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 ***	2023-06-04
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: 2023.04.06 12:24:48 -08:00

Product				
Mfr Item Number	**Mfr Item Name**	**Version**	**Mfr Site**	**Date**
STM32WB1MMCH6TR	E183*494MODZ	A	9991	2023-06-04
	Amount	UoM	**Unit type**	**ST ECOPACK Grade**
	228.00	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	**LGA**

Package Designator	**Size**	**Nbr of instances**	**Shape**	
LGA	6.5x10	77	Flat	
Comment	Package : B0HQ SIP LGA 6.5 X 10 77L DM00802677			

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-10 Jun 2022				
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**	**E183*494MODZ**				21000000.0	1000000.7
Homogeneous Material	**Material Group**	Mass	**UoM**	**Level**	**Substance Category**	**Substance**	**CAS**	**Exempt**	**Mass**	**UoM**	**Concentration in homogeneous material (ppm)**	**Concentration in product (ppm)**
Die or dies	M-011 Other inorganic materials	20.772	mg	supplier	die	Silicon (Si)	7440-21-3		20.391	mg	981658	89434
				supplier	metallization	Aluminium (Al)	7429-90-5		0.018	mg	867	79
				supplier	metallization	Copper (Cu)	7440-50-8		0.162	mg	7799	711
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.052	mg	2503	228
				supplier	metallization	Titanium (Ti)	7440-32-6		0.002	mg	96	9
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	48	4
				supplier	Passivation	Silicon Nitride	12033-89-5		0.041	mg	1974	180
				supplier	Passivation	Silicon Oxide	7631-86-9		0.105	mg	5055	461
CAP 01005 2P 10V 100nF (8 units)	M-011 Other inorganic materials	0.720	mg	Supplier	Ceramic	Barium oxide, obtained by calcining witherite	1304-28-5		0.235	mg	326667	1032
				Supplier	Ceramic	Titanium dioxide	13463-67-7		0.118	mg	163333	516
				Supplier	Ceramic	Misc	Proprietary		0.039	mg	54444	172
				Supplier	Outer electrode	Copper (Cu); Copper (metallic)	7440-50-8		0.209	mg	290000	916
				Supplier	Outer electrode	Diboron trioxide; Boric oxide	1303-86-2		0.005	mg	6444	20
				Supplier	Outer electrode	Silicon dioxide	7631-86-9		0.019	mg	25778	81
				Supplier	Nickel Plating Layer	Nickel	7440-02-0		0.024	mg	33333	105
				Supplier	Inner Electrode	Nickel	7440-02-0		0.016	mg	22222	70
				Supplier	Tin Plating Layer	Tin	7440-31-5		0.056	mg	77778	246
CAP 0201 2P 25V 9pF 0.5pF (2 units)	M-011 Other inorganic materials	0.660	mg	Supplier	Outer electrode	Copper (Cu); Copper (metallic)	7440-50-8		0.144	mg	218182	632
				Supplier	Outer electrode	Diboron trioxide; Boric oxide	1303-86-2		0.003	mg	4848	14
				Supplier	Outer electrode	Silicon dioxide	7631-86-9		0.013	mg	19394	56
				Supplier	Nickel Plating Layer	Nickel	7440-02-0		0.014	mg	21212	61
				Supplier	Inner Electrode	Nickel	7440-02-0		0.018	mg	27273	79
				Supplier	Tin Plating Layer	Tin	7440-31-5		0.040	mg	60606	175
				Supplier	Ceramic	Calcium oxide	1305-78-8		0.171	mg	259394	751
				Supplier	Ceramic	Zirconium oxide	1314-23-4		0.214	mg	324242	939
				Supplier	Ceramic	Misc	Proprietary		0.043	mg	64848	188
