

**United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
RADIO STATION CONSTRUCTION PERMIT
AND LICENSE**

EXPERIMENTAL

(Nature of Service)

XD MO

(Class of Station)

WI2XTQ

(Call Sign)

0215-EX-CM-2019

(File Number)

NAME Microsoft Corporation

Subject to the provisions of the Communications Act of 1934, subsequent acts, and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions and requirements set forth in this license, the licensee hereof is hereby authorized to use and operate the radio transmitting facilities hereinafter described for radio communications in accordance with the program of experimentation described by the licensee in its application for license.

Operation: In accordance with Sec. 5.3(j) of the Commission's Rules

Station Locations

- (1) MOBILE: Redmond, WA, within 2 km, centered around NL 47-38-22; WL 122-07-44
- (2) MOBILE: Carnation WA, within 5 km, centered around NL 47-41-14; WL 121-56-23
- (3) MOBILE: Essex NY, within 5 km, centered around NL 44-18-42; WL 73-22-24
- (4) MOBILE: Almira, WA, within 5 km, centered around NL 47-42-38; WL 118-56-30
- (5) MOBILE: Boone, IA, within 5 km, centered around NL 42-01-16; WL 93-46-25
- (6) MOBILE: Vicinity of Burlington, IL, within 2 km, centered around NL 41-52-28; WL 88-33-06
- (7) MOBILE: Vicinity of Burlington, IL, within 2 km, centered around NL 41-54-16; WL 88-27-06
- (8) MOBILE: Vicinity of Burlington, IL, within 2 km, centered around NL 42-00-13; WL 88-32-29
- (9) MOBILE: Vicinity of Burlington, IL, within 2 km, centered around NL 41-54-16; WL 88-27-06
- (10) MOBILE: Vicinity of Burlington, IL, within 2 km, centered around NL 41-52-28; WL 88-33-06
- (11) MOBILE: Within 2 km of NL 42-52-26 WL 77-1-43, within 2 km, centered around NL 42-52-26; WL 77-01-43
- (12) MOBILE: Within 2 km of NL 38-59-28 WL 76-56-25, within 2 km, centered around NL 38-59-28; WL 76-56-25
- (13) MOBILE: Within 2 km of NL 48-4-46 WL 122-23-23, within 2 km, centered around NL 48-04-46; WL 122-23-23

This authorization effective August 26, 2019 and
will expire 3:00 A.M. EST April 01, 2021

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

MOBILE: Redmond, WA, within 2 km, centered around NL 47-38-22; WL 122-07-44

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
54-72 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
76-88 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
180-216 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
476-608 MHz	MO	100KQ1W 100KK1W	63 mW (ERP)	
614-698 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	

MOBILE: Carnation WA, within 5 km, centered around NL 47-41-14; WL 121-56-23

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
54-72 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
76-88 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	

Frequency Information

MOBILE: Carnation WA, within 5 km, centered around NL 47-41-14; WL 121-56-23

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
180-216 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
476-608 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
614-698 MHz	MO	100KQ1W 100KK1W	63 mW (ERP)	

MOBILE: Essex NY, within 5 km, centered around NL 44-18-42; WL 73-22-24

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
54-72 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
76-88 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
180-216 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
476-608 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	

Frequency Information

MOBILE: Essex NY, within 5 km, centered around NL 44-18-42; WL 73-22-24

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
614-698 MHz	MO	100KQ1W 100KK1W	63 mW (ERP)	

MOBILE: Almira, WA, within 5 km, centered around NL 47-42-38; WL 118-56-30

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
54-72 MHz	MO	100KQ1W 100KK1W	63 mW (ERP)	
76-88 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
180-216 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
476-608 MHz	MO	100KK1W 100KQ1W 100KQ1W	63 mW (ERP)	
614-698 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	

Frequency Information

MOBILE: Boone, IA, within 5 km, centered around NL 42-01-16; WL 93-46-25

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
54-72 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
76-88 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
180-216 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
476-608 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
614-698 MHz	MO	100KQ1W 100KK1W	63 mW (ERP)	

MOBILE: Vicinity of Burlington, IL, within 2 km, centered around NL 41-52-28; WL 88-33-06

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
54-72 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
76-88 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	

Frequency Information

MOBILE: Vicinity of Burlington, IL, within 2 km, centered around NL 41-52-28; WL 88-33-06

