

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

EXPERIMENTAL

(Nature of Service)

WF2XKH

(Call Sign)

XD FX MO

(Class of Station)

0028-EX-ML-2014

(File Number)

NAME Cisco Systems 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(i) of the Commission's Rules

Station Locations

- (1) San Jose, CA - NL 37-24-31; WL 121-57-03; MOBILE: Cisco Sytems campus buildings 10,14,15,16,22,25, within 1 km
- (2) MOBILE: Cisco facility on Richfield Ohio, within 1 km, centered around NL 41-08-04; WL 81-38-39
- (3) Richardson (COLLIN), TX - NL 33-00-06; WL 97-36-08
- (4) TEWKSBURY (MIDDLESEX), MA - NL 42-38-25; WL 71-14-27; MOBILE: with in Cisco campus, within 1 km
- (5) Richfield (SUMMIT), OH - NL 41-08-04; WL 81-38-39; MOBILE: Cisco campus, within 1 km
- (6) RTP (DURHAM), NC - NL 35-54-50; WL 78-51-58; MOBILE: , within 1 km
- (7) San Jose (SANTA CLARA), CA - NL 37-24-32; WL 121-55-44; MOBILE: Cisco radio test labs and conference room, within 1 km
- (8) TEWKSBURY (MIDDLESEX), MA - NL 42-38-25; WL 71-14-27; MOBILE: Cisco Sytems Campus Building, within 1 km
- (9) Lawrenceville (GWINNETT), GA - NL 33-57-45; WL 84-04-10; MOBILE: Cisco Sytems building, within 1 km

This authorization effective March 04, 2014 and
will expire 3:00 A.M. EST May 01, 2014

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

San Jose, CA - NL 37-24-31; WL 121-57-03; MOBILE: Cisco Sytems campus buildings 10,14,15,16,22,25, within 1 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
698-704 MHz	MO	5M00X7X	2 W (ERP)	
728-734 MHz	MO	5M00X7X	2 W (ERP)	
746-757 MHz	MO	5M00X7X 10M0X7X	2 W (ERP)	
776-787 MHz	MO	5M00X7X 10M0X7X	2 W (ERP)	
776-787 MHz	MO	5M00X7X 10M0X7X	2 W (ERP)	
824-849 MHz	MO	200KG7W	2 W (Output Power)	
869-890 MHz	MO	200KG7W	2 W (Output Power)	
890-960 MHz	MO	200KG7W	2 W (Output Power)	
1710-1755 MHz	MO	10M0G7W 10M0F7N	2 W (Output Power)	
1755-1850 MHz	MO	200KG7F	2 W (Output Power)	

Frequency Information

San Jose, CA - NL 37-24-31; WL 121-57-03; MOBILE: Cisco Sytems campus buildings 10,14,15,16,22,25, within 1 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1755-1850 MHz	MO	200KG7W	2 W (Output Power)	
1850-1990 MHz	MO	200KG7W 200KG7F	2 W (Output Power)	
2110-2155 MHz	MO	10M0F7W	500 mW (ERP)	
2305-2320 MHz	MO	10M0F7W 5M00F7W 10M0F7W	500 mW (ERP)	
2345-2360 MHz	MO	10M0F7W 10M0F7W 10M0F7W	500 mW (ERP)	
2496-2689 MHz	MO	10M0XXX	1 W (ERP)	

MOBILE: Cisco facility on Richfield Ohio, within 1 km, centered around NL 41-08-04; WL 81-38-39

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
824-849 MHz	MO	200KG7W	2 W (Output Power)	

Frequency Information

MOBILE: Cisco facility on Richfield Ohio, within 1 km, centered around NL 41-08-04; WL 81-38-39

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
869-890 MHz	MO	200KG7W	2 W (Output Power)	
890-960 MHz	MO	200KG7W	2 W (Output Power)	
1710-1755 MHz	MO	200KG7W	2 W (Output Power)	
1755-1850 MHz	MO	10M0G7W 10M0G7F	2 W (Output Power)	
1850-1990 MHz	MO	200KG7F 200KG7W	2 W (Output Power)	
2110-2155 MHz	MO	10M0F7W	500 mW (ERP)	

Richardson (COLLIN), TX - NL 33-00-06; WL 97-36-08

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
698-704 MHz	FX	5M00X7X	1 W (ERP)	
728-734 MHz	FX	5M00X7X	1 W (ERP)	
746-757 MHz	FX	10M0X7X	1 W (ERP)	

Frequency Information

Richardson (COLLIN), TX - NL 33-00-06; WL 97-36-08

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
746-757 MHz	FX	5M00X7X	1 W (ERP)	
776-787 MHz	FX	10M0X7X 5M00X7X	1 W (ERP)	
824-849 MHz	FX	200KG7W 200KG7W	2 W (Output Power)	
869-890 MHz	FX	200KG7W 200KG7W 200KG7W	2 W (Output Power)	
890-960 MHz	FX	200KG7W	2 W (Output Power)	
1710-1755 MHz	FX	200KG7W	2 W (Output Power)	
1755-1850 MHz	FX	200KH7W	2 W (Output Power)	
1850-1990 MHz	FX	200KG7N	2 W (Output Power)	
2110-2170 MHz	FX	200KG7W 220KG7W 220KG7W	2 W (Output Power)	

