



CINCH Systems

Wireless CO detector QS5230-840

FCC 15.231

RSS-210 Issue 11:2024

RSS-Gen Issue 5:2018+A1:2019+A2:2021

Low Power Radio

Report: CINC0073.0 Rev. 0, Issue Date: August 14, 2026



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CERTIFICATE OF TEST



Last Date of Test: July 22, 2026
CINCH Systems
EUT: Wireless CO detector QS5230-840

Radio Equipment Testing

Standards

Specification	Method
FCC 15.231	ANSI C63.10:2020 Cor. 1:2023 +C63.10a:2024 +Errata to C63.10a:2024
RSS-210 Issue 11:2024	
RSS-Gen Issue 5:2018+A1:2019+A2:2021	

Results

Test Description	Result	FCC Section(s)	RSS Section(s)	ANSI C63.10 Section(s)	Comments
Powerline Conducted Emissions (Transmitter)	N/A	15.207	RSS-Gen 8.8	6.2	Not required for a battery powered EUT.
Field Strength of Fundamental	Pass	15.231(b)	RSS-210 A1.3	6.5, 6.6	
Spurious Radiated Emissions	Pass	15.231(b)	RSS-210 A1.3	6.4, 6.5, 6.6	
Emissions Bandwidth	N/A	15.231(c)	N/A	6.9.2	Not included for a C2PC based on a reduction in output power
Periodic Technical Requirements	N/A	15.231(a)	RSS-210 A1.2	7.4e	Not required to test. If applicable, this is addressed by an attestation in the equipment theory of operation.
Duty Cycle	Pass	15.231	RSS-210 A1.2	7.5	Not included for a C2PC based on a reduction in output power
Powerline Conducted Emissions (Receiver)	N/A	15.101, 15.107	RSS-Gen 7.2	ANSI C63.4 - 12.2.4	Not included per FCC 15.101 as this will be covered under SDoC rules for the FCC. RSS-Gen section 7 stated receiver requirements only apply to standalone receivers operating in the 30-960 MHz band and this is not a standalone receiver.
Radiated Emissions for Receiver	N/A	15.101, 15.109	RSS-Gen 7.3	ANSI C63.4 - 12.2.5	Not included per FCC 15.101 as this will be covered under SDoC rules for the FCC. RSS-Gen section 7 stated receiver requirements only apply to standalone receivers operating in the 30-960 MHz band and this is not a standalone receiver.
Occupied Bandwidth	N/A	N/A	RSS-210 A1.4	6.9.3	Not included for a C2PC based on a reduction in output power

Product compliance is the responsibility of the client; therefore, the tests and equipment modes of operation represented in this report were agreed upon by the client, prior to testing. The results of this test pertain only to the sample(s) tested. The specific description is noted in each of the individual sections of the test report supporting this certificate of test. This report reflects only those tests from the referenced standards shown in the certificate of test. It does not include inspection or verification of labels, identification, marking or user information. As indicated in the Statement of Work sent with the quotation, Element's standard process is to always use the latest published version of the test methods even when earlier versions are cited in the test specification. Issuance of a purchase order was de facto acceptance of this approach. Otherwise, the client would have advised Element in writing of the specific version of the test methods they wanted applied to the subject testing.

CERTIFICATE OF TEST

Deviations From Test Standards

None

Approved By:



Jeff Alcock, Senior EMC Test Engineer
Signed for and on behalf of Element

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REVISION HISTORY



Revision Number		Description	Date (yyyy-mm-dd)	Page Number
00	None			

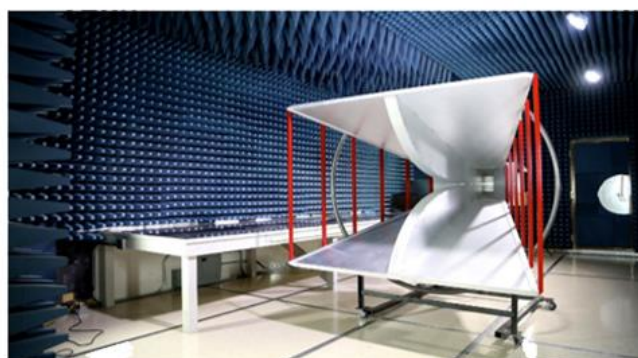
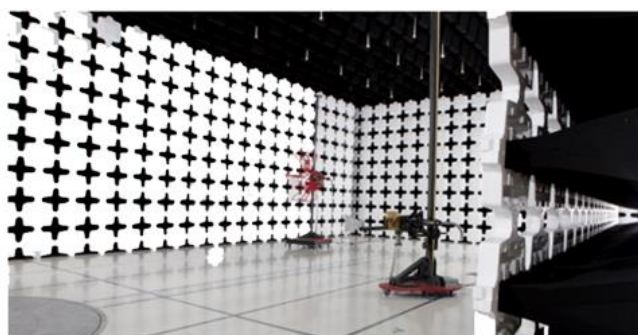
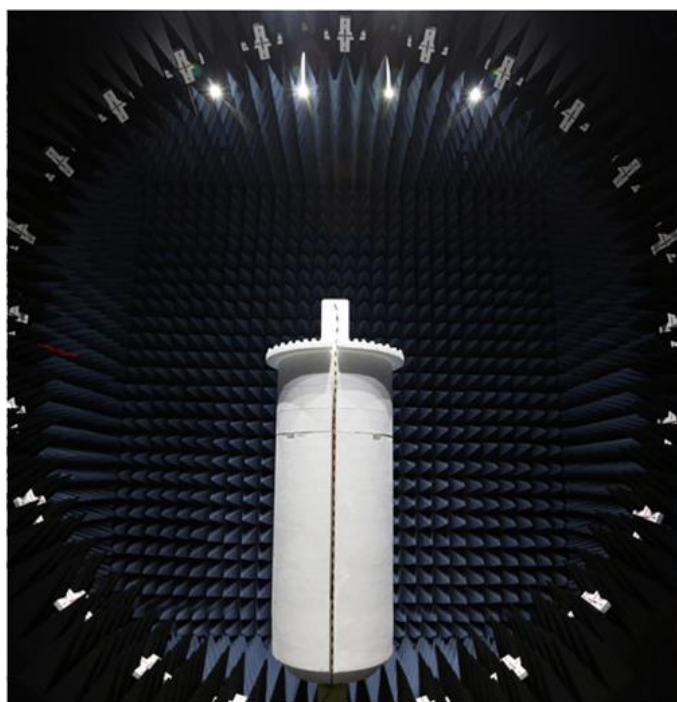
FACILITIES

