

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

EXPERIMENTAL

(Nature of Service)

WF2XAM

(Call Sign)

XD FX MO

(Class of Station)

0060-EX-RR-2013

(File Number)

NAME BAE Systems Information and Electronic Systems Integration 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) Litchfield (HILLSBOROUGH), NH - NL 42-48-22; WL 71-25-33
- (2) MOBILE: East Rindge, New Hampshire, within 32 km, centered around NL 42-44-15;
WL 71-57-59

Frequency Information

Litchfield (HILLSBOROUGH), NH - NL 42-48-22; WL 71-25-33

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
15.01-29.9 MHz	FX	NON	5 W (ERP)	
15.01-29.9 MHz	FX	NON	0.007 W (ERP)	
15.01-29.9 MHz	FX	25K0F3D	5 W (ERP)	
29.975 MHz	FX	NON	5 W (ERP)	

This authorization effective May 01, 2013 and
will expire 3:00 A.M. EST March 31, 2015

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

Litchfield (HILLSBOROUGH), NH - NL 42-48-22; WL 71-25-33

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
29.975 MHz	FX	N0N	0.007 W (ERP)	
29.975 MHz	FX	25K0F3D	5 W (ERP)	
30-73 MHz	FX	N0N 25K0F3D	5 W (ERP)	
75.4-108 MHz	FX	N0N 25K0F3D	5 W (ERP)	
108.5-119.625 MHz	FX	N0N	0.1 W (ERP)	
108.5-118.4 MHz	FX	N0N	0.1 W (ERP)	
108.5-118.4 MHz	FX	N0N	0.1 W (ERP)	
108.5-118.4 MHz	FX	25K0F3D	0.1 W (ERP)	
120.1-129.2 MHz	FX	N0N	5 W (ERP)	
129.5-135.2 MHz	FX	N0N	0.007 W (ERP)	

Frequency Information

Litchfield (HILLSBOROUGH), NH - NL 42-48-22; WL 71-25-33

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
129.5-136.15 MHz	FX	N0N	5 W (ERP)	
136.15 MHz	FX	N0N	0.007 W (ERP)	
137.1-138 MHz	FX	N0N	5 W (ERP)	
144-152.885 MHz	FX	N0N 25K0F3D	5 W (ERP)	
153.4 MHz	FX	N0N	5 W (ERP)	
153.4 MHz	FX	N0N	0.007 W (ERP)	
153.4 MHz	FX	25K0F3D	5 W (ERP)	
154-156.515 MHz	FX	N0N 25K0F3D	5 W (ERP)	
156.81-161.625 MHz	FX	N0N 25K0F3D	5 W (ERP)	

Frequency Information

Litchfield (HILLSBOROUGH), NH - NL 42-48-22; WL 71-25-33

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
162.85 MHz	FX	N0N	5 W (ERP)	
162.85 MHz	FX	N0N	0.007 W (ERP)	
162.85 MHz	FX	25K0F3D	5 W (ERP)	
164-173.4 MHz	FX	N0N	5 W (ERP)	
164-173.4 MHz	FX	N0N	0.007 W (ERP)	
164-173.4 MHz	FX	11K0F3D	5 W (ERP)	
174-228.6 MHz	FX	N0N	5 W (ERP)	
228.8-328.6 MHz	FX	N0N	5 W (ERP)	
330.05 MHz	FX	N0N	5 W (ERP)	
330.05 MHz	FX	N0N	0.007 W (ERP)	

Frequency Information

Litchfield (HILLSBOROUGH), NH - NL 42-48-22; WL 71-25-33

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
333.95 MHz	FX	N0N	5 W (ERP)	
333.95 MHz	FX	N0N	0.007 W (ERP)	
335.4-454 MHz	FX	N0N	5 W (ERP)	
456-470 MHz	FX	N0N 25K0F3D	5 W (ERP)	
472.225 MHz	FX	N0N	5 W (ERP)	
472.225 MHz	FX	N0N	0.007 W (ERP)	
472.225 MHz	FX	25K0F3D	5 W (ERP)	
476.95 MHz	FX	N0N	5 W (ERP)	
476.95 MHz	FX	N0N	0.007 W (ERP)	
476.95 MHz	FX	25K0F3D	5 W (ERP)	

