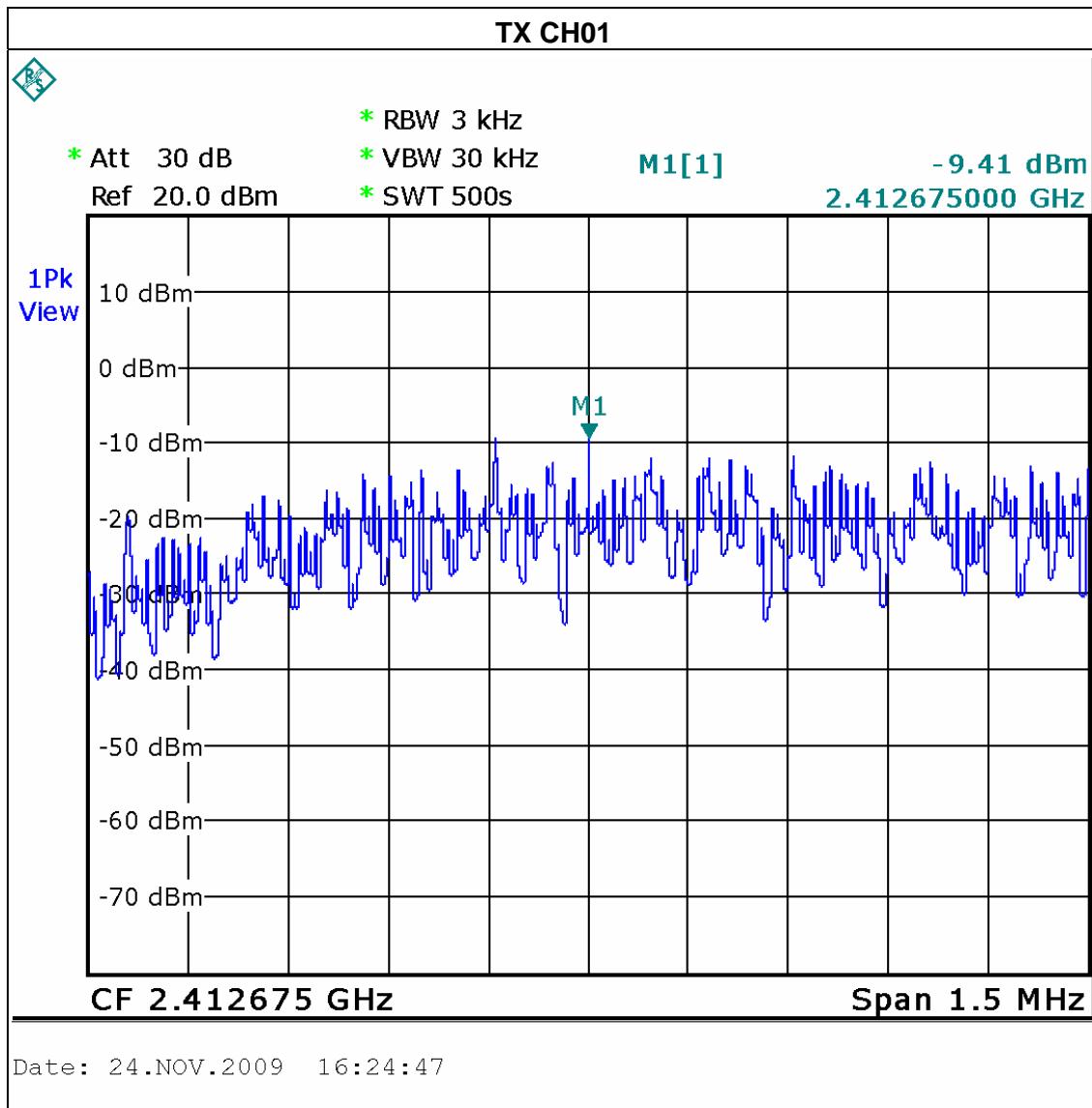
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

