

A N T H E M®

# MRX SERIES

## A/V RECEIVERS

### 1120 | 720 | 520

## NEW FEATURES & FUNCTIONS FOR THIRD GEN MRX



FREE MRX CONTROL APP\*



### MRX 1120 | 140W†

#### 11.2 PRE-AMPLIFIER & 11 AMPLIFIER CHANNELS

- Dolby Atmos®
- DTS:X™ Ready
- ARC™ Anthem Room Correction
- 4 Speaker Profile Memories
- Quad Core Digital Signal Processing
- Two Sub Out Jacks (parallel)
- Premium 32-bit / 768 kHz Differential-Output D/A Converters
- Wireless Network Connection
- DTS Play-Fi® – Local and Streaming

#### HDMI & VIDEO

- HDMI 2.0a
- HDCP 2.2
- 4:4:4 Subsampling at 4K60 (18.2 Gbps)
- High Dynamic Range (HDR)
- BT.2020 Color Gamut
- On-Screen Display with 4K 50/60
- 4K 50/60 Switching

### MRX 720 | 140W†

#### 11.2 PRE-AMPLIFIER & 7 AMPLIFIER CHANNELS

- Dolby Atmos®
- DTS:X™ Ready
- ARC™ Anthem Room Correction
- 4 Speaker Profile Memories
- Quad Core Digital Signal Processing
- Two Sub Out Jacks (parallel)
- Premium 32-bit / 768 kHz Differential-Output D/A Converters
- Wireless Network Connection
- DTS Play-Fi® – Local and Streaming

#### HDMI & VIDEO

- HDMI 2.0a
- HDCP 2.2
- 4:4:4 Subsampling at 4K60 (18.2 Gbps)
- High Dynamic Range (HDR)
- BT.2020 Color Gamut
- On-Screen Display with 4K 50/60
- 4K 50/60 Switching

### MRX 520 | 100W†

#### 5.2 PRE-AMPLIFIER & 5 AMPLIFIER CHANNELS

- ARC™ Anthem Room Correction
- 4 Speaker Profile memories
- Two Sub Out Jacks (parallel)
- Premium 32-bit / 768 kHz Differential-Output D/A Converters

#### HDMI & VIDEO

- HDMI 2.0a
- HDCP 2.2
- 4:4:4 Subsampling at 4K60 (18.2 Gbps)
- High Dynamic Range (HDR)
- BT.2020 Color Gamut
- On-Screen Display with 4K 50/60
- 4K 50/60 Switching

#### ARC

- Works on ALL Channels

- Improved Algorithms for seamless integration between speakers and subwoofers



Rev. 012716

\*Coming Soon †Front, center, and surround (two channels driven)

A/V RECEIVERS

# ARC (ANTHEM ROOM CORRECTION)

## The Easy-To-Use Anthem Room Correction Kit Delivers Professional Results In Any Room



### What is ARC?

Simply put, Anthem Room Correction quickly “corrects” the effects that reflective surfaces such as walls, floors and ceilings have on the sound radiating from a loudspeaker. Removing the effects of these obstacles allows your audio equipment to achieve a more natural sound in any room, as close to the lab standard as possible.

On a more complex level, ARC is a proprietary digital signal processing software that works with a specially-engineered calibration microphone and your PC to quickly and easily optimize audio for your unique listening space. Anthem engineers developed the ARC system while researching how to replicate the audio-lab standard of performance in non-lab environments. This groundbreaking research was conducted in conjunction with the National Research Council of Canada, the Canadian government’s research and

