



Material Declaration
Statement of Materials, Construction

Product: SP3223EEA-L
Package: 20L SSOP

	Component		Material			Material Weight %	
	