

FCC CFR47 PART 15 SUBPART C ISED CANADA RSS-210 ISSUE 10

CERTIFICATION TEST REPORT

FOR

SMOKE DETECTOR

MODEL NUMBER: 5800CMBOV / 5800CMBOVC

FCC ID: CFS8DL5800CMBOV IC: 573F-5800CMBOVC

REPORT NUMBER: R13672583-E1

ISSUE DATE: 2021-08-19

Prepared for ADEMCO INC. 2 CORPORATE CENTER DR MELVILLE NY, 11747, USA

Prepared by
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REVISION HISTORY

| Rev. | Issue Date | Revisions | Revised By |
|------|---------------|-----------------|-----------------|
| 1 | 2021-08-06 | Initial Issue | Brian T. Kiewra |
| 2 | 2021-08-19 | Revised FCC ID. | Brian T. Kiewra |

DATE: 2021-08-19

TABLE OF CONTENTS

| REVISI | ION HISTORY | 2 |
|--------|---|----|
| 1. AT | TESTATION OF TEST RESULTS | 4 |
| 2. TE | ST METHODOLOGY | 5 |
| 3. FA | CILITIES AND ACCREDITATION | 5 |
| 4. DE | ECISION RULES AND MEASUREMENT UNCERTAINTY | 5 |
| 4.1. | METROLOGICAL TRACEABILITY | 5 |
| 4.2. | DECISION RULES | 5 |
| 4.3. | MEASUREMENT UNCERTAINTY | 6 |
| 4.4. | SAMPLE CALCULATION | 6 |
| 5. EC | QUIPMENT UNDER TEST | 7 |
| 5.1. | DESCRIPTION OF EUT | 7 |
| 5.2. | DESCRIPTION OF AVAILABLE ANTENNAS | 7 |
| 5.3. | SOFTWARE AND FIRMWARE | 7 |
| 5.4. | WORST-CASE CONFIGURATION AND MODE | 7 |
| 5.5. | MODIFICATIONS | 7 |
| 5.6. | DESCRIPTION OF TEST SETUP | 8 |
| 6. TE | ST AND MEASUREMENT EQUIPMENT | 9 |
| 7. AN | ITENNA PORT TEST RESULTS | 11 |
| 7.1. | 20 dB AND 99% BW | 11 |
| 7.2. | DUTY CYCLE | 13 |
| 7.3. | TRANSMISSION TIME | 16 |
| 7.4. | SUPERVISION TRANSMISSIONS | 17 |
| 8. RA | ADIATED EMISSION TEST RESULTS | 18 |
| 8.1. | TX RADIATED SPURIOUS EMISSION | 18 |
| 9. SE | TUP PHOTOS | 25 |
| END O | F TEST REPORT | 29 |

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Ademco, Inc.

> 2 Corporate Center Melville, NY 11747, USA

EUT DESCRIPTION: Smoke and CO Detector

MODEL: 5800CMBOV / 5800CMBOVC

SERIAL NUMBER: 555040

SAMPLE RECEIPT DATE: 2021-06-21

DATE TESTED: 2021-07-12 to 2021-07-14

APPLICABLE STANDARDS

STANDARD TEST RESULTS FCC PART 15 SUBPART C Complies ISED CANADA RSS-210 Issue 10, Annex A Complies ISED CANADA RSS-GEN Issue 5 + A2 Complies

UL LLC tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise.

This document may not be altered or revised in any way unless done so by UL LLC and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL LLC will constitute fraud and shall nullify the document.

Approved & Released For UL LLC By:

Prepared By:

Michael Antola Staff Engineer

Consumer Technology Division

Michel At

UL LLC

Brian T. Kiewra Project Engineer

Consumer Technology Division

Fil. K

UL LLC

Page 4 of 29

FORM NO: 03-EM-F00858

DATE: 2021-08-19

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10-2013, FCC CFR 47 Part 2, FCC CFR 47 Part 15, RSS-GEN Issue 5+A2, and RSS-210 Issue 10.

3. FACILITIES AND ACCREDITATION

UL LLC is accredited by A2LA, certification # 0751.06, for all testing performed within the scope of this report. Testing was performed at the locations noted below.

| | Address | ISED CABID | ISED Company Number | FCC Registration |
|-------------|--|------------|---------------------|------------------|
| | Building: 12 Laboratory Dr RTP, NC 27709, U.S.A | US0067 | 2180C | 703469 |
| \boxtimes | Building: 2800 Perimeter Park Dr. Suite B Morrisville, NC 27560, U.S.A | 030007 | 27265 | 703409 |

4. DECISION RULES AND MEASUREMENT UNCERTAINTY

4.1. METROLOGICAL TRACEABILITY

All test and measuring equipment utilized to perform the tests documented in this report are calibrated on a regular basis, with a maximum time between calibrations of one year or the manufacturers' recommendation, whichever is less, and where applicable is traceable to recognized national standards.