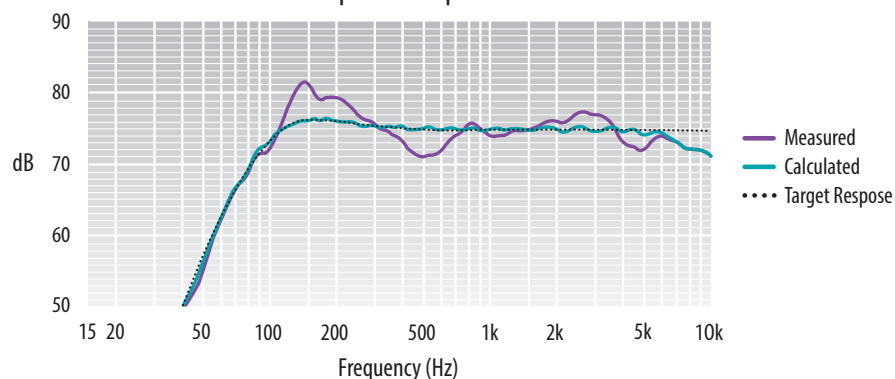
technology organization.

Anthem engineers realized that real world listening experiences had little in common with the controlled environment of the audio lab. That’s because even the best loudspeakers are affected by room anomalies like furniture. These obstacles cause standing waves, resonances, and reflections that can color the sound you hear. Imagine the sound waves

advanced algorithms to eliminate the negative effects of the obstacles in the room, adjusting response and correcting phase effects. When ARC removes the obstacles, what’s left is the lab standard performance.

ARC also detects how much the room reinforces low frequencies due to its boundaries and pressurization. ARC senses where each speaker’s low-frequency

Speaker Graph



coming from your speakers as ripples on a water surface. That makes it easy for you to understand how the ripples of sound bounce off any obstruction they encounter. You can immediately see the benefit of removing the obstacles.

ARC digitally compares a room’s acoustic signature to that of the lab standard. It measures the response of each speaker relative to the listening area. Then it uses

response declines and sets high-pass filters accordingly, ensuring natural-sounding levels of deep, well-blended bass.

ARC does all this, and more, instantly and automatically. The result is a replication of the lab standard right in your room, for “perfect” speaker performance in any listening space.

### How does it work?

The ARC Kit is easy to use, and just a few simple steps can customize your loudspeakers for your unique listening space.

Each ARC-ready component comes with a complete ARC Kit, consisting of software and microphone calibration file from our website, a professional quality mic stand and high quality connectors. You will need a Windows-based laptop computer with a CD drive.

Plug the kit’s custom Calibration Microphone into your computer and into your ARC-ready Anthem A/V receiver. Place the microphone at each of the listening positions in your room (a

minimum of five, maximum of ten), and allow ARC to take a sound sample from each location.

The proprietary ARC software measures the difference between the speaker’s ideal lab-standard response, and their real-world performance in your room. Then, its sophisticated DSP accurately equalizes response and creates intricate crossover curves so that the performance of the speakers in your room meets the ideal lab standard!

Now you’re hearing exactly what our audio engineers intended you to hear: Pure, natural, transparent sound, no matter what challenges your room presents!





# BRING YOUR MOVIES TO LIFE, AS NEVER BEFORE

## DOLBY ATMOS®



### What is Dolby Atmos?

Dolby Atmos® is a revolutionary new audio technology that transports you into extraordinary

entertainment experiences.

- Fills your room with captivating sound
  - Sound comes from all directions, including overhead, to fill the room with astonishing clarity, richness, detail, and depth.
- Puts sounds into motion all around you
  - The specific sounds of people, music, and things move all around you in multidimensional space, so you feel like you are inside the action.
- Delivers the full impact of the artist's work
  - Artists have amazing new capabilities to tell their stories, accent their games, or perform their music to achieve the greatest expressive impact.

### How does Dolby Atmos audio work?

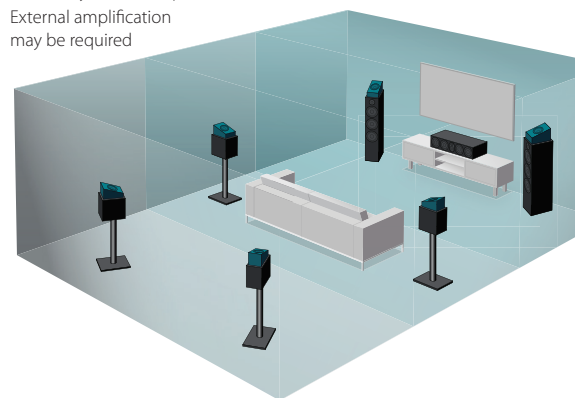
Dolby Atmos is the first home theater system that is based not on channels but on audio objects. What is an audio object? Any sound heard in a movie scene—a child yelling, a helicopter taking off, a car horn blaring—is an audio object. Filmmakers using Dolby Atmos can decide exactly where those sounds should originate and precisely where they move as the scene develops.

