Materials Declaration Form

IPC	**1752**	**Version**	**2**
Form Type *	Distribute		
Sectionals *	Material Info Manufacturing Info	**Subsectionals ***	A-D ***** : Required Field**

Supplier Information			
Company Name *	STMicroelectronics	**Response Date ***	28-10-2023
Company Unique ID	NL 008751171B01		
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section	**Contact Email ***	Refer to Supplier Comment section
Authorized Representative *	Material Declaration champion	**Representative Title**	Material Declaration champion
Representative Phone *	Refer to Supplier Comment section	**Representative Email ***	Refer to Supplier Comment section
Supplier Comment	Online Technical Support - STMicroelectronics : http://www.st.com/web/en/support/support.html		

Uncertainty Statement

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Legal Statement

Supplier Acceptance *	true	**Legal Declaration ***	Standard
Legal Statement	Supplier certifies that it gathered the provided information and such information is true and correct to the best of its knowledge and belief, as of the date that Supplier completes this form. Supplier acknowledges that Company will rely on this certification in determining the compliance of its products. Company acknowledges that Supplier may have relied on information provided by others in completing this form, and that Supplier may not have independently verified such information. However, in situations where Supplier has not independently verified information provided by others, Supplier agrees that, at a minimum, its suppliers have provided certifications regarding their contributions to the part(s), and those certifications are at least as omprehensive as the certification in this paragraph. If the Company and the Supplier enter into a written agreement with respect to the identified part(s), the terms and conditions of that agreement, including any warranty rights and/or remedies provided as part of that agreement, will be the sole and exclusive source of the Supplier's liability and the Company's remedies for issues that arise regarding information the Supplier provides in this form.		

Signature Not
Verified

Digitally signed by
MDF Champion
Date: 2023.10.28
10:50:08 +08:00

Product				
Mfr Item Number	**Mfr Item Name**	**Version**	**Mfr Site**	**Date**
STM32WL5MOCH6TR	E16D*497MODY	A	9991	28-10-2023
	Amount	UoM	**Unit type**	**ST ECOPACK Grade**
	418.51	mg	Each	ECOPACK® 2
.	Comment	ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant (in each organic material)		

Manufacturing information				
J-STD-020 MSL Rating	**Classification Temp**	**Nbr of Reflow Cycles**		
3	260	3		
bulk Solder Termination	**Terminal Plating**	**Terminal Base Alloy**	**Comment**	
Not Applicable	Tin/Silver/Copper (Sn/Ag/Cu)	Copper Alloy		

Package Designator	**Size**	**Nbr of instances**	**Shape**	
LGA	10x10	92	Flat	
Comment	Package : B0HB SIP LGA 10 x 10 92L DM00786149			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015	
Query	**Response**
1 - Product(s) meets EU RoHS requirement without any exemptions	**TRUE**
2 - Product(s) meets EU RoHS requirements except lead in solder and this usage may qualify under the lead in solder '7b' exemption (other selected exemptions may apply)	FALSE
3 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	FALSE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE

Exemption Id.	**Description**

QueryList : REACH-14 Jun 2023	
Query	**Response**
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH	**true**

CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						**Mfr Item Name**	**E16D*497MODY**				23000000.0	1000000.0
Homogeneous Material	**Material Group**	**Mass**	**UoM**	**Level**	**Substance Category**	**Substance**	**CAS**	**Exempt**	**Mass**	**UoM**	**Concentration in homogeneous material (ppm)**	**Concentration in product (ppm)**
CAP 01005 23055 C0G (17 uns)	M-011 Other inorganic materials	1.530	mg	supplier	Copper alloys	Copper (Cu); Copper (metallic)	7440-50-8		0.459	mg	300000	1097
				supplier	Glass	Diboron trioxide; Boric oxide	1303-86-2		0.010	mg	6667	24
				supplier	Glass	Silicon dioxide	7631-86-9		0.041	mg	26667	97
				supplier	Nickel plating	Nickel (Ni)	7440-02-0		0.051	mg	33333	122
				supplier	Nickel and Nickel alloys	Nickel (Ni)	7440-02-0		0.034	mg	22222	81
				supplier	Tin plating	Tin (Sn)	7440-31-5		0.119	mg	77778	284
				supplier	Ceramics	Calcium oxide	1305-78-8		0.326	mg	213333	780
				supplier	Ceramics	Zirconium oxide	1314-23-4		0.408	mg	266667	975
				supplier	Ceramics	Misc	-		0.082	mg	53333	195
CAP 01005 230193 X7R (3 un)	M-011 Other inorganic materials	0.270	mg	supplier	Ceramics	Barium oxide, obtained by calcining witherite	1304-28-5		0.088	mg	326667	211
				supplier	Ceramics	Titanium dioxide	13463-67-7		0.044	mg	163333	105
				supplier	Ceramics	Misc	-		0.015	mg	54444	35
				supplier	Copper alloys	Copper (Cu); Copper (metallic)	7440-50-8		0.078	mg	290000	187
				supplier	Glass	Diboron trioxide; Boric oxide	1303-86-2		0.002	mg	6444	4
				supplier	Glass	Silicon dioxide	7631-86-9		0.007	mg	25778	17
				supplier	Nickel plating	Nickel (Ni)	7440-02-0		0.009	mg	33333	22
				supplier	Nickel and Nickel alloys	Nickel (Ni)	7440-02-0		0.006	mg	22222	14
				supplier	Tin plating	Tin (Sn)	7440-31-5		0.021	mg	77778	50
HQ 01005 C0G 25V 2.7pF (1 un)	M-011 Other inorganic materials	0.090	mg	supplier	Copper alloys	Copper (Cu); Copper (metallic)	7440-50-8		0.027	mg	300000	65
				supplier	Glass	Diboron trioxide; Boric oxide	1303-86-2		0.001	mg	6667	1
				supplier	Glass	Silicon dioxide	7631-86-9		0.002	mg	26667	6
				supplier	Nickel plating	Nickel	7440-02-0		0.003	mg	33333	7
				supplier	Copper alloys	Copper (Cu); Copper (metallic)	7440-50-8		0.002	mg	22222	5
				supplier	Tin plating	Tin	7440-31-5		0.007	mg	77778	17
				supplier	Ceramics	Calcium oxide	1305-78-8		0.012	mg	133333	29
				supplier	Ceramics	Misc	-		0.005	mg	53333	11
				supplier	Ceramics	Zirconium oxide	1314-23-4		0.029	mg	320000	69
				supplier	Ceramics	Manganese(II) oxide	1344-43-0		0.002	mg	26667	6
CAP 0201 X6S (2 uns)	M-011 Other inorganic materials	0.660	mg	supplier	Ceramics	Barium oxide, obtained by calcining witherite	1304-28-5		0.264	mg	400000	631
				supplier	Ceramics	Titanium dioxide	13463-67-7		0.132	mg	200000	315
				supplier	Ceramics	Misc	-		0.044	mg	66667	105
				supplier	Copper alloys	Copper (Cu); Copper (metallic)	7440-50-8		0.137	mg	207273	327
				supplier	Glass	Diboron trioxide; Boric oxide	1303-86-2		0.003	mg	4606	7
				supplier	Glass	Silicon dioxide	7631-86-9		0.012	mg	18424	29
				supplier	Nickel plating	Nickel (Ni)	7440-02-0		0.014	mg	21212	33
				supplier	Nickel and Nickel alloys	Nickel (Ni)	7440-02-0		0.016	mg	24242	38
				supplier	Tin plating	Tin (Sn)	7440-31-5		0.038	mg	57576	91
IND 0201 47nH 100mA (1 un)	M-011 Other inorganic materials	0.174	mg	supplier	Other special metals	Silver (Ag)	7440-22-4		0.024	mg	139295	58
