

**PART INFORMATION**

Mfg Item Number	SCIMX534AVV8CR2
Mfg Item Name	TEPBGAII 529 19*19 P0.8

**SUPPLIER**

Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2014-03-08
Response Document ID	0066K50008S020A1.3
Contact Name	Freescale Semiconductor Inc
Contact Title	Product Technical Support
Contact Phone	1-800-521-6274
Contact Email	support@freescale.com
Authorized Representative	Daniel Binyon
Representative Title	EPP Customer Response
Representative Phone	512-895-3406
Representative Email	eppanlst@freescale.com
URL for Additional Information	www.freescale.com

**DECLARATION**

EU RoHS	Yes
Pb Free	Yes
HalogenFree	Yes
Plating Indicator	e2
EU RoHS Exemption(s)	

**MANUFACTURING**

Mfg Item Number	SCIMX534AVV8CR2
Mfg Item Name	TEPBGAII 529 19*19 P0.8
Version	ALL
Weight	2.136100
UoM	g
Unit Volume	EACH
J-STD-020 MSL Rating	3
Peak Processing Temperature	260 C
Max Time at Peak Temperature	40 seconds
Number of Processing Cycles	3

RoHS	
RoHS Directive	2011/65/EU
RoHS Definition	RoHS Definition: Quantity limit of 0.1% by mass (1000 PPM) of homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE) and quantity limit of 0.01% by mass (100 PPM) of homogeneous material of Cadmium
RoHS Legal Definition	Please indicate whether any homogeneous material (as defined by the RoHS Directive, EU 2011/65/EU and implemented by the laws of the European Union member states) of the part(s) identified on this form contains lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls and/or polybrominated diphenyl ethers (each a RoHS restricted substance) in excess of the applicable quantity limit identified below. If a homogeneous material within the part(s) contains a RoHS restricted substance in excess of an applicable quantity limit, please indicate below which, if any, RoHS exemption you believe may apply. If the part is an assembly with lower level components, the declaration shall encompass all such components. Supplier certifies that it gathered the information it provides in this form using appropriate methods to ensure its accuracy and that 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 with European Union member state laws that implement the RoHS Directive. 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 Suppliers liability and the Companys remedies for issues that arise regarding information the Supplier provides in this form. In the absence of such written agreement, the warranty rights and/or remedies of Suppliers Standard Terms and Conditions of Sale applicable to such part(s) shall apply.
RoHS Declaration	1 - Item(s) do not contain RoHS restricted substances per the definition above
Supplier Acceptance	Accepted
Signature	Daniel Binyon
Exemption List Version	2012/51/EU
List of Freescale Accepted Exemptions	<p>6(a) : Lead as an alloying element in steel for machining purposes and in galvanized steel containing up to 0.35% lead by weight</p> <p>6(b) : Lead as an alloying element in aluminium containing up to 0.4% lead by weight</p> <p>6(c) : Copper alloy containing up to 4% lead by weight</p> <p>7(a) : Lead in high melting temperature type solders (i.e. lead-based alloys containing 85% by weight or more lead)</p> <p>7(b) : Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signaling, transmission, and network management for telecommunications</p> <p>7(c)-I : Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound</p> <p>7(c)-II : Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher</p> <p>7(c)-III : Lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC</p> <p>7(c)-IV : Lead in PZT based dielectric ceramic materials for capacitors being part of integrated circuits or discrete semiconductors</p> <p>15 : Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages</p>

