BQR Celebrates 35 Years of Innovation in Mission-Critical Electronics Verification with $100M Satellite Save Story

BQR's simulation tools uncover critical flaw, helping aerospace client avoid $100M satellite failure and reinforcing the value of proactive design analysis

RISHON LEZION, ISRAEL, August 6, 2025 /EINPresswire.com/ -- BQR Reliability Engineering Ltd., a global leader in Reliability, Availability, Maintainability, and Safety (RAMS) software and services, is proud to celebrate 35 years of pioneering excellence in mission-critical electronics verification.

During the anniversary celebration, company Founder and CEO Mr. Yizhak Bot shared a compelling case study that exemplifies the critical importance of comprehensive electronics verification in high-stakes aerospace missions.

> This case shows how early simulation empowers engineers to improve design quality, avoid costly issues, and ensure mission success-saving time, money, and critical assets."
>
> *Yizhak Bot, CEO*

Several years ago, BQR was contacted by a satellite manufacturer facing a critical situation: their $100 million satellite had failed 4.5 years after launch, with an identical second satellite scheduled for launch within six months. The manufacturer's internal teams were unable to identify the root cause of the failure, putting the second $100 million investment at severe risk.

"The company contacted BQR because they were unable to identify the root cause of the failure," explained Mr. Bot. "Using our Circuit-Hawk software, BQR engineers simulated the satellite electronics at various operational states and identified that in a specific operation state, a specific component was over-stressed to the point that it might burn."

Initially, the satellite manufacturer's representatives were skeptical that such a seemingly minor

component issue could cause total satellite failure. However, Mr. Bot proposed a decisive test: "I asked them to test this issue in the lab on the second satellite, which was still on the ground. They did it and indeed the component burnt."

Prevention Through Advanced Simulation: The ground-based testing validated BQR's simulation results, enabling the manufacturer to quickly implement a design fix and successfully launch the second satellite, preventing it from suffering the same fate as its predecessor. The intervention saved the full $100 million value of the second satellite.

"If they were using BQR simulation at the beginning, they could have also saved the first satellite and prevented another $100 million loss," Mr. Bot noted. "This demonstrates the importance of doing detailed part stress analysis and circuit design analysis using the best available tools."

About BQR

BQR is a global leader in reliability engineering and electronic design automation, empowering engineers to create robust, reliable, and optimized electronic systems. With decades of experience supporting giants across aerospace, defense, automotive, energy, medical, telecom, and high-performance industries, BQR delivers software tools and services that span the full lifecycle of electronics - from initial schematic to field maintenance. The result: reduced design time, minimized costly rework, and greater confidence in mission-critical systems.

BQR's solutions focus on early design reliability analysis, which is the new "Shift-Left Methodology for RAMS Analysis™ " automated design analyses & components derating, and MTBF prediction - enabling engineers to identify hidden risks, optimize component selection, and ensure product reliability from day one.

Website: www.bqr.com

Yizhak Bot
BQR Reliability Engineering Ltd.
bot@bqr.com
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Facebook

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