GTS Global United Technology Services Co., Ltd.

Report No.: GTSL202109000169F01

TEST REPORT

| Applicant: | AI-ELINK TECHNOLOGY CO., LIMITED |
|-------------------------------------|--|
| Address of Applicant: | Room 408, 4th Floor, Lingyun Building, Honglang North 2nd Road, Baoan District, Shenzhen |
| Manufacturer/Factory: | AI-ELINK TECHNOLOGY CO., LIMITED |
| Address of Manufacturer/Factory: | Room 408, 4th Floor, Lingyun Building, Honglang North 2nd Road, Baoan District, Shenzhen |
| Equipment Under Test (E | :UT) |
| Product Name: | Conference Camera |
| Model No.: | CP30, CP30S, CP30W |
| Trade Mark: | N/A |
| FCC ID: | 2A285-CP30 |
| Applicable standards: | FCC CFR Title 47 Part 15 Subpart C Section 15.247 |
| Date of sample receipt: | Sep. 14,2021 |
| Date of Test: | Sep. 14,2021-Sep. 23,2021 |
| Date of report issued: | Sep. 23,2021 |
| Test Result : | PASS * |

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Robinson Luo Laboratory Manager

This results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.



2 Version

| Version No. | Date | Description | | |
|---------------|--------------|-------------|--|--|
| 00 | Sep. 23,2021 | Original | | |
| | | 6 | | |
| 8 8 8 8 | 2 2 2 2 | 2 8 8 8 8 | | |
| | C B 2 B B | 8 2 8 8 | | |
| 9 19 19 19 19 | | 0 0 0 0 0 | | |

Prepared By:

sand

Date:

Sep. 23,2021

Project Engineer

Check By:

objuson (un)

Date:

Sep. 23,2021

Reviewer

Report No.: GTSL202109000169F01

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4 Test Summary

| Test Item | Section in CFR 47 | Result | |
|----------------------------------|--------------------|--------|--|
| Antenna Requirement | 15.203/15.247 (c) | Pass | |
| AC Power Line Conducted Emission | 15.207 | Pass | |
| Conducted Peak Output Power | 15.247 (b)(1) | Pass | |
| 20dB Occupied Bandwidth | 15.247 (a)(1) | Pass | |
| Carrier Frequencies Separation | 15.247 (a)(1) | Pass | |
| Hopping Channel Number | 15.247 (a)(1)(iii) | Pass | |
| Dwell Time | 15.247 (a)(1)(iii) | Pass | |
| Radiated Emission | 15.205/15.209 | Pass | |
| Band Edge | 15.247(d) | Pass | |

Remarks:

1. Pass: The EUT complies with the essential requirements in the standard.

2. Test according to ANSI C63.10:2013

Measurement Uncertainty

| Test Item | Frequency Range | Measurement Uncertainty | Notes | |
|-------------------------------------|-----------------|-------------------------|-------|--|
| Radiated Emission | 30MHz-200MHz | 3.8039dB | (1) | |
| Radiated Emission | 200MHz-1GHz | 3.9679dB | (1) | |
| Radiated Emission | 1GHz-18GHz | 4.29dB | (1) | |
| Radiated Emission | 18GHz-40GHz | 3.30dB | (1) | |
| AC Power Line Conducted Emission | 0.15MHz ~ 30MHz | 3.44dB | (1) | |

Note (1): The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.



5 General Information

5.1 General Description of EUT

| Product Name: | Conference Camera |
|----------------------|---|
| Model No.: | CP30, CP30S, CP30W |
| Model Declaration | PCB board, structure and internal of these model(s) are the same, |
| 0 0 0 0 | So no additional models were tested. |
| Test sample(s) ID: | GTSL202109000169-1 |
| Sample(s) Status: | Engineer sample |
| Hardware Version: | V3.1 |
| Software Version: | V317 |
| Operation Frequency: | 2402MHz~2480MHz |
| Channel numbers: | 79 |
| Channel separation: | 1MHz |
| Modulation type: | GFSK, π/4-DQPSK, 8-DPSK |
| Antenna Type: | PCB ANT |
| Antenna gain: | 0.00dBi |
| Power supply: | DC 12V/1A From External Circuit |
| Adapter Information: | Mode: AS1201A-1201000USL |
| 8 8 ? S | Input: AC 100-240V, 50/60Hz, 0.35A MAX |
| 6 8 8 8 | Output: DC 12V, 1A |



| Channel | Frequency | Channel | Frequency | Channel | Frequency | Channel | Frequency |
|---------|-----------|---------|-----------|---------|-----------|---------|-----------|
| 1 | 2402MHz | 21 | 2422MHz | 41 | 2442MHz | 61 | 2462MHz |
| 2 | 2403MHz | 22 | 2423MHz | 42 | 2443MHz | 62 | 2463MHz |
| 3 | 2404MHz | 23 | 2424MHz | 43 | 2444MHz | 63 | 2464MHz |
| 4 | 2405MHz | 24 | 2425MHz | 44 | 2445MHz | 64 | 2465MHz |
| 5 | 2406MHz | 25 | 2426MHz | 45 | 2446MHz | 65 | 2466MHz |
| 6 | 2407MHz | 26 | 2427MHz | 46 | 2447MHz | 66 | 2467MHz |
| 7 | 2408MHz | 27 | 2428MHz | 47 | 2448MHz | 67 | 2468MHz |
| 8 | 2409MHz | 28 | 2429MHz | 48 | 2449MHz | 68 | 2469MHz |
| 9 | 2410MHz | 29 | 2430MHz | 49 | 2450MHz | 69 | 2470MHz |
| 10 | 2411MHz | 30 | 2431MHz | 50 | 2451MHz | 70 | 2471MHz |
| 11 | 2412MHz | 31 | 2432MHz | 51 | 2452MHz | 71 | 2472MHz |
| 12 | 2413MHz | 32 | 2433MHz | 52 | 2453MHz | 72 | 2473MHz |
| 13 | 2414MHz | 33 | 2434MHz | 53 | 2454MHz | 73 | 2474MHz |
| 14 | 2415MHz | 34 | 2435MHz | 54 | 2455MHz | 74 | 2475MHz |
| 15 | 2416MHz | 35 | 2436MHz | 55 | 2456MHz | 75 | 2476MHz |
| 16 | 2417MHz | 36 | 2437MHz | 56 | 2457MHz | 76 | 2477MHz |
| 17 | 2418MHz | 37 | 2438MHz | 57 | 2458MHz | 77 | 2478MHz |
| 18 | 2419MHz | 38 | 2439MHz | 58 | 2459MHz | 78 | 2479MHz |
| 19 | 2420MHz | 39 | 2440MHz | 59 | 2460MHz | 79 | 2480MHz |
| 20 | 2421MHz | 40 | 2441MHz | 60 | 2461MHz | | \sim |

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

| Channel | Frequency |
|---------------------|-----------|
| The lowest channel | 2402MHz |
| The middle channel | 2441MHz |
| The Highest channel | 2480MHz |



5.2 Test mode

Transmitting mode Keep the EUT in continuously transmitting mode.

Remark: During the test, the test voltage was tuned from 85% to 115% of the nominal rated supply voltage, and found that the worst case was under the nominal rated supply condition. So the report just shows that condition's data.

5.3 Description of Support Units

None.

5.4 Deviation from Standards

None.

5.5 Abnormalities from Standard Conditions

None.

5.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

| FCC—Registration No.: 38 | 1383 |
|--|------|
|--|------|

Designation Number: CN5029

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files.

• IC — Registration No.: 9079A

CAB identifier: CN0091

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing.

• NVLAP (LAB CODE:600179-0)

Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).

5.7 Test Location

| 8 | All tests were performed at: |
|--------|--|
| | Global United Technology Services Co., Ltd. |
| | Address: No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang |
| 4 | Road, Baoan District, Shenzhen, Guangdong, China 518102 |
| Sec. 1 | Tel: 0755-27798480 |
| | Fax: 0755-27798960 |

5.8 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Conducted testing:

| Temperature: | 25 ° C |
|-----------------------|--------------|
| | 10 10 10 |
| Humidity: | 51 % |
| 6 6 6 6 6 | 6 6 |
| Atmospheric pressure: | 950-1050mbar |



