



Engineering Solutions & Electromagnetic Compatibility Services

Class 2 Permissive Change

L3Harris Technologies, Inc.
221 Jefferson Ridge Parkway
Lynchburg, VA 24501

Model: XL-400P
Multi-Band Portable, V/U/7/8

FCC ID: OWDTR-0164-E
IC: 3636B-0164

February 24, 2022

Standards Referenced for this Report	
Part 2: 2020	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
ANSI C63.26-2017	American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services
RSS-119 Issue 12	Land Mobile and Fixed Radio Transmitters and Receivers 27.41 to 960.0 MHz

Report Prepared By: Daniel W. Baltzell

Document Number: 2020161

I, the undersigned, hereby declare that the equipment tested and referenced in this report conforms to the identified standard(s) as described in this test report. No modifications were made to the equipment during testing in order to achieve compliance with these standards. Furthermore, there was no deviation from, additions to, or exclusions from the standards referenced above.

Signature: 

Date: February 24, 2022

Typed/Printed Name: Desmond A. Fraser

Position: President

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Replaces DRAFT R0.2.*

*These tests are accredited and meet the requirements of ISO/IEC 17025 as verified by ANAB.
Refer to certificate and scope of accreditation AT-1445.*

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1 General Information

The following Class 2 Permissive Change Report is prepared on behalf of L3Harris Technologies, Inc. in accordance with the FCC and ISED rules and regulations. The Equipment Under Test (EUT) was the XL-400P Multi-Band Portable, V/U/7/8.

All measurements contained in this application were conducted in accordance with the applicable sections of FCC Rules and Regulations CFR 47 Parts 2 and ISED RSS-119. Calibration checks are performed regularly on the instruments, and all accessories including high pass filter, coaxial attenuator, preamplifier and cables.

1.1 Test Facility

The open area test site and conducted measurement facility used to collect the radiated data is located on the parking lot of Rhein Tech Laboratories, Inc. 360 Herndon Parkway, Suite 1400, Herndon, Virginia 20170.

1.2 Related Submittal(s)/Grant(s)

This is a Class 2 Permissive Change Report adding LTE (Sierra Wireless FCC ID: N7NEM75S, IC: 2417C-EM75S).

The original FCC and ISED certifications were granted April 19, 2021.

2 Tested System Details

The test sample was received on February 1, 2022. Listed below are the identifiers and descriptions of all equipment, cables, and internal devices used with the EUT for this test, as applicable.

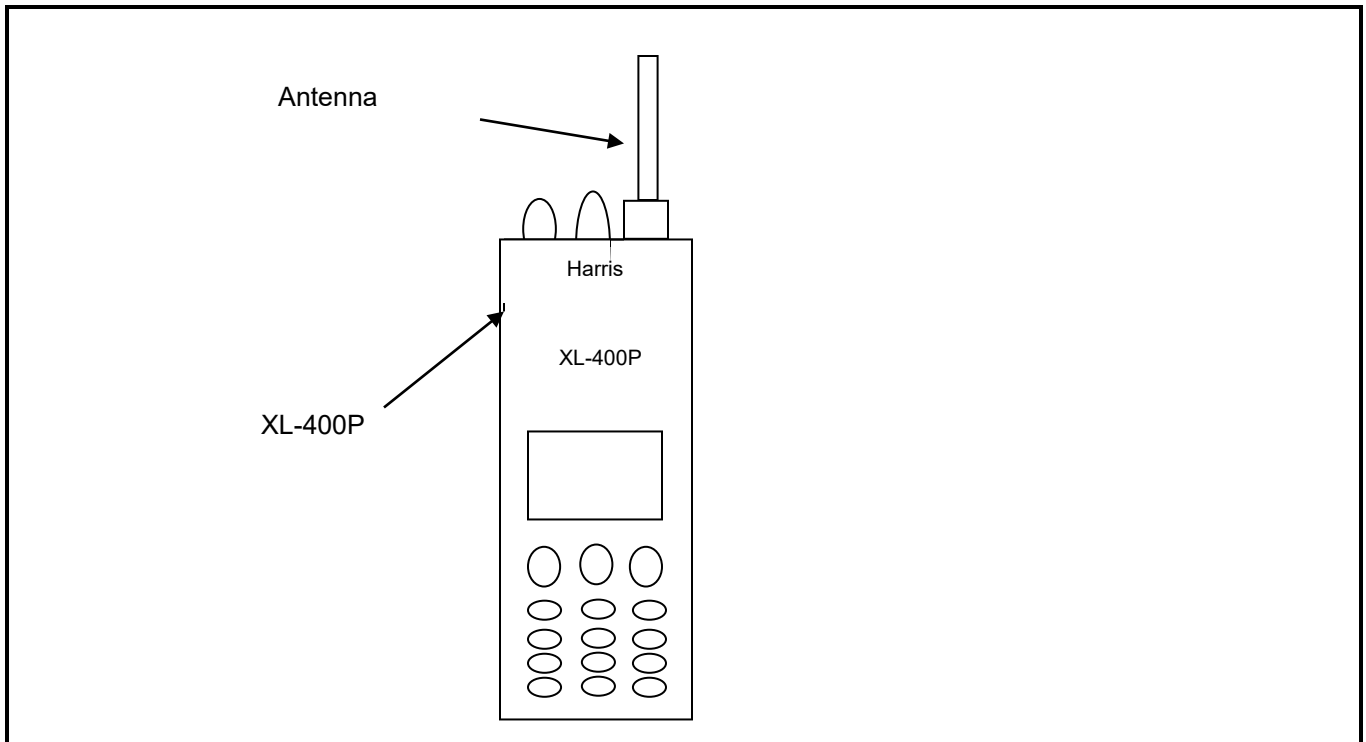
Table 2-1: Equipment Under Test (EUT)

