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**Magnepan's
Ultra High-End 30.7
Magneplanar Loudspeaker**

**The Monochrome Cinema
Scott Sauer, Installer/Designer
The Digital Picture**

**2 Blu-ray And
5 4K UHD Reviews**



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VOLUME 27, NUMBER 5, ISSUE 227, MAY 2018

Magnepan's Ultra High-End 30.7 Magneplanar Loudspeaker

And Magnepan Reference System

Gary Reber

An Introduction To The 30.7s

As I have written in past issues on our reference system, I am biased. I am in love with my Magnepan Reference Loudspeaker System! I have lived with the latest version of the system since May 2011 and have used it literally daily for critical Blu-ray Disc™ and 4K Ultra HD Blu-ray Disc soundtrack reviews. The impressively effortless blended sound is convincingly coherent, smooth, and spatially airy.

I have in the system as my main reference front stereo pair the 20.7 Magnepan (\$14,000 per pair). But now Magnepan has introduced a new flagship, the 30.7 (\$29,000 per pair). The 30.7 is a four-way (first order crossovers), quasi-ribbon/pure ribbon line-source design (the 20.7 is a three-way (first order crossovers) design of the same technology).

I was invited to preview the 30.7s on Saturday, March 24, 2018 at Shelly's Stereo's beautifully renovated and expanded retail store. Shelly's Stereo is a high-end retail and custom home theatre operation founded back in 1959 in Woodland Hills, California (Los Angeles Metropolitan Area). Proprietor Alon Moscovitch and his experienced and dedicated staff today remain as dedicated as ever to presenting their clients with quality audio electronics that provide the most accurate audio reproduction available for their music enjoyment and listening pleasure. The manufacturers, whose products they carry, such as Magnepan, share this passion with them.

Wendell Diller, Magnepan's Marketing Manager, has been taking the new 30.7s on a USA/Canadian tour—a road trip to visit dealers



all over the United States. Shelly's Stereo was the last stop on the first leg of a multi-week tour. This is remarkable, as I do not recall any other loudspeaker manufacturer taking such a comprehensive tour to unveil their flagship model to dealers and invited customers to experience "live," what otherwise they would have to evaluate from reviews.

Wendell stated that it was the company's goal to make a road tour of all Magnepan dealers in North America. As they cannot announce far in advance when they will bring the 30.7s to your Magnepan dealer, if you indicate to your dealer interest in hearing the 30.7s, the dealer will notify you when the time comes.

The 30.7 system is comprised of two boxless panels per channel (one panel per side less than Magnepan's legendary Tympani IVa elaborate three-panel per side design, but with 22 percent more total driver area than the Tympani IVa). The 30.7s (both panels) stand 79 inches high (same as the 20.7 single-panel system), with each edge-to-edge framed quasi-ribbon low-bass and "transitional" quasi-ribbon upper-bass/lower-midrange planar driver in the larger panel. This panel is nearly 3-feet wide with the two drivers having different widths within the panel dimensions. The panel containing the quasi-ribbon midrange and true-ribbon treble drivers is approximately 16 inches wide. In contrast, the single panel 20.7 is 29 inches wide. Both the 30.7 and 20.7 are just over 2 inches deep. Appearance-wise, they stand as giant monoliths.

Should I bring the 30.7s into our reference system as the main front left and right channel loudspeakers, I would have to align each two-panel sides together within the same line/plane to approximate how they would be positioned if the four-way driver system were contained within a single oversized panel. Still, separating the mid-bass/bass panel from the tweeter/midrange panel allows greater flexibility for various installations. I would also request black paneling and black cloth panel covers instead of the gloss blue trim with off-white cloth panel covers.

To create a better flagship model than the 20.7, Wendell said the 30.7 required a bigger "sonic canvas" as well as lower mass (versus frequency), better power response and better bass. All this required more space. The four-way design is another first for Magnepan. Wendell said that, as with the 20.7s, properly set up, the 30.7s will reproduce a near-perfect square wave or step response, which means they are extremely accurate transducers. While the 20.7 extends flat to 25 Hz, the 30.7 extends further to 20 Hz.

At Shelly's Stereo, the 30.7 pair was presented in a relatively small acoustically treated room (approximately 17 feet wide, 25-foot deep with 8-foot ceiling). I believe one can expect them to better thrive in a far larger room acoustically treated. The 30.7s were positioned about 5 feet out into the room from the front wall with their sides within 2 inches of the sidewalls.

A wide variety of music was played for a sizeable group of listeners entering and leaving the room over the course of the four-hour preview. There were no provisions for sitting. Instead, everyone was asked to walk around the room and behind the loudspeakers to appreciate the extraordinarily uniform power response of the loudspeakers, providing even dispersion throughout the room with no floor or ceiling bounce or output immediately to their sides, nor any cabinet diffraction. As a dipole radiator (a loudspeaker that generates its sound in free space forward and backward), for optimum performance they should be positioned out from the back wall so the room itself can naturally dissipate any undesirable backwave.

Unfortunately, during the controlled demonstrations, I felt the sound level played was far lower than what I am accustomed to

playing music at, and as well with reference motion picture soundtracks (remember there is no volume control in a theatrical venue). Also, the music selected was rather limited in frequency extension, dynamic range, and impact. Accompanying me were drummer/jazz orchestra leader Bernie Dresel (The BBB) and Tower of Power recording engineer Joe Vinnelli. Joe brought vinyl test pressings of the new Tower of Power album, which is to be released in April. The horn-driven funk group is celebrating its 50th anniversary with a video concert special on June 1 and 2 at Oakland's historic Fox Theater. Oakland is the city in which the group originated.

MAGNEPAN 30.7®

Description: Four-Way True Ribbon Tweeter - Quasi-Ribbon Midrange and Bass Line Source comprised of two panels
Frequency Response: 20-40 kHz
Rec Power: Read Frequently Asked Questions at Magnepan.com
Sensitivity: 86dB/500Hz /2.83v
Impedance: 4 Ohm
Dimensions (WxHxD): Bass 29 x 79 x 2.062 / Tweeter Midrange 16 x 79 x 2.062 (inches)
Trim Options: (Wood) Natural or black solid oak, dark cherry, blue / (Aluminum) Silver, black, or gloss red
Fabric Options: Off-white, black and dark grey
Weight: NA
MSRP: \$30,000

Manufactured By:

Magnepan
1645 Ninth Street
White Bear Lake, Minnesota 55110
USA
Phone: 1 800 474 1646
Web site: www.magnepan.com

When Alon played a selection from the LP, again, the level was played far too low and lacked lifelike volume levels. Consequently the group's powerful dynamic impact was not fully experienced. It was only when Alon, at my request, dug up a used CD player (believe it or not, they do not sell optical disc players but only computer-stored content streaming electronics) and played the "Chloe" cut from one of my recordings of jazz drummer Shelly Mann and trio (Monty Budwig on bass and Frank Collett on grand piano) at a decent, and much louder "live" level that I sensed just how wonderfully good the 30.7s are. In essence, they excel in impressive coherent wave dispersion, free standing imaging, vast soundstaging (both width and depth), precise resolution and inner detail, lightning transient response, natural and realistic timbre, total lack of box coloration and diffraction and dynamic impact—performance qualities shared with the 20.7s. As with all Magnepan's, the sound floats in the air with no sense of sound projected out of a box.