CAP 0402 2P 10V 4.7uF (2 units)	M-011 Other inorganic materials	5.000	mg	Supplier	Ceramic	Barium oxide, obtained by calcining witherite	1304-28-5		1.999	mg	399840	8768
				Supplier	Ceramic	Titanium dioxide	13463-67-7		1.000	mg	199920	4384
				Supplier	Ceramic	Misc	Proprietary		0.333	mg	66640	1461
				Supplier	Outer electrode	Copper (Cu); Copper (metallic)	7440-50-8		0.536	mg	107280	2353
				Supplier	Outer electrode	Diboron trioxide; Boric oxide	1303-86-2		0.012	mg	2384	52
				Supplier	Outer electrode	Silicon dioxide	7631-86-9		0.048	mg	9536	209
				Supplier	Nickel Plating Layer	Nickel	7440-02-0		0.054	mg	10800	237
				Supplier	Inner Electrode	Nickel	7440-02-0		0.872	mg	174400	3825
				Supplier	Tin Plating Layer	Tin	7440-31-5		0.146	mg	29200	640
IND 0201 2P 10nH	M-011 Other inorganic materials	0.175	mg	Supplier	Outer electrode	Silver (Ag)	7440-22-4		0.024	mg	138857	107
				Supplier	Outer electrode	Diboron trioxide; Boric oxide	1303-86-2		0.000	mg	1543	1
				Supplier	Outer electrode	Silicon dioxide	7631-86-9		0.002	mg	13886	11
				Supplier	Inner Electrode	Silver (Ag)	7440-22-4		0.016	mg	90857	70
				Supplier	Nickel Plating Layer	Nickel	7440-02-0		0.008	mg	44000	34
				Supplier	Tin Plating Layer	Tin	7440-31-5		0.009	mg	53714	41
				Supplier	Coating	Diboron trioxide; Boric oxide	1303-86-2		0.001	mg	4714	4
				Supplier	Coating	Silica	7631-86-9		0.004	mg	22000	17
				Supplier	Coating	Cobalt oxide	1307-96-6		0.000	mg	1571	1
				Supplier	Coating	Aluminum oxide	1344-28-1		0.000	mg	1571	1
				Supplier	Coating	Misc	Proprietary		0.000	mg	1571	1
				Supplier	Insulation Layer	Diboron trioxide; Boric oxide	1303-86-2		0.011	mg	62571	48
				Supplier	Insulation Layer	Silica	7631-86-9		0.055	mg	312857	240
				Supplier	Insulation Layer	Aluminium Oxide	1344-28-1		0.044	mg	250286	192
IND 0201 2P 2.2nH 0.1nH	M-011 Other inorganic materials	0.175	mg	Supplier	Outer electrode	Silver (Ag)	7440-22-4		0.024	mg	138857	107
				Supplier	Outer electrode	Diboron trioxide; Boric oxide	1303-86-2		0.000	mg	1543	1
				Supplier	Outer electrode	Silicon dioxide	7631-86-9		0.002	mg	13886	11
				Supplier	Inner Electrode	Silver (Ag)	7440-22-4		0.016	mg	90857	70
				Supplier	Nickel Plating Layer	Nickel	7440-02-0		0.008	mg	44000	34
				Supplier	Tin Plating Layer	Tin	7440-31-5		0.009	mg	53714	41
				Supplier	Coating	Diboron trioxide; Boric oxide	1303-86-2		0.001	mg	4714	4
				Supplier	Coating	Silica	7631-86-9		0.004	mg	22000	17
				Supplier	Coating	Cobalt oxide	1307-96-6		0.000	mg	1571	1
				Supplier	Coating	Aluminum oxide	1344-28-1		0.000	mg	1571	1
				Supplier	Coating	Misc	Proprietary		0.000	mg	1571	1
				Supplier	Insulation Layer	Diboron trioxide; Boric oxide	1303-86-2		0.011	mg	62571	48
				Supplier	Insulation Layer	Silica	7631-86-9		0.055	mg	312857	240
				Supplier	Insulation Layer	Aluminium Oxide	1344-28-1		0.044	mg	250286	192
IND 0603 2P 10uH	M-011 Other inorganic materials	4.600	mg	Supplier	Outer electrode	Silver (Ag)	7440-22-4		0.252	mg	54783	1105
				Supplier	Outer electrode	Diboron trioxide; Boric oxide	1303-86-2		0.003	mg	609	12
				Supplier	Outer electrode	Silicon dioxide	7631-86-9		0.025	mg	5478	111
