



Real People...Real Success...



Welcome to the new **noisE optiMIze** Newsletter from KAW/USA! Each quarter we hope to provide you with easy access to technical papers and issues that are directly related to EMI and SI best design practices; along with the design and layout of high performance electronics systems.

In This Issue...

- ✦ [Focus Article: PCB Design Concepts that Quiet Down Your Boards](#)
- ✦ [New Product Information—EMISStream](#)
- ✦ [Testimonials](#)
- ✦ [Events Calendar](#)

Focus Article: PCB Design Concepts that Quiet Down Your Boards

<i>Title / Contributing Author</i>	<i>Publication</i>	<i>Abstract</i>
<u>EMC Design: Circuits</u> - Douglas Brooks, UltraCAD	Conformity	This article touches on the basic principles of what designers should keep in mind while designing PCB in order to address EMI and SI related issues. The article provides a simple understanding of what is the cause of noise from an electromagnetic point of view in a way that every designer can understand.

New Product Information – EMISStream

EMISStream is an EMI/EMC tool that helps you quiet down your boards.

How will you find these kinds of problems as mentioned in Doug’s article? Is it possible for both design engineers and EMC engineers to identify problem areas in the PCB design as early as layout? Is it possible to check EMI related issues at any point in the design stage and provide real-time feedback? Is there a tool that is so easy to use that even the casual, as well as, expert user can run to eliminate simple EMI issues?

The answers to these questions now can be found in **EMISStream**. Presented by NEC and KAW/USA, this software is a simple rule-based software that can be fully interactive at any stage of PCB design process.

<i>Title</i>	<i>Abstract</i>
<u>Power Plane Resonance Analysis Data Sheet</u> -	By adjusting the stackup for the minimal distance between the planes, and the best position of the power system capacitors EMISStream helps reduce noise that leads to higher voltage drop, ground bounce and EMI emissions.
<u>Return Current Discontinuity Identification Data Sheet</u>	Current loop lengths of signals are increased if there is any change in the return path that is normally created in the

adjacent plane or planes. High speed return currents are induced into the adjacent plane and follow the path of least inductance. When the return path is disrupted, the current loop length is increased. This causes an increase in the noise of the planes.

Testimonials

“Since we have incorporated **EMISstream** into our best design practice, we have seen 97-99% of our designs successfully pass EMI testing first time. It has saved us so much time and makes my work easier.” – Gary Harper, Senior Engineer, Schneider Electronics

“I am thinking of learning how to use **EMISstream** so that I can eliminate many problems even before I submit to our EMC engineer.” – Tony Calisi, Senior PCB Design Engineer, Schneider Electronics

-

Events Calendar

KAW Event Calendar

- ⚡ [PCB EAST](#) September 25 – 29, 2006 Durham, NC
- ⚡ Please [visit our website](#) for information on more KAW events in the upcoming months.

EMISstream Event Calendar

- ⚡ [DATE Conference](#) March 6-10, 2006 Munich, Germany
- ⚡ Please [visit our website](#) for information on NEC's EMISstream seminars and events attended by NEC in the upcoming months.

If you have any questions about this newsletter, or wish to add or remove anyone from this distribution list, please contact me at paul@kaw.com

Paul Gingras
Certified Distributor
39 Simon St. Bldg #4
Nashua, NH 03060

Tel: 603-886-8711 x200
paul@kaw.com
<http://www.kaw.com>
<http://www.emistream.com>

This message is for the designated recipient only and may contain privileged, proprietary, or otherwise private information.