I recorded Shelly Mann in 1981 on the first Sony Professional Digital Recorder, the PCM 1600, at Hop Singh's, a club located in Marina Del Rey, California and released as a selection of other recordings I produced/recorded on The Sony CD Sampler, which was given free to customers who purchased Sony's CDP-101, the world's first commercially released compact disc player.

EQUIPMENT REVIEW

Magnepan 30.7 Magneplanar Loudspeaker



Magnet structure of a Magnepan panel.

While I loved the sound of the 30.7s reproducing my recorded track and some of the other selections played by Alon, the store environment was not conducive to me for fully accessing the full extent of the 30.7s' performance attributes as there was no multi-format optical disc player to play material I brought along. Also, with so many enthusiasts present, I really did not get the opportunity to experience alone the 30.7s and especially at the realistic sound level I prefer. But still, during the listening sessions with others present, I heard all the qualities of the 20.7s and feel confident that the 30.7s do deliver a more refined performance, especially in the midrange and bass frequencies.

A note about listening level: As long-term readers of *Widescreen Review* will appreciate, I have often made the point that there is NO volume control in a theatrical venue. There is a specified reference level that motion picture sound designers intend the soundtracks to be listened at. In the earliest days of THX, this was a critical factor to be achieved in a certified THX home theatre. As a producer and recording engineer for many years, I can attest to monitoring at "live" levels when recording and mixing projects. This is true for my experience with other engineers creating music. So, when critically listening to music I want to listen at a "live" level to experience the full impact of the dynamic character of the music. I was disappointed that the selections played during the 30.7 demonstration were rather dynamic restricting and never played at a listening level to experience their full dynamic impact. Afterwards, I had wished I had had the opportunity to sit alone in the sweet spot and listen to the 30.7s at the levels I am accustomed to listening, as with our reference 20.7s.

Another comment I have is about source devices. I was very surprised that Shelly's Stereo did not sell optical disc players such as an audiophile CD or an audiophile multi-format OPPO UDP-205 UHD/Blu-ray/DVD/CD Disc player, but instead limited their source playback from streaming devices. No serious 5.1/7.1 holosonic® or 9.1+ Immersive Sound spherical surround offerings are to be had. I just do not understand why a store catering to high-end audiophile customers would limit their sources to compressed vinyl two-channel playback and streaming. Is not dynamic and full spatially dimensional music and motion picture soundtrack listening worth the effort to demonstrate? Unfortunately, this is becoming the sad state of affairs with far too many of the retail operations left wherein a high-end audio and video experience should be expected to be experienced. I do not understand how brick-and-mortar dealers can expect to widen their customer base and up-sell products if they do not demonstrate what the best experience can be.

A Recap Of *Widescreen Review's* Reference System

I first reviewed a Magnepan *Widescreen Review* Holosonic Reference System in Issue 158 (July/August 2011) following an extensive report on my May 2011 visit to Magnepan. Magnepan Incorporated is a small, leading-edge audiophile loudspeaker manufacturer based in White Bear Lake, Minnesota, a community north of the Twin Cities of St. Paul and Minneapolis. My mission at the time was to further explore the company's sonic achievements.

The Twin Cities area of Minnesota is home to a number of high-end companies, new and old. The two "founding companies" in

“I Had No Reservation As To The Magneplanar 1.7i Application Being A Perfect Home Theatre Loudspeaker.”

the area are Audio Research and Magnepan. Magnepan is the brainchild of Jim Winey. From its humble beginnings in 1969, Magnepan has continued producing high-quality audiophile loudspeakers, with continuous improvements over the past 49 years, based on its original hybrid Magnetic Panel technology.

Magnepan is a special company in terms of loudspeaker manufacturing. They are one of only a few companies that produce (exclusively) full-range planar loudspeakers. The loudspeakers are called Magneplanars®, and you will often here them referred to affectionately as “Maggies.”

Magnepan’s loudspeaker lineup begins at the \$325 price point with the Magneplanar MMG-W and extends to other models, all the way up to their new flagship 30.7 at \$29,000 per pair. The company has earned a stellar reputation for making some of the world’s finest and more affordable audiophile loudspeakers.

Manufacturing of Magnepan’s line of loudspeakers is mostly done by hand. The frames for each loudspeaker are cut with a computerized CNC milling machine, while all other steps are done manually. There are a couple of stages along the way where mechanical assistance is in the process, such as the tensioning of the Mylar, but it isn’t automated. Even with this labor-intensive production process, the price of Magnepan loudspeakers is quite reasonable for the high-end performance they deliver. And unlike other loudspeakers, most of the manufacturing costs are attributable to the components and assembly of the loudspeaker and not to cabinetry.

For some prospective buyers, the fit and finish of the loudspeakers will be an acquired taste. For quasi-ribbon models, the front and back are completely dressed in grill cloth, available in off-white, dark grey, and black. A wood trim strip adorns the side panels, available in three choices, natural, dark cherry, and black, and now with the 30.7, in blue. The true-ribbon models feature a matching wood strip between the planar magnetic panel and the true-ribbon driver.

Overview

As longtime readers know from my numerous writings, I am an advocate for time-coherent loudspeaker designs that exemplify excellent power response, phase, impulse, and step response. Prior to using the Magnepan loudspeakers as my day-to-day reference, I had been partial to Dunlavy Signature Series, particularly the SC-Vs (which, up to recently before we sold the system, was another *Widescreen Review* Holosonic Reference System), as was

the CS6 THIEL Audio Coherent Source Loudspeakers in yet another system, now for sale. So my decision to use Magneplanar loudspeakers in our primary reference system was a burdensome task. While I had no doubt that the range from the upper bass to the highest frequencies would be reproduced with audiophile accuracy, I was worried that the loudspeakers would not fulfill the need to reproduce accurate low frequencies, especially flat amplitude response below 50 Hz, which is necessary for serious deep bass impact delivered by motion picture soundtracks. This is important when loudspeakers are designated within the surround processor/preamplifier/controller to reproduce “full-range” motion picture soundtracks, which often use synthesizers and various explosive sound effects and extreme impact bass instruments to extend low frequencies to sub-20 Hz levels at powerful SPL, in order to create a visceral impact and dramatic effect.

Thus, to be a truly accurate loudspeaker, the loudspeaker has to deliver bottom-end extension, dynamics, and “slam.”