				Supplier	Ceramic	Iron(III) oxide	1309-37-1		2.289	mg	497670	10041
				Supplier	Ceramic	Zinc oxide; C.I. 77947	1314-13-2		0.695	mg	151078	3048
				Supplier	Ceramic	Nickel monoxide	1313-99-1		0.695	mg	151078	3048
				Supplier	Ceramic	Copper oxide; Copper (II) oxide	1317-38-0		0.286	mg	62209	1255
				Supplier	Ceramic	Misc	Proprietary		0.041	mg	8887	179
				Supplier	Ceramic	Bismuth oxide	1304-76-3		0.041	mg	8887	179
				Supplier	Ceramic	Tin dioxide	18282-10-5		0.041	mg	8887	179
				Supplier	Inner Electrode	Silver (Ag)	7440-22-4		0.210	mg	45652	921
				Supplier	Nickel Plating Layer	Nickel	7440-02-0		0.011	mg	2391	48
				Supplier	Tin Plating Layer	Tin	7440-31-5		0.011	mg	2391	48
HQ 0201 2P 25V 2.2pF 0.1pF	M-011 Other inorganic materials	0.330	mg	Supplier	Outer electrode	Copper (Cu); Copper (metallic)	7440-50-8		0.072	mg	218182	316
				Supplier	Outer electrode	Diboron trioxide; Boric oxide	1303-86-2		0.002	mg	4848	7
				Supplier	Outer electrode	Silicon dioxide	7631-86-9		0.006	mg	19394	28

				Supplier	Nickel Plating Layer	Nickel	7440-02-0		0.007	mg	21212	31
				Supplier	Inner Electrode	Copper (Cu); Copper (metallic)	7440-50-8		0.009	mg	27273	39
				Supplier	Tin Plating Layer	Tin	7440-31-5		0.020	mg	60606	88
				Supplier	Ceramic	Calcium oxide	1305-78-8		0.054	mg	162121	235
				Supplier	Ceramic	Misc	Proprietary		0.021	mg	64848	94
				Supplier	Ceramic	Zirconium oxide	1314-23-4		0.128	mg	389091	563
				Supplier	Ceramic	Manganese(II) oxide	1344-43-0		0.011	mg	32424	47
HQ 0201 2P 25V 0.5pF 0.1pF	M-011 Other inorganic materials	0.330	mg	Supplier	Outer electrode	Copper (Cu); Copper (metallic)	7440-50-8		0.072	mg	218182	316
				Supplier	Outer electrode	Diboron trioxide; Boric oxide	1303-86-2		0.002	mg	4848	7
				Supplier	Outer electrode	Silicon dioxide	7631-86-9		0.006	mg	19394	28
				Supplier	Nickel Plating Layer	Nickel	7440-02-0		0.007	mg	21212	31
				Supplier	Inner Electrode	Copper (Cu); Copper (metallic)	7440-50-8		0.009	mg	27273	39
				Supplier	Tin Plating Layer	Tin	7440-31-5		0.020	mg	60606	88
				Supplier	Ceramic	Calcium oxide	1305-78-8		0.054	mg	162121	235
				Supplier	Ceramic	Misc	Proprietary		0.021	mg	64848	94
				Supplier	Ceramic	Zirconium oxide	1314-23-4		0.128	mg	389091	563
				Supplier	Ceramic	Manganese(II) oxide	1344-43-0		0.011	mg	32424	47
RES 01005 2P 10Kohm	M-011 Other inorganic materials	0.041	mg	Supplier	Ceramic	Al2O3	1344-28-1		0.028	mg	698967	125
				Supplier	Ceramic	SiO2	7631-86-9		0.001	mg	14511	3
				Supplier	Ceramic	MgO	1309-48-4		0.001	mg	14511	3
				Supplier	Inner Electrode	Ag	7440-22-4		0.001	mg	14511	3
				Supplier	Inner Electrode	Pd	7440-05-3		0.000	mg	246	0
				Supplier	Inner Electrode	Ag	7440-22-4		0.001	mg	17462	3
				Supplier	Resistive Layer	Ag	7440-22-4		0.000	mg	1353	0
				Supplier	Resistive Layer	RuO2	12036-10-1		0.000	mg	9739	2
				Supplier	Resistive Layer	Glass frits	65997-18-4		0.000	mg	2435	0
				Supplier	Termination	Ni	7440-02-0		0.005	mg	129857	23
				Supplier	Termination	Sn	7440-31-5		0.003	mg	66896	12
				Supplier	Primary Glass	Glass (Pb free)(contains Bismuth, silicon &Bor	65997-17-3		0.000	mg	8362	1
