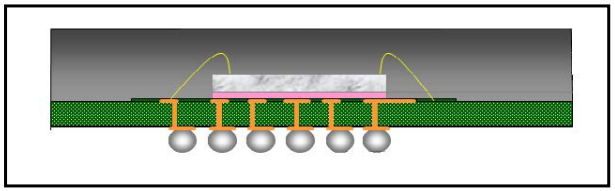
Material Declaration Sheet

-. Device : AS4C16M16MSB-6BIN
-. Package : 8X8mm 54ball FBGA
-. Weight (mg) : 113.61



Material	Substances	Vendor	Type	Purpose	CAS No.	Weight(mg)	wt % of Total unit wt	Element wt (%)	PPM
Silicon Chip	Silicon(Si)	-	-	Circuit	-	1.790	1.58%	100.0%	15756
Die Attach Material	Acryl copolymer	Innox	IDU0B3L-20T(12inch)_130um	adhesive materials for die to die, die to sub UV Cure type dicing tape	Trade secret	0.162	0.14%	45.0%	1426
	Epoxy 1				29690-82-2	0.054	0.05%	15.0%	475
	Epoxy 2				29690-82-2	0.018	0.02%	5.0%	158
	Hardner				25917-04-8	0.036	0.03%	10.0%	317
	Silica				7631-86-9	0.090	0.08%	25.0%	792
								100.0%	
Substrate	Glass cloth	Nanya_FWB-00254	Core	PCB_Core	65997-17-3	7.530	6.63%	35.0%	66278
	Resistant Epoxy Resin			PCB_Core	223769-10-6	1.076	0.95%	5.0%	9468
	Heat Resistant Resin			PCB_Core	25722-66-1	1.076	0.95%	5.0%	9468
	Silica Filler			PCB_Core	7631-86-9	3.227	2.84%	15.0%	28405
	BOEHMITE			PCB_Core	1318-23-6	1.076	0.95%	5.0%	9468
	Copper			PCB_Core	7440-50-8	7.530	6.63%	35.0%	66278
								100.0%	
	2-benzyl-2-dimethylamino-4-morpholinobutyrophenone		Solder Mask	Base meterial, Solder Mask composition (PSR4000-AUS308)	119313-12-1	0.081	0.07%	3.0%	717
	Naphtha (petroleum), heavy aromatic			Base meterial, Solder Mask composition (PSR4000-AUS308)	64742-94-5	0.136	0.12%	5.0%	1195
	TALC (CONTAINING NO ASBESTOS FIBRES)			Base meterial, Solder Mask composition (PSR4000-AUS308)	14807-96-6	0.136	0.12%	5.0%	1195
	1,3,5-Triazine-2,4,6-triamine			Base meterial, Solder Mask composition (PSR4000-AUS308)	108-78-1	0.022	0.02%	0.8%	191
	Naphthalene			Base meterial, Solder Mask composition (PSR4000-AUS308)	91-20-3	0.005	0.00%	0.2%	48
	Other components below reportable levels			Base meterial, Solder Mask composition (PSR4000-AUS308)	-	2.335	2.05%	86.0%	20550
								100.0%	
	FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL			Base meterial, Solder Mask composition (CA-40-AUS308)	9003-.36-5	0.116	0.10%	10.0%	1024
	2-[[3-[(1-Oxoallyl)oxy]-2,2-bis[[(1-oxoallyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxoallyl)oxy]methyl]-1,3-propanediyldiacrylate			Base meterial, Solder Mask composition (CA-40-AUS308)	29570-58-9	0.093	0.08%	8.0%	819
	2-[[3-Hydroxy-2,2-bis[[(1-oxoallyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxoallyl)oxy]methyl]-1,3-propanediyldiacrylate			Base meterial, Solder Mask composition (CA-40-AUS308)	60506-81-2	0.047	0.04%	4.0%	410
	Other components below reportable levels			Base meterial, Solder Mask composition (CA-40-AUS308)	-	0.907	0.80%	78.0%	7988
								100.0%	
	Copper(Cu)		Cu plating	Copper plating	7440-50-8	13.240	11.65%	99.91%	116540
	Copper Phosphorus(Cu3P2)			Copper plating	12643-19-5	0.008	0.01%	0.06%	70
	Others(impurity)			Copper plating	-	0.004	0.00%	0.03%	35
								100.00%	
	Potassium dicyanoaurate(I)		Au	Au	13967-50-5	1.025	0.90%	100.0%	9019
	Nickel Sulfamate		Ni	Ni	13770-89-3	6.281	5.53%	100.0%	55289
Wire	Gold	LT Metal	AuAg	Gold for bonding	7440-57-5	0.296	0.26%	80.00%	2605
	Silver				7440-22-4	0.070	0.06%	19.00%	619
	Palladium				7440-5-3	0.004	0.00%	0.99%	32
	Others				-	0.000	0.00%	0.01%	0
								100.00%	
Mold Compound	Epoxy resin	Sumitomo	G750C		Trade Secret	4.406	3.88%	8.0%	38785
	Phenol Resin				9003-35-4	2.754	2.42%	5.0%	24241
	Silica(Amorphous) A			Filler for molding	60676-86-0	41.310	36.36%	75.0%	363612
	Silica(Amorphous) B			Filler for molding	7631-86-9	3.856	3.39%	7.0%	33937
	Aluminum Hydroxide				21645-51-2	2.203	1.94%	4.0%	19393
	Carbon Black			Carbon for marking	1333-86-4	0.551	0.48%	1.0%	4848
								100.0%	
Solder Ball	Metallic Tin	DSHM	96.5SN/3.0AG/0.5CU	Main metal for solder ball	7440-31-5	9.708	8.54%	96.5%	85449
	Silver Atom			Additive metal to improve character	7440-22-4	0.302	0.27%	3.0%	2656
	Metallic Copper				7440-50-8	0.050	0.04%	0.5%	443
								100.0%	
					Total	113.61	100.0%		1000000

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Fax: 425-896-8628 Alliance Memory Inc. reserves the right to change products or specification without notice