# FCC RADIO TEST REPORT
# FCC ID: 2AC48-VC-818ETTL

| | |
|---|---|
| **Product：** | Remote control |
| **Trade Mark：** | VISICO |
| **Model Name：** | VC-818 ETTL |
| **Serial Model：** | N/A |
| **Report No.：** | SRS171109807 |

## Prepared for

YUYAO VISTAR ELECTRONIC SCIENCE & TECHNOLOGY CO.,LTD.

NO.206 BEIXING ROAD OF WEST CITY INDUSTRIAL DEVELOPMENT ZONE, YUYAO CITY, ZHEJIANG, CHINA

## Prepared by

NTEK Testing Technology Co., Ltd.

1/F, Building E, Fenda Science Park, Sanwei Community,Xixiang Street
Bao'an District, Shenzhen 518126 P.R. China
Tel.: +86-755-6115 6588 Fax.: +86-755-6115 6599
Website:http://www.ntek.org.cn

# TEST RESULT CERTIFICATION

| | | |
|---|---|---|
| **Applicant's name** | : | YUYAO VISTAR ELECTRONIC SCIENCE & TECHNOLOGY CO.,LTD. |
| Address | : | NO.206 BEIXING ROAD OF WEST CITY INDUSTRIAL DEVELOPMENT ZONE, YUYAO CITY, ZHEJIANG, CHINA |
| **Manufacturer's Name** | : | YUYAO VISTAR ELECTRONIC SCIENCE & TECHNOLOGY CO.,LTD. |
| Address | : | NO.206 BEIXING ROAD OF WEST CITY INDUSTRIAL DEVELOPMENT ZONE, YUYAO CITY, ZHEJIANG, CHINA |

**Product description**

| | | |
|---|---|---|
| Product name | : | Remote control |
| Model and/or type reference | : | VC-818 ETTL |
| Serial Model： | | N/A |
| Rating(s) | : | DC 2*1.5Vfrom AA battery |
| **Standards** | : | FCC Part15.249 |
| Test procedure | | ANSI C63.10-2013 |

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

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| | | |
|---|---|---|
| **Date of Test** | : | |
| Date (s) of performance of tests | : | 21 Oct. 2017 ~ 08 Nov. 2017 |
| Date of Issue | : | 08 Nov. 2017 |
| Test Result | : | **Pass** |

Testing Engineer : Eileen Liu.

(Eileen Liu)

Technical Manager : Jason chen

(Jason Chen)

Authorized Signatory : Sam . chen

(Sam Chen)

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## 1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

| FCC Part15, Subpart C (15.249) | | | |
|---|---|---|---|
| Standard Section | Test Item | Judgment | Remark |
| 15.207 | Conducted Emission | N/A | |
| 15.203 | Antenna Requirement | Pass | |
| 15.249 | Radiated Spurious Emission | Pass | |
| 15.205 | Band Edge Emission | Pass | |
| 15.249 | Occupied Bandwidth | Pass | |

## 1.1 TEST FACILITY

NTEK Testing Technology Co., Ltd
Add. : 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao'an District, Shenzhen 518126 P.R. China.
FCC FRN Registration No.: 463705;  IC Registration No.:9270A-1
CNAS Registration No.:L5516

## 1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement **y** ± **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** %。

| No. | Item | Uncertainty |
|---|---|---|
| 1 | Conducted Emission Test | ±1.38dB |
| 2 | RF power,conducted | ±0.16dB |
| 3 | Spurious emissions,conducted | ±0.21dB |
| 4 | All emissions,radiated(<1G) | ±4.68dB |
| 5 | All emissions,radiated(>1G) | ±4.89dB |
| 6 | Temperature | ±0.5°C |
| 7 | Humidity | ±2% |

# 2. GENERAL INFORMATION

## 2.1 GENERAL DESCRIPTION OF EUT

| | |
|---|---|
| Equipment | Remote control |
| Trade Mark | VISICO |
| Model Name | VC-818 ETTL |
| Serial Model | N/A |
| Model Difference | N/A |
| Operating Frequency | 2408MHz~2464MHz |
| Modulation Type: | GFSK |
| Antenna Type | PCB Antenna |
| Antenna Gain | 0dBi |
| Channel List | Please refer to the Note 2. |
| Adapter | N/A |
| Battery | DC 2*1.5Vfrom AA battery |
| SW Version | N/A |
| HW Version | N/A |

Note:

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

2.

| Channel | Frequency (MHz) | Channel | Frequency (MHz) |
|---|---|---|---|
| 01 | 2408 | 05 | 2440 |
| 02 | 2416 | 06 | 2448 |
| 03 | 2424 | 07 | 2456 |
| 04 | 2432 | 08 | 2464 |

## 2.2 DESCRIPTION OF TEST MODES

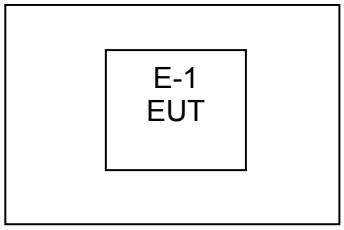
To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration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

| Pretest Mode | Description |
|---|---|
| Mode 1 | CH 01 |
| Mode 2 | CH 05 |
| Mode 3 | CH 08 |
| Mode 4 | Link mode |

| **For Radiated Emission** | |
|---|---|
| Final Test Mode | Description |
| Mode 1 | CH 01 |
| Mode 2 | CH 05 |
| Mode 3 | CH 08 |

## 2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Radiated Spurious Emission Test



## 2.4 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)

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

| Item | Equipment | Mfr/Brand | Model/Type No. | Series No. | Note |
|---|---|---|---|---|---|
| E-1 | Remote control | VISICO | VC-818 ETTL | N/A | EUT |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

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

Note:

