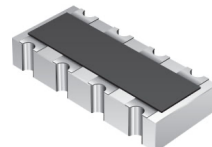


MATERIAL DECLARATION SHEET

Material Number	CAT10A-x4LF Series			
Product Line	Thick Film Chip Resistors Arrays(Networks)-Concave Type			
Compliance Date	2019/04/11			
RoHS Compliant	Yes	MSL	1	

No.	Construction Element(subpart)	Homogeneous Material	Material weight [gram]	Homogeneous Material Substances	CASRN if applicable	Materials Mass %	Material Mass % of total unit wt.	Subpart mass of total wt. (%)
1	Ceramic Substrate	Ceramic	0.00238168649	Aluminum oxide	1344-28-1	96%	84%	87.400%
				Magnesium oxide	1309-48-4	3%	2.62%	
				Silicon dioxide	14808-60-7	1%	0.87%	
2	Conductor Layer	Conductor Layer	0.00007683739	Silver	7440-22-4	86%	2.42%	2.82%
				Palladium	7440-05-3	1%	0.03%	
				Glass	65997-17-3	13%	0.37%	
3	Resistive Element	Resistive Element	0.00006403116	Ruthenium(IV) oxide	12036-10-1	33%	0.78%	2.35%
				Silver	7440-22-4	17%	0.39%	
				Palladium	7440/5/3	25%	0.59%	
				Lead-containing glass	7439-92-1	25%	0.59%	
4	Over Coating	Epoxy	0.00003051698	Resins	25068-38-6	43%	0.48%	1.12%
				Talc	14807-96-6	10%	0.11%	
				Silicon dioxide	60676-86-0	29%	0.32%	
				diethylene glycol monobutyl ether	112-34-5	19%	0.21%	
5	Marking	Ink	0.00000326968	Epoxy resin	25085-99-8	50%	0.06%	0.13%

MATERIAL DECLARATION SHEET



				Barium sulfate	7727-43-7	15%	0.02%	
				Titanium dioxide	13463-67-7	30%	0.04%	
				Naphtha	8030-30-6	5%	0.01%	
6	End Terminal	Ni-Cr	0.00000245226	Nickel	7440-02-0	80%	0.07%	0.09%
				Chromium	7440-47-3	20%	0.02%	
7	Ni Plating	Nickel	0.00008773631	Nickel	7440-02-0	100%	3.22%	3.22%
8	Sn Plating	Tin	0.00007819975	Tin	7440-31-5	100%	2.87%	2.87%
		TOTAL WEIGHT	0.00272473					

This Document was updated on: 2019/04/11

Important remarks: It is the responsibility of the user to verify they are accessing the latest version.