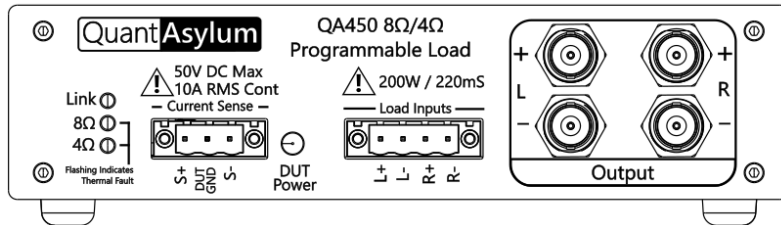


QA450

QuantAsylum

4/8 Ohm Programmable Load



- ✓ Programmable 4/8Ω load
- ✓ Fully isolated from PC
- ✓ USB Powered
- ✓ Up to 300W for 300 mS
- ✓ DC Current Sensing
- ✓ Integrated single-pole LPF

Introduction

The QA450 is a companion product to the QA401 Audio Analyzer. Combined, the two products work together to ensure fast, repeatable automated measurements of audio power amplifiers up to several hundred watts.

REST Interface

The QA450 can be controlled manually from a PC application or controlled using a web-based REST interface. Chances are, your favorite development language already has rich support for REST.

Measuring Current

The QA450 allows low-cost external fixed-voltage supplies to be used to power your amplifier during test—dramatically reducing your investment per test bay. The QA450 integrates a high-side switch, enabling on/off control of the supply to the amplifier. When turning on the supply, a momentary soft-start circuit ensures the amplifier-under-test isn't exposed to high currents that might overstress components. And during operation, the QA450 provides an isolated current measurement, allowing up to 15A of DC current to be measured with 20-40 mA of resolution. This permits automated efficiency measurements to

be easily made—a primary predictor of whether the amplifier was assembled correctly.

4 and 8Ω Loads

The QA450 provides both 4 and 8 ohm resistive loads (as well as “open”). If your factory tests require other values, let us know. The loads are thermally protected using fast, high-accuracy digital thermal sensors ensuring that fault conditions won't damage the QA450.

Driven by TRACTOR

Tractor is our open-source application for controlling our hardware. With it, you can quickly assemble a sequence of tests for your product. The data can be logged automatically to a database, and as you'd expect, there is lots of flexibility for setting product-specific options. It's fast, too: Knock out 10 tests in 30 seconds. From barcode scanning to THD, IM, efficiency, output impedance, amplitude, noise and more. It's almost turnkey.

Are You Ready?

Are you testing your products thoroughly before they leave your factory? If not, you should be. Contact: sales@QuantAsylum.com

Specifications

The following specifications are subject to change.

Current Sense Inputs	
S+ Max Voltage (normal operation)	50V (relative to DUT GND)
S- Max Voltage (normal operation)	50V (relative to DUT GND)
USB Isolation	>10 GΩ @ 1KV
Max Current	10A RMS continuous, 15A peak
Trip Current	>15A for 2 mS
Soft Start	10 ohm for 1 second
Load Inputs	
Load Options	4 and 8 ohms
Max Voltage on any pin	50Vrms AC relative to DUT GND
Max Current on any pin	10Arms
Max Power into Load Inputs	200W per channel for 220mS
Load Tolerance	+/- 5%
USB Isolation	>10 GΩ @ 1KV
Output	
Attenuation	6 dB
Frequency Response	F3db = 34 KHz
Output Impedance	~100 ohms
General	
Interface	USB, 12Mbps
Power	USB, < 500 mA
Ambient Operating Temperature	15 to 30C