

# 동적특성을 고려한 진동시험치구의 진동해석 및 실험결과 분석

## Investigation of Vibration Analysis and Test of Vibration Fixture Considering Dynamic Properties

우호균† · 이창민\* · 문정원\*\*

Ho-kyun Woo, Chang-min Lee, Jung-won Moon

**Table 1** Variable frequency test

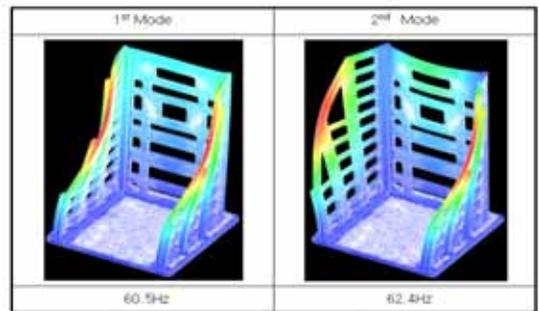
(Hz)	(mm)	가 (g)
4~15	0.762 ± 0.152	0.05~0.69
16~25	0.508 ± 0.102	0.52~1.28
26~33	0.254 ± 0.051	0.69~1.11

1.

가

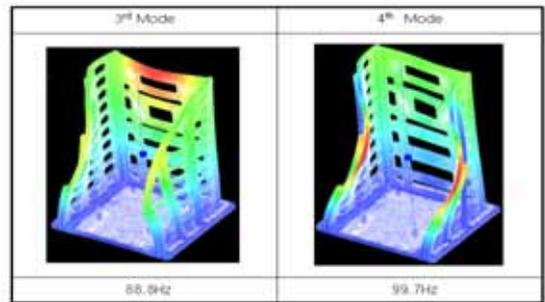
가

MIL-STD-167-1A



**Figure 1** Results of 1st and 2nd Mode

가



**Figure 2** Results of 3rd and 4th Mode

가

(1)

2.

2.1

(1)

Fig.1

FE Model

가

(1) 가  
(2)

$$F = F_0 \sin t \quad (1)$$

$$T = \frac{1}{1 - (\omega/\omega_n)^2} \quad (2)$$

2.0 가

† LIG  
E-mail : hokyun.woo@lignex1.com  
Tel : 031-288-9718 , Fax : 031-284-4542

\* LIG넥스원

\*\* LIG넥스원

$$\omega_n \geq \sqrt{2} \omega$$

(3)

(3)

MIL-STD-167-1A Table 1

가

가  
47Hz

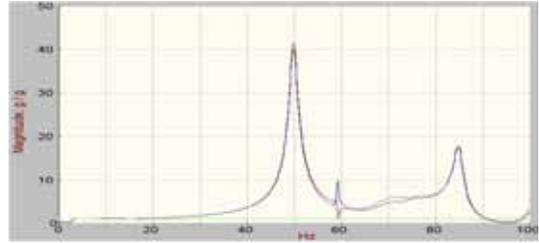


Figure 3 Y-axis test

(2)

Fig.1 Fig.2

Normal Mode

60.5Hz

47Hz



Figure 4 X-axis test

(3)

1,2

Y

Y

가

50Hz

X

가

3,4

가

X

91Hz

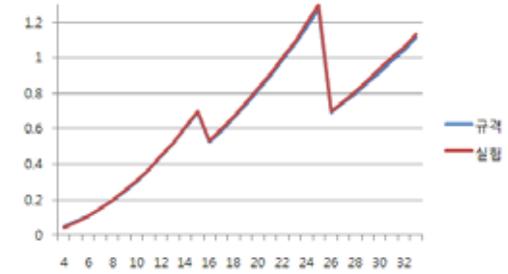


Figure 5 Comparison between specification and test result

MIL-STD-167-1A

가

Fig.5

가

가

가 100Hz

3.

MIL-STD-810G

2.0

47Hz

(1)

50Hz

60Hz

MIL-STD-167-1A

가

가

MIL-STD-167-1A 가

가 4~33Hz

[1]

“MIL-STD-167-1

”, 5

가