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

2.4.1 EQUIPMENTS LIST FOR ALL TEST ITEMS

**Radiation Test equipment**

| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Last calibration | Calibrated until | Calibration period |
|---|---|---|---|---|---|---|---|
| 1 | Spectrum Analyzer | Agilent | E4407B | 160400005 | Jul. 07. 2017 | Jul. 06. 2018 | 1 year |
| 2 | Test Receiver | R&S | ESPI | 101318 | Jul. 07. 2017 | Jul. 06. 2018 | 1 year |
| 3 | Bilog Antenna | TESEQ | CBL6111D | 31216 | Jul. 07. 2017 | Jul. 06. 2018 | 1 year |
| 4 | 50Ω Coaxial Switch | Anritsu | MP59B | 6200264416 | Jul. 07. 2017 | Jul. 06. 2018 | 1 year |
| 5 | Spectrum Analyzer | ADVANTEST | R3132 | 150900201 | Jul. 07. 2017 | Jul. 06. 2018 | 1 year |
| 6 | Horn Antenna | EM | EM-AH-10180 | 2011071402 | Jul. 07. 2017 | Jul. 06. 2018 | 1 year |
| 7 | Horn Ant | Schwarzbeck | BBHA 9170 | 9170-181 | Jul. 07. 2017 | Jul. 06. 2018 | 1 year |
| 8 | Amplifier | EM | EM-30180 | 060538 | Jul. 07. 2017 | Jul. 06. 2018 | 1 year |
| 9 | Loop Antenna | ARA | PLA-1030/B | 1029 | Jul. 07. 2017 | Jul. 06. 2018 | 1 year |
| 10 | Power Meter | R&S | NRVS | 100696 | Jul. 07. 2017 | Jul. 06. 2018 | 1 year |

**Conduction Test equipment**

| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Last calibration | Calibrated until | Calibration period |
|---|---|---|---|---|---|---|---|
| 1 | Test Receiver | R&S | ESCI | 101160 | Jul. 07. 2017 | Jul. 06. 2018 | 1 year |
| 2 | LISN | R&S | ENV216 | 101313 | Jul. 07. 2017 | Jul. 06. 2018 | 1 year |
| 3 | LISN | EMCO | 3816/2 | 00042990 | Jul. 07. 2017 | Jul. 06. 2018 | 1 year |
| 4 | 50Ω Coaxial Switch | Anritsu | MP59B | 6200264417 | Jul. 07. 2017 | Jul. 06. 2018 | 1 year |
| 5 | Passive Voltage Probe | R&S | ESH2-Z3 | 100196 | Jul. 07. 2017 | Jul. 06. 2018 | 1 year |
| 6 | Absorbing clamp | R&S | MOS-21 | 100423 | Jul. 07. 2017 | Jul. 06. 2018 | 1 year |

# 3. ANTENNA REQUIREMENT

## 3.1 STANDARD REQUIREMENT

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

## 3.2 EUT ANTENNA

The EUT antenna is PCB antenna, details to see internal photo, it comply with the standard requirement.

## 3.3 CONDUCTED EMISSION MEASUREMENT

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

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

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.

The following table is the setting of the receiver

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

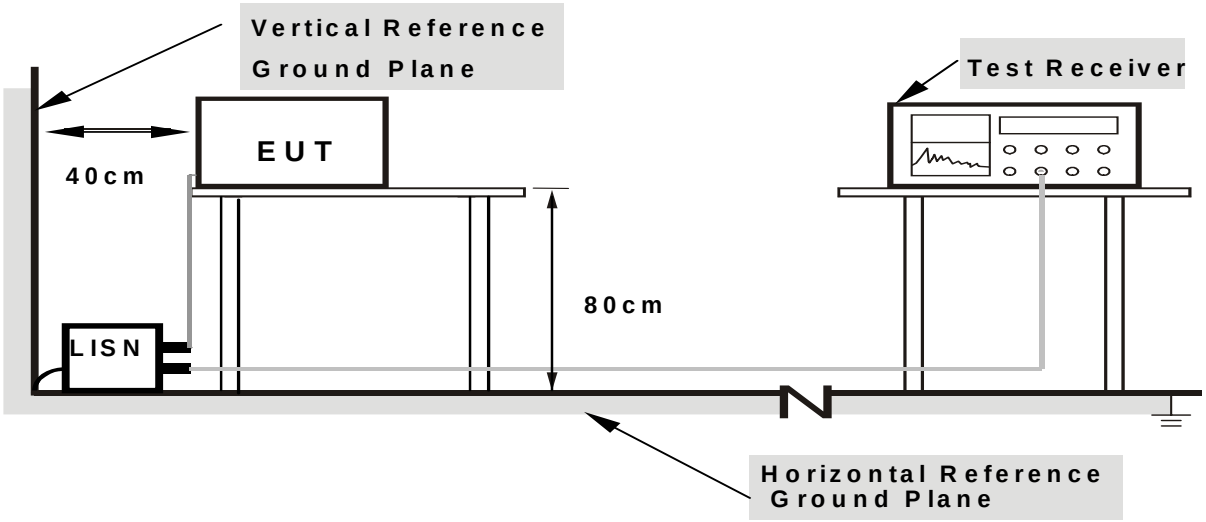
### 3.3.2 TEST PROCEDURE

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.

### 3.3.3 DEVIATION FROM TEST STANDARD

No deviation

### 3.3.4 TEST SETUP




Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

### 3.3.5 TEST RESULTS

Not applicable for equipment operated with battery power supply.

## 3.4 RADIATED EMISSION MEASUREMENT

### 3.4.1 Radiated Emission Limits ( FCC 15.209 )

| 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 |
| Frequency (MHz) | Limit (dBuV) | |
| 30~88 | 40 | 3 |
| 88~216 | 43.5 | 3 |
| 216~960 | 46 | 3 |
| 960 -10000 | 54.00 | 3 |
| *902 - 928 | 94.00 | 3 |

Note:

(1) The tighter limit applies at the band edges.

(2) Emission level (dBuV/m)=20log Emission level (uV/m).

(3) *Note: This is the limit for the fundamental frequency.

LIMITS OF RADIATED EMISSION MEASUREMENT ( FCC 15.249)

| Frequency of Emission (MHz) | Field Strength of fundamental ((millivolts /meter) | Field Strength of Harmonics (microvolts/meter) |
|---|---|---|
| 902-928 | 50 | 500 |

Notes:

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

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

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

### 3.4.2 TEST PROCEDURE

a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
b. The EUT was placed on the top of a rotating table 0.8 m for below 1GHz and 1.5m for above 1GHz 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 for below 1GHz and 1.5m for above 1GHz; 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.

