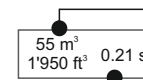


Genelec Monitors

Listening Distance and Sound Pressure Level

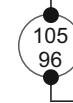


Room volume

Room reverberation time (RT60)

Short-term sound pressure levels

Maximum short-term sine wave sound pressure level averaged from 100 Hz to 3 kHz, measured in half-space, on-axis (no weighting).



Long-term sound pressure levels

Maximum long-term RMS sound pressure level, measured in half-space, on-axis, with simulated programme signal according to IEC 60268-5 (limited by driver unit protection circuit, no weighting).

Listening distances and sound pressure levels

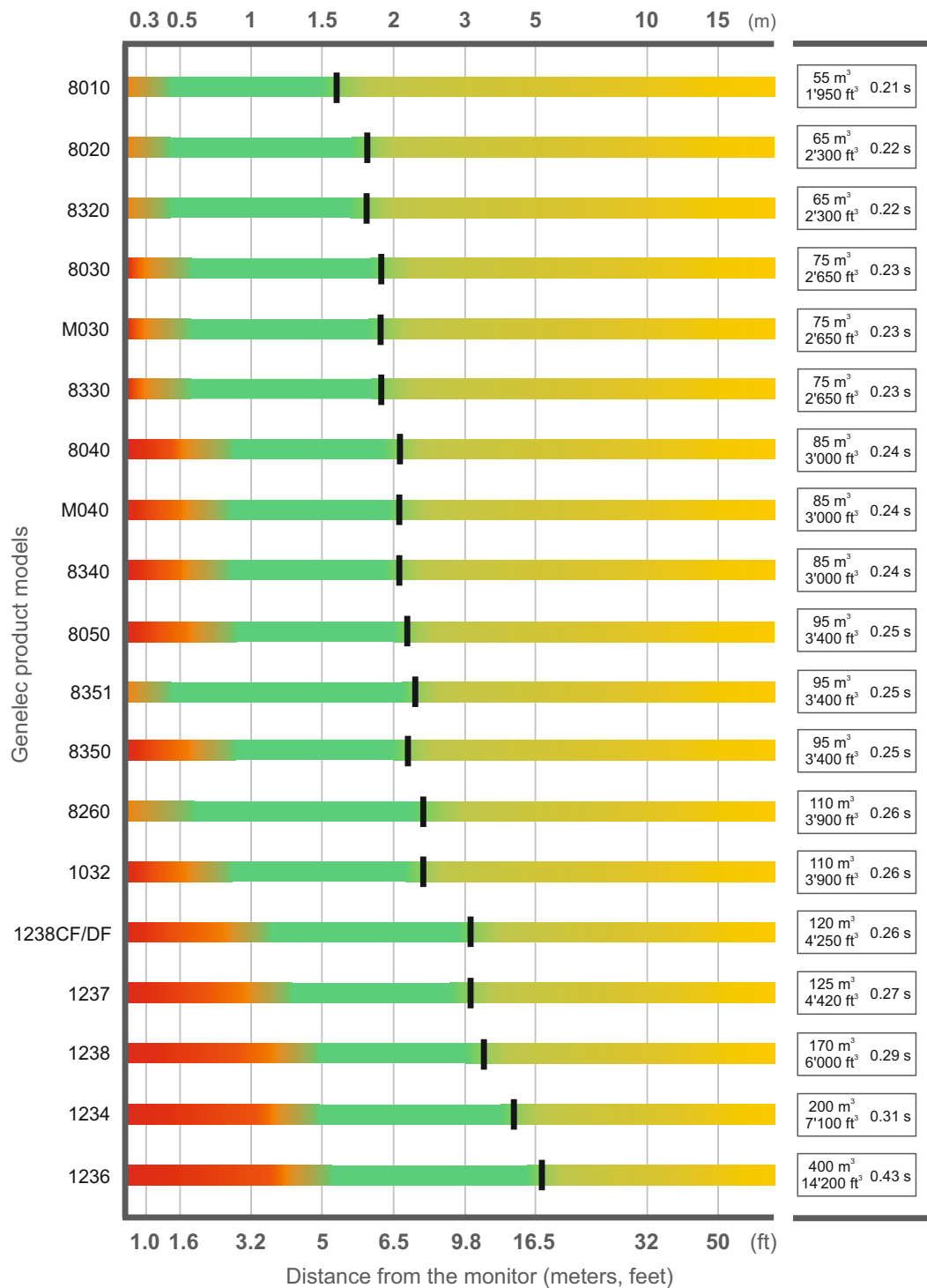
The short-term and long-term sound pressure levels (SPL) listed take into consideration typical room environments parameters for each product (ITU-R BS.1116-1 Recommendation):

- a) variable typical room volumes
- b) variable typical room reverberation times (RT60)

If the room reverberation time is longer, it will mainly affect the long-term sound pressure levels that will be higher than the ones shown.

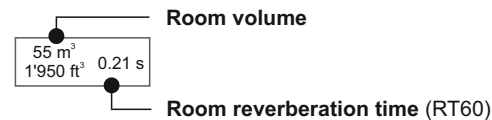
Not recommended distances

When the distance to the monitor is too short, summing of sound from multiple drivers is not happening as designed, and this affects the flatness of the frequency response. A flatter and more stable frequency response is obtained at a larger distance.



Genelec Monitors

Direct Sound Dominance



Not recommended distances
When the distance to the monitor is too short, summing of sound from multiple drivers is not happening as designed, and this affects the flatness of the frequency response. A flatter and more stable frequency response is obtained at a larger distance.

Direct sound dominates
Within this distance the direct sound from the monitor has a higher level than the reverberant sound in the room. Placing the monitor within this distance range is advantageous in minimizing the tendency of the room reverberation to change the character of the monitored sound colour and affect the precision of stereo imaging. The level of the direct sound relative to the reverberant sound progressively reduces as the distance to the monitor increases.

Critical distance
The critical distance is the distance where the direct sound from the monitor and the reverberant sound in the room have equal level in midrange frequencies (approximately between 200 Hz and 4 kHz). The critical distance is affected by the room volume, the room reverberation time (referred to ITU-R BS.1116-1 Recommendation), and the directivity of the monitor.

Reverberant sound dominates
At these distances the reverberant sound in the room has a higher level than the direct sound from the monitor. This balance progressively increases as the distance from the monitor increases. The monitor can be used in these distances, but the sound character is strongly affected by the reverberation characteristics of the room, and this has a progressively increasing effect on the sound colour and stereo imaging accuracy.