Michael Mulcay, 7625 Wisconsin Avenue, Suite 200, Bethesda, MD 20814,

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

EXPERIMENTAL	WM2XDI
(Nature of Service)	(Call Sign)
XT FX MO	0807-EX-CN-2021
(Class of Station)	(File Number)

NAME Encina Communications 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: , within 400 km, centered around NL 43-39-27; WL 70-15-26
(2) Portland (CUMBERLAND), ME - NL 43-39-28; WL 70-15-27

Frequency Information

MOBILE: , within 400 km, centered around NL 43-39-27; WL 70-15-26

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5925-6425 MHz	MO		16 W (ERP)	0.001 %
		30M0D7W		
		30M0D7W		

Portland (CUMBERLAND), ME - NL 43-39-28; WL 70-15-27

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5925-6425 MHz	FX		16 W (ERP)	0.001 %
		30M0D7W		

This authorization effective September 28, 2021 and will expire 3:00 A.M. EST April 01, 2023

FEDERAL COMMUNICATIONS COMMISSION

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) For operation of power with 16W ERP (42 dBm ERP / 44.2 dBm EIRP (26.3W/14.2dBW)) that exceeds the limit of 36 dBm EIRP (2.43W ERP/ 4 watts/ 36 dBm/ 6dBW), prior to commencing any operations in the 5.925-6.425 GHz (U-NII-5) band, experimental licensee must notify licensees of Intelsat License LLC (Ms. Susan HCrandall, Phone Number: 703-559-7848, E-Mail: susan.crandall@intelsat.com) and SES Americom, Inc.(Ms. Petra A Vorwig, Phone Number: 202-478-7143, E-Mail:petra.vorwig@ses.com). The notice must include the name and contact information of the stop buzzer personnel that will be available to cease operations in the event of reported interference. The notification should include the testing parameters (specific location(s), antenna gain(s), antenna height(s), antenna orientation, EIRP, EIRP density) and day and times of each test.

(3) For outdoor operations:

a. For an outdoor standard power access point (AFC Controlled) and fixed client device operating in the 5.925-6.425 GHz (U-NII-5) band, the maximum power spectral density must not exceed 23 dBm (200mW) EIRP in any 1-megahertz band. In addition, the maximum EIRP over the frequency band of operation must not exceed 36 dBm (which is equivalent to 4 watts):

Frequency band	Antenna Gain	Maximum input power/ Conducted Power	Maximum authorized power	Maximum EIRP
5.925-6.425 GHZ	6 dBi	30 dBm/1watt/0dBW	2.43 W ERP	2.43W ERP/ 4 watts/ 36 dBm/ 6dBW

b. For conducting outdoor tests in the 5.925-6.425 GHz (U-NII-5) frequency band, the maximum EIRP from a Standard-Power Access Point (AFC Controlled) and fixed client device must not exceed 125 mW (21 dBm) at any elevation angle of more than 30 degrees above the horizon to protect satellite receivers.

c. For client device (Client Connected to outdoor standard power access point), operating in the 5.925-6.425 GHz (U-NII-5) frequency band, the maximum power spectral density must not exceed 17 dBm (0.05 W) EIRP in any 1-megahertz band. In addition, the maximum EIRP over the frequency band of operation must not exceed 30 dBm (1 watt):

Frequency band	Max. authorized power	Maximum EIRP
5.925-6.425 GHz	0.61 W ERP	0.61 W ERP/1 watt/ 30 dBm/ 0dBW

Special Conditions:

(4) For indoor operations:

a. For an indoor Low-Power access point operating in the 5.925-6.425 GHz (U-NII-5) band, the maximum power spectral density must not exceed 5 dBm (0.0032 W) EIRP in any 1-megahertz band. In addition, the maximum EIRP over the frequency band of operation must not exceed 30 dBm (1 watt). Access points operating under this section must employ a permanently attached integrated antenna:

Frequency band	Maximum authorized power	Maximum EIRP
5.925-6.425 GHz	0.61 W ERP	0.61 W ERP /1 watt/ 30 dBm/ 0dBW

b. For client device (Client Connected to indoor Low-Power access point), operating under the control of an indoor access point in the 5.925-6.425 GHz (U-NII-5) band, the maximum power spectral density must not exceed -1 dBm (0.00079 W) EIRP in any 1-megahertz band, and the maximum EIRP over the frequency band of operation must not exceed 24 dBm (250mW):

Frequency band	Maximum authorized power	Maximum EIRP
5.925-6.425 GHz	0.153 W ERP	0.153 W ERP / 0.25 watt/ 24 dBm/ -6dBW

(5) For out of band emission limit:

a. For transmitters operating within the 5.925-6.425 GHz (U-NII-5) band: Any emissions outside of the 5.925-6.425 GHz (U-NII-5) band must not exceed an EIRP of -27 dBm /MHz (The -27 dBm is equivalent to 0.000002 W).

(6) Experimental licensee coordinate with the Fixed Microwave Service licensees in the proposed venues in accordance with 47 C.F.R, Part 101.103(d) prior to operation in 5925-6425 MHz band.