



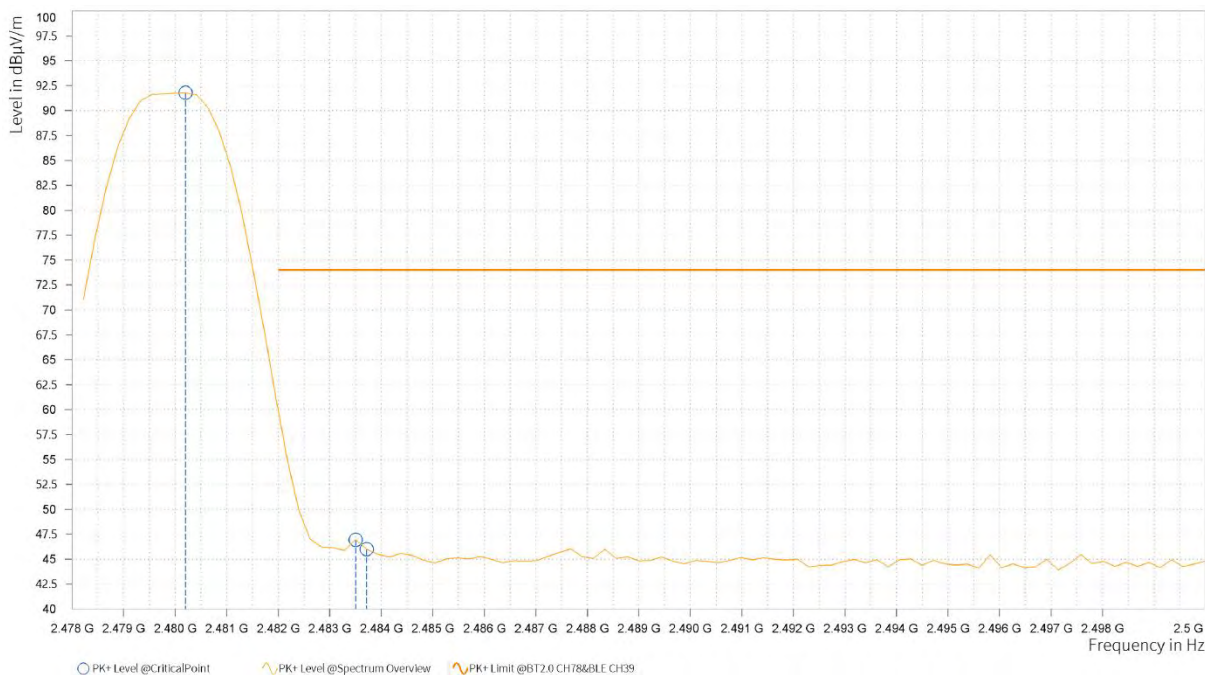
BUREAU
VERITAS

Test Report No.: PSU-QSU2307030110RF09

| | | | |
|-----------------|---------------|----------------------|--------------|
| CHANNEL | TX Channel 39 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 25GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| Rg | Frequency [MHz] | PK+ Level [dBμV/m] | PK+ Limit [dBμV/m] | PK+ Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|----|--------------------|-----------------------|-----------------------|-----------------------|--------------------|--------------|------------------|--------------------------|
| 6 | 2,480.200 | 91.79 | | | 6.73 | V | 139.4 | 1 |
| 6 | 2,483.500 | 46.94 | 74.00 | 27.06 | 6.74 | V | 139.4 | 1 |
| 6 | 2,483.720 | 45.99 | 74.00 | 28.01 | 6.74 | V | 139.4 | 1 |

