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## Declaration of Compliance RoHS & RoHS 2 with Exemption:

7c. Lead in electronic ceramic parts (e.g. piezoelectronic devices).

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Dear Valued Customers,

Semtech Corporation hereby declares products listed below to be compliant with the requirements for restricted substances listed in European Parliament's **RoHS Directive 2011/65/EU** issued June 8, 2011, commonly referred to as "RoHS2". The following table lists the restricted materials and their respective allowable limits:

Semtech part numbers: GN3270-3EC7AV8E3

<b>RoHS Restricted Substance</b>	<b>Allowable Limit</b>
Cadmium and its compounds*	100 ppm (0.01 weight %)
Mercury and its compounds	1000 ppm (0.1 weight %)
Hexavalent chromium and its compounds	1000 ppm (0.1 weight %)
Lead and its compounds	1000 ppm (0.1 weight %)
Polybrominated biphenyls (PBB)	1000 ppm (0.1 weight %)
Polybrominated diphenyl ethers (PBDE)	1000 ppm (0.1 weight %)

We further declare that products do not contain the "RoHS2" chemical substances listed below:

<b>RoHS2 Restricted Substance</b>	<b>Allowable Limit</b>
Hexabromocyclododecane (HBCDD)	<1000 ppm
Bis (2-ethylhexyl) phthalate (DEHP)	<1000 ppm
Butyl benzyl phthalate (BBP)	<1000 ppm
Dibutyl phthalate (DBP)	<1000 ppm

In addition to the RoHS2 compliance, P/Ns are designated as Halogen Free for the following substances and levels:

<b>Halogen substances</b>	<b>Allowable Limit</b>
Chlorine (Cl)	<900 ppm
Bromine (Br)	<900 ppm
Br + Cl	<1500 ppm
Antimony (Sb)	<1000 ppm



For Semtech products that exceed the allowable limits per homogeneous material level, we have identified the exception(s) below;

- No exemption taken.
- 1. Mercury in compact fluorescent lamps not exceeding 5 mg per lamp.
- 2a. Mercury in straight fluorescent lamps for general purposes not exceeding 10 mg in halophosphate lamps.
- 2b. Mercury in straight fluorescent lamps for general purposes not exceeding 5 mg in triphosphate lamps with a normal life.
- 2c. Mercury in straight fluorescent lamps for general purposes not exceeding 8 mg in triphosphate lamps with long lifetime.
- 3. Mercury in straight fluorescent lamps for special purposes.
- 4. Mercury in other lamps not specifically mentioned in this list.
- 5. Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.
- 6a. Lead as an alloying element in steel containing up to 0.35% lead by weight.
- 6b. Lead as an alloying element in aluminum containing up to 0.4% lead by weight.
- 6c. Lead as an alloying element in copper containing up to 4% lead by weight.
- 7a. Lead in high melting temperature type solders (i.e. lead-based alloys containing 85% by weight or more lead).
- 7b. Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signaling, transmission as well as network management for telecommunications.
- 7c. Lead in electronic ceramic parts (e.g. piezoelectronic devices).
- 8. Cadmium and its compounds in electrical contacts and cadmium plating except for applications banned under Directive 91/338/EEC amending Directive 76/769/EEC relating to restrictions on the marketing and use of certain dangerous substances and preparations.
- 9. Hexavalent chromium as an anti-corrosion of the carbon steel cooling system in absorption refrigerators.
- 10a. Deca BDE in polymeric applications.
- 10b. Lead in lead-bronze bearing shells.
- 11. Lead used in compliant pin connector systems.
- 12. Lead as a coating material for a thermal conduction module c-ring.
- 13a. Lead in optical and filter glass.
- 13b. Cadmium in optical and filter glass.



14. Lead in solders consisting of more than two elements for the connection between the pins and the package of microprocessors with a lead content of more than 80% and less than 85% by weight.

15. Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

RoHS 2 Directive also requires CE marking on products which are defined within a listing of 20 product group categories. This listing can be reviewed at, <http://www.ce-marking.org/what-product.html>. The Semtech product you are interested in and identified within this declaration, do not fall within those categories and therefore, do not require CE marking.

Semtech Corporation invites the customer to visit our website, [www.semtech.com](http://www.semtech.com) and review our RoHS compliance information with signed Hazardous Substance Declaration of Non-Use.

Semtech Corporation is pleased that we are able to accommodate your needs and look forward to a continued and successful business relationship.

If you have any questions, do not hesitate to give me a call.

Sincerely,

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