Speakers Without Boundaries

An Jazz

A review is more interesting when it tells a story. How should the story of the GoldenEar Aon 2 begin? There's the technology angle: The Aon 2 is among the few speakers on the market with an unusual pleated tweeter design that uses a squeezing motion (as opposed to a piston motion) to generate the changes in air pressure that we hear as sound waves.

Because the benefits—wide horizontal dispersion and vivid imaging—are easy to describe, that would be a good way to begin. And then there's the human interest angle: GoldenEar is the third brand to be cofounded by Baltimore-based loudspeaker impresario Sandy Gross, whose genuine love for audio is balanced by his love for gourmet food, Expressionist canvases, and antique statuary. The only thing wrong with these angles is that reviewers litter and you've used them so often in the past. That leaves the musical angle. Here I believe I have a variant that might qualify as an exclusive.

If It's Not Just the Tweeter

The system under review is a GoldenEar Aon 2. The Aon 2 uses a soft dome tweeter that is both large and small. The large size decreases the scattering while the small size gives the tweeter a fast response.

The tweeter is mounted 0.75 inches off center in the Aon 2, uniformly to the right (no mirror-imaged pairs). Gross says this is another means of reducing diffraction-related anomalies—“actually little ripples in the frequency response”—that are caused by the discontinuity of the baffle surface at the edges of the cabinet.

Lest you consider the Aon 2 a technological one-trick pony, the tweeter is not its only noteworthy feature. In fact, it's the integration of the tweeter into other design features that enables this speaker to attain the balanced performance I witnessed in the ensuing demos. The Aon 2 also has a 6-inch mineral-filled polypropylene bass driver with a Multi-Vaned Phase Plug at the center of the cone. The plug's purpose is to control the riot of energy near the apex of the cone; its shape minimizes distortion from the plug itself.

On each side is a 6.5-inch flat passive radiator, which GoldenEar correctly calls a Low Frequency Radiator. Made of Medite—an especially dense wood and resin-based material similar to fiberboard—it gives the speaker an affordable degree of bass extension for its size with no messy port chilling. It's remarkable to find this kind of design and construction in a speaker selling for just $400 each. (In the larger Aon 3, $500 each, the bass driver is 7 inches, and the Low Frequency Radiators are 8 inches.)

The ForceField 5 ($1,800), with its 12-inch woofer, is the latest in a series that already includes the 10-inch ForceField 4 ($700) and the 8-inch ForceField 3 ($500). Much of this 46-pound brute's weight comes from a thick fiberboard enclosure: 1.5 inches at the front baffle, 1.25 inches at the rear baffle, and 0.75 inches at the sides. On the front is the active driver, its driver made of mineral-impregnated felt on the bottom is a 13 x 14-inch Quadratic Planar Infrasonic Radiator (or rectangu- lar flat passive radiator). In the sub, as in the speakers, it enhances bass extension while avoiding the unsubtle whistles and sputters of many ported sub designs. The internal amp, designed in house, is rated at 1,500 watts, actually splitting the difference between RMS (1,000) and peak (2,000) power claims. Associated equipment included a Pioneer Elite VSX-53 A/V receiver, Oppo RDP-435E universal disc player, McIntosh BL-51 turntable, Shure M97E cartridge, and Onix CX.2s integrated amp serving as phono preamp.

Grace and Power

Few speakers in my experience have gotten through both movie and music demos with such unfaltering grace and power as the Aon 2. It made available all the most desirable attributes of all the content I threw at it, without emphasizing them, and with the Attributes of all the Content I threw at it, remaining high when movie soundtracks waxed bombastic. The

The Aon 2's design results in wide horizontal dispersion and vivid imaging.

Like the Aon 2, the ForceField 5's shape mitigates internal standing waves.

The Aon 2 features stylish black endcaps.

GoldenEar Aon 2 Speaker System

PRICE: $3,000 AT A GLANCE: Broad dispersion • Good power handling • Powerful subwoofer

Review

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It’s Not Just the Tweeter

The system under review, which is an updated five Aon 2 monitors with the new ForceField 5 subwoofer. The GoldenEar site recommends an additional configuration, with a pair of either the Aon 2 or Aon 3 along with models from the Super-Cinema Series including the SuperSat50 center, SuperSat 3 surrounds, and ForceField3 sub. The SuperSat 50C center also uses the same tweeter and is said to mate well with the Aons. Either of these might work better if the Aon 2 12-inch height doesn’t fit the center spot in your furniture or speaker setup. See our separate review of the Super-Cinema models (Home Theater, November 2011 issue or at HomeTheater.com).

