

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 you 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.

Performance

Thankfully, the video processing is excellent. I set my OPPO BDP-93 Blu-ray player's video output to interlaced (both 480 and 1080i) and put the Processed video setting through its paces, and I was pleasantly shocked by the results. The MRX 710 is marketed as an audio machine, but I found its handling of the Sound Adaptive and Edge Adaptive Deinterlacing tests of [Spears & Munsil's High Definition Benchmark Blu-ray](#) to be amongst the best I've ever seen from an AV receiver. Unfortunately, I wasn't able to test its 4K upscaling or passthrough capabilities, but if the processing handles UHD anywhere near as well as HD, it should be impressive.

Moving on to audio, I typically don't expect AV receivers to deliver much in terms of stereo performance, but given that the MRX 700 was such a stunner in pure two-channel mode (or, rather, 2.1-channel mode), I began my audio evaluation of the MRX 710 with Original Recording Remastered CD version of Steely Dan's Aja (MCA Records) from the late 1990s. I have more copies of the album than I care to confess, from gold Mobile Fidelity ones to expensive imports, all a waste of money since the plain old MCA release is the best of the bunch. What I love about the disc, and the reason I've listened to it so many times through my old MRX 700, is its incredible dynamic range, dense and expansive mix, and gorgeously intricate soundstage. To be frank, if the MRX 710 had handled the disc as well as its predecessor, the rest of this review would have practically written itself. Never would I have guessed that it would be better, but it is. With "Peg" in particular, you really get a sense of just how much fine detail the MRX 710 is capable of delivering. The soundstage is perfect: Donald Fagen's voice is rock-solid bedrock, while the guitars, clavichords, and electric pianos dance around a wall of sound with boundaries that seem to have little concern for actual speaker placement, while Michael McDonald's layered backing vocals seem to explode from out of nowhere. The detail, texture, and sense of space that the MRX 710 eked out of the mix quite frankly left me stupefied.

The track also spotlights another area of improvement in the move from the MRX 700 to 710: bass management and the correction applied to the critical bass frequencies are even better. The bottom notes are integrated into the mix with the utmost in cohesiveness, clarity, and control. I've always kicked around the idea of adding a second GoldenEar ForceField 3 subwoofer to this room, not because one doesn't give me enough in terms of bass output, but just to even out the bass response and smooth over the weensiest bit of disconnect between it and the SuperSat 3s. With the MRX 710, that's not really an issue at all. Its superior bass correction and improved crossover capabilities really do a wonderful job of unifying the speaker system into one comprehensive whole.

Of course, the MRX 710 also includes a number of options for processing two-channel sources in surround mode, including All-Speaker Stereo (yuck), DTS Neo:6, and Dolby Pro Logic IIx (no z, since the height channels are gone), as well as Anthem's own AnthemLogic Cinema and Music. I like the subtle elegance of the latter the best out of all the processed options, but the straight, unprocessed stereo performance of the MRX 710 won out over them all.

One quirk I did notice, though, is that if you dial through the different two-channel-to-surround processing modes, occasionally the receiver stops outputting a signal to the subwoofer. This happened to me twice and was only correctable by powering the 710 off and back on, but in hours of listening in both stereo and AnthemLogic modes, without cycling through the inputs, it never happened to me unless I cycled through the various modes quickly. I hope that's something that Anthem can correct in a firmware update, although I don't see it being a problem in day-to-day use.

Anais Mitchell's "Tailor," from her CD *Young Man in America* (Wilderland Records) is another perfect example of the MRX 710's wonderful two-channel and bass-management capabilities. I can't recall listening to it through the MRX 700, but I've thrown this disc at quite a few different receivers recently, and the strong, resonant bass notes at the beginning - which spike at around 70 Hz and again in the 100-200Hz range - really stress most room correction systems in their ability to deliver rich but precise bass. Through the MRX 710, those notes ring through with equal parts authority and restraint, and although there isn't much going on with the stereo mix of the song, I've found that Anais' quirky voice can sound edgy and grating, even through audio equipment that I consider to be otherwise solid. Through the Anthem, her vocals are no less quirky, but there's no harsh edge: more pixie and less harpy. I'll chalk that up to the MRX 710's incredibly even-handed tonal balance, exceptional detail, and wonderful transparency.