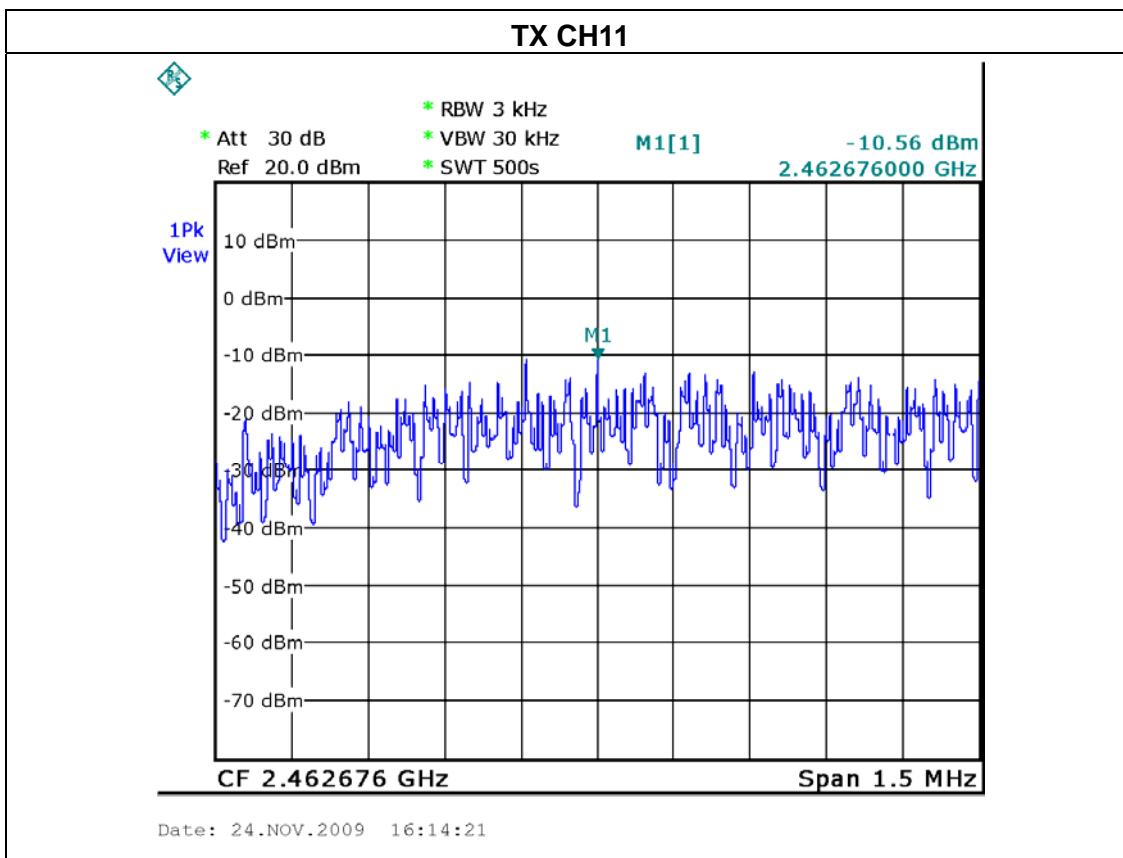
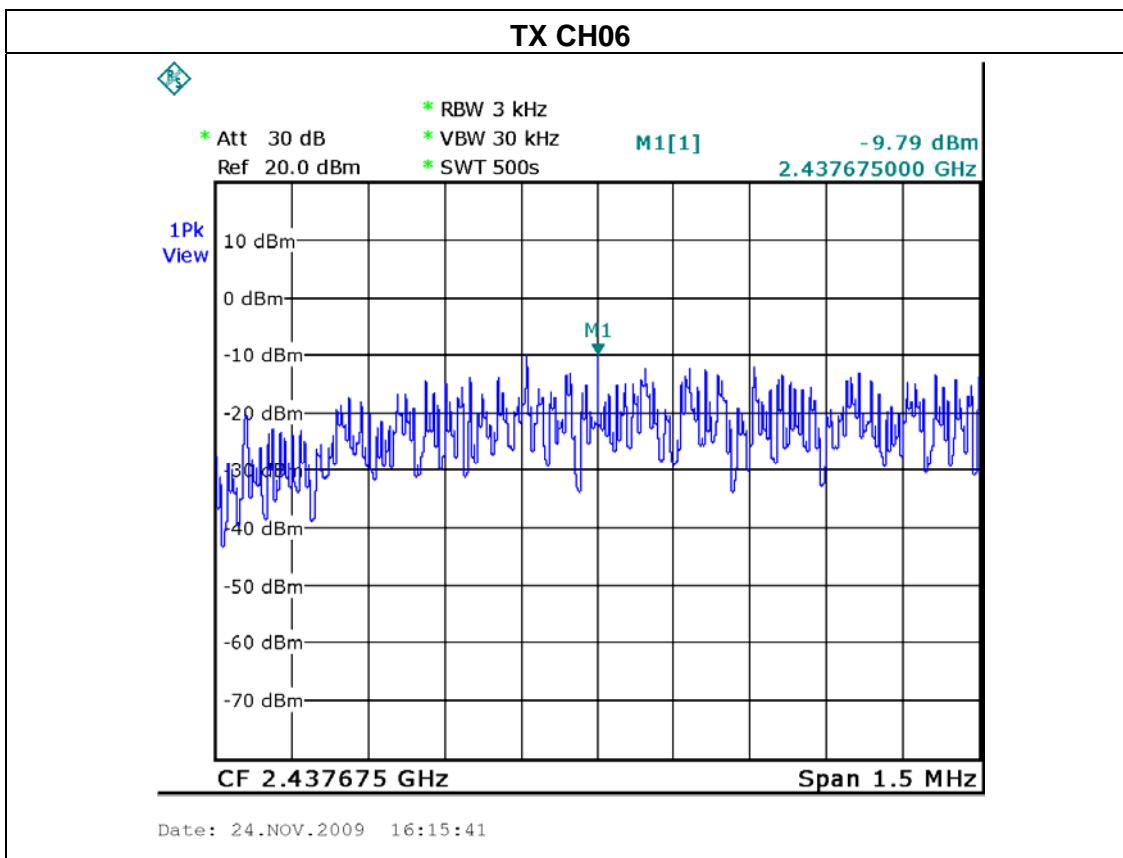


8.1.6 TEST RESULTS

| | | | |
|---------------|-----------------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 24 °C | Relative Humidity : | 60 % |
| Pressure : | 1016 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX B MODE /CH01, CH06, CH11 | | |

| Test Channel | Frequency (MHz) | Power Density (dBm) | LIMIT (dBm) |
|--------------|-----------------|---------------------|-------------|
| CH01 | 2412 MHz | -9.41 | 8 |
| CH06 | 2437 MHz | -9.79 | 8 |
| CH11 | 2462 MHz | -10.56 | 8 |