Thinking about sound in this way eliminates many of the limitations of channel-based audio. In a channel-based system, filmmakers have to think about the speaker setup: Should this sound come from the left rear surrounds or the left side surrounds? With Dolby Atmos, filmmakers just have to think about the story: Where is that yelling child going to run? How will the helicopter move overhead after takeoff? The Dolby Atmos system, whether in the cinema or the home theater, has the intelligence to determine what speakers

to use to precisely recreate the child's movement in the way the filmmakers intend. They can now precisely place and move sounds as independent objects in multidimensional space, including anywhere overhead, so you can hear them as you would naturally. reality to your listening experience. Dolby Atmos helps weave the audio story to match what's happening on the screen.

### Dolby®-Enabled Height Speakers

2 or 4 may be used, 6 positions shown  
External amplification may be required



## DTS:X READY



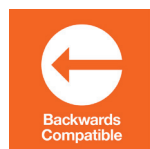
### What is DTS:X?

DTS:X is the next generation

audio codec from DTS that leverages object-based audio to enable new audio experiences in immersion and interactivity.

DTS:X places sound where it would occur naturally in space, creating the most lifelike, multi-dimensional audio experience ever. Free from channel restrictions, sound can be placed and moved to where you would hear it in the real world. Because DTS:X doesn't require any specific speaker layout, you can arrange your home theater system however you want it. With DTS:X you're in control of your listening experience. That hard-to-hear line in a movie can be lifted out of the background sounds for a more personal entertainment experience.

### Works With All DTS Content



DTS will playback all DTS formats including DTS Digital Surround and DTS-HD Master Audio.

DTS:X bitstreams are backward-compatible with older DTS AVRs and sound great.

### Object-Based Audio

An audio object is the combination of the waveform where captures the audio, and metadata which represents the spatial location in which the object should be heard. Audio objects free content from specific speaker layouts for optimal listening.

This means the same DTS:X content will sound great whether it's rendered on stereo or a fully immersive surround sound system.

### Immersive



DTS:X places sound where it would occur naturally in space, creating the most lifelike, multi-dimensional audio

experience ever. Be prepared — this improved immersion and heightened realism makes horror movies scarier, comedies more laugh-out-loud, and car chase scenes even more

### Interactive



You are in control of your listening experience. That hard-to-hear line in a movie can be improved at a

touch — lift the dialogue out from the background sounds when you want clarity and experience a more personal entertainment experience.

# WI-FI MUSIC STREAMING

## DTS PLAY-FI®



**Limitless music.**  
**App-controlled convenience.**  
**Wireless connectivity.**

Everyone wants instant access to their digital

audio library, anywhere in the home.

And **Anthem's MRX Series** with **DTS Play-Fi** technology is the perfect, high-performance means of delivery.

**Anthem MRX A/V Receivers** can take full dynamic advantage of the better-than-CD-quality sound quality delivered by the DTS Play-Fi® streaming technology.

**Partnered with the leader in Wi-Fi streaming.**

DTS Play-Fi Wi-Fi streaming technology supports a host of high quality file formats. Controlled directly from your smart device or computer in any operating system, the "Open Ecosystem" of **DTS Play-Fi** technology makes it easy to stream music throughout your home, and to add more wireless streaming devices on the fly.

### Features and Functions:

- All the music in the world at your control  
Stream from your digital music library or an online audio service like Spotify, Songza, Pandora, and more ...

