

Spotlight Feature

August 2008

New Features Added to QSound's mQFX™ Suite of Audio Enhancement Technologies



QSound Lab's leading-edge **mQFX** suite of digital audio effects for mobile devices now includes several new state-of-the-art features, providing consumers with an even richer, user-friendly high-definition audio experience. New to the mQFX sound enhancement engine are **QXtremeVolume**, a handset speaker volume maximizer for use in noisy ambient environments and **QAutoLeveler** for automatic gain control. **QEQualizer** (QEQ) has also been redesigned to provide fully parametric spectrum control with an exten-

sive library of presets. Along with QSound's well established audio technologies QXpander, QSizzle, QRumble, QDRC, QVerb and QLimiter, the addition of these new features to the mQFX suite now offers OEMs the most comprehensive collection of high-performance digital audio effects for mobile devices available on the market.

QXtremeVolume maximizes handset speaker output for increased audibility in loud environments, yet minimizes potentially speaker-damaging signal distortion. Ringtone sound level can be increased by several dB to suit user needs without clipping the signal. QXtremeVolume is available in a broadly effective stock configuration or can be fine-tuned by QSound Labs for optimal results on any specific platform.

QAutoLeveler is a simple, foolproof, adjustable automatic gain control that applies a dynamically variable boost to quiet passages or sources, producing greater playback consistency and increased average signal level. It improves audibility of soft passages over ambient noise without allowing high-energy content to become too loud, reducing the need for users to readjust levels. QAutoLeveler is suitable for all input types including streaming signals and is simple to configure with only one continuously-variable control that may be included in the user interface or preset by the system integrator.

QEqualizer is a sophisticated, highly flexible, fully parametric tone control that has a configurable number of stages, with variable filter type, bandwidth, frequency, and fully-symmetrical +/- 18dB gain for each stage. A large library of customizeable presets is available with a new flexible multi-level preset management system that simplifies integration and end-user operation.

With these new additions, the mQFX suite offers more competitive advantages than ever. OEMs can now benefit from an extensive package of audio enhancements while saving on cost and resource requirements, allowing for greater product differentiation and marketability. With a wide range of processes to control frequency response, dynamics and spatial enhancements all rendered in QSound's market-leading compact, modular, scalable technology, mQFX fulfills the demanding design and manufacturing requirements for next generation mobile devices like no other.