

# MATERIAL DECLARATION SHEET



Material Number	CAT16A-x4LF Series			
Product Line	Thick Film Chip Resistors Arrays			
Compliance Date	2021.March.08			
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	Ceramic	0.007528	Aluminum oxide	1344-28-1	96%	82.80%	86.25%
				Silicon dioxide	14808-60-7	4%	3.45%	
2	Conductor Layer	Conductor Layer	0.000170	Silver	7440-22-4	100%	1.95%	1.95%
3	Resistive Element	Resistive Element	0.000147	Ruthenium(IV) oxide	12036-10-1	25%	0.42%	1.68%
				Silver	7440-22-4	40%	0.67%	
				Palladium	7440-05-3	15%	0.25%	
				Lead-containing glass	7439-92-1	20%	0.34%	
4	Over Coating	Epoxy	0.000108	Epoxy	29690-82-2	100%	1.24%	1.24%
5	Marking	Ink	0.000010	Epoxy	25068-38-6	100%	0.12%	0.12%
6	End Terminal	Silver	0.000275	Silver	7440-22-4	100	3.15%	3.15%
7	Ni Plating	Nickel	0.0000265	Nickel	7440-02-0	100%	3.04%	3.04%
8	Sn Plating	Tin	0.000224	Tin	7440-31-5	100%	2.57%	2.57%
			Total weight	0.00873 totals 0.0084885				

**This Document was updated on: 2021/Mar/8**

**Important remarks:** Resistive Element contains the Lead (Pb) which can be referred to RoHS Exemption 7(c)-I