



Engineering Solutions & Electromagnetic Compatibility Services

**Class 2 Permissive Change**

**Harris Corporation  
221 Jefferson Ridge Parkway  
Lynchburg, VA 24501**

**Model: XL-185P 7/8/900 MHz  
MultiBand Portable Radio**

**FCC ID: OWDTR-0143-E  
IC: 3636B-0143**

**December 3, 2019**

<b>Standards Referenced for this Report</b>	
Part 2: 2018	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
Part 15B: 2018	Radio Frequency Devices
Part 22: 2018	Public Mobile Services
Part 74: 2018	Experimental Radio, Auxiliary, Special Broadcast And Other Program Distributional Services
Part 80: 2018	Stations In The Maritime Services
Part 90: 2018	Private Land Portable Radio Services
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
ICES-003 Issue 6	Information Technology Equipment (Including Digital Apparatus) — Limits and Methods of Measurement

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This replaces R0.1.*

*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 **Harris Corporation** in accordance with the FCC and ISED rules and regulations. The Equipment Under Test (EUT) was the **XL-185P 7/8/900 MHz MultiBand Portable Radio**.

All measurements contained in this application were conducted in accordance with the applicable sections of FCC Rules and Regulations CFR 47 Parts 2, 15, 22, 74, 80 and 90, 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. This site has been fully described in a report submitted to, and approved by, the Federal Communications Commission to perform AC line conducted and radiated emissions testing.

### 1.2 Related Submittal(s)/Grant(s)

This is a Class 2 Permissive Change Report based on the following:

- Addition of new models, some which include an LTE module
- Change in product support eliminates the 768-776 MHz band
- Harris SKU reduction

The original FCC and ISED certifications were granted March 28 and March 29, 2017 respectively. Class 2 permissive changes were approved on September 6, 2017 and September 7, 2017 respectively, and again on December 19, 2018.

The Harris model numbers currently included in this ISED family certification are:

XS-PFM9M	XS-PFM9Y	XS-PFM9P
XS-PPM9M	XS-PPM9Y	XS-PPM9P

## 2 Tested System Details

The test sample was received on October 3, 2019. Listed below are the identifiers and descriptions of all equipment, cables, and internal devices used with the EUT for this test, as applicable.

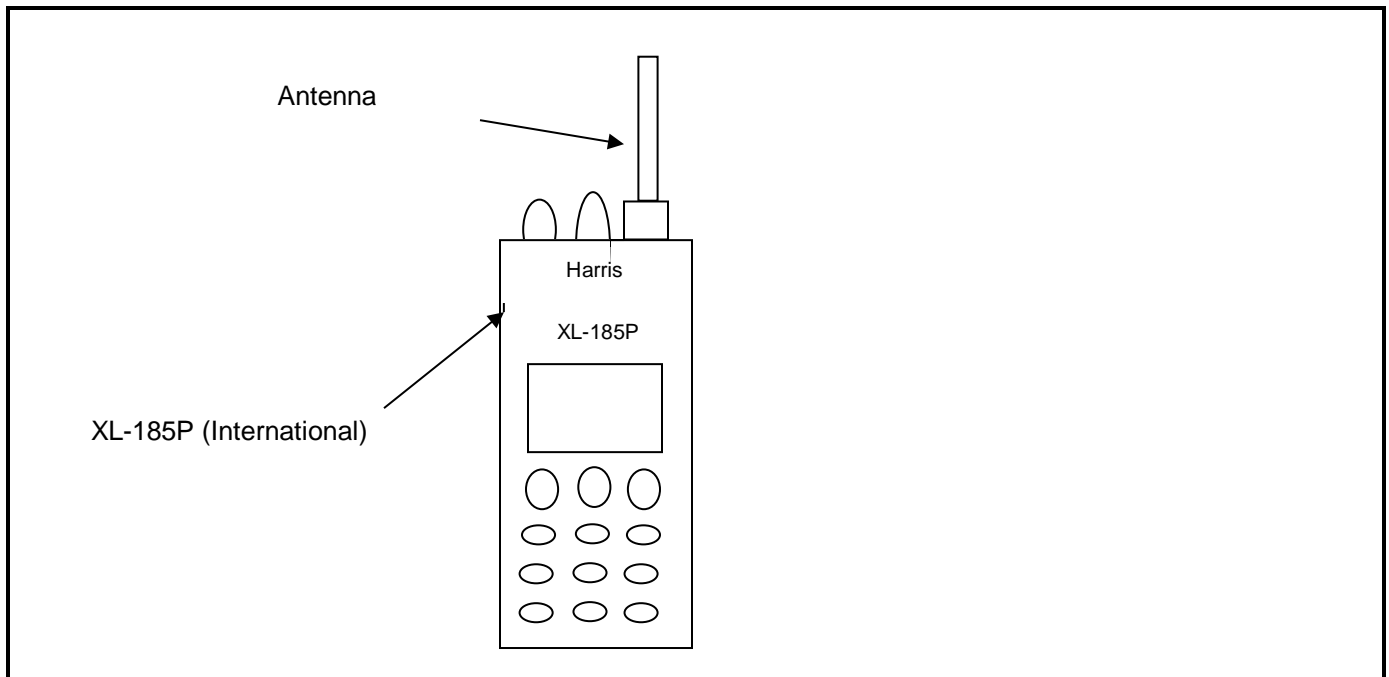
**Table 2-1: Equipment Under Test (EUT)**

