



FCC C2PC Test Report

| FCC ID | : | HDC-17600074 |
|---------------------------|---|---|
| Equipment | : | WiFi 7 10G Router |
| Model No. | : | SDG-8733, SDG-8734, SDG-8733v, SDG-8734v (Please refer to section 1.1.1 for more details) |
| Brand Name | : | Adtran |
| Applicant | : | Adtran |
| Address | : | 901 Explorer Boulevard, Huntsville, Alabama, United States, 35806-2807 |
| Standard | : | 47 CFR FCC Part 15.407 |
| Equipment Class / Type | : | 6ID: Indoor access point 6PP: Subordinate device 6XD: Client device |
| Received Date | : | May 30, 2024 |
| Tested Date | : | Jun. 03 ~ Jun. 11, 2024 |

We, International Certification Corporation, would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by:

Approved by:

Along Chew/ Assistant Manager Gary Chang / Manager



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Appendix A. Unwanted Emissions

Appendix B. AC Power Line Conducted Emissions



Release Record

| Report No. | Version | Description | Issued Date |
|---------------|---------|---------------|---------------|
| FR431301-01AO | Rev. 01 | Initial issue | Oct. 08, 2024 |



Summary of Test Results

| FCC Rules | Test Items | Measured | Result |
|------------------------|-----------------------------------|---|--------|
| 15.207 | AC Power Line Conducted Emissions | [dBuV]: 0.393MHz 44.21 (Margin -3.78dB) - AV | Pass |
| 15.407(b)(5) 15.209 | Unwanted Emission | [dBuV/m at 3m]: 7290.00MHz 53.10 (Margin -0.90dB) - AV | Pass |

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.



1 General Description

1.1 Information

This report is prepared for FCC class II change.

This report is issued as a supplementary report to the original project no. FR431301AO. The difference is concerned with following items:

- ♦ Adding two models for configurations with VoIP function
- \diamond Version of I/O board is changed from V02 to V03.

Conducted emission and radiated emission tests had been re-tested and only its data was presented in the following sections.

1.1.1 Product Details (Adding models were marked in boldface.)

The following models are provided to this EUT.

| Brand Name | Model Name | Product Name | Description | |
|------------|------------|-------------------|----------------------------------|--|
| Adtran | SDG-8733 | WiFi 7 10G Router | W/O VOIP, With 10G RJ45 WAN Port | |
| | SDG-8734 | WiFi 7 10G Router | W/O VOIP, With 10G SFP WAN Port | |
| | SDG-8733v | WiFi 7 10G Router | W/ VOIP, With 10G RJ45 WAN Port | |
| | SDG-8734v | WiFi 7 10G Router | W/ VOIP, With 10G SFP WAN Port | |

1.1.2 Specification of the Equipment under Test (EUT)

| | | RF General | Information | | |
|--------------------------|---------------------|-----------------|-------------------|--------------------------|--------------------|
| Frequency Range (MHz) | IEEE Std. 802.11 | Ch. Freq. (MHz) | Channel Number | Transmit Chains (N⊤x) | Data Rate / MCS |
| 5925 ~ 7125 | 11a | 5955 ~ 7115 | 1 ~ 233 [59] | 4 | 6-54 Mbps |
| 5925 ~ 7125 | ax (HE20) | 5955 ~ 7115 | 1 ~ 233 [59] | 4 | MCS 0-11 |
| 5925 ~ 7125 | ax (HE40) | 5965 ~ 7085 | 3 ~ 227 [29] | 4 | MCS 0-11 |
| 5925 ~ 7125 | ax (HE80) | 5985 ~ 7025 | 7 ~ 215 [14] | 4 | MCS 0-11 |
| 5925 ~ 7125 | ax (HE160) | 6025 ~ 6985 | 15 ~ 207 [7] | 4 | MCS 0-11 |
| 5925 ~ 7125 | be (EHT20) | 5955 ~ 7115 | 1 ~ 233 [59] | 4 | MCS 0-13 |
| 5925 ~ 7125 | be (EHT40) | 5965 ~ 7085 | 3 ~ 227 [29] | 4 | MCS 0-13 |
| 5925 ~ 7125 | be (EHT80) | 5985 ~ 7025 | 7 ~ 215 [14] | 4 | MCS 0-13 |
| 5925 ~ 7125 | be (EHT160) | 6025 ~ 6985 | 15 ~ 207 [7] | 4 | MCS 0-13 |
| 5925 ~ 7125 | be (EHT320) | 6105 ~ 6905 | 31 ~ 191 [6] | 4 | MCS 0-13 |
| Note 1: OFDM/OI | FDMA-BPSK, QPS | SK, 16QAM, 64QA | M, 256QAM, 1024 | QAM and 4096QA | M modulation. |



