



The Reference for Stunning™

Harmony G2 Weave Test Sheet

Screen Material Name: Stewart's Harmony G2

Screen Material Type: Weave

Third Party Testing Conducted by: SH Acoustics, Milford, CT

About SH Acoustics: SH Acoustics is a leading worldwide, acoustical consultancy firm which specializes in the acoustical design of museums, exhibit halls, custom home theaters and whole-house acoustics.
<https://shacoustics.com>

Problem Statement: The challenge with weave screens is their transparent quality; what makes weave and screens strong performers acoustically also allows significant light transmission/loss through the fabric.

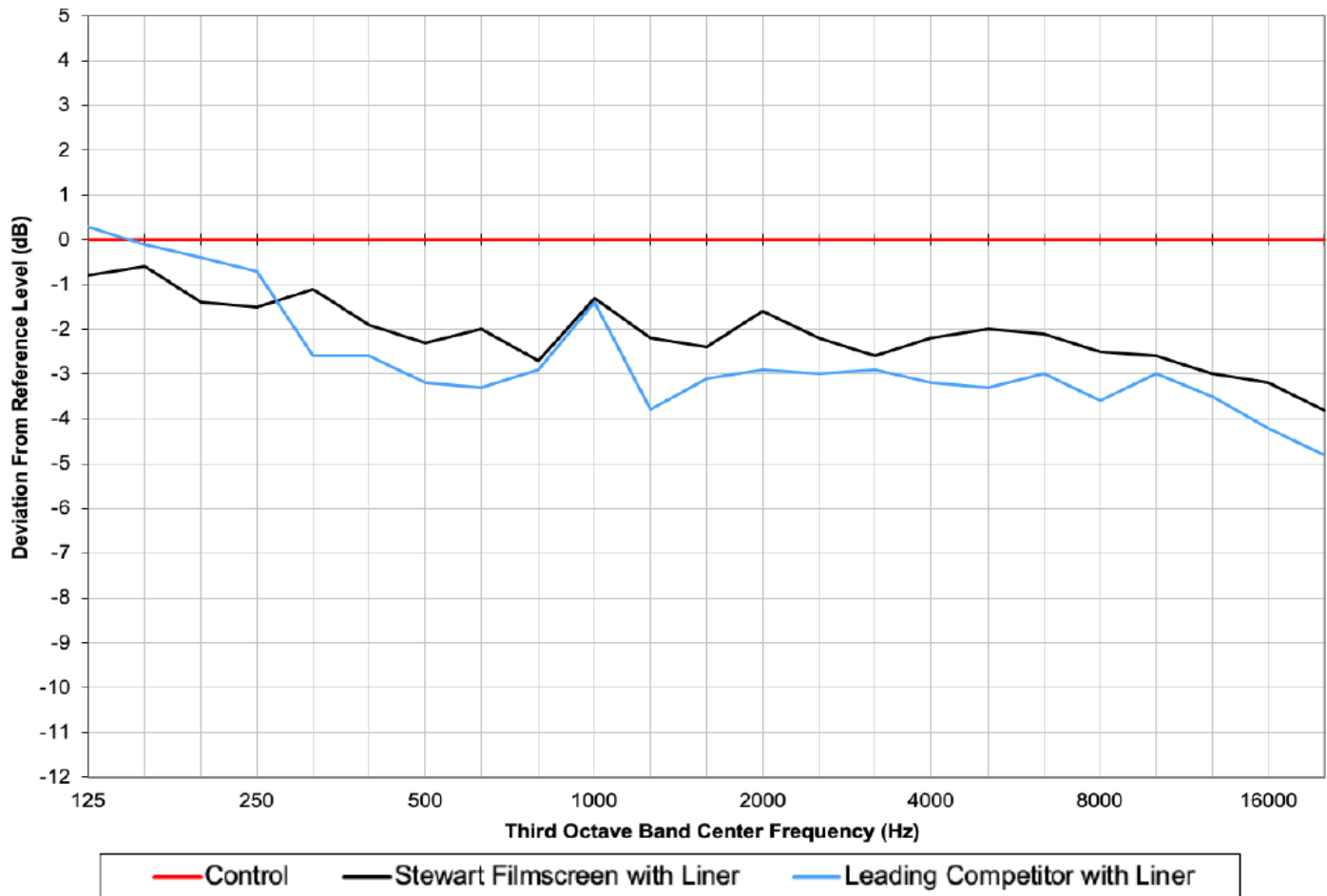
Test Summary: SH Acoustics tested Stewart's new Harmony G2 weave screen material against a leading competitor. The findings of the test show Stewart's new second-generation neutral colored weave material, Harmony G2, outperforms the competition in audio transparency.

