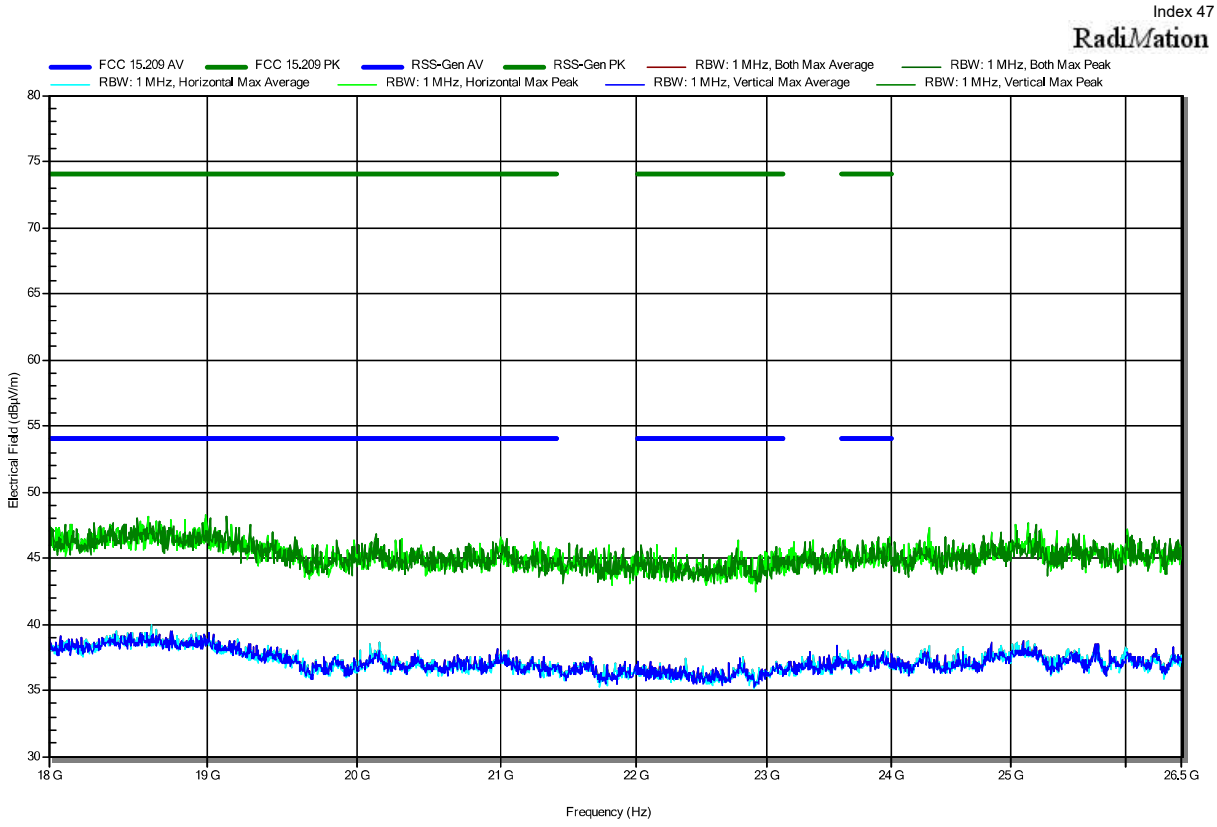
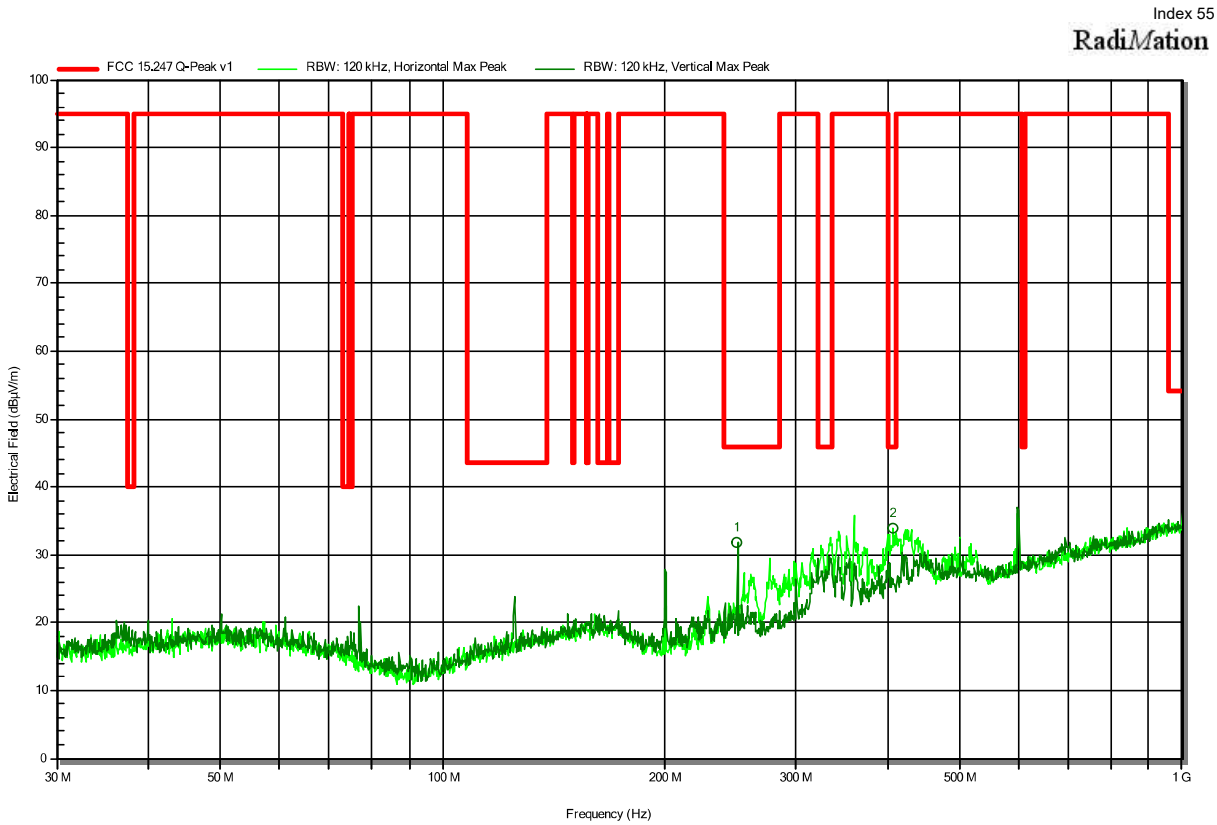
Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247

Project Number:	G0M-2303-1961
Applicant:	Navico Inc.
Model Description:	Marine and recreational IoT Gateway and vessel management system
Model:	Connect 1
Test Sample ID:	44396
Test Site:	Eurofins Product Service GmbH
Operator:	A.Ibraimov
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 25 °Celsius, Vnom: 13.8 VDC
Antenna:	Configurable Antenna
Measurement distance:	3 m
Mode:	Tx; BTLE, 2480 MHz, 2-GFSK, 1Mbps
Test Date:	2023-08-16
Note:	



Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247

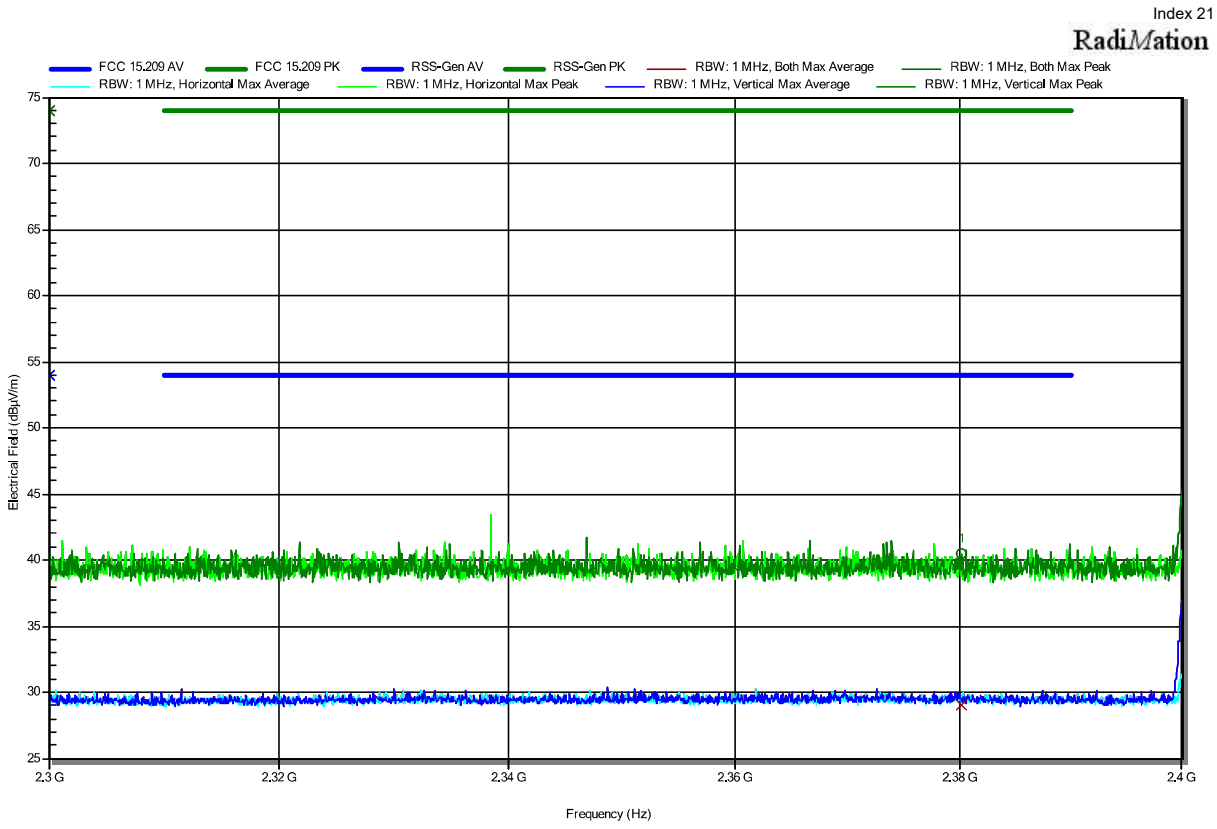
Project Number:	G0M-2303-1961
Applicant:	Navico Inc.
Model Description:	Marine and recreational IoT Gateway and vessel management system
Model:	Connect 1
Test Sample ID:	44396
Test Site:	Eurofins Product Service GmbH
Operator:	A.Ibraimov
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 25 °Celsius, Vnom: 13.8 VDC
Antenna:	Schwarzbeck VULB 9168
Measurement distance:	3 m
Mode:	Tx; BTLE, 2402 MHz, 2-GFSK, 2Mbps
Test Date:	2023-08-18
Note:	