Frequency Information

Litchfield (HILLSBOROUGH), NH - NL 42-48-22; WL 71-25-33

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
481.725 MHz	FX	N0N	5 W (ERP)	
481.725 MHz	FX	N0N	0.007 W (ERP)	
481.725 MHz	FX	25K0F3D	5 W (ERP)	
486.525 MHz	FX	N0N	5 W (ERP)	
486.525 MHz	FX	N0N	0.007 W (ERP)	
486.525 MHz	FX	25K0F3D	5 W (ERP)	
491.4 MHz	FX	N0N	5 W (ERP)	
491.4 MHz	FX	N0N	0.007 W (ERP)	
491.4 MHz	FX	25K0F3D	5 W (ERP)	
496.3 MHz	FX	N0N	5 W (ERP)	

Frequency Information

Litchfield (HILLSBOROUGH), NH - NL 42-48-22; WL 71-25-33

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
496.3 MHz	FX	N0N	0.007 W (ERP)	
496.3 MHz	FX	25K0F3D	5 W (ERP)	
500 MHz	FX	N0N	5 W (ERP)	
500 MHz	FX	N0N	0.007 W (ERP)	
500 MHz	FX	25K0F3D	5 W (ERP)	
508-608 MHz	FX	N0N 25K0F3D	5 W (ERP)	
621.7 MHz	FX	N0N	5 W (ERP)	
621.7 MHz	FX	N0N	0.007 W (ERP)	
621.7 MHz	FX	25K0F3D	5 W (ERP)	
626-632 MHz	FX	N0N	5 W (ERP)	

Frequency Information

Litchfield (HILLSBOROUGH), NH - NL 42-48-22; WL 71-25-33

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
626-632 MHz	FX	N0N	0.007 W (ERP)	
626-632 MHz	FX	25K0F3D	5 W (ERP)	
634.125 MHz	FX	N0N	5 W (ERP)	
634.125 MHz	FX	N0N	0.007 W (ERP)	
634.125 MHz	FX	25K0F3D	5 W (ERP)	
646.825 MHz	FX	N0N	5 W (ERP)	
646.825 MHz	FX	N0N	0.007 W (ERP)	
646.825 MHz	FX	25K0F3D	5 W (ERP)	
659.75 MHz	FX	N0N	5 W (ERP)	
659.75 MHz	FX	N0N	5 W (ERP)	

Frequency Information

Litchfield (HILLSBOROUGH), NH - NL 42-48-22; WL 71-25-33

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
659.75 MHz	FX	25K0F3D	5 W (ERP)	
662-668 MHz	FX	N0N	5 W (ERP)	
662-668 MHz	FX	N0N	0.007 W (ERP)	
662-668 MHz	FX	25K0F3D	5 W (ERP)	
672.95 MHz	FX	N0N	5 W (ERP)	
672.95 MHz	FX	N0N	0.007 W (ERP)	
672.95 MHz	FX	25K0F3D	5 W (ERP)	
686.4 MHz	FX	N0N	5 W (ERP)	
686.4 MHz	FX	N0N	0.007 W (ERP)	
686.4 MHz	FX	25K0F3D	5 W (ERP)	

Frequency Information

Litchfield (HILLSBOROUGH), NH - NL 42-48-22; WL 71-25-33

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
700.125 MHz	FX	N0N	5 W (ERP)	
700.125 MHz	FX	N0N	0.007 W (ERP)	
700.125 MHz	FX	25K0F3D	5 W (ERP)	
714.125 MHz	FX	N0N	5 W (ERP)	
714.125 MHz	FX	N0N	0.007 W (ERP)	
714.125 MHz	FX	25K0F3D	5 W (ERP)	
728.425 MHz	FX	N0N	5 W (ERP)	
728.425 MHz	FX	N0N	0.007 W (ERP)	
728.425 MHz	FX	25K0F3D	5 W (ERP)	
734-740 MHz	FX	N0N	5 W (ERP)	

