Anthem MRX 710 AV Receiver

By: Dennis Burger, *December 16, 2013*

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Imagine yourself as a product engineer, tapped to deliver a newly updated version of a receiver that didn't boast much in the way of shiny bullet-point features - no apps, no **AirPlay** , no **Pandora**, no **Spotify** - but hit the nail firmly on the head when it came to audio performance for the coin, with hands-down the best room correction system on the AV receiver market. You'd probably leave the audio architecture alone, yes? Perhaps you'd heap on a hefty helping of streaming audio apps, maybe add a dash of Bluetooth, throw a handful of extra up-to-date **HDMI ports,** change the last few letters of the model name, and pat yourself on the back for a job well done, right? Heck, it's probably what I would have done. At the very least, it's what I expected an eventual update to Anthem's renowned MRX 700 receiver would look like.

And that's why neither of us works for Anthem. Okay, granted, Anthem did do some of that with its new MRX 710 AV receiver. Compared with its forebear, the **MRX 700**, the new flagship of the second-generation MRX lineup features four more HDMI inputs (for a total of eight, one capable of 4K **"Ultra HD"** passthrough, with all inputs featuring UHD upscaling) and a second HDMI output (with Audio Return Channel capabilities on both), while its industrial design has been tweaked for a cleaner, more minimalist look that some are bound to love and others to hate. But instead of gussying up its MRX receivers with updated streaming music apps and wireless connectivity, Anthem took a lineup that garnered nearly universal five-star cheers for audio performance, along with a good number of jeers for its paucity of features, tweaked the design of its audio circuitry and amps, added an updated form of Anthem Room Correction, and even did away with a few of the bullet points from the previous model. Even the MRX 700's modest Internet radio streaming capabilities have been left on the cutting-room floor, as has front-height channel processing. In place of the latter, the MRX 710 now boasts highly requested bi-amping capabilities for the front left and right speakers.

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Those aren't the only changes, of course. But you have to appreciate Anthem's courage in releasing an updated receiver that has many significant updates that are under the hood and hard to market, such as its overheating protection and cooling system, which centers on voltage, current, and temperature monitoring, combined with a passive extruded-aluminum heat sink tunnel and a two-speed fan. Another thing I noticed, which perhaps most people will never care about but which impressed me, is the incredibly Anthem-esque layout and look of its internal circuitry. I took the MRX 710 apart before setting it up to get a closer look at the new cooling system, and I was struck by the family resemblance of its circuit boards to those of my reference Anthem Statement D2v processor, which I

dismantled a few months back to replace its video boards. Not to diminish the MRX 700 that has served me incredibly well in my secondary home theater system for the past two and a half years, but by contrast, its circuit boards look rather mass-market. Hey, sometimes we audio aficionados are impressed by the strangest things.

Without a doubt, the most noteworthy change to the second-generation MRX lineup is its new ARC 1M room correction system.

The Hookup

Perhaps the biggest complaint with Anthem room correction in the past was the fact that it not only required the use of a computer (running Windows), but the interface between computer and receiver came in the form of an RS-232 connection. Most computers these days don't come equipped with anything requiring a serial port. So by the time you could get up and running with the MRX 700, not only did you have a relatively massive tripod-mounted USB microphone affixed to your computer, you also likely had a USB-to-serial adapter strung between your laptop and an RS-232 cable that finally made its way into the back of the receiver.

The first thing you'll notice when you tear open the box for the MRX 710 is that the big USB microphone hasn't changed. There's still a very nice tripod in the box, and yes, that software setup CD definitely means that a PC is still required. But with this implementation of ARC, Anthem has simplified the connection between PC and receiver. As long as the two are on the same home network, communication is a snap. If you don't have a home network, there are even provisions for connecting your PC to the receiver directly via Ethernet. Perhaps the most noticeable change to ARC, though, is just how quickly it runs now. Running ARC on my MRX 700 and D2v eats up well over half an hour. Running ARC 1M on the MRX 710 (using the new ARC 2 software) takes something more in the neighborhood of 10 or 15 minutes, start to finish. And that's all the more amazing given the fact that the MRX 710 supports greater filter resolution than did the 700 (not as much as the D2v, mind you, but still significantly more).

What I really love most about the combination of ARC M1 (the receiver-side processing) and ARC 2 (the PC software) is just how much visual feedback it gives you during the measurement and calculation phases of the setup process. For example, while the software is performing its test tone sweeps, you can literally watch a graph of the frequency response of your speakers being generated in real time, at each listening position. Granted, if you're just running ARC 1M in automatic mode - a simplified setup process that's perhaps better suited to novice users, with the ARC2 software making all of the decisions for you in terms of crossovers and filters and equalization - that's just neat eye candy. But if, like me, you prefer to dig into the more advanced manual mode setup, seeing those frequency response graphs generated allows you to make some important decisions.

