



Dometic Marine Canada Inc

Dometic Key Fob

FCC 15.231:2026

RSS-210 Issue 11:2024

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

Low Power Radio

Report: MRND0001.0 Rev. 2, Issue Date: July 16, 2026



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CERTIFICATE OF TEST



Last Date of Test: March 3, 2026
Dometic Marine Canada Inc
EUT: Dometic Key Fob

Radio Equipment Testing

Standards

Specification	Method
FCC 15.231:2026	ANSI C63.10-2020 + Cor. 1-2023
RSS-210 Issue 11:2024	ANSI C63.10-2020 + Cor. 1-2023 + C63.10a-2024 + Errata to C63.10a-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) or (e)	RSS-210 A1.3, A1.5	6.5, 6.6	
Spurious Radiated Emissions	Pass	15.231(b) or (e)	RSS-210 A1.3, A1.5	6.4, 6.5, 6.6	
Emissions Bandwidth	Pass	15.231(c)	N/A	6.9.2	
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	
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	Pass	N/A	RSS-210 A1.4	6.9.3	

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:

Trevor Buls, Principal EMC Test Engineer
Signed for and on behalf of Element

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.

REVISION HISTORY

Revision Number	Description	Date (yyyy-mm-dd)	Page Number
00	None		
01	Added additional comment regarding operational duty cycle of the EUT.	2026-06-03	28
	Updated the FCC year	2026-06-03	1
	Update the FCC year and ANSI method.	2026-06-03	3
02	Combined Emissions Bandwidth and Occupied Bandwidth measurements	2026-07-16	2, 3, 11, 14, 24-25, 30-33

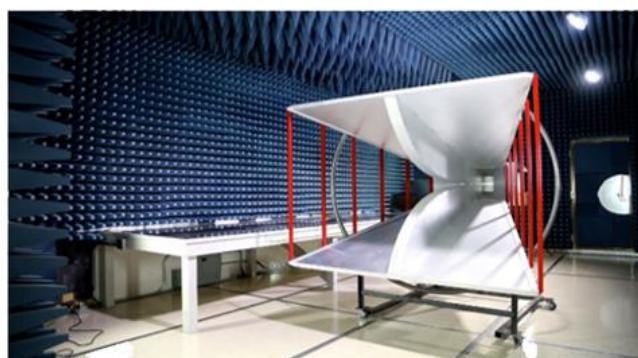
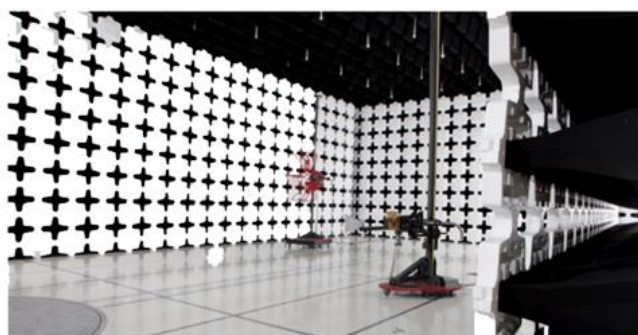
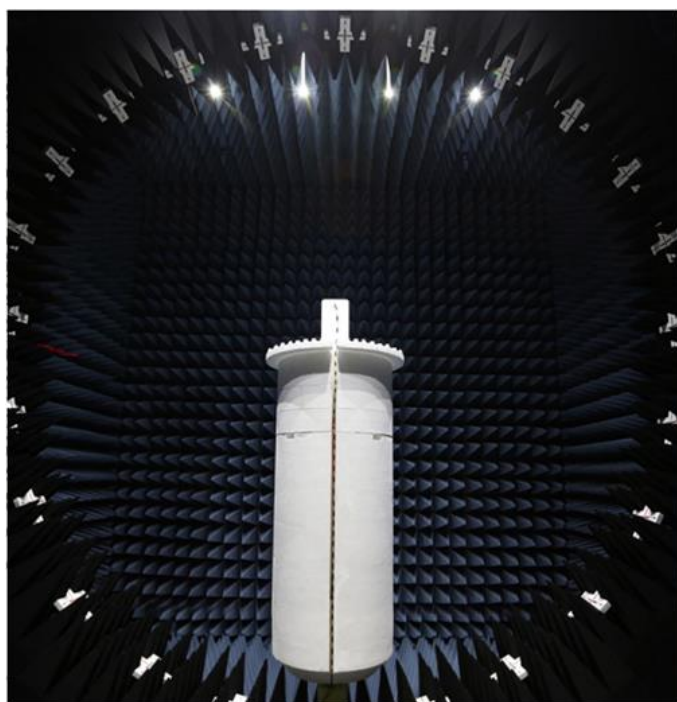
FACILITIES

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	EV01 (+/-)
9kHz-30MHz	1.8
30MHz-1GHz 3m	4.6
1GHz-6GHz	5.1
6GHz-40GHz	5.2
18GHz-40GHz	1.8
40GHz-220GHz	1.8

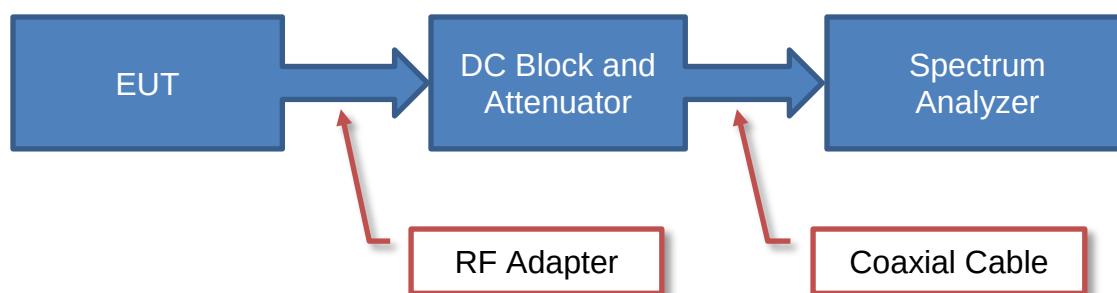
TEST SETUP BLOCK DIAGRAMS

Measurement Bandwidths

Frequency Range (MHz)	Peak Data (kHz)	Quasi-Peak Data (kHz)	Average Data (kHz)
0.01 - 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.

