

Material Declaration



Package Type	Full
Package Size	20.8 x 13.2 mm
Terminal Finish	Matte Tin
Finish Thickness	8 microns
Weight (mg)	3520.000
MSL	1

Series	CPPD
--------	------

Item	Material	Element	Content (mg)	Content (wt%)	CAS #	
Cover	Stainless Steel	Nickel (Ni)	65.998	1.875%	7440-02-0	
		Chromium (Cr)	147.164	4.181%	7740-47-3	
		Iron (Fe)	580.860	16.502%	7439-89-6	
		Manganese (Mn)	8.391	0.238%	7439-96-5	
		Silicon (Si)	3.873	0.110%	7440-21-3	
		Carbon (C)	0.355	0.010%	7440-44-0	
		Sulphur (S)	0.008	0.0002%	7704-34-9	
Header	Iron Alloy	Phosphorus (P)	0.169	0.005%	7723-14-0	
		Iron (Fe)	2216.313	62.963%	7439-89-6	
		Carbon (C)	1.109	0.032%	7440-44-0	
		Silicon (Si)	0.222	0.006%	7440-21-3	
		Manganese (Mn)	5.113	0.145%	7439-96-5	
		Phosphorus (P)	0.311	0.009%	7723-14-0	
		Sulphur (S)	0.111	0.003%	7704-34-9	
	PTH Glass	Glass Frit	13.514	0.384%	65997-18-4	
	Standoff Glass	Glass Frit	47.199	1.341%	65997-18-4	
	Kovar	Iron (Fe)	25.465	0.723%	7439-89-6	
		Nickel (Ni)	14.069	0.400%	7440-02-0	
		Cobalt (Co)	8.270	0.235%	7440-48-4	
	Solder Dip	Tin (Sn)	4.866	0.138%	7440-31-5	
		Silver (Ag)	0.151	0.004%	7440-22-4	
Copper (Cu)		0.025	0.001%	7440-50-8		
Cover	Kovar	Nickel (Ni)	6.774	0.192%	7440-02-0	
		Cobalt (Co)	3.943	0.112%	7440-48-4	
		Iron (Fe)	12.666	0.360%	7439-89-6	
Base	Ceramic	Alumina (Al2O3)	86.460	2.456%	1344-28-1	
		Silicon Dioxide (SiO2)	3.436	0.098%	14808-60-7	
		Chromium Oxide (Cr2O3)	3.690	0.105%	1308-38-9	
		Titanium Oxide (TiO2)	0.958	0.027%	13463-67-7	
		Calcium Oxide (CaO)	0.330	0.009%	1305-79-9	
		Magnesium Oxide (MgO)	0.474	0.013%	1309-48-4	
		Tungsten (W)	13.107	0.372%	7440-33-7	
	Seal Ring	Nickel (Ni)	5.122	0.145%	7440-02-0	
		Gold (Au)	0.584	0.017%	7440-57-5	
	Silver Solder	Iron (Fe)	6.399	0.182%	7439-89-6	
		Cobalt (Co)	2.434	0.069%	7440-48-4	
		Silver (Ag)	1.872	0.053%	7440-22-4	
		Copper (Cu)	0.330	0.009%	7440-50-8	
IC	IC	Aluminum (Al)	0.003	0.00009%	7429-90-5	
		Titanium (Ti)	0.001	0.00003%	7440-32-6	
		Silicon (Si)	1.057	0.030%	7440-21-3	
		Gold (Au)	0.316	0.009%	7440-57-5	
	Adhesive	Silver (Ag)	0.00021	0.000006%	7440-22-4	
		Epoxy	0.00007	0.000002%		
Capacitor	Body	Nickel (Ni)	0.010	0.0003%	7440-02-0	
		BaTiO3	0.830	0.024%	12047-27-7	
		Nickel (Ni)	0.013	0.00037%	7440-02-0	
	Termination	Tin (Sn)	0.019	0.001%	7440-31-5	
		Copper (Cu)	0.025	0.001%	7440-50-8	
Crystal	Crystal	Silicon Dioxide (SiO2)	1.123	0.032%	14808-60-7	
		Silver (Ag)	0.021	0.001%	7440-22-4	
	Electrode	Nickel (Ni)	0.00018	0.000005%	7440-02-0	
		Silver (Ag)	0.00041	0.000012%	7440-22-4	
	Adhesive	Silicon (Si)	0.00014	0.000004%	7440-21-3	
Circuit Board	FR-4	Phenol, 4,4'-(1-methylethylidene)bis(2,6-dibromo-polymer with (chloromethyl)oxirane and 4,4'-(1-methylethylidene)bis(phenoxy))	72.191	2.051%	26265-08-7	
		Copper (Cu)	39.377	1.119%	7440-50-8	
		GF-Fibre	107.193	3.045%		
		Copper Anode	Copper (Cu)	3.656	0.104%	7440-50-8
		Soldermask	Bisphenol A, epichlorohydrin polymer [2-Methoxymethylethoxy]epoxyanad	0.608	0.017%	25068-38-6
	Methoxymethylethoxy]epoxyanad		0.152	0.004%	34590-94-8	
	Barium sulphate		0.532	0.015%	7727-43-7	
	2-Methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one		0.152	0.004%	71868-10-5	
	ENIG	Dipropylene glycol ethyl ether	0.076	0.002%	15764-24-6	
		Nickel bis(sulphamate)	0.492	0.014%	13770-89-3	
		Gold (Au)	0.015	0.0004%	7440-57-5	
	Total			3520.000	100.000%	



Cardinal Components, Inc.
145 Rt. 46 West
Wayne, NJ 07470

TEL: (973) 785-1333
E-MAIL: sales@cardinalxtal.com
WEB: http://www.cardinalxtal.com