

# Material Composition Specification

## DPAK Case



Device average mass ..... 297 mg  
 Fluctuation margin ..... +/-10%

Component	Material	Material		Substance	CAS No.	Substance		
		(%wt)	(mg)			(%wt)	(mg)	(ppm)
active device	doped Si	0.75%	2.2	Si	7440-21-3	0.74%	2.2	7,407
bond wire	aluminum	1.55%	4.6	Al	7429-90-5	1.55%	4.6	15,488
leadframe	Cu alloy	52.53%	156	Cu	7440-50-8	52.46%	155.8	524,579
				Fe	7439-89-6	0.07%	0.2	673
die attach	high temperature solder paste	4.04%	12	Pb	7439-92-1	3.74%	11.1	37,374
				Sn	7440-31-5	0.2%	0.6	2,020
				Ag	7440-22-4	0.1%	0.3	1,010
encapsulation*	EMC	38.25%	113.6	silica	7631-86-9	26.01%	77.26	260,135
				epoxy resin	29690-82-2	7.65%	22.73	76,532
				phenol resin	9003-35-4	3.82%	11.35	38,215
				Sb <sub>2</sub> O <sub>3</sub>	1309-64-4	0.38%	1.13	3,805
				Br	7726-95-6	0.38%	1.13	3,805
	EMC GREEN	38.25%	113.6	silica (fused)	60676-86-0	29.44%	87.43	294,377
				epoxy resin	29690-82-2	3.82%	11.36	38,249
				phenol resin	9003-35-4	3.71%	11.02	37,104
				carbon black	1333-86-4	0.11%	0.34	1,145
				metal hydroxide	1309-42-8	1.16%	3.45	11,616
plating**	tin/lead process	2.9%	8.6	Sn	7440-31-5	2.6%	7.74	26,061
				Pb	7439-92-1	0.29%	0.86	2,896
	matte tin	2.9%	8.6	Sn	7440-31-5	2.90%	8.60	28,956

\*EMC GREEN molding compound is Halogen-Free.

\*\*For Lead Free plating, add suffix "PB FREE" to part number.

For Tin/Lead plating, add suffix "TIN/LEAD" to part number.

No suffix designation allows for the supply of either lead-free or tin/lead plated product depending on availability.

### Disclaimer

The information provided in this Material Composition data sheet is, to the best of our knowledge, correct. However, there is no guarantee to completeness or accuracy, as some information is derived from data sources outside the company.

R4 (16-July 2018)