Subject: Re: A speaker/earbud setup in a GPS
Posted by Wayne Parham on Fri, 24 Feb 2012 20:00:14 GMT
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Shorting rings improve flux stability from low-midrange up. They become increasingly less effective below about 200Hz, and are generally ineffective below 100Hz. Inductance linearity is only an issue at high frequency, so bass performance is a non-issue in this respect. Thermal dissipation is improved by having conductive structures embedded within the magnet, provided they wick the heat out and dissipate it externally somehow. While these are as effective at low frequencies as they are at high frequencies, the cooling vent is generally able to remove heat out at low frequencies, where excursion provides good pumpoing action for forced air convection cooling. It's higher frequencies where you really need the thermal transfer from cooling plugs, rings and similar devices.
Magnet structures
Push-pull verses shorting rings