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
180-216 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
476-608 MHz	MO	100KQ1W 100KK1W	63 mW (ERP)	
614-698 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	

MOBILE: Vicinity of Burlington, IL, within 2 km, centered around NL 41-54-16; WL 88-27-06

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
54-72 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
76-88 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
180-216 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
476-608 MHz	MO	100KQ1W 100KK1W	63 mW (ERP)	

Frequency Information

MOBILE: Vicinity of Burlington, IL, within 2 km, centered around NL 41-54-16; WL 88-27-06

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
614-698 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	

MOBILE: Vicinity of Burlington, IL, within 2 km, centered around NL 42-00-13; WL 88-32-29

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
54-72 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
76-88 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
180-216 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
476-608 MHz	MO	100KQ1W 100KK1W	63 mW (ERP)	
614-698 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	

Frequency Information

MOBILE: Vicinity of Burlington, IL, within 2 km, centered around NL 41-54-16; WL 88-27-06

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
54-72 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
76-88 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
180-216 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
476-608 MHz	MO	100KQ1W 100KK1W	63 mW (ERP)	
614-698 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	

MOBILE: Vicinity of Burlington, IL, within 2 km, centered around NL 41-52-28; WL 88-33-06

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
54-72 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
76-88 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	

Frequency Information

MOBILE: Vicinity of Burlington, IL, within 2 km, centered around NL 41-52-28; WL 88-33-06

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
180-216 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
476-608 MHz	MO	100KQ1W 100KK1W	63 mW (ERP)	
614-698 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	

MOBILE: Within 2 km of NL 42-52-26 WL 77-1-43, within 2 km, centered around NL 42-52-26; WL 77-01-43

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
54-72 MHz	MO	100KK1W 100KQ1W	30.5 mW (ERP)	
76-88 MHz	MO	100KK1W 100KQ1W	30.5 mW (ERP)	
180-216 MHz	MO	100KK1W 100KQ1W	30.5 mW (ERP)	
476-608 MHz	MO	100KQ1W 100KK1W	30.5 mW (ERP)	

Frequency Information

MOBILE: Within 2 km of NL 42-52-26 WL 77-1-43, within 2 km, centered around NL 42-52-26; WL 77-01-43

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
614-698 MHz	MO	100KK1W 100KQ1W	30.5 mW (ERP)	

MOBILE: Within 2 km of NL 38-59-28 WL 76-56-25, within 2 km, centered around NL 38-59-28; WL 76-56-25

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
54-72 MHz	MO	100KK1W 100KQ1W	14 mW (ERP)	
76-88 MHz	MO	100KK1W 100KQ1W	14 mW (ERP)	
180-216 MHz	MO	100KK1W 100KQ1W	14 mW (ERP)	
476-608 MHz	MO	100KQ1W 100KK1W	14 mW (ERP)	
614-698 MHz	MO	100KK1W 100KQ1W	14 mW (ERP)	

Frequency Information

MOBILE: Within 2 km of NL 48-4-46 WL 122-23-23, within 2 km, centered around NL 48-04-46; WL 122-23-23

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
54-72 MHz	MO	100KQ1W 100KK1W	63 mW (ERP)	
76-88 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
180-216 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	
476-608 MHz	MO	100KK1W 100KQ1W 100KQ1W	63 mW (ERP)	
614-698 MHz	MO	100KK1W 100KQ1W	63 mW (ERP)	

Special Conditions:

- (1) Licensee should be aware that other stations may be licensed on these frequencies and if any interference occurs, the licensee of this authorization will be subject to immediate shut down.
- (2) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (3) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (4) Prior to equipment authorization or a determination of compliance, the device must be accompanied by a conspicuous notice worded as follows: "This device has not been authorized as required by the rules of the Federal Communications Commission. This device is not, and may not be, offered for sale or lease, or sold or leased, until authorization is obtained."

Special Conditions:

- (5) Operation is subject to prior coordination with the local Society of Broadcast Engineers, Inc. (SBE) frequency coordinator. Consult the list at https://www.sbe.org/sections/freq_local.php to find the appropriate coordinator.
- (6) All of the experimental devices will be under control of Microsoft Corp. and they will be retrieved by Microsoft Corp. from the participants upon completion of the experiment.
- (7) Operation is not permitted in 608-614 MHz band.