

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

EXPERIMENTAL

(Nature of Service)

XC FX

(Class of Station)

WF2XAM

(Call Sign)

0283-EX-CM-2020

(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(hb) of the Commission's Rules

Station Locations

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

Frequency Information

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

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
15.8-19.98 MHz	FX	N0N	5 W (ERP)	
20.02-24.98 MHz	FX	N0N	5 W (ERP)	
25.02-29.9 MHz	FX	N0N	5 W (ERP)	
29.975 MHz	FX	N0N	0.007 W (ERP)	

This authorization effective August 20, 2021 and
will expire 3:00 A.M. EST August 21, 2021

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
29.975 MHz	FX	N0N	5 W (ERP)	
30-73 MHz	FX	N0N	5 W (ERP)	
75.6-108 MHz	FX	N0N	5 W (ERP)	
121.95 MHz	FX	N0N	5 W (ERP)	
122.7-123.575 MHz	FX	N0N	5 W (ERP)	
128.825-132 MHz	FX	N0N	5 W (ERP)	
137.2-138 MHz	FX	N0N	5 W (ERP)	
144-152.885 MHz	FX	N0N	5 W (ERP)	
153.4 MHz	FX	N0N	5 W (ERP)	
153.4 MHz	FX	N0N	0.007 W (ERP)	

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
154-156.512 MHz	FX	N0N	5 W (ERP)	
156.81-161.625 MHz	FX	N0N	5 W (ERP)	
162.85 MHz	FX	N0N	5 W (ERP)	
162.85 MHz	FX	N0N	0.007 W (ERP)	
164-173.4 MHz	FX	N0N	5 W (ERP)	
164-173.4 MHz	FX	N0N	0.007 W (ERP)	
174-225 MHz	FX	N0N	5 W (ERP)	
225.7-226.5 MHz	FX	N0N	5 W (ERP)	
227 MHz	FX	N0N	5 W (ERP)	
228 MHz	FX	N0N	5 W (ERP)	

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
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)	
333.95 MHz	FX	N0N	5 W (ERP)	
333.95 MHz	FX	N0N	0.007 W (ERP)	
397.95-405.5 MHz	FX	N0N	5 W (ERP)	
406.15-413.1025 MHz	FX	N0N	5 W (ERP)	
414.6725-454 MHz	FX	N0N	5 W (ERP)	
456-470 MHz	FX	N0N	5 W (ERP)	
472.225 MHz	FX	N0N	5 W (ERP)	

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

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
496.3 MHz	FX	N0N	0.007 W (ERP)	
500 MHz	FX	N0N	5 W (ERP)	
500 MHz	FX	N0N	0.007 W (ERP)	
508-607 MHz	FX	N0N	5 W (ERP)	
621.7 MHz	FX	N0N	5 W (ERP)	
621.7 MHz	FX	N0N	0.007 W (ERP)	
626-632 MHz	FX	N0N	5 W (ERP)	
626-632 MHz	FX	N0N	0.007 W (ERP)	
634.125 MHz	FX	N0N	5 W (ERP)	
634.125 MHz	FX	N0N	0.007 W (ERP)	

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

Frequency Information

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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)	
714.125 MHz	FX	N0N	5 W (ERP)	
714.125 MHz	FX	N0N	0.007 W (ERP)	
728.425 MHz	FX	N0N	5 W (ERP)	
728.425 MHz	FX	N0N	0.007 W (ERP)	
734-740 MHz	FX	N0N	5 W (ERP)	
734-740 MHz	FX	N0N	0.007 W (ERP)	
742.975 MHz	FX	N0N	5 W (ERP)	
742.975 MHz	FX	N0N	0.007 W (ERP)	

Frequency Information

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
809-902 MHz	FX	N0N	5 W (ERP)	
902-928 MHz	FX	N0N	5 W (ERP)	
961.125 MHz	FX	N0N	5 W (ERP)	
1668.4-1755 MHz	FX	N0N	5 W (ERP)	
1863.555 MHz	FX	N0N	5 W (ERP)	
1863.555 MHz	FX	N0N	0.007 W (ERP)	
1890.945 MHz	FX	N0N	5 W (ERP)	
1890.945 MHz	FX	N0N	0.007 W (ERP)	
1909.965 MHz	FX	N0N	5 W (ERP)	
1909.965 MHz	FX	N0N	0.007 W (ERP)	