MATERIAL COMPOSITION

Homogeneous Material	Weight	SubstanceClass	Substance	CAS	Exemption	SubstanceWeight	UoM	SubPart PPM	SubPart%	ARTICLEPPM	ARTICLE%
Epoxy Die Attach	0.0023						g				
Epoxy Die Attach		Plastics/polymers	Other Epoxy resins	-		0.0006883	g	29925	2.9925	32	0.0032
Epoxy Die Attach		Metals	Silver, metal	7440-22-4		0.00160599	g	698255	69.8255	751	0.0751
Epoxy Die Attach		Plastics/polymers	Other acrylic resins	-		0.00016633	g	72319	7.2319	77	0.0077
Epoxy Die Attach		Plastics/polymers	Proprietary Material-Di-ester resin	-		0.00045885	g	199501	19.9501	214	0.0214
Solder Balls - Pb Free, Sn/Ag	0.1361						g				
Solder Balls - Pb Free, Sn/Ag		Metals	Silver, metal	7440-22-4		0.0047635	g	35000	3.5	2229	0.2229
Solder Balls - Pb Free, Sn/Ag		Metals	Tin, metal	7440-31-5		0.1313365	g	965000	96.5	61484	6.1484
Die Encapsulant, Halogen-free	0.4857						g				
Die Encapsulant, Halogen-free		Solvents, additives, and other materials	Carbon Black	1333-86-4		0.00242559	g	4994	0.4994	1135	0.1135
Die Encapsulant, Halogen-free		Plastics/polymers	Proprietary Material-Other phenolic resins	-		0.02668242	g	54936	5.4936	12491	1.2491
Die Encapsulant, Halogen-free		Glass	Silica, crystalline - quartz (SiO2)	14808-60-7		0.02124889	g	43749	4.3749	9947	0.9947
Die Encapsulant, Halogen-free		Glass	Silica, vitreous	60876-86-0		0.40390617	g	831596	83.1596	189085	18.9085
Die Encapsulant, Halogen-free		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.00048521	g	999	0.0999	227	0.0227
Die Encapsulant, Halogen-free		Plastics/polymers	Proprietary Material-Other Non-halogenated Epoxy resins	-		0.03095172	g	63726	6.3726	14489	1.4489
Heat Spreader	1.1178						g				
Heat Spreader		Metals	Barium sulfate	7727-43-7		0.0003454	g	309	0.0309	161	0.0161
Heat Spreader		Metals	Copper, metal	7440-50-8		1.1007569	g	984753	98.4753	515332	51.5332
Heat Spreader		Metals	Cupric oxide	1317-38-0		0.00671351	g	6006	0.6006	3142	0.3142
Heat Spreader		Solvents, additives, and other materials	Carbon Black	1333-86-4		0.00028839	g	258	0.0258	135	0.0135
Heat Spreader		Metals	Talc	14807-96-6		0.00080705	g	722	0.0722	377	0.0377
Heat Spreader		Glass	Silicon dioxide, synthetic	112945-52-5		0.00262236	g	2346	0.2346	1227	0.1227
Heat Spreader		Plastics/polymers	Acrylonitrile-methyl-methacrylate-vinylidene chloride copolymer	25036-25-3		0.00626639	g	5606	0.5606	2933	0.2933
Organic Substrate, Halogen-free	0.3605						g				
Organic Substrate, Halogen-free		Metals	Proprietary Material-Other aluminum compounds	-		0.00003317	g	92	0.0092	15	0.0015
Organic Substrate, Halogen-free		Metals	Barium sulfate	7727-43-7		0.00516128	g	14317	1.4317	2416	0.2416
Organic Substrate, Halogen-free		Metals	Copper, metal	7440-50-8		0.27015831	g	749399	74.9399	126472	12.6472
Organic Substrate, Halogen-free		Plastics/polymers	Phenolic Polymer Resin, Epikote 155	9003-36-5		0.00643529	g	17851	1.7851	3012	0.3012
Organic Substrate, Halogen-free		Plastics/polymers	Proprietary Material-Other Epoxy resins	-		0.01022306	g	28358	2.8358	4785	0.4785
Organic Substrate, Halogen-free		Metals	Gold, metal	7440-57-5		0.00059987	g	1664	0.1664	280	0.0280
Organic Substrate, Halogen-free		Metals	Talc	14807-96-6		0.00059735	g	1657	0.1657	279	0.0279
Organic Substrate, Halogen-free		Nickel (external applications only)	Nickel	7440-02-0		0.00294168	g	8160	0.8160	1377	0.1377
Organic Substrate, Halogen-free		Plastics/polymers	Proprietary Material-Other polymers	-		0.00039835	g	1105	0.1105	186	0.0186
Organic Substrate, Halogen-free		Glass	Fibrous-glass-wool	65997-17-3		0.03162026	g	87634	8.7634	14789	1.4789
Organic Substrate, Halogen-free		Glass	Silicon dioxide	7631-86-9		0.00014925	g	414	0.0414	69	0.0069
Organic Substrate, Halogen-free		Metals	Aluminum Hydroxide	21645-51-2		0.01930622	g	53554	5.3554	9038	0.9038
Organic Substrate, Halogen-free		Metals	Copper phthalocyanine	147-14-8		0.00003353	g	93	0.0093	15	0.0015
Organic Substrate, Halogen-free		Solvents, additives, and other materials	Bis(3-ethyl-5-methyl-4-maleimidophenyl)methane	106391-33-1		0.00643529	g	17851	1.7851	3012	0.3012
Organic Substrate, Halogen-free		Solvents, additives, and other materials	2,2-Bis-(4-cyanatophenyl)propane	1156-51-0		0.00643529	g	17851	1.7851	3012	0.3012
Epoxy Die Attach	0.0023						g				
Epoxy Die Attach		Solvents, additives, and other materials	Siloxanes and silicones, di-Me, vinyl group-terminated	69083-19-2		0.00115	g	500000	50	538	0.0538
Epoxy Die Attach		Glass	Silica, vitreous	60876-86-0		0.000575	g	250000	25	269	0.0269
Epoxy Die Attach		Glass	Proprietary Material-Other silica compounds	-		0.000575	g	250000	25	269	0.0269
Bonding Wire	0.0064						g				
Bonding Wire		Metals	Gold, metal	7440-57-5		0.0064	g	1000000	100	2996	0.2996
Silicon Semiconductor Die	0.025						g				
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.0005	g	20000	2	234	0.0234
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.0245	g	980000	98	11469	1.1469