				Supplier	Overcoat	Epoxy resin	25068-38-6		0.001	mg	21151	4
BEAD 0603 2P 600ohm 1000mA	M-011 Other inorganic materials	5.760	mg	Supplier	Ferrite	Fe2O3	1309-37-1		3.100	mg	538194	13596
				Supplier	Ferrite	NiO	1313-99-1		0.450	mg	78125	1974
				Supplier	Ferrite	CuO	1317-38-0		0.380	mg	65972	1667
				Supplier	Ferrite	ZnO	1314-13-2		0.970	mg	168403	4254
				Supplier	Ferrite	Bi2O3	1304-76-3		0.100	mg	17361	439
				Supplier	Terminal	Ag	7440-22-4		0.390	mg	67708	1711
				Supplier	Terminal	Glass	trade secret		0.080	mg	13889	351
				Supplier	Plating	Cu	7440-50-8		0.060	mg	10417	263
				Supplier	Plating	Ni	7440-02-0		0.080	mg	13889	351
				Supplier	Plating	Sn	7440-31-5		0.150	mg	26042	658
XTL 2016 32MHz 8pF 10ppm -40-+12	M-011 Other inorganic materials	5.972	mg	Supplier	Crystal Blank	SILICON DIOXIDE	14808-60-7		0.283	mg	47385	1241
				Supplier	Kovar	IRON	7439-89-6		0.581	mg	97352	2550
				Supplier	Kovar	MANGANESE	7439-96-5		0.005	mg	784	21
				Supplier	Kovar	NICKEL	7440-02-0		0.317	mg	53126	1392
				Supplier	Kovar	SILICON	7440-21-3		0.001	mg	128	3
				Supplier	Ceramic	CARBON	7440-44-0		0.000	mg	18	0
				Supplier	Ceramic	COBALT	7440-48-4		0.185	mg	30967	811
				Supplier	Ceramic	NICKEL	7440-02-0		0.171	mg	28597	749
				Supplier	Ceramic	MAGNESIUMOXIDE	1309-48-4		0.007	mg	1172	31
				Supplier	Ceramic	MOLYBDENIUMTRIOXIDE	1313-27-5		0.012	mg	2009	53
				Supplier	Ceramic	MANGANESE OXIDE	1317-34-6		0.082	mg	13730	360
				Supplier	Ceramic	ALUMINA	1344-28-1		2.233	mg	373890	9794
				Supplier	Ceramic	SILICON DIOXIDE	14808-60-7		0.078	mg	13060	342
				Supplier	Metallization	MOLYBDENUM	7439-98-7		0.581	mg	97282	2548
				Supplier	Nickel Plating	NICKEL	7440-02-0		0.220	mg	36836	965
				Supplier	Nickel Plating	COBALT	7440-48-4		0.027	mg	4521	118
				Supplier	Gold Plating	GOLD	7440-57-5		0.037	mg	6195	162
				Supplier	Gold Plating	IRON	7439-89-6		0.409	mg	68482	1794
				Supplier	Kovar ring	NICKEL	7440-02-0		0.108	mg	18083	474
				Supplier	Kovar ring	COBALT	7440-48-4		0.129	mg	21600	566
				Supplier	Kovar ring	SILVER	7440-22-4		0.319	mg	53413	1399
				Supplier	Silver solder	COPPER	7440-50-8		0.056	mg	9377	246
				Supplier	Silver solder	GOLD	7440-57-5		0.030	mg	4950	130
				Supplier	Evaporation	CHROMIUM	7440-47-3		0.001	mg	130	3
				Supplier	Evaporation	SILVER	7440-22-4		0.076	mg	12717	333
				Supplier	Electro conductive	SILICONE	Proprietary		0.025	mg	4194	110
XTL 2012 32.768KHz 6pF 20ppm -40-	M-011 Other inorganic materials	5.538	mg	Supplier	Crystal Blank	SILICON DIOXIDE	14808-60-7		0.077	mg	13976	339
				Supplier	Kovar	CARBONBLACK	1333-86-4		0.000	mg	43	1
				Supplier	Kovar	IRON	7439-89-6		0.615	mg	111116	2699
				Supplier	Kovar	MANGANESE	7439-96-5		0.006	mg	1083	26
				Supplier	Kovar	NICKEL	7440-02-0		0.360	mg	65005	1579
				Supplier	Ceramic	SILICON	7440-21-3		0.002	mg	433	11
				Supplier	Ceramic	COBALT	7440-48-4		0.216	mg	39003	947
				Supplier	Ceramic	NICKEL	7440-02-0		0.160	mg	28891	702
				Supplier	Ceramic	MAGNESIUMOXIDE	1309-48-4		0.010	mg	1806	44
