RF TEST REPORT



Report No.: 17071300-FCC-R3
Supersede Report No.: N/A

| Applicant | BLU Products, Inc. | | | |
|------------------------------|-------------------------|----------------|--------------------|-----|
| Product Name | Mobile Pho | ne | | |
| Model No. | STUDIO J8 | ВМ | | |
| Serial No. | N/A | | | |
| Test Standard | FCC Part 1 | 5.247: 2016, | ANSI C63.10: 2 | 013 |
| Test Date | November | 24 to Decem | ber 19, 2017 | |
| Issue Date | December | 20, 2017 | | |
| Test Result | Pass | Fail | | |
| Equipment compl | ied with the | specification | V | |
| Equipment did no | t comply with | n the specific | ation 🗆 | |
| form Li | Javon Liong David Huang | | | |
| Aaron Liang Test Engineer | | | d Huang cked By | |

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Test result presented in this test report is applicable to the tested sample only

Issued by:

SIEMIC (SHENZHEN-CHINA) LABORATORIES

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| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 2 of 68 |

Laboratories Introduction

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In addition to testing and certification, SIEMIC provides initial design reviews and compliance management throughout a project. Our extensive experience with China, Asia Pacific, North America, European, and International compliance requirements, assures the fastest, most cost effective way to attain regulatory compliance for the global markets.

Accreditations for Conformity Assessment

| Country/Region | Scope |
|----------------|------------------------------------|
| USA | EMC, RF/Wireless, SAR, Telecom |
| Canada | EMC, RF/Wireless, SAR, Telecom |
| Taiwan | EMC, RF, Telecom, SAR, Safety |
| Hong Kong | RF/Wireless, SAR, Telecom |
| Australia | EMC, RF, Telecom, SAR, Safety |
| Korea | EMI, EMS, RF, SAR, Telecom, Safety |
| Japan | EMI, RF/Wireless, SAR, Telecom |
| Singapore | EMC, RF, SAR, Telecom |
| Europe | EMC, RF, SAR, Telecom, Safety |



| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 3 of 68 |

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| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 4 of 68 |

CONTENTS

| 1. | REPORT REVISION HISTORY | 5 |
|-------|---|----|
| 2. | CUSTOMER INFORMATION | 5 |
| 3. | TEST SITE INFORMATION | 5 |
| 4. | EQUIPMENT UNDER TEST (EUT) INFORMATION | 6 |
| 5. | TEST SUMMARY | 9 |
| 6. | MEASUREMENTS, EXAMINATION AND DERIVED RESULTS | 10 |
| 6.1 A | NTENNA REQUIREMENT | 10 |
| 6.2 C | CHANNEL SEPARATION | 11 |
| 6.3 2 | ODB BANDWIDTH | 15 |
| 6.4 F | PEAK OUTPUT POWER | 19 |
| 6.5 N | IUMBER OF HOPPING CHANNEL | 23 |
| 6.6 T | TIME OF OCCUPANCY (DWELL TIME) | 25 |
| 6.7 E | SAND EDGE & RESTRICTED BAND | 29 |
| 6.8 A | AC POWER LINE CONDUCTED EMISSIONS | 37 |
| 6.9 F | RADIATED EMISSIONS & RESTRICTED BAND | 43 |
| ANN | EX A. TEST INSTRUMENT | 50 |
| ANN | EX B. EUT AND TEST SETUP PHOTOGRAPHS | 51 |
| ANN | EX C. TEST SETUP AND SUPPORTING EQUIPMENT | 63 |
| ANN | EX D. USER MANUAL / BLOCK DIAGRAM / SCHEMATICS / PARTLIST | 67 |
| ANN | EX E. DECLARATION OF SIMILARITY | 68 |



| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 5 of 68 |

1. Report Revision History

| Report No. | Report Version | Description | Issue Date |
|-----------------|----------------|-------------|-------------------|
| 17071300-FCC-R3 | NONE | Original | December 20, 2017 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

2. Customer information

| Applicant Name | BLU Products, Inc. |
|------------------|--|
| Applicant Add | 10814 NW 33rd St # 100 Doral, FL 33172 |
| Manufacturer | BLU Products, Inc. |
| Manufacturer Add | 10814 NW 33rd St # 100 Doral, FL 33172 |

3. Test site information

Test Lab A:

| Lab performing tests | SIEMIC (Shenzhen-China) LABORATORIES | |
|----------------------|---|--|
| | Zone A, Floor 1, Building 2 Wan Ye Long Technology Park | |
| Lab Address | South Side of Zhoushi Road, Bao' an District, Shenzhen, Guangdong China | |
| | 518108 | |
| FCC Test Site No. | 535293 | |
| IC Test Site No. | 4842E-1 | |
| Test Software | Radiated Emission Program-To Shenzhen v2.0 | |

Test Lab B:

| Lab performing tests | SIEMIC (Nanjing-China) Laboratories | |
|----------------------|---|--|
| Lab Address | 2-1 Longcang Avenue Yuhua Economic and | |
| Lab Address | Technology Development Park, Nanjing, China | |
| FCC Test Site No. | 694825 | |
| IC Test Site No. | 4842B-1 | |
| Test Software | EZ_EMC(ver.lcp-03A1) | |

Note: We just perform Radiated Spurious Emission above 18GHz in the test Lab. B.



| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 6 of 68 |

4. Equipment under Test (EUT) Information

Description of EUT: Mobile Phone

Main Model: STUDIO J8M

Serial Model: N/A

Date EUT received: November 23, 2017

Test Date(s): November 24 to December 19, 2017

Equipment Category: DSS

GSM850: -3.7dBi PCS1900: -3.5dBi

UMTS-FDD Band V: -3dBi UMTS-FDD Band IV: -2.5dBi UMTS-FDD Band II: -4.5dBi

LTE Band II: -4.5dBi

Antenna Gain: LTE Band IV: -4dBi

LTE Band VII: -5dBi

LTE Band XII: -10.5dBi LTE Band XVII: -10.5dBi Bluetooth/BLE: -4.13dBi

WIFI: -4.13dBi GPS: -3.2dBi

Antenna Type: PIFA Antenna

GSM / GPRS: GMSK EGPRS: GMSK,8PSK UMTS-FDD: QPSK

Type of Modulation:

802.11b/g/n: DSSS, OFDM

Bluetooth: GFSK, π /4DQPSK, 8DPSK

BLE: GFSK GPS:BPSK



| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 7 of 68 |

GSM850 TX: 824.2 ~ 848.8 MHz; RX: 869.2 ~ 893.8 MHz

PCS1900 TX: 1850.2 ~ 1909.8 MHz; RX: 1930.2 ~ 1989.8 MHz

UMTS-FDD Band V TX: 826.4 ~ 846.6 MHz; RX: 871.4 ~ 891.6 MHz

UMTS-FDD Band IV TX:1712.4 ~ 1752.6 MHz;

RX: 2112.4 ~ 2152.6 MHz

UMTS-FDD Band II TX:1852.4 ~ 1907.6 MHz;

RX: 1932.4 ~ 1987.6 MHz

RF Operating Frequency (ies): LTE Band II TX: 1850.7 ~ 1909.3MHz; RX: 1930.7 ~ 1989.3 MHz

LTE Band IV TX: 1710.7 ~ 1754.3 MHz; RX : 2110.7~ 2154.3 MHz

LTE Band VII TX: 2502.5 \sim 2567.5 MHz; RX : 2622.5 \sim 2687.5 MHz

LTE Band XII TX:699.7 ~ 715.3 MHz; RX : 729.7~ 745.3MHz

LTE Band XVII TX: 706.5 ~ 713.5 MHz; RX : 736.5 ~ 743.5 MHz

WIFI: 802.11b/g/n(20M): 2412-2462 MHz

WIFI: 802.11n(40M): 2422-2452 MHz Bluetooth& BLE: 2402-2480 MHz

GPS: 1575.42 MHz

Max. Output Power: 3.935dBm

Number of Channels:

GSM 850: 124CH

PCS1900: 299CH

UMTS-FDD Band V: 102CH

UMTS-FDD Band IV: 202CH

UMTS-FDD Band II: 277CH

WIFI:802.11b/g/n(20M): 11CH

WIFI:802.11n(40M):7CH

Bluetooth: 79CH

BLE: 40CH

GPS:1CH

Port: USB Port, Earphone Port

Adapter:

Model: US-BB-1000

Input: AC100-240V~50/60Hz,0.2A

Input Power: Output: DC 5V~1.0A

Battery:

Model: C705345200L

Spec: 3.8V, 2000mAh, 7.6Wh



| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 8 of 68 |

| _\ | J |
|----|----|
| | ₋ل |

GPRS/EGPRS Multi-slot class 8/10/11/12

FCC ID: YHLBLUSTUDIOJ8M



| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 9 of 68 |

5. Test Summary

The product was tested in accordance with the following specifications.

All testing has been performed according to below product classification:

| FCC Rules | Description of Test | Result |
|------------------------------|-------------------------------------|------------|
| §15.203 | Antenna Requirement | Compliance |
| §15.247(a)(1) | Channel Separation | Compliance |
| §15.247(a)(1) | 20 dB Bandwidth | Compliance |
| §15.247(b)(1) | Peak Output Power | Compliance |
| §15.247(a)(1)(iii) | Number of Hopping Channel | Compliance |
| §15.247(a)(1)(iii) | Time of Occupancy (Dwell Time) | Compliance |
| §15.247(d) | Band Edge& Restricted Band | Compliance |
| §15.207(a) | AC Line Conducted Emissions | Compliance |
| §15.205, §15.209, §15.247(d) | Radiated Emissions& Restricted Band | Compliance |

Measurement Uncertainty

| Emissions | | | | |
|---|---|---------------|--|--|
| Test Item | Description | Uncertainty | | |
| Band Edge& Restricted Band and Radiated Emissions& Restricted Band | Confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2 (for EUTs < 0.5m X 0.5m X 0.5m) | +5.6dB/-4.5dB | | |
| - | - | - | | |



| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 10 of 68 |

6. Measurements, Examination And Derived Results

6.1 Antenna Requirement

Applicable Standard

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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

- a. Antenna must be permanently attached to the unit.
- b. Antenna must use a unique type of connector to attach to the EUT.

Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

And according to FCC 47 CFR section 15.247 (b), if the transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Antenna Connector Construction

The EUT has 2 antennas:

A permanently attached PIFA antenna for Bluetooth/BLE/WIF/GPS, the gain is -4.13dBi for Bluetooth/BLE/WIFI, the gain is -3.2dBi for GPS.

