

Material Declaration



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|------------------|----------------|
| Package Type | Half |
| Package Size | 13.2 x 13.2 mm |
| Terminal Finish | Matte Tin |
| Finish Thickness | 8 microns |
| Weight (mg) | 2200.000 |
| MSL | 1 |

| | |
|--------|--------|
| Series | CPPFXX |
|--------|--------|

| Item | Material | Element | Content (mg) | Content (wt%) | CAS # | |
|--------|-----------------|--|---------------|---------------|------------|-----------|
| Cover | Stainless Steel | Nickel (Ni) | 40.222 | 1.828% | 7440-02-0 | |
| | | Chromium (Cr) | 89.689 | 4.077% | 7740-47-3 | |
| | | Iron (Fe) | 354.004 | 16.091% | 7439-89-6 | |
| | | Manganese (Mn) | 5.114 | 0.232% | 7439-96-5 | |
| | | Silicon (Si) | 2.360 | 0.107% | 7440-21-3 | |
| | | Carbon (C) | 0.216 | 0.010% | 7440-44-0 | |
| | | Sulphur (S) | 0.005 | 0.0002% | 7704-34-9 | |
| | | Phosphorus (P) | 0.103 | 0.005% | 7723-14-0 | |
| Header | Iron Alloy | Iron (Fe) | 1350.727 | 61.397% | 7439-89-6 | |
| | | Carbon (C) | 0.676 | 0.031% | 7440-44-0 | |
| | | Silicon (Si) | 0.135 | 0.006% | 7440-21-3 | |
| | | Manganese (Mn) | 3.116 | 0.142% | 7439-96-5 | |
| | | Phosphorus (P) | 0.189 | 0.009% | 7723-14-0 | |
| | | Sulphur (S) | 0.068 | 0.003% | 7704-34-9 | |
| | PTH Glass | Glass Frit | 8.236 | 0.374% | 65997-18-4 | |
| | Standoff Glass | Glass Frit | 28.765 | 1.308% | 65997-18-4 | |
| | Kovar | Iron (Fe) | 15.520 | 0.705% | 7439-89-6 | |
| | | Nickel (Ni) | 8.574 | 0.390% | 7440-02-0 | |
| | | Cobalt (Co) | 5.040 | 0.229% | 7440-48-4 | |
| | Solder Dip | Tin (Sn) | 2.966 | 0.135% | 7440-31-5 | |
| | | Silver (Ag) | 0.092 | 0.004% | 7440-22-4 | |
| | | Copper (Cu) | 0.015 | 0.001% | 7440-50-8 | |
| Cover | Kovar | Nickel (Ni) | 6.774 | 0.308% | 7440-02-0 | |
| | | Cobalt (Co) | 3.943 | 0.179% | 7440-48-4 | |
| | | Iron (Fe) | 12.666 | 0.576% | 7439-89-6 | |
| Base | Ceramic | Alumina (Al ₂ O ₃) | 86.460 | 3.930% | 1344-28-1 | |
| | | Silicon Dioxide (SiO ₂) | 3.436 | 0.156% | 14808-60-7 | |
| | | Chromium Oxide (Cr ₂ O ₃) | 3.690 | 0.168% | 1308-38-9 | |
| | | Titanium Oxide (TiO ₂) | 0.958 | 0.044% | 13463-67-7 | |
| | | Calcium Oxide (CaO) | 0.330 | 0.015% | 1305-79-9 | |
| | | Magnesium Oxide (MgO) | 0.474 | 0.022% | 1309-48-4 | |
| | | Tungsten (W) | 13.107 | 0.596% | 7440-33-7 | |
| | | Seal Ring | Nickel (Ni) | 5.122 | 0.233% | 7440-02-0 |
| | Gold (Au) | | 0.584 | 0.027% | 7440-57-5 | |
| | Iron (Fe) | | 6.399 | 0.291% | 7439-89-6 | |
| | Cobalt (Co) | | 2.434 | 0.111% | 7440-48-4 | |
| | Silver Solder | Silver (Ag) | 1.872 | 0.085% | 7440-22-4 | |
| | | Copper (Cu) | 0.330 | 0.015% | 7440-50-8 | |
| | IC | IC | Aluminum (Al) | 0.003 | 0.000% | 7429-90-5 |
| | | | Titanium (Ti) | 0.001 | 0.000% | 7440-32-6 |

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| | | Silicon (Si) | 1.057 | 0.048% | 7440-21-3 | |
| | Gold | Gold (Au) | 0.316 | 0.014% | 7440-57-5 | |
| | Adhesive | Silver (Ag) | 0.00021 | 0.000009% | 7440-22-4 | |
| | | Epoxy | 0.00007 | 0.000003% | | |
| Capacitor | Body | Nickel (Ni) | 0.010 | 0.000% | 7440-02-0 | |
| | | BaTiO3 | 0.830 | 0.038% | 12047-27-7 | |
| | Termination | Nickel (Ni) | 0.013 | 0.001% | 7440-02-0 | |
| | | 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 | 0.051% | 14808-60-7 | |
| | Electrode | Silver (Ag) | 0.021 | 0.001% | 7440-22-4 | |
| | | Nickel (Ni) | 0.00018 | 0.000008% | 7440-02-0 | |
| | Adhesive | Silver (Ag) | 0.00041 | 0.000019% | 7440-22-4 | |
| | | Silicon (Si) | 0.00014 | 0.000006% | 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(phenol) | 42.510 | 1.932% | 26265-08-7 | |
| | | Copper (Cu) | 23.187 | 1.054% | 7440-50-8 | |
| | | GF-Fibre | 63.121 | 2.869% | | |
| | Copper Anode | Copper (Cu) | 2.153 | 0.098% | 7440-50-8 | |
| | Soldermask | Bisphenol A, epichlorohydrin polymer | 0.358 | 0.016% | 25068-38-6 | |
| | | (2-Methoxymethylethoxy)propanol | 0.090 | 0.004% | 34590-94-8 | |
| | | Barium sulphate | 0.313 | 0.014% | 7727-43-7 | |
| | | 2-Methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one | 0.090 | 0.004% | 71868-10-5 | |
| | | Dipropylene glycol ethyl ether | 0.045 | 0.002% | 15764-24-6 | |
| | | Nickel | | | | |
| | ENIG | bis(sulphamidate) | 0.289 | 0.013% | 13770-89-3 | |
| | | Gold (Au) | 0.009 | 0.0004% | 7440-57-5 | |
| | Total | | | 2200.000 | 100.000% | |



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