



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 *	2015-07-14
Contact Name *	Refer to "Supplier Comment" section	Contact Title	Refer to "Supplier Comment" section
Contact Phone *	Refer to "Supplier Comment" section	Contact Email *	Refer to "Supplier Comment" section
Authorized Representative *	Giovanni Giacobello	Representative Title	IPD Materials Declaration 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/internet/com/support/online_tech_support.jsp		

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
	GRSX*EZ6PB6V	A	Z4XA	2015-07-14
Amount	UoM	Unit type	ST ECOPACK Grade	
215.00	mg	Each	ECOPACK® 2	

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	
Not Applicable ; if coating is used c	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DIP	4.6 - 4.6 - 3.5	3	Through-hole	
Comment	Package: TO 92; MDF valid for STQ1NK60ZR-AP			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	true
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
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	false
Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Product(s) is obsolete, no information is available	false
Product(s) is unknown, no information is available	false
Exemption Id.	Description

QueryList : REACH-17th December 2014				
Query				Response
The product 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	GRSX*EZ6PB6V					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Silicon Die	Other inorganic materials	1.398	mg	supplier	die	Silicon (Si)	7440-21-3		1.347	mg	965020	14628
Silicon Die				supplier	metallization	Aluminium (Al)	7429-90-5		0.018	mg	13501	205
Silicon Die				supplier	Passivation	Silicon Nitride	12033-89-5		0.006	mg	4603	70
Die Attach				supplier	Passivation	Silicon Oxide	7631-86-9		0.014	mg	7364	112
Die Attach				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	614	9
Silicon Die				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.009	mg	6444	98
Silicon Die				supplier	back side metallization	Silver (Ag)	7440-22-4		0.003	mg	2455	37
Lead-frame	Other inorganic materials	97.119	mg	supplier	alloy	Copper(Cu)	7440-50-8		97.08	mg	999602	467660
Lead-frame				supplier	alloy	Iron(Fe)	7439-89-6		0.01	mg	99	47
Lead-frame				supplier	alloy	Phosphorus(P)	12185-10-3		0.029	mg	298	140
Die Attach	Other inorganic materials	0.166	mg	supplier	glue or tape	Silver(Ag)	7440-22-4		0.118	mg	719298	572
Die Attach				supplier	glue or tape	Bisphenol F type epoxy resin resin	9003-36-5		0.034	mg	198830	158
Die Attach				supplier	glue or tape	Phenol derivative	Proprietary		0.007	mg	40936	33
Die Attach				supplier	glue or tape	Di propylene glycol mono methyl etherthocym	34590-94-8		0.007	mg	40936	33
Bonding wire	Other inorganic materials	1.02	mg	supplier	wire	Copper(Cu)	7440-50-8		1.02	mg	1000000	4916
Encapsulation	Other inorganic materials	113.187	mg	supplier	mold compound	Silicone dioxide (Fused Silica)	60676-86-0		86.021	mg	759996	414381
Encapsulation				supplier	mold compound	Phenol Novolac resin	9003-35-4		6.792	mg	60003	32716
Encapsulation				supplier	mold compound	Carbon black	1333-86-4		1.131	mg	9998	5451
Encapsulation				supplier	mold compound	Ortho Cresol Novolac Epoxy resin	29690-82-2		11.32	mg	100003	54526
Encapsulation				supplier	mold compound	Diglycidyl Ether of Bisphenol-A	25036-25-3		7.923	mg	70001	38167
connections coating	Solder	2.11	mg	supplier	solder alloy	Tin(Sn)	7440-31-5		2.11	mg	1000000	10163