The six Dunlavy Signature Series SC-Vs, previously used in *Widescreen Review*’s Reference Holosonic Spherical Surround Home Theatre Lab system, were used as our dynamic piston-cone loudspeaker reference. They were flat to 20 Hz. Two separate sealed-enclosure Dunlavy Signature Series TSW-V subwoofers were used to reproduce the dedicated .1 LFE channel to sub-20 Hz frequencies.

Prior to installing the new Magnepan system in my constant-use reference living room home theatre environment, my primary concern, with using a different system from that of the Dunlavy system, was how well bass management would work with a Magnepan Magneplanar system while using a necessary subwoofer(s) system.

Before I address this concern further and the approach I took, I will describe the various Magneplanar loudspeaker models currently used in *Widescreen Review*’s Magnepan reference system.

Two Magneplanar 20.7s, two 3.7is, two 1.7is, two DWMs, one CCR and two MMC 2s (tri-center) comprise the seven-channel ear-level reference system with four MMC 2s (\$1,995 per pair) positioned as height loudspeakers to reproduce Immersive Sound motion picture soundtracks and music, as well as to up-mix any non-Immersive Sound-produced material, from two-channel to eight-channel sources to 9.1 or 11.1 channels. The actual placement of the height loudspeakers conforms to the Auro-3D Immersive Sound format recommendations. In appearance, all are black framed and covered in black cloth. They appear as striking and imposing monoliths.

Magnepan 30.7 Magneplanar Loudspeaker



Design and listening room at Magnepan showing the 3.7s, Tri-Center And DWMs.

I was first attracted to the idea of using Magneplanar loudspeakers with the introduction of the new Magneplanar 1.7 model at the 2010 T.H.E. Show during the International Consumer Electronics Show (CES), as reported in Issue 146 (January/February 2010). The Magneplanar 1.7 (now the 1.7i) is a three-way design, with a woofer, tweeter, and super-tweeter. The new “i” model is designed, for the first time, with “full-range” quasi-ribbon technology down into the lower mid-range and bass, as well as for the super-tweeter. The quasi-ribbon driver is a deviation from Magnepan’s true-ribbon design. A very thin film backing is used to hold the delicate ribbons in place, whereby the super-thin strips of Mylar-backed ribbon foil are suspended in a magnetic field. One of the advantages of quasi-ribbon drivers is extremely wide-frequency bandwidth and high-power handling. The result in the 1.7i is low distortion and seamless ribbon clarity. As reported, the sound was amazingly coherent, clear, and effortless. I was immensely impressed by the wonderfully realistic articulation and fullness of the sound and the revealing inner resolution.

I had no reservation as to the Magneplanar 1.7i application as a perfect home theatre loudspeaker. Their thin, monolithic, flat-panel form (65 inches tall and a mere 2 inches thick) is easily accommodating in all sorts of room environments. The 1.7is offer truly lifelike sound at a price that many home theatre enthusiasts can afford. The suggested retail price starts at \$1,995 per pair, with a modest price increase for trim and fabric upgrade options.

What convinced me that I should try Magnepan as a *Widescreen Review* reference system was the Magneplanar 3.7 model (now the 3.7i), introduced at T.H.E. Show during CES 2011. At that show, Mark Winey (son of Jim Winey, the inventor of the Magnepan technology), who serves as President of the company, and Wendell Diller, who has served for years as the company’s Marketing Manager, put on the most realistic demonstration of surround music that I have heard at a trade show in years! Showcased were the company’s new, stellar-looking Magneplanar 3.7s, along with the 1.7s. At the time, the 3.7 was the latest Magnepan loudspeaker to undergo a major revision, after more than a decade on the market. The 3.7s are a three-way design with crossover points of 200 Hz and 1,700 Hz, and measure 24 inches wide, 71 inches high, and 1.625 inches deep. They were positioned as the front stereo pair, and Magneplanar 1.7s as the

surrounds, with a Magneplanar CCR center channel (\$2,995).

In Issue 156 (April 2011), I stated that at \$5,500 and \$1,995 per pair, respectively, the Magneplanar 3.7s and 1.7s are without question the best performance value in loudspeakers that I have ever experienced. American made throughout, these high-resolution, full-range ribbon/quasi-ribbon, planar loudspeakers set a new benchmark for high-fidelity performance in loudspeaker design. No other demonstration at the CES came close to the sonic and spatial realism and seamless response and time coherence delivered by the Magneplanars! This remains true for the latest 3.7i and 1.7i performance refinements, both of which comprise surround channels in our reference system.

Unlike the majority of box loudspeakers, the boxless Magnepan panels disappear sonically, yet the resulting sound is astonishingly lifelike in scale and realism, with natural-sounding, flat amplitude low-frequency extension and power down to 20 Hz to 50 Hz, depending on the model. While deep bass may not match a piston-type cone loudspeaker system for dynamic punch and pitch definition at high SPL, the bass is surprisingly satisfying for a design without conventional woofers, with low amplitude but clearly audible response below 30 Hz to 50 Hz, depending on the model. (Magnepan recommends as an experiment to achieve flatter amplitude response the use of a 1.2-ohm resistor on the midrange panel, which I have yet to try.)

In my report I stated: “This is an American company that knows how to design loudspeakers and deliver true performance value and long-term utility through innovative engineering and cost-conscious manufacturing. I wish more companies would pattern themselves in the same way and innovate with true cost-conscious performance engineering and long-term utility value. As a result, the industry would be healthier and enthusiasts, who value true performance, would be far more appreciative.”

But since the more recent addition of the Magneplanar 20.7s as the main stereo pair in the system, an amazing transformation resulted—not only was soundstage reproduction more capable of lifelike scale and realism, the extension of deep, natural, flat amplitude, low-frequencies and power is down to 25 Hz (in-room response)! As a result, the system sounds even more potently dynamic, and fully resolved and articulate down to the lowest octaves that can be heard by humans. These amazing loudspeakers are truly full-range in sonic impact and resolution, timbres and dynamics, as well as neutral and “invisible” sonically with natural octave-to-octave balance. The “you are there” “floating-in-air” soundstage projection is incredibly dimensional in terms of width, depth, and scale. No doubt, such transparent resolution, coherence, and natural octave-to-octave balance is largely due to the single monolithic line-source driver design. They can be designated as “large” or “full-range” loudspeakers in a home theatre processor/pre-amplifier/controller, without the need for bass management subwoofer augmentation, but adding a subwoofer(s) significantly reduces strain on the low-frequency panels. The matched-pair and mirror-imaged 20.7s incorporate a quasi-ribbon line-source design in a three-way (first order crossovers) full-ribbon implementation, with a quasi-ribbon bass and quasi-ribbon midrange, and true-ribbon tweeter, located in the narrow fabric section of the single panel. Their exceptional phase characteristics are accomplished without the use of compensation networks.

