



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 *	2016-08-26
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Giovanni Giacopello	Representative Title	ADG 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	<p>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.</p>		

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STPS160H100T	HMDW*Z53P11V	A	BO2A	2016-08-26
	Amount	UoM	Unit type	ST ECOPACK Grade
	27000.00	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	
NAC	Nickel (Ni)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
NAC	38 - 24 - 12	NAC	NAC	
Comment	Package: ISOT4D-DBC-RA-VIS			

QueryList : ROHS directive 2011/65/EU _ July 2011	
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
5 - Product(s) is obsolete, no information is available	false
6 - Product(s) is unknown, no information is available	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-20th June 2016				
Query				Response
1 - Product(s) 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	HMDW*Z53P11V					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Dies	Other inorganic materials	72.161	mg	supplier	die	Silicon (Si)	7440-21-3		68.408	mg	947991	2534
				supplier	metallization	Aluminium (Al)	7429-90-5		2.832	mg	39246	105
				supplier	metallization	Titanium (Ti)	7440-32-6		0.064	mg	887	2
				supplier	metallization	Tungsten (W)	7440-33-7		0.100	mg	1386	4
				supplier	metallization	Nickel (Ni)	7440-02-0		0.308	mg	4268	11
				supplier	Passivation	Silicon Oxide	7631-86-9		0.416	mg	5765	15
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.008	mg	111	0
				supplier	back side metallization	Gold (Au)	7440-57-5		0.025	mg	346	1
				Leadframe	Copper & its alloys	7927.468	mg	Supplier	alloy	Copper (Cu)	7440-50-8	
Supplier	alloy	Phosphorus (P)	12517-41-8						7.918	mg	999	293
Supplier	metallization	Nickel (Ni)	7440-02-0						8.320	mg	1050	308
Supplier	metallization	Phosphorus (P)	12185-10-3						0.637	mg	80	24
Soft solder	Solder	219.937	mg	R	Solder	Lead (Pb)	7439-92-1	7a-Lead in high me	205.641	mg	935000	7616
				Supplier	Solder	Silver (Ag)	7440-22-4		3.299	mg	15000	122
				Supplier	Solder	Tin (Sn)	7440-31-5		10.997	mg	50001	407
Insulator	Other inorganic materials	190.846	mg	Supplier	ceramic	Nickel (Ni)	7440-02-0		2.290	mg	11999	85
				Supplier	ceramic	Phosphorus (P)	12185-10-3		0.172	mg	901	6
				Supplier	ceramic	Manganese (Mn)	7439-96-5		7.443	mg	39000	276
				Supplier	ceramic	Titanium (Ti)	7440-32-6		0.782	mg	4098	29
				Supplier	ceramic	Molybdenum oxide	1313-27-5		9.542	mg	49998	353
Supplier	ceramic	Alumina (Al2O3)	1344-28-1		170.617	mg	894004	6319				
Screw	Other inorganic materials	7369.535	mg	Supplier	screw	Iron (Fe)	7439-89-6		7369.535	mg	1000000	272946
Nut	Other inorganic materials	1063.276	mg	Supplier	nut	Nickel (Ni)	7440-02-0		1063.276	mg	1000000	39381
Bonding wire	Other inorganic materials	2.450	mg	Supplier	wire	Aluminum(Al)	7429-90-5		2.450	mg	1000000	91
Connection isotop	Other inorganic materials	4605.493	mg	Supplier	connection	Copper (Cu)	7440-50-8		4604.393	mg	999761	170533
				Supplier	connection coating	Nickel (Ni)	7440-02-0		1.032	mg	224	38
				Supplier	connection coating	Phosphorus (P)	12185-10-3		0.068	mg	15	3
Encapsulation	Other inorganic materials	5441.090	mg	Supplier	Molding compound	Silica, vitreous	60676-86-0		4733.749	mg	870000	175324
				Supplier	Molding compound	Epoxy resin	Proprietary		544.109	mg	100000	20152
				Supplier	Molding compound	Phenol resin	Proprietary		136.027	mg	25000	5038
				Supplier	Molding compound	Carbon Black	1333-86-4		27.205	mg	5000	1008
Finishing	Other inorganic materials	107.744	mg	Supplier	connection coating	Nickel (Ni)	7440-02-0		107.744	mg	1000000	3991