				supplier	Glass	Silicon dioxide	7631-86-9		0.002	mg	13929	6
				supplier	Other special metals	Silver (Ag)	7440-22-4		0.016	mg	91144	38
				supplier	Nickel plating	Nickel (Ni)	7440-02-0		0.008	mg	44139	18
				supplier	Tin plating	Tin (Sn)	7440-31-5		0.009	mg	53884	22
				supplier	Glass	Diboron trioxide; Boric oxide	1303-86-2		0.001	mg	6277	3
				supplier	Glass	Silica	7631-86-9		0.004	mg	22069	9
				supplier	Glass	Diboron trioxide; Boric oxide	1303-86-2		0.011	mg	62769	26
				supplier	Glass	Silica	7631-86-9		0.055	mg	313844	131
				supplier	Glass	Aluminium Oxide	1344-28-1		0.044	mg	252651	105
CAP 0402 X6S/X7R (3 uns)	M-011 Other inorganic materials	4.800	mg	supplier	Ceramics	Barium oxide, obtained by calcining witherite	1304-28-5		1.917	mg	399375	4581
				supplier	Ceramics	Titanium dioxide	13463-67-7		0.959	mg	199688	2290
				supplier	Ceramics	Misc	-		0.320	mg	66563	763
				supplier	Copper alloys	Copper (Cu); Copper (metallic)	7440-50-8		0.516	mg	107438	1232
				supplier	Glass	Diboron trioxide; Boric oxide	1303-86-2		0.011	mg	2388	27
				supplier	Glass	Silicon dioxide	7631-86-9		0.046	mg	9550	110
				supplier	Nickel plating	Nickel (Ni)	7440-02-0		0.054	mg	11250	129
				supplier	Nickel and Nickel alloys	Nickel (Ni)	7440-02-0		0.837	mg	174375	2000
				supplier	Tin plating	Tin (Sn)	7440-31-5		0.141	mg	29375	337
CAP 0402 6.3V 4.7uF X7R (2 un)	M-011 Other inorganic materials	5.000	mg	supplier	Ceramics	Barium oxide, obtained by calcining witherite	1304-28-5		1.999	mg	399840	4777
				supplier	Ceramics	Titanium dioxide	13463-67-7		1.000	mg	199920	2388
				supplier	Ceramics	Misc	-		0.333	mg	66640	796
				supplier	Copper alloys	Copper (Cu); Copper (metallic)	7440-50-8		0.536	mg	107280	1282
				supplier	Glass	Diboron trioxide; Boric oxide	1303-86-2		0.012	mg	2384	28
				supplier	Glass	Silicon dioxide	7631-86-9		0.048	mg	9536	114
				supplier	Nickel plating	Nickel (Ni)	7440-02-0		0.054	mg	10800	129
				supplier	Nickel and Nickel alloys	Nickel (Ni)	7440-02-0		0.872	mg	174400	2084
				supplier	Tin plating	Tin (Sn)	7440-31-5		0.146	mg	29200	349
Ferrite Bead 0402 250mA (1 un)	M-011 Other inorganic materials	1.210	mg	supplier	Other special metals	Silver (Ag)	7440-22-4		0.074	mg	60992	176
				supplier	Glass	Diboron trioxide; Boric oxide	1303-86-2		0.001	mg	678	2
				supplier	Glass	Silicon dioxide	7631-86-9		0.007	mg	6099	18
				supplier	Other special metals	Silver (Ag)	7440-22-4		0.214	mg	176860	511
				supplier	Nickel plating	Nickel (Ni)	7440-02-0		0.023	mg	19008	55
				supplier	Tin plating	Tin (Sn)	7440-31-5		0.023	mg	18760	54
				supplier	Ceramics	Iron(III) oxide	1309-37-1		0.512	mg	423386	1224
				supplier	Ceramics	Zinc oxide; C.I. 77947	1314-13-2		0.165	mg	136345	394
				supplier	Ceramics	Nickel monoxide	1313-99-1		0.087	mg	71760	207
				supplier	Ceramics	Copper oxide; Copper (II) oxide	1317-38-0		0.087	mg	71760	207
				supplier	Ceramics	Manganese oxide	1317-35-7		0.009	mg	7176	21
				supplier	Ceramics	Bismuth oxide	1304-76-3		0.009	mg	7176	21
IND 0402 (2 units 8.7 and 33nH)	M-011 Other inorganic materials	1.520	mg	supplier	Ceramics	Aluminum oxide	1344-28-1		0.984	mg	647513	2351
				supplier	Ceramics	Silicon dioxide	7631-86-9		0.123	mg	80939	294
				supplier	Ceramics	Calcium oxide	1305-78-8		0.062	mg	40470	147
				supplier	Ceramics	Misc	-		0.062	mg	40470	147
				supplier	Copper plating	Copper (Cu); Copper (metallic)	7440-50-8		0.026	mg	17109	62

