

SECRETS of Home Theater High Fidelity and review

ADA (Audio Design Associates) Cinema Reference Mach III Controller, MPA-502 and PF-2502 Power Amplifiers - August 2007

"... felt like the big league in setup, operation, and performance."

BY PIERO GABUCCI

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INTRODUCTION

ADA, a.k.a. Audio Design Associates, is not a household name when it comes to home theater equipment, predominately because they cater to the high end custom installer, and their products are definitely not available off the shelf.

They have been in business 30 years, and I hope to introduce you to an exemplary company that produces some very fine audio gear.

ADA maintains headquarters in Westchester, New York, and has been there since their inception in 1977 when Albert Langella and Peter McKean incorporated ADA, formerly Peter's radio and TV retail store. Inquiry from clients soon turned them to designing and fabricating custom installations which they still do today.

ADA quickly adopted a build-to-need position as they responded to their clients' demands. In fact, their product line is diverse and extensive, from A/V controllers (SSPs) and amplifiers to keypads and multi-room controls. And quick to respond to the market, ADA has developed tuners for satellite and HD-Radio.

Given that I'm but minutes from their location, I took the opportunity to visit their offices and

manufacturing/assembly facility. I found this to be a rare treat, and I was fortunate to have their Vice-President and COO, Richard Storerger (photo below), show me around.

I found Richard absolutely engaging and intensely passionate when it comes to his feelings for ADA, its accomplishments, and the future.

Richard was quick to show us the early model units on display in their modest setting. As he led us through the facility, I was struck by the air of informality and casualness. I began to understand and appreciate the un-corporate-like mentality at ADA as I was shown the various departments.

I went through the amplifier assemblies, through metal stamping, and even the testing lab ending in the design department where I was surprised to meet Mr. Langella, President, CEO and chief designer, sitting quietly in front of a computer laying out a new circuit board.

In the end, Richard himself packed up four very large and very different units for me to load into my car: the incredible new Cinema Reference Mach III controller, the MPA-502



five-channel amplifier and separate power source, and a two-channel amplifier, the PF-2502 to complete my seven-channel system.

What became obvious was their commitment to building the finest audio equipment – let me tell you how they have succeeded.

"I wasn't prepared to experience such incredible performance."

CONSISTENCY

Each unit is designed to be mounted in a rack and thus all have front handles. And as such, when mounted in a rack, it becomes obvious that air circulation is a problem, so each has two side-mounted fans blowing over the heat sinks situated to allow the air to circulate through.

Although each component is of different weight and depth, they all match up for a flush look. I found the entire package handsome including the five- and two-channel amplifiers with their bar-type jumping LED display. All switching is done on the front.

I could definitely review each of the components in individual articles, but for the most part I want to concentrate on the controller and how the amplifiers contribute to the overall performance.

CINEMA REFERENCE MACH III CONTROLLER (SSP)

The Mach III is the newest version in the line of Pre/Pro controllers (SSP - Surround Sound Processor) from ADA.

The flagship of flagship controllers, it comes complete with an impressive 7" front panel LCD display. The Mach III looks like it belongs on board of a Stealth bomber instead of an A/V closet. (I couldn't help but use their logo images of fast planes in my analogy.)

The Mach III is a THX Ultra2 certified product and can handle the entire spectrum of formats from Dolby and DTS (save the new Dolby TrueHD or DTS-HD which are just starting to appear in receivers).

The wide-screen format LCD panel can display your current video selection, DVD for example, or the recording video source. If you don't care to use the panel, it can be turned off.

Next to it you'll find a second smaller display which handles the on-screen menu. Neither the LCD screen nor your display can show you the setup menu – that's done amazingly also through a comprehensive program on your computer. The advantage of course is multiple configurations that can be recalled instantly, and also for your installer to operate and make modifications from his office. The Mach III is programmed for all those various inputs and playback modes, and they can be stored in infinite configurations.

