



PK1166(v1.0) February 15, 2023

# 100% Material Declaration Data Sheet for Artix Ultrascale+ XCAU10P and XCAU15P SBVB484

Average Weight : 1.7133 g

Component	Substance Description	CAS # or Description	% of component	Use in product	Component weight / substance weight ( in grams)	Component % of total
Silicon die	Silicon	7440-21-3	100.00	basis	0.119297	6.963%
					0.119297	
Bump					<b>0.013765</b>	<b>0.803%</b>
	Polymer	N/A	16.07	PI	0.002212	
	Titanium	7440-32-6	0.04	UBM-sputter Ti	0.000006	
	Copper	7440-50-8	0.43	UBM-sputter Cu	0.000060	
	Nickel	7440-02-0	2.59	UBM-plating Ni	0.000356	
	Tin	7440-31-5	79.41	Bump-plating SnAg	0.010930	
Underfill	Silver	7440-22-4	1.46	Bump-plating SnAg	0.000200	
					<b>0.018900</b>	<b>1.103%</b>
	Bisphenol F type liquid epoxy resin	9003-36-5	15.00	basis	0.002835	
	1,6-Bis(2,3-epoxypropoxy)naphthalene	27610-48-6	10.00	basis	0.001890	
	Bisphenol A type liquid epoxy resin	25068-38-6	5.00	basis	0.000945	
	Amine type hardener	trade secret	10.00	basis	0.001890	
	Silicon dioxide	60676-86-0	58.00	filler	0.010962	
Carbon black	1333-86-4	1.00	color agent	0.000189		
Solder paste	Additives	trade secret	1.00	additives	0.000189	
					<b>0.004308</b>	<b>0.251%</b>
	Tin	7440-31-5	86.35	metal	0.003720	
	Silver	7440-22-4	2.70	metal	0.000116	
	Copper	7440-50-8	0.45	metal	0.000019	
	Polymer	trade secret	1.40		0.000060	
	Organic amine	trade secret	3.00		0.000129	
	solvent	trade secret	4.90	flux	0.000211	
Diglycolic acid	trade secret	1.20		0.000052		
Capacitor 1					<b>0.003200</b>	<b>0.187%</b>
	Barium oxide	1304-28-5	40.42	Ceramic element	0.00129	
	Titanium dioxide	13463-67-7	20.21		0.00065	
	Misc		6.74		0.00022	
	Copper	7440-50-8	5.21	Outer electrode	0.00017	
	Diboron trioxide	1303-86-2	0.12		0.00000	
	Silicon dioxide	7631-86-9	0.46		0.00001	
	Nickel	7440-02-0	4.21		0.00013	
	Nickel	7440-02-0	18.95	Inner electrode	0.00061	
	Tin	7440-31-5	3.68	Plating	0.00012	
Capacitor 2					<b>0.014000</b>	<b>0.817%</b>
	BaTiO3	12047-27-7	34.00	Ceramic	0.004760	
	Nickel	7440-02-0	18.10	Internal Electrode	0.002534	
	Copper	7440-50-8	41.10	Termination	0.005754	
	Nickel	7440-02-0	3.40	Plating	0.000476	
	Tin	7440-31-5	3.40	Plating	0.000476	
Solder ball					<b>0.233980</b>	<b>13.657%</b>
	Tin	7440-31-5	96.50	Main material	0.225791	
	Silver	7440-22-4	3.00	Main material	0.007019	
Substrate	Copper	7440-50-8	0.50	Main material	0.001170	
					<b>1.305800</b>	<b>76.218%</b>
	Copper	7440-50-8	34.44		0.449732	
	Tin	7440-31-5	0.40		0.005194	
	Silver	7440-22-4	0.01		0.000161	
	Core	trade secret	47.34	Core	0.618103	
	ABF	trade secret	14.93	Build Up	0.194985	
	Solder Mask	trade secret	1.24	Solder Mask	0.016131	
	Resine Plugging	trade secret	1.64		0.021480	

## Revision History

Date	Version	Description of Revisions
2/15/2023	1.0	Initial Xilinx Release.

## Notice of Disclaimer

Xilinx regards this materials data to be correct but makes no guarantee as to its accuracy or completeness, including, but not limited to, with respect to its compliance with applicable environmental laws and regulations. Xilinx subcontract the production, test and assembly of hardware devices to independent third-party vendors and materials suppliers ("Contractors"). All data provided hereunder is based on information received from Contractors. Xilinx has not independently verified the accuracy or completeness of this information which is provided solely for your reference in connection with the use of Xilinx products.