Product / Package Information

Package	BGA_ED
Body Size (mm)	31 X 31
Ball Count	304
Terminal Finish	SnAgCu
Ball Size (mm)	0.76

Environmental Information

RoHS Compliant	Yes
High Temperature Compliant	Yes
Halogen Free Compliant	Yes
REACH SVHC Compliant	Yes

Materials Declaration

Die Attach

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious Metals	Silver	7440-22-4	3.75 E-03	75.0	750000	0.04	423
Other organic materials	Resin	Proprietary	1.25 E-03	25.0	250000	0.01	141
Subtotal	Subtotal		5.00 E-03	100.0	1000000	0.06	564

Heat Sink

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Copper & its alloys	Copper	7440-50-8	3.36 E+00	99.9	999000	37.90	379004
Copper & its alloys	Zirconium	7704-99-6	3.37 E-03	0.1	1000	0.04	379
Subtotal			3.37 E+00	100	1000000	37.94	379383

Heat Sink Plating

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Nickel & its alloys	Nickel	7440-02-0	1.76 E-01	99.9	1000000	1.98	19782

Laminate

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Copper & its alloys	Copper Foil	7440-50-8					
Glass	Fiber Glass	65997-17-3					
Thermoset	Bismaleimide /Triazine	13676-54-5 / 25722-66-1					
Thermoset	Epoxy Resin	29690-82-2 / 26265-08-7					
Other inorganic materials	Inorganic Filler	13776-74-4 / 7631-86-9					
	Laminate Core Subtotal		6.07 E-01	58.87	588749	6.84	68421
Other inorganic materials	Barium sulfate	7727-43-7					
Other organic materials	Dipropylene glyco monomethyl ether	34590-94-8					
Other inorganic materials	Talc containing no asbestiform fibers	14807-96-6					
Other organic materials	Acetophenone derivative	Proprietary					
Other organic materials	Solvent naphta(petroleum), heavy arom	64742-94-5					
Other inorganic materials	Silica	14808-60-7					
	Soldermask Subtotal		1.37 E-01	13.29	132881	1.54	15443
Copper & its alloys	Copper	7440-50-8	2.80 E-01	27.16	271581	3.16	31562
Nickel & its alloys	Nickel	7440-02-0	5.00 E-03	0.48	4850	0.06	564
Precious Metals	Gold	7440-57-5	2.00 E-03	0.19	1940	0.02	225
Subtotal			1.03 E+00	100.00	1000000	11.62	116215

Solder Ball

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Tin & its alloys	Tin	7440-31-5	5.04 E-01	96.50	965000	5.68	56781
Tin & its alloys	Silver	7440-22-4	1.57 E-02	3.00	30000	0.18	1765
Tin & its alloys	Copper	7440-50-8	2.61 E-03	0.50	5000	0.03	294
Subtotal			5.22 E-01	100	1000000	5.88	58840

Chip

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Other inorganic materials	Doped Silicon	7440-21-3	3.34 E-02	100	1000000	0.38	3765

Wires

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious Metals	Gold	7440-57-5	1.67 E-02	99.00	990000	0.19	1886
Precious Metals	Palladium	7440-05-3	1.69 E-04	1.00	10000	0.00	19
Subtotal			1.69 E-02	100.00	1000000	0.19	1905

Dam

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Other inorganic materials	Epoxy	25068-38-6	2.66 E+00	74.0	740000	30.03	300287
Other organic materials	Silicon dioxide	60676-86-0	9.36 E-01	26.0	260000	10.55	105506
Subtotal			3.60 E+00	100.0	1000000	40.58	405794

Encapsulant

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Other inorganic materials	Epoxy	25068-38-6	9.03 E-02	74.0	740000	1.02	10176
Other organic materials	Silicon dioxide	60676-86-0	3.17 E-02	26.0	260000	0.36	3575
Subtotal			1.22 E-01	100.0	1000000	1.38	13752

	Weight (g)			Percentage (%)	PPM
Package Totals	**8.87 E+00**			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