




Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D * : Required Field

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2013-02-11
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	
	<p>While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. STMicroelectronics disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. ST shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.</p>
Legal Statement	
Supplier Acceptance *	true
	Legal Declaration * Standard
Legal Statement	<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
STPS30100ST	HSDZ*Z16M01V	A	SH1A	2013-02-11
	Amount	UoM	Unit type	ST ECOPACK Grade
	1900.00	mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
NAC	NAC	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	
SIP	10.20,15.50,4.5	3	Through-hole	
Comment	TO 220 AB NON ISOL			

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 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	HSD2*Z16M01V					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
die (s)	Other inorganic materials	12.211	mg	supplier	die	Silicon (Si)	7440-21-3		11.601	mg	950045	6106
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.481	mg	39391	253
die (s)				supplier	metallization	Titanium (Ti)	7440-32-6		0.011	mg	901	6
die (s)				supplier	metallization	Tungsten (W)	7440-33-7		0.017	mg	1392	9
die (s)				supplier	metallization	Nickel (Ni)	7440-02-0		0.013	mg	1065	7
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.071	mg	5814	37
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.017	mg	1392	9
Leadframe	Copper & its alloys	645.973	mg	supplier	alloy	Copper (Cu)	7440-50-8		642.316	mg	994339	338061
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.296	mg	458	156
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.54	mg	836	284
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		2.804	mg	4341	1476
Leadframe				supplier	metallization	Phosphorus (P)	12185-10-3		0.017	mg	26	9
Soft solder	Solder	8.234	mg	JIG R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	7.863	mg	954943	4138
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		0.206	mg	25018	108
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.165	mg	20039	87
Bonding wire				supplier	wire	Aluminium (Al)	7429-90-5		9.85	mg	1000000	5184
encapsulation	Other Organic Materials	1217.37	mg	supplier	mold compound	Silica, vitreous	60676-86-0		1059.112	mg	870000	557427
encapsulation				supplier	mold compound	Epoxy resin	Proprietary		121.737	mg	100000	64072
encapsulation				supplier	mold compound	Phenol resin	Proprietary		30.434	mg	25000	16018
encapsulation				supplier	mold compound	Carbon Black	1333-86-4		6.087	mg	5000	3204
connections coating	Solder	6.362	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.362	mg	1000000	3348