



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 *	2015-11-30
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 *	Emilio Castelli	Representative Title	APG 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/online_tech_support.html		

Uncertainty Statement


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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
VND5T035LAKTR-E	ARV5*VNZ3AA3	A	MU1A	2015-11-30
Amount	UoM	Unit type	ST ECOPACK Grade	
485.90	mg	Each	ECOPACK® 2	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
CHP	10.3x7.5x2.28	24	flat	
Comment				

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 '7a' exemption (other selected exemptions may apply)	true
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	ARV5*VNZ3AA3					
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	11.157	mg	supplier	die	Silicon (Si)	7440-21-3		10.602	mg	950255	21819
Die				supplier	metallization	Titanium (Ti)	7440-32-6		0.277	mg	24827	570
Die				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.050	mg	4481	103
Die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.136	mg	12190	280
Die				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.005	mg	448	10
Die				supplier	back side metallization	Gold (Au)	7440-57-5		0.015	mg	1344	31
Die				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.072	mg	6453	148
Leadframe	Copper & its alloys	164.498	mg	supplier	alloy	Copper (Cu)	7440-50-8		158.358	mg	962674	325907
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		3.725	mg	22645	7666
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.224	mg	1362	461
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.195	mg	1185	401
Leadframe				supplier	metallization	Silver (Ag)	7440-22-4		1.996	mg	12134	4108
Die attach		7.704	mg	JIG - R	Soft Solder	Lead (Pb)	7439-92-1	7a-Lead in high met	7.511	mg	974948	15458
Die attach				supplier	Soft Solder	Silver (Ag)	7440-22-4		0.116	mg	15057	239
Die attach				supplier	Soft Solder	Tin (Sn)	7440-31-5		0.077	mg	9995	158
Bonding wire		1.775		supplier	wire	Gold (Au)	7440-57-5		0.246	mg	138592	506
Bonding wire				supplier	wire	Copper (Cu)	7440-50-8		1.529	mg	861408	3147
encapsulation		295.742	mg	supplier	mold compound	Phenol Resin	205830-20-2		11.830	mg	40001	24347
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		8.872	mg	29999	18259
encapsulation				#N/A	mold compound	epoxy resin	na		8.872	mg	29999	18259
encapsulation				supplier	mold compound	carbon black	1333-86-4		0.591	mg	1998	1216
encapsulation				supplier	mold compound	Silica, vitreous	60676-86-0		265.577	mg	898002	546567
connections coating	Solder	5.024	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		5.024	mg	1000000	10340