- Less loss of mid to high range frequencies means minimal digital correction or EQ, if any.
- When used with specified black liner, Harmony G2 outperforms the competition by 1 to 2.0 dB from approximately 5 kHz to 20 kHz.

Graph 1

1/3 Octave Band Spectral Deviation

(Stewart Filmscreen vs. Leading Competitor, 8 inches from point of source, On-Axis) *with* Black Liner



Graph Details:

- Graph 1 represents typical speaker placement
- Black liners must be used to obtain acceptable black levels with all weave products
- The black liner is the second layer of material that needs to be placed behind the weave material to preserve contrast, i.e., what makes a weave great for acoustical transparency, also serves as a weak point for screen gain
- With nominal digital frequency response correction, a flat response is easily obtained

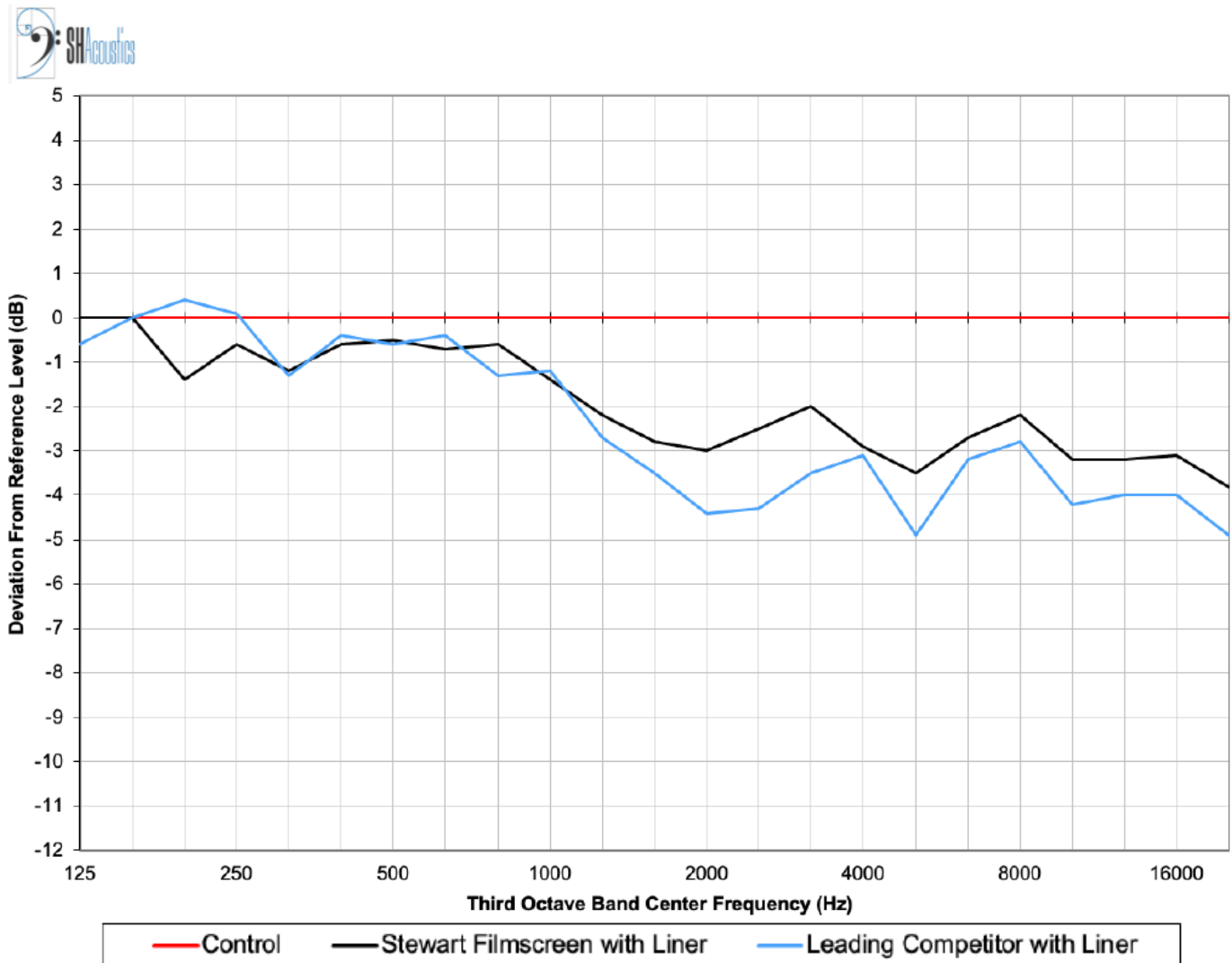
Conclusion

- With no digital frequency response correction, Stewart's Harmony G2 provides less signal loss than the leading competitor's weave product.
- With Stewart's Harmony G2, the user will experience a better, near-flat audio experience or closer to reference level (0dB).

Graph 2

1/3 Octave Band Spectral Deviation

(Stewart Filmscreen vs. leading competitor, 1 inch from point of source, 10 inches Off-Axis) *with* Black Liner



Graph Details

- Graph 2 shows a close-coupled (worst-case) scenario with an inch between the speaker and each weave screen with black liner
- Black liners must be used to obtain acceptable black levels with all weave products
- The black liner is the second layer of material that needs to be placed behind the weave material to preserve contrast, i.e., what makes a weave great for acoustical transparency, also serves as a weak point for screen gain

