

APB Dynasonics ProRack-House

By Don Barber

APB Dynasonics launched its first analog mixing console in 2004. The Spectra Series was highly acclaimed for its sound quality, construction, and live sound feature set. APB has taken the electronics from the Spectra and used them as the backbone for its latest offerings, a 19" rackmount package: the ProRack-House (H1020) and the ProRack-Monitor (M1016), which recently won the prestigious PAR Excellence award at the 123rd AES Convention.

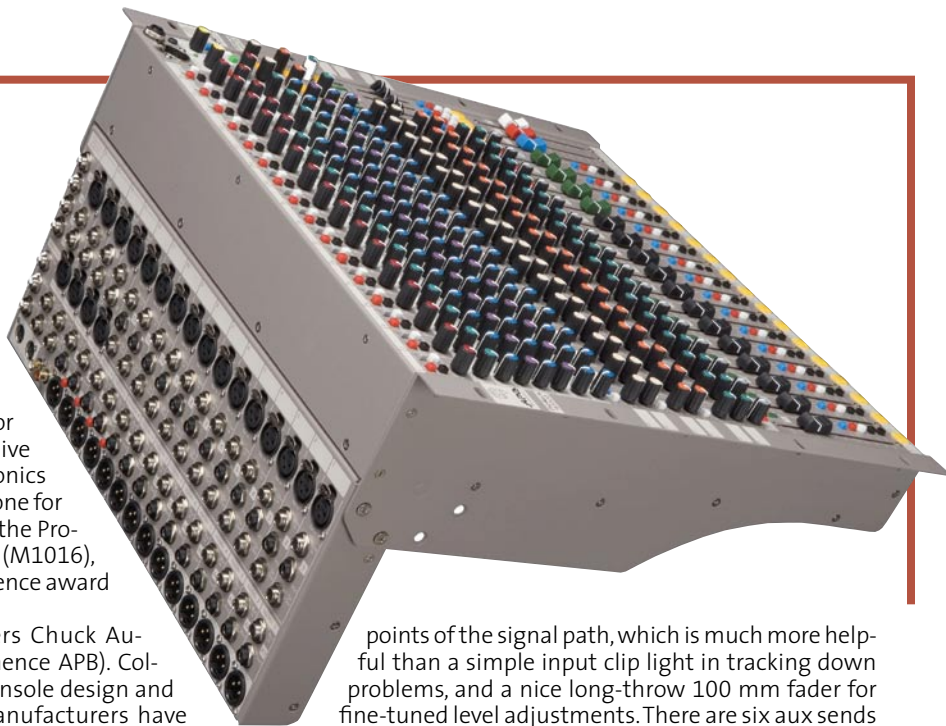
APB Dynasonics is comprised of partners Chuck Augustowski, John Petrucelli, and Taz Bhogol (hence APB). Collectively, they have over 65 years of analog console design and manufacturing experience. Where other manufacturers have detoured into digital and feature-laden cost-based MI mixers, APB is focused on providing the best pro market analog mixers possible at a reasonable cost.

To get professional quality and features, you have typically had to get a fairly large format console. The ProRack-House comes in a very solid 19", 10 U rackmount frame and has a remarkably clean sound – well, no sound really. The construction is modular, with all the active electronics surface-mounted on vertical daughter boards, which plug into a passive horizontal motherboard. This configuration not only provides reliability and easy service, but it allows for maximum surface area with enough space for proper component layout to minimize cross-talk and accomplish the shortest signal path and proper grounding. No pin-1 problems here.

The built-in power supply is also a service module mounted to the underside of the console with six screws. Almost all the electronics and metal work is done in the same building, and all assembly and testing is done at APB's Totawa, NJ facility. Augustowski is responsible for the feature-set design of the various models and points out that the features are based on input from hundreds of mix engineers and the sound companies that buy mixers and use them every day.

There are 12 mono channels and four stereo channels that route to four sub-groups and Stereo L/R, Mono, and Centre main outputs for a good deal of versatility in applications.

Inputs feature individual 48 V phantom power, polarity, pad, and line switches. A unique feature is a fully-variable high pass filter from 20-400 Hz, which is incredibly helpful in eliminating unwanted bass leakage (not a lot below 400 Hz from a hi-hat mic) and aggravating problems like stage rumble. That feature alone goes a long way to providing a clean output with no wasted energy going through the rest of the system. There is a six-segment LED meter on each channel that monitors headroom at multiple



points of the signal path, which is much more helpful than a simple input clip light in tracking down problems, and a nice long-throw 100 mm fader for fine-tuned level adjustments. There are six aux sends that are switchable pre/post fader and pre/post EQ.

Each of the settings is indicated by an LED.

The stereo inputs have two mic pres with individual gain controls, so there are actually 20 mic channels on board. Far from being limited, the stereo channels are very functional for keyboards and other stereo sources such as X/Y co-incident mics.

The features I found most useful are the large, illuminated mute and solo buttons; in the heat of a live mix, it's very important to have the visual feedback on which channels are active and to be able to quickly and reliably audition inputs.

The back panel is loaded with connectors. With 20 input XLRs, 14 output XLRs, and insert and direct positions for every function, there is not a square centimetre of available space. Consoles can easily be ganged by jumpering the outputs to the buss insert points. There is a 5-pin MIDI-style connector that busses the monitoring functions. There are even 1/4" and 1/8" headphone outputs. How convenient is that?

There is any number of small format mixers that work well enough on an individual channel basis, but when you get all the inputs going they can often overdrive the summing amplifiers and get highly compressed and distorted. APB has paid particular attention to the design and component quality of this critical point, so much so that it has put a signal present/clip LED before each output fader and amp stage – so it becomes very obvious if you are compromising the system gain structure.

One of the main advantages of digital consoles is their scene recall capability, but this can come at the cost of sound quality and instant access to functions. This is starting to not be the case, but only with very large consoles at as much as almost 100 times the expense. The availability of the APB ProRack-House, a 20-channel mixer with excellent sound quality, reliability, and features only found on large, top-dollar consoles, all at a reasonable price, is a great addition to the live sound arena.

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