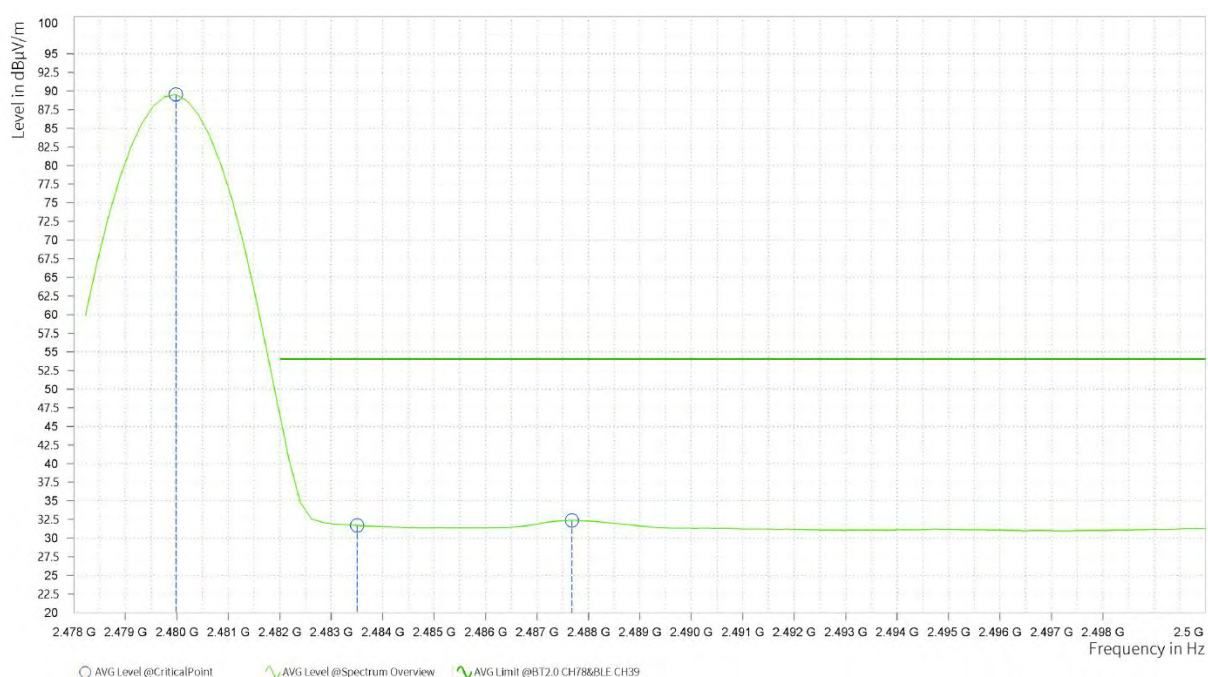




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Test Report No.: PSU-QSU2307030110RF09

| Rg | Frequency [MHz] | AVG Level [dBμV/m] | AVG Limit [dBμV/m] | AVG Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|----|-----------------|--------------------|--------------------|-----------------|-----------------|--------------|---------------|--------------------|
| 6 | 2,479.980 | 89.53 | | | 6.73 | V | 138.2 | 1 |
| 6 | 2,483.500 | 31.70 | 54.00 | 22.30 | 6.74 | V | 138.2 | 1 |
| 6 | 2,487.680 | 32.39 | 54.00 | 21.61 | 6.76 | V | 78.4 | 2 |



REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Limit value – Emission level.
2. 2402MHz: Fundamental frequency.

