



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 *	2014-11-19
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 *	Emilio Castelli	Representative Title	APG 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
L9658	D55W*UT48CB1	A	MU1A	2014-11-19
Amount	UoM	Unit type	ST ECOPACK Grade	
349.70	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	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	10x10x1.4	64	flat	
Comment				

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-16th June 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	D55W*UT48CB1					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die or Dies (choose)	Other inorganic materials	31.170	mg	supplier	die	Silicon (Si)	7440-21-3		29.486	mg	945974	84318
Die or Dies (choose)				supplier	metallization	Aluminum (Al)	7429-90-5		0.194	mg	6224	555
Die or Dies (choose)				supplier	metallization	Tungsten (W)	7440-33-7		0.307	mg	9849	878
Die or Dies (choose)				supplier	passivation	Silicon Nitride (SiN)	12033-89-5		0.047	mg	1508	134
Die or Dies (choose)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.454	mg	14565	1298
Die or Dies (choose)				supplier	glass coating	Glass: Silicon Dioxide (SiO2)	7631-86-9		0.454	mg	14565	1298
Die or Dies (choose)				supplier	polymer die coating	PIXI Gamma-butyrolactone	96-48-0		0.228	mg	7315	652
Leadframe	Copper & its alloys	108.718	mg	supplier	alloy	Copper (Cu)	7440-50-8		101.401	mg	932697	289966
Leadframe				supplier	alloy	Nickel (Ni)	7440-02-0		3.162	mg	29084	9042
Leadframe				supplier	alloy	Magnesium (Mg)	7439-95-4		0.158	mg	1453	452
Leadframe				supplier	alloy	Silicon (Si)	7440-21-3		0.685	mg	6301	1959
Leadframe				supplier	metallization	Silver (Ag)	7440-22-4		3.312	mg	30464	9471
Die attach		6.168	mg	supplier	glue or tape (choose)	Isobornyl Methacrylate	7534-94-3		0.339	mg	54961	969
Die attach				#N/A	glue or tape	Bismaleimide resin	na		0.247	mg	40045	706
Die attach				supplier	glue or tape	Silver (Ag)	7440-22-4		5.582	mg	904994	15962
Bonding wire		1.461		supplier	wire	Gold (Au)	7440-57-5		1.447	mg	990418	4138
Bonding wire				supplier	wire	Copper (Cu)	7440-50-8		0.009	mg	6160	26
Bonding wire				supplier	wire	Palladium (Pd)	7440-05-3		0.004	mg	2738	11
Bonding wire				supplier	wire	Platinum (Pt)	7440-06-4		0.001	mg	684	3
encapsulation		198.290	mg	#N/A	mold compound	Solid Epoxy Resin	na		15.253	mg	76923	43617
encapsulation				#N/A	mold compound	Phenol Resin	na		15.253	mg	76923	43617
encapsulation				supplier	mold compound	Silica, vitreous	60676-86-0		166.068	mg	837501	474887
encapsulation				supplier	mold compound	Carbon-black	1333-86-4		0.953	mg	4806	2725
encapsulation				supplier	mold compound	Bismuth (Bi)	7440-69-9		0.763	mg	3848	2182
connections coating	Solder	3.679	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		3.679	mg	1000000	10520