



Material Declaration Sheet

Device Code : AS4C1G16MD4V-046BIN
 Device Description : 16Gb LPDDR4x,x16
 Package Type : FBGA 200B 10x15x1mm
 Weight (Unit : mg) : 240.235



Material	Vendor	Model	Substance	Purpose	CAS No.	Weight (mg)	Element wt (%)	wt % of Total unit wt	PPM (mg/kg)	
Silicon Chip (1st)	SEC	8Gb LPDDR4x	Silicon	Circuit	7440-21-3	7.859	100.00%	3.27%	32,712	
							100.00%			
Silicon Chip (2nd)	SEC	8Gb LPDDR4x	Silicon	Circuit	7440-21-3	7.859	100.00%	3.27%	32,712	
Substrate	Fastprint FWB-00245	Prepreg	Glass cloth	Prepreg (DS-7409HG BS)	65997-17-3	12.948	40.00%	5.39%	53,899	
			Resistant Epoxy Resin	Prepreg (DS-7409HG BS)	223769-10-6	3.237	10.00%	1.35%	13,475	
			Heat Resistant Resin (C.E)	Prepreg (DS-7409HG BS)	25722-66-1	3.237	10.00%	1.35%	13,475	
			Silica Filler	Prepreg (DS-7409HG BS)	7631-86-9	8.093	25.00%	3.37%	33,687	
			Boehmite	Prepreg (DS-7409HG BS)	1318-23-6	4.856	15.00%	2.02%	20,212	
									100.00%	
		Copper	Copper, Cu	Copper foil	7440-50-8	0.235	99.882%	0.10%	980	
			Zinc, Zn	Copper foil	7440-66-6	0.0001	0.022%	0.00002%	0.2	
			Nickel, Ni	Copper foil	7440-02-0	0.0002	0.050%	0.0001%	1	
			Chromium, Cr	Copper foil	7440-47-3	0.00001	0.006%	0.00001%	0.1	
								100.00%		
		Solder Mask	2-benzyl-2-dimethylamino-4-morpholinobutylphenone	Solder mask (PSR-4000 AUS308)	119313-12-1	0.134	3.00%	0.06%	559	
			Naphtha (petroleum), heavy aromatic	Solder mask (PSR-4000 AUS308)	64742-94-5	0.224	5.00%	0.09%	932	
			TALC (CONTAINING NO ASBESTOS FIBRES)	Solder mask (PSR-4000 AUS308)	14807-96-6	0.224	5.00%	0.09%	932	
			1,3,5-Triazine-2,4,6-triamine	Solder mask (PSR-4000 AUS308)	108-78-1	0.036	0.80%	0.01%	149	
			Naphthalene	Solder mask (PSR-4000 AUS308)	91-20-3	0.009	0.20%	0.004%	37	
			Other components below reportable levels	Solder mask (PSR-4000 AUS308)	Trade Secret	3.852	86.00%	1.60%	16,032	
								100.00%		
		Solder Mask	FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL	Solder mask (CA-40 AUS308)	9003-36-5	0.291	10.00%	0.12%	1,210	
			2-[[[1-(1-oxoallyloxy)-2,2-bis[[1-(1-oxoallyloxy)methyl]propoxy]methyl]-2-[[[1-(1-oxoallyloxy)methyl]-1,3-propanediyl]diacrylate	Solder mask (CA-40 AUS308)	29570-58-9	0.233	8.00%	0.10%	968	
			2-[[[3-Hydroxy-2,2-bis[[1-(1-oxoallyloxy)methyl]propoxy]methyl]-2-[[[1-(1-oxoallyloxy)methyl]-1,3-propanediyl]diacrylate	Solder mask (CA-40 AUS308)	60506-81-2	0.116	4.00%	0.05%	484	
			Other components below reportable levels	Solder mask (CA-40 AUS308)	Trade Secret	2.268	78.00%	0.94%	9,439	
								100.00%		
		Ni plating	Nickel	Metal plating	7440-02-0	0.978	100.00%	0.41%	4,070	
		Au plating	Potassium dicyanoaurate(I)	Metal plating	13967-50-5	0.105	100.00%	0.04%	436	
		Cu plating	Cu ₂ O	Copper plating	1317-38-0	46.234	100.00%	19.25%	192,453	
								100.00%		
Die Attach Material	Innox	IDU3B3M	Silicone dioxide	Adhesive materials for die to die, die to sub UV	7631-86-9	0.473	70.00%	0.20%	1,969	
			Formaldehyde polymer with (chloromethyl)oxirane and 2-methylphenol	Cure type dicing tape	29690-82-2	0.135	20.00%	0.06%	563	
			Formaldehyde polymer with 2-methylphenol		25053-96-7	0.034	5.00%	0.01%	141	
			Silane, trimethoxy[3-(oxiranylmethoxy)propyl]-		2530-83-8	0.034	5.00%	0.014%	141	
						100.00%				
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Mold Compound	Sumitomo	G750 Type C 16x7.0g	Epoxy resin	Filler for molding	85954-11-6	9.147	8.00%	3.81%	38,074	
			Silica(Amorphous) A	Filler for molding	60676-86-0	91.468	80.00%	38.07%	380,744	
			Silica(Amorphous) B	Filler for molding	7631-86-9	9.147	8.00%	3.81%	38,074	
			Aluminum Hydroxide		21645-51-2	3.430	3.00%	1.43%	14,278	
			Carbon Black	Carbon for marking	1333-86-4	1.143	1.00%	0.48%	4,759	
						100.00%				
Wire	MKE	0.7MIL LOW-5 (4N)	Gold	Gold for bonding	7440-57-5	0.695	99.998%	0.29%	2,892	
			Beryllium		7440-41-7	0.000003	0.0005%	0.000001%	0.01	
			Calcium		7440-70-2	0.00001	0.0015%	0.000004%	0.04	
									100.00%	
Solder Ball	DSHM	96.5SN/3.0AG/0.5CU	Tin	Main metal for solder ball	7440-31-5	20.099	96.50%	8.37%	83,664	
			Silver		7440-22-4	0.625	3.00%	0.260%	2,601	
			Copper		7440-50-8	0.104	0.50%	0.04%	433	
									100.00%	
Total						240.235		100.0%	1,000,000	

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