



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 *	2015-07-20
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Rossana Bonaccorso	Representative Title	IPD 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		

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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
STPS20SM100ST	HTDZ*Z32M01V	A	SHENZHEN B/E	2015-07-20
	Amount	UoM	Unit type	ST ECOPACK Grade
	1900.00	mg	Each	ECOPACK2

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	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	10, 9.1, 4.5	3	THROUGH HOLE	
Comment	Package: TO 220 AB NON ISOL			

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-17th December 2014				
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	HTD2*Z32M01V					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die or Dies (choose)	Other inorganic materials	6.242	mg	supplier	die	Silicon (Si)	7440-21-3		5.871	mg	940573	3091
				supplier	metallization	Aluminium (Al)	7429-90-5		0.243	mg	38924	128
				supplier	metallization	Titanium (Ti)	7440-32-6		0.005	mg	801	3
				supplier	metallization	Tungsten (W)	7440-33-7		0.009	mg	1442	5
				supplier	metallization	Nickel (Ni)	7440-02-0		0.026	mg	4165	14
				supplier	Passivation	Silicon Oxide	7631-86-9		0.036	mg	5766	19
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.003	mg	481	2
				supplier	back side metallization	Gold (Au)	7440-57-5		0.009	mg	1442	5
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.040	mg	6407	21
				Leadframe	Copper & Its alloys	1259.453	mg	supplier	alloy	Copper (Cu)	7440-50-8	
supplier	alloy	Iron (Fe)	7439-89-6						1.253	mg	995	659
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.376	mg	299	198
supplier	metallization	Nickel (Ni)	7440-02-0						6.408	mg	5088	3373
supplier	metallization	Phosphorus (P)	12185-10-3						0.040	mg	32	21
Soft solder	Solder	5.679	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	5.423	mg	954922	2854
				supplier	solder	Silver (Ag)	7440-22-4		0.142	mg	25004	75
				supplier	solder	Tin (Sn)	7440-31-5		0.114	mg	20074	60
Bonding wires	Other inorganic materials	4.706	mg	supplier	wire	Aluminium (Al)	7429-90-5		4.706	mg	1000000	2477
Encapsulation	Other Organic Materials	617.558	mg	supplier	mold compound	Silica, vitreous	60676-86-0		537.275	mg	869999	282776
				supplier	mold compound	Epoxy resin	Proprietary		61.756	mg	100000	32503
				supplier	mold compound	Phenol resin	Proprietary		15.439	mg	25000	8126
				supplier	mold compound	Carbon Black	1333-86-4		3.088	mg	5000	1625
Connections coating	Solder	6.362	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.362	mg	1000000	3348