

Radio World

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Buyers Guide

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USER REPORT

Omnia.FM Helps Crack Tight Market

By Alex Lakey

LONDON Virgin Radio was born into one of the most competitive FM marketplaces in the world.

Given the nature of the British radio marketplace Virgin competes on AM with numerous local stations and with the BBC across the United Kingdom, as well as on FM in London — we have been quick to look for ways to improve our sound quality. To this end, Virgin has searched aggressively for the ideal audio processing solution.

Stands up to the competition

The 34 Virgin medium-wave sites are processed with several Orban 9100 Optimods. These provide good medium-wave processing against the competition, which includes Irish longwave station Atlantic 252 and smaller independent radio stations around the U.K.

However, on FM the competition was more savvy. Capital Radio had a 20-year lead over us in London and a very polished on-air product.

We needed to process ourselves as strongly as possible in order to stand a good chance of making an impact in the market.

After trying a digitally controlled analog processor for a while, I became increasingly concerned about the quality the sound achieved when the processor was pushed to its limits. The multiband analog unit produced a much sought after character that I do not wish to devalue, but under certain program conditions, it could sound distorted and unpleasant.

As engineers and programmers, our job is to ensure that our processing avoids these as much as possible, bearing in mind that some times we must compromise between loudness and quality.

Now digital processors are available. My first experience with the Cutting Edge



AT A TOUCH: Control of the Omnia.FM is through a large front panel dial.

Omnia.FM processor was a prototype demonstrated in late 1996 by Cutting Edge President Frank Foti and Marcus Bekker, the local Cutting Edge dealer.

We were shown a prototype of the system controlled via ASCII from a laptop, but even at that early stage, the processing was very impressive. We followed the course and progress of the product and tried several incarnations of the Omnia during its development.

The Omnia takes an input from either balanced analog or AES/EBU sources. Control of the system is in the software and is achieved via a large front-panel dial and an LCD display that toggles among metered displays.

The menu structure is very intuitive. The input and output levels are adjustable via the software; other menus govern the two composite output adjustments, SCA level, stereo pilot and any necessary phase adjustment.

These are all classified as “system attributes” and are saved as global settings to the on-board RAM and to a PCMCIA Flash RAM card. There are two PCMCIA sockets on the rear of the unit.

Other options

The second socket allows other devices, such as modems or network cards, to interface

directly with the system for future software revisions. It also allows for secure access via dial-up dedicated Windows software or a Web browser.

The signal path is simpler than that of many current analog processors, which had to evolve with multiple bands, compression and clipping to achieve the loudness required by some stations. The Omnia can be just as loud, without many of the problems associated with other units I have used.

A feature that may unsettle “old school” engineers is the lack of descriptive units available on certain settings. All processing occurs in DSP, and consequently, is adaptive. Therefore, all settings are relative.

If you process by numbers, then you will not get the most out of the unit. Give yourself time to become accustomed to the controls. This is not a bad thing I would suggest that once one has confidence in the Omnia, the changes are more logical than with other processors.

Unlike some processors, where changing one piece of the jigsaw puzzle destroys the picture, this unit will respond in ways you can predict.

The digital nature of the Omnia means that filters and compression act as closely as possible to the ideal as math will allow — and you really can hear the difference. The digitally created stereo coding creates a composite output that has fabulous width and purity.

Finally, the Omnia is very user-friendly: Rely upon your gut feelings and your ears, and I think you will enjoy the results.

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