Job Title: RF Integration Engineer – Multi-Probe Array Systems

Location: Primary Office Location - Warminster, PA

Employment Type: Full-time

Travel Requirement: 50–75% (Domestic & International)

At **Microwave Vision Group (MVG),** we strive to deliver the most advanced antenna and RCS measurement facilities to the U.S. aerospace and defense industry. MVG is seeking driven individuals who excel in fast-paced environments, moving novel concepts from inception to commissioning. We welcome candidates who will bring commitment and motivation into our tight-knit team, helping us shape the future.

As an **RF Integration Engineer**, you will be responsible for the end-to-end deployment of MVG's Multi-Probe Array measurement systems, ensuring they meet performance, calibration, and customer requirements. This is a highly technical, hands-on role with a strong emphasis on RF system integration, troubleshooting, and customer support.

You will work closely with project managers, systems engineers, and field technicians to:

- Install and commission RF hardware (RF boxes, cables, probes, positioning systems).
- Calibrate and validate system performance using VNA/PNA, spectrum analyzers, and proprietary software.
- Troubleshoot RF issues (signal integrity, reflections, interference) in real-world environments.
- Train customers on system operation and maintenance.
- Document installation, calibration, and test results for internal and customer review.

This role is ideal for an RF engineer who thrives in the field, enjoys problem-solving in dynamic environments, and is comfortable with frequent travel.

Key Responsibilities

1. System Installation & Commissioning (50–75% Travel)

- Deploy Multi-Probe Array systems at customer sites, MVG factories (France), and other global locations.
- Install and integrate RF hardware, including:

- RF boxes, cables, and connectors (ensuring proper impedance matching and signal integrity).
- Multi-Probe Array antennas and positioning systems.
- Control and data acquisition hardware.

- Perform on-site RF performance checks using VNA/PNA, spectrum analyzers, and other test equipment.
- Execute system-level calibrations (SOLT, TRL, electronic calibration) to ensure measurement accuracy.
- Troubleshoot and resolve RF issues (e.g., reflections, losses, interference) in real-world environments.

2. Testing, Validation & Customer Support

- Run RF measurement tests (S-parameters, radiation patterns) and interpret results.
- Generate calibration reports and performance validation documentation for customers.
- Train customers on system operation, maintenance, and basic troubleshooting.
- Provide on-site technical support during customer acceptance testing (FAT/SAT).

3. Coordination & Documentation

- Work with project managers and systems engineers to ensure smooth deployments.
- Conduct pre-installation site surveys to assess requirements and identify potential challenges.
- Document installation procedures, lessons learned, and non-conformance reports.
- Maintain accurate records of system configurations, test results, and customer feedback.

4. Safety & Compliance

- Follow OSHA and MVG safety protocols for lifting, rigging, and electrical work.
- Ensure compliance with customer site safety regulations (e.g., ESD, RF exposure limits).
- Operate rigging equipment (e.g., hoists, lifts) safely when installing heavy components.

Required Skills & Experience

Technical Skills

- 3+ years of hands-on experience in RF system integration, testing, or installation (e.g., antenna measurement systems, radar, wireless communications, or defense electronics).
- Strong understanding of RF principles, including:
    - Impedance matching, signal propagation, and network analysis (S-parameters).
    - RF calibration techniques (SOLT, TRL, electronic calibration).
    - Antenna measurement fundamentals (near-field, far-field, compact ranges).
- Proficiency with RF test equipment, such as:
    - Vector Network Analyzers (VNA/PNA).
    - Spectrum analyzers, signal generators, power meters.
    - RF cables, connectors, and calibration kits.
- Experience with RF measurement software (e.g., MVG's proprietary tools, LabVIEW, MATLAB, or Python for data analysis).
- Ability to interpret RF test data (e.g., S-parameters, radiation patterns, RCS measurements) and make adjustments as needed.
- Basic mechanical skills (e.g., assembling RF hardware, routing cables, operating positioning systems).

Soft Skills & Logistics

- Willingness and ability to travel 50–75%, including:
    - Domestic travel (U.S. customer sites, MVG facilities).
    - International travel (primarily to MVG's factory in France).
- Strong troubleshooting and problem-solving skills in real-world, high-pressure environments.
- Excellent communication skills (written and verbal) for customer interactions and technical reporting.
- Ability to lift 50+ lbs and work in field environments (e.g., anechoic chambers, outdoor test ranges, factory floors).
- U.S. Citizenship (required for security clearance eligibility—defense contracts).

Preferred Qualifications

- Associate’s or Bachelor’s degree in Electrical Engineering, RF Engineering, or a related field (or equivalent experience).
- Experience with Multi-Probe Array systems or phased array technologies.
- Knowledge of mechanical/robotic positioning systems (e.g., antenna positioners, motion control).
- Familiarity with RF simulation tools (e.g., CST, FEKO, ADS).
- Basic programming skills (Python, MATLAB, or LabVIEW) for automated testing and data analysis.
- Experience with defense or aerospace RF measurement systems (e.g., RCS, EW, radar testing).

  Send resume to: joseph.moore@mvg-world.com

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