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
249.996 MHz	31.8 dBµV/m	46 dBµV/m	-14.15 dB	Pass	Vertical
406.457 MHz	33.9 dBµV/m	46 dBµV/m	-12.12 dB	Pass	Horizontal

Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247

Project Number:	G0M-2303-1961
Applicant:	Navico Inc.
Model Description:	Marine and recreational IoT Gateway and vessel management system
Model:	Connect 1
Test Sample ID:	44396
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Voigt
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 13.8 VDC
Antenna:	Schwarzbeck BBHA 9120D
Measurement distance:	3 m
Mode:	Tx; BTLE, 2402 MHz, 2-GFSK, 2Mbps
Test Date:	2023-07-13
Note:	

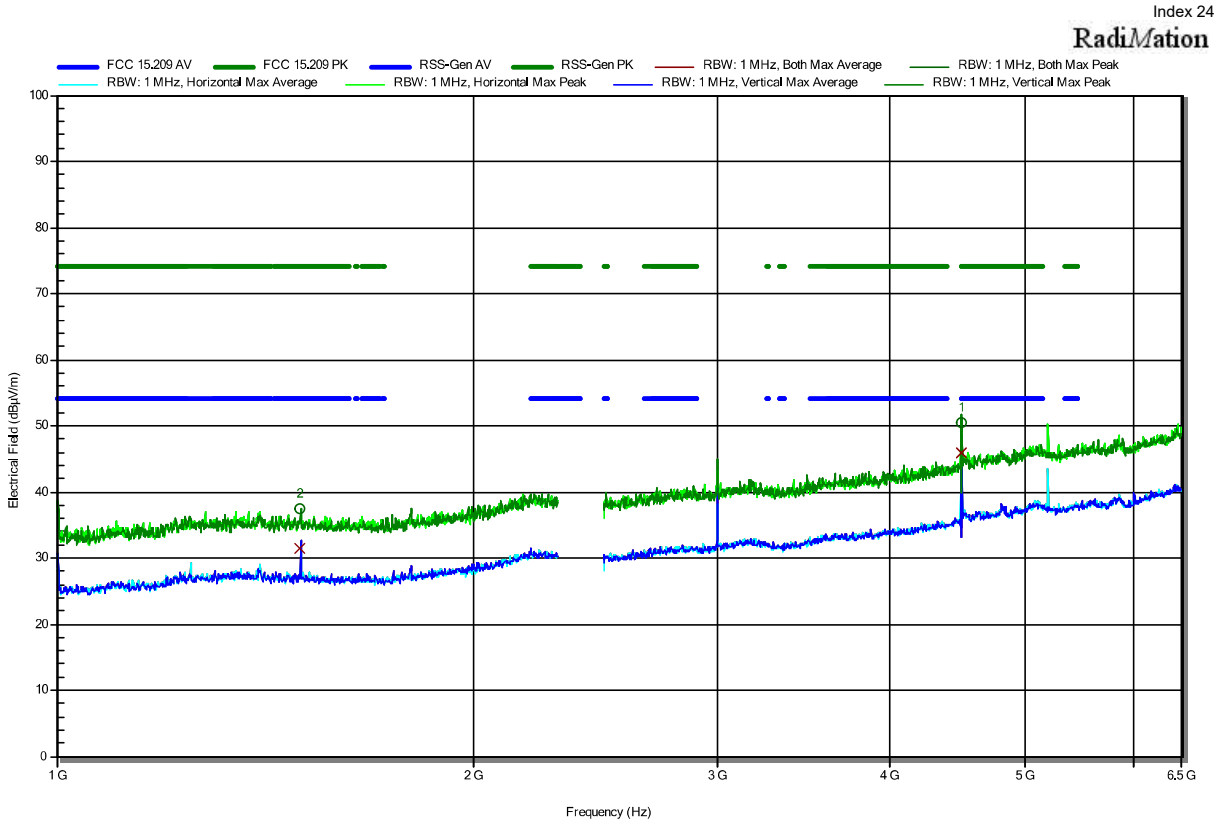


Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
2.3802 GHz	40.49 dBµV/m	74 dBµV/m	-33.51 dB	Pass	Horizontal

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
2.3802 GHz	29.08 dBµV/m	54 dBµV/m	-24.92 dB	Pass	Horizontal

Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247

Project Number:	G0M-2303-1961
Applicant:	Navico Inc.
Model Description:	Marine and recreational IoT Gateway and vessel management system
Model:	Connect 1
Test Sample ID:	44396
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Voigt
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 13.8 VDC
Antenna:	Schwarzbeck BBHA 9120D
Measurement distance:	3 m
Mode:	Tx; BTLE, 2402 MHz, 2-GFSK, 2Mbps
Test Date:	2023-07-13
Note:	

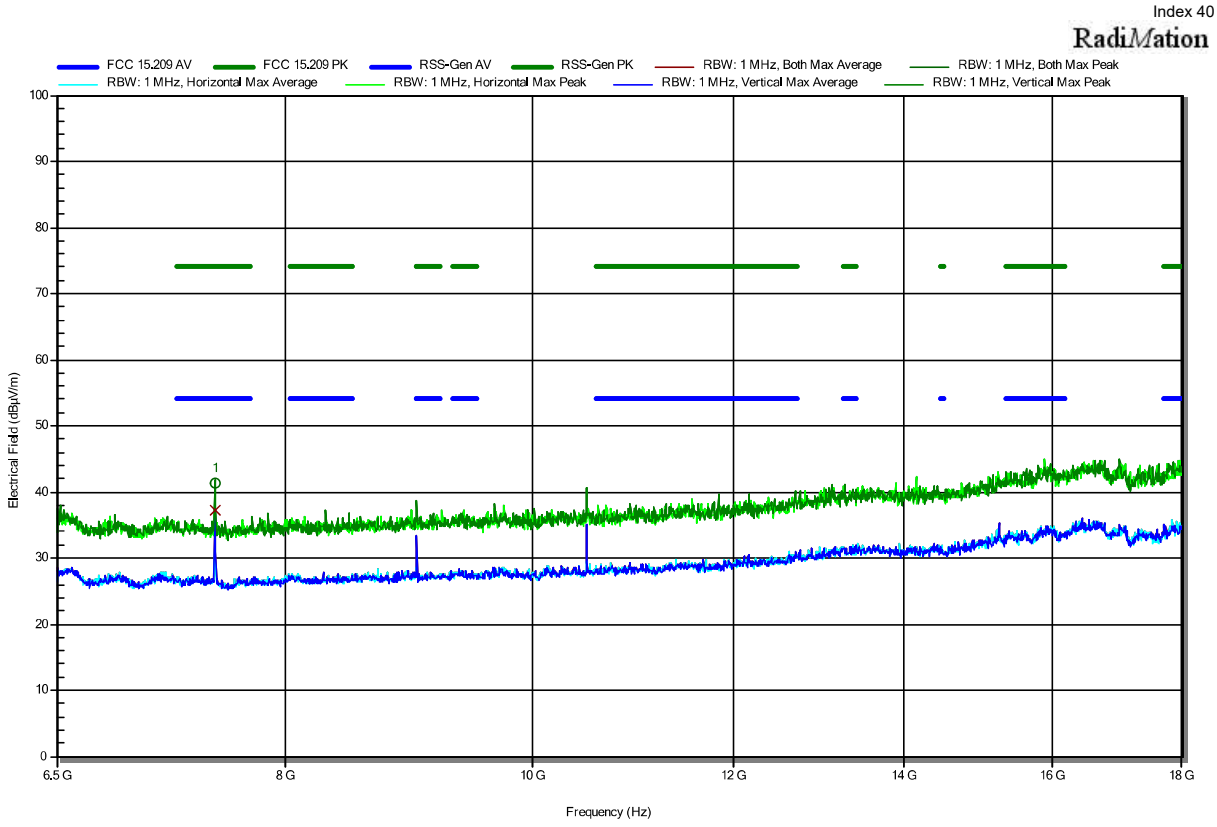


Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
1.4999 GHz	37.36 dBµV/m	74 dBµV/m	-36.64 dB	Pass	Vertical
4.5001 GHz	50.53 dBµV/m	74 dBµV/m	-23.47 dB	Pass	Vertical

