



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 *	2015-11-16
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Rossana Bonaccorso	Representative Title	IPD 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

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
STH12N120K5-2	T1(9*VJNLB52	A	SHENZHEN B/E	2015-11-16
	Amount	UoM	Unit type	ST ECOPACK Grade
	1380.00	mg	Each	ECOPACK1

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
1	245	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	10.2, 7.2, 4.5	3	GULL WING	
Comment	H2PAK HC 2-3 Leads			

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	TI(9)*VJNLB52					
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	23.440	mg	supplier	die	Silicon (Si)	7440-21-3		22.469	mg	958575	16282
				supplier	metallization	Aluminium (Al)	7429-90-5		0.418	mg	17833	303
				supplier	Passivation	Silicon Nitride	12033-89-5		0.096	mg	4096	70
				supplier	Passivation	Silicon Oxide	7631-86-9		0.239	mg	10196	173
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.011	mg	469	8
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.153	mg	6527	111
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.054	mg	2304	39
				supplier	alloy	Copper (Cu)	7440-50-8		843.710	mg	991899	611384
Leadframe	Copper & its alloys	850.601	mg	supplier	alloy	CopperPhosphorous (CuP)	12517-41-8		1.696	mg	1994	1229
				supplier	alloy	Cobalt (Co)	7440-48-4		2.374	mg	2791	1720
				supplier	metallization	Nickel (Ni)	7440-02-0		2.804	mg	3296	2032
				supplier	metallization	Phosphorus (P)	12185-10-3		0.017	mg	20	12
				supplier	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	19.625	mg	954988	14221
Soft solder	Solder	20.550	mg	JIG - R	solder	Silver (Ag)	7440-22-4		0.514	mg	25012	372
				supplier	solder	Tin (Sn)	7440-31-5		0.411	mg	20000	298
				supplier	solder	Aluminium (Al)	7429-90-5		0.153	mg	993506	111
Bonding wires	Other inorganic materials	0.154	mg	supplier	wire	Magnesium (Mg)	7439-95-4		0.001	mg	6494	1
				supplier	wire	Aluminium (Al)	7429-90-5		0.153	mg	993506	111
Encapsulation	Other Organic Materials	481.521	mg	supplier	mold compound	Silica, vitreous	60676-86-0		388.106	mg	806000	281236
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		33.706	mg	69999	24425
				supplier	mold compound	Phenol resin	9003-35-4		19.261	mg	40000	13957
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		28.891	mg	59999	20936
				supplier	mold compound	Antimony Trioxide	1309-64-4		5.778	mg	11999	4187
				supplier	mold compound	Brominated Epoxy Resin	40039-93-8		3.371	mg	7001	2443
				supplier	mold compound	Carbon black	1333-86-4		2.408	mg	5001	1745
Connections coating	Solder	3.734	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		3.734	mg	1000000	2706