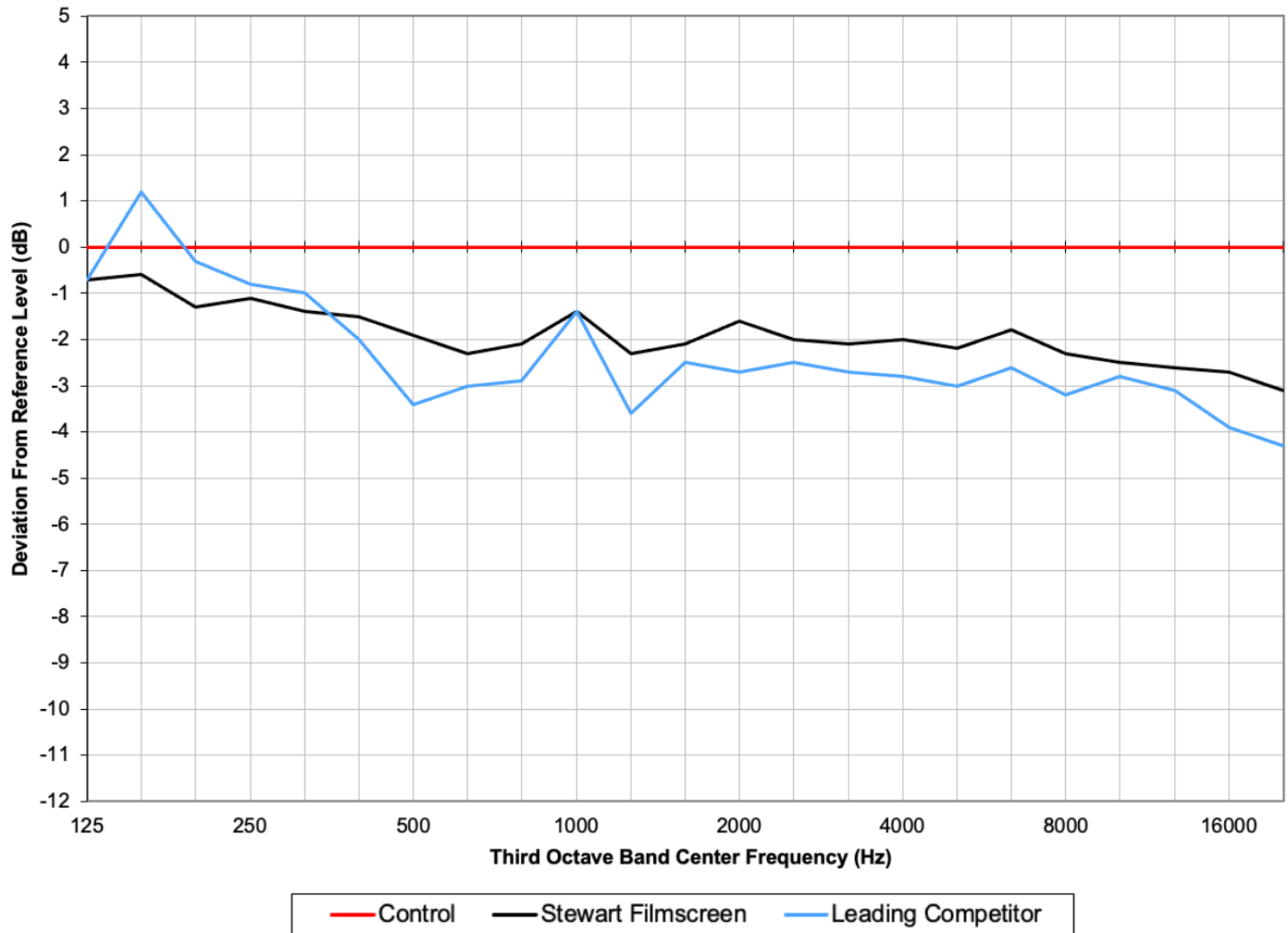
Conclusion

- As Frequency (Hz) increases, Harmony G2 weave is at least one decibel (dB) louder than the leading competitor from approximately 5 kHz to 20 kHz.
- Stewart's Harmony G2 weave product offers a superior and increased amount of acoustical transparency at most frequencies while requiring less compensating EQ.

Graph 3

1/3 Octave Band Spectral Deviation

(Stewart Filmscreen vs. leading competitor, 8 inches from point of source, On-Axis) *no Black Liner*



Graph Details

- For test purposes, Graph 3 shows data on the weave screens only with no black liner
- However, weave screens need a black liner to absorb light and for contrast preservation

