

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

EXPERIMENTAL

(Nature of Service)

XD FX MO

(Class of Station)

WE2XNR

(Call Sign)

0068-EX-ML-2013

(File Number)

NAME Nokia

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 Francisco (SAN FRANCISCO), CA - NL 37-46-15; WL 122-24-12; MOBILE: Nokia Building Facility, San Francisco, CA, within 1 km
- (2) Burlington (MIDDLESEX), MA - NL 42-29-03; WL 71-11-29; MOBILE: Nokia Building Facility, Burlington, MA, within 1 km, centered around NL 42-29-03; WL 71-11-29
- (3) Irving, TX - NL 32-53-36; WL 96-58-02; MOBILE: Nokia Building Facility, Irving, TX, within 1 km
- (4) San Diego (SAN DIEGO), CA - NL 33-01-23; WL 117-04-55; MOBILE: , within 2 km
- (5) Sunnyvale (SANTA CLARA), CA - NL 37-22-36; WL 122-02-07; MOBILE: , within 1 km
- (6) Mountain View (SANTA CLARA), CA - NL 37-23-20; WL 122-03-07; MOBILE: , within 2 km
- (7) Chicago (DU PAGE), IL - NL 41-53-03; WL 87-38-21; MOBILE: , within 2 km

Frequency Information

San Francisco (SAN FRANCISCO), CA - NL 37-46-15; WL 122-24-12; MOBILE: Nokia Building Facility, San Francisco, CA, v

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
824-849 MHz	MO	248KG7W 5M00F9W	251 mW (ERP)	
869-894 MHz	FX	248KG7W	160 mW (ERP)	

This authorization effective May 10, 2013 and
will expire 3:00 A.M. EST August 01, 2014

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

San Francisco (SAN FRANCISCO), CA - NL 37-46-15; WL 122-24-12; MOBILE: Nokia Building Facility, San Francisco, CA, w

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
869-894 MHz	FX	5M00F9W	160 mW (ERP)	
1710-1755 MHz	MO	5M00F9W	251 mW (ERP)	
1850-1910 MHz	MO	333KG7W 4M00F9W	251 mW (ERP)	
1920-1980 MHz	MO	5M00F9W	251 mW (ERP)	
1930-1990 MHz	FX	4M00F9W 333KG7W	160 mW (ERP)	
2110-2170 MHz	FX	5M00F9W	160 mW (ERP)	

Burlington (MIDDLESEX), MA - NL 42-29-03; WL 71-11-29; MOBILE: Nokia Building Facility, Burlington, MA, within 1 km, cen

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
698-716 MHz	FX	10M0F9W	251 mW (ERP)	
728-746 MHz	FX	10M0F8W	251 mW (ERP)	

Frequency Information

Burlington (MIDDLESEX), MA - NL 42-29-03; WL 71-11-29; MOBILE: Nokia Building Facility, Burlington, MA, within 1 km, cen

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
746-756 MHz	FX	10M0F9W	251 mW (ERP)	
758-768 MHz	FX	10M0F9W	251 mW (ERP)	
777-787 MHz	FX	10M0F9W	251 mW (ERP)	
788-798 MHz	FX	10M0F9W	251 mW (ERP)	
869-894 MHz	FX	248KG7W 5M00F9W	160 mW (ERP)	
1710-1755 MHz	MO	5M00F9W	251 mW (ERP)	
1850-1910 MHz	MO	333KG7W 4M00F9W	251 mW (ERP)	
1920-1980 MHz	MO	5M00F9W	251 mW (ERP)	
1930-1990 MHz	FX	333KG7W 4M00F9W	160 mW (ERP)	

Frequency Information

Burlington (MIDDLESEX), MA - NL 42-29-03; WL 71-11-29; MOBILE: Nokia Building Facility, Burlington, MA, within 1 km, cen

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2110-2170 MHz	FX	5M00F9W	160 mW (ERP)	

Irving, TX - NL 32-53-36; WL 96-58-02; MOBILE: Nokia Building Facility, Irving, TX, within 1 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
699-716 MHz	MO	18M0W9W	251 mW (ERP)	
729-746 MHz	FX	18M0W9W	251 mW (ERP)	
746-756 MHz	FX	10M0W7W	251 mW (ERP)	
758-768 MHz	FX	10M0W7W	251 mW (ERP)	
777-787 MHz	MO	10M0W9W	251 mW (ERP)	
788-798 MHz	MO	10M0W9W	251 mW (ERP)	
791-821 MHz	MO	30M0W9W	251 mW (ERP)	
824-849 MHz	MO	25M0W9W	251 mW (ERP)	

