



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 *	2017-01-27
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Rossana Bonaccorso	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			
<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
STF18N60DM2	TSFP*FQ6GB62	A	3068	2017-01-27
	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		
NA	NA	NA		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NA	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*FQ6G862					
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	8.507	mg	supplier	die	Silicon (Si)	7440-21-3		8.169	mg	960268	4299
				supplier	metallization	Aluminium (Al)	7429-90-5		0.162	mg	19043	85
				supplier	Passivation	Silicon Nitride	12033-89-5		0.039	mg	4585	21
				supplier	Passivation	Silicon Oxide	7631-86-9		0.057	mg	6700	30
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.004	mg	470	2
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.056	mg	6583	29
Leadframe	Copper & its alloys	605.984	mg	supplier	back side metallization	Silver (Ag)	7440-22-4		0.020	mg	2351	11
				supplier	alloy	Copper (Cu)	7440-50-8		604.468	mg	997498	318141
				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	1113	355
Soft solder	Solder	7.769	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	7.420	mg	955078	3905
				supplier	solder	Silver (Ag)	7440-22-4		0.194	mg	24971	103
				supplier	solder	Tin (Sn)	7440-31-5		0.155	mg	19951	82
				supplier	metallization	Phosphorus (P)	12185-10-3		0.055	mg	91	29
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
				supplier	mold compound	Quartz	14808-60-7		889.659	mg	700000	468242
Encapsulation	Other Organic Materials	1270.942	mg	supplier	mold compound	Silica, vitreous	60676-86-0		95.321	mg	75000	50169
				supplier	mold compound	Epoxy resin	25068-38-6		177.932	mg	140000	93648
				supplier	mold compound	phenol resin	29690-82-2		88.966	mg	70000	46824
				supplier	mold compound	metal hydroxide	21645-51-2		12.709	mg	10000	6689
				supplier	mold compound	carbon black	1333-86-4		6.355	mg	5000	3345
Connections coating	Solder	5.866	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		5.866	mg	1000000	3087