				supplier	Copper (e.g. copper amounts in cable harne	Copper (Cu); Copper (metallic)	7440-50-8		0.078	mg	51590	187
				supplier	Other thermoplastics	Polyester imide	-		0.002	mg	1053	4
				supplier	Other special metals	Silver (Ag)	7440-22-4		0.031	mg	20136	73
				supplier	Glass	Silicon dioxide	7631-86-9		0.003	mg	2014	7
				supplier	Nickel plating	Nickel (Ni)	7440-02-0		0.018	mg	11845	43
				supplier	Tin plating	Tin (Sn)	7440-31-5		0.062	mg	40799	148
				supplier	EP (Epoxy resin)	Epoxy resin	54847-34-6		0.042	mg	27638	100
				supplier	EP (Epoxy resin)	Talc	14807-96-6		0.021	mg	13819	50
				supplier	EP (Epoxy resin)	Misc	-		0.007	mg	4606	17
RES 01005 C0G RC0100J/FR (2 uns)	M-011 Other inorganic materials	0.081	mg	supplier	Ceramics	Aluminium Oxyde (Al2O3)	1344-28-1		0.057	mg	700846	136
				supplier	Ceramics	Silicon Oxyde	7631-86-9		0.001	mg	14550	3
				supplier	Ceramics	Magnesium oxyde	1309-48-4		0.001	mg	14550	3
				supplier	Ceramics	Silver (Ag)	7440-22-4		0.001	mg	14550	3
				supplier	Ceramics	Silver (Ag)	7440-22-4		0.002	mg	18865	4
				supplier	RuO2	RuO2	12036-10-1		0.001	mg	9765	2
				supplier	RuO2	Nickel (Ni)	7440-02-0		0.011	mg	130206	25
				supplier	RuO2	Tin (Sn)	7440-31-5		0.005	mg	67076	13
				supplier	Glass Frit	Glass (Pb free)(contains Bismuth, silicon &Borc	65997-17-3		0.001	mg	8385	2
				supplier	Epoxy resin	Epoxy resin	25068-38-6		0.002	mg	21208	4
CAP 0201 X7R 2303 (2 uns)	M-011 Other inorganic materials	0.600	mg	supplier	Ceramic powder	BaTiO3	12047-27-7		0.415	mg	691000	991
				supplier	Inner paste	Nickel (Ni)	7440-02-0		0.020	mg	34000	49
				supplier	Outer paste	Copper (Cu)	7440-50-8		0.147	mg	245300	352
				supplier	Ni crown	Nickel (Ni)	7440-02-0		0.004	mg	6600	9
				supplier	Sn ball	Tin (Sn)	7440-31-5		0.014	mg	23100	33
RES 0201 220ohm RC0201FR (1 un)	M-011 Other inorganic materials	0.167	mg	supplier	Ceramics	Aluminium Oxyde (Al2O3)	1344-28-1		0.128	mg	767790	306
				supplier	Ceramics	Silicon Oxyde	14808-60-7		0.003	mg	15973	6
				supplier	Ceramics	Magnesium oxyde	1309-48-4		0.003	mg	15973	6
				supplier	Ceramics	Silver (Ag)	7440-22-4		0.003	mg	15433	6
				supplier	Ceramics	Silver (Ag)	7440-22-4		0.004	mg	23840	9
				supplier	RuO2	RuO2	12036-10-1		0.001	mg	8467	3
				supplier	RuO2	Nickel (Ni)	7440-02-0		0.014	mg	81967	33
				supplier	RuO2	Tin (Sn)	7440-31-5		0.007	mg	42875	17
				supplier	Glass Frit	Glass (Pb free) (contains Bismuth,Silicon and B	65997-17-3		0.002	mg	10268	4
				supplier	Epoxy resin	Epoxy resin	25068-38-6		0.003	mg	17414	7
NX2012SA NDK Crystal 6pF 80Kohm	M-011 Other inorganic materials	5.538	mg	supplier	Crystal	Silicon oxyde	14808-60-7		0.077	mg	13977	185
				supplier	Kovar	Iron (Fe)	7439-89-6		0.615	mg	111121	1470
				supplier	Kovar	Manganese	7439-96-5		0.006	mg	1083	14
				supplier	Ni Plating	Nickel (Ni)	7440-02-0		0.360	mg	65008	860
				supplier	Ceramic	Silicon (Si)	7440-21-3		0.002	mg	433	6