Note:

Both horizontal and vertical antenna polarities were tested
and performed pretest to three orthogonal axis. The worst case emissions were reported

During the radiated emission test, the Spectrum Analyzer was set with the following configurations:

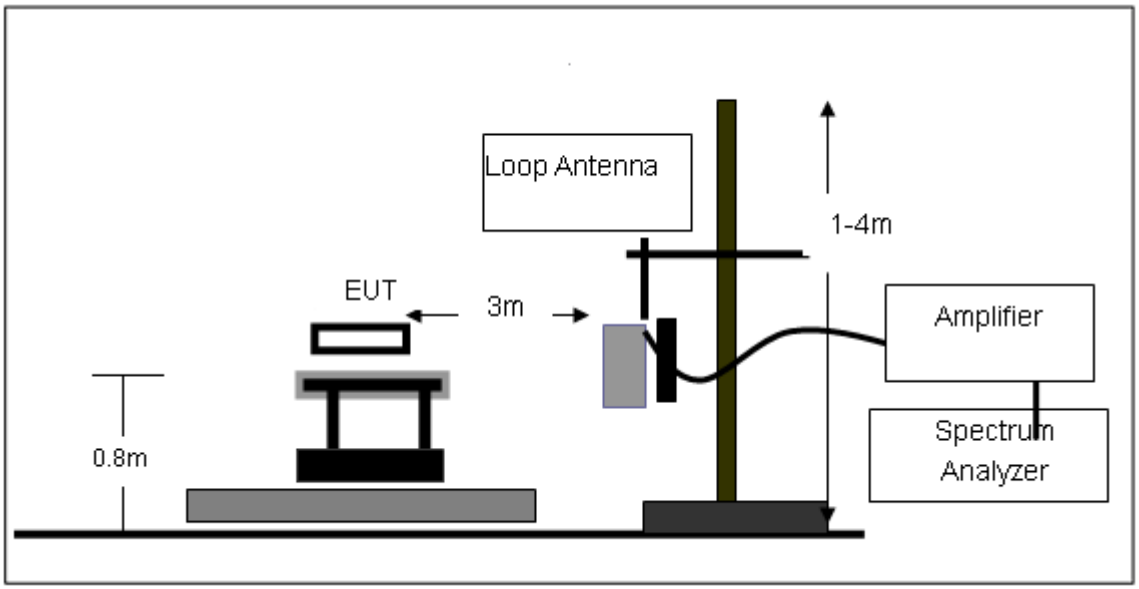
| Frequency Band (MHz) | Function | Resolution bandwidth | Video Bandwidth |
|---|---|---|---|
| 30 to 1000 | Peak | 100 kHz | 100 kHz |
| Above 1000 | Peak | 1 MHz | 1 MHz |
| | Average | 1 MHz | 10 Hz |

### 3.4.3 DEVIATION FROM TEST STANDARD

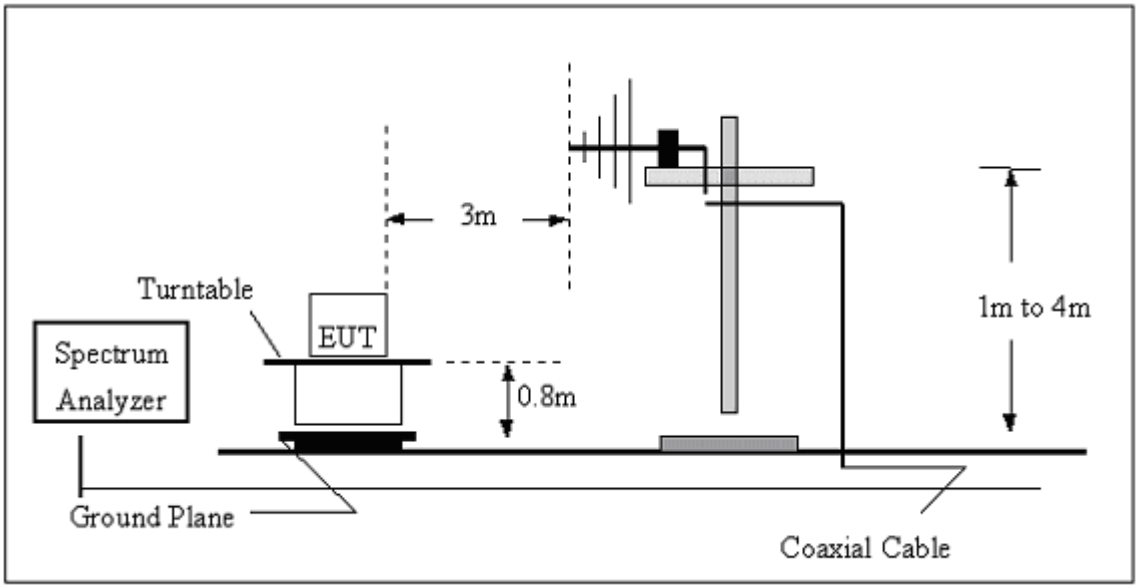
No deviation

### 3.4.4 TEST SETUP

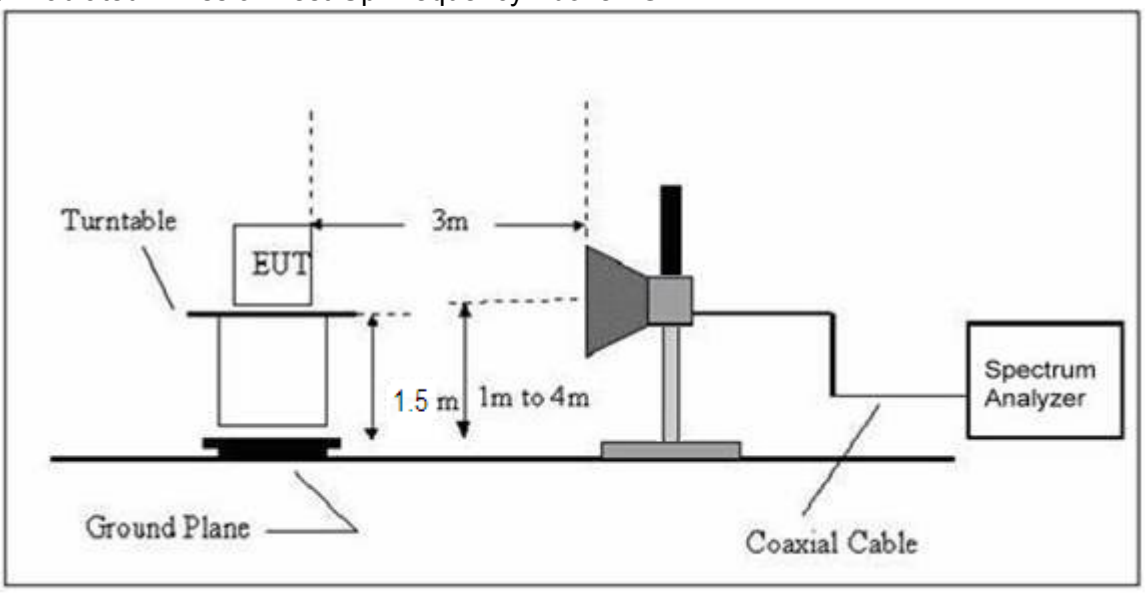
（A）Radiated Emission Test-Up Frequency Below 30MHz