Part	Manufacturer	Model	Serial Number	FCC ID	RTL Bar Code
Radio	L3Harris Corporation	XL-400P	A40330000565	OWDTR-0164-E	24001
Radio	L3Harris Corporation	XL-400P	A40330000554	OWDTR-0164-E	24002
Antenna Full Spectrum LMR	L3Harris Corporation	14100-4300-01	N/A	N/A	24007

Table 2-2: Auxiliary Equipment

Part	Manufacturer	Model	Serial Number	FCC ID	RTL Bar Code
Li-Ion Rechargeable Battery	L3Harris Corporation	14100-4000-05	000616	N/A	24005
Li-Ion Rechargeable Battery	L3Harris Corporation	14100-4000-05	000289	N/A	23104
Li-Ion Rechargeable Battery	L3Harris Corporation	14100-4000-06	P000216	N/A	23989
Li-Ion Rechargeable Battery	L3Harris Corporation	14100-4000-06	P000200	N/A	23990

Figure 2-1: Configuration of Tested System



2.1 EUT Exercise Description

The EUT was supplied with the ability to change LMR, LTE, Bluetooth, and Wi-Fi frequencies for testing radiated emissions and collocation of various frequencies. The EUT was tested in all three orthogonal planes in order to determine worst-case emissions. The EUT was provided with software to continuously transmit during testing. The carrier was also checked to verify that information was being transmitted. There were no deviations from the test standard(s) and/or methods. The test results reported relate only to the item tested.

The EUT was configured for testing in a manner simulating a typical end-user configuration. All circuitry, clocks, and oscillators were powered, and all functions were active. Applicable I/O ports to be cabled or loaded included Ethernet and data programming cables. For testing purposes, the EUT was programmed using a generic programming board.

2.2 Test Result Summary

Table 2-3: Test Result Summary – FCC Part 15 Subpart C

Test	FCC Reference	ISED Reference	Result
Collocation Radiated Emissions	FCC Part 2.947(f)	RSS-119	Pass
Radiated Emissions	FCC Part 2.1053	RSS-119	Pass

3 FCC Part 2.1053(a): Field Strength of Spurious Radiation; RSS-Gen 6.13: Transmitter Unwanted Emissions

3.1 Test Procedure

ANSI 63.26, section 5.5.

The device uses digital modulation modulated to its maximum extent using a pseudo-random data sequence.

The spurious emissions levels were measured, and the device under test was replaced by a substitution antenna connected to a signal generator. This signal generator level was then corrected by subtracting the cable loss from the substitution antenna to the signal generator, and the gain of the antenna (dBi) was added to achieve the EIRP level, then converted from the corrected signal generator level (dBm) to dBc, and compared to the limit $43+10\text{LogP}$.

The following test data is for the radiated spurious emissions from the Siera Wireless LTE module as installed in the XL-400P host.

