



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 *	2017-05-04
Contact Name *	Refer to Supplier Comment section		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
STL7LN80K5	SHM3*VK8GB52	A	SHENZHEN B/E	2017-05-04
Amount		UoM	Unit type	ST ECOPACK Grade
90.00		mg	Each	ECOPACK2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Tin (Sn), matte	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
QFN	6, 5, 1	12	PIN	
Comment	PowerFLAT 5x6 HV			

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
5 - Product(s) is obsolete, no information is available	false
6 - Product(s) is unknown, no information is available	false
Exemption Id.	Description
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

QueryList : REACH-12th January 2017				
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						Mfr Item Name	SHM3*VK8GB52					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	Other inorganic materials	1.904	mg	supplier	die	Silicon (Si)	7440-21-3		1.780	mg	934874	19778
				supplier	metallization	Aluminium (Al)	7429-90-5		0.046	mg	24160	511
				supplier	metallization	Copper (Cu)	7440-50-8		0.017	mg	8929	189
				supplier	Passivation	Silicon Nitride	12033-89-5		0.011	mg	5777	122
				supplier	Passivation	Silicon Oxide	7631-86-9		0.026	mg	13655	289
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	525	11
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.017	mg	8929	189
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.006	mg	3151	67
Leadframe	Copper & its alloys	43.468	mg	supplier	alloy	Copper (Cu)	7440-50-8		41.679	mg	958843	463100
				supplier	alloy	Iron (Fe)	7439-89-6		0.980	mg	22545	10889
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.059	mg	1357	656
				supplier	alloy	Zinc (Zn)	7440-66-6		0.051	mg	1174	567
				supplier	metallization	Silver (Ag)	7440-22-4		0.699	mg	16081	7767
Soft solder	Solder	2.429	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	2.319	mg	954714	25767
				supplier	solder	Silver (Ag)	7440-22-4		0.061	mg	25113	678
				supplier	solder	Tin (Sn)	7440-31-5		0.049	mg	20173	544
Bonding wires	Other inorganic materials	0.181	mg	supplier	wire	Copper (Cu)	7440-50-8		0.181	mg	1000000	2011
				supplier	wire	Copper (Cu)	7440-50-8		0.181	mg	1000000	2011
Encapsulation	Other Organic Materials	41.859	mg	supplier	mold compound	Silica, vitreous	60676-86-0		38.762	mg	926014	430689
				supplier	mold compound	epoxy resin	85954-11-6		1.674	mg	39991	18600
				supplier	mold compound	phenol resin	26834-02-6		1.256	mg	30005	13956
				supplier	mold compound	carbon black	1333-86-4		0.167	mg	3990	1856
Connections coating	Solder	0.159	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.159	mg	1000000	1767