



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 *	03/10/2015
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 *	Giuseppe Vitali Palma	Representative Title	Group 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
	RVVV*V794AA5	A	ZS1A	03/10/2015
Amount	UoM	Unit type	ST ECOPACK Grade	
16.00	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	Comment	
NAC	Nicke/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	2.8X1.5X0.9	5	gull wing	
Comment	Package: SOT 23 5L; MD valid for LDK130M12R, LDK120M12R			

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

ELV exemption number	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	false
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	true
Exemption Id.	Description
	#N/A
	#N/A

QueryList : REACH-17th December 2014				
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	RVWV*V794AA5					
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	0.334	mg	supplier	Silicon die	Silicon (Si)	7440-21-3		0.315	mg	943114	19688
				supplier	metallization	Aluminium (Al)	7429-90-5		0.004	mg	11976	250
				supplier	metallization	Tungsten (W)	7440-33-7		0.003	mg	8982	188
				supplier	passivation	Silicon Nitride (SiN)	12033-89-5		0.001	mg	2994	63
				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.007	mg	20958	438
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.004	mg	11976	250
Leadframe	Copper and its alloy	7.200	mg	supplier	Alloy	Copper	7440-50-8		6.936	mg	963333	433500
				supplier	Alloy	Iron	7439-89-6		0.162	mg	22500	10125
				supplier	Alloy	Iron phosphide (Fe2P)	1310-43-6		0.002	mg	278	125
				supplier	Alloy	Zinc	7440-66-6		0.009	mg	1250	563
				supplier	Alloy	Nickel	7440-02-0		0.083	mg	11528	5188
				supplier	Alloy	Palladium	7440-05-3		0.007	mg	972	438
Die Attach	Other organic materials	0.070	mg	supplier	Alloy	Gold	7440-57-5		0.001	mg	139	63
				supplier	Glue	Silver	7440-22-4		0.056	mg	800000	3500
				supplier	Glue	Carbocyclic Acrylates	proprietary		0.007	mg	100000	438
				supplier	Glue	Bismaleimide resin	proprietary		0.002	mg	28571	125
				supplier	Glue	2-preponoic acid, 2-methyl	68586-19-6		0.002	mg	28571	125
				supplier	Glue	Additive	proprietary		0.002	mg	28571	125
Bonding wire	Other inorganic materials	0.147	mg	supplier	Glue	Dicumlyl peroxide	80-43-3		0.001	mg	14286	63
				supplier	Bonding wire	Cu	7440-50-8		0.147	mg	1000000	9188
Encapsulation	Other organic materials	8.249	mg	supplier	Molding compound	Epoxy Resin-1	Proprietary		0.248	mg	30064	15500
				supplier	Molding compound	Epoxy Resin-2	Proprietary		0.248	mg	30064	15500
				supplier	Molding compound	Phenol resin	Proprietary		0.372	mg	45096	23250
				supplier	Molding compound	Silica	60676-86-0		7.364	mg	892714	460250
				supplier	Molding compound	Carbon Black	1333-86-4		0.017	mg	2061	1063