THE ONE PROCESSOR EVERYONE NEEDS
OMNIA ONE

The ONE processor that does it all, **now does more.**

The Omnia ONE meets the challenges of AM, FM, HD Radio™, DAB, DRM, multicasting, podcasting, netcasting, satcasting, and just about any application where signal processing is needed. The Omnia ONE quickly adapts to your needs by simple software downloads. It can be used in the studio, for transmission, and even in networked applications, thanks to its Livewire™ interface. It even has dual software banks allowing you too easily switch between styles.

The Omnia ONE packs an impressive list of standard features into its 1RU frame:

- Wideband AGC followed by Four-Band AGC and Four-Band Peak Limiter sections.
- Browser-based remote control and configuration.
- Analog XLR balanced inputs and outputs.
- Digital AES/EBU input, output and external Sync input.
- Automatic input fail-over on loss of audio.
- Livewire / Ethernet RJ45 jack.
- Universal Power Input.
- Built-in stereo headphone jack with front panel level control.
- Single Jog-Wheel user interface with LED level metering and LCD screen.

Rounding out the Omnia ONE AM's processing is Omnia's advanced NRSC compliant, distortion-managed final limiter / clipper, including selectable Low Pass Filter frequencies that support AM HD transmission installations...the same as used in the Omnia ONE's bigger siblings.

Omnia ONE FM adds Omnia's advanced, fully distortion-controlled, pre-emphasized final limiter / clipper, a newly designed digital stereo generator with SCA convenience input, two independently adjustable composite MPX outputs and 19kHz pilot output for synchronization to external RDS generators.

Omnia ONE Studio Pro fulfills the need of a lower delay, full-bandwidth processor for applications that require minimal delay and do not require absolute peak limiting. It is the first studio processor to include a four-band compressor / limiter allowing you precise and accurately defined control while pre-processing music, commercials, remote feeds, or sweetening audio. Applications include recording studios, mastering labs, TV stations, radio headphone feeds ... just about any application where signal processing is needed.

Omnia ONE Multicast/DAB features SENSUS™ audio conditioning technology to minimize codec artifacts as well as restore the fullness and depth that bit-reduction steals. It also features Ultra low-distortion final limiting optimized for the HD codec.

Omnia ONE is ready for the future of broadcasting. The flexibility of its platform allows it to stay current as signal processing advancements occur. It uses the Livewire standard for professional networked audio over Ethernet, connecting directly to Axia IP-Audio networks. When used as part of an Axia network, a single CAT-6 cable carries all inputs, outputs and remote control.

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OMNIA ONE
General Audio Specifications

	ONE FM	ONE AM	Multicast/DAB & Studio Pro
Frequency Response	± 0.50 dB, 30 Hz to 15 kHz	± 0.50 dB, 30 Hz to 10 kHz	± 0.50 dB, 20 Hz to 20 kHz
Signal-Noise Ratio	> -80 dB de-emphasized, 20 Hz – 15 kHz	> -80 dB de-emphasized, 20 Hz - 10 kHz	> -100 dB, 20 Hz – 20 kHz
System Distortion	< 0.01% THD, 20 Hz – 7.5 kHz. Second harmonic distortion above 7.5 kHz is not audible in the FM system.	< 0.01% THD, 20 Hz – 5 kHz. Second harmonic distortion above 5 kHz removed by system's 10 kHz low pass filter.	< 0.05% THD 20 Hz – 20 kHz
Stereo Separation	> 65 dB, 20 Hz – 15 kHz; 70 dB typical	> 65 dB, 20 Hz – 10 kHz; > 70 dB typical.	> 80 dB, 20 Hz – 20 kHz; 90 dB typical.
Digital Output Level	-24.0 to 0.0 dBFS peak, software adjustable in 0.1dB steps.	-24.0 to 0.0 dBFS peak, software adjustable in 0.1dB steps.	-22.0 to 0.0 dBFS peak, software adjustable in 0.1dB steps.
Crosstalk	> -70 dB, 20 Hz - 15 kHz.	n/a	n/a

A/D Conversion	Crystal Semiconductor CS5361, 24 bit 128x over-sampled delta sigma converter with linear-phase anti-aliasing filter. Pre-ADC anti-alias filter, with high-pass filter at <10 Hz.
D/A Conversion	Crystal Semiconductor CS4391, 24 bit, 128x oversampled.
Analog Audio Output	Left/Right Stereo. Electronically balanced. Output Impedance 20 ohms. Minimum load Impedance 600 ohms. Output Level adjustable from -2 dBu to +22dBu peak in 0.1dB steps.
External Sync Input	External Sync: Allows the output sample rate to be synchronized to an AES3 signal applied to the Ext. Sync input connector. (Does not accept World Clock inputs)
External Sync Range	Automatically accepts sample rates between 32kHz and 96kHz.

General Specifications

Analog I/O	2-pair Balanced XLR-type connectors
Stereo Generator Connections (FM style only)	Four standard female BNC
AES/EBU In & External Sync	Shared RJ-45
AES/EBU Out	RJ-45
Ethernet / Livewire	Shared RJ-45
Power Requirements	100-250 VAC, 47-63 Hz., Less than 40 VA
Power Connector	EMI suppressed IEC male. Detachable 3-wire power cords supplied for US and European use.
Power Supply	Internal. Overvoltage and short circuit protected. Meets EN55022, EN55011 Level B Conducted Emissions. EN61000-4-2, -3, -4, -5, -6 level 3 immunity compliant. Full international safety approval. CE marked.
Environmental	Operating Temperature: 32 to 122 deg. F / 0 to 50 deg. C for all operating voltage ranges. Humidity: 0-95% RH, non-condensing.
Dimensions	19" wide x 1.75" high x 16" deep (48.26cm wide x 13.335 cm high x 40.64 cm deep) 1RU
Shipping Weight	12 lbs. / 5.5 kg

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Radio Never Sleeps. Neither do we. We're here for you, anytime, with free round-the-clock, 24/7 technical support. Call +1-216-622-0247.