In The Sound Lab: Recording and Mixing The String Cheese Incident magazine for the recording musician Miking Mark Hornsby on miking and making Nick D'Virgilio's new album, Invisible Instruments Choose the best mic for the job / SONO • Flute, snare and piano—break the rules! • Latest trends in mic and preamp modeling NEW REVIEWS Austrian Audio • Heiserman Peluso Microphone Lab • Polyverse Samar Audio Design • Silo Soundlabs Softube

Samar Audio Design AL95 Passive Ribbon Microphone

An affordable piston-style ribbon microphone designed and built by a master craftsman

REVIEW BY ALEX HAWLEY

Samar Audio is a boutique ribbon microphone maker based in Salt Lake City. Founded by Dr. Mark Fouxman, a renowned Russian electronics engineer, the company is best known for building high-quality ribbon microphones with an incredibly flat frequency response. Emphasis on the word building—Samar mics are "built in an artisan tradition," completely handcrafted in-house, right down to their custom-wound transformers. RECORDING editor Paul Vnuk reviewed the Samar VL37 back in October 2015, and while this is my first time using a Samar product, the guitarist in me is always excited to get my hands on a new ribbon mic!

Meet the AL95

The Samar AL95 is a passive figure-8 ribbon microphone designed specifically to yield a smooth sonic character with extended frequency response and very low distortion. At \$500, it's priced more affordably than any other mic in the Samar catalog. Samar has a reputation for focusing on design and quality over cost, and despite the approachable price point of this mic, these values are still intact. The integrity is achieved through efficient engineering and utilization of parts; the AL95 has very few parts and features a uni-body design, so costs can be drastically cut without sacrificing quality.

The AL95 features a piston-corrugated ribbon instead of the regular zig-zag corrugation pattern. The benefits of piston ribbons are extensive, and the only real drawback is the increased difficulty of forming them. A piston-corrugated ribbon allows for low noise, deep and controlled bass response, up to 3dB higher output, lower resonance modes, and the ability to handle very high sound pressure levels. Due to the improved resonance, the stereotypical boxy character of ribbon microphones in the low midrange is practically nonexistent. Piston-corrugated ribbons can also deliver fast transient response and a more open sounding sonic profile.

Other examples of piston-corrugated ribbon mics include the Beyerdynamic M 160, and Bang & Olufsen BM3, BM4, and BM5. Founder Dr. Mark Fouxman sells mods and repairs for such microphones and is the sole aftermarket source for replacement ribbons with Beyerdynamic-style piston corrugation. I mention this only to illustrate the point that the AL95 microphone was designed by a true expert of the craft.

The AL95 also features a hand-wound amorphous-core toroidal transformer. The transformer ratio was specially paired for this microphone, which was optimized for low distortion and neutral response.

In Use

I love the sound of ribbon microphones on guitar amps, so naturally, that's where I started with the AL95. The size and weight make it very easy to place. The shock mount articulates nicely but doesn't seem to be the most secure fit. I would recommend pairing with a Rycote, or another alternative. [Samar notes: an optional, very slick high-quality shock mount is in the works.]

I was surprised by just how balanced the response is. It sounds incredibly natural and open, while still exhibiting a slight roundedness that you'd expect from a ribbon.

Excerpted from the May edition of Recording Magazine 2020 @2020 Music Maker Publications, Inc. Reprinted with permission. 5408 Idylwild Trail, Boulder, CO 80301 Tel: (303) 516-9118 Fax: (303) 516-9119 For Subscription Information, call: 1-954-653-3927 or www.recordingmag.com To describe it simply, it sounds effortless. The response feels very far-reaching and lively—the bottom end blossoms with a subtle thickness without being too overstated. The low midrange sounds full, but not boxy or bloated like some ribbons can sound. The top end sounds beautifully smooth and open, but again, with a slight roundedness to it. It doesn't overtly sound like a ribbon mic; it captures sound faithfully with only a subtle sonic fingerprint.

I recorded a range of guitar amps and musical styles, and it brought something to the table for each. For clean tones, there's plenty of clarity and detail throughout the spectrum; it faithfully captures the amp as it sounds in the room. If anything, I found myself rolling off the bottom end, as it tends to get too big when placed in the context of a full mix. The transient response does an excellent job of capturing the punchiness for grittier tones. I found that the top end offers enough clarity for those tones, while still feeling ever so slightly warm.

The AL95 sounds great on acoustic guitars too! The full-bodied and transparent response captured my acoustic exactly the way I'm used to hearing it. I found

I had to place the microphone slightly further up the neck than usual towards the 12th fret, but once in the sweet spot, it sounds full, detailed, and exciting.

The list of suitable roles for the AL95 is rather endless. Drum overheads, strings, brass, and grand piano all come to mind. The natural openness and low frequency extension make it suitable for just about anything.

Both sides of the microphone seem to match perfectly, which means the AL95 would be a great candidate to use for the sides in a mid-side recording. The side-axis rejection is very pronounced, which makes it easy to position and reject bleed from nearby sources. The proximity effect is mild for the most part, but gets to be very pronounced when close up. It falls off quickly beyond two inches; I wouldn't recommend singing that close. In this particular model, there isn't a ton of shielding to protect the ribbon from air movement, and plosives become an issue that close as well. That shouldn't be a problem though, as the microphone naturally has plenty of low end, and I didn't find myself needing or wanting to push for more.

Another benefit of the corrugated piston design is that it isn't quite as fragile

as some other ribbons; you still need to be mindful of air movement, as that will damage the ribbon, but this mic doesn't require special precautions to store upright as most ribbons do. It should have more longevity and durability overall in comparison to most other ribbon designs.

Final Thoughts

The AL95 sounds nothing like a stereotypical ribbon microphone, and that's what I love about it. It sits uniquely in between a bright condenser and a warm ribbon, while providing extended frequency response and balanced character. It's one of my new favorites for recording guitar amps, and I didn't find myself reaching for a dynamic mic to blend it with—it sounds great on its own. The only nitpick I have is the shock mount, which is a bit of a loose fit and provides only minimal absorption with an absorption ring. Don't be fooled by its approachable price tag; this is a high end, hand built ribbon mic that's in a league of its own.

Price: \$499

More from: samaraudiodesign.com

Excerpted from the May edition of Recording Magazine 2020 ©2020 Music Maker Publications, Inc. Reprinted with permission. 5408 Idylwild Trail, Boulder, CO 80301 Tel.; (303) 516-9119 Fax: (303) 516-9119 For Subscription Information, call: 1-954-653-3927 or www.recordingmag.com