

## **QSC's Position on Immersive Sound**

We believe that "immersive sound" can and does provide an enhanced listening experience for moviegoers, for certain scenes in certain films, when used with discretion and when it is consistent with the storyline and visual content.

We support any practical format. We have no stake in the success of any one particular format over another. However, should more than one format exist we believe that a single DCP deliverable is conducive to the long term success of immersive sound.

As with any film sound format, we recognize that our role as equipment manufacturer is to provide the best possible tools to the exhibitor so that the creative intent of the filmmaker can be realized within the cinema.

Our objective is to provide the highest possible quality components and systems for any format, for any size room, within the budget requirements of our end customer.

Recognizing that immersive audio is inherently more expensive than 5.1/7.1, there may be pressure to minimize costs in order to accommodate the extra investment. However, reducing cost by using inferior components, substandard installation procedures, or by ignoring resolvable acoustical problems is likely to yield poor results compared to a high performance 5.1/7.1 system in a properly designed and installed room.

QSC provides a complete B-chain solution: processors, amplifiers, and loudspeakers. Consistent with our objective of keeping immersive sound within budgetary and technological reach of any exhibitor, we will continue to address the technical requirements of immersive sound in our products' feature sets wherever possible:

- Processing platforms compatible with and capable of rendering and/or playing back any format, and that make it possible to support multiple formats in the same room.
- Amplifiers that make it feasible to provide discrete channels for each individual surround loudspeaker, regardless of size or quantity.
- Loudspeakers that address the specific installation, power output, and coverage requirements of any format.
- High resolution equalization (like QSC's Intrinsic Correction<sup>™</sup>) is best handled by the B-chain provider. Equalization done in-situ after installation will not maximize loudspeaker performance.
- A cinema system should not normally require limiting, but if it is applied, the B-chain and amplifier DSP is the right place to apply it. Limiting in A-chain processors does not provide the benefit of direct amplifier voltage or clip signal feedback, and may even limit prematurely.

QSC is always committed to promoting any and all advances in cinema sound technology, especially when they provide a clear benefit to both the exhibitor and the moviegoing public.