

PRO AUDIO REVIEW

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The High End

Grace Design m906 5.1 Monitor System

By Tom Jung

Grace Design continues to round out their product line with superior quality equipment that fills that high-end niche in pro audio. With all of the workstations so prevalent these days I feel a first-class piece of hardware is required to control both monitor speakers and headphones with great precision and the m906 totally fills that role.

The m906 consists of three components, the heart lives in a 2U rack mounted brushed stainless steel mainframe with only a single 1/4-inch stereo headphone jack and a power LED on the front panel. The rear panel of the mainframe, however, is packed solid with input, output, power and control connectors. Because of the back panels limited real estate, all of the multichannel inputs and outputs are on DB-25 connectors for the balanced analog inputs, balanced digital inputs, multichannel analog outputs (for two sets of speakers) and a fixed level multichannel DAC output. Six unbalanced RCA jacks provide for the second 5.1 input while three balance stereo inputs and outputs live on XLR connectors.

CONNECTIVITY OPTIONS

The stainless steel remote control unit connects to the mainframe with the supplied



25-foot HD-D-sub-15 cable while the remote power supply connects with a six-pin XLR cable. An XLR talkback microphone input is provided with a 1/4-inch jack for an external talkback switch. The mic preamp is a single channel from the well-known Grace 801R. Nice touch, guys.

A six-channel (5.1) 24-bit/192 kHz DAC accepts just about any kind of digital input you can envision (except DSD) including an AES3 x 4 multichannel input. Channels 1-6 are used for surround monitoring while Channels 7 and 8 can be monitored as an additional stereo signal.

I asked Mike Grace why not include DSD in the DAC? He told me that he did not wish to compete with DSD guru Ed Meitner's EMM Labs DAC-8 (*PAR* 12/01), so he worked hard on a totally transparent multichannel analog input. Good answer.

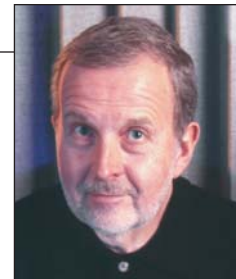
Since word clocks in some studio setups can be less than ideal, the m906 employs

Grace's s-Lock phase lock loop. Designed specifically for this product the new crystal-based PLL circuitry can take a dirty or jittery input signal, relock it and provide an extremely stable and ultra-low jitter clock to run the DACs.

WORD CLOCK

The DAC can also be clocked from an external word clock through a BNC connector, this can work well when a master clock is used to run the whole show.

Main and headphone levels are controlled by individual rotary encoders in .5dB steps from 0 to 100, yes that's 200 precision steps with tracking accuracy of .05 dB. A row of analog source illuminated pushbuttons select balanced and unbalanced 5.1, two balanced stereo and balanced cue. The cue output can also be set up to drive a third set of stereo speakers. The next row of switches are for digital inputs and select 5.1



in AES3 and ADAT formats on DB25 and TOSLINK connectors. Four digital stereo inputs consist of two AES3, one S/PDIF and one TOSLink. A row of channel buttons control solo and mute functions for LF, C, RF LS, RS and SUB.

Global mute, dim and a properly summed mono switch are totally silent as are all of the controls and switches on the m906. An LCD window displays input source, word clock source, sample rate and s-Lock status. The CAL mode includes a comprehensive set of calibration tools including; input source level offsets, global speaker output level offsets, individual speaker offsets for each speaker set, cue output mode and levels, fixed DAC output levels, talkback mic preamp gain, 48V phantom power and dim attenuation level.

HIGH-END SOUND

I've been listening to the m906 for a couple of weeks now and have to say, "Man this

thing sounds good." Multichannel SACD from the Meitner EMM Labs DAC into the balance analog inputs is about as good as it gets, transparent, fast, open, extended, quiet and what a soundstage. I also took the AES3 output from my Sony CDP-D500 pro CD player fed it into one of the digital inputs, selected the word clock from the input signal and as soon as the s-Lock appeared in the display I heard 16-bit/44.1 kHz like I haven't heard before, this a not just a good DAC it is a great DAC!

Headphones can be plugged in both at the mainframe and the remote and I have to say this headphone amplifier sounds even better to me than the Grace Design 901 (PAR 9/02), which I totally loved.

The mainframe runs quite warm do to 24 voltage regulators at all critical circuit locations thereby keeping both digital and analog circuits totally isolated. The mainframe is hefty, not unlike a power amplifier espe-

cially since the power supply is in separate chassis. The brushed stainless steel look is every bit as elegant as the machined aluminum I'm used to seeing in other Grace products that I've reviewed.

Like all Grace gear the m906 is beautiful to look at and to operate with large blue (my favorite color) three-digit displays for both main and headphone outputs, silky smooth rotary encoders and nice feeling illuminated push buttons.

Sounds good, looks good, feels good, this well thought out monitor control system should be checked out for any serious multichannel production. When you consider the performance and build quality, \$5,995 is good value.

For more information contact Grace Design at 303-443-7454, www.gracedesign.com.

Tom Jung is Pro Audio Review's technical consultant.