



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 *	2015-02-16
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 *	Giovanni Giacopello	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/online_tech_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
	R2Y5*6L3CAC2	A	SH1A	2015-02-16
Amount	UoM	Unit type	ST ECOPACK Grade	
95.00	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		
Not Applicable ; if coating is used o	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	6, 5, 1	8	pin	
Comment	Package: POWERFLAT WETTABLE FLANKS SINGLE; MDF valid for STL86N3LLH6AG			

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 2014				
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	R2Y5*6L3CAC2					
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	2.236	mg	supplier	die	Silicon (Si)	7440-21-3		2.136	mg	955277	22484
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.058	mg	25939	611
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.016	mg	7156	168
die (s)				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	447	11
die (s)				supplier	metallization	Nickel (Ni)	7440-02-0		0.017	mg	7603	179
die (s)				supplier	metallization	Vanadium (V)	7440-62-2		0.001	mg	447	11
die (s)				supplier	metallization	Silver (Ag)	7440-22-4		0.007	mg	3131	74
Leadframe	Copper & its alloys	43.02	mg	supplier	alloy	Copper (Cu)	7440-50-8		41.923	mg	974500	441295
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.986	mg	22920	10379
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.059	mg	1371	621
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.052	mg	1209	547
Soft solder	Solder	6.377	mg	JIG Table A	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	6.09	mg	954995	64105
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		0.159	mg	24933	1674
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.128	mg	20072	1347
Bonding wire & Ribbon	Other inorganic materials	0.531		supplier	wire & ribbon	Aluminium (Al)	7429-90-5		0.531	mg	1000000	5589
encapsulation	Other inorganic materials	42.68	mg	supplier	mold compound	Silica, vitreous	60676-86-0		33.502	mg	784958	352653
encapsulation				supplier	mold compound	epoxy resin	Proprietary		5.549	mg	130014	58411
encapsulation				supplier	mold compound	phenol resin	9003-35-4		2.561	mg	60005	26958
encapsulation				supplier	mold compound	metal hydroxide	Proprietary		0.854	mg	20009	8989
encapsulation				supplier	mold compound	Carbon black	1333-86-4		0.214	mg	5014	2253
connections coating	Solder	0.156	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.156	mg	1000000	1642