

FCC Test Report

Report No.: AGC11034210101FE06

| FCC ID | : 2AYHE-2101A | |
|----------------------------------|--|--|
| APPLICATION PURPOSE | : Original Equipment | |
| PRODUCT DESIGNATION | : WiFi IP Camera | |
| BRAND NAME | : Reolink | |
| MODEL NAME | : Reolink Argus 3 Pro | |
| APPLICANT | : Reolink Innovation Limited | |
| DATE OF ISSUE | : Feb. 03, 2021 | |
| STANDARD(S) TEST PROCEDURE(S) | FCC Part 15.407 KDB 789033 D02 v02r01 | |
| REPORT VERSION | : V1.0 | |
| | | |

Attestation of Global Compliance (Shenzhen) Co., Ltd



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REPORT REVISE RECORD

| Report Version | Revise Time | Issued Date | Valid Version | Notes |
|-----------------------|-------------|---------------|---------------|-----------------|
| V1.0 | 1 | Feb. 03, 2021 | Valid | Initial Release |

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1. VERIFICATION OF CONFORMITY

| Applicant | Reolink Innovation Limited | | |
|---------------------------------|--|--|--|
| Address | Room B, 4th Floor, Kingway Commercial Building,171-173 Lockhart Road, War Chai, Hong Kong | | |
| Manufacturer | Reolink Innovation Limited | | |
| Address | Room B, 4th Floor, Kingway Commercial Building,171-173 Lockhart Road, Wan Chai, Hong Kong | | |
| Factory | Shenzhen Reolink Technology Co., Ltd. | | |
| Address | 2-4th Floor, Building 2, YuanLing Industrial Park, ShangWu, Shiyan Street, Bao'an District, Shenzhen, China | | |
| Product Designation | WiFi IP Camera | | |
| Brand Name | Reolink | | |
| Test Model | Reolink Argus 3 Pro | | |
| Date of test | Jan. 21, 2021 to Feb. 03, 2021 | | |
| Deviation | No any deviation from the test method | | |
| Condition of Test Sample Normal | | | |
| Test Result | Pass | | |
| Report Template | AGCRT-US-BGN/RF | | |

We hereby certify that:

The above equipment was tested by Attestation of Global Compliance (Shenzhen) Co., Ltd. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with requirement of FCC Part 15 Rules requirement.

Prepared By

sky dong

Sky Dong (Project Engineer)

Jan. 23, 2021

Reviewed By

Max Zhang

Max Zhang (Reviewer)

Jan. 23, 2021

Approved By

ower

Forrest Lei (Authorized Officer)

Jan. 23, 2021

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2. GENERAL INFORMATION

2.1. PRODUCT DESCRIPTION

The EUT is designed as "WiFi IP Camera". It is designed by way of utilizing the OFDM technology to achieve the system operation.

A major technical description of EUT is described as following

| Operation Frequency | 5150 MHz~5250MHz; 5725 MHz~5850MHz |
|---------------------|--|
| Output Power | IEEE 802.11a20:14.46dBm; IEEE 802.11n(20):14.47dBm; |
| Modulation | BPSK, QPSK, 16QAM, 64QAM, 128QAM, 256QAM,OFDM |
| Number of channels | 9 |
| Hardware Version | N25C04/V110 |
| Software Version | V1.0 |
| Antenna Designation | FPC Antenna(Comply with requirements of the FCC part 15.203) |
| Antenna Gain | 4.35dBi |
| Power Supply | DC 5V by adapter or DC 3.6V by battery |
| | |

Note:

1. The EUT is designed as client devices operating without radar detection.

2. The device do not support TPC.

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2.2. TABLE OF CARRIER FREQUENCYS

| Frequency Band | Channel Number | Frequency | Frequency Band | Channel Number | Frequency |
|----------------------|-------------------|-----------|----------------------|-------------------|-----------|
| 5150 GHz~ 5250GHz | 36 | 5180 MHz | | 149 | 5745 MHz |
| | 40 | 5200 MHz | 5725 GHz~ 5850GHz | 153 | 5765 MHz |
| | 44 | 5220 MHz | | 157 | 5785 MHz |
| | 48 | 5240 MHz | | 161 | 5805 MHz |
| | | | C.C | 165 | 5825MHz |

Note: For 20MHZ bandwidth system use Channel 36,40,44,48,149,153,157,161,165.

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2.3. RELATED SUBMITTAL(S) / GRANT (S)

This submittal(s) (test report) is intended for **FCC ID: 2AYHE-2101A** filing to comply with the FCC Part 15 requirements.

2.4. TEST METHODOLOGY

Both conducted and radiated testing was performed according to the procedures in ANSI C63.10 (2013). Radiated testing was performed at an antenna to EUT distance 3 meters.

Others testing (listed at item 5.3) was performed according to the procedures in FCC Part 15.407 rules KDB 789033 D02

2.5. SPECIAL ACCESSORIES

Refer to section 5.2.

2.6. EQUIPMENT MODIFICATIONS

Not available for this EUT intended for grant.

2.7. ANTENNA REQUIREMENT

This intentional radiator is designed with a permanently attached antenna of an antenna to ensure that no antenna other than that furnished by the responsible party shall be used with the device. For more information of the antenna, please refer to the APPENDIX B: PHOTOGRAPHS OF EUT.

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3. MEASUREMENT UNCERTAINTY

The uncertainty is calculated using the methods suggested in the "Guide to the Expression of Uncertainty in

- measurement" (GUM) published by CISPR and ANSI.
- Uncertainty of Conducted Emission, $Uc = \pm 3.2 dB$
- Uncertainty of Radiated Emission below 1GHz, Uc = ±3.9 dB
- Uncertainty of Radiated Emission above 1GHz, Uc = ±4.8 dB

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4. DESCRIPTION OF TEST MODES

| Mode | Available channel | Tested channel | Modulation | Date |
|----------------|---------------------------------|----------------|---------------------------------------|------------|
| | | | | rate(Mbps) |
| 802.11a/n/ac20 | 36,40,44,48,149,153,157,161,165 | 36,40, | OFDM | 6Mbps/MCS0 |
| | 2 | 48,149,157,165 | e e e e e e e e e e e e e e e e e e e | ©. |

Note:

- 1. The EUT has been set to operate continuously on tested channel individually, and the EUT is operating at its maximum duty cycle>or equal 98%
- 2. All modes under which configure applicable have been tested and the worst mode test data recording in the test report, if no other mode data.

