

Job Announcement	
Contract Job Title:	RF Engineer
Clearance:	Active TS/SCI
Location:	Aberdeen Proving Grounds, MD
Reports to:	Team Lead
FLSA Status:	Non-Exempt, Fulltime, Regular

Summary: RF Engineer will provide technical support to meet the needs of the customer.

Essential Duties and Responsibilities:

- Support technical intelligence (TECHINT), media exploitation (MEDEX), cell phone exploitation (CELLEX), electronic exploitation (ELEX), and other unique exploitation missions.
- Conduct electronic analyses of target devices, including functional analyses of the target devices, understand and describe how the target functions from an electronic perspective - basic signaling characteristics; voltage levels; electrical connections; electrical modifications to commercial-off-the-shelf (COTS) hardware; logic states; operating frequencies; component configuration identification; operating profiles/modes; operation in noisy electromagnetic environments; and susceptibility.
- Serve as subject matter expert in RF characterization.
- Publish reports and briefings in order to present characterization information, electronics vulnerabilities, and exploitation recommendations.
- Work with a team to respond to RFI's and determine best consolidated solutions to problems.
- Design and implement characterization standard operating procedures (SOPs) and implement SOPs in daily functions

Required Skills:

- MA/MS with 10 years relevant experience (or) BA/BS with 18 years relevant experience.
- An understanding of RF communications, with a particular emphasis on complete characterization of electronic circuits.
- Extensive experience in electronics engineering.
- Experience using benchtop RF equipment including Signal Generators, Spectrum Analyzers, Oscilloscopes, and other equipment.
- Perform standard RF measurements (e.g. occupied bandwidth, average power, pulse width) using the previous listed test equipment *Experience in synthesizing and generating various types of RF waveforms using and arbitrary waveform generator.

Desired Skills:

- Experience in reverse engineering electronic devices from start to finish *Experience in reverse engineering electronic components and circuit boards.
- Experience supporting exploitation and modeling and simulation tool development.
- Working knowledge of software defined radios (SDR), such as the Ettus B210 and x310. Able to interface with such units in order to transmit or receiver RF signals.
- Basic Matlab (and other basic programming/scripting) skills, should be able to apply digital signal processing techniques to communication signals.
- Techniques include digital filtering, sample rate conversion, frequency/phase estimation, demodulation, carrier recovery, timing recovery, channel equalization, pulse shaping, and forward error correction.
- Experience working with embedded systems such as Arduino and writing programs leveraging the SPI bus to configure and analyze various chipsets.

Background and Education:

- **Top Secret Clearance: Active Top Secret/SCI**
- MA/MS with 10 years relevant experience (or) BA/BS with 18 years relevant experience.
- An understanding of RF communications, with a particular emphasis on complete characterization of electronic circuits.
- Extensive experience in electronics engineering.

Ethics and Diversity:

- Treat people with respect; keeps commitments; inspires the trust of others; works with integrity and ethically; upholds organizational values
- Shows respect and sensitivity for cultural differences; educates other on the value of diversity; promotes a harassment-free environment; builds a diverse workforce