Testing was performed at the following location(s)

	Location	Labs ⁽¹⁾	Address	A2LA ⁽²⁾	ISED ⁽³⁾	BSMI ⁽⁴⁾	VCCI ⁽⁵⁾	CAB	FDA ⁽⁶⁾
☐	California	OC01-17	41 Tesla Irvine, CA 92618 (949) 861-8918	3310.04	2834B	SL2-IN-E-1154R	A-0029	US0158	TL-55
☒	Minnesota	MN01-11	9349 W Broadway Ave. Brooklyn Park, MN 55445 (612) 638-5136	3310.05	2834E	SL2-IN-E-1152R	A-0109	US0175	TL-57
☐	Oregon	EV01-12	6775 NE Evergreen Pkwy #400 Hillsboro, OR 97124 (503) 844-4066	3310.02	2834D	SL2-IN-E-1017	A-0108	US0017	TL-56
☐	Washington	NC01-05	19201 120th Ave NE Bothell, WA 98011 (425) 984-6600	3310.06	2834F	SL2-IN-E-1153R	A-0110	US0157	TL-67
☐	Offsite	N/A	See Product Description	N/A	N/A	N/A	N/A	N/A	N/A

See data sheets for specific labs

- (1) The lab designations denote individual rooms within each location. (OC01, OC02, OC03, etc.)
- (2) A2LA Certificate No.
- (3) ISED Company No.
- (4) BSMI No.
- (5) VCCI Site Filing No.
- (6) FDA ASCA No.



MEASUREMENT UNCERTAINTY

Measurement Uncertainty

When a measurement is made, the result will be different from the true or theoretically correct value. The difference is the result of tolerances in the measurement system that cannot be completely eliminated. To the extent that technology allows us, it has been our aim to minimize this error. Measurement uncertainty is a statistical expression of measurement error qualified by a probability distribution.

A measurement uncertainty estimation reported is based on statistical analysis that was performed by the laboratory. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty ($k=2$) can be found in the table below. A lab specific value may also be found in the applicable test description section. Our measurement data meets or exceeds the measurement uncertainty requirements of the applicable specification; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for estimating measurement uncertainty are based upon ETSI TR 100 028 (or CISPR 16-4-2 as applicable) and are available upon request.

The following table represents the Measurement Uncertainty (MU) budgets for each of the tests that may be contained in this report.

Various Measurements

Test	All Labs (+/-)
Frequency Accuracy (%)	0.0007
Amplitude Accuracy (dB)	1.2
Conducted Power (dB)	1.2
Radiated Power via Substitution (dB)	0.7
Temperature (degrees C)	0.7
Humidity (% RH)	2.5
Voltage (AC) (%)	1
Voltage (DC) (%)	0.7
Near-field Measurement of E-Field (dB)	1.89
Near-field Measurement of H-Field (dB)	2.65

Field Strength Measurements (dB)

Range	MN05 (+/-)
9kHz-30MHz	1.8
30MHz-1GHz 3m	4.6
1GHz-6GHz	5.1
6GHz-40GHz	5.3
40GHz-220GHz	4.9

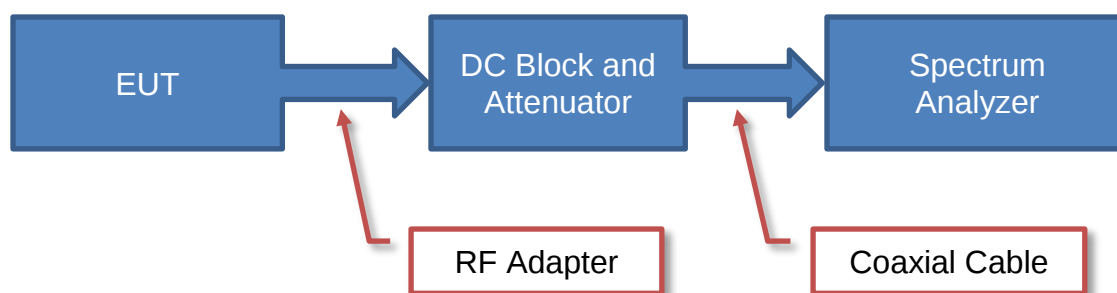
TEST SETUP BLOCK DIAGRAMS

Measurement Bandwidths

Frequency Range (MHz)	Peak Data (kHz)	Quasi-Peak Data (kHz)	Average Data (kHz)
0.009 - 0.15	1.0	0.2	0.2
0.15 - 30.0	10.0	9.0	9.0
30.0 - 1000	100.0	120.0	120.0
Above 1000	1000.0	N/A	1000.0

Unless otherwise stated, measurements were made using the bandwidths and detectors specified. No video filter was used.

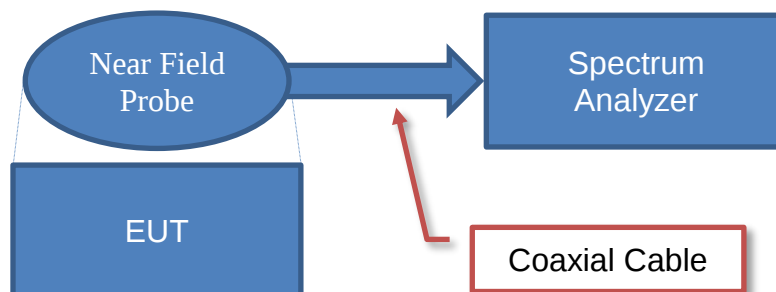
Antenna Port Conducted Measurements



Sample Calculation (logarithmic units)