Frequency Information

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1910.025 MHz	FX	N0N	5 W (ERP)	
1910.025 MHz	FX	N0N	0.007 W (ERP)	
1929.975 MHz	FX	N0N	5 W (ERP)	
1929.975 MHz	FX	N0N	0.007 W (ERP)	
1946.925 MHz	FX	N0N	5 W (ERP)	
1946.925 MHz	FX	N0N	0.007 W (ERP)	
1960.575 MHz	FX	N0N	5 W (ERP)	
1960.575 MHz	FX	N0N	0.007 W (ERP)	
1975.545 MHz	FX	N0N	5 W (ERP)	
1975.545 MHz	FX	N0N	0.007 W (ERP)	

Frequency Information

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1990.025 MHz	FX	N0N	5 W (ERP)	
1990.025 MHz	FX	N0N	0.007 W (ERP)	
2100 MHz	FX	N0N	5 W (ERP)	
2100 MHz	FX	N0N	0.007 W (ERP)	
2200-2305 MHz	FX	N0N	5 W (ERP)	
2609.6 MHz	FX	N0N	5 W (ERP)	
2609.6 MHz	FX	N0N	0.007 W (ERP)	
2638.675 MHz	FX	N0N	5 W (ERP)	
2638.675 MHz	FX	N0N	0.007 W (ERP)	
2655-2690 MHz	FX	N0N	5 W (ERP)	

Frequency Information

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2745.275 MHz	FX	N0N	5 W (ERP)	
2745.275 MHz	FX	N0N	0.007 W (ERP)	
2768.6 MHz	FX	N0N	5 W (ERP)	
2768.6 MHz	FX	N0N	0.007 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)	
2856.2 MHz	FX	N0N	5 W (ERP)	
2856.2 MHz	FX	N0N	0.007 W (ERP)	
2900-3100 MHz	FX	N0N	5 W (ERP)	

Frequency Information

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
3100-3550 MHz	FX	NON	5 W (ERP)	

Special Conditions:

- (1) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (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) The designated point-of-contact to terminate transmissions if interference occurs is George Moynihan (603) 689-8630 and BAE Systems Emergency Services Center (603) 885-3842.
- (5) Licensee must obtain consents from existing and future Advance Wireless Services licensees in the frequency band 1915-1920 MHz and 1995-2000 MHz bands.
- (6) 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.
- (7) Operation on this assignment is subject to immediate cessation if it causes harmful interference to FAA Air operations assignments.
- (8) Operation is NOT PERMITTED using any UHF Air Traffic Control Frequencies.
- (9) Licensee must coordinate with other users as necessary to minimize interference.
- (10) Renewal of this License is subject to prior coordination with AFTRCC Frequency Advisory.

Special Conditions:

- (11) Operation is NOT PERMITTED using the following frequency bands:
- 235.762500-235.787500 MHz
 - 236.762500-236.787500 MHz
 - 236.812500-236.837500 MHz
 - 238.987500-239.012500 MHz
 - 239.287500-239.312500 MHz
 - 244.862500-244.887500 MHz
 - 251.062500-251.112500 MHz
 - 256.862500-256.912500 MHz
 - 257.187500-257.212500 MHz
 - 257.637500-257.662500 MHz
 - 257.762500-257.812500 MHz
 - 257.837500-257.862500 MHz
 - 257.912500-257.937500 MHz
 - 262.987500-263.012500 MHz
 - 268.687500-268.712500 MHz
 - 268.987500-269.012500 MHz
 - 269.062500-269.087500 MHz
 - 269.137500-269.162500 MHz
 - 269.187500-269.212500 MHz
 - 269.312500-269.337500 MHz
 - 269.387500-269.412500 MHz
 - 269.462500-269.487500 MHz
 - 269.512500-269.537500 MHz
 - 273.487500-273.512500 MHz
 - 275.787500-275.812500 MHz
 - 281.412500-281.437500 MHz
 - 281.487500-281.512500 MHz
 - 282.187500-282.212500 MHz
 - 284.587500-284.612500 MHz
- (12) Operation the frequency band 128.85-129.2 MHz and 129.5-132 MHz is subject to prior coordination with ASRI.
- (13) No frequencies allocated for Air Traffic Control per list provided by the FAA will be used in this frequency range 228.8-328.6 MHz.
- (14) Operation is NOT PERMITTED using the following frequencies: 109.2 - 117.975 MHz, 134.1 MHz, 135.85 MHz, 156.512-156.515 MHz, 942.275 MHz, 980.35 MHz, 999.95 MHz, 1019.95 MHz, 1040.35 MHz, 1061.15 MHz, 1104.025 MHz, 1126.125 MHz, 1148.625 MHz, 1171.6 MHz. 1195.05 MHz, 3550-4200 MHz.

