Overview

The 8-lead PDIP package is qualified by at least six separate assembly sites. Packages that are assembled at different assembly sites will have differences in the materials that are present in the package. These differences will not impact the compliance of the package to the RoHS and JIG requirements. Compliance is guaranteed provided that the appropriate part number is ordered.

Package Code	8P3
Package Description	8-Lead, 0.300" Wide Body, Plastic Dual In-Line Package (PDIP)
Max Reflow Temperature	260 Celsius
JESD97 Category	e3

Banned Substances

The European Union passed Directive 2002/95/EC on January 27, 2003, that defines the Restriction of the use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS).

The member companies that comprise EIA/JIG/JGPSSI developed JIG-101 in April 2005 to track and disclose specific information about the material composition of products to legal and market requirements. The Level A list is composed of materials and substances when used in products that are subject to currently enacted legislation. The Level B list is composed of materials and substances that the electrical and electronic equipment industry has determined relevant for disclosure.

Material / Substance	RoHS / JIG	Material Mass (g)	Material Concentration (ppm)
Cadmium	RoHS	0	n/a
Hexavalent Chromium	RoHS	0	n/a
Lead	RoHS	0	n/a
Mercury	RoHS	0	n/a
Polybrominated Biphenyls (PBB)	RoHS	0	n/a
Polybrominated Diphenyl Ethers (PBDE)	RoHS	0	n/a
Asbestos	JIG Level A	0	n/a
Certain Azo Colorants	JIG Level A	0	n/a
Cadmium and Cadmium Compounds	JIG Level A	0	n/a
Hexavalent Chromium and Hexavalent Chromium Compounds	JIG Level A	0	n/a
Lead and Lead Compounds	JIG Level A	0	n/a
Mercury and Mercury Compounds	JIG Level A	0	n/a
Ozone Depleting Substances (Class I and II)	JIG Level A	0	n/a
Polybrominated Biphenyls (PBB)	JIG Level A	0	n/a
Polybrominated Diphenyl Ethers (PBDE)	JIG Level A	0	n/a
Polychlorinated Biphenyls (PCB)	JIG Level A	0	n/a
Polychlorinated Naphthalenes	JIG Level A	0	n/a
Radioactive Substances	JIG Level A	0	n/a
Certain Shortchain Chlorinated Paraffins	JIG Level A	0	n/a
Tributyl Tin (TBT) and Triphenyl Tin (TPT)	JIG Level A	0	n/a
Tributyl Tin Oxide (TBTO)	JIG Level A	0	n/a
Antimony and Antimony Compounds	JIG Level B	0	n/a
Arsenic and Arsenic Compounds	JIG Level B	0	n/a
Beryllium and Beryllium Compounds	JIG Level B	0	n/a
Bismuth and Bismuth Compounds	JIG Level B	0	n/a
Brominated Flame Retardants (other than PBB and PBDE)	JIG Level B	0	n/a
Nickel (external applications only)	JIG Level B	0	n/a
Certain Phthalates	JIG Level B	0	n/a
Selenium and Selenium Compounds	JIG Level B	0	n/a
Polyvinyl Chloride (PVC)	JIG Level B	0	n/a

Material Declaration # 1

Material	Substance	CAS #	Weight (g)	Homogeneous Material		Package	
				Percentage	ppm	Percentage	ppm
Leadframe	Copper (Cu)	7440-50-8	0.1249	97.4	974000	24.76	247600
	Iron (Fe)	7439-89-6	0.0032	2.4	24000	0.64	6400
	Zinc (Zn)	7440-66-6	0.0001	0.1	1000	0.02	200
	Phosphorous (P)	7723-14-0	0.0001	0.1	1000	0.02	200
Sub-Total			**0.1283**	**100.0**	**1000000**	**25.44**	**254400**
Integrated Circuit	Silicon (Si)	7440-21-3	0.0017	100.0	1000000	0.34	3400
Sub-Total			**0.0017**	**100.0**	**1000000**	**0.34**	**3400**
Die Attach	Silver (Ag)	7440-22-4	0.0001	71.7	717000	0.01	100
	Epoxy Resin	Trade Secret	< 0.0001	24.4	244000	< 0.01	< 100
	Curing Agent & Hardener	Trade Secret	< 0.0001	3.9	39000	< 0.01	< 100
Sub-Total			**0.0001**	**100.0**	**1000000**	**0.01**	**100**
Die Pad Plating	Silver (Ag)	7440-22-4	0.0004	100.0	1000000	0.08	800
Sub-Total			**0.0004**	**100.0**	**1000000**	**0.08**	**800**
Bond Wire	Gold (Au)	7440-57-5	0.0001	100.0	1000000	0.02	200
Sub-Total			**0.0001**	**100.0**	**1000000**	**0.02**	**200**
Encapsulation	Silica Fused	60676-86-0	0.3169	86.5	865000	62.82	628200
	Epoxy Resin	Trade Secret	0.0201	5.5	55000	3.99	39900
	Phenol Resin	Trade Secret	0.0201	5.5	55000	3.99	39900
	Epoxy, Cresol Novolac	29690-82-2	0.0081	2.2	22000	1.60	16000
	Carbon Black	1333-86-4	0.0011	0.3	3000	0.22	2200
Sub-Total			**0.3663**	**100.0**	**1000000**	**72.62**	**726300**
Terminal Plating	Tin (Sn)	7440-31-5	0.0075	100.0	1000000	1.49	14900
Sub-Total			**0.0075**	**100.0**	**1000000**	**1.49**	**14900**
Total			**0.5044**			**100.00**	**1000000**

