



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 *	2013-03-21
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/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
TDA7851F	N84W*UK20AE6	A	SH1A	2013-03-21
	Amount	UoM	Unit type	ST ECOPACK Grade
	7099.40	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	bright, annealed Tin/Silver/Bismuth	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
CHP	29.23x15.7x4.5	25	flat	
Comment				

Material Composition Declaration						Mfr Item Name	N84W*UK20AE6					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
die (s)	Other inorganic materials	21.354	mg	supplier	die	Silicon (Si)	7440-21-3		20.496	mg	959820	2887
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.135	mg	6322	19
die (s)				supplier	metallization	Tungsten (W)	7440-33-7		0.214	mg	10022	30
die (s)				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.033	mg	1545	5
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.316	mg	14798	45
die (s)				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.012	mg	562	2
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.031	mg	1452	4
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.104	mg	4870	15
die (s)				supplier	glass coating	Glass: Silicon Dioxide (SiO2)	7631-86-9		0.013	mg	609	2
Leadframe	Copper & Its alloys	5221.749	mg	supplier	alloy	Copper (Cu)	7440-50-8		5213.632	mg	998446	734376
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		2.401	mg	460	338
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		4.385	mg	840	618
Leadframe				supplier	metallization	Silver (Ag)	7440-22-4		1.331	mg	255	187
Die attach		12.423	mg	JIG Table A	glue or tape	Lead (Pb)	7439-92-1	7a-Lead in high me	12.113	mg	975046	1706
Die attach				supplier	glue or tape	Silver (Ag)	7440-22-4		0.186	mg	14972	26
Die attach				supplier	glue or tape	Tin (Sn)	7440-31-5		0.124	mg	9981	17
Bonding wire				supplier	wire	Copper (Cu)	7440-50-8		4.493	mg	1000000	633
encapsulation		1813.979	mg	supplier	mold compound	Amorphous Silica	7631-86-9		1541.883	mg	850000	217185
encapsulation				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		108.838	mg	60000	15331
encapsulation				supplier	mold compound	epoxy resin	na		72.559	mg	40000	10220
encapsulation				supplier	mold compound	Phenol resin	na		72.559	mg	40000	10220
encapsulation				supplier	mold compound	Carbon black	1333-86-4		12.698	mg	7000	1789
encapsulation				JIG table B	mold compound	Bismuth (Bi)	7440-69-9		5.442	mg	3000	767
connections coating	Solder	25.4	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		25.4	mg	1000000	2578