Frequency Information

Litchfield (HILLSBOROUGH), NH - NL 42-48-22; WL 71-25-33

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
734-740 MHz	FX	N0N	0.007 W (ERP)	
734-740 MHz	FX	25K0F3D	5 W (ERP)	
742.975 MHz	FX	N0N	5 W (ERP)	
742.975 MHz	FX	N0N	0.007 W (ERP)	
742.975 MHz	FX	25K0F3D	5 W (ERP)	
809-902 MHz	FX	N0N 25K0F3D	5 W (ERP)	
902-928 MHz	FX	N0N 25K0F3D	5 W (ERP)	
940.4-1200 MHz	FX	N0N	5 W (ERP)	
940.4-1200 MHz	FX	N0N	0.007 W (ERP)	
940.4-1200 MHz	FX	11K0F3D	5 W (ERP)	

Frequency Information

Litchfield (HILLSBOROUGH), NH - NL 42-48-22; WL 71-25-33

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1218.95 MHz	FX	N0N	5 W (ERP)	
1218.95 MHz	FX	N0N	0.007 W (ERP)	
1218.95 MHz	FX	25K0F3D	5 W (ERP)	
1243.325 MHz	FX	N0N	5 W (ERP)	
1243.325 MHz	FX	N0N	0.007 W (ERP)	
1243.325 MHz	FX	25K0F3D	5 W (ERP)	
1251-1390 MHz	FX	N0N 25K0F3D	5 W (ERP)	
1427-1660 MHz	FX	N0N 25K0F3D	5 W (ERP)	
1668.4-1755 MHz	FX	N0N 25K0F3D	5 W (ERP)	

Frequency Information

Litchfield (HILLSBOROUGH), NH - NL 42-48-22; WL 71-25-33

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1863.555 MHz	FX	N0N	5 W (ERP)	
1863.555 MHz	FX	N0N	0.007 W (ERP)	
1863.555 MHz	FX	25K0F3D	5 W (ERP)	
1890.945 MHz	FX	N0N	5 W (ERP)	
1890.945 MHz	FX	N0N	0.007 W (ERP)	
1890.945 MHz	FX	25K0F3D	5 W (ERP)	
1909.965 MHz	FX	N0N	5 W (ERP)	
1909.965 MHz	FX	N0N	0.007 W (ERP)	
1909.965 MHz	FX	25K0F3D	5 W (ERP)	
1910.025 MHz	FX	N0N	5 W (ERP)	

Frequency Information

Litchfield (HILLSBOROUGH), NH - NL 42-48-22; WL 71-25-33

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1910.025 MHz	FX	N0N	0.007 W (ERP)	
1910.025 MHz	FX	25K0F3D	5 W (ERP)	
1918.724 MHz	FX	N0N	5 W (ERP)	
1918.724 MHz	FX	N0N	0.007 W (ERP)	
1918.724 MHz	FX	25K0F3D	5 W (ERP)	
1929.975 MHz	FX	N0N	5 W (ERP)	
1929.975 MHz	FX	N0N	0.007 W (ERP)	
1929.975 MHz	FX	25K0F3D	5 W (ERP)	
1946.925 MHz	FX	N0N	5 W (ERP)	
1946.925 MHz	FX	N0N	0.007 W (ERP)	

Frequency Information

Litchfield (HILLSBOROUGH), NH - NL 42-48-22; WL 71-25-33

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1946.925 MHz	FX	25K0F3D	5 W (ERP)	
1960.575 MHz	FX	N0N	5 W (ERP)	
1960.575 MHz	FX	N0N	0.007 W (ERP)	
1960.575 MHz	FX	25K0F3D	5 W (ERP)	
1975.545 MHz	FX	N0N	5 W (ERP)	
1975.545 MHz	FX	N0N	0.007 W (ERP)	
1975.545 MHz	FX	25K0F3D	5 W (ERP)	
1990.025 MHz	FX	N0N	5 W (ERP)	
1990.025 MHz	FX	N0N	0.007 W (ERP)	
1990.025 MHz	FX	25K0F3D	5 W (ERP)	

