

## Certification of RoHS / REACH Compliance

July, 2022

### RoHS, RoHS2 & RoHS3 - Restriction of Hazardous Substances

The RoHS Directives 2002/95/EC, RoHS2 2011/65/EC, RoHS3 2015/863/EC restricts the amount of ten environmentally hazardous substances used in new electrical and electronic equipment: lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyl (PBB), polybrominated diphenyl ether (PBDE) flame retardants, Bis(2-ethylhexyl) phthalate DEHP, Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP), Diisobutyl phthalate (DIBP).

Some traces of the above materials could be present as impurities in the raw material but they are not intentionally added.

The use of the substances listed in the above Directives was analysed carefully, and it is always monitored by our technical & purchasing staff.

**ATE Electronics certifies that ALL power resistors are RoHS compliant** in accordance to the RoHS2 Directives 2011/65/EC, RoHS3 2015/863/EC and WEEE 2002/96/EC.

No exemptions applied

The ordering codes are not changed, the Pb free parts are backward compatible with SnPb soldering process. All Products are lead-free process capable in accordance with std EN60068-2-58 and with industry std JEDEC J-STD-020C

The Pb-free status is pointed out in the first level packaging with the acronym LF after the lot code and the RoHS compliance is identified on the final packaging by the below symbol.



### REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals

It entered into force on 1<sup>st</sup> June 2007 to streamline and improve the former legislative framework on chemicals of the European Union. REACH places greater responsibility on industry to manage the risks that chemicals may pose to the health and the environment.

As required in the regulation, ATE Electronics reviewed all the requirements of REACH and the impacts on its productions and business and recognises itself as a “downstream chemical user”.

**ATE Electronics** follows all REACH obligations and objectives, and **declares that no SVHC** (Substances of Very High Concern) **are present in our Resistors** – Date of inclusion: 10<sup>th</sup> June, 2022

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### TIN WHISKERS

In order to verify and avoid the growth of tin whiskers on resistors terminals, ATE Electronics adopted the tests and the requirements of NEMI/JEDEC standards.

The current state of terminal finish is:

Resistors type	Finish
<b>CS</b> – Axial wirewound resistors	Ni + Matte Sn
<b>SM</b> – surface mount wirewound resistors	Ni + Matte Sn
<b>SR</b> – symmetry resistors	N.A. → Inox
<b>RB10, RB25, RB50, RB75, RB101, RB150</b> – Aluminium housed ww resistors	Ni + Matte Sn
<b>RB100, RB250</b> – Aluminium housed ww resistors with screw terminals	N.A. → Inox
<b>RB /7</b> – Aluminium housed ww res. + faston terminals	Cu + Ni
<b>RB /8</b> – Aluminium housed ww resistors with screw terminals	Cu + NiSn
<b>PR</b> – thick film power resistors	Ni + Matte Sn

For more details or questions, please contact us at [info@ate-electronics.com](mailto:info@ate-electronics.com)

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These information represent actual knowledge based on the information provided by our supplier. They are subject to change without notice.