Measured Value		Measured Level		Reference Level Offset
71.2	=	42.6	+	28.6

Near Field Test Fixture Measurements

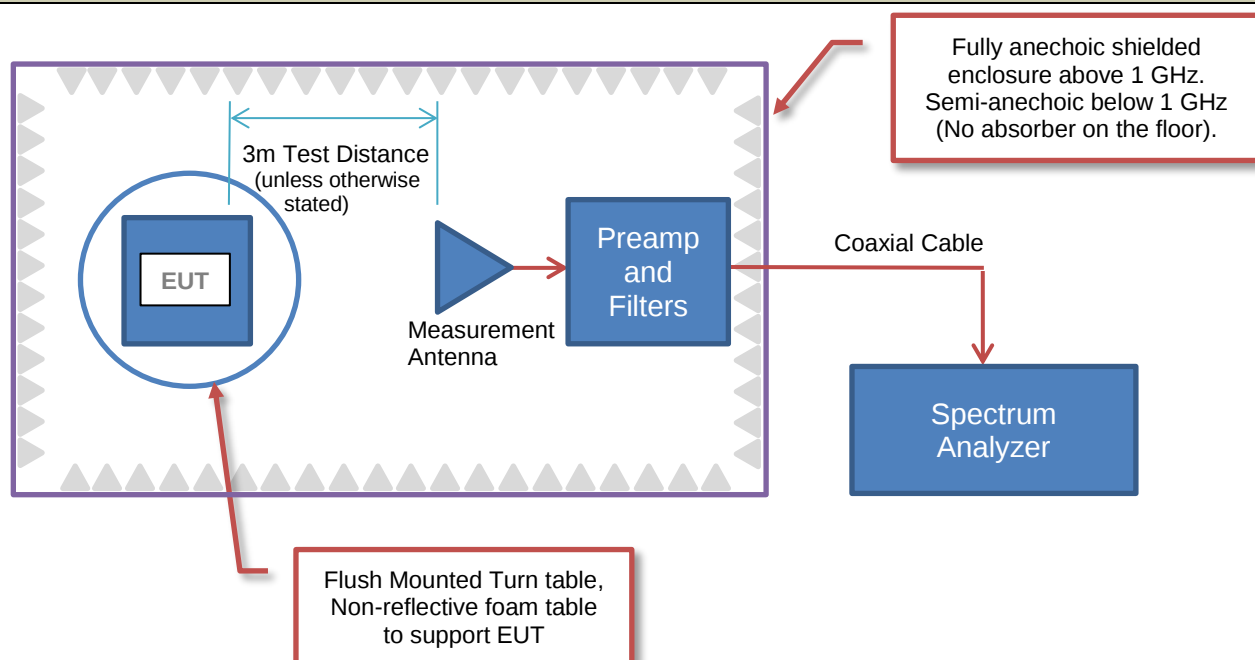


Sample Calculation (logarithmic units)

Measured Value		Measured Level		Reference Level Offset
71.2	=	42.6	+	28.6

TEST SETUP BLOCK DIAGRAMS

Emissions Measurements



Sample Calculation (logarithmic units)

Radiated Emissions:

Measured Level (Amplitude)	Factor			Distance Adjustment Factor	External Attenuation	Field Strength
	Antenna Factor	Cable Factor	Amplifier Gain			
42.6	28.6	3.1	40.8	0.0	0.0	33.5

Conducted Emissions:

Measured Level (Amplitude)	Factor		External Attenuation	Adjusted Level
	Transducer Factor	Cable Factor		
26.7	0.3	0.1	20.0	47.1

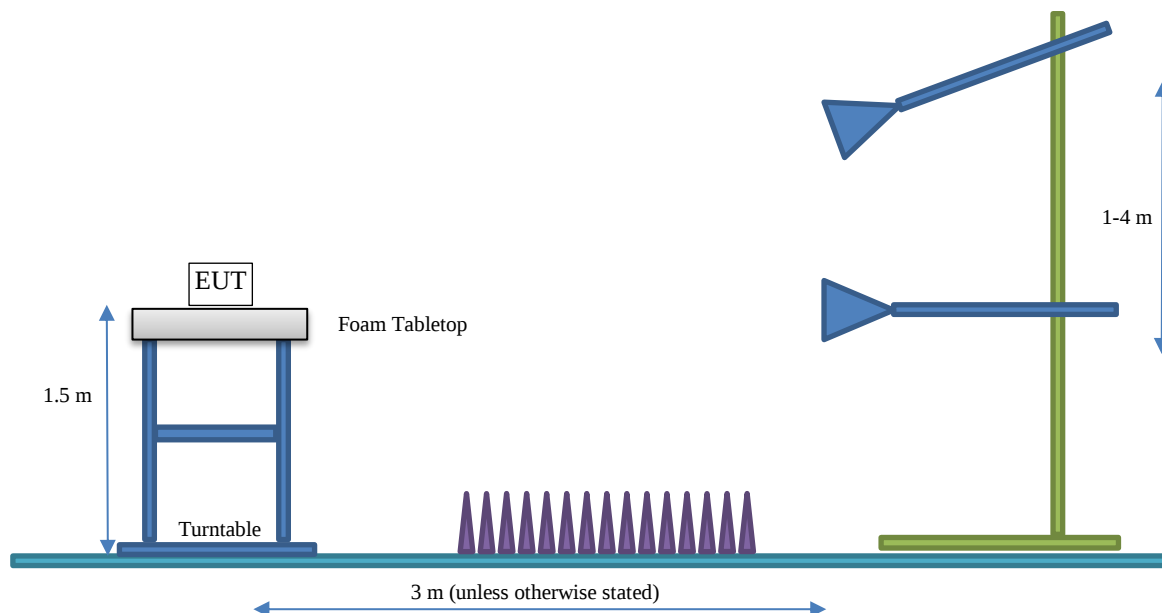
Radiated Power (ERP/EIRP) – Substitution Method:

Measured Level into Substitution Antenna (Amplitude dBm)	Substitution Antenna Factor (dBi)	EIRP to ERP (if applicable)	Measured power (dBm ERP/EIRP)
10.0	6.0	2.15	13.9/16.0

TEST SETUP BLOCK DIAGRAMS

Bore Sighting (>1GHz)

The diameter of the illumination area is the dimension of the line tangent to the EUT formed by 3 dB beamwidth of the measurement antenna at the measurement distance. At a 3 meter test distance, the diameter of the illumination area was 3.8 meters at 1 GHz and greater than 2.1 meters up to 6 GHz. Above 1 GHz, when required by the measurement standard, the antenna is pointed for both azimuth and elevation to maintain the receive antenna within the cone of radiation from the EUT. The specified measurement detectors were used for comparison of the emissions to the peak and average specification limits.



