



Fraunhofer

TESTED[®] DEVICE

SAMICK PRECISION IND.CO., Ltd

LMES10uu

Report No. SA 1709-944

Outgassing Behavior VOC/SVOC

Qualification Certificate

This is to certify that the product mentioned above, provided by

SAMICK PRECISION IND.CO., Ltd
Daegu, South Korea

has been awarded a Fraunhofer certificate TESTED DEVICE bearing the report number SA 1709-944.

The outgassing behavior of LMES10uu at the stated temperatures was investigated according to VDI 2083 Part 17. Based on the outgassing rates determined for the specific surfaces, the following material classification was made for the corresponding Contaminant Category:

Contaminant Category (x)	SER _u ¹⁾ 23 °C [g/unit · s]	SER _u ¹⁾ 90 °C [g/unit · s]	ISO-ACC _m Class (x) based on 23 °C
VOC	< 2.8 x 10 ⁻¹³	< 1.7 x 10 ⁻¹²	< -12.6
SVOC	< 2.8 x 10 ⁻¹³	< 1.7 x 10 ⁻¹²	< -12.6
Amines	< 2.8 x 10 ⁻¹³	< 1.7 x 10 ⁻¹²	--
Organophosphates	< 2.8 x 10 ⁻¹³	< 1.7 x 10 ⁻¹²	--
Siloxanes	< 2.8 x 10 ⁻¹³	< 1.7 x 10 ⁻¹²	--
Phthalates	< 2.8 x 10 ⁻¹³	< 1.7 x 10 ⁻¹²	--

¹⁾ SER_u: Unit-specific emission rate

This document only applies to the named product in its original state and is valid for a period of 5 years from the date the first document was issued. The document can be verified under www.tested-device.com.

Detailed information and parameters of the test environment can be found in the Fraunhofer IPA test report.

DUPLICATE

SA 1709-944
Report No. first document

Stuttgart, February 23, 2018
Place, date of first document issued

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Report No. current document

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Place, current date

on behalf of 
Dr.-Ing. Udo Gommel, Project manager Fraunhofer IPA