Aerospace

Project Management

Systems Engineering

Electrical Engineering

Mechanical Engineering

Quality Assurance

SOFTWARE DEFINED RADIO DESIGN FOR MISSILE-DETECTION SATELLITES

APPROACH

- Assembled multidiscipline project team with aerospace radio frequency (RF)-circuity design experience
- Integrated electrical engineering team directly in the client's working environment to foster collaboration between technical teams and accelerate project timeline
- Modified inherited PCBA designs from client and generated four new PCBA designs for three unique software-defined radios operating in various frequency bands to meet customer requirements
- Performed derating, failure modes and effects criticality analysis (FMECA), and mechanical skyline analysis on updated and new PCBA designs
- Tracked and reported project performance metrics and KPIs to client while operating three unique radio projects in parallel with shifting priorities

RESULTS

- Generated, reviewed, and released seven unique PCBA designs in the client's desired timeframe
- Delivered reliability engineering and electrical analysis deliverables to the client in accordance with AS9100 quality management program
- Procured, fabricated, and brought-up first article units to validate new designs for client

KEY TOOLS & TECHNOLOGIES

- Altium
- SolidWorks
- Python
- Reliability engineering standards (MIL-STD-1629A, MIL-HBK-338B, MIL-STD-217F, FMD-91/16, etc.)
- Microsoft Project

ALTEN TECHNOLOGY