3.2 Test Data

Table 3-1: Field Strength of Spurious Radiation – 1850 MHz

Conducted Power 22.6 dBm; Limit= $43+10\text{LogP}$ =35.6 dBc

Frequency (MHz)	Analyzer Level (dBuV)	Signal Generator Level (dBm)	Cable Loss to Transmit Antenna (dB)	Substitution Antenna Normalized Gain (dBi)	Corrected Signal Generator Level (dBc)	Margin (dB)
3700.000	29.7	-44.8	0.8	7.2	61.0	-25.4
5550.000	14.0	-57.2	1.1	8.6	72.2	-36.6
7400.000	2.9	-66.2	1.4	8.7	81.5	-45.9
9250.000	3.0	-60.0	1.6	9.3	75.0	-39.4
11100.000	3.1	-60.3	1.9	10.2	74.6	-39.0
12950.000	3.2	-55.6	2.2	11.2	69.2	-33.6
14800.000	3.7	-53.3	2.4	10.2	68.2	-32.6
16650.000	3.5	-54.0	2.7	13.9	65.4	-29.8
18500.000	4.0	-54.1	3.0	13.3	66.3	-30.7

Table 3-2: Field Strength of Spurious Radiation – 1880 MHz

Conducted Power 22.6 dBm; Limit=43+10LogP=35.6 dBc

Frequency (MHz)	Analyzer Level (dBuV)	Signal Generator Level (dBm)	Cable Loss to Transmit Antenna (dB)	Substitution Antenna Normalized Gain (dBi)	Corrected Signal Generator Level (dBc)	Margin (dB)
3760.000	28.2	-45.3	0.8	7.0	61.6	-26.0
5640.000	16.8	-54.7	1.1	8.8	69.6	-34.0
7520.000	-1.0	-69.9	1.4	9.0	85.0	-49.4
9400.000	-1.4	-64.8	1.7	9.4	79.7	-44.1
11280.000	-0.6	-64.2	1.9	10.3	78.4	-42.8
13160.000	-0.7	-59.3	2.2	10.6	73.5	-37.9
15040.000	-0.1	-57.6	2.5	11.0	71.7	-36.1
16920.000	-0.9	-58.4	2.7	12.9	70.9	-35.3
18800.000	-1.8	-59.9	3.0	13.3	72.2	-36.6

Table 3-3: Field Strength of Spurious Radiation – 1910 MHz

Conducted Power 22.6 dBm; Limit=43+10LogP=35.6 dBc

Frequency (MHz)	Analyzer Level (dBuV)	Signal Generator Level (dBm)	Cable Loss to Transmit Antenna (dB)	Substitution Antenna Normalized Gain (dBi)	Corrected Signal Generator Level (dBc)	Margin (dB)
3820.000	28.1	-45.4	0.8	7.0	61.8	-26.2
5730.000	17.1	-54.3	1.1	9.1	68.9	-33.3
7640.000	-0.5	-69.4	1.4	9.2	84.2	-48.6
9550.000	-0.8	-64.6	1.7	9.6	79.3	-43.7
11460.000	-0.8	-64.0	2.0	10.3	78.2	-42.6
13370.000	-0.3	-58.7	2.2	10.3	73.2	-37.6
15280.000	-0.3	-57.4	2.5	12.3	70.2	-34.6
17190.000	-0.9	-57.8	2.8	12.1	71.0	-35.4
19100.000	0.0	-58.0	3.0	13.4	70.3	-34.7

Table 3-4: Field Strength of Spurious Radiation – 1710 MHz

Conducted Power 22.8 dBm; Limit=43+10LogP=35.8 dBc

Frequency (MHz)	Analyzer Level (dBuV)	Signal Generator Level (dBm)	Cable Loss to Transmit Antenna (dB)	Substitution Antenna Normalized Gain (dBi)	Corrected Signal Generator Level (dBc)	Margin (dB)
3420.000	25.6	-48.0	0.7	7.6	63.8	-28.0
5130.000	18.2	-53.9	1.0	8.7	68.8	-33.0
6840.000	-0.4	-70.3	1.3	9.5	84.7	-48.9
8550.000	0.1	-61.1	1.5	9.5	75.7	-39.9
10260.000	-0.7	-64.6	1.8	9.1	79.9	-44.1
11970.000	0.2	-62.7	2.0	10.2	77.1	-41.3
13680.000	-0.6	-58.7	2.3	10.3	73.3	-37.5
15390.000	-0.8	-58.0	2.5	12.9	70.2	-34.4
17100.000	-0.6	-57.8	2.8	12.2	71.0	-35.2

