



## Materials Declaration Form

<b>IPC Form Type *</b>	1752 Distribute	<b>Version</b>	2
<b>Sectionals *</b>	Material Info Manufacturing Info	<b>Subsectionals *</b>	A-D

*\* : Required Field*

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2015-06-24
<b>Contact Name *</b>	Refer to "Supplier Comment" section	<b>Contact Title</b>	Refer to "Supplier Comment" section
<b>Contact Phone *</b>	Refer to "Supplier Comment" section	<b>Contact Email *</b>	Refer to "Supplier Comment" section
<b>Authorized Representative *</b>	Emilio Castelli	<b>Representative Title</b>	APG MD CHAMPION
<b>Representative Phone *</b>	Refer to "Supplier Comment" section	<b>Representative Email *</b>	Refer to "Supplier Comment" section
<b>Supplier Comment</b>	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/web/en/support/online_tech_support.html">http://www.st.com/web/en/support/online_tech_support.html</a>		

**Uncertainty Statement**

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**Legal Statement**

<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>	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
VND5160JTR-E	AROT*VNG2AGC	A	BO2A	2015-06-24
Amount		UoM	Unit type	ST ECOPACK Grade
113.50		mg	Each	ECOPACK® 1

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	3.9x4.9x1.35	12	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	AR07*VNG2AGC					
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	3.168	mg	supplier	die	Silicon (Si)	7440-21-3		2.975	mg	939078	26211
Die				supplier	metallization	Titanium (Ti)	7440-32-6		0.078	mg	24621	687
Die				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.014	mg	4419	123
Die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.038	mg	11995	335
Die				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	316	9
Die				supplier	back side metallization	Gold (Au)	7440-57-5		0.004	mg	1263	35
Die				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.020	mg	6313	176
Die				supplier	glass coating	Glass: Silicon Dioxide (SiO2)	7631-86-9		0.038	mg	11995	335
Leadframe	Copper & its alloys	67.173	mg	supplier	alloy	Copper (Cu)	7440-50-8		66.353	mg	987793	584608
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.031	mg	461	273
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.056	mg	834	493
Leadframe				supplier	metallization	Silver (Ag)	7440-22-4		0.733	mg	10912	6458
Die attach		2.734	mg	JIG - R	Soft Soder	Lead (Pb)	7439-92-1	7a-Lead in high me	2.611	mg	955011	23004
Die attach				supplier	Soft Soder	Silver (Ag)	7440-22-4		0.068	mg	24872	599
Die attach				supplier	Soft Soder	Tin (Sn)	7440-31-5		0.055	mg	20117	485
Bonding wire		0.420		supplier	wire	Gold (Au)	7440-57-5		0.100	mg	238095	881
Bonding wire				supplier	wire	Copper (Cu)	7440-50-8		0.320	mg	761905	2819
encapsulation		38.596	mg	supplier	mold compound	Silica, vitreous	60676-86-0		30.877	mg	800005	272044
encapsulation				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		2.702	mg	70007	23806
encapsulation				supplier	mold compound	Phenol resin	9003-35-4		1.543	mg	39978	13595
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		2.316	mg	60006	20405
encapsulation				supplier	mold compound	Antimony Trioxide	1309-64-4		0.463	mg	11996	4079
encapsulation				supplier	mold compound	Brominated Epoxy Resin	40039-93-8		0.579	mg	15002	5101
encapsulation				supplier	mold compound	Carbon black	1333-86-4		0.116	mg	3005	1022
connections coating	Solder	1.410	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.410	mg	1000000	12423