（B）Radiated Emission Test-Up Frequency 30MHz~1GHz



（C）Radiated Emission Test-Up Frequency Above 1GHz



### 3.4.5 TEST RESULTS (BLOW 30MHz)

| | | | |
|---|---|---|---|
| EUT： | Remote control | Model Name. ： | VC-818 ETTL |
| Temperature： | 20 ℃ | Relative Humidtity： | 48% |
| Pressure： | 1010 hPa | Test Voltage ： | DC 3V |
| Test Mode ： | TX | Polarization : | -- |

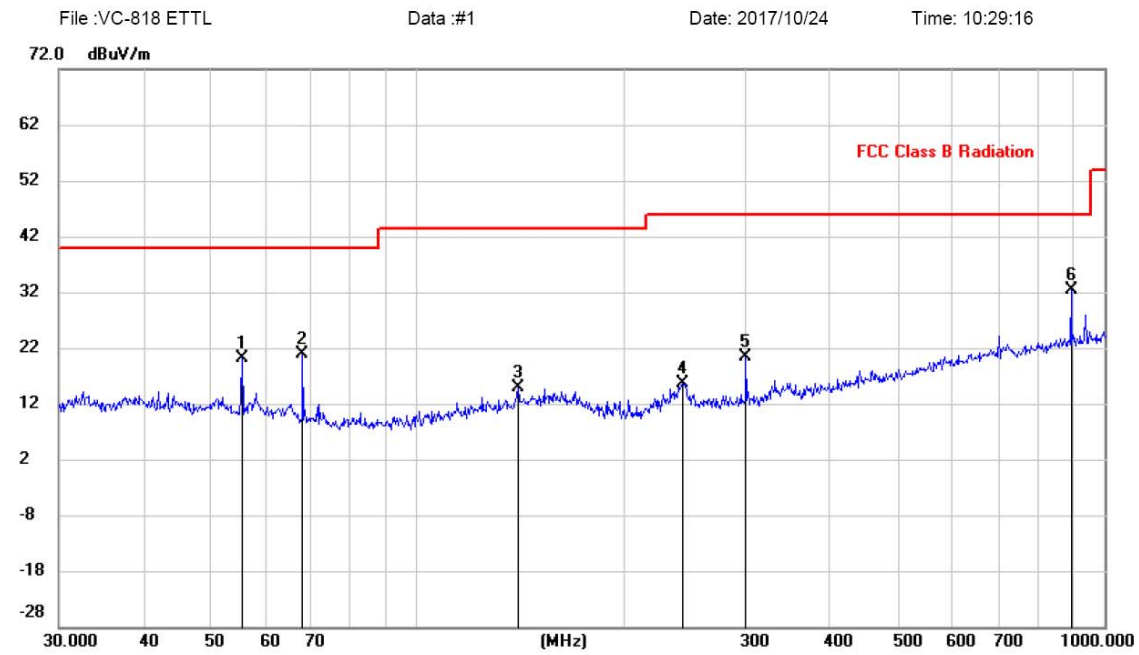
| Freq. | Reading | Limit | Margin | State |
|---|---|---|---|---|
| (MHz) | (dBuV/m) | (dBuV/m) | (dB) | P/F |
| -- | -- | -- | -- | PASS |
| -- | -- | -- | -- | PASS |

**NOTE:**

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
Distance extrapolation factor =40 log (specific distance/test distance)(dB);
Limit line = specific limits(dBuv) + distance extrapolation factor.

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

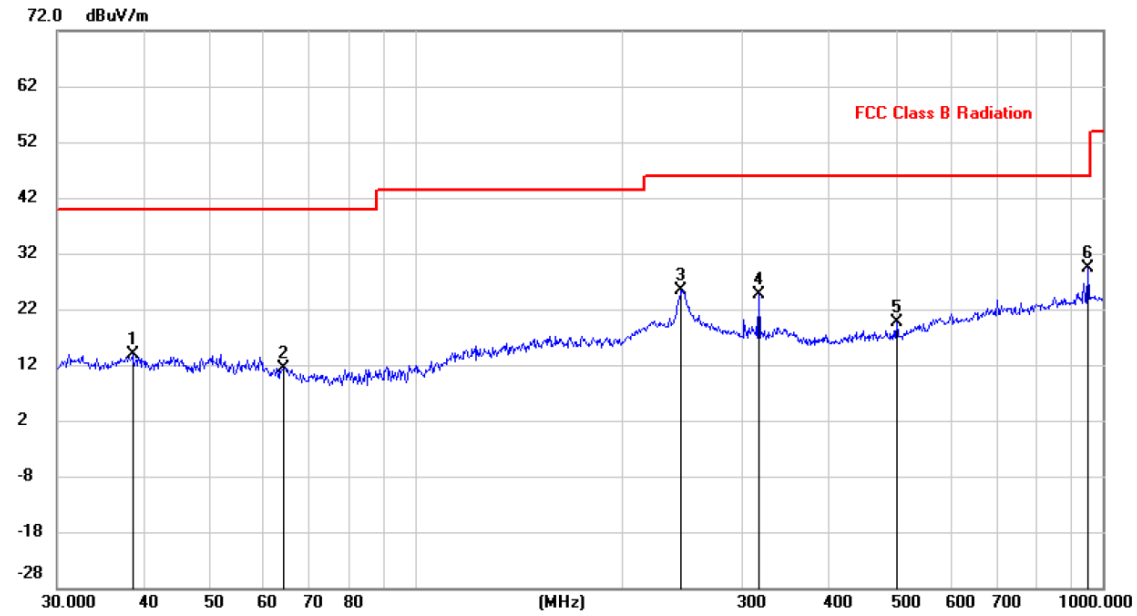
| | | | |
|---|---|---|---|
| EUT： | Remote control | Model Name ： | VC-818 ETTL |
| Temperature： | 20 ℃ | Relative Humidity： | 48% |
| Pressure： | 1010 hPa | Test Voltage ： | DC 3V |
| Test Mode ： | TX-2408 | Polarization： | Vertical |
| Note： | This mode is worst case mode, and this report only reflected the worst mode. | | |




| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Margin | | Antenna Height | Table Degree | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | cm | degree | Comment |
| 1 | | 55.4147 | 6.89 | 13.24 | 20.13 | 40.00 | -19.87 | peak | | | |
| 2 | | 67.9128 | 9.34 | 11.50 | 20.84 | 40.00 | -19.16 | peak | | | |
| 3 | | 139.8508 | 1.10 | 13.82 | 14.92 | 43.50 | -28.58 | peak | | | |
| 4 | | 243.3771 | 3.68 | 12.00 | 15.68 | 46.00 | -30.32 | peak | | | |
| 5 | | 301.4223 | 6.79 | 13.51 | 20.30 | 46.00 | -25.70 | peak | | | |
| 6 | * | 893.8567 | 9.44 | 22.85 | 32.29 | 46.00 | -13.71 | peak | | | |