Even at first glance, you can see the Aon 2 is different. Wrapped in fabric, it disdains the right angles that dominate speaker design, with its front face combining obtuse (greater than 90-degree) angles at top with acute (less than 90-degree) angles at bottom. Why does it take this truncated-pyramid form? Gross explains: “The pyramidal shape allows the driver to mount the front face combining obtuse (greater than 90-degree) angles at top with acute (less than 90-degree) angles at bottom. Why does it take this truncated-pyramid form? Gross explains: “The pyramidal shape allows the driver to mount the front face, the tweeter is not its only noteworthy feature. In fact, it’s the integration of the tweeter into other design features that enables this speaker to attain the balanced performance I witnessed in the ensuing demos. The Aon 2 also has a 6-inch mineral-filled polypropylene bass driver with a Multi-Vaned Phase Plug at the center of the cone. The plug’s purpose is to control the right of energy near the apex of the cone; its shape minimizes diffraction from the plug itself. On each side is a 6.5-inch flat passive radiator, which GoldenEar correctly calls a Low Frequency Radiator. Made of Medite—an especially dense wood and resin-based material similar to fiberboard—it gives the speaker an invaluable degree of bass extension for its size with no messy port chuffing. It’s remarkable to find this kind of design and construction in a speaker selling for just $400 each.

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The ForceField 5 (1,000), with its 12-inch woofers, is in a series that also includes the 10-inch ForceField4 ($700) and the 8-inch ForceField 3 ($500). Much of this 46-pound brute’s weight comes from its thick fiberboard enclosures: 1.5 inches at the front baffle, 1.25 inches at the rear baffle, and 0.75 inches at the sides. On the front is the active driver, its quadratic form designed to minimize diffraction or anomalous—“actually little ripples in the frequency response”—that are caused by the discontinuity of the baffle surface at the edges of the cabinet. Lest you consider the Aon 2 a technological one-trick pony, the tweeter is not its only noteworthy feature. In fact, it’s the integration of the tweeter into other design features that enables this speaker to attain the balanced performance I witnessed in the ensuing demos. The Aon 2 also has a 6-inch mineral-filled polypropylene bass driver with a Multi-Vaned Phase Plug at the center of the cone. The plug’s purpose is to control the right of energy near the apex of the cone; its shape minimizes diffraction from the plug itself.
HIGH END

HT Labs Measures

GOLDENEAR AON 2 SPEAKER SYSTEM

The ForceField 5 sub handled
low-frequency barrages with
flow-shaking confidence, I
continued to knock down the
sub levels.

Music for 21st Century
Listeners

For years spending searchs for a
definitive version of Steve Reich’s
Music for 18 Musicians, an
essential masterpiece of 20th
century music. The original vinyl
sounds superb, but flipping sides
breaks the work’s continuous
one-hour spell. The SACD/CD
release by the Grand Valley State
University Music Ensemble
(Michigan) equals the LP’s
resolution and performance and
need not flpping. What the Aons
immediately anymore was
the lengthened decay of the
tuned percussion
instruments (xylophone, vibraphone,
marimba, and piano, most of
them in multiples). This altered
the rhythm, flow and tonal
balance in ways that were subtle
and pleasing, offering new insight
into the work without disrupting its
essential character. The SACD
has the added attraction of a
5.1-channel mix, though it used
too conservatively, for ambience
only, versus a full wraparound
that would tease apart the strands of
the music. Still, what the
pleated tweeter and woofer
radium combo did for this
harmonically and rhythmically
complex fabric, was rewarding.

Donald Fagen’s Sunkissed Casablanca,
a mere C+ from the speakers
and (by now, fine-tuned) sub a
courage to groove. With bass
and drums, this system sounded
way bigger than its physical
size. Fagen’s sure ear charts
were a continual treat, and
the speakers burnished them without
concealing the produc-
tions airliness.

And then there was Abbey
Road. Comparing me to
my reference speakers, the
Paradigm Reference Studio 20 x4,
the Goldenear Aon 2 lacked nothing
in timbral reliability, imaging,
and dynamics and had a distinct edge
in dispersion. Bass response was
so solid that I often ran a pair of
Aon 2s without the sub. When I
added the sub, Ringo’s pounding
was “Come Together” and tasteful
drum solos on side two became
even meatier, but not over-the-
top boomy, disproportionate, or
unsubtle. Each beat was a series of
integrated events with a begin-
ing (attack), middle (dominant
rhythm line), and end (damping).
The system could stand up to
high-level blasting, never losing
the warmth, smoothness,
and texture that made me
seek out the British vinyl in the
first place.

