Subject: Re: Low BL drivers exhibiting higher power compression
Posted by Wayne Parham on Thu, 07 Oct 2004 11:00:17 GMT
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Hi Mike,On first thought, I think that is probably generally true.  Low BL generally means low efficiency, higher drive current for a given SPL, sooner onset of compression and more reduction from it.Low BL means the motor is weak.  The fixed magnet or the voice coil or both aren't strong.  It could be that the magnet gauss is low or gap geometry keeps flux density down.  High excursion drivers with very long coils have lower flux density in the gap, because it is spread out over more space.  Or it might be that the voice coil isn't capable of transforming current into magnetism, perhaps because of conductor resistance, limited heat transfer or physical layout.  In any case, it would seem to me that a weak motor needs more drive, which will probably force it into compression sooner.  And some conditions (high resistance, poor thermal conduction, etc.) that cause it to lack force contribute to high thermal compression too.I guess if we looked at lots of examples, we might find some exceptions but it appears to me that your observation is probably generally true.  A speaker with low BL generally is a low efficiency speaker.  It needs more drive current and is more prone to suffer from compression.Wayne