4.2. DECISION RULES

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4:2012 Clause 8.2. (Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

FORM NO: 03-EM-F00858

DATE: 2021-08-19 IC: 573F-5800CMBOVC

4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

| PARAMETER | U_Lab |
|--|---------|
| Worst Case Radiated Disturbance, 9 kHz to 30 MHz | 2.84 dB |
| Worst Case Radiated Disturbance, 30 to 1000 MHz | 6.01 dB |
| Worst Case Radiated Disturbance, 1000 to 18000 MHz | 4.73 dB |
| Worst Case Occupied Bandwidth | 2.75% |

Uncertainty figures are valid to a confidence level of 95%.

4.4. SAMPLE CALCULATION

RADIATED EMISSIONS

Where relevant, the following sample calculation is provided:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)

36.5 dBuV + 18.7 dB/m + 0.6 dB - 26.9 dB = 28.9 dBuV/m

MAINS CONDUCTED EMISSIONS

Where relevant, the following sample calculation is provided:

Final Voltage (dBuV) = Measured Voltage (dBuV) + Cable Loss (dB) + Limiter Factor (dB) + LISN Insertion Loss.

 $36.5 \, dBuV + 0 \, dB + 10.1 \, dB + 0 \, dB = 46.6 \, dBuV$

DATE: 2021-08-19

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a 344.94MHz periodic operated transmitter intended for operation in a wireless smoke detector unit. The device is powered from four (4) CR123A-type batteries.

Models 5800CMBOV and 5800CMBOVC are exactly the same. The 5800CMBOV is for sale in the US and the 5800CMBOVC is for sale in Canada.

5.2. DESCRIPTION OF AVAILABLE ANTENNAS

The antenna(s) gain and type, as provided by the manufacturer' are as follows:

The radio utilizes an PCB trace antenna, with a maximum gain of -7 dBi.

5.3. SOFTWARE AND FIRMWARE

The firmware installed in the EUT during testing was v1.1.8.

5.4. WORST-CASE CONFIGURATION AND MODE

The EUT operates only at a single channel. As such, all testing performed at this channel while operating at its highest intended power setting.

The fundamental of the EUT was investigated in three orthogonal orientations X,Y,Z, it was determined that X orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in X orientation.

5.5. MODIFICATIONS

No modifications were made during testing.

UL LLC

TEL: (919) 549-1400

FORM NO: 03-EM-F00858

DATE: 2021-08-19 IC: 573F-5800CMBOVC

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

| Support Equipment List | | | | | | |
|------------------------|---|--|--|--|--|--|
| Description | Description Manufacturer Model Serial Number FCC ID | | | | | |
| None | | | | | | |

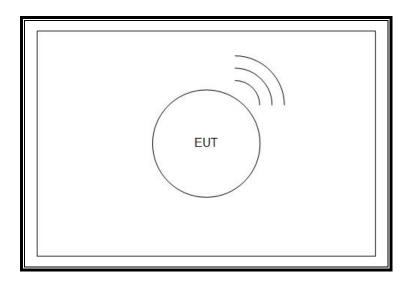
I/O CABLES

| | I/O Cable List | | | | | |
|--------------|----------------|----------------------------|-------------------|------------|------------------------|---------|
| Cable No. | Port | # of Identical Ports | Connector Type | Cable Type | Cable Length (m) | Remarks |
| None | | | | | | |

TEST SETUP

The EUT is configured and tested as a standalone device.

SETUP DIAGRAM FOR TESTS



FORM NO: 03-EM-F00858

DATE: 2021-08-19

6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

Test Equipment Used - Radiated Disturbance Emissions Test Equipment (Morrisville - Chamber 4)

| Equipment ID | Description | Manufacturer/Brand | Model Number | Last Cal. | Next Cal. | |
|-------------------|--|--------------------|--------------|----------------|------------|--|
| 0.009-30MHz | 0.009-30MHz | | | | | |
| AT0059 | Active Loop Antenna | EMCO | 6502 | 2020-08-06 | 2021-08-06 | |
| 1-18 GHz | | | | | | |
| 206211 | Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz | ETS Lindgren | 3117 | 2021-03-11 | 2022-03-11 | |
| Gain-Loss Chains | 3 | | | | | |
| C4-SAC01 | Gain-loss string: 0.009-30MHz | Various | Various | 2021-05-07 | 2022-05-07 | |
| C4-SAC03 | Gain-loss string: 1- 18GHz | Various | Various | 2021-05-07 | 2022-05-07 | |
| Receiver & Softwa | are | | | | | |
| 206496 | Spectrum Analyzer | Rohde & Schwarz | ESW44 | 2021-03-09 | 2022-03-09 | |
| SOFTEMI | EMI Software | UL | Version | 9.5 (28 Jun 20 | 21) | |
| Additional Equipr | ment used | | | | | |
| s/n 200037635 | Environmental Meter | Fisher Scientific | 06-662-4 | 2020-01-21 | 2022-01-21 | |
| 207639 | 10dB, DC-18GHz, 5W | Mini-Circuits | BW-N10W5 | 2021-05-06 | 2022-05-06 | |
| HPF012 | 1GHz high-pass filter, 2W, F _{high} =18GHz | Micro-Tronics | HPM18129 | 2021-02-15 | 2022-02-15 | |