1.1.3 Antenna Details

| Ant. No. | Model | Type | Connector | Operating Frequencies (MHz) / Gain (dBi) | | | |
|----------|-------|--------|-----------|--|-----------|-----------|-----------|
| | model | Type | Connector | 5925~6425 | 6425~6525 | 6525~6875 | 6875~7125 |
| 1 | 6G1 | Dipole | UFL | 3.633 | 3.27 | 5.028 | 3.521 |
| 2 | 6G2 | Dipole | UFL | 5.509 | 4.485 | 4.791 | 4.287 |
| 3 | 6G3 | Dipole | UFL | 2.745 | 2.99 | 2.441 | 2.648 |
| 4 | 6G4 | Dipole | UFL | 4.363 | 3.851 | 3.334 | 3.701 |
| 5 | 6G5 | Dipole | UFL | 5.989 | 4.635 | 4.055 | 4.055 |

1.1.4 Configuration of Equipment under Test (EUT)

| Power Supply Type | 15Vdc from adapter | | | | |
|--------------------|-----------------------|-------------|--|--|--|
| Beamforming | Support 🗌 Not support | | | | |
| RU Configuration | 🖾 Full RU | Partial RU | | | |
| Channel Puncturing | Support | Not support | | | |

1.1.5 Accessories

| | Accessories | | | | | |
|-----|-------------|--|--|--|--|--|
| No. | Equipment | Description | | | | |
| 1 | AC adapter | Brand: LUCENT TRANS Model: 1A78 I/P: 100-240Vac, 50/60Hz, 1.2A O/P: 15V= 3.0A, 45.0W Power Line: USB 1.8m non-shielded without core | | | | |
| 2 | AC adapter | Brand: PHIHONG Model: AA45A-59FKD I/P: 100-240Vac, 50/60Hz, 1.2A O/P: 15V=3.0A, 45.0W Power Line: USB 1.8m non-shielded without core | | | | |
| 3 | RJ45 | 2m non-shielded without core | | | | |



1.1.6 Channel List

| 11a / ax HE20 / be EHT20 | | | | | | | | | |
|--------------------------|--------------------|---------|--------------------|---------|--------------------|---------|--------------------|--|--|
| Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) | | |
| 1 | 5955 | 61 | 6255 | 121 | 6555 | 181 | 6855 | | |
| 5 | 5975 | 65 | 6275 | 125 | 6575 | 185 | 6875 | | |
| 9 | 5995 | 69 | 6295 | 129 | 6595 | 189 | 6895 | | |
| 13 | 6015 | 73 | 6315 | 133 | 6615 | 193 | 6915 | | |
| 17 | 6035 | 77 | 6335 | 137 | 6635 | 197 | 6935 | | |
| 21 | 6055 | 81 | 6355 | 141 | 6655 | 201 | 6955 | | |
| 25 | 6075 | 85 | 6375 | 145 | 6675 | 205 | 6975 | | |
| 29 | 6095 | 89 | 6395 | 149 | 6695 | 209 | 6995 | | |
| 33 | 6115 | 93 | 6415 | 153 | 6715 | 213 | 7015 | | |
| 37 | 6135 | 97 | 6435 | 157 | 6735 | 217 | 7035 | | |
| 41 | 6155 | 101 | 6455 | 161 | 6755 | 221 | 7055 | | |
| 45 | 6175 | 105 | 6475 | 165 | 6775 | 225 | 7075 | | |
| 49 | 6195 | 109 | 6495 | 169 | 6795 | 229 | 7095 | | |
| 53 | 6215 | 113 | 6515 | 173 | 6815 | 233 | 7115 | | |
| 57 | 6235 | 117 | 6535 | 177 | 6835 | - | - | | |

| ax HE40 / be EHT40 | | | | | | | | |
|--------------------|--------------------|---------|--------------------|---------|--------------------|---------|--------------------|--|
| Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) | |
| 3 | 5965 | 67 | 6285 | 131 | 6605 | 195 | 6925 | |
| 11 | 6005 | 75 | 6325 | 139 | 6645 | 203 | 6965 | |
| 19 | 6045 | 83 | 6365 | 147 | 6685 | 211 | 7005 | |
| 27 | 6085 | 91 | 6405 | 155 | 6725 | 219 | 7045 | |
| 35 | 6125 | 99 | 6445 | 163 | 6765 | 227 | 7085 | |
| 43 | 6165 | 107 | 6485 | 171 | 6805 | | | |
| 51 | 6205 | 115 | 6525 | 179 | 6845 | | | |
| 59 | 6245 | 123 | 6565 | 187 | 6885 | | | |



