



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 *	2017-05-10
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	ROBERTA BELIGNI	Representative Title	DMA 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
STW81200T STW81200TR	C5ZR*W414EAK	E	P1C7	2017-05-10
	Amount	UoM	Unit type	ST ECOPACK Grade
	96.64	mg	Each	ECOPACK® 2
	Comment	ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant (in each organic material)		

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Not Applicable	Copper Alloy	1F032774	

Package Designator	Size	Nbr of instances	Shape	
QFP	6x6x1.0	36	flat	
Comment	ZR VFQFPN 36 6x6x1.0 PITCH 0.50			

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	TRUE
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)	FALSE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE
Exemption Id.	Description

ELV directive : 2000/53/EC amended 2016/774 _May 2016	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	TRUE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	FALSE
Exemption Id.	Description

Query : California Prop65 list, dated 27th January 2017			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			TRUE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			FALSE
Substance	amount in product (mg)	Application	ppm in product
Nickel	0.09	LEADFRAME	900

QueryList : REACH-12th January 2017				
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	CSZR*W414EAK					
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	5.839	mg	supplier	die	Silicon (Si)	7440-21-3		5.392	mg	923446	55796
				supplier	metallization	Aluminium (Al)	7429-90-5		0.031	mg	5309	321
				supplier	metallization	Copper (Cu)	7440-50-8		0.149	mg	25518	1542
				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	171	10
				supplier	metallization	Titanium (Ti)	7440-32-6		0.006	mg	1028	62
				supplier	metallization	Tungsten (W)	7440-33-7		0.045	mg	7707	466
				supplier	Passivation	Silicon Nitride	12033-89-5		0.020	mg	3425	207
				supplier	Passivation	Silicon Oxide	7631-86-9		0.126	mg	21579	1304
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.069	mg	11817	714
				supplier	alloy	Copper (Cu)	7440-50-8		20.791	mg	970182	215145
Leadframe	Copper & its alloys	21.430	mg	supplier	alloy	Iron (Fe)	7439-89-6		0.489	mg	22818	5060
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.029	mg	1353	300
				supplier	alloy	Zinc (Zn)	7440-66-6		0.026	mg	1213	269
				supplier	metallization	Nickel (Ni)	7440-02-0		0.087	mg	4060	900
				supplier	metallization	Palladium (Pd)	7440-05-3		0.006	mg	280	62
				supplier	metallization	Gold (Au)	7440-57-5		0.002	mg	93	21
				supplier	glue or tape	Silver (Ag)	7440-22-4		1.058	mg	683904	10948
Die attach		1.547	mg	supplier	glue or tape	methyene diacrylate	42594-17-2		0.387	mg	250162	4005
				supplier	glue or tape	Dicyclopentenloxyethyl methacrylate	68586-19-6		0.046	mg	29735	476
				supplier	glue or tape	Polymer of Polybutadiene + Anhydride	Proprietary		0.046	mg	29735	476
				supplier	glue or tape	Palladium (Pd)	7440-05-3		0.002	mg	1293	21
				supplier	glue or tape	Bis(α,α-dimethylbenzyl) peroxide	80-43-3		0.008	mg	5171	83
				supplier	wire	Gold (Au)	7440-57-5		0.706	mg	990182	7306
				supplier	wire	Palladium (Pd)	7440-05-3		0.007	mg	9818	72
Encapsulation	Other Organic Materials	67.108	mg	supplier	mold compound	silica vitreous	60676-86-0		57.244	mg	853013	592361
				supplier	mold compound	Phenol resin	Proprietary		2.349	mg	35003	24307
				supplier	mold compound	epoxy resin	Proprietary		2.684	mg	39995	27774
				supplier	mold compound	carbon black	1333-86-4		0.134	mg	1997	1387
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		1.342	mg	19998	13887
				supplier	mold compound	Zinc hydroxide	20427-58-1		0.671	mg	9999	6944
				supplier	mold compound	Magnesium hydroxide	1309-42-8		2.684	mg	39995	27774