PRODUCT DESCRIPTION



Client and Equipment under Test (EUT) Information

Company Name:	CINCH Systems
Address:	12075 43rd Street NE sTE 300
City, State, Zip:	St. Michael, MN 55376
Test Requested By:	Mark Cawley
EUT:	Wireless CO detector QS5230-840
First Date of Test:	July 22, 2026
Last Date of Test:	July 22, 2026
Receipt Date of Samples:	July 22, 2026
Equipment Design Stage:	Preproduction
Equipment Condition:	No Damage
Purchase Authorization:	Verified

Information Provided by the Party Requesting the Test

Functional Description of the EUT:

Wireless CO detector interfacing wirelessly to a fire alarm security panel to provide property protection. The transmitter operates at a frequency of 319.508 MHz and utilizes AM Modulation (OOK).

Testing Objective:

To demonstrate compliance of the periodic radio to FCC 15.231 requirements and RSS-210 Annex A specifications.

POWER SETTINGS AND ANTENNAS



The power settings, antenna gain value(s) and cable loss (if applicable) used for the testing contained in this report were provided by the customer and will affect the validity of the results. Element assumes no responsibility for the accuracy of this information. The power settings below reflect the maximum power that the EUT is allowed to transmit at during normal operation.

ANTENNA GAIN (dBi)

Type	Manufacturer:	Frequency Range (MHz)	Gain (dBi)
Wire Antenna	CINCH Systems	319.508	-18.51

The EUT was tested using the power settings provided by the manufacturer which were based upon:

- ☐ Test software settings Software / firmware used for testing: _____ V012 M13P13 _____
- ☒ Rated power settings

SETTINGS FOR ALL TESTS IN THIS REPORT

Wireless CO detector QS5230-840	Power Setting
OOK	13 dBm

The client attests that the duty cycle of the test mode used for this testing is 10.67%, as determined by prior testing. This can be used to determine duty cycle correction factor (DCCF) using the formula $DCCF = 10 \cdot \log(1/\text{duty cycle}) = -19.44 \text{ dB}$.

CONFIGURATIONS



Configuration CINC0073-1

Software/Firmware Running During Test	
Description	Version
Firmware	V012 M13P13

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Wireless CO detector QS5230-840	CINCH Systems	QS5230-840	EE14AF

MODIFICATIONS



Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
1	2026-07-22	Field Strength of Fundamental	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
2	2026-07-22	Spurious Radiated Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

FIELD STRENGTH OF THE FUNDAMENTAL

TEST DESCRIPTION

The antennas to be used with the EUT were tested. The EUT was configured for continuous modulated operation at its single transmit frequency. The field strength of the transmit frequency was maximized by rotating the EUT, adjusting the measurement antenna height and polarization, and manipulating the EUT in 3 orthogonal planes (per ANSI C63.10).

Peak measurements were made with a resolution bandwidth of 100 kHz and a video bandwidth of 300 kHz for measurements at or below 1 GHz. A duty cycle correction factor was added to the peak readings to mathematically derive the average levels.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	E4446A	AAQ	2026-04-20	2027-04-20
Antenna - Biconilog	ETS Lindgren	3142D	AXO	2025-09-29	2027-09-29
Cable	ESM Cable Corp.	Bilog Cables	MNH	2025-09-05	2026-09-05
Filter - Low Pass	Micro-Tronics	LPM50004	LFK	2025-09-03	2026-09-03

FREQUENCY RANGE INVESTIGATED

260 MHz TO 470 MHz

POWER INVESTIGATED

Battery

CONFIGURATIONS INVESTIGATED

CINC0073-1

MODES INVESTIGATED

Transmitting 319.508 MHz, Modulation OOK, 13 dBm is the power setting

FIELD STRENGTH OF THE FUNDAMENTAL

EUT:	Wireless CO detector QS5230-840	Work Order:	CINC0073
Serial Number:	EE14AF	Date:	2026-07-22
Customer:	CINCH Systems	Temperature:	23.5°C
Attendees:	Mark	Relative Humidity:	44.3%
Customer Project:	None	Bar. Pressure (PMSL):	1020 mb
Tested By:	Christopher Heintzelman, William Hoffa	Job Site:	MN05
Power:	Battery	Configuration:	CINC0073-1

TEST PARAMETERS

Run #:	3	Test Distance (m):	3	Ant. Height(s) (m):	1 to 4(m)
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COMMENTS

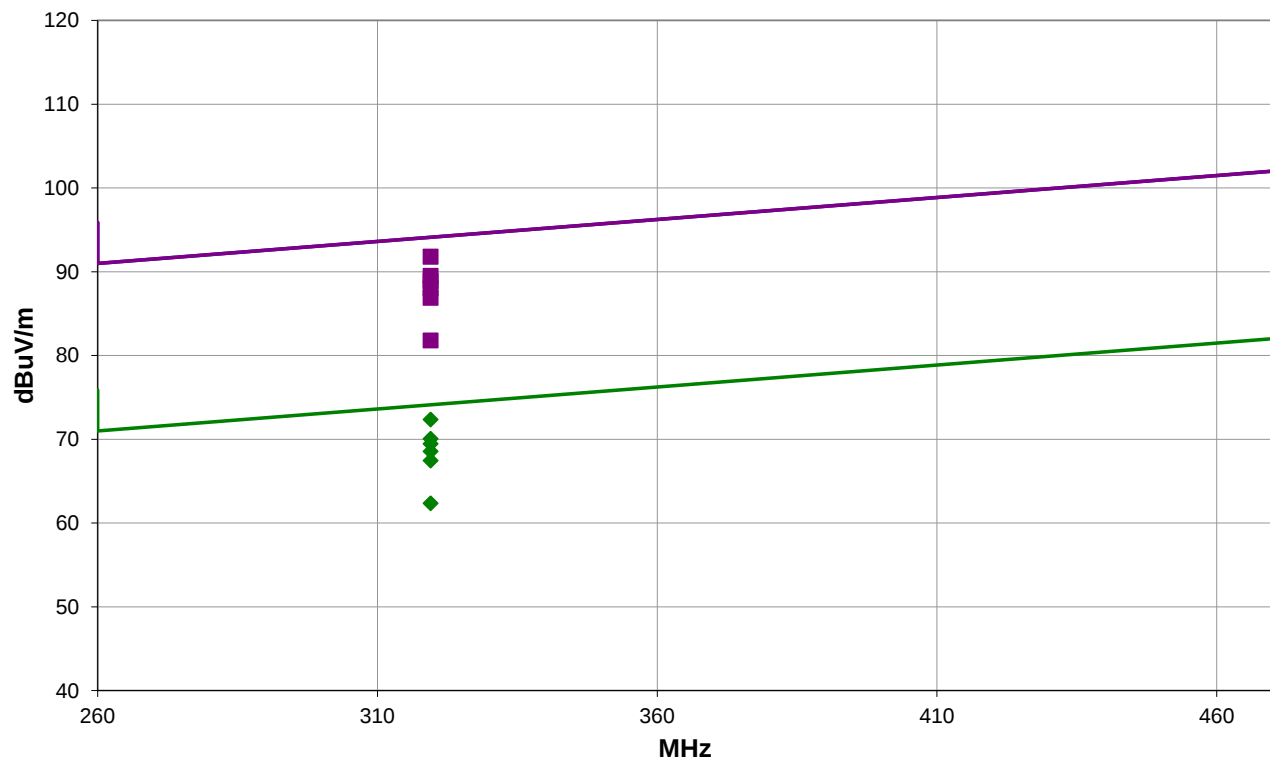
Duty cycle correction factor is referenced from test report NC721003871.7 Issue 2. The client attests the duty cycle of the test mode has not changed since it was measured in the referenced report.

