Materials Declaration

Thick film CRCW2512 Lead Free

Weight (max): 39683 µg / pc

Chemical constituents in % by weight of component: **CRCW2512 e3**

Name of part	Weight (µg)	Substance		Weight (µg)	% of part	% of component
Ceramic Substrate	36096.29	Al_2O_3	Aluminum oxide	34471.96	95.5	91.5
		SiO_2	Silicon dioxide	1050.40	2.91	
		MgO	Magnesium oxide	357.35	0.99	
		Fe_2O_3, CaO, K_2O, TiO_2, Na_2O		216.58	0.6	
Resistive layer	276.15	Ag	Silver	110.46	40	0.7
		RuO_2	Ruthenium oxide	55.23	20	
		Pd	Palladium	27.62	10	
		Glass (PbO,B_2O_3,SiO_2,TiO_2)		82.84	30	
Termination	2288.07					5.8
Silver contacts		Ag	Silver	813.69	35.5	
		Glass (PbO,B_2O_3,SiO_2,TiO_2)		35.23	1.5	
Barrier layer		Ni	Nickel	503.70	22.1	
Solder plating		Sn	Tin	935.43	40.9	
Front side		Cu	Copper	0.0119	< 0.001	
		Cr	Chromium	0.0077		
		Ni	Nickel	0.0025		
Passivation (overglaze)	236.70	Glass (PbO, B_2O_3, SiO_2)		231.73	97.9	0.6
		Cr_2O_3	Chromium oxide (III)	4.97	2.1	
Top Coat, Marking	552.29	Epoxy resin		341.89	61.87	1.4
		Copper Chromite Black Spinel		168.43	30.48	
		SiO_2	Silicon dioxide	42.27	7.65	
Total	**39449.5**					**100**