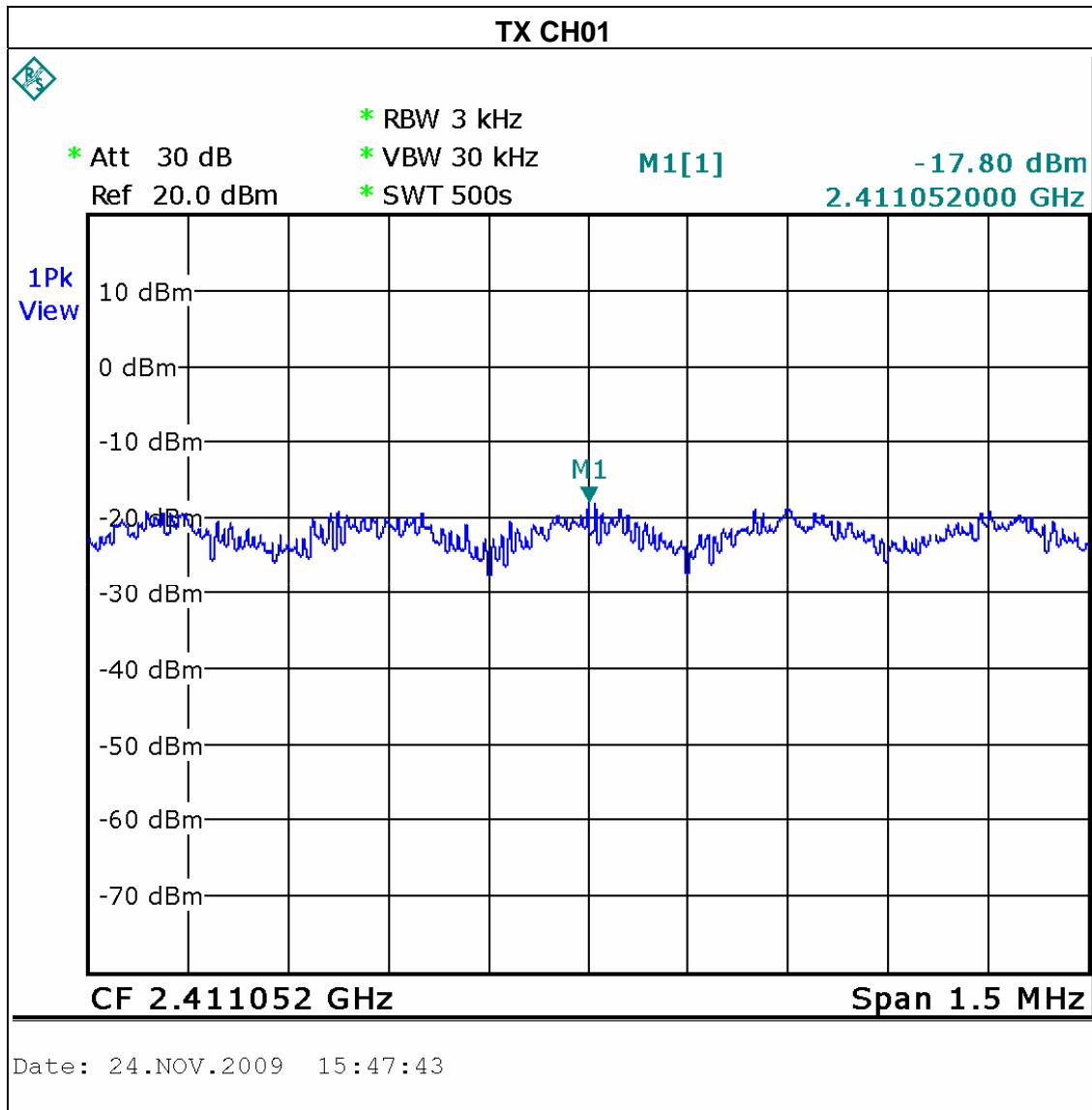


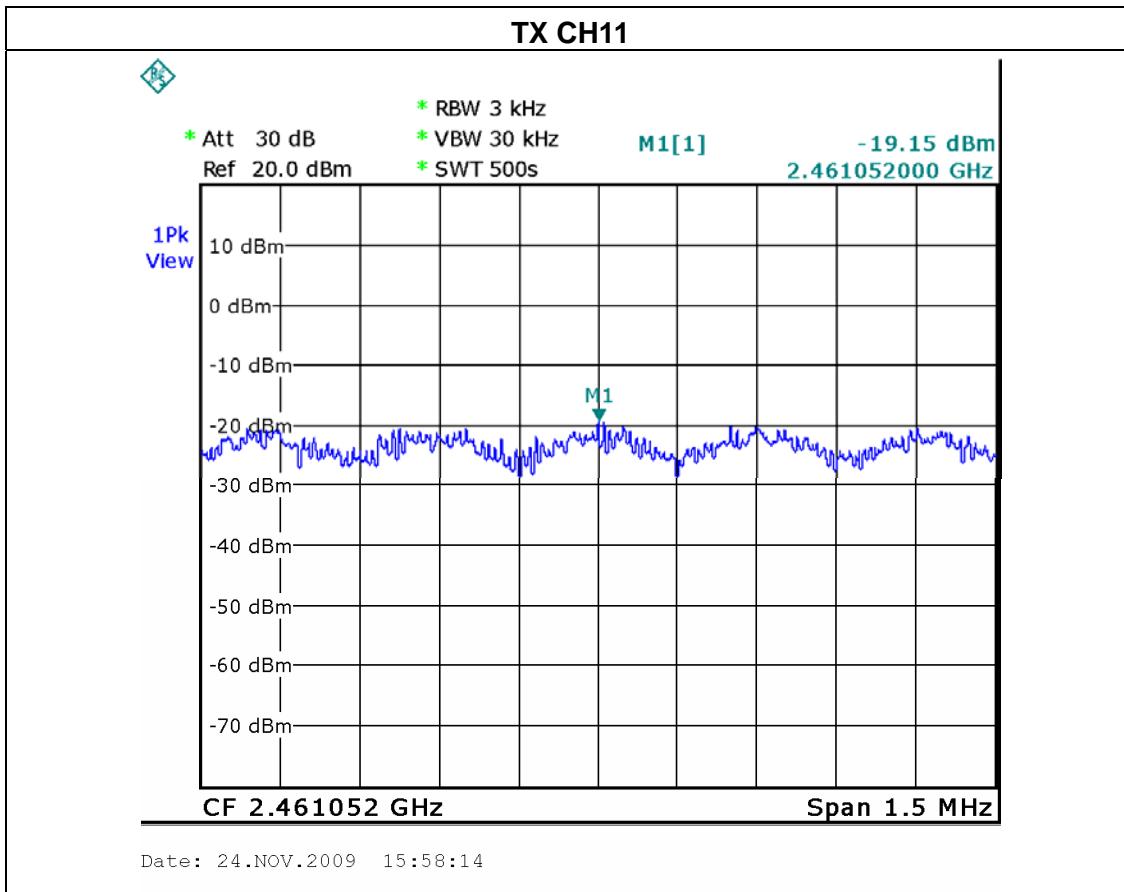
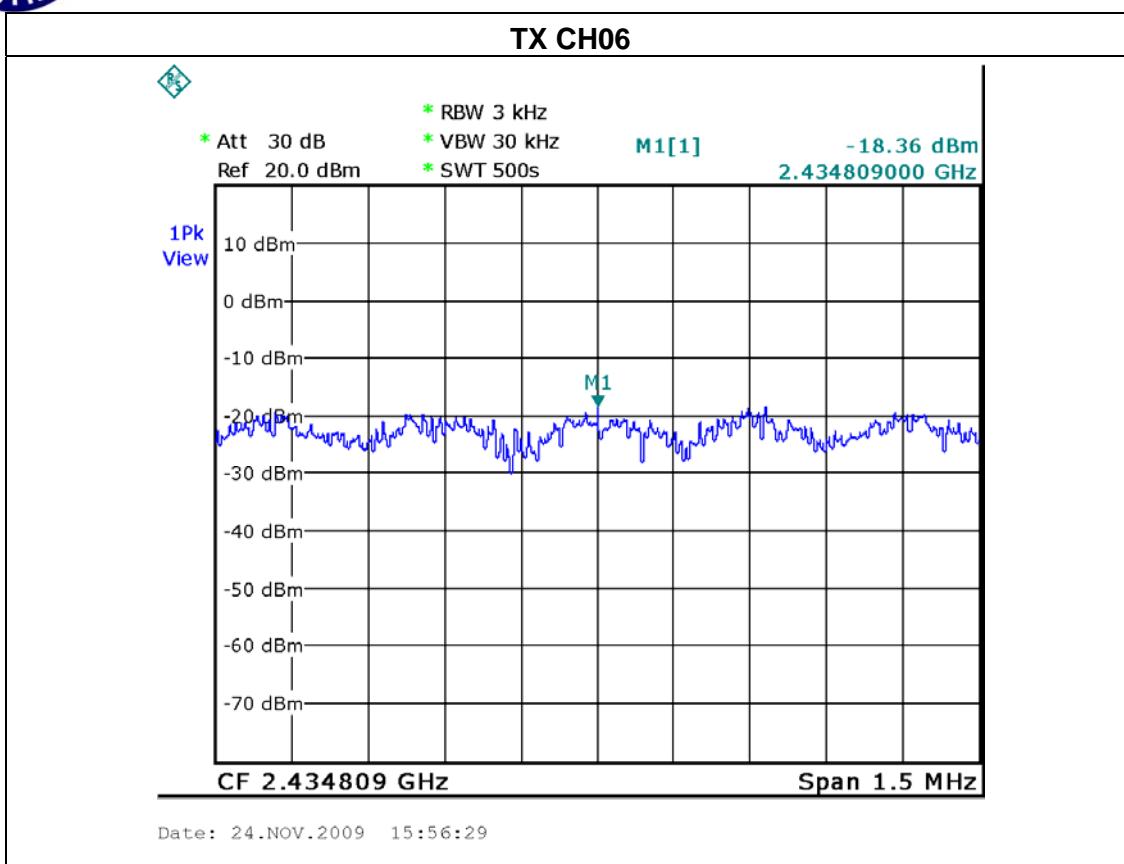




| | | | |
|---------------|-----------------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 24 °C | Relative Humidity : | 60 % |
| Pressure : | 1016 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX G MODE /CH01, CH06, CH11 | | |

| Test Channel | Frequency (MHz) | Power Density (dBm) | LIMIT (dBm) |
|--------------|-----------------|---------------------|-------------|
| CH01 | 2412 MHz | -17.80 | 8 |
| CH06 | 2437 MHz | -18.36 | 8 |
| CH11 | 2462 MHz | -19.15 | 8 |

