

Atmel Corporation - Package Material Declaration Datasheet			
Package Description	8-Lead, 0.208" Body, Plastic Small Outline Package (EIAJ)		
Package Code	8S2	GPC	STN
Lead Finish	Matte Tin (Sn)	RoHS Compliant	Yes
J-STD-609 Category	e3	Green Compliant	Yes
Assembly Location	Amkor Philippines	REACH Compliant	Yes

Package Material Declaration							
Material	Substance	CAS #	Weight (mg)	Homogeneous Material		Package	
				Percentage	ppm	Percentage	ppm
Leadframe	Copper (Cu)	7440-50-8	24.169	97.4	974000	19.30	192967
	Iron (Fe)	7439-89-6	0.596	2.4	24000	0.48	4755
	Phosphorous (P)	7723-14-0	0.025	0.1	1000	0.02	198
	Zinc (Zn)	7440-66-6	0.025	0.1	1000	0.02	198
Sub-Total			24.814	100.0	1000000	19.81	198118
Integrated Circuit	Silicon (Si)	7440-21-3	2.828	100.0	1000000	2.26	22577
Sub-Total			2.828	100.0	1000000	2.26	22577
Die Attach	Silver (Ag)	7440-22-4	0.153	73.1	731000	0.12	1223
	Bisphenol-F Epichlorhydrin Resin	9003-36-5	0.013	6.0	60000	0.01	100
	Polyglycidyl Ester	68475-94-5	0.013	6.0	60000	0.01	100
	2,6-Diglycidyl Phenyl Allyl Ether Oligomer	Proprietary	0.011	5.2	52000	0.01	87
	Copper Oxide	1317-38-0	0.010	4.6	46000	0.01	77
	gamma-Butyrolactone	96-48-0	0.005	2.3	23000	0.00	38
	Poly(oxypropylene)diamine	Proprietary	0.005	2.3	23000	0.00	38
	1,4-Bis(2,3-epoxypropoxy)butane	2425-79-8	0.001	0.5	5000	0.00	8
Sub-Total			0.210	100.0	1000000	0.17	1674
Die Pad Plating	Silver (Ag)	7440-22-4	0.350	100.0	1000000	0.28	2795
Sub-Total			0.350	100.0	1000000	0.28	2795
Bond Wire	Gold (Au)	7440-57-5	0.055	100.0	1000000	0.04	438
Sub-Total			0.055	100.0	1000000	0.04	438
Encapsulation	Silica (Amorphous)	60676-86-0	81.152	85.4	854000	64.79	647928
	Epoxy Resin A	Proprietary	7.317	7.7	77000	5.84	58420
	Epoxy Resin B	29690-82-2	3.041	3.2	32000	2.43	24278
	Phenol Resin	Proprietary	3.041	3.2	32000	2.43	24278
	Carbon Black	1333-86-4	0.475	0.5	5000	0.38	3793
Sub-Total			95.026	100.0	1000000	75.87	758698
Terminal Plating	Tin (Sn)	7440-31-5	1.966	100.0	1000000	1.57	15700
Sub-Total			1.966	100.0	1000000	1.57	15700
Total			125.249			100.00	1000000

Package Material Declaration Certificate

Atmel Corporation certifies that the material content information provided above is representative and accurate as of the date of this declaration. Atmel Corporation products designated as "RoHS Compliant" or "Green" (defined below) do not exceed the threshold limits of the European Union Restriction of Hazardous Substances (RoHS) Directive 2011/65/EU, and the China Administration on Control of Pollution by Electronic Information Products (China RoHS).

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Name / Title: William B. Dupey III / Quality Engineer & Chemist

Date: March 24, 2016



RoHS Compliant: Atmel Corporation defines "RoHS Compliant" to mean maximum concentration value of 0.1% (1000 ppm) for Lead (Pb), Mercury (Hg), Hexavalent Chromium (Cr+6), Polybrominated Biphenyl (PBB), Polybrominated Diphenyl Ether (PBDE), Bis(2-ethylhexyl) Phthalate (DEHP), Butyl Benzyl Phthalate (BBP), Dibutyl Phthalate (DBP), Diisobutyl Phthalate (DIBP) and maximum concentration value of 0.01% (100 ppm) for Cadmium (Cd) in any homogeneous material.

Green: Atmel Corporation defines "Green" to mean, in addition to substances listed in "RoHS Compliant", maximum concentration value of 0.09% (900 ppm) for Antimony (Sb), 0.09% (900 ppm) for Bromine (Br) and Chlorine (Cl) and less than 0.15% (1500 ppm) total Bromine (Br) and Chlorine (Cl) in any homogeneous material.

