

- II

The Development of Transmission Loss Measurement Tube in Mid, High Frequency Range - II

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1.

5kHz

ASTM(American Society for Testing and Materials)

15mm

가

ASTM

4

2.

2.1

1/3

1kHz 12.8kHz

500

15

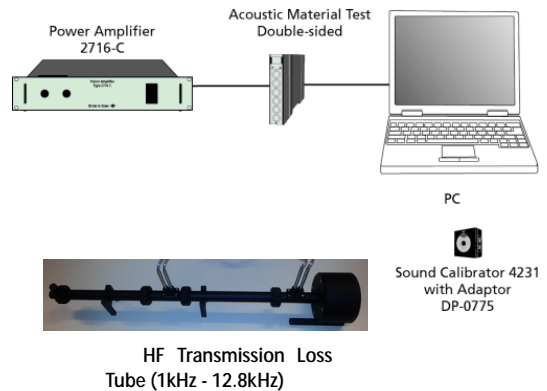


Fig. 1 System Configuration of Measurement

Table 1 Dimension of the Measurement Tube

	흡음률	투과손실
상한주파수	12.8 kHz	
내부직경	15.0 mm	
음원 ⇄ Mic.1	50.0 mm	
Mic.1 ⇄ Mic.2	11.9 mm	
Mic.2 ⇄ 시료표면	30.0 mm	(230.0 - d) mm
시료표면 ⇄ Mic.3	N/A	(30.0 + d) mm
Mic.3 ⇄ Mic.4	N/A	11.9 mm

가

4

2

가

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(Fig. 1)

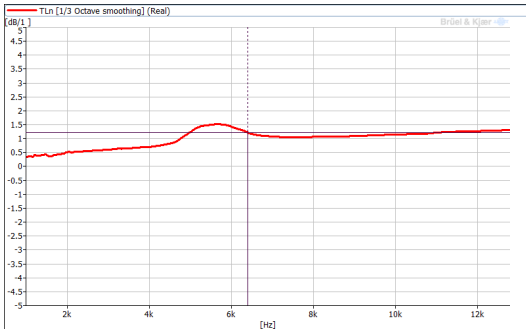


Fig. 2 Normal Incidence Transmission Loss

Fig. 2
, 5kHz

3.

Fig. 3

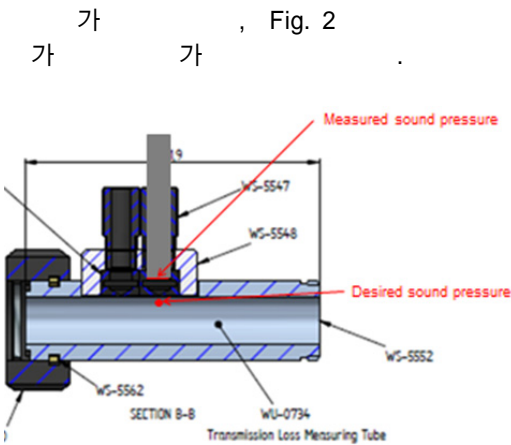


Fig. 3 Concept of the Measured Points

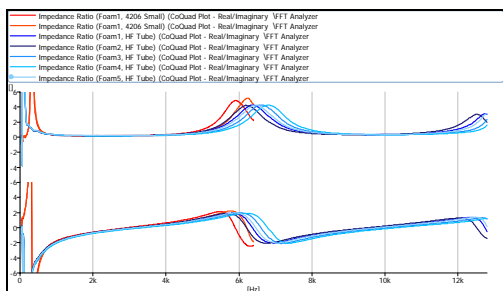


Fig. 4 Measured Impedance Ratio

Fig. 4

가 , 5kHz
가

4.

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, 가
가
, 1kHz
12.8kHz

(1) ASTM E 2611-09, Standard Test Method for Measurement of Normal Incidence Sound Transmission of Acoustic Materials Based on the Transfer Matrix Method, 2009