DATE: 2021-08-19

| Equipment ID | Description | Manufacturer/Brand | Model Number | Last Cal. | Next Cal. | |
|---------------------------|---------------------------------|----------------------|--------------|-----------------|------------|--|
| 30-1000 MHz | 30-1000 MHz | | | | | |
| AT0075 | Hybrid Broadband Antenna | Sunol Sciences Corp. | JB3 | 2020-10-27 | 2021-10-27 | |
| Gain-Loss Chains | 5 | | | | | |
| S-SAC02 | Gain-loss string: 25-1000MHz | Various | Various | 2021-07-09 | 2022-07-31 | |
| Receiver & Softwa | Receiver & Software | | | | | |
| 197955 | Spectrum Analyzer | Rohde & Schwarz | ESW44 | 2021-03-10 | 2022-03-10 | |
| SOFTEMI | EMI Software | UL | Version 9 | 9.5 (24 Jun 202 | 21) | |
| Additional Equipment used | | | | | | |
| s/n 200037635 | Environmental Meter | Fisher Scientific | 06-662-4 | 2020-01-22 | 2022-01-22 | |
| ATA176 | 10dB, DC-18GHz, 5W | Mini-Circuits | BW-N10W5 | 2020-08-29 | 2021-08-29 | |

DATE: 2021-08-19

7. ANTENNA PORT TEST RESULTS

7.1. 20 dB AND 99% BW

LIMITS

FCC §15.231 (c)

The bandwidth of the emission shall be no wider than 0.25% of the center frequency for devices operating above 70 MHz and below 900 MHz. For devices operating above 900 MHz, the emission shall be no wider than 0.5% of the center frequency. Bandwidth is determined at the points 20 dB down from the modulated carrier.

RSS-210 A1.3

For the purpose of Section A1.1, the 99% Bandwidth shall be no wider than 0.25% of the center frequency for devices operating between 70-900 MHz. For devices operating above 900 MHz, the emission shall be no wider than 0.5% of the center frequency.

TEST PROCEDURE

ANSI C63.10

The transmitter output is connected to the spectrum analyzer.

20dB Bandwidth: The RBW is set to 100 KHz. The VBW is set to 300 KHz. The sweep time is coupled. Bandwidth is determined at the points 20 dB down from the modulated carrier.

99% Bandwidth: The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

Note: Because the measured signal is CW or CW-like adjusting the RBW per C63.10 would not be practical since the measured bandwidth will always follow the RBW and the result will be approximately twice the RBW.

RESULTS

No non-compliance noted:

20dB Bandwidth

| Frequency | 20dB Bandwidth | Limit | Margin |
|-----------|----------------|--------|---------|
| (MHz) | (kHz) | (kHz) | (kHz) |
| 344.94 | 261.00 | 862.35 | -601.35 |

99% Bandwidth

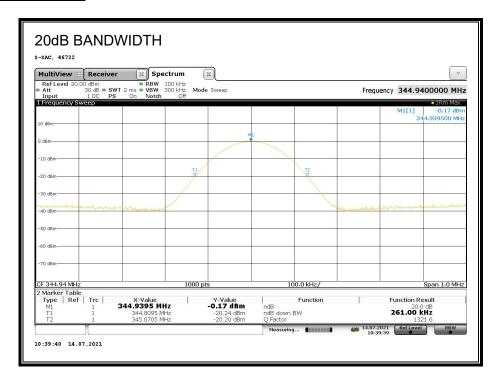
| Frequency | 99% Bandwidth | Limit | Margin |
|-----------|---------------|--------|---------|
| (MHz) | (kHz) | (kHz) | (kHz) |
| 344.94 | 218.49 | 862.35 | -643.86 |