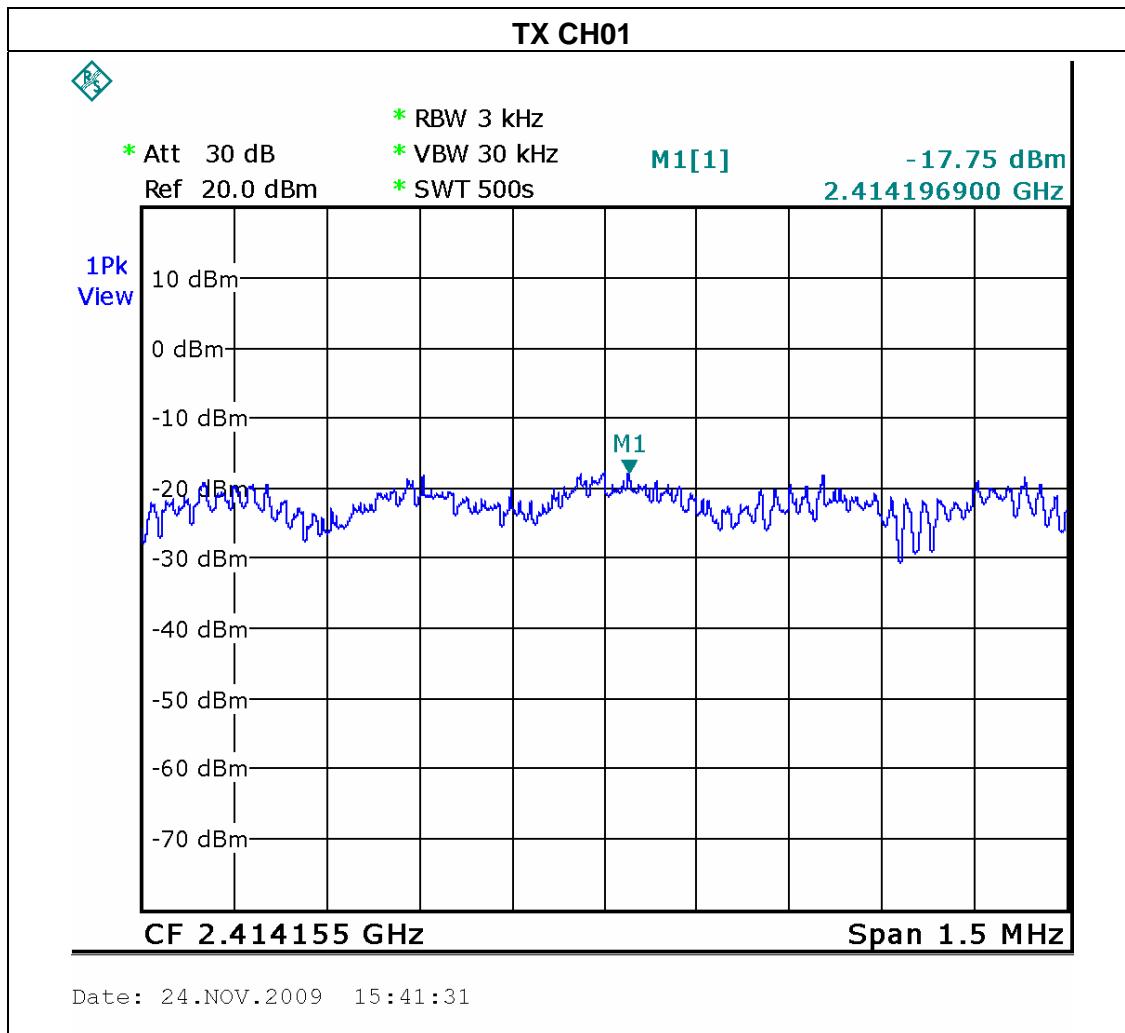


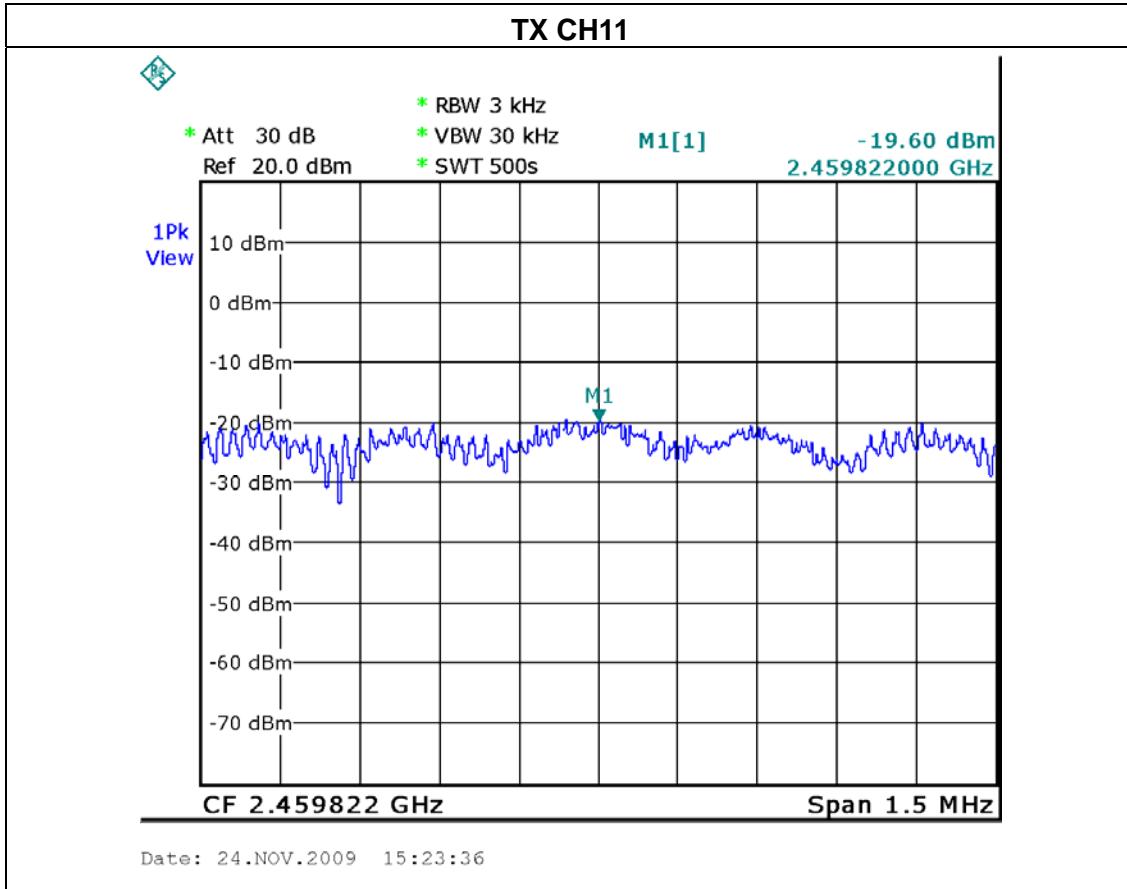