| ax HE80 / be EHT80 | | | | | | | | | |
|--------------------|--------------------|---------|--------------------|---------|--------------------|---------|--------------------|--|--|
| Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) | | |
| 7 | 5985 | 71 | 6305 | 135 | 6625 | 199 | 6945 | | |
| 23 | 6065 | 87 | 6385 | 151 | 6705 | 215 | 7025 | | |
| 39 | 6145 | 103 | 6465 | 167 | 6785 | | | | |
| 55 | 6225 | 119 | 6545 | 183 | 6865 | | | | |

| ax HE160 / be EHT160 | | | | | | | |
|----------------------|--------------------|---------|--------------------|---------|--------------------|---------|--------------------|
| Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
| 15 | 6025 | 79 | 6345 | 143 | 6665 | 207 | 6985 |
| 47 | 6185 | 111 | 6505 | 175 | 6825 | | |

| be EHT320 | | | | | | |
|-----------|--------------------|---------|--------------------|---------|--------------------|------|
| Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) | |
| 31 | 6105 | 95 | 6425 | 159 | 6745 | |
| 63 | 6265 | 127 | 6585 | 191 | 6905 | |



1.2 Local Support Equipment List

| | Support Equipment List | | | | | | |
|------|------------------------|--------------------|---------------|--------|---|--|--|
| No. | Equipment | Brand | Model | FCC ID | Remarks | | |
| Non- | beamforming mod | le - RJ45 WAN | | | | | |
| 1 | Laptop | DELL | Latitude 5400 | DoC | | | |
| 2 | Laptop | DELL | Latitude 5400 | DoC | | | |
| 3 | USB Flash | Transcend(USB 3.0) | JetFlash 700 | | | | |
| 4 | RJ45 Connector | ICC | | | | | |
| 5 | RJ45 Load | ICC | | | | | |
| 6 | Laptop | DELL | Latitude 3440 | DoC | Beamforming mode | | |
| 7 | WiFi 7 10G Router | Adtran | SDG-8733v | | Beamforming mode (Provided by applicant) | | |
| 8 | Telephone | ISITO | IS-333 | | | | |
| 9 | Telephone | ISITO | IS-333 | | | | |
| Non- | beamforming mod | le - SFP WAN | | | | | |
| 1 | Laptop | DELL | Latitude 5400 | DoC | | | |
| 2 | USB Flash | Transcend(USB 3.0) | JetFlash 700 | | | | |
| 3 | RJ45 Connector | ICC | | | | | |
| 4 | RJ45 Load | ICC | | | | | |
| 5 | Fiber module | MikroTik | S+RJ10 | | Provided by applicant | | |
| 6 | Laptop | DELL | Latitude 3440 | DoC | Beamforming mode | | |
| 7 | WiFi 7 10G Router | Adtran | SDG-8733 | | Beamforming mode (Provided by applicant) | | |
| 8 | Telephone | ISITO | IS-333 | | | | |
| 9 | Telephone | ISITO | IS-333 | | | | |