				supplier	Ceramic	Cobalt (Co)	7440-48-4		0.216	mg	39005	516
				supplier	Ceramic	Nickel (Ni)	7440-02-0		0.160	mg	28893	382
				supplier	Ceramic	Magnesium oxyde	1309-48-4		0.010	mg	1806	24
				supplier	Ceramic	Molybdenium trooxyde	1313-27-5		0.010	mg	1806	24
				supplier	Ceramic	Manganese oxide	1317-34-6		0.070	mg	12640	167
				supplier	Ceramic	Alumina	1344-28-1		1.970	mg	355740	4707
				supplier	Ceramic	Colloidal silica	7631-86-9		0.070	mg	12640	167
				supplier	Metallization	Molybdenum	7439-98-7		0.570	mg	102930	1362
				supplier	Ni Plating	Nickel (Ni)	7440-02-0		0.130	mg	23475	311
				supplier	Ni Plating	Cobalt (Co)	7440-48-4		0.030	mg	5417	72
				supplier	Au Plating	Gold (Au)	7440-57-5		0.040	mg	7223	96
				supplier	Kovar ring	Iron (Fe)	7439-89-6		0.350	mg	63202	836
				supplier	Kovar ring	Nickel (Ni)	7440-02-0		0.190	mg	34310	454
				supplier	Kovar ring	Cobalt (Co)	7440-48-4		0.110	mg	19864	263
				supplier	Silver solder	Silver (Ag)	7440-22-4		0.280	mg	50562	669
				supplier	Silver solder	Copper (Cu)	7440-50-8		0.050	mg	9029	119
				supplier	Au	Gold (Au)	7440-57-5		0.020	mg	3612	48
				supplier	Cr	Chromium (Cr)	7440-47-3		0.001	mg	108	1
				supplier	Adhesive	Silver (Ag)	7440-22-4		0.174	mg	31421	416
				supplier	Adhesive	Silicon (Si)	-		0.026	mg	4695	62
TCXO NDK XTL NT2016SF	M-011 Other inorganic materials	7.423	mg	supplier	Crystal	Silica, Crystalline	14808-60-7		0.240	mg	32332	573
				supplier	Gold	Gold	7440-57-5		0.013	mg	1684	30
				supplier	Alloy	Iron	7439-89-6		0.892	mg	120168	2131
				supplier	Alloy	Nickel	7440-02-0		0.487	mg	65608	1164
				supplier	Alloy	Cobalt	7440-48-4		0.284	mg	38260	679
				supplier	Alloy	Manganese	7439-96-5		0.007	mg	943	17
				supplier	Alloy	Chromium	7440-47-3		0.001	mg	135	2
				supplier	Alloy	Silicon	7440-21-3		0.001	mg	135	2
				supplier	Ni Plating	Nickel	7440-02-0		0.154	mg	20747	368
				supplier	Ceramic	Aluminum oxide	1344-28-1		3.050	mg	410890	7288
				supplier	Ceramic	Manganese (III) Oxide	1317-34-6		0.110	mg	14819	263
				supplier	Ceramic	Silicon dioxide	7631-86-9		0.110	mg	14819	263
				supplier	Ceramic	Molybdenum trioxide	1313-27-5		0.020	mg	2694	48
				supplier	Ceramic	Magnesium oxide	1309-48-4		0.010	mg	1347	24
				supplier	Metalize	Molybdenum	7439-98-7		0.580	mg	78136	1386
				supplier	Silver	Silver	7440-22-4		0.240	mg	32332	573
				supplier	Copper	Copper	7440-50-8		0.040	mg	5389	96
				supplier	Seal Ring	Iron	7439-89-6		0.410	mg	55234	980
				supplier	Seal Ring	Nickel	7440-02-0		0.220	mg	29638	526
				supplier	Seal Ring	Cobalt	7440-48-4		0.130	mg	17513	311
				supplier	Ni Plating	Nickel	7440-02-0		0.140	mg	18861	335
				supplier	Ni Plating	Cobalt	7440-48-4		0.030	mg	4042	72
				supplier	Au Plating	Gold	7440-57-5		0.050	mg	6736	119
				supplier	bumps	Gold	7440-57-5		0.064	mg	8668	154
				supplier	bumps	Palladium	7440-05-3		0.001	mg	87	2
				supplier	Silver Paste	Silver	7440-22-4		0.007	mg	986	17