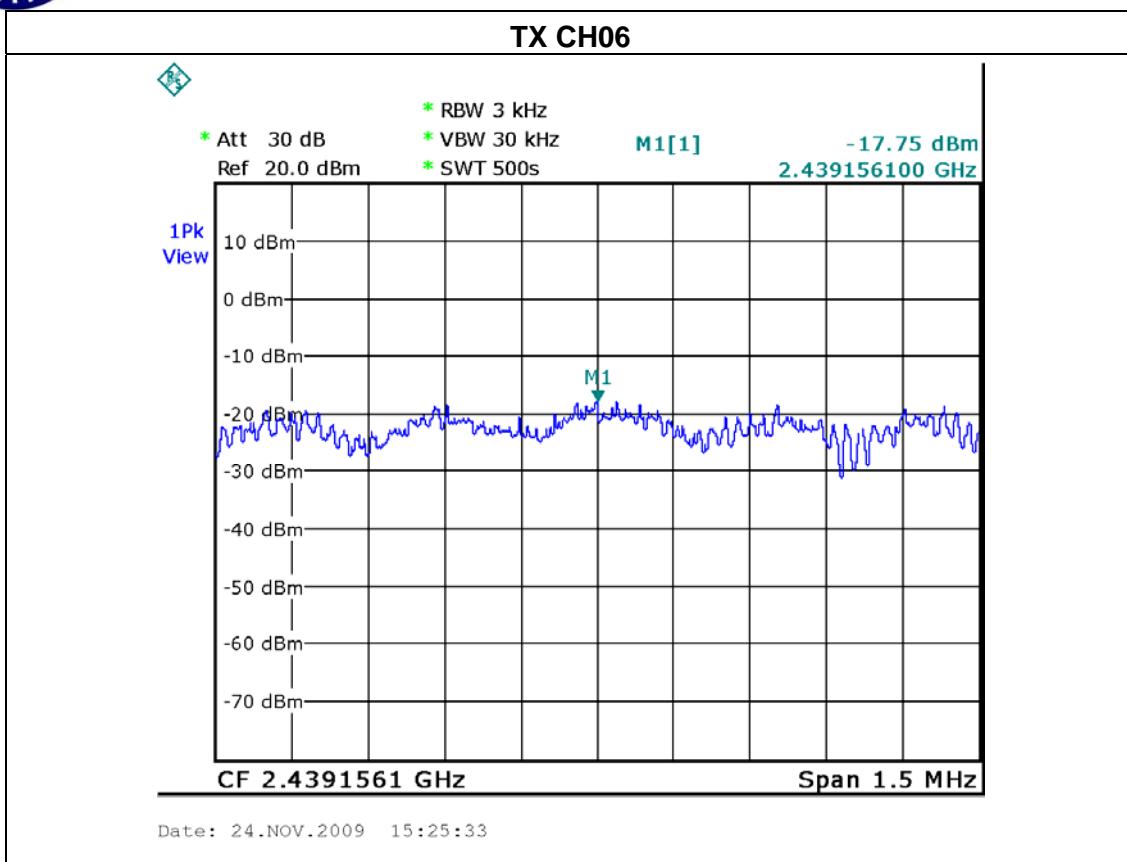