Page 11 of 29

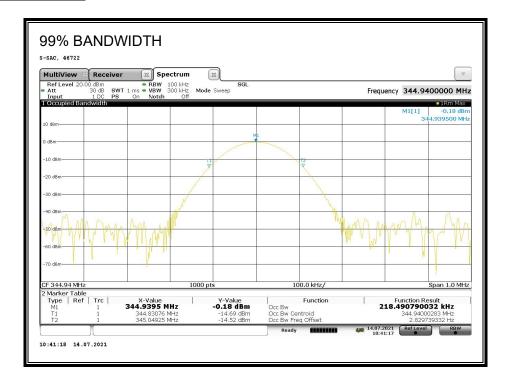
FORM NO: 03-EM-F00858

DATE: 2021-08-19

20dB BANDWIDTH



99% BANDWIDTH



7.2. DUTY CYCLE

LIMITS

FCC §15.35 (c)

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 value. The exact method of calculating the average field strength shall be submitted with any application for certification or shall be retained in the measurement data file for equipment subject to notification or verification.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer or radiated field strength. The RBW is set to 100 kHz and the VBW is set to 100 kHz. The sweep time is coupled and the span is set to 0 Hz. The number of pulses is measured and calculated in a 110ms scan.

CALCULATION

Average Reading = Peak Reading (dBuV/m) + 20log (Duty Cycle), Where Duty Cycle is (# of long pulses * long pulse width) + (# of short pulses * short pulse width) / 100 or T

RESULTS

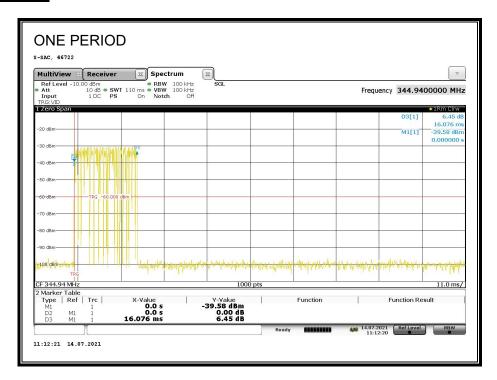
No non-compliance noted:

| One | Long Pulse | # of | Short | # of | Duty | 20*Log |
|--------|------------|--------|-------|--------|-------|------------|
| Period | Width | Long | Width | Short | Cycle | Duty Cycle |
| | | | | | | |
| (ms) | (ms) | Pulses | (ms) | Pulses | | (dB) |

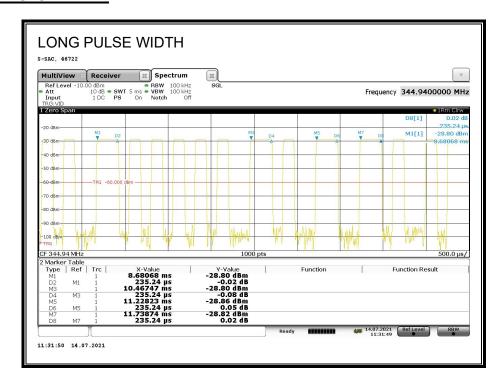
FORM NO: 03-EM-F00858

DATE: 2021-08-19

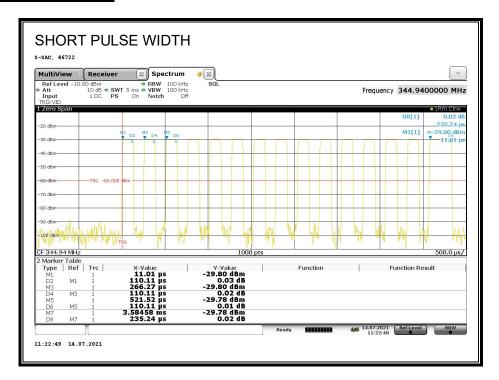
ONE PERIOD



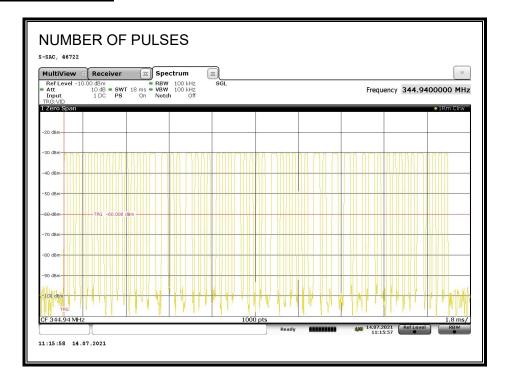
LONG PULSE WIDTH



SHORT PULSE WIDTH



NUMBER OF PULSES



Page 15 of 29

7.3. TRANSMISSION TIME

LIMITS

FCC §15.231 (a) (2)

RSS-210 A1.1 (b)

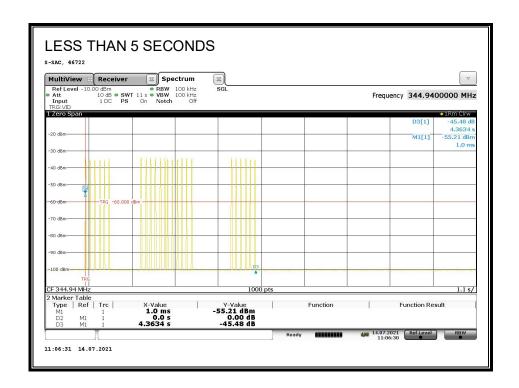
A transmitter activated automatically shall cease transmission within 5 seconds after activation.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer or radiated field strength. The RBW is set to 100 kHz and the VBW is set to 100 kHz. The sweep time is set to 11 seconds and the span is set to 0 Hz.

