



## Materials Declaration Form

<b>IPC Form Type *</b>	1752 Distribute	<b>Version</b>	2
<b>Sectionals *</b>	Material Info Manufacturing Info	<b>Subsectionals *</b>	A-D  * : Required Field

<b>Supplier Information</b>			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2017-07-04
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	Giuseppe Vitali Palma	<b>Representative Title</b>	ADG MD Champion
<b>Representative Phone *</b>	Refer to Supplier Comment section	<b>Representative Email *</b>	Refer to Supplier Comment section
<b>Supplier Comment</b>	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/web/en/support/support.html">http://www.st.com/web/en/support/support.html</a>		

**Uncertainty Statement**


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<b>Legal Statement</b>			
<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>	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
FERD60U45CT	RTDZ*ACY416T	A	3068	2017-07-04
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	
NA	NA	NA		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	10-9.1-4.5	3	THROUGH HOLE	
Comment	TO 220 AB NON ISOL			

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			FALSE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			TRUE
Substance	amount in product (mg)	Application	ppm in product
Nickel	0.59	Die back side metal - Leadframe metal	312
Lead	15.33	Soft solder	8066

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	RTD2*ACY416T									
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	18.033	mg	supplier	die	Silicon (Si)	7440-21-3		17.393	mg	964510	9154				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.072	mg	3993	38				
				supplier	metallization	Copper (Cu)	7440-50-8		0.239	mg	13252	126				
				supplier	metallization	Titanium (Ti)	7440-32-6		0.185	mg	10259	97				
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.008	mg	444	4				
				supplier	back side metallization	Gold (Au)	7440-57-5		0.025	mg	1386	13				
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.103	mg	5712	54				
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.008	mg	444	4				
				Leadframe	Copper & its alloys	1253.534	mg	supplier	alloy	Copper (Cu)	7440-50-8		1251.376	mg	998278	658619
								supplier	alloy	Iron (Fe)	7439-89-6		1.253	mg	1000	659
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.376	mg	300	198				
supplier	metallization	Nickel (Ni)	7440-02-0						0.489	mg	390	258				
supplier	metallization	Phosphorus (P)	12185-10-3						0.040	mg	32	21				
Soft solder	Solder	16.047	mg					JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high met	15.325	mg	955007	8066
				supplier	solder	Silver (Ag)	7440-22-4		0.401	mg	24989	211				
				supplier	solder	Tin (Sn)	7440-31-5		0.321	mg	20004	169				
				Bonding Ribbons	Other Nonferrous metals & alloys	8.083	mg	supplier	Ribbon	Aluminium (Al)	7429-90-5		8.083	mg	1000000	4254
Encapsulation	Other Organic Materials	597.941	mg					supplier	mold compound	Silica, vitreous	60676-86-0		520.208	mg	869999	273794
								supplier	mold compound	Epoxy resin	25068-38-6		59.794	mg	100000	31471
supplier	mold compound	Phenol resin	29690-82-2		14.949	mg	25001	7868								
supplier	mold compound	Carbon Black	1333-86-4		2.990	mg	5000	1574								
Connections coating	Solder	6.362	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.362	mg	1000000	3348				