Atmel Corporation - Package Material Declaration Datasheet			
Package Description	8-Lead, 0.208" Body, Plastic Small Outline Package (EIAJ)		
Package Code	8S2	GPC	STN
Lead Finish	Matte Tin (Sn)	RoHS Compliant	Yes
J-STD-609 Category	e3	Green Compliant	Yes
Assembly Location	Lingsen	REACH Compliant	Yes

Package Material Declaration							
Material	Substance	CAS #	Weight (mg)	Homogeneous Material		Package	
				Percentage	ppm	Percentage	ppm
Leadframe	Copper (Cu)	7440-50-8	24.169	97.4	974000	19.30	192993
	Iron (Fe)	7439-89-6	0.596	2.4	24000	0.48	4755
	Phosphorous (P)	7723-14-0	0.025	0.1	1000	0.02	198
	Zinc (Zn)	7440-66-6	0.025	0.1	1000	0.02	198
Sub-Total			24.814	100.0	1000000	19.81	198144
Integrated Circuit	Silicon (Si)	7440-21-3	2.828	100.0	1000000	2.26	22580
Sub-Total			2.828	100.0	1000000	2.26	22580
Die Attach	Silver (Ag)	7440-22-4	0.139	72.1	721000	0.11	1112
	Epoxy Resin	9003-36-5	0.038	19.5	195000	0.03	301
	t-Butyl Phenyl Glycidyl Ether	3101-60-8	0.013	6.5	65000	0.01	100
	Butyl Cellosolve Acetate	112-07-2	0.002	0.8	8000	0.00	12
	Phenolic Resin	92-88-6	0.002	0.8	8000	0.00	12
	Dicyandiamide	461-58-5	0.001	0.3	3000	0.00	5
Sub-Total			0.193	100.0	1000000	0.15	1542
Die Pad Plating	Silver (Ag)	7440-22-4	0.350	100.0	1000000	0.28	2795
Sub-Total			0.350	100.0	1000000	0.28	2795
Bond Wire	Gold (Au)	7440-57-5	0.055	100.0	1000000	0.04	438
Sub-Total			0.055	100.0	1000000	0.04	438
Encapsulation	Silica (Amorphous)	60676-86-0	81.152	85.4	854000	64.80	648014
	Epoxy Resin A	Proprietary	7.317	7.7	77000	5.84	58427
	Epoxy Resin B	29690-82-2	3.041	3.2	32000	2.43	24282
	Phenol Resin	Proprietary	3.041	3.2	32000	2.43	24282
	Carbon Black	1333-86-4	0.475	0.5	5000	0.38	3794
Sub-Total			95.026	100.0	1000000	75.88	758798
Terminal Plating	Tin (Sn)	7440-31-5	1.966	100.0	1000000	1.57	15702
Sub-Total			1.966	100.0	1000000	1.57	15702
Total			125.232			100.00	1000000

Package Material Declaration Certificate

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Name / Title: William B. Dupey III / Quality Engineer & Chemist

Date: March 24, 2016



RoHS Compliant: Atmel Corporation defines "RoHS Compliant" to mean maximum concentration value of 0.1% (1000 ppm) for Lead (Pb), Mercury (Hg), Hexavalent Chromium (Cr+6), Polybrominated Biphenyl (PBB), Polybrominated Diphenyl Ether (PBDE), Bis(2-ethylhexyl) Phthalate (DEHP), Butyl Benzyl Phthalate (BBP), Dibutyl Phthalate (DBP), Diisobutyl Phthalate (DIBP) and maximum concentration value of 0.01% (100 ppm) for Cadmium (Cd) in any homogeneous material.

Green: Atmel Corporation defines "Green" to mean, in addition to substances listed in "RoHS Compliant", maximum concentration value of 0.09% (900 ppm) for Antimony (Sb), 0.09% (900 ppm) for Bromine (Br) and Chlorine (Cl) and less than 0.15% (1500 ppm) total Bromine (Br) and Chlorine (Cl) in any homogeneous material.