Part	Manufacturer	Model	Serial Number	FCC ID	RTL Bar Code
Radio	Harris Corporation	XL-185P	A40304223970	OWDTR-0143-E	23484
Antenna Full Spectrum LMR	Harris Corporation	14035-4000-01	N/A	N/A	23108

**Table 2-2: Auxiliary Equipment**

Part	Manufacturer	Model	Part Number	FCC ID	RTL Bar Code
Li-Ion Rechargeable Battery	Harris Corporation	14035-4010 rev	009833	N/A	23103
Li-Ion Rechargeable Battery	Harris Corporation	14035-4010-05 rev	001897	N/A	23104

**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	Result
Collocation Radiated Emissions	FCC 15.209	Pass

### **3 FCC Part 2.1053(a): Field Strength of Spurious Radiation; Part 90.543: Out of Band Emissions Limit; 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.

For emissions in the 1559-1610 band, Part 90.543(f) states: "For operations in the 758–775 MHz and 788–805 MHz bands, all emissions including harmonics in the band 1559–1610 MHz shall be limited to -70dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation."

**3.2 Test Data**

**Table 3-1: Field Strength of Spurious Radiation – 798.0125 MHz**

**Conducted Power 34.4 dBm; 2.8 W; Limit=50+10LogP=54.4 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)
1596.0250	11.0	-63.4	0.3	6.7	91.3	-36.9
2394.0375	19.5	-54.6	0.3	7.6	81.7	-27.3
3192.0500	9.6	-64.1	0.3	7.4	91.4	-37.0
3990.0625	2.7	-70.7	0.4	7.5	97.9	-43.5
4788.0750	3.1	-68.4	0.4	9.0	94.2	-39.8
5586.0875	2.4	-68.8	0.4	8.9	94.7	-40.3
6384.1000	3.2	-67.2	0.4	9.2	92.9	-38.5
7182.1125	2.5	-67.1	0.5	9.1	92.9	-38.5
7980.1250	2.5	-66.1	0.5	9.3	91.7	-37.3

**Table 3-2: Field Strength of Spurious Radiation – 801.0125 MHz**

**Conducted Power 34.4 dBm; 2.8 W; Limit=50+10LogP=54.4 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)
1602.0250	14.5	-59.9	0.3	6.8	87.8	-33.4
2403.0375	10.7	-63.4	0.3	7.6	90.5	-36.1
3204.0500	10.0	-64.7	0.3	7.4	92.0	-37.6
4005.0625	2.8	-68.1	0.4	7.6	95.3	-40.9
4806.0750	3.3	-68.3	0.4	9.0	94.1	-39.7
5607.0875	2.8	-68.4	0.4	8.9	94.2	-39.8
6408.1000	3.3	-67.1	0.4	9.2	92.7	-38.3
7209.1125	2.9	-66.9	0.5	9.0	92.7	-38.3
8010.1250	3.1	-65.1	0.5	9.3	90.7	-36.3