1.3 Test Setup Chart

Non-beamforming mode









Beamforming mode









1.4 The Equipment List

| Test Item | Radiated Emission | | | | | |
|----------------------------|----------------------------|---------------------------|------------------|------------------|-------------------|--|
| Test Site | 966 chamber1 / (03CH01-WS) | | | | | |
| Tested Date | Jun. 03 ~ Jun. 11, 2024 | | | | | |
| Instrument | Brand | Model No. | Serial No. | Calibration Date | Calibration Until | |
| Receiver | R&S | ESR3 | 101657 | Mar. 05, 2024 | Mar. 04, 2025 | |
| Spectrum Analyzer | R&S | FSV40 | 101498 | Nov. 23, 2023 | Nov. 22, 2024 | |
| Loop Antenna | R&S | HFH2-Z2 | 100330 | Oct. 31, 2023 | Oct. 30, 2024 | |
| Bilog Antenna | SCHWARZBECK | VULB9168 | VULB9168-522 | Jul. 31, 2023 | Jul. 30, 2024 | |
| Horn Antenna 1G-18G | SCHWARZBECK | BBHA 9120 D | BBHA 9120 D 1096 | Nov. 27, 2023 | Nov. 26, 2024 | |
| Horn Antenna 18G-40G | SCHWARZBECK | BBHA 9170 | BBHA 9170517 | Oct. 30, 2023 | Oct. 29, 2024 | |
| Preamplifier | EMC | EMC02325 | 980225 | Jun. 28, 2023 | Jun. 27, 2024 | |
| Preamplifier | EMC | EMC118A45SE | 980898 | Jul. 14, 2023 | Jul. 13, 2024 | |
| Preamplifier | EMC | EMC184045SE | 980903 | Jul. 17, 2023 | Jul. 16, 2024 | |
| Loop Antenna Cable | KOAX KABEL | 101354-BW | 101354-BW | Oct. 03, 2023 | Oct. 02, 2024 | |
| LF cable 3M | Woken | CFD400NL-LW | CFD400NL-001 | Oct. 03, 2023 | Oct. 02, 2024 | |
| LF cable 11M | EMC | EMCCFD400-NW-N W-11000 | 200801 | Oct. 03, 2023 | Oct. 02, 2024 | |
| LF cable 1M | EMC | EMCCFD400-NM-N M-1000 | 160502 | Oct. 03, 2023 | Oct. 02, 2024 | |
| RF Cable | EMC | EMC104-35M-35M- 8000 | 210920 | Oct. 03, 2023 | Oct. 02, 2024 | |
| RF Cable | EMC | EMC104-35M-35M- 3000 | 210922 | Oct. 03, 2023 | Oct. 02, 2024 | |
| Attenuator | Pasternack | PE7005-10 | 10-1 | Oct. 05, 2023 | Oct. 04, 2024 | |
| HIGHPASS FILTER 7.5-18G | STI | STI15-9722 | STI-HP7.5G-A | Oct. 05, 2023 | Oct. 04, 2024 | |
| Measurement Software | AUDIX | e3 | 6.120210g | NA | NA | |
| Note: Calibration Inter | rval of instruments liste | d above is one year. | | | | |



| Test Item | Conducted Emission | | | | | |
|-----------------------------------|---|------------------|---------------|------------------|-------------------|--|
| Test Site | Conduction room 1 / (| CO01-WS) | | | | |
| Tested Date | Jun. 11, 2024 | | | | | |
| Instrument | Brand | Model No. | Serial No. | Calibration Date | Calibration Until | |
| Receiver | R&S | ESR3 | 101658 | Feb. 23, 2024 | Feb. 22, 2025 | |
| LISN | R&S | ENV216 | 101579 | May 09, 2024 | May 08, 2025 | |
| RF Cable-CON | Woken | CFD200-NL | CFD200-NL-001 | Oct. 11, 2023 | Oct. 10, 2024 | |
| LISN (Support Unit) | SCHWARZBECK | Schwarzbeck 8127 | 8127667 | Jan. 10, 2024 | Jan. 09, 2025 | |
| 50 ohm terminal (Support Unit) | NA | 50 | 01 | Jun. 14, 2023 | Jun. 13, 2024 | |
| Measurement Software | AUDIX | e3 | 6.120210k | NA | NA | |
| Note: Calibration Inter | Note: Calibration Interval of instruments listed above is one year. | | | | | |

1.5 Test Standards

47 CFR FCC Part 15.407 ANSI C63.10-2013

1.6 Reference Guidance

FCC KDB 987594 D02 U-NII 6GHz EMC Measurement v02r01 FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01 FCC KDB 412172 D01 Determining ERP and EIRP v01r01 FCC KDB 662911 D01 Multiple Transmitter Output v02r01

1.7 Deviation from Test Standard and Measurement Procedure

None



1.8 Measurement Uncertainty

The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)).

| Measurement Uncertainty | | | |
|--------------------------|---------------------|--|--|
| Parameters | Uncertainty | | |
| Bandwidth | ±34.130 Hz | | |
| Conducted power | ±0.808 dB | | |
| Frequency error | ±1x10 ⁻⁹ | | |
| Power density | ±0.583 dB | | |
| Conducted emission | ±2.715 dB | | |
| AC conducted emission | ±2.92 dB | | |
| Radiated emission ≤ 1GHz | ±3.41 dB | | |
| Radiated emission > 1GHz | ±4.59 dB | | |
| Time | ±0.1% | | |
| Temperature | ±0.4 °C | | |



