



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

IMV (THAILAND) CO.,LTD
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ACOUSTICS AND VIBRATION

Valid To: June 30, 2020

Certificate Number: 4784.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following types of tests on mechanical components, automotive components, consumer products, electronic components, and medical devices.

<u>Test(s):</u>	<u>Test Method(s):</u>
Vibration (Sinusoidal)	IEC 60068-2-6 except the items 6,7,9,10,11; ISO 16750-3 Edition 3:2012-12; 1 Hz ≤ frequency ≤ 3300 Hz, Displacement ≤ 100 mm p-p (1 Hz ~ 7.63 Hz), Acceleration ≤ 1200 m/s ² (47.75 Hz ~ 2600 Hz)
Vibration (Broad band random)	IEC 60068-2-64 except the items 6,7,8.4.2,9,10; ISO 16750-3:2012-12; 1 Hz ≤ frequency ≤ 3300 Hz, Displacement ≤ 100 mm p-p, Acceleration ≤ 875 m/s ² rms
Vibration Environmental Testing (Mixed Mode)	IEC 60068-2-80:2005-05; ISO 16750-3:2012-12 Edition 3: 2012-12; Temperature -49 °C ~ 150 °C, Humidity 20% RH ~ 98% RH, Ramp Rate ≤ 1.5 °C/min <i>Sinusoidal:</i> IEC 60068-2-6 except the items 6, 7, 9, 10, 11; 1 Hz ≤ frequency ≤ 3300 Hz, Displacement ≤ 100 mm p-p, (1 Hz – 7.63 Hz), Acceleration ≤ 1200 m/s ² , (47.75 Hz – 2600 Hz) <i>Broad Band Random:</i> IEC 60068-2-64 except the items 6, 7, 8.4.2, 9, 10; 1 Hz ≤ frequency ≤ 3300 Hz, Displacement ≤ 100 mm p-p, Acceleration ≤ 875 m/s ² rms

<u>Test(s):</u>	<u>Test Method(s):</u>
Mechanical Shock	IEC 60068-2-27 except the items 6,7,9,10; ISO 16750-3:2012-12 <i>Half-sine, saw-tooth:</i> Acceleration $\leq 1000 \text{ m/s}^2$, Duration of pulse 3 ms ~ 30 ms <i>Trapezoidal:</i> Acceleration $\leq 800 \text{ m/s}^2$, Duration of pulse 11 ms ~ 30 ms
Environmental Testing Hot/Cold	IEC 60068-2-2 Edition 6: 2009-01; ISO 16750-4 Edition 3: 2010-04; Temperature $-49 \text{ }^\circ\text{C} \sim 150 \text{ }^\circ\text{C}$, Ramp Rate $\leq 1.5 \text{ }^\circ\text{C/min}$
Environmental Testing Cold	ISO 16750-4 Edition 3:2010-04; IEC 60068-2-1: Edition 6: 2007-03; Temperature $\geq -49 \text{ }^\circ\text{C}$
Environmental Testing Hot	IEC 60068-2-2:2007 Edition 5: 2007-07; ISO 16750-4 Edition 3: 2010-04; Temperature $\leq 150 \text{ }^\circ\text{C}$
Environmental Testing Temperature and Humidity (Cyclic)	IEC 60068-2-30 Edition 3:2015-08; ISO 16750-4 Edition 3: 2010-04; Temperature $-49 \text{ }^\circ\text{C} \sim 150 \text{ }^\circ\text{C}$, Humidity 20% RH ~ 98% RH, Ramp Rate $\leq 1.5 \text{ }^\circ\text{C/min}$
Environmental Testing Temperature and Humidity (Static)	IEC 60068-2-78 Edition 1:2001-08; ISO 16750-4 Edition 3: 2010-04; Temperature $-49 \text{ }^\circ\text{C} \sim 150 \text{ }^\circ\text{C}$, Humidity 20% RH ~ 98% RH

Laboratory also performs testing to customer specification for testing related to the types of tests above within the parameters defined.



Accredited Laboratory

A2LA has accredited

IMV (THAILAND) CO., LTD

Chonburi, Thailand

for technical competence in the field of

Acoustics and Vibration Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated April 2017*).



Presented this 26th day of June 2018.

A handwritten signature in black ink, written over a horizontal line.

President and CEO
For the Accreditation Council
Certificate Number 4784.01
Valid to June 30, 2020

For the types of tests to which this accreditation applies, please refer to the laboratory's Acoustics and Vibration Scope of Accreditation.