

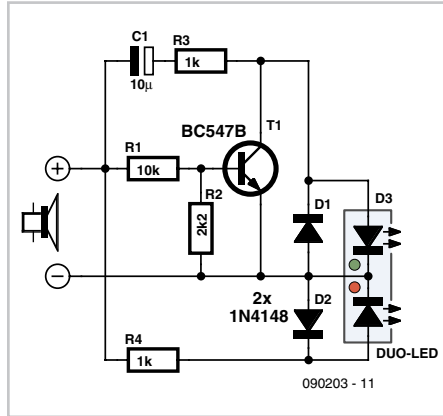
# Sensitive Audio Power Meter



Michiel Ter Burg (The Netherlands)

As a follow-up to the simple audio power meter described in [1], the author has developed a more sensitive version. In practice, you rarely use more than 1 watt of audio power in a normal living-room environment. The only time most people use more is at a party when they want to show how loud their stereo system is, in which case peaks of more than 10 W are not uncommon.

With this circuit, the dual LED starts to light up green at around 0.1 watt into 8 ohms (0.2 watt into 4 ohms). Naturally, this depends on the specific type of LED that is used. Here it is essential to use a low-current type. The capacitor is first charged via D1 and then discharged



via the green LED. This voltage-doubler effect increases the sensitivity of the circuit. Above a

level of 1 watt, the transistor limits the current through the green LED and the red LED conducts enough to produce an orange hue. The red colour predominates above 5 watts. Of course, you can also use two separate, 'normal' LEDs. However, this arrangement cannot generate an orange hue. For any testing that may be necessary, you should use a generator with a DC-coupled output. If there is a capacitor in the output path, it can cause misleading results.

(090203-1)

## Reference

[1] Simple Audio Power Meter, Elektor July & August 2008.