


MATERIAL DECLARATION SHEET



Material Number	4820P LF Series			
Product Line	Networks			
Compliance Date	1-1-2005			
RoHS Compliant	Yes	MSL	1	

No.	Construction Element (subpart)	Homogeneous Material	Material weight [g]	Homogeneous Material\ Substances	CASRN if applicable	Materials Mass %	Material Mass % of total unit wt.	Subpart mass of total wt. (%)
1	Ceramic substrate	alumina	0.126	Aluminum oxide	1344-28-1	100	30.53	30.53
2	Resistor/Conductor Glass	Glass	0.00251	Silver	7440-22-4	67.98	0.41	0.61
				Ruthenium dioxide	12036-10-1	2.96	0.02	
				Boron trioxide	1303-86-2	2.96	0.02	
				Aluminum oxide	1344-28-1	0.49	0.003	
				Lead monoxide	1317-36-8	15.76	0.097	
				Silicon dioxide	7631-86-9	8.37	0.051	
				Calcium oxide	1305-78-8	0.49	0.003	
				Chromium III oxide	1308-38-9	0.99	0.006	
3	Terminal pins	Copper	0.01071	Copper	7440-50-8	100	2.59	2.59
4	Terminal finish	Plating (Hot tin dip)	0.01715	Tin	7440-31-5	99.3	4.131	4.16
				Copper	7440-50-8	0.7	0.0291	
5	Internal lead attach	Solder	0.01014	Tin	7440-31-5	10	0.25	2.46
				Lead	7439-92-1	88	2.16	
				Silver	7440-22-4	2	0.05	
6	Body	Plastic	0.24621	Silica	14808-60-7	69	41.16	59.65
				Epoxy resin	29690-82-2	10	5.97	
				Phenolic resin	9003-35-4	10	5.97	
				Antimony trioxide	1309-64-4	5	2.98	
				Brominated epoxy	40039-93-8	5	2.98	
				Carbon black	1333-86-4	1	0.59	
			Total weight	0.41276				

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This Document was updated on: December 6, 2010

Important remarks:

1. It is the responsibility of the user to verify they are accessing the latest version.
2. RoHS exemptions used: 7a – lead in high temperature solder; 7[c]-I (formerly exemption 5) lead in glass in electronic components