



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 *	2016-02-04
Contact Name *	Refer to "Supplier Comment" section	Contact Title	Refer to "Supplier Comment" section
Contact Phone *	Refer to "Supplier Comment" section	Contact Email *	Refer to "Supplier Comment" section
Authorized Representative *	Antonella Lanzafame	Representative Title	AMS & IPD Materials 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
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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
	SHM3*VJ81B52	A	SH1A	2016-02-04
Amount	UoM	Unit type	ST ECOPACK Grade	
76.00	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 ; if coating is used o	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	5 - 6 - 0.8	12	pin	
Comment	Package: POWER FLAT 5X6 8L 650V, MD valid for CP:STL4N80K5			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	false
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
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	true
Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Product(s) is obsolete, no information is available	false
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-17th December 2015				
Query				Response
The product 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*VJ81B52					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
die (s)	Other inorganic materials	2.711	mg	supplier	die	Silicon (Si)	7440-21-3		2.604	mg	960531	34263
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.068	mg	25083	895
die (s)				supplier	metallization	Copper (Cu)	7440-50-8		0.003	mg	1107	39
die (s)				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.002	mg	738	26
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.025	mg	9222	329
die (s)				supplier	back side metallization	Silver (Ag)	7440-22-4		0.009	mg	3320	118
Leadframe	Copper & its alloys	28.25	mg	supplier	alloy	Copper (Cu)	7440-50-8		26.951	mg	954018	354618
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.634	mg	22442	8342
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.038	mg	1345	500
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.033	mg	1168	434
Leadframe				supplier	metallization	Silver (Ag)	7440-22-4		0.594	mg	21027	7816
Soft solder		2.588	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	2.471	mg	954791	32513
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		0.065	mg	25116	855
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.052	mg	20093	684
Bonding wire	Other inorganic materials	0.103		supplier	wire	Copper (Cu)	7440-50-8		0.103	mg	1000000	1355
encapsulation		42.248	mg	supplier	mold compound	Silica, vitreous	60676-86-0		39.121	mg	925985	514750
encapsulation				supplier	mold compound	epoxy resin	85954-11-6		1.69	mg	40002	22237
encapsulation				supplier	mold compound	phenol resin	26834-02-6		1.268	mg	30013	16684
encapsulation				supplier	mold compound	carbon black	1333-86-4		0.169	mg	4000	2224
connections coating	Solder	0.1	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.1	mg	1000000	1316