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May 2025 complete issue: <https://link.isamedia.com/may2025>

# Lectrosonics DSSM Transmitter/Point Source Audio SERIES9 Microphone

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DSSM front control panel.

**Bundling:** It's filling the airwaves, mostly regarding insurance plans, but it's useful elsewhere, like in audio. The three items included in this review are not really bundled. They are separate working components that need to be purchased individually; however, they are all integral to have a fully functioning system. You need all three (combined with additional gear) to do a show.

## Microphone, transmitter, receiver

The Three Musketeers had Athos, Porthos, and Aramis; the Lone Ranger had Tonto; Batman had Robin; Ponch in the television series, *CHiPs*\* had... Well, I think you get the idea. Each element is needed to make them all work. So here we have: Lectrosonics' DSSM transmitter, and, for this review, its trusty sidekick, the Point Source Audio SERIES9 lavalier microphone.

Both manufacturers are known for making their respec-

tive products as sturdy and high-quality as possible, working in environments recognized as hard on equipment. Compact, rugged, and good sounding: check, check, and check. When I was asked to review the Lectrosonics DSSM transmitter, it was suggested that the Point Source SERIES9 lavalier be included as well. Let's have a look-see, and listen-hear, shall we?

## Let's begin at the beginning

SERIES9 lavalier microphones are designed for professional applications, offering high-quality audio capture in a discreet form factor. These microphones are suitable for live performance, broadcast, theatre, and other demanding environments. A key distinguishing factor is that they are very resistant to moisture. Each mic carries an IP57 water-proof rating



DSSM rear view.

## A brief primer on IP ratings

As per the International Electrotechnical Commission (IEC), IP stands for ingress protection; the rating system used to classify the degree of protection an enclosure or device provides against solid objects and liquids.

While not the highest, an IP57 rating indicates a fairly high level of protection from dust and water exposure.

The first digit indicates the level of protection against solid objects. For the SERIES9, the number "5" means limited dust ingress. It's protected against quantities of dust that could interfere with satisfactory operation.

The second digit indicates the level of protection against liquids. Again, for the SERIES9, the number "7" indicates that the device can withstand temporary immersion in water, up to a depth of 1m, for at least 30 minutes.

Looking at the IP rating of the SERIES9 in practical terms, the mic is well-protected against sweat and make-up, important things to consider in the theatre, film, and broadcast worlds.

## Key features

The back electret omnidirectional microphone features a frequency response of 20Hz to 20kHz and has a sensitivity of 39dB 1V/Pa (at 1kHz); it is capable of handling sound pressure levels up to 142dB, providing a fairly substantial dynamic range, suitable for both powerful vocals and quiet speech.

The cables can be terminated in your choice of three-pin Lemo-style, TA4F, or 3.5mm locking ring connectors. They are fitted with proprietary ENDURE connectors at the stress relief part of the connector, which has undergone accelerated life testing to 12,000 bends, to withstand the usual wear and tear in a production environment.

## Hiding in plain sight

The SERIES9 is available in beige, brown, and black to match different skin tones and clothing, and it features a miniature design with a 4mm element diameter that provides for easy concealment and unobtrusive placement.

The mic is available in various form factors, including the GO-9WL omni lavalier microphone reviewed here, as well as a dual-element omni lavalier, an omni headset, a dual-element headset, and the EMBRACE omni earmount and dual-element omni earmount unit.

The GO-9WL list price is: \$449.

The DSSM compact, water-resistant digital wireless transmitter is the successor to the SSM and provides a range of features and benefits. Introduced in April 2024, it provides an exceptionally small form factor designed for production environments such as theatre, television, film, and sports broadcasting. It is ideal for applications requiring concealment or ease of placement. (Sound familiar?)

The first thing I noticed about the product is that it's really small. And, even though it is water-tight, the battery is removable. This is especially important for long work-days when a battery change every four or five hours might be needed.

Like all Lectrosonics products, this is one sturdy piece of kit. A quick once-over and you can see the familiar housing constructed of machined aluminum alloy and finished in the company's conductive super-hard electroless nickel ebENi finish.

The front provides all the controls via a membrane switch panel (nothing to break off or get dirty or wet



DSSM bottom view.





DSSM top view.

inside). Combined with the OLED display, all adjustments to the transmitter happen here.

Left to right are the audio modulation LEDs, the “menu/sel switch,” and the “back” button. At the center is the OLED display and the power switch, and right is the “batt” LED, encryption status LED, and the up and down navigation buttons. It’s all on a 1.5"-tall-by-2"-wide panel. The overall size is just 1.9" tall by 2.59" wide by .70" deep. The weight, including the lithium battery, is a scant 3.5oz.

By the way, depending on RF power output, battery life is 4.5 hours at 50mW, 5.0 hours at 25mW, 6.0 hours at 10mW, and 6.75 hours at the HDM (high density mode) 4mW setting. High-density mode enables maximum channel counts within a limited spectrum, optimizing frequency utilization.

On top is the SMA (SubMiniature version A) antenna connector, IR window, and standard miniature three-pin locking input connector input jack. There is also a small hex screw labeled “Do Not Remove.” (I know you are curious, but don’t, just don’t—it is used for pressure testing before being sealed.) At the bottom are the charging dock contacts and the battery door release latches.

On the back is a Gore-Tex-sealed vent to allow air pressure to escape while preventing any moisture from getting in. Did I mention that the DSSM is IP57-rated? This means the unit is protected from dust and water from entering. It

can be immersed in water between 15cm and 1m deep for at least 30 minutes. The DSSM is classified as “water-resistant.” Inside the battery compartment is a USB Micro-B port for firmware updates using Lectrosonics’ Wireless Designer software, providing power to the unit when connected. To ensure that the DSSM maintains its water resistance, it’s important to close the battery door securely. I made certain I heard two little “clicks” when closing the door.

