



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 *	2016-01-04
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
STW28N60DM2	TSLW*FQ66B62	A	SHENZHEN B/E	2016-01-04
	Amount	UoM	Unit type	ST ECOPACK Grade
	4430.00	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	15.75, 20.15, 5.15	2	THROUGH HOLE	
Comment	TO 247			

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	TSLW*FQ6862					
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	14.131	mg	supplier	die	Silicon (Si)	7440-21-3		13.561	mg	959660	3061
				supplier	metallization	Aluminium (Al)	7429-90-5		0.274	mg	19391	62
				supplier	Passivation	Silicon Nitride	12033-89-5		0.065	mg	4600	15
				supplier	Passivation	Silicon Oxide	7631-86-9		0.097	mg	6865	22
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.007	mg	495	2
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.094	mg	6653	21
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.033	mg	2335	7
Leadframe	Copper & its alloys	2720.611	mg	supplier	alloy	Copper (Cu)	7440-50-8		2705.048	mg	994280	610620
				supplier	alloy	Iron (Fe)	7439-89-6		1.246	mg	458	281
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		2.275	mg	836	514
				supplier	metallization	Nickel (Ni)	7440-02-0		11.968	mg	4399	2702
				supplier	metallization	Phosphorus (P)	12185-10-3		0.074	mg	27	17
Soft solder	Solder	12.818	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	12.242	mg	955063	2763
				supplier	solder	Silver (Ag)	7440-22-4		0.320	mg	24965	72
				supplier	solder	Tin (Sn)	7440-31-5		0.256	mg	19972	58
Bonding wires	Other inorganic materials	1.201	mg	supplier	wire	Aluminium (Al)	7429-90-5		1.200	mg	999334	271
				supplier	wire	Magnesium (Mg)	7439-95-4		0.001	mg	666	0
Encapsulation	Other Organic Materials	1675.042	mg	supplier	mold compound	Silica, vitreous	60676-86-0		1457.287	mg	870000	328959
				supplier	mold compound	Epoxy resin	25068-38-6		167.504	mg	100000	37811
				supplier	mold compound	Phenol resin	29690-82-2		41.876	mg	25000	9453
				supplier	mold compound	Carbon Black	1333-86-4		8.375	mg	5000	1891
Connections coating	Solder	6.197	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.197	mg	1000000	1399