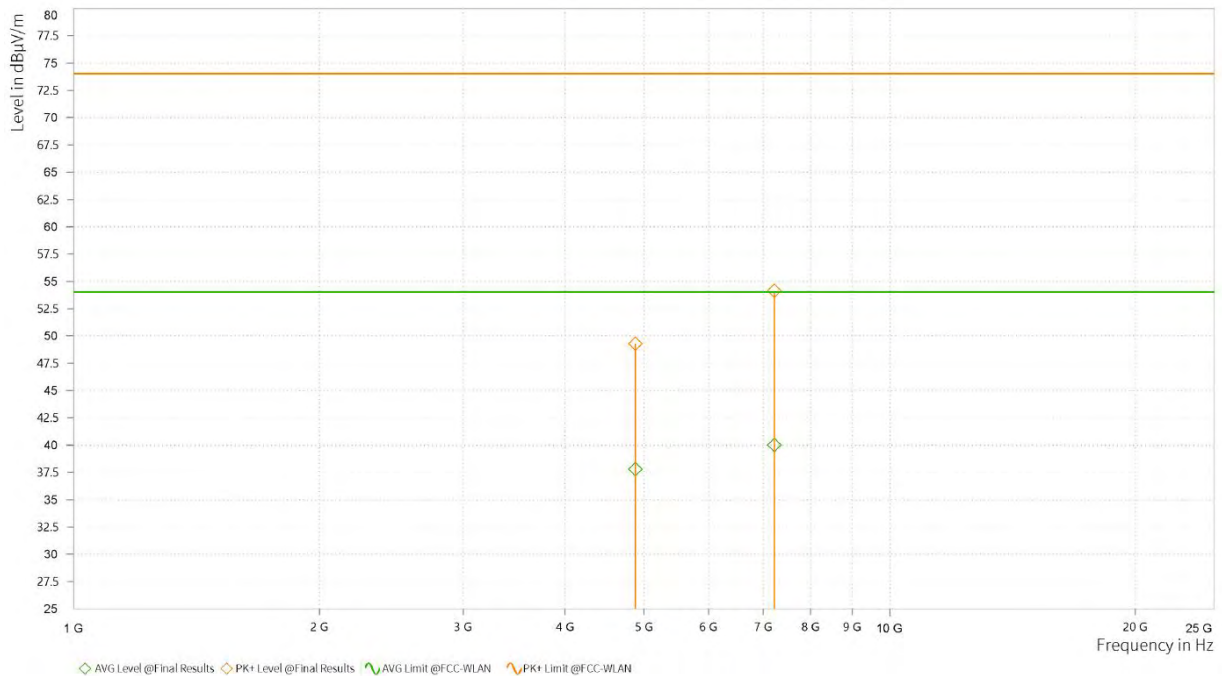


Worst case harmonic:

| | | | |
|-----------------|---------------|-------------------|--------------|
| CHANNEL | TX Channel 19 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 25GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| Rg | Frequency [MHz] | PK+ Level [dBμV/m] | PK+ Limit [dBμV/m] | PK+ Margin [dB] | AVG Level [dBμV/m] | AVG Limit [dBμV/m] | AVG Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|----|-----------------|--------------------|--------------------|-----------------|--------------------|--------------------|-----------------|-----------------|--------------|---------------|--------------------|
| 3 | 4,880.000 | 49.28 | 74.00 | 24.72 | 37.78 | 54.00 | 16.22 | 14.95 | H | 359 | 1 |
| 4 | 7,221.000 | 54.12 | 74.00 | 19.88 | 39.99 | 54.00 | 14.01 | 17.91 | H | 1 | 2 |