				supplier	Silver Paste	Closed material	-		0.001	mg	113	2
				supplier	Silver Paste	Poly(Methylsilsesquioxane)	68554-70-1		0.001	mg	75	1
				supplier	Silicon	Silicon	7440-21-3		0.130	mg	17513	311
				supplier	Chip	Nickel	7440-02-0		0.001	mg	96	2
RF SP3T Switch BGS13SN8E6327	M-011 Other inorganic materials	1.429	mg	supplier	chip	Silicon (Si)	7440-21-3		0.168	mg	117558	401
				supplier	bumps	Copper (Cu)	7440-50-8		0.006	mg	4199	14
				supplier	leadframe	Zinc (Zn)	7440-66-6		0.001	mg	700	2
				supplier	leadframe	Tin (Sn)	7440-31-5		0.001	mg	700	2
				supplier	leadframe	Chromium (Cr)	7440-47-3		0.002	mg	1400	5
				supplier	leadframe	Copper (Cu)	7440-50-8		0.570	mg	398859	1362
				supplier	encapsulation	Carbon Black	1333-86-4		0.003	mg	2099	7
				supplier	encapsulation	Zinc Oxide (ZnO)	1314-13-2		0.006	mg	4199	14
				supplier	encapsulation	miscellaneous	-		0.009	mg	6298	22
				supplier	encapsulation	epoxy resin	-		0.069	mg	48283	165
				supplier	encapsulation	Silicon Dioxide (SiO2)	60676-86-0		0.538	mg	376467	1286
				supplier	leadfinish	Tin (Sn)	7440-31-5		0.023	mg	16094	55
				supplier	plating	Silver (Ag)	7440-22-4		0.030	mg	21046	72
				supplier	solder	Tin (Sn)	7440-31-5		0.003	mg	2099	7
IND 0805 15uH	M-011 Other inorganic materials	14.000	mg	supplier	Ferrite Body	Ni-Cu-Zn Ferrite	12645-50-0		12.790	mg	913571	30561
				supplier	Inner Electrode	Silver (Ag)	7440-22-4		0.480	mg	34286	1147
				supplier	Terminal electrode	Silver (Ag)	7440-22-4		0.282	mg	20114	673
				supplier	Terminal electrode	Silicon dioxide	60676-86-0		0.013	mg	914	31
				supplier	Terminal electrode	Other	-		0.026	mg	1829	61
				supplier	Electro-Plating Cu	Copper (Cu)	7440-50-8		0.110	mg	7857	263
				supplier	Electro-Plating Ni	Nickel (Ni)	7440-02-0		0.080	mg	5714	191
				supplier	Electro-Plating Sn	Tin (Sn)	7440-31-5		0.220	mg	15714	526
Substrate (A30912)	M-011 Other inorganic materials	77.501	mg	supplier	Solder Mask	Morpholine derivative	Proprietary		0.065	mg	840	156
				supplier	Solder Mask	Barium Sulfate	7727-43-7		0.749	mg	9662	1789
				supplier	Solder Mask	Silica	7631-86-9		0.016	mg	210	39
				supplier	Solder Mask	Talc	14807-96-6		0.065	mg	840	156
				supplier	Solder Mask	Dipropylene Glycol Monomethyl Ether	34590-94-8		0.391	mg	5041	933
				supplier	Solder Mask	Epoxy Resin	85954-11-6		0.342	mg	4411	817
				supplier	Core	Thermosetting resin (Including modified polyim	-		3.200	mg	41290	7646
				supplier	Core	Glass cloth	Proprietary		4.800	mg	61935	11469
				supplier	PP	Silica	-		3.000	mg	38709	7168
				supplier	PP	Thermosetting resin:(Including modified polyim	65997-17-3		5.925	mg	76451	14157
				supplier	PP	Glass cloth	-		6.000	mg	77418	14336
				supplier	PP	Cyclohexanone	-		0.075	mg	968	179
				supplier	Cu foil	Copper (Cu)	7440-50-8		16.981	mg	219107	40575
				supplier	Cu Plating	Copper (Cu)	7440-50-8		33.962	mg	438213	81149
				supplier	Nickel Plating	Nickel (Ni)	7440-02-0		1.875	mg	24190	4480
				supplier	Soft Gold/Hard Au	Gold (Au)	7440-57-5		0.055	mg	715	132
Mold Compound (SMMT ASE)	M-011 Other inorganic materials	250.894	mg	supplier	Epoxy Resin	Epoxy Resin	Proprietary		28.588	mg	113946	68309
				supplier	Silica Amorphous A	Silica Amorphous A	60676-86-0, 7631-86-9		211.910	mg	844619	506341
