



Material Declaration Sheet

Vishay Inter-technology

Date: 4/4/2022

Part / Product Family Details		RoHS Compliance Date Code	Total product Weight (mg)	Value Range	Product Type	Manufacturing Location	Number of Exemptions Used
Part / Family Series	RoHS Compliance Status						
CRCW0603-HP Pb free series	YES WITH EXEMPTION	16-Oct-2004	2.1955421	All R values	Resistor	Vishay BCComponents Rueuchlaar	1

Terminal Plating / Grid Array Material	Terminal Base Alloy	JESD-97 Pb-Free Material Code Marking	J-STD-20D MSL Rating	Reflow Peak Process Body Temperature	Reflow Maximum number of cycles	Reflow Max. Time at Peak Temperature (sec)	Soldering Compatibility (SnPb/Pb-Free)
Pure matte tin - Ni barrier	Other	e3	1	260 °C	3	40	Backward & Forward

Homogenous Material Name	Material Classification	Substance Name	CAS number	Weight of Substance (mg)	With respect to Homogenous Material		% with respect to Total Product Weight	RoHS Exemptions Used
					%	ppm		
Ceramic substrate	Ceramics / glass	Aluminium oxide	1344-28-1	1.64500	95.63	956340	74.92	0 - None
		Magnesium oxide	1309-48-4	0.01720	1.00	9999	0.78	0 - None
		Miscellaneous	System	0.00790	0.46	4593	0.36	0 - None
		Silicon dioxide	7631-86-9	0.05000	2.91	29068	2.28	0 - None
						0.08110		
EP-QD 80	Other duromers	Epoxy resin	25068-38-6	0.01298	16.00	160000	0.59	0 - None
		Silicon dioxide	7631-86-9	0.06812	84.00	840000	3.10	0 - None
Glass electrical contact	ceramic/glass	Lead silicate (Glass)	10099-76-0	0.00492	99.90	999000	0.22	7(c)-I
		Miscellaneous	System	0.00000	0.10	1000	0.00	0 - None
Glass enamel	Ceramics / glass	Chromium oxide (III)	1308-38-9	0.00054	2.08	20849	0.02	0 - None
		Lead silicate (Glass)	10099-76-0	0.02536	97.92	979151	1.16	7(c)-I
Glass layer	Ceramic/Glass			0.01688				
		Lead silicate (Glass)	10099-76-0	0.00882	52.24	522388	0.40	7(c)-I
		Palladium	7440-05-3	0.00756	44.78	447761	0.34	0 - None
		Ruthenium oxide	12036-10-1	0.00050	2.99	29851	0.02	0 - None
Nickel plating	Nickel alloy			0.06225				
		Miscellaneous	System	0.00006	0.10	1000	0.00	0 - None
		Nickel	7440-02-0	0.06219	99.90	999000	2.83	0 - None
Silver electrical contact alloy	Other special metals			0.16045				
		Chromium	7440-47-3	0.00000	0.00	6	0.00	0 - None
		Copper	7440-50-8	0.00000	0.00	10	0.00	0 - None
		Silver	7440-22-4	0.16045	100.00	999984	7.31	0 - None
Silver layer	Other special metals			0.00832				
		Miscellaneous	System	0.00001	0.10	1000	0.00	0 - None
		Silver	7440-22-4	0.00831	99.90	999000	0.38	0 - None
Sn99.9	Other special metals			0.11562				
		Miscellaneous	System	0.00012	0.10	1000	0.01	0 - None
		Tin	7440-31-5	0.11550	99.90	999000	5.26	0 - None

EU-RoHS Directive-2011/65/EU MCV of 0.1% by mass (1000 PPM) in homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE) and MCV of 0.01% by mass cadmium

Exemption Used: 7(c)-I - Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound

Note :- (i) All information is based on data received from our vendors & subjected to change without prior notice.
(ii) Substance weight are derived from MSDS.