Table 3-5: Field Strength of Spurious Radiation – 1747.5 MHz

Conducted Power 22.8 dBm; Limit=43+10LogP=35.8 dBc

Frequency (MHz)	Analyzer Level (dBuV)	Signal Generator Level (dBm)	Cable Loss to Transmit Antenna (dB)	Substitution Antenna Normalized Gain (dBi)	Corrected Signal Generator Level (dBc)	Margin (dB)
3495.000	23.9	-49.7	0.7	7.6	65.5	-29.7
5242.500	13.6	-58.4	1.0	8.7	73.4	-37.6
6990.000	0.0	-69.8	1.3	9.6	84.2	-48.4
8737.500	-0.5	-62.2	1.6	9.3	77.0	-41.2
10485.000	-0.5	-64.2	1.8	9.0	79.7	-43.9
12232.500	0.1	-62.5	2.1	10.9	76.3	-40.5
13980.000	-0.3	-58.1	2.3	9.6	73.3	-37.5
15727.500	-0.2	-57.4	2.6	14.2	68.3	-32.5
17475.000	-0.3	-55.7	2.8	6.6	74.5	-38.7

Table 3-6: Field Strength of Spurious Radiation – 824 MHz

Conducted Power 22.8 dBm; Limit=43+10LogP=35.8 dBc

Frequency (MHz)	Analyzer Level (dBuV)	Signal Generator Level (dBm)	Cable Loss to Transmit Antenna (dB)	Substitution Antenna Normalized Gain (dBi)	Corrected Signal Generator Level (dBc)	Margin (dB)
1648.000	21.3	-53.2	0.4	6.6	69.6	-33.8
2472.000	12.1	-61.9	0.6	-2.1	87.2	-51.4
3296.000	10.1	-63.6	0.7	7.1	79.8	-44.0
4120.000	2.2	-69.1	0.8	8.1	84.4	-48.6
4944.000	3.2	-69.0	1.0	8.8	83.8	-48.0
5768.000	2.4	-69.0	1.1	9.3	83.5	-47.7
6592.000	-0.4	-70.9	1.2	9.7	85.1	-49.3
7416.000	-1.2	-70.3	1.4	8.7	85.6	-49.8
8240.000	0.7	-59.8	1.5	9.3	74.5	-38.7

Table 3-7: Field Strength of Spurious Radiation – 836.5 MHz

Conducted Power 22.8 dBm; Limit=43+10LogP=35.8 dBc

Frequency (MHz)	Analyzer Level (dBuV)	Signal Generator Level (dBm)	Cable Loss to Transmit Antenna (dB)	Substitution Antenna Normalized Gain (dBi)	Corrected Signal Generator Level (dBc)	Margin (dB)
1673.000	18.6	-55.8	0.4	6.5	72.4	-36.6
2509.500	14.0	-60.0	0.6	-2.1	85.3	-49.5
3346.000	9.6	-64.1	0.7	7.3	80.1	-44.3
4182.500	2.4	-68.9	0.9	8.4	84.0	-48.2
5019.000	2.5	-69.7	1.0	8.8	84.5	-48.7
5855.500	2.4	-68.9	1.1	9.6	83.0	-47.2
6692.000	0.7	-69.7	1.2	9.4	84.1	-48.3
7528.500	-0.9	-69.8	1.4	9.0	84.8	-49.0
8365.000	0.5	-60.2	1.5	9.3	75.0	-39.2

Table 3-8: Field Strength of Spurious Radiation – 849 MHz

Conducted Power 22.8 dBm; Limit=43+10LogP=35.8 dBc

Frequency (MHz)	Analyzer Level (dBuV)	Signal Generator Level (dBm)	Cable Loss to Transmit Antenna (dB)	Substitution Antenna Normalized Gain (dBi)	Corrected Signal Generator Level (dBc)	Margin (dB)
1698.000	18.0	-56.4	0.4	6.4	73.0	-37.2
2547.000	17.4	-56.6	0.6	-2.1	81.9	-46.1
3396.000	9.7	-63.9	0.7	7.5	79.7	-43.9
4245.000	2.7	-68.7	0.9	8.6	83.6	-47.8
5094.000	2.6	-69.6	1.0	8.7	84.4	-48.6
5943.000	2.5	-68.7	1.1	9.7	82.8	-47.0
6792.000	0.1	-70.1	1.3	9.5	84.5	-48.7
7641.000	-0.7	-69.6	1.4	9.2	84.4	-48.6
8490.000	-0.2	-61.2	1.5	9.4	76.0	-40.2

