



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 *	2016-08-17
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Giovanni Giacopello	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
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
	R1LY*M5FN85F	A	Z8GA	2016-08-17
Amount	UoM	Unit type	ST ECOPACK Grade	
4900.00	mg	Each	ECOPACK® 2	

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



Package Designator	Size	Nbr of instances	Shape	
SIP	4.3-2.77-2	4	Through-hole	
Comment	Package: TO 247 MAX; MDF valid for STY139N65M5; ELTEK-139			

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	R1LY*M5FNBSF					
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	85.798	mg	supplier	die	Silicon (Si)	7440-21-3		79.664	mg	928506	16258
				supplier	metallization	Aluminium (Al)	7429-90-5		1.484	mg	17296	303
				supplier	metallization	Titanium (Ti)	7440-32-6		0.055	mg	641	11
				supplier	metallization	Nickel (Ni)	7440-02-0		3.260	mg	37996	665
				supplier	metallization	Silver (Ag)	7440-22-4		0.192	mg	2238	39
				supplier	Passivation	Silicon Nitride	12033-89-5		0.342	mg	3986	70
				supplier	Passivation	Silicon Oxide	7631-86-9		0.027	mg	315	6
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.038	mg	443	8
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.544	mg	6340	111
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.192	mg	2238	39
Leadframe	Copper & its alloys	2662.818	mg	supplier	alloy	Copper (Cu)	7440-50-8		2658.450	mg	998360	542541
				supplier	alloy	Iron (Fe)	7439-89-6		1.224	mg	460	250
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		2.236	mg	840	456
				supplier	metallization	Nickel (Ni)	7440-02-0		0.840	mg	315	171
				supplier	metallization	Phosphorus (P)	12185-10-3		0.068	mg	26	14
Soft solder	Other organic materials	23.274	mg	JIG R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	22.226	mg	954971	4536
				supplier	solder	Silver (Ag)	7440-22-4		0.583	mg	25049	119
				supplier	solder	Tin (Sn)	7440-31-5		0.465	mg	19979	95
Bonding wire & Ribbon	Other inorganic materials	29.312	mg	supplier	wire & ribbon	Aluminium (Al)	7429-90-5		29.312	mg	1000000	5982
Encapsulation	Other organic materials	2091.022	mg	supplier	mold compound	Silica, vitreous	60676-86-0		1819.188	mg	869999	371263
				supplier	mold compound	Epoxy resin	Proprietary		209.103	mg	100000	42674
				supplier	mold compound	Phenol resin	Proprietary		52.276	mg	25000	10669
				supplier	mold compound	Carbon Black	1333-86-4		10.455	mg	5000	2134
Connections coating	Solder	7.776	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		7.776	mg	1000000	1587