Product / Package Information

Package	LGA - ADIS16003
Body Size	
Lead Count	12
Terminal Finish	Au

Environmental Compliance Information

RoHS Compliant	Yes - with exemption
High Temperature Compliant	No
Halogen Free Compliant	N/A
REACH SVHC Compliant	N/A

Materials Declaration

PWB

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Composite	PCB	Proprietary	1.18 E-01	100.00	1000000	28.12	281238

Board Frame

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Composite	Board Frame	Proprietary	7.95 E-02	100.00	1000000	18.96	189599

Solder Paste

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Tin and its alloys	Tin	7440-31-5	2.02 E-02	95.00	950000	4.82	48194
Tin and its alloys	Antimony	7440-36-0	1.06 E-03	5.00	50000	0.25	2537
Subtotal			2.13 E-02	100.0	1000000	5.07	50730

Chip

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Inorganic silicon	Doped Silicon	7440-21-3	8.68 E-03	100.0	1000000	2.07	20714

Bond Wires

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious metals	Gold	7440-57-5	1.45 E-04	100.0	1000000	0.03	346

Die Attach

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Other inorganic materials	Silicon Dioxide	14808-60-7	9.27 E-05	49.90	499000	0.02	221
Organic materials	Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)	9003-36-5	3.72 E-05	20.00	200000	0.01	89
Organic materials	1,4-bis(2,3-epoxypropoxy)butane	2425-79-8	3.72 E-05	20.00	200000	0.01	89
Others	Aromatic Amine	Proprietary	9.29 E-06	5.00	50000	0.00	22
Glass	Glass	65997-17-3	9.29 E-06	5.00	50000	0.002	22
Organic materials	Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)	25068-38-6	1.86 E-07	0.10	1000	0.0000	0
Subtotal			1.86 E-04	100.00	1000000	0.04	443

Underfill

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Other Inorganic materials	Silica	60676-86-0	9.96 E-03	73.40	468409	2.38	23762
Other organic materials	hexahydromethylphthalic anhydride	25550-51-0	2.04 E-03	15.00	95724	0.49	4856
Other organic materials	1,6-Naphthalenediol diglycidyl ether	27610-48-6	1.02 E-03	7.50	47862	0.24	2428
Other organic materials	Bisphenol-A epichlorhydrin resin MW <= 700	25068-38-6	4.07 E-04	3.00	19145	0.10	971
Other organic materials	4,4'-Methylene diphenyl diglycidyl ether	1675-54-3	7.46 E-05	0.55	3510	0.02	178
Other organic materials	Bisphenol-F epichlorhydrin resin; MW<700	9003-36-5	7.46 E-05	0.55	3510	0.02	178
Subtotal			1.36 E-02	100.0	1000000	3.24	32374

Label

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Other organic materials	Static Dissipative Adhesive	Proprietary	5.59 E-04	50.65	506500	0.13	1334
Others	Topcoat Mixture	Proprietary	2.60 E-04	23.60	236000	0.06	621
Other organic materials	Polyimide Film	Proprietary	2.26 E-04	20.45	204500	0.05	539
Others	Primer Mixture	Proprietary	5.85 E-05	5.30	53000	0.01	140
Subtotal			1.10 E-03	100.0	1000000	0.26	2633

Capacitor

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
	Ceramic						
Ceramics	Barium oxide	1304-28-5	2.82 E-03	60.00	600000	0.67	6731
Ceramics	Titanium dioxide	13463-67-7	1.41 E-03	30.00	300000	0.34	3365
Ceramics	Misc	Proprietary	4.70 E-04	10.00	100000	0.11	1122
	Subtotal		4.70 E-03	100.00	1000000	1.12	11218
	Outer Electrode						
Copper and its alloys	Copper	7440-50-8	7.59 E-04	100.00	1000000	0.18	1811
Glass	Silicon dioxide	7631-86-9	6.75 E-05	80.00	800000	0.02	161
Glass	Diboron trioxide	1303-86-2	1.69 E-05	20.00	200000	0.00	40
	Subtotal		8.43 E-05	100.00	1000000	0.02	201
Nickel and its alloys	Nickel	7440-02-0	1.31 E-03	100.00	278873	0.31	3128
Tin and its alloys	Tin	7440-31-5	2.07 E-04	100.00	44131	0.05	495
Subtotal			7.06 E-03			1.69	16853

LCC Package

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
	Ceramic Base						
Ceramics	Alumina	1344-28-1	1.07 E-01	91.32	913200	25.54	255384
Ceramics	Chromium oxide	1308-38-9	4.51 E-03	3.85	38500	1.08	10767
Ceramics	Silicon dioxide	7631-86-9	4.20 E-03	3.58	35800	1.00	10012
Ceramics	Titanium dioxide	13463-67-7	1.16 E-03	0.99	9900	0.28	2769
Ceramics	Molybdenum	7439-98-7	3.05 E-04	0.26	2600	0.07	727
Subtotal			1.17 E-01	100.00	1000000	27.97	279658
	Terminals						
Other inorganic materials	Tungsten	7440-33-7	1.01 E-02	83.55	835500	2.40	23981
Nickel & its alloys	Nickel	7440-02-0	1.29 E-03	10.71	107100	0.31	3074
Precious metals	Gold	7440-57-5	6.90 E-04	5.74	57400	0.16	1648
Subtotal			1.20 E-02	100.00	1000000	2.87	28703
	Metal Lid						
Precious metals	Iron	7439-89-6	1.61 E-02	58.0	579900	3.85	38497
Nickel & its alloys	Nickel	7440-02-0	1.17 E-02	42.0	420100	2.79	27889
Subtotal			2.78 E-02	100.0	1000000	6.64	66386
	Solder Seal						
Tin & its alloys	Lead	7439-92-1	2.21 E-03	91.14	911400	0.53	5280
Tin & its alloys	Tin	7440-31-5	1.54 E-04	6.33	63300	0.04	367
Tin & its alloys	Silver	7440-22-4	3.08 E-05	1.27	12700	0.01	74
Tin & its alloys	Indium	7440-74-6	3.06 E-05	1.26	12600	0.01	73
Subtotal			2.43 E-03	100.0	1000000	0.58	5793
	Bond Wires						
Aluminum & its alloys	Aluminum	7429-90-5	3.31 E-05	99.0	990000	0.01	79
Aluminum & its alloys	Silicon	7440-21-3	3.34 E-07	1.0	10000	0.0001	1
Subtotal			3.34 E-05	100.0	1000000	0.01	80
	Die Attach						
Polymer	Polymer	Proprietary	3.63 E-03	100	1000000	0.87	8650
	Chip						
Other inorganic materials	Doped Silicon	7440-21-3	6.62 E-03	100	1000000	1.58	15800
Subtotal			1.70 E-01			40.51	405070

	Weight (g)	Percentage (%)	PPM
Package Totals	**4.19 E-01**	**100.00**	**1000000**

Note: The information provided in this declaration are true to the best of ADI's knowledge.
ADI derived most of the information listed in this declaration from documents provided by third parties, and assumes no liability to any inaccuracy of such information.

ANALOG DEVICES

ADI Proprietary