

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

EXPERIMENTAL

(Nature of Service)

KF2XHE

(Call Sign)

XT FX MO

(Class of Station)

0114-EX-CR-2016

(File Number)

NAME General Motors Research 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(g) of the Commission's Rules

Station Locations

- (1) MOBILE: 4000 acre proving ground site Milford, MI, centered around NL 42-35-47; WL 83-41-10
- (2) Milford, MI - NL 42-34-16; WL 83-40-20

Frequency Information

MOBILE: 4000 acre proving ground site Milford, MI, centered around NL 42-35-47; WL 83-41-10

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1800-2000 kHz	MO	N0N 3K00J3W	100 W (Output Power)	0.02 %
3500-4000 kHz	MO	N0N 3K00J3W	800 W (Output Power)	0.02 %
7000-7300 kHz	MO	N0N 3K00J3W	800 W (Output Power)	0.02 %

This authorization effective February 01, 2017 and
will expire 3:00 A.M. EST February 01, 2018

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

MOBILE: 4000 acre proving ground site Milford, MI, centered around NL 42-35-47; WL 83-41-10

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
10100-10150 kHz	MO	N0N 3K00J3W	800 W (Output Power)	0.02 %
14000-14350 kHz	MO	N0N 3K00J3W	800 W (Output Power)	0.02 %
18068-18168 kHz	MO	N0N 3K00J3W	800 W (Output Power)	0.02 %
21000-21450 kHz	MO	N0N 3K00J3W	800 W (Output Power)	0.02 %
24890-24990 kHz	MO	N0N 3K00J3W	800 W (Output Power)	0.02 %
26965-27405 kHz	MO	N0N 3K00J3W	100 W (Output Power)	0.02 %
28000-29700 kHz	MO	N0N 3K00J3W	800 W (Output Power)	0.02 %
30.56-32 MHz	MO	N0N 20K0F3E	200 W (Output Power)	0.005 %

Frequency Information

MOBILE: 4000 acre proving ground site Milford, MI, centered around NL 42-35-47; WL 83-41-10

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
33-34 MHz	MO	N0N 20K0F3E	200 W (Output Power)	0.005 %
35-36 MHz	MO	N0N 20K0F3E	200 W (Output Power)	0.005 %
37-38 MHz	MO	N0N 20K0F3E	200 W (Output Power)	0.005 %
39-40 MHz	MO	N0N 20K0F3E	200 W (Output Power)	0.005 %
42.46-46.6 MHz	MO	N0N 20K0F3E	200 W (Output Power)	0.005 %
47-49.6 MHz	MO	N0N 20K0F3E	200 W (Output Power)	0.005 %
50-54 MHz	MO	N0N 20K0F8W 20K0F3E	200 W (Output Power)	0.005 %
60-72 MHz	MO	N0N 20K0F3E	100 W (ERP)	0.005 %

Frequency Information

MOBILE: 4000 acre proving ground site Milford, MI, centered around NL 42-35-47; WL 83-41-10

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
60-72 MHz	MO	20K0F8W	100 W (ERP)	0.005 %
76-87 MHz	MO	N0N 20K0F3E 20K0F8W	100 W (ERP)	0.005 %
88 MHz	MO	N0N	3 W (ERP)	0.005 %
90 MHz	MO	N0N	3 W (ERP)	0.005 %
92 MHz	MO	N0N	3 W (ERP)	0.005 %
94 MHz	MO	N0N	3 W (ERP)	0.005 %
96 MHz	MO	N0N	3 W (ERP)	0.005 %
98 MHz	MO	N0N	3 W (ERP)	0.005 %
100 MHz	MO	N0N	3 W (ERP)	0.005 %
102 MHz	MO	N0N	3 W (ERP)	0.005 %

Frequency Information

MOBILE: 4000 acre proving ground site Milford, MI, centered around NL 42-35-47; WL 83-41-10

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
104 MHz	MO	N0N	3 W (ERP)	0.005 %
106 MHz	MO	N0N	3 W (ERP)	0.005 %
107.9 MHz	MO	N0N	3 W (ERP)	0.005 %
144-148 MHz	MO	N0N 20K0F8W 20K0F3E 20K0F9W	2700 W (Output Power)	0.002 %
150.8-157.03 MHz	MO	N0N 20K0F3E	200 W (Output Power)	0.002 %
157.19-162.01 MHz	MO	N0N 20K0F3E	200 W (Output Power)	0.002 %
164 MHz	MO	N0N 20K0F3E	200 W (Output Power)	0.002 %
164.5 MHz	MO	N0N 20K0F3E	200 W (Output Power)	0.002 %
165 MHz	MO	N0N	200 W (Output Power)	0.002 %

Frequency Information

MOBILE: 4000 acre proving ground site Milford, MI, centered around NL 42-35-47; WL 83-41-10

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
165 MHz	MO	20K0F3E	200 W (Output Power)	0.002 %
165.5 MHz	MO	N0N 20K0F3E	200 W (Output Power)	0.002 %
166 MHz	MO	N0N 20K0F3E	200 W (Output Power)	0.002 %
166.5 MHz	MO	N0N 20K0F3E	200 W (Output Power)	0.002 %
167.1 MHz	MO	N0N 20K0F3E	200 W (Output Power)	0.002 %
169.425 MHz	MO	N0N 20K0F3E	250 W (Output Power)	0.002 %
169.525 MHz	MO	N0N 20K0F3E	250 W (Output Power)	0.002 %
170.255 MHz	MO	N0N 20K0F3E	250 W (Output Power)	0.002 %
170.325 MHz	MO	N0N	250 W (Output Power)	0.002 %