| | Test software |
|---|---|
| CC31XX/CC32XX Radio Tool v1.0.3.1 | ; |
| Radio Tool Target Device CC3135 UART Connection Status Disconnected | Set Up TX RX Current Transmission Mode Packetized Continuous Carrier Wave (CW) Start Tx Testing |
| Testing Status Idle | TX Configuration |
| Details | Channel 1 (2412MHz) V Destination MAC Address 01:23:45:67:89:AB |
| Chip ID | Rate MCS 0 V Amount 0 packets (0 for infinite) |
| ROM Ver. | Data Pattern PN9 (WIP) V Size 100 🙀 Bytes Tone 0 🚖 |
| FW Ver. | 802.11b Preamble Long V Delay 150 mSec Power (0(15) 15 |
| Host Driver Ver. | CCA Threshold -68dBm (DEFAULT) V Country US V Override CCA |
| MAC Addr. W R | Description |
| CC32xx App Ver. | Country: Country Code: US (United States) |
| Radio Tool Library Version | |
| CC31XX SPI 1.0.3.16 | |
| CC31XX UART 1.0.3.16 | |
| CC32XX UART 1.0.3.16 | |
| TEXAS INSTRUMENTS | Clear Log Export Log Copy to Clipboard Online Tool Guide About |
| [2021/1/21 16:03:17] Connecting. | |

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5. SYSTEM TEST CONFIGURATION

5.1. CONFIGURATION OF EUT SYSTEM

Configure 1:

EUT

AE

5.2. EQUIPMENT USED IN EUT SYSTEM

| ltem | Equipment | Model No. | ID or Specification | Remark |
|------|----------------|---------------------|---------------------|--------|
| 1 | WiFi IP Camera | Reolink Argus 3 Pro | 2AYHE-2101A | EUT |
| 2 | Adapter | HW-200200CP1 | DC 5V | AE |

5.3. SUMMARY OF TEST RESULTS

| FCC RULES DESCRIPTION OF TEST | | RESULT |
|----------------------------------|--|-----------|
| §15.407 | 6dB Bandwidth | Compliant |
| §15.407 | Emission Bandwidth | Compliant |
| §15.407 | Maximum conducted output power | Compliant |
| §15.407 | §15.407 Conducted Spurious Emission | |
| §15.407 | Maximum Conducted Output Power Density | Compliant |
| §15.209 | Radiated Emission | Compliant |
| §15.407 | Band Edges | Compliant |
| §15.207 Line Conduction Emission | | Compliant |

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6. TEST FACILITY

| Test Site | Attestation of Global Compliance (Shenzhen) Co., Ltd | | | | |
|--------------------------------------|---|--|--|--|--|
| Location | I-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China | | | | |
| Designation Number | CN1259 | | | | |
| FCC Test Firm Registration Number | 975832 | | | | |
| A2LA Cert. No. | 5054.02 | | | | |
| Description | Attestation of Global Compliance(Shenzhen) Co., Ltd is accredited by A2LA | | | | |

TEST EQUIPMENT OF CONDUCTED EMISSION TEST

| Equipment | Manufacturer | Model | S/N | Cal. Date | Cal. Due |
|---------------|--------------|----------------------|--------|--------------|--------------|
| TEST RECEIVER | R&S | ESPI | 101206 | May 15, 2020 | May 14, 2021 |
| LISN | R&S | ESH2-Z5 | 100086 | Jul. 03,2020 | Jul. 02,2021 |
| Test software | R&S | ES-K1 (Ver V1.71) | N/A | N/A | N/A |

TEST EQUIPMENT OF RADIATED EMISSION TEST

| Equipment | Manufacturer | Model | S/N | Cal. Date | Cal. Due |
|--------------------------------------|----------------|----------------------|------------|---------------|---------------|
| TEST RECEIVER | R&S | ESCI | 10096 | May 15, 2020 | May 14, 2021 |
| EXA Signal Analyzer | Aglient | N9010A | MY53470504 | Dec. 07, 2020 | Dec. 06, 2021 |
| Power sensor | Aglient | U2021XA | MY54110007 | Jun. 08, 2020 | Jun. 07, 2021 |
| 2.4GHz Fliter | EM Electronics | 2400-2500MHz | N/A | Mar. 23, 2020 | Mar. 22, 2022 |
| Attenuator | ZHINAN | E-002 | N/A | Sep. 03, 2020 | Sep. 02, 2022 |
| Horn antenna | SCHWARZBECK | BBHA 9170 | #768 | Sep.21, 2019 | Sep. 20, 2021 |
| Active loop antenna (9K-30MHz) | ZHINAN | ZN30900C | 18051 | May 22, 2020 | May 21, 2022 |
| Double-Ridged Waveguide Horn | ETS LINDGREN | 3117 | 00034609 | May 17, 2019 | May 16, 2021 |
| Broadband Preamplifier | ETS LINDGREN | 3117PA | 00225134 | Sep. 03, 2020 | Sep. 02, 2022 |
| ANTENNA | SCHWARZBECK | VULB9168 | 494 | Sep. 20, 2019 | Sep. 19, 2021 |
| Test software | Tonscend | JS32-RE (Ver.2.5) | N/A | N/A | N/A |

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7. MAXIMUM CONDUCTED OUTPUT POWER

7.1. MEASUREMENT PROCEDURE

For average power test:

- 1. Connect EUT RF output port to power sensor through an RF attenuator.
- 2. Connect the power sensor to the PC.
- 3. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
- 4. Record the maximum power from the software.

Note : The EUT was tested according to KDB 789033 for compliance to FCC 47CFR 15.407 requirements.

