

Realiser A16 Revised User-A Headphone Amplifier Capabilities

11 June 2016

The current Realiser A16 prototypes have two headphone outputs, user-A and user-B, driven using a pair of standard low-noise low-distortion 150mW stereo amplifiers. The dual headphone amplifiers are fed directly from a AK4414EQ DAC. While these amplifiers will easily drive 32-300 Ohm headphones of average sensitivity, a number of potential users have enquired about the possibility of driving more 'difficult' headphones.

As a result we have decided to upgrade just the user-A headphone output circuit to use a pair of LME49600 audio buffer amplifiers running on +/-15 volt rails. The maximum output power against headphone impedance for this circuit is summarised below.

Impedance (Ohms)	Power per channel
600	112mW
300	224mW
150	448mW
50	1.35W
32	2.0W
16	1.0W

Note that in any case the user can always opt to use the SPDIF output to drive an external DAC-Amp, or the User-A/User-B headphone RCA outputs to drive external amplifiers.

----- end -----