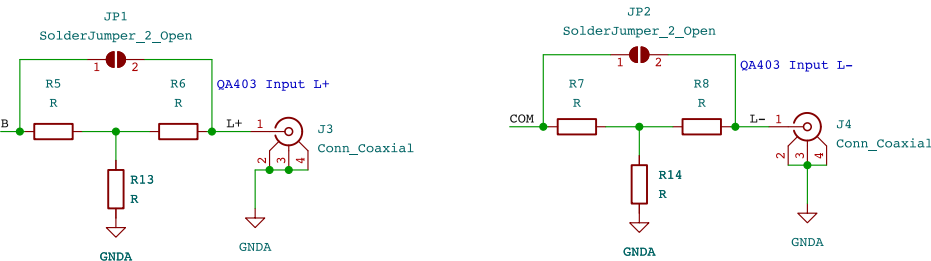
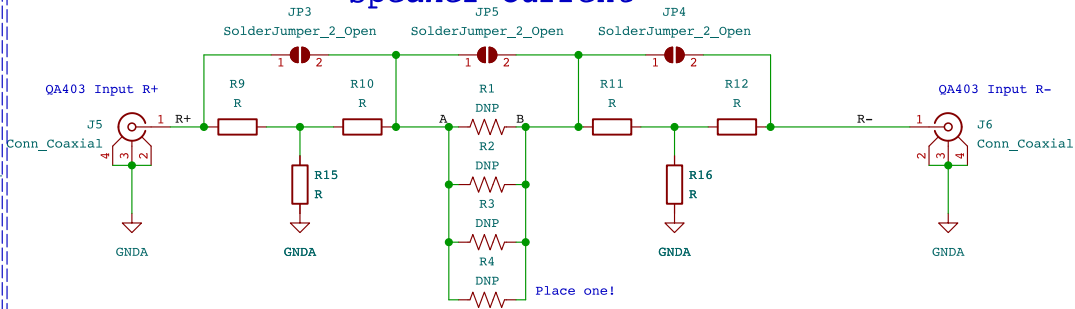


Impedance Test Fixture with optional attenuation before analyser inputs

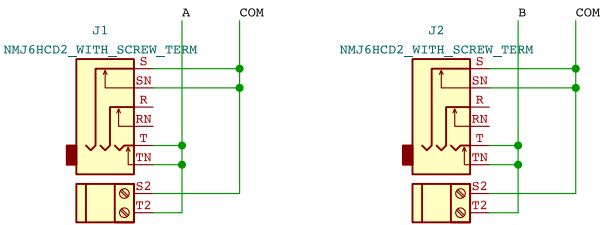
Speaker Voltage



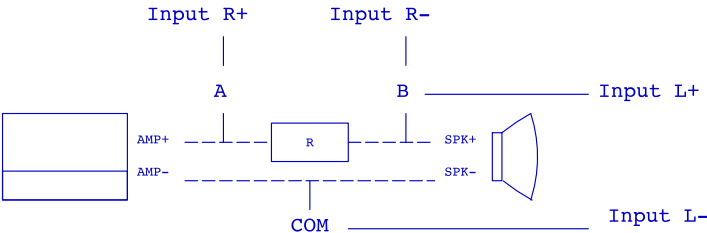
Speaker Current



Input/Output



Connections to QA403 & Nets  
(Attenuators before inputs, not shown)



Left Channel: measure voltage across DUT  
Right Channel: measure voltage across a current sense resistor

Comments

QA403 has floating inputs, the shield of the BNC inputs connects to the ground of the test equipment. AMP- is not tied to AGND, this allows measurement of BTL outputs, for example. For single-ended measurements it can be tied to ground if desired.

The analyser cannot have input voltages above 40V RMS, for high power amplifiers attenuation is needed. Three resistors form a T-pad before each input that can be used to preserve impedance if need. Alternatively, the T-pad can be reduced to a simple voltage divider by using a 0r resistor in the position before the coaxial socket.

Bypass attenuator by shorting the solder jumper, for example, if you do not need this feature. The current sense can also be bypassed if you just want to use the board for connectivity rather than impedance measurements.

A number of SMD footprints are supported as well as a TH footprint. Use TH when power dissipation in the current sense goes above 1/4W.

For use with Quantasylum QA403

Exciton Labs Ltd

Sheet: /

File: QA403 Impedance Fixture.kicad\_sch

Title: Speaker Impedance Fixture

Size: A4 Date: 2023-05-1

KiCad E.D.A. kicad 7.0.7

Rev: 2

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