**Table 3-3: Field Strength of Spurious Radiation – 805.9875 MHz**

**Conducted Power 34.4 dBm; 2.8 W; Limit=50+10LogP=54.4 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)
1611.9750	21.1	-53.4	0.3	6.8	81.2	-26.8
2417.9625	13.2	-60.9	0.3	7.6	87.9	-33.5
3223.9500	8.5	-65.2	0.3	7.4	92.6	-38.2
4029.9375	2.9	-68.0	0.4	7.7	95.1	-40.7
4835.9250	3.0	-68.9	0.4	8.9	94.7	-40.3
5641.9125	2.5	-68.6	0.4	9.0	94.5	-40.1
6447.9000	3.3	-67.0	0.4	9.2	92.7	-38.3
7253.8875	2.8	-66.7	0.5	8.9	92.7	-38.3
8059.8750	3.1	-63.0	0.5	9.3	88.6	-34.2

**Table 3-4: Field Strength of Spurious Radiation – 806.025 MHz**

**Conducted Power 34.9 dBm; 3.1 W; Limit=50+10LogP=54.9 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)
1612.0500	19.2	-55.3	0.3	6.8	83.6	-28.7
2418.0750	13.9	-60.2	0.3	7.6	87.7	-32.8
3224.1000	9.4	-64.3	0.3	7.4	92.2	-37.3
4030.1250	3.0	-67.9	0.4	7.7	95.5	-40.6
4836.1500	3.0	-68.6	0.4	8.9	94.9	-40.0
5642.1750	2.3	-68.8	0.4	9.0	95.2	-40.3
6448.2000	3.1	-67.2	0.4	9.2	93.4	-38.5
7254.2250	3.0	-66.5	0.5	8.9	93.0	-38.1
8060.2500	3.2	-62.9	0.5	9.3	89.0	-34.1

**Table 3-5: Field Strength of Spurious Radiation – 809.0 MHz**

**Conducted Power 35 dBm; 3.2 W; Limit=50+10LogP=55.0 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)
1618.0000	19.8	-54.7	0.3	6.9	83.1	-28.1
2427.0000	12.8	-61.2	0.3	7.6	88.9	-33.9
3236.0000	9.3	-64.4	0.3	7.4	92.4	-37.4
4045.0000	2.5	-68.4	0.4	7.8	96.0	-41.0
4854.0000	3.3	-68.3	0.4	8.9	94.8	-39.8
5663.0000	2.7	-68.4	0.4	9.0	94.8	-39.8
6472.0000	3.8	-66.5	0.4	9.2	92.7	-37.7
7281.0000	3.3	-66.3	0.5	8.8	92.9	-37.9
8090.0000	4.0	-60.9	0.5	9.4	87.0	-32.0

**Table 3-6: Field Strength of Spurious Radiation – 815.9875 MHz**

**Conducted Power 35 dBm; 3.2 W; Limit=50+10LogP=55.0 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)
1631.9750	30.7	-43.8	0.3	7.0	72.1	-17.1
2447.9625	16.3	-57.7	0.3	7.7	85.4	-30.4
3263.9500	26.6	-47.1	0.3	7.3	75.1	-20.1
4079.9375	3.1	-67.8	0.4	7.9	95.3	-40.3
4895.9250	3.0	-68.7	0.4	8.9	95.2	-40.2
5711.9125	2.8	-68.3	0.4	9.1	94.7	-39.7
6527.9000	4.0	-66.3	0.4	9.2	92.5	-37.5
7343.8875	3.4	-66.1	0.5	8.8	92.8	-37.8
8159.8750	3.9	-58.1	0.5	9.4	84.2	-29.2

**Table 3-7: Field Strength of Spurious Radiation – 851.025 MHz**

**Conducted Power 34.9 dBm; 3.1 W; Limit=50+10LogP=54.9 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)
1702.0500	19.7	-55.5	0.3	7.4	83.2	-28.3
2553.0750	10.8	-63.2	0.3	7.6	90.8	-35.9
3404.1000	9.5	-64.1	0.3	7.6	91.8	-36.9
4255.1250	3.7	-67.4	0.4	8.6	94.1	-39.2
5106.1500	3.2	-68.5	0.4	8.6	95.1	-40.2
5957.1750	3.3	-67.9	0.4	9.0	94.2	-39.3
6808.2000	3.5	-66.5	0.5	8.8	93.1	-38.2
7659.2250	3.2	-65.7	0.5	9.3	91.7	-36.8
8510.2500	4.4	-56.7	0.5	9.3	82.8	-27.9

