

## SCREEN ADVERTISING GUIDE TO SOUND IN CINEMA

### Quality through Standardisation

For quality sound, the cinema environment is a challenging environment. However, when standards and production values are followed, the results are outstanding. Outstanding quality is demanded by the major international advertisers and in general should be made available to the majority of advertisers of lesser budgets. The extreme low-end budget campaigns should conform as best as possible so as to be in keeping with the others.

SAWA is working to standardise cinema commercial production formats across all member companies. The objective of this standardisation is to introduce common guidelines and criteria for the production of cinema commercials, which in turn will facilitate the use of the cinema medium for advertisers on a worldwide basis. As an example of our proactive approach, we have been working with Dolby Laboratories to produce a guide: [The Dolby Screen Advertising Guide to Sound](#) which aims to provide vital information to our members on how to maximise the quality-versus-cost ratio through better understanding—and thus control—of the complete post-production sound process. To promote understanding, the guide includes three appendices that are to be given to producers: [Producers' Specification Sheet for Screen Advertising Post-Production Sound](#); to non-Dolby studios: [Minimum Delivery Requirements of Components Supplied to Dolby Approved Studios for the Mixing and Mastering in Dolby Cinema Sound Formats](#); and to exhibitors: [Exhibitors' Guide to Advertising in Dolby Sound Formats](#).

Our fundamental work with Dolby, however, has been to introduce a standard recording level for cinema commercials. The result of this collaboration is the Leq(m) Loudness Equivalent measurement system, which has been widely adopted by many countries and organisations worldwide as an effective method of loudness control for both cinema advertising and movie trailers. The Leq(m) system assesses the perceived loudness and annoyance of motion picture sound masters and through regulation, permits only sensible and creative use of the sound format's available dynamics.

Since 1 January 2000, many screen advertising companies adopted the SAWA maximum of 82 dBLeq(m). At the same time, the Trailer Audio Standards Association (TASA) was formed and ratified the use of Leq(m) to regulate motion picture trailers. Since then the British Standards Institution (BSI) reflected this industry-led initiative and produced British Standard BS5550-7.4.2, the formal standardisation of both the Leq(m) metric itself and the current SAWA and TASA maxima. To support this initiative, Dolby Laboratories requires all Dolby approved studios—worldwide—to conform all Dolby cinema sound masters to BS5550-7.4.2. The International Standards Organisation (ISO) are now in the process of standardising the Leq(m) process to give this regulation a truly international standing.

Ubiquitous regulation is essential for it to be fair to those that comply and so that the entire advertising and trailer reel play well together. The onus is ultimately on the screen advertisers themselves, through guidance by SAWA, to specify and control the quality of their campaigns. Indeed, specifying Dolby Digital will promote quality, Leq(m) compliance, and make available the production services support from Dolby themselves, but it is absolutely essential that all campaigns conform to the SAWA Leq(m) loudness control initiative irrespective of the release format chosen. To achieve this, many screen advertisers have set up a local Leq(m) testing station to perform the relevant checks. For further reading, [The Leq\(m\) Mastering Code of Practice](#) is a useful document that provides practical advice on mixing to within the SAWA Leq(m) regulation and [Are Movies Too Loud](#) gives useful background reading to the research behind Leq(m).

For over the 30 years, Dolby Laboratories has developed and established technologies and standards for studios, distribution and cinema exhibition. Dolby has invested in a studio approval programme to provide producers with a worldwide network of standardised studios that are all calibrated to the same cinematic standards. The sound mix in such Dolby-approved studios can be optimised and conformed to sound exactly as the producer intends with the satisfaction that this sound is close to how a good cinema will sound. Each studio is equipped by Dolby with the necessary encoding equipment, traditionally film encoders, to make a Dolby cinema master. Dolby provides production services and requirements so that the sound mix is optimised for the cinema environment and so that the producers' wishes can be accommodated and preserved. This service and infrastructure is available for feature films, trailers, advertising, and short films and documentaries. The fees of this service and infrastructure are minor and sensible and—moreover—are payable by the production agencies

themselves and not by the screen advertiser. The screen advertiser simply specifies Dolby's involvement and then benefits by receiving campaigns of higher quality, Leq(m)-regulated, and with support from a worldwide network of Dolby Sound Consultants if necessary.

The table below indicates the sound specification producers should follow, and similarly screen advertisers should specify, to maximise the quality-versus-cost ratio:

Preferred format (35mm film)	Dolby® Digital Surround EX™
Minimum format (35mm film)	Dolby Digital
Preferred format (electronic)	Dolby MetaAudio™
Minimum format (electronic)	AC3 5.1 (Dolby Digital)
Post-Production standards	Separate elements supplied to Dolby approved studio, no TV transfers
Loudness level	Not greater than 82 dBLeq(m) as specified in BS5550-7.4.2
Mastering Fader Level	Fader 7 (85 dBCslow)*, checked at Fader 6 (81 dBCslow)*
	*These are not Leq(m) levels, they are studio monitoring levels

Useful contacts:

**Julian Pinn**, [jpp@dolby.co.uk](mailto:jpp@dolby.co.uk)

*SAWA Associate Member; Chairman of British Kinematographic Sound and Television Society (BKSTS) Standards Committee; Chairman of British Standards Institution (BSI) Cinematography Committee; Leader of UK Delegation to ISO-TC36 (Cinematography); Chairman of Motion Picture Loudness Committee (UK); and Dolby Senior Sound Consultant*

**Cheryl Wannell**, [cwannell@pacific.net.au](mailto:cwannell@pacific.net.au)

*SAWA Secretariat; Associate Member liaison*

**Ioan Allen**, [ia@dolby.com](mailto:ia@dolby.com)

*TASA Technical Chairman; Member of SMPTE committees for Film, Projection, Audio, Laboratory Practice and Digital Cinema; Leader of US Delegation to ISO-TC36 (Cinematography); Chairman of US Dye-tracks Committee; Chairman DCAG (Digital Cinema Advisory Group); and Dolby Senior Vice President*