Note:1. *:Maximum data; x:Over limit; !:over margin.
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

| EUT： | Remote control | Model Name ： | VC-818 ETTL |
|---|---|---|---|
| Temperature： | 20 ℃ | Relative Humidity： | 48% |
| Pressure： | 1010 hPa | Test Voltage ： | DC 3V |
| Test Mode ： | TX-2408 | Polarization： | Horizontal |




| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Margin | | Antenna Height | Table Degree | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | cm | degree | Comment |
| 1 | | 38.6160 | -0.17 | 14.05 | 13.88 | 40.00 | -26.12 | peak | | | |
| 2 | | 64.4330 | -0.56 | 12.05 | 11.49 | 40.00 | -28.51 | peak | | | |
| 3 | | 243.3771 | 13.39 | 12.00 | 25.39 | 46.00 | -20.61 | peak | | | |
| 4 | | 316.5889 | 10.83 | 13.79 | 24.62 | 46.00 | -21.38 | peak | | | |
| 5 | | 501.1790 | 2.36 | 17.22 | 19.58 | 46.00 | -26.42 | peak | | | |
| 6 | * | 952.0937 | 5.87 | 23.58 | 29.45 | 46.00 | -16.55 | peak | | | |

Note:1. *:Maximum data; x:Over limit; !:over margin.
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

### 3.4.7 TEST RESULTS (ABOVE 1000 MHZ)

| | | | |
|---|---|---|---|
| EUT： | Remote control | Model Name ： | VC-818 ETTL |
| Temperature： | 20 ℃ | Relative Humidity： | 48% |
| Pressure： | 1010 hPa | Test Voltage ： | DC 3V |
| Test Mode ： | TX-2408MHz | | |

| No. | Freq MHz | Polarity | Reading (dBuV/m) | Correct Factor | Result (dBuV/m) | Limit (dBuV/m) | Margin | Remark |
|---|---|---|---|---|---|---|---|---|
| 1 | 2408 | H | 94.12 | -3.38 | 90.74 | 113.97 | -23.23 | Peak |
| 2 | 2408 | H | 81.47 | -3.38 | 78.09 | 93.97 | -15.88 | Avg |
| 3 | 4816 | H | 42.15 | 3.23 | 45.38 | 74 | -28.62 | Peak |
| 4 | 4816 | H | -- | 3.23 | -- | 54 | -- | Avg |
| 5 | 7224 | H | 40.35 | 10.57 | 50.92 | 74 | -23.08 | Peak |
| 6 | 7224 | H | -- | 10.57 | -- | 54 | -- | Avg |
| | | | | | | | | |
| 1 | 2408 | V | 100.21 | -3.38 | 96.83 | 113.97 | -17.14 | Peak |
| 2 | 2408 | V | 87.39 | -3.38 | 84.01 | 93.97 | -9.96 | Avg |
| 3 | 4816 | V | 45.58 | 3.23 | 48.81 | 74 | -25.19 | Peak |
| 4 | 4816 | V | -- | 3.23 | -- | 54 | -- | Avg |
| 5 | 7224 | V | 40.63 | 10.57 | 51.20 | 74 | -22.80 | Peak |
| 6 | 7224 | V | -- | 10.57 | -- | 54 | -- | Avg |

Note:
1. Means other frequency and mode comply with standard requirements and at least have 20dB margin.
2. Correct Factor=Cable Loss+ Antenna Factor-Amplifier Gain.
Result=Reading + Correct Factor.
Margin= Result-Limit.
3. Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK.
4. Spectrum Set for AV measure: RBW=1MHz, VBW=3MHz, Sweep time=Auto, Detector: Avg.
5. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector need not be carried out.

Note: EUT Pre-scan X/Y/Z orientation, only worst case is presented in the report(X orientation).

| EUT： | Remote control | Model Name ： | VC-818 ETTL |
|---|---|---|---|
| Temperature： | 20 ℃ | Relative Humidity： | 48% |
| Pressure： | 1010 hPa | Test Voltage ： | DC 3V |
| Test Mode ： | TX-2440MHz | | |

| No. | Freq MHz | Polarity | Reading (dBuV/m) | Correct Factor | Result (dBuV/m) | Limit (dBuV/m) | Margin | Remark |
|---|---|---|---|---|---|---|---|---|
| 1 | 2440 | H | 95.52 | -3.38 | 92.14 | 113.97 | -21.83 | Peak |
| 2 | 2440 | H | 84.66 | -3.38 | 81.28 | 93.97 | -12.69 | Avg |
| 3 | 4880 | H | 43.15 | 3.23 | 46.38 | 74 | -27.62 | Peak |
| 4 | 4880 | H | -- | 3.23 | -- | 54 | -- | Avg |
| 5 | 7320 | H | 40.28 | 10.57 | 50.85 | 74 | -23.15 | Peak |
| 6 | 7320 | H | -- | 10.57 | -- | 54 | -- | Avg |
| | | | | | | | | |
| 1 | 2440 | V | 101.37 | -3.38 | 97.99 | 113.97 | -15.98 | Peak |
| 2 | 2440 | V | 89.63 | -3.38 | 86.25 | 93.97 | -7.72 | Avg |
| 3 | 4880 | V | 45.38 | 3.23 | 48.61 | 74 | -25.39 | Peak |
| 4 | 4880 | V | -- | 3.23 | -- | 54 | -- | Avg |
| 5 | 7320 | V | 41.44 | 10.57 | 52.01 | 74 | -21.99 | Peak |
| 6 | 7320 | V | -- | 10.57 | -- | 54 | -- | Avg |

Note:
1. Means other frequency and mode comply with standard requirements and at least have 20dB margin.
2. Correct Factor=Cable Loss+ Antenna Factor-Amplifier Gain.
Result=Reading + Correct Factor.
Margin= Result-Limit.
3. Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK.
4. Spectrum Set for AV measure: RBW=1MHz, VBW=3MHz, Sweep time=Auto, Detector: Avg.
5. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector need not be carried out.