**Table 3-8: Field Strength of Spurious Radiation – 856.025 MHz**

**Conducted Power 35 dBm; 3.2 W; Limit=50+10LogP=55.0 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)
1712.0500	22.5	-52.7	0.3	7.4	80.5	-25.5
2568.0750	19.3	-54.7	0.3	7.6	82.4	-27.4
3424.1000	10.2	-64.4	0.3	7.6	92.1	-37.1
4280.1250	3.5	-67.6	0.4	8.6	94.4	-39.4
5136.1500	3.2	-68.4	0.4	8.6	95.2	-40.2
5992.1750	3.5	-67.3	0.4	9.0	93.7	-38.7
6848.2000	3.4	-66.6	0.5	8.9	93.2	-38.2
7704.2250	3.1	-65.7	0.5	9.4	91.8	-36.8
8560.2500	4.1	-57.2	0.5	9.3	83.4	-28.4

**Table 3-9: Field Strength of Spurious Radiation – 860.9875 MHz**

**Conducted Power 35 dBm; 3.2 W; Limit=50+10LogP=55.0 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)
1721.9750	18.8	-56.4	0.3	7.4	84.2	-29.2
2582.9625	27.9	-46.1	0.3	7.6	73.8	-18.8
3443.9500	9.5	-64.1	0.3	7.7	91.8	-36.8
4304.9375	4.3	-66.8	0.4	8.7	93.5	-38.5
5165.9250	2.9	-68.7	0.4	8.6	95.5	-40.5
6026.9125	3.5	-67.2	0.4	9.0	93.7	-38.7
6887.9000	3.4	-66.5	0.5	8.9	93.0	-38.0
7748.8875	3.5	-65.3	0.5	9.4	91.4	-36.4
8609.8750	3.3	-58.1	0.5	9.3	84.3	-29.3

**Table 3-10: Field Strength of Spurious Radiation – 896.0125 MHz**

**Conducted Power 33.48 dBm; 2.2 W; Limit=50+10LogP=53.5 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)
1792.0250	14.1	-60.2	0.4	8.8	86.2	-31.9
2688.0375	14.9	-60.0	0.6	9.8	85.1	-30.8
3584.0500	9.1	-64.5	0.8	9.7	89.8	-35.5
4480.0625	3.5	-67.8	0.9	11.0	92.1	-37.8
5376.0750	3.1	-68.7	1.0	10.7	93.4	-39.1
6272.0875	3.4	-67.1	1.2	11.3	91.2	-36.9
7168.1000	2.8	-66.8	1.3	11.4	91.0	-36.7
8064.1125	4.2	-61.7	1.5	11.3	86.1	-31.8
8960.1250	3.5	-58.8	1.6	11.1	83.6	-29.3

**Table 3-11: Field Strength of Spurious Radiation – 898.5 MHz**

**Conducted Power 33.47 dBm; 2.2 W; Limit=50+10LogP=53.5 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)
1797.0000	13.8	-61.4	0.4	8.8	87.4	-33.0
2695.5000	15.3	-59.6	0.6	9.8	84.7	-30.3
3594.0000	9.7	-64.8	0.8	9.7	90.3	-35.9
4492.5000	3.7	-67.6	0.9	11.0	91.9	-37.5
5391.0000	2.9	-68.5	1.0	10.7	93.3	-38.9
6289.5000	3.3	-67.2	1.2	11.4	91.4	-37.0
7188.0000	3.3	-66.3	1.3	11.3	90.7	-36.3
8086.5000	3.7	-61.3	1.5	11.3	85.8	-31.4
8985.0000	3.6	-58.7	1.6	11.1	83.6	-29.2