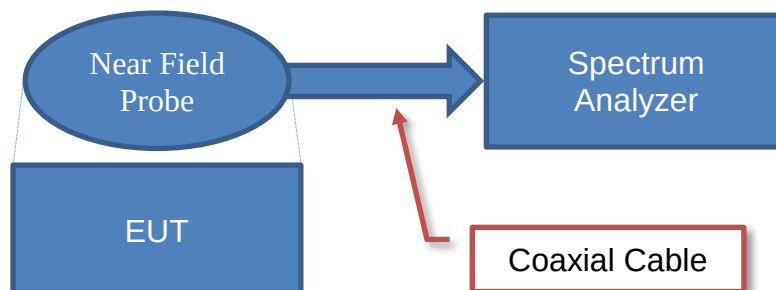
Antenna Port Conducted Measurements



Sample Calculation (logarithmic units)

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

Near Field Test Fixture Measurements

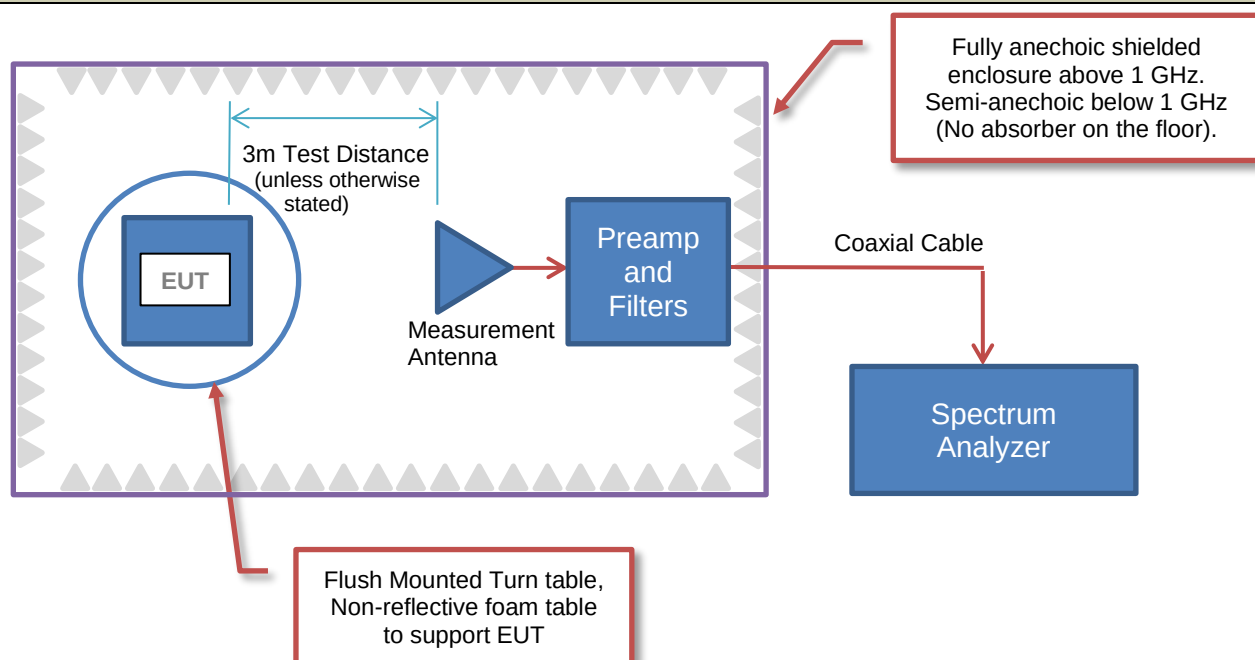


Sample Calculation (logarithmic units)

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

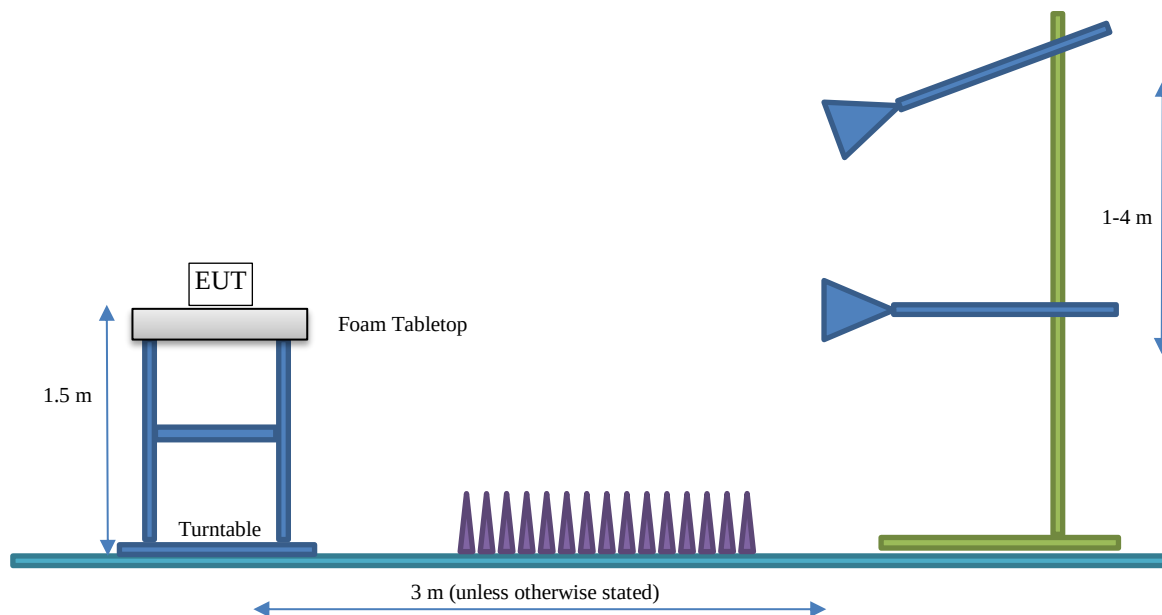
Radiated Power (ERP/EIRP) – Substitution Method:

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:	Dometic Marine Canada Inc
Address:	3831 No. 6 Road
City, State, Zip:	Richmond, BC V6V 1P6 Canada
Test Requested By:	Jason Curtis
EUT:	Dometic Key Fob
First Date of Test:	January 22, 2026
Last Date of Test:	March 3, 2026
Receipt Date of Samples:	January 22, 2026
Equipment Design Stage:	Production
Equipment Condition:	No Damage
Purchase Authorization:	Verified

Information Provided by the Party Requesting the Test

Functional Description of the EUT:
Wireless Key Fob for local control of a digital device on the 418MHz spectrum
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:	Part number	Frequency Range (MHz)	Gain (dBi)
¼ wave monopole	Linx	ANT-418-SP	414-422	-8

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

- ☐ Test software settings
- ☒ Rated power settings

Software / firmware used for testing:

EUT does not utilize firmware for operation. The power setting of the radio is determined through hardware.

