



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 *	2017-06-20
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 *	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
SPC58EC80E5QMC0Y	B9X6*FC80ABQ	A	MA1A	2017-06-20
	Amount	UoM	Unit type	ST ECOPACK Grade
	1020.00	mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	20x20x1	144	flat	
Comment	TQFP 144 20x20x1.0 1.0 ExpadDown			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015	
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-12th January 2017				
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	B9X6*FC80ABQ									
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	31.210	mg	supplier	die	Silicon (Si)	7440-21-3		28.442	mg	911310	27884				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.123	mg	3941	121				
				supplier	metallization	Copper (Cu)	7440-50-8		0.385	mg	12336	377				
				supplier	metallization	Tantalum (Ta)	7440-25-7		1.619	mg	51874	1587				
				supplier	metallization	Titanium (Ti)	7440-32-6		0.011	mg	352	11				
				supplier	metallization	Tungsten (W)	7440-33-7		0.002	mg	64	2				
				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.176	mg	5639	173				
				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.452	mg	14483	443				
				Leadframe	Copper & its alloys	360.422	mg	supplier	alloy	Copper (Cu)	7440-50-8		348.378	mg	966584	341547
								supplier	alloy	Iron (Fe)	7439-89-6		8.194	mg	22734	8033
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.493	mg	1368	483				
supplier	alloy	Zinc (Zn)	7440-66-6						0.429	mg	1190	421				
supplier	metallization	Nickel (Ni)	7440-02-0						2.684	mg	7447	2631				
supplier	metallization	Palladium (Pd)	7440-05-3						0.172	mg	477	168				
supplier	metallization	Gold (Au)	7440-57-5						0.072	mg	200	71				
Die attach	Other inorganic materials	12.660	mg					supplier	glue	Copper (Cu)	7440-50-8		12.338	mg	974566	12096
				supplier	glue	Iron (Fe)	7439-89-6		0.290	mg	22907	284				
				supplier	glue	Zinc (Zn)	7440-66-6		0.015	mg	1185	15				
				supplier	glue	Iron Phosphide (Fe2P)	1310-43-6		0.017	mg	1343	17				
				supplier	wire	Copper (Cu)	7440-50-8		1.848	mg	1000000	1812				
Bonding wire	Other inorganic materials	1.848	mg	supplier	wire	Copper (Cu)	7440-50-8		1.848	mg	1000000	1812				
				Encapsulation	Other Organic Materials	613.860	mg	supplier	mold compound	Epoxy Resin	85954-11-6		49.109	mg	80000	48146
								supplier	mold compound	Phenol Resin	26834-02-6		24.554	mg	39999	24073
								supplier	mold compound	Silica, vitreous	60676-86-0		534.673	mg	871002	524189
								supplier	mold compound	Carbon black	1333-86-4		3.069	mg	5000	3009
supplier	mold compound	Bismuth (Bi)	7440-69-9		2.455	mg	3999	2407								