



# Material Declaration Data Sheet

## EasyBGA Package (single die products)

Flash Memory - Could be any one of the 32Mb, 64Mb, 128Mb, 256Mb discrete Flash die  
 64L (INCLUDES BUT NOT LIMITED TO: RC28F320J3D-75, RC28F256K3C120)  
 Pb Free Product: No

Product Weight (grams): 0.29g  
 Manufacturer: Intel Corporation  
 Revision Date: 10/24/07

## Restriction on Hazardous Substances (RoHS) Compliance

### RoHS Definition

- \* Quantity limit of 0.1% by mass (1000 PPM) for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)
- \* Quantity limit of 0.01% by mass (100 PPM) for: Cadmium

Intel understands RoHS requires: Lead and other materials banned in RoHS Directive are either (1) below all applicable substance thresholds as proposed by the EU or (2) an approved/pending exemption applies. (Note: RoHS implementing details are not fully defined and may change.)

### RoHS Declaration

- This part contains RoHS restricted substances per the definition above.

Where the part is declared to meet RoHS requirements, it has been verified to be in conformance with 2002/95/EC as we currently understand the requirements. Intel has systems in place to verify conformance with all applicable environmental requirements and to the best of our knowledge the information is true and correct.

## LEVEL A MATERIALS AND SUBSTANCES

Materials from Annex A of the EIA/EICTA/JGPSSI Material Composition Declaration Guide and listed in the table below are not contained in this product in quantities above the threshold level for these materials as stated in the EIA/EICTA/JGPSSI Material Composition Declaration Guide, nor intentionally added to this product.

Asbestos	Mercury/Mercury Compounds	Polychlorinated Naphthalenes
Azo colorants	Ozone Depleting Substances	Radioactive Substances
Cadmium /Cadmium Compounds	Polybrominated Biphenyls (PBBs)	Shortchain Chlorinated Paraffins
Hexavalent Chromium	Polybrominated Diphenylethers (PBDEs)	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Hexavalent Chromium Compounds	Polychlorinated Biphenyls (PCBs)	Tributyl Tin Oxide (TBTO)

This product contains lead/lead compounds.

	Description of Use	Location in Product	Material Concentration (ppm)
Lead/Lead Compounds	Electrical Interconnect	Solder Balls	28000

## LEVEL B MATERIALS AND SUBSTANCES

Antimony/Antimony Compounds	Bismuth/Bismuth Compounds	Vinyl Chloride Polymer (PVC)
Arsenic/Arsenic Compounds	Brominated Flame Retardants	Selenium/Selenium Compounds
Beryllium/Beryllium Compounds	Nickel/Nickel Compounds	Phthalates

If this product contains materials listed in Annex B of the EIA/EICTA/JGPSSI Material Composition Declaration Guide above the threshold level of 1000 ppm, those materials/substances are listed below.

	Description of Use	Location in Product	Material Concentration (ppm)
Antimony	Flame retardant	Epoxy molding	2000
Brominated Flame retardant	Flame retardant	Epoxy encapsulation material and substrate	11000
Nickel	Plating	Substrate	2700

## COMMENTS

- The data on Level A and B materials and substances are based on engineering estimates of the following package: 10x13 Leaded EasyBGA Individual unit test results may vary due to differences in production and /or sensitivities of analytical testing methods. Data shown on this MDDS reflect part-level testing intended to validate Intel's RoHS compliance systems. Intel's certification of RoHS compliance at the homogenous material level is based on Supplier Declarations of Conformance.
- This data sheet is based on the product specified and other packages are assumed to be similar.
- Data in parts per million (ppm) can be used to estimate content for other packages assumed to be similar.
- Material mass can be estimated by multiplying concentration (ppm) by product weight.
- The remainder of this package consists of non-reportable metals (e.g., tin, iron, etc.), epoxy resin and other non-metal materials.

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## Material Declaration Data Sheet

Management Methods on Control of Pollution From Electronic Information Products  
(China RoHS declaration)

### 产品中有毒有害物质的名称及含量 Hazardous Substances Table

部件名称 (Parts)	有毒有害物质或元素 (Hazardous Substance)					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr6+)	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
半导体元件 Semiconductor component	X	○	○	○	○	○

○：表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T 11363-2006标准规定的限量要求以下。

○: Indicates that this hazardous substance contained in all homogeneous materials of this part is below the limit requirement in SJ/T 11363-2006.

×：表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T 11363-2006标准规定的限量要求。

×: Indicates that this hazardous substance contained in at least one of the homogeneous materials of this part is above the limit requirement in SJ/T 11363-2006.

对销售之日的所售产品, 本表显示我公司供应链的电子产品信息产品可能包含这些物质。注意: 在所售产品中可能会也可能不会含有所有所列的部件。

This table shows where these substances may be found in the supply chain of our electronic information products, as of the date of sale of the enclosed product. Note that some of the component types listed above may or may not be a part of the enclosed product.

除非另外特别的标注, 此标志为针对所涉及产品的环保使用期限标志。  
某些可更换的零部件可能会有一个不同的环保使用期限(例如, 电池单元模块)。

此环保使用期限只适用于产品在产品手册中所规定的条件下工作。



The Environment-Friendly Use Period (EFUP) for all enclosed products and their parts are per the symbol shown here, unless otherwise marked. Certain field-replaceable parts may have a different EFUP (for example, battery modules) number. The Environment-Friendly Use Period is valid only when the product is operated under the conditions defined in the product manual.