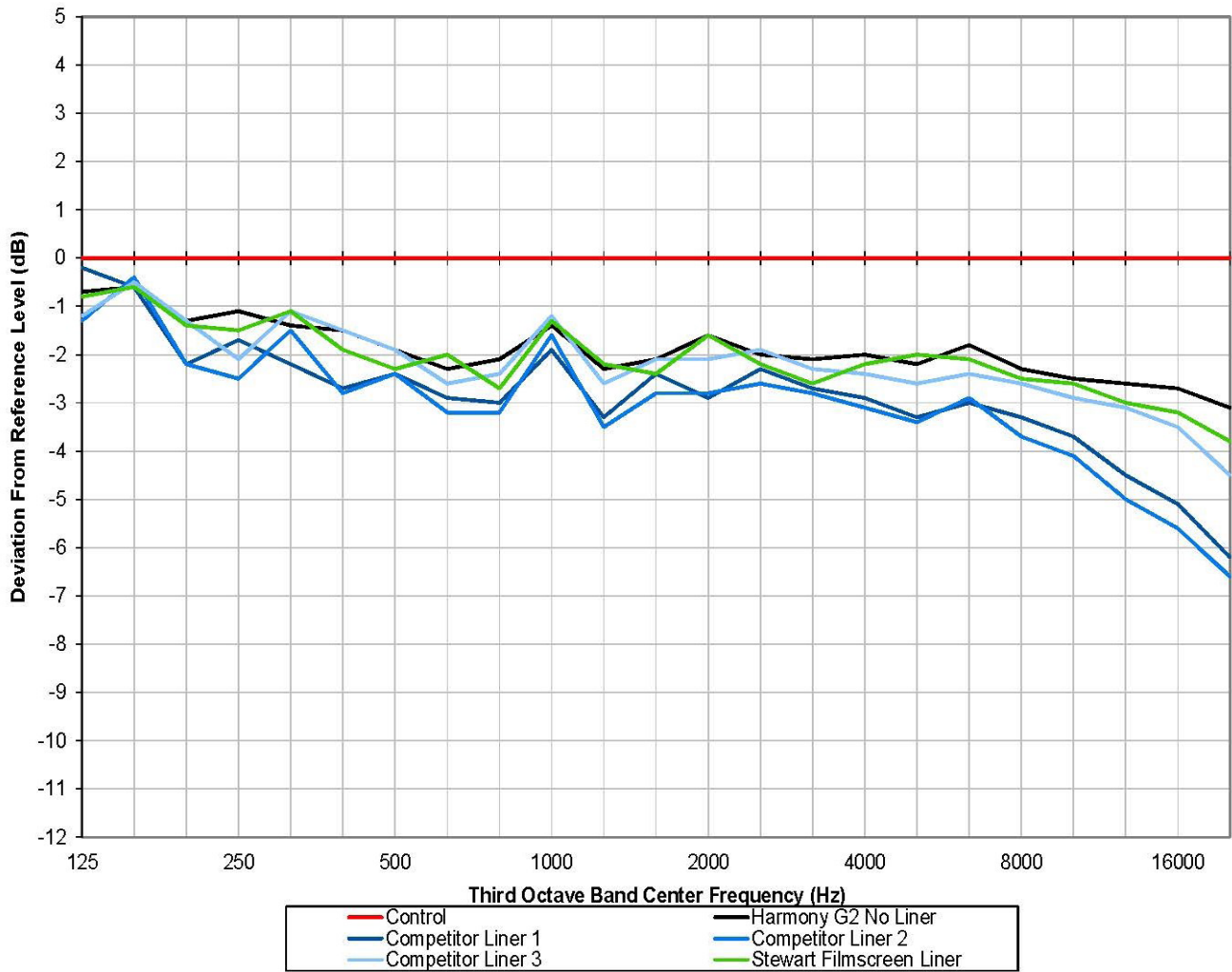
Conclusion

- **Stewart's Harmony G2 provides a better, near-flat audio experience, or closer to reference level (0dB), compared to the leading competitor.**

Graph 4

1/3 Octave Band Spectral Deviation

(Stewart Filmscreen, 8 inches from point of source, On-Axis) *multiple* Black Liners



Graph Details

- Black liners are important with light-porous, woven screens of any type
- However, all black liners are not the same — Stewart takes great care to source our lining materials
- The black line on the graph shows Stewart's Harmony G2 weave screen without a black liner
- The gray line shows Stewart's optimal liner that is supplied with every Harmony G2 weave screen
- All blue lines (below the gray line) show competing black liners

Conclusion

- **Stewart's Harmony G2 weave screen material with specified black liner performs 1 to 2.0 decibels higher than the competition when measured from 5 kHz to 20 kHz.**