SETTINGS FOR ALL TESTS IN THIS REPORT

Modulation Type	Data Rate (kbps)	Power Setting (dBm)
OOK	9.6	9

CONFIGURATIONS



Configuration MRND0001-1

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Periodic Radio	Dometic Marine Canada Inc	Dometic Key Fob (026-0008)	11977460019

MODIFICATIONS



Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
1	2026-01-22	Spurious Radiated Emissions	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	2026-01-22	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.
3	2026-03-03	Duty Cycle	Tested as delivered to test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
4	2026-03-03	Emissions Bandwidth and Occupied Bandwidth	Tested as delivered to test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

FIELD STRENGTH OF FUNDAMENTAL

TEST DESCRIPTION

The antennas to be used with the EUT were tested. The EUT was configured for continuous un-modulated CW 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.

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. The supporting screen captures and duty cycle calculation is contained in the "Duty Cycle" module in this report. The manufacturer provided a duty cycle of 48.3% which resulted in a smaller DCCF than was measured in the testing documented in the "Duty Cycle" module of this report. The smaller DCCF was applied to the peak measurements because it represents the worst case by applying a smaller reduction to the peak data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Antenna - Biconilog	Teseq	CBL 6141B	AXR	2025-04-15	2027-04-15
Cable	N/A	Bilog Cables	EVA	2025-10-24	2026-10-24
Amplifier - Pre-Amplifier	Miteq	AM-1616-1000	AOL	2025-12-09	2026-12-09
Filter - Low Pass	Micro-Tronics	LPM50004	LFD	2025-10-24	2026-10-24

FREQUENCY RANGE INVESTIGATED

30 MHz TO 1000 MHz

POWER INVESTIGATED

Battery

CONFIGURATIONS INVESTIGATED

MRND0001-1

MODES INVESTIGATED

Power Button Pressed - 418 MHz OOK Transmission

FIELD STRENGTH OF FUNDAMENTAL

EUT:	Dometic Key Fob	Work Order:	MRND0001
Serial Number:	119774600019	Date:	2026-01-22
Customer:	Dometic Marine Canada Inc	Temperature:	21.2°C
Attendees:	None	Relative Humidity:	25.4%
Customer Project:	None	Bar. Pressure (PMSL):	1023 mb
Tested By:	Christopher Pinkham, Jeff Alcock	Job Site:	EV01
Power:	Battery	Configuration:	MRND0001-1

TEST PARAMETERS

Run #:	2	Test Distance (m):	3	Ant. Height(s) (m):	1 to 4(m)
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COMMENTS

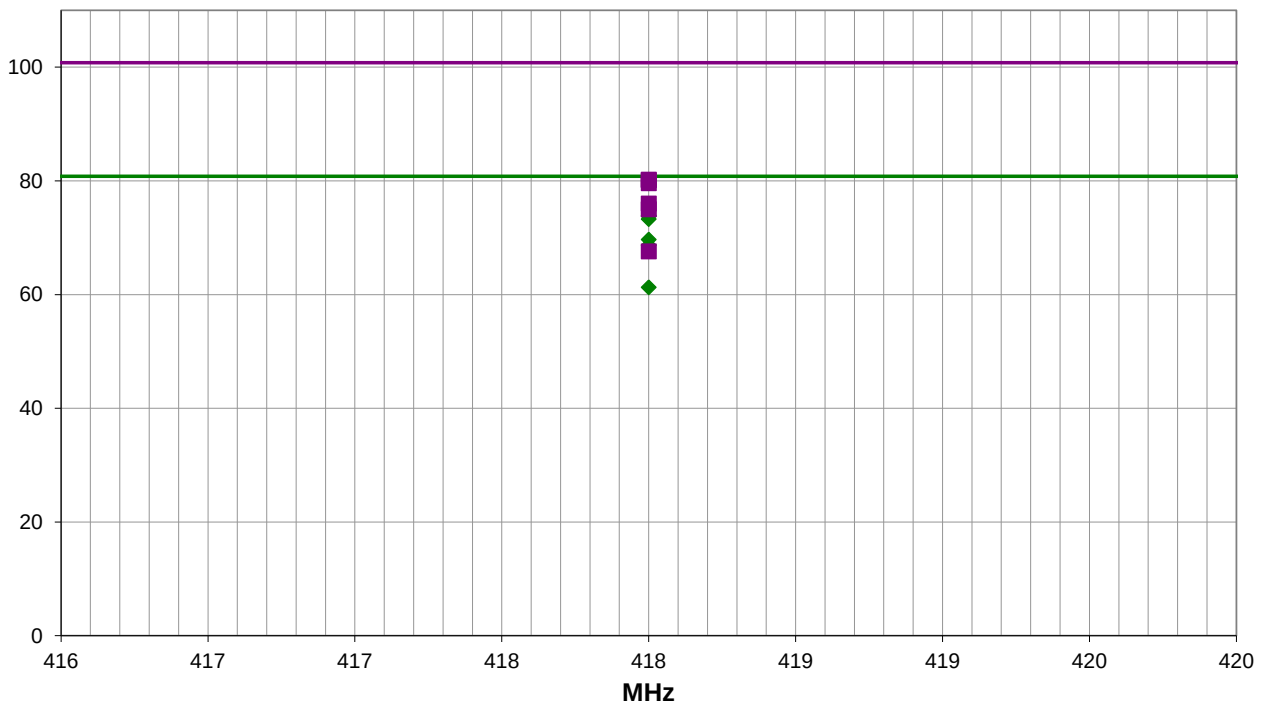
AV data calculated by applying a Duty Cycle Correction Factor (DCCF) to PK measurements. Customer provided a duty cycle of 48.3%. $DCCF = 20 \cdot \log(\text{Duty Cycle}) = 20 \cdot \log(0.483) = -6.3 \text{ dB}$; $AV = PK - 6.3 \text{ dB}$.