What kinds of decisions? Well, as I said in **my primer on room correction**, I fall into the camp of those who, generally speaking, aren't wild about the idea of applying room correction above 200 or 300 Hz. If you take a look at the first-position measurements of the GoldenEar Technology SuperSat 3 speakers in my secondary home theater system below, you'll notice a significant spike in the response of my front left speaker between 300 and 400Hz, and a pretty big dip in the response of the front right speaker just west of 500Hz.

By the time all five measurements are combined, that 300-400Hz spike gets a bit more pronounced and the dip around 500Hz widens. Although I would normally advocate leaving those spikes alone, because they're above that 200-300Hz cutoff point, I felt that they needed to be dealt with as they were so egregious. Thankfully, in manual mode, ARC allows you to adjust your Max EQ Frequency (the point above which it applies no correction) between 200 and 5,000Hz (the latter being the default). So I set the Max EQ Frequency to 600, after which point ARC 1M creates a nice, smooth transition between the corrected response up to that point and the natural performance of the GoldenEar SuperSat 3s in my room.

And that's just scratching the surface. In manual mode, you can go so far as to select anything between a first-order and sixteenth-order (or flat) high-pass filter for the subwoofer and literally see in real time the changes those choices make to the resulting frequency response of your speakers.

If all of that is way above your level of experience or comfort with room correction and acoustics, don't stress about it. In automatic mode, the ARC 2 software holds your hand through the entire process and makes really

intelligent decisions about dealing with your room acoustics. All you have to do is place your microphone in the positions illustrated onscreen, press the OK button occasionally, then upload the results to the receiver once the calculations are complete. After that, you just pull out a measuring tape and plug the distances from your seat to each of your speakers into the MRX 710's setup menus, and that's it. You're done. Again, it takes about 10 or 15 minutes, and I'm positive that my dad, who honestly couldn't tell you which box in his home theater is the AV receiver and which is the Apple TV, would have no problem with any of it.

ARC 1M isn't the only thing about the setup of the MRX 710 that has been overhauled. The receiver also takes a quite different approach to its inputs, and I don't mean the back panel, which is nicely laid out with binding posts that seem identical to those of the MRX 700 and a layout that's very similar. No, I mean how you go about setting up all of those connections in the MRX 710's menus. If you've taken a close look at the front panel of the 710, you may have noticed the lack of input buttons. A quick glance at the remote reveals the same. Look around back, and there's no HDMI input labeled BD/DVD, or SAT, or TV. The reason for this is that you have to set your inputs up pretty much from scratch, old-school style. If you're relying on all HDMI sources like I am, that's not wholly significant. But the biggest implication of this is that you have a lot more flexibility in terms of manipulating your inputs, which could come in seriously handy if want to use one physical input with multiple different speaker configurations or if you're tapping into the MRX 710's improved second-zone capabilities. You could, for example, have Input 1 draw its main zone audio and video from HDMI 1, along with audio from the Analog 1 input for playback in a second zone.

While input setup has gotten more sophisticated, the video processing setup has been greatly simplified. Your choices for video processing, beyond simple color bit-depth settings (eight-bit or Auto) boil down to a choice between Processed and Passthrough. No MPEG noise reduction settings. No cross-color suppression settings. No film-mode detection settings. You either get the whole enchilada or you get nothing.

realized many of the shortcomings from testing Arcam and especially Cambridge Audio(it's surprising what you find when you actually compare products). All that, remember, from 3 units, all same. ARC is nice, however. Excellent learning tool. But if I was a Japanese brand AVR fan, it IS definitely better and can understand why they loved it so much. Those new boards in the 710 is definitely a hopeful improvement on the strange issues that ruined the 700 for a few of us. Also, getting rid of the RS232 connection for ARC solves 1/2 the PITA. Now make a MAC version for the nearly 1/2 of us would make ARC actually easy to use and reduce cost of ownership.

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Nick Thompson • 6 hours ago

Nice review. I have a question regarding the video processing, if you can help? Does the MRX series allow you to select pass-through for some sources (such as a BR player), and processed for others (such as a DVR)? Or do you need to manually switch in a menu? My BR is great with BD, streaming, and up-converting DVD's, but my DirecTV DVR isn't all that hot with de-interlacing or up conversion, nor is my Panny ST60 panel.

I'm hoping the Anthem would allow for input based settings so my family can use it without too much frustration. The Room EQ they use gets such great reviews that the MRX really fascinates me as a possible next AVR. Thanks.

