

September 13, 2018

## Microsemi SoC RoHS Certificate of Compliance

Microsemi SoC part numbers represented by the “G” nomenclature inserted after the package designator indicates that the device is RoHS compliant. These part numbers are in compliance with Directive 2015/863, Directive 2011/65/EU of the European Parliament and the Council of 8 June 2011 on the restrictions of the use of certain hazardous substances, in electrical and electronic equipment (Recast).

Example: RoHS compliant part number: A3P250-FG**G**256

RoHS compliant devices (with a “G”) do not include the following RoHS banned substances:

1. Lead and lead compounds
2. Mercury and mercury compounds
3. Cadmium and Cadmium compounds
4. Hexavalent Chromium and Hexavalent Chromium compounds
5. PBB (polybromobiphenyl)
6. PBDE (polybrominated diphenyl ethers)
7. DEHP [Bis (2-ethylhexyl)phthalate; Di (2-ethylhexyl) phthalate]
8. DBP (Dibutyl phthalate; Di-n-butyl phthalate)
9. BBP (Benzyl butyl phthalate; Butyl benzyl phthalate)
10. DIBP (Diisobutyl phthalate; Di-i-butyl phthalate)

Microsemi SoC’s standard devices without the “G” designator contain Lead, so they are RoHS 9/10 compliant.

Example: RoHS 9/10 part #: A3P250-FG256.

These devices do not contain the following substances.

1. Mercury and mercury compounds
2. Cadmium and Cadmium compounds
3. Hexavalent Chromium and Hexavalent Chromium compounds
4. PBB (polybromobiphenyl)
5. PBDE (polybrominated diphenyl ethers)
6. DEHP [Bis (2-ethylhexyl)phthalate; Di (2-ethylhexyl) phthalate]
7. DBP (Dibutyl phthalate; Di-n-butyl phthalate)
8. BBP (Benzyl butyl phthalate; Butyl benzyl phthalate)
9. DIBP (Diisobutyl phthalate; Di-i-butyl phthalate)

For RoHS compliant leadframe-based plastic packages (PQFP, TQFP, VQFP, PLCC, QNG48 and QNG68), Microsemi SoC uses 10um minimum thickness, pure tin matte plating. There is a risk in using pure tin in that tin whiskers may form after a period of time. Microsemi SoC currently has no plans to offer hermetic packages with 100% pure tin, and will continue to offer BGA plastic packages, ceramic packages, and Mil-Std/QML devices with traditional lead solder as well as RoHS compliant packages. Refer to PDN18005A for Select SoC QFP and PLCC Packages with SnPb Finish that are being discontinued

(NOTE: Microsemi SoC Hermetic devices **are not** RoHS compliant.)

Pradeep Ravipati  
Sr. Quality Manager

**Microsemi SoC Corp.**  
3870 N. 1<sup>st</sup> Street  
San Jose, CA 95134