Table 3-9: Field Strength of Spurious Radiation – 699 MHz

Conducted Power 22.8 dBm; Limit=43+10LogP=35.8 dBc

Frequency (MHz)	Analyzer Level (dBuV)	Signal Generator Level (dBm)	Cable Loss to Transmit Antenna (dB)	Substitution Antenna Normalized Gain (dBi)	Corrected Signal Generator Level (dBc)	Margin (dB)
1398.000	19.0	-55.2	0.4	6.6	71.6	-35.8
2097.000	18.2	-56.0	0.5	-2.1	81.2	-45.4
2796.000	5.1	-68.8	0.6	7.1	84.9	-49.1
3495.000	6.2	-67.4	0.7	8.1	82.6	-46.8
4194.000	2.9	-68.5	0.9	8.8	83.1	-47.3
4893.000	3.1	-68.9	1.0	9.3	83.2	-47.4
5592.000	1.7	-69.9	1.1	9.7	83.9	-48.1
6291.000	-0.5	-71.0	1.2	8.7	86.0	-50.2
6990.000	0.4	-69.6	1.3	9.3	84.2	-48.4

Table 3-10: Field Strength of Spurious Radiation – 707.5 MHz

Conducted Power 22.8 dBm; Limit=43+10LogP=35.8 dBc

Frequency (MHz)	Analyzer Level (dBuV)	Signal Generator Level (dBm)	Cable Loss to Transmit Antenna (dB)	Substitution Antenna Normalized Gain (dBi)	Corrected Signal Generator Level (dBc)	Margin (dB)
1415.000	24.3	-50.2	0.4	6.5	66.7	-30.9
2122.500	15.3	-58.9	0.5	-2.1	84.1	-48.3
2830.000	9.8	-64.1	0.6	7.3	80.0	-44.2
3537.500	9.7	-63.9	0.7	8.4	78.8	-43.0
4245.000	2.7	-68.7	0.9	8.8	83.3	-47.5
4952.500	3.2	-69.1	1.0	9.6	83.0	-47.2
5660.000	2.8	-68.7	1.1	9.4	83.0	-47.2
6367.500	1.0	-69.7	1.2	9.0	84.6	-48.8
7075.000	0.2	-69.8	1.3	9.3	84.3	-48.5

Table 3-11: Field Strength of Spurious Radiation – 716 MHz

Conducted Power 22.8 dBm; Limit=43+10LogP=35.8 dBc

Frequency (MHz)	Analyzer Level (dBuV)	Signal Generator Level (dBm)	Cable Loss to Transmit Antenna (dB)	Substitution Antenna Normalized Gain (dBi)	Corrected Signal Generator Level (dBc)	Margin (dB)
1432.000	24.3	-49.7	0.4	6.4	66.2	-30.4
2148.000	11.3	-62.9	0.5	-2.1	88.1	-52.3
2864.000	12.4	-61.5	0.6	7.5	77.1	-41.3
3580.000	10.8	-62.8	0.8	8.6	77.5	-41.7
4296.000	1.5	-69.9	0.9	8.7	84.7	-48.9
5012.000	3.4	-68.8	1.0	9.7	82.8	-47.0
5728.000	4.0	-67.4	1.1	9.5	81.7	-45.9
6444.000	-0.3	-70.6	1.2	9.2	85.3	-49.5
7160.000	-0.7	-70.6	1.3	9.4	85.1	-49.3

Table 3-12: Field Strength of Spurious Radiation – 777 MHz

Conducted Power 22.8 dBm; Limit=43+10LogP=35.8 dBc

Frequency (MHz)	Analyzer Level (dBuV)	Signal Generator Level (dBm)	Cable Loss to Transmit Antenna (dB)	Substitution Antenna Normalized Gain (dBi)	Corrected Signal Generator Level (dBc)	Margin (dB)
1554.000	4.1	-70.8	0.4	6.6	87.2	-51.4
2331.000	5.0	-70.0	0.5	7.3	85.8	-50.0
3108.000	4.1	-70.6	0.7	7.1	86.8	-51.0
3885.000	3.1	-71.3	0.8	7.0	87.8	-52.0
4662.000	3.4	-68.0	0.9	8.9	82.6	-46.8
5439.000	3.2	-68.1	1.1	8.5	83.3	-47.5
6216.000	-0.5	-71.1	1.2	9.1	85.7	-49.9
6993.000	-0.4	-70.2	1.3	9.6	84.5	-48.7
7770.000	-1.1	-69.9	1.4	9.3	84.6	-48.8