### Your Music

**iTunes** **amazonmusic**

### Music Services

To learn more about the latest subscription-based music services visit our website.

- **FREE DTS Play-Fi app** that's easy to set up on any smart device, with an intuitive interface, and the ultimate audio flexibility.



Stream via DTS Play-Fi  
using Android,  
iOS, or PC

### Formats Supported by DTS Play-Fi®

Uncompressed	Lossless	FLAC (Free Lossless Audio Codec)	54 MB for Average Song
		WAV (Waveform Audio File Format)	54 MB for Average Song
Compressed	Lossless	FLAC (Free Lossless Audio Codec)	27 MB for Average Song
		ALAC (Apple Lossless Audio Codec)	27 MB for Average Song
	Lossy	MP3 (MPEG-1 or MPEG-2 Audio Layer III)	7 MB for Average Song
		AAC (Advanced Audio Coding)	7 MB for Average Song

# COMPARISON CHART

	MRX 1120	MRX 720	MRX 520	AVM 60*
<b>AUDIO FEATURES</b>				
Preamplifier Channels	11.2	11.2	5.2	11.2
Amplifier Channels	11	7	5	
Dolby Atmos	•	•		•
Dolby TrueHD	•	•	•	•
DTS:X Ready	•	•		•
DTS-HD Master Audio	•	•	•	•
Anthem Room Correction	•	•	•	•
Speaker Profile Memories	4	4	4	4
Crossover Settings	40-250 Hz	40-250 Hz	40-250 Hz	40-250 Hz
Digital Signal Processor	Quad-Core 32-bit	Quad-Core 32-bit	Tri-Core 32-bit	Quad-Core 32-bit
Lip-Sync Adjustment Range	300 ms	300 ms	300 ms	300 ms
Dolby Volume	•	•	•	•
DTS Play-Fi® Music Player – Local and Streaming	•	•		•
Spotify Connect	•	•		•
FM Tuner	•	•	•	•
Optical Inputs	3	3	3	3
Coaxial Inputs	2	2	2	2
All Digital Inputs Accept 24-Bit / 192 kHz	•	•	•	•
Stereo Analog Inputs	5	5	5	5
Analog Direct Mode	•	•	•	•
Premium 768 kHz / 32-Bit Differential-Output D/A Converters	•	•	•	•
32-Bit Conversion for all Digital and Analog-DSP Sources	•	•	•	•
Sampling Rate Optimized D/A Filters	•	•	•	•
True Balanced XLR Pre-Out				•
Subwoofer Jacks (parallel)	2	2	2	2
Optical Output (passthrough of coax/optical in)	•	•	•	•
Any Source Downmix to Line-Out	•	•	•	•
Any Source Downmix to Zone 2 (if following Main source)	•	•	•	•
Zone 2 Plays 2-channel Optical/Coaxial Sources	•	•	•	•
Zone 2 Plays Analog Sources	•	•	•	•
<b>LISTENING MODES</b>				
AnthemLogic	11.2 channels	11.2 channels	5.2 channels	11.2 channels
Dolby Surround	•	•		•
Dolby Pro Logic II			•	
DTS Neo:6	•	•	•	•
All Channels	•	•	•	•