A permanently attached PIFA antenna for GSM/PCS/UMTS/ LTE Band II/IV/VII/XII/XVII, the gain is -3.7dBi for GSM850, -3.5dBi for PCS1900, -3dBi for UMTS-FDD Band V, -2.5dBi for UMTS-FDD Band IV, the gain is -4.5dBi for UMTS-FDD Band II, the gain is -4.5dBi LTE Band II, -4dBi for LTE Band IV, -5dBi for LTE Band VII, -10.5dBi for XII / XVII.

The antenna meets up with the ANTENNA REQUIREMENT.

Result: Compliance.



| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 11 of 68 |

6.2 Channel Separation

| Temperature | 24 °C | | |
|----------------------|-------------------|--|--|
| Relative Humidity | 55% | | |
| Atmospheric Pressure | 1013mbar | | |
| Test date : | December 05, 2017 | | |
| Tested By : | Aaron Liang | | |

| Test Setup The test Use the | Requirement Channel Separation < 20dB BW and 20dB BW < | Applicable | | | |
|--|---|------------|--|--|--|
| § 15.247(a)(1) a) 2 Test Setup The test Use the | Channel Separation < 20dB BW and 20dB BW < | | | | |
| The test | a) Channel Separation < 20dB BW and 20dB BW < 25KHz; Channel Separation Limit=25KHz Chanel Separation < 20dB BW and 20dB BW > 25kHz; Channel Separation Limit=2/3 20dB BW | | | | |
| Use the | Spectrum Analyzer EUT | | | | |
| Test Procedure - S - I - I | The test follows FCC Public Notice DA 00-705 Measurement Guidelines. Use the following spectrum analyzer settings: The EUT must have its hopping function enabled Span = wide enough to capture the peaks of two adjacent channels Resolution (or IF) Bandwidth (RBW) ≥ 1% of the span Video (or Average) Bandwidth (VBW) ≥ RBW Sweep = auto Detector function = peak Trace = max hold Allow the trace to stabilize. Use the marker-delta function to determine the separation between the peaks of the adjacent | | | | |



| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 12 of 68 |

| Rema | rk | | | | |
|-----------|-----|---------------|------------------|--|--|
| Resu | lt | Pass | Fail | | |
| Test Data | Yes | ; | □ _{N/A} | | |
| Test Plot | Ye | s (See below) | □ _{N/A} | | |

Channel Separation measurement result

| Type/ Modulation | СН | CH Frequency (MHz) | CH Separation (MHz) | Limit (MHz) | Result |
|---------------------|-------------------|--------------------------|------------------------|----------------|---------|
| | Low Channel | 2402 | 1.002 | 0.685 | Pass |
| | Adjacency Channel | 2403 | 1.002 | 0.065 | F d 5 5 |
| CH Separation | Mid Channel | 2440 | 1.002 | 0.687 | Pass |
| GFSK | Adjacency Channel | 2441 | 1.002 | 0.067 | P d 5 5 |
| | High Channel | 2480 | 1.002 | 0 603 | Door |
| | Adjacency Channel | 2479 | 1.002 | 0.693 | Pass |
| | Low Channel | 2402 | 1.002 | 0.877 | Pass |
| | Adjacency Channel | 2403 | 1.002 | 0.677 | Pass |
| CH Separation | Mid Channel | 2440 | 1.002 | 0.876 | Pass |
| π /4 DQPSK | Adjacency Channel | 2441 | 1.002 | 0.676 | Pass |
| | High Channel | 2480 | 1.002 | 0.075 | Dees |
| | Adjacency Channel | 2479 | 1.002 | 0.875 | Pass |
| | Low Channel | 2402 | 4.000 | 0.005 | Desa |
| | Adjacency Channel | 2403 | 1.002 | 0.865 | Pass |
| CH Separation | Mid Channel | 2440 | 4.000 | 0.005 | Dana |
| 8DPSK | Adjacency Channel | 2441 | 1.002 | 0.865 | Pass |
| | High Channel | 2480 | 4.000 | 0.005 | Dess |
| | Adjacency Channel | 2479 | 1.002 | 0.865 | Pass |



| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 13 of 68 |

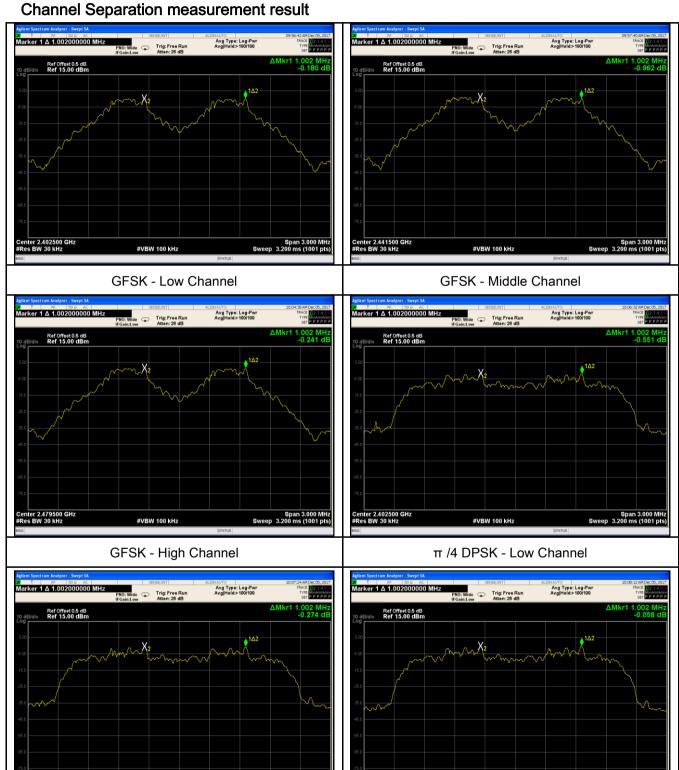
#VBW 100 kHz

 π /4 DQPSK - High Channel

Test Plots

#VBW 100 kHz

 π /4 DQPSK - Middle Channel





| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 14 of 68 |





8DPSK - Low Channel

8DPSK - Middle Channel



8DPSK - High Channel



| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 15 of 68 |

6.3 20dB Bandwidth

| Temperature | 24 °C |
|----------------------|-------------------|
| Relative Humidity | 55% |
| Atmospheric Pressure | 1013mbar |
| Test date : | December 05, 2017 |
| Tested By : | Aaron Liang |