7.2. TEST SET-UP

AVERAGE POWER SETUP



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7.3. LIMITS AND MEASUREMENT RESULT

| LIMITS AND MEASUREMENT RESULT FOR 802.11A20 MODULATION | | | | | |
|--|------------------------|----------------------------|--------------|--|--|
| Frequency (MHz) | Average Power (dBm) | Applicable Limits (dBm) | Pass or Fail | | |
| 5180 | 13.09 | 23.98 | Pass | | |
| 5200 | 12.35 | 23.98 | Pass | | |
| 5240 | 14.09 | 23.98 | Pass | | |
| 5745 | 13.25 | 30 | Pass | | |
| 5785 | 14.46 | 30 | Pass | | |
| 5825 | 12.18 | 30 | Pass | | |

| LIMITS AND MEASUREMENT RESULT FOR 802.11N20 MODULATION | | | | |
|--|------------------------|----------------------------|--------------|--|
| Frequency (MHz) | Average Power (dBm) | Applicable Limits (dBm) | Pass or Fail | |
| 5180 | 12.43 | 23.98 | Pass | |
| 5200 | 11.48 | 23.98 | Pass | |
| 5240 | 13.59 | 23.98 | Pass | |
| 5745 | 13.45 | 30 | Pass | |
| 5785 | 14.47 | 30 | Pass | |
| 5825 | 10.70 | 30 | Pass | |

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8. 6dB BANDWIDTH

8.1. MEASUREMENT PROCEDURE

8.1.1 -6dB BANDWIDTH MEASUREMENT PROCEDURE

- 1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- 2. Set the EUT Work on operation frequency individually.
- 3. Set RBW = 100kHz.
- 4. Set the VBW \geq 3*RBW. Detector = Peak. Trace mode = max hold.
- 5. Measure the maximum width of the emission that is 6 dB down from the peak of the emission.

8.1.2 99% OCCUPIED BANDWIDTH

- 1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- 2, Set the EUT Work on the top, the middle and the bottom operation frequency individually.
- 3. Set Span = approximately 1.5 to 5 times the OBW, centered on a nominal channel The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW and video bandwidth (VBW) shall be approximately three times RBW; Sweep = auto; Detector function = peak
 4. Set SPA Trace 1 Max hold, then View.

Note: The EUT was tested according to KDB 789033 for compliance to FCC 47CFR 15.407 requirements.

8.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)



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8.3. LIMITS AND MEASUREMENT RESULTS

| LIMITS AND MEASUREMENT RESULT FOR 802.11A20 MODULATION | | | | | |
|--|--------------------|----------------|------------------------------|----------|--|
| | | Applicab | le Limits | | |
| Applicable Limits | | | | | |
| | Frequency (MHz) | -6dB Bandwidth | 99.00% Occupied Bandwidth | Criteria | |
| | 5745MHz | 15.95 | 16.482 | PASS | |
| | 5785MHz | 16.04 | 16.466 | PASS | |
| | 5825MHz | 16.30 | 16.543 | PASS | |

| LIMITS AND MEASUREMENT RESULT FOR 802.11N20 MODULATION | | | | |
|--|--------------------|----------------|------------------------------|----------|
| | | Applicab | le Limits | |
| Applicable Limits | | | | |
| | Frequency (MHz) | -6dB Bandwidth | 99.00% Occupied Bandwidth | Criteria |
| | 5745MHz | 16.13 | 17.550 | PASS |
| >500KHZ | 5785MHz | 16.59 | 17.526 | PASS |
| | 5825MHz | 16.64 | 17.580 | PASS |

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Keysight Spectrum Analyzer - Occupied B SENSE:INT ALIGN AUTO Center Freq: 5.74500000 GHz Trig: Free Run Avg|Hold: 10/10 #Atten: 30 dB B Auto Auto 02:05:54 PM Jan 25, 2021 Radio Std: None Frequency Center Freg 5 745000000 GHz Radio Device: BTS 5.75247 GHz 1.6239 dBm Mkr1 Ref 30.00 dBm 0 dB/div **Center Freq** 5.745000000 GHz งหรับก moun Center 5.745 GHz #Res BW 100 kHz Span 30 MHz Sweep 3.733 ms CF Step 3.000000 MHz #VBW 300 kHz Ma Auto **Occupied Bandwidth Total Power** 19.1 dBm 16.387 MHz Freq Offset 0 Hz Transmit Freq Error 8.258 kHz % of OBW Power 99.00 % x dB Bandwidth 15.95 MHz x dB -6.00 dB

802.11a20 TEST RESULT



TEST PLOT OF BANDWIDTH FOR 5745MHz (-6dB BANDWIDTH)

TEST PLOT OF BANDWIDTH FOR 5745MHz (99% BANDWIDTH)



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TEST PLOT OF BANDWIDTH FOR 5785MHz (-6dB BANDWIDTH)

TEST PLOT OF BANDWIDTH FOR 5785MHz (99% BANDWIDTH)



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TEST PLOT OF BANDWIDTH FOR 5825MHz (-6dB BANDWIDTH)

TEST PLOT OF BANDWIDTH FOR 5825MHz (99% BANDWIDTH)



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Keysight Spectrum Analyzer - Occupied B SENSE:INT ALIGN AUT Center Freq: 5.745000000 GHz Trig: Free Run Avg|Hold: 10/10 #Atten: 30 dB B Avg|Hold: 10/10 02:14:22 PM Jan 25, 2021 Radio Std: None Frequency 15.745000000 GH Radio Device: BTS Mkr1 5.74998 GHz 1.8819 dBm Ref 30.00 dBm 0 dB/div **Center Freq** 5.745000000 GHz MAR marga Center 5.745 GHz #Res BW 100 kHz Span 30 MHz Sweep 3.733 ms CF Step 3.000000 MHz #VBW 300 kHz Ма Auto **Occupied Bandwidth Total Power** 19.1 dBm 17.540 MHz Freq Offset 0 Hz Transmit Freq Error 9.005 kHz % of OBW Power 99.00 % x dB Bandwidth 16.13 MHz x dB -6.00 dB

802.11n20 TEST RESULT



TEST PLOT OF BANDWIDTH FOR 5745MHz (-6dB BANDWIDTH)

TEST PLOT OF BANDWIDTH FOR 5745MHz (99% BANDWIDTH)



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TEST PLOT OF BANDWIDTH FOR 5785MHz (-6dB BANDWIDTH)

TEST PLOT OF BANDWIDTH FOR 5785MHz (99% BANDWIDTH)



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TEST PLOT OF BANDWIDTH FOR 5825MHz (-6dB BANDWIDTH)

TEST PLOT OF BANDWIDTH FOR 5825MHz (99% BANDWIDTH)



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9. EMISSION BANDWIDTH

9.1. MEASUREMENT PROCEDURE

9.1.1. -26dB Bandwidth MEASUREMENT PROCEDURE

- a) Set RBW = approximately 1% of the emission bandwidth.
- b) Set the VBW > RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.

e) Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

9.1.2. 99.00% Occupied Bandwidth MEASUREMENT PROCEDURE

- a) Connect the antenna port(s) to the spectrum analyzer input.
- b)Configure the spectrum analyzer as shown below (enter all losses between the transmitter output and the spectrum analyzer).