Frequency Information

Irving, TX - NL 32-53-36; WL 96-58-02; MOBILE: Nokia Building Facility, Irving, TX, within 1 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
832-862 MHz	FX	30M0W9W	251 mW (ERP)	
869-894 MHz	FX	25M0W9W	251 mW (ERP)	
896-902 MHz		40M0W9W	251 mW (ERP)	
1525-1559 MHz	FX	30M0W9W	251 mW (ERP)	
1626.5-1660.5 MHz	MO	30M0W9W	251 mW (ERP)	
1710-1755 MHz	MO	40M0W9W	60 W (ERP)	
1850-1910 MHz	MO	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)	

Frequency Information

Irving, TX - NL 32-53-36; WL 96-58-02; MOBILE: Nokia Building Facility, Irving, TX, within 1 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1930-1990 MHz	FX	40M0W9W	251 mW (ERP)	
2000-2020 MHz	MO	20M0W9W	251 mW (ERP)	
2110-2170 MHz	FX	40M0W9W	251 mW (ERP)	
2110-2155 MHz	FX	40M0W9W	60 W (ERP)	
2180-2200 MHz	FX	20M0W9W	251 mW (ERP)	
2500-2570 MHz	MO	40M0W9W	251 mW (ERP)	
2570-2620 MHz	FX	40M0W9W	251 mW (ERP)	
2570-2620 MHz	MO	40M0W9W	251 mW (ERP)	
2620-2690 MHz	FX	40M0W9W	251 mW (ERP)	
3400-3600 MHz	FX	40M0W9W	7.5 mW (ERP)	

Frequency Information

Irving, TX - NL 32-53-36; WL 96-58-02; MOBILE: Nokia Building Facility, Irving, TX, within 1 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
3400-3600 MHz	MO	40M0W9W	7.5 mW (ERP)	
3600-3800 MHz	FX	40M0W9W	251 mW (ERP)	

San Diego (SAN DIEGO), CA - NL 33-01-23; WL 117-04-55; MOBILE: , within 2 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
698-716 MHz	FX	10M0F9W	251 mW (ERP)	
728-746 MHz	FX	10M0F9W	251 mW (ERP)	
746-756 MHz	FX	10M0F9W	251 mW (ERP)	
758-768 MHz	FX	5M00F9W	251 mW (ERP)	
777-787 MHz	MO	10M0F9W	251 mW (ERP)	
788-798 MHz	FX	10M0F9W	251 mW (ERP)	
869-894 MHz	FX	5M00F9W 248KG7W	160 mW (ERP)	

Frequency Information

San Diego (SAN DIEGO), CA - NL 33-01-23; WL 117-04-55; MOBILE: , within 2 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
896-902 MHz		40M0W9W	251 mW (ERP)	
1710-1755 MHz	MO	5M00F9W	251 mW (ERP)	
1850-1910 MHz	MO	5M00F9W 333KG7W	160 mW (ERP)	
1920-1980 MHz	MO	5M00F9W	251 mW (ERP)	
1930-1990 MHz	FX	5M00F9W 333KG7W	160 mW (ERP)	
2110-2170 MHz	FX	5M00F9W	251 mW (ERP)	

Sunnyvale (SANTA CLARA), CA - NL 37-22-36; WL 122-02-07; MOBILE: , within 1 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
698-716 MHz	FX	10M0F9W	251 mW (ERP)	
728-746 MHz		10M0F9W	251 mW (ERP)	

Frequency Information

Sunnyvale (SANTA CLARA), CA - NL 37-22-36; WL 122-02-07; MOBILE: , within 1 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
746-756 MHz	FX	10M0F8W	251 mW (ERP)	
758-768 MHz	FX	5M00F9W	251 mW (ERP)	
777-787 MHz	FX	10M0F9W	251 mW (ERP)	
788-798 MHz	FX	10M0F9W	251 mW (ERP)	
869-894 MHz	FX	248KG7W 5M00F9W	160 mW (ERP)	
1710-1755 MHz	MO	5M00F9W	251 mW (ERP)	
1850-1910 MHz	MO	333KG7W 4M00F9W	251 mW (ERP)	
1920-1980 MHz	MO	5M00F9W	251 mW (ERP)	
1930-1990 MHz	FX	333KG7W 4M00F9W	160 mW (ERP)	

Frequency Information

Sunnyvale (SANTA CLARA), CA - NL 37-22-36; WL 122-02-07; MOBILE: , within 1 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2110-2170 MHz	FX	5M00F9W	160 mW (ERP)	

