



## Job Description

### Modem Integration Software Engineer

1. **JOB TITLE:** Modem Integration Software Engineer.
2. **LABOR GRADE:** N/A
3. **SECURITY CLEARANCE:** Ability to obtain a Government security clearance is required.
4. **PHYSICAL REQUIREMENTS:** Ability to lift a minimum of 25 lbs. Must be able to travel by air up to 10% of the time.
5. **EDUCATION:** Bachelor of Science in Computer Science/Engineering, Electrical Engineering, or related Math / Science degree. Graduate technical degrees are desired but not required. iDirect, ViaSat, CCNA and CISSP certifications are highly desirable.
6. **PREVIOUS EXPERIENCE:** A minimum of five years of software / hardware design, test and/or validation of integrated SATCOM modem terminals operating in TDMA, FDMA, SCPC and DVB-S2 satellite networks.  
  
A minimum of three years experience with software specification, design and coding of embedded networks or communication systems.  
  
Work experience with developing software code on LINUX-based operating systems using C, C++, or Python is required.  
  
Work experience in radio frequency (RF) test and measurement is desired.
7. **JOB REQUIREMENT SUMMARY:** Provide engineering test data, analysis and reporting on the software and hardware performance of company's satellite communications (SATCOM) products.
  - 7.1 Software / hardware design, test and/or validation of integrated SATCOM modem terminals operating in TDMA, FDMA, SCPC and DVB-S2 on Earth orbiting satellite networks.
  - 7.2 Develop software code on LINUX-based operating systems using C, C++, or Python languages.
  - 7.3 Serve as an engineer in the integration and development of company's modem modules, as derived from system-level requirements, through to specification through evaluation, analysis, review and detailed software design and implementation. Emphasis will include, but not limited to iDirect 900 series modems, ViaSat CBM-400 / Linkway S2 modems and



Comtech modems operating within a satellite network.

- 7.4 Working knowledge on the operation, setup and configuration of satellite networks from both hub and remotes sides, including routing and switching of TCP/IP packets and DOD cybersecurity requirements. Maintain a theoretical knowledge of waveform modulations, link budgets, BER, FEC, and SNR.
  - 7.5 Validate internal and external software requirements for company's integrated modem modules.
  - 7.6 Ability to analyze product failure data and manufacturing test trends, troubleshoot yield issues and recommend product / testing improvements.
  - 7.7 Write and release acceptance test procedures (ATPs) and first article test (FAT), including the transfer of engineering documentation, setup and operation to production-ready procedures and standards.
  - 7.8 Anticipate modem supplier's technological trends and comprehend the operation of new developments within the SATCOM industry.
  - 7.9 Maintain contacts with modem supplier's technical support personnel.
  - 7.10 Operate, train and demonstrate company's SATCOM terminals in live satellite networks for business development, engineering, operations and customer demonstrations, when required.
  - 7.11 Ability to operate and or learn to use RF test instruments including: digital voltmeter, oscilloscope, spectrum analyzer, power meter, signal generator etc., when required.
8. **SUPERVISION:** Manager, Digital Systems Group
  9. **TRAINING PERIOD:** Responsibility of position requires minimal orientation period. Continual development process through reading materials, seminars, conferences, trade shows, etc.