To optimize phase for my sweet-spot reference listening, I have positioned the tweeters on the inside with the large midrange and bass drivers to the far sides. Spending time to position the dipole

lar 20.7s is well worth it, as the result attained is a soundstage emitting a continuous, cohesive image from left to right, with exceptional depth perception and image size proportional to the soundscape being reproduced. This translates to an ambient-realistic spatially dimensional sonic presence with superb recordings.

As with the Magneplanar 3.7is and 1.7is, the 20.7s display an even more remarkable ability to separate distinctive sounds and preserve their individualistic, nuanced timbre signatures, while simultaneously casting a vast dimensional soundstage, both vertically and horizontally, as well as layered depth. Particularly notable is the extension and resolution of low-level detail throughout their wide frequency range at low volume and reference listening levels. Especially at lifelike volume levels, they are very realistic in tonal texture and spatial dimensionality. The sound is seemingly effortless. Not only does the acoustic space sound realistic, so does the relative positioning (realistic stature and depth relative to the listening position) of instruments in the performance space. Being boxless, Magneplanars sound more real—truer to reproducing actual sounds humans perceive, whether conveyed in music or in a motion picture soundtrack. The large top-to-bottom radiating surface magically “suspends” sounds in space, preserving the full height, width, and depth of the performance space or soundscape, while delineating particular sounds positioned in space. While such accuracy reveals the flaws and inherent distortions in recordings, great recordings are superbly reproduced and are excitingly alive with sonic texture and spatial dimensionality.

High-Resolution Performance

As stated previously in Issues 158, July/August 2011 and 163, January 2012, what has always impressed me about Magneplanar designs is how utterly transparent and spatially dimensional the loudspeakers sound. A “magical sonic realism” is conveyed when reproducing stereo and multi-channel holosonic spherical surround music and motion picture soundtracks.

Because they are boxless, their sound is open and spatially layered, to create an uncanny sense of realistic depth perception,

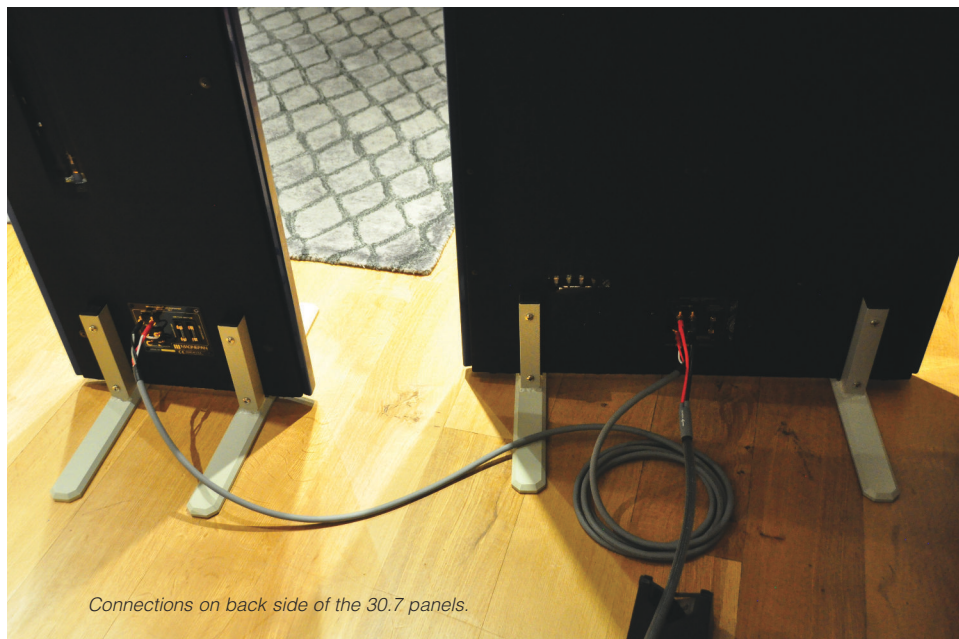
with a delineation of spaces separating sounds. They are capable of exceptionally excellent power response, which is essentially the total energy radiated out into the room. Because they are characteristically a “floor-to-ceiling line-source design,” uniform power response is an inherent attribute.

Another factor that contributes to Magneplanar’s “real life” sound quality is the design of the Magneplanar 0.0005-inch-thick Mylar diaphragm. The diaphragm in the Magneplanar 30.7, 20.7, 3.7i, and 1.7i is bonded to a current-carrying, evenly spaced, quasi-ribbon grid. The drivers are purely resistive since they are like a straight wire. When an amplified signal is applied to the conductors, the current travels through the grid and reacts to and is “driven” by a vertical array of permanent bar magnets located on an acoustically transparent perforated sheet-metal screen located behind the diaphragm. The resultant electrical forces react with the magnetic field to move the Mylar film sheet, which projects sound as a dipole. This approach relies on the same concept as a voice coil-driven cone driver but, in a Magneplanar loudspeaker, the “voice coils” are attached (glued) directly to the radiating surface. Conventional loudspeaker drivers are “driven” from the center or edge by a voice coil, so the surface of the driver is free to deform and flex its shape as it makes sound, resulting in cone breakup. In the Magneplanar design, the woofer, midrange, and tweeter’s entire surface area remains under full control by the amplified signal being reproduced. The force of the signal is distributed over the entire diaphragm so that it all moves at the same time. Because the surface area does not change shape, there is no cone or diaphragm breakup, and the integrity of the signal is preserved.

High mass is one of the main causes of sonic degradation in conventional loudspeakers. Unlike most loudspeaker diaphragms, a Magneplanar is closer to the ideal theoretical driver—massless and suspended in free air. The mass of a Magneplanar diaphragm is ultra low and not contained. The rear sound wave is not restricted and radiates freely into space. Because the loudspeakers are open on both sides, the membrane radiates equally, yet out of phase from the front and the rear in a dipolar radiation pattern.

The box-free design eliminates resonance and the colorations introduced by typical loudspeaker enclosures. Unlike conventional dynamic drivers that are required to be stiff and low-mass weighted to accurately follow the electrical signal, thin-film/ribbon and electrostatic loudspeakers are not burdened with the mutually exclusive challenge of achieving zero mass and infinite stiffness. This results in amazing speed, due to the near weightlessness of the Mylar that is moved back and forth to produce sound, and a greater wave launch due to the large radiating surface made possible by a Mylar film with ultra-low mass. As well, linearity, continuity, coherence, and control are better attained with this technology.

The ribbon, or thin film, is driven over its entire area. The aluminum foil ribbon is suspended in a magnetic gap. Stiffness is irrelevant, so the designer can focus on low mass to



Connections on back side of the 30.7 panels.



