



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 *	2016-12-15
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


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.

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
STF7N105K5	TSFP*VJS3652	A	3068	2016-12-15
	Amount	UoM	Unit type	ST ECOPACK Grade
	1900.00	mg	Each	ECOPACK2

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

Package Designator	Size	Nbr of instances	Shape	
SIP	10.2-16.15-4.5	3	Through-hole	
Comment	TO 220 ISO FULL PACK IN LINE			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015	
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
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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	TSFP*VIS3652					
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	7.935	mg	supplier	die	Silicon (Si)	7440-21-3		7.556	mg	952237	3977
				supplier	metallization	Aluminium (Al)	7429-90-5		0.141	mg	17769	74
				supplier	metallization	Copper (Cu)	7440-50-8		0.052	mg	6553	27
				supplier	Passivation	Silicon Nitride	12033-89-5		0.032	mg	4033	17
				supplier	Passivation	Silicon Oxide	7631-86-9		0.080	mg	10082	42
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.004	mg	505	2
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.052	mg	6553	27
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.018	mg	2268	9
				supplier	alloy	Copper (Cu)	7440-50-8		604.469	mg	997498	318142
Leadframe	Copper & its alloys	605.985	mg	supplier	alloy	Iron (Fe)	7439-89-6		0.605	mg	998	318
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.182	mg	300	96
				supplier	metallization	Nickel (Ni)	7440-02-0		0.674	mg	1112	355
				supplier	metallization	Phosphorus (P)	12185-10-3		0.055	mg	92	29
Soft solder	Solder	7.219	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	6.894	mg	954980	3628
				supplier	solder	Silver (Ag)	7440-22-4		0.181	mg	25073	98
				supplier	solder	Tin (Sn)	7440-31-5		0.144	mg	19947	76
Bonding wires	Other inorganic materials	0.932	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.928	mg	995708	488
				supplier	wire	Magnesium (Mg)	7439-95-4		0.004	mg	4292	2
Encapsulation	Other Organic Materials	1272.063	mg	supplier	mold compound	Quartz	14808-60-7		890.444	mg	700000	468655
				supplier	mold compound	Silica, vitreous	60676-86-0		95.405	mg	75000	50213
				supplier	mold compound	Epoxy resin	25068-38-6		178.089	mg	140000	93731
				supplier	mold compound	phenol resin	29690-82-2		89.044	mg	70000	46865
				supplier	mold compound	metal hydroxide	21645-51-2		12.721	mg	10000	6695
				supplier	mold compound	carbon black	1333-86-4		6.360	mg	5000	3347
Connections coating	Solder	5.866	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		5.866	mg	1000000	3087