6 Test Instruments list

| nau | Radiated Emission: | | | | | | | |
|------|--|--------------------------------|-----------------------------|------------------|------------------------|----------------------------|--|--|
| Item | Test Equipment | Manufacturer | Model No. | Inventory No. | Cal.Date (mm-dd-yy) | Cal.Due date (mm-dd-yy) | | |
| 1 | 3m Semi- Anechoic Chamber | ZhongYu Electron | 9.2(L)*6.2(W)* 6.4(H) | GTS250 | July. 02 2020 | July. 01 2025 | | |
| 2 | Control Room | ZhongYu Electron | 6.2(L)*2.5(W)* 2.4(H) | GTS251 | N/A | N/A | | |
| 3 | EMI Test Receiver | Rohde & Schwarz | ESU26 | GTS203 | June. 24 2021 | June. 23 2022 | | |
| 4 | BiConiLog Antenna | SCHWARZBECK MESS-ELEKTRONIK | VULB9163 | GTS214 | June. 24 2021 | June. 23 2022 | | |
| 5 | Double -ridged waveguide horn | SCHWARZBECK MESS-ELEKTRONIK | BBHA 9120 D | GTS208 | June. 24 2021 | June. 23 2022 | | |
| 6 | Horn Antenna | ETS-LINDGREN | 3160 | GTS217 | June. 24 2021 | June. 23 2022 | | |
| 7 | EMI Test Software | AUDIX | E3 | N/A | N/A | N/A | | |
| 8 | Coaxial Cable | GTS | N/A | GTS213 | June. 24 2021 | June. 23 2022 | | |
| 9 | Coaxial Cable | GTS | N/A | GTS211 | June. 24 2021 | June. 23 2022 | | |
| 10 | Coaxial cable | GTS | N/A | GTS210 | June. 24 2021 | June. 23 2022 | | |
| 11 | Coaxial Cable | GTS | N/A | GTS212 | June. 24 2021 | June. 23 2022 | | |
| 12 | Amplifier(100kHz-3GHz) | HP | 8347A | GTS204 | June. 24 2021 | June. 23 2022 | | |
| 13 | Amplifier(2GHz-20GHz) | HP | 84722A | GTS206 | June. 24 2021 | June. 23 2022 | | |
| 14 | Amplifier (18-26GHz) Rohde & Schwarz | | AFS33-18002 650-30-8P-44 | GTS218 | June. 24 2021 | June. 23 2022 | | |
| 15 | Band filter | Amindeon | 82346 | GTS219 | June. 24 2021 | June. 23 2022 | | |
| 16 | Power Meter | Anritsu | ML2495A | GTS540 | June. 24 2021 | June. 23 2022 | | |
| 17 | Power Sensor | Anritsu | MA2411B | GTS541 | June. 24 2021 | June. 23 2022 | | |
| 18 | Wideband Radio Communication Tester | Rohde & Schwarz | CMW500 | GTS575 | June. 24 2021 | June. 23 2022 | | |
| 19 | Splitter | Agilent | 11636B | GTS237 | June. 24 2021 | June. 23 2022 | | |
| 20 | Loop Antenna | ZHINAN | ZN30900A | GTS534 | June. 24 2021 | June. 23 2022 | | |
| 21 | Breitband hornantenne | SCHWARZBECK | BBHA 9170 | GTS579 | Oct. 18 2020 | Oct. 17 2021 | | |
| 22 | Amplifier | TDK | PA-02-02 | GTS574 | Oct. 18 2020 | Oct. 17 2021 | | |
| 23 | Amplifier | TDK | PA-02-03 | GTS576 | Oct. 18 2020 | Oct. 17 2021 | | |
| 24 | PSA Series Spectrum Analyzer | Rohde & Schwarz | FSP | GTS578 | June. 24 2021 | June. 23 2022 | | |



| Conducted Emission | | | | | | | | |
|--------------------|-------------------------------|-----------------------------|----------------------|------------------|------------------------|----------------------------|--|--|
| ltem | Test Equipment | Manufacturer | Model No. | Inventory No. | Cal.Date (mm-dd-yy) | Cal.Due date (mm-dd-yy) | | |
| 1 | Shielding Room | ZhongYu Electron | 7.3(L)x3.1(W)x2.9(H) | GTS252 | May.15 2019 | May.14 2022 | | |
| 2 | EMI Test Receiver | R&S | ESCI 7 | GTS552 | June. 24 2021 | June. 23 2022 | | |
| 3 | Coaxial Switch | ANRITSU CORP | MP59B | GTS225 | June. 24 2021 | June. 23 2022 | | |
| 4 | ENV216 2-L-V- NETZNACHB.DE | ROHDE&SCHWARZ | ENV216 | GTS226 | June. 24 2021 | June. 23 2022 | | |
| 5 | Coaxial Cable | GTS | N/A | GTS227 | N/A | N/A | | |
| 6 | EMI Test Software | AUDIX | E3 | N/A | N/A | N/A | | |
| 7 | Thermo meter | KTJ | TA328 | GTS233 | June. 24 2021 | June. 23 2022 | | |
| 8 | Absorbing clamp | Elektronik- Feinmechanik | MDS21 | GTS229 | June. 24 2021 | June. 23 2022 | | |
| 9 | ISN | SCHWARZBECK | NTFM 8158 | GTS565 | June. 24 2021 | June. 23 2022 | | |
| 10 | High voltage probe | SCHWARZBECK | TK9420 | GTS537 | July. 09 2021 | July. 08 2022 | | |

| RF Conducted Test: | | | | | | | | |
|--------------------|--|--------------|------------------|------------|------------------------|----------------------------|--|--|
| Item | Test Equipment | Manufacturer | Model No. | Serial No. | Cal.Date (mm-dd-yy) | Cal.Due date (mm-dd-yy) | | |
| 1 | MXA Signal Analyzer | Agilent | N9020A | GTS566 | June. 24 2021 | June. 23 2022 | | |
| 2 | EMI Test Receiver | R&S | ESCI 7 | GTS552 | June. 24 2021 | June. 23 2022 | | |
| 3 | Spectrum Analyzer | Agilent | E4440A | GTS533 | June. 24 2021 | June. 23 2022 | | |
| 4 | MXG vector Signal Generator | Agilent | N5182A | GTS567 | June. 24 2021 | June. 23 2022 | | |
| 5 | ESG Analog Signal Generator | Agilent | E4428C | GTS568 | June. 24 2021 | June. 23 2022 | | |
| 6 | USB RF Power Sensor | DARE | RPR3006W | GTS569 | June. 24 2021 | June. 23 2022 | | |
| 7 | RF Switch Box | Shongyi | RFSW3003328 | GTS571 | June. 24 2021 | June. 23 2022 | | |
| 8 | Programmable Constant Temp & Humi Test Chamber | WEWON | WHTH-150L-40-880 | GTS572 | June. 24 2021 | June. 23 2022 | | |

| Gene | General used equipment: | | | | | | | |
|------|---------------------------------|--------------|-----------|------------------|------------------------|----------------------------|--|--|
| Item | Test Equipment | Manufacturer | Model No. | Inventory No. | Cal.Date (mm-dd-yy) | Cal.Due date (mm-dd-yy) | | |
| 1 | Humidity/ Temperature Indicator | KTJ | TA328 | GTS243 | June. 24 2021 | June. 23 2022 | | |
| 2 | Barometer | ChangChun | DYM3 | GTS255 | June. 24 2021 | June. 23 2022 | | |



7 Test results and Measurement Data

7.1 Antenna requirement

| Standard requirement: | FCC Part15 C Section 15.203 /247(c) |
|-----------------------|-------------------------------------|
|-----------------------|-------------------------------------|

15.203 requirement:

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, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

15.247(c) (1)(i) requirement:

(i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

E.U.T Antenna:

The antenna is PCB antenna, the best case gain of the is 0.00dBi, reference to the appendix II for details