EUT OPERATING MODES

Transmitting 319.508 MHz, Modulation OOK, 13 dBm is the power setting

DEVIATIONS FROM TEST STANDARD

None



Run #: 3

PK AV QP

FIELD STRENGTH OF THE FUNDAMENTAL

RESULTS - Run #3

Freq (MHz)	Amplitude (dBuV)	Factor (dB/m)	Antenna Height (meters)	Azimuth (degrees)	Duty Cycle Correction Factor (dB)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
319.508	68.8	23.0	1.0	199.0	-19.4	0.0	Horz	AV	0.0	72.4	75.9	-3.5	EUT Horizontal
319.508	68.8	23.0	1.0	199.0	0.0	0.0	Horz	PK	0.0	91.8	95.9	-4.1	EUT Horizontal
319.508	66.5	23.0	1.6	197.0	-19.4	0.0	Vert	AV	0.0	70.1	75.9	-5.8	EUT On Side
319.508	66.5	23.0	1.6	197.0	0.0	0.0	Vert	PK	0.0	89.5	95.9	-6.4	EUT On Side
319.508	65.9	23.0	1.0	210.0	-19.4	0.0	Horz	AV	0.0	69.5	75.9	-6.4	EUT Vertical
319.508	65.9	23.0	1.0	210.0	0.0	0.0	Horz	PK	0.0	88.9	95.9	-7.0	EUT Vertical
319.506	65.0	23.0	1.0	110.0	-19.4	0.0	Horz	AV	0.0	68.6	75.9	-7.3	EUT On Side
319.506	65.0	23.0	1.0	110.0	0.0	0.0	Horz	PK	0.0	88.0	95.9	-7.9	EUT On Side
319.510	63.9	23.0	2.2	104.0	-19.4	0.0	Vert	AV	0.0	67.5	75.9	-8.4	EUT Vertical
319.510	63.9	23.0	2.2	104.0	0.0	0.0	Vert	PK	0.0	86.9	95.9	-9.0	EUT Vertical
319.508	58.8	23.0	3.3	123.0	-19.4	0.0	Vert	AV	0.0	62.4	75.9	-13.5	EUT Horizontal
319.508	58.8	23.0	3.3	123.0	0.0	0.0	Vert	PK	0.0	81.8	95.9	-14.1	EUT Horizontal

CONCLUSION

Pass



Tested By

SPURIOUS RADIATED EMISSIONS

TEST DESCRIPTION

The highest gain antenna of each type to be used with the EUT was tested. The EUT was configured for the required transmit frequency in each operational band and the modes as showed in the data sheets.

For each configuration, the spectrum was scanned throughout the specified range as part of the exploratory investigation of the emissions. A reference preview scan (pre-scan) is included in the report. Final measurements on individual emissions were then made and included in this test report.

The individual emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and EUT antenna in three orthogonal axis, and adjusting the measurement antenna height and polarization (per ANSI C63.10). A preamp and high pass filter (and notch filter) were used for this test in order to provide sufficient measurement sensitivity.

Measurements were made with the required detectors and annotated on the data for each individual point using the following annotation:

QP = Quasi-Peak Detector

PK = Peak Detector

AV = Calculated Average based on Peak and Duty Cycle Correction Factor

Peak measurements were made with a resolution bandwidth of 100 kHz and a video bandwidth of 300 kHz for measurements at or below 1 GHz. Above 1 GHz, a resolution bandwidth of 1 MHz and a video bandwidth of 3 MHz was used.

A duty cycle correction factor was added to the peak readings to mathematically derive the average levels. The supporting screen captures and duty cycle calculation is contained in the "Duty Cycle" module in this report.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	E4446A	AAQ	2026-04-20	2027-04-20
Antenna - Double Ridge	ETS Lindgren	3115	AIP	2024-08-02	2026-08-02
Cable	ESM Cable Corp.	Double Ridge Guide Horn Cables	MNI	2025-09-05	2026-09-05
Amplifier - Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	AVT	2026-01-07	2027-01-07
Antenna - Biconilog	ETS Lindgren	3142D	AXO	2025-09-29	2027-09-29
Cable	ESM Cable Corp.	Bilog Cables	MNH	2025-09-05	2026-09-05
Amplifier - Pre-Amplifier	Miteq	AM-1616-1000	AVO	2025-10-07	2026-10-07
Attenuator	Fairview Microwave	SA18E-10	TYA	2025-09-03	2026-09-03
Antenna - Loop	ETS Lindgren	6502	AOB	2025-06-17	2027-06-17

FREQUENCY RANGE INVESTIGATED

30 MHz TO 3200 MHz

POWER INVESTIGATED

Battery

CONFIGURATIONS INVESTIGATED

CINC0073-1

MODES INVESTIGATED

Transmitting 319.508 MHz, Modulation OOK, 13 dBm is the power setting

SPURIOUS RADIATED EMISSIONS

EUT:	Wireless CO detector QS5230-840	Work Order:	CINC0073
Serial Number:	EE14AF	Date:	2026-07-22
Customer:	CINCH Systems	Temperature:	23.8°C
Attendees:	Mark Cawley	Relative Humidity:	44%
Customer Project:	None	Bar. Pressure (PMSL):	1020 mb
Tested By:	Christopher Heintzelman, William Hoffa	Job Site:	MN05
Power:	Battery	Configuration:	CINC0073-1