Center Frequency = Channel center frequency

Span=2 x emission bandwidth

RBW = 1% to 5% of the emission bandwidth

VBW>3 x RBW

Sweep time= auto couple

Detector = Peak

Trace mode = max hold

- c)Place the radio in continuous transmit mode, allow the trace to stabilize, view the transmitter wave form on the spectrum analyzer.
- d) Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is 1% to 5%.

Note: The EUT was tested according to KDB 789033 for compliance to FCC 47CFR 15.407 requirements.

9.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)



Spectrum Analyzer

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9.3. LIMITS AND MEASUREMENT RESULTS

| LIMITS AND MEASUREMENT RESULT FOR 802.11A20 MODULATION | | | | | |
|--|--------------------|--------------------|------------------------------|----------|--|
| Applicable Limits | | Арр | licable Limits | | |
| | | | | | |
| | Frequency (MHz) | -26dB Bandwidth | 99.00% Occupied Bandwidth | Criteria | |
| Within the Band | 5180MHz | 24.56 | 16.608 | PASS | |
| | 5200MHz | 26.20 | 16.601 | PASS | |
| | 5240MHz | 20.08 | 16.468 | PASS | |

| LIMITS AND MEASUREMENT RESULT FOR 802.11N20 MODULATION | | | | | |
|--|--------------------|--------------------|------------------------------|----------|--|
| | | Appl | icable Limits | | |
| Applicable Limits | | | | | |
| | Frequency (MHz) | -26dB Bandwidth | 99.00% Occupied Bandwidth | Criteria | |
| Within the Band | 5180MHz | 26.36 | 17.650 | PASS | |
| | 5200MHz | 21.73 | 17.527 | PASS | |
| | 5240MHz | 20.30 | 17.535 | PASS | |

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Keysight Spectrum Analyzer - Occupied B 02:27:07 PM Jan 25, 2021 Radio Std: None JENSE:INI ALIGN AUTO Center Freq: 5.18000000 GHz Trig: Free Run Avg|Hold: 10/10 #Atten: 30 dB Aug Avg/Hold: 10/10 Frequency Cente 5 18000000 GH: Radio Device: BTS Ref 30.00 dBm 0 dB/div **Center Freq** 5.180000000 GHz Center 5.18 GHz #Res BW 200 kHz Span 30 MHz Sweep 1 ms CF Step 3.000000 MHz #VBW 620 kHz Ma Auto **Occupied Bandwidth Total Power** 19.5 dBm 16.608 MHz Freq Offset 0 Hz Transmit Freq Error -78.490 kHz % of OBW Power 99.00 % x dB Bandwidth 24.56 MHz x dB -26.00 dB

802.11a20 TEST RESULT

TEST PLOT OF BANDWIDTH FOR 5180MHz

TEST PLOT OF BANDWIDTH FOR 5200MHz



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TEST PLOT OF BANDWIDTH FOR 5240MHz

802.11n20 TEST RESULT

TEST PLOT OF BANDWIDTH FOR 5180MHz



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TEST PLOT OF BANDWIDTH FOR 5200MHz

TEST PLOT OF BANDWIDTH FOR 5240MHz



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10. MAXIMUM CONDUCTED OUTPUT AVERAGE POWER SPECTRAL DENSITY

10.1 MEASUREMENT PROCEDURE

Refer to KDB 789033 section F

10.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

Refer To Section 8.2.

10.3 MEASUREMENT EQUIPMENT USED

Refer To Section 6.

10.4 LIMITS AND MEASUREMENT RESULT

| LIMITS AND MEASUREMENT RESULT FOR 802.11A20 MODULATION | | | | | |
|--|---------------------------------|-------------------------------------|--------------|--|--|
| Frequency (MHz) | Power density (dBm/MHz) | Applicable Limits (dBm/MHz) | Pass or Fail | | |
| 5180 | 2.603 | 11 | Pass | | |
| 5200 | 1.353 | 11 | Pass | | |
| 5240 | 3.466 | 11 | Pass | | |
| Frequency (MHz) | Power density (30dBm/500kHz) | Applicable Limits (30dBm/500kHz) | Pass or Fail | | |
| 5745 | -0.077 | 30 | Pass | | |
| 5785 | 1.089 | 30 | Pass | | |
| 5825 | -1.490 | 30 | Pass | | |

| LIMITS AND MEASUREMENT RESULT FOR 802.11N20 MODULATION | | | | |
|--|---------------------------------|-------------------------------------|--------------|--|
| Frequency (MHz) | Power density (dBm/MHz) | Applicable Limits (dBm/MHz) | Pass or Fail | |
| 5180 | 1.517 | 11 | Pass | |
| 5200 | 0.351 | 11 | Pass | |
| 5240 | 3.013 | 11 | Pass | |
| Frequency (MHz) | Power density (30dBm/500kHz) | Applicable Limits (30dBm/500kHz) | Pass or Fail | |
| 5745 | -0.083 | 30 | Pass | |
| 5785 | 0.650 | 30 | Pass | |
| 5825 | -3.115 | 30 | Pass | |

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802.11a20 TEST RESULT TEST PLOT OF SPECTRAL DENSITY FOR 5180MHz

TEST PLOT OF SPECTRAL DENSITY FOR 5200MHz



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TEST PLOT OF SPECTRAL DENSITY FOR 5240MHz

Keysight Spectrum Analyzer - Swept SA Ref S0 Ω AC CORREC SENSE:INT ALIGN AUTO 02:06:21 PM Jan 25, 2021 Frequency Frequency Avg Type: RMS Avg|Hold: 100/100 Trig: Free Run HAtten: 40 dB Mkr1 5.750 57 GHz -0.077 dBm Auto Tune Center Freq 5.74500000 GHz Trig: Free Run HAtten: 40 dB Mkr1 5.750 57 GHz -0.077 dBm Auto Tune Center Freq 5.745000000 GHz 5.745000000 GHz 5.745000000 GHz 5.745000000 GHz

TEST PLOT OF SPECTRAL DENSITY FOR 5745MHz

10 dB/div Center Freq 5.745000000 GHz Start Freq ♦1 5.730000000 GHz Stop Freq 5.76000000 GHz CF Step 3.000000 M Mar Auto **Freq Offset** 0 Hz Scale Type Span 30.00 MHz Log Sweep 1.066 ms (1000 pts) Center 5.74500 GHz #Res BW 510 kHz Lin #VBW 1.5 MHz* STATUS

