



Materials Declaration

Thick film CRCW0805 Lead Free

Weight (max): 4338 µg / pc

Chemical constituents in % by weight of component: D12/ CRCW0805 e3

Name of part	Weight (µg)	Substance		Weight (µg)	% of part	% of component
Ceramic Substrate	3788.19	Al ₂ O ₃	Aluminum oxide	3623.02	95.64	88.2
		SiO ₂	Silicon dioxide	110.24	2.91	
		MgO	Magnesium oxide	37.50	0.99	
		Fe ₂ O ₃ , CaO, K ₂ O, TiO ₂ , Na ₂ O		17.43	0.46	
Resistive layer	21.47	Ag	Silver	8.59	40	0.5
		RuO ₂	Ruthenium oxide	4.29	20	
		Pd	Palladium	2.15	10	
		Glass (PbO, B ₂ O ₃ , SiO ₂ , TiO ₂)		6.44	30	
Termination	395.14					9.2
Silver contacts	Ag		Silver	148.78	37.65	
	Glass (PbO, B ₂ O ₃ , SiO ₂ , TiO ₂)		6.47	1.64		
Barrier layer	Ni		Nickel	83.95	21.25	
Solder plating	Sn		Tin	155.94	39.46	
Front side	Cu		Copper	0.0021	<0.001	
	Cr		Chromium	0.0013		
	Ni		Nickel	0.0004		
Passivation (overglaze)	25.77	Glass (PbO, B ₂ O ₃ , SiO ₂)		25.23	97.9	0.6
		Cr ₂ O ₃	Chromium oxide (III)	0.54	2.1	
Top Coat, Marking	64.43	Epoxy resin		39.86	61.87	1.5
		Copper Chromite Black Spinel		19.64	30.48	
		SiO ₂	Silicon dioxide	4.93	7.65	
Total	4295.0					100

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