TEST PARAMETERS

Run #:	4	Test Distance (m):	3	Ant. Height(s) (m):	1 to 4(m)
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COMMENTS

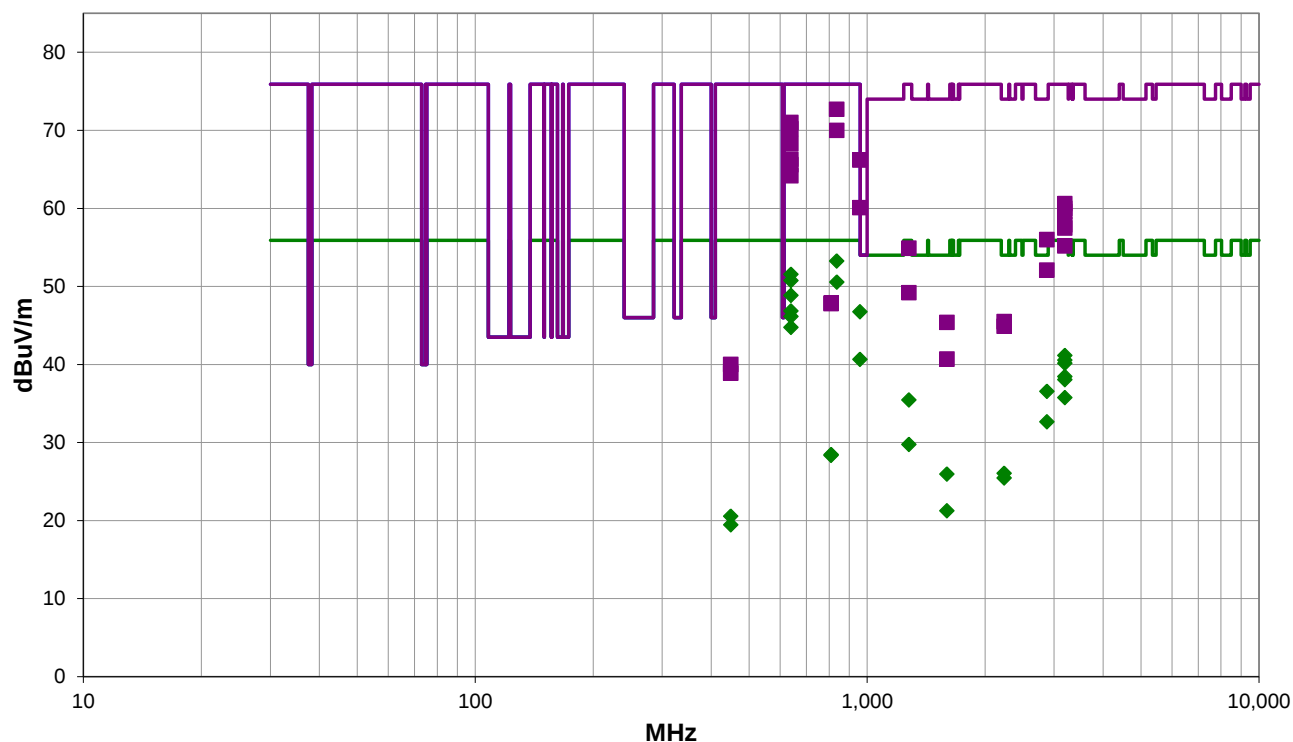
None

EUT OPERATING MODES

Transmitting 319.508 MHz, Modulation OOK, 13 dBm is the power setting

DEVIATIONS FROM TEST STANDARD

None



Run #: 4

■ PK ◆ AV ● QP

SPURIOUS RADIATED EMISSIONS

RESULTS - Run #4

Freq (MHz)	Amplitude (dBuV)	Factor (dB/m)	Antenna Height (meters)	Azimuth (degrees)	Duty Cycle Correction Factor (dB)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
836.115	46.7	16.0	1.0	10.0	-19.4	10.0	Horz	AV	0.0	53.3	55.9	-2.6	EUT On Side
836.115	46.7	16.0	1.0	10.0	0.0	10.0	Horz	PK	0.0	72.7	75.9	-3.2	EUT On Side
639.019	48.9	12.1	1.4	81.0	-19.4	10.0	Horz	AV	0.0	51.6	55.9	-4.3	EUT On Side
639.019	48.9	12.1	1.4	81.0	0.0	10.0	Horz	PK	0.0	71.0	75.9	-4.9	EUT On Side
639.024	48.1	12.1	1.0	187.0	-19.4	10.0	Vert	AV	0.0	50.8	55.9	-5.1	EUT On Side
836.670	44.0	16.0	1.0	252.0	-19.4	10.0	Vert	AV	0.0	50.6	55.9	-5.3	EUT On Side
639.024	48.1	12.1	1.0	187.0	0.0	10.0	Vert	PK	0.0	70.2	75.9	-5.7	EUT On Side
836.670	44.0	16.0	1.0	252.0	0.0	10.0	Vert	PK	0.0	70.0	75.9	-5.9	EUT On Side
639.016	46.2	12.1	1.3	147.0	-19.4	10.0	Horz	AV	0.0	48.9	55.9	-7.0	EUT Horizontal
639.016	46.2	12.1	1.3	147.0	0.0	10.0	Horz	PK	0.0	68.3	75.9	-7.6	EUT Horizontal
639.006	44.2	12.1	1.0	209.0	-19.4	10.0	Vert	AV	0.0	46.9	55.9	-9.0	EUT Vertical
958.524	38.4	17.8	1.0	75.0	-19.4	10.0	Horz	AV	0.0	46.8	55.9	-9.1	EUT On Side
639.006	44.2	12.1	1.0	209.0	0.0	10.0	Vert	PK	0.0	66.3	75.9	-9.6	EUT Vertical
958.524	38.4	17.8	1.0	75.0	0.0	10.0	Horz	PK	0.0	66.2	75.9	-9.7	EUT On Side
639.023	43.5	12.1	1.3	161.0	-19.4	10.0	Horz	AV	0.0	46.2	55.9	-9.7	EUT Vertical
639.023	43.5	12.1	1.3	161.0	0.0	10.0	Horz	PK	0.0	65.6	75.9	-10.3	EUT Vertical
639.024	42.1	12.1	1.0	22.0	-19.4	10.0	Vert	AV	0.0	44.8	55.9	-11.1	EUT Horizontal
639.024	42.1	12.1	1.0	22.0	0.0	10.0	Vert	PK	0.0	64.2	75.9	-11.7	EUT Horizontal
3195.110	59.8	0.8	1.5	239.0	-19.4	0.0	Horz	AV	0.0	41.2	55.9	-14.7	EUT Vertical
958.544	32.3	17.8	3.7	177.0	-19.4	10.0	Vert	AV	0.0	40.7	55.9	-15.2	EUT On Side
3195.110	59.8	0.8	1.5	239.0	0.0	0.0	Horz	PK	0.0	60.6	75.9	-15.3	EUT Vertical
3195.097	59.2	0.8	1.5	237.0	-19.4	0.0	Vert	AV	0.0	40.6	55.9	-15.3	EUT Vertical
3195.090	58.8	0.8	1.5	43.0	-19.4	0.0	Vert	AV	0.0	40.2	55.9	-15.7	EUT On Side
958.544	32.3	17.8	3.7	177.0	0.0	10.0	Vert	PK	0.0	60.1	75.9	-15.8	EUT On Side
3195.097	59.2	0.8	1.5	237.0	0.0	0.0	Vert	PK	0.0	60.0	75.9	-15.9	EUT Vertical
3195.090	58.8	0.8	1.5	43.0	0.0	0.0	Vert	PK	0.0	59.6	75.9	-16.3	EUT On Side
