

## Material Composition Declaration

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This document is a declaration of the substances within the manufacturer listed item. Note: if the item is an assembly with lower level parts, the declaration encompasses all lower level materials for which the manufacturer has engineering responsibility.

1752-2 1.1

ICP Web Site for information on IPC-1752 Standard  
<http://www.ipc.org/IPC-175x>

Form Type\*  
Distribute

**Declaration Class\***  
**Class 6 - RoHS Yes/No, Homogeneous Materials and Mfg Information**

### Supplier Information


<b>Company Name *</b> Fairchild Semiconductor	Company Unique ID 00-489-5751	Unique ID Authority Dun & Bradstreet	<b>Response Date*</b> Sat, Aug 09, 2014 02:13 AM
<b>Contact Name *</b> David Lancaster	Title - Contact Product Ecology	<b>Phone - Contact *</b> 801-562-7455	<b>Email - Contact *</b> david.lancaster@fairchildsemi.com
<b>Authorized Representative *</b> David Lancaster	Title - Representative Product Ecology	<b>Phone - Representative *</b> 801-562-7455	Email - Representative * david.lancaster@fairchildsemi.com

Requester Item Number	Mfr Item Number	Mfr Item Name	Effective Date	Version	Manufacturing Site	Weight*	UOM	Unit Type
ES1D	ES1D	SMA			SUBCONTRACTOR	0.064015	g	Each

### Manufacturing Process Information

Terminal Finish	Base Alloy	J-STD-020 MSL Rating	Peak Process Body Temperature	Max Time at Peak Temperature	No Reflow cycles
Matte Tin (Sn)	CU Alloy	1	260 C	30 seconds	3

\* Required Field

RoHS Material Composition Declaration		Declaration Type * Custom
<b>RoHS Directive 2011/65/EU</b>	<b>RoHS Definition:</b> Quantity limit of 0.1% by mass (1000 PPM) in homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE) and quantity limit of 0.01% by mass (100 PPM) of homogeneous material for Cadmium	
<p>This document is Fairchild Semiconductor's statement regarding the directive 2011/65/EU of the European Parliament and of the council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS Recast). The content of this document is based upon information collected from Fairchild Semiconductor supply chain, manufacturing facilities and affiliates worldwide.</p> <p>The FSC part number listed above and the homogenous materials in the product are compliant with the Directive 2011/65/EU. Fairchild has implemented systems to ensure our products are compliant to environmental regulations and laws worldwide. However, not all materials in Fairchild's products may have been independently verified regarding substance content. In the event of any issues arising from information in this document, the warranty section of Fairchild's standard terms and conditions of sale shall apply, unless alternate contracts have been agreed upon in writing by both parties.</p> <p>Note: The substance content disclosed herewith is approximate and is based on various methods including, engineering calculations, supplier surveys, Material Safety Data Sheets, analytical measurements. Fairchild may update this document without notification. This statement may not include information regarding the miniscule quantities of dopant and metal materials in the electrical devices contained within the finished product. CAS numbers listed for Resin substances are generic and may contain alternate substances of similar composition.</p>		
<b>RoHS Declaration *</b>	<b>4 - Item(s) does not contain RoHS restricted substances per the definition above except for selected exemptions</b>	<b>Supplier Acceptance * Accepted</b>
<p><b>Exemptions:</b> If the declared item does not contain RoHS restricted substances per the definition above except for defined RoHS exemptions, then select the corresponding response in the RoHS Declaration above and choose all applicable exemptions.</p>		
Exemption List Version EL-2011/534/EU		
7(a)-Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85 % by weight or more lead).		
7(c)-I-Electrical and electronic 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		
Declaration Signature		
Supplier Signature	 DAVID LANCASTER - PRODUCT ECOLOGY MANAGER	

**Homogeneous Material Composition Declaration for Electronic Products**

Item/SubItem Name SMA

Component	Material	Weight (mg)	Jig Level	Substance Category	Substance	Weight (mg)	CAS	PPM
Chip	Other inorganic materials	1.280	Supplier		Gold	0.002	7440-57-5	30
			A	Lead/Lead Compounds	Lead	0.030	7439-92-1	461
			B	Nickel (external applications only)	Nickel	0.008	7440-02-0	130
			Supplier		Silicon	1.240	7440-21-3	19370
Encapsulation	Thermoplastics	41.002	B	Antimony/Antimony Compounds	Antimony Trioxide	0.821	1309-64-4	12825
			B	Brominated Flame Retardants (other than PBCs or PBDEs)	Bromine Resin	0.821	6386-73-8	12825
			Supplier		Carbon Black	0.410	1333-86-4	6405
			Supplier		Epoxy Resin	6.150	29690-82-2	96071
			Supplier		Phenolic resin	4.100	9003-35-4	64047
Lead Frame	Copper & its alloys	18.636	Supplier		Copper	18.600	7440-50-8	290556
			Supplier		Iron	0.024	7439-89-6	375
			Supplier		Phosphorus	0.012	7723-14-0	187
			Supplier		Tin	1.000	7440-31-5	15621
Plating	Other Nonferrous metals & alloys	1.000	Supplier		Tin	1.000	7440-31-5	15621
Solder Wafer	Other Nonferrous metals & alloys	2.098	A	Lead/Lead Compounds	Lead	1.940	7439-92-1	30305
			Supplier		Silver	0.053	7440-22-4	820
			Supplier		Tin	0.105	7440-31-5	1640