| Test Requirement: | FCC Part15 C Section 15.207 | 0 0 0 | | |
|---------------------------------|---|---|--|--|
| Test Method: | ANSI C63.10:2013 | 10 IS | 9 9 | 10 |
| Test Frequency Range: | 150KHz to 30MHz | | | S. |
| Class / Severity: | Class B | e e e | 8 8 C | 6 |
| Receiver setup: | RBW=9KHz, VBW=30KHz, S | weep time=auto | 2 6 | S |
| Limit: | | Limi | t (dBuV) | L. |
| | Frequency range (MHz) | Quasi-peak | Avera | ge |
| | 0.15-0.5 | 66 to 56* | 56 to 4 | 46* |
| | 0.5-5 | 56 | 46 | L. |
| | 5-30 | 60 | 50 | |
| | * Decreases with the logarithr | | 6 | 1 Contraction of the second se |
| Test setup: | Reference Plane | • | | |
| | Equipment E.U.T | EMI Receiver | | |
| Test procedure: | Test table/Insulation plane Remark E.U.T. Equipment Under Test LISN: Line Impedence Stabilization Network Test table height=0.8m | Receiver | main power th | rough a |
| Test procedure: | Test table/Insulation plane Remark E.U.T. Equipment Under Test LISN! Line Impedence Stabilization Network Test table height=0.8m 1. The E.U.T and simulators a line impedance stabilization 50ohm/50uH coupling impo 2. The peripheral devices are LISN that provides a 50ohr termination. (Please refer the | Receiver are connected to the n network (L.I.S.N.). edance for the meas also connected to the m/50uH coupling imp | This provides a uring equipmer ne main power bedance with 50 | a nt. through Dohm |
| Test procedure: | Test table/Insulation plane Remark E.U.T. Equipment Under Test LISN: Line Impedence Stabilization Network Test table height=0.8m 1. The E.U.T and simulators a line impedance stabilization 50ohm/50uH coupling impo 2. The peripheral devices are LISN that provides a 50ohr | Receiver are connected to the n network (L.I.S.N.). edance for the meas also connected to the n/50uH coupling imp o the block diagram checked for maximud d the maximum emist all of the interface of | This provides a uring equipmer bedance with 50 of the test setu um conducted ssion, the relative cables must be | a nt. through a Dohm Ip and ve |
| Test procedure: | Test table/Insulation plane Remark: E.U.T. Equipment Under Test LISN Line Impedence Stabilization Network Test table height=0.8m The E.U.T and simulators a line impedance stabilization 500hm/50uH coupling import The peripheral devices are LISN that provides a 500hr termination. (Please refer to photographs). Both sides of A.C. line are interference. In order to fin positions of equipment and | Receiver are connected to the n network (L.I.S.N.). edance for the meas also connected to th m/50uH coupling imp o the block diagram checked for maximum d the maximum emis all of the interface of 2013 on conducted in | This provides a uring equipmer bedance with 50 of the test setu um conducted ssion, the relative cables must be | a nt. through a Dohm Ip and ve |
| | Test table/Insulation plane Remark: E U.T. Equipment Under Test LISN: Line Impedence Stabilization Network Test table height=0.8m The E.U.T and simulators a line impedance stabilization 50ohm/50uH coupling import 2. The peripheral devices are LISN that provides a 50ohr termination. (Please refer to photographs). Both sides of A.C. line are interference. In order to fin positions of equipment and according to ANSI C63.10: | Receiver are connected to the n network (L.I.S.N.). edance for the meas also connected to the n/50uH coupling imp o the block diagram checked for maximud d the maximum emist all of the interface of 2013 on conducted to s | This provides a uring equipmer bedance with 50 of the test setu um conducted ssion, the relative cables must be | a nt. through a Dohm Ip and ve |
| Test Instruments: | Test table/Insulation plane Remark: E.U.T. Equipment Under Test LISN: Line Impedence Stabilization Network Test table height=0.8m 1. The E.U.T and simulators at line impedance stabilization 500hm/50uH coupling impedences are LISN that provides a 500hm termination. (Please refer to photographs). 3. Both sides of A.C. line are interference. In order to fin positions of equipment and according to ANSI C63.10: Refer to section 6.0 for details | Receiver are connected to the n network (L.I.S.N.). edance for the meas also connected to the n/50uH coupling imp o the block diagram checked for maximud d the maximum emist all of the interface of 2013 on conducted to s | This provides a uring equipment bedance with 50 of the test setu um conducted ssion, the relative cables must be measurement. | a ht. through a Dohm Ip and ve |
| Test Instruments: Test mode: | Test table/Insulation plane Remark: E.U.T. Equipment Under Test LISN: Line Impedence Stabilization Network Test table height=0.8m The E.U.T and simulators a line impedance stabilization 50ohm/50uH coupling import The peripheral devices are LISN that provides a 50ohr termination. (Please refer to photographs). Both sides of A.C. line are interference. In order to fin positions of equipment and according to ANSI C63.10: Refer to section 6.0 for details Refer to section 5.2 for details | Receiver are connected to the n network (L.I.S.N.). edance for the meas also connected to the m/50uH coupling imp o the block diagram checked for maximum d the maximum emist all of the interface of 2013 on conducted to s | This provides a uring equipment bedance with 50 of the test setu um conducted ssion, the relative cables must be measurement. | a ht. through a Dohm ip and ve changed |

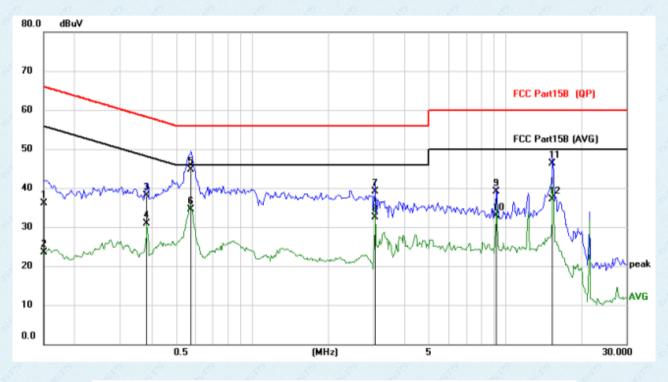
Remark: Both high and low voltages have been tested to show only the worst low voltage test data.

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Measurement data:

Pre-scan all test modes, found worst case at GFSK 2402MHz, and so only show the test result of GFSK 2402MHz

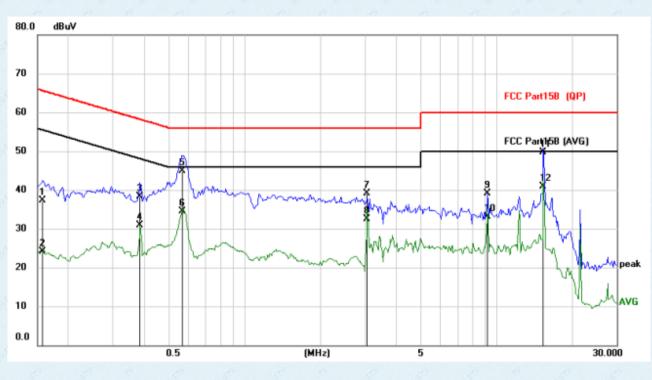
Line:



| No. M | | Reading Level | Correct Factor | Measure- ment | Limit | Over | |
|-------|---------|------------------|-------------------|------------------|-------|--------|----------|
| | MHz | dBuV | dB | dBuV | dBuV | dB | Detector |
| 1 | 0.1500 | 25.19 | 10.92 | 36.11 | 66.00 | -29.89 | QP |
| 2 | 0.1500 | 12.58 | 10.92 | 23.50 | 56.00 | -32.50 | AVG |
| 3 | 0.3840 | 27.21 | 10.92 | 38.13 | 58.19 | -20.06 | QP |
| 4 | 0.3840 | 19.89 | 10.92 | 30.81 | 48.19 | -17.38 | AVG |
| 5 * | 0.5751 | 33.82 | 10.92 | 44.74 | 56.00 | -11.26 | QP |
| 6 | 0.5751 | 23.57 | 10.92 | 34.49 | 46.00 | -11.51 | AVG |
| 7 | 3.0702 | 28.13 | 11.02 | 39.15 | 56.00 | -16.85 | QP |
| 8 | 3.0702 | 21.57 | 11.02 | 32.59 | 46.00 | -13.41 | AVG |
| 9 | 9.2166 | 27.77 | 11.32 | 39.09 | 60.00 | -20.91 | QP |
| 10 | 9.2166 | 21.60 | 11.32 | 32.92 | 50.00 | -17.08 | AVG |
| 11 | 15.3630 | 34.88 | 11.47 | 46.35 | 60.00 | -13.65 | QP |
| 12 | 15.3630 | 25.73 | 11.47 | 37.20 | 50.00 | -12.80 | AVG |

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| No. Mk. | Freq. | Reading Level | Correct Factor | Measure- ment | Limit | Over | |
|---------|---------|------------------|-------------------|------------------|-------|--------|----------|
| | MHz | dBuV | dB | dBuV | dBuV | dB | Detector |
| 1 | 0.1578 | 26.41 | 10.93 | 37.34 | 65.58 | -28.24 | QP |
| 2 | 0.1578 | 13.21 | 10.93 | 24.14 | 55.58 | -31.44 | AVG |
| 3 | 0.3840 | 27.34 | 10.92 | 38.26 | 58.19 | -19.93 | QP |
| 4 | 0.3840 | 20.00 | 10.92 | 30.92 | 48.19 | -17.27 | AVG |
| 5 | 0.5641 | 33.92 | 10.92 | 44.84 | 56.00 | -11.16 | QP |
| 6 | 0.5641 | 23.50 | 10.92 | 34.42 | 46.00 | -11.58 | AVG |
| 7 | 3.0702 | 28.01 | 11.02 | 39.03 | 56.00 | -16.97 | QP |
| 8 | 3.0702 | 21.57 | 11.02 | 32.59 | 46.00 | -13.41 | AVG |
| 9 | 9.2166 | 27.85 | 11.32 | 39.17 | 60.00 | -20.83 | QP |
| 10 | 9.2166 | 21.69 | 11.32 | 33.01 | 50.00 | -16.99 | AVG |
| 11 | 15.3591 | 38.23 | 11.47 | 49.70 | 60.00 | -10.30 | QP |
| 12 * | 15.3591 | 29.46 | 11.47 | 40.93 | 50.00 | -9.07 | AVG |
| | | | | | | | |

Notes:

1. An initial pre-scan was performed on the line and neutral lines with peak detector.

2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.