RESULTS

No non-compliance noted:



FORM NO: 03-EM-F00858

DATE: 2021-08-19

7.4. SUPERVISION TRANSMISSIONS

LIMITS

FCC §15.231 (a) (3)

Periodic transmissions at regular predetermined intervals are not permitted. However, polling or supervision transmissions, including data, to determine system integrity of transmitters used in security or safety applications are allowed if the total duration of transmissions does not exceed more than two seconds per hour for each transmitter. There is no limit on the number of individual transmissions, provided the total transmission time does not exceed two seconds per hour

RESULTS

| Tester: | 37903 |
|---------|------------|
| Date: | 2021-07-29 |

1. According to manufacturer manual, the interval of supervisory signal transmission is once every 60-70 minutes.

2. Total transmission time:

| Short Pulse Width (ms) | Number of Short Pulse | Long Pulse Width (ms) | Number of Long Pulse | One Pulse Stream (ms) | Total Pulse Streams per hour | Total Transmission Time per hour (ms) |
|---------------------------------|-----------------------------|--------------------------------|----------------------------|--------------------------------|------------------------------------|--|
| 0.11 | 44 | 0.24 | 10 | 7.240 | 1.00 | 7.24 |

DATE: 2021-08-19

8. RADIATED EMISSION TEST RESULTS

8.1. TX RADIATED SPURIOUS EMISSION

LIMITS

FCC §15.231 (b) RSS-210 A 1.2

In addition to the provisions of § 15.205, the field strength of emissions from Intentional radiators operated under this section shall not exceed the following:

| Fundamental | Field Strength of | Field Strength of |
|---------------|------------------------------|---------------------------|
| Frequency | Fundamental Frequency | Spurious Emissions |
| (MHz) | (microvolts/meter) | (microvolts/meter) |
| 40.66 - 40.70 | 2,250 | 225 |
| 70 - 130 | 1,250 | 125 |
| 130 - 174 | 1,250 to 3,750 ¹ | 125 to 375 ¹ |
| 174 - 260 | 3,750 | 375 |
| 260 - 470 | 3,750 to 12,500 ¹ | 375 to 1,250 ¹ |
| Above 470 | 12,500 | 1,250 |

¹ Linear interpolation

§15.205 (a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

| MHz | MHz | MHz | GHz |
|----------------------------|---------------------|-----------------|---------------|
| 0.090 - 0.110 | 16.42 - 16.423 | 399.9 - 410 | 4.5 - 5.15 |
| ¹ 0.495 - 0.505 | 16.69475 - 16.69525 | 608 - 614 | 5.35 - 5.46 |
| 2.1735 - 2.1905 | 16.80425 - 16.80475 | 960 - 1240 | 7.25 - 7.75 |
| 4.125 - 4.128 | 25.5 - 25.67 | 1300 - 1427 | 8.025 - 8.5 |
| 4.17725 - 4.17775 | 37.5 - 38.25 | 1435 - 1626.5 | 9.0 - 9.2 |
| 4.20725 - 4.20775 | 73 - 74.6 | 1645.5 - 1646.5 | 9.3 - 9.5 |
| 6.215 - 6.218 | 74.8 - 75.2 | 1660 - 1710 | 10.6 - 12.7 |
| 6.26775 - 6.26825 | 108 - 121.94 | 1718.8 - 1722.2 | 13.25 - 13.4 |
| 6.31175 - 6.31225 | 123 - 138 | 2200 - 2300 | 14.47 - 14.5 |
| 8.291 - 8.294 | 149.9 - 150.05 | 2310 - 2390 | 15.35 - 16.2 |
| 8.362 - 8.366 | 156.52475 - | 2483.5 - 2500 | 17.7 - 21.4 |
| 8.37625 - 8.38675 | 156.52525 | 2655 - 2900 | 22.01 - 23.12 |
| 8.41425 - 8.41475 | 156.7 - 156.9 | 3260 - 3267 | 23.6 - 24.0 |
| 12.29 - 12.293 | 162.0125 - 167.17 | 3332 - 3339 | 31.2 - 31.8 |
| 12.51975 - 12.52025 | 167.72 - 173.2 | 3345.8 - 3358 | 36.43 - 36.5 |
| 12.57675 - 12.57725 | 240 - 285 | 3600 - 4400 | (2) |
| 13.36 – 13.41 | 322 - 335.4 | | . , |

