

**United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
SPECIAL TEMPORARY AUTHORIZATION**

EXPERIMENTAL

(Nature of Service)

XT FX

(Class of Station)

WI9XAT

(Call Sign)

1047-EX-ST-2014

(File Number)

NAME Battelle

This Special Temporary Authorization is granted upon the express condition that it may be terminated by the Commission at any time without advance notice or hearing if in its discretion the need for such action arises. Nothing contained herein shall be construed as a finding by the Commission that the authority herein granted is or will be in the public interest beyond the express terms hereof.

This Special Temporary Authorization shall not vest in the grantee any right to operate the station nor any right in the use of the frequencies designated in the authorization beyond the term hereof, nor in any other manner than authorized herein. Neither the authorization nor the right granted hereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934. This authorization is subject to the right of use of control the Government of the United States conferred by Section 706 of the Communications Act of 1934.

Special Temporary Authority is hereby granted to operate the apparatus described below:

Purpose Of Operation:

The link strives to achieve point-to-point transmission of 25 Gb/s on a millimeter-wave carrier using spectral efficient modulation.

Station Locations

- (1) West Jefferson (MADISON), OH - NL 39-57-27; WL 83-14-47
- (2) West Jefferson (MADISON), OH - NL 39-57-37; WL 83-14-56
- (3) West Jefferson (MADISON), OH - NL 39-57-34; WL 83-16-02
- (4) West Jefferson (MADISON), OH - NL 39-57-38; WL 83-15-00
- (5) Columbus (FRANKLIN), OH - NL 39-59-21; WL 83-01-14
- (6) Columbus (FRANKLIN), OH - NL 39-59-21; WL 83-01-14
- (7) Columbus (FRANKLIN), OH - NL 39-58-45; WL 83-01-22
- (8) Columbus (FRANKLIN), OH - NL 39-58-14; WL 82-57-45

Frequency Information

West Jefferson (MADISON), OH - NL 39-57-27; WL 83-14-47

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
100 GHz	FX	10G0A1D	44668 W (ERP)	5.0E-7 %

This authorization effective January 01, 2015 and
will expire 3:00 A.M. EST July 01, 2015

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

West Jefferson (MADISON), OH - NL 39-57-37; WL 83-14-56

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
100 GHz	FX	10G0A1D	44668 W (ERP)	5.0E-7 %

West Jefferson (MADISON), OH - NL 39-57-34; WL 83-16-02

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
100 GHz	FX	10G0A1D	44668 W (ERP)	5.0E-7 %

West Jefferson (MADISON), OH - NL 39-57-38; WL 83-15-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
100 GHz	FX	10G0A1D	44668 W (ERP)	5.0E-7 %

Columbus (FRANKLIN), OH - NL 39-59-21; WL 83-01-14

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
100 GHz	FX	10G0A1D	44668 W (ERP)	5.0E-7 %

Frequency Information

Columbus (FRANKLIN), OH - NL 39-59-21; WL 83-01-14

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
100 GHz	FX	10G0A1D	44668 W (ERP)	5.0E-7 %

Columbus (FRANKLIN), OH - NL 39-58-45; WL 83-01-22

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
100 GHz	FX	10G0A1D	44668 W (ERP)	5.0E-7 %

Columbus (FRANKLIN), OH - NL 39-58-14; WL 82-57-45

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
100 GHz	FX	10G0A1D	44668 W (ERP)	5.0E-7 %

Special Conditions:

- (1) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (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) This is a one-time use of the 100-102 GHz band allocated exclusively to passive radio services
- (4) AFSMO/DARPA/Battelle will never come back with another request to transmit within the US246 bands.
- (5) There will be no further development of equipment for transmitting in the 100-102 GHz band.