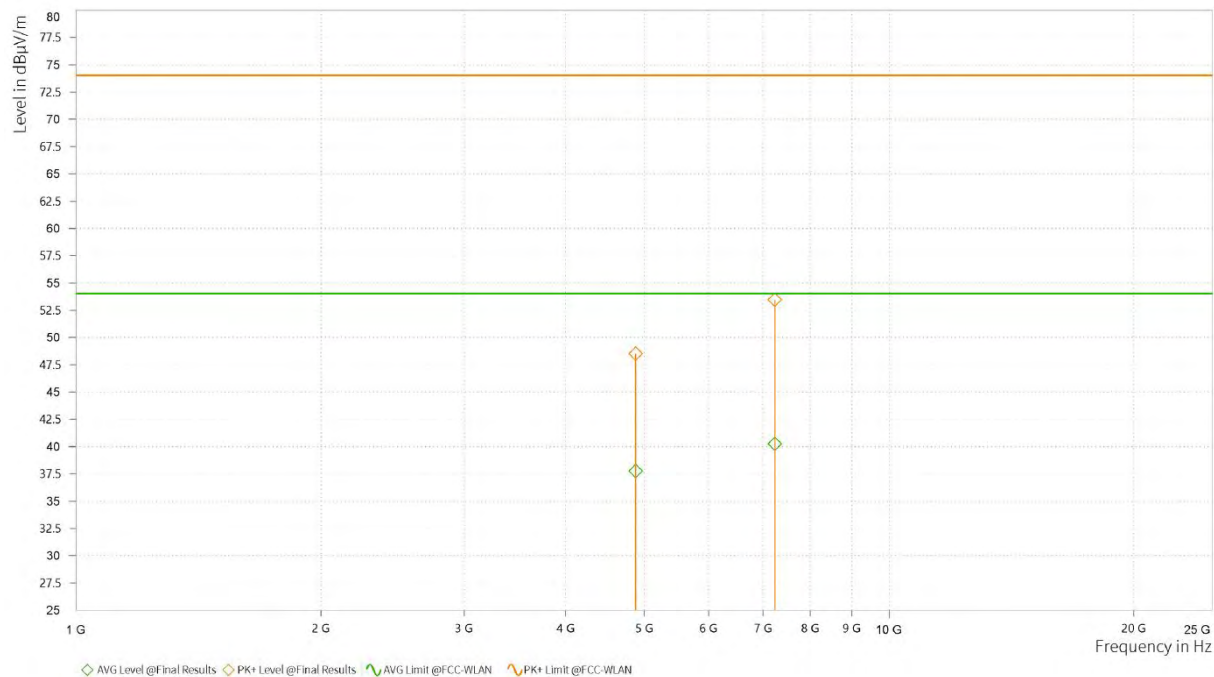


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VERITAS

Test Report No.: PSU-QSU2307030110RF09

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| Rg | Frequency [MHz] | PK+ Level [dBμV/m] | PK+ Limit [dBμV/m] | PK+ Margin [dB] | AVG Level [dBμV/m] | AVG Limit [dBμV/m] | AVG Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|----|-----------------|--------------------|--------------------|-----------------|--------------------|--------------------|-----------------|-----------------|--------------|---------------|--------------------|
| 3 | 4,880.000 | 48.49 | 74.00 | 25.51 | 37.74 | 54.00 | 16.26 | 14.95 | V | 130.9 | 2 |
| 4 | 7,232.500 | 53.46 | 74.00 | 20.54 | 40.23 | 54.00 | 13.77 | 18.07 | V | 17.8 | 2 |



REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
2. 2440MHz: Fundamental frequency.



3.3 6 dB BANDWIDTH MEASUREMENT

3.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

3.3.2 TEST INSTRUMENTS

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|------------------------------|--------------|-----------------|----------------|-----------|-----------|
| EMI Test Receiver | R&S | ESW 44 | 101973 | Feb.25,22 | Feb.24,24 |
| Open Switch and Control Unit | R&S | OSP-B157W8 | 100836 | N/A | N/A |
| Vector Signal Generator | R&S | SMBV100B | 102176 | Feb.16,22 | Feb.15,24 |
| Signal Generator | R&S | SMB100A03 | 182185 | Feb.16,22 | Feb.15,24 |
| Wideband Radio Communication | R&S | CMW500 | 169399 | Jun.26,22 | Jun.25,24 |
| Hygrothermograph | DELI | 20210528 | SZ015 | Sep.06,22 | Sep.05,24 |
| PC | LENOVO | E14 | HRSW0024 | N/A | N/A |
| CABLE | R&S | J12J103539-00-1 | SEP-03-20-069 | Apr.28,23 | Oct.27,23 |
| CABLE | R&S | J12J103539-00-1 | SEP-03-20-070 | Apr.28,23 | Oct.27,23 |
| Test Software | EMC32 | EMC32 | N/A | N/A | N/A |
| Temperature Chamber | votsch | VT4002 | 58566078100050 | May.31,22 | May.30,24 |

NOTE:

1. The calibration interval of the above test instruments is 6 months or 24 months and the calibrations are traceable to CEPREI/CHINA, GREGT/CHINA and NIM/CHINA.
2. The test was performed in RF Oven room.



3.3.3 TEST PROCEDURE

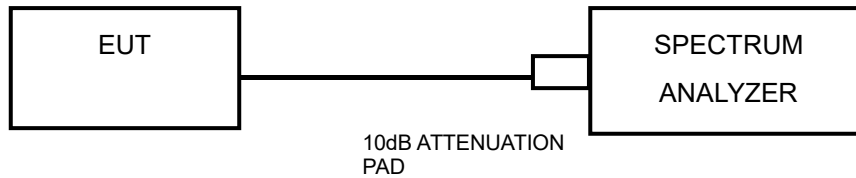
1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) ≥ 3 RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.



3.3.4 DEVIATION FROM TEST STANDARD

No deviation.

3.3.5 TEST SETUP



3.3.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.



BUREAU VERITAS Test Report No.: PSU-QSU2307030110RF09

3.3.7 TEST RESULTS

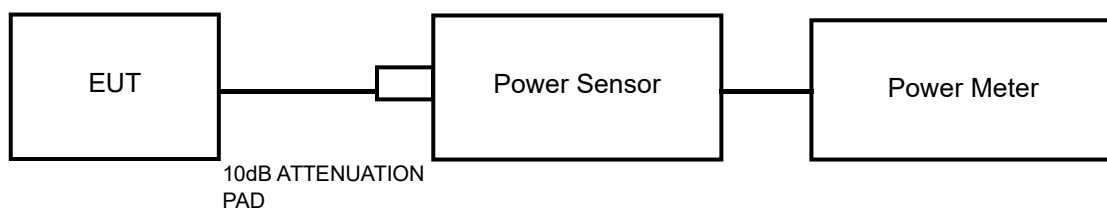
Please refer to the report (Report No.: FR740701AE/ FR740701AC, Model Name:ST60-SIPT, FCC ID:SQG-60SIPT).

3.4 CONDUCTED OUTPUT POWER

3.4.1 LIMITS OF CONDUCTED OUTPUT POWER MEASUREMENT

For systems using digital modulation in the 2400–2483.5 MHz band: 1 Watt (30dBm)

3.4.2 TEST SETUP



3.4.3 TEST INSTRUMENTS

Refer to section 3.3.2 to get information of above instrument.