Subsequent off-hours vinyl
meandering had the Aons
navigating some Haydn string
quartets as performed in gorgeous
1960s stereo by the Vienna
Konzertquartet. It struck
me that these speakers were as

adapt at level-low resolution in
classical music as they were
with high-decibel rock ‘n roll.
They were boundary-busters;
sensible trade-offs, no excuses.
They could literally play anything
that was high-quality at this
price point.

The ForceField 5’s input gain
was generous almost to a fault: I
had to reduce the subwoofer level
in my AVR’s sound processor
from the usual –4 decibels to –12 dB,
the lowest level I could
resort and the sub dial for
further reductions. The 5/10
crossover I use by default with
monitor-class speakers was
probably higher than necessary
for this combination of speaker
and sub—if I were living with
them, I’d probably use 60
Hz. This sub will likely serve
a large room with headroom to
spare. My only quibble is that
listeners with less-than-cairns
rooms are going to want more
adjustability at the lower end of
the volume range.

Seeking Justice (Blu-ray Disc, 12-inch paper label) is a
starkly above-average Nicolas
Cage vehicle with our hero sucked
into a vigilante murderer
conspiracy. Effects came fast and
thick. Those above the sub
crossover were detailed yet palatable:
These speakers are dynamic
performers. Bass effects below
the sub crossover needed adjust-
ment as described earlier—I
was dimensioned by how much
bass output the sub could muster.

Voicings were commendable
intelligible, clothed in appropriate
ambience, and without obvious
coloration.

I didn’t intend to use the first
season of Star Trek: The Next
Generation as demo material,
I had so much fun with it
that I couldn’t ignore it. The
Aons bowed reverently before
Patrick Stewart’s Shakespearean
pronunciation and almost musical
timber even as they mocked the
slightly canned quality of the
The Aon 2 uses an unusual pleated tweeter.

Music for 18 Musicians, an essential masterpiece of 20th century music. The original vinyl sounds superb, but flipping sides breaks the work’s continuous one-hour spell. The SACD/CD release by the Grand Valley State University Music Ensemble (of Michigan) equals the LP’s resolution and performance and needs no flipping. What the Aons immediately apparent was the lengthened decay of the tuned percussion instruments (xylophone, vibraphone, marimba, and piano, most of them in multiples). This altered the rhythm, flow and tonal balance in ways that were subtle and pleasing, offering new insight into the work without disrupting its essential character. The SACD has the added attraction of a 5.1-channel mix, thus it used too conservatively, for ambiance only, versus a full wraparound setup that would tear apart the strands of the music. Still, what the pleated tweeter and woofers' radiator combo did for this harmonically and rhythmically complex fabric was rewarding.

Donald Faggin Sankofa, a mere CD, gave the speakers and (by now, fine-tuned) sub a chance to groove. With bass and drums, this system sounded way bigger than its physical size. Faggin’s suave horn charts were a continual treat, and the speakers burnished them without concealing the productions airlessness.

And then there was Abbey Road. Compared with my reference speakers, the Paradigm Reference Studio 20 v.4, the GoldenEar Aon 2 lacked nothing in timbral realism, imaging, and dynamics and had a distinct edge in dispersion. Bass response was so solid that I often ran a pair of Aon 2s without the sub. When I added the sub, Ringo’s pounding bass was “Come Together” and tasteful drum solo on side two became even meatier, but not over-the-top boomy, disproportionate, or unsubtle. Each beat was a series of integrated events with a beginning—(attack), middle (dampened bass pitch), and end (damping). The system could stand up to high-level blasting, never losing touch with the warmth, smoothness, and texture that made me seek out the British vinyl in the first place.

Subsequent off-hours vinyl meandering had the Aons navigating some Haydn string quartets as performed in gorgeous 1990s mode by the Vienna Konzerthaus Quartet. It struck me that these speakers were as adaptable at low-level resolution in classical music as they were with high-decibel rock ‘n’ roll. They were boundary-busters: sensible trade-offs, noexcuses. They could literally play anything I threw at them.

Because of its conversing narratives—the pedigrees of its founders, the distinctive blend of its technologies, and the performance of the product—the GoldenEar Technology story is catty for a writer, a fun subject to write about. But the almost Apple-like reality distortion field surrounding the brand also makes it a sticky wicket for the conscientious critic acting as a surrogate for the reader, which is the essence of my job. The Aon 2 and ForceField 5 were fun for me to write about, would they be equally fun for you to live with? I am confident that most listeners in the market for a fairly compact speaker and powerful sub will love them, and they might even turn heads among listeners who want a bigger speaker and bigger sub. Whatever you play, just play it loud, and you’ll see what I mean.

≥ Audio editor Mark Fleischmann is also the author of the annually updated book Practical Home Theater (quietriverpress.com).

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