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Dennis Burger ➤ Nick Thompson • 4 hours ago

@Nick Thompson ,

The choice of processed or passthrough is found in the HDMI output setup, and I couldn't find a way to select them separately for individual inputs.

Normally, I would grump about that, but in my testing I found that the video processing of the MRX 710 does no harm. By that, I mean that the video output of my OPPO Blu-ray player looked the same whether I set the player to 1080p and let it do all of the processing, with the receiver set to passthrough, or if I set it the OPPO to 1080i and the MRX 710 to Processed. But, as is your case, I could see a definitely improvement in the video quality coming from my Dish satellite receiver with the 710's output set to Processed.

So while, no, you can't choose to have one source processed and another passed through, as far as I can tell, when fed a wonderfully processed and de-interlaced image, the 710 seems to leave it alone.

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palmharbor • 7 hours ago

1) This product excludes Mac users of interfacing with unit for room correction...great thinking.
2) This product makes room correction PROFOUNDLY complicated at best...gee nice touch
3) For the same money or less, you can get a great Denon or Marantz really easy to set up with more features.
I would PASS on this product

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Dennis Burger ➤ palmharbor • 7 hours ago

palmharbor, that is, of course, your prerogative. I'm not here to tell you which products you must spend your hard-earned money on. Of course, my subjective impressions come through in the review, but more importantly than that, my hope is that I always give you enough information to make an informed decision as to whether or not a product is right for you. If you come away from one of my product reviews disagreeing with my "thumbs up" or "thumbs down" assessment of a receiver, that's great -- as long as I've given you enough information to come to that conclusion.

I do disagree with you on your second point, though. ARC is not profoundly complicated, especially in its new incarnation. If you choose to run it in Automatic mode, the only thing more complicated about it, as compared with your typical room correction system, is that it requires the use of a Windows computer. Other than that, it's simplicity incarnate, if you want it to be. I choose, however, to dig deeper into ARC's capabilities to make some choices myself about how, and to what degree, room correction is applied in my room.

That's rare, and the results speak for themselves in my opinion. If typical "plug-a-hockey-puck-into-the-front-of-the-receiver" room correction systems gave you this much flexibility in terms of setup, you could possibly have a point that ARC is unnecessarily complicated. But they don't.

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islandmd ⇒ Dennis Burger • 4 hours ago

Thanks for your great review Dennis. Many of us who would consider buying a boutique, non-Japanese receiver are also interested in integrating good 2-channel sound into our theaters. The usual way is with home theater bypass on a quality 2-channel pre-amp, DAC or integrated amp. It's tempting to do away with all that complication and find a 1-box solution.

In your recent review of the CA 751r you stated that 2-channel performance was excellent. This was achieved without ARC or the Audyssey 2EQ. So, given a high quality analog source (eg expensive external DAC or turntable), which setup sounded better to you: 1. CA 751r w/o room correction 2. MRX 710 w/o room correction or 3. MRX 710 with ARC?

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Dennis Burger ⇒ islandmd • 4 hours ago

@islandmd, it's important to consider the fact that, with both receivers, I did the bulk of my stereo listening in 2.1, with satellite speakers and a subwoofer. I did haul in my Paradigm Studio 100s for a bit of 2.0 listening with both receivers, and with full range speakers, I have to say, the differences -- as far as auditory memory allows me make such assessments -- weren't as pronounced. Both receivers sounded equally sublime (though different). Using smaller speakers with a subwoofer, though, I would have to give the clear nod to the MRX 710 with ARC, mostly for its excellent bass integration.

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islandmd ⇒ Dennis Burger • 3 hours ago

I use full range Aerial Acoustics 7Ts for 2.0 channel listening. When you compared the two receivers for 2.0 listening with your Paradigms did you try to compare with and without ARC on the MRX?

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Dennis Burger ⇒ islandmd • 2 hours ago

Well, it's important to note that I didn't actually compare the two receivers directly. The Cambridge Audio has long since been shipped back to the manufacturer.

But when I connected the Cinema 100s to the MRX 710, I did rerun ARC, and did some listening in 2.0 mode with and without the room correction applied, with a Max EQ frequency of 400Hz (quite a bit lower than the Max EQ frequency I was using with the Goldenear system).

I definitely preferred the performance with ARC on, but I think that may have something to do with the realities of my secondary home theater, where the MRX 710 is installed. I have less flexibility in terms of speaker placement in that room, and although the Cinema 100s aren't fussy at all in terms of placement compared to many speakers I've auditioned, there are still room interactions to be dealt with. ARC does a wonderful job, in my opinion, of taming those interactions without mucking up the sonic characteristics of the speakers.

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