2875.588	56.7	-0.7	1.5	221.0	-19.4	0.0	Horz	AV	0.0	36.6	54.0	-17.4	EUT Vertical
3195.097	57.1	0.8	1.5	218.0	-19.4	0.0	Horz	AV	0.0	38.5	55.9	-17.4	EUT Horizontal
3195.103	56.7	0.8	1.5	11.0	-19.4	0.0	Vert	AV	0.0	38.1	55.9	-17.8	EUT Horizontal
2875.588	56.7	-0.7	1.5	221.0	0.0	0.0	Horz	PK	0.0	56.0	74.0	-18.0	EUT Vertical
3195.097	57.1	0.8	1.5	218.0	0.0	0.0	Horz	PK	0.0	57.9	75.9	-18.0	EUT Horizontal
3195.103	56.7	0.8	1.5	11.0	0.0	0.0	Vert	PK	0.0	57.5	75.9	-18.4	EUT Horizontal
3195.108	54.4	0.8	1.5	344.0	-19.4	0.0	Horz	AV	0.0	35.8	55.9	-20.1	EUT On Side
1278.042	60.9	-6.0	1.5	67.0	-19.4	0.0	Vert	AV	0.0	35.5	55.9	-20.4	EUT Vertical
3195.108	54.4	0.8	1.5	344.0	0.0	0.0	Horz	PK	0.0	55.2	75.9	-20.7	EUT On Side
1278.042	60.9	-6.0	1.5	67.0	0.0	0.0	Vert	PK	0.0	54.9	75.9	-21.0	EUT Vertical
2875.585	52.8	-0.7	1.5	184.0	-19.4	0.0	Vert	AV	0.0	32.7	54.0	-21.3	EUT Vertical
2875.585	52.8	-0.7	1.5	184.0	0.0	0.0	Vert	PK	0.0	52.1	74.0	-21.9	EUT Vertical
1278.037	55.2	-6.0	1.5	78.0	-19.4	0.0	Horz	AV	0.0	29.8	55.9	-26.1	EUT Vertical
1278.037	55.2	-6.0	1.5	78.0	0.0	0.0	Horz	PK	0.0	49.2	75.9	-26.7	EUT Vertical

SPURIOUS RADIATED EMISSIONS

Freq (MHz)	Amplitude (dBuV)	Factor (dB/m)	Antenna Height (meters)	Azimuth (degrees)	Duty Cycle Correction Factor (dB)	External Attenuation (dB)	Polarity/Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
809.487	22.3	15.6	4.0	21.0	-19.4	10.0	Horz	AV	0.0	28.5	55.9	-27.4	EUT On Side
808.768	22.2	15.6	1.0	219.0	-19.4	10.0	Vert	AV	0.0	28.4	55.9	-27.5	EUT On Side
2236.567	47.4	-1.9	1.5	211.0	-19.4	0.0	Horz	AV	0.0	26.1	54.0	-27.9	EUT Vertical
809.487	22.3	15.6	4.0	21.0	0.0	10.0	Horz	PK	0.0	47.9	75.9	-28.0	EUT On Side
1597.548	50.3	-4.9	1.5	265.0	-19.4	0.0	Horz	AV	0.0	26.0	54.0	-28.0	EUT Vertical
808.768	22.2	15.6	1.0	219.0	0.0	10.0	Vert	PK	0.0	47.8	75.9	-28.1	EUT On Side
2236.567	47.4	-1.9	1.5	211.0	0.0	0.0	Horz	PK	0.0	45.5	74.0	-28.5	EUT Vertical
2236.578	46.8	-1.9	1.5	50.0	-19.4	0.0	Vert	AV	0.0	25.5	54.0	-28.5	EUT Vertical
1597.548	50.3	-4.9	1.5	265.0	0.0	0.0	Horz	PK	0.0	45.4	74.0	-28.6	EUT Vertical
2236.578	46.8	-1.9	1.5	50.0	0.0	0.0	Vert	PK	0.0	44.9	74.0	-29.1	EUT Vertical
1597.558	45.6	-4.9	1.5	110.0	-19.4	0.0	Vert	AV	0.0	21.3	54.0	-32.7	EUT Vertical
1597.558	45.6	-4.9	1.5	110.0	0.0	0.0	Vert	PK	0.0	40.7	74.0	-33.3	EUT Vertical
448.582	23.3	6.7	1.0	180.0	-19.4	10.0	Vert	AV	0.0	20.6	55.9	-35.3	EUT On Side
448.582	23.3	6.7	1.0	180.0	0.0	10.0	Vert	PK	0.0	40.0	75.9	-35.9	EUT On Side
448.722	22.2	6.7	1.0	178.0	-19.4	10.0	Horz	AV	0.0	19.5	55.9	-36.4	EUT On Side
448.722	22.2	6.7	1.0	178.0	0.0	10.0	Horz	PK	0.0	38.9	75.9	-37.0	EUT On Side