Magnepan factory in White Bear Lake Minnesota.

enable the drivers to match the light speed movement of electrons from an amplifier. Because Magneplanar drivers are ultra-low mass, thin-film designs, they are as close to zero mass as is physically possible. The most subtle, nuanced signal from the amplifier will cause the low-mass ribbon to respond and resolve nuances that other loudspeakers obscure. The Magneplanar true-ribbon element used in the 30.7, 20.7 and 3.7i tweeter element is one-tenth the thickness of a human hair. It is so light that when a piece of it is dropped from a height of six feet it takes an average of five seconds for it to reach the floor. With such fragility, only by driving the transducer over its entire area can materials of such low mass be used.

Magnepan's patented direct-coupled true-ribbon tweeter is world renown amongst audiophile reviewers for being one of the best, if not the best, in the world. The five-foot tall tweeter is designed to radiate 360 degrees and operate as a dipole driver.

In the Magneplanar 30.7, 20.7 and 3.7i, and especially the 30.7 and 20.7, the resulting blend of true-ribbon and quasi-ribbon panels is impressive, especially in mid-band resolution. The quasi-ribbon driver, used exclusively in the 1.7i, is a variation on Magnepan's original true-ribbon design. The simple, ultra-thin aluminum foil secured to a Mylar film carries the current from the amplifier and is also the means of moving the air to create sound. No voice coil. No cone. No surround. No box. Nothing except the ribbon. One of the advantages of quasi-ribbon drivers is extremely wide-frequency bandwidth and high-power handling. For example, the true ribbon in the 30.7, 20.7 and 3.7i extends to 40 kHz! Both the Magneplanar true-ribbon and quasi-ribbon drivers eliminate the need for a transformer—nothing is between the amplifier and drivers to degrade the sound. The crossovers are first-order designs to optimize phase response.

Since the volume of air to be moved by a tweeter is substantially smaller, a much smaller panel can be utilized as a tweeter. For the quasi-ribbon tweeter, the magnets are placed at opposing ends of the driver. As noted previously, a true-ribbon tweeter in used in the 30.7, 20.7 and 3.7i models. The differentiation here is the true-ribbon tweeter has no Mylar backing and has tremendous high-frequency extension. The tradeoff between quasi-ribbon and true-ribbon designs is in

the mass of the driver. The quasi-ribbon is substantially heavier and more durable than the true ribbon.

Ribbon drivers are non-reactive and act like a simple resistor to the amplifier. According to Magnepan, Magneplanars do require a high-current amplifier with the ability to drive a relatively low-sensitivity 4-Ohm load, but the non-reactive load will allow an amplifier to perform at its best. The better power amplifiers should double the power at 4 Ohms—an indicator of a good amplifier design. THX has always recognized this aspect of power amplifier design and requires the amplifier section of THX-certified receivers and separates to drive a 4-Ohm load continuously.

In the Magnepan *Widescreen Review* reference system, five Classé Sigma Mono amplifiers and four Classé Sigma AMP2 amplifiers are used. The mono block amplifiers are rated at 700 Watts at 4 Ohms and the stereo amplifiers are rated at 400 Watts per channel at 4 Ohms. The monoblocks power the 20.7s and the Tri-Center, while the stereo amplifiers power the four surround and four height loudspeakers.

As for low-frequency response, the larger, full-range dipole Magneplanars are capable of exceptional accuracy, extending to the near bottom register of an acoustic bass with uncanny timbre resolution. The lowest note of a double bass is an E1 (on standard four-string basses) at approximately 41 Hz, or a B0 (when five strings are used) at approximately 31 Hz, within about an octave above the lowest frequency that the average human ear can perceive as a distinctive pitch. Of course, the Magneplanar 20.7 extends deeper into the 25 Hz frequency response range with the 30.7 extending even deeper to 20 Hz. As with the 20.7, the 30.7, with an even larger bass driver, deliver the full-resolution of audible low frequencies with zero overhang on transients. Likewise, a full-range Magneplanar can reproduce the lower register of a piano with the same accuracy as the midrange. Noticeably apparent is that most of the area of a Magneplanar is needed for bass reproduction. While you should not expect a restricted-range Magneplanar 3.7i or 1.7i to accurately reproduce sub-45 Hz to 50 Hz or match a piston-type cone loudspeaker system for punch and pitch definition in the bass, both the 20.7 and 30.7 do, smoothly and with nimble articulation and textured resolution, due to their far greater 76-plus percent surface area dedicated to bass reproduction. Still, to accurately reproduce the sub-30 Hz frequencies of organs and synthesizers, or explosions and bass-impacted special effects in motion picture soundtracks, I recommend subwoofer(s) augmentation.

Because of the demands that home theatre reproduction requires in the sub-40 Hz frequency regions, I have always advised readers to evaluate loudspeakers capable of solid 40 Hz response at the minimum. This allows bass-management parameters to be set at the lowest frequencies, rather than at 80 Hz, as THX specifies (or above). The lower the crossover point, the less problematic integration issues that arise, and the purer the reproduction. In our case, the bass management "small" loudspeaker crossover point is set at 40 Hz for the Magneplanar 3.7is, 50 Hz for the 1.7is, and 140 Hz for the CCR/MMC 2 Tri-Center on the Trinnov Audio Altitude32 AV Preamplifier. As noted, the Magneplanar 20.7s are active as "large" or "full-range" in the system. A word of caution: when the surround processor has a subwoofer crossover setting, if the subwoofer also has a crossover that can't be defeated, you end up with two crossovers in series with each other—with poor sonic results. A great subwoofer feature is to be able to bypass the internal crossover when using bass management or the LFE input.



1,7i



DWM Bass Panel

Deep sub-40 Hz bass is extremely demanding at lifelike sound levels and would require an extremely large full-range planar surface area to accurately reproduce. The Magneplanar 20.7 is up to that task, as well as the new flagship 30.7. Still, when using Magneplanars in a home theatre context, a powered, sealed-enclosure subwoofer(s) with very quick and agile transient response should be used to extend the low-frequency SPL intensities that can be present in motion picture soundtracks. To the extent possible, the transient response of the subwoofer(s) should complement the fast response of the Magneplanars for the best possible integration and sense of “musicality.” While Magneplanars are fully capable of reproducing the upper bass, midrange, and high-frequency intensities found in car crashes, explosions, and gun shots at reference sound-pressure levels set by the motion picture industry, a subwoofer(s) is necessary to assure that the powerful low end of the spectrum can be dynamically reproduced via the .1 LFE at the same reference sound-pressure levels. Of course, this is true for conventional dynamic loudspeakers whose response is limited below 40 Hz.

As I have often pointed out over the years, the motion picture industry sets dynamic limits for soundtracks, and there is no volume control in a movie theatre accessible to patrons. The general goal of the “reference level” is to preserve the filmmaker’s intent, which is to ensure that the volume level that the motion picture was created (mixed) at is the same as the playback volume. Thus, a home theatre loudspeaker system should be capable of reproducing such dynamics, relative to room volume, referenced to this standard (average 85 dB SPL with 20 dB of headroom). In my experience, I optimally prefer loudspeakers designed with first-order, phase-correct crossovers coupled to sealed-box subwoofers.