\*AVM 60 included for reference only

# COMPARISON CHART

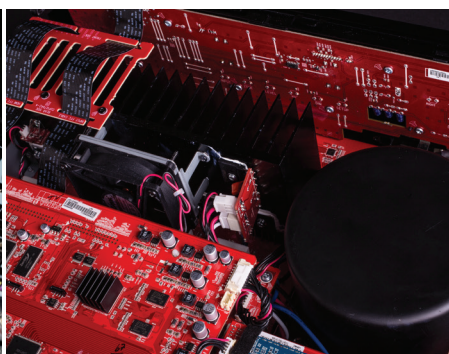
	MRX 1120	MRX 720	MRX 520	AVM 60
Inputs – Rear	7	7	7	7
Input – Front	•	•		•
MHL – Supported Inputs	1R+1F	1R+1F	1R	1R+1F
HDCP 2.2	•	•	•	•
HDMI 2.0a	•	•	•	•
On-Screen Display with UHD 4K 50/60	•	•	•	•
4:4:4 Chroma Subsampling at 4K60 (18.2 Gbps)	•	•	•	•
High Dynamic Range (HDR)	•	•	•	•
BT.2020 Color	•	•	•	•
xvYCC, Adobe RGB, Adobe YCC601, sYCC601, Deep Color	•	•	•	•
Outputs (parallel)	2	2	2	2
Consumer Electronic Control (CEC)	•	•	•	•
Audio Return Channel	•	•	•	•
Standby Pass-Through	•	•	•	•
<b>NETWORK CONNECTION</b>				
Wireless	•	•		•
Ethernet	•	•	•	•
<b>CUSTOM INSTALLATION</b>				
IP Control	•	•	•	•
RS-232 Control	•	•	•	•
Control System Drivers	•	•	•	•
IR Input	•	•	•	•
12V Trigger Output (configurable)	•	•	•	•
Rackmount Kit (sold separately)	•	•	•	•
<b>ADDITIONAL FEATURES</b>				
Toroidal Transformer	•			•
Advanced Load Monitoring	•	•	•	
Input Configurations	30	30	30	30
Power-On Input Assignment	•	•	•	•
Auto Power Off	•	•	•	•
Eco Mode for Standby	•	•	•	•
Front USB Port for Updates	•	•	•	•
Backlit Remote Control	•	•	•	•
Android Remote Control App	•	•	•	•
iOS Remote Control App	•	•	•	•
Warranty (US/Canada)	3 years	3 years	3 years	3 years



# DESIGN DETAILS



Supports the latest connection options



Powerful internal components



Brushed anodized aluminum aesthetic



MRX 1120 rear view



Easy-to-read intuitive display



11 Channels of amplification (MRX 1120)



Wireless network antennas (except MRX 520)



# TECHNICAL SPECS

## Preamplifier

Maximum Output (<0.1% THD) .....4.2 Vrms, subwoofer channel 5.2 Vrms  
 Frequency Response (2 Vrms output) .....10 Hz - 31 kHz (+0, -.25 dB)  
 Frequency Response, Analog-Direct  
 (2 Vrms output) .....10 Hz - 48 kHz (+0, -.25 dB)  
 THD+N (2 Vrms output) .....-95 dB  
 S/N Ratio (2 Vrms output, IEC-A filter) .....110 dB

## Preamplifier + Amplifier THD (1 W output)

MRX 1120 / 720 .....-88 dB ch 1-5, -75 dB back/height  
 MRX 520 .....-88 dB

## Maximum Continuous Output (1% THD)

	MRX 1120	MRX 720	MRX 520
Channels 1-5, Two Driven into 8 Ohms	140 W	140 W	100 W
Channels 1-5, Two Driven into 6 Ohms	170 W	170 W	130 W
Remaining Channels, Two Driven into 8 Ohms	60 W	60 W	n/a
Remaining Channels, Two Driven into 6 Ohms	75 W	75 W	n/a

## Power Consumption

	MRX 1120	MRX 720	MRX 520
Typical Load	570 W	485 W	365 W
Standby	0.3 W	0.3 W	0.3 W
Standby IP Control Enabled	4.7 W	4.7 W	2.4 W
Standby HDMI Bypass Enabled	8.2 W	8.2 W	5.8 W

## Dimensions (all models)

Height .....6-1/2" / 16.5 cm  
 Height with Rackmount Kit .....4U  
 Width .....17-1/4" / 43.9 cm  
 Depth (not including power cord) .....14-3/4" / 37.5 cm

## Weight (unpacked)

MRX 1120 .....32 lb / 14.5 kg  
 MRX 720 .....31 lb / 14 kg  
 MRX 520 .....28.2 lb / 12.8 kg



MRX Generation 2 and 3 Remote

## ACCOLADES OF MRX GEN 1 & GEN 2



**ANTHEM®**

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