EUT OPERATING MODES

Power Button Pressed - 418 MHz OOK Transmission

DEVIATIONS FROM TEST STANDARD

None



Run #: 2

■ PK ◆ AV ● QP

FIELD STRENGTH OF FUNDAMENTAL

RESULTS - Run #2

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
418.000	77.1	3.1	1.9	246.0	-6.3	0.0	Horz	AV	0.0	73.9	80.8	-6.9	EUT On Side
418.000	77.0	3.1	1.2	197.0	-6.3	0.0	Vert	AV	0.0	73.8	80.8	-7.0	EUT Vertical
418.000	76.5	3.1	1.1	9.0	-6.3	0.0	Vert	AV	0.0	73.3	80.8	-7.5	EUT Horizontal
418.000	72.9	3.1	1.0	95.0	-6.3	0.0	Horz	AV	0.0	69.7	80.8	-11.1	EUT Horizontal
418.000	71.9	3.1	3.4	276.0	-6.3	0.0	Horz	AV	0.0	68.7	80.8	-12.1	EUT Vertical
418.000	64.5	3.1	1.1	256.0	-6.3	0.0	Vert	AV	0.0	61.3	80.8	-19.5	EUT On Side
418.000	77.1	3.1	1.9	246.0	0.0	0.0	Horz	PK	0.0	80.2	100.8	-20.6	EUT On Side
418.000	77.0	3.1	1.2	197.0	0.0	0.0	Vert	PK	0.0	80.1	100.8	-20.7	EUT Vertical
418.000	76.5	3.1	1.1	9.0	0.0	0.0	Vert	PK	0.0	79.6	100.8	-21.2	EUT Horizontal
418.000	72.9	3.1	1.0	95.0	0.0	0.0	Horz	PK	0.0	76.0	100.8	-24.8	EUT Horizontal
418.000	71.9	3.1	3.4	276.0	0.0	0.0	Horz	PK	0.0	75.0	100.8	-25.8	EUT Vertical
418.000	64.5	3.1	1.1	256.0	0.0	0.0	Vert	PK	0.0	67.6	100.8	-33.2	EUT On Side

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. The manufacturer provided a duty cycle of 48.3% which resulted in a smaller DCCF than was measured in the testing documented in the "Duty Cycle" module of this report. The smaller DCCF was applied to the peak measurements because it represents the worst case by applying a smaller reduction to the peak data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Antenna - Loop	EMCO	6502	AOA	2024-10-23	2026-10-23
Cable	N/A	Bilog Cables	EVA	2025-10-24	2026-10-24
Antenna - Biconilog	Teseq	CBL 6141B	AXR	2025-04-15	2027-04-15
Amplifier - Pre-Amplifier	Miteq	AM-1616-1000	AOL	2025-12-09	2026-12-09
Filter - Low Pass	Micro-Tronics	LPM50004	LFD	2025-10-24	2026-10-24
Antenna - Double Ridge	ETS Lindgren	3115	AIZ	2024-03-08	2026-03-08
Cable	N/A	Double Ridge Horn Cables	EVB	2025-05-02	2026-05-02
Amplifier - Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	PAG	2025-10-23	2026-10-23
Analyzer - Spectrum Analyzer	Agilent	E4446A	AAT	2025-05-23	2026-05-23

FREQUENCY RANGE INVESTIGATED

9 kHz TO 8.2 GHz

POWER INVESTIGATED

Battery

CONFIGURATIONS INVESTIGATED

MRND0001-1

MODES INVESTIGATED

Power Button Pressed - 418 MHz OOK Transmission

SPURIOUS RADIATED EMISSIONS

EUT:	Dometic Key Fob	Work Order:	MRND0001
Serial Number:	119774600019	Date:	2026-01-22
Customer:	Dometic Marine Canada Inc	Temperature:	22.1°C
Attendees:	None	Relative Humidity:	25.8%
Customer Project:	None	Bar. Pressure (PMSL):	1022 mb
Tested By:	Christopher Pinkham, Jeff Alcock	Job Site:	EV01
Power:	Battery	Configuration:	MRND0001-1

TEST PARAMETERS

Run #:	13	Test Distance (m):	3	Ant. Height(s) (m):	1 to 4(m)
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COMMENTS