CONCLUSION

Pass



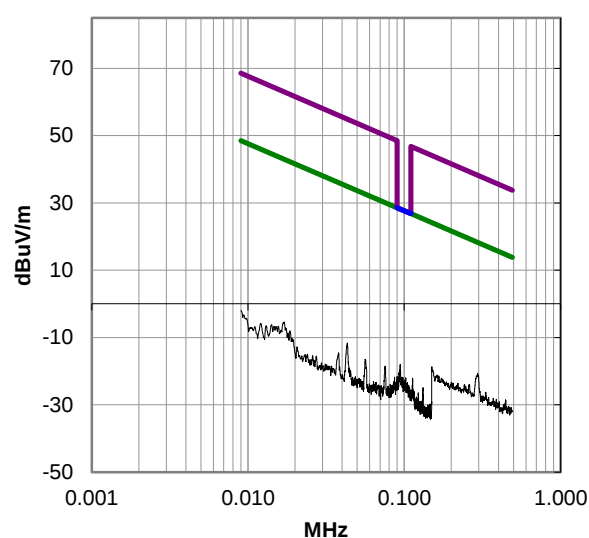
Tested By

SPURIOUS RADIATED EMISSIONS

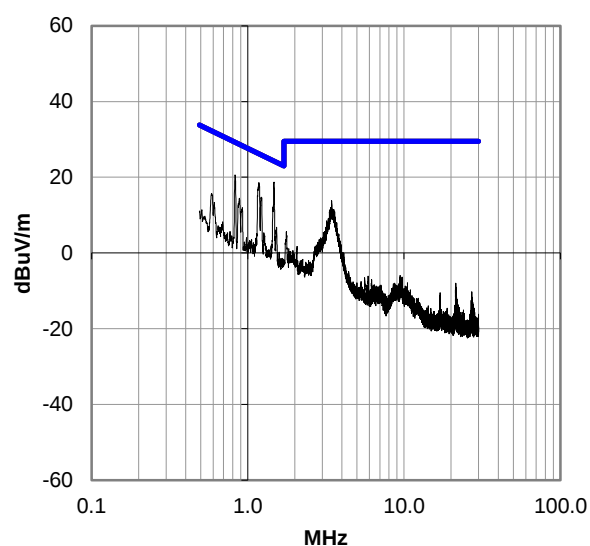
PRESCAN DATA

Radiated spurious emissions from the EUT are initially investigated with Pre-scans (Preview scans). Pre-scans are typically performed with the EUT transmitting on the lowest applicable data rate. The Pre-scan plots below are shown with a peak detector and RBW according to the "Measurement Bandwidths" table in the "Test Setup Block Diagram" section of this report. Above 1 GHz, a reduced video bandwidth is used during pre-scans to better approximate an average measurement. Final measurements using all appropriate settings according to the standard are further investigated by maximizing the emission with a narrow span and high number of points to ensure emissions are captured accurately. In the case where unintentional emissions are observed, an ambient or idle pre-scan with the radio off will be shown for comparison.

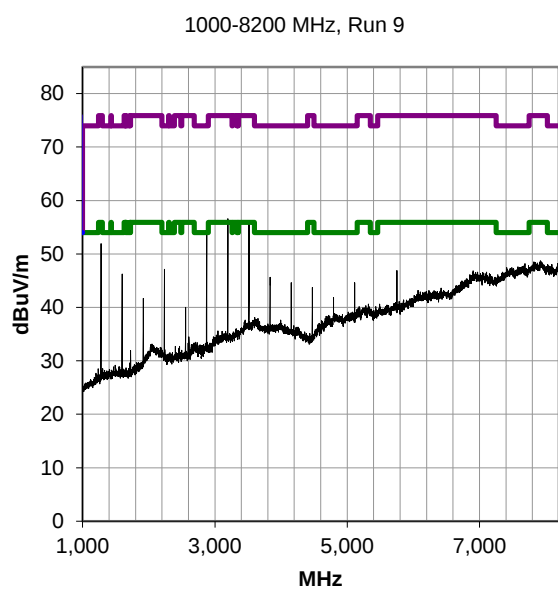
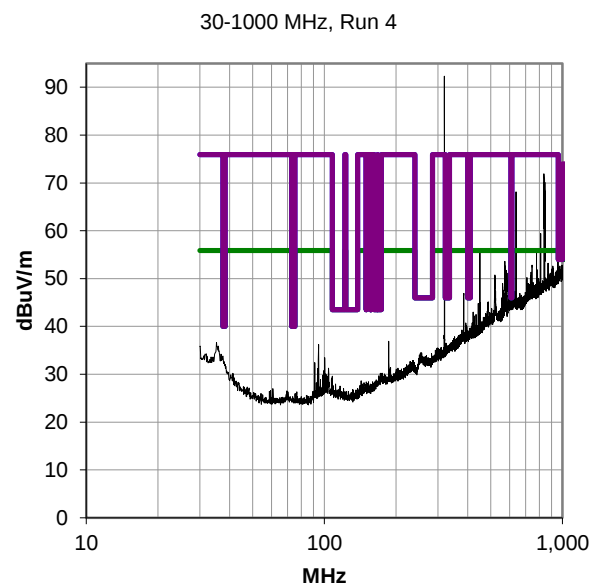
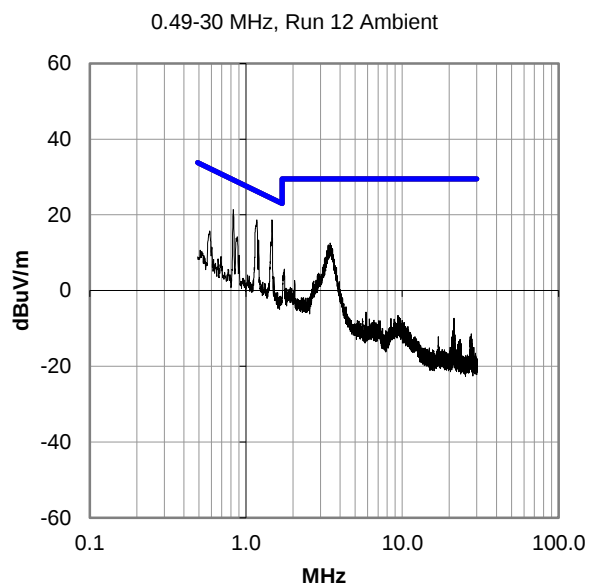
0.009-0.49 MHz, Run 10



0.49-30 MHz, Run 11 Radio On



SPURIOUS RADIATED EMISSIONS



End of Test Report