Mountain View (SANTA CLARA), CA - NL 37-23-20; WL 122-03-07; MOBILE: , within 2 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
699-716 MHz	MO	18M0W9W	251 mW (ERP)	
729-746 MHz	FX	18M0W9W	251 mW (ERP)	
746-756 MHz	FX	10M0W7W	251 mW (ERP)	
758-768 MHz	FX	10M0W7W	251 mW (ERP)	
777-787 MHz	MO	10M0W9W	251 mW (ERP)	
788-798 MHz	MO	10M0W9W	251 mW (ERP)	
791-821 MHz	MO	30M0W9W	251 mW (ERP)	
824-849 MHz	MO	25M0W9W	251 mW (ERP)	

Frequency Information

Mountain View (SANTA CLARA), CA - NL 37-23-20; WL 122-03-07; MOBILE: , within 2 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
832-862 MHz	FX	30M0W9W	251 mW (ERP)	
869-894 MHz	FX	25M0W9W	251 mW (ERP)	
1525-1559 MHz	FX	30M0W9W	251 mW (ERP)	
1626.5-1660.5 MHz	MO	30M0W9W	251 mW (ERP)	
1710-1755 MHz	MO	40M0W9W	251 mW (ERP)	
1850-1910 MHz	MO	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)	
1930-1990 MHz	FX	40M0W9W	251 mW (ERP)	

Frequency Information

Mountain View (SANTA CLARA), CA - NL 37-23-20; WL 122-03-07; MOBILE: , within 2 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2000-2020 MHz	MO	20M0W9W	251 mW (ERP)	
2110-2170 MHz	FX	40M0W9W	251 mW (ERP)	
2110-2155 MHz	FX	40M0W9W	251 mW (ERP)	
2180-2200 MHz	FX	20M0W9W	251 mW (ERP)	
2500-2570 MHz	MO	40M0W9W	251 mW (ERP)	
2570-2620 MHz	FX	40M0W9W	251 mW (ERP)	
2570-2620 MHz	MO	40M0W9W	251 mW (ERP)	
2620-2690 MHz	FX	40M0W9W	251 mW (ERP)	
3400-3600 MHz	FX	40M0W9W	7.5 mW (ERP)	
3400-3600 MHz	MO	40M0W9W	7.5 mW (ERP)	

Frequency Information

Mountain View (SANTA CLARA), CA - NL 37-23-20; WL 122-03-07; MOBILE: , within 2 km

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

Chicago (DU PAGE), IL - NL 41-53-03; WL 87-38-21; MOBILE: , within 2 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
698-716 MHz	FX	10M0F9W	251 mW (ERP)	
728-746 MHz	FX	10M0F9W	251 mW (ERP)	
746-756 MHz	FX	10M0F9W	251 mW (ERP)	
758-768 MHz	FX	5M00F9W	251 mW (ERP)	
777-787 MHz	MO	10M0F9W	251 mW (ERP)	
788-798 MHz	FX	10M0F9W	251 mW (ERP)	
869-894 MHz	FX	5M00F9W 248KG7W	160 mW (ERP)	
896-902 MHz		40M0W9W	251 mW (ERP)	

Frequency Information

Chicago (DU PAGE), IL - NL 41-53-03; WL 87-38-21; MOBILE: , within 2 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1710-1755 MHz	MO	5M00F9W	251 mW (ERP)	
1850-1910 MHz	MO	5M00F9W 333KG7W	160 mW (ERP)	
1920-1980 MHz	MO	5M00F9W	251 mW (ERP)	
1930-1990 MHz	FX	5M00F9W 333KG7W	160 mW (ERP)	
2110-2170 MHz	FX	5M00F9W	251 mW (ERP)	

Special Conditions:

- (1) Operation is subject to prior coordination with the Associated Public Safety Communications Officers, Inc. (APCO); ATTN: Director of Frequency Coordination; 351 North Williamson Blvd.; Daytona Beach, FL 32114-1112; Telephone: (386) 322-2500.
- (2) Operation in the 824-849 or 869-894 MHz band requires consent of local cellular licensee(s) to avoid interference.
- (3) 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.
- (4) 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.
- (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.

Special Conditions:

- (7) 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.
- (8) Operation in the 1710-1755 or 2110-2155 MHz band requires consent of local Advanced Wireless Service (AWS) licensee(s) to avoid interference.
- (9) Operation is subject to prior coordination with affected Educational Broadband Service/Broadband Radio Service (EBS/BRS) licensees.
- (10) Operation is subject to prior coordination with affected existing and future licensees in the 700 MHz bands.