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TEST PLOT OF SPECTRAL DENSITY FOR 5785MHz

TEST PLOT OF SPECTRAL DENSITY FOR 5825MHz



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802.11n20 TEST RESULT TEST PLOT OF SPECTRAL DENSITY FOR 5180MHz

TEST PLOT OF SPECTRAL DENSITY FOR 5200MHz



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TEST PLOT OF SPECTRAL DENSITY FOR 5240MHz

Avg Type: RMS Avg|Hold: 100/100 Frequency Center Freq 5.745000000 GHz Trig: Free Run #Atten: 40 dB PNO: Fast +++ IFGain:Low Auto Tune Mkr1 5.750 72 GHz -0.083 dBm Ref Offset 0.53 dB Ref 30.00 dBm 10 dB/div Center Freq 5.745000000 GHz Start Freq **1** 5.730000000 GHz Stop Freq 5.76000000 GHz CF Step 3.000000 M Mar Auto **Freq Offset** 0 Hz Scale Type Span 30.00 MHz Log Sweep 1.066 ms (1000 pts) Center 5.74500 GHz #Res BW 510 kHz Lin #VBW 1.5 MHz* STATUS

TEST PLOT OF SPECTRAL DENSITY FOR 5745MHz

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TEST PLOT OF SPECTRAL DENSITY FOR 5785MHz

lan 25, 2021 Avg Type: RMS Avg|Hold: 100/100 Frequency Center Freq 5.825000000 GHz Trig: Free Run #Atten: 40 dB PNO: Fast +++ IFGain:Low Auto Tune Mkr1 5.819 88 GHz -3.115 dBm Ref Offset 0.35 dB Ref 30.00 dBm 10 dB/div Center Freq 5.825000000 GHz Start Freq 5.810000000 GHz ▲1 Stop Freq 5.840000000 GHz CF Step 3.000000 M Mar Auto **Freq Offset** 0 Hz Scale Type Span 30.00 MHz Sweep 1.066 ms (1000 pts) Center 5.82500 GHz #Res BW 510 kHz Lin #VBW 1.5 MHz* STATUS

TEST PLOT OF SPECTRAL DENSITY FOR 5825MHz

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11. CONDUCTED SPURIOUS EMISSION

11.1. MEASUREMENT PROCEDURE

- 1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- 2, Set the EUT Work on the top, the middle and the bottom operation frequency individually.
- 3. Set SPA Trace 1 Max hold, then View.

Note: The EUT was tested according to KDB 789033 for compliance to FCC 47CFR 15.407 requirements.

11.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

The same as described in section 8.2.

11.3. MEASUREMENT EQUIPMENT USED

The same as described in section 6.

11.4. LIMITS AND MEASUREMENT RESULT

| LIMITS AND MEASUREMENT RESULT | | | | | |
|--|--------------------|----------|--|--|--|
| | Measurement Result | | | | |
| | Test channel | Criteria | | | |
| -27dBm/MHz | 5150MHz-5250MHz | PASS | | | |
| All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge, and from 5 MHz above or below the band edge. | 5725MHz-5850MHz | PASS | | | |

Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the specific deviced feature / pedicated feature / p



FOR 802.11A20 MODULATION

Keysight Spectrum Analyzer - Swept S PM lan 25, 2021 Frequency Avg Type: Log-Pw Avg|Hold: 88/100 Center Freq 515.000000 MHz Trig: Free Run #Atten: 30 dB PNO: Fast IFGain:Low PASS Auto Tune Mkr1 895.07 MHz -56.349 dBm IO dB/div Ref 20.00 dBm Trace 1 Pass **Center Freq** 515.000000 MHz Start Freq 30.000000 MHz Stop Freq 1.000000000 GHz CF Step 97.000000 MHz Ma Auto Freq Offset 0 Hz Scale Type Start 0.0300 GHz #Res BW 100 kHz Stop 1.0000 GHz Log Lin #VBW 300 kHz Sweep 94.00 ms (30000 pts) 02:29:31 PM Jan 25, 2021 ALIGN AUTO Avg Type: Log-Pwr Avg|Hold: 63/100 Frequency Center Freq 3.050000000 GHz TRACE 1 2 3 4 5 Trig: Free Run #Atten: 30 dB түр PNO: Fast DET IFGain:Low Auto Tune Mkr1 3.067 97 GHz -44.669 dBm 0 dB/div Ref 20.00 dBm Trace 1 F **Center Frea** 3.050000000 GHz Start Freq 1.000000000 GHz Stop Freq 5.10000000 GHz **CF** Step 410.000000 MI Mar Auto Frea Offset 0 Hz Scale Type Stop 5.100 GHz Sweep 8.000 ms (30000 pts) Start 1.000 GHz #Res BW 1.0 MHz Lin #VBW 3.0 MHz

TEST PLOT OF OUT OF BAND EMISSIONS FOR MODULATION IN 5180MHz

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STATUS

Report No.: AGC11034210101FE06 Page 37 of 68





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TEST PLOT OF OUT OF BAND EMISSIONS FOR MODULATION IN 5240MHz



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Report No.: AGC11034210101FE06 Page 39 of 68





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 Attestation of Global Compliance(Shenzhen)Co., Ltd

 Attestation of Global Compliance(Shenzhen)Std & Tech Co., Ltd

 Tel: +86-755 2523 4088
 E-mail: agc@agc-cert.com

Scale Type

Lin

Log

Stop 5.650 GHz Sweep 8.000 ms (30000 pts)



TEST PLOT OF OUT OF BAND EMISSIONS FOR MODULATION IN 5745MHz

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#VBW 3.0 MHz

Start 1.000 GHz #Res BW 1.0 MHz

Report No.: AGC11034210101FE06 Page 42 of 68





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#VBW 3.0 MHz





TEST PLOT OF OUT OF BAND EMISSIONS FOR MODULATION IN 5825MHz



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Report No.: AGC11034210101FE06 Page 44 of 68

0 Hz

Lin

Scale Type

Log

Stop 5.9250 GHz

Sweep 2.000 ms (30000 pts)





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#VBW 3.0 MHz

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Start 5.6500 GHz #Res BW 1.0 MHz

Report No.: AGC11034210101FE06 Page 45 of 68





Note: All the 20MHz bandwidth modulation had been tested, the 802.11a20 was the worst case and record in his test report.

