

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

EXPERIMENTAL

(Nature of Service)

KF2XHE

(Call Sign)

XD MO

(Class of Station)

0070-EX-RR-2003

(File Number)

NAME GENERAL MOTORS RESEARCH CORP

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(f) 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

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	100 W (Output Power)	0.02 %
1800-2000 KHZ	MO	3K00J3W	100 W (Output Power)	0.02 %
3500-4000 KHZ	MO	N0N	800 W (Output Power)	0.02 %
3500-4000 KHZ	MO	3K00J3W	800 W (Output Power)	0.02 %
7000-7300 KHZ	MO	N0N	800 W (Output Power)	0.02 %
7000-7300 KHZ	MO	3K00J3W	800 W (Output Power)	0.02 %
10100-10150 KHZ	MO	N0N	800 W (Output Power)	0.02 %
10100-10150 KHZ	MO	3K00J3W	800 W (Output Power)	0.02 %
14000-14350 KHZ	MO	N0N	800 W (Output Power)	0.02 %
14000-14350 KHZ	MO	3K00J3W	800 W (Output Power)	0.02 %
18068-18168 KHZ	MO	N0N	800 W (Output Power)	0.02 %
18068-18168 KHZ	MO	3K00J3W	800 W (Output Power)	0.02 %
21000-21450 KHZ	MO	N0N	800 W (Output Power)	0.02 %
21000-21450 KHZ	MO	3K00J3W	800 W (Output Power)	0.02 %
24890-24990 KHZ	MO	N0N	800 W (Output Power)	0.02 %

This authorization effective April 01, 2003 and
will expire 3:00 A.M. EST April 01, 2005

FEDERAL
COMMUNICATIONS
COMMISSION



Frequency Information

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24890-24990 kHz	MO	3K00J3W	800 W (Output Power)	0.02 %
26965-27405 kHz	MO	N0N	100 W (Output Power)	0.02 %
26965-27405 kHz	MO	3K00J3W	100 W (Output Power)	0.02 %
28000-29700 kHz	MO	N0N	800 W (Output Power)	0.02 %
28000-29700 kHz	MO	3K00J3W	800 W (Output Power)	0.02 %
30.56-32 MHz	MO	N0N	200 W (Output Power)	0.005 %
30.56-32 MHz	MO	20K0F3E	200 W (Output Power)	0.005 %
33-34 MHz	MO	N0N	200 W (Output Power)	0.005 %
33-34 MHz	MO	20K0F3E	200 W (Output Power)	0.005 %
35-36 MHz	MO	N0N	200 W (Output Power)	0.005 %
35-36 MHz	MO	20K0F3E	200 W (Output Power)	0.005 %
37-38 MHz	MO	N0N	200 W (Output Power)	0.005 %
37-38 MHz	MO	20K0F3E	200 W (Output Power)	0.005 %
39-40 MHz	MO	N0N	200 W (Output Power)	0.005 %
39-40 MHz	MO	20K0F3E	200 W (Output Power)	0.005 %
42.46-46.6 MHz	MO	N0N	200 W (Output Power)	0.005 %
42.46-46.6 MHz	MO	20K0F3E	200 W (Output Power)	0.005 %
47-49.6 MHz	MO	N0N	200 W (Output Power)	0.005 %
47-49.6 MHz	MO	20K0F3E	200 W (Output Power)	0.005 %
50-54 MHz	MO	N0N	200 W (Output Power)	0.005 %
50-54 MHz	MO	20K0F3E	200 W (Output Power)	0.005 %
50-54 MHz	MO	20K0F8W	200 W (Output Power)	0.005 %
60-72 MHz	MO	N0N	100 W (ERP)	0.005 %
60-72 MHz	MO	20K0F8W	100 W (ERP)	0.005 %
60-72 MHz	MO	20K0F3E	100 W (ERP)	0.005 %
76-87 MHz	MO	N0N	100 W (ERP)	0.005 %
76-87 MHz	MO	20K0F8W	100 W (ERP)	0.005 %
76-87 MHz	MO	20K0F3E	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 %
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 %

