



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 *	2017-01-10
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

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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
STD5N60DM2	TODP*FQ6QB6F	A	998G	2017-01-10
	Amount	UoM	Unit type	ST ECOPACK Grade
	330.00	mg	Each	ECOPACK2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Tin (Sn), matte	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
SIP	6.5-6.1-2.3	3	GULL WING	
Comment	TO 252 DPAK			

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	TODP*FQ6QB6F					
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	2.063	mg	supplier	die	Silicon (Si)	7440-21-3		1.950	mg	945225	5909
				supplier	metallization	Aluminium (Al)	7429-90-5		0.054	mg	26175	164
				supplier	Passivation	Silicon Nitride	12033-89-5		0.013	mg	6302	39
				supplier	Passivation	Silicon Oxide	7631-86-9		0.019	mg	9210	58
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	485	3
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.019	mg	9210	58
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.007	mg	3393	21
Leadframe	Copper & its alloys	166.051	mg	supplier	alloy	Copper (Cu)	7440-50-8		164.152	mg	988564	497430
				supplier	alloy	CopperPhosphorous (CuP)	12517-41-8		0.330	mg	1987	1000
				supplier	alloy	Cobalt (Co)	7440-48-4		0.462	mg	2782	1400
				supplier	metallization	Nickel (Ni)	7440-02-0		1.107	mg	6667	3355
Soft solder	Solder	2.641	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	2.469	mg	934873	7482
				supplier	solder	Tin (Sn)	7440-31-5		0.132	mg	49981	400
				supplier	solder	Silver (Ag)	7440-22-4		0.040	mg	15146	121
Bonding wires	Other inorganic materials	0.185		supplier	wire	Aluminium (Al)	7429-90-5		0.185	mg	1000000	561
Encapsulation	Other Organic Materials	158.015	mg	supplier	mold compound	Silica Fused	60676-86-0		120.091	mg	759997	363912
				supplier	mold compound	Silica amorphous	7631-86-9		11.219	mg	71000	33995
				supplier	mold compound	Epoxy resin.	25068-38-6		15.802	mg	100003	47885
				supplier	mold compound	Phenolic Resin	29690-82-2		6.321	mg	40003	19155
				supplier	mold compound	Flame Retardant	Proprietary		3.160	mg	19998	9576
				supplier	mold compound	Carbon Black	1333-86-4		1.422	mg	8999	4309
Connections coating	Solder	1.045	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.045	mg	1000000	3167