The dimmable display will indicate input, volume, and your source selection. It's also where you can do a complete setup, if you're not inclined to use the software. Luckily ADA includes returning the Mach III to its default settings, which on their own are pretty good out of the box. I'll get into the setup menus later.

A third indicator area on the face of the Mach III is just as critical to the success of the controller. On/Off indicator lights let you know how the source is sending audio signals: how many channels for example and how the controller is outputting those signals. It will also tell you if the signal is digital or Dolby, DTS, or THX.

Five rather large knobs adorn the brushed faceplate, the largest being the volume knob. Although not activated on my review unit, pushing on it mutes, or puts the controller in stand-by mode. Immediately to the left is the Input selection; turn to the input you'd like and push to activate.

To the right is the Mode selection, and depending on which input is selected, the mode options change - basically it's endless and includes from basic mono to THX, and everything in between. The smaller knobs include a Record Input, and a Preset selection – more on both of those later.

Turning the unit around you'll notice a straightforward layout. Immediately along the top, the Mach III has eight balanced outputs, not surprising in this caliber. Plenty of assignable inputs: eight analog audio inputs, and digital inputs include five coaxial and three optical.

For those of us still interested in DVD-Audio and SACD via analog inputs, ADA provides a full six channels.

On the video side, eight input component video sources can be connected and two outputs. If by chance in this HD world you're still using composite or S-Video, eight each of those too. Interesting enough, the glaring omission is HDMI. It's not that ADA has not adopted HDMI, but in fact feels they would do a disservice to its clients to include HDMI 1.1 in the chassis. They have opted to let you use an external HDMI switcher that is inexpensive and easily replaced when HDMI 1.3 (which is a hardware upgrade) is the mainstay.

MPA-502 AND PF-2502 POWER AMPLIFIERS

Impressively, ADA wouldn't manufacture a superlative controller without the best possible amplifiers. The MPA-502 five-channel power amplifier has a separate power supply chassis, and this compliments the aggressiveness of the Mach III.

Ruggedly simple in design, the face is dominated by five LED displays which dance up and down as each independent amplifier module is called to duty. The display can be turned off if too distracting. The only front-mounted switch you'll find is an On/Off toggle. It's hardly a light-weight at 46 pounds, considering the power supply is independent in the complimentary MPS-502 which weighs a hefty 52 pounds. Of course this aids in moving the units around, thankfully.

The MPA-502 has a massive 2,500 watt toroidal power supply with a 500,000 µF capacitance. With the MPA-502, ADA assisted THX with their original specifications for amplifiers. In other words, this would serve most home theaters easily and with confidence.



With the flick of a switch at each connection, either balanced or unbalanced audio inputs are available. The MPA-502 will deliver 600 watts per channel @ 2 Ohms, and those with 8 Ohm speakers will get a solid 250 watts per channel.

ADA proudly boasts clipping is virtually impossible with the power reserve: "When operating on a standard 115V AC outlet, you cannot even force the amplifier into clipping because to do so requires 28 amperes of wall current."

Like all ADA equipment, the solid MPA-502 is built for rack mounting, and as such, the units can be stacked directly onto each other. Just as the Mach III controller, fans push air from right to left with dual fans. Although a bit noisy when combined with all four components trying to dissipate heat, the sound is not offensive when sitting about 8 feet away.

The connection between the amplifier and the power supply is in the form of a "military grade" cable, thus insuring a solid feed. I found the rigid line between the two a bit cumbersome especially around the speaker-wire posts. Firing up both units and hearing them power up you want to step back, it's that intimidating.

As I requested a seven-channel setup, ADA supplied an additional amplifier in the form of the PF-2502. Virtually identical in specifications to the MPA, other than an integrated power source and the fact that it is two-channels instead of five, the 65 pound amplifier is audiophile grade, and I used it in reviewing two-channel gear while I had it.

"... some very fine audio gear."

SETUP

Configuring the Mach III doesn't have to be the arduous process it seems to be. In fact, out of the box, the twenty inputs are completely ready, in both digital and analog, depending on the input. The manual gives you a nice spreadsheet to follow and away you go!