Frequency Information

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
144-148 MHz	MO	N0N	2700 W (Output Power)	0.002 %
144-148 MHz	MO	20K0F3E	2700 W (Output Power)	0.002 %
144-148 MHz	MO	20K0F8W	2700 W (Output Power)	0.002 %
144-148 MHz	MO	20K0F9W	2700 W (Output Power)	0.002 %
150.8-157.03 MHz	MO	N0N	200 W (Output Power)	0.002 %
150.8-157.03 MHz	MO	20K0F3E	200 W (Output Power)	0.002 %
157.19-162.01 MHz	MO	N0N	200 W (Output Power)	0.002 %
157.19-162.01 MHz	MO	20K0F3E	200 W (Output Power)	0.002 %
164 MHz	MO	N0N	200 W (Output Power)	0.002 %
164 MHz	MO	20K0F3E	200 W (Output Power)	0.002 %
164.5 MHz	MO	N0N	200 W (Output Power)	0.002 %
164.5 MHz	MO	20K0F3E	200 W (Output Power)	0.002 %
165 MHz	MO	N0N	200 W (Output Power)	0.002 %
165 MHz	MO	20K0F3E	200 W (Output Power)	0.002 %
165.5 MHz	MO	N0N	200 W (Output Power)	0.002 %
165.5 MHz	MO	20K0F3E	200 W (Output Power)	0.002 %
166 MHz	MO	N0N	200 W (Output Power)	0.002 %
166 MHz	MO	20K0F3E	200 W (Output Power)	0.002 %
166.5 MHz	MO	N0N	200 W (Output Power)	0.002 %
166.5 MHz	MO	20K0F3E	200 W (Output Power)	0.002 %
167.1 MHz	MO	N0N	200 W (Output Power)	0.002 %
167.1 MHz	MO	20K0F3E	200 W (Output Power)	0.002 %
169.425 MHz	MO	N0N	250 W (Output Power)	0.002 %
169.425 MHz	MO	20K0F3E	250 W (Output Power)	0.002 %
169.525 MHz	MO	N0N	250 W (Output Power)	0.002 %
169.525 MHz	MO	20K0F3E	250 W (Output Power)	0.002 %
170.255 MHz	MO	N0N	250 W (Output Power)	0.002 %
170.255 MHz	MO	20K0F3E	250 W (Output Power)	0.002 %
170.325 MHz	MO	N0N	250 W (Output Power)	0.002 %
170.325 MHz	MO	20K0F3E	250 W (Output Power)	0.002 %
170.425 MHz	MO	N0N	250 W (Output Power)	0.002 %
170.425 MHz	MO	20K0F3E	250 W (Output Power)	0.002 %
170.575 MHz	MO	N0N	250 W (Output Power)	0.002 %
170.575 MHz	MO	20K0F3E	250 W (Output Power)	0.002 %
218-220 MHz	MO	N0N	240 W (ERP)	0.005 %
218-220 MHz	MO	20K0F3E	240 W (ERP)	0.005 %
220-222 MHz	MO	3K00J3E	225 W (Output Power)	0.002 %
222-225 MHz	MO	N0N	225 W (Output Power)	0.002 %
222-225 MHz	MO	20K0F3E	225 W (Output Power)	0.002 %

