



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 *	2017-07-13
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Giovanni Giacobello	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
STL18N60M2	SHM4*MQ6GB62	A	SHENZHEN B/E	2017-07-13
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		 life.augmented
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	
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	SHM4*MQ6B62					
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	6.173	mg	supplier	die	Silicon (Si)	7440-21-3		5.835	mg	945238	64833
				supplier	metallization	Aluminium (Al)	7429-90-5		0.162	mg	26243	1800
				supplier	Passivation	Silicon Nitride	12033-89-5		0.039	mg	6325	433
				supplier	Passivation	Silicon Oxide	7631-86-9		0.057	mg	9234	633
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.004	mg	648	44
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.056	mg	9072	622
Leadframe	Copper & its alloys	43.467	mg	supplier	back side metallization	Silver (Ag)	7440-22-4		0.020	mg	3240	222
				supplier	alloy	Copper (Cu)	7440-50-8		41.678	mg	958842	463089
				supplier	alloy	Iron (Fe)	7439-89-6		0.980	mg	22546	10889
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.059	mg	1358	656
				supplier	alloy	Zinc (Zn)	7440-66-6		0.051	mg	1173	567
				supplier	metallization	Silver (Ag)	7440-22-4		0.699	mg	16081	7767
Soft solder	Solder	7.488	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high met	7.151	mg	954967	79456
				supplier	solder	Silver (Ag)	7440-22-4		0.187	mg	24973	2078
				supplier	solder	Tin (Sn)	7440-31-5		0.150	mg	20060	1667
Bonding wires	Other inorganic materials	0.226	mg	supplier	wire	Copper (Cu)	7440-50-8		0.226	mg	1000000	2511
Encapsulation	Other Organic Materials	32.487	mg	supplier	mold compound	Silica, vitreous	60676-86-0		30.083	mg	926001	334256
				supplier	mold compound	epoxy resin	85954-11-6		1.299	mg	39985	14433
				supplier	mold compound	phenol resin	26834-02-6		0.975	mg	30012	10833
				supplier	mold compound	carbon black	1333-86-4		0.130	mg	4002	1444
Connections coating	Solder	0.159	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.159	mg	1000000	1767