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#### 1. Client

Name: DAJIM INC.

Address: RM#107, 209 Dong, #50, Yutongdanji 1-ro, Gangseo-gu, Busan, Republic of Korea

Date of Receipt: 2018. 05. 28.

2. Use of Report: Performance verification

3. Test Sample

Description: Vibration Chip Manufacturer: DAJIM.inc

Model Name: BID

Serial Number: -Remark: -

4. Date of Test: 2018. 05. 29. ~ 2018. 05. 29.

5. Test Standard/Method: Client specific requirements

**6. Testing Environment :** Temperature :  $(19.5 \pm 0.5)$  °C, Humidity :  $(45 \pm 1)$  % R.H.

7. Test Results: Refer to the attached results

Note: 1. The test results contained apply only to the test sample(s) supplied by the client

2. This test report shall not be reproduced in full or in part without approval of the KTL in advance.

Affirmation Tested by
Name: Bae WonKi (Signature) Technical Manager
Name: Park Soo-Hong (Signature)

2018.06.01.

# Korea Testing Laboratory

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FP204-03-03





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# **Test Results**

#### 1. Description of the test

Measurement of natural frequency and attenuation curve of the vibration chip(BID) developed by DAJIM INC.

### 2. Description of the test specimens

The vibration chip(BID) developed by DAJIM INC. is in <Fig. 1> and the specification is in <Table 1>.



<Fig. 1> Vibration Chip(BID)

## <Table 1> Specifications

Item	Contents  Vibration Chip	
Names of the specimen		
Model name	BID	
Size (mm3)	BID(Big) : 60×35×13 BID(Small) : 50×33×10	

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#### 3. Measurement Equipments

The measurement equipment used in this test is in <Table 2>.

<Table 2> Measurement equipments

Equipment name	Manufacturer	Model name
Signal Analyser	B&K	3660C
Impact Hammer	PCB	083C03
Accelerometer	B&K	4517-002
Thermo-hygrometer	LUTRON	SP-9201
Barometer	LUTRON	SP-9201

#### 4. Test procedure

- As shown in <Fig. 2>, the sponge is on the surface plate and BID is located on the sponge.
- The accelerometer is attached to the center of BID.
- Using Impact hammer, BID is impacted with the force range between 6 and 9 Newton(N).
- After the impact, the acceleration of BID is measured.
- The 1st natural frequency is calculated from the measured acceleration signal.
- The same test is repeated in five of BID (Big) and BID (Small).



<Fig. 2> Test equipment setting diagram









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### 5. Description of test environment

- Test location : Korea Testing Laboratory - Ambient temperature : (  $19.5 \pm 0.5$  )  $^{\circ}$ C - Relative humidity : (  $45 \pm 1$  ) % R.H.

- Atmospheric pressure : (  $100.5 \pm 0.2$  ) kPa

#### 6. Test result

The test results for the vibration chip (BID) are shown in the table below, and the vibration attenuation curve for the impact is shown in <Fig. 3> and <Fig. 4>.

<Table 3> BID (Big) test result

Specimen No.	Frequency [Hz]	Impact Force [N]
1	20.1	6.3
2	20.5	7.0
3	20.0	8.5
4	19.6	8.3
5	19.4	8.2

<Table 4> BID (Small) test result

Specimen No.	Frequency [Hz]	Impact Force [N]
1	19.0	6.0
2	18.5	8.1
3	18.6	6.8
4	20.3	6.3
5	19.3	7.8



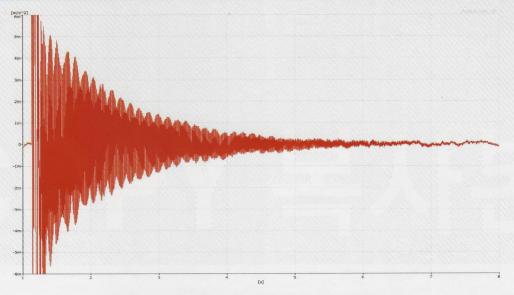




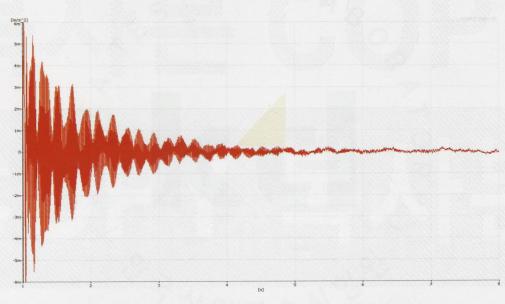


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<Fig. 3> Vibration attenuation curve : BID(Big)



<Fig. 4> Vibration attenuation curve : BID(Small)

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