Cypher Instruments Ltd Page 1 of 1

## **AN009 - C60 Application Note**

## Acoustic transducer - complex impedance

The **impedance response** of a studio monitor (a loud speaker) was plotted. This unit has a passive treble control, which causes the impedance variation above 4KHz. The impedance and phase responses vary considerably, presenting an 'interesting' reactive load for the power amplifier.

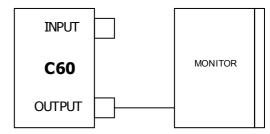


Figure 1. Connection diagram

Studio monitor with tone control

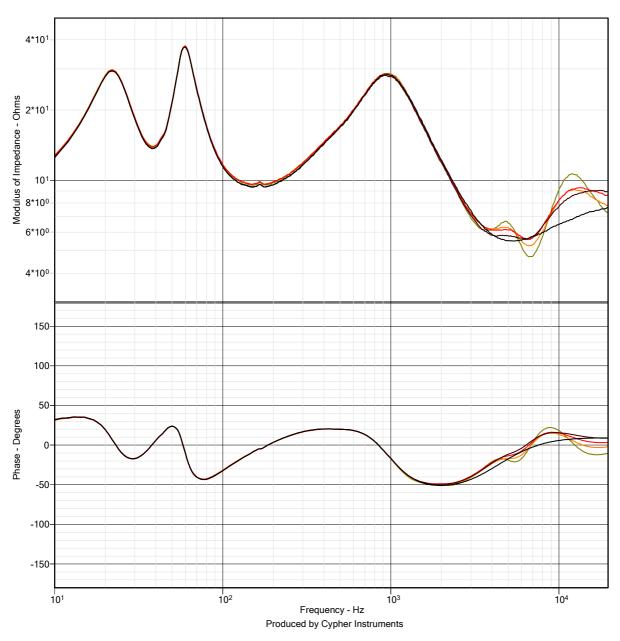


Figure 2. Impedance of a loud speaker