Note: EUT Pre-scan X/Y/Z orientation, only worst case is presented in the report(X orientation).

| EUT： | Remote control | Model Name ： | VC-818 ETTL |
|---|---|---|---|
| Temperature： | 20 ℃ | Relative Humidity： | 48% |
| Pressure： | 1010 hPa | Test Voltage ： | DC 3V |
| Test Mode ： | TX-2464MHz | Polarization : | Horizontal |

| No. | Freq MHz | Polarity | Reading (dBuV/m) | Correct Factor | Result (dBuV/m) | Limit (dBuV/m) | Margin | Remark |
|---|---|---|---|---|---|---|---|---|
| 1 | 2464 | H | 96.97 | -3.38 | 93.59 | 113.97 | -20.38 | Peak |
| 2 | 2464 | H | 87.21 | -3.38 | 83.83 | 93.97 | -10.14 | Avg |
| 3 | 4928 | H | 45.37 | 3.23 | 48.60 | 74 | -25.40 | Peak |
| 4 | 4928 | H | -- | 3.23 | -- | 54 | -- | Avg |
| 5 | 7392 | H | 44.74 | 10.57 | 55.31 | 74 | -18.69 | Peak |
| 6 | 7392 | H | -- | 10.57 | -- | 54 | -- | Avg |
| | | | | | | | | |
| 1 | 2464 | V | 103.31 | -3.38 | 99.93 | 113.97 | -14.04 | Peak |
| 2 | 2464 | V | 89.05 | -3.38 | 85.67 | 93.97 | -8.30 | Avg |
| 3 | 4928 | V | 49.64 | 3.23 | 52.87 | 74 | -21.13 | Peak |
| 4 | 4928 | V | -- | 3.23 | -- | 54 | -- | Avg |
| 5 | 7392 | V | 47.09 | 10.57 | 57.66 | 74 | -16.34 | Peak |
| 6 | 7392 | V | -- | 10.57 | -- | 54 | -- | Avg |

Note:
1. Means other frequency and mode comply with standard requirements and at least have 20dB margin.
2. Correct Factor=Cable Loss+ Antenna Factor-Amplifier Gain.
Result=Reading + Correct Factor.
Margin= Result-Limit.
3. Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK.
4. Spectrum Set for AV measure: RBW=1MHz, VBW=3MHz, Sweep time=Auto, Detector: Avg.
5. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector need not be carried out.

Note: EUT Pre-scan X/Y/Z orientation, only worst case is presented in the report(X orientation).

### 3.4.8 TEST RESULTS (RESTRICTED BANDS REQUIREMENTS)

| | | | |
|---|---|---|---|
| EUT： | Remote control | Model Name ： | VC-818 ETTL |
| Temperature： | 20 ℃ | Relative Humidity： | 48% |
| Pressure： | 1010 hPa | Test Voltage ： | DC 3V |
| Test Mode ： | TX-2408MHz | | |

| No. | Freq MHz | Polarity | Reading (dBuV/m) | Correct Factor | Result (dBuV/m) | Limit (dBuV/m) | Margin | Remark |
|---|---|---|---|---|---|---|---|---|
| 1 | 2390 | H | 43.26 | -3.43 | 39.83 | 74 | -34.17 | Peak |
| 2 | 2390 | H | -- | -3.43 | -- | 54 | -- | Avg |
| 3 | 2400 | H | 42.98 | -3.41 | 39.57 | 74 | -34.43 | Peak |
| 4 | 2400 | H | -- | -3.41 | -- | 54 | -- | Avg |
| | | | | | | | | |
| 1 | 2390 | V | 42.54 | -3.43 | 39.11 | 74 | -34.89 | Peak |
| 2 | 2390 | V | -- | -3.43 | -- | 54 | -- | Avg |
| 3 | 2400 | V | 42.03 | -3.41 | 38.62 | 74 | -35.38 | Peak |
| 4 | 2400 | V | -- | -3.41 | -- | 54 | -- | Avg |
| | | | | | | | | |
| Test Mode : TX-2464MHz | | | | | | | | |
| Test Results : **PASS** | | | | | | | | |
| 1 | 2483.5 | H | 45.61 | -3.38 | 42.23 | 74 | -31.77 | Peak |
| 2 | 2483.5 | H | -- | -3.38 | -- | 54 | -- | Avg |
| | | | | | | | | |
| 1 | 2483.5 | V | 45.38 | -3.38 | 42.00 | 74 | -32.00 | Peak |
| 2 | 2483.5 | V | -- | -3.38 | -- | 54 | -- | Avg |

Note:
1. Means other frequency and mode comply with standard requirements and at least have 20dB margin.
2. Correct Factor=Cable Loss+ Antenna Factor-Amplifier Gain.
Result=Reading + Correct Factor, Margin= Result-Limit.
3. Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK.
4. Spectrum Set for AV measure: RBW=1MHz, VBW=3MHz, Sweep time=Auto, Detector: Avg.
5. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector need not be carried out.

# 4. BANDWIDTH TEST

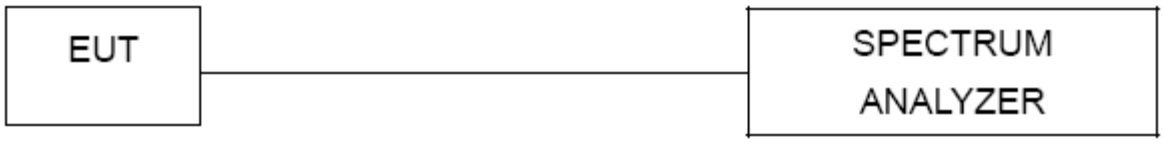
## 4.1 TEST PROCEDURE

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

## 4.2 DEVIATION FROM STANDARD

No deviation.