3. Final Level =Receiver Read level + LISN Factor + Cable Loss



| The contractor to an output t | | | |
|-------------------------------|---|--|--|
| Test Requirement: | FCC Part15 C Section 15.247 (a)(1) | | |
| Test Method: | ANSI C63.10:2013 | | |
| Limit: | 30dBm(for GFSK),20.97dBm(for EDR) | | |
| Test setup: | Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane | | |
| Test Instruments: | Refer to section 6.0 for details | | |
| Test mode: | Refer to section 5.2 for details | | |
| Test results: | Pass | | |

7.3 Conducted Peak Output Power

Measurement Data

| Mode | Test channel | Peak Output Power (dBm) | Limit (dBm) | Result | |
|-----------|--------------|----------------------------|-------------|--------|--|
| 2 2 | Lowest | 0.15 | 0 0 | 2 2 | |
| GFSK | Middle | -4.36 | 30.00 | Pass | |
| | Highest | -7.45 | | 6 | |
| | Lowest | -0.17 | | 6 | |
| π/4-DQPSK | Middle | -4.48 | 20.97 | Pass | |
| | Highest | -7.74 | S | 8 8 | |
| 0 2 2 | Lowest | -0.27 | 8 8 3 | R A | |
| 8-DPSK | Middle | -4.55 | 20.97 | Pass | |
| 0 0 0 | Highest | -7.81 | | | |



FCC Part15 C Section 15.247 (a)(1) Test Requirement: ANSI C63.10:2013 Test Method: Limit: N/A Test setup: Spectrum Analyzer E.U.T Non-Conducted Table **Ground Reference Plane Test Instruments:** Refer to section 6.0 for details Test mode: Refer to section 5.2 for details Test results: Pass

7.4 20dB Emission Bandwidth

Measurement Data

| Mode | Test channel | 20dB Emission Bandwidth (MHz) | Result |
|-----------|--------------|----------------------------------|--------|
| 0 0 0 | Lowest | 0.972 | 0 0 0 |
| GFSK | Middle | 0.950 | Pass |
| | Highest | 0.976 | 6 |
| a - a | Lowest | 1.325 | 6 6 6 |
| π/4-DQPSK | Middle | 1.319 | Pass |
| | Highest | 1.310 | 8 8 6 |
| 0 8 8 | Lowest | 1.301 | 2 8 8 |
| 8-DPSK | Middle | 1.302 | Pass |
| | Highest | 1.301 | |



Test plot as follows: GFSK mode Test mode: SISO DH5 2402MHz ANT1 h NTNV GFSK 0 -10 -20 dB:0.9 Level (dBm) -50 -60 -70 -80 1 03.0 24 Frequency (MHz) Lowest channel SISO DH5 2441MHz ANT1 GESK -10 -20 -30 -4(Level (dBm) 2440.514 -25.13dB 2441.464 -25.13dB 2441.176 -5.13dB -50 -70 -80 -90 -100 2442.0 Frequency (MHz) Middle channel NTNV_GFSK_SISO_DH5_2480MHz_ANT1 -10 -20 -30 -4(Level (dBm) -50 -6 -70 -80 -90 2481.0 Frequency (MHz)

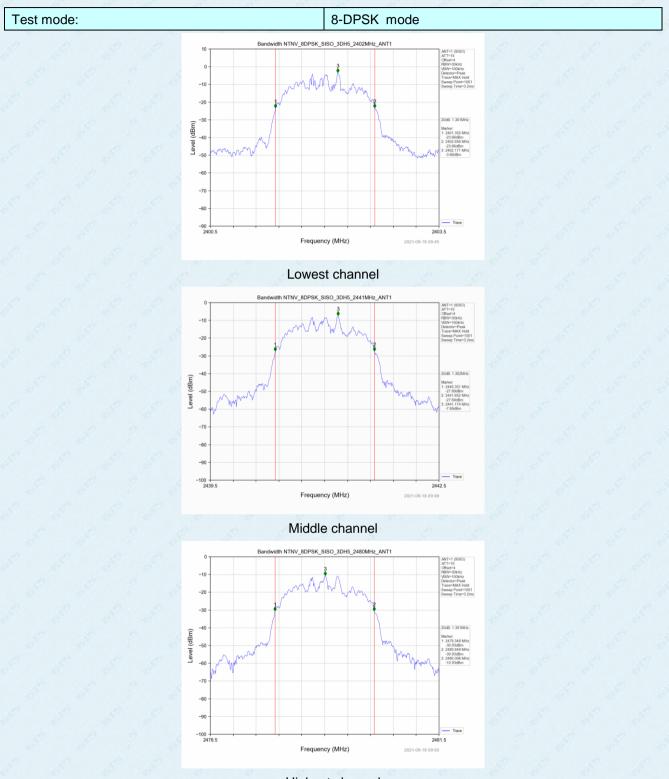
Highest channel

Report No.: GTSL202109000169F01



Highest channel

Report No.: GTSL202109000169F01





| Test Requirement: | FCC Part15 C Section 15.247 (a)(1) | | |
|-------------------|--|--|--|
| Test Method: | ANSI C63.10:2013 | | |
| Receiver setup: | RBW=100KHz, VBW=300KHz, detector=Peak | | |
| Limit: | 0.025MHz or 2/3 of the 20dB bandwidth (whichever is greater) | | |
| Test setup: | Spectrum Analyzer Image: Construction of the sector of | | |
| Test Instruments: | Refer to section 6.0 for details | | |
| Test mode: | Refer to section 5.2 for details | | |
| Test results: | Pass | | |

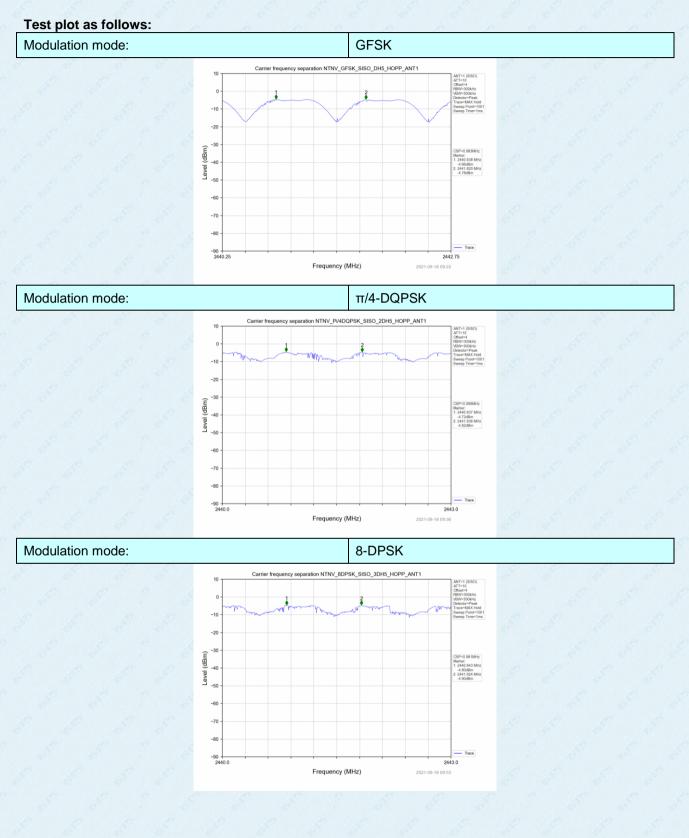
7.5 Carrier Frequencies Separation

Measurement Data

| Mode | Carrier Frequencies Separation (MHz) | 20dB bandwidth (MHz) (worse case) | Limit (MHz) | Result |
|-----------|---|--------------------------------------|-------------|--------|
| GFSK | 0.983 | 0.976 | ≥0.976 | |
| π/4-DQPSK | 0.999 | 1.325 | ≥0.883 | Pass |
| 8-DPSK | 0.981 | 1.302 | ≥0.868 | |

Note: According to section 7.4







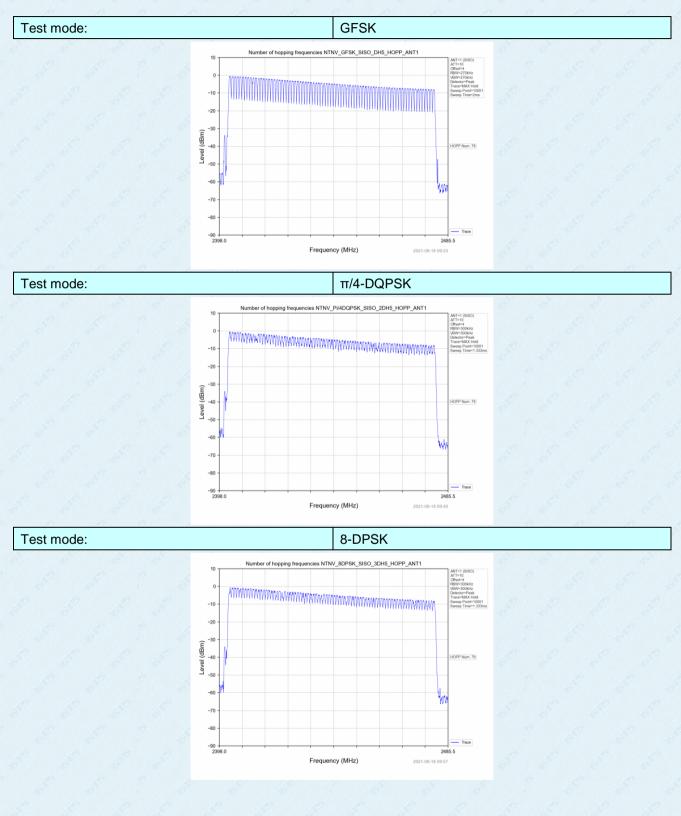
| 7.6 Hopping Channel Nun | nber |
|-------------------------|---|
| Test Requirement: | FCC Part15 C Section 15.247 (a)(1)(iii) |
| Test Method: | ANSI C63.10:2013 |
| Receiver setup: | RBW=100kHz, VBW=300kHz, Frequency range=2400MHz-2483.5MHz, Detector=Peak |
| Limit: | 15 channels |
| Test setup: | Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane |
| Test Instruments: | Refer to section 6.0 for details |
| Test mode: | Refer to section 5.2 for details |
| Test results: | Pass Annual Pass |

Measurement Data:

| Mode | Hopping channel numbers | Limit | Result |
|-----------|-------------------------|-------|--------|
| GFSK | 79 | ≥15 | Pass |
| π/4-DQPSK | 79 | ≥15 | Pass |
| 8-DPSK | 79 | ≥15 | Pass |

Test plot as follows:

Report No.: GTSL202109000169F01





7.7 Dwell Time

| Test Requirement: | FCC Part15 C Section 15.247 (a)(1)(iii) |
|-------------------|--|
| Test Method: | ANSI C63.10:2013 |
| Receiver setup: | RBW=1MHz, VBW=1MHz, Span=0Hz, Detector=Peak |
| Limit: | 0.4 Second |
| Test setup: | Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane |
| Test Instruments: | Refer to section 6.0 for details |
| Test mode: | Refer to section 5.2 for details |
| Test results: | Pass |

Report No.: GTSL202109000169F01

Measurement Data

GFSK mode:

| Frequency | Packet | Dwell time(ms) | Limit(ms) | Result |
|-----------|--------|----------------|-----------|--------|
| 2441MHz | DH1 | 119.634 | 400 | Pass |
| 2441MHz | DH3 | 284.412 | 400 | Pass |
| 2441MHz | DH5 | 306.552 | 400 | Pass |

Remarks:

The test period: T= 0.4 Second/Channel x 79 Channel = 31.6 s

Test channel: 2441MHz as blow

DH1 time slot=0.381(ms)*(1600/ (2*79))*31.6=119.634ms

DH3 time slot=1.644(ms)*(1600/ (4*79))*31.6=284.412ms

DH5 time slot=2.892(ms)*(1600/ (6*79))*31.6=306.552ms

π /4-DQPSK mode:

| Frequency | Packet | Dwell time(ms) | Limit(ms) | Result |
|-----------|--------|----------------|-----------|--------|
| 2441MHz | 2DH1 | 122.146 | 400 | Pass |
| 2441MHz | 2DH3 | 285.534 | 400 | Pass |
| 2441MHz | 2DH5 | 303.345 | 400 | Pass |

Remarks:

The test period: T= 0.4 Second/Channel x 79 Channel = 31.6 s

Test channel: 2441MHz as blow

DH1 time slot=0.389(ms)*(1600/ (2*79))*31.6=122.146ms

DH3 time slot=1.641(ms)*(1600/ (4*79))*31.6=285.534ms

DH5 time slot=2.889(ms)*(1600/ (6*79))*31.6=303.345ms

8-DPSK mode:

| Frequency | Packet | Dwell time(ms) | Limit(ms) | Result |
|-----------|--------|----------------|-----------|--------|
| 2441MHz | 3DH1 | 122.535 | 400 | Pass |
| 2441MHz | 3DH3 | 285.012 | 400 | Pass |
| 2441MHz | 3DH5 | 395.793 | 400 | Pass |

Remarks:

The test period: T= 0.4 Second/Channel x 79 Channel = 31.6 s

Test channel: 2441MHz as blow

DH1 time slot=0.389(ms)*(1600/ (2*79))*31.6=122.535ms

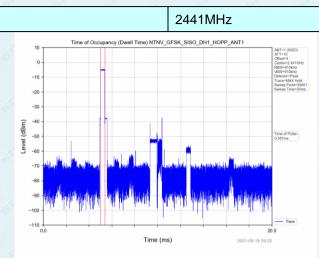
DH3 time slot=1.638(ms)*(1600/ (4*79))*31.6=285.012ms

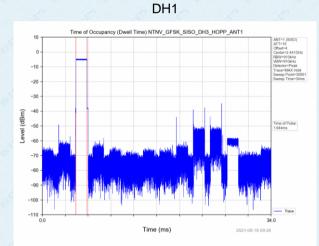
DH5 time slot=2.889(ms)*(1600/ (6*79))*31.6=395.793ms

Test plot as follows:

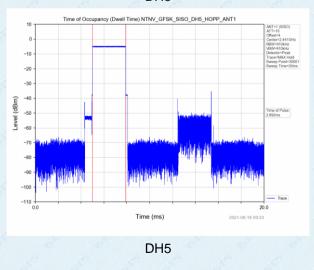
GFSK mode:

Test channel:





DH3



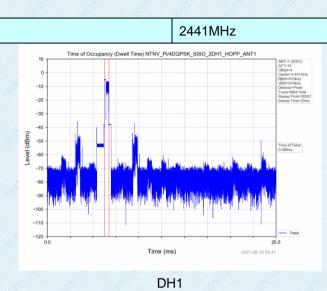
Global United Technology Services Co., Ltd. No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102 Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960

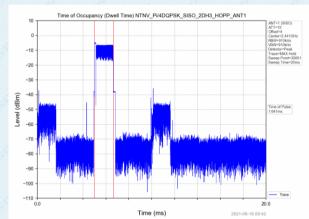
Report No.: GTSL202109000169F01

π/4-DQPSK mode:

Test channel:

Report No.: GTSL202109000169F01





DH3) NTNV Pi/4DQPSK SISO 2DH5 HOPP ANT Time of Occupa -10 -20 -30 -40 Level (dBm) -50 ime -60 -70 -80 -90 -110 Time (ms)

DH5

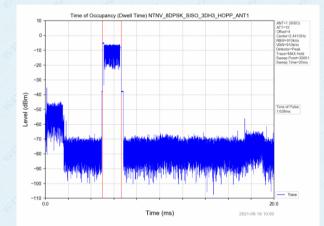
8-DPSK mode:

Test channel:

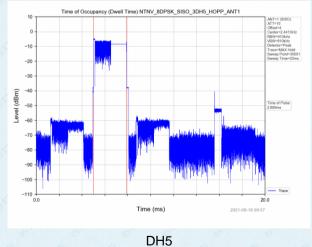
2441MHz

upancy (Dwell Time) NTNV_8DPSK_SISO_3DH1_HOPP_ANT1 Time of Oc -10 -20 -30 -40 Level (dBm) ime of F 389ms -50 -60 -70 -80 -90 -10 -110 20.0 Time (ms)





DH3



Global United Technology Services Co., Ltd. No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102 Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960

Report No.: GTSL202109000169F01

7.8 Band Edge

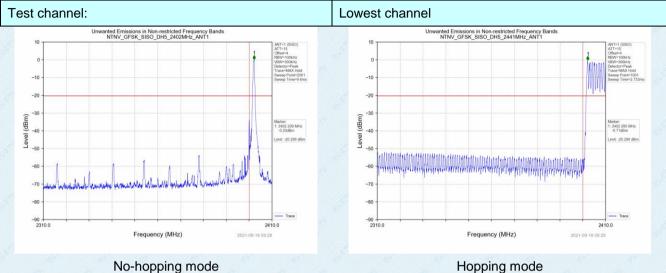
7.8.1 Conducted Emission Method

| Tio.1 Oonadetea Emission | | | | | |
|--------------------------|---|--|--|--|--|
| Test Requirement: | FCC Part15 C Section 15.247 (d) | | | | |
| Test Method: | ANSI C63.10:2013 | | | | |
| Receiver setup: | RBW=100kHz, VBW=300kHz, Detector=Peak | | | | |
| Limit: | In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. | | | | |
| Test setup: | Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane | | | | |
| Test Instruments: | Refer to section 6.0 for details | | | | |
| Test mode: | Refer to section 5.2 for details | | | | |
| Test results: | Pass | | | | |



Test plot as follows:

GFSK Mode:

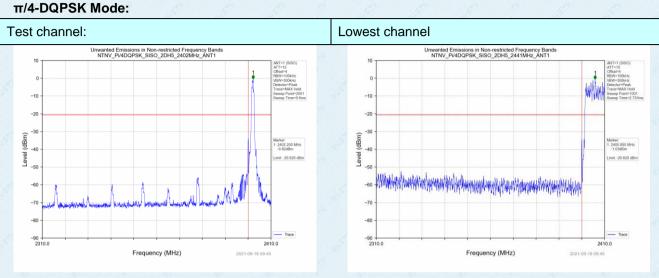


Test channel: Highest channel Unwanted Emissions in Non-restricted Frequency Bands NTNV_GFSK_SISO_DH5_2480MHz_ANT1 Unwanted Emissions in Non-restricted Frequency Bands NTNV_GFSK_SISO_DH5_2441MHz_ANT1 -1(-1(1846 -30 -30 evel (dBm) Level (dBm) Marker: 2472.168 MHz -7.66dBm farker: : 2480.176 MH; -7.93dBm -50 -50 nit: -20.290 nit: -20.290 -60 -60 MAGAMANAMANA -70 -70 -80 -80 2500.0 2500.0 Frequency (MHz) Frequency (MHz) 2021-09-18 09:21

