



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 *	2017-11-20
Contact Name *	Refer to "Supplier Comment" section	Contact Title	Refer to "Supplier Comment" section
Contact Phone *	Refer to "Supplier Comment" section	Contact Email *	Refer to "Supplier Comment" section
Authorized Representative *	LAURENT TOSI	Representative Title	MMS MD CHAMPION
Representative Phone *	33 442 685 795	Representative Email *	laurent.tosi@st.com
Supplier Comment	Online Technical Support - STMicroelectronics : http://www.st.com/web/en/support/online_tech_support.html		

Uncertainty Statement

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Legal Statement

Supplier Acceptance *	true	Legal Declaration *	Standard
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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
S172F324BK416 ST72E324BK4T6TR	925V*815XXX3	A	959	2017-11-20
Amount	UoM	Unit type	ST ECOPACK Grade	
180.00	mg	Each	ECOPACK® 2	

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	Nicke/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	7x7x1.4	32	L bend	
Comment	LQFP 32 7x7x1.4			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	true
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
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	false
Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Product(s) is obsolete, no information is available	false
Product(s) is unknown, no information is available	false
Exemption Id.	Description

QueryList : REACH-15th June 2015				
Query				Response
The product 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	925V*815XXX3					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die or Dies	M-011 Other inorganic materials	9.038	mg	supplier	die	Silicon (Si)	7440-21-3		8.9980	mg	995574	49989
				supplier	metallization	Titanium (Ti)	7440-32-6		0.0070	mg	775	39
				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.0080	mg	885	44
				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.0250	mg	2766	139
Lead-frame	M-011 Other inorganic materials	69.913	mg	supplier	alloy	Copper (Cu)	7440-50-8		67.2559	mg	962000	373644
				supplier	alloy	Nickel (Ni)	7440-02-0		2.0974	mg	30000	11652
				supplier	alloy	Silicium (Si)	7440-21-3		0.4544	mg	6500	2525
				supplier	alloy	Magnesium (Mg)	7439-95-4		0.1049	mg	1500	583
Lead-frame Coating	M-011 Other inorganic materials	0.403	mg	supplier	coating	Nickel (Ni)	7440-02-0		0.3687	mg	914840	2048
				supplier	coating	Palladium (Pd)	7440-05-3		0.0120	mg	29660	66
				supplier	coating	Gold (Au)	7440-57-5		0.0112	mg	27750	62
				supplier	coating	Silver (Ag)	7440-22-4		0.0112	mg	27750	62
Die Attach	M-011 Other inorganic materials	1.061	mg	supplier	glue or soft solder	Silver (Ag)	7440-22-4		0.8172	mg	770000	4540
				supplier	glue or soft solder	Epoxy Cresol Novolak	29690-82-2		0.2399	mg	226000	1333
				supplier	glue or soft solder	1-isopropyl-2,2-dimethyltrimethylene diisobut	6846-50-0		0.0042	mg	4000	24
Wires	M-011 Other inorganic materials	0.645	mg	supplier	Bonding wire	Gold (Au)	7440-57-5		0.6447	mg	1000000	3581
Encapsulation	M-011 Other inorganic materials	99.650	mg	supplier	Moulding Compound	Solid Epoxy Resin	Proprietary		7.2522	mg	72777	40290
				supplier	Moulding Compound	Phenol Resin	Proprietary		5.1802	mg	51984	28779
				supplier	Moulding Compound	Silica, vitreous	60676-86-0		86.5440	mg	868482	480800
				supplier	Moulding Compound	Carbon-black	1333-86-4		0.5180	mg	5198	2878
Finishing	M-011 Other inorganic materials	0.003	mg	supplier	Bismuth/Bismuth Compounds	Bismuth	7440-69-9		0.1554	mg	1560	863
				supplier	connections coating	Nickel (Ni)	7440-02-0		0.0023	mg	914840	13
				supplier	connections coating	Palladium (Pd)	7440-05-3		0.0001	mg	29660	0
				supplier	connections coating	Gold (Au)	7440-57-5		0.0001	mg	27750	0
				supplier	connections coating	Silver (Ag)	7440-22-4		0.0001	mg	27750	0