Table 3-13: Field Strength of Spurious Radiation – 782 MHz

Conducted Power 22.8 dBm; Limit=43+10LogP=35.8 dBc

Frequency (MHz)	Analyzer Level (dBuV)	Signal Generator Level (dBm)	Cable Loss to Transmit Antenna (dB)	Substitution Antenna Normalized Gain (dBi)	Corrected Signal Generator Level (dBc)	Margin (dB)
1564.000	24.7	-50.2	0.4	6.7	66.6	-30.8
2346.000	16.4	-58.6	0.5	7.3	74.4	-38.6
3128.000	10.9	-63.8	0.7	7.1	80.0	-44.2
3910.000	3.4	-71.0	0.8	7.0	87.4	-51.6
4692.000	3.4	-68.1	0.9	9.0	82.6	-46.8
5474.000	1.5	-69.8	1.1	8.5	84.9	-49.1
6256.000	-0.5	-71.0	1.2	9.2	85.6	-49.8
7038.000	0.1	-69.7	1.3	9.5	84.0	-48.2
7820.000	-0.4	-69.8	1.4	9.3	84.5	-48.7

Table 3-14: Field Strength of Spurious Radiation – 787 MHz

Conducted Power 22.8 dBm; Limit=43+10LogP=35.8 dBc

Frequency (MHz)	Analyzer Level (dBuV)	Signal Generator Level (dBm)	Cable Loss to Transmit Antenna (dB)	Substitution Antenna Normalized Gain (dBi)	Corrected Signal Generator Level (dBc)	Margin (dB)
1574.000	30.3	-44.5	0.4	6.7	60.8	-25.0
2361.000	23.9	-51.1	0.5	7.3	66.9	-31.1
3148.000	17.1	-57.6	0.7	7.1	73.8	-38.0
3935.000	4.6	-69.8	0.8	7.1	86.1	-50.3
4722.000	3.6	-67.9	0.9	8.9	82.5	-46.7
5509.000	2.6	-68.7	1.1	8.6	83.8	-48.0
6296.000	-0.5	-71.0	1.2	9.2	85.5	-49.7
7083.000	-0.4	-70.2	1.3	9.5	84.5	-48.7
7870.000	-0.5	-69.2	1.4	9.3	83.9	-48.1

Table 3-15: Field Strength of Spurious Radiation – 788 MHz

Conducted Power 23.6 dBm; Limit=43+10LogP=36.6 dBc

Frequency (MHz)	Analyzer Level (dBuV)	Signal Generator Level (dBm)	Cable Loss to Transmit Antenna (dB)	Substitution Antenna Normalized Gain (dBi)	Corrected Signal Generator Level (dBc)	Margin (dB)
1576.000	17.3	-56.9	0.4	6.7	73.3	-36.7
2364.000	11.4	-62.7	0.5	7.3	78.5	-41.9
3152.000	5.6	-68.1	0.7	7.1	84.4	-47.8
3940.000	1.3	-72.1	0.8	7.2	88.4	-51.8
4728.000	3.7	-68.1	0.9	8.9	82.7	-46.1
5516.000	2.6	-69.1	1.1	8.6	84.2	-47.6
6304.000	-0.6	-71.0	1.2	9.2	85.6	-49.0
7092.000	-0.4	-70.3	1.3	9.5	84.7	-48.1
7880.000	-1.0	-69.7	1.4	9.3	84.4	-47.8

Table 3-16: Field Strength of Spurious Radiation – 793 MHz

Conducted Power 23.6 dBm; Limit=43+10LogP=36.6 dBc

Frequency (MHz)	Analyzer Level (dBuV)	Signal Generator Level (dBm)	Cable Loss to Transmit Antenna (dB)	Substitution Antenna Normalized Gain (dBi)	Corrected Signal Generator Level (dBc)	Margin (dB)
1586.000	18.5	-55.8	0.4	6.7	72.1	-35.5
2379.000	14.7	-59.4	0.5	7.3	75.2	-38.6
3172.000	10.9	-62.8	0.7	7.1	79.1	-42.5
3965.000	2.6	-70.8	0.8	7.3	86.9	-50.3
4758.000	3.5	-68.3	0.9	8.9	82.9	-46.3
5551.000	2.5	-69.1	1.1	8.6	84.2	-47.6
6344.000	-0.2	-71.0	1.2	9.4	85.4	-48.8
7137.000	-0.7	-70.4	1.3	9.4	84.9	-48.3
7930.000	-0.1	-68.8	1.4	9.3	83.6	-47.0

Table 3-17: Field Strength of Spurious Radiation – 798 MHz

Conducted Power 23.6 dBm; Limit=43+10LogP=36.6 dBc

Frequency (MHz)	Analyzer Level (dBuV)	Signal Generator Level (dBm)	Cable Loss to Transmit Antenna (dB)	Substitution Antenna Normalized Gain (dBi)	Corrected Signal Generator Level (dBc)	Margin (dB)
1596.000	24.7	-49.7	0.4	6.8	65.9	-29.3
2394.000	17.7	-56.4	0.5	7.3	72.2	-35.6
3192.000	13.6	-60.1	0.7	7.0	76.4	-39.8
3990.000	2.7	-70.7	0.8	7.5	86.7	-50.1
4788.000	3.4	-68.4	0.9	8.9	83.1	-46.5
5586.000	2.4	-69.2	1.1	8.7	84.2	-47.6
6384.000	-0.6	-71.0	1.2	9.5	85.2	-48.6
7182.000	-1.0	-70.6	1.3	9.2	85.3	-48.7
7980.000	-0.2	-68.9	1.4	9.2	83.7	-47.1