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
1.4999 GHz	31.56 dBµV/m	54 dBµV/m	-22.44 dB	Pass	Vertical
4.5001 GHz	45.88 dBµV/m	54 dBµV/m	-8.12 dB	Pass	Vertical

Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247

Project Number:	G0M-2303-1961
Applicant:	Navico Inc.
Model Description:	Marine and recreational IoT Gateway and vessel management system
Model:	Connect 1
Test Sample ID:	44396
Test Site:	Eurofins Product Service GmbH
Operator:	A.Ibraimov
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 25 °Celsius, Vnom: 13.8 VDC
Antenna:	Schwarzbeck HWRD 650
Measurement distance:	3 m
Mode:	Tx; BTLE, 2402 MHz, 2-GFSK, 2Mbps
Test Date:	2023-08-16
Note:	

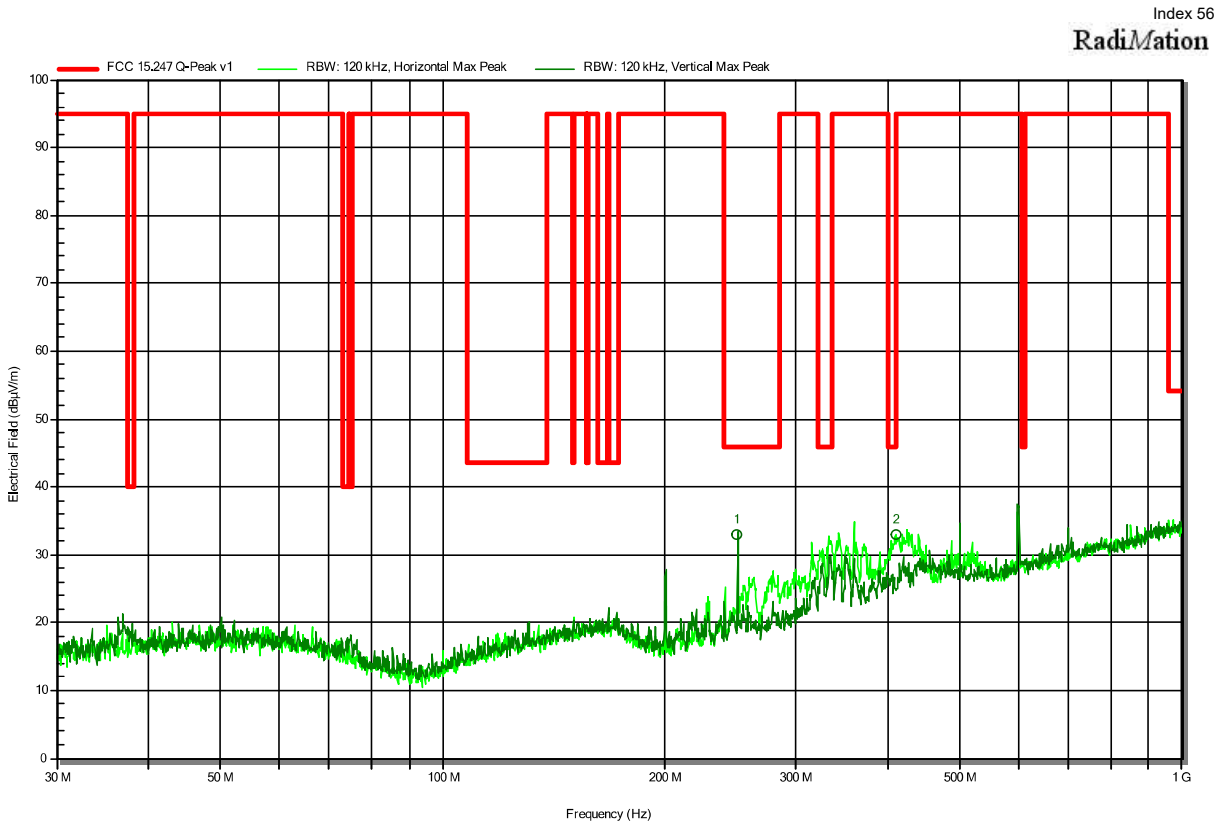


Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
7.501 GHz	41.36 dBµV/m	74 dBµV/m	-32.64 dB	Pass	Vertical

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
7.501 GHz	37.18 dBµV/m	54 dBµV/m	-16.82 dB	Pass	Vertical

Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247

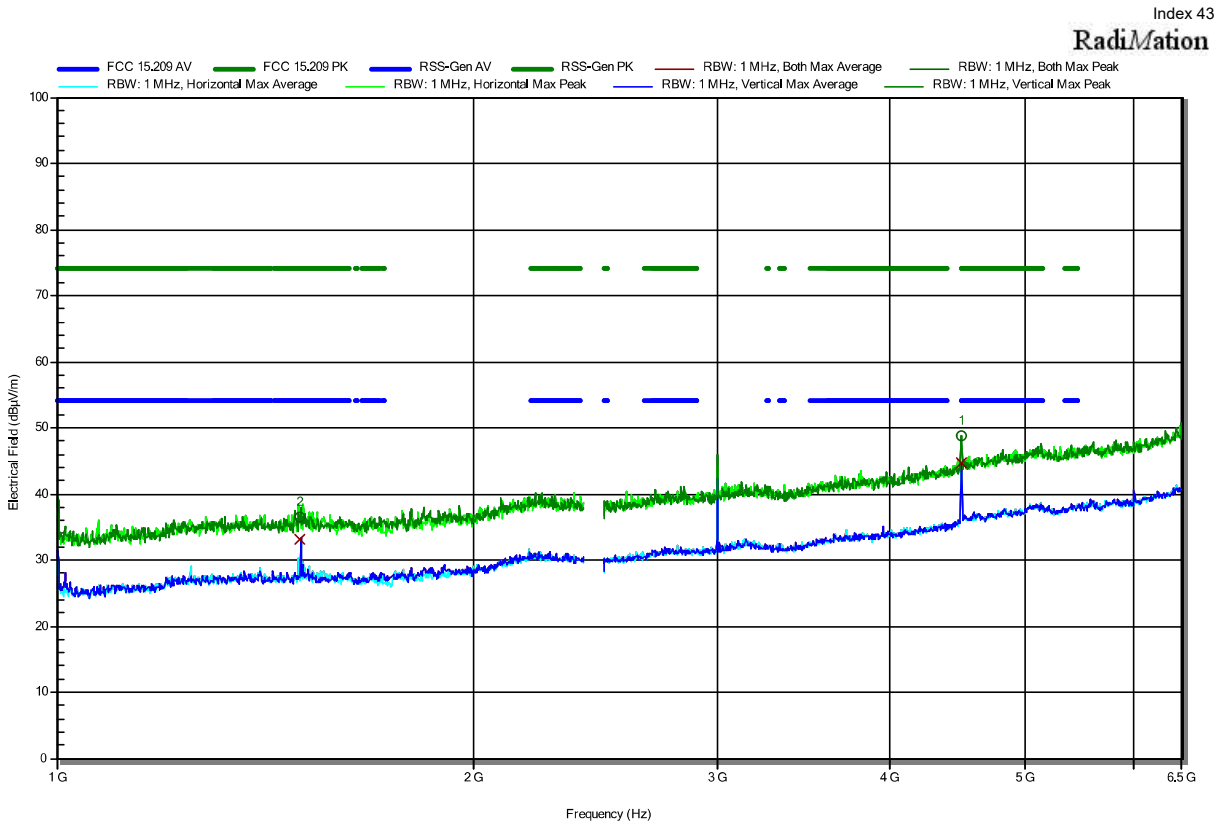
Project Number:	G0M-2303-1961
Applicant:	Navico Inc.
Model Description:	Marine and recreational IoT Gateway and vessel management system
Model:	Connect 1
Test Sample ID:	44396
Test Site:	Eurofins Product Service GmbH
Operator:	A.Ibraimov
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 25 °Celsius, Vnom: 13.8 VDC
Antenna:	Schwarzbeck VULB 9168
Measurement distance:	3 m
Mode:	Tx; BTLE, 2440 MHz, 2-GFSK, 2Mbps
Test Date:	2023-08-18
Note:	



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
249.996 MHz	33 dBµV/m	46 dBµV/m	-13 dB	Pass	Vertical
409.367 MHz	33 dBµV/m	46 dBµV/m	-12.98 dB	Pass	Horizontal

Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247

Project Number:	G0M-2303-1961
Applicant:	Navico Inc.
Model Description:	Marine and recreational IoT Gateway and vessel management system
Model:	Connect 1
Test Sample ID:	44396
Test Site:	Eurofins Product Service GmbH
Operator:	A.Ibraimov
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 25 °Celsius, Vnom: 13.8 VDC
Antenna:	Schwarzbeck BBHA 9120D
Measurement distance:	3 m
Mode:	Tx; BTLE, 2440 MHz, 2-GFSK, 2Mbps
Test Date:	2023-08-16
Note:	

