

차량 외부 소음의 기여해석 방법

A Method for the Contribution Analysis of Vehicle Exterior Noise

류윤선† · 김윤석*
Yunseon Ryu(Yoo), Yoon-Seok Kim

1.

(FRF, Frequency Response Function) 가

가

(Cross-Talk) 가

가

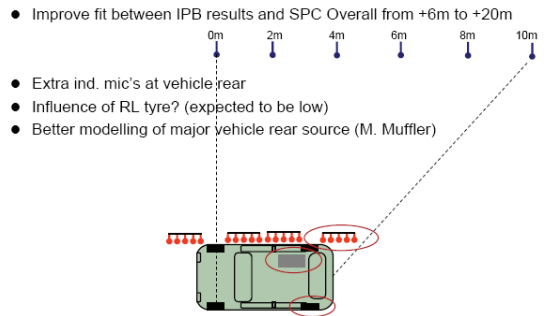


Fig. 1 Contribution analysis lay-out

Full Vehicle SPC Model – Direct 20x29

- Idea#3 model – close indicators
- FRF's from HF VVS extra dataset
- Engine, Intake, Cat, Main muffler, Tyres, Rear muffler
- Sources: {1, 2-9, 11-12, 21-22, 31-32, 41, 51, 61-63}
- Indicators: {101-109, 301-305, 401-405, 601-605, 701, 801, 901-903}

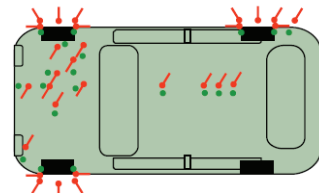


Fig. 2 Indicator microphone positions

2.

2.1

Fig.1 Indicator

Pass-by

Indicator

Fig.

Convolution

Pass-by

† Bruel & Kjaer
 E-mail : YSRUY@BKSV.COM
 Tel : +45 7741 2387 , Fax :
 * Bruel & Kjaer Korea

2.3

Fig. 4 가

Process가 가

Post -

Pass-by

2.2

Indicator

7,5

Pass-by

가

가

Indicator

Pass -

by

1-2

가

Fig. 3 가

Fig.3

re-sampling

가

가

Time-Domain

가

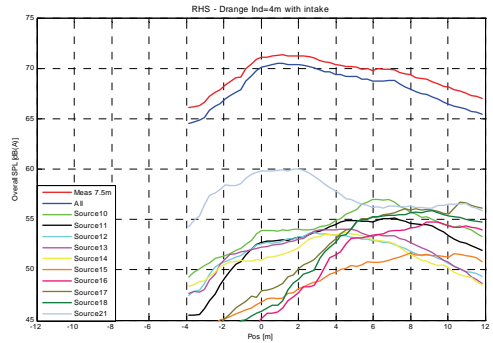


Fig. 4 Exterior noise contribution results

3.

1. Indicator

가

2.

Pass-by

Indicator

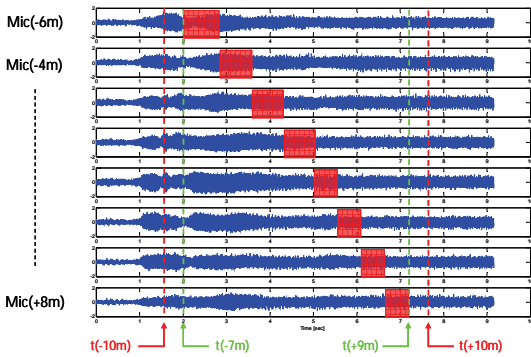


Fig. 3 Pass-by signal synthesis