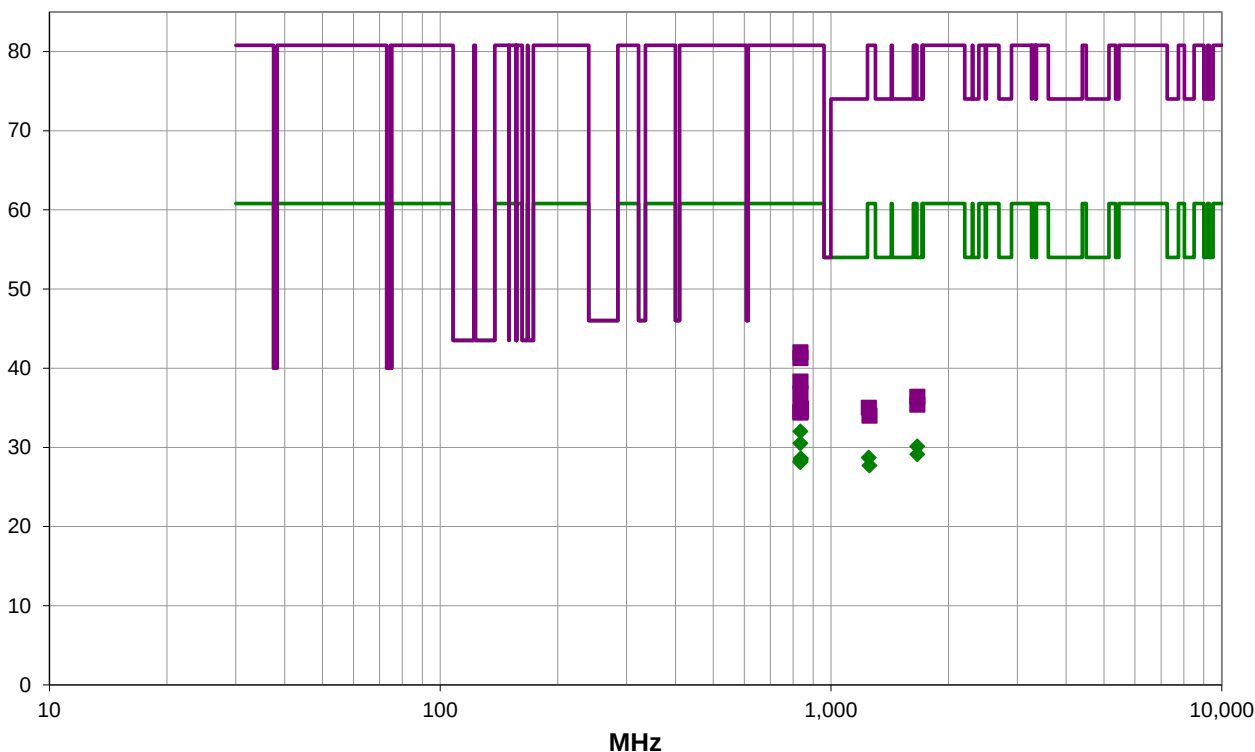
FCC 15.231:2026 data

EUT OPERATING MODES

Power Button Pressed - 418 MHz OOK Transmission

DEVIATIONS FROM TEST STANDARD

None



Run #: 13

■ PK ◆ AV ● QP

SPURIOUS RADIATED EMISSIONS

RESULTS - Run #13

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
1664.000	42.2	-5.8	1.5	200.0	-6.3	0.0	Vert	AV	0.0	30.1	54.0	-23.9	EUT Vertical
1664.080	41.2	-5.8	1.5	11.0	-6.3	0.0	Horz	AV	0.0	29.1	54.0	-24.9	EUT Horizontal
835.995	30.3	11.7	1.0	155.0	-6.3	0.0	Horz	AV	0.0	35.7	60.8	-25.1	EUT Horizontal
836.010	29.6	11.7	1.0	207.0	-6.3	0.0	Horz	AV	0.0	35.0	60.8	-25.8	EUT On Side
835.995	26.6	11.7	1.1	230.0	-6.3	0.0	Vert	AV	0.0	32.0	60.8	-28.8	EUT Horizontal
835.955	25.1	11.7	1.0	337.0	-6.3	0.0	Horz	AV	0.0	30.5	60.8	-30.3	EUT Vertical
1249.750	42.2	-7.2	1.8	59.0	-6.3	0.0	Vert	AV	0.0	28.7	60.8	-32.1	EUT Vertical
837.310	23.1	11.8	3.2	176.0	-6.3	0.0	Vert	AV	0.0	28.6	60.8	-32.2	EUT On Side
837.445	23.0	11.8	1.2	24.0	-6.3	0.0	Horz	AV	0.0	28.5	60.8	-32.3	EUT Horizontal
836.355	22.9	11.7	1.3	262.0	-6.3	0.0	Horz	AV	0.0	28.3	60.8	-32.5	EUT Vertical
835.220	22.8	11.7	3.6	204.0	-6.3	0.0	Vert	AV	0.0	28.2	60.8	-32.6	EUT Horizontal
835.260	22.7	11.7	1.1	360.0	-6.3	0.0	Vert	AV	0.0	28.1	60.8	-32.7	EUT On Side
1255.540	41.2	-7.2	1.4	324.0	-6.3	0.0	Horz	AV	0.0	27.7	60.8	-33.1	EUT Horizontal
1664.000	42.2	-5.8	1.5	200.0	0.0	0.0	Vert	PK	0.0	36.4	74.0	-37.6	EUT Vertical
1664.080	41.2	-5.8	1.5	11.0	0.0	0.0	Horz	PK	0.0	35.4	74.0	-38.6	EUT Horizontal
835.995	30.3	11.7	1.0	155.0	0.0	0.0	Horz	PK	0.0	42.0	80.8	-38.8	EUT Horizontal
836.010	29.6	11.7	1.0	207.0	0.0	0.0	Horz	PK	0.0	41.3	80.8	-39.5	EUT On Side
835.995	26.6	11.7	1.1	230.0	0.0	0.0	Vert	PK	0.0	38.3	80.8	-42.5	EUT Horizontal
835.955	25.1	11.7	1.0	337.0	0.0	0.0	Horz	PK	0.0	36.8	80.8	-44.0	EUT Vertical
1249.750	42.2	-7.2	1.8	59.0	0.0	0.0	Vert	PK	0.0	35.0	80.8	-45.8	EUT Vertical
837.310	23.1	11.8	3.2	176.0	0.0	0.0	Vert	PK	0.0	34.9	80.8	-45.9	EUT On Side
837.445	23.0	11.8	1.2	24.0	0.0	0.0	Horz	PK	0.0	34.8	80.8	-46.0	EUT Horizontal
836.355	22.9	11.7	1.3	262.0	0.0	0.0	Horz	PK	0.0	34.6	80.8	-46.2	EUT Vertical
835.220	22.8	11.7	3.6	204.0	0.0	0.0	Vert	PK	0.0	34.5	80.8	-46.3	EUT Horizontal
835.260	22.7	11.7	1.1	360.0	0.0	0.0	Vert	PK	0.0	34.4	80.8	-46.4	EUT On Side
1255.540	41.2	-7.2	1.4	324.0	0.0	0.0	Horz	PK	0.0	34.0	80.8	-46.8	EUT Horizontal

CONCLUSION

Pass



Tested By

SPURIOUS RADIATED EMISSIONS

EUT:	Dometic Key Fob	Work Order:	MRND0001
Serial Number:	119774600019	Date:	2026-01-22
Customer:	Dometic Marine Canada Inc	Temperature:	22.1°C
Attendees:	None	Relative Humidity:	25.8%
Customer Project:	None	Bar. Pressure (PMSL):	1022 mb
Tested By:	Christopher Pinkham, Jeff Alcock	Job Site:	EV01
Power:	Battery	Configuration:	MRND0001-1

TEST PARAMETERS

Run #:	13	Test Distance (m):	3	Ant. Height(s) (m):	1 to 4(m)
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COMMENTS

