



Ansys Enables Flexium's 5G mmWave Antenna Module Designs to Advance ADAS/AV Technology

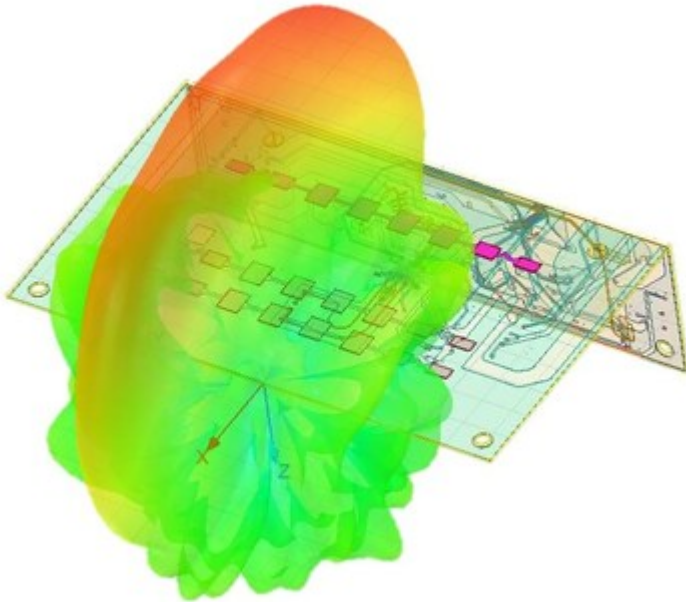
July 13, 2023

Ansys simulation drives the PCB manufacturer's competitive 5G mmWave antenna module designs to support satellite, driverless, and wireless applications

/ Key Highlights

- Flexium relies on Ansys to analyze electromagnetic, thermal, and mechanical performance, as well as the layout of its PCBs to improve design reliability and durability
- Ansys simulation advances antenna module designs that support the miniaturization of satellite and related wireless signal technologies critical to advanced vehicle perception

PITTSBURGH, July 13, 2023 /PRNewswire/ -- Flexium uses [Ansys](#) (NASDAQ: ANSS) simulation solutions to explore design ideas, and develop and test antenna modules for high-frequency signal transceiver designs used in advanced driver assistance systems (ADAS) and autonomous vehicle (AV) applications. With support from Ansys tools, the printed circuit board (PCB) manufacturer's R&D team can also test the durability and reliability of its PCB boards, as well as explore new design ideas through layout and material experimentation at a relatively low cost.



Within Flexium's PCB layouts are numerous flexible print circuits (FPCs) responsible for critical connections that enable 5G communication in ADAS and AV applications. Any design deficiencies within these layouts can negatively impact FPC transmission characteristics responsible for vehicle perception.

To address these challenges, Flexium uses Ansys simulation software for the electromagnetic, thermal, and mechanical optimization of its FPC designs through efficient layout and material changes. Ansys tools also helped Flexium set specific parameters for board layout and materials, then create a reference library for future mmWave design verification.

"Ansys delivers the greatest predictive accuracy and yields the strongest results for us during PCB layout analysis critical to today's ADAS and AV applications," said Ming-Chi Cheng, president of Flexium. "Looking beyond 5G, we will continue to reference Ansys simulation to discover new methods for optical integration and communication that will help shape the future of our mmWave antenna module designs."

"With Ansys, global PCB industry leaders like Flexium realize the freedom to explore possibilities in board application design, and successfully develop forward-thinking antenna solutions for high-frequency signal transceiver applications," said John Lee, vice president and general manager of the electronics, semiconductor, and optics business unit at Ansys. "As the momentum behind miniaturization continues to build, our simulation solvers will accelerate the satellite, driverless, and related wireless signal modules powering this trend."

/ About Ansys

When visionary companies need to know how their world-changing ideas will perform, they close the gap between design and reality with Ansys simulation. For more than 50 years, Ansys software has enabled innovators across industries to push boundaries by using the predictive power of simulation. From sustainable transportation to advanced semiconductors, from satellite systems to life-saving medical devices, the next great leaps in human advancement will be powered by Ansys.

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/ Contacts

Media Mary Kate Joyce
724.820.4368
marykate.joyce@ansys.com

Investors Kelsey DeBriyn
724.820.3927
kelsey.debriyn@ansys.com



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