

fiXtress™ for OrCAD: Ensure Your Design is Perfect – Even Before It's Complete

fiXtress™ Automated Schematic Review

Easy Detection of Design Errors Using Logical and Parametric Functional Verification

fiXtress™ Schematic Review automatically detects schematic design errors based on component parameters for implementing custom rules.

PCB design requires adhering to good engineering practices and rules, which result in a highly complex design review process. fiXtress™ Schematic Review simplifies and automates this process, reduces design time, increases design quality and verifies implementation of the required functionalities.

Over 120 Checks, such as:

- Pull-up/pull-down resistors
- Power inputs
- Floating grounds
- Receiver technology matching, decoupling capacitors
- Unconnected pins/nets and BOM/Netlist comparison

Overview

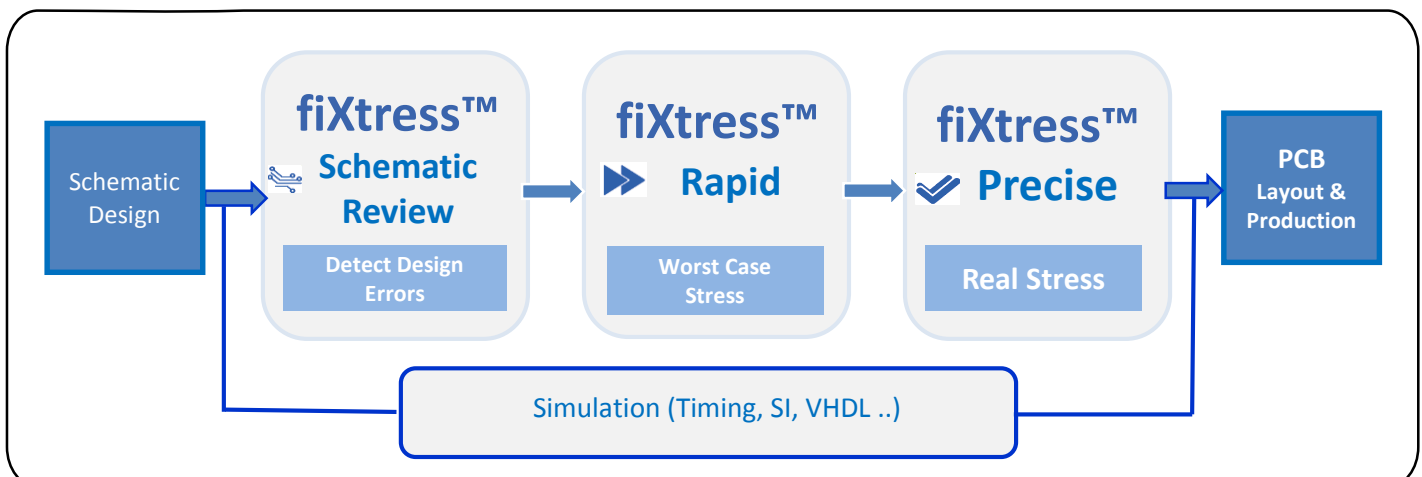
BQR's fiXtress™ is a superior Design for Reliability (DfR) suite, used as an add-on software tool for OrCAD.

fiXtress™ is the only tool integrating design error detection with electrical stress, thermal, MTBF and service life prediction on the schematic level, before PCB layout.

Benefits

- Improves design robustness by detecting errors during schematic review
- Corrects hard-to-detect design errors before fab-out
- Streamlines the design process
- Plug-in for OrCAD Schematic, suitable for any analog or digital PCB size
- Applicable for all industries requiring highly reliable electronics boards

"As of now, reliability engineering, which is a key factor in the product's quality, mostly involves testing the final product. We focus on Design for Reliability (DfR), which improves product quality and lowers costs through integrating reliability engineering into the design process, rather than leaving it to post-production." Yizhak Bot, CEO, BQR



fiXtress™ Precise Stress Analysis

Detailed Analysis for Complete Designs, Performs DC & AC Stress Analysis Using Kirchhoff Law and Fourier Analysis

fiXtress™ Precise performs innovative automated stress analysis calculation, providing highly accurate results.

It accounts for component operational modes, identifies over-stressed and over-designed components, offers thermal-placement guidance, generates stress derating reports, and provides actual MTBF and service life information.

Finally, it detects Electrical Stress Analysis (ESA) and design errors before PCB production.

Benefits

- Accelerates time to market by reducing design cycles
- Optimizes component selection, reliability & MTBF
- Ensures adherence to derating guidelines
- Optimizes thermal design placement
- Reduces potential field failures
- Reduces power consumption, facilitating compliance with green standards
- Facilitates warranty period and spare parts planning

fiXtress™ MTBF

Supporting all MTBF methods: Mil-hdbk-217, Telcordia, Siemens, CNET, FIDES and Service life.

fiXtress™ Rapid Stress Analysis

Swift Analysis for Incomplete Designs, including DC Stress Analysis Based on Net Potential and Ohm's Law

fiXtress™ Rapid replaces manual stress calculations, performing effective detection of design and reliability issues.

fiXtress™ Rapid identifies problems early in the design process when they are easier and most cost-effective to repair, and enables multiple engineers to work concurrently.

Capabilities

- Easy selection of components based on appropriate derating levels
- Identification of voltage-level conflicts in IC and Net-name pins and implementation of Net-naming guidelines
- Preliminary thermal placement suggestions
- Ensuring each IC power supply input complies with manufacturer specifications

BQR Reliability Engineering Ltd.

BQR is a world leader in reliability analysis and maintenance optimization solutions for the EDA market. BQR software tools help engineers create more robust and reliable products, as well as improving the design process.

Throughout its 25 years of experience, the company has been serving leading companies in Israel and worldwide, including Elbit, IAI, DSO, Israel Electric Corporation, Cisco, Becker-Hughes, IBM, Philips, Bombardier, Schiphol airport and others.