

Material Data Declaration Sheet

ECS INC. INTERNATIONAL



ECS Model Number	ECOC-9775 Series		
Product Description	SMD OCXO		
Product Revision			
Product Total Weight	0.5147217366g/pcs		
Contact Information	Company	ECS INC.	
	Contact Name	AJ Anderson	
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Homogenous Component/Subcomponent	Homogenous Component/Subcomponent Weight (g)	Substance	CAS number	Substance Weight (g)	PPM Level (If Available) (Substance Weight/Total Homogenous Component or Subcomponent Weight*1000000)	Purpose/Location
IC Package	0.1043100000	Al2O3	1344-28-1	0.0873074700000	837000	Ceramic
		SiO2	7631-86-9	0.0058204980000	55800	Ceramic
		Cr2O3	1308-38-9	0.0019401660000	18600	Ceramic
		TiO2	13463-67-7	0.0019401660000	18600	Ceramic
		W	7440-33-7	0.0020862000000	20000	Metalized
		Ni	7440-02-0	0.0046939500000	45000	Plating
		Au	7440-57-5	0.0005215500000	5000	Plating
IC	0.0012230000	Si	7440-21-3	0.0012099096195	989297	IC
		B	7440-42-8	0.0000000020791	2	IC
		P	7723-14-0	0.0000000046474	4	IC
		Al	7429-90-5	0.0000072157000	5900	IC
		Cu	7440-50-8	0.0000001198540	98	IC
		W	7440-33-7	0.0000020791000	1700	IC
		Ti	7440-32-6	0.0000036690000	3000	IC
Die Adhesive	0.0015200000	Ag	7440-22-4	0.0010640000000	700000	Epoxy
		Epoxy Acrylate	15625-89-5	0.0001520000000	100000	Epoxy
		Substituted Polyamine	68490-66-4	0.0000304000000	20000	Epoxy
		Bisphenol F	28064-14-4	0.0001520000000	100000	Epoxy
		2-Ethylhexyl Glycidyl Ether	2461-15-6	0.0001216000000	80000	Epoxy
Au Wire	0.0003105000	Au	7440-57-5	0.0003105000000	1000000	Bonding Wire
Underfill	0.0064781000	Silicone Resin	67763-03-5	0.0009717159000	150000	Polymer
		C	1333-86-4	0.0000064781000	1000	Polymer
		SiO2	7631-86-9	0.0054999060000	849000	Polymer
Chip Capacitance - 1	0.0013400000	BaTiO3	12047-27-7	0.0011978260000	893900	Capacitance
		Y2O3	1314-86-9	0.0000242540000	18100	Capacitance
		Ni	7440-02-0	0.0000348400000	26000	Capacitance
		Cu	7440-50-8	0.0000707520000	52800	Capacitance
		Lead Free Glass	65997-18-4	0.0000096480000	7200	Capacitance
		Sn	7440-31-5	0.0000026800000	2000	Capacitance
Chip Capacitance - 2	0.0031000000	BaO	1304-28-5	0.0012390000000	399677	Ceramic Element
		TiO2	13463-67-7	0.0006195000000	199839	Ceramic Element
		Al2O3	1344-28-1	0.0002065000000	66613	Ceramic Element
		Cu	7440-50-8	0.0003330000000	107419	Electrode
		Cr2O3	1308-38-9	0.0000074000000	2387	Electrode
		SiO2	7631-86-9	0.0000296000000	9548	Electrode
		Ni	7440-02-0	0.0005740000000	185161	Ni Plating
		Sn	7440-31-5	0.0000910000000	29355	Sn Plating
Chip Capacitance - 3	0.0016000000	BaO	1304-28-5	0.0006390000000	399375	Ceramics
		TiO2	13463-67-7	0.0003195000000	199688	Ceramics
		Al2O3	1344-28-1	0.0001065000000	66563	Ceramics
		Cu	7440-50-8	0.0001719000000	107438	Electrode
		SiO2	7631-86-9	0.0000191000000	11938	Electrode
		Ni	7440-02-0	0.0002970000000	185625	Ni Plating
		Sn	7440-31-5	0.0000470000000	29375	Sn Plating