## LINKS

### MCD LINK

Freescale website <http://www.freescale.com>

### GENERAL ENVIRONMENTAL COMPLIANCE LINKS

RoHS signed letter [http://www.freescale.com/files/abstract/corporate/ehs\\_epp/ENV\\_ROHS\\_Freescale\\_Response.pdf](http://www.freescale.com/files/abstract/corporate/ehs_epp/ENV_ROHS_Freescale_Response.pdf)

China RoHS <http://www.freescale.com/chinarohs>

REACH signed letter [http://www.freescale.com/files/abstract/corporate/ehs\\_epp/ENV\\_REACH\\_Freescale\\_Response.pdf](http://www.freescale.com/files/abstract/corporate/ehs_epp/ENV_REACH_Freescale_Response.pdf)

ELV signed letter [http://www.freescale.com/files/abstract/corporate/ehs\\_epp/ENV\\_ELV\\_Freescale\\_Reponse.pdf](http://www.freescale.com/files/abstract/corporate/ehs_epp/ENV_ELV_Freescale_Reponse.pdf)

Conflict Minerals statement [http://www.freescale.com/files/abstract/corporate/ehs\\_epp/ENV\\_CONFLICT\\_METAL\\_Freescale\\_Response.pdf](http://www.freescale.com/files/abstract/corporate/ehs_epp/ENV_CONFLICT_METAL_Freescale_Response.pdf)

### FREESCALE ENVIRONMENTAL INFORMATION

EPP website <http://www.freescale.com/epp>

FAQ [http://www.freescale.com/webapp/sps/site/overview.jsp?code=ENVIRON\\_FAQ](http://www.freescale.com/webapp/sps/site/overview.jsp?code=ENVIRON_FAQ)

Technical Service Request [https://www.freescale.com/webapp/servicerequest.create\\_SR.framework?defaultCategory=Hardware Product Support&defaultTopic=Environmentally Preferred Prod](https://www.freescale.com/webapp/servicerequest.create_SR.framework?defaultCategory=Hardware+Product+Support&defaultTopic=Environmentally+Preferred+Prod)

### LINKS TO BLANK IPC1752 FORMS

Blank IPC1752 v1.1 Form [http://www.freescale.com/files/abstract/corporate/ehs\\_epp/IPC-1752-2\\_v1.1\\_MCD\\_Template.pdf](http://www.freescale.com/files/abstract/corporate/ehs_epp/IPC-1752-2_v1.1_MCD_Template.pdf)

IPC1752 XML LINKS

[http://www.freescale.com/mcdfs/SCIMX534AVV8CR2\\_IPC1752\\_v11.xml](http://www.freescale.com/mcdfs/SCIMX534AVV8CR2_IPC1752_v11.xml)

[http://www.freescale.com/mcdfs/SCIMX534AVV8CR2\\_IPC1752A.xml](http://www.freescale.com/mcdfs/SCIMX534AVV8CR2_IPC1752A.xml)