



# ALLIANCE MEMORY MDS REPORT

Part Number:		AS4C128M8D3A-12BCN / AS4C128M8D3A-12BIN / AS4C128M8D3A-12BAN							
Part Weight:		143.32mg							
No.	Part Name	Material Name	Component wt (mg)	Material Content (Element)	CAS Number	Element wt (%)	Element wt (mg)	wt % of Total unit wt	PPM
1	Substrate	NPG-200 / AUS 308	29.526	E-Glass Fabric	65997-17-3	21.34%	6.300	4.40%	213375
				Epoxy Resin	29690-82-2	21.34%	6.300	4.40%	213375
				Fillers	21645-51-2	7.11%	2.100	1.47%	71125
				DOPO	35948-25-5	7.11%	2.100	1.47%	71125
				Talc containing no asbestiform fibers	14807-96-6	0.38%	0.111	0.08%	3764
				Morpholine derivative	Trade secret	0.38%	0.111	0.08%	3764
				Barium sulfate	7727-43-7	4.14%	1.223	0.85%	41404
				Silica, amorphous	7631-86-9	0.09%	0.028	0.02%	941
				Dipropylene glycol monomethyl ether	34590-94-8	2.26%	0.667	0.47%	22584
				Naphthalene	91-20-3	0.09%	0.028	0.02%	941
				Epoxy resin A	Trade secret	1.22%	0.361	0.25%	12233
				Epoxy resin B	85954-11-6	0.85%	0.250	0.17%	8469
				Copper	7440-50-8	29.17%	8.613	6.01%	291700
				Nickel	7440-02-0	3.53%	1.042	0.73%	35300
Gold	7440-57-5	0.99%	0.292	0.20%	9900				
2	Mold compound	CEL-9120HF	75.494	Epoxy resin	Trade Secret	4.00%	3.020	2.11%	40000
				Hardener	Trade secret	4.00%	3.020	2.11%	40000
				Carbon Black	1333-86-4	0.20%	0.151	0.11%	2000
				Amorphous silica	60676-86-0	89.80%	67.793	47.30%	898000
				Crystalline silica	14808-60-7	2.00%	1.510	1.05%	20000
3	Epoxy	6202C	0.925	2-(2-Ethoxyethoxy)ethyl acetate	112-15-2	30.00%	0.277	0.19%	300000
				Modified Epoxy Resin	Trade secret	30.00%	0.277	0.19%	300000
				Isodecyl alcohol,ethoxylated	Trade secret	10.00%	0.092	0.06%	100000
				others	Trade secret	30.00%	0.277	0.19%	300000
4	Solder ball	M705	27.526	Tin	7440-31-5	96.50%	26.563	18.53%	965000
				Silver	7440-22-4	3.00%	0.826	0.58%	30000
				Copper	7440-50-8	0.50%	0.138	0.10%	5000
5	Gold wire	Au	0.23	Gold	7440-57-5	99.99%	0.230	0.16%	999900
				Others	Trade Secret	0.01%	0.000	0.00%	100
6	Die	Chip	9.619	Silicon	7440-21-3	100.00%	9.619	6.71%	1000000
						600.00%	143.320	100.00%	6000000