Table 3-18: Field Strength of Spurious Radiation – 2305 MHz

Conducted Power 21.4 dBm; Limit=43+10LogP=34.4 dBc

Frequency (MHz)	Analyzer Level (dBuV)	Signal Generator Level (dBm)	Cable Loss to Transmit Antenna (dB)	Substitution Antenna Normalized Gain (dBi)	Corrected Signal Generator Level (dBc)	Margin (dB)
4610.000	19.5	-52.2	0.9	8.9	66.8	-32.4
6915.000	6.1	-64.0	1.3	9.5	78.4	-44.0
9220.000	3.4	-61.2	1.6	9.3	76.1	-41.7
11525.000	-0.4	-63.9	2.0	10.2	78.2	-43.8
13830.000	-0.4	-58.3	2.3	9.9	73.3	-38.9
16135.000	-0.6	-58.1	2.6	14.5	68.8	-34.4
18440.000	-0.6	-58.7	3.0	13.3	71.0	-36.6
20745.000	0.3	-59.2	3.3	14.1	71.0	-36.6
23050.000	-1.3	-59.6	3.6	14.9	70.8	-36.4

Table 3-19: Field Strength of Spurious Radiation – 2310 MHz

Conducted Power 21.4 dBm; Limit=43+10LogP=34.4 dBc

Frequency (MHz)	Analyzer Level (dBuV)	Signal Generator Level (dBm)	Cable Loss to Transmit Antenna (dB)	Substitution Antenna Normalized Gain (dBi)	Corrected Signal Generator Level (dBc)	Margin (dB)
4620.000	19.7	-52.0	0.9	8.9	66.6	-32.2
6930.000	-0.6	-70.5	1.3	9.5	84.9	-50.5
9240.000	-0.8	-63.8	1.6	9.3	78.8	-44.4
11550.000	-1.1	-64.3	2.0	10.2	78.7	-44.3
13860.000	0.2	-58.3	2.3	9.9	73.3	-38.9
16170.000	-0.5	-58.0	2.6	14.6	68.7	-34.3
18480.000	-0.2	-58.3	3.0	13.3	70.6	-36.2
20790.000	-0.8	-59.5	3.3	14.2	71.2	-36.8
23100.000	-1.1	-59.4	3.6	14.9	70.6	-36.2

Table 3-20: Field Strength of Spurious Radiation – 1710 MHz

Conducted Power 23 dBm; Limit=43+10LogP=36 dBc

Frequency (MHz)	Analyzer Level (dBuV)	Signal Generator Level (dBm)	Cable Loss to Transmit Antenna (dB)	Substitution Antenna Normalized Gain (dBi)	Corrected Signal Generator Level (dBc)	Margin (dB)
3420.000	16.9	-56.7	0.7	7.6	72.5	-36.5
5130.000	8.6	-63.5	1.0	8.7	78.4	-42.4
6840.000	-0.5	-70.4	1.3	9.5	84.8	-48.8
8550.000	-0.4	-61.6	1.5	9.5	76.2	-40.2
10260.000	-1.0	-64.9	1.8	9.1	80.2	-44.2
11970.000	-0.5	-63.8	2.0	10.2	78.2	-42.2
13680.000	-1.1	-59.1	2.3	10.3	73.7	-37.7
15390.000	-0.8	-57.9	2.5	12.9	70.1	-34.1
17100.000	-0.8	-58.0	2.8	12.2	71.2	-35.2

Table 3-21: Field Strength of Spurious Radiation – 1745 MHz

Conducted Power 23 dBm; Limit=43+10LogP=36 dBc

Frequency (MHz)	Analyzer Level (dBuV)	Signal Generator Level (dBm)	Cable Loss to Transmit Antenna (dB)	Substitution Antenna Normalized Gain (dBi)	Corrected Signal Generator Level (dBc)	Margin (dB)
3490.000	17.4	-56.2	0.7	7.6	72.0	-36.0
5235.000	10.0	-62.0	1.0	8.6	77.0	-41.0
6980.000	-0.3	-70.3	1.3	9.5	84.7	-48.7
8725.000	0.5	-61.2	1.6	9.4	76.0	-40.0
10470.000	-0.7	-64.4	1.8	9.0	79.9	-43.9
12215.000	-0.9	-63.6	2.1	10.8	77.4	-41.4
13960.000	-0.6	-58.4	2.3	9.7	73.7	-37.7
15705.000	-0.4	-57.6	2.6	14.2	68.6	-32.6
17450.000	-0.8	-56.4	2.8	10.7	71.1	-35.1