Atmel Corporation - Package Material Declaration Datasheet			
Package Description	8-Lead, 0.208" Body, Plastic Small Outline Package (EIAJ)		
Package Code	8S2	GPC	STN
Lead Finish	Matte Tin (Sn)	RoHS Compliant	Yes
J-STD-609 Category	e3	Green Compliant	Yes
Assembly Location	UTAC Thailand	REACH Compliant	Yes

Package Material Declaration							
Material	Substance	CAS #	Weight (mg)	Homogeneous Material		Package	
				Percentage	ppm	Percentage	ppm
Leadframe	Copper (Cu)	7440-50-8	24.169	97.4	974000	19.30	193010
	Iron (Fe)	7439-89-6	0.596	2.4	24000	0.48	4756
	Phosphorous (P)	7723-14-0	0.025	0.1	1000	0.02	198
	Zinc (Zn)	7440-66-6	0.025	0.1	1000	0.02	198
Sub-Total			24.814	100.0	1000000	19.82	198162
Integrated Circuit	Silicon (Si)	7440-21-3	2.828	100.0	1000000	2.26	22582
Sub-Total			2.828	100.0	1000000	2.26	22582
Die Attach	Silver (Ag)	7440-22-4	0.166	91.2	912000	0.13	1326
	Epoxy Resin	Proprietary	0.015	8.0	80000	0.01	116
	Toluene	108-88-3	0.001	0.8	8000	0.00	12
Sub-Total			0.182	100.0	1000000	0.15	1454
Die Pad Plating	Silver (Ag)	7440-22-4	0.350	100.0	1000000	0.28	2795
Sub-Total			0.350	100.0	1000000	0.28	2795
Bond Wire	Gold (Au)	7440-57-5	0.055	100.0	1000000	0.04	438
Sub-Total			0.055	100.0	1000000	0.04	438
Encapsulation	Silica (Amorphous)	60676-86-0	81.152	85.4	854000	64.81	648071
	Epoxy Resin A	Proprietary	7.317	7.7	77000	5.84	58433
	Epoxy Resin B	29690-82-2	3.041	3.2	32000	2.43	24284
	Phenol Resin	Proprietary	3.041	3.2	32000	2.43	24284
	Carbon Black	1333-86-4	0.475	0.5	5000	0.38	3794
Sub-Total			95.026	100.0	1000000	75.89	758865
Terminal Plating	Tin (Sn)	7440-31-5	1.966	100.0	1000000	1.57	15703
Sub-Total			1.966	100.0	1000000	1.57	15703
Total			125.221			100.00	1000000

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Name / Title: William B. Dupey III / Quality Engineer & Chemist

Date: March 24, 2016



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Green: Atmel Corporation defines "Green" to mean, in addition to substances listed in "RoHS Compliant", maximum concentration value of 0.09% (900 ppm) for Antimony (Sb), 0.09% (900 ppm) for Bromine (Br) and Chlorine (Cl) and less than 0.15% (1500 ppm) total Bromine (Br) and Chlorine (Cl) in any homogeneous material.

Atmel Corporation - Package Material Declaration Datasheet			
Package Description	8-Lead, 0.208" Body, Plastic Small Outline Package (EIAJ)		
Package Code	8S2	GPC	STN
Lead Finish	Matte Tin (Sn)	RoHS Compliant	Yes
J-STD-609 Category	e3	Green Compliant	Yes
Assembly Location	Amkor Philippines	REACH Compliant	Yes

Package Material Declaration							
Material	Substance	CAS #	Weight (mg)	Homogeneous Material		Package	
				Percentage	ppm	Percentage	ppm
Leadframe	Copper (Cu)	7440-50-8	24.169	97.4	974000	19.30	193012
	Iron (Fe)	7439-89-6	0.596	2.4	24000	0.48	4756
	Phosphorous (P)	7723-14-0	0.025	0.1	1000	0.02	198
	Zinc (Zn)	7440-66-6	0.025	0.1	1000	0.02	198
Sub-Total			24.814	100.0	1000000	19.82	198165
Integrated Circuit	Silicon (Si)	7440-21-3	2.828	100.0	1000000	2.26	22582
Sub-Total			2.828	100.0	1000000	2.26	22582
Die Attach	Silver (Ag)	7440-22-4	0.153	73.1	731000	0.12	1224
	Bisphenol-F Epichlorhydrin Resin	9003-36-5	0.013	6.0	60000	0.01	100
	Polyglycidyl Ester	68475-94-5	0.013	6.0	60000	0.01	100
	2,6-Diglycidyl Phenyl Allyl Ether Oligomer	Proprietary	0.011	5.2	52000	0.01	87
	Copper Oxide	1317-38-0	0.010	4.6	46000	0.01	77
	gamma-Butyrolactone	96-48-0	0.005	2.3	23000	0.00	39
	Poly(oxypropylene)diamine	Proprietary	0.005	2.3	23000	0.00	39
Sub-Total			0.210	100.0	1000000	0.17	1674
Die Pad Plating	Silver (Ag)	7440-22-4	0.350	100.0	1000000	0.28	2795
Sub-Total			0.350	100.0	1000000	0.28	2795
Bond Wire	Copper (Cu)	7440-50-8	0.025	97.6	976000	0.02	199
	Palladium (Pd)	7440-05-3	0.001	2.4	24000	0.00	5
Sub-Total			0.026	100.0	1000000	0.02	204
Encapsulation	Silica (Amorphous)	60676-86-0	81.152	85.4	854000	64.81	648080
	Epoxy Resin A	Proprietary	7.317	7.7	77000	5.84	58433
	Epoxy Resin B	29690-82-2	3.041	3.2	32000	2.43	24284
	Phenol Resin	Proprietary	3.041	3.2	32000	2.43	24284
	Carbon Black	1333-86-4	0.475	0.5	5000	0.38	3794
Sub-Total			95.026	100.0	1000000	75.89	758876
Terminal Plating	Tin (Sn)	7440-31-5	1.966	100.0	1000000	1.57	15704
Sub-Total			1.966	100.0	1000000	1.57	15704
Total			125.220			100.00	1000000