Frequency Information

MOBILE: 4000 acre proving ground site Milford, MI, centered around NL 42-35-47; WL 83-41-10

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
170.325 MHz	MO	20K0F3E	250 W (Output Power)	0.002 %
170.425 MHz	MO	N0N 20K0F3E	250 W (Output Power)	0.002 %
170.575 MHz	MO	N0N 20K0F3E	250 W (Output Power)	0.002 %
218-220 MHz	MO	N0N 20K0F3E	240 W (ERP)	0.005 %
220-225 MHz	MO	N0N	225 W (Output Power)	0.002 %
220-222 MHz	MO	3K00J3E	225 W (Output Power)	0.002 %
220-225 MHz	MO	20K0J3W 20K0F3E	225 W (Output Power)	0.002 %
300-322 MHz	MO	N0N	10 W (ERP)	0.005 %
420-450 MHz	MO	N0N 20K0F3E 20K0F9W	225 W (Output Power)	0.002 %

Frequency Information

MOBILE: 4000 acre proving ground site Milford, MI, centered around NL 42-35-47; WL 83-41-10

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
450-470 MHz	MO	N0N 20K0F3E	125 W (Output Power)	0.002 %
470-510 MHz	MO	N0N 20K0F3E	125 W (Output Power)	0.002 %
806-815 MHz	MO	N0N 20K0F3E	75 W (Output Power)	0.0015 %
826-849 MHz	MO	N0N 20K0F3E 30K0W9W	70 W (ERP)	0.0015 %
826-849 MHz	MO	30K0G1D	70 W (ERP)	0.0015 %
869-894 MHz	MO	N0N 20K0F3E	75 W (Output Power)	0.0015 %
869-894 MHz	MO	30K0G1D	35 W (ERP)	0.0015 %
896-901 MHz	MO	N0N 20K0F3E	75 W (Output Power)	0.0015 %
902-928 MHz	MO	N0N	100 W (Output Power)	0.0015 %

Frequency Information

MOBILE: 4000 acre proving ground site Milford, MI, centered around NL 42-35-47; WL 83-41-10

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
902-928 MHz	MO	20K0F3E	100 W (Output Power)	0.0015 %
935-940 MHz	MO	N0N 20K0F3E	75 W (ERP)	0.0015 %
1240 MHz	MO	N0N 20K0F3E	100 W (Output Power)	0.0015 %
1245 MHz	MO	N0N 20K0F3E	100 W (Output Power)	0.0015 %
1250 MHz	MO	N0N 20K0F3E	100 W (Output Power)	0.0015 %
1255 MHz	MO	N0N 20K0F3E	100 W (Output Power)	0.0015 %
1265 MHz	MO	N0N 20K0F3E	100 W (Output Power)	0.0015 %
1275 MHz	MO	N0N 20K0F3E	100 W (Output Power)	0.0015 %
1280 MHz	MO	N0N	100 W (Output Power)	0.0015 %

Frequency Information

MOBILE: 4000 acre proving ground site Milford, MI, centered around NL 42-35-47; WL 83-41-10

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1280 MHz	MO	20K0F3E	100 W (Output Power)	0.0015 %
1285 MHz	MO	N0N 20K0F3E	100 W (Output Power)	0.0015 %
1477-1525 MHz	MO	N0N 20K0F3E 30K0F9W	10 W (ERP)	0.0015 %
1805-1850 MHz	MO	N0N 20K0F3E 30K0W9W	10 W (ERP)	
1850-1910 MHz	MO	N0N 30K0G1D	35 W (ERP)	
1930-1990 MHz	MO	N0N 30K0G1D	35 W (ERP)	

Milford, MI - NL 42-34-16; WL 83-40-20

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
87.9 MHz	FX	300KF8E	3 W (ERP)	0.001 %

Special Conditions:

- (1) Assignment in frequency bands 960-1400, 2700-2900, or 9000-9200 MHz was coordinated prior to authorization with the FAA Great Lakes Coordinator, Des Plaines, IL. Use of frequencies under the authority of this assignment is subject to such further coordination with the FAA Great Lakes Coordinator, Des Plaines, IL, as necessary to ensure compatibility with existing uses.
- (2) Operation in the 1850-1910 or 1930-1990 MHz band requires prior frequency coordination with 2 GHz microwave users and consent of PCS licensees to avoid interference.
- (3) Operation in the 824-849 or 869-894 MHz band requires consent of local cellular licensee(s) to avoid interference.
- (4) This frequency assignment in one of the bands 1435-1525, 2310-2320 and 2345-2390 MHz was coordinated prior to its authorization with AFMO CONUS, Ft. Sam Houston, TX, who also coordinated it, as appropriate, with the Aerospace and Flight Test Radio Coordinating Council. Use of this frequency under the authority of this assignment is subject to such further coordination with AFMO CONUS, Ft. Sam Houston, TX, as necessary to ensure compatibility with existing uses.
- (5) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (6) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (7) 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.
- (8) Operation is subject to prior coordination with the Society of Broadcast Engineers, Inc. (SBE); ATTN: Executive Director; 9102 North Meridian Street, Suite 305; Indianapolis, IN 46260; telephone, (866) 632-4222; FAX, (317) 846-9120; e-mail, executivedir@sbe.org; information, www.sbe.org.
- (9) Operation on Commercial Mobile Radio Services (CMRS) frequencies requires consent of CMRS licensees to avoid interference.
- (10) Licensee must blank transmissions between 125-160 degrees and 230-290 degrees referenced to true North on 1240, 1245, 1250, 1255, 1265, 1275, 1280 and 1285 MHz.