DiffuseReflections

The Newsletter for Progressive Acoustics Research

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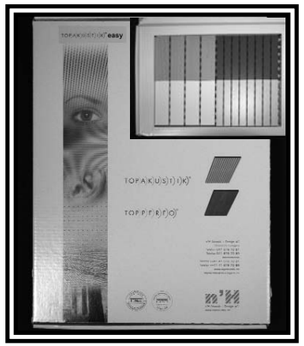
Research & Development



Topakustik Easy

RPG is proud to announce Topakustik Easy, to meet the demand for lower prices and faster delivery times. The program includes two plank formats 14/2 and 29/3 in maple or beech melamine and painted finishes. Delivery times are 4-6 weeks.

IN THIS ISSUE

"**Acoustic Absorbers and Diffusors**, The Book, has gone through a second printing and now the publisher has approved a second edition. Thanks for the enthusiastic welcome this book has received. It is being incorporated in acoustic education programs and acoustician's libraries and has outsold all of the publisher's expectations. Your suggestions for new or expanded topics, revisions or deletions are welcome. "

For up to the minute information, we invite you to visit RPG's acclaimed web site: http://www.rpginc.com.

DIFFUSE NEWS

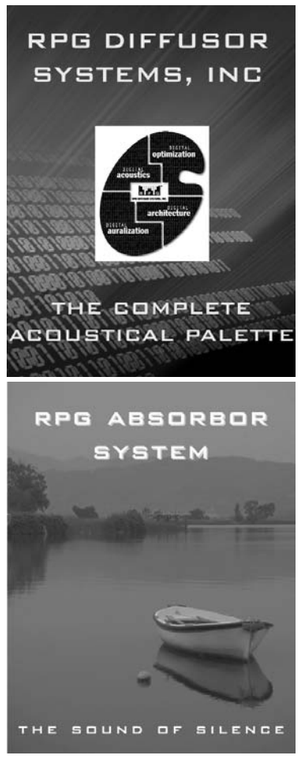
Dr. Peter D'Antonio
President and CEO

Everything Acoustic!

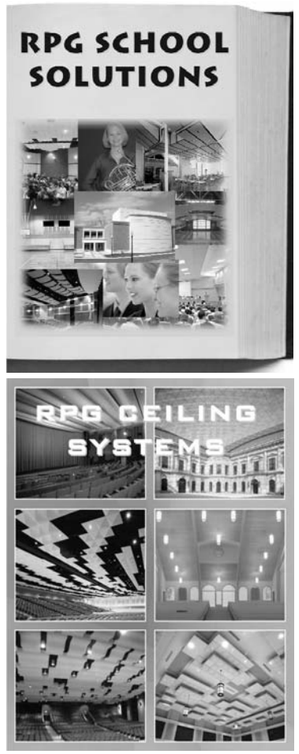
Acoustic Absorbers and Diffusors, The Book, has gone through a second printing and now the publisher has approved a second edition. Thanks for the enthusiastic welcome this book has received. Your suggestions for new or expanded topics or revisions are welcome.

Please remember that the scattering coefficient, recently standardized in ISO 17497-1, is not a measure of how uniformly a diffusor scatters sound. It is only useful as an estimate of the random incidence scattering for computer modeling programs. Do not accept these data as a submittal for diffusor uniformity. Instead, please request the Diffusion Coefficient data, as per AES-4id-2001. We have published a tutorial to clarify any confusion in Acta Acustica, Vol. 92, 1-15 (2006). Please call if you would like a reprint. ***This is only the beginning*****.....**

CONTINUALLY EVOLVING.....



NEW BROCHURES



ELECTRONIC ARCHITECTURE: SIAP MKIV PROCESSOR

In this issue, we describe a training SIAP MKIV system we have installed at RPG in our conference room, Figure 1 above. The system has 32 outputs, with 32 loudspeakers and 4 microphones. The hypercardiod ceiling microphones are in the upper left of the photo. The 32 Frazier C399 loudspeakers are baffle mounted and can be seen in the 2'x2' fabric covered areas in the T-bar ceiling. A photo of the rear of the loudspeaker in its baffle is shown in Figure 2-left and in the T-bar ceiling in Figure 2-right .