| Requirement(s): | | | | | | |
|-----------------|---|--|-------------|--|--|--|
| Spec | Item | Requirement Applicable | | | | |
| | | Frequency hopping systems shall have hopping | | | | |
| §15.247(a) | 2) | channel carrier frequencies separated by a minimum | V | | | |
| (1) | (a) | of 25 kHz or the 20 dB bandwidth of the hopping | | | | |
| | | channel, whichever is greater. | | | | |
| Test Setup | | | | | | |
| | | Spectrum Analyzer EUT | | | | |
| | The te | st follows FCC Public Notice DA 00-705 Measurement Gu | uidelines. | | | |
| | Use the following spectrum analyzer settings: | | | | | |
| | - | Span = approximately 2 to 3 times the 20 dB bandwidth, | centered on | | | |
| | | a hopping channel | | | | |
| | - | RBW ≥ 1% of the 20 dB bandwidth | | | | |
| | - VBW ≥ RBW | | | | | |
| Test | - | - Sweep = auto | | | | |
| Procedure | - Detector function = peak | | | | | |
| Frocedure | - Trace = max hold. | | | | | |
| | - The EUT should be transmitting at its maximum data rate. Allow the | | | | | |
| | trace to stabilize. Use the marker-to-peak function to set the marker | | | | | |
| | to the peak of the emission. Use the marker-delta function to | | | | | |
| | | measure 20 dB down one side of the emission. Reset the marker- | | | | |
| | | delta function, and move the marker to the other side of the | he | | | |
| | | emission, until it is (as close as possible to) even with the | reference | | | |



| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 16 of 68 |

| | | marker level. The marker-delta reading at this point is the 20 dB | | | |
|-----------|---|---|--|--|--|
| | | bandwidth of the emission. If this value varies with different modes of | | | |
| | | operation | operation (e.g., data rate, modulation format, etc.), repeat this test for | | |
| | | each variation. The limit is specified in one of the subparagraphs of | | | |
| | | this Sec | ction. Submit this plot(s). | | |
| Remark | | | | | |
| Result | | Pass | ☐ Fail | | |
| | | | | | |
| Test Data | Y | es | N/A | | |
| Test Plot | Y | es (See below) | □ _{N/A} | | |

Measurement result

| Modulation | СН | CH Frequency | 20dB Bandwidth | 99% Occupied |
|------------|------|--------------|----------------|-----------------|
| Modulation | G | (MHz) | (MHz) | Bandwidth (MHz) |
| | Low | 2402 | 1.027 | 0.9021 |
| GFSK | Mid | 2441 | 1.030 | 0.8969 |
| | High | 2480 | 1.039 | 0.9015 |
| π /4 DQPSK | Low | 2402 | 1.315 | 1.1783 |
| | Mid | 2441 | 1.314 | 1.1826 |
| | High | 2480 | 1.313 | 1.1747 |
| | Low | 2402 | 1.297 | 1.1917 |
| 8-DPSK | Mid | 2441 | 1.298 | 1.1935 |
| | High | 2480 | 1.298 | 1.1840 |



| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 17 of 68 |

Test Plots

20dB Bandwidth measurement result





GFSK - Low Channel



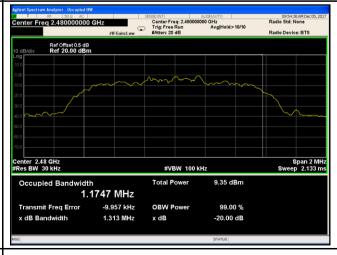




GFSK - High Channel

π /4 DPSK - Low Channel



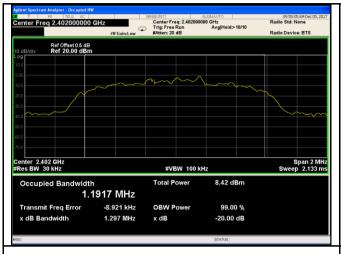


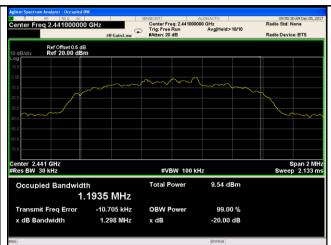
π /4 DQPSK - Middle Channel

π /4 DQPSK - High Channel



| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 18 of 68 |





8DPSK - Low Channel



8DPSK - High Channel

8DPSK - Middle Channel



| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 19 of 68 |

6.4 Peak Output Power

| Temperature | 24 °C |
|----------------------|-------------------|
| Relative Humidity | 55% |
| Atmospheric Pressure | 1013mbar |
| Test date : | December 05, 2017 |
| Tested By : | Aaron Liang |

