Audio output behaves like a voltage source that droops as you draw more and more current. Output impedance, measured in ohms (Ω), characterizes the droop. More Ω more droop. Typically a BJT will require 1/100th to 1/20th the current it is driving at 0.6V, e.g. you need 1-5mA of control current at 0.6V to drive a 100mA load current. How do typical audio outputs measure up to this requirement?

Dell Laptop (174Ω, 0.89mA@0.6V)
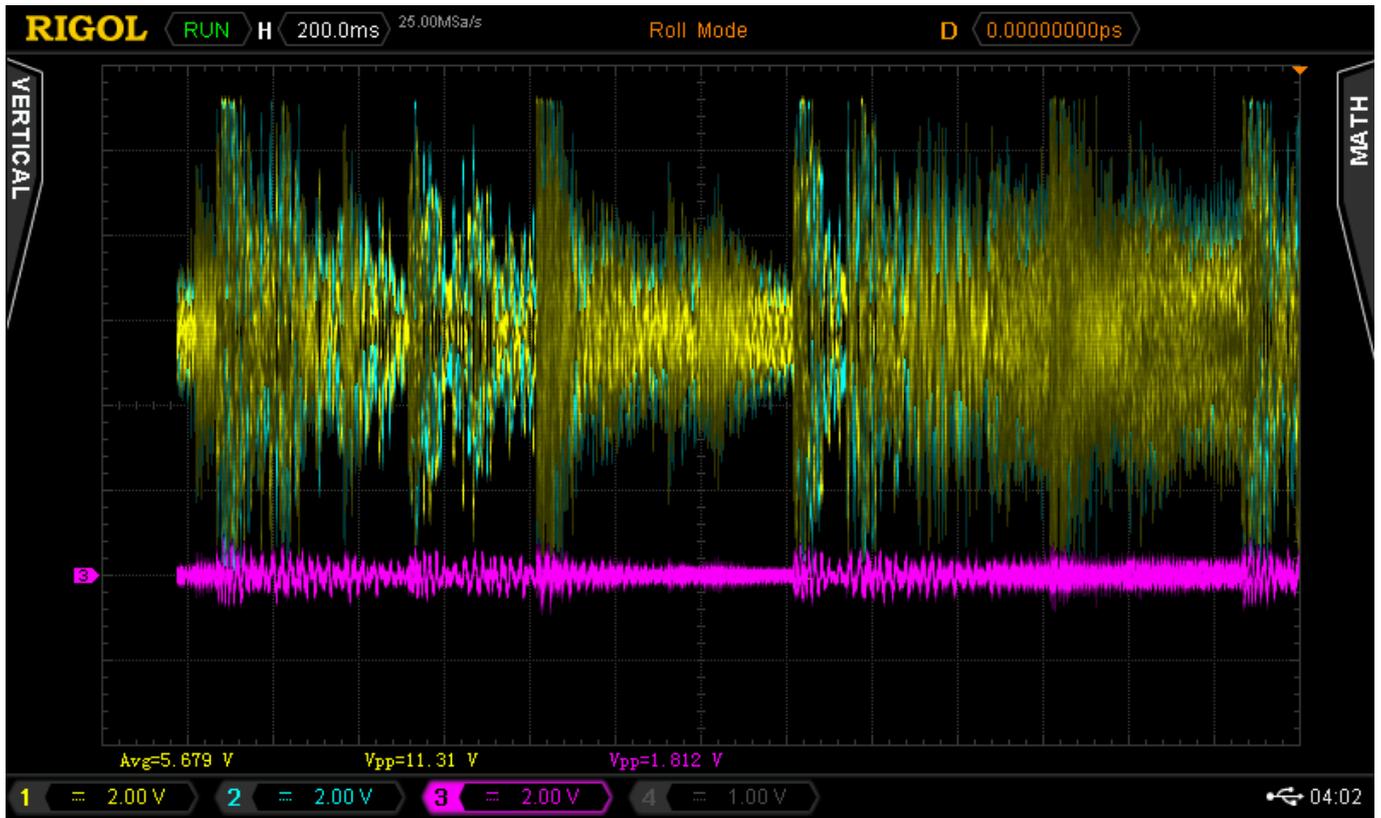

Android Nexus 5 Phone (222Ω, 3.8mA@0.6V)

2013 MacBook (198Ω, 3.6mA@0.6V)

DROK TDA7297 12V amplifier

We can't drive an estim circuit directly from audio output – it can barely reach 1V at max volume let alone 100V+ – but can we use audio output to drive an off-the-shelf amplifier which in turn drives an estim? True to its claim, it can boost ~1V audio to 12V.