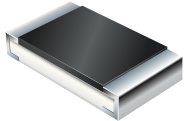


# MATERIAL DECLARATION SHEET



Material Number	CR0201A Series			
Product Line	Thick Film Chip Resistors			
Compliance Date	2018/06/14			
RoHS Compliant	Yes	MSL	1	

No.	Construction Element(subpart)	Homogeneous Material	Material weight [mg]	Homogeneous Material\ Substances	CASRN if applicable	Materials Mass %	Material Mass % of total unit wt.	Subpart mass of total wt. (%)
1	Ceramic Substrate	CRXXXX	0.14054	Aluminum oxide	1344-28-1	96%	78.78%	82.06%
				Silicon dioxide	14808-60-7	4%	3.28%	
2	Conductor Layer	AZZ.002.5421	0.00620	Ag	7440-22-4	95%	3.44%	3.62%
				Glass	65997-17-3	5%	0.18%	
3	Resistive Element	AZZ.002.00XXX	0.00277	Ruthenium oxide	12036-10-1	25%	0.41%	1.62%
				Silver	7440-22-4	40%	0.65%	
				Palladium	7440-05-3	15%	0.24%	
				Lead glass	7439-92-1	20%	0.32%	
4	Over Coating	AZZ.002.1057A	0.00342	Epoxy	25068-38-6	100%	2.00%	2%
5	End Terminal	AZZ.003.0048	0.00060	Nickel	7440-02-0	80%	0.28%	0.35%
				Chromium	7440-47-3	20%	0.07%	
6	Ni Plating	Ni	0.00937	Nickel	7440-02-0	100%	5.47%	5.47%
7	Sn Plating	Sn	0.00836	Tin	7440-31-5	100%	4.88%	4.88%
			<b>TOTAL WEIGHT</b>	<b>0.17126</b>				

This Document was updated on: 2018/6/14.

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