



Fraunhofer

TESTED[®] DEVICE

LAPPKOREA LLC
CR 8211 MC 3X0.14SQ
Report No. LA 2208-1345

Single product Outgassing Behavior VOC/SVOC

Qualification Certificate

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

LAPPKOREA LLC
HWASEONG-SI, Korea

has been awarded a Fraunhofer certificate TESTED DEVICE
bearing the report number LA 2208-1345.

The outgassing behavior of the cable UNITRONIC CLEANROOM
FD 8211 MC 3 X 0.14SQ (color: black) at the stated temperatures
was investigated according to VDI 2083 Part 17 and ISO 14644-
15. 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]	ISO-ACC _e Class (x) based on 23 °C
VOC	3.7×10^{-10}	-9.4
SVOC	2.2×10^{-10}	-9.6
Amines	$< 4.6 \times 10^{-13}$	--
Organophosphates	$< 4.6 \times 10^{-13}$	--
Siloxanes	$< 4.6 \times 10^{-13}$	--
Phthalates	$< 4.6 \times 10^{-13}$	--

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.

LA 2208-1345
Report No. first document

Stuttgart, November 18, 2022
Place, date of first document issued

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Report No. current document

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Place, current date

on behalf of 