The task of the tesis is the development of an embedded automated test system for the TRF6900A which is a wireless ISM band communication device. The test system is realised on LabVIEW platform at the Department of Measurement and Information Systems of the Budapest University of Technology and Economics where a NI PXI-5661 vector signal analyzer and a NI PXI-5671 vector signal generator are available.

The radio unit is controlled via the parallel gate of the host computer. Therefore, every parameter of the TRF6900A are adjustable by a LabVIEW SW. It is essential for a functional test of the unit's main blocks, the transmitter and the receiver. The test system-based qualification and retrievable data recovery is important that is why a report has to be generated automatically to meet the requirements of traceability.

The test of the TRF6900A transmitter and receiver units are realised in different blocks. There is a controlling process before every measurement phase via a parallel gate before the examined device step into the next test phase. Measurement results appear on the graphical user interface directly and the automated report generation gets into a key focus too. A Microsoft Excel file contains all the data generated during the measurement and evaluation process of the device under test.