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222-225 MHz	MO	20K0J3W	225 W (Output Power)	0.002 %
300-322 MHz	MO	N0N	10 W (ERP)	0.005 %
420-450 MHz	MO	N0N	225 W (Output Power)	0.002 %
420-450 MHz	MO	20K0F9W	225 W (Output Power)	0.002 %
420-450 MHz	MO	20K0F3E	225 W (Output Power)	0.002 %
450-470 MHz	MO	N0N	125 W (Output Power)	0.002 %
450-470 MHz	MO	20K0F3E	125 W (Output Power)	0.002 %
470-510 MHz	MO	N0N	125 W (Output Power)	0.002 %
470-510 MHz	MO	20K0F3E	125 W (Output Power)	0.002 %
806-815 MHz	MO	N0N	75 W (Output Power)	0.0015 %
806-815 MHz	MO	20K0F3E	75 W (Output Power)	0.0015 %
826-849 MHz	MO	N0N	70 W (ERP)	0.0015 %
826-849 MHz	MO	30K0G1D	70 W (ERP)	0.0015 %
826-849 MHz	MO	30K0W9W	70 W (ERP)	0.0015 %
826-849 MHz	MO	20K0F3E	70 W (ERP)	0.0015 %
869-894 MHz	MO	N0N	75 W (Output Power)	0.0015 %
869-894 MHz	MO	20K0F3E	75 W (Output Power)	0.0015 %
869-894 MHz	MO	30K0G1D	35 W (ERP)	0.0015 %
896-901 MHz	MO	N0N	75 W (Output Power)	0.0015 %
896-901 MHz	MO	20K0F3E	75 W (Output Power)	0.0015 %
902-928 MHz	MO	N0N	100 W (Output Power)	0.0015 %
902-928 MHz	MO	20K0F3E	100 W (Output Power)	0.0015 %
935-940 MHz	MO	N0N	75 W (ERP)	0.0015 %
935-940 MHz	MO	20K0F3E	75 W (ERP)	0.0015 %
1240 MHz	MO	N0N	100 W (Output Power)	0.0015 %
1240 MHz	MO	20K0F3E	100 W (Output Power)	0.0015 %
1245 MHz	MO	N0N	100 W (Output Power)	0.0015 %
1245 MHz	MO	20K0F3E	100 W (Output Power)	0.0015 %
1250 MHz	MO	N0N	100 W (Output Power)	0.0015 %
1250 MHz	MO	20K0F3E	100 W (Output Power)	0.0015 %
1255 MHz	MO	N0N	100 W (Output Power)	0.0015 %
1255 MHz	MO	20K0F3E	100 W (Output Power)	0.0015 %
1265 MHz	MO	N0N	100 W (Output Power)	0.0015 %
1265 MHz	MO	20K0F3E	100 W (Output Power)	0.0015 %
1275 MHz	MO	N0N	100 W (Output Power)	0.0015 %
1275 MHz	MO	20K0F3E	100 W (Output Power)	0.0015 %
1280 MHz	MO	N0N	100 W (Output Power)	0.0015 %
1280 MHz	MO	20K0F3E	100 W (Output Power)	0.0015 %
1285 MHz	MO	N0N	100 W (Output Power)	0.0015 %

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1285 MHz	MO	20K0F3E	100 W (Output Power)	0.0015 %
1477-1525 MHz	MO	N0N	10 W (ERP)	0.0015 %
1477-1525 MHz	MO	30K0F9W	10 W (ERP)	0.0015 %
1477-1525 MHz	MO	20K0F3E	10 W (ERP)	0.0015 %
1805-1850 MHz	MO	N0N	10 W (ERP)	
1805-1850 MHz	MO	30K0W9W	10 W (ERP)	
1805-1850 MHz	MO	20K0F3E	10 W (ERP)	
1850-1910 MHz	MO	N0N	35 W (ERP)	
1850-1910 MHz	MO	30K0G1D	35 W (ERP)	
1930-1990 MHz	MO	N0N	35 W (ERP)	
1930-1990 MHz	MO	30K0G1D	35 W (ERP)	

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) 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 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.
- (5) This authorization does not include use of the 1910-1930 MHz band which has been designated for unlicensed PCS.
- (6) 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.
- (7) Operation is subject to prior coordination with the Society of Broadcast Engineers, Inc. (SBE); ATTN: Executive Director; 9247 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.
- (8) Operation in the 824-849 or 869-894 MHz band requires consent of local cellular licensee(s) to avoid interference.
- (9) Operation in the 896-901 MHz and 935-940 MHz bands requires coordination with the existing and future users to avoid interference.