

# Product Information for EU RoHS and China RoHS

| Orderable Part Number | EU RoHS   | China RoHS        |                      |                      |                                      |                                           |                                                   |                                           |
|-----------------------|-----------|-------------------|----------------------|----------------------|--------------------------------------|-------------------------------------------|---------------------------------------------------|-------------------------------------------|
|                       |           | Lead<br>铅<br>(Pb) | Mercury<br>汞<br>(Hg) | Cadmium<br>镉<br>(Cd) | Hexavalent Chromium<br>六价铬<br>(Cr6+) | Polybrominated Biphenyls<br>多溴联苯<br>(PBB) | Polybrominated Diphenyl Ethers<br>多溴二苯醚<br>(PBDE) | Environment Friendly Use Period<br>环保使用期限 |
| HA16178FPEL-E         | Compliant | O                 | O                    | O                    | O                                    | O                                         | O                                                 | e                                         |

1. Compliance status of EU RoHS and China RoHS are identified by Orderable Part Number, not by Part Name.
2. The Greek letter "μ" in the Part Name is written "U" in the Orderable Part Number.
3. "-XXX", "-XX1" and "-XX2" in the Orderable Part Number indicates a custom code.
4. For information on product status, please check the Renesas website.

## 1. EU RoHS (2011/65/EU, (EU) 2015/863)

- Compliant: The products are compliant with Directive 2011/65/EU and (EU) 2015/863.  
The following exemptions are applied to some of our products.
- Exemptions:  
Annex III 7(a): Lead in high melting temperature type solders (i.e. lead-based alloys containing 85% by weight or more lead  
Annex III 7(c)-I: Electrical and electric components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound
- Not Compliant: The products contain lead at their terminals, and aren't compliant with EU RoHS.

## 2. China RoHS

Contents of toxic or hazardous substances

- O: The amount of this toxic or hazardous substances contained in all of the homogeneous materials for this product is below the limit requirements in the China National Standard GB/T 26572.
- X: The amount of this toxic or hazardous substance contained in at least one of the homogeneous materials used for this product is above the limit requirements in the China National Standard GB/T 26572.
- e: "e" for Environment-Friendly Use Period (EFUP) stands for the (  ) label, indicating that the product contains less than the maximum concentration value of all six hazardous substances.
- 10 years: "10 years" for EFUP stands for the (  ) label, indicating an EFUP of 10 years