Subject: Re: Array Speaker vs a high efficiency horn?
Posted by Jim Griffin on Tue, 06 Jul 2004 19:29:37 GMT
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James,As you may have read, I'm a believer in near field line arrays. From the sensitivity viewpoint you get array gain of 10log (number of drivers) so, for example, with 10 drivers you have an array gain of 10 dB above each individual driver. Depending on what the array impedance is (function of series parallel connections) and if you need to compensate for the baffle step, you can increase or decrease the sensitivity.Let me add that for a near field line array (see my white paper for the near field definition), you can yield an in-room improvement vs. a point source loudspeaker. This is because the near field sound fall off per doubling of distance from the source is 3 dB vs. 6 dB for far field radiation. That means that if you have a 94 dB 1W/1m sensititivy near field line array, then at 4 meters (~13 feet) listening distance it would have the same radiated energy at the listener as a 100 dB 1W/1m point source. Bottom line is that a near field line array will exhibit almost constant sound radiation within the room. Jim
Near Field Line Array White Paper