



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 *	2017-09-28
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Giovanni Giacopello	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
L9960	AREH*UR54AAA	A	0959	2017-09-28
Amount	UoM	Unit type	ST ECOPACK Grade	
484.70	mg	Each	ECOPACK2	

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	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	10.3-7.5-2.28	36	Gull Wing	
Comment	PowerSSO36			

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)

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	0.02	Die	50
Lead	3.57	Soft solder	7372

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	AREH*URS4AAA					
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	5.167	mg	supplier	die	Silicon (Si)	7440-21-3		4.712	mg	911941	9721
				supplier	metallization	Copper (Cu)	7440-50-8		0.321	mg	62125	662
				supplier	metallization	Platinum (Pt)	7440-06-4		0.020	mg	3871	41
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	194	2
				supplier	metallization	Tungsten (W)	7440-33-7		0.015	mg	2903	31
				supplier	Passivation	Silicon Nitride	12033-89-5		0.013	mg	2516	27
				supplier	Passivation	Silicon Oxide	7631-86-9		0.051	mg	9870	105
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.003	mg	581	6
				supplier	back side metallization	Gold (Au)	7440-57-5		0.007	mg	1355	14
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.024	mg	4645	50
				Leadframe	Copper & its alloys	161.652	mg	supplier	alloy	Copper (Cu)	7440-50-8	
supplier	alloy	Iron (Fe)	7439-89-6						3.655	mg	22610	7541
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.220	mg	1361	454
supplier	alloy	Zinc (Zn)	7440-66-6						0.191	mg	1182	394
supplier	metallization	Silver (Ag)	7440-22-4						2.190	mg	13548	4518
supplier	metallization	Lead (Pb)	7439-92-1					7a-Lead in high me	3.573	mg	974898	7372
Soft solder	Solder	3.665	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	3.573	mg	974898	7372
				supplier	solder	Silver (Ag)	7440-22-4		0.055	mg	15007	113
				supplier	solder	Tin (Sn)	7440-31-5		0.037	mg	10095	76
Bonding wires	Other inorganic materials	1.435	mg	supplier	wire	Copper (Cu)	7440-50-8		1.435	mg	1000000	2961
Encapsulation	Other Organic Materials	308.529	mg	supplier	mold compound	silica vitreous	60676-86-0		270.888	mg	877999	558878
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		18.512	mg	60001	38193
				supplier	mold compound	Phenol Resin	205830-20-2		12.341	mg	39999	25461
				supplier	mold compound	epoxy resin	25068-38-6		6.171	mg	20001	12732
				supplier	mold compound	carbon black	1333-86-4		0.617	mg	2000	1273
Connections coating	Solder	4.252	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		4.252	mg	1000000	8772