



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-04-09
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

While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. STMicroelectronics disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. ST shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.


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 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
STL64N4F7AG	BSY5*OS42Q8Z	A	SH1A	2018-04-09
	Amount	UoM	Unit type	ST ECOPACK Grade
	100	mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	6, 5, 1	8	flat	
Comment				

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	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)

N California list			
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	0.02	Die - Leadframe	150
Lead	7.71	Soft solder	77080

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	BSY5*OS42Q8Z									
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	0.444	mg	supplier	die	Silicon (Si)	7440-21-3		0.376	mg	846847	3760				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.025	mg	56306	250				
				supplier	passivation	Nickel (Ni)	7440-02-0		0.006	mg	13514	60				
				supplier	metallization	Silver (Ag)	7440-22-4		0.004	mg	9009	40				
				supplier	metallization	Titanium (Ti)	7440-32-6		0.003	mg	6757	30				
				supplier	metallization	Tungsten (W)	7440-33-7		0.006	mg	13514	60				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.003	mg	6757	30				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.006	mg	13514	60				
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	2252	10				
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.009	mg	20270	90				
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.001	mg	2251	10				
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.004	mg	9009	40				
				Leadframe	M-004 Copper and its alloys	46.214	mg	supplier	alloy	Copper (Cu)	7440-50-8		44.737	mg	968040	447370
								supplier	alloy	Iron (Fe)	7439-89-6		1.052	mg	22764	10520
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.063	mg	1363	630				
supplier	alloy	Zinc (Zn)	7440-66-6						0.055	mg	1190	550				
supplier	metallization	Silver (Ag)	7440-22-4						0.307	mg	6643	3070				
Soft solder	Solder	8.331	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	7.708	mg	925219	77080				
				supplier	solder	Silver (Ag)	7440-22-4		0.208	mg	24967	2080				
				supplier	solder	Tin (Sn)	7440-31-5		0.415	mg	49814	4150				
Bonding wires	M-011 Other inorganic materials	0.058	mg	supplier	wire	Gold (Au)	7440-57-5		0.058	mg	1000000	580				
Encapsulation	M-011 Other inorganic materials	36.992	mg	supplier	mold compound	Silica, vitreous	60676-86-0		29.038	mg	784981	290380				
				supplier	mold compound	epoxy resin	25068-38-6		4.809	mg	130001	48090				
				supplier	mold compound	phenol resin	9003-35-4		2.220	mg	60013	22200				
				supplier	mold compound	metal hydroxide	21645-51-2		0.740	mg	20004	7400				
Connections coating	Solder	0.156	mg	supplier	mold compound	Carbon black	1333-86-4		0.185	mg	5001	1850				
				supplier	solder alloy	Tin (Sn)	7440-31-5		0.156	mg	1000000	1560				
Subelement	M-011 Other inorganic materials	7.805	mg	supplier	Clip	Copper (Cu)	7440-50-8		7.805	mg	1000000	78050				