



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 *	2018-09-27
Company Unique ID	NL 008751171B01		
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section	Contact Email *	Refer to Supplier Comment section
Authorized Representative *	Floriana SAN BIAGIO	Representative Title	AMS 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


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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
	A50T*VP03DA6	A	BO2A	2018-09-27
	Amount	UoM	Unit type	ST ECOPACK Grade
	113	mg	Each	ECOPACK® 1
Comment	ECOPACK® or ECOPACK® 1 is STMicroelectronics trade name for ROHS compliant devices			

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	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
CHP	3.9x4.9x1.35	12	flat	
Comment	0T POWERSO-12; MDF valid for VNI2140JTR			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-March 2015	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	FALSE
2 - 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
3 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	TRUE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE
Exemption Id.	Description
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

QueryList : REACH-27th June 2018				
Query				Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product
Lead	1000 ppm	4.12	die attach	36469
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Embedded article nor Homogeneous Material above the limits per the definition within REACH				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material
Lead	100 ppm	4.12	die attach	925028

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	A50T*VP03DA6			6000000.0	1000001.0	
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	M-011 Other inorganic materials	4.405	mg	supplier	die	Silicon (Si)	7440-21-3		4.059	mg	921453	35920
				supplier	metallization	Aluminium (Al)	7429-90-5		0.032	mg	7264	283
				supplier	metallization	Copper (Cu)	7440-50-8		0.043	mg	9762	381
				supplier	metallization	Titanium (Ti)	7440-32-6		0.135	mg	30647	1195
				supplier	Passivation	Silicon Nitride	12033-89-5		0.024	mg	5448	212
				supplier	Passivation	Silicon Oxide	7631-86-9		0.066	mg	14983	584
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.003	mg	681	27
				supplier	back side metallization	Gold (Au)	7440-57-5		0.008	mg	1816	71
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.035	mg	7946	310
Leadframe	M-004 Copper and its alloys	67.201	mg	supplier	alloy	Copper (Cu)	7440-50-8		66.381	mg	987798	587442
				supplier	alloy	Iron (Fe)	7439-89-6		0.031	mg	461	274
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.056	mg	833	496
				supplier	metallization	Silver (Ag)	7440-22-4		0.733	mg	10908	6487
Soft solder	Solder	4.455	mg	SVHC	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	4.121	mg	925028	36469
				supplier	solder	Tin (Sn)	7440-31-5		0.223	mg	50056	1973
				supplier	solder	Silver (Ag)	7440-22-4		0.111	mg	24916	982
Bonding wires	M-008 Precious metals	0.847	mg	supplier	wire	Gold (Au)	7440-57-5		0.847	mg	1000000	7496
				supplier	mold compound	Silica, vitreous	60676-86-0		28.904	mg	823007	255788
Encapsulation	M-015 Other organic materials	35.120	mg	supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		2.458	mg	69989	21752
				supplier	mold compound	Phenol resin	9003-35-4		1.405	mg	40006	12434
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		1.054	mg	30011	9327
				supplier	mold compound	Antimony Trioxide	1309-64-4		0.421	mg	11987	3726
				supplier	mold compound	Brominated Epoxy Resin	40039-93-8		0.702	mg	19989	6212
				supplier	mold compound	Carbon black	1333-86-4		0.176	mg	5011	1558
connections coating	Solder	0.972	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.972	mg	1000000	8602