

Materials Declaration Form

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

Supplier Information							
Company Name *	STMicroelectronics	Response Date *	2015-01-09				
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 *	Arcidiacono salvatore	Representative Title	IPG IPC Materials Declaration Champion				
Authorized Representative	Arcidiacono salvatore	nepresentative ritie	·				
Representative Phone *		·	Refer to " Supplier Comment" section				

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								
VIPER35LE	9M(EMV5FAA5	А	Z8GA	2015-01-09				
	Amount	UoM	Unit type	ST ECOPACK Grade				
	500	mg	Each	ECOPACK® 2				

Manufacturing information								
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles						
NAC	NAC	NAC						
bulk Solder Termination Terminal Plating		Terminal Base Alloy	Comment	life.augmented				
NAC	Tin (Sn), matte	Copper Alloy		moradginomod				

Package Designator Size		Nbr of instances	Shape		
DIP	9.59 X 6.35 X 3.93	10	Through-hole		
Comment	Package: SDIP 10L; MD valid also for 98	(EMV5FAA5			

	Query	Response					
1 - Product(s) meets EU RoHS requireme	nt 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)							
3 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)							
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions							
5 - Product(s) is obsolete, no information is available							
5 - Product(s) is unknown, no information is available							
Exemption Id. Description							

ELV exemption number							
Query Response							
1 - Product(s) meets EU ELV requirements without any exemptions							
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)							
Exemption Id.	Exemption Id. Description						
#N/A							
	#N/A						

QueryList: REACH-17th December 2014							
Query Response							
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH							
CategoryLevel_Name	ppm in product						

Material Composition Declaration					Mfr Item Name	9M(EN	IV5FAA5					
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 (choose)	Other inorganic materials	5.651	mg	supplier	die	Silicon (Si)	7440-21-3		5.562	mg	984251	11124
				supplier	metallization	Aluminium (Al)	7429-90-5		0.010	mg	1770	20
				supplier	metallization	Tungsten (W)	7440-33-7		0.008	mg	1416	16
				supplier	passivation	Silicon Nitride (SiN)	12033-89-5		0.002	mg	354	4
				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.017	mg	3008	34
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.002	mg	354	4
				supplier	back side metallization	Gold (Au)	7440-57-5		0.007	mg	1239	14
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.033	mg	5840	66
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.010	mg	1770	20
Leadframe	Copper & its alloys	104.023	mg	supplier	alloy	Copper (Cu)	7440-50-8		101.131	mg	972198	202262
				supplier	alloy	Iron (Fe)	7439-89-6		2.379	mg	22870	4758
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.143	mg	1375	286
				supplier	alloy	Zinc (Zn)	7440-66-6		0.125	mg	1202	250
				supplier	metallization	Silver (Ag)	7440-22-4		0.245	mg	2355	490
Die attach	Other inorganic materials	0.346	mg	supplier	glue or tape (choose)	Silver (Ag)	7440-22-4		0.246	mg	710983	492
				supplier	glue or tape	epoxy resin	Proprietary		0.052	mg	150289	104
				supplier	glue or tape	2,6-Diglycidyl phenyl allyl ether	EC 417-470-1		0.028	mg	80925	56
				supplier	glue or tape	Epoxy resin modifier	Proprietary		0.010	mg	28902	20
				supplier	glue or tape	amine compound	Proprietary		0.010	mg	28902	20
Bonding wire	Precious metals	0.272	mg	supplier	wire	Gold (Au)	7440-57-5		0.272	mg	1000000	544
encapsulation	Other Organic Materials	384.820	mg	supplier	mold compound	Silica, vitreous	60676-86-0		334.793	mg	869999	669586
				supplier	mold compound	Epoxy resin	Proprietary		38.482	mg	100000	76964
				supplier	mold compound	Phenol resin	Proprietary		9.621	mg	25001	19242
				supplier	mold compound	Carbon Black	1333-86-4		1.924	mg	5000	3848
connections coating	Solder	4.888	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		4.888	mg	1000000	9776