				Supplier	Ceramic	MOLYBDENIUMTRIOXIDE	1313-27-5		0.010	mg	1806	44
				Supplier	Ceramic	MANGANESE OXIDE	1317-34-6		0.070	mg	12640	307
				Supplier	Ceramic	ALUMINA	1344-28-1		1.970	mg	355724	8640
				Supplier	Ceramic	COLLOIDALSILICA	7631-86-9		0.070	mg	12640	307
				Supplier	Metallization	MOLYBDENUM	7439-98-7		0.570	mg	102925	2500
				Supplier	Nickel Plating	NICKEL	7440-02-0		0.130	mg	23474	570

				Supplier	Nickel Plating	COBALT	7440-48-4		0.030	mg	5417	132
				Supplier	Gold Plating	THALLIUM	7440-28-0		0.000	mg	0	0
				Supplier	Gold Plating	GOLD	7440-57-5		0.040	mg	7223	175
				Supplier	Kovar ring	IRON	7439-89-6		0.350	mg	63200	1535
				Supplier	Kovar ring	NICKEL	7440-02-0		0.190	mg	34308	833
				Supplier	Kovar ring	COBALT	7440-48-4		0.110	mg	19863	482
				Supplier	Silver solder	SILVER	7440-22-4		0.280	mg	50560	1228
				Supplier	Silver solder	COPPER	7440-50-8		0.050	mg	9029	219
				Supplier	Evaporation	GOLD	7440-57-5		0.020	mg	3611	88
				Supplier	Evaporation	CHROMIUM	7440-47-3		0.001	mg	108	3
				Supplier	Electro conductive	SILVER	7440-22-4		0.174	mg	31419	763
				Supplier	Electro conductive	SILICONE	Proprietary		0.026	mg	4695	114
ANT 2012 2.4GHz 50ohm	M-011 Other inorganic materials	3.950	mg	Supplier	Ceramic Powder	Aluminum	1344-28-1		1.800	mg	455696	7895
				Supplier	Ceramic Powder	Silicon Dioxide	14808-60-7		1.440	mg	364557	6316
				Supplier	Ceramic Powder	Calcium Carbonate	471-34-1		0.180	mg	45570	789
				Supplier	Ceramic Powder	Zirconium Oxide	1314-23-4		0.180	mg	45570	789
				Supplier	Silver paste	Silver	7440-22-4		0.080	mg	20253	351
				Supplier	Silver paste	Cellulose Resin	Confidential		0.004	mg	1013	18
				Supplier	Silver paste	2,2,4trimethyl-1,3-pentanediol-di-isobutyrate	6846-50-0		0.007	mg	1772	31
				Supplier	Silver paste	p-Menthan-8-ol	498-81-7		0.009	mg	2278	39
				Supplier	Silver paste	Silver	7440-22-4		0.066	mg	16709	289
				Supplier	Silver paste	Class frit	14808-60-7		0.020	mg	5063	88
				Supplier	Silver paste	Resins	25085-99-8		0.005	mg	1266	22
				Supplier	Silver paste	Rosin	8050-09-7		0.001	mg	253	4
				Supplier	Silver paste	Additives	Confidential		0.001	mg	253	4
				Supplier	Silver paste	Diethylene glycol monobutyl ether acetic	124-17-4		0.005	mg	1266	22
				Supplier	Silver paste	Terpineol	8000-41-7		0.002	mg	506	9
				Supplier	Marking-INK(Red)	Glass Frits	7631-86-9		0.045	mg	11266	195
				Supplier	Marking-INK(Red)	Oxide Powders	1309-37-1		0.004	mg	886	15
				Supplier	Marking-INK(Red)	Ethyl Cellulose and Additives	9004-57-3		0.002	mg	506	9
				Supplier	Plating(ni)	Nickel	7440-02-0		0.050	mg	12658	219
				Supplier	Plating(Tin)	Tin	7440-31-5		0.050	mg	12658	219
MTL C7521 82.35 25 1 M0000101	M-011 Other inorganic materials	0.793	mg	Supplier	Metal element	Cu	7440-50-8		0.508	mg	640000	2227
				Supplier	Metal element	Ni	7440-02-0		0.143	mg	180000	626
				Supplier	Metal element	Zn	7440-66-6		0.143	mg	180000	626
Substrate	M-011 Other inorganic materials	37.299	mg	Supplier	Solder Mask	Morpholine derivative	Proprietary		0.045	mg	1208	198
				Supplier	Solder Mask	Barium Sulfate	7727-43-7		0.518	mg	13893	2273