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12. RADIATED EMISSION

12.1. MEASUREMENT PROCEDURE

- 1. The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
- 2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
- 3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
- 4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
- 5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
- 6. For emissions above 1GHz, use 1MHz RBW and 3M VBW for peak reading. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
- 7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
- 8.If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
- 9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
- 10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High Low scan is not required in this case.

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12.2. TEST SETUP

Radiated Emission Test-Setup Frequency Below 30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz



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12.3. LIMITS AND MEASUREMENT RESULT

15.209(a) Limit in the below table has to be followed

| Frequencies (MHz) | Field Strength (micorvolts/meter) | Measurement Distance (meters) |
|----------------------|--------------------------------------|----------------------------------|
| 0.009~0.490 | 2400/F(KHz) | 300 |
| 0.490~1.705 | 24000/F(KHz) | 30 |
| 1.705~30.0 | 30 | 30 |
| 30~88 | 100 | 3 |
| 88~216 | 150 | 3 |
| 216~960 | 200 | 3 |
| Above 960 | 500 | 3 |

Note: All modes were tested For restricted band radiated emission,

the test records reported below are the worst result compared to other modes.

12.4. TEST RESULT

RADIATED EMISSION BELOW 30MHZ

The amplitude of spurious emissions from 9kHz to 30MHz which are attenuated more than 20 dB below the permissible value need not be reported.

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RADIATED EMISSION BELOW 1GHZ

| EUT | WiFi IP Camera | Model Name | Reolink Argus 3 Pro |
|-------------|-------------------|-------------------|---------------------|
| Temperature | 25°C | Relative Humidity | 60% |
| Pressure | 960hPa | Test Voltage | Normal Voltage |
| Test Mode | 802.11a20 5180MHz | Antenna | Horizontal |

66.9 dBuV/m



| 3 | No. | Mk | . Freq. | Reading Level | Correct Factor | Measure- ment | Limit | Over | |
|---|-----|----|----------|------------------|-------------------|------------------|--------|--------|----------|
| | | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector |
| | 1 | | 78.5000 | 11.85 | 15.27 | 27.12 | 40.00 | -12.88 | peak |
| | 2 | | 152.8667 | 7.76 | 19.20 | 26.96 | 43.50 | -16.54 | peak |
| | 3 | | 227.2333 | 20.11 | 16.48 | 36.59 | 46.00 | -9.41 | peak |
| | 4 | * | 248.2500 | 18.93 | 18.52 | 37.45 | 46.00 | -8.55 | peak |
| 5 | 5 | | 466.5000 | 2.52 | 24.32 | 26.84 | 46.00 | -19.16 | peak |
| | 6 | | 759.1167 | 1.72 | 29.49 | 31.21 | 46.00 | -14.79 | peak |

RESULT: PASS

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| EUT | WiFi IP Camera | Model Name | Reolink Argus 3 Pro |
|-------------|-------------------|-------------------|---------------------|
| Temperature | 25°C | Relative Humidity | 60% |
| Pressure | 960hPa | Test Voltage | Normal Voltage |
| Test Mode | 802.11a20 5180MHz | Antenna | Vertical |

66.9 dBuV/m



| No. | Mk | . Freq. | Reading Level | Correct Factor | Measure- ment | Limit | Over | |
|-----|----|----------|------------------|-------------------|------------------|--------|--------|----------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector |
| 1 | İ | 76.8833 | 18.64 | 15.62 | 34.26 | 40.00 | -5.74 | peak |
| 2 | * | 154.4832 | 19.16 | 19.20 | 38.36 | 43.50 | -5.14 | peak |
| 3 | | 248.2500 | 15.36 | 18.52 | 33.88 | 46.00 | -12.12 | peak |
| 4 | | 324.2333 | 15.60 | 20.32 | 35.92 | 46.00 | -10.08 | peak |
| 5 | | 605.5333 | 1.33 | 27.02 | 28.35 | 46.00 | -17.65 | peak |
| 6 | | 848.0333 | 0.12 | 31.03 | 31.15 | 46.00 | -14.85 | peak |

RESULT: PASS

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Report No.: AGC11034210101FE06 Page 51 of 68

| EUT | WiFi IP Camera | Model Name | Reolink Argus 3 Pro |
|-------------|-------------------|-------------------|---------------------|
| Temperature | 25°C | Relative Humidity | 60% |
| Pressure | 960hPa | Test Voltage | Normal Voltage |
| Test Mode | 802.11a20 5745MHz | Antenna | Horizontal |

66.9 dBuV/m



| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure- ment | Limit | Over | |
|-----|-----|----------|------------------|-------------------|------------------|--------|--------|----------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector |
| 1 | | 78.5000 | 10.91 | 15.27 | 26.18 | 40.00 | -13.82 | peak |
| 2 | 1 | 62.5667 | 9.10 | 18.93 | 28.03 | 43.50 | -15.47 | peak |
| 3 | * 2 | 48.2500 | 20.69 | 18.52 | 39.21 | 46.00 | -6.79 | peak |
| 4 | 3 | 82.4333 | 9.63 | 22.36 | 31.99 | 46.00 | -14.01 | peak |
| 5 | 6 | 654.0333 | 0.38 | 27.60 | 27.98 | 46.00 | -18.02 | peak |
| 6 | 8 | 356.1167 | 0.95 | 31.13 | 32.08 | 46.00 | -13.92 | peak |

RESULT: PASS

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Report No.: AGC11034210101FE06 Page 52 of 68

| EUT | WiFi IP Camera | Model Name | Reolink Argus 3 Pro | |
|-------------|-------------------|-------------------|---------------------|--|
| Temperature | 25°C | Relative Humidity | 60% | |
| Pressure | 960hPa | Test Voltage | Normal Voltage | |
| Test Mode | 802.11a20 5745MHz | Antenna | Vertical | |

66.9 dBuV/m



| No. | Mk | . Freq. | Reading Level | Correct Factor | Measure- ment | Limit | Over | |
|-----|----|----------|------------------|-------------------|------------------|--------|--------|----------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector |
| 1 | * | 75.2667 | 19.54 | 15.97 | 35.51 | 40.00 | -4.49 | peak |
| 2 | | 165.8000 | 16.78 | 18.59 | 35.37 | 43.50 | -8.13 | peak |
| 3 | | 245.0167 | 15.51 | 18.57 | 34.08 | 46.00 | -11.92 | peak |
| 4 | | 314.5333 | 11.64 | 19.98 | 31.62 | 46.00 | -14.38 | peak |
| 5 | | 375.9667 | 8.89 | 22.14 | 31.03 | 46.00 | -14.97 | peak |
| 6 | | 844.8000 | 0.80 | 30.99 | 31.79 | 46.00 | -14.21 | peak |
| | | | | | | | | |

RESULT: PASS

Note: All test channels had been tested. The 802.11a20 is the worst case and recorded in the test report.. Factor = Antenna Factor + Cable loss - Amplifier gain, Margin= Measurement-Limit. The "Factor" value can be calculated automatically by software of measurement system.

