

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

EXPERIMENTAL

(Nature of Service)

XT FX MO

(Class of Station)

WI2XHO

(Call Sign)

0183-EX-PL-2016

(File Number)

NAME Caterpillar, 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) Mossville (PEORIA), IL - NL 40-50-54; WL 89-33-45; MOBILE: , within 5 km
- (2) Green Valley (PIMA), AZ - NL 31-49-24; WL 111-08-05; MOBILE: , within 5 km
- (3) Washington (TAZEWELL), IL - NL 40-43-58; WL 89-28-02; MOBILE: , within 5 km

Frequency Information

Mossville (PEORIA), IL - NL 40-50-54; WL 89-33-45; MOBILE: , within 5 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
699-716 MHz	MO	18M0W9W	251 mW (ERP)	
717-728 MHz	FX	10M0F9W 5M00D7W	251 mW (ERP)	
729-756 MHz	FX	10M0W7W 20M0F9W 5M00D7W	251 mW (ERP)	

This authorization effective June 07, 2016 and
will expire 3:00 A.M. EST June 01, 2021

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

Mossville (PEORIA), IL - NL 40-50-54; WL 89-33-45; MOBILE: , within 5 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
729-756 MHz	FX	18M0W9W	251 mW (ERP)	
777-787 MHz	MO	10M0W9W	251 mW (ERP)	
791-821 MHz	MO	30M0W9W	251 mW (ERP)	
824-849 MHz	MO	25M0W9W	251 mW (ERP)	
832-862 MHz	FX	30M0W9W	251 mW (ERP)	
859-894 MHz	FX	20M0F9W 5M00D7W 25M0W9W	251 mW (ERP)	
896-902 MHz	MO	40M0W9W	251 mW (ERP)	
1626.5-1660.5 MHz	MO	30M0W9W	251 mW (ERP)	
1710-1755 MHz	MO	40M0W9W	60 W (ERP)	
1805-1880 MHz	FX	20M0F9W	251 mW (ERP)	

Frequency Information

Mossville (PEORIA), IL - NL 40-50-54; WL 89-33-45; MOBILE: , within 5 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1850-1910 MHz	FX	40M0W9W	251 mW (ERP)	
1910-1930 MHz	FX	20M0W9W	251 mW (ERP)	
1910-1930 MHz	MO	20M0W9W	251 mW (ERP)	
1920-1980 MHz	MO	40M0W9W	251 mW (ERP)	
1930-1995 MHz	FX	5M00D7W 40M0W9W 20M0W9W	251 mW (ERP)	
2000-2020 MHz	MO	20M0W9W	251 mW (ERP)	
2110-2170 MHz	FX	20M0F9W 5M00D7W 40M0W9W	251 mW (ERP)	
2110-2155 MHz	FX	40M0W9W	60 W (ERP)	
2180-2200 MHz	FX	20M0W9W	251 mW (ERP)	
2350-2360 MHz	FX	10M0F9W	251 mW (ERP)	

Frequency Information

Mossville (PEORIA), IL - NL 40-50-54; WL 89-33-45; MOBILE: , within 5 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2350-2360 MHz	FX	5M00D7W	251 mW (ERP)	
2500-2690 MHz	FX	20M0F9W 5M00D7W 40M0W9W	251 mW (ERP)	
2500-2690 MHz	MO	20M0F9W 5M00D7W 40M0W9W	251 mW (ERP)	
2500-2570 MHz	MO	40M0W9W	251 mW (ERP)	
3400-3600 MHz	FX	40M0W9W	7.5 mW (ERP)	
3400-3600 MHz	MO	40M0W9W	7.5 mW (ERP)	
3600-3800 MHz	FX	40M0W9W	251 mW (ERP)	

Green Valley (PIMA), AZ - NL 31-49-24; WL 111-08-05; MOBILE: , within 5 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
699-716 MHz	MO	18M0W9W	251 mW (ERP)	

Frequency Information

Green Valley (PIMA), AZ - NL 31-49-24; WL 111-08-05; MOBILE: , within 5 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
717-728 MHz	FX	10M0F9W 5M00D7W	251 mW (ERP)	
729-756 MHz	FX	10M0W7W 20M0F9W 5M00D7W 18M0W9W	251 mW (ERP)	
777-787 MHz	MO	10M0W9W	251 mW (ERP)	
791-821 MHz	MO	30M0W9W	251 mW (ERP)	
824-849 MHz	MO	25M0W9W	251 mW (ERP)	
832-862 MHz	FX	30M0W9W	251 mW (ERP)	
859-894 MHz	FX	20M0F9W 5M00D7W 25M0W9W	251 mW (ERP)	
896-902 MHz	MO	40M0W9W	251 mW (ERP)	
1626.5-1660.5 MHz	MO	30M0W9W	251 mW (ERP)	

Frequency Information

Green Valley (PIMA), AZ - NL 31-49-24; WL 111-08-05; MOBILE: , within 5 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1710-1755 MHz	MO	40M0W9W	60 W (ERP)	
1805-1880 MHz	FX	20M0F9W	251 mW (ERP)	
1850-1910 MHz	FX	40M0W9W	251 mW (ERP)	
1910-1930 MHz	FX	20M0W9W	251 mW (ERP)	
1910-1930 MHz	MO	40M0W9W	251 mW (ERP)	
1930-1995 MHz	FX	5M00D7W 20M0W9W 40M0W9W	251 mW (ERP)	
2000-2020 MHz	MO	20M0W9W	251 mW (ERP)	
2110-2170 MHz	FX	20M0F9W 5M00D7W 40M0W9W	251 mW (ERP)	
2110-2155 MHz	FX	40M0W9W	60 W (ERP)	

