



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 *	2016-11-07
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Rossana Bonaccorso	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

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
STPS20H100CT	HTDZ*Q45P025	A	SHENZHEN B/E	2016-11-07
	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	TO 220 AB NON ISOL			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 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-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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	HTDZ*Q45P025					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	Other inorganic materials	10.251	mg	supplier	die	Silicon (Si)	7440-21-3		9.642	mg	940585	5074
				supplier	metallization	Aluminium (Al)	7429-90-5		0.399	mg	38927	210
				supplier	passivation	Nickel (Ni)	7440-02-0		0.043	mg	4195	23
				supplier	metallization	Titanium (Ti)	7440-32-6		0.009	mg	878	5
				supplier	metallization	Tungsten (W)	7440-33-7		0.014	mg	1366	7
				supplier	Passivation	Silicon Oxide	7631-86-9		0.059	mg	5756	31
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.005	mg	488	3
				supplier	back side metallization	Gold (Au)	7440-57-5		0.014	mg	1366	7
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.066	mg	6439	35
				Leadframe	Copper & its alloys	1253.535	mg	supplier	alloy	Copper (Cu)	7440-50-8	
supplier	alloy	Iron (Fe)	7439-89-6						1.253	mg	1000	659
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.376	mg	300	198
supplier	metallization	Nickel (Ni)	7440-02-0						0.490	mg	390	258
supplier	metallization	Phosphorus (P)	12185-10-3						0.040	mg	32	21
Soft solder	Solder	9.095	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	8.686	mg	955030	4572
				supplier	solder	Silver (Ag)	7440-22-4		0.227	mg	24959	119
				supplier	solder	Tin (Sn)	7440-31-5		0.182	mg	20011	96
Bonding wires	Other inorganic materials	4.706		supplier	wire	Aluminium (Al)	7429-90-5		4.706	mg	1000000	2477
Encapsulation	Other Organic Materials	616.051	mg	supplier	mold compound	Silica, vitreous	60676-86-0		535.965	mg	870000	282087
				supplier	mold compound	Epoxy resin	25068-38-6		61.605	mg	100000	32424
				supplier	mold compound	Phenol resin	29690-82-2		15.401	mg	25000	8106
				supplier	mold compound	Carbon Black	1333-86-4		3.080	mg	5000	1621
Connections coating	Solder	6.362	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.362	mg	1000000	3348