The Magneplanar 30.7, 20.7 and 3.7i are fully capable of reaching short-duration peak SPL levels of 105 to 110 dB, without generating harshness or audibly bothersome levels of non-linear distortion, and without intrinsic colorations throughout the response range. Such is dependent on the “deadness” of the listening space, the properties of the power amplifier, etc.

Of course, home theatre systems do have a volume control, and one can always opt not to reproduce the dynamic sound-pressure levels intended for playback by filmmakers, or for that matter, music producers and mixing engineers. What is important is to use Magneplanars in a bass-management-capable home theatre system with fully adjustable crossover points in the range of 40 Hz to 250 Hz, applied selectively to the particular Magneplanar model using the “small” loudspeaker bass-management menu. The deeper the Magneplanar performs in the low-frequency department, the lower the crossover point needs to be and the more optimal the overall system performance in the upper bass, midrange, and high-frequency spectrums. The Magneplanar 30.7s and 20.7s are true full-range reproducers and really do not require bass management as long as the system supports a dedicated .1 LFE channel for subwoofer(s) reproduction of motion picture soundtracks. Still, I personally designate the Magneplanar 30.7s and 20.7s “small” in the bass-management menu at the lowest possible crossover point to relieve stress on the bass drivers.

When optimized, the all-Magneplanar blended system is capable of manifesting a remarkably transparent soundfield that sounds controlled, coherent, and lifelike, with a realistic dimensionally spatial presence. The emotional connection can be extremely visceral, with a greater sense of rhythm and pace and lifelike dynamics.

Loudspeaker Parameters

In Issue 158, I discussed the parameters of loudspeaker performance with respect to time- and phase-accurate or “pulse-coherent” performance, as well as impulse response, from which step response, frequency response, phase response, cumulative spectral decay (waterfall plot), etc. can be determined. The Magneplanar 30.7, 20.7, 3.7i, and 1.7i, as well as other models, have exceptional phase response (the ability to reproduce all frequencies with the same “start-up time”) and are thus accurate in both time and frequency domains, due to their good impulse response and step response, with minimal stored energy. As a result, the Magneplanar 30.7, 20.7, 3.7i, and 1.7i have an uncanny ability to reproduce complex musical transients and complex musical waveforms in a nuanced audibly accurate manner without audible “blurring.”

One of my loudspeaker design mentors was John Dunlavy; another Jim Thiel. John Dunlavy, as well as Jim Thiel, was a stickler for time- and phase-accurate loudspeaker design. The sub-heading on Dunlavy’s company logo was “Where Measured Accuracy Leads To Sonic Perfection.”

What I learned from John and Jim was that the impulse response characteristic of a loudspeaker pretty much tells everything about its performance, other than directivity patterns and non-linear distortion (harmonic and intermodulation) properties. From it, the loudspeaker’s step response, frequency response, phase response, cumulative spectral decay (waterfall plot), etc. can be determined. Impulse response is a measurement of an acoustical impulse or brief “tic” sound that simultaneously contains all audio frequencies. It defines how faithfully a given loudspeaker can reproduce complex or short-duration musical transients without “blurring.”

Step response, or “transfer function,” is a measurement that reveals how accurately a loudspeaker can reproduce the shape of a rectangular pulse having a very long duration (greater than 100 milliseconds). A properly reproduced step response is a reasonable guarantee of a truly accurate-sounding loudspeaker, capable of preserving the spectral properties of the original live musical performance or the motion picture soundtrack.

Phase response is related to the time domain response of a loudspeaker, which translates to the ability of the loudspeaker to accurately reproduce complex signals over a wide range of frequencies without any time domain delays or distortion.

A loudspeaker with excellent frequency and phase response properties will exhibit good impulse and step responses. Conversely, a loudspeaker with an excellent step response should exhibit a smooth curve with respect to both amplitude and phase versus frequency with no time-domain distortion or irregularities.

All Magneplanar loudspeakers have exceptional phase response (the ability to reproduce all frequencies with the same “start-up time”) and are thus accurate in both time and frequency domains, due to their good impulse response and step response with minimal stored energy. As a result, Magneplanars have an uncanny ability to reproduce complex musical transients and complex musical waveforms in an audibly accurate manner. Magneplanars, especially the 30.7s, 20.7s, and 3.7is, sound truly accurate. The Magneplanar 1.7is and .7s perform similarly.

To read about loudspeaker accuracy, see *Widescreen Review* Issues 58, March 2002 through 64, September 2002 (reprinted in Issue 213, January 2017), in which was published a seven-part series written by John Dunlavy entitled: “Loudspeaker Accuracy: The Quest For Getting Loudspeaker Design Right.”



Loudspeaker Positioning

Magneplanar loudspeakers are renown for their exceptional imaging qualities. Much as poorly displayed stereoscopic imaging can visually distort either or both the clarity and 3D image, poorly matched loudspeakers (both in amplitude or phase) can blur a stereo soundstage or move the apparent location of individual instruments within the soundstage and the holosonic spherical surround soundfield. Magneplanar loudspeakers are matched pairs to very close tolerances in amplitude and phase to ensure that the imaging across the stereo soundstage will be accurately preserved.

As with optimizing the performance of any loudspeaker, the most accurate audiophile/videophile systems are always dependent upon room acoustics and proper placement of the loudspeakers within the room, relative to the room boundaries (walls, doors, etc.) and the primary listening or sweet-spot position. To achieve accurate imaging and strong center phantoms between loudspeaker pairs, it is absolutely necessary that the front stereo loudspeakers and the side and back stereo pairs be located in a holosonic configuration precisely equidistant and equiangular from the listener sweet-spot seated position, but, in the case of Magneplanars, never parallel to the walls. The front-face of Magneplanar loudspeakers should always point toward the listener at an angle, sufficiently out into the listening room at a minimum of about three feet (one meter) from adjacent wall surfaces (though, this is less critical as the in-phase and out-of-phase, bi-directional outputs cancel each other out to result in zero output at the sides of the loudspeaker; thus, off-axis radiation is null).

As always, room conditions and proper setup impact the resulting sound. As such, Magneplanars, as with other quality conventional loudspeakers, require competent setup to fully realize their incredible sonic attributes. The optimum placement of a loud-

speaker in a room should provide a minimum of a 5- to 10-millisecond delay for the first reflection off walls to be perceived as a “reflection”—rather than as an aberration in “frequency response.” (Note: sound travels approximately one foot per millisecond.) This requirement relates to the “fusion time” inherent in our hearing process. Fusion time is the separation in time between two short duration pulses for which the sound is no longer perceived as a single “pulse” but as two separate pulses. This may range from a short 4 milliseconds to as long as 15 milliseconds (about 4.5 to 17 feet).

