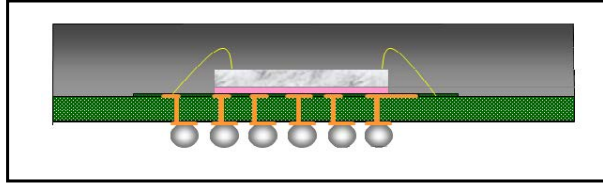




Material Declaration Sheet



- Device : AS4C32M16MSB-6BIN
 -. Package : 8X8mm 54ball FBGA
 -. Weight (mg) : 113.58

Material	Substances	Vendor	Type	Purpose	CAS No.	Weight(mg)	wt % of Total unit wt	Element wt (%)	PPM		
Silicon Chip	Silicon(Si)	-	-	Circuit	-	2.870	2.53%	100.0%	25269		
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	0.243	0.21%	45.0%	2139		
	Epoxy 1				29690-82-2	0.081	0.07%	15.0%	713		
	Epoxy 2				29690-82-2	0.027	0.02%	5.0%	238		
	Hardner				25917-04-8	0.054	0.05%	10.0%	475		
	Silica				7631-86-9	0.135	0.12%	25.0%	1189		
								100.0%			
Substrate	Glass cloth	Nanya_FWB-00254	Core	PCB_Core	65997-17-3	7.530	6.63%	35.0%	66295		
	Resistant Epoxy Resin			PCB_Core	223769-10-6	1.076	0.95%	5.0%	9471		
	Heat Resistant Resin			PCB_Core	25722-66-1	1.076	0.95%	5.0%	9471		
	Silica Filler			PCB_Core	7631-86-9	3.227	2.84%	15.0%	28412		
	BOEHMITE			PCB_Core	1318-23-6	1.076	0.95%	5.0%	9471		
	Copper			PCB_Core	7440-50-8	7.530	6.63%	35.0%	66295		
							100.0%				
	2-benzyl-2-dimethylamino-4-morpholinobutyrophenone		Solder Mask	Base material, Solder Mask composition (PSR4000-AUS308)	119313-12-1	0.081	0.07%	3.0%	717		
	Naphtha (petroleum), heavy aromatic			Base material, Solder Mask composition (PSR4000-AUS308)	64742-94-5	0.136	0.12%	5.0%	1195		
	TALC (CONTAINING NO ASBESTOS FIBRES)			Base material, Solder Mask composition (PSR4000-AUS308)	14807-96-6	0.136	0.12%	5.0%	1195		
	1,3,5-Triazine-2,4,6-triamine			Base material, Solder Mask composition (PSR4000-AUS308)	108-78-1	0.022	0.02%	0.8%	191		
	Naphthalene			Base material, Solder Mask composition (PSR4000-AUS308)	91-20-3	0.005	0.00%	0.2%	48		
	Other components below reportable levels			Base material, Solder Mask composition (PSR4000-AUS308)	-	2.335	2.06%	86.0%	20555		
							100.0%				
	FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL			Base material, 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-propanediyl]diacrylate			Base material, 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-propanediyl]diacrylate			Base material, Solder Mask composition (CA-40-AUS308)	60506-81-2	0.047	0.04%	4.0%	410		
	Other components below reportable levels			Base material, Solder Mask composition (CA-40-AUS308)	-	0.907	0.80%	78.0%	7990		
							100.0%				
	Copper(Cu)		Cu plating	Copper plating	7440-50-8	13.240	11.66%	99.91%	116570		
	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%	9022		
	Nickel Sulfamate		Ni	Ni	13770-89-3	6.281	5.53%	100.0%	55303		
	Wire		Gold	LT Metal	AuAg	Gold for bonding	7440-57-5	0.168	0.15%	80.00%	1479
			Silver			7440-22-4	0.040	0.04%	19.00%	351	
			Palladium			7440-5-3	0.002	0.00%	0.99%	18	
			Others			-	0.000	0.00%	0.01%	0	
									100.00%		
Mold Compound	Epoxy resin	Sumitomo	G750C		Trade Secret	4.316	3.80%	8.0%	38000		
	Phenol Resin			9003-35-4	2.698	2.37%	5.0%	23750			
	Silica(Amorphous) A			Filler for molding	60676-86-0	40.463	35.62%	75.0%	356247		
	Silica(Amorphous) B			Filler for molding	7631-86-9	3.777	3.32%	7.0%	33250		
	Aluminum Hydroxide				21645-51-2	2.158	1.90%	4.0%	19000		
	Carbon Black			Carbon for marking	1333-86-4	0.540	0.47%	1.0%	4750		
							100.0%				
Solder Ball	Metallic Tin	DSHM	96.5SN/3.0AG/0.5CU	Main metal for solder ball	7440-31-5	9.708	8.55%	96.5%	85472		
	Silver Atom			Additive metal to improve character	7440-22-4	0.302	0.27%	3.0%	2657		
	Metallic Copper				7440-50-8	0.050	0.04%	0.5%	443		
							100.0%				
						113.58	100.0%		1000000		