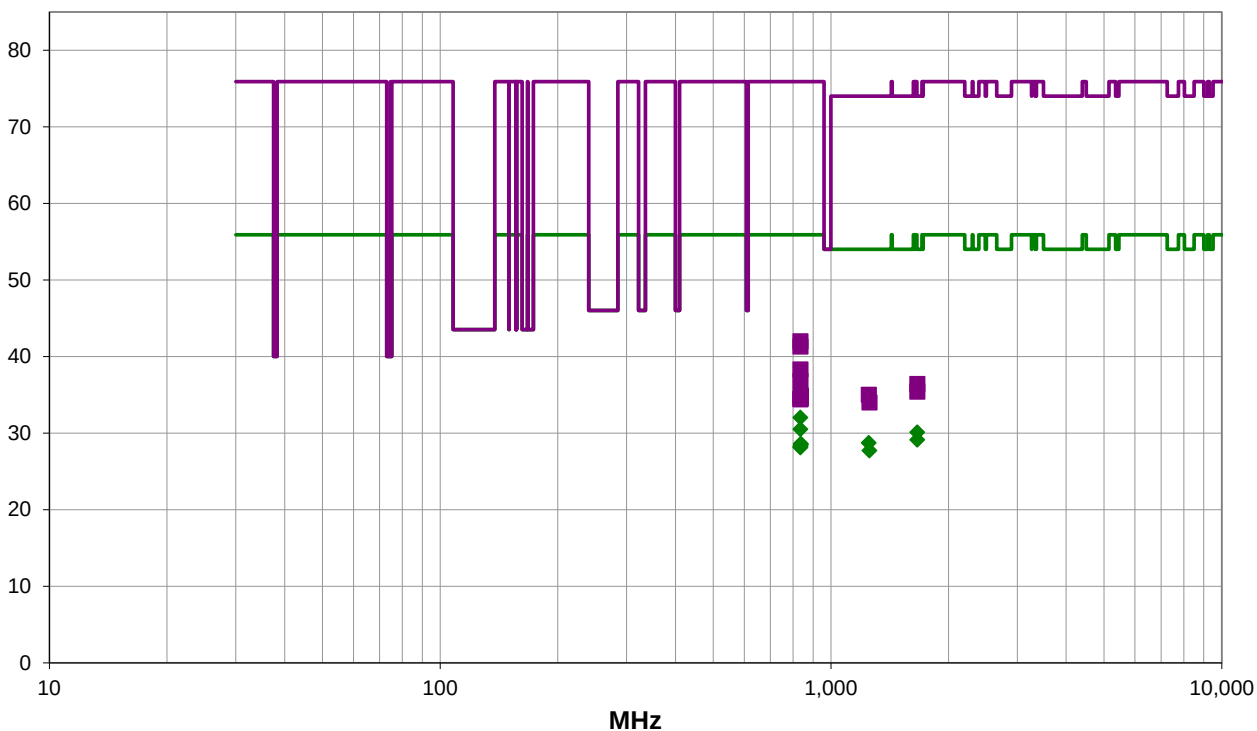
RSS-210 Issue 11 data

EUT OPERATING MODES

Power Button Pressed - 418 MHz OOK Transmission

DEVIATIONS FROM TEST STANDARD

None



SPURIOUS RADIATED EMISSIONS

RESULTS - Run #13

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
835.995	30.3	11.7	1.0	155.0	-6.3	0.0	Horz	AV	0.0	35.7	55.9	-20.2	EUT Horizontal
836.010	29.6	11.7	1.0	207.0	-6.3	0.0	Horz	AV	0.0	35.0	55.9	-20.9	EUT On Side
1664.000	42.2	-5.8	1.5	200.0	-6.3	0.0	Vert	AV	0.0	30.1	54.0	-23.9	EUT Vertical
835.995	26.6	11.7	1.1	230.0	-6.3	0.0	Vert	AV	0.0	32.0	55.9	-23.9	EUT Horizontal
1664.080	41.2	-5.8	1.5	11.0	-6.3	0.0	Horz	AV	0.0	29.1	54.0	-24.9	EUT Horizontal
1249.750	42.2	-7.2	1.8	59.0	-6.3	0.0	Vert	AV	0.0	28.7	54.0	-25.3	EUT Vertical
835.955	25.1	11.7	1.0	337.0	-6.3	0.0	Horz	AV	0.0	30.5	55.9	-25.4	EUT Vertical
1255.540	41.2	-7.2	1.4	324.0	-6.3	0.0	Horz	AV	0.0	27.7	54.0	-26.3	EUT Horizontal
837.310	23.1	11.8	3.2	176.0	-6.3	0.0	Vert	AV	0.0	28.6	55.9	-27.3	EUT On Side
837.445	23.0	11.8	1.2	24.0	-6.3	0.0	Horz	AV	0.0	28.5	55.9	-27.4	EUT Horizontal
836.355	22.9	11.7	1.3	262.0	-6.3	0.0	Horz	AV	0.0	28.3	55.9	-27.6	EUT Vertical
835.220	22.8	11.7	3.6	204.0	-6.3	0.0	Vert	AV	0.0	28.2	55.9	-27.7	EUT Horizontal
835.260	22.7	11.7	1.1	360.0	-6.3	0.0	Vert	AV	0.0	28.1	55.9	-27.8	EUT On Side
835.995	30.3	11.7	1.0	155.0	0.0	0.0	Horz	PK	0.0	42.0	75.9	-33.9	EUT Horizontal
836.010	29.6	11.7	1.0	207.0	0.0	0.0	Horz	PK	0.0	41.3	75.9	-34.6	EUT On Side
1664.000	42.2	-5.8	1.5	200.0	0.0	0.0	Vert	PK	0.0	36.4	74.0	-37.6	EUT Vertical
835.995	26.6	11.7	1.1	230.0	0.0	0.0	Vert	PK	0.0	38.3	75.9	-37.6	EUT Horizontal
1664.080	41.2	-5.8	1.5	11.0	0.0	0.0	Horz	PK	0.0	35.4	74.0	-38.6	EUT Horizontal
1249.750	42.2	-7.2	1.8	59.0	0.0	0.0	Vert	PK	0.0	35.0	74.0	-39.0	EUT Vertical
835.955	25.1	11.7	1.0	337.0	0.0	0.0	Horz	PK	0.0	36.8	75.9	-39.1	EUT Vertical
1255.540	41.2	-7.2	1.4	324.0	0.0	0.0	Horz	PK	0.0	34.0	74.0	-40.0	EUT Horizontal
837.310	23.1	11.8	3.2	176.0	0.0	0.0	Vert	PK	0.0	34.9	75.9	-41.0	EUT On Side
837.445	23.0	11.8	1.2	24.0	0.0	0.0	Horz	PK	0.0	34.8	75.9	-41.1	EUT Horizontal
836.355	22.9	11.7	1.3	262.0	0.0	0.0	Horz	PK	0.0	34.6	75.9	-41.3	EUT Vertical
835.220	22.8	11.7	3.6	204.0	0.0	0.0	Vert	PK	0.0	34.5	75.9	-41.4	EUT Horizontal
835.260	22.7	11.7	1.1	360.0	0.0	0.0	Vert	PK	0.0	34.4	75.9	-41.5	EUT On Side