Of course, you know I couldn't make it too far into a receiver review without pulling out my Extended Edition copy of *The Lord of the Rings: The Fellowship of the Ring* (New Line) on Blu-ray, but there's a reason I keep going back to these discs. I've probably watched the film in its entirety 10 times since its Blu-ray release two years ago, and I've run through the Mines of Moria sequence on the second disc at least five or six times for every receiver I've reviewed in those intervening years. Although the MRX 710's performance is very much in line with what I've come to expect from its predecessor - dialogue clarity is pitch-perfect, even when the mix is as its densest, and the sense of spaciousness is simply startling - the increased resolution of the ARC 1M room correction and the better bass integration really come to light in the delivery of Howard Shore's score as the Fellowship moves out of the darkness into the underground Dwarf city of Dwarrowdelf. Skip forward a bit to the cave troll attack, and the MRX 710 really struts its stuff, not just in its handling of the thunderous bass, but again in the way it so gracefully and seamlessly bridges the gap between subwoofer and satellites.

That same sub-to-sat integration rang through just as well in Pacific Rim (Warner Bros.) on Blu-ray, a bombastic robot/monster battle flick that doesn't score high points in terms of subtlety, but certainly gave the MRX 710's amps a workout. 90 watts per channel (120 with only two channels driven) may not sound like much, but I pushed the receiver to levels I quite frankly shouldn't have been sitting in the room with, and it maintained not only its clarity, but also its wonderful bass integration, while rendering all of the environmental destruction and gargantuan sense of scale of the film impeccably.

The Downside

The one thing that definitely hasn't been improved with the MRX 710 is its remote control. In fact, the packed-in remote sucks right out loud.

There's just no other way to put it. Anthem seems to have invested heavily in making sure that the MRX 710 is incredibly integrator-friendly, and indeed drivers are on the way for virtually every advanced control system, but as of yet I can't even get my hands on beta IP drivers for my



Control4 system. Nor is Anthem's own iOS IP control app available yet. The company does provide IR hex codes on its website (along with IP and serial control protocols), so I was able to write my own Control4 driver in all of 15 minutes, which thankfully includes discrete codes for input selection (you can have up to 20). But not every user has an advanced control system at his or her disposal, and changing inputs with the included remote is a hassle.

I had also hoped that Anthem would include 7.1-channel analog inputs this time around, but the MRX 710 still lacks such capabilities. So, if you've got an audiophile universal disc player like the [OPPO BDP-105](#) or a legacy [DVD-Audio](#) or [SACD player](#) without HDMI outputs (or with D-to-A conversion that you prefer), you're out of luck.

The only other complaint I have about the MRX 710 is the fact that it doesn't make good use of its Ethernet capabilities for firmware updates. Granted, the process of loading an update (I've seen only one in the couple of weeks I've had the receiver) to a USB flash drive and plugging it into the back of the receiver is a big step up in terms of ease from the old way of performing updates: whipping out the USB-to-serial adapter and performing it via computer. But these days firmware updates via the network are pretty standard stuff, so the lack thereof is a little disappointing.

Comparison and Competition

Anthem's second-generation MRX receivers fall far short of pretty much every other comparably-priced receiver on the market in terms of features, yet they exceed them so greatly in terms of audio performance that comparisons are tough. But when it comes to competition, Anthem seems satisfied to generate its own. At \$1,599 - a full \$400 less than the MRX 710 - the Anthem MRX 510 boasts exactly the same processing capabilities, the same room-correction capabilities, the same chassis, and the same inputs and outputs. The same everything, in fact, except for its amplifier output, which is 15 watts per channel lower than the 710 (20 watts per channel lower with two channels driven), and its transformer. So, if you have a very small listening room or if you're planning on using one of the receivers as a preamp with your own external amplification, that's something to seriously consider. For more comparisons, please visit [Home Theater Review's AV Receiver page](#).

Conclusion

Here's the question that I would imagine many MRX 700 owners are asking right now, and in fact it's one I'm still mulling over myself: is the MRX 710 worth the upgrade? Despite the fact that it's undoubtedly more detailed, with even better stereo performance, I think my answer to that largely depends on how your room deals with bass and

what sort of speakers you're using with it. In my case, in my secondary home theater, I tend toward smaller satellite speaker packages, like GoldenEar's aforementioned SuperCinema 3 System. Although I'm used to getting some seriously big sound out of the shockingly small SuperSat 3s, they sound positively behemoth through this receiver.

If, on the other hand, you're considering a move from another brand of receiver, the question is a little easier to answer. If you're looking to have all of your streaming audio services housed within one box, if [AirPlay](#) or Bluetooth connectivity is a must, if you want front height or front width channels, if you want a receiver that practically sets itself up, then perhaps you should keep looking. But if pure audio performance is what you're looking for, if you're itching for a surround sound receiver that performs shockingly well with five channels tied behind its back when you're listening to stereo sources, or if you're hunting for an AV receiver that would also make for an amazing (not to mention affordable) preamp when your budget allows, I can't encourage you enough to audition the MRX 710.