Special Conditions:

- (15) Operation is NOT PERMITTED using the following frequency bands
- 239.012500-239.037500 MHz
 - 242.987500-243.012500 MHz
 - 254.250000-255.400000 MHz
 - 260.887500-260.912500 MHz
 - 263.050000-263.100000 MHz
 - 269.287500-269.312500 MHz
 - 273.437500-273.462500 MHz
 - 277.387500-277.412500 MHz
 - 279.587500-279.612500 MHz
 - 284.737500-284.762500 MHz
 - 307.887500-307.912500 MHz
- (16) Blank transmission is required 115-125, 242-252 and 345-355 degree reference to true North for operation in the frequency band 406-420 MHz.
- (17) Radiation in azimuth is confined to 265-302 degrees reference true North for operation in the frequency band 2700-2900 MHz.
- (18) Operation is NOT PERMITTED for Internal Research and Development activity. This authorization is issued for the purpose of conducting experimental operations in the related application and required by USAF Contracts FA8620- 16-G-3028, FA8620-19-F-4716, FA8528-16-D-0009, FA8620-19-C-2009, and US Army Contract W911QY-14-D-0029.
- (19) Operation is NOT PERMITTED using the frequency bands
- 15001-15800 kHz
 - 17480-18030 kHz
 - 18900-19020 kHz
 - 21450-21850 kHz
 - 21924-22000 kHz
 - 23200-23350 kHz
 - 25670-26100 kHz
- (20) Operation is subject to prior coordination with Society of Broadcast Engineers.
- (21) Operation is subject to prior coordination with AFTRCC.
- (22) Operation is subject to prior coordination with FAA.

Special Conditions:

- (23) Prior to commencing any operations in the frequencies below, the applicant must obtain consent from the following within 50 miles of the contours of the testing area:
- Paging Service licensees in 35 MHz
 - Paging Service licensees in 43 MHz
 - Paging Service licensees in 152 MHz
 - Paging Service licensees in 158 MHz
 - Paging Service licensees in 152 MHz/158 MHz
 - AMTS Licensee (217-218 MHz/219-220 MHz)
 - 218-219 MHz Service licensees
 - 220-222 MHz Service licensees
 - Paging Service licensees in 454 MHz/459 MHz
 - General Aviation Air-Ground Service in 454 MHz/459 MHz
 - 700 MHz Lower Band licensees (698-746 MHz)
 - 700 MHz Upper Band licensees (746-758 MHz and 775-788 MHz)
 - SMR licensees (809-824 MHz/854-869 MHz)
 - B/ILT licensees (809-824 MHz/854-869 MHz)
 - Cellular licensees (824-849 MHz/869-894 MHz)
 - Commercial Air-Ground licensee (849-851 MHz/894-896 MHz)
 - SMR licensees (896-901 MHz/935-940 MHz)
 - B/ILT licensees (896-901 MHz/935-940 MHz)
 - Narrowband PCS licensees (901-902/930-931/940-941 MHz)
 - Location & Monitoring Service licensees (902-928 MHz)
 - Paging Service licensees in 929 MHz and 931 MHz
 - Broadband PCS licensees (1850-1910 MHz/1930-1990 MHz)