Table 3-22: Field Strength of Spurious Radiation – 1780 MHz

Conducted Power 23 dBm; Limit=43+10LogP=36 dBc

Frequency (MHz)	Analyzer Level (dBuV)	Signal Generator Level (dBm)	Cable Loss to Transmit Antenna (dB)	Substitution Antenna Normalized Gain (dBi)	Corrected Signal Generator Level (dBc)	Margin (dB)
3560.000	17.9	-55.7	0.7	7.6	71.4	-35.4
5340.000	9.5	-62.4	1.0	8.6	77.4	-41.4
7120.000	-1.0	-70.7	1.3	9.4	85.2	-49.2
8900.000	-0.4	-62.5	1.6	8.9	77.8	-41.8
10680.000	-0.7	-64.6	1.8	9.1	80.0	-44.0
12460.000	-0.1	-59.4	2.1	11.1	73.0	-37.0
14240.000	-0.5	-58.0	2.4	9.5	73.4	-37.4
16020.000	0.1	-57.2	2.6	14.5	67.9	-31.9
17800.000	-0.7	-54.0	2.9	7.6	71.8	-35.8

Measurement uncertainties shown for these tests are expanded uncertainties expressed at the 95% confidence level using a coverage factor K=2. Measurement uncertainty: ±4.6 dB

Table 3-23: Collocation Frequencies Tested


LMR (MHz)	Bluetooth (MHz)	Wi-Fi (MHz)	LTE Cellular (MHz)
36.0125, 156.8, 173.9875	2402	2412, 2437, 2462	699, 777, 798, 824, 849
378.125, 459.025, 511.9875	2440	5200; 5190	1850
775.9875, 805.9875,	2480		2310
824.9875, 869.9875			782, 788
			1732.5

Note: Radiated emissions were investigated with the LTE module collocated and transmitting simultaneously with the LMR, Bluetooth, and Wi-Fi transceivers. No non-compliant emissions were found; per FCC guidance, no data is being reported.

Table 3-24: Test Equipment Used For Testing Field Strength of Spurious Radiation and Unintentional Emissions

RTL Asset #	Manufacturer	Model	Part Type	Serial Number	Calibration Due Date
900878	Rhein Tech Laboratories	AM3-1197-0005	3 meter antenna mast, polarizing	OATS1	N/A
901729	Insulated Wire Inc.	KPS-1503-3150-KPR	SMK RF Cables 20'	NA	12/06/22
901242	Rhein Tech Laboratories	WRT-000-0003	Wood rotating table	N/A	N/A
901669	ETS-Lindgren	3142E	Biconilog Antenna (30 MHz – 6000 MHz)	00166065	04/24/22
900321	EMCO	3161-03	Horn Antennas (4.0–8.2 GHz)	9508-1020	08/05/24
900323	EMCO	3160-07	Horn Antenna (8.2 - 12.4 GHz)	9605-1054	08/05/24
900772	EMCO	3161-02	Horn Antenna (2 - 4 GHz)	9804-1044	08/05/24
901582	Rohde & Schwarz	1167.0000.02	Signal Generator	101903	05/23/24
901581	Rohde & Schwarz	FSU	Spectrum Analyzer	1166.1660.50	12/01/24
901129	Par Electronics	806-902 (25W)	UHF Notch Filter	N/A	10/15/22
901131	Par Electronics	118-174 (25W)	VHF Notch Filter	N/A	10/15/22
901135	Par Electronics	400-512 (25W)	UHF Notch Filter	N/A	10/15/22
900814	Electro-Metrics	EM-6961 (RGA-60)	Double Ridged Guide Antenna (1 - 18 GHz)	2310	04/07/22

Test Personnel:

Daniel Baltzell Test Engineer	 Signature	February 14, 2022 Date of Tests
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4 Conclusion

The data in this measurement report shows that the L3Harris Technologies, Inc. XL-400P, FCC ID: OWDTR-0164-E, IC: 3636B-0164, complies with the applicable requirements of Part 2 of the FCC Rules and Regulations and ISED RSS-119.