



Materials Declaration Form

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

** : Required Field*

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-07-09
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 *	Rossana Bonaccorso	Representative Title	ADG MD 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
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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 comprehensive 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.

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
T4050-6PF	PHLZ*W1G406B	A	Z4LA	2018-07-09
	Amount	UoM	Unit type	ST ECOPACK Grade
	5200	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		 life.augmented
Not Applicable	Not Applicable	Not Applicable		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	15.3 - 26.30 - 5.3	3	Through-hole	
Comment	Package: TO-3PF/ISOWATT 218			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-March 2015	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	FALSE
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)	TRUE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE
Exemption Id.	Description
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)
7c-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

QueryList : California Prop65 list, dated 25th May 2018			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			FALSE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			TRUE
Substance	amount in product (mg)	Application	ppm in product
Nickel	13.88	Die - Leadframe	2669
Lead	16.59	Soft solder	3190
Lead-Borate Glass	4.02	Die	773

QueryList : REACH-15th January 2018				
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	PHLZ*W1G4068					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	M-011 Other inorganic materials	25.142	mg	supplier	die	Silicon (Si)	7440-21-3		19.730	mg	784743	3794
				supplier	metallization	Aluminium (Al)	7429-90-5		0.686	mg	27285	132
				supplier	metallization	Gold (Au)	7440-57-5		0.078	mg	3102	15
				supplier	passivation	Nickel (Ni)	7440-02-0		0.118	mg	4693	23
				supplier	Passivation	Silicon Oxide	7631-86-9		0.182	mg	7239	35
				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.109	mg	4335	21
				supplier	back side metallization	Gold (Au)	7440-57-5		0.038	mg	1512	7
				JIG - R	glass coating	Lead-Borate Glass	65997-18-4		4.022	mg	159971	773
Leadframe	M-004 Copper and its alloys	3396.083	mg	supplier	alloy	Copper (Cu)	7440-50-8		3378.084	mg	994700	649632
				supplier	alloy	Iron (Fe)	7439-89-6		3.396	mg	1000	653
				supplier	alloy	Phosphorus (P)	12185-10-3		1.019	mg	300	196
				supplier	metallization	Nickel (Ni)	7440-02-0		13.584	mg	4000	2612
Soft solder	Solder	13.157	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	12.565	mg	955005	2416
				supplier	solder	Silver (Ag)	7440-22-4		0.329	mg	25006	63
				supplier	solder	Tin (Sn)	7440-31-5		0.263	mg	19989	52
Bonding wires	M-011 Other inorganic materials	9.679	mg	supplier	wire	Aluminium (Al)	7429-90-5		9.679	mg	1000000	1861
Encapsulation	M-011 Other inorganic materials	1741.963	mg	supplier	mold compound	Quartz	14808-60-7		1489.378	mg	855000	286419
				supplier	mold compound	Epoxy Cresol Novolak	25068-38-6		156.777	mg	90000	30149
				supplier	mold compound	Phenol resin	29690-82-2		87.098	mg	50000	16750
				supplier	mold compound	Carbon Black	1333-86-4		8.710	mg	5000	1675
Connections coating	Solder	13.976	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		13.976	mg	1000000	2688