

## 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	<b>Company Unique ID</b> 00-489-5751	<b>Unique ID Authority</b> Dun & Bradstreet	<b>Response Date*</b> Sat, Aug 31, 2013 04:00 AM
<b>Contact Name *</b> David Lancaster	<b>Title - Contact</b> Product Ecology	<b>Phone - Contact *</b> 801-562-7455	<b>Email - Contact *</b> david.lancaster@fairchildsemi.com
<b>Authorized Representative *</b> David Lancaster	<b>Title - Representative</b> Product Ecology	<b>Phone - Representative *</b> 801-562-7455	<b>Email - Representative *</b> david.lancaster@fairchildsemi.com

Requester Item Number	Mfr Item Number	Mfr Item Name	Effective Date	Version	Manufacturing Site	Weight*	UOM	Unit Type
QRD1113	QRD1113	OPTO IRSWITCH			SUBCONTRACTOR	0.910050	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)	Other	Not Applicable	C	seconds	Not Applicable

\* Required Field

RoHS Material Composition Declaration		Declaration Type * Custom
<b>RoHS Directive</b> 2011/65/EU	<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>1 - Item(s) does not contain RoHS restricted substances per the definition above</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>		
<p>Exemption List Version EL-2011/534/EU None</p>		

#### Declaration Signature

Supplier Signature	 DAVID LANCASTER - PRODUCT ECOLOGY MANAGER
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# Homogeneous Material Composition Declaration for Electronic Products

Item/SubItem Name OPTO IRSWITCH

Component	Material	Weight (mg)	Jig Level	Substance Category	Substance	Weight (mg)	CAS	PPM
Chip	Other inorganic materials	1.500	Supplier		Silicon	1.500	7440-21-3	1648
Die Attach	Other Organic Materials	1.550	Supplier		Epoxy Resin	0.232	29690-82-2	255
			Supplier		Silica, vitreous	0.232	60676-86-0	255
			Supplier		Silver	1.085	7440-22-4	1192
Encapsulation	Thermoplastics	51.000	Supplier		Carbon Black	0.510	1333-86-4	560
			Supplier		Epoxy Resin	5.100	129915-35-1	5604
			Supplier		Silica, vitreous	45.390	60676-86-0	49876
Housing	Other Plastics & Rubber	540.000	Supplier		Polycarbonite	540.000	80-05-7	593374
Lead Frame	Other Ferrous alloys, non-stainless steels	280.000	Supplier		Carbon	11.200	7440-44-0	12307
			Supplier		Iron	196.000	7439-89-6	215373
			Supplier		Manganese	64.400	7439-96-5	70765
			Supplier		Phosphorus	4.760	7723-14-0	5230
			Supplier		Silver (DP plate)	1.400	7440-22-4	1538
			Supplier		Sulfur	2.240	7704-34-9	2461
Plating	Other Nonferrous metals & alloys	32.500	Supplier		Tin	32.500	7440-31-5	35712
Wire Bond	Precious metals	3.500	Supplier		Gold	3.500	7440-57-5	3846