



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 *	2016-05-31
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		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	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 omprehensive 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
STPS1545FP	HTUV*Z20S01Y	A	SHENZHEN B/E	2016-05-31
	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	10.2-16.15-4.5	3	THROUGH HOLE	
Comment	TO 220 ISOL FULL PACK 0.5 AC-2L			

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 2015				
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	HTUV*220501Y					
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	5.399	mg	supplier	die	Silicon (Si)	7440-21-3		5.078	mg	940545	2673
				supplier	metallization	Aluminium (Al)	7429-90-5		0.210	mg	38896	111
				supplier	metallization	Titanium (Ti)	7440-32-6		0.005	mg	925	3
				supplier	metallization	Tungsten (W)	7440-33-7		0.008	mg	1482	4
				supplier	metallization	Nickel (Ni)	7440-02-0		0.023	mg	4260	12
				supplier	Passivation	Silicon Oxide	7631-86-9		0.031	mg	5742	16
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.002	mg	370	1
				supplier	back side metallization	Gold (Au)	7440-57-5		0.007	mg	1297	4
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.035	mg	6483	18
				supplier	alloy	Copper (Cu)	7440-50-8		604.469	mg	984274	318142
Leadframe	Copper & its alloys	614.127	mg	supplier	alloy	Iron (Fe)	7439-89-6		0.605	mg	985	318
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.182	mg	296	96
				supplier	metallization	Nickel (Ni)	7440-02-0		8.816	mg	14355	4640
				supplier	metallization	Phosphorus (P)	12185-10-3		0.055	mg	90	29
				supplier	metallization	Lead (Pb)	7439-92-1	7a-Lead in high mel	4.730	mg	954977	2489
Soft solder	Solder	4.953	mg	JIG - R	solder	Silver (Ag)	7440-22-4		0.124	mg	25035	65
				supplier	solder	Tin (Sn)	7440-31-5		0.099	mg	19988	52
				supplier	wire	Aluminium (Al)	7429-90-5		2.791	mg	1000000	1469
Bonding wires	Other inorganic materials	2.791	mg	supplier	wire	Aluminium (Al)	7429-90-5		2.791	mg	1000000	1469
Encapsulation	Other Organic Materials	1266.864	mg	supplier	mold compound	Quartz	14808-60-7		886.805	mg	700000	466739
				supplier	mold compound	Silica, vitreous	60676-86-0		95.015	mg	75000	50008
				supplier	mold compound	Epoxy resin	25068-38-6		177.361	mg	140000	93348
				supplier	mold compound	phenol resin	29690-82-2		88.680	mg	70000	46674
				supplier	mold compound	metal hydroxide	21645-51-2		12.669	mg	10000	6668
				supplier	mold compound	carbon black	1333-86-4		6.334	mg	5000	3334
Connections coating	Solder	5.866	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		5.866	mg	1000000	3087