Frequency Information

Litchfield (HILLSBOROUGH), NH - NL 42-48-22; WL 71-25-33

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1999.8 MHz	FX	N0N	5 W (ERP)	
1999.8 MHz	FX	N0N	0.007 W (ERP)	
1999.8 MHz	FX	25K0F3D	5 W (ERP)	
2000 MHz	FX	N0N	5 W (ERP)	
2000 MHz	FX	N0N	0.007 W (ERP)	
2000 MHz	FX	25K0F3D	5 W (ERP)	
2100 MHz	FX	N0N	5 W (ERP)	
2100 MHz	FX	N0N	0.007 W (ERP)	
2100 MHz	FX	25K0F3D	5 W (ERP)	
2200-2310 MHz	FX	N0N 25K0F3D	5 W (ERP)	

Frequency Information

Litchfield (HILLSBOROUGH), NH - NL 42-48-22; WL 71-25-33

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2320-2345 MHz	FX	N0N 25K0F3D	5 W (ERP)	
2360-2450 MHz	FX	N0N 25K0F3D	5 W (ERP)	
2500 MHz	FX	N0N	5 W (ERP)	
2500 MHz	FX	N0N	0.007 W (ERP)	
2500 MHz	FX	25K0F3D	5 W (ERP)	
2533.6 MHz	FX	N0N	5 W (ERP)	
2533.6 MHz	FX	N0N	0.007 W (ERP)	
2533.6 MHz	FX	25K0F3D	5 W (ERP)	
2536.225 MHz	FX	N0N	5 W (ERP)	
2536.225 MHz	FX	N0N	0.007 W (ERP)	

Frequency Information

Litchfield (HILLSBOROUGH), NH - NL 42-48-22; WL 71-25-33

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2536.225 MHz	FX	25K0F3D	5 W (ERP)	
2586.95 MHz	FX	N0N	5 W (ERP)	
2586.95 MHz	FX	N0N	0.007 W (ERP)	
2586.95 MHz	FX	25K0F3D	5 W (ERP)	
2609.6 MHz	FX	N0N	5 W (ERP)	
2609.6 MHz	FX	N0N	0.007 W (ERP)	
2609.6 MHz	FX	25K0F3D	5 W (ERP)	
2638.675 MHz	FX	N0N	5 W (ERP)	
2638.675 MHz	FX	N0N	0.007 W (ERP)	
2638.675 MHz	FX	25K0F3D	5 W (ERP)	
2655-2690 MHz	FX	N0N	5 W (ERP)	

Frequency Information

Litchfield (HILLSBOROUGH), NH - NL 42-48-22; WL 71-25-33

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2655-2690 MHz	FX	25K0F3D	5 W (ERP)	
2745.275 MHz	FX	N0N	5 W (ERP)	
2745.275 MHz	FX	N0N	0.007 W (ERP)	
2745.275 MHz	FX	25K0F3D	5 W (ERP)	
2768.6 MHz	FX	N0N	5 W (ERP)	
2768.6 MHz	FX	N0N	0.007 W (ERP)	
2768.6 MHz	FX	25K0F3D	5 W (ERP)	
2800.175 MHz	FX	N0N	0.007 W (ERP)	
2851.6 MHz	FX	N0N	5 W (ERP)	
2851.6 MHz	FX	N0N	0.007 W (ERP)	

Frequency Information

Litchfield (HILLSBOROUGH), NH - NL 42-48-22; WL 71-25-33

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2851.6 MHz	FX	25K0F3D	5 W (ERP)	
2856.2 MHz	FX	N0N	5 W (ERP)	
2856.2 MHz	FX	N0N	0.007 W (ERP)	
2856.2 MHz	FX	25K0F3D	5 W (ERP)	
2900-4200 MHz	FX	N0N 25K0F3D	5 W (ERP)	
15150-15350 MHz	FX	21M4G7D 64M0G7D	50 W (ERP)	

MOBILE: East Rindge, New Hampshire, within 32 km, centered around NL 42-44-15; WL 71-57-59

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14400-14830 MHz	MO	21M4G7D 64M0G7D	50 W (ERP)	

