



## 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
<i>* : Required Field</i>			

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2013-05-14
<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>	Giuseppe Vitali Palma	<b>Representative Title</b>	AMS & IPD Materials Declaration 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/internet/com/support/online_tech_support.jsp">http://www.st.com/internet/com/support/online_tech_support.jsp</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
	8HWA*TWU151K	A	ZA41	2013-05-10
Amount	UoM	Unit type	ST ECOPACK Grade	
877.035	mg	Each	ECOPACK® 2	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
NAC	NAC	NAC		
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	
NAC	9.15X15.7X5	NA	NAC	
Comment	Package: DO201			

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 '7b' exemption (other selected exemptions may apply)	false
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	true
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
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

QueryList :REACH-19 December 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	8HWA*TWU151K					
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	4.967	mg		Silicon Die	silicon	7440-21-3		4.909	mg	988323	5597
Silicon Die					Back side metallization	Aluminium (Al)	7429-90-5		0.02	mg	4027	23
Silicon Die					Back side metallization	Gold (Au)	7440-57-5		0.007	mg	1409	8
Silicon Die					Back side metallization	Nickel (Ni)	7440-02-0		0.031	mg	6241	35
Lead-frame	Copper & its alloys	709.158	mg		Alloy	Cu	7440-50-8		708.826	mg	999532	808207
Lead-frame					Alloy	Zn	7440-66-6		0.02	mg	28	23
Lead-frame					Alloy	Fe	7439-89-6		0.071	mg	100	81
Lead-frame					Alloy	Iron Phosphide(FeP)	26508-33-8		0.241	mg	340	275
Die Attach	Other Organic Materials	2.28	mg		soft solder	Ag	7440-22-4		0.057	mg	25000	65
Die Attach					soft solder	Sn	7440-31-5		0.114	mg	50000	130
Die Attach				JIG R	Lead/Lead Compounds	Lead	7439-92-1	7a-Lead in high me	2.109	mg	925000	2405
Encapsulation	Other Organic Materials	148.63	mg		Molding Compound	Silica fused	7631-86-9		59.452	mg	400000	67787
Encapsulation					Molding Compound	silica quartz	14808-60-7		85.462	mg	574998	97444
Encapsulation					Molding Compound	phenolic resin	9003-35-4		2.973	mg	20003	3390
Encapsulation					Molding Compound	carbon black	1333-86-4		0.743	mg	4999	847
Finishing	Other inorganic materials	12	mg		connection coating	Sn	7440-31-5		12	mg	1000000	13682