Frequency Information

TEWKSBURY (MIDDLESEX), MA - NL 42-38-25; WL 71-14-27; MOBILE: with in Cisco campus, within 1 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1710-1755 MHz		5M00G7W	1 W (ERP)	
1755-1850 MHz	MO	5M00G7W	1 W (ERP)	
1850-1990 MHz	MO	5M00G7W	40 W (ERP)	
2110-2170 MHz	MO	5M00G7W	1 W (ERP)	

Richfield (SUMMIT), OH - NL 41-08-04; WL 81-38-39; MOBILE: Cisco campus, within 1 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
698-704 MHz		5M00X7X	2 W (ERP)	
728-734 MHz	MO	5M00X7X	2 W (ERP)	
746-757 MHz	MO	5M00X7X 10M0X7X	2 W (ERP)	
776-787 MHz	MO	10M0X7X 5M00X7X	2 W (ERP)	

Frequency Information

RTP (DURHAM), NC - NL 35-54-50; WL 78-51-58; MOBILE: , within 1 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
698-704 MHz	MO	5M00X7X 5M00X7X	2 W (ERP)	
728-734 MHz	MO	5M00X7X	2 W (ERP)	
776-787 MHz	MO	5M00X7X 10M0X7X	2 W (ERP)	

San Jose (SANTA CLARA), CA - NL 37-24-32; WL 121-55-44; MOBILE: Cisco radio test labs and conference room, within 1 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
698-704 MHz	FX	5M00X7X	2 W (ERP)	
728-734 MHz	FX	5M00X7X	2 W (ERP)	
746-757 MHz	FX	10M0X7X 5M00X7X	2 W (ERP)	
776-787 MHz	FX	10M0X7X 5M00X7X	2 W (ERP)	
824-849 MHz	FX	200KG3W	2 W (ERP)	

Frequency Information

San Jose (SANTA CLARA), CA - NL 37-24-32; WL 121-55-44; MOBILE: Cisco radio test labs and conference room, within 1 k

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
824-849 MHz	FX	200KG7F	2 W (ERP)	
869-890 MHz	FX	200KG7W 200KG7F	2 W (ERP)	
890-960 MHz	FX	200KG7W	2 W (ERP)	
1710-1755 MHz	MO	10M0F7W 10M0G7W	2 W (ERP)	
1755-1850 MHz	FX	200KG7W	2 W (ERP)	
1850-1990 MHz	FX	200KG7W 200KG7W	2 W (ERP)	
2110-2170 MHz	FX	200KG7W 200KG7W	2 W (ERP)	
2110-2155 MHz	MO	10M0F7W 10M0F7W	500 mW (ERP)	

Frequency Information

TEWKSBURY (MIDDLESEX), MA - NL 42-38-25; WL 71-14-27; MOBILE: Cisco Sytems Campus Building, within 1 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
698-704 MHz	MO	5M00X7X	2 W (ERP)	
728-734 MHz	MO	5M00X7X 5M00F3N	2 W (ERP)	
746-757 MHz	MO	5M00X7X 10M0X7X	2 W (ERP)	
776-787 MHz	MO	5M00X7X 10M0X7X	2 W (ERP)	
776-787 MHz	MO	5M00X7X 10M0X7X	2 W (ERP)	
824-849 MHz	MO	200KG7W	2 W (Output Power)	
869-890 MHz	MO	200KG7W	2 W (Output Power)	
890-960 MHz	MO	200KG7W	2 W (Output Power)	
1850-1990 MHz	MO	200KG7W 200KG7F	2 W (Output Power)	

Frequency Information

Lawrenceville (GWINNETT), GA - NL 33-57-45; WL 84-04-10; MOBILE: Cisco Sytems building, within 1 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
698-704 MHz	MO	5M00X7X	2 W (ERP)	
728-734 MHz	MO	5M00X7X	2 W (ERP)	
746-757 MHz	MO	5M00X7X 10M0X7X	2 W (ERP)	
776-787 MHz	MO	5M00X7X 10M0X7X	2 W (ERP)	
776-787 MHz	MO	5M00X7X 10M0X7X	2 W (ERP)	
824-849 MHz	MO	200KG7W	2 W (Output Power)	
869-890 MHz	MO	200KG7W	2 W (Output Power)	
890-960 MHz	MO	200KG7W	2 W (Output Power)	
1710-1755 MHz	MO	10M0G7W 10M0F7W	2 W (Output Power)	
1755-1850 MHz	MO	200KG7F	2 W (Output Power)	

Frequency Information

Lawrenceville (GWINNETT), GA - NL 33-57-45; WL 84-04-10; MOBILE: Cisco Sytems building, within 1 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1755-1850 MHz	MO	200KG7W	2 W (Output Power)	
1850-1990 MHz	MO	200KG7W 200KG7F	2 W (Output Power)	
2110-2155 MHz	MO	10M0F7F	500 mW (ERP)	

Special Conditions:

- (1) Operation in the 1910-1930 MHz band requires coordination with UTAM, Inc. pursuant to Section 15.307 of the Commission's Rules.
- (2) Operation in the 824-849 or 869-894 MHz band requires consent of local cellular licensee(s) to avoid interference.
- (3) 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.
- (4) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (5) 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.
- (6) Operations must be prior coordinated with affected Fixed Microwave Service (Part 101) licensees in accordance with 47 CFR, Part 101.103(d).