2 Test Configuration

2.1 Testing Facility

| Test Laboratory | International Certification Corp. |
|----------------------|--|
| Test Site | CO01-WS, 03CH01-WS, TH01-WS |
| Address of Test Site | No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan District, Tao Yuan City 33381, Taiwan, R.O.C. |
| | TN/0700 |

FCC Designation No.: TW2732

➢ FCC site registration No.: 181692

➢ ISED#: 10807A

➢ CAB identifier: TW2732

2.2 Test Worst Modes and Channel Details

| Test item | Modulation Mode | Test Frequency (MHz) | Data Rate | Test Configuration |
|--------------------------------------|-----------------|-------------------------|-----------|-----------------------|
| Non-beamforming mode | | | | |
| AC Power Line Conducted Emissions | be EHT320 | 6425 | MCS 0 | 1, 2 |
| Unwanted Emissions ≤1GHz | be EHT320 | 6425 | MCS 0 | 1, 2 |
| | be EHT80 | 6465 | MCS 0 | |
| Unwanted Emissions >1GHz | be EHT160 | 6025 | MCS 0 | 1 |
| | be EHT320 | 6745 / 6905 | MCS 0 | |

NOTE:

1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The **Z-plane** results were found as the worst case and were shown in this report.

Two adapters (LUCENT TRANS & PHIHONG) had been covered during the pretest and found that PHIHONG
adapter was the worst case for radiated emission test and LUCENT TRANS adapter was the worst case for
conducted emission test.

3. 4 configurations were assessed and found Model: SDG-8733v is worst of configurations with 10G RJ45 Wan port and Model: SDG-8734v is worst of configurations with 10G SFP Wan port.

4. The EUT had been tested by following test configurations.

1) Configuration 1: Model: SDG-8733v

2) Configuration 2: Model: SDG-8734v



| Test item | Modulation Mode | Test Frequency (MHz) | Data Rate | Test Configuration |
|--------------------------------------|-----------------|-------------------------|-----------|-----------------------|
| Beamforming mode | | | | |
| AC Power Line Conducted Emissions | be EHT320 | 6425 | MCS 0 | 1, 2 |
| Unwanted Emissions ≤1GHz | be EHT320 | 6425 | MCS 0 | 1, 2 |
| | be EHT80 | 6465 | MCS 0 | |
| Unwanted Emissions >1GHz | be EHT160 | 6025 | MCS 0 | 1 |
| | be EHT320 | 6745 / 6905 | MCS 0 | |

NOTE:

1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The **Z-plane** results were found as the worst case and were shown in this report.

Two adapters (LUCENT TRANS & PHIHONG) had been covered during the pretest and found that PHIHONG
adapter was the worst case for radiated emission test and LUCENT TRANS adapter was the worst case for
conducted emission test.

3. 4 configurations were assessed and found Model: SDG-8733v is worst of configurations with 10G RJ45 Wan port and Model: SDG-8734v is worst of configurations with 10G SFP Wan port.

4. The EUT had been tested by following test configurations.

1) Configuration 1: SDG-8733v

2) Configuration 2: SDG-8734v



3 Transmitter Test Results

3.1 Unwanted Emissions

3.1.1 Limit of Unwanted Emissions

| Restricted Band Emissions Limit | | | | |
|---------------------------------|-----------------------|-------------------------|----------------------|--|
| Frequency Range (MHz) | Field Strength (uV/m) | Field Strength (dBuV/m) | Measure Distance (m) | |
| 0.009~0.490 | 2400/F(kHz) | 48.5 - 13.8 | 300 | |
| 0.490~1.705 | 24000/F(kHz) | 33.8 - 23 | 30 | |
| 1.705~30.0 | 30 | 29 | 30 | |
| 30~88 | 100 | 40 | 3 | |
| 88~216 | 150 | 43.5 | 3 | |
| 216~960 | 200 | 46 | 3 | |
| Above 960 | 500 | 54 | 3 | |

Note 1:

Qusai-Peak value is measured for frequency below 1GHz except for 9–90 kHz, 110–490 kHz frequency band. Peak and average value are measured for frequency above 1GHz. The limit on average radio frequency emission is as above table. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit **Note 2:**

Measurements may be performed at a distance other than what is specified provided. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor as below, Frequency at or above 30 MHz: 20 dB/decade Frequency below 30 MHz: 40 dB/decade.

| Un-restricted band emissions above 1GHz Limit | | | | | |
|--|-------------------------------|--------------------------------|--|--|--|
| Operating Band | PK Limit | AV Limit | | | |
| 5.925 – 7.125 GHz | e.i.r.p7 dBm [88.2 dBuV/m@3m] | e.i.r.p27 dBm [68.2 dBuV/m@3m] | | | |
| Note 1: Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements) | | | | | |



3.1.2 Test Procedures

- Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency. The EUT is placed at test table. For emissions testing at or below 1 GHz, the table height is 80 cm above the reference ground plane. For emission measurements above 1 GHz, the table height is 1.5 m
- Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m ~ 4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3 m.
- 3. This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.

