Device Material Content

5555 NE Moore Ct.
Hillsboro OR 97124
custreq@lscc.com

October-18

Package: 208 PQFP
Total Device Weight 5.700 Grams

Package Code: QN208, YN
Products: XP2, FE2(QN208), M4A(YN)

Assembly: ASEM
Size (mm): 28 x 28 x 3.4
Lead pitch (mm): 0.5
MSL: 3
Reflow max (ºC): 245

	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	% of Subst.	Notes / Assumptions:
Die	1.80%	0.1026	1.80%	0.1026	Silicon chip	7440-21-3	100.00%	Die size: 7.4 x 9.3 mm
Mold Compound	89.35%	5.093	5.36%	0.3056	Epoxy Resin	-	6.00%	Mold Compound: Hitachi CEL9510HF10-U
			3.57%	0.2037	Phenol Resin	-	4.00%	
			1.79%	0.1019	Carbon Black	1333-86-4	2.00%	
			79.79%	4.5480	Silica	60676-86-0	89.30%	
			0.45%	0.0255	Others	-	0.50%	
D/A Epoxy	0.12%	0.0068	0.01%	0.00068	Esters & resins	-	10.00%	Die attach: Henkel (Ablebond) 8361J
			0.09%	0.00513	Silver	7440-22-4	75.00%	
			0.01%	0.00068	Diglycidylether	54208-63-8	10.00%	
			0.01%	0.00034	gamma-Butyrolactone	96-48-0	5.00%	
Wire	0.11%	0.0063	0.11%	0.0063	Gold (Au)	7440-57-5	100.00%	1.0 mil wire diameter; 1 wire for each package lead
Plating	0.52%	0.0296	0.52%	0.0296	Tin (Sn)	7440-31-5	100.00%	Plating is 100% Sn; thickness is 0.015mm
Leadframe	8.10%	0.4617	7.79%	0.4442	Copper (Cu)	7440-50-8	96.20%	C7025
			0.24%	0.0139	Nickel (Ni)	7440-02-0	3.00%	
			0.05%	0.0030	Silicon (Si)	7440-21-3	0.65%	
			0.01%	0.0007	Magnesium (Mg)	7439-95-4	0.15%	

Notes:
The values listed above are nominal values based on studies of representatives of this particular package type, and are believed to be as accurate as possible.
Constituent substances and proportions in epoxy materials are before curing.
The information provided above is representative of the package as of the date listed, and is subject to change at any time.
www.latticesemi.com

Rev. E

Device Material Content

5555 NE Moore Ct.
Hillsboro OR 97124
custreq@lscc.com

October-18

Package: 208 PQFP
Total Device Weight 5.700 Grams

Package Code: YN
Products: M4A

Assembly: ATP
Size (mm): 28 x 28 x 3.4
Lead pitch (mm): 0.5
MSL: 3
Reflow max (ºC): 245

	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	% of Subst.	Notes / Assumptions:
Die	1.80%	0.1026	1.80%	0.1026	Silicon chip	7440-21-3	100.00%	Die size: 7.4 x 9.3 mm
Mold Compound	89.35%	5.093	6.25%	0.3565	Epoxy Resin	-	7.00%	Mold Compound: Sumitomo G700 series
			4.47%	0.2546	Phenol Resin	-	5.00%	
			0.45%	0.0255	Carbon Black	1333-86-4	0.50%	
			78.18%	4.4563	Silica Fused	60676-86-0	87.50%	
D/A Epoxy	0.12%	0.0068	0.02%	0.00137	Esters & resins	-	20.00%	Die attach: Henkel (Ablebond) 3230
			0.10%	0.00547	Silver	7440-22-4	80.00%	
Wire	0.11%	0.0063	0.11%	0.0063	Gold (Au)	7440-57-5	100.00%	1.0 mil wire diameter; 1 wire for each package lead
Plating	0.52%	0.0296	0.52%	0.0296	Tin (Sn)	7440-31-5	100.00%	Plating is 100% Sn; thickness is 0.015mm
Leadframe	8.10%	0.4617	7.79%	0.4442	Copper (Cu)	7440-50-8	96.20%	C7025
			0.24%	0.0139	Nickel (Ni)	7440-02-0	3.00%	
			0.05%	0.0030	Silicon (Si)	7440-21-3	0.65%	
			0.01%	0.0007	Magnesium (Mg)	7439-95-4	0.15%	

Notes:

The values listed above are nominal values based on studies of representatives of this particular package type, and are believed to be as accurate as possible.

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Rev. E