Page 18 of 29

DATE: 2021-08-19

1 Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz. 2 Above 38.6

§15.205 (b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

§15.209 (a) Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

| Frequency (MHz) | Field Strength (microvolts/meter) | Measurement Distance (meters) |
|--------------------|-----------------------------------|-------------------------------|
| 30 88 | 100 ** | 3 |
| 88 216 | 150 ** | 3 |
| 216 960 | 200 ** | 3 |
| Above 960 | 500 | 3 |

^{**} Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54 72 MHz, 76 88 MHz, 174 216 MHz or 470 806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

§15.209 (b) In the emission table above, the tighter limit applies at the band edges.

Note: The limits in CFR 47, Part 15, Subpart C, paragraph 15.209(a), are identical to those in RSS-Gen section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as report in the table) using free space impedance of 377 Ohms. For example, the measurement at frequency 107.76 kHz resulted in a level of 26.96 dBuV/m, which is equivalent to -32.25 - 51.5 = -83.75 dBuA/m, which has the same margin, -59.21 dB to the corresponding RSS-Gen Table 6 limit as it has to 15.209(a) limit.

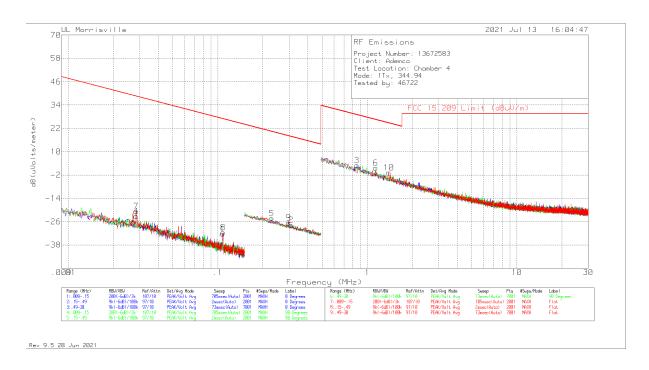
FORM NO: 03-EM-F00858

DATE: 2021-08-19

DATE: 2021-08-19 IC: 573F-5800CMBOVC

RESULTS

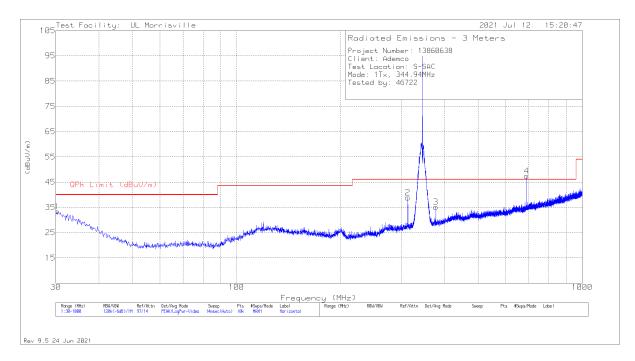
HARMONICS AND TX SPURIOUS EMISSION (0.009 - 30 MHz)