## 4.3 TEST SETUP

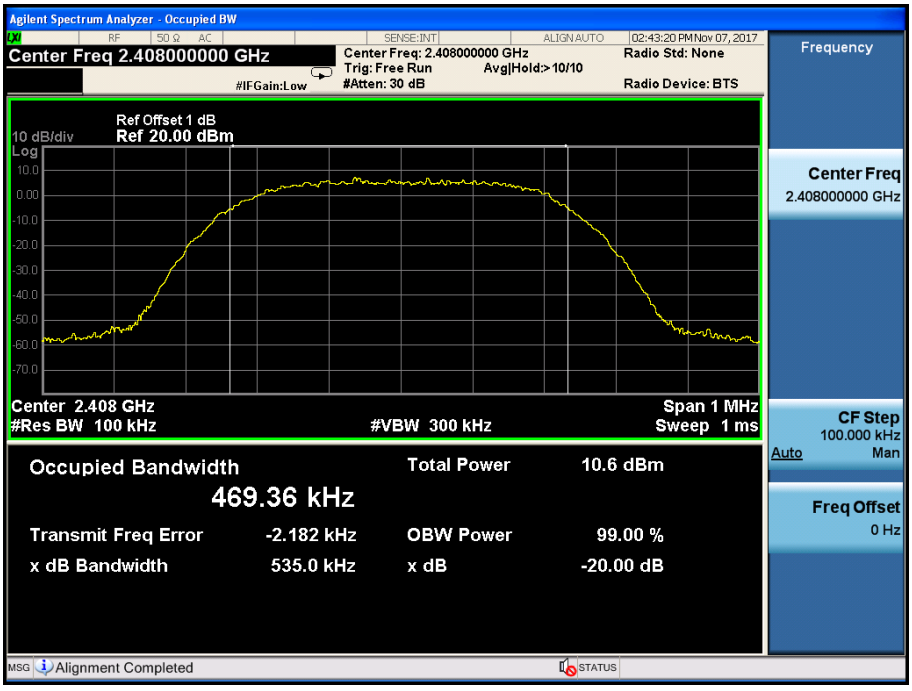


## 4.4 TEST RESULTS

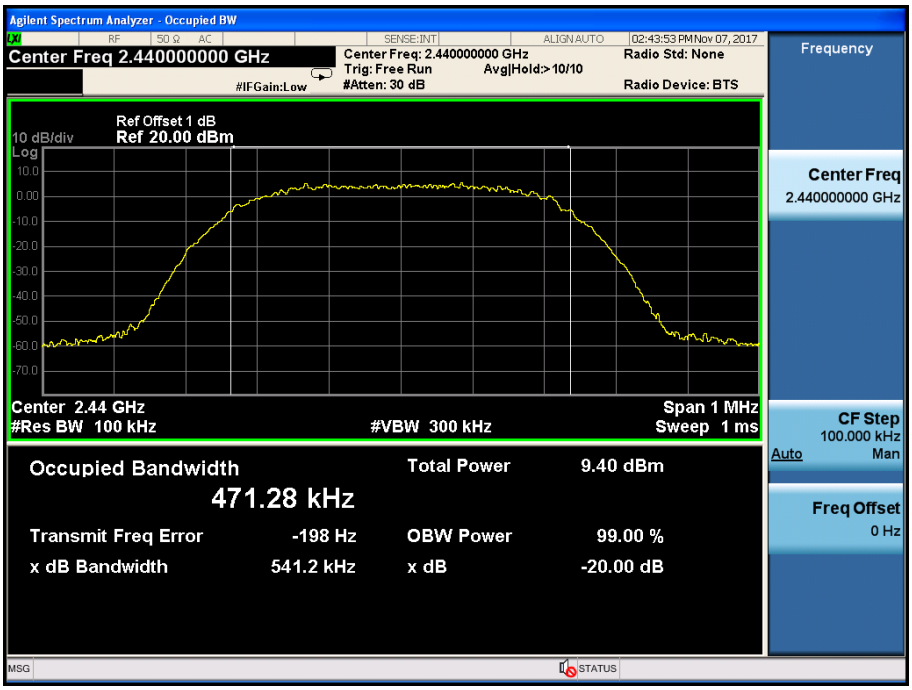
| EUT： | Remote control | Model Name ： | VC-818 ETTL |
|---|---|---|---|
| Temperature： | 26 ℃ | Relative Humidity： | 53% |
| Pressure： | 1020 hPa | Test Power ： | DC 3V |
| Test Mode ： | TX | | |

| Test Channel | Frequency (MHz) | 20 dBc Bandwidth (kHz) |
|---|---|---|
| CH01 | 2408 | 535.0 |
| CH05 | 2440 | 541.2 |
| CH08 | 2464 | 533.3 |

