# **CHANNEL TALK**



## FEBRUARY 2024

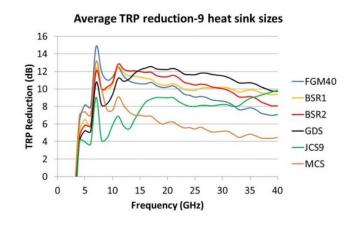
### **AI: CONQUERING ITS CHIP DESIGN OBSTACLES**



Bright minds designing chips used in artificial intelligence (AI) systems are turning to Laird<sup>™</sup> for answers. Entering the AI market, Laird is giving needed insight through Ensuring High Performance of AI Chip Designs, a webpage discussing the hurdles designers face. The page points to Laird™ brand products - each an AI device solution to thoroughly remove excessive heat, unwanted electromagnetic interference, or both, and within the constraints of densely-designed chip packages. We discuss cooling as a major obstacle to AI design success, the added threat stemming from excessive EMI, and how integrated solutions help resolve the problems of extreme design density. Learn more about artificial intelligence, how Laird is responding, and why we and you are ideally positioned to compete successfully in this expanding field.

#### **PINPOINTING THE PERFECT EMI SOLUTION**

Step inside a project. Learn the precise steps Laird took to enable a global networking technology manufacturer to pinpoint its perfect EMI solution to reduce total radiated power (TRP). Those efforts involving comprehensive Laird laboratory simulations would confirm why Laird<sup>™</sup> Eccosorb<sup>™</sup> GDS among other options would fare the best in battling excessive noise affecting 22 GHz retimer chip performance. While suppressing excessive noise from retimer chips was one matter, discovering the optimal characteristics of a desired solution was another. Using simulation data, the manufacturer could compare nine different choices before selecting Laird<sup>™</sup> Eccosorb<sup>™</sup> GDS as its ideal, Laird laboratory-confirmed, high frequency absorber to reduce TRP. Read Laird's newest case study.



#### **RAISING SIGNAL QUALITY AT mm WAVE 5G**

New from Laird, **Radome5<sup>™</sup> Poly** helps deliver strong signals with consistent reliability at wide angles in 5G equipment. This injection-molded radome consists of a polyolefin



thermoplastic material. It offers indoor environmental protection to the equipment that receives mm Wave 5G signals – from small cells to hand-held devices. **Radome5<sup>™</sup> Poly** also features the lowest dielectric constant of any injectionmolded radome on the market in addition to a low loss tangent. Signals will degrade at off angles with traditional thermoformed or flat-sheet radome products. By contrast, Radome5<sup>™</sup> Poly performs reliably at wide angles, issues often confronting design engineers. **Read more**.

#### **NEW NOISE-SUPPRESSING POWER INDUCTOR**

#### **SNAPSHOT: OUR BREADTH OF CAPABILITIES**





Small but rugged, our new Laird<sup>™</sup> Steward<sup>™</sup> <u>MAF0606</u> molded surface mount power inductor ensures power line noise suppression and desired power

efficiency while delivering extremely low DCR at high rated currents. <u>Read more</u> how the spaceoptimizing flat wire coil design of MAF0606 and its performance rating of 155°C also provide consistent reliability in high-temperature, tightfitting, and challenging ADAS, automotive, and industrial applications. Laird is more than a manufacturer with strong channel partner ties. Our production sites nearby customers are one advantage. Another is our full global services and <u>capabilities</u>. Before shipping any products, we engage an array of in-house support teams and equipment. Our expertise is diverse, and deep: Prototyping, Modeling and Simulation, Testing, Automated Product Dispensing, Robotic Pad Placement, Advanced Packaging expertise, and much, much more. We encourage you to educate your buyer targets about the advantages of putting our full team to work. See our <u>support capabilities</u>.

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