**Table 3-12: Field Strength of Spurious Radiation – 900.9875 MHz**

**Conducted Power 33.47 dBm; 2.2 W; Limit=50+10LogP=53.5 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)
1801.9750	14.5	-60.7	0.4	8.8	86.7	-32.3
2702.9625	16.2	-57.7	0.6	0.0	92.7	-38.3
3603.9500	5.7	-67.8	0.8	9.7	93.3	-38.9
4504.9375	4.2	-67.1	0.9	11.0	91.5	-37.1
5405.9250	3.0	-68.3	1.0	10.6	93.2	-38.8
6306.9125	3.8	-67.0	1.2	11.4	91.2	-36.8
7207.9000	3.1	-66.7	1.3	11.3	91.2	-36.8
8108.8875	4.3	-59.7	1.5	11.4	84.2	-29.8
9009.8750	3.4	-59.0	1.6	11.1	83.9	-29.5

**Table 3-13: Field Strength of Spurious Radiation – 935.0125 MHz**

**Conducted Power 33.8 dBm; 2.4 W; Limit=50+10LogP=53.8 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)
1870.0250	7.0	-68.2	0.5	8.5	94.4	-40.1
2805.0375	21.8	-53.0	0.6	10.1	77.9	-23.6
3740.0500	8.6	-64.9	0.8	9.2	90.8	-36.5
4675.0625	3.9	-67.5	0.9	11.1	91.7	-37.4
5610.0750	3.1	-68.1	1.1	10.9	92.6	-38.3
6545.0875	3.7	-66.5	1.2	11.8	90.2	-35.9
7480.1000	2.5	-66.5	1.4	11.0	91.1	-36.8
8415.1125	3.5	-57.4	1.5	11.5	81.7	-27.4
9350.1250	3.4	-59.9	1.6	11.5	84.3	-30.0

**Table 3-14: Field Strength of Spurious Radiation – 937.5 MHz**

**Conducted Power 33.81 dBm; 2.4 W; Limit=50+10LogP=53.8 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)
1875.0000	4.3	-70.9	0.5	8.5	97.2	-42.8
2812.5000	23.1	-51.7	0.6	10.0	76.7	-22.3
3750.0000	6.9	-66.6	0.8	9.2	92.5	-38.1
4687.5000	3.6	-67.8	0.9	11.1	92.1	-37.7
5625.0000	3.2	-68.0	1.1	10.9	92.5	-38.1
6562.5000	3.4	-66.8	1.2	11.8	90.6	-36.2
7500.0000	2.5	-66.4	1.4	11.1	91.1	-36.7
8437.5000	3.6	-57.3	1.5	11.5	81.7	-27.3
9375.0000	3.0	-60.3	1.7	11.5	84.9	-30.5

**Table 3-15: Field Strength of Spurious Radiation – 939.9875 MHz**

**Conducted Power 34.4 dBm; 2.8 W; Limit=50+10LogP=54.4 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)
1879.9750	4.5	-69.8	0.5	8.5	96.1	-41.7
2819.9625	17.9	-56.9	0.6	10.0	81.9	-27.5
3759.9500	6.8	-66.7	0.8	9.2	92.7	-38.3
4699.9375	3.9	-67.6	0.9	11.1	91.8	-37.4
5639.9250	2.8	-68.3	1.1	11.0	92.8	-38.4
6579.9125	3.5	-66.7	1.2	11.8	90.6	-36.2
7519.9000	2.4	-66.5	1.4	11.1	91.2	-36.8
8459.8875	4.0	-57.0	1.5	11.5	81.4	-27.0
9399.8750	3.9	-59.5	1.7	11.5	84.1	-29.7

**Table 3-16: Part 90.543(f): Out of Band Emissions Limit**

Fundamental Frequency (MHz)	Second Harmonic Frequency (MHz)	Spectrum Analyzer Level (dBuV)	Signal Generator Level (dBm)	Cable Loss to Transmit Antenna (dB)	Substitution Antenna Gain (dBi)	Corrected Signal Generator Level (dBW)	Limit (dBW)	Margin (dB)
798.0125	1596.025	11.0	-57.9	0.3	6.7	-81.4	-70.0	-11.4
799.0125	1598.025	14.0	-54.9	0.3	6.8	-78.4	-70.0	-8.4
801.0125	1602.025	14.5	-54.4	0.3	6.8	-77.9	-70.0	-7.9