Note:

- 1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
- 2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
- 3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above 1GHz.



3.1.3 Test Setup



3.1.4 Test Results

Refer to Appendix A.



3.2 **AC Power Line Conducted Emissions**

3.2.1 Limit of AC Power Line Conducted Emissions

| Conducted Emissions Limit | | | | | |
|--|--|----|--|--|--|
| Frequency Emission (MHz) Quasi-Peak Average | | | | | |
| 0.15-0.5 66 - 56 * 56 - 46 * | | | | | |
| 0.5-5 56 | | 46 | | | |
| 5-30 60 50 | | | | | |
| Note 1: * Decreases with the logarithm of the frequency. | | | | | |

3.2.2 Test Procedures

- 1. The device is placed on a test table, raised 80 cm above the reference ground plane. The vertical conducting plane is located 40 cm to the rear of the device.
- The device is connected to line impedance stabilization network (LISN) and other accessories are 2. connected to other LISN. Measured levels of AC power line conducted emission are across the 50 Ω LISN port.
- 3. AC conducted emission measurements is made over frequency range from 150 kHz to 30 MHz.
- 4. This measurement was performed with AC 120V/60Hz

3.2.3 Test Setup



Note: 1. Support units were connected to second LISN.

2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

3.2.4 Test Result

Refer to Appendix B.



4 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corporation (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan District. Location map can be found on our website <u>http://www.icertifi.com.tw</u>.

Linkou

Tel: 886-2-2601-1640 No.30-2, Ding Fwu Tsuen, Lin Kou District, New Taipei City, Taiwan (R.O.C.)

Kwei Shan

Tel: 886-3-271-8666 No.3-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.) No.2-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

Kwei Shan Site II

Tel: 886-3-271-8640 No.14-1, Lane 19, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

If you have any suggestion, please feel free to contact us as below information.

Tel: 886-3-271-8666 Fax: 886-3-318-0345 Email: ICC_Service@icertifi.com.tw

—END—



Non-beamforming mode

Configuration 1: Model: SDG-8733v Unwanted Emissions (Below 1GHz)









| Modulation | be EHT80 | Test Freq. (MHz) | 6465 |
|--|--|---|--|
| Polarization Horizontal | | | |
| Test By :Sean Yu Temperature(°⊂):24 Humidity(%):64 | | | |
| $\begin{array}{c} 90\\ 90\\ \hline \\ 80\\ \hline \\ 80\\$ | V/m) | 22000. 26000. 30000. 3 22000. 26000. 30000. 3 a 5 a a b 5 a a a 5 a a a 5 a a b 5 a a a 5 a a b 5 a a b 5 a a c 5 a a a 5 a a a 5 a a a 5 a a a 5 a a a 5 a a a 5 a a a 5 a a a 5 a a a 5 a a a 5 a a b a b a b a b a | UNII 5-8 AV UNII 5-8 AV UNII 5-8 AV UNII 5-8 AV 4000. 40000 C ANT Turn High Table cm deg ge 100 264 100 264 ge 100 214 100 214 ge 100 203 100 203 |
| Note 1: Emission Level (dl *Factor includes an Note 2: Margin (dB) = Emi | BuV/m) = SA Reading (dBuV tenna factor , cable loss and ssion level (dBuV/m) – Limit | ′) + Factor* (dB/m) amplifier gain (dBuV/m). | |





























Configuration 2: Model: SDG-8734v Unwanted Emissions (Below 1GHz)









Beamforming mode Configuration 1: Model: SDG-8733v Unwanted Emissions (Below 1GHz)







































Configuration 2: Model: SDG-8734v Unwanted Emissions (Below 1GHz)









Non-beamforming mode

Configuration 1: Model: SDG-8733v









Configuration 2: Model: SDG-8734v









Beamforming mode Configuration 1: Model: SDG-8733v









Configuration 2: Model: SDG-8734v





