



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 *	2017-07-31
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

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
SPC58EG80E5P0H0Y	B9X6*FH84BBQ	A	MA1A	2017-07-31
Amount		UoM	Unit type	ST ECOPACK Grade
1120.00		mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
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	Package: 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*FH848BQ					
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	56.291	mg	supplier	die	Silicon (Si)	7440-21-3		49.410	mg	877760	44116
				supplier	metallization	Aluminium (Al)	7429-90-5		0.214	mg	3802	191
				supplier	metallization	Copper (Cu)	7440-50-8		0.669	mg	11885	597
				supplier	metallization	Tantalum (Ta)	7440-25-7		4.886	mg	86799	4363
				supplier	metallization	Titanium (Ti)	7440-32-6		0.019	mg	338	17
				supplier	metallization	Tungsten (W)	7440-33-7		0.003	mg	53	3
				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.785	mg	13945	701
				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.305	mg	5418	272
				Leadframe	Copper & its alloys	349.614	mg	supplier	alloy	Copper (Cu)	7440-50-8	
supplier	alloy	Iron (Fe)	7439-89-6						7.946	mg	22728	7095
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.478	mg	1367	427
supplier	alloy	Zinc (Zn)	7440-66-6						0.416	mg	1190	371
supplier	metallization	Nickel (Ni)	7440-02-0						2.684	mg	7677	2396
supplier	metallization	Palladium (Pd)	7440-05-3						0.172	mg	492	154
supplier	metallization	Gold (Au)	7440-57-5						0.072	mg	206	64
supplier	glue or tape	Copper (Cu)	7440-50-8						19.770	mg	974516	17652
Die attach	Other organic materials	20.287	mg	supplier	glue or tape	Iron (Fe)	7439-89-6		0.465	mg	22921	415
				supplier	glue or tape	Zinc (Zn)	7440-66-6		0.024	mg	1183	21
				supplier	glue or tape	Iron Phosphide (Fe2P)	1310-43-6		0.028	mg	1380	25
				supplier	wire	Copper (Cu)	7440-50-8		1.848	mg	1000000	1650
				supplier	mold compound	Epoxy Resin	85954-11-6		55.357	mg	80000	49426
Bonding wire	Other inorganic materials	1.848	mg	supplier	mold compound	Phenol Resin	26834-02-6		27.678	mg	40000	24713
				supplier	mold compound	Silica, vitreous	60676-86-0		602.697	mg	871000	538122
				supplier	mold compound	Carbon black	1333-86-4		3.460	mg	5000	3090
				supplier	mold compound	Bismuth (Bi)	7440-69-9		2.768	mg	4000	2471