				supplier	Metal Hydoxide	Metal Hydoxide	Proprietary		7.797	mg	31076	18630
				supplier	Carbon Black	Carbon Black	1333-86-4		2.599	mg	10359	6210
Solder Paste (M705-WSG36-T6J)	M-011 Other inorganic materials	5.740	mg	Supplier	Solder Paste	Tin (Sn)	7440-31-5		4.879	mg	850000	11658
				Supplier	Solder Paste	Silver (Ag)	7440-22-4		0.155	mg	27000	370
				Supplier	Solder Paste	Copper (Cu)	7440-50-8		0.172	mg	30000	411
				Supplier	Solder Paste	Oxirane, 2-methyl-, polymer withoxirane, bis(2-	65605-36-9		0.132	mg	23000	315
				Supplier	Solder Paste	Polyoxyalkylene ether	70356-25-1		0.057	mg	10000	137
				Supplier	Solder Paste	Polyoxyethylene glycol	25322-68-3		0.057	mg	10000	137
				Supplier	Solder Paste	Diethylene glycol monohexyl ether	112-59-4		0.287	mg	50000	686
Shielding Sputtering (Copper)	M-011 Other inorganic materials	1.140	mg	Supplier	Shielding	Copper (Cu)	7440-50-8		1.140	mg	1000000	2724
Shielding Sputtering (SUS)	M-011 Other inorganic materials	1.084	mg	Supplier	Shielding	Iron (Fe)	7439-89-6		0.708	mg	652979	1691
				Supplier	Shielding	Chromium (Cr)	7440-47-3		0.205	mg	189284	490
				Supplier	Shielding	Nickel (Ni)	7440-02-0		0.171	mg	157737	409
IPD 897Mz BALF-WL-00D3	M-011 other inorganic materials	6.813	mg	supplier	Metallization	Aluminium (Al)	7429-90-5		0.153	mg	22457	366
				supplier	Metallization	Copper (cu)	7440-50-8		0.630	mg	92470	1505
				supplier	Metallization	Gold (Au)	7440-57-5		0.010	mg	1468	24
				supplier	Metallization	Nickel (Ni)	7440-02-0		0.472	mg	69279	1128
				supplier	Metallization	Silver (Ag)	7440-22-4		0.008	mg	1174	19
				supplier	Metallization	Tantalum (Ta)	7440-25-7		0.047	mg	6899	112
				supplier	Metallization	Tin (Sn)	7440-31-5		0.174	mg	25539	416
				supplier	Metallization	Titanium (Ti)	7440-32-6		0.008	mg	1174	19
				supplier	Passivation	Silicon oxide	7631-86-9		0.009	mg	1321	22
				supplier	Glass	Borosilicateglass	65997-18-4		4.743	mg	696169	11333
				supplier	Polymer coating	Polymer resist-Benzocyclobutene (BCB)	694-87-1		0.113	mg	16586	270
				supplier	Resin	Silica vitreous	60676-86-0		0.217	mg	31851	519
				supplier	Resin	epoxy resin	Proprietary		0.078	mg	11449	186
				supplier	Resin	Acrylic polymer	Proprietary		0.078	mg	11449	186
				supplier	Resin	Bisphenol A diglycidyl ether	25036-25-3		0.027	mg	3963	65
				supplier	Resin	Carbon Black	1333-86-4		0.002	mg	294	5
				supplier	Resin	Iron compound	7439-89-6		0.022	mg	3229	53
				supplier	Resin	Zinc compound	7440-66-6		0.022	mg	3229	53
MCU BGA LPWAN STM32WL55JCI6	M-011 other inorganic materials	30.849	mg	supplier	die	Silicon (Si)	7440-21-3		1.843	mg	59743	4404
				supplier	metallization	Aluminium (Al)	7429-90-5		0.021	mg	681	50
				supplier	metallization	Copper (Cu)	7440-50-8		0.188	mg	6094	449
				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	32	2
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.061	mg	1977	146
				supplier	metallization	Titanium (Ti)	7440-32-6		0.002	mg	65	5
				supplier	metallization	Tungsten (W)	7440-33-7		0.002	mg	65	5
				supplier	Passivation	Silicon Nitride	12033-89-5		0.048	mg	1556	115
				supplier	Passivation	Silicon Oxide	7631-86-9		0.122	mg	3955	292
				supplier	BT-substrate	Thermosetting resin (Inorganic filler)	Proprietary		0.598	mg	19378	1428