Material Declaration # 2

Material	Substance	CAS #	Weight (g)	Homogeneous Material		Package	
				Percentage	ppm	Percentage	ppm
Leadframe	Copper (Cu)	7440-50-8	0.1249	97.4	974000	24.76	247600
	Iron (Fe)	7439-89-6	0.0032	2.4	24000	0.64	6400
	Zinc (Zn)	7440-66-6	0.0001	0.1	1000	0.02	200
	Phosphorous (P)	7723-14-0	0.0001	0.1	1000	0.02	200
Sub-Total			**0.1283**	**100.0**	**1000000**	**25.44**	**254400**
Integrated Circuit	Silicon (Si)	7440-21-3	0.0017	100.0	1000000	0.34	3400
Sub-Total			**0.0017**	**100.0**	**1000000**	**0.34**	**3400**
Die Attach	Silver (Ag)	7440-22-4	0.0001	77.0	770000	0.01	100
	Diester Resin	Trade Secret	< 0.0001	10.3	103000	< 0.01	< 100
	Polymeric Resin Mixture	Trade Secret	< 0.0001	8.5	85000	< 0.01	< 100
	Epoxy Resin	Trade Secret	< 0.0001	4.2	42000	< 0.01	< 100
Sub-Total			**0.0001**	**100.0**	**1000000**	**0.01**	**100**
Die Pad Plating	Silver (Ag)	7440-22-4	0.0004	100.0	1000000	0.08	800
Sub-Total			**0.0004**	**100.0**	**1000000**	**0.08**	**800**
Bond Wire	Gold (Au)	7440-57-5	0.0001	100.0	1000000	0.02	200
Sub-Total			**0.0001**	**100.0**	**1000000**	**0.02**	**200**
Encapsulation	Silica Fused	60676-86-0	0.3169	86.5	865000	62.82	628200
	Epoxy Resin	Trade Secret	0.0201	5.5	55000	3.99	39900
	Phenol Resin	Trade Secret	0.0201	5.5	55000	3.99	39900
	Epoxy, Cresol Novolac	29690-82-2	0.0081	2.2	22000	1.60	16000
	Carbon Black	1333-86-4	0.0011	0.3	3000	0.22	2200
Sub-Total			**0.3663**	**100.0**	**1000000**	**72.62**	**726300**
Terminal Plating	Tin (Sn)	7440-31-5	0.0075	100.0	1000000	1.49	14900
Sub-Total			**0.0075**	**100.0**	**1000000**	**1.49**	**14900**
Total			**0.5044**			**100.00**	**1000000**