3.4.4 TEST PROCEDURES

A peak power sensor was used on the output port of the EUT. A power meter was used to read the response of the peak power sensor. Record the power level.

3.4.5 DEVIATION FROM TEST STANDARD

No deviation.

3.4.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.



Test Report No.: PSU-QSU2307030110RF09

3.4.7 TEST RESULTS

3.4.7.1 MAXIMUM PEAK OUTPUT POWER

Please refer to the report (Report No.: FR740701AE/ FR740701AC, Model Name:ST60-SIPT, FCC ID:SQG-60SIPT).



Test Report No.: PSU-QSU2307030110RF09

3.4.7.2 AVERAGE OUTPUT POWER (FOR REFERENCE)

The average power sensor was used on the output port of the EUT. A power meter was used to read the response of the power sensor. Record the power level.

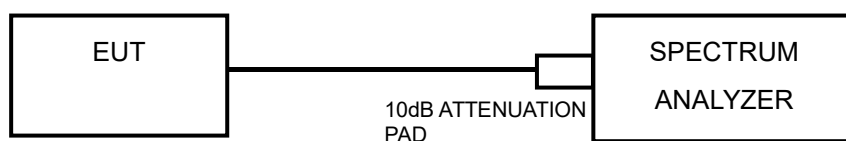
Please refer to the report (Report No.: FR740701AE/ FR740701AC, Model Name:ST60-SIPT, FCC ID:SQG-60SIPT).

3.5 POWER SPECTRAL DENSITY MEASUREMENT

3.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm/3KHz.

3.5.2 TEST SETUP



3.5.3 TEST INSTRUMENTS

Refer to section 3.3.2 to get information of above instrument.

3.5.4 TEST PROCEDURE

1. Set the span to 1.5 times the DTS bandwidth
2. Set the RBW = 3 kHz, VBW $\geq 3 \times$ RBW, Detector = peak.
3. Sweep time = auto couple, Trace mode = max hold, allow trace to fully stabilize.
4. Use the peak marker function to determine the maximum amplitude level.

3.5.5 DEVIATION FROM TEST STANDARD

No deviation.

3.5.6 EUT OPERATING CONDITION

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.



BUREAU VERITAS Test Report No.: PSU-QSU2307030110RF09

3.5.7 TEST RESULTS

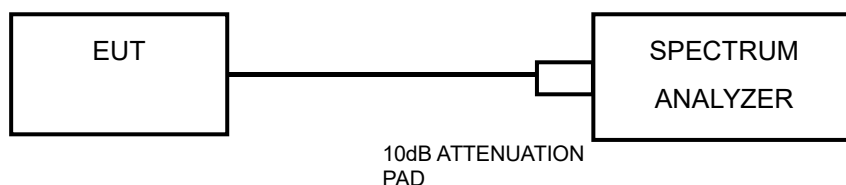
Please refer to the report (Report No.: FR740701AE/ FR740701AC, Model Name:ST60-SIPT, FCC ID:SQG-60SIPT).

3.6 OUT OF BAND EMISSION MEASUREMENT

3.6.1 LIMITS OF OUT OF BAND EMISSION MEASUREMENT

Below -20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

3.6.2 TEST SETUP



3.6.3 TEST INSTRUMENTS

Refer to section 3.3.2 to get information of above instrument.

3.6.4 TEST PROCEDURE

MEASUREMENT PROCEDURE REF

1. Set the RBW = 100 kHz.
2. Set the VBW \geq 300 kHz.
3. Detector = peak.
4. Sweep time = auto couple.
5. Trace mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.



MEASUREMENT PROCEDURE OOB

1. Set RBW = 100 kHz.
2. Set VBW \geq 300 kHz.
3. Set span to encompass the spectrum to be examined
4. Detector = peak.
5. Trace Mode = max hold.
6. Sweep = auto couple.

3.6.5 DEVIATION FROM TEST STANDARD

No deviation.

3.6.6 EUT OPERATING CONDITION

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

3.6.7 TEST RESULTS

The spectrum plots are attached on the following images. D1 line indicates the highest level. D2 line indicates the 20dB offset below D1. It shows compliance to the requirement.

Please refer to the report (Report No.: FR740701AE/ FR740701AC, Model Name:ST60-SIPT, FCC ID:SQG-60SIPT).



4 PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).



Test Report No.: PSU-QSU2307030110RF09

5 MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications are made to the EUT by the lab during the test.

---END---