

SOFTWARE-DEFINED RADIO TEST EQUIPMENT

Aerospace

Project
Management



Electrical
Engineering



Software
Engineering



DEVELOPED MANUFACTURING TEST EQUIPMENT FOR SOFTWARE-DEFINED RADIO (SDR) SYSTEM

APPROACH

- Assist client with the design and test of eight manufacturing test racks for modular software-defined radio
- Integrate into client team and assist with task management and system definition
- Assemble a flexible team to provide client with required mix of talent as needs change over the project's course
- Handle large portions of the architecture, design, assembly, and test

RESULTS

- Produced detailed design documentation, including interface control documents (ICDs), architectures, schematics and test PCBAs, and harness drawings
- Developed manufacturing test software, abstracting much of the low-level test functionality into easy-to-use and easy-to-modify test sequences
- Completed architecture and design of custom PCBAs that condition and distribute electrical signals to each device under test (DUT)
- Worked with client team for on-site build, testing and debugging, and final delivery

KEY TOOLS & TECHNOLOGIES

- Tools and equipment: RapidHarness, Altium, Python, Keysight
- Signal types: RF, digital, LVDS, etc.

ALTEN TECHNOLOGY