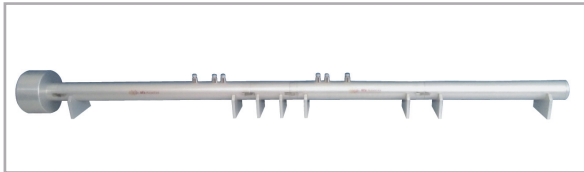




Two Microphone Impedance Tube

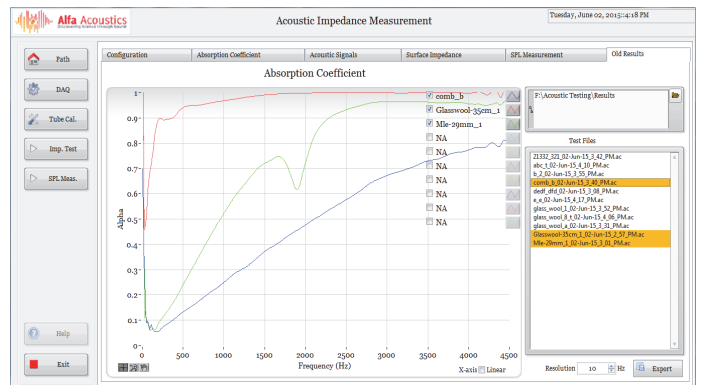


Four Microphone Transmission Loss Tube



Power Amplifier and Data Acquisition System

Alfa Acoustic Impedance tube is designed to measure sound absorption coefficient as per test standards ASTM E1050 / ISO 10534-2. The measurement software is based on the Transfer Function Method. The Transfer Function method separates the incident and reflected energy from the measured transfer function, and then estimates the acoustic properties of the test sample. The sound transmission loss module is as per ASTM E2611. Alfa Acoustics offers complete set of Impedance Tube system, which includes: the tubes, microphones; Data Acquisition hardware and measurement software.



Screen Shot of a Measurement Software

## Technical Specifications

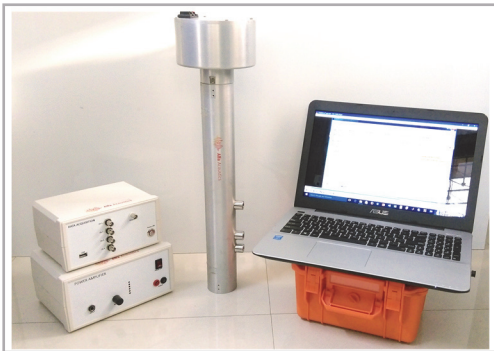
| Impedance Tube Set               |                                 |          |          |
|----------------------------------|---------------------------------|----------|----------|
| Tube                             | Large                           | Small    | Medium   |
| Internal Diameter (mm)           | 100                             | 29       | 45       |
| Sound Absorption Standards       | ASTM E1050 / ISO 10534-2        |          |          |
| Sound Transmission Loss Standard | ASTM E2611                      |          |          |
| Frequency Range (Hz)             | 100-1600                        | 700-6300 | 100-4500 |
| Microphones                      | 1/4", Pressure Field – 4 Nos    |          |          |
| Loudspeaker                      | 4" in diameter, 15 Watts, 6 Ohm |          |          |

## Salient Features

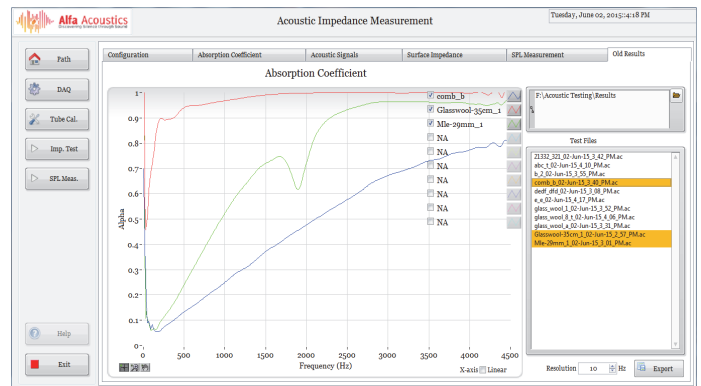
- Designed as per International and National Standards
- Low Cost and Lightweight Solution
- Quick and Simple to use
- Measurement of Surface Properties like Reflection Coefficient, Surface Impedance
- Direct data export to excel sheet



Alfa Acoustic Impedance tube is designed to measure sound absorption coefficient of road surfaces as per standard ISO 13472-2 which is regulated by standards ISO 10844 / IS 3028. As per the standard ISO 13472-2, this tube is vertically mounted on the road surface to measure sound absorption coefficient at normal incidence with the help of specially designed base structure. This special design eliminates the need of drilling a sample in the road surface. Alfa Acoustics offers complete set of Impedance Tube system, which includes: the tube, microphones; Data Acquisition hardware and measurement software.



Impedance tube Setup



Screen Shot of a Measurement Software

## Technical Specifications

| Portable Pavement Absorption Tube |                    |
|-----------------------------------|--------------------|
| Tube                              | Large              |
| Internal Diameter (mm)            | 100                |
| Standards                         | ISO 13472-2        |
| Frequency Range (Hz)              | 200 – 1800         |
| Microphones                       | ¼", Pressure Field |

## Salient Features

- Designed as per International and National Standards
- Low Cost and Lightweight Solution
- Quick and Simple to use
- Measurement of Sound Absorption Coefficient
- Measurement of Surface Properties like Reflection
- Coefficient, Surface Impedance
- Direct data export to excel sheet
- User friendly software Interface