



Package Chemistry Substances Analysis Table

Package Type:	RSE 052 (Pb-free solder balls)
Dimension:	5 x 6 x 1 mm
Weight of Unit Package:	58.34 mg
Temperature rating:	260°C
MSL:	3
Assembly Location:	BKK
	Product is RoHS Compliant

Description	Chemicals Present	CAS Number	unit weight(mg)	unit weight/package (%)	Amount (ppm)
Silicon Die	#1 Silicon	7440-21-3	6.6637	11.4227	114,227
	subtotal		6.6637	11.4227	114,227
Bond wire	# 1 Copper	7440-50-8	1.0520	1.8033	18,033
	#2 Palladium	7440-05-3	0.0183	0.0314	314
	subtotal		1.0703	0.0314	18,347
Die Attach	#1 Epoxy resin (A&B)	Trade secret	0.2168	0.3716	3,716
	#2 Phenol Resin	Trade secret	0.1399	0.2398	2,398
	#3 Acrylic Copolymer	Trade secret	0.2378	0.4076	4,076
	#4 SiO2 Filler	Trade secret	0.1049	0.1798	1,798
	subtotal		0.6993	1.1988	11,988
Substrate	#1 Copper	7440-50-8	6.8947	11.8187	118,187
	#2 Gold	7440-57-5	0.0026	0.0044	44
	#3 Nickel	7440-02-0	0.0216	0.0371	371
	#4 Cured thermosetting resin	Trade Secret	7.4422	12.7571	127,571
	#5 Continuous Filament Fiber Glass	65997-17-3	4.5747	7.8418	78,418
	subtotal		18.9358	32.4590	324,590
Mold compound	#1 Amorphous silica (Silica Fused)	60676-86-0	21.7435	37.2718	372,718
	#2 Carbon Black	1333-86-4	0.0640	0.1096	1,096
	#3 Epoxy resin	Trade Secret	3.5429	6.0731	60,731
	#4 Phosphoric organic catalyst	Trade Secret	0.0767	0.1315	1,315
	#5 Metal Oxides	Trade Secret	0.1535	0.2631	2,631
	subtotal		25.5805	43.8491	438,491
Solder ball	1 Tin	7440-31-5	5.3071	9.0972	90,972
	2 Silver	7440-22-4	0.0539	0.0924	924
	3 Copper	7440-50-8	0.0269	0.0462	462
	subtotal		5.3879	9.2357	92,357
TOTAL PACKAGE			58.3376	100.0000	1,000,000

Disclaimer:

In general, four decimal values are shown. However, some variance remains from package to package. The mass values presented are thought to be accurate to within 20 percent. The report does not include materials not intentionally added to our products (impurities), or material concentrations less than 1 ppm.

Document History Page

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Rev.	ECN No.	Orig. of Change	Description of Change
**	5261336	AAC	NEW RELEASE