No-hopping mode

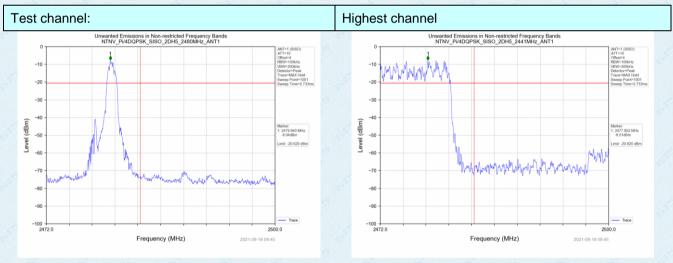
Hopping mode





No-hopping mode

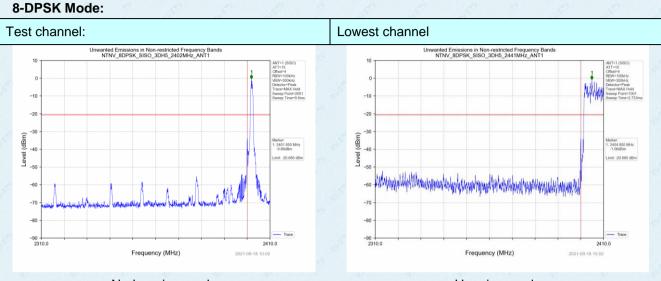
Hopping mode



No-hopping mode

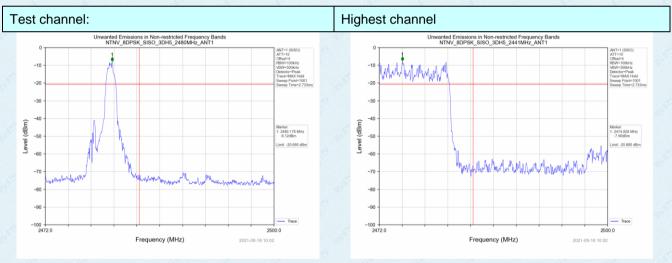






No-hopping mode

Hopping mode



No-hopping mode

Hopping mode



| Test Requirement: | FCC Part15 C S | ection 15.209 | and 15.205 | 19 1 | 9 19 19 |
|---------------------------------|--|---|---|---|--|
| Test Method: | ANSI C63.10:20 | 13 | C. | | |
| Test Frequency Range: | All of the restric 2500MHz) data | | tested, only | the worst | band's (2310MHz |
| Test site: | Measurement D | istance: 3m | e in | 6 6 | |
| Receiver setup: | Frequency | Detector | RBW | VBW | Remark |
| | Above 1GHz | Peak | 1MHz | 3MHz | Peak Value |
| | Above IGHZ | Peak | 1MHz | 10Hz | Average Value |
| Limit: | Freque | ncy | Limit (dBuV/ | ′m @3m) | Remark |
| | Above 1 | GHz – | <u>54.0</u> 74.0 | 0.1 | Average Value Peak Value |
| | Tum Tables' - constant | | Test Antenna- < 1m 4m >-/ Receiver- Pres | amplifier. | |
| | determine the 2. The EUT was antenna, whic tower. | e position of th s set 3 meters | e highest rac away from th | liation. ne interferer | 360 degrees to nce-receiving le-height antenna |
| | ground to det horizontal and measurement 4. For each sus and then the and the rota to maximum reat 5. The test-rece Bandwidth with 6. If the emission limit specified EUT would bo margin would | ermine the ma d vertical polar t. pected emission antenna was t able was turne ading. viver system was th Maximum H on level of the f d, then testing e reported. Oth l be re-tested of | aximum value rizations of th on, the EUT uned to heigl ed from 0 deg as set to Pea lold Mode. EUT in peak could be stop herwise the e one by one us | e of the field e antenna a was arrange nts from 1 n grees to 360 k Detect Fu mode was 2 oped and the missions the sing peak, o | I strength. Both are set to make the ed to its worst case neter to 4 meters) degrees to find th unction and Specifi 10dB lower than the e peak values of th at did not have 100 quasi-peak or |
| Test Instrumente: | ground to det horizontal and measurement 4. For each sus and then the and the rota to maximum rea 5. The test-rece Bandwidth wit 6. If the emission limit specified EUT would bo margin would average meth | ermine the ma d vertical polar t. pected emission antenna was t able was turne ading. viver system was th Maximum H on level of the f d, then testing e reported. Oth l be re-tested of mod as specifie | aximum value rizations of th on, the EUT uned to heigh ed from 0 deg as set to Pea lold Mode. EUT in peak could be stop herwise the e one by one us ed and then re | e of the field e antenna a was arrange nts from 1 n grees to 360 k Detect Fu mode was 2 oped and the missions the sing peak, o | are set to make the ed to its worst case neter to 4 meters degrees to find th unction and Specifie 10dB lower than the e peak values of th at did not have 100 quasi-peak or |
| Test Instruments: Test mode: | ground to det horizontal and measurement 4. For each sus and then the and the rota to maximum reat 5. The test-rece Bandwidth with 6. If the emission limit specified EUT would bo margin would | ermine the ma d vertical polar t. pected emission antenna was t able was turne ading. siver system was th Maximum H on level of the R d, then testing e reported. Oth be re-tested on nod as specifie 6.0 for details | aximum value rizations of th on, the EUT uned to heigh ed from 0 deg as set to Pea fold Mode. EUT in peak could be stop herwise the e one by one us ed and then re | e of the field e antenna a was arrange nts from 1 n grees to 360 k Detect Fu mode was 2 oped and the missions the sing peak, o | I strength. Both are set to make the ed to its worst case neter to 4 meters 0 degrees to find th unction and Specifie 10dB lower than the e peak values of th at did not have 100 quasi-peak or |

7.8.2 Radiated Emission Method

Measurement Data

| | | 6 | | Report No | o.: GTSL202' | 109000169F0 | |
|--------------------|----------------------------|---------------------------------------|---------------------|------------------------|--------------------|---------------------------------------|--|
| Test channel: | st channel: Lowest channel | | | | | | |
| Peak value: | 2 8 | 19 A | 9 - 2 - 8 | 8 8 | 1 | S. | |
| Frequency (MHz) | Read Level (dBuV) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | Polarization | |
| 2390 | 59.86 | -5.68 | 54.18 | 74 | -19.82 | Horizontal | |
| 2390 | 60.20 | -5.68 | 54.52 | 74 | -19.48 | Vertical | |
| Remark: Facto | r = Antenna Fac | tor + Cable Los | ss – Pre-amplifier. | 8 8 | 8 8 | 8 8 | |
| Average value: | 2 8 | 8 6 | | E E | 1 6 | e e e e e e e e e e e e e e e e e e e | |
| Frequency (MHz) | Read Level (dBuV) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | Polarization | |
| | No. No. | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | S7 | N | | |

| 2390 | 43.89 | -5.68 | 38.21 | 54 | -15.79 | Horizontal |
|--------------|------------------|------------------|---------------------|-----|--------|------------|
| 2390 | 44.10 | -5.68 | 38.42 | 54 | -15.58 | Vertical |
| Remark: Fact | tor = Antenna Fa | ctor + Cable Los | ss – Pre-amplifier. | E E | E & | de de |

| Test channel: | | | Highe | Highest channel | | | |
|--------------------|----------------------|-------------|----------------|------------------------|--------------------|--------------|--|
| Peak value: | 2 - B | L. C. S. | 2 2 8 | 2 2 | 2 | e g | |
| Frequency (MHz) | Read Level (dBuV) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | Polarization | |
| 2483.5 | 59.93 | -5.85 | 54.08 | 74 | -19.92 | Horizontal | |
| 2483.5 | 60.11 | -5.85 | 54.26 | 74 | -19.74 | Vertical | |

Average value:

| Frequency (MHz) | Read Level (dBuV) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | Polarization |
|--------------------|----------------------|-------------|----------------|------------------------|--------------------|--------------|
| 2483.5 | 44.02 | -5.85 | 38.17 | 54 | -15.83 | Horizontal |
| 2483.5 | 43.97 | -5.85 | 38.12 | 54 | -15.88 | Vertical |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Remarks:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor

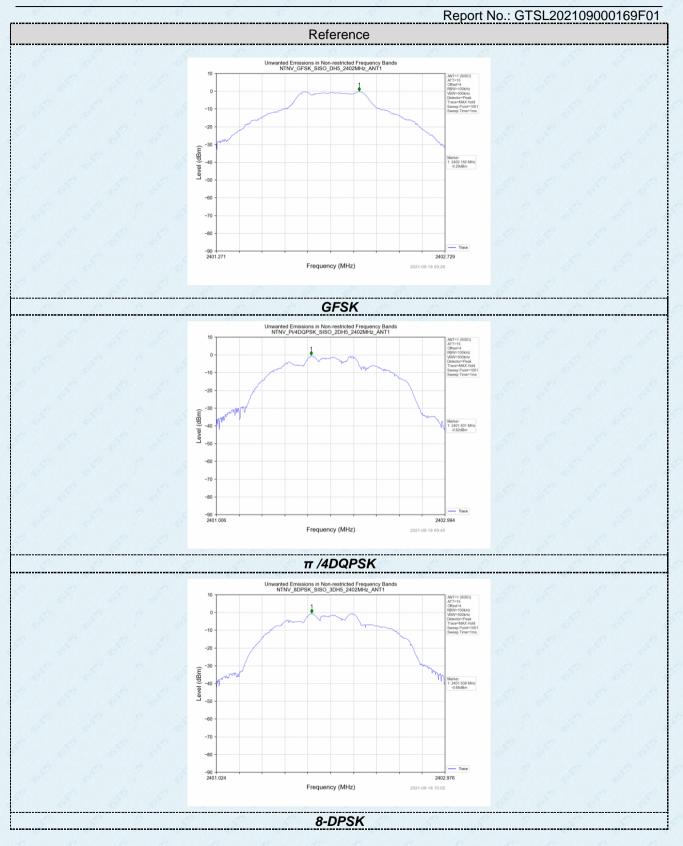
The emission levels of other frequencies are very lower than the limit and not show in test report. 2.

