
Subject: Re: Effect of Length

Posted by [Keith Larson](#) on Sat, 31 Jul 2010 14:46:57 GMT

[View Forum Message](#) <> [Reply to Message](#)

Electrically you have a series connection of an amplifier, wire and speaker, so it comes down to ohms law, and thats nothing more than impedance ratios. Anyhow, if the wire impedance is high compared to the speaker (and amplifier) some of the signal will be show up in the wire instead of the load. This is calculated using the equation

$$\text{dB(loss)} = 20 \cdot \log(R_{\text{load}} / (R_{\text{load}} + R_{\text{wire}} + R_{\text{amp}}))$$
