



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 *	2016-09-14
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		

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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
STGW80H65DFB	TDLW*EWFR52	A	SHENZHEN B/E	2016-09-14
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		
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-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	TDLW*EWFRS2									
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	23.700	mg	supplier	die	Silicon (Si)	7440-21-3		21.762	mg	918228	4912				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.671	mg	28312	151				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.126	mg	5316	28				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.245	mg	10338	55				
				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.071	mg	2996	16				
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.024	mg	1013	5				
				supplier	back side metallization	Gold (Au)	7440-57-5		0.022	mg	928	5				
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.259	mg	10928	58				
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.011	mg	464	2				
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.051	mg	2152	12				
				supplier	polymer die coating	Durimide	proprietary		0.458	mg	19325	103				
				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	19				
Soft solder	Solder	23.542	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	22.482	mg	954974	5075				
				supplier	solder	Silver (Ag)	7440-22-4		0.589	mg	25019	133				
				supplier	solder	Tin (Sn)	7440-31-5		0.471	mg	20007	106				
Bonding wires	Other inorganic materials	1.837	mg	supplier	wire	Aluminium (Al)	7429-90-5		1.830	mg	996081	413				
				supplier	wire	Magnesium (Mg)	7439-95-4		0.007	mg	3919	2				
Encapsulation	Other Organic Materials	1654.113	mg	supplier	mold compound	Silica, vitreous	60676-86-0		1439.078	mg	870000	324848				
				supplier	mold compound	Epoxy resin	25068-38-6		165.411	mg	100000	37339				
				supplier	mold compound	Phenol resin	29690-82-2		41.353	mg	25000	9335				
				supplier	mold compound	Carbon Black	1333-86-4		8.271	mg	5000	1867				
Connections coating	Solder	6.197	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.197	mg	1000000	1399				