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Foti and Omnia Go to 11

Omnia Audio this month unveils the Omnia.11 broadcast processor. In the first detailed public discussion about the product, Radio World's Paul McLane e-mailed with Frank Foti, self-described Omnia "chief cook and bottle washer, servant to three cats, caretaker to steam engine" and company president.

RW: You've been teasing about the Omnia.11 since last year. Is it real? Why is it a big deal?

Foti: Teasing? Ah Paul, I think you've been staring at those new Omnia.11 ads a bit too much.

Omnia.11 is as real as NBA MVP LeBron James. It ships right after NAB. We spent last year doing private demos and field tests in major markets.

The big deal is what people told us they're not hearing on-the-air with Omnia.11: intermod distortion. One key executive told me we're about to change the way people to listen to FM — again — as the audio is noticeably cleaner, for the same relative level of loudness.

Paul, you asked me a number of years ago what was the next step in processing, and I told you we needed to clean up on-air processed audio, yet remain competitive. That's what Omnia.11 is all about.

RW: What does it cost?

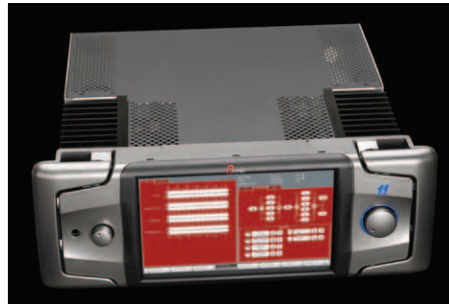
Foti: Good question ... :) It's in the price range of Omnia.6.

RW: As fans of "Spiñal Tap" we assume the product name is a nod to that classic movie.

Foti: We ran an Omnia.fm ad, back in 1999 where we used the "It goes to 11" slogan. The movie's always been a bit of fun for us.

RW: What should we understand your philosophy about loudness to be with this box?

Foti: It's not about getting loud. Flip on the



radio today and there's plenty of packed-up, constipated-sounding audio. The trick is to clean it up, yet remain loud in a competitive sense. The philosophy is simple. We took our prior efforts, critically listened to them, checked our egos, and said, "What must be done to make it cleaner, for the same relative loudness?"

Easier said than done. I tipped my hand at last year's NAB, as my paper "Cleaner, Yet Still Loud" was all about this topic.

The project that became Omnia.11 played out where I took on the final limiter/clipper stage, Cornelius Gould took the dynamics sections and together we went about investigating methods to clean up the audio. What we learned is that intermodulation distortion is the silent killer to processed on-air audio, even at reduced levels of processing. Fast limiters and clippers, until Omnia.11, generated intermod distortion that most broadcasters have come to accept as that "sounds like radio" signature.

The algorithms in Omnia.11 grew out of Omnia.6, but all of them, from the wide-band AGC up through the clipper system, employ our "Chameleon Technology" and LoIMD processing techniques. These methods enable Omnia.11 to reduce, and in some cases eliminate, processing induced intermodulation distortion.

The result is added clarity. Snare drums sound like snare drums, live voice is crystal-clear, yet the resultant on-air product is loud with extremely consistent spectral balance. Instead of rambling on, it really needs to

be heard. I'm happy to let the broadcasters decide.

During one field test, we had a well-known corporate director of engineering claim the audio was missing something, as he tested Omnia.11.

Listening with him, I agreed he was missing something. After critically listening, and adjusting, he realized he wasn't hearing the level of intermod distortion he was used to hearing. The on-air audio was louder than his existing processing, but noticeably cleaner. Detail and clarity were quite revealing.

RW: What does the 11 do that your other processors, or others on the market, don't?

Foti: You can't use just any box to do the job of an Omnia. Our new box is cleaner, bar none. Additionally, the firmware platform is considerably more powerful and flexible than previously available. We're taking advantage of power in both the DSP and quad-core domain, which extends exponentially present and future processing possibilities.

It also contains onboard Wi-Fi, 10.5-inch touch screen, Livewire, an installation wizard that makes the out-of-the-box experience much easier, soft-patchable headphone monitor, along with a host of additional useful goodies.

RW: Does this replace one or more models in your line?

Foti: Well, it becomes the new flagship. Eventually, Omnia.5 will head off to the processing home for the aged.

RW: Are there various configurations of this processor?

Foti: Yes. There are various options for monitoring the FM multiplex signal, HD Radio diversity-delay with ramp in and out function, and we're going to add as an option the Arbitron PPM encoder and confidence monitor. There's other stuff in the works as well.

For information, visit www.omniaaudio.com.