Special Conditions:

- (1) This frequency assignment in one of the bands 1435-1525, 2310-2320 and 2345-2390 MHz was coordinated prior to authorization with the HQ USAF Frequency Coordinator, Alexandria, VA., 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 the HQ USAF Frequency Coordinator, Alexandria, VA., 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) 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 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.
- (5) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (6) The designated point-of-contact to terminate transmissions if interference occurs is Mr. Richard C. Ball at (603) 318-6913 and BAE Systems Emergency Services Center - (603) 885-3842.
- (7) Maintain operation separation from grandfathered earth station as defined in Part 90 subpart Z, or coordinate an agreement with the grandfathered earth station licensees prior to operating in the 3650-3700 MHz band.
- (8) Licensee must coordinate with the local SBE representative before operating in the 25.670-26.480 MHz, 54-72 MHz, 76-88 MHz, 152.855-154 MHz, 157.45-161.575 MHz, 162.0125-173.200 MHz, 174-216 MHz, 470-806 MHz, and 941-960 MHz bands
- (9) Operation in the band 2500-2600 MHz requires consent of affected existing and future Broadband Radio Service/Educational Broadband Service (BRS/EBS) and point-to-point microwave licensee(s) to avoid interference.
- (10) Licensee should get consent from existing and future Advance Wireless Services licensees in the 1915-1920 MHz and the 1995-2000 MHz bands.
- (11) Operation is NOT ALLOWED to use the following frequency bands:
 - 239.0125-239.0375 MHz
 - 242.9875 - 243.0125 MHz
 - 254.25 - 255.4 MHz
 - 260.8875 - 260.9125 MHz
 - 263.05 - 263.1 MHz
 - 269.2875 - 269.3125 MHz
 - 273.4375 - 273.4625 MHz
 - 277.3875 - 277.4125 MHz
 - 279.5875 - 279.6125 MHz
 - 284.7375 - 284.7625 MHz
 - 307.8875 - 307.9125 MHz
- (12) Operation in the band 940.4-1200 MHz shall be restricted to the spot frequencies 942.275, 961.125, 980.350, 999.950, 1019.950, 1040.350, 1061.150, 1104.025, 1126.125, 1148.625, 1171.600 and 1195.050 MHz.

Special Conditions:

- (13) Operation is NOT PERMITTED to use the following frequency bands:
- 109.05 - 109.15 MHz
 - 109.35 - 109.45 MHz
 - 109.90 - 110.00 MHz
 - 110.55 - 110.65 MHz
 - 112.45 - 112.55 MHz
 - 112.85 - 112.95 MHz
 - 114.35 - 114.45 MHz
 - 116.45 - 116.55 MHz
 - 118.25 MHz
 - 118.50 MHz
 - 119.25 MHz
 - 119.55 MHz
- (14) Operation is NOT PERMITTED to use the following frequency bands:
- 15 - 15.01 MHz
 - 19.99 - 20.010 MHz
 - 24.99 - 25.010 MHz
 - 75.2-75.4 MHz
 - 137-137.1 MHz
 - 335.5-397.9 MHz
 - 406-406.1 MHz
 - 413.1125-414.6625 MHz
 - 608-614 MHz
 - 1390-1400 MHz
 - 1559-1610 MHz
- (15) Operation is NOT PERMITTED using the frequency 333.35 MHz. Licensee is used the frequency 333.95 MHz to replace 333.35 MHz.
- (16) Operation in the frequency band 108.5-119.625 MHz is authorized using only 0.1 Watt for the experiment.
- (17) Operation in the frequency band 164-173.4 MHz is authorized using the emission designator N0N and 11K0F3D only.
- (18) Operation is NOT permitted using the frequency 758-776 MHz and 788-806 MHz.
- (19) Use of the frequency bands 960-1400 MHz and 2700-2900 MHz under the authority of this assignment is subject to further coordination with the FAA New England coordinator, Burlington, Massachusetts, as necessary to ensure compatibility with existing uses.
- (20) Operation on this assignment is subject to immediate cessation if it causes harmful interference to FAA Air operations assignments.