The SIAP MKVI processor, input panel, amplifiers and keypad are located in the rack shown in Figure 3. The top panel of the rack is a blank. The SIAP MKIV processor is

Figure 2. Left: Rear view of Frazier C399 loudspeaker in its baffle. Right: Fabric covered loudspeaker baffle mounted in T-bar ceiling grid.

located below that. Then two blank panels followed by a panel for processed, unprocessed, fill and aux inputs. The processed inputs are used for any additional inputs that need processing, like support for a weak soloist. The unprocessed inputs are used by SIAP to create surround type effects, from inputs like a sound system feed or the output of a surround sound processor. The fill inputs can be used to provide additional sound reinforcement in

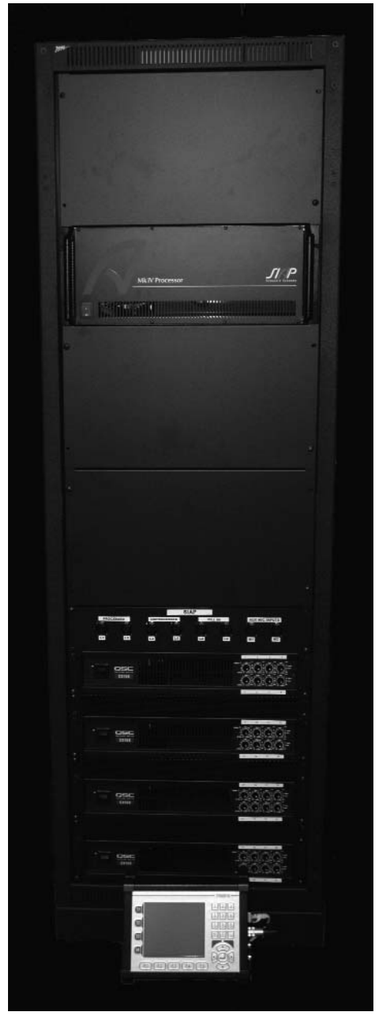


Figure 3. Rack mounted 32 output SIAP Processor, processed, unprocessed, fill and aux inputs below that, four 8-channel amplifiers, plus keypad selection panel below that

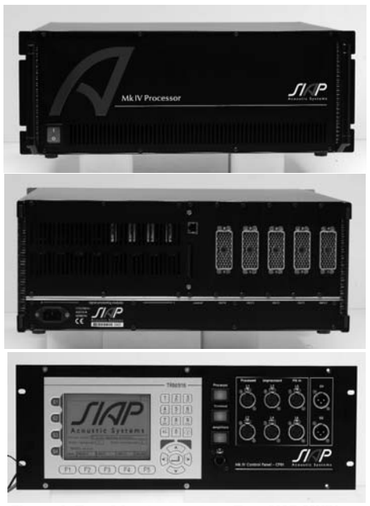


Figure 4. Top: 64 output system. Top: SIAP MKIV front panel; Middle: SIAP MKIV rear panel, showing 5 EDAC input and output connectors; Bottom: New keypad selector and input connectors.

areas like under balconies and the aux inputs allow for additional inputs that can be processed or unprocessed. In Figure 4, we show a 64 output system with the front panel at the top, the rear panel in the middle and the new keypad/input panel at the bottom.

At the left of the rear view are the DSP boards followed by 5 EDAC connectors. The 16 input EDAC connector is on the right. The remaining four EDACs provide 16 outputs each, for a total of 64 decorrelated outputs that feed the amplifiers. The outputs can be configured to provide multiple acoustic zones within the same room, e.g. underbalcony, side walls, etc., or multiple rooms, such as practice suites. For example, a school may use the processor for several rehearsal rooms and then when a performance is scheduled for the main auditorium, the full power of the processor can be directed to it.