About QSurround®

QSurround is a well-established QSound Labs technology that renders mono, stereo and multi-channel surround audio with maximum spatial impact over stereo headphones, stereo speakers and multi-speaker surround systems.

QSurround has been implemented in a broad range of consumer entertainment devices including computer sound cards, notebook computers, DVD players, televisions, portable stereos and home theatre systems from manufacturers from such as AIWA, Panasonic, RCA, Sharp, Sanyo, Sony and Toshiba.

QSurround® Mobile Feature Set

QSurround Mobile delivers QSurround functionality with a feature set and footprint optimized for mobile platforms, in a variety of flexible standalone and integrated configurations.

QSurround Mobile handles mono and stereo formats in addition to discrete multi-channel surround, with target-specific processing for earphones, narrow and wide geometry (mobile vs docked) speaker systems.

QSurround Mobile maximizes the sonic potential of Mobile TV formats such as DVB-H, T-DMB and ISDB-T.

Surround & Mobile Platforms

The availability of multi-channel surround audio for mobile television broadcast and downloadable movies is on the rise. The introduction of new stereo-compatible multi-channel surround formats for digital networks will only accelerate this trend.

Yet the devices receiving this multi-channel content are typically limited by their very nature to two-channel output. To benefit from multi-channel audio, these mobile devices must decode the extra channels of information, then combine ("down-mix") those channels using a process known as surround virtualization. This produces a two-channel output that retains surround sound spatiality re-encoded in the form of psychoacoustic cues.

Given the limitations and multi-function nature of the mobile platform, a reliable, field-proven, compact and low-overhead process is required.

The QSurround Mobile Competitive Edge

- *Virtualises 5.1 decoded surround material as well as stereo and mono audio*

- *Unparalleled efficiency for low resource consumption*

- *Small memory footprint*

- *Supports earphones and narrow or wide geometry speaker systems*

Transform Your Audio Experience with QSurround Mobile

Ordinary Audio Listening

OFF

Conceptual illustration of QSurround Mobile surround virtualization over headphones

ON

The QSurround Audio Experience

Platforms and Implementations

QSurround Mobile can be implemented at various system levels, e.g. within a driver, as a plug-in, or as a user application.

QSurround Mobile can be provided in the form of object code, or custom ported by QSound Labs to suit your specifications.

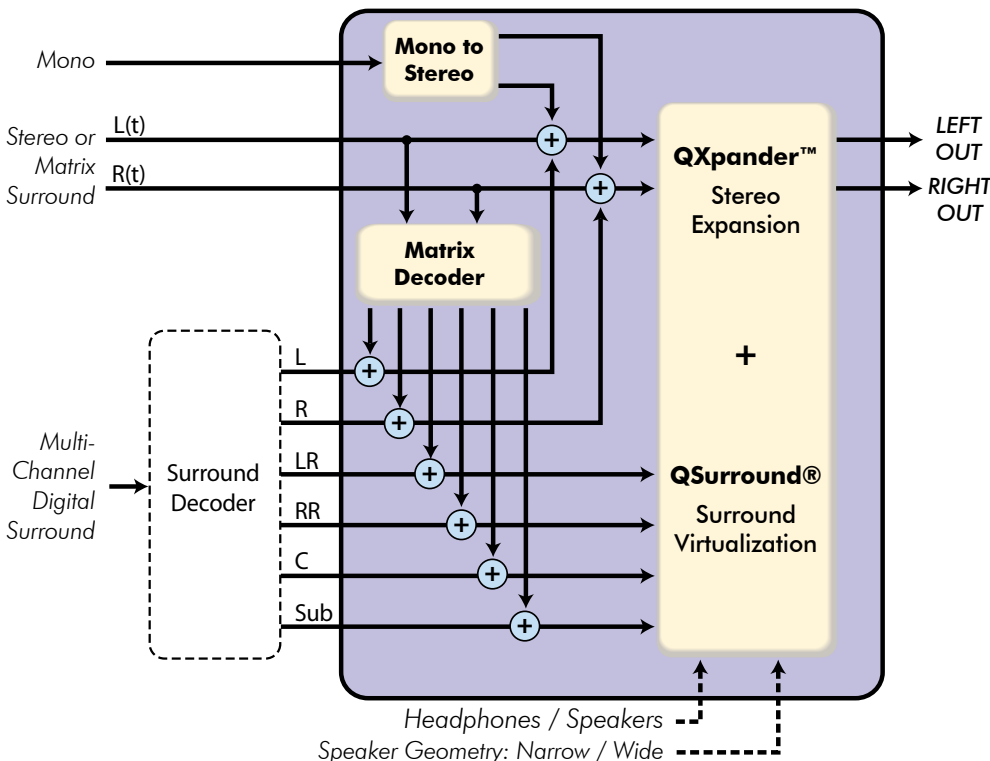## QSurround Mobile Applications

Mobile Phones

Media Players

Earphones (Std / BT)

Docking Stations

QSurround® Mobile

Mono → **Mono to Stereo**

Stereo or Matrix Surround — L(t), R(t)

Matrix Decoder

QXpander™ Stereo Expansion

LEFT OUT
RIGHT OUT

+

Multi-Channel Digital Surround → **Surround Decoder** → L, R, LR, RR, C, Sub

QSurround® Surround Virtualization

Headphones / Speakers
Speaker Geometry: Narrow / Wide

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