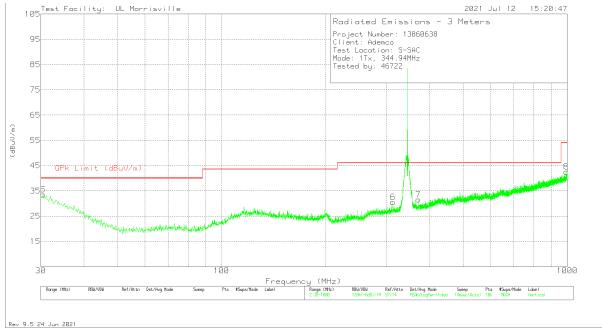


| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | AT0059 (dB/m) | Cbl (dB) | Dist. Corr. Factor (dB) | Corrected Reading dB(uVolts/meter) | FCC 15.209 QP/AV Limit (dBuV/m) | FCC 15.209 PK Limit (dBuV/m) | Worst- Case Margin (dB) | Azimuth (Degs) | Loop Angle |
|--------|--------------------|----------------------------|-----|------------------|-------------|----------------------------|--|---------------------------------------|------------------------------------|----------------------------------|-------------------|---------------|
| 1 | .10776 | 37.15 | Pk | 10.5 | .1 | -80 | -32.25 | 26.96 | - | -59.21 | 0-360 | 0 degs |
| 2 | .30861 | 41.99 | Pk | 10.2 | .1 | -80 | -27.71 | 17.82 | 17.82 | -45.53 | 0-360 | 0 degs |
| 3 | .85258 | 32.3 | Pk | 10.4 | .2 | -40 | 2.9 | 28.99 | - | -26.09 | 0-360 | 0 degs |
| 4 | .02845 | 43.18 | Pk | 13.5 | .1 | -80 | -23.22 | 38.52 | 38.52 | -61.74 | 0-360 | 90 degs |
| 5 | .22973 | 45.22 | Pk | 10.3 | .1 | -80 | -24.38 | 20.38 | 20.38 | -44.76 | 0-360 | 90 degs |
| 6 | 1.13926 | 30.82 | Pk | 10.6 | .2 | -40 | 1.62 | 26.47 | - | -24.85 | 0-360 | 90 degs |
| 7 | .02845 | 45.78 | Pk | 13.5 | .1 | -80 | -20.62 | 38.52 | 38.52 | -59.14 | 0-360 | Flat |
| 8 | .10854 | 37.77 | Pk | 10.5 | .1 | -80 | -31.63 | 26.89 | - | -58.52 | 0-360 | Flat |
| 9 | .29833 | 43.02 | Pk | 10.2 | .1 | -80 | -26.68 | 18.11 | 18.11 | -44.79 | 0-360 | Flat |
| 10 | 1.39222 | 28.28 | Pk | 10.6 | .3 | -40 | 82 | 24.73 | - | -25.55 | 0-360 | Flat |

Pk - Peak detector

FUNDAMENTAL, HARMONICS AND TX SPURIOUS EMISSION (30 - 1000 MHz)





Project Number: 13672583

Client: Ademco Test Location: S-SAC Mode: Fundamental Tested by: 46722

Date Tested: 2021-07-08

| | Frequency (MHz) | Meter Reading (dBuV) | Det | AT0075 AF (dB/m) | Amp/Cbl (dB) | Corrected Reading (dBuV/m) | FCC 15.231 Peak Limit [dBuV/m] | Peak Margin [dB] | DCCF (dB) | Average Field Strength [dBuV/m] | FCC 15.231 Average Limit [dBuV/m] | Average Margin [dB] | Azimuth (Degs) | Height (cm) | Polarity |
|---|--------------------|----------------------------|-----|------------------------|-----------------|----------------------------------|--|------------------------|--------------|--|---|---------------------------|-------------------|----------------|----------|
| | 344.94 | 70.48 | Pk | 20.3 | 3.8 | 94.58 | 97.25 | -2.67 | -22.85 | 71.73 | 77.25 | -5.52 | 195 | 101 | Н |
| ſ | 344.94 | 59.24 | Pk | 20.3 | 3.8 | 83.34 | 97.25 | -13.91 | -22.85 | 60.49 | 77.25 | -16.76 | 293 | 304 | V |

Pk - Peak detector

| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | AT0075 AF (dB/m) | Amp/Cbl (dB) | Pad (dB) | Corrected Reading (dBuV/m) | QP Limit (dBuV/m) | QP Margin (dB) | FCC 15.231 Peak Limit [dBuV/m] | FCC 15.231 Peak Margin [dB] | DCCF (dB) | Average Field Strength [dBuV/m] | FCC 15.231 Average Limit [dBuV/m] | FCC 15.231 Average Margin [dB] | Azimuth (Degs) | Height (cm) | Polarity |
|--------|--------------------|----------------------------|-----|------------------------|-----------------|-------------|----------------------------------|----------------------|----------------------|--|---|--------------|--|---|--|-------------------|----------------|----------|
| 1 | 30.194 | 28.22 | Pk | 26.8 | -31.5 | 9.9 | 33.42 | 40 | -6.58 | - | - | - | - | - | - | 0-360 | 299 | Н |
| 2 | 312.949 | 37.18 | Pk | 20 | -28.4 | 10.1 | 38.88 | 46.02 | -7.14 | - | - | , | - | , | - | 0-360 | 101 | Н |
| 3 | 376.969 | 32.05 | Pk | 21.1 | -28.1 | 10.1 | 35.15 | 46.02 | -10.87 | - | - | - | - | - | - | 0-360 | 101 | Н |
| 4 | 689.8886 | 38.61 | Pk | 26.1 | -26.8 | 10.2 | 48.11 | - | 1 | 77.25 | -29.14 | -22.85 | 25.26 | 57.25 | -31.99 | 11 | 102 | Н |
| 5 | 30.485 | 28.29 | Pk | 26.7 | -31.4 | 9.9 | 33.49 | 40 | -6.51 | - | - | - | - | - | - | 0-360 | 299 | V |
| 6 | 312.949 | 28.84 | Pk | 20 | -28.4 | 10.1 | 30.54 | 46.02 | -15.48 | - | - | - | - | - | - | 0-360 | 299 | V |
| 7 | 370.955 | 28.41 | Pk | 21 | -28 | 10.1 | 31.51 | 46.02 | -14.51 | - | - | - | - | - | - | 0-360 | 199 | V |
| 8 | * 992.919 | 26.25 | Pk | 29.4 | -23.4 | 10.3 | 42.55 | 53.97 | -11.42 | - | - | - | - | - | - | 0-360 | 299 | V |

