

KRFS 720 STA License Request

1 Purpose of Operation

Raytheon Integrated Defense Systems (IDS) to KRFS 720 Multi-Function RF System (Radar). This application is to demonstrate this system as a Unmanned Platform

- File Number: 0808-EX-ST-2021
- Class of Station: FX/MO
- Station Locations: FIXED/Mobile
- Effective: 08/01/2021
- Expiration: 02/01/2022

Note: The KRFS is designed to operate over specific frequency ranges within the range of 15.71 to 17.71 GHz. Specific operating modes are confined to the specific bands as follows:

- 15.71 to 17.71 GHz Radar: C-RAM
- 15.71 to 17.71 GHz Missile Illumination

2 STA Explanation

As detailed in paragraph 1 above, Raytheon seeks this STA in order to allow testing and technical demonstrations of the KRFS 720 System (Radar) during a live fire exercise.

3. The modulation techniques per mode are listed in the table below.

Mode	Modulation	PRF	Pulsewidth	Modulation Rate
Radar : C-RAM	Pulse. Bi-Phase or Polyphase	5 KHz – 200 KHz	0.2 – 40.0 usec	20 MHz
Missile Illumination (Transmit only)	FSK Fc ± 1.44 MHz (Mark) Fc ± 0.8 MHz (Space) Fc ± 1.12 MHz (Clear)	33Hz	2.5 ms	160 KHz

Mode	Peak Power (Block 19b)	MaxTX Duty Cycle	Mean Power (Block 19a)
Radar: C-RAM	5760 Watts	20%	1152 Watts
Missile Illumination	1440 Watts	100%	1440 Watts

4. Stop Buzzer

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