

Smooth Processing With Omnia-6fm

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The one thing I've always loved about **Omnia** audio processors is their ability to sound the way you want them to sound, instead of locking you into the way the manufacturer thinks your station should sound.

With the new Omnia-6fm audio processor, the company seems to have made impressive sonic improvements that give you a much louder and much cleaner audio presentation than the original Omnia.fm, which I already thought was as clean as you could possibly get.

The Omnia-6fm continues the Omnia tradition of clean, loud audio without digital "grunge." A battery of comprehensive controls helps you tailor your on-air sound until it's just the way you want it.

Stereoscopic

Out of the box, I saw that the unit has two screens; upon boot-up, I discovered why. One screen is dedicated to all gain-control metering — in full color, I might add — while the other is dedicated to user controls and system utilities.

I found this useful, as I can now adjust the controls, *see* exactly what my changes are doing and almost instantly get a "feel" for that control.

After a couple hours, I had the unit blowing away my trusty old Omnia unit. Where the abilities of the "Omnia Classic" taper off, the Omnia-6 effortlessly picks up and takes flight.

The user interface is quite elegant, and it operates in a fashion similar to the original Omnia, so there isn't much to relearn. Most common control items I needed were no more than one menu deep, so the learning curve was quite low.

The sound of the unit was incredibly smooth and the loudness was impressive, too.

The topology of the unit is much different than that of the original Omnia.

The Omnia-6fm Audio Processor

The first stage of processing is the wideband AGC, which appears to have some added "beef" to it and greater control range. This stage can be as transparent as you want it to be. At more aggressive settings, you are able to hear it work.

The next thing in the chain is a five-band leveler/AGC with adjustable crossover points. There are some familiar controls here: Attack, Release, Make Up, Gain, along with the gate.

Each band still offers Freeze, Slow, Medium and Fast gate options. You can also set the quiescent gain state of each band to have 5 or 10 dB of attenuation whenever there is no signal in that particular band.

The "Slow," "Medium" and "Fast" settings determine the amount of time it takes to reach the quiescent gain state. This is useful particularly on classic rock material.

For example, I was able to set the quiescent gain state of the upper bands so that the annoying tape hiss in much of the material in that format is attenuated during quiet passages.

Another great feature is an adjustable crossover system for the five-band AGC. This is a new feature for the Omnia family and, to be honest, the factory presets worked just fine for what I was doing, so I didn't mess with them much. But it is nice to know the control is there.

The Space EFX algorithm, which was an optional plug-in for the Omnia.fm, comes standard in the Omnia-6. I thought this feature was way cool.

Things start to get interesting here.

Omnia places a summing mixer after this stage, and allows you to mix the five bands to your taste. The bass equalizer controls follow, and then another crossover to split the audio into six bands for a six-band limiter.

Between the five-band AGC and the six-band limiter, I was able to precisely get the texture I was looking for and the consistency between cuts was impressive.

The six-band limiter has its own summing stage and that feeds the clipper system.

Stop the clipping

The clipper system seems to be refined greatly over the original Omnia. The system consists of the following controls: Bass Clipper, which is handy to have; Clipper Drive; Composite Clipping and something called Silk.

I'm not sure exactly what this last control does, but hope to pursue this control at some future date.

I should note that the stereo pilot is fully protected from composite clipping artifacts. Even when driven to extreme levels (to my ear), my mod monitor showed no contamination of the stereo pilot tone.

The Omnia-6 also has a 53 kHz low-pass filter, similar to the original, to protect subcarriers from hash due to composite clipping. Nice and handy for me since one of my stations still supplies that wonderful elevator music to many retail outlets here in Cleveland.

There are other features worth noting, such as the ability to set the sample rate of the AES outputs for 32, 44.1, 48 or 96 kHz. This should help folks who are using 32 kHz sample rate STL systems.

All in all, I was impressed with the Omnia-6fm. It is by far the best audio processing unit I've heard.

For more information contact Telos/Omnia in Ohio at (216) 241-7225, fax (216) 241-4103 or visit the Web site at www.telos-systems.com