CONCLUSION

Pass

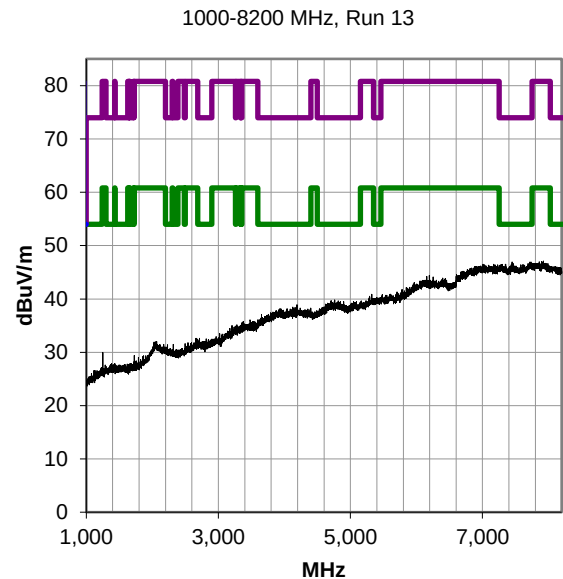
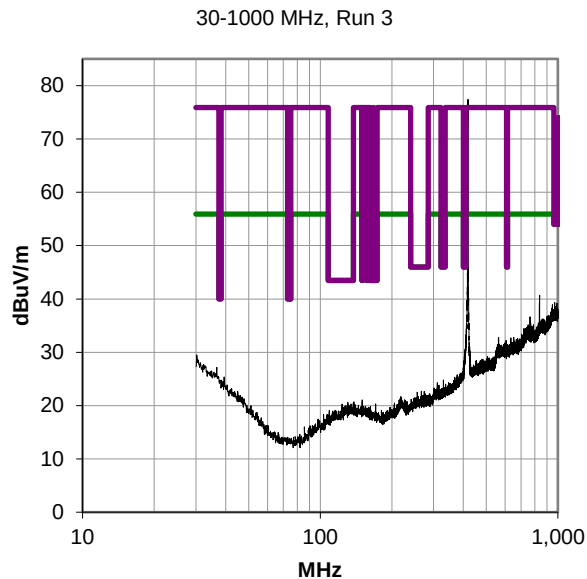
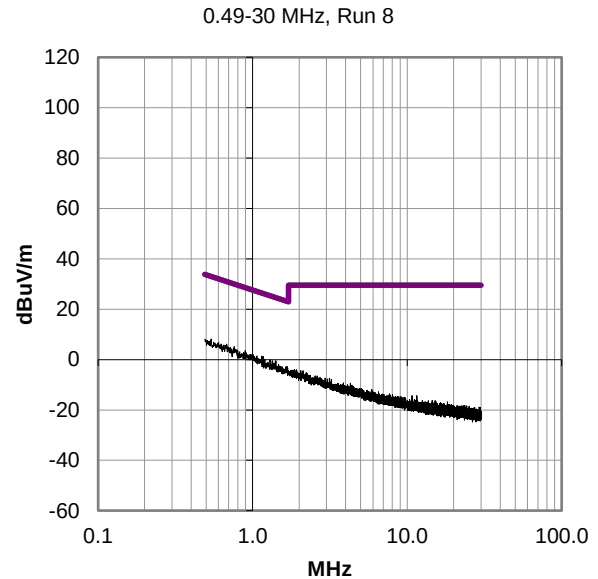
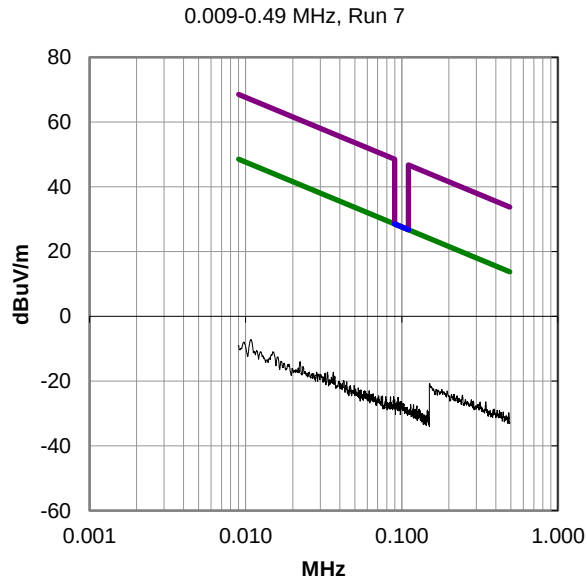


Tested By

SPURIOUS RADIATED EMISSIONS

PRESCAN DATA

Radiated spurious emissions from the EUT are initially reviewed with Pre-scans (Preview scans). Pre-scans are performed, with the EUT transmitting on the lowest applicable data rate, for both vertical and horizontal polarizations. The Pre-scan plots below are shown with a peak detector and RBW for the following frequency ranges: 9 kHz RBW (< 30 MHz); 120 kHz RBW (30 - 1000 MHz); 1 MHz RBW (> 1 GHz). In the case where unintentional emissions are observed, an ambient or idle pre-scan with the radio off, will be shown for comparison.



EMISSIONS BANDWIDTH AND OCCUPIED BANDWIDTH



TEST DESCRIPTION

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

A near-field probe was placed near the transmitter. A low-loss coaxial cable was used to connect the near-field probe to the spectrum analyzer.

The EUT was transmitting at its maximum data rate.

The 99% occupied bandwidth is required to be less than or equal to 0.25% of the center frequency for devices operating above 70 MHz and below 900 MHz. The emissions bandwidth is determined at the points 20 dB down from the modulated carrier.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	E4446A	AAT	2025-05-23	2026-05-23
Probe - Near Field Set	EMCO	7405	IPD	NCR	NCR

EMISSIONS BANDWIDTH AND OCCUPIED BANDWIDTH



EUT:	Dometic Key Fob	Work Order:	MRND0001
Serial Number:	119774600019	Date:	2026-03-03
Customer:	Dometic Marine Canada Inc	Temperature:	23.8°C
Attendees:	None	Relative Humidity:	40.1%
Customer Project:	None	Bar. Pressure (PMSL):	1012.2 mbar
Tested By:	Christopher Pinkham, Jeff Alcock	Job Site:	EV01
Power:	Battery	Configuration:	MRND0001-1

COMMENTS

None

DEVIATIONS FROM TEST STANDARD

None

CONCLUSION

Pass


Tested By

TEST RESULTS

		Emissions BW (20 dB)	Occupied BW (99 %)	Limit	Result
418 MHz OOK		13.03 kHz	44.35 kHz	1.045 MHz	Pass

EMISSIONS BANDWIDTH AND OCCUPIED BANDWIDTH



DUTY CYCLE

TEST DESCRIPTION

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

A near-field probe was placed near the transmitter. A low-loss coaxial cable was used to connect the near-field probe to the spectrum analyzer.

For software controlled or pre-programmed devices, the manufacturer shall declare the duty cycle class or classes for the equipment under test. For manually operated or event dependent devices, with or without software controlled functions, the manufacturer shall declare whether the device once triggered, follows a pre-programmed cycle, or whether the transmission is constant until the trigger is released or manually reset. The manufacturer shall also give a description of the application for the device and include a typical usage pattern. The typical usage pattern as declared by the manufacturer shall be used to determine the duty cycle and hence the duty class.