| | | | |
|---------------|-----------------------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 24 °C | Relative Humidity : | 60 % |
| Pressure : | 1016 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX N MODE-20MHz /CH01, CH06, CH11 | | |

| Test Channel | Frequency (MHz) | Power Density (dBm) | LIMIT (dBm) |
|--------------|-----------------|---------------------|-------------|
| CH01 | 2412 MHz | -17.75 | 8 |
| CH06 | 2437 MHz | -17.75 | 8 |
| CH11 | 2462 MHz | -19.60 | 8 |

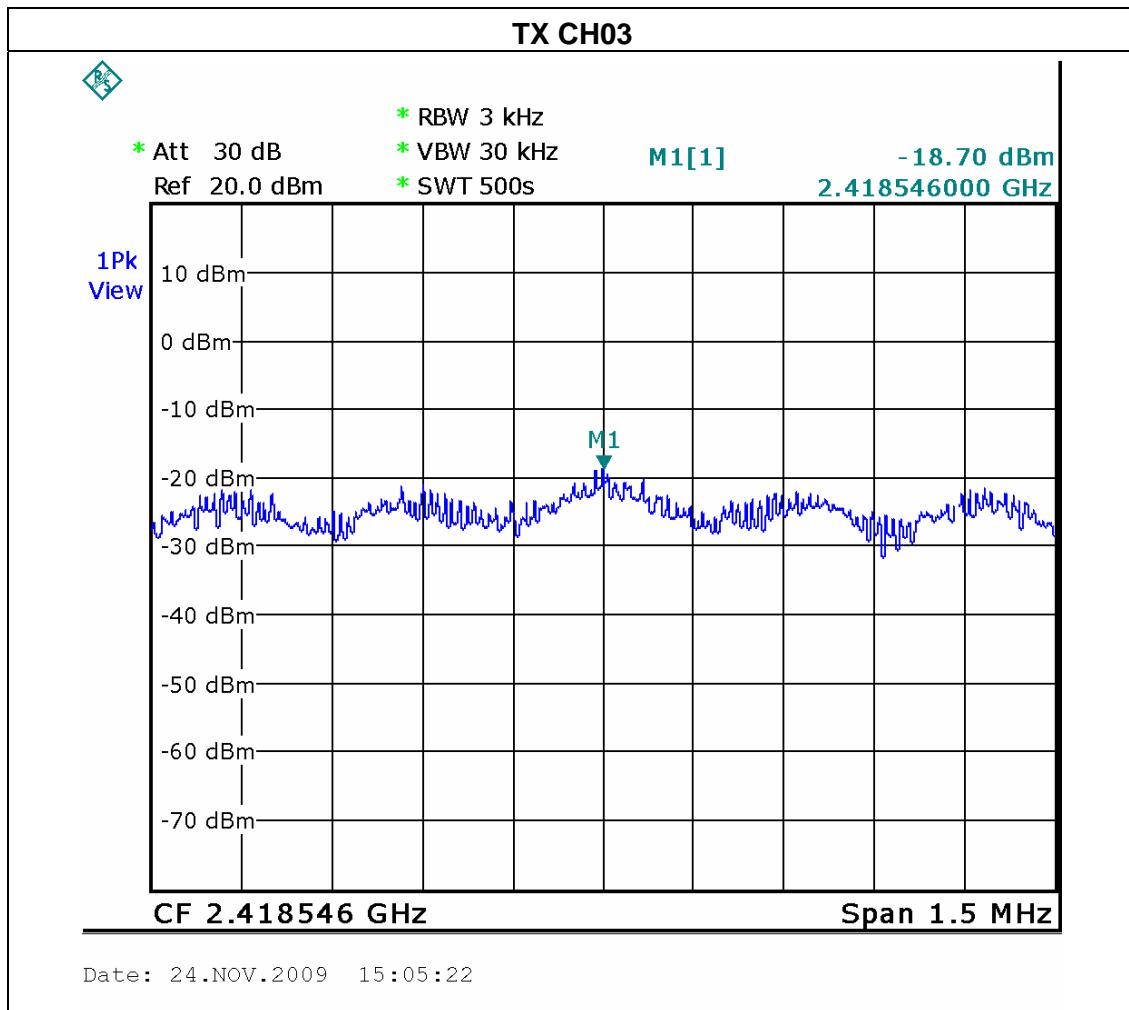


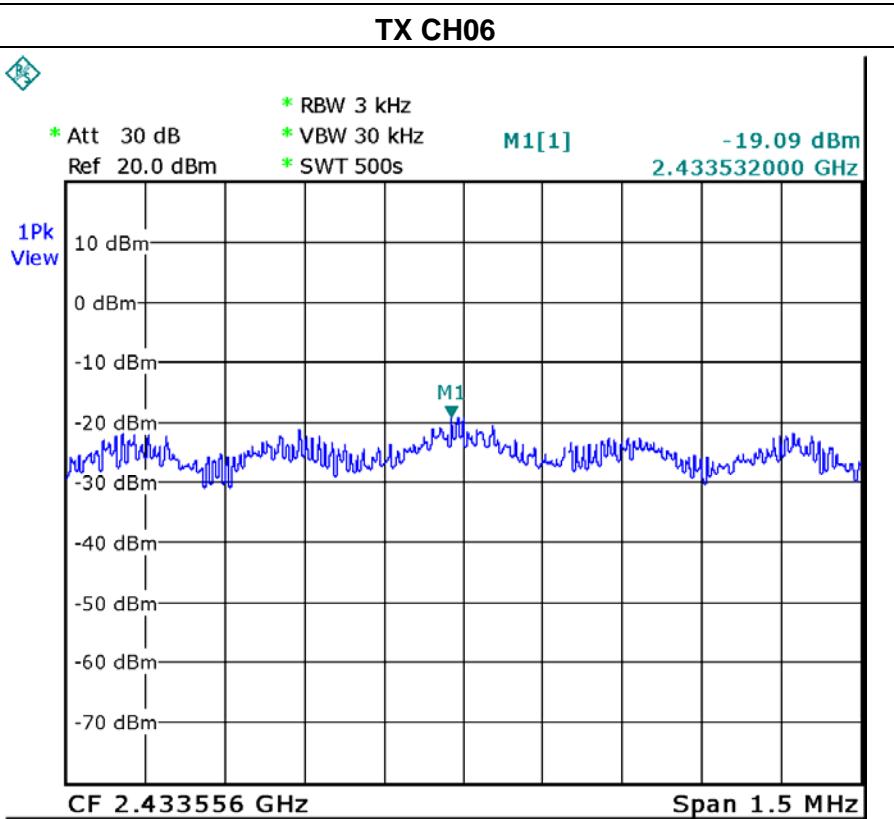




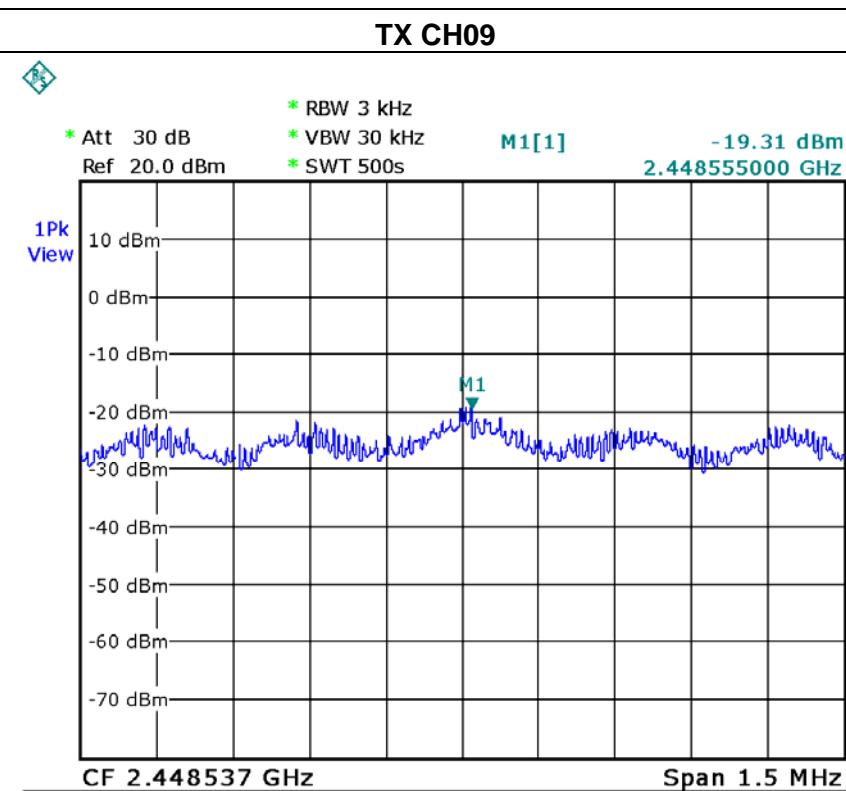
| | | | |
|---------------|-----------------------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 24 °C | Relative Humidity : | 60 % |
| Pressure : | 1016 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX N MODE-40MHz /CH03, CH06, CH09 | | |

| Test Channel | Frequency (MHz) | Power Density (dBm) | LIMIT (dBm) |
|--------------|-----------------|---------------------|-------------|
| CH03 | 2422 MHz | -18.70 | 8 |
| CH06 | 2437 MHz | -19.09 | 8 |
| CH09 | 2452 MHz | -19.31 | 8 |





Date: 24.NOV.2009 14:43:57



Date: 24.NOV.2009 14:46:52



9. RF EXPOSURE TEST

9.1 APPLIED PROCEDURES / LIMIT

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device.