Frequency Information

Green Valley (PIMA), AZ - NL 31-49-24; WL 111-08-05; MOBILE: , within 5 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2180-2200 MHz	FX	20M0W9W	251 mW (ERP)	
2350-2360 MHz	FX	10M0F9W 5M00D7W	251 mW (ERP)	
2500-2690 MHz	FX	20M0F9W 5M00D7W 40M0W9W	251 mW (ERP)	
2500-2690 MHz	MO	20M0F9W 5M00D7W 40M0W9W	251 mW (ERP)	
2500-2570 MHz	MO	40M0W9W	251 mW (ERP)	
3400-3600 MHz	FX	40M0W9W	7.5 mW (ERP)	
3400-3600 MHz	MO	40M0W9W	7.5 mW (ERP)	
3600-3800 MHz	FX	40M0W9W	251 mW (ERP)	

Frequency Information

Washington (TAZEWELL), IL - NL 40-43-58; WL 89-28-02; MOBILE: , within 5 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
699-716 MHz	MO	18M0W9W	251 mW (ERP)	
717-728 MHz	FX	10M0F9W 5M00D7W	251 mW (ERP)	
729-756 MHz	FX	10M0W7W 20M0F9W 5M00D7W 18M0W9W	251 mW (ERP)	
777-787 MHz	MO	10M0W9W	251 mW (ERP)	
791-821 MHz	MO	30M0W9W	251 mW (ERP)	
824-849 MHz	MO	25M0W9W	251 mW (ERP)	
832-862 MHz	FX	30M0W9W	251 mW (ERP)	
859-894 MHz	MO	20M0F9W 5M00D7W 25M0W9W	251 mW (ERP)	
896-902 MHz	MO	40M0W9W	251 mW (ERP)	

Frequency Information

Washington (TAZEWELL), IL - NL 40-43-58; WL 89-28-02; MOBILE: , within 5 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1626.5-1660.5 MHz	MO	30M0W9W	251 mW (ERP)	
1710-1755 MHz	MO	40M0W9W	60 W (ERP)	
1805-1880 MHz	FX	20M0F9W	251 mW (ERP)	
1850-1910 MHz	FX	40M0W9W	251 mW (ERP)	
1910-1930 MHz	FX	20M0W9W	251 mW (ERP)	
1910-1930 MHz	MO	20M0W9W	251 mW (ERP)	
1920-1980 MHz	MO	40M0W9W	251 mW (ERP)	
1930-1995 MHz	FX	5M00D7W 20M0W9W 40M0W9W	251 mW (ERP)	
2000-2020 MHz	MO	20M0W9W	251 mW (ERP)	
2110-2170 MHz	FX	20M0F9W 5M00D7W	251 mW (ERP)	

Frequency Information

Washington (TAZEWELL), IL - NL 40-43-58; WL 89-28-02; MOBILE: , within 5 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2110-2170 MHz	FX	40M0W9W	251 mW (ERP)	
2110-2155 MHz	FX	40M0W9W	60 W (ERP)	
2180-2200 MHz	FX	20M0W9W	251 mW (ERP)	
2350-2360 MHz	FX	10M0F9W 5M00D7W	251 mW (ERP)	
2500-2690 MHz	FX	20M0F9W 5M00D7W 40M0W9W	251 mW (ERP)	
2500-2690 MHz	MO	20M0F9W 5M00D7W 40M0W9W	251 mW (ERP)	
2500-2570 MHz	MO	40M0W9W	251 mW (ERP)	
3400-3600 MHz	FX	40M0W9W	7.5 mW (ERP)	
3400-3600 MHz	MO	40M0W9W	7.5 mW (ERP)	

Frequency Information

Washington (TAZEWELL), IL - NL 40-43-58; WL 89-28-02; MOBILE: , within 5 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
3600-3800 MHz	FX	40M0W9W	251 mW (ERP)	

Special Conditions:

- (1) Licensee shall successfully secure consents from the AWS licensees prior to accessing to 1710-1755 MHz, 1910-1930 MHz, 2000-2020 MHz, 2110-2155 MHz, 2110-2170 MHz, 2180-2200 MHz bands.
- (2) Licensee shall obtain consents from the EBS and BRS licensees prior to accessing to 2500-2570 MHz, 2500-2690 MHz bands.
- (3) Licensee shall maintain separation from the grandfathered earth stations as defined in Part 90 subpart Z, or coordinate an agreement with the grandfathered earth station licensee prior to operation in 3650-3700 MHz band.
- (4) Licensee shall consult the ULS database to ensure that the proposed operations will not cause harmful interference to any existing registered stations in the 3650-3700 MHz band, and notify the registered users in the proposed areas prior to operation on 3650-3700 MHz band.
- (5) Licensee shall coordinate with the Fixed Microwave Service licensees prior to operation in 3700-3800 MHz band.
- (6) This license supersedes previous grant to remove the Firstnet Band 14 frequencies 758-768 MHz and 788-798 MHz that are not needed for testing.