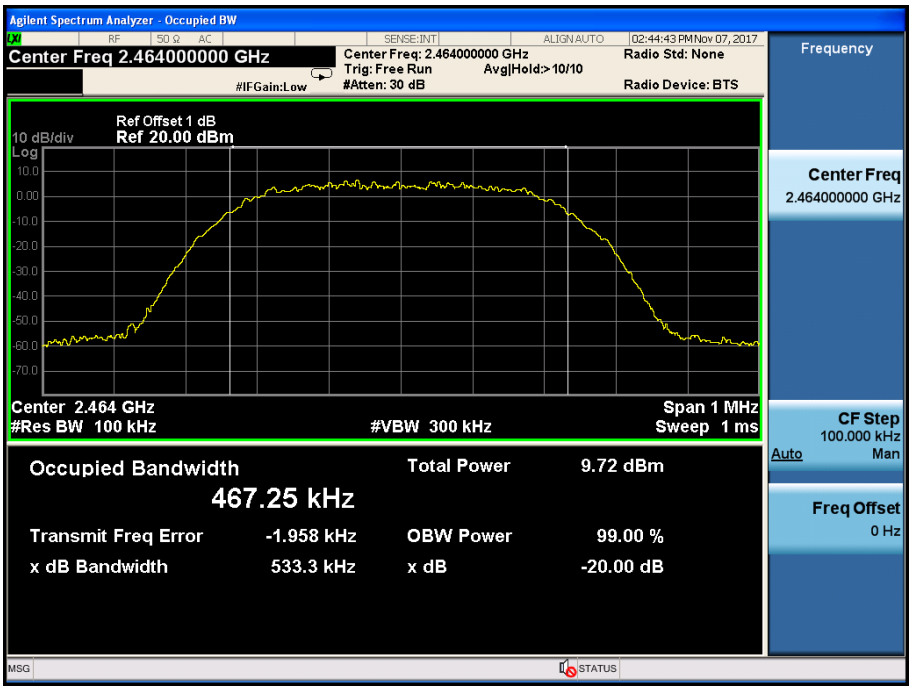
2408 MHz



2440 MHz

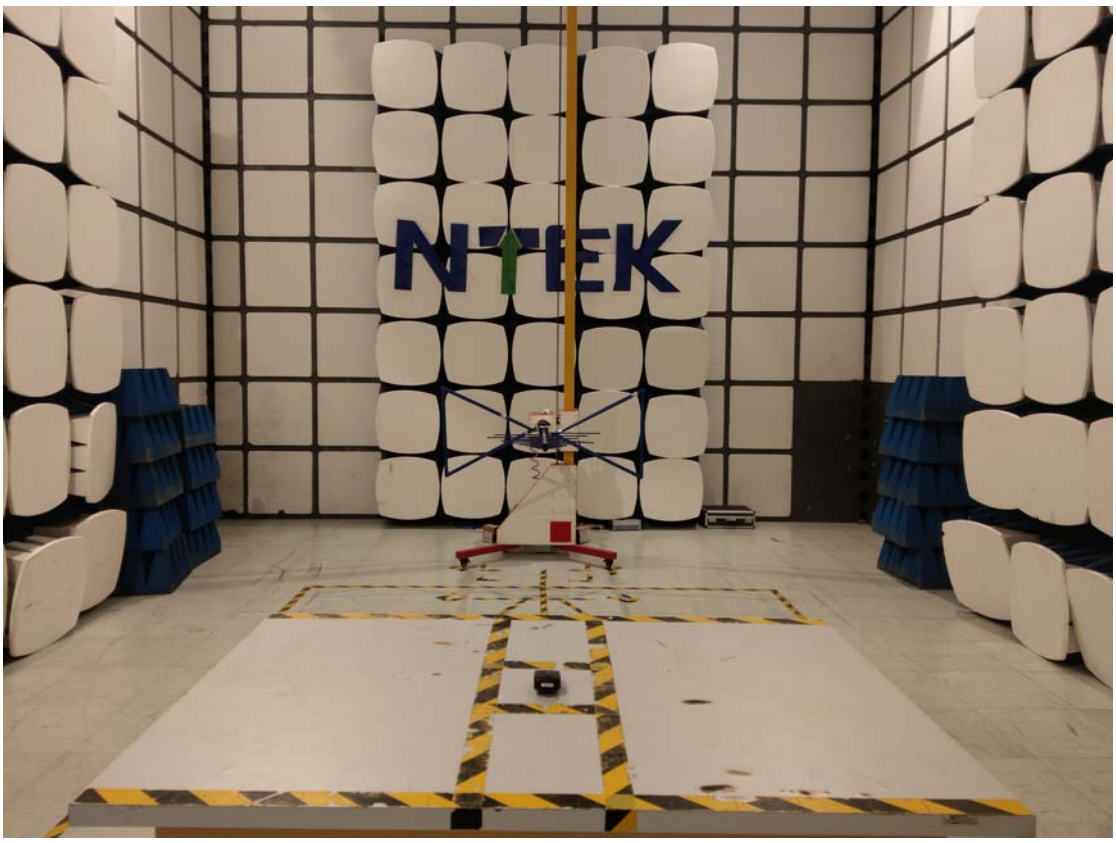


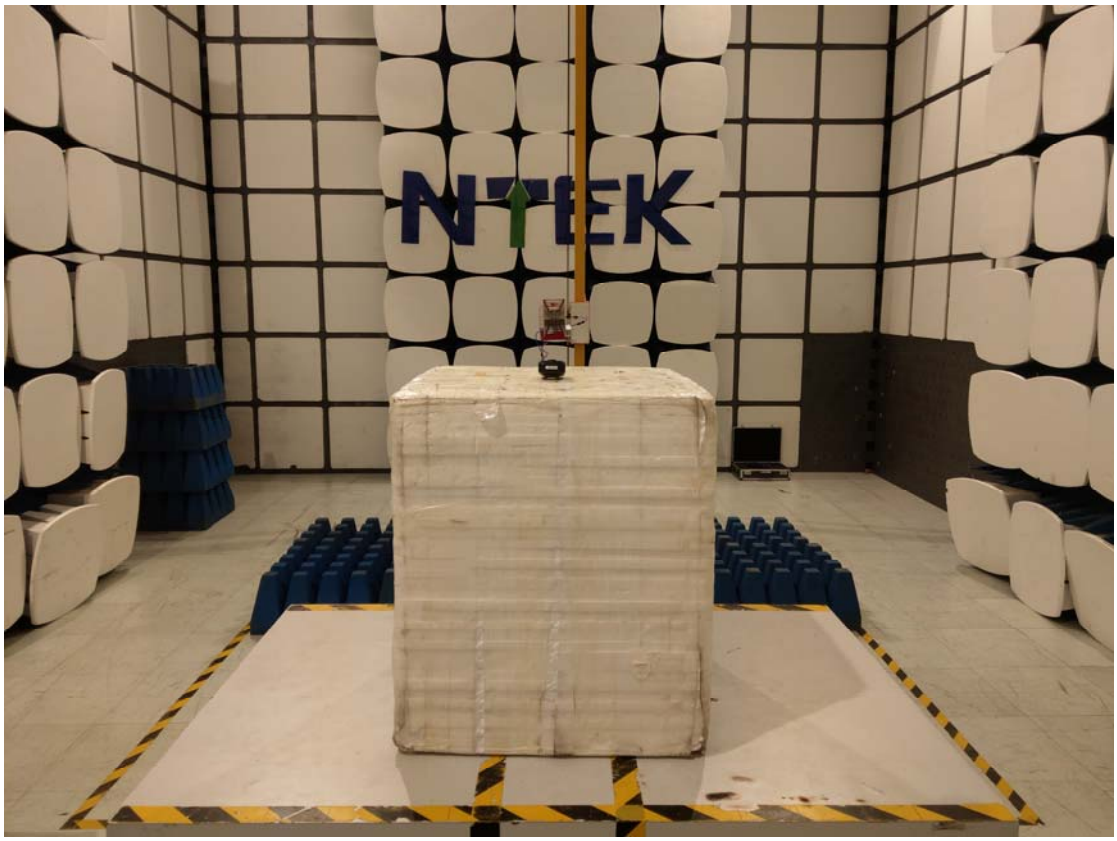

2464 MHz



## 5. EUT TEST PHOTO

**Radiated Measurement Photos**




END OF REPORT