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RADIATED EMISSION ABOVE 1GHZ

| EUT | WiFi IP Camera Model Name | | Reolink Argus 3 Pro |
|-------------|---------------------------|-------------------|---------------------|
| Temperature | 25°C | Relative Humidity | 60% |
| Pressure | 960hPa | Test Voltage | Normal Voltage |
| Test Mode | 802.11a20 5180MHz | Antenna | Horizontal/Vertical |

RADIATED EMISSION ABOVE 1GHZ-Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | |
|-----------|---------------|--------|-----------------------|----------|---------|------------|
| (MHz) | (dBµV) | (dB) | (dBµV/m) | (dBµV/m) | (dB) | value Type |
| 10360.042 | 46.37 | 9.14 | 55.51 | 68.20 | -12.69 | peak |
| 15540.063 | 40.25 | 10.22 | 50.47 | 74.00 | -23.53 | peak |
| 15540.063 | 31.59 | 10.22 | 41.81 | 54.00 | -12.19 | AVG |
| Remark: | 0 | | | - C. | <u></u> | |
| | | | 11.61 | | | 0 |

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

RADIATED EMISSION ABOVE 1GHZ-Vertical

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | |
|-----------------------|----------------|----------------|----------------|----------|--------|------------|
| (MHz) | (dBµV) | (dB) | (dBµV/m) | (dBµV/m) | (dB) | value rype |
| 10360.042 | 46.92 | 9.14 | 56.06 | 68.20 | -12.14 | peak |
| 15540.063 | 41.06 | 10.22 | 51.28 | 74.00 | -22.72 | peak |
| 15540.063 | 31.76 | 10.22 | 41.98 | 54.00 | -12.02 | AVG |
| Remark: | | | 0 | C | | |
| $Eactor = \Delta nte$ | nna Factor + C | able Loss – Pr | re-amplifier | | | |

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| EUT | WiFi IP Camera | Model Name | Reolink Argus 3 Pro |
|-------------|-------------------|-------------------|---------------------|
| Temperature | 25°C | Relative Humidity | 60% |
| Pressure | 960hPa | Test Voltage | Normal Voltage |
| Test Mode | 802.11a20 5200MHz | Antenna | Horizontal/Vertical |

RADIATED EMISSION ABOVE 1GHZ-Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | |
|-----------|---------------|--------|----------------|----------|--------|-------------|
| (MHz) | (dBµV) | (dB) | (dBµV/m) | (dBµV/m) | (dB) | ovalue Type |
| 10400.042 | 47.26 | 9.14 | 56.40 | 68.20 | -11.80 | peak |
| 15600.063 | 42.51 | 10.22 | 52.73 | 74.00 | -21.27 | peak |
| 15600.063 | 32.49 | 10.22 | 42.71 | 54.00 | -11.29 | AVG |
| Remark: | 8 | | | - C. | ® | |

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

RADIATED EMISSION ABOVE 1GHZ-Vertical

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | |
|-----------------------|-----------------|---------------|----------------|----------|--------|------------|
| (MHz) | (dBµV) | (dB) | (dBµV/m) | (dBµV/m) | (dB) | value Type |
| 10400.042 | 46.29 | 9.14 | 55.43 | 68.20 | -12.77 | peak |
| 15600.063 | 40.27 | 10.22 | 50.49 | 74.00 | -23.51 | peak |
| 15600.063 | 31.58 | 10.22 | 41.80 | 54.00 | -12.20 | AVG |
| Remark: | | | 0 | | | |
| $Eactor = \Delta nte$ | nna Eactor + Ca | able Loss – P | re-amplifier | | | O. F |

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| EUT | WiFi IP Camera | Model Name | Reolink Argus 3 Pro |
|-------------|-------------------|-------------------|---------------------|
| Temperature | 25°C | Relative Humidity | 60% |
| Pressure | 960hPa | Test Voltage | Normal Voltage |
| Test Mode | 802.11a20 5240MHz | Antenna | Horizontal/Vertical |

RADIATED EMISSION ABOVE 1GHZ-Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | |
|-----------|---------------|--------|----------------|----------|--------|------------|
| (MHz) | (dBµV) | (dB) | (dBµV/m) | (dBµV/m) | (dB) | Value Type |
| 10480.042 | 47.68 | 9.27 | 56.95 | 68.20 | -11.25 | peak |
| 15720.063 | 42.55 | 10.38 | 52.93 | 74.00 | -21.07 | peak |
| 15720.063 | 33.16 | 10.38 | 43.54 | 54.00 | -10.46 | AVG |
| Remark: | 8 | | | 6 | ©. | |

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

RADIATED EMISSION ABOVE 1GHZ-Vertical

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | |
|---------------|----------------|---------------|----------------|----------|--------|------------|
| (MHz) | (dBµV) | (dB) | (dBµV/m) | (dBµV/m) | (dB) | value Type |
| 10480.042 | 46.91 | 9.27 | 56.18 | 68.20 | -12.02 | peak |
| 15720.063 | 42.08 | 10.38 | 52.46 | 74.00 | -21.54 | peak |
| 15720.063 | 31.64 | 10.38 | 42.02 | 54.00 | -11.98 | AVG |
| Remark: | | | | - C | | |
| Eactor = Ante | nna Eactor + C | able Loss – P | re-amplifier | | | |

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| EUT | WiFi IP Camera | Model Name | Reolink Argus 3 Pro |
|-------------|-------------------|-------------------|---------------------|
| Temperature | 25°C | Relative Humidity | 60% |
| Pressure | 960hPa | Test Voltage | Normal Voltage |
| Test Mode | 802.11a20 5745MHz | Antenna | Horizontal/Vertical |

