

MATERIAL DECLARATION SHEET



Material Number	CAT16-X4 Series			
Product Line	Thick Film Chip Resistors Arrays			
Compliance Date	4-1-2003 DC0314			
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	0.00731154	Aluminum oxide	1344-28-1	96%	0.007019078	80.42%
				Crystalline Silica Quartz	14808-60-7	4%	0.000292462	3.35%
2	Conductor Layer	Conductor Layer	0.00010905	Silver	7440-22-4	96%	0.000104688	1.20%
				Bismuth	7440-69-9	1%	0.0000010905	0.01%
				Barium	7440-39-3	1%	0.0000010905	0.01%
				Silicon	7440-21-3	1%	0.0000010905	0.01%
				Boron	7440-42-8	1%	0.0000010905	0.01%
3	Resistive Element	Resistive Ink	0.00008402	Ruthenium	12036-10-1	25%	0.000021005	0.24%
				Silver	7440-22-4	40%	0.000033608	0.39%
				Palladium	7440-05-3	15%	0.000012603	0.14%
				Lead	7439-92-1	20%	0.000016804	0.19%
4	Over Coating	Epoxy	0.00012255	Epoxy	29690-82-2	100%	0.00012255	1.40%
5	Marking	Epoxy	0.00000437	Epoxy	25068-38-6	100%	0.00000437	0.05%
6	End Terminal	NI-CR	0.00027645	Nickel	7440-02-0	80%	0.00022116	2.53%
				Chromium	7440-47-3	20%	0.00005529	0.63%
7	Nickel Plating	Nickel	0.00045055	Nickel	7440-02-0	100%	0.00045055	5.16%
8	Tin Plating	Tin	0.00036945	Tin	7440-31-5	100%	0.00036945	4.23%
			Total weight	0.00872798				

This Document was updated on: **4-11-2016**

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