



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 *	2013-05-29
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
	AYX0*A420AR6	A	SA1A	2013-05-29
Amount	UoM	Unit type	ST ECOPACK Grade	
21.00	mg	Each	ECOPACK® 1	

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	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SOF	3.0,3.0,1.0	8	No lead	
Comment	VDFPN 3x3x1.0 8 PITCH 0.50			

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-19 Dec 2012				
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	AYX0*A420AR6					
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	1.324	mg	supplier	Silicon Die	Silicon (Si)	7440-21-3		1.302	mg	983384	62000
Silicon Die				supplier	Silicon Die	Aluminium (Al)	7429-90-5		0.005	mg	3776	238
Silicon Die				supplier	Silicon Die	Titanium (Ti)	7440-32-6		0.002	mg	1511	95
Silicon Die				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.003	mg	2266	143
Silicon Die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.012	mg	9063	571
Lead-frame	Copper & its alloys	9.422	mg	supplier	alloy	Copper	7440-50-8		9.101	mg	965931	433381
Lead-frame				supplier	alloy	Iron (2.1-2.6%)	7439-89-6		0.213	mg	22607	10143
Lead-frame				supplier	alloy	Phosphorus (0.015*0.15%)	7723-14-0		0.002	mg	212	95
Lead-frame				supplier	alloy	Zinc	7440-66-6		0.012	mg	1274	571
Lead-frame				supplier	alloy	Silver	7440-22-4		0.094	mg	9977	4476
Die attach	Solder	0.03	mg	supplier	glue or tape	Silver	7440-22-4		0.021	mg	700000	1000
Die attach				supplier	glue or tape	Epoxy Resin	9003-36-5		0.006	mg	200000	286
Die attach				supplier	glue or tape	t-Butyl phenyl glycidyl ether	3101-60-8		0.002	mg	66667	95
Die attach				supplier	glue or tape	Phenolic hardener	92-88-6		0.001	mg	33333	48
Bonding wire	Other inorganic materials	0.1	mg	supplier	wire	Gold (Au)	7440-57-5		0.1	mg	1000000	4762
Encapsulation	Other Organic Materials	10.004	mg	supplier	mold compound	Silica fused	60676-86-0		8.848	mg	884446	421333
Encapsulation				supplier	mold compound	Epoxy resin	Proprietary		0.702	mg	70172	33429
Encapsulation				supplier	mold compound	Phenol resin	Proprietary		0.351	mg	35086	16714
Encapsulation				supplier	mold compound	Antimony trioxide	1309-64-4		0.05	mg	4998	2381
Encapsulation				supplier	mold compound	Brominated epoxy resin	40039-93-8		0.05	mg	4998	2381
Encapsulation				supplier	mold compound	Carbon black	1333-86-4		0.003	mg	300	143
Finishing	Solder	0.12	mg	supplier	solder alloy	Sn	7440-31-5		0.12	mg	1000000	5714