^{* -} indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

Qp - Quasi-Peak detector

NOTE: Av = Pk + DC Corr (Duty Cycle Correction Factor)

HARMONICS AND TX SPURIOUS EMISSIONS ABOVE 1GHz





| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 206211 (dB/m) | Amp/Cbl/Fltr/Pad (dB) | | Corrected Reading (dBuV/m) | 1:: | Manain | DCCF (dB) | Average Field Strength [dBuV/m] | FCC Average Limit [dBuV/m] | [dB] | Azimuth (Degs) | Height (cm) | Polarity |
|--------|--------------------|----------------------------|-----|------------------|--------------------------|-----|----------------------------------|------|--------|--------------|--|-------------------------------------|--------|-------------------|----------------|----------|
| 1 | * 1.0345 | 47.59 | Pk | 26.8 | -35.9 | 1.4 | 39.89 | 74.0 | -34.11 | -22.85 | 17.04 | 54.0 | -36.96 | 0-360 | 100 | Н |
| 2 | * 1.38 | 46.63 | Pk | 28.9 | -36.5 | 1.1 | 40.13 | 74.0 | -33.87 | -22.85 | 17.28 | 54.0 | -36.72 | 0-360 | 100 | Н |
| 6 | * 2.7595 | 47.64 | Pk | 32.0 | -36.5 | 0.5 | 43.64 | 74.0 | -30.36 | -22.85 | 20.79 | 54.0 | -33.21 | 0-360 | 300 | Н |
| 8 | * 1.0345 | 45.96 | Pk | 26.8 | -35.9 | 1.4 | 38.26 | 74.0 | -35.74 | -22.85 | 15.41 | 54.0 | -38.59 | 0-360 | 300 | V |
| 9 | * 1.3795 | 45.02 | Pk | 28.9 | -36.5 | 1.1 | 38.52 | 74.0 | -35.48 | -22.85 | 15.67 | 54.0 | -38.33 | 0-360 | 400 | V |
| 13 | * 2.7595 | 46.29 | Pk | 32.0 | -36.5 | 0.5 | 42.29 | 74.0 | -31.71 | -22.85 | 19.44 | 54.0 | -34.56 | 0-360 | 400 | V |
| 3 | 1.725 | 50.06 | Pk | 28.9 | -36.6 | 0.5 | 42.86 | 77.3 | -34.39 | -22.85 | 20.01 | 57.3 | -37.24 | 0-360 | 100 | Н |
| 10 | 1.725 | 50.86 | Pk | 28.9 | -36.6 | 0.5 | 43.66 | 77.3 | -33.59 | -22.85 | 20.81 | 57.3 | -36.44 | 0-360 | 400 | V |
| 4 | 2.069 | 45.82 | Pk | 31.7 | -36.7 | 0.4 | 41.22 | 77.3 | -36.03 | -22.85 | 18.37 | 57.3 | -38.88 | 0-360 | 200 | Н |
| 11 | 2.070 | 48.16 | Pk | 31.7 | -36.7 | 0.4 | 43.56 | 77.3 | -33.69 | -22.85 | 20.71 | 57.3 | -36.54 | 0-360 | 400 | V |
| 5 | 2.415 | 53.52 | Pk | 32.2 | -36.6 | 0.5 | 49.62 | 77.3 | -27.63 | -22.85 | 26.77 | 57.3 | -30.48 | 0-360 | 100 | Н |
| 12 | 2.415 | 55.83 | Pk | 32.2 | -36.6 | 0.5 | 51.93 | 77.3 | -25.32 | -22.85 | 29.08 | 57.3 | -28.17 | 85 | 328 | V |
| 14 | 3.105 | 45.49 | Pk | 32.9 | -36.0 | 0.6 | 42.99 | 77.3 | -34.26 | -22.85 | 20.14 | 57.3 | -37.11 | 0-360 | 400 | V |
| 7 | 3.156 | 44.95 | Pk | 32.8 | -35.9 | 0.5 | 42.35 | 77.3 | -34.90 | -22.85 | 19.50 | 57.3 | -37.75 | 0-360 | 100 | Н |

^{* -} indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band Pk - Peak detector

NOTE: Av = Pk + DC Corr (Duty Cycle Correction Factor)