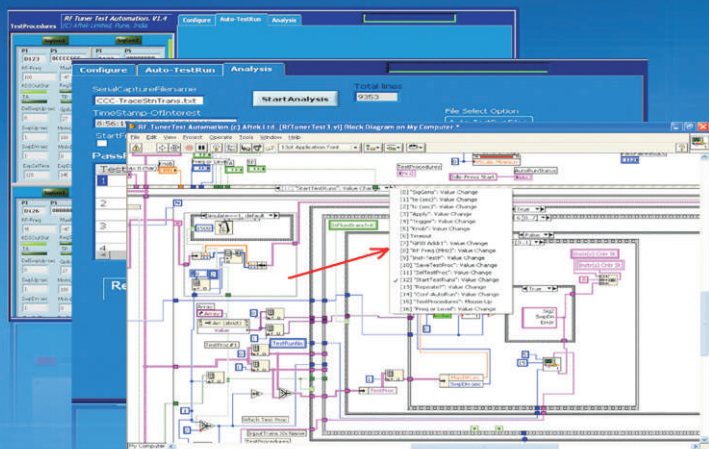# RF Tuner Test Automation Suite

Need

The requirement was to test the FM receivers used in cars which receives signals from multiple FM transmitters. It was also needed to test the functionality of FM station selection/ de-selection under FM transmitter transitions. To carry out this testing with precision and simultaneously testing number of receivers, an automated test suite was required.

Solution

Aftek developed **RF Tuner Test Automation Suite** to carry out automated testing of RF receivers. Aftek used LabVIEW to develop a complex application suite with features like graphical control panel, automated test runs, multiple configurable parameters for DUT and graphical data analysis. This test suite helps in testing each FM receiver device within few seconds and presents the output data in Excel file. For better product analysis, the output data was presented in various graphical formats.

Two signal generators were used for simulating FM radio signals. A radio receiver capable of receiving high frequencies was deployed. The central test control unit and the FM signal generators were interfaced over GPIB bus. The PC based central control unit was actually the RF Tuner Test Automation Suite.

Features

- Automated testing of FM radio receivers capable of receiving FM signals from two or more FM radio transmitters
- Simulated graphical interface for RF signal generator to facilitate easy operation
- Graphical data representation for quick and easy analysis
- Configurable parameters for different signal generators

Benefits to the Client

- Provides accurate, reliable and faster testing results
- Reduced project verification and testing time by 80%
- Easy to use simulated graphical interface for RF signal generators
- Configurable parameters to simulate different signal generators
- Results represented in graphical format for quick and accurate analysis
- Test case development at offshore and test execution at onsite thus achieving higher ROI

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