More of This, Les of THAT
Les Tyler, president, THAT Corp.

by Fred Goodman

According to Les Tyler, president of Milford, MA-based THAT Corp., he has been interested in music since the age of 3 when he took his first drum lessons. He then branched out to keyboards (piano, organ, even accordion), guitar and clarinet as a teenager, playing in bands through high school and college.

“As a teenager,” Tyler adds, “I was fascinated by electronics, taking things apart (often never to be put back together) and rewiring my bedroom to control lights remotely. So, it was natural to combine my loves of music and electronics, which led to audio, recording and eventually making electronics to use in bands.”

After getting his electrical engineering degree in 1975, Tyler got a full-time job as a recording engineer in upstate New York. In early 1977, he joined dbx as a product engineer, where his first product designs were the dbx 163 and 165. “I tried to pack into them everything I’d learned in high school and college.

“My two partners and I were all engineers at dbx during the 1980s,” Tyler continues. “After two changes in ownership, in 1989 we saw an opportunity to buy out a little piece of dbx’s business—the part selling ICs and board-level, noise-reduction systems, mostly to pro audio companies. We formed THAT to buy out that piece of dbx.”

When Tyler and his partners formed THAT, they figured they’d better do what they knew. “Except for deciding to make our own semiconductor wafers, we’ve stuck to that maxim,” he points out. “So, we do analog semiconductors for the audio world, and we concentrate on the pro audio market because we love it and know it.”

Today, THAT really contains two business: licensing of noise-reduction technology to the TV industry, and analog semiconductors. The company bought dbx’s licensing business and all the original dbx patents (many of which Tyler worked on at dbx) in 1994, and has enjoyed licensing relationships with the major consumer and broadcast TV manufacturers, from Panasonic and Sony to Barco and Belar.

THAT’s sales are split about 50-50 between licensing and ICs. The company makes semiconductor wafers at its own semiconductor facility (fab) in Milpitas, CA, in the heart of Silicon Valley. Almost everything else is done from THAT’s headquarters in Milford (about 45 minutes outside Boston). About 1/3 of the employees are in Milpitas, with 2/3 in Milford. There’s also a two-person office in Tokyo which concentrates on licensing in the Far East, and a small group of engineers in Atlanta that supports the company’s digital licensing program.

Within the U.S., all sales are handled from headquarters, through Tyler says they do take advantage of their base in California to stay in better touch with West Coast customers. International sales are handled through distributors around the world.

Tyler explains, “Since we’ve come from the music industry, we seem to attract folks that love music and audio. Most of the engineers play an instrument or two, and there are two drum sets set up semi-permanently in our basement, which are used by at least three in-house bands. I believe there’s a correlation between music, math and electronics. Like most pro audio companies I’ve seen, we’re pretty laid back, with jeans and casual shirts the norm—unless we have visitors to dress up for.”

Tyler adds, “We try to live the golden rule, taking care of our customers the way we’d like to be taken care of ourselves. From our days at dbx, we learned much about what to and what not to do in running a company. I’m sure we don’t always succeed, but we have tried to repeat the good things we learned and avoid the bad things.”

In all the company’s products, THAT stresses technical achievement. Tyler says, “We aim to make every one of our parts the best of its type. We’re not afraid of bringing in outside technology, as we’ve done with Bill Whitlock’s InGenius input topology, or Chris Strahm’s output stages. We’re also not afraid of blazing a technical trail ourselves. Our IP licensing business has taught us the value of patents, so we’ve applied for 15 of our own patents since we started our business.”

Other than general leadership and “the vision,” Tyler remarks that most of his attention nowadays is focused on sales and marketing. “I’m always on the lookout for new product ideas, trying to match our fab’s capability (or our IP development engineer’s bag of tricks for licensing) to what the market really needs and wants. My engineering background is an advantage, but I try to get out of the way so that the real design work can be done by our far more capable IC engineers. I’m also the head cheerleader for integrating together our three U.S. locations spanning the continent. That, along with keeping the Tokyo office integrated into the mainstream, keeps me in frequent-flier miles.”

Tyler points out that the company’s main focus is, and will continue to be, to “serve pro audio electronics manufacturers with niche-market analog ICs. We feel we have lots of room for growth within this area. We’re well established as the market leader in Voltage-Controller Amplifiers (VCAs) and Analog Engines (combinations of a VCA, and a level detector with some ‘glue’ circuitry that can be shaped into a variety of dynamics processors like compressors, expanders, gates, etc.).” THAT’s latest Analog Engine, the 4320, is aimed at the low-voltage, low-power market and has been recognized as a companion solution for pro wireless mics. “The 4320 represents the first real advance in wireless mic companding since Signetics introduced its compander for the cordless phone market in the 1970s,” Tyler boasts. “This part alone was responsible for some significant sales increases last year.”

THAT has recently introduced its InGenius balanced input stage, which it says offers performance advantages in the real world, and is in the process of educating customers and end-users alike on why the circuit can eliminate hum and noise pickup in many difficult situations. “And, we’re getting very close to releasing a high-performance microphone preamp,” Tyler reveals, “which should be followed early next year by a clearer balanced output stage that advances the state of this art as well.”

Tyler concludes, “Our aim is to fill in all the spaces where analog I/O must exist to surround a DSP-based core. Since we’re new to the I/O area, all these new parts are providing significant growth for the company. It’s an exciting time for us.”