

Materials Declaration

Package	LQFP_INT_HS
Body Size	20 X 20
LeadCount	144
Option	Pb Free

Molding Compound				
Item	% of Compound	Weight (g)	PPM	
Silica fused	87.0	6.84 E-01	403362	
Epoxy resin	7.5	5.90 E-02	34773	
Phenol resin	5.5	4.33 E-02	25500	

Leadframe				
Item	% of Leadframe	Weight (g)	PPM	
Cu	99.3	1.28 E-01	75215	
Sn	0.3	3.21 E-04	189	
Zn	0.3	3.21 E-04	189	
Cr	0.2	2.83 E-04	167	

Internal Leadframe Plating				
Item	% of Plating	Weight (g)	PPM	
Ag	100.0	1.14 E-04	67	

External Leadframe Plating				
Item	% of Plating	Weight (g)	PPM	
Sn	100.0	6.46 E-03	3809	

Bond Wires				
Item	% of Wire	Weight (g)	PPM	
Au	99.9	1.23 E-02	7271	

Chip				
Item	% of Chip	Weight (g)	PPM	
Si	100.0	1.59 E-02	9348	

Die Attach				
Item	% of Die Attach	Weight (g)	PPM	
Ag	79.5	1.40 E-03	826	
Epoxy resin	15.0	2.64 E-04	156	
Aromatic Amine	5.5	9.69 E-05	57	

Heat Slug				
Item	% of H/S	Weight (g)	PPM	
Cu	99.9	7.33 E-01	432069	
Ni	0.1	1.31 E-04	77	
S	0.002	2.40 E-06	1	
Se	0.001	1.33 E-06	1	
Tc	0.001	1.33 E-06	1	
Bi	0.001	1.33 E-06	1	

H/SP Attach				
Item	% of H/SP Attach	Weight (g)	PPM	
Ag	80.0	9.59 E-03	5651	
Epoxy resin	15.0	1.80 E-03	1060	
Phenolic resin	3.0	3.60 E-04	212	

Package Totals		
Weight (g)	PPM	
1.70 E+00	1000000	

Molding Compound			
Item	PPM	Method	
Pb	Not Detected	US EPA Method #3052	
Cd	Not Detected	US EPA Method #3052	
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	US EPA Method #3050B	
Hg	Not Detected	US EPA Method #3052	
Cr+6	Not Detected	US EPA Method #3060A	
PBB	Not Detected	Analysis was performed by GC/MS	
PBDE	Not Detected	Analysis was performed by GC/MS	

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



ADI Proprietary

AST-SQ-G

4/12/06

Materials Declaration

Package	LQFP_INT_HS
Body Size	20 X 20
LeadCount	144
Option	SnPb

Molding Compound				
Item	% of Compound	Weight (g)	PPM	
Silica fused	87.0	6.84 E-01	403592	
Epoxy resin	7.5	5.90 E-02	34792	
Phenol resin	5.5	4.33 E-02	25514	

Leadframe				
Item	% of Leadframe	Weight (g)	PPM	
Cu	99.3	1.28 E-01	75258	
Sn	0.3	3.21 E-04	190	
Zn	0.3	3.21 E-04	190	
Cr	0.2	2.83 E-04	167	

Internal Leadframe Plating				
Item	% of Plating	Weight (g)	PPM	
Ag	100.0	1.14 E-04	67	

External Leadframe Plating				
Item	% of Plating	Weight (g)	PPM	
Sn	85.0	5.49 E-03	3239	
Pb	15.0	9.69 E-04	572	

Bond Wires				
Item	% of Wire	Weight (g)	PPM	
Au	99.9	1.23 E-02	7275	

Chip				
Item	% of Chip	Weight (g)	PPM	
Si	100.0	1.59 E-02	9353	

Die Attach				
Item	% of Die Attach	Weight (g)	PPM	
Ag	79.5	1.40 E-03	826	
Epoxy resin	15.0	2.64 E-04	156	
Aromatic Amine	5.5	9.69 E-05	57	

Heat Slug				
Item	% of H/S	Weight (g)	PPM	
Cu	99.9	7.33 E-01	432316	
Ni	0.1	1.31 E-04	77	
S	0.002	2.40 E-06	1	
Se	0.001	1.33 E-06	1	
Tc	0.001	1.33 E-06	1	
Bi	0.001	1.33 E-06	1	

H/SP Attach				
Item	% of H/SP Attach	Weight (g)	PPM	
Ag	80.0	9.59 E-03	5654	
Epoxy resin	15.0	1.80 E-03	1060	
Phenolic resin	3.0	3.60 E-04	212	

Package Totals		
Weight (g)	PPM	
1.70 E+00	1000000	

Molding Compound			
Item	PPM	Method	
Pb	Not Detected	US EPA Method #3052	
Cd	Not Detected	US EPA Method #3052	
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	US EPA Method #3050B	
Hg	Not Detected	US EPA Method #3052	
Cr+6	Not Detected	US EPA Method #3060A	
PBB	Not Detected	Analysis was performed by GC/MS	
PBDE	Not Detected	Analysis was performed by GC/MS	

AST-SQ-H

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4/12/06