FAIRCHILD SEMICONDUCTOR

IPC ASSOCIATION CONNECTING ELECTRONICS INDUSTRIES

Material Composition Declaration

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 Infomation

Supplier Information

Company Name * **Fairchild Semiconductor**	Company Unique ID 00-489-5751	Unique ID Authority Dun & Bradstreet	**Response Date*** **Sat, Aug 31, 2013 02:50 AM**
Contact Name * **David Lancaster**	Title - Contact Product Ecology	**Phone - Contact *** **801-562-7455**	**Email - Contact *** **david.lancaster@fairchildsemi.com**
Authorized Representative * **David Lancaster**	Title - Representative Product Ecology	**Phone - Representative *** **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
FGPF4536	FGPF4536	TO-220F-3 (DAP_CuAlBW)(G)			INTERNAL SUZHOU	**2.108682**	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	Not Applicable	C	seconds	Not Applicable

* Required Field

RoHS Material Composition Declaration	**Declaration Type * Custom**

RoHS Directive 2011/65/EU	**RoHS Definition:** 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

This document is Fairchild Semiconductor's statement regarding the directive 2011/65/EU of the European Parliament and of the council of 8 June 2011on 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.

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.

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.

RoHS Declaration *	**4 - Item(s) does not contain RoHS restricted substances per the definition above except for selected exemptions**	**Supplier Acceptance * Accepted**

Exemptions: 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.

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).

Declaration Signature

Supplier Signature	David Lancaster DAVID LANCASTER - PRODUCT ECOLOGY MANAGER

Homogeneous Material Composition Declaration for Electronic Products

Item/SubItem Name TO-220F-3 (DAP_CuAlBW)(G)

Component	Material	Weight (mg)	Jig Level	Substance Category	Substance	Weight (mg)	CAS	PPM
Chip	Other inorganic materials	13.500	Supplier		Silicon	13.500	7440-21-3	6402
Die Attach	Other Nonferrous metals & alloys	4.013	A	Lead/Lead Compounds	Lead	3.750	7439-92-1	1778
			Supplier		Silver	0.062	7440-22-4	29
			Supplier		Tin	0.201	7440-31-5	95
Encapsulation	Thermoplastics	785.000	Supplier		Carbon Black	15.700	1333-86-4	7445
			Supplier		Epoxy Resin	78.500	29690-82-2	37227
			Supplier		Phenolic Resin	62.800	9003-35-4	29782
			Supplier		Silica, vitreous	628.000	60676-86-0	297816
Lead Frame	Copper & its alloys	1291.680	Supplier		Copper	1290.000	7440-50-8	611757
			Supplier		Iron	1.290	7439-89-6	612
			Supplier		Phosphorus	0.390	7723-14-0	185
Plating	Other Nonferrous metals & alloys	13.200	Supplier		Tin	13.200	7440-31-5	6260
Wire Bond - Al	Aluminum & its alloys	1.180	Supplier		Aluminum	1.180	7429-90-5	560
Wire Bond - Cu	Copper & its alloys	0.109	Supplier		Copper	0.109	7440-50-8	52