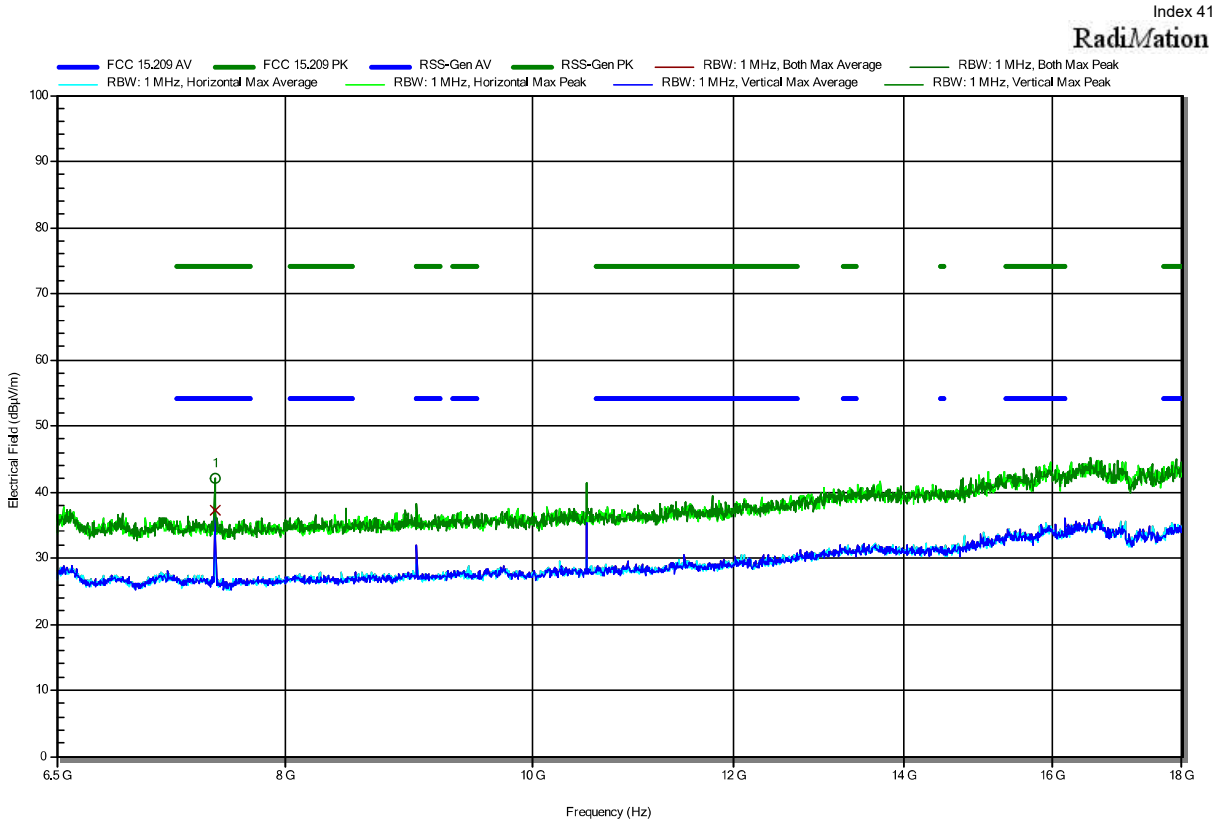


Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
1.5001 GHz	36.43 dBµV/m	74 dBµV/m	-37.57 dB	Pass	Vertical
4.5 GHz	48.89 dBµV/m	74 dBµV/m	-25.11 dB	Pass	Vertical

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
1.5001 GHz	33.03 dBµV/m	54 dBµV/m	-20.97 dB	Pass	Vertical
4.5 GHz	44.79 dBµV/m	54 dBµV/m	-9.21 dB	Pass	Vertical

Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247

Project Number:	G0M-2303-1961
Applicant:	Navico Inc.
Model Description:	Marine and recreational IoT Gateway and vessel management system
Model:	Connect 1
Test Sample ID:	44396
Test Site:	Eurofins Product Service GmbH
Operator:	A.Ibraimov
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 25 °Celsius, Vnom: 13.8 VDC
Antenna:	Schwarzbeck HWRD 650
Measurement distance:	3 m
Mode:	Tx; BTLE, 2440 MHz, 2-GFSK, 2Mbps
Test Date:	2023-08-16
Note:	

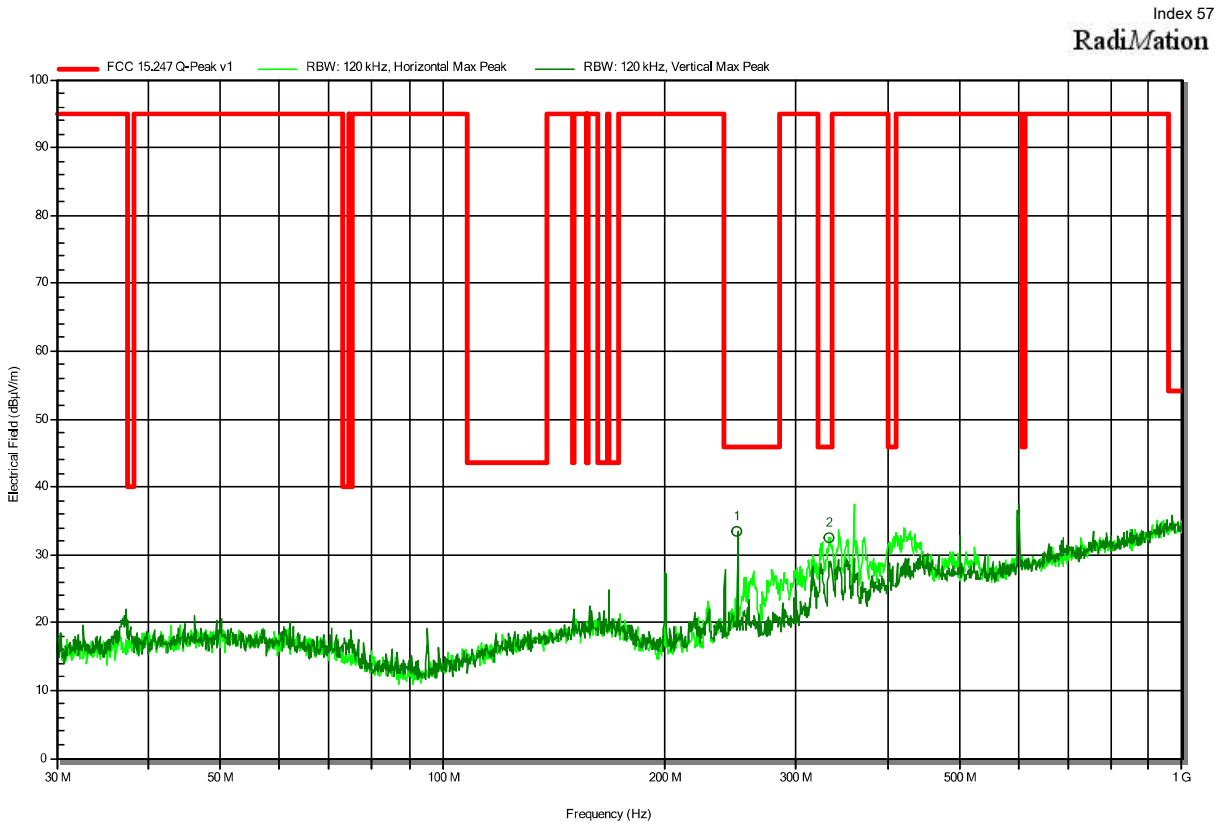


Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
7.5 GHz	41.97 dBµV/m	74 dBµV/m	-32.03 dB	Pass	Vertical

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
7.5 GHz	37.29 dBµV/m	54 dBµV/m	-16.71 dB	Pass	Vertical

Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247

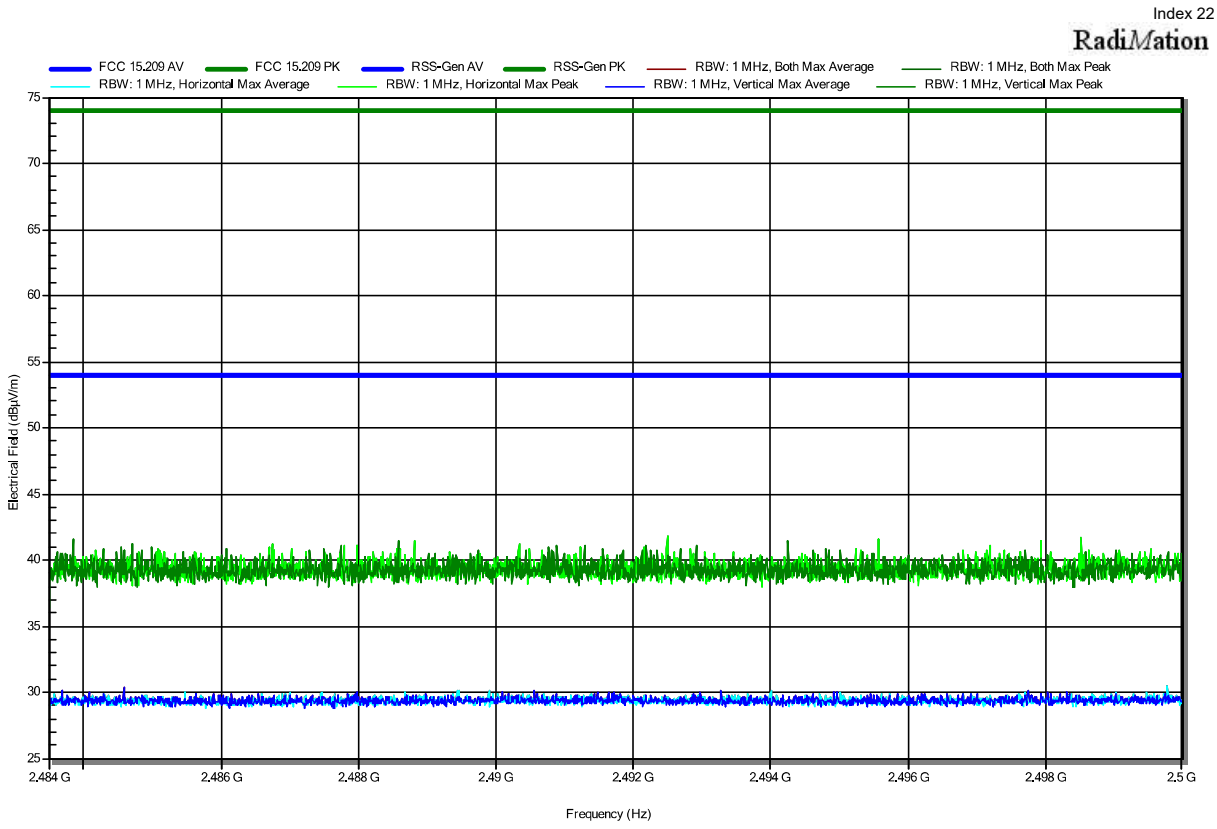
Project Number:	G0M-2303-1961
Applicant:	Navico Inc.
Model Description:	Marine and recreational IoT Gateway and vessel management system
Model:	Connect 1
Test Sample ID:	44396
Test Site:	Eurofins Product Service GmbH
Operator:	A.Ibraimov
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 25 °Celsius, Vnom: 13.8 VDC
Antenna:	Schwarzbeck VULB 9168
Measurement distance:	3 m
Mode:	Tx; BTLE, 2480 MHz, 2-GFSK, 2Mbps
Test Date:	2023-08-18
Note:	



Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
249.9717 MHz	33.4 dBµV/m	46 dBµV/m	-12.64 dB	Pass	Vertical
332.7612 MHz	32.4 dBµV/m	46 dBµV/m	-13.57 dB	Pass	Horizontal

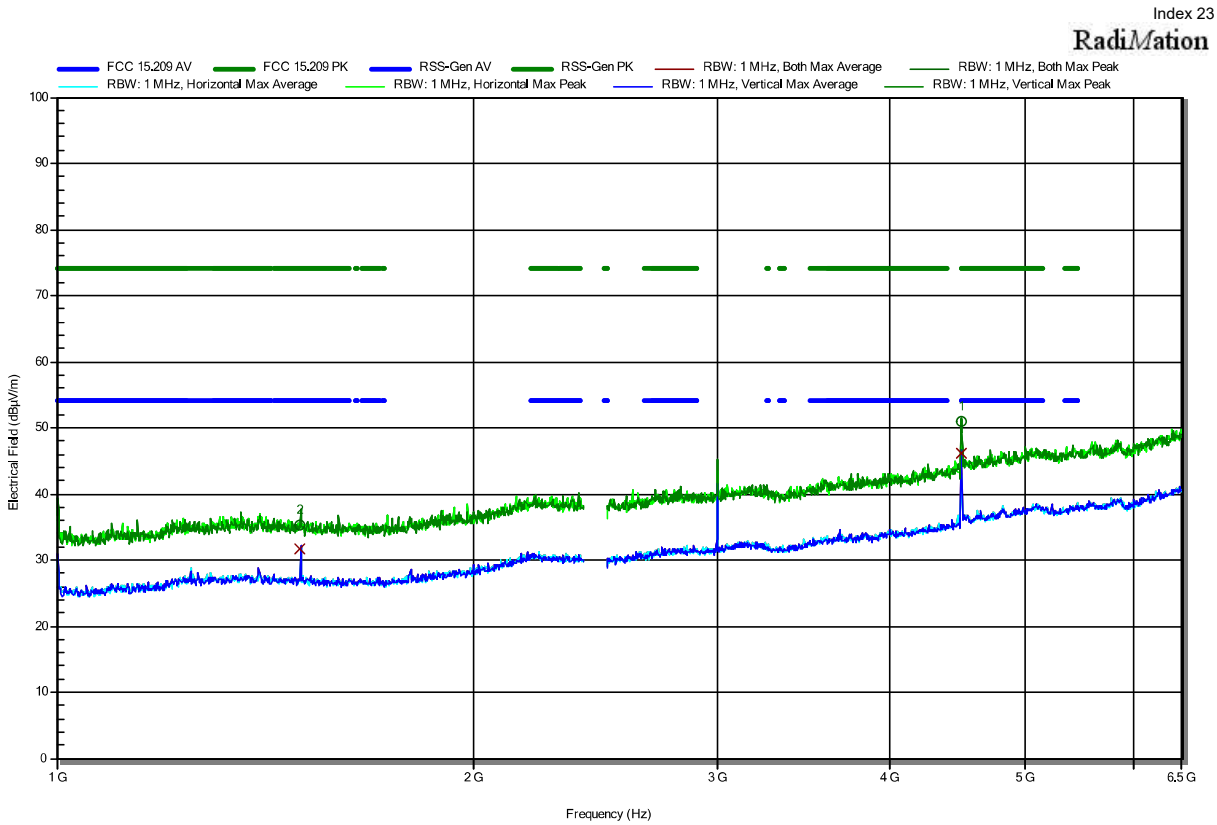
Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247

Project Number:	G0M-2303-1961
Applicant:	Navico Inc.
Model Description:	Marine and recreational IoT Gateway and vessel management system
Model:	Connect 1
Test Sample ID:	44396
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Voigt
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 13.8 VDC
Antenna:	Schwarzbeck BBHA 9120D
Measurement distance:	3 m
Mode:	Tx; BTLE, 2480 MHz, 2-GFSK, 2Mbps
Test Date:	2023-07-13
Note:	



Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247

Project Number:	G0M-2303-1961
Applicant:	Navico Inc.
Model Description:	Marine and recreational IoT Gateway and vessel management system
Model:	Connect 1
Test Sample ID:	44396
Test Site:	Eurofins Product Service GmbH
Operator:	Mr. Voigt
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 24 °Celsius, Vnom: 13.8 VDC
Antenna:	Schwarzbeck BBHA 9120D
Measurement distance:	3 m
Mode:	Tx; BTLE, 2480 MHz, 2-GFSK, 2Mbps
Test Date:	2023-07-13
Note:	

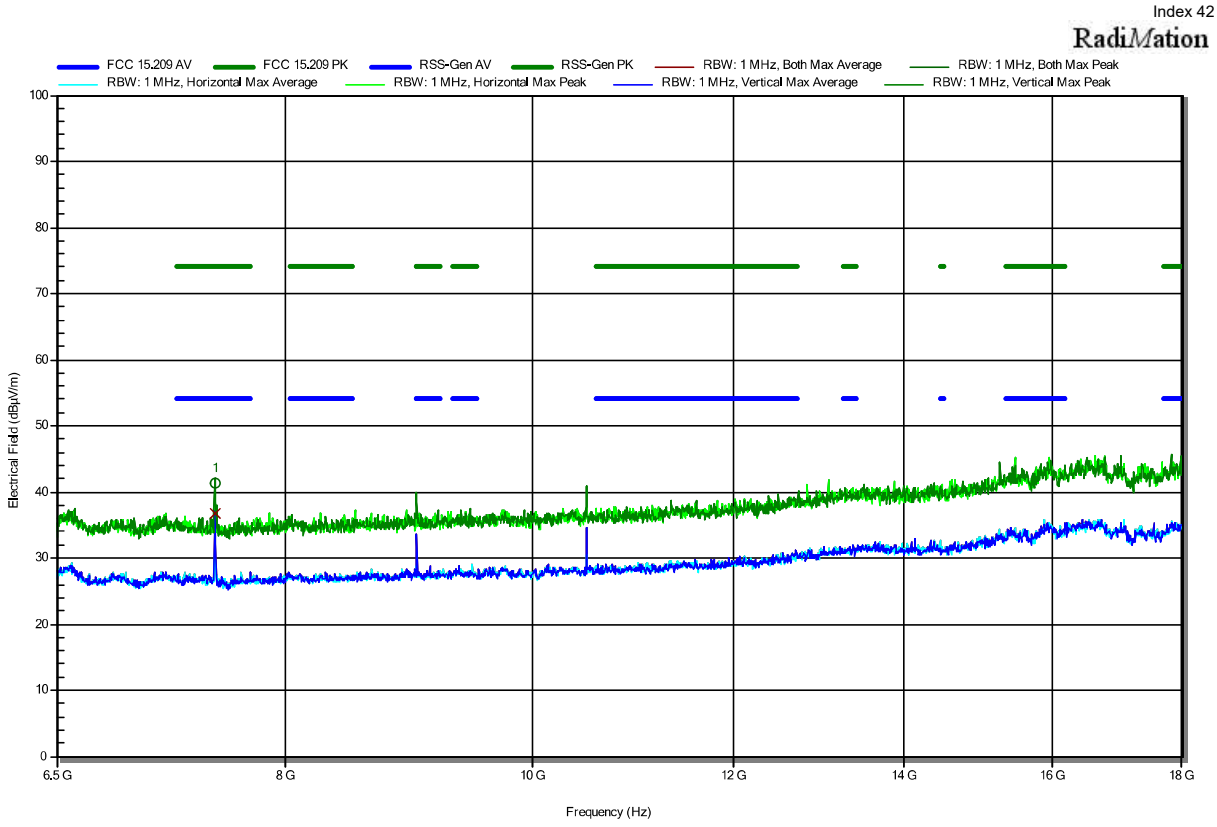


Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
1.5 GHz	35.32 dBµV/m	74 dBµV/m	-38.68 dB	Pass	Vertical
4.5 GHz	50.96 dBµV/m	74 dBµV/m	-23.04 dB	Pass	Vertical