Material Declaration # 3

Material	Substance	CAS #	Weight (g)	Homogeneous Material		Package	
				Percentage	ppm	Percentage	ppm
Leadframe	Copper (Cu)	7440-50-8	0.1249	97.4	974000	24.76	247600
	Iron (Fe)	7439-89-6	0.0032	2.4	24000	0.64	6400
	Zinc (Zn)	7440-66-6	0.0001	0.1	1000	0.02	200
	Phosphorous (P)	7723-14-0	0.0001	0.1	1000	0.02	200
Sub-Total			**0.1283**	**100.0**	**1000000**	**25.44**	**254400**
Integrated Circuit	Silicon (Si)	7440-21-3	0.0017	100.0	1000000	0.34	3400
Sub-Total			**0.0017**	**100.0**	**1000000**	**0.34**	**3400**
Die Attach	Silver (Ag)	7440-22-4	0.0001	72.1	721000	0.01	100
	Epoxy Resin	9003-36-5	< 0.0001	19.5	195000	< 0.01	< 100
	t-Butyl Phenyl Glycidyl Ether	3101-60-8	< 0.0001	6.5	65000	< 0.01	< 100
	Butyl Cellosolve Acetate	112-07-2	< 0.0001	0.8	8000	< 0.01	< 100
	Phenolic Resin	92-88-6	< 0.0001	0.8	8000	< 0.01	< 100
	Dicyandiamide	461-58-5	< 0.0001	0.3	300	< 0.01	< 100
Sub-Total			**0.0001**	**100.0**	**1000000**	**0.01**	**100**
Die Pad Plating	Silver (Ag)	7440-22-4	0.0004	100.0	1000000	0.08	800
Sub-Total			**0.0004**	**100.0**	**1000000**	**0.08**	**800**
Bond Wire	Gold (Au)	7440-57-5	0.0001	100.0	1000000	0.02	200
Sub-Total			**0.0001**	**100.0**	**1000000**	**0.02**	**200**
Encapsulation	Silica Fused	60676-86-0	0.3169	86.5	865000	62.82	628200
	Epoxy Resin	Trade Secret	0.0201	5.5	55000	3.99	39900
	Phenol Resin	Trade Secret	0.0201	5.5	55000	3.99	39900
	Epoxy, Cresol Novolac	29690-82-2	0.0081	2.2	22000	1.60	16000
	Carbon Black	1333-86-4	0.0011	0.3	3000	0.22	2200
Sub-Total			**0.3663**	**100.0**	**1000000**	**72.62**	**726300**
Terminal Plating	Tin (Sn)	7440-31-5	0.0075	100.0	1000000	1.49	14900
Sub-Total			**0.0075**	**100.0**	**1000000**	**1.49**	**14900**
Total			**0.5044**			**100.00**	**1000000**

Material Declaration # 4

Material	Substance	CAS #	Weight (g)	Homogeneous Material		Package	
				Percentage	ppm	Percentage	ppm
Leadframe	Copper (Cu)	7440-50-8	0.1249	97.4	974000	22.65	226500
	Iron (Fe)	7439-89-6	0.0032	2.4	24000	0.58	5800
	Zinc (Zn)	7440-66-6	0.0001	0.1	1000	0.02	200
	Phosphorous (P)	7723-14-0	0.0001	0.1	1000	0.02	200
Sub-Total			**0.1283**	**100.0**	**1000000**	**23.27**	**232700**
Integrated Circuit	Silicon (Si)	7440-21-3	0.0017	100.0	1000000	0.31	3100
Sub-Total			**0.0017**	**100.0**	**1000000**	**0.31**	**3100**
Die Attach	Silver (Ag)	7440-22-4	< 0.0001	71.7	717000	0.01	100
	Epoxy Resin	Trade Secret	< 0.0001	24.4	244000	< 0.01	< 100
	Curing Agent & Hardener	Trade Secret	< 0.0001	3.9	39000	< 0.01	< 100
Sub-Total			**< 0.0001**	**100.0**	**1000000**	**0.01**	**100**
Die Pad Plating	Silver (Ag)	7440-22-4	0.0004	100.0	1000000	0.07	700
Sub-Total			**0.0004**	**100.0**	**1000000**	**0.07**	**700**
Bond Wire	Gold (Au)	7440-57-5	0.0001	100.0	1000000	0.02	200
Sub-Total			**0.0001**	**100.0**	**1000000**	**0.02**	**200**
Encapsulation	Silica	60676-86-0	0.3472	84.0	840000	62.96	629600
	Epoxy Resin	29690-82-2	0.0455	11.0	110000	8.25	82500
	Phenol Resin	9003-35-4	0.0207	5.0	50000	3.75	37500
Sub-Total			**0.4134**	**100.0**	**1000000**	**74.96**	**749600**
Terminal Plating	Tin (Sn)	7440-31-5	0.0075	100.0	1000000	1.36	13600
Sub-Total			**0.0075**	**100.0**	**1000000**	**1.36**	**13600**
Total			**0.5514**			**100.00**	**1000000**

Comments

- Reliability qualification reports are available upon request through the appropriate sales or marketing contact.
- Third party testing for RoHS substances has been completed on the homogeneous material level and are available upon request through the appropriate sales or marketing contact.
- Materials and/or substances not listed in the material declaration are considered not present in the product or not detectable trace levels.
- In order to report full 100 percent material declaration, some materials and/or substances have been rounded to the nearest 0.1 percent.
- Package material declarations are calculated using a combination of Material Safety Data Sheets (MSDS), material analysis testing, industry standard specifications and engineering calculations.

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Version History

A	4/3/06	Initial Release.