- The pre-test were performed on lowest, middle and highest frequencies, only the worst case's (lowest and highest 3. frequencies) data was showed.
- During the test, pre-scan the GFSK, π /4-DQPSK, 8-DPSK modulation, and found the GFSK modulation which it is 4. worse case.

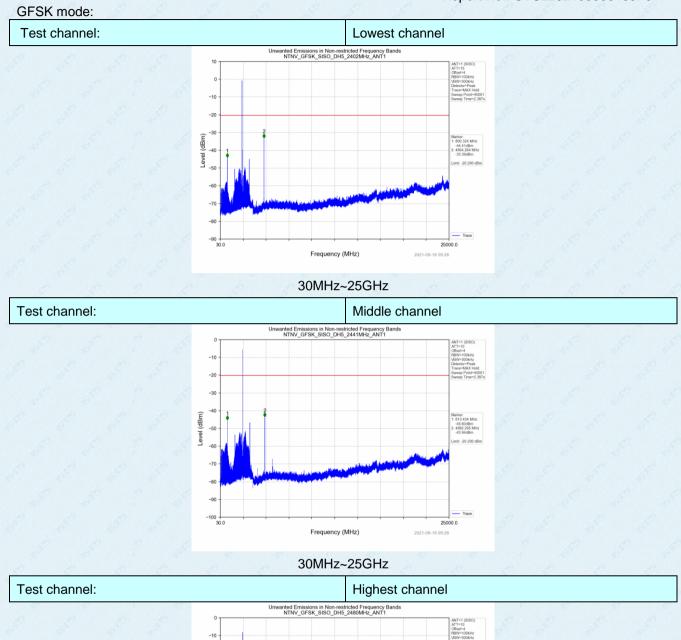
7.9 Spurious Emission

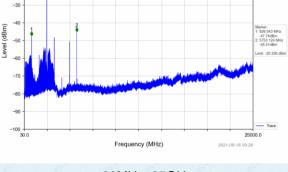
7.9.1 Conducted Emission Method

| Test Requirement: | FCC Part15 C Section 15.247 (d) |
|-------------------|---|
| Test Method: | ANSI C63.10:2013 |
| Limit: | In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. |
| Test setup: | Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane |
| Test Instruments: | Refer to section 6.0 for details |
| Test mode: | Refer to section 5.2 for details |
| Test results: | Pass |



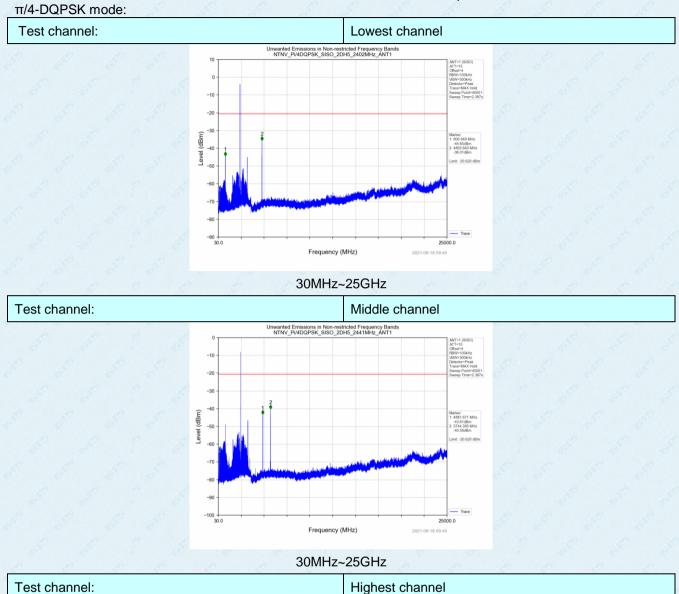


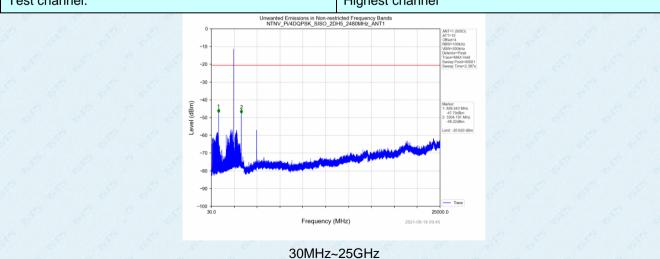




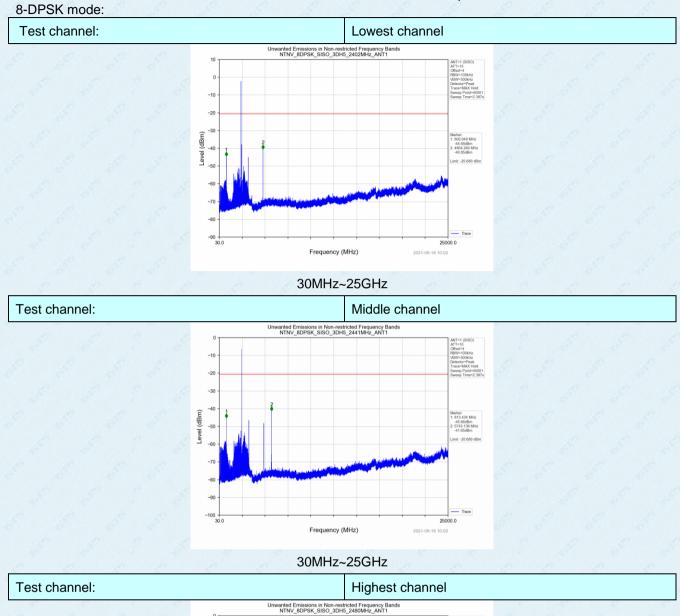


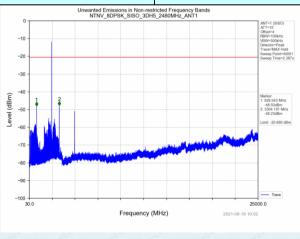
Report No.: GTSL202109000169F01





Report No.: GTSL202109000169F01









| Test Requirement: | FCC Part15 C Section | FCC Part15 C Section 15.209 | | | | | | 0 0 |
|-----------------------|----------------------|-----------------------------|--|--------------|------|---------|---|------------------------|
| Test Method: | ANSI C63.10:2013 | | 8 9 - 10 | 8 | 0 | | 47 | 0 0 10 |
| Test Frequency Range: | 9kHz to 25GHz | | | 6 | | | 62 | |
| Test site: | Measurement Distar | nce: 3 | 3m | 10 | 6 | 64 | | en en |
| Receiver setup: | Frequency | | Detector | RBV | N | VBW | a | Value |
| | 9KHz-150KHz | | lasi-peak | 200 | Ηz | 600Hz | 2 | Quasi-peak |
| | 150KHz-30MHz | Qu | asi-peak | 9K⊢ | łz | 30KHz | z | Quasi-peak |
| | 30MHz-1GHz | Qu | lasi-peak | 120K | Hz | 300KH | z | Quasi-peak |
| | | | Peak | 1MF | Ηz | 3MHz | | Peak |
| | Above 1GHz | | Peak | 1MF | Ηz | 10Hz | 4 | Average |
| Limit: | Frequency | £ | Limit (u\ | //m) | V | alue | | easurement Distance |
| | 0.009MHz-0.490MHz | | 2400/F(ł | (Hz) | (| QP 300m | | 300m |
| | 0.490MHz-1.705M | 24000/F(| KHz) | (| QP | 10 | 30m | |
| | 1.705MHz-30MH | lz 🦷 | 30 | 1 | (| QP | 5 | 30m |
| | 30MHz-88MHz | 100 | Contra la contra | (| QP | | de de | |
| | 88MHz-216MHz | 150 | | (| QP | | | |
| | 216MHz-960MH | 200 | 2 | (| QP | | 3m | |
| | 960MHz-1GHz | 500 | | (| QP | | JIII | |
| | Above 1GHz | GHz 50 | | 500 Av | | erage | age | |
| | Above TOTIZ | | 5000 | | Peak | | | 8 - A |
| Test setup: | For radiated emiss | sions | from 9kH | z to 30 | OMHz | z | | |
| | < 80 cm > | Tu | < 3m > Test Ai m Table=' | ntenna Im | | | 111111111111111111111111111111111111111 | |

. - - -

| GTS | |
|-------------------|--|
| | Report No.: GTSL202109000169F01 |
| | For radiated emissions from 30MHz to1GHz |
| | For radiated emissions above 1GHz |
| Test Procedure: | The EUT was placed on the top of a rotating table (0.8m for below 1G and 1.5m for above 1G) above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. |
| | The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. For each suspected emission, the EUT was arranged to its worst case |
| | and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. |
| | 6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB |
| | margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. |
| Test Instruments: | margin would be re-tested one by one using peak, quasi-peak or |

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| | 8 | | 6 | Report No.: 0 | GTSL202109 | 000169F01 |
|-------------------|------------|-------|---------|---------------|------------|-----------|
| Test environment: | Temp.: | 25 °C | Humid.: | 52% | Press.: | 1012mbar |
| Test voltage: | AC 120V, 6 | 60Hz | 8 8 | S. | 2 8 | 2 |
| Test results: | Pass | 8 8 | ß | g g | S I | 0 0 |

Measurement data:

Remarks:

- 1. During the test, pre-scan the GFSK, π /4-DQPSK, 8-DPSK modulation, and found the GFSK modulation which it is worse case.
- 2. Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis which it is worse case.

