




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 *	2016-08-11
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Giovanni Giacopello	Representative Title	ADG 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/support.html		

Uncertainty Statement			
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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
STTH1512PI	H8UN*I81R01G	A	Z45A	2016-08-11
	Amount	UoM	Unit type	ST ECOPACK Grade
	4280.00	mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
Not Applicable	Not Applicable	Not Applicable		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	15.30 - 12.8 - 4.5	2	Through-hole	
Comment	Package: DOP 3 ISOL			

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-20th June 2016				
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	HBUN*181R01G					
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	13.207	mg	supplier	die	Silicon (Si)	7440-21-3		12.079	mg	914591	2822
				supplier	metallization	Aluminium (Al)	7429-90-5		0.972	mg	73597	227
				supplier	Passivation	Silicon Oxide	7631-86-9		0.082	mg	6209	19
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.004	mg	303	1
				supplier	back side metallization	Gold (Au)	7440-57-5		0.012	mg	902	3
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.058	mg	4392	14
Leadframe	Copper & its alloys	673.306	mg	supplier	frame alloy	Copper (Cu)	7440-50-8		672.430	mg	998699	157110
				supplier	frame alloy	Iron(Fe)	7439-89-6		0.674	mg	1000	157
				supplier	frame coating	Phosphorus (P)	12185-10-3		0.202	mg	300	47
Heatsink	Copper & its alloys	2380.136	mg	supplier	frame alloy	Copper (Cu)	7440-50-8		2377.040	mg	998699	555383
				supplier	frame alloy	Iron(Fe)	7439-89-6		2.381	mg	1001	556
				supplier	frame coating	Phosphorus (P)	12185-10-3		0.715	mg	300	167
Ceramic	Ceramics / Glass	19.803	mg	supplier	Ceramic	Ceramic	proprietary		19.803	mg	1000000	4627
Die attach	Other Organic Materials	74.656	mg	supplier	soft solder	Lead(Pb)	7439-92-1	7a-Lead in high me	69.804	mg	935009	16309
				supplier	soft solder	Silver(Ag)	7440-22-4		1.119	mg	14989	261
				supplier	soft solder	Tin(Sn)	7440-31-5		3.733	mg	50003	872
Bonding wire	Aluminum & its alloys	21.783	mg	supplier	Bonding wire	Aluminium (Al)	7429-90-5		21.783	mg	1000000	5089
Encapsulation	Other Organic materials	1069.365	mg	supplier	Molding Compound	Silica, vitreous	60676-86-0		812.717	mg	760000	189887
				supplier	Molding Compound	Phenol resin	9003-35-4		64.162	mg	60000	14991
				supplier	Molding Compound	Carbon black	1333-86-4		8.555	mg	8000	1999
				supplier	Molding Compound	Epoxy Cresol Novolak	29690-82-2		109.075	mg	102000	25485
				supplier	Molding Compound	Metal hydroxide	21645-51-2		21.387	mg	20000	4997
				supplier	Molding Compound	Others	Proprietary		53.469	mg	50001	12493
Finishing	Other inorganic materials	27.744	mg	supplier	Connection coating	Tin(Sn)	7440-31-5		27.744	mg	1000000	6482