Requirement(s):

| Item | Requirement Applicable | | | |
|--|--|---|--|--|
| ۵) | FHSS in 2400-2483.5MHz with ≥ 75 channels: ≤ 1 | | | |
| a) | Watt | <u>></u> | | |
| b) | FHSS in 5725-5850MHz: ≤ 1 Watt | | | |
| ۵۱ | For all other FHSS in the 2400-2483.5MHz band: | 1 | | |
| G) | ≤ 0.125 Watt. | | | |
| d) | FHSS in 902-928MHz with ≥ 50 channels: ≤ 1 Watt | | | |
| ۵) | FHSS in 902-928MHz with ≥ 25 & <50 channels: | 1 | | |
| е) | ≤ 0.25 Watt | | | |
| f) | DTS in 902-928MHz, 2400-2483.5MHz: ≤ 1 Watt | | | |
| | | | | |
| | Spectrum Analyzer EUT | | | |
| The test follows FCC Public Notice DA 00-705 Measurement Guidelines. | | | | |
| Use the following spectrum analyzer settings: | | | | |
| - | Span = approximately 5 times the 20 dB bandwidth, cent | ered on a | | |
| | hopping channel | | | |
| - RBW > the 20 dB bandwidth of the emission being measured | | | | |
| - | VBW ≥ RBW | | | |
| - | Sweep = auto | | | |
| - | Detector function = peak | | | |
| - Trace = max hold | | | | |
| - | Allow the trace to stabilize. | | | |
| | a) b) c) d) e) f) | a) FHSS in 2400-2483.5MHz with ≥ 75 channels: ≤ 1 Watt b) FHSS in 5725-5850MHz: ≤ 1 Watt c) For all other FHSS in the 2400-2483.5MHz band: ≤ 0.125 Watt. d) FHSS in 902-928MHz with ≥ 50 channels: ≤ 1 Watt FHSS in 902-928MHz with ≥ 25 & <50 channels: ≤ 0.25 Watt f) DTS in 902-928MHz, 2400-2483.5MHz: ≤ 1 Watt The test follows FCC Public Notice DA 00-705 Measurement Gu Use the following spectrum analyzer settings: - Span = approximately 5 times the 20 dB bandwidth, centender thopping channel - RBW > the 20 dB bandwidth of the emission being measured to the sweep = auto - Detector function = peak - Trace = max hold | | |



| Test Report | 17071300-FCC-R3 | |
|-------------|-----------------|--|
| Page | 20 of 68 | |

| | | - Use the marker-to-peak function to set the marker to the peak of the |) | | |
|-----------|---|--|---|--|--|
| | | emission. The indicated level is the peak output power (see the note | | | |
| | | above regarding external attenuation and cable loss). The limit is | | | |
| | | specified in one of the subparagraphs of this Section. Submit this | | | |
| | | plot. A peak responding power meter may be used instead of a | | | |
| | | spectrum analyzer. | | | |
| Remark | | | | | |
| Result | | Pass Fail | | | |
| | | | | | |
| Test Data | V | res N/A | | | |
| Test Plot | Y | es (See below) | | | |

Peak Output Power measurement result

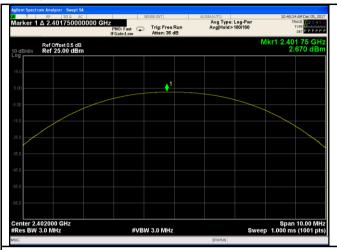
| Туре | Modulation | СН | Frequenc y (MHz) | Conducted Power (dBm) | Limit (mW) | Result |
|-----------------|------------|------|---------------------|-----------------------|---------------|--------|
| | | Low | 2402 | 2.670 | 1000 | Pass |
| | GFSK | Mid | 2441 | 3.796 | 125 | Pass |
| | | High | 2480 | 3.935 | 125 | Pass |
| Outerist | π /4 DQPSK | Low | 2402 | 2.031 | 125 | Pass |
| Output power | | Mid | 2441 | 3.148 | 125 | Pass |
| | | High | 2480 | 3.245 | 125 | Pass |
| | | Low | 2402 | 2.114 | 125 | Pass |
| | 8-DPSK | Mid | 2441 | 3.277 | 125 | Pass |
| | | High | 2480 | 3.394 | 125 | Pass |

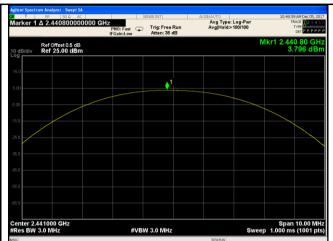


| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 21 of 68 |

Test Plots

Output Power measurement result





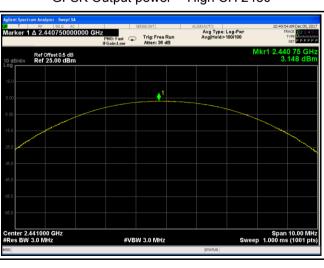
GFSK Output power - Low CH 2402



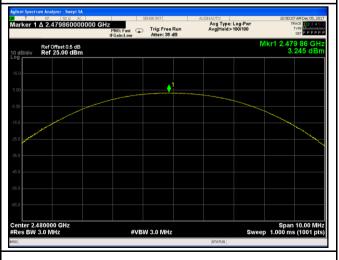
GFSK Output power - Mid CH 2441



GFSK Output power - High CH 2480



 π /4 DQPSK Output power - Low CH 2402



 π /4 DQPSK Output power - Mid CH 2441

 π /4 DQPSK Output power - High CH 2480

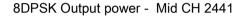


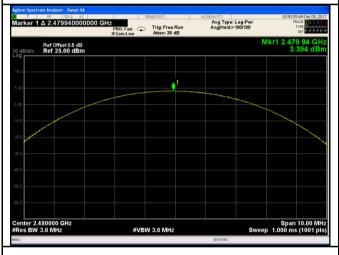
| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 22 of 68 |