Frankly I'm not sure how many people actually have twenty sources, so with a feature called "Final Input", you may remove the unused sources from the OSD so you don't have to scroll through them.

As good as it is out of the box, still the best way to configure the Mach III controller is

by downloading the software and establishing profiles and saving them - customizing the countless processing options. ADA feels this best reserved for dealers. However, since most Secrets readers are hard core users, you certainly are welcome to try it out.

I was able to play with the software via my laptop and a RS-232 connection to an optional Iso-Cat II (photo below right) which also boasts a "Cat Link" for connection to an ADA multi-room system keypad wiring harness. The Cinema Reference Mach III features an onboard back panel Ethernet RJ-45 jack for connection to a home network.

For the casual user, however, most will do fine making some minor adjustments to the factory set configuration, so let me describe it thus.

Pressing the Mode button for a few seconds brings up the Setup menu, and I soon discovered merely touching the volume control dumps you out.

Turn the Mode button until you reach Audio Inputs, and another push of the button reveals the Digital/Analog inputs with the current input shown. An Analog In gain feature allows you to adjust from -10 dB to +10 dB.

You then assign the video source to the input by selecting one of the three; Composite, S-Video or Component. As I mentioned, the Mach III does not have HDMI inputs.

Default modes for audio can be set for both two-channel and multi-channel. Two-channel gives you a plethora of options from stereo and mono configurations (enhanced, direct, etc.), but also all the Pro Logic and DPLII, Neo:6, and THX as well. Multi-channel will scroll through options from Direct 5.1,7.1, to Cinema and THX.

In addition to setting up the LCD contrast, volume maximums, and the ability to re-label inputs, the setup menu will then take you to a Pro Setup menu.

Pro Setup is a series of steps that take you through the usual: Step 1 is the number of speakers and subwoofer crossover; Step 2 has channel levels; Step 3 are delays for each channel; Step 4 is a bass manager with limiter from -24 dB to OFF; Step 5 is the THX setup which has Boundary Gain and Rear Speaker Spacing. Also in the Pro Setup are Auto Detect modes for EX, ES, and DTS

LFE levels down to -20 dB.

If you're unhappy with it all and wish to start from the factory settings again, press the Default. If you've had it custom installed, there is also an Installer Default that you can restore to as well.

The Mach III gives you tone controls for both bass and treble, but impressively, at the frequencies you wish. Further, tone controls can be set for two speaker groups, A and B, allowing adjustments to those speakers in your system you feel need the adjustments, or all. And like other setup issues, tone controls also come preset out of the box.

The Mach III allows you to store four balance presets for multiple choices from an individual knob on the front. Presets allow for some selection based on speaker size and driver types as well as speaker matching. By assigning the tone controls to either group A or B, you can make the necessary choices for your room.

Of course, you determine yourself which speakers belong to which group, or any individual speaker can be omitted from either group as related to tone control.

Finally, for setup, ADA provides a solo mono feature that allows you to turn off all but one speaker for specific control. Typically you'd have to unplug all speakers except the one you're attending to before hand. This feature allows you to identify a bad driver, or determine if a speaker is out of phase.

OPERATIONS

ADA provides a remote that's more akin in design to a wall-mount unit keypad. Square and flat, the RC-40 remote is backlit when



activated and can do most operations you'd expect from an IR remote. Sturdy in a brushed black cast metal housing, the remote can integrate with your house controls.

I found it a bit odd to use because it can't be held in one hand like most conventional remotes, so it is more like typical panel-type remotes. I also assume most installers would have their clients invest in a substantial aftermarket product.

Although the RC-40 is still available, beginning in early 2007, ADA began shipping the Cinema Reference Mach III with Universal Remote's MX-900 preprogrammed for ADA. Dealers can still request the RC-40, but most opt for the MX-900.

Obviously from the front of the Mach III, volume can be controlled along with input selection. Scrolling through the input selector will not change the input until you push on it.