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
1.5 GHz	31.77 dBµV/m	54 dBµV/m	-22.23 dB	Pass	Vertical
4.5 GHz	46.25 dBµV/m	54 dBµV/m	-7.75 dB	Pass	Vertical

Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247

Project Number:	G0M-2303-1961
Applicant:	Navico Inc.
Model Description:	Marine and recreational IoT Gateway and vessel management system
Model:	Connect 1
Test Sample ID:	44396
Test Site:	Eurofins Product Service GmbH
Operator:	A.Ibraimov
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 25 °Celsius, Vnom: 13.8 VDC
Antenna:	Schwarzbeck HWRD 650
Measurement distance:	3 m
Mode:	Tx; BTLE, 2480 MHz, 2-GFSK, 2Mbps
Test Date:	2023-08-16
Note:	



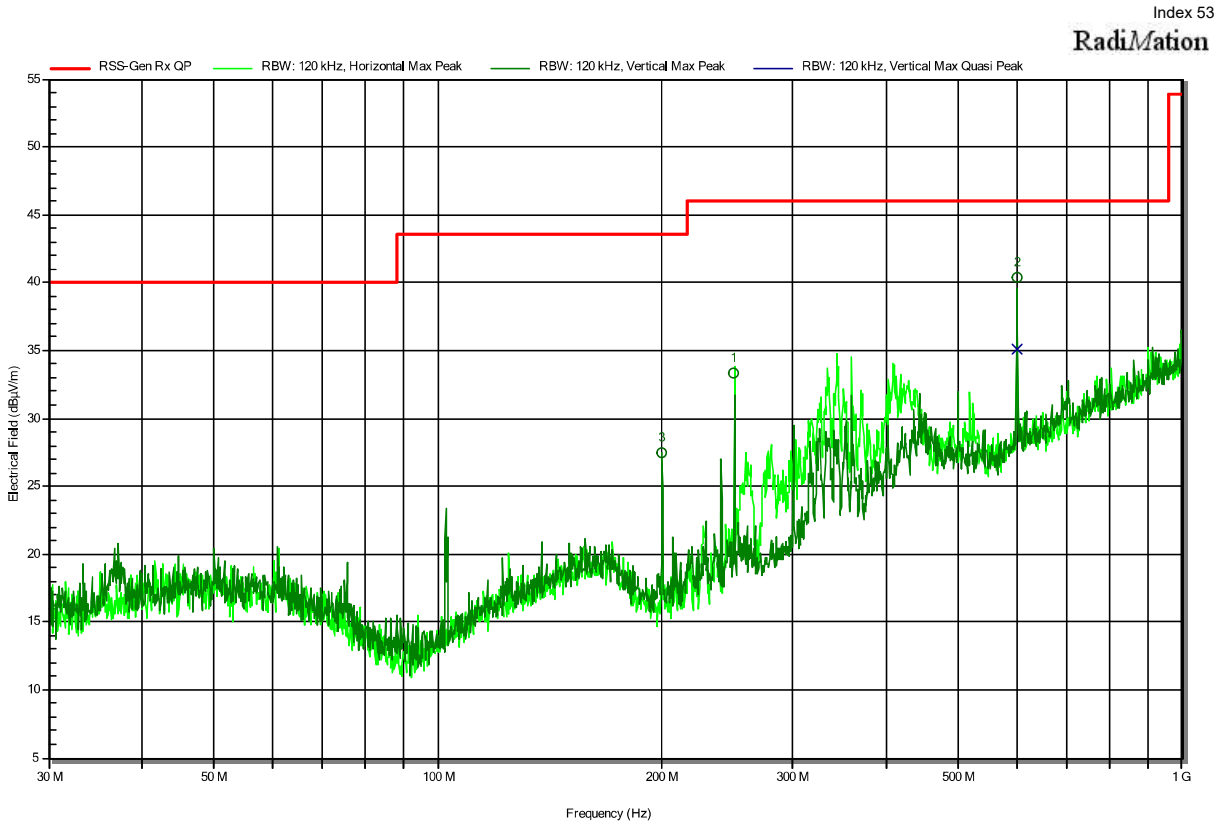
Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
7.501 GHz	41.33 dBµV/m	74 dBµV/m	-32.67 dB	Pass	Vertical

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
7.501 GHz	36.86 dBµV/m	54 dBµV/m	-17.14 dB	Pass	Vertical

ANNEX B Receiver spurious emissions

Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247

Project Number:	G0M-2303-1961
Applicant:	Navico Inc.
Model Description:	Marine and recreational IoT Gateway and vessel management system
Model:	Connect 1
Test Sample ID:	44396
Test Site:	Eurofins Product Service GmbH
Operator:	A.Ibraimov
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 25 °Celsius, Vnom: 13.8 VDC
Antenna:	Schwarzbeck VULB 9168
Measurement distance:	3 m
Mode:	Rx; BTLE, 2440 MHz, 1Mbps, Rx
Test Date:	2023-08-18
Note:	

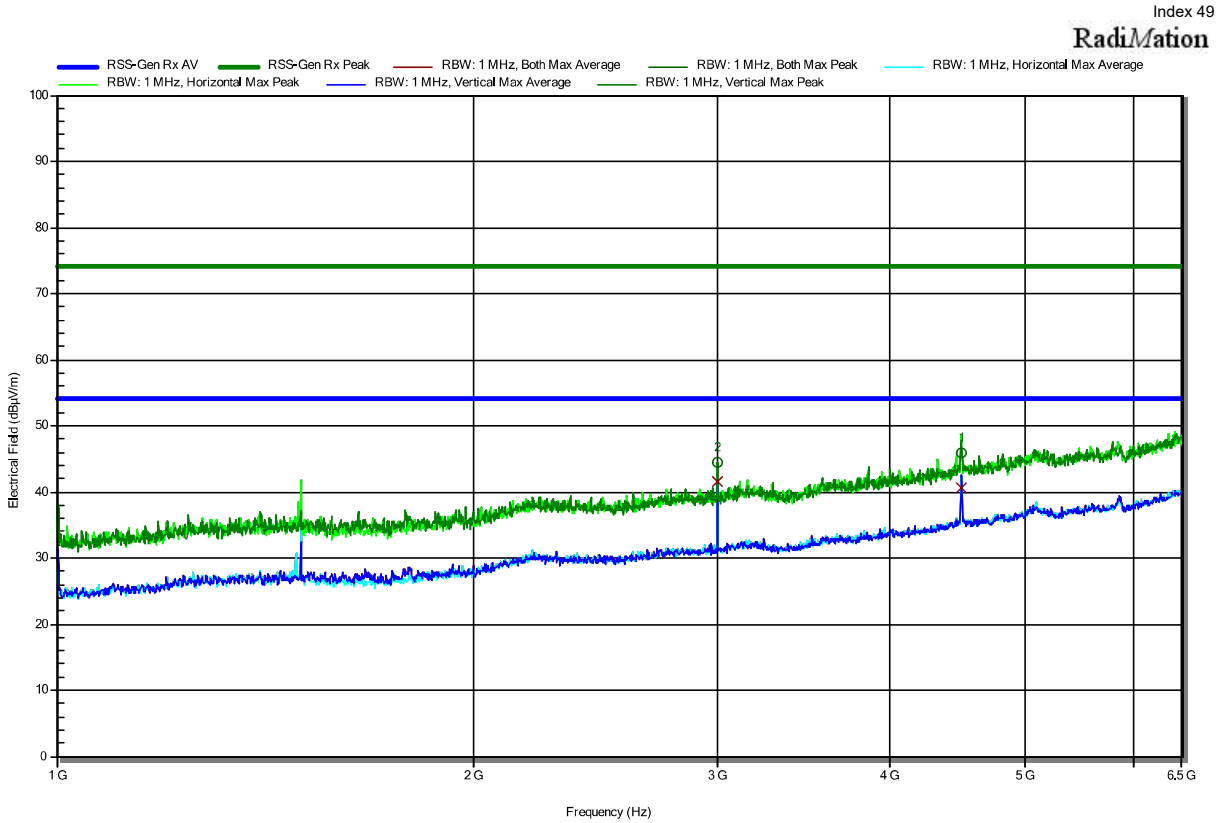


Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
199.7985 MHz	27.5 dBµV/m	43.5 dBµV/m	-16.01 dB	Pass	Vertical
249.9717 MHz	33.3 dBµV/m	46 dBµV/m	-12.69 dB	Pass	Horizontal

Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	Polarization
600.36 MHz	35.6 dBµV/m	46 dBµV/m	-10.41 dB	Pass	Vertical

Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247

Project Number:	G0M-2303-1961
Applicant:	Navico Inc.
Model Description:	Marine and recreational IoT Gateway and vessel management system
Model:	Connect 1
Test Sample ID:	44396
Test Site:	Eurofins Product Service GmbH
Operator:	A.Ibraimov
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 25 °Celsius, Vnom: 13.8 VDC
Antenna:	Schwarzbeck BBHA 9120D
Measurement distance:	3 m
Mode:	Rx; BTLE, 2440 MHz, 1Mbps, Rx
Test Date:	2023-08-18
Note:	

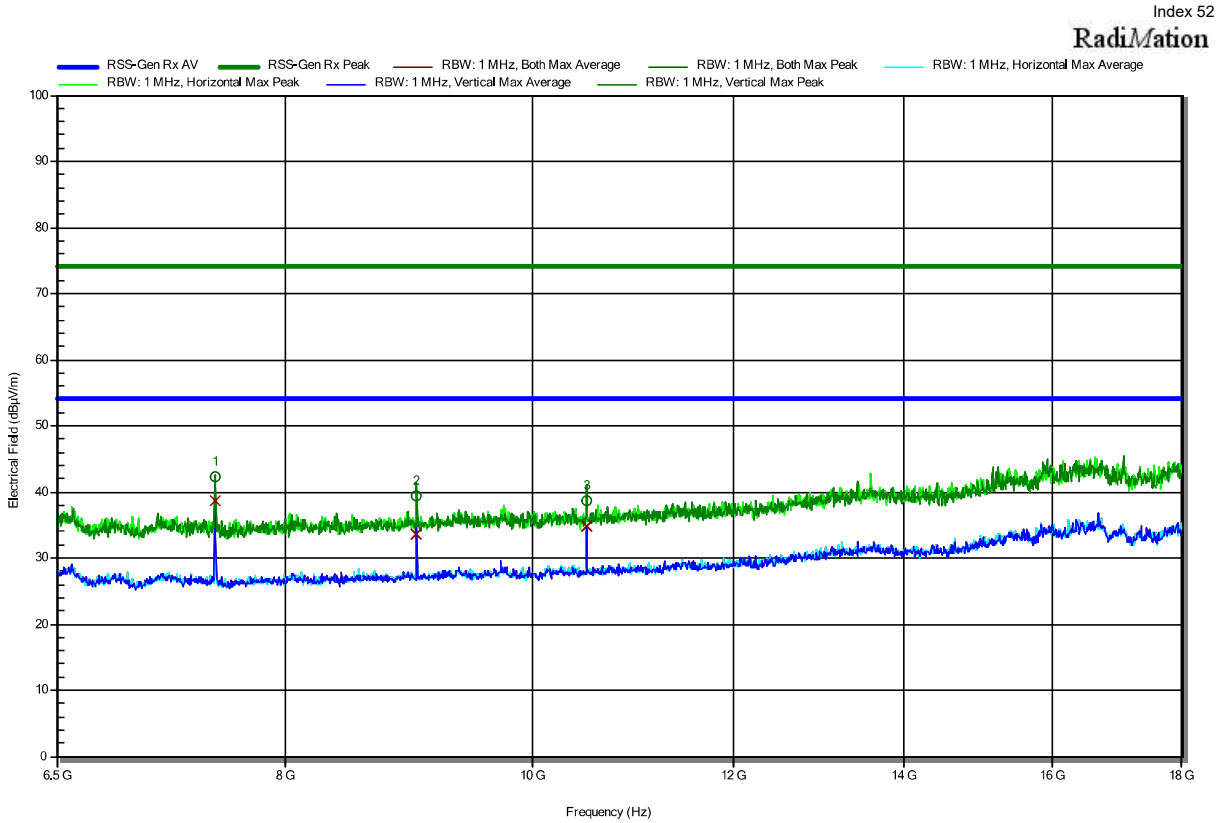


Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
3 GHz	44.38 dBµV/m	74 dBµV/m	-29.62 dB	Pass	Vertical
4.5 GHz	45.8 dBµV/m	74 dBµV/m	-28.2 dB	Pass	Vertical

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
3 GHz	41.68 dBµV/m	53.98 dBµV/m	-12.3 dB	Pass	Vertical
4.5 GHz	40.69 dBµV/m	53.98 dBµV/m	-13.29 dB	Pass	Vertical

Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247

Project Number:	G0M-2303-1961
Applicant:	Navico Inc.
Model Description:	Marine and recreational IoT Gateway and vessel management system
Model:	Connect 1
Test Sample ID:	44396
Test Site:	Eurofins Product Service GmbH
Operator:	A.Ibraimov
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 25 °Celsius, Vnom: 13.8 VDC
Antenna:	Schwarzbeck HWRD 650
Measurement distance:	3 m
Mode:	Rx; BTLE, 2440 MHz, 1Mbps, Rx
Test Date:	2023-08-18
Note:	

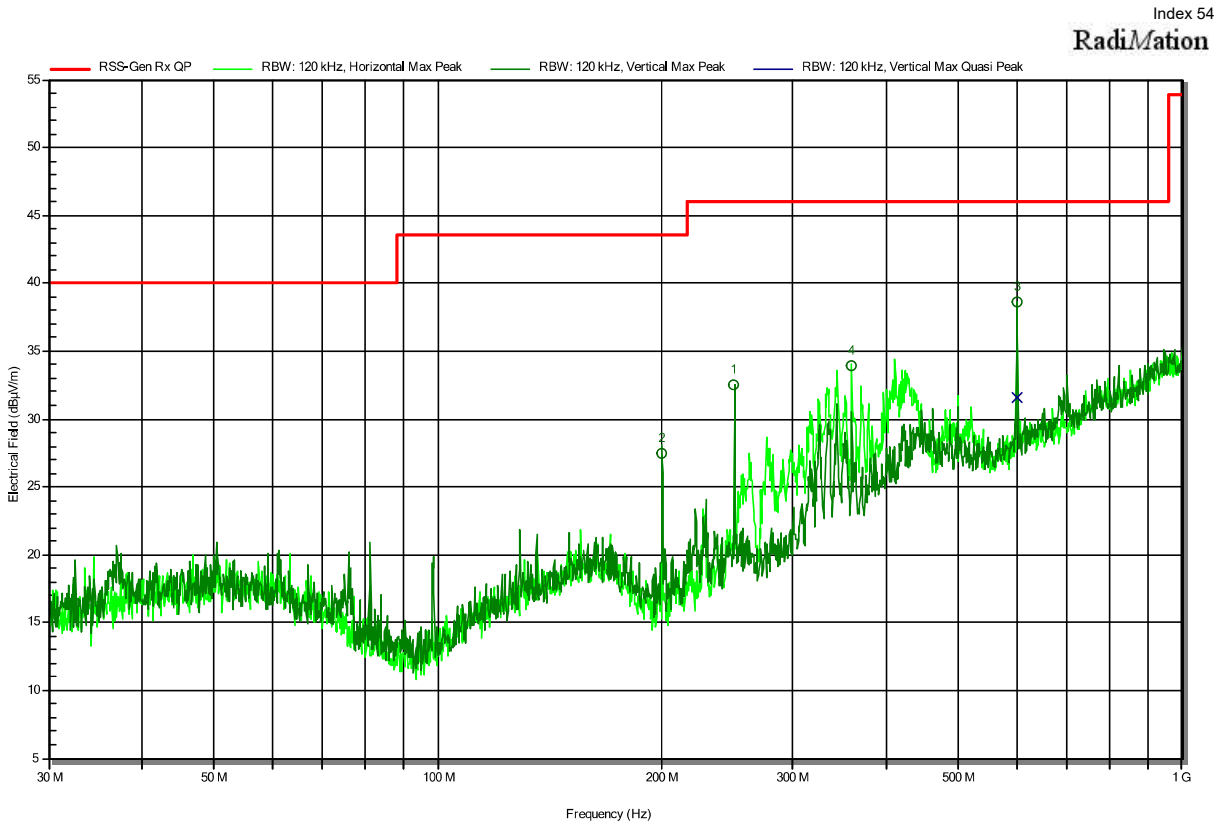


Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
7.5 GHz	42.24 dBµV/m	74 dBµV/m	-31.76 dB	Pass	Vertical
9 GHz	39.46 dBµV/m	74 dBµV/m	-34.54 dB	Pass	Vertical
10.5 GHz	38.77 dBµV/m	74 dBµV/m	-35.23 dB	Pass	Vertical

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
7.5 GHz	38.68 dBµV/m	53.98 dBµV/m	-15.3 dB	Pass	Vertical
9 GHz	33.63 dBµV/m	53.98 dBµV/m	-20.35 dB	Pass	Vertical
10.5 GHz	34.83 dBµV/m	53.98 dBµV/m	-19.15 dB	Pass	Vertical

Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247

Project Number:	G0M-2303-1961
Applicant:	Navico Inc.
Model Description:	Marine and recreational IoT Gateway and vessel management system
Model:	Connect 1
Test Sample ID:	44396
Test Site:	Eurofins Product Service GmbH
Operator:	A.Ibraimov
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 25 °Celsius, Vnom: 13.8 VDC
Antenna:	Schwarzbeck VULB 9168
Measurement distance:	3 m
Mode:	Rx; BTLE, 2440 MHz, 2Mbps, Rx
Test Date:	2023-08-18
Note:	