The reason is that the distance from nearby reflective surfaces must be sufficient to delay reflected sounds by more than 5 to 10 milliseconds. Should one have to compromise the positioning of Magneplanars, the unacceptable degradation in sound quality attributable to insufficient delay must be dealt with by covering or treating offending wall, ceiling, or floor surfaces with materials that exhibit appropriate acoustical absorption properties.

In a home theatre, ideally, the principal viewing and listening position would be equidistant from all five or seven or more loudspeakers if your system supports the 7.1 or 9.1-plus Immersive Sound formats, as *Widescreen Review* systems do, and at equal included angles relative to the listener (ideally 60 degrees at ear level). To achieve this is perhaps the greatest obstacle home theatre enthusiasts must deal with, and the final loudspeaker placement will be dictated by room limitations and whether the listener will perceive the combination of the direct and reflected sounds as being either pleasant (adding ambience—a quality inherent in Magneplanar dipolar designs) or distracting (smearing complex transients).

In our setup configuration, the main Magneplanar 20.7 pair are positioned approximately 4 feet from the back wall and 3 feet from the side wall, with a between loudspeaker distance of 7 feet, relative to the 8-foot listening “sweet spot” position. They are toed inward about 10 degrees. The ribbon tweeters are located on the inside to optimize image focus and soundstage perspective. I have yet to try reversing the ribbon tweeter positions. The system occupies the floor plan of a living room, with the back and right side open, and a cathedral ceiling that extends front to back from 8 feet to 16 feet in height. The two 3.7is are the main surround loudspeakers when reproducing 5.1-channel soundtracks. The 1.7is are positioned approximately 90 degrees to the sides of the prime listening area and equidistant to the other Magneplanars, to approximate a circular circumference extending from the positioning of the 20.7s and the CCR. As previously noted, the two MMC 2s, which combined with the CCR comprise the Tri-Center channel, are hinge-mounted with their top edge almost as high as the top edge of the Magneplanar 3.7is used as surrounds, one at each side of the black dnp denmark Sigma Screen (rear projection) powered by a JVC Professional DLA-RS66 3D Projector and just behind the Sony Bravia Z9D 4K Ultra HD HDR monitor /TV directly in front of the Sigma Screen. I presently use the Z9D for all picture quality reviews of Blu-ray Discs and 4K Ultra HD Blu-ray Discs. The Z9D occupies virtually the same width as the Sigma Screen.

The CCR, Magnepan’s curved, two-way center-channel loudspeaker features a true-ribbon tweeter and quasi-ribbon midrange with response rolling off below 200 Hz. The *Widescreen Review* reference system is configured in what Magnepan calls a Tri-Center arrangement. The concept consists of the CCR, along with a pair of Magneplanar MMC 2 non-motorized (also available in a motorized version), wall-mounted loudspeakers positioned with their top edge almost as high as the top edge of the Magneplanar 3.7is or 1.7is, but lower than the top edge of the 20.7s. The three-

way MMC 2 features a planar magnetic midrange and a quasi-ribbon tweeter and quasi-ribbon super tweeter. The MMC 2s are intended to be mounted on the sides of a flat panel monitor or projection screen with the CCR positioned below the screen. The MMC 2 panels measure 46 inches high, 10.25 inches wide, and 1-inch deep. As noted, the MMC 2s are mounted at the protruding wall corners that frame the black dnp denmark rear-projection Sigma Screen with the CCR positioned directly below the screen. This is an optimized arrangement and provides room to “breath,” as the MMC 2, like all dipolar loudspeakers, radiates sound both from the front and back of the panel surface. (Magnepan offers a power supply unit that can be controlled by 12V signals from an AVR or processor.)

A note from Magnepan: “A pair of our on-wall loudspeakers achieves a center-channel image in the same manner as a stereo system achieves a phantom center image. By angling the loudspeakers approximately 30 degrees to the wall, the center-channel loudspeaker on the left of the video monitor [or screen] is on-axis with the viewer off to the right—and consequently is louder than the center channel loudspeaker on the right of the monitor (which is closer to the viewer). This ‘pulls’ the audio image to the left and keeps the dialogue centered on the screen better than point source loudspeakers. It also raises the center channel image to the same height as the screen.”

All three Tri-Center loudspeakers are fed the Trinnov Audio Altitude32 center-channel signal. An important requirement is that the MMC 2s and the CCR be equal in amplitude or magnitude response. The Altitude32, allows for setting equal amplitude, but you may require an attenuator to be inserted in the signal path of the CCR (sensitivity rated at 88 dB/500Hz /2.83v/1 meter) to level match with the MMC 2s (sensitivity rated at 86 dB/500Hz /2.83v/1 meter). Some amplifiers and processors, such as the Altitude32, provide channel-level controls and will not require an outboard attenuator.

The Tri-Center experience is far more engaging and dimensional than to simply listen to the phantom created between the pair of 20.7s, 3.7is, or 1.7is, as would be normal in stereo-only listening. Amazingly, when pitting conventional stereo against the Tri-Center experience, I consistently prefer the three-channel Tri-Center over the 20.7 in stereo. The sense of layered depth and spatiality with the addition of the Tri-Center is absolutely incredible! The soundstage is dramatically deeper and impressively vivid. It is not subtle. The center image is convincingly on the same plane as the image projected by the 20.7s. The Tri-Center completely upstages the CCR played alone, flanked by the pair of 20.7s, or the phantom created by the pair of 20.7s. The CCR alone sounded good, as did the conventional phantom center, but both are dramatically restricted in terms of layered depth compared to when the Tri-Center is engaged. Also, the Tri-Center sweet spot is unfailingly wider and absolutely stable (locked into position), no matter where I move around in the room, and delivers a far more stable center-focused sonic experience with center-screen height reproduction. The experience is indeed very special and unexplainable—at least not yet.

Two Magneplanar Bass Panel DWMs (\$795 each) compact woofers are coupled to the 20.7s for added deep bass heft when demanded. These “all Maggie” bass panels are essentially a small section out of the 20.7 bass driver panels. Originally developed for the company’s “small” loudspeakers, Magnepan discovered that the “Maggie Woofer” could be used to fine-tune the response at the listening seat in the same manner as multiple subwoofers are used to smooth deep bass response. The freestanding panel is

EQUIPMENT REVIEW

Magnepan 30.7 Magneplanar Loudspeaker

essentially a woofer section of the Magneplanar 20.1, the company's previous flagship prior to the 20.7. The DWM is 19.25 inches high, 22.5 inches wide, and 1.25 inches deep, and features two magnet plates and two "voice coil" windings. As in the case of the 3.7is' augmentation in a separate system, two DWMs are hooked up in parallel with the pair of Magneplanar 20.7s. While the DWM is no substitute for the slam that a powered, sealed-enclosure subwoofer(s) can deliver to extend the low-frequency intensities that can be present in motion picture soundtracks, the DWMs provide frequency smoothing in the 50 Hz to 200 Hz region of the Magneplanar 20.7s at the listening seat, as well as dramatically improving the robustness of the mid-bass and upper-bass regions of the 20.7s. While this is not as dramatic as the improvement to the sonic quality of the low-frequency and upper-bass response in the 3.7is, the 20.7s benefit with a warmer, fuller, and richer sonic texture with more low-range muscle, while still maintaining fine nuance reproduction. As mentioned, the DWMs are operated in parallel with the 20.7s, which has not been a problem for the high-current Classé Audio Sigma amplifiers.

