



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 *	2014-12-11
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/internet/com/support/online_tech_support.jsp		

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
	RFL*KS05AA6	A	Z8GA	2014-12-11
Amount	UoM	Unit type	ST ECOPACK Grade	
123.70	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	NAC		

Package Designator	Size	Nbr of instances	Shape	
SOT	0.248,0.13,0.071	4	gull wing	
Comment	SOT 223; MD valid for CP:LD1117S50CTR,LD1117S50TR.			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	true
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)	false
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

QueryList : REACH-16th June 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	RFL*KS05AA6					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Silicon die	Other inorganic materials	2.411	mg	supplier	Silicon die	Silicon (Si)	7440-21-3		2.355	mg	976773	19038
Silicon die				supplier	metallization	Aluminium (Al)	7429-90-5		0.03	mg	12443	243
Silicon die				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.01	mg	4148	81
Silicon die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.014	mg	5807	113
Silicon die				supplier	backside metallization	Nickel (Ni)	7440-02-0		0.002	mg	830	16
Leadframe	Copper and its alloy	58.425	mg	supplier	Alloy	Copper(CU)	7440-50-8		57.639	mg	986547	465958
Leadframe				supplier	Alloy	Iron(Fe)	7439-89-6		0.058	mg	993	469
Leadframe				supplier	Alloy	Iron Phosphide (FeP)	26508-33-8		0.017	mg	291	137
Leadframe				supplier	Alloy	Silver(Ag)	7440-22-4		0.711	mg	12169	5748
Die Attach	Other Organic Material	0.537	mg	supplier	Epoxy	Silver(Ag)	7440-22-4		0.36	mg	670391	2910
Die Attach				supplier	Epoxy	Epoxy	proprietary		0.107	mg	199255	865
Die Attach				supplier	Epoxy	Aliphatic anhydride	proprietary		0.038	mg	70764	307
Die Attach				supplier	Epoxy	2-Butoxyethyl acetate	112-07-2		0.016	mg	29795	129
Die Attach				supplier	Epoxy	Proprietary Material	proprietary		0.016	mg	29795	129
Bonding wire	Other Inorganic Material	0.137	mg	supplier	bonding wire	Copper(CU)	7440-50-8		0.137	mg	1000000	1108
Encapsulation	Other Organic Material	61.4	mg	supplier	molding compound	Epoxy Resin-1	proprietary		1.781	mg	29007	14398
Encapsulation				supplier	Molding compound	Epoxy Resin-2	proprietary		1.781	mg	29007	14398
Encapsulation				supplier	Molding compound	Epoxy Resin-3	proprietary		0.614	mg	10000	4964
Encapsulation				supplier	Molding compound	Phenol Resin	proprietary		3.07	mg	50000	24818
Encapsulation				supplier	Molding compound	Carbon Black	1333-86-4		0.062	mg	1010	501
Encapsulation				supplier	Molding compound	Silica	60676-86-0		54.03	mg	879967	436783
Encapsulation				supplier	Molding compound	Others	proprietary		0.062	mg	1010	501
Finishing	Other Inorganic Material	0.79	mg	supplier	Connection Coating	Tm(Sn)	7440-31-5		0.79	mg	1000000	6386