				Supplier	Solder Mask	Silica	7631-86-9		0.011	mg	302	49
				Supplier	Solder Mask	Talc	14807-96-6		0.045	mg	1208	198
				Supplier	Solder Mask	Dipropylene Glycol Monomethyl Ether	34590-94-8		0.270	mg	7249	1186
				Supplier	Solder Mask	Epoxy Resin	85954-11-6		0.237	mg	6343	1038
				Supplier	Core	Silica	7631-86-9		1.310	mg	35132	5747
				Supplier	Core	Thermosetting Resin and Other Filler	Proprietary		2.621	mg	70264	11495
				Supplier	Core	Glass cloth	65997-17-3		2.621	mg	70264	11495
				Supplier	PP	Thermosetting resin:(Including modified polyir	Trade Secret		2.588	mg	69386	11351
				Supplier	PP	Glass cloth	65997-17-3		2.621	mg	70264	11495
				Supplier	PP	Silica	Proprietary		1.310	mg	35132	5747
				Supplier	PP	Cyclohexanone	108-94-1		0.033	mg	878	144
				Supplier	Cu foil	Copper	7440-50-8		3.011	mg	80732	13207
				Supplier	Cu Plating	Copper	7440-50-8		19.071	mg	511301	83646
				Supplier	Nickel Plating	Nickel	7440-02-0		0.958	mg	25685	4202
				Supplier	Soft Gold/Hard Au	Gold	7440-57-5		0.028	mg	760	124
Mold Compound	M-011 Other inorganic materials	116.464	mg	Supplier	Mold Compound	Epoxy Resin	Trade Secret		6.420	mg	60000	28158
				Supplier	Mold Compound	Phenol Resin	Trade Secret		2.140	mg	20000	9386
				Supplier	Mold Compound	Silica Amorphous A	60676-86-0		82.224	mg	680000	360633
				Supplier	Mold Compound	Silica Amorphous B	7631-86-9		22.470	mg	210000	98553
				Supplier	Mold Compound	Metal Hydoxide	Trade Secret		1.070	mg	10000	4693
				Supplier	Mold Compound	Carbon Black	1333-86-4		2.140	mg	20000	9386
FLT1IP2* LPF 1016 2.4GHz MLPF-WB	M-011 Other inorganic materials	11.400	mg	Supplier	Silicon Die	Silicon	7440-21-3		11.400	mg	1000000	50000
Solder Paste	M-011 Other inorganic materials	5.740	mg	Supplier	Solder Paste	Tin	7440-31-5		4.879	mg	850000	21399
				Supplier	Solder Paste	Silver	7440-22-4		0.155	mg	27000	680
				Supplier	Solder Paste	Copper	7440-50-8		0.172	mg	30000	755
				Supplier	Solder Paste	Oxirane, 2-methyl-, polymer withoxirane, bis(2	65605-36-9		0.132	mg	23000	579
				Supplier	Solder Paste	Polyoxyalkylene ether	70356-25-1		0.057	mg	10000	252
				Supplier	Solder Paste	Polyoxyethylene glycol	25322-68-3		0.057	mg	10000	252
				Supplier	Solder Paste	Diethylene glycol monohexyl ether	112-59-4		0.287		50000	1259
Shielding Sputtering (Copper)	M-011 Other inorganic materials	1.140	mg	Supplier	Shielding	Copper	7440-50-8		1.140	mg	999900	5000
				Supplier	Shielding	Other	NA		0.000	mg	100	1
Shielding Sputtering (SUS)	M-011 Other inorganic materials	1.140	mg	Supplier	Shielding	Iron	7439-89-6		0.708	mg	620950	3105
				Supplier	Shielding	Chromium	7440-47-3		0.205	mg	180000	900
				Supplier	Shielding	Nickel	7440-02-0		0.171	mg	150000	750
				Supplier	Shielding	Molybdenum	7439-98-7		0.023	mg	20000	100
				Supplier	Shielding	Manganese	7439-96-5		0.022	mg	19000	95
				Supplier	Shielding	Silicon	7440-21-3		0.010	mg	9000	45
				Supplier	Shielding	Carbon	7440-44-0		0.000	mg	300	2
				Supplier	Shielding	Phosphorous	7723-14-0		0.001	mg	450	2
				Supplier	Shielding	Sulfur	7704-34-9		0.000	mg	300	2