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Name / Title: William B. Dupey III / Quality Engineer & Chemist

Date: March 24, 2016



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Green: Atmel Corporation defines "Green" to mean, in addition to substances listed in "RoHS Compliant", maximum concentration value of 0.09% (900 ppm) for Antimony (Sb), 0.09% (900 ppm) for Bromine (Br) and Chlorine (Cl) and less than 0.15% (1500 ppm) total Bromine (Br) and Chlorine (Cl) in any homogeneous material.

Atmel Corporation - Package Material Declaration Datasheet			
Package Description	8-Lead, 0.208" Body, Plastic Small Outline Package (EIAJ)		
Package Code	8S2	GPC	STN
Lead Finish	Matte Tin (Sn)	RoHS Compliant	Yes
J-STD-609 Category	e3	Green Compliant	Yes
Assembly Location	Lingsen	REACH Compliant	Yes

Package Material Declaration							
Material	Substance	CAS #	Weight (mg)	Homogeneous Material		Package	
				Percentage	ppm	Percentage	ppm
Leadframe	Copper (Cu)	7440-50-8	24.169	97.4	974000	19.30	193038
	Iron (Fe)	7439-89-6	0.596	2.4	24000	0.48	4757
	Phosphorous (P)	7723-14-0	0.025	0.1	1000	0.02	198
	Zinc (Zn)	7440-66-6	0.025	0.1	1000	0.02	198
Sub-Total			24.814	100.0	1000000	19.82	198191
Integrated Circuit	Silicon (Si)	7440-21-3	2.828	100.0	1000000	2.26	22585
Sub-Total			2.828	100.0	1000000	2.26	22585
Die Attach	Silver (Ag)	7440-22-4	0.139	72.1	721000	0.11	1112
	Epoxy Resin	9003-36-5	0.038	19.5	195000	0.03	301
	t-Butyl Phenyl Glycidyl Ether	3101-60-8	0.013	6.5	65000	0.01	100
	Butyl Cellosolve Acetate	112-07-2	0.002	0.8	8000	0.00	12
	Phenolic Resin	92-88-6	0.002	0.8	8000	0.00	12
	Dicyandiamide	461-58-5	0.001	0.3	3000	0.00	5
Sub-Total			0.193	100.0	1000000	0.15	1542
Die Pad Plating	Silver (Ag)	7440-22-4	0.350	100.0	1000000	0.28	2796
Sub-Total			0.350	100.0	1000000	0.28	2796
Bond Wire	Copper (Cu)	7440-50-8	0.025	97.6	976000	0.02	199
	Palladium (Pd)	7440-05-3	0.001	2.4	24000	0.00	5
Sub-Total			0.026	100.0	1000000	0.02	204
Encapsulation	Silica (Amorphous)	60676-86-0	81.152	85.4	854000	64.82	648166
	Epoxy Resin A	Proprietary	7.317	7.7	77000	5.84	58441
	Epoxy Resin B	29690-82-2	3.041	3.2	32000	2.43	24287
	Phenol Resin	Proprietary	3.041	3.2	32000	2.43	24287
	Carbon Black	1333-86-4	0.475	0.5	5000	0.38	3795
Sub-Total			95.026	100.0	1000000	75.90	758976
Terminal Plating	Tin (Sn)	7440-31-5	1.966	100.0	1000000	1.57	15706
Sub-Total			1.966	100.0	1000000	1.57	15706
Total			125.203			100.00	1000000

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Green: Atmel Corporation defines "Green" to mean, in addition to substances listed in "RoHS Compliant", maximum concentration value of 0.09% (900 ppm) for Antimony (Sb), 0.09% (900 ppm) for Bromine (Br) and Chlorine (Cl) and less than 0.15% (1500 ppm) total Bromine (Br) and Chlorine (Cl) in any homogeneous material.