



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D *: Required Field

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2013-05-13
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 *	Antonella Lanzafame	Representative Title	AMS & 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
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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
STL21N65M5	T8CH*MSF555Y	A	SA1A	2013-05-13
Amount		UoM	Unit type	ST ECOPACK Grade
180.00		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	
Not Applicable ; if coating is used o	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SOT	8.0,8.0,0.8	4	flat	
Comment	AOCH Power Flat MLPD 8x8 4L			

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-19 DEc 2012				
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	T8CH*MSF55SY					
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	8.532	mg	supplier	Silicon Die	Silicon (Si)	7440-21-3		8.29	mg	971636	46056
Silicon Die				supplier	metallization	Aluminium (Al)	7429-90-5		0.14	mg	16409	778
Silicon Die				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.005	mg	586	28
Silicon Die				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.072	mg	8439	400
Silicon Die				supplier	back side metallization	Silver (Ag)	7440-22-4		0.025	mg	2930	139
Lead-frame	Copper & its alloys	82.788	mg	supplier	alloy	Copper	7440-50-8		79.966	mg	965913	444256
Lead-frame				supplier	alloy	Iron	7439-89-6		1.867	mg	22552	10372
Lead-frame				supplier	alloy	Phosphorus	7723-14-0		0.02	mg	242	111
Lead-frame				supplier	alloy	Zinc	7440-66-6		0.105	mg	1268	583
Lead-frame				supplier	alloy	Silver	7440-22-4		0.828	mg	10001	4600
Lead-frame				supplier	alloy	Lead	7439-92-1		0.002	mg	24	11
Die attach	Solder	1.299	mg	supplier	glue or tape	Silver	7440-22-4		1.039	mg	799846	5772
Die attach				supplier	glue or tape	Proprietary Acrylates (max 5%)	Proprietary		0.026	mg	20015	144
Die attach				supplier	glue or tape	Proprietary Bismaleimide (max 15%)	Proprietary		0.13	mg	100077	722
Die attach				supplier	glue or tape	Methacrylate Ester (max 15%)	Proprietary		0.039	mg	30023	217
Die attach				supplier	glue or tape	Proprietary Polymer (max 5%)	Proprietary		0.065	mg	50038	361
Bonding wire	Other inorganic materials	0.999	mg	supplier	wire	Gold (Au)	7440-57-5		0.999	mg	1000000	5550
Encapsulation	Other Organic Materials	81.588	mg	supplier	mold compound	Silica Fused (85~95%)	60676-86-0		76.447	mg	936988	424706
Encapsulation				supplier	mold compound	Epoxy Resin (1~5%)	Proprietary		2.448	mg	30004	13600
Encapsulation				supplier	mold compound	Phenol resin	Proprietary		2.448	mg	30004	13600
Encapsulation				supplier	mold compound	Carbon Black	1333-86-4		0.245	mg	3003	1361
Finishing	Solder	4.794	mg	supplier	solder alloy	Sn	7440-31-5		4.794	mg	1000000	26633