Where an acknowledgement is required, the additional transmitter on-time shall be included and declared by the manufacturer.

To derive average emission measurements, a duty cycle correction factor was utilized:

Duty Cycle = On time/100 milliseconds (or the period, whichever is less)

Where "On time" = $N1L1 + N2L2 + \dots$

Where N1 is the number of type 1 pulses, L1 is length of type 1 pulses, N2 is the number of type 2 pulses, L2 is the length of type 2 pulses, etc.

Therefore, Duty Cycle = $(N1L1 + N2L2 + \dots)/100\text{ms}$ or T, whichever is less. (Where T is the period of the pulse train.)

Due to the multiple pulse widths observed in the pulse train an EMPower ETSI Burst Measurement System was used to measure the individual pulse widths and calculate the Duty Cycle over 100 ms. The data from the measurement was exported and parsed. The calculated duty cycle was then reported.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	E4446A	AAT	2025-05-23	2026-05-23
Thermometer	Omegaette	HH311	DTY	2025-04-09	2026-04-09
Meter - Power	ETS Lindgren	7002-006	SRF	2025-05-28	2026-05-28
Probe - Near Field Set	EMCO	7405	IPD	NCR	NCR

DUTY CYCLE

EUT:	Dometic Key Fob	Work Order:	MRND0001
Serial Number:	119774600019	Date:	2026-03-03
Customer:	Dometic Marine Canada Inc	Temperature:	24.1°C
Attendees:	None	Relative Humidity:	41.1%
Customer Project:	None	Bar. Pressure (PMSL):	1019.3 mbar
Tested By:	Christopher Pinkham, Jeff Alcock	Job Site:	EV06
Power:	Battery	Configuration:	MRND0001-1

COMMENTS

The encoder utilized by the EUT allows for 2^{24} unique addresses. The duty cycle pulse train will be different for each address. The duty cycle is determined by the baud rate of the encoder which is set in hardware.

The measurement below is representative of one of the 2^{24} possibilities.

DEVIATIONS FROM TEST STANDARD

None

CONCLUSION

Pass

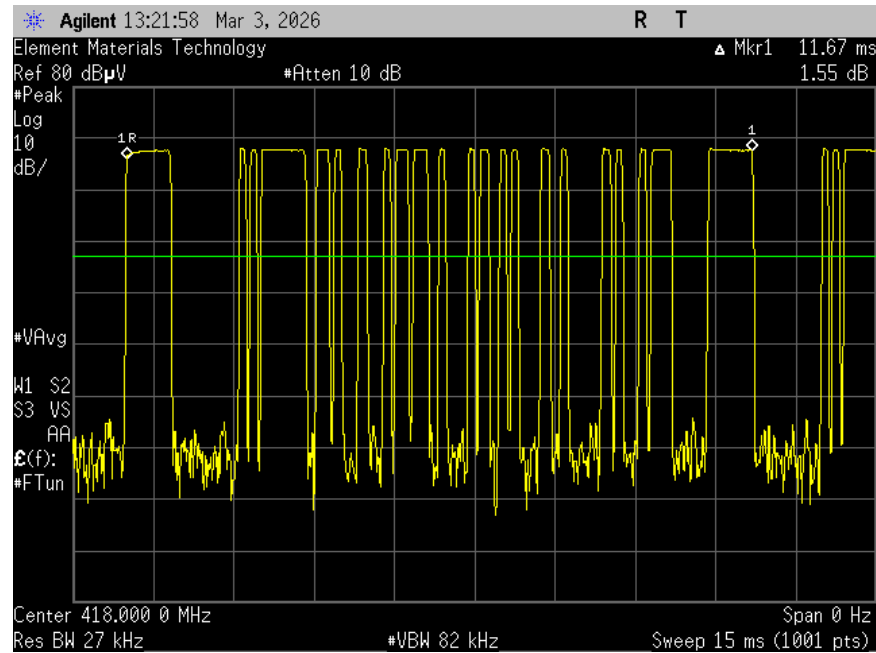


Tested By

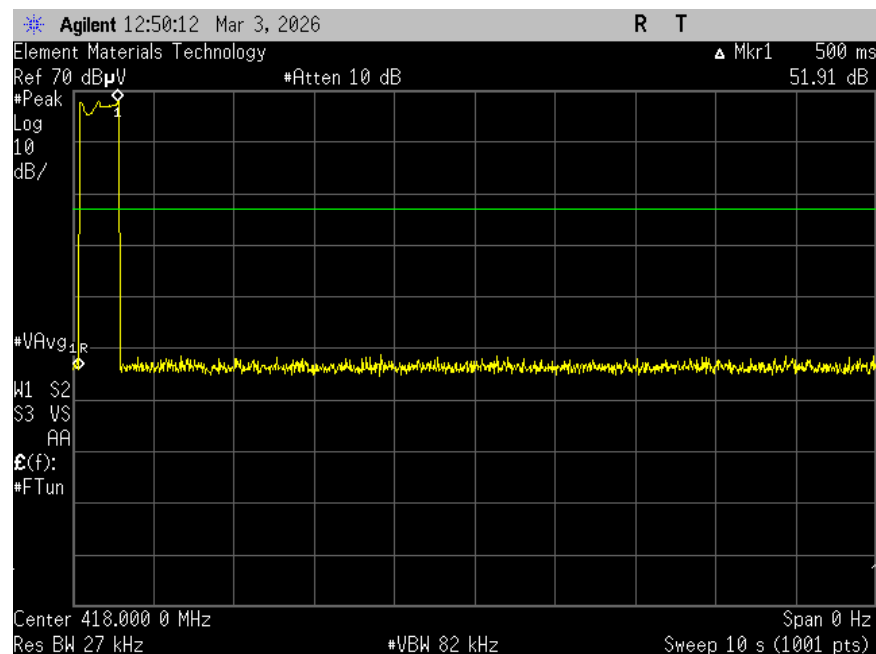
TEST RESULTS

		DUTY CYCLE (%)	Limit	Result
418 MHz OOK				
	Pulse Train	45	N/A	N/A
	10s Sweep – Automatic deactivation within 5 sec	--	< 5 seconds	Pass

DUTY CYCLE



418 MHz OOK
Full Pulse Train



418 MHz OOK
Automatic Deactivation within 5s
Marker 1R: Power button pressed
Marker 1: Power button released

End of Test Report