**Table 3-17: FCC Unintentional Digital/RX Emissions**

Frequency (MHz)	Analyzer Level (dBuV)	Site Correction Factor (dB/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
38.000	7.3	17.1	24.4	40.0	-15.6
44.020	9.6	13.7	23.3	40.0	-16.7
50.000	11.3	11.5	22.8	40.0	-17.2
58.740	12.2	11.6	23.8	40.0	-16.2
63.000	11.1	12.1	23.2	40.0	-16.8
73.380	11.5	12.4	23.9	40.0	-16.1
87.530	7.6	11.9	19.5	40.0	-20.5
102.600	13.2	14.0	27.2	43.5	-16.3
117.347	2.4	14.4	16.8	43.5	-26.7
132.093	2.4	14.4	16.8	43.5	-26.7
146.841	1.0	16.0	16.9	43.5	-26.6
292.000	-4.1	19.3	15.1	46.0	-30.9
312.200	-4.6	20.2	15.6	46.0	-30.4
530.000	-4.3	27.3	23.0	46.0	-23.0
1542.032	-20.2	35.5	15.3	54.0	-38.7
1551.983	-21.2	35.3	14.1	54.0	-39.9
1612.000	-20.4	34.8	14.4	54.0	-39.6
1664.000	-14.0	35.1	21.1	54.0	-32.9
1702.058	-10.3	36.0	25.7	54.0	-28.3
1712.058	-12.6	36.2	23.6	54.0	-30.4
1716.000	-15.2	36.2	21.0	54.0	-33.0
1721.983	-12.6	36.3	23.7	54.0	-30.3
1768.000	-18.4	37.6	19.1	54.0	-34.9
2327.974	-26.3	40.0	13.7	54.0	-40.3
3072.065	-25	46.9	21.9	54.0	-32.1
3084.065	-26.4	47.2	20.8	54.0	-33.2
3443.965	-24.8	44.2	19.4	54.0	-34.6
3740.065	-12.7	45.5	32.8	54.0	-21.2
3750.015	-18.8	45.6	26.8	54.0	-27.2
3759.965	-18.3	45.7	27.4	54.0	-26.6

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 3-18: Collocation Frequencies Tested**

LMR (MHz)	Bluetooth (MHz)	Wi-Fi (MHz)	LTE Cellular (MHz)
798.0125, 805.9875	2402	2412	716
806.025, 851.025	2440	2437	815.5, 849, 915
939.9875	2480	2462	1732.5, 1749.9, 1980
		5170, 5190, 5200	2535, 2570

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


**Table 3-19: 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	8/21/20
901593	Insulated Wire Inc.	KPS-1503-360-KPR	SMK RF Cables 36"	NA	8/21/20
901242	Rhein Tech Laboratories	WRT-000-0003	Wood rotating table	N/A	N/A
900791	Chase	CBL6111B	Bilog Antenna (30 MHz – 2000 MHz)	N/A	10/4/20
900321	EMCO	3161-03	Horn Antenna (4.0 - 8.2 GHz)	9508-1020	5/17/21
900323	EMCO	3160-07	Horn Antenna (8.2 - 12.4 GHz)	9605-1054	5/17/21
900772	EMCO	3161-02	Horn Antenna (2 - 4 GHz)	9804-1044	5/17/21
901582	Rohde & Schwarz	1167.0000.02	Signal Generator	101903	4/24/21
901581	Rohde & Schwarz	FSU	Spectrum Analyzer	1166.1660.50	4/26/21
901129	Par Electronics	806-902 (25W)	UHF Notch Filter	N/A	9/9/20
901131	Par Electronics	118-174 (25W)	VHF Notch Filter	N/A	9/9/20
901135	Par Electronics	400-512 (25W)	UHF Notch Filter	N/A	9/9/20
900814	Electro-Metrics	EM-6961 (RGA-60)	Double Ridged Guide Antenna (1 - 18 GHz)	2310	4/7/22

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Client: Harris Corporation  
Model: XL-185P 7/8/900 MHz  
IDs: OWDTR-0143-E/3636B-0143  
Standards: FCC Part 90/ISED RSS-119  
Report #: 2019069

**Test Personnel:**

Daniel Baltzell Test Engineer		October 14-17, 2019 Dates of Tests
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**4 Conclusion**

The data in this measurement report shows that the harmonic emissions levels and intermodulation frequencies for collocation testing were passing for the Harris Corporation XL-185P 7/8/900 MHz MultiBand Portable Radio, FCC ID: OWDTR-0143-E, IC: 3636B-0143.