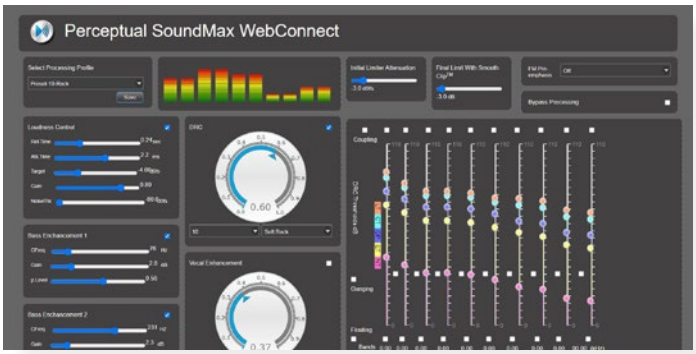
INTRAPLEX® AUDIO PROCESSING

Powered by ATC Labs Perpetual SoundMax™

Lively, Crisp, Clear & Loud Sound



SoundMax WebConnect *Web-based controller software runs on any browser, and can fine-tune and control the audio quality of SoundMax™ IP and generate new profiles.*

Intraplex® Audio Processing Product Features

Enhanced Consistent Loudness and Presence
10-band high-resolution intelligent audio dynamics processing & loudness control allows for much higher control in the tuning of the desired audio attributes and improving presence in comparison to conventional 5- or 6-band processing. This results in substantial boost in the overall sound density, presence, and loudness. At the same time this processing delivers ultimate sound details and impactful presence of various instruments.

Crisp & Clear Sound
State-of-the-art signal processing ensures that the processing output is free of any phase distortions and doesn't sound over-processed. Perceptual SoundMax enhances clarity in addition to loudness and presence, and all of its modules are tunable in real-time without audio jitters.

Lively Audio
Vocal Enhancement, Stereo Image Enhancement, Bass Enhancement, and other available sweetening tools make the sound livelier and more pleasing to the ear.

Integrated Product
The integration of high-quality 10-band audio processing directly into GatesAir Intraplex® audio transport products increases ease of deployment and reduces cost. Current products include:
- Intraplex IP Link 100c
- Intraplex IP Link 100e
- Intraplex Ascent

- **Multi-band High-resolution Dynamic Range Compression (DRC):** Provides great 10-band control in enhancing audio attributes and improving presence and listener impact
- **Intelligent Loudness Control (ILC):** High-resolution, broadcast-quality algorithm maximizes loudness and provides the desired sound density
- **Vocal Enhancement (VE):** Identifies, clarifies, and boosts vocal content
- **Bass Enhancement:** Tunable bass boost module with 2-independent stages
- **Stereo Enhancement:** Stereo image stabilization & enhancement module
- Other available audio sweetening tools such as **Dynamic Listening Fatigue Reduction (DLFR) and Incoherent Component Suppression (ICS)** modules provide additional sound quality tuning options. A final SmoothClip™ algorithm ensures distortion-free look-ahead limiting.

Perceptual SoundMax™

Craft a breathtakingly detailed, consistent, and balanced sound for your broadcast using Perceptual SoundMax™ 10-Band high-resolution intelligent Audio Processing technology developed by ATC Labs. This product brings novel innovations in audio processing and sound quality enhancement to your broadcast in an integrated solution from GatesAir. ATC Labs specializes in audio signal modeling, psychoacoustics, accurate signal processing, and novel audio-aware artificial intelligence/machine learning algorithms. These drive the core of Perceptual SoundMax.

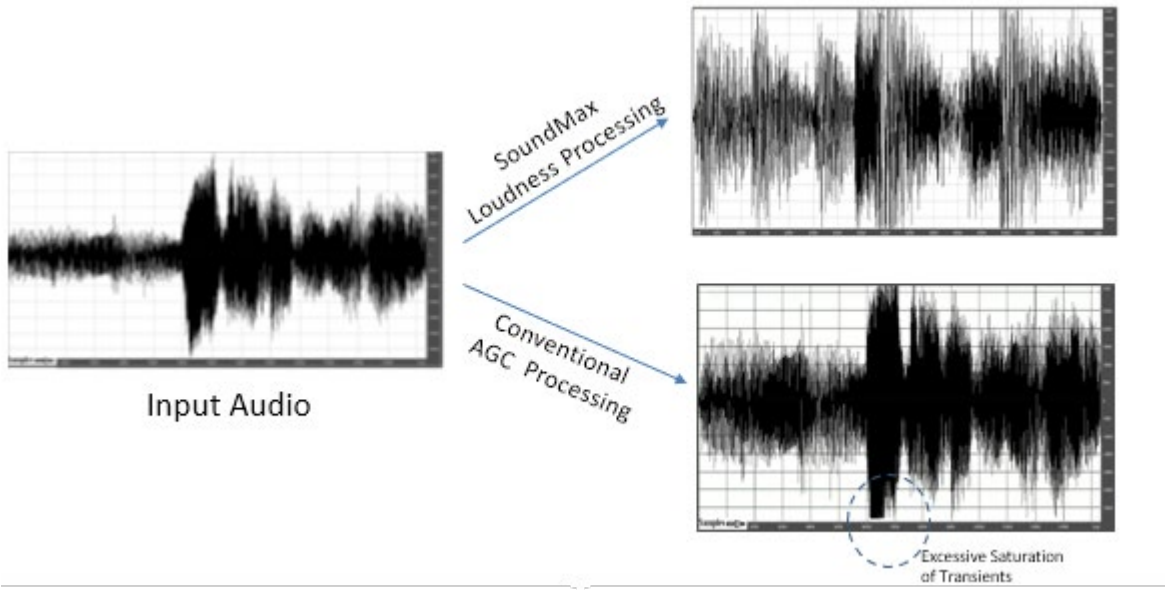
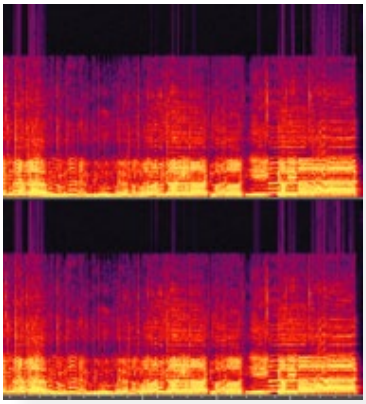
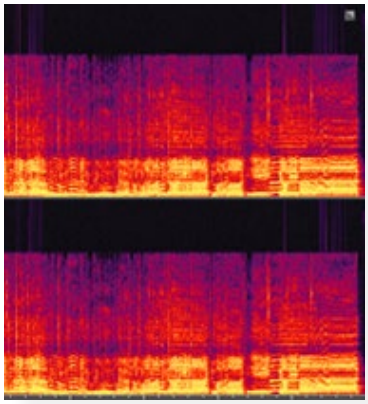


Illustration of SmoothClip Look-Ahead Limiting Algorithm in Perceptual SoundMax using Output Signal Spectrograms



Without SmoothClip

Conventional limiting leads to substantial high frequency energy growth resulting in lack of clarity



WITH SmoothClip

SmoothClip Limiting in SoundMax eliminates high frequency energy growth, thus improving clarity