



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 *	2016-09-26
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		

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Legal Statement			
Supplier Acceptance *	true	Legal Declaration *	Standard
Legal Statement	<p>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.</p>		

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STL16N60M2	SHM4*MQ63B82	A	SHENZHEN B/E	2016-09-26
	Amount	UoM	Unit type	ST ECOPACK Grade
	76.00	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-20th June 2016				
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*MQ63882					
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	5.691	mg	supplier	die	Silicon (Si)	7440-21-3		5.379	mg	945177	70776
				supplier	metallization	Aluminium (Al)	7429-90-5		0.150	mg	26357	1974
				supplier	Passivation	Silicon Nitride	12033-89-5		0.036	mg	6325	474
				supplier	Passivation	Silicon Oxide	7631-86-9		0.053	mg	9313	697
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.004	mg	703	53
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.051	mg	8962	671
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.018	mg	3163	237
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Leadframe	Copper & its alloys	43.467	mg	supplier	alloy	Copper (Cu)	7440-50-8		41.678	mg	958842	548395
				supplier	alloy	Iron (Fe)	7439-89-6		0.980	mg	22546	12895
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.059	mg	1358	776
				supplier	alloy	Zinc (Zn)	7440-66-6		0.051	mg	1173	671
				supplier	metallization	Silver (Ag)	7440-22-4		0.699	mg	16081	9197
				supplier	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	6.617	mg	954972	87066
Soft solder	Solder	6.929	mg	supplier	solder	Silver (Ag)	7440-22-4		0.173	mg	24968	2276
				supplier	solder	Tin (Sn)	7440-31-5		0.139	mg	20060	1829
				supplier	wire	Copper (Cu)	7440-50-8		0.226	mg	1000000	2974
Bonding wires	Other inorganic materials	0.226	mg	supplier	wire	Copper (Cu)	7440-50-8		0.226	mg	1000000	2974
				supplier	mold compound	Silica, vitreous	60676-86-0		18.083	mg	926004	237934
				supplier	mold compound	epoxy resin	85954-11-6		0.781	mg	39994	10276
				supplier	mold compound	phenol resin	26834-02-6		0.586	mg	30008	7711
Encapsulation	Other Organic Materials	19.528	mg	supplier	mold compound	carbon black	1333-86-4		0.078	mg	3994	1026
				supplier	mold compound	carbon black	1333-86-4		0.078	mg	3994	1026
Connections coating	Solder	0.159	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.159	mg	1000000	2092