

Materials Declaration

Package	CSP BGA
Body Size	12 X 12
Ball Count	136
Option	Pb-Free
Ball Size	0.45

Molding Compound

Item	% of Compound	Weight (g)	PPM
SiO2 Filler	85	1.34 E-01	273976
Epoxy Resin	6.5	1.03 E-02	20951
Phenol Resin	6.5	1.03 E-02	20951
Metal Hydroxide	1.5	2.37 E-03	4835
Carbon Black	0.5	7.89 E-04	1612

Laminate

Item	% of Laminate	Weight (g)	PPM
BT-Epoxy	32.5	8.29 E-02	169315
Glass Fiber	32.5	8.29 E-02	169315
Cu	31.5	8.03 E-02	163823
Au	0.2	4.70 E-04	959
Ni	2.4	6.20 E-03	12657
Solder Mask	0.8	2.05 E-03	4185
Brominated Compound	Confidential	Not Determined	

Solder Ball

	% of Solder Ball	Weight (g)	PPM
Sn	96.5	4.64 E-02	94632
Ag	3.0	1.44 E-03	2942
Cu	0.5	2.40 E-04	490

Bond Wires

	% of Wire	Weight (g)	PPM
Au	99.9	3.00 E-03	6123

Chip

	% of Chip	Weight (g)	PPM
Si	100	2.23 E-02	45531

Die Attach

Item	% of Die Attach	Weight (g)	PPM
Resin	23.0	8.68 E-04	1772
Ag Filler	77.0	2.91 E-03	5932

Package Totals

Weight (g)	PPM
4.90E-01	1000000

Molding Compound

Item	PPM	Method
Pb	Not Detected	US EPA Method #3050B
Cd	Not Detected	BS EN 1122:2001, Method B
Hg	Not Detected	US EPA Method #3052
Cr+6	Not Detected	US EPA Method #7196A and #3060A
PBB	Not Detected	Analysis was performed by GC/MS
PBDE	Not Detected	Analysis was performed by GC/MS

Die Attach Paste

Item	PPM	Method
Pb	Not Detected	US EPA Method #3050B
Cd	Not Detected	BS EN 1122:2001, Method B
Hg	Not Detected	US EPA Method #3052
Cr+6	Not Detected	US EPA Method #7196A and #3060A
PBB	Not Detected	Analysis was performed by GC/MS
PBDE	Not Detected	Analysis was performed by GC/MS

STS-BC-P

Note: The information provided in this declaration are true to the best of ADI's knowledge

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Au	0.2	4.70 E-04	959
Ni	2.4	6.20 E-03	12657
Solder Mask	0.8	2.05 E-03	4185
Brominated Compound	Confidential	Not Determined	

Solder Ball

	% of Solder Ball	Weight (g)	PPM
Sn	62.0	2.98 E-02	60799
Pb	36.0	1.73 E-02	35303
Ag	2.0	9.61 E-04	1961

Bond Wires

	% of Wire	Weight (g)	PPM
Au	99.9	3.00 E-03	6123

Chip

	% of Chip	Weight (g)	PPM
Si	100	2.23 E-02	45531

Die Attach

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Hg	Not Detected	US EPA Method #3052
Cr+6	Not Detected	US EPA Method #7196A and #3060A
PBB	Not Detected	Analysis was performed by GC/MS
PBDE	Not Detected	Analysis was performed by GC/MS

STS-BC-Q

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