



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 *	2013-10-24
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 *	Andrea Casali	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/online_tech_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
VNP10N07-E	TUDZ*VN39BYX	B	SH1A	2013-10-24
Amount	UoM	Unit type	ST ECOPACK Grade	
1908.70	mg	Each	ECOPACK® 1	

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	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
CHP	10.2x9.1x4.5	3	Through-hole	
Comment				

Material Composition Declaration						Mfr Item Name	TUDZ*VN39BYX					
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	9.615	mg	supplier	die	Silicon (Si)	7440-21-3		9.404	mg	978055	4927
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.044	mg	4576	23
die (s)				supplier	metallization	Copper (Cu)	7440-50-8		0.044	mg	4576	23
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.027	mg	2808	14
die (s)				supplier	passivation	Indium Tin oxide (In2O3.SnO2)	50926-11-9		0.041	mg	4264	21
die (s)				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.003	mg	312	2
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.009	mg	936	5
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.043	mg	4472	23
Leadframe	Copper & its alloys	869.070	mg	supplier	alloy	Copper (Cu)	7440-50-8		860.362	mg	989980	450758
Leadframe				supplier	alloy	CopperPhosphorous (CuP)	12517-41-8		1.729	mg	1989	906
Leadframe				supplier	alloy	Cobalt (Co)	7440-48-4		2.421	mg	2786	1268
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		4.216	mg	4851	2209
Leadframe				supplier	metallization	Phosphorus (P)	12185-10-3		0.342	mg	393	179
Die attach		6.729	mg	JIG R	glue or tape	Lead (Pb)	7439-92-1	7a-Lead in high me	6.426	mg	954971	3367
Die attach				supplier	glue or tape	Silver (Ag)	7440-22-4		0.168	mg	24967	88
Die attach				supplier	glue or tape	Tin (Sn)	7440-31-5		0.135	mg	20062	71
Bonding wire				supplier	wire	Aluminium (Al)	7429-90-5		0.706	mg	998586	370
Bonding wire				supplier	wire	Magnesium (Mg)	7439-95-4		0.001	mg	1414	1
encapsulation		1015.686	mg	supplier	mold compound	Silica vitreous	60676-86-0		792.235	mg	780000	415065
encapsulation				supplier	mold compound	Bisphenol F type epoxy resin	9003-36-5		96.490	mg	95000	50553
encapsulation				supplier	mold compound	Phenol resin	9003-35-4		91.412	mg	90000	47892
encapsulation				supplier	mold compound	Antimony Trioxide	1309-64-4		17.267	mg	17000	9046
encapsulation				JIG I	mold compound	Brominated flame retardant	Proprietary		15.235	mg	15000	7982
encapsulation				supplier	mold compound	Carbon Black	1333-86-4		3.047	mg	3000	1596
connections coating	Solder	11.452	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		11.452	mg	1000000	6000