The DWMs are positioned 1 foot out from the inside position of the 20.7s. Behind the two 20.7s and to the side of the two MMC 2s are two corner-positioned Thiel SS3 SmartSub dual 12-inch sealed-enclosure powered subwoofers. At the center back of the room are two 18-inch Bag End INFRA D18E-I sealed-enclosure powered subwoofers.

As noted previously, I subscribe to the Auro-3D height loud-

speaker recommendation, which places the four height loudspeaker channels directly above the main front left and right and left and right surround loudspeaker channels. The loudspeaker height arrangement is impressive when reproducing native Auro-3D Immersive Sound material as well as using the Auro-Matic upmixer to provide spherical surround dimensional enhancement to two-channel, 5.1 and 7.1 tracks. I have also found it to work well when playing Dolby Atmos and DTS:X Immersive Sound soundtracks.

A unique, patented feature of the Trinnov Audio Altitude32 AV Preamplifier is 3D Remapping, which supports any Immersive Sound loudspeaker configuration regardless of format using a 3D microphone that measures the actual 3D positions of the loudspeakers. The distance is evaluated within 1 centimeter from the propagation time for the wave front emitted by the loudspeaker to reach the 3D acoustic probe at the sweet-spot listening position. All subsequent performance parameters are thereafter calibrated.

Other Reference System Equipment

The other equipment in the system complementary to the Magnepan loudspeakers and Classé Audio amplifiers are, as mentioned, a Trinnov Audio Altitude32 AV Preamplifier, which supports the Auro-3D, Dolby Atmos and DTS:X Immersive Sound formats, OPPO BDP-205 Universal UHD Blu-ray Disc Player, and Wireworld Platinum Starlight HDMI, Loudspeaker and Interconnect Cables. The Altitude32 allows me to select or mute any channel for evaluating signal presence and amplitude in each channel.

Editor Gary's Reference System.



Additionally, the system includes an all-analog FAP V1 Signature Fosgate Audionics Vacuum Tube Preamplifier (Serial Number 10) with 5.1-channel (7.1 loop-thru) Dolby Pro-Logic II processing, which is used primarily for the reproduction of vinyl, CDs, and multichannel SA-CD and DVD-Audio discs, though I prefer the Auro-Matic upmixer to derive an Immersive Sound experience. The FAP V1's configurable Matrix and Panorama modes, along with its Dolby Pro Logic II processing, can enhance two-channel sources to deliver a more holosonic ear-level surround experience without filling the room with a wash of corrupting sound. The analog outputs of the OPPO BDP-205 feed the FAP V1 inputs. The OPPO's optical output feeds a D-BOX® Home Entertainment Motion Controller (HEMC), which functions wirelessly for motion file downloads without a computer and is compatible with all Blu-ray Disc players. With its unique, patented technology, D-BOX Motion Code™ uses motion effects specifically programmed for each motion picture, TV series, or video game, which are sent to a motion generating system integrated within either a platform or a seat (in our case a Fortress Seating love seat). The resulting motion is perfectly synchronized with all on-screen action, creating an unmatched realistic immersive experience. To date, D-BOX Motion Code is available on more than 1,500 titles.

The system also includes a Linn Sondek LP12 turntable with Lingo power supply, Linto phono preamplifier, and Akiva cartridge on top of a Minus K Technology BM-8 Vibration Isolation Platform; a Studer/Revox professional half-track reel-to-reel tape recorder; OPPO HA-1 Headphone Amplifier (powering a variety of high-end headphones); STAX Electrostatic headphones and solid-state amplifier and an Equi=Tech 5Q Balanced Power unit.

Conclusion

While I did not have the opportunity to fully evaluate the new ultra high-end Magnepan 30.7 pair as I would have preferred, I feel the experience was very positive, and my expectation is that the new flagship model will outperform the former flagship 20.7, especially in bass extension and uniform power response. Still, the addition of the 20.7s and the Immersive Sound capability to the Magnepan system is definitely this audiophile's dream. Previously reviewed, the

holosonic, spherical surround sound is remarkably smooth and coherent, with exceptional resolution of sonic nuances and pinpoint spatial positioning of atmospherics, sound effects, Foley, dialogue, and music when listening to well-recorded motion picture soundtracks. As for music, the sonic experience, especially when stereo and 5.1/7.1 material is up-mixed using Auro-Matic, is absolutely wonderful. The sense of realism is incredible. Well-recorded material projects a "you-are-there" feeling, with precise harmonic and rhythmic coherence.

As with any good loudspeaker design, what you are buying when you move up in the Magnaplanar line is deeper bass reproduction better power response, and resolution heard as nuanced delineation. Not only does the acoustic space increasingly sound more realistic, so does the relative positioning (realistic stature and depth relative to the listening position) of instruments in the performance space.

Based on the experiences I have thus far encountered with the Magneplanar 30.7s, 20.7s, 3.7is, 1.7is (and the much smaller .7s and MMC 2s), DWMs, and the Tri-Center, these loudspeakers deserve comparison with the best money can buy. Their dynamic and harmonic timbre performance is uncanny, with respect to accurately reproducing the sonic qualities of first-rate motion picture soundtracks and music recordings. Their midrange and treble response is exceptional and natural sounding—neither overly warm nor unemotional. You will not find performance "realism" of this high caliber for anything close to the value proposition that Magnepan offers. As with Magneplanar 20.7, I fully expect audiophile reviews to rave about new 30.7 for its ability to deliver truly state-of-the-art sonic realism. Compared to other super high-end loudspeakers the 30.7 and 20.7 are an incredible value.

Widescreen Review's Magnepan Magneplanar reference system is an exceptionally realistic loudspeaker system throughout its flat amplitude range. Deservedly so, Magnepan loudspeakers have earned a reputation as among the best you can buy, regardless of price. They are absolutely stunning as a listening experience and will deliver audiophile nirvana whether reproducing stereo or multichannel holosonic, spherical surround dimensionality. Our Magnepan reference system is undeniably a WOW! system and on par with the best that I have ever experienced! **WSR**

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