

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

EXPERIMENTAL

(Nature of Service)

WM2XBN

(Call Sign)

XD FX MO

(Class of Station)

0671-EX-CN-2021

(File Number)

NAME MetaLINK Technologies, Inc.

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) Defiance (DEFIANCE), OH - NL 41-16-44; WL 84-20-58
- (2) MOBILE: Defiance, OH, 15 km radius around fixed base, within 15 km, centered around NL 41-16-44; WL 84-20-58

Frequency Information

Defiance (DEFIANCE), OH - NL 41-16-44; WL 84-20-58

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
6107-6187 MHz	FX	80M0D7D	206.46 mW (ERP)	
6110-6190 MHz	FX	80M0D7D	206.46 mW (ERP)	
6220-6300 MHz	FX	80M0D7D	206.46 mW (ERP)	
6300-6380 MHz	FX	80M0D7D	206.46 mW (ERP)	

This authorization effective September 27, 2021 and
will expire 3:00 A.M. EST October 01, 2023

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

MOBILE: Defiance, OH, 15 km radius around fixed base, within 15 km, centered around NL 41-16-44; WL 84-20-58

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
6107-6187 MHz	MO	80M0D7D	2.43 W (ERP)	
6110-6190 MHz	MO	80M0D7D	2.43 W (ERP)	
6220-6300 MHz	MO	80M0D7D	2.43 W (ERP)	
6300-6380 MHz	MO	80M0D7D	2.43 W (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) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (3) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (4) Licensee coordinate with Fixed Microwave Service licensees in the proposed venue in accordance with 47 C.F.R, Part 101.103(d) prior to operation in the proposed frequency bands.
- (5) Stop Buzzer POC is Todd Harpest at 419-990-0310.
- (6) For C5x/N5-X25 antenna with antenna gain of 25 dBi, the conducted power/input power must reduce by 19 dBi/49 dBm /79W. See maximum EIRP and footnote 34 of the Unlicensed Use of the 6 GHz Band, 35 FCC Rcd 3852, 3853 (2020).
- (7) For A5c /N5-X25 antenna with antenna gain of 22 dBi, the conducted power/input power must reduce by 16 dBi/46 dBm /39.8W. See maximum EIRP and footnote 34 of the Unlicensed Use of the 6 GHz Band, 35 FCC Rcd 3852, 3853 (2020).

Special Conditions:

- (8) 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
5.925-6.425 GHz	6 dBi	30 dBm/1watt/0dBW	2.43 W ERP

Maximum EIRP: 2.43WERP/ 4 watts/ 36 dBm/ 6dBW

- (9) 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.

- (10) 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

- (11) 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	Max authorized power	Max EIRP
5.925-6.425 GHz	0.61 W ERP	0.61 W ERP /1 watt/ 30 dBm/ 0dBW

- (12) 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	Max authorized power	Max EIRP
5.925-6.425 GHz	0.153 W ERP	0.153 W ERP / 0.25 watt/ 24 dBm/ -6dBW

- (13) 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).