(A) Limits for Occupational / Controlled Exposure

| Frequency Range (MHz) | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) (mW/ cm ²) | Averaging Time E ² , H ² or S (minutes) |
|-----------------------|-----------------------------------|-----------------------------------|--|--|
| 0.3-3.0 | 614 | 1.63 | (100)* | 6 |
| 3.0-30 | 1842 / f | 4.89 / f | (900 / f)* | 6 |
| 30-300 | 61.4 | 0.163 | 1.0 | 6 |
| 300-1500 | | | F/300 | 6 |
| 1500-100,000 | | | 5 | 6 |

(B) Limits for General Population / Uncontrolled Exposure

| Frequency Range (MHz) | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) (mW/ cm ²) | Averaging Time E ² , H ² or S (minutes) |
|-----------------------|-----------------------------------|-----------------------------------|--|--|
| 0.3-1.34 | 614 | 1.63 | (100)* | 30 |
| 1.34-30 | 824/f | 2.19/f | (180/f)* | 30 |
| 30-300 | 27.5 | 0.073 | 0.2 | 30 |
| 300-1500 | | | F/1500 | 30 |
| 1500-100,000 | | | 1.0 | 30 |

Note: f = frequency in MHz ; *Plane-wave equivalent power density

9.1.1 MPE CALCULATION METHOD

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d}$$

E = Electric field (V/m)

P = Peak RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = \frac{30 \times P \times G}{377 \times d^2}$$

$$\text{Power Density: } Pd \text{ (W/m}^2\text{)} = \frac{E^2}{377}$$

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained

9.1.2 DEVIATION FROM STANDARD

No deviation.

9.1.3 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.



9.1.4 TEST RESULTS

| | | | |
|---------------|-----------------------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 24 °C | Relative Humidity : | 60 % |
| Pressure : | 1016 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX B MODE CH01, CH06, CH11 | | |

| Antenna Gain (dBi) | Antenna Gain (numeric) | Peak Output Power (dBm) | Peak Output Power (mW) | Power Density (S) (mW/cm²) | Limit of Power Density (S) (mW/cm²) | Test Result |
|--------------------|------------------------|-------------------------|------------------------|----------------------------|-------------------------------------|-----------------|
| -3.0 | 0.5012 | 16.70 | 46.7735 | 0.004666 | 1 | Complies |
| -3.0 | 0.5012 | 17.13 | 51.6416 | 0.005152 | 1 | Complies |
| -3.0 | 0.5012 | 16.65 | 46.2381 | 0.004613 | 1 | Complies |

| | | | |
|---------------|-----------------------------------|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 24 °C | Relative Humidity : | 60 % |
| Pressure : | 1016 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX G MODE CH01, CH06, CH11 | | |

| Antenna Gain (dBi) | Antenna Gain (numeric) | Peak Output Power (dBm) | Peak Output Power (mW) | Power Density (S) (mW/cm²) | Limit of Power Density (S) (mW/cm²) | Test Result |
|--------------------|------------------------|-------------------------|------------------------|----------------------------|-------------------------------------|-----------------|
| -3.0 | 0.5012 | 13.21 | 20.9411 | 0.002089 | 1 | Complies |
| -3.0 | 0.5012 | 13.38 | 21.7771 | 0.002172 | 1 | Complies |
| -3.0 | 0.5012 | 12.76 | 18.8799 | 0.001883 | 1 | Complies |



| | | | |
|---------------|---|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 24 °C | Relative Humidity : | 60 % |
| Pressure : | 1016 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX N MODE-20MHz CH01, CH06, CH11 | | |

| Antenna Gain (dBi) | Antenna Gain (numeric) | Peak Output Power (dBm) | Peak Output Power (mW) | Power Density (S) (mW/cm²) | Limit of Power Density (S) (mW/cm²) | Test Result |
|--------------------|------------------------|-------------------------|------------------------|----------------------------|-------------------------------------|-----------------|
| -3.0 | 0.5012 | 13.13 | 20.5589 | 0.002051 | 1 | Complies |
| -3.0 | 0.5012 | 13.24 | 21.0863 | 0.002104 | 1 | Complies |
| -3.0 | 0.5012 | 12.65 | 18.4077 | 0.001836 | 1 | Complies |

| | | | |
|---------------|---|---------------------|-------------------|
| EUT : | Vpuck(Video-puck) | Model Name : | Vpuck(Video-puck) |
| Temperature : | 24 °C | Relative Humidity : | 60 % |
| Pressure : | 1016 hPa | Test Voltage : | AC 120V/60Hz |
| Test Mode : | TX N MODE-40MHz CH03, CH06, CH09 | | |

| Antenna Gain (dBi) | Antenna Gain (numeric) | Peak Output Power (dBm) | Peak Output Power (mW) | Power Density (S) (mW/cm²) | Limit of Power Density (S) (mW/cm²) | Test Result |
|--------------------|------------------------|-------------------------|------------------------|----------------------------|-------------------------------------|-----------------|
| -3.0 | 0.5012 | 12.54 | 17.9473 | 0.001790 | 1 | Complies |
| -3.0 | 0.5012 | 12.34 | 17.1396 | 0.001710 | 1 | Complies |
| -3.0 | 0.5012 | 12.70 | 18.6209 | 0.001858 | 1 | Complies |



10. EUT TEST PHOTO

Conducted Measurement Photos





Radiated Measurement Photos