Unusual for a controller, the Mach III has Record Selector that allows you to send independent signals to an integrated recording device for both audio and video. And likewise, it allows a second monitor to be used at the same time. This of course is where that terrific little 7" screen comes in handy if you're recording without the benefit of another monitor.

Video can be sent from the same source to two separate outputs, allowing two rooms to have the same images. This "Dual Video" uses any of the three composite, S-Video, or component to deliver the same signal.

THE SOUND

I was fortunate to have on hand the Triad Gold speaker package during my time with the ADA equipment, and frankly, the pairing was astounding. Coupled with a McCormack universal player and Wireworld cables, the system simply left me giddy.

As in-depth and intuitive as the Mach III is to setup, I wasn't prepared to experience such incredible performance. All this hardware, all this configuration and snap – right from the start, I was completely immersed.

Beginning with the basics, there was ample brute power and dynamics in all channels. Both the MPA-502 and the PF-2502 deliver abundant clean amplification.

Notwithstanding the credit deserved by the Triad package, the ADA gear expands the musical space, almost concert hall like! For comparison sake, I spent a bit of time listening to the Triad Gold speakers with other equipment, and it suffered by the downgrade not only in amplification but in balance and detail. Triad flourished with the ADA equipment.

In the end it was dynamic range that impressed me most. Articulation was never lost at low volumes and increased volumes maintained their civility with absolutely no sign of clipping or strain. Voices were articulate and well defined, and movie scores were musical.

CONCLUSIONS

Shortcomings were few, to downright non-existent. I would have liked to see the on-screen menu operated from the 7" LCD despite the fact that it's preferred to be done on your computer and certainly can still be achieved on the front panel as I described.

I'm not surprised that ADA limits the "bells and whistles" in lieu of performance. Those wanting auto-equalization or auto-setup should look elsewhere.

I actually prefer at this stage ADA's position on HDMI – as it will be some time before all the bugs are worked out of the format, and having a separate unit that can be replaced and/or upgraded keeps the Mach III from becoming obsolete any time soon.

Yah, yah, sure, sure . . . but it's very expensive!?! Yes it is and if you happen to be through Westchester NY any time soon, Richard will show you what I saw – designed, hand assembled, and tested using the finest technology and components, ADA manufactures some of the very best.

I couldn't help but feel the ADA equipment and the Mach III controller in particular felt like the big league in setup, operation, and performance. This is not a component of subtleties – every description would be an understatement, in a category of full-out dimension of dynamics, accuracy, perfect timing, transparency and most important, musicality.

Recently, ADA announced that their products will now carry 30 year warranties celebrating their 30th year in business for products purchased between July 4th, 2007 and July 4th 2008. That's what I'd call confidence.

Specifications:

Cinema Reference Mach III Controller

- Codecs: Dolby Digital, Dolby Digital EX, Dolby Pro Logic IIx, DTS, DTS-ES, DTS 96/24, DTS Neo:6, THX Ultra2, THX Surround EX
- Second Zone
- Dimensions: 5.25" H x 19" W x 17.5" D
- Weight: 25 Pounds
- MSRP: \$11,999 USA

MPA-502 Five-Channel Power Amplifier

- Power: 5 x 250 Watts RMS into 8 Ohms; 450 Watts RMS into 4 Ohms; 600 Watts RMS into 2 Ohms
- XLR and RCA Inputs
- THD+N: 0.01% at 8 Ohms
- Dimensions: 5.25" H x 19" W x 19" D (MPA-502); 5.25" H x 19" W x 16.5" D (MCS-502)
- Weight: 46 Pounds (MPA-502); 52 Pounds (MCS-502)
- MSRP: \$10,499 USA

PF-2502 Two-Channel Power Amplifier

- Power: 2 x 250 Watts RMS into 8 Ohms; 450 Watts RMS into 4 Ohms; 600 Watts RMS into 2 Ohms
- XLR and RCA Inputs
- THD+N: 0.01% at 8 Ohms
- Dimensions: 5.25" H x 19" W x 16.5" D
- Weight: 65 Pounds
- MSRP: \$4,199 USA