				supplier	BT-substrate	Glass cloth	65997-17-3		3.696	mg	119818	8832
				supplier	BT-substrate	Copper foil	7440-50-8		4.553	mg	147593	10879
				supplier	Solder mask	2-benzyl-2-dimethylamino-4-morpholinobutyro	119313-12-1		0.354	mg	11465	845
				supplier	Solder mask	Propanol, 1(or 2)-(2-methoxymethylethoxy)-	34590-94-8		0.364	mg	11788	869
				supplier	Solder mask	Solvent naphtha (petroleum), heavy arom.	64742-94-5		0.334	mg	10819	797
				supplier	Solder mask	Copper,[29H,31H-phthalocyaninato(2-)-.kappa.	147-14-8		0.065	mg	2099	155
				supplier	film	Butadiene, acrylonitrile polymer, carboxy-termi	68610-41-3		2.296	mg	74411	5485
				supplier	film	Formaldehyde, polymer with (chloromethyl)ox	37382-79-9		0.859	mg	27851	2053
				supplier	film	Dapsone	80-08-0		0.123	mg	4001	295
				supplier	film	[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane	2530-83-8		0.033	mg	1084	80
				supplier	film	Reaction product: bisphenol-A-(epichlorhydrin)	25068-38-6		0.033	mg	1084	80
				supplier	Bonding wire	Gold (Au)	7440-57-5		0.273	mg	8850	652
				supplier	Molding Compound	Epoxy resin	Proprietary		0.528	mg	17122	1262
				supplier	Molding Compound	Silica(Fused)	60676-86-0,7631-86-9		11.885	mg	385247	28397
				supplier	Molding Compound	Phenol resin	Proprietary		0.739	mg	23971	1767
				supplier	Molding Compound	Carbon Black	1333-86-4		0.053	mg	1712	126
				supplier	Solder	Tin (Sn)	7440-31-5		1.712	mg	55496	4091
				supplier	Solder	Silver(Ag)	7440-22-4		0.063	mg	2043	151