Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2014-03-10
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 *	Giuseppe Vitali Palma	Representative Title	AMS & IPD Materials Declaration 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/internet/com/support/online_tech_support.jsp		

Uncertainty Statement

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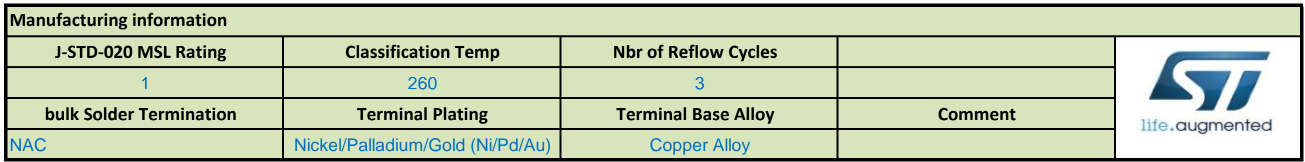
Legal Statement

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 omprehensive 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
	AYD4*UY29AAA	A	SA1A	2014-03-10
	Amount	UoM	Unit type	ST ECOPACK Grade
	13.266	mg	Each	ECOPACK® 2



Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		life.augmented
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	3X3X0.5	14	No lead	
Comment	Package: UFQFPN 3X3X0.5 16L COL			

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-16th December 2013	
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	AYD4*UY29AAA					
Homogeneous Material	**Material Group**	**Mass**	**UoM**	**Level**	**Substance Category**	**Substance**	**CAS**	**Exempt**	**Mass**	**UoM**	**Concentration in homogeneous material (ppm)**	**Concentration in product (ppm)**
Silicon Die	Other Inorganic Material	1.206	mg	Supplier	Silicon Die	Silicone (Si)	7440-21-3		1.132	mg	938640	85331
Silicon Die			mg	Supplier	Metallization	Aluminium (Al)	7429-90-5		0.03	mg	24876	2261
Silicon Die			mg	Supplier	Passivation	Silicon Nitride (SiN)	68034-42-4		0.01	mg	8292	754
Silicon Die			mg	Supplier	Passivation	Silicon Oxide(SiO2)	7631-86-9		0.016	mg	13267	1206
Silicon Die			mg	Supplier	Passivation	Gamma-butyrolactone	96-48-0		0.012	mg	9950	905
Silicon Die			mg	Supplier	Passivation	Polyhydroxyamide	55295-98-2		0.006	mg	4975	452
Leadframe	Copper and its alloy	3.502	mg	Supplier	Alloy	Copper (Remaining)	7440-50-8		3.286	mg	938321	247701
Leadframe			mg	Supplier	Alloy	Silicon (0.25 ~1.2%)	7440-21-3		0.026	mg	7424	1960
Leadframe			mg	Supplier	Alloy	Nickel-Material base (2.2 ~4.2%)	7440-02-0		0.123	mg	35123	9272
Leadframe			mg	Supplier	Alloy	Magnesium (0.05 ~0.3%)	7439-95-4		0.004	mg	1142	302
Leadframe			mg	Supplier	Alloy	Iron (0.2% max)	7439-89-6		0.004	mg	1142	302
Leadframe			mg	Supplier	Alloy	Zinc (1.0% max)	7440-66-6		0.018	mg	5140	1357
Leadframe			mg	Supplier	Alloy	Manganese (0.10% max)	7439-96-5		0.002	mg	571	151
Leadframe			mg	Supplier	Alloy	Silver (0.014 ~0.027%)	7440-22-4		0.007	mg	1999	528
Leadframe			mg	Supplier	Metallization	Nickel-Plataing process (0.67 ~1.25%)	7440-02-0		0.03	mg	8567	2261
Leadframe			mg	Supplier	Metallization	Palladium (0.0125 ~0.0375%)	7440-05-3		0.001	mg	286	75
Leadframe			mg	Supplier	Metallization	Gold (0.025 ~0.05%)	7440-57-5		0.001	mg	286	75
Die Attach	Other Organic Material	0.18	mg	Supplier	Glue	Aluminium oxide (20-35%)	1344-28-1		0.054	mg	300000	4071
Die Attach			mg	Supplier	Glue	Diethylene glycol monoethyl ether acetate (2	112-15-2		0.072	mg	400000	5427
Die Attach			mg	Supplier	Glue	Epoxy resin (1-10%)	25068-38-6		0.013	mg	72222	980
Die Attach			mg	Supplier	Glue	Epoxy resin (10-30%)	Proprietary		0.036	mg	200000	2714
Die Attach			mg	Supplier	Glue	Aromatic amine (1-5%)	Proprietary		0.005	mg	27778	377
Bonding Wire	Other Inorganic Material	0.738	mg	Supplier	Bonding Wire	Gold	7440-57-5		0.738	mg	1000000	55631
Encapsulation	Other Organic Material	7.64	mg	Supplier	Molding Compound	Silica Fused (85-95)	60676-86-0		7.159	mg	937042	539650
Encapsulation			mg	Supplier	Molding Compound	Epoxy resin (1-5)	Proprietary		0.229	mg	29974	17262
Encapsulation			mg	Supplier	Molding Compound	Phenol resin (1-5)	Proprietary		0.229	mg	29974	17262
Encapsulation				Supplier	Molding Compound	Carbon Black (0.1-0.5)	1333-86-4		0.023	mg	3010	1734