Package	0.0579500000	Al2O3	1344-28-1	0.0474610500000	819000	Ceramics
		SiO2	7631-86-9	0.0031640700000	54600	Ceramics
		Cr2O3	1308-38-9	0.0010546900000	18200	Ceramics
		Mo	7439-98-7	0.0010546900000	18200	Ceramics
		Fe	7439-89-6	0.0006142700000	10600	Pin
		Ni	7440-02-0	0.0003361100000	5800	Pin
		Co	7440-48-4	0.0002086200000	3600	Pin
		W	7440-33-7	0.0005795000000	10000	Metalized
		Ag	7440-22-4	0.0012343350000	21300	Solder
		Cu	7440-50-8	0.0005041650000	8700	Solder
		Ni	7440-02-0	0.0015646500000	27000	Ni Plating
		Au	7440-57-5	0.0001738500000	3000	Au Plating
		Alloy Lid	0.0074000000	C	7440-44-0	0.0000006660000
Si	7440-21-3			0.0000048840000	660	Alloy
Mn	7439-96-5			0.0000298960000	4040	Alloy
Ni	7440-02-0			0.0020253060000	273690	Alloy
Co	7440-48-4			0.0011805960000	159540	Alloy
Cr	7440-47-3			0.0000032560000	440	Alloy
Fe	7439-89-6			0.0037080660000	501090	Alloy
Quartz Crystal Blank	0.0002026366	SiO2	14808-60-7	0.0002026366000	1000000	Quartz Blank
Electrode	0.0000825000	Cr	7440-47-3	0.0000041250000	50000	Electrode
		Au	7440-57-5	0.0000783750000	950000	Electrode
Conductive Adhesive	0.0003450000	Ag	7440-22-4	0.0002432250000	705000	Polymer
		Silicone Resin	68988-89-6	0.0000424350000	123000	Polymer
		Pd	7440-05-3	0.0000093150000	27000	Polymer
		CH3(CH2)9CH3	1120-21-4	0.0000279450000	81000	Polymer
		CH3(CH2)10CH3	112-40-3	0.0000037950000	11000	Polymer
Plastic Cover	0.1490600000	Polymer	147310-94-9	0.1043420000000	700000	LPC
		Glass Fiber	65997-17-3	0.0447180000000	300000	LPC
Non-Conductive Adhesive	0.0020200000	-	39817-09-9	0.0010069700000	498500	Polymer
		(CF2CF2)n	2425-79-8	0.0005050000000	250000	Polymer
		-	68475-94-5	0.0001616000000	80000	Polymer
		-	9046-10-0	0.0000838300000	41500	Polymer
		-	827-43-0	0.0001060500000	52500	Polymer
		C	1333-86-4	0.0001464500000	72500	Polymer
PCB	0.1560000000	Cu	7440-50-8	0.0039342357600	25219	Copper Foil
		As	7440-38-2	0.0000019710600	13	Copper Foil
		Cr	7440-47-3	0.0000019710600	13	Copper Foil
		Zn	7440-66-6	0.0000019710600	13	Copper Foil
		Ni	7440-02-0	0.0000019710600	13	Copper Foil
		Glass Fiber	6599717-3	0.0563178720000	361012	Laminate (core)
		Cu	7440-50-8	0.0140794680000	90253	Laminate (core)
		Epoxy Resin	29690-82-2	0.0422384040000	270759	Laminate (core)
		Filler	21645-51-2	0.0140794680000	90253	Laminate (core)
		-	260408-02-4	0.0140794680000	90253	Laminate (core)
		Resin	Propreitary	0.0030675325200	19664	Solder Resist
		BaO4S	7727-43-7	0.0009737036400	6242	Solder Resist
		SiO2	14808-60-7	0.0009737036400	6242	Solder Resist
		Coloring Pigments	Propreitary	0.0000292843200	188	Solder Resist
		Photo Initiator	Propreitary	0.0003148064400	2018	Solder Resist
		Epoxy Hardner	Propreitary	0.0000805318800	516	Solder Resist
		-	64742-94-5	0.0008126398800	5209	Solder Resist
		-	112-15-2	0.0006955026000	4458	Solder Resist
		-	34590-94-8	0.0001757059200	1126	Solder Resist
		Additives	Propreitary	0.0001976691600	1267	Solder Resist
Epoxy Resin	25085-99-8	0.0002815800000	1805	Screen Printing		

		BaO4S	7727-43-7	0.0000844740000	542	Screen Printing
		TiO2	13463-67-7	0.0001689480000	1083	Screen Printing
		-	8030-30-6	0.0000281580000	181	Screen Printing
		-	3012-65-5	0.0003797820000	2435	Immersion Gold
		-	Propreitary	0.0004641780000	2976	Immersion Gold
		-	72-17-3	0.0003802500000	2438	Chemical Ni Bath
		-	7681-53-0	0.0003802500000	2438	Chemical Ni Bath
		-	Propreitary	0.0017745000000	11375	Chemical Ni Bath
Solder Paste	0.0217800000	Sn	7440-31-5	0.0188397000000	865000	Metal
		Ag	7440-22-4	0.0006534000000	30000	Metal
		Cu	7440-50-8	0.0001089000000	5000	Metal
		Resin	65997-06-0	0.0021780000000	100000	Metal