The belt clip is also reversible for reorienting the unit, if needed.

I often wonder how all that functionality is packed into such a small package.

### Charge it!

The unit can be charged in the auxiliary CHSDSSM four-bay charging dock, which can charge up to 16 units, or removable Lectrosonics LB-50 rechargeable Li-ion batteries when connected in series from the same power supply. The battery is compatible with existing charging solutions like the CHS12LB50 and the 40117 dual USB charger.

The DSSM boasts access to over 6,000 frequencies across a broad UHF spectrum, enhancing adaptability in various production settings. It also supports AES 256-bit CTR encryption with four key policies, including universal, shared, standard, and volatile, for various security requirements for confidential or sensitive applications.

The input gain control is adjustable in 1dB steps over 50dB, combined with advanced circuitry that can accommodate a range of input levels to contribute to high-quality audio transmission with minimal distortion.

### Last but not least

Since the review is actually for the DSSM transmitter and having covered the original D2 system back in 2019 (Is it really 2025 already?), we’ll also do a cursory overview of Lectrosonics’ DSQD receiver.



DSSM interior. Note Gore-Tex membrane on right.



Lectrosonics DSSM and Point Source Audio GO-9WL

It features four channels in a half-space rack unit receiver. Did I say four channels?! The DSQD is a small package with a lot going on.

The faceplate, finished in that cool, textured Lectrosonics blue, is mainly taken up by the primary control panel and color LCD screen.

Improvements to the DSQD since that time include newer chip families (FPGAs and D/A, A/D converters) for better RF and audio performance; better RF filter matching and alignment on each of the new channels; a frequency diversity option, allowing a user to have a fully redundant channel with two lav mics, two transmitters, each on a different frequency, and two channels of the receiver for one single audio output; and SmartTune, an automatic frequency finding tool.

## Platform overview

The D Squared digital wireless microphone platform utilizes Lectrosonics' fourth-generation digital architecture for flexibility, fast setup, studio-quality audio, and low latency. The system includes the DSQD, DSR4, DSR, DCR822, M2Ra, and DCHR digital receivers; DSSM digital miniature water-resistant transmitter (reviewed here); DBu, DBSM, and DBSMD digital belt pack transmitters; DPR-A digital plug-on transmitter; and the DHu digital handheld transmitter. The system includes the DSQD four-channel digital

receiver with analog and Dante outputs. Three different receiver diversity schemes are available: antenna switching, vector diversity, and frequency diversity. The D Squared System can provide up to eight channels in 1 RU. The receiver is compatible with current and previous generation Digital Hybrid Wireless transmitters. System features include 24-bit, 48kHz digital audio, two-way IR sync, four different encryption key policies, and a tuning range from 470–608MHz for the US version. System audio frequency response is 25–20kHz +- 1dB, with a dynamic range of 110dB and THD+N of 0.05% at 1kHz, 10dBFS in D2 mode. Latency is 1.4ms for mono channels, transmitter input to analog output, using digital transmitters, and 2.9ms for mono channels using Digital Hybrid transmitters. Holy cow!

## That was the look-see, here's the listen-hear:

The beauty of a microphone is that it's one of the last bastions of plug-and-play audio products. For us old analog guys, it's a welcome sight (or hear). I have been aware of Point Source Audio since very early in its existence, and it's been cool to watch the company grow, especially in such a competitive marketplace. It deals almost exclusively with miniature or otherwise small microphone products, focusing its R&D on products that fit in that market segment. No handhelds or mics for recording studios; just live performance or broadcast, and the ability to withstand the kind of wear and tear that ordinarily happens in those situations and still sound good. So, for the Point Source Audio GO-9WL omni lavalier microphone, plug it in, and it's working and sounding good. I didn't try to bend it 12,000 times, though. I'll take the company at its word for that.

In conjunction with the Lectrosonics transmitter, placement is easy. I can put both devices practically anywhere needed to do any event or production. If you are familiar with Lectrosonics gear, setup and operation will be a



Point Source Audio GO-9WL.



GO-9WL ENDURE connector stress relief.

breeze. Since I only play with one of the company's units once in a blue moon, I need to put my ego aside and read the manual. It provides a panels-and-features overview and brief descriptions of each item. There is also a menu map that shows the progression, a flow chart if you will, as you work your way through the menu items on the LCD screen. That comes in handy for newbies and occasional users.

Lectrosonics gained a name in the film and video production world and has always presented products designed for physically demanding environments and high-quality audio performance. The company has gradually branched into other audio production arenas. The old saying, "You get what you pay for," is true here. The DSSM is not inexpensive but is priced similarly to top-end contemporaries. The price is \$2,449, available via all the usual purveyors of fine pro audio equipment. While the DSSM is built like a proverbial tank, it's nowhere near the size, and you are led to wonder how the company did it. The self-described audio fanatics at Lectrosonics have worked their engineering prowess on a somewhat narrow focus on product design and innovation. Make it sound good, withstand hard use, and look cool doing it. (Okay, so I added that last item, but I have always appreciated the look of their products.)

I've worked with both manufacturers long enough to know they would not release products unless they sounded good. And indeed, they did. If I were still active in the production community, these would be two tools that I would love to have in my kit.

So there you have it. A great combination. Kind of like, Bogart and Bacall... 📶

*\*For those wondering, Ponch had his partner, Jon.*