RADIATED EMISSION ABOVE 1GHZ–Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | |
|-----------|---------------|--------|-----------------------|----------|--------|-------------|
| (MHz) | (dBµV) | (dB) | (dBµV/m) | (dBµV/m) | (dB) | Svalue Type |
| 11490.042 | 46.13 | 9.42 | 55.55 | 74.00 | -18.45 | peak |
| 11490.042 | 37.48 | 9.42 | 46.90 | 54.00 | -7.10 | AVG |
| 17235.063 | 40.51 | 10.51 | 51.02 | 68.20 | -17.18 | peak |
| Remark: | 8 | | | 6 | ® | |

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

RADIATED EMISSION ABOVE 1GHZ–Vertical

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | |
|---------------|-----------------|--------|-----------------------|----------|--------|------------|
| (MHz) | (dBµV) | (dB) | (dBµV/m) | (dBµV/m) | (dB) | value Type |
| 11490.042 | 45.37 | 9.42 | 54.79 | 74.00 | -19.21 | peak |
| 11490.042 | 36.48 | 9.42 | 45.90 | 54.00 | -8.10 | AVG |
| 17235.063 | 40.23 | 10.51 | 50.74 | 68.20 | -17.46 | peak |
| Remark: | | | 0 | .0 | 8 | |
| Contor - Anto | nna Fastar I Co | | re emplifier | | | W. |

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

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| EUT | WiFi IP Camera | Model Name | Reolink Argus 3 Pro |
|-------------|-------------------|-------------------|---------------------|
| Temperature | 25°C | Relative Humidity | 60% |
| Pressure | 960hPa | Test Voltage | Normal Voltage |
| Test Mode | 802.11a20 5785MHz | Antenna | Horizontal/Vertical |

RADIATED EMISSION ABOVE 1GHZ-Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | |
|---------------|----------------|-------------|----------------|----------|--------|------------|
| (MHz) | (dBµV) | (dB) | (dBµV/m) | (dBµV/m) | (dB) | value Type |
| 11570.042 | 46.19 | 9.42 | 55.61 | 74.00 | -18.39 | peak |
| 11570.042 | 35.27 | 9.42 | 44.69 | 54.00 | -9.31 | AVG |
| 17355.063 | 41.04 | 10.51 | 51.55 | 68.20 | -16.65 | peak |
| Remark: | 8 | | | | R | |
| Easter - Ante | nna Fastar I C | able Lees D | re emplifier | | | |

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

RADIATED EMISSION ABOVE 1GHZ–Vertical

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | |
|---------------|----------------|----------------|----------------|----------|--------|------------|
| (MHz) | (dBµV) | (dB) | (dBµV/m) | (dBµV/m) | (dB) | value Type |
| 11570.042 | 47.34 | 9.42 | 56.76 | 74.00 | -17.24 | peak |
| 11570.042 | 36.18 | 9.42 | 45.60 | 54.00 | -8.40 | AVG |
| 17355.063 | 42.95 | 10.51 | 53.46 | 68.20 | -14.74 | peak |
| Remark: | | | 6 | . C. | 8 | |
| Eactor = Ante | nna Factor + C | able Loss – Pr | e-amplifier | | | 8 |

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Report No.: AGC11034210101FE06 Page 58 of 68

| EUT | WiFi IP Camera | Model Name | Reolink Argus 3 Pro |
|-------------|-------------------|-------------------|---------------------|
| Temperature | 25°C | Relative Humidity | 60% |
| Pressure | 960hPa | Test Voltage | Normal Voltage |
| Test Mode | 802.11a20 5825MHz | Antenna | Horizontal/Vertical |

RADIATED EMISSION ABOVE 1GHZ-Horizontal

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Value Type | |
|--|---------------|--------|----------------|----------|--------|------------|--|
| (MHz) | (dBµV) | (dB) | (dBµV/m) | (dBµV/m) | (dB) | | |
| 11650.042 | 47.36 | 9.62 | 52.98 | 74.00 | -21.02 | peak | |
| 11650.042 | 38.51 | 9.62 | 45.05 | 54.00 | -8.95 | AVG | |
| 17475.063 | 43.16 | 10.75 | 47.61 | 68.20 | -26.39 | peak | |
| Remark: | | | | | | | |
| Faster - Antenna Faster - Cable Leas Dre amplifier | | | | | | | |

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

RADIATED EMISSION ABOVE 1GHZ–Vertical

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | | |
|---|---------------|--------|----------------|----------|--------|------------|--|
| (MHz) | (dBµV) | (dB) | (dBµV/m) | (dBµV/m) | (dB) | value Type | |
| 11650.042 | 46.37 | 9.62 | 53.55 | 74.00 | -20.45 | peak | |
| 11650.042 | 36.18 | 9.62 | 47.64 | 54.00 | -6.36 | AVG | |
| 17475.063 | 41.27 | 10.75 | 48.61 | 68.20 | -25.39 | peak | |
| Remark: | | | | | | | |
| Factor = Antenna Factor + Cable Loss – Pre-amplifier. | | | | | | | |

Note: All test channels had been tested. The 802.11a20 is the worst case and recorded in the test report. Other frequencies radiation emission from 1GHz to 40GHz at least have 20dB margin and not recorded in the test report.

Factor = Antenna Factor + Cable loss - Amplifier gain, Margin= Limit-Level.

The "Factor" value can be calculated automatically by software of measurement system.

Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the stead of the stand of t



13. BAND EDGE EMISSION

13.1. MEASUREMENT PROCEDURE

1. The EUT operates at transmitting mode. The operate channel is tested to verify the largest transmission and spurious emissions power at the continuous transmission mode.

2. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission: (a) PEAK: RBW=1MHz, VBW=3MHz / Sweep=AUTO

(b) AVERAGE: RBW=1MHz ; VBW=3MHz/ Sweep=AUTO

3. Other procedures refer to clause 11.2.

Note:

1. Factor=Antenna Factor + Cable loss - Amplifier gain. Field Strength=Factor + Reading level

2. The factor had been edited in the "Input Correction" of the Spectrum Analyzer. So the Amplitude of test plots is equal to Reading level plus the Factor in dB. Use the A dB(μ V) to represent the Amplitude. Use the F dB(μ V/m) to represent the Field Strength. So A=F.

3. Only the data of band edge emission at the restricted band 4.5GHz-5.15GHz and 5.35GHz-5.46GHz record in the report. Other restricted band 7.25GHz-7.77GHz were considered as ambient noise. No recording in the test report.

13.2. TEST SET-UP



Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the second argument of the stand inspection of stand inspection of a calculated for the stand of the stan