



## 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>	2015-11-20
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	Rossana Bonaccorso	<b>Representative Title</b>	IPD 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/support.html">http://www.st.com/web/en/support/support.html</a>		

**Uncertainty Statement**

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Legal Statement			
<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>	Standard
<b>Legal Statement</b>	<p>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.</p>		

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STTH112U	HNZJ*E47R81G	A	ZA41	2015-11-20
Amount		UoM	Unit type	ST ECOPACK Grade
98.00		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	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SOJ	4.50X2.16X3.68	1	J bend	
Comment	Package: SMB CLIP (SOD 6 NEW)			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	false
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)	true
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
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

QueryList : REACH-15th June 2015				
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	HNZJ*E47R81G					
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	1.465	mg	supplier	die	Silicon (Si)	7440-21-3		1.279	mg	873038	13051
				supplier	metallization	Aluminium (Al)	7429-90-5		0.147	mg	100341	1500
				supplier	Passivation	Silicon Oxide	7631-86-9		0.012	mg	8191	122
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	683	10
				supplier	back side metallization	Gold (Au)	7440-57-5		0.002	mg	1365	20
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.009	mg	6143	92
				supplier	polymer die coating	Probimide	proprietary		0.015	mg	10239	153
				Supplier	Alloy	Copper (Cu)	7440-50-8		40.566	mg	999507	413939
Leadframe + Clip	Copper and its alloy	40.586	mg	Supplier	Alloy	Zinc (Zn)	7440-66-6		0.002	mg	49	20
				Supplier	Alloy	Iron (Fe)	7439-89-6		0.004	mg	99	41
				Supplier	Alloy	Iron Phosphide(FeP)	26508-33-8		0.014	mg	345	143
				Supplier	soft solder	Silver (Ag)	7440-22-4		0.058	mg	25152	592
Die attach	Other organic material	2.306	mg	Supplier	soft solder	Tin (Sn)	7440-31-5		0.115	mg	49870	1173
				JIG R	soft solder	Lead (Pb)	7439-92-1	7a-Lead in high me	2.133	mg	924978	21765
				Supplier	Molding Compound	silica fused	7631-86-9		39.004	mg	739973	398000
Encapsulation	Other organic material	52.710	mg	Supplier	Molding Compound	silica quartz	14808-60-7		10.542	mg	200000	107571
				Supplier	Molding Compound	phenolic resin	9003-35-4		2.636	mg	50009	26898
				Supplier	Molding Compound	carbon black	1333-86-4		0.528	mg	10017	5388
				Supplier	connection coating	Tin (Sn)	7440-31-5		0.933	mg	1000000	9520
Finishing	Other inorganic material	0.933	mg	Supplier	connection coating	Tin (Sn)	7440-31-5		0.933	mg	1000000	9520