The ADS L1290, the next to largest speaker in the company's current line, is a three-way, vertically aligned columnar system. Its two 8.3-inch woofers are in acoustically separate enclosures approximately in the center of the column. Above them are a 2-inch soft-dome midrange driver and a 0.75-inch soft-dome tweeter (which has ferrofluid in its magnetic gap for damping and heat-transfer). The crossovers are at 500 and 5,000 Hz with 12-dB-per-octave slopes. The rated axial frequency response of the system is 40 to 27,000 Hz ± 3 dB. The rated sensitivity is 90-dB sound-pressure level (SPL) measured at 1 meter with an input of 2.83 volts of pink noise in a typical living room. The nominal system impedance is 8 ohms.

At the bottom rear of the cabinet is a removable panel fastened by Allen screws (an Allen wrench is provided). Behind it is a cavity containing the speaker's four binding-post terminals, separate tweeter and midrange fuses, a slide switch that reduces the tweeter level by up to 1.5 dB, and another switch that electrically separates the woofers from the other drivers for biamped operation (in which case the extra two binding posts are used). A separate biampifier/crossover module (the PA1) that will be available soon fits into this cavity and converts the L1290 to a powered speaker with 130 watts for the woofers and 70 watts for the midrange and tweeter.

The cabinet of the L1290 is 42 inches high, 10½ inches wide, and 12 inches deep, or 13 inches including the removable perforated-steel grille. An optional base (F12) improves the speaker's stability when it is placed on a carpeted floor. The front of the cabinet has beveled edges that, together with the flush-mounted drivers and the frameless grille, help to minimize diffraction effects. It is available with either a textured black urethane finish or veneered in lacquered walnut. Each system weighs 75 pounds and comes in a handle-equipped carton.

"...the widest and flattest response we can recall measuring from a speaker with our current test procedures."

Laboratory Measurements. The on-axis frequency response of the ADS L1290, measured at 1 meter with our IQS FFT analysis system, was flat within ±3 dB from about 1,000 to 27,000 Hz. The response in the woofer range was measured separately with close microphone spacing to prevent room-interaction effects. The output was at its maximum of about 55 Hz and sloped down at higher and lower frequencies. We did not attempt to splice the two curves, but it was apparent that system response was unusually smooth, almost certainly within the specified ±3-dB limits from 40 to 27,000 Hz. Not only is this the widest and flattest response we have seen but the response is also very smooth, with the manufacturer's ratings for frequency response being generally accurate.

The amplifier clipped before the speaker did.

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We also made another test on this speaker, one that was previously part of our procedure but likely to be used in the future where it is appropriate. The claim of "digital readiness" is being made these days for every type of component from transporters to speaker cabinets. More often than not, this is either a rhetorical exaggeration or simply meaningless. In our view, a "digital-ready" speaker must be able to deliver a linear, undistorted output when driven by the kind of brief but extremely powerful signals that are present in live music and in well-made digital recordings. To test this in the case of the ADS L1290, we used "single-shot" 4-cycle tone bursts at frequencies of 100, 1,000, and 10,000 Hz, which fall within the operating ranges of each of its drivers. The acoustic output picked up by our test microphone was viewed on an oscilloscope, and we increased the test-signal level until clipping or other distortion was visible. At that point we measured the amplitude of the tone burst on the oscilloscope. Sound levels during these tests got very high; the pulses sounded like gunshots.

This test was made possible by the availability of a Carver M1.5t amplifier, currently the most powerful amplifier offered for home use. Even so, at the two higher frequencies the amplifier clipped before the speaker did, at outputs of about 100 volts rms, equivalent to 1,000 watts at 1,000 Hz and 2,500 watts at 10,000 Hz. Only the woofer could be overdriven before the amplifier clipped, at 70 volts or 1,200 watts at 100 Hz. (Note that these wattage figures are not actual power readings but simply calculated from the square of the voltage divided by the measured impedance at the test frequency. Such figures can be useful, however, for relating a speaker's sound-producing capability to the available amplifier output.)

Comment. It is generally appreciated that "good" measurements do not necessarily correlate closely with good sound quality, and vice versa, making it desirable to judge speaker quality by using a combination of objective and subjective methods. After only a brief exposure to the ADS L1290's in our listening room, however, we had no doubt of their superior sound quality. The subsequent validation of this judgment by our test instruments was a reassuring demonstration that sometimes speakers measure the way they sound!

The L1290 has an unusually flat and smooth response over the full audio range and a half octave beyond, excellent dispersion in the forward hemisphere, and bass distortion lower than that of any common program source except a digital tape or disc. It is a genuinely fine speaker that is representative of the current state of the art in dynamic speaker-system design. When you listen to it, you might or might not notice anything "special" in its sound, but I very much doubt that anyone with an open mind and a pair of functioning ears will find anything significant to criticize in it. I have no hesitation in voicing my own enthusiasm for the L1290. And, as we found out, this is one speaker that really is "digital ready."

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