

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

EXPERIMENTAL

(Nature of Service)

XT      FX

(Class of Station)

WL2XYM

(Call Sign)

0517-EX-CN-2021

(File Number)

NAME Toggle Communications LLC

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(h) of the Commission's Rules

Station Locations

- (1) Everett (SNOHOMISH), WA - NL 47-55-46; WL 122-14-57
- (2) Everett (SNOHOMISH), WA - NL 47-55-46; WL 122-14-57

Frequency Information

Everett (SNOHOMISH), WA - NL 47-55-46; WL 122-14-57

| Frequency        | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|------------------|---------------|---------------------|------------------|---------------------------|
| 10.15-11.175 MHz | FX            | NON                 | 1002 W (ERP)     | 0.00005 %                 |
| 10.15-11.175 MHz | FX            | 48K0Q1D             | 50119 W (ERP)    | 0.00005 %                 |
| 10.15-11.175 MHz | FX            | 48K0G1D             | 1002 W (ERP)     | 0.00005 %                 |
| 12.1-12.23 MHz   | FX            | NON                 | 1059 W (ERP)     | 0.00005 %                 |

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

**FEDERAL  
COMMUNICATIONS  
COMMISSION**



## Frequency Information

Everett (SNOHOMISH), WA - NL 47-55-46; WL 122-14-57

| Frequency        | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|------------------|---------------|---------------------|------------------|---------------------------|
| 12.1-12.23 MHz   | FX            | 48K0G1D<br>48K0Q1D  | 52966 W (ERP)    | 0.00005 %                 |
| 16.2-16.36 MHz   | FX            | N0N                 | 1377 W (ERP)     | 0.00005 %                 |
| 16.2-16.36 MHz   | FX            | 48K0G1D<br>48K0Q1D  | 68865 W (ERP)    | 0.00005 %                 |
| 17.41-17.48 MHz  | FX            | N0N                 | 1312 W (ERP)     | 0.00005 %                 |
| 17.41-17.48 MHz  | FX            | 48K0G1D<br>48K0Q1D  | 65615 W (ERP)    | 0.00005 %                 |
| 18.168-18.78 MHz | FX            | N0N                 | 1312 W (ERP)     | 0.00005 %                 |
| 18.168-18.78 MHz | FX            | 48K0G1D<br>48K0Q1D  | 65615 W (ERP)    | 0.00005 %                 |
| 19.02-19.68 MHz  | FX            | N0N                 | 1469 W (ERP)     | 0.00005 %                 |
| 19.02-19.68 MHz  | FX            | 48K0G1D<br>48K0Q1D  | 73451 W (ERP)    | 0.00005 %                 |

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| Frequency       | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-----------------|---------------|---------------------|------------------|---------------------------|
| 19.8-19.99 MHz  | FX            | N0N                 | 1783 W (ERP)     | 0.00005 %                 |
| 19.8-19.99 MHz  | FX            | 48K0G1D<br>48K0Q1D  | 89125 W (ERP)    | 0.00005 %                 |
| 20.01-21 MHz    | FX            | N0N                 | 1783 W (ERP)     | 0.00005 %                 |
| 20.01-21 MHz    | FX            | 48K0G1D<br>48K0Q1D  | 89125 W (ERP)    | 0.00005 %                 |
| 22.855-23.2 MHz | FX            | N0N                 | 1384 W (ERP)     | 0.00005 %                 |
| 22.855-23.2 MHz | FX            | 48K0G1D<br>48K0Q1D  | 69183 W (ERP)    | 0.00005 %                 |
| 23.35-24.45 MHz | FX            | N0N                 | 1538 W (ERP)     | 0.00005 %                 |
| 23.35-24.45 MHz | FX            | 48K0G1D<br>48K0Q1D  | 76913 W (ERP)    | 0.00005 %                 |

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| Frequency       | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-----------------|---------------|---------------------|------------------|---------------------------|
| 6.765-7 MHz     | FX            | N0N                 | 1884 W (ERP)     | 0.00005 %                 |
| 6.765-7 MHz     | FX            | 48K0G1D<br>48K0Q1D  | 94189 W (ERP)    | 0.00005 %                 |
| 9.04-9.4 MHz    | FX            | N0N                 | 1202 W (ERP)     | 0.00005 %                 |
| 9.04-9.4 MHz    | FX            | 48K0G1D<br>48K0Q1D  | 120226 W (ERP)   | 0.00005 %                 |
| 14.35-14.99 MHz | FX            | N0N                 | 2951 W (ERP)     | 0.00005 %                 |
| 14.35-14.99 MHz | FX            | 48K0G1D<br>48K0Q1D  | 147571 W (ERP)   | 0.00005 %                 |

## Special Conditions:

- (1) All transmitting and/or receiving equipment used in the study shall be owned by the licensee.
- (2) 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.
- (3) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (4) This operation is for experimental purposes only, provision of services is not permitted. Widely divergent and unrelated experiments must not be conducted under this license.
- (5) This operation is not permitted for market trial and stock trading.

**Special Conditions:**

- (6) Operation is not permitted using the following frequency bands:  
 7.200-7.450MHz,  
 9.400-9.900MHz,  
 11.600-12.100MHz,  
 13.570MHz-13.870MHz,  
 15.100-15.800MHz,  
 17.480-17.900MHz,  
 18.900-19.020MHz,  
 21.450-21850MHz
- (7) Operation is subject to shut down immediately if it causes interference to the International Broadcast Stations and FAA operations.
- (8) Non-approved equipment must be labeled.
- (9) Non-approved equipment must be retrieved.
- (10) Licensee must coordinate with other users as necessary to minimize interference.
- (11) Experimental use is secondary to, and must not interfere with Flight Test operations.
- (12) Stop buzzer, Thomas Maxwell, COO, 312-204-7502,