■ 9kHz~30MHz

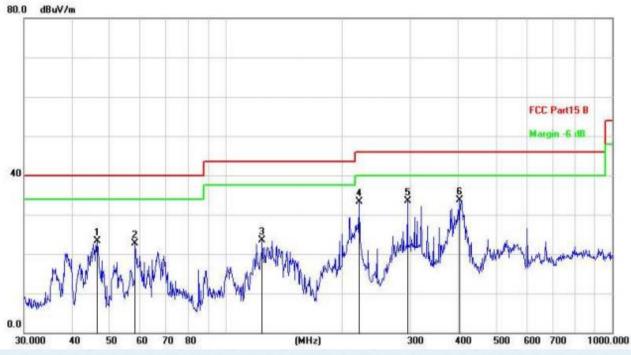
The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.



Below 1GHz

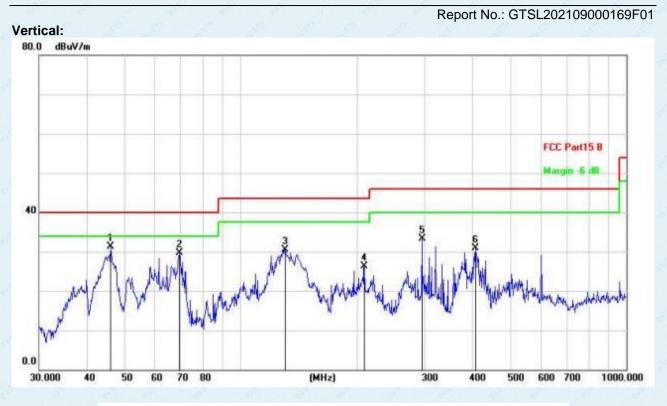
Pre-scan all test modes, found worst case at GFSK 2402MHz, and so only show the test result of GFSK 2402MHz

Horizontal:



| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure- ment | Limit | Over | |
|-----|-----|----------|------------------|-------------------|------------------|-------|--------|----------|
| | | MHz | dBuV | dB | dBuV/m | dB/m | dB | Detector |
| 1 | | 46.3402 | 41.41 | -18.03 | 23.38 | 40.00 | -16.62 | QP |
| 2 | | 58.2030 | 41.49 | -18.70 | 22.79 | 40.00 | -17.21 | QP |
| 3 | | 124.1330 | 43.12 | -19.66 | 23.46 | 43.50 | -20.04 | QP |
| 4 | | 221.3921 | 52.67 | -19.38 | 33.29 | 46.00 | -12.71 | QP |
| 5 | | 295.1469 | 51.88 | -18.45 | 33.43 | 46.00 | -12.57 | QP |
| 6 | * | 401.8385 | 49.85 | -16.19 | 33.66 | 46.00 | -12.34 | QP |

Final Level =Receiver Read level + Correct Factor



| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure- ment | Limit | Over | |
|-----|-----|----------|------------------|-------------------|------------------|-------|--------|----------|
| | | MHz | dBuV | dB | dBuV/m | dB/m | dB | Detector |
| 1 | * | 46.0164 | 49.68 | -18.31 | 31.37 | 40.00 | -8.63 | QP |
| 2 | | 69.3568 | 49.52 | -19.85 | 29.67 | 40.00 | -10.33 | QP |
| 3 | | 130.3789 | 49.82 | -19.27 | 30.55 | 43.50 | -12.95 | QP |
| 4 | | 209.3129 | 46.11 | -19.82 | 26.29 | 43.50 | -17.21 | QP |
| 5 | | 295.1469 | 51.91 | -18.57 | 33.34 | 46.00 | -12.66 | QP |
| 6 | | 406.0880 | 47.91 | -17.01 | 30.90 | 46.00 | -15.10 | QP |

Final Level =Receiver Read level + Correct Factor

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Above 1GHz

| est channel: | | | Low | Lowest channel | | | | |
|--------------------|----------------------|-------------|--------------|---------------------------|--------------------|--------------|--|--|
| Peak value: | 2 8 | 8 6 | 9 9 | 8 8 8 | 2 | ° 8 | | |
| Frequency (MHz) | Read Level (dBuV) | Factor (dB) | Level (dBuV/ | m) Limit Line (dBuV/m) | Over Limit (dB) | polarization | | |
| 4804 | 61.25 | -3.61 | 57.64 | 74 | -16.36 | Vertical | | |
| 7206 | 61.33 | -0.85 | 60.48 | 74 | -13.52 | Vertical | | |
| 4804 | 62.01 | -3.61 | 58.40 | 74 | -15.60 | Horizontal | | |
| 7206 | 61.86 | -0.85 | 61.01 | 74 | -12.99 | Horizontal | | |
| 8-8 | 2 | 4 | e <u>e-</u> | 8 8- 8 | 2 8 | | | |
| | 8 _ | 8 8 | 8 | l | 8 - 9 | 8 8 | | |

Average value:

| Frequency (MHz) | Read Level (dBuV) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|--------------------|----------------------|-------------|----------------|------------------------|--------------------|--------------|
| 4804 | 45.26 | -3.61 | 41.65 | 54 | -12.35 | Vertical |
| 7206 | 45.82 | -0.85 | 44.97 | 54 | -9.03 | Vertical |
| 4804 | 45.65 | -3.61 | 42.04 | 54 | -11.96 | Horizontal |
| 7206 | 45.88 | -0.85 | 45.03 | 54 | -8.97 | Horizontal |
| 8 8 | 2 - <i>S</i> | S 8 | | S S | 2 6 | - |
| <u>_</u> | 8 <u>4</u> | A | & <u></u> # | Ê <u>4</u> | 8 _2 | 8 6 |



| Test channel: | | | Middle | Middle channel | | | | | |
|--------------------|----------------------|-------------|----------------|------------------------|--------------------|--------------|--|--|--|
| Peak value: | 2 12 | 8 8 | 8 8 | 8 8 | 8 13 | 12 15 | | | |
| Frequency (MHz) | Read Level (dBuV) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization | | | |
| 4882 | 61.75 | -3.49 | 58.26 | 74 | -15.74 | Vertical | | | |
| 7326 | 59.61 | -0.80 | 58.81 | 74 | -15.19 | Vertical | | | |
| 4882 | 61.36 | -3.49 | 57.87 | 74 | -16.13 | Horizontal | | | |
| 7326 | 58.97 | -0.80 | 58.17 | 74 | -15.83 | Horizontal | | | |
| 2 | 2 | g g | 10 | | g g | J 5 | | | |
| § \$ | 9 <u>-</u> 8 | <u></u> | e 1 <u>-</u> 8 | \$ \$ | 2 A | | | | |

Average value:

| Frequency (MHz) | Read Level (dBuV) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarizatior |
|--------------------|----------------------|-------------|----------------|------------------------|--------------------|--------------|
| 4882 | 44.79 | -3.49 | 41.30 | 54 | -12.70 | Vertical |
| 7326 | 43.86 | -0.80 | 43.06 | 54 | -10.94 | Vertical |
| 4882 | 44.37 | -3.49 | 40.88 | 54 | -13.12 | Horizontal |
| 7326 | 43.80 | -0.80 | 43.00 | 54 | -11.00 | Horizontal |
| 1 | | g g | g g | 2 | 0 -0 | S 8 |
| - 8 | 2 8 | <u>8-</u> 8 | ° ? & | 8 | 2 8 | |



| est channel: | | | Highest | Highest channel | | | | | |
|--------------------|----------------------|-------------|-------------------|------------------------|--------------------|--------------|--|--|--|
| eak value: | R R | 8 8 | 12 19 | 8 8 | 8 8 | 12 1 | | | |
| Frequency (MHz) | Read Level (dBuV) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization | | | |
| 4960 | 60.22 | -3.41 | 56.81 | 74 | -17.19 | Vertical | | | |
| 7440 | 60.14 | -0.72 | 59.42 | 74 | -14.58 | Vertical | | | |
| 4960 | 60.13 | -3.41 | 56.72 | 74 | -17.28 | Horizontal | | | |
| 7440 | 60.32 | -0.72 | 59.60 | 74 | -14.40 | Horizontal | | | |
| a M | 2 | g g | 1 2 ¹⁹ | 8 8 | 8 | g p | | | |
| 2 - X | ? <i>S</i> | <u>j</u> | 2 | § Ø | 2 5 | | | | |

Average value:

| Frequency (MHz) | Read Level (dBuV) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|--------------------|----------------------|-------------|----------------|------------------------|--------------------|--------------|
| 4960 | 45.59 | -3.41 | 42.18 | 54 | -11.82 | Vertical |
| 7440 | 44.31 | -0.80 | 43.51 | 54 | -10.49 | Vertical |
| 4960 | 45.65 | -3.41 | 42.24 | 54 | -11.76 | Horizonta |
| 7440 | 44.30 | -0.80 | 43.50 | 54 | -10.50 | Horizonta |
| | | 2 2 | 8 | g | | ß |
| 8- | | <u>s-</u> | | 8 8 | 2 8 | |

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Remarks:

1. Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor

2. "*", means this data is the too weak instrument of signal is unable to test.

- 3. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 4. The test data shows only the worst case GFSK mode

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8 Test Setup Photo

Reference to the **appendix I** for details.

9 EUT Constructional Details

Reference to the **appendix II** for details.

-----End-----