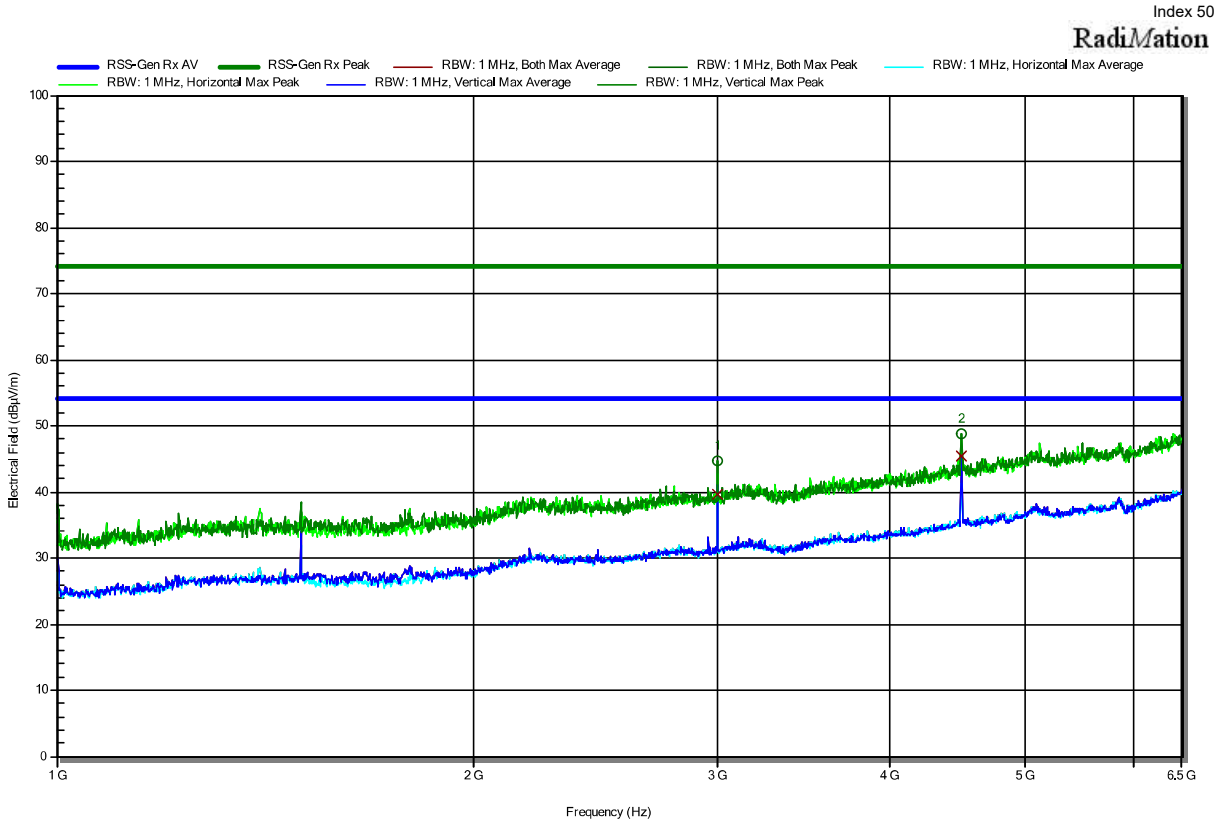


Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
200.0167 MHz	27.5 dBµV/m	43.5 dBµV/m	-15.99 dB	Pass	Vertical
249.9717 MHz	32.5 dBµV/m	46 dBµV/m	-13.46 dB	Pass	Vertical
359.9455 MHz	34 dBµV/m	46 dBµV/m	-12.01 dB	Pass	Horizontal

Frequency	Quasi-Peak	Quasi-Peak Limit	Quasi-Peak Difference	Quasi-Peak Status	Polarization
599.7053 MHz	31.6 dBµV/m	46 dBµV/m	-14.42 dB	Pass	Vertical

Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247

Project Number:	G0M-2303-1961
Applicant:	Navico Inc.
Model Description:	Marine and recreational IoT Gateway and vessel management system
Model:	Connect 1
Test Sample ID:	44396
Test Site:	Eurofins Product Service GmbH
Operator:	A.Ibraimov
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 25 °Celsius, Vnom: 13.8 VDC
Antenna:	Schwarzbeck BBHA 9120D
Measurement distance:	3 m
Mode:	Rx; BTLE, 2440 MHz, 2Mbps, Rx
Test Date:	2023-08-18
Note:	

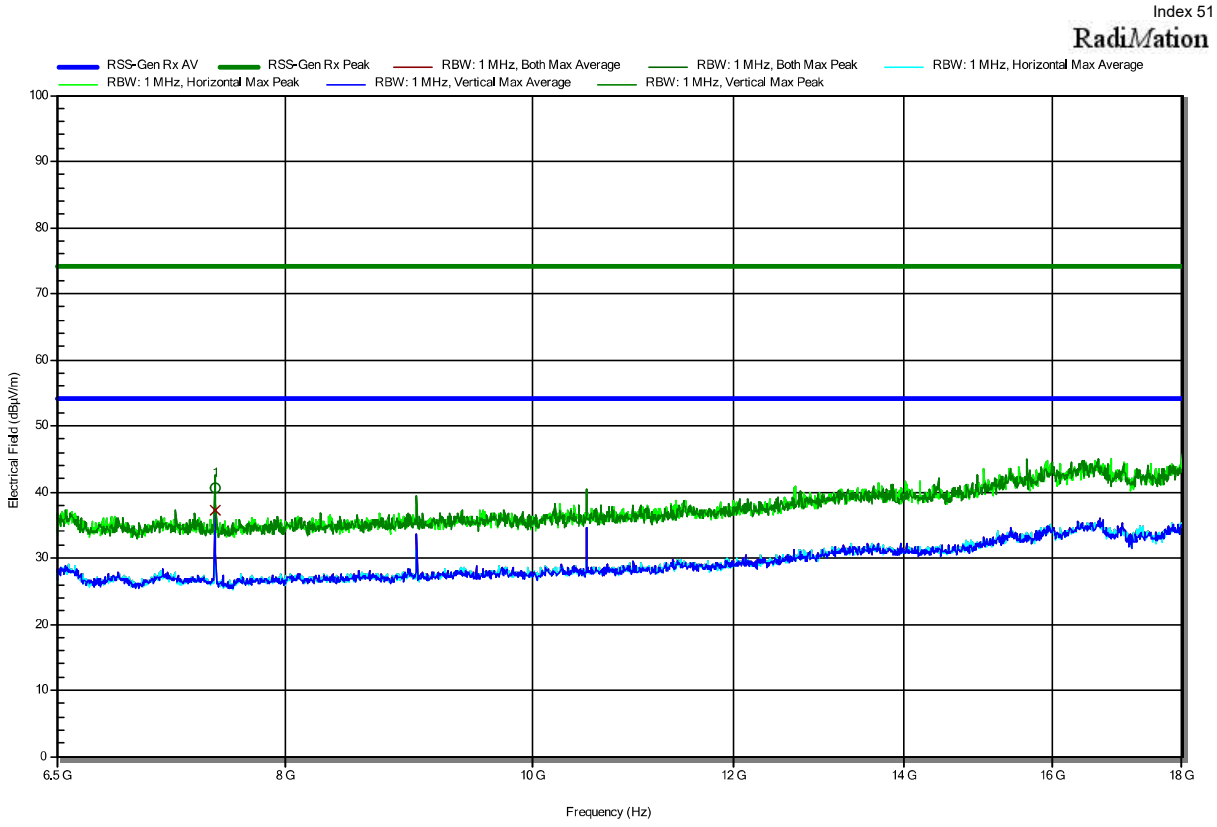


Frequency	Peak	Peak Limit	Peak Difference	Peak Status	Polarization
3 GHz	44.71 dBµV/m	74 dBµV/m	-29.29 dB	Pass	Vertical
4.5 GHz	48.78 dBµV/m	74 dBµV/m	-25.22 dB	Pass	Vertical

Frequency	Average	Average Limit	Average Difference	Average Status	Polarization
3 GHz	39.69 dBµV/m	53.98 dBµV/m	-14.29 dB	Pass	Vertical
4.5 GHz	45.39 dBµV/m	53.98 dBµV/m	-8.59 dB	Pass	Vertical

Radiated Spurious Emissions according to 47 CFR Part 15.247, RSS-247

Project Number:	G0M-2303-1961
Applicant:	Navico Inc.
Model Description:	Marine and recreational IoT Gateway and vessel management system
Model:	Connect 1
Test Sample ID:	44396
Test Site:	Eurofins Product Service GmbH
Operator:	A.Ibraimov
Measurement software:	RadiMation, version 2020.1.8
Test Conditions:	Tnom: 25 °Celsius, Vnom: 13.8 VDC
Antenna:	Schwarzbeck HWRD 650
Measurement distance:	3 m
Mode:	Rx; BTLE, 2440 MHz, 2Mbps, Rx
Test Date:	2023-08-18
Note:	



Frequency 7.5 GHz	Peak 40.56 dBµV/m	Peak Limit 74 dBµV/m	Peak Difference -33.44 dB	Peak Status Pass	Polarization Vertical

Frequency 7.5 GHz	Average 37.23 dBµV/m	Average Limit 53.98 dBµV/m	Average Difference -16.75 dB	Average Status Pass	Polarization Vertical

= = = END OF TEST REPORT = = =