8DPSK Output power - Low CH 2402





8DPSK Output power - High CH 2480



| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 23 of 68 |

6.5 Number of Hopping Channel

| Temperature | 24 °C |
|----------------------|-------------------|
| Relative Humidity | 55% |
| Atmospheric Pressure | 1013mbar |
| Test date : | December 05, 2017 |
| Tested By : | Aaron Liang |

| Requirement(s): | | | | | |
|---------------------|--|--|--------------|--|--|
| Spec | Item | Requirement | Applicable | | |
| §15.247(a) (1)(iii) | a) | V | | | |
| Test Setup | | Spectrum Analyzer EUT | | | |
| | The te | st follows FCC Public Notice DA 00-705 Measurement Gu | uidelines | | |
| | | e following spectrum analyzer settings: | ildelii ies. | | |
| | | JT must have its hopping function enabled. | | | |
| | | | | | |
| | | Span = the frequency band of operation | | | |
| | - RBW ≥ 1% of the span - VBW ≥ RBW | | | | |
| Test | | | | | |
| Procedure | - Sweep = auto | | | | |
| | - Detector function = peak | | | | |
| | - Trace = max hold | | | | |
| | - Allow trace to fully stabilize. | | | | |
| | - | It may prove necessary to break the span up to sections, | in order to | | |
| | clearly show all of the hopping frequencies. The limit is specified in | | | | |
| | one of the subparagraphs of this Section. Submit this plot(s). | | | | |
| Remark | | | | | |
| Result | Pas | Fail | | | |
| Test Data | Yes | N/A | | | |
| Test Plot | Yes (See | below) | | | |



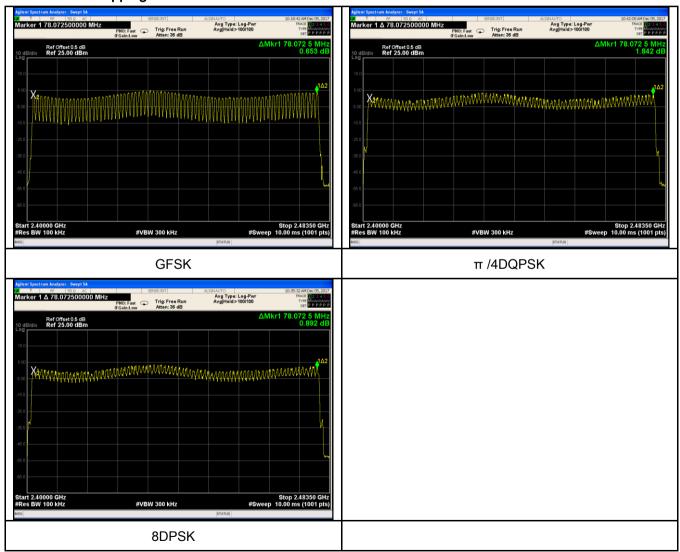
| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 24 of 68 |

Number of Hopping Channel measurement result

| Туре | Modulation | Frequency Range | Number of Hopping Channel | Limit |
|------------------------------|------------|-----------------|------------------------------|-------|
| Number of Hopping Channel | GFSK | 2400-2483.5 | 79 | 15 |
| | π /4 DQPSK | 2400-2483.5 | 79 | 15 |
| | 8-DPSK | 2400-2483.5 | 79 | 15 |

Test Plots

Number of Hopping Channels measurement result





| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 25 of 68 |

6.6 Time of Occupancy (Dwell Time)

| Temperature | 24 °C |
|----------------------|-------------------|
| Relative Humidity | 55% |
| Atmospheric Pressure | 1013mbar |
| Test date : | December 05, 2017 |
| Tested By : | Aaron Liang |

Requirement(s):

| Spec | Item | Requirement | Applicable | |
|---------------------|---|--|------------|--|
| §15.247(a) (1)(iii) | a) | Dwell Time < 0.4s | V | |
| Test Setup | | Spectrum Analyzer EUT | | |
| | The to | | Luidolinos | |
| | | The test follows FCC Public Notice DA 00-705 Measurement Guidelines. | | |
| | Use the following spectrum analyzer | | | |
| | | Span = zero span, centered on a hopping channel | | |
| | - | RBW = 1 MHz | | |
| Test | - | VBW ≥ RBW | | |
| Procedure | - | Sweep = as necessary to capture the entire dwell time p | er hopping | |
| | | channel | | |
| | - | Detector function = peak | | |
| | - | Trace = max hold | | |
| | - use the marker-delta function to determine the dwell time | | е | |
| Remark | | | | |
| Result | Pas | s Fail | | |

| Test Data | Yes | □ _{N/A} |
|-----------|-----------------|------------------|
| Test Plot | Yes (See below) | $\square_{N/A}$ |



| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 26 of 68 |

Dwell Time measurement result

| Typo | Modulation | СН | Pulse Width | Dwell Time | Limit | Result |
|---|------------|------|-------------|------------|-------|--------|
| Туре | Modulation | СП | (ms) | (ms) | (ms) | Nesull |
| | | Low | 2.91 | 310.400 | 400 | Pass |
| | GFSK | Mid | 2.91 | 310.400 | 400 | Pass |
| | | High | 2.92 | 311.467 | 400 | Pass |
| | | Low | 2.92 | 311.467 | 400 | Pass |
| Dwell Time | π /4 DQPSK | Mid | 2.92 | 311.467 | 400 | Pass |
| | 8-DPSK | High | 2.91 | 310.400 | 400 | Pass |
| | | Low | 2.91 | 310.400 | 400 | Pass |
| | | Mid | 2.91 | 310.400 | 400 | Pass |
| | | High | 2.91 | 310.400 | 400 | Pass |
| Note: Dwell time - Dules Time (ms) v (4600 + 6 + 70) v 24.6 | | | | | | |

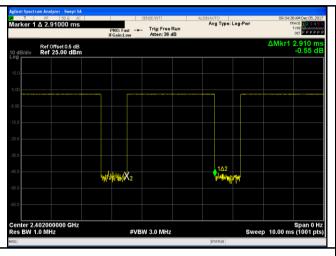
Note: Dwell time=Pulse Time (ms) × (1600 \div 6 \div 79) ×31.6

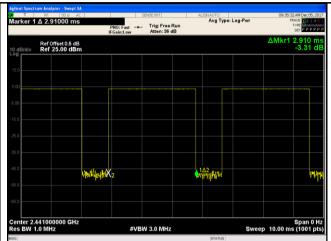


| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 27 of 68 |

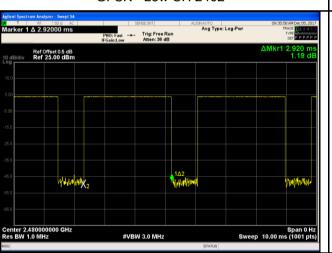
Test Plots

Dwell Time measurement result





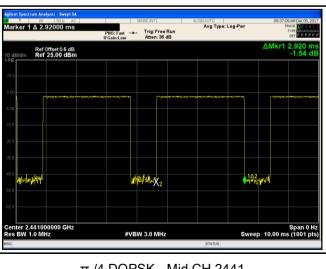
GFSK - Low CH 2402



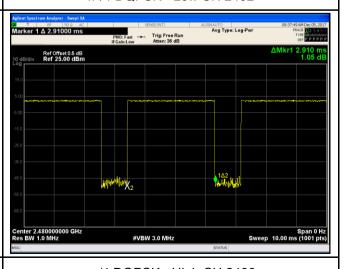
GFSK - Mid CH 2441



GFDK - High CH 2480



 π /4 DQPSK - Low CH 2402

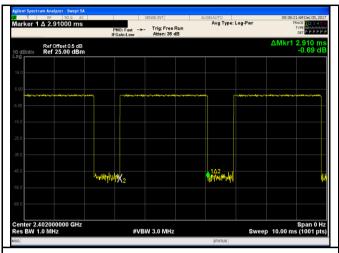


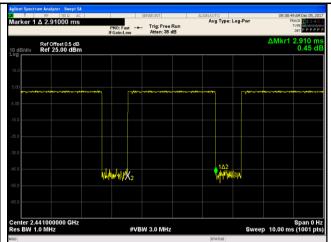
 π /4 DQPSK - Mid CH 2441

 π /4 DQPSK - High CH 2480

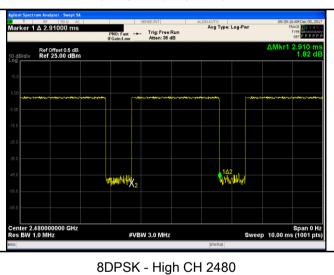


| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 28 of 68 |





8DPSK - Low CH 2402



8DPSK - Mid CH 2441



| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 29 of 68 |

6.7 Band Edge & Restricted Band

| Temperature | 22 °C |
|----------------------|-------------------|
| Relative Humidity | 53% |
| Atmospheric Pressure | 1008mbar |
| Test date : | December 02, 2017 |
| Tested By : | Aaron Liang |

Requirement(s):

| Requirement(s): | 14 | Deminerant | A multipe telle |
|------------------------|---|---|-----------------|
| Spec | Item | Requirement | Applicable |
| §15.247(a) (1)(iii) | a) | contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the | |
| Test Setup | Peak conducted power limits. Ant. Tower Variable Support Units Ground Plane Test Receiver | | |
| Test Procedure | The test follows FCC Public Notice DA 00-705 Measurement Guidelines. Radiated Method Only - 1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator. - 2. Position the EUT without connection to measurement instrument. Put it on the Rotated table and turn on the EUT and make it operate in transmitting mode. Then set it to Low Channel and High Channel within its operating range, | | |



| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 30 of 68 |

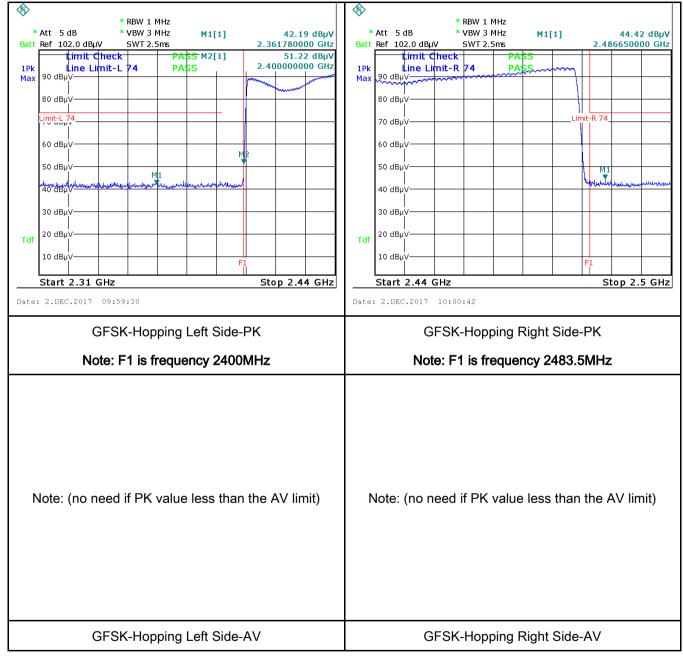
| | and make sure the instrument is operated in its linear range. |
|-----------|--|
| | - 3. First, set both RBW and VBW of spectrum analyzer to 100 kHz with a |
| | convenient frequency span including 100kHz bandwidth from band edge, check |
| | the emission of EUT, if pass then set Spectrum Analyzer as below: |
| | a. The resolution bandwidth and video bandwidth of test receiver/spectrum |
| | analyzer is 120 kHz for Quasiy Peak detection at frequency below 1GHz. |
| | b. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and |
| | video bandwidth is 3MHz with Peak detection for Peak measurement at |
| | frequency above 1GHz. |
| | c. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the |
| | video bandwidth is 10Hz with Peak detection for Average Measurement as |
| | below at frequency above 1GHz. |
| | - 4. Measure the highest amplitude appearing on spectral display and set it as a |
| | reference level. Plot the graph with marking the highest point and edge |
| | frequency. |
| | - 5. Repeat above procedures until all measured frequencies were complete. |
| Remark | |
| rtemark | |
| Result | Pass Fail |
| | |
| Tool Data | □ _{Yes} □ _{N/A} |
| Test Data | res = N/A |
| Test Plot | Yes (See below) |



| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 31 of 68 |

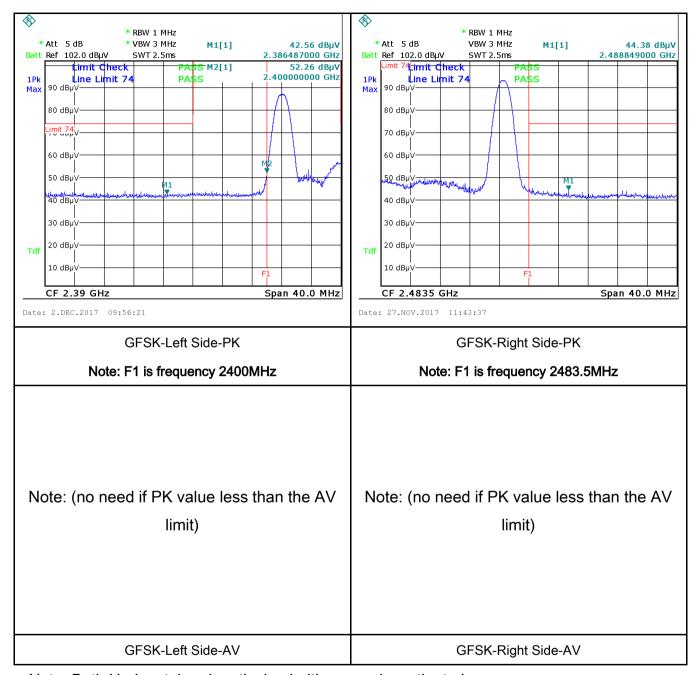
Test Plots

GFSK Mode:





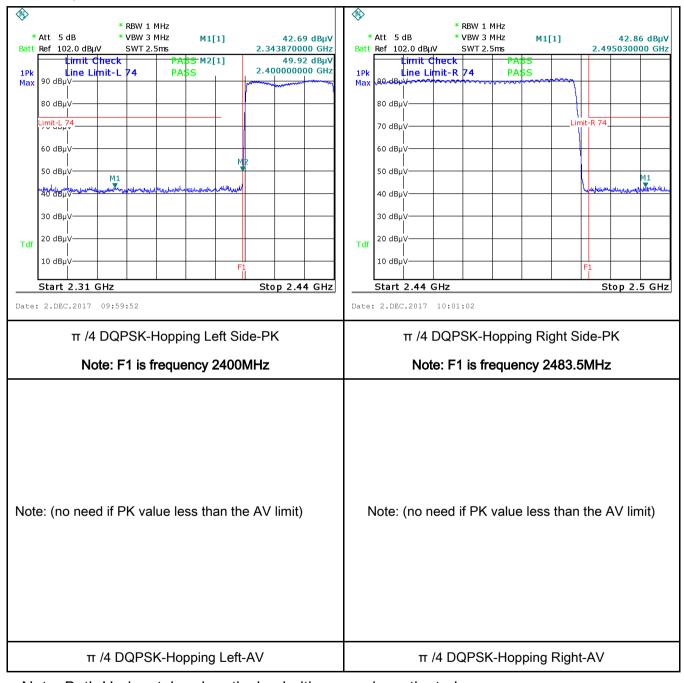
| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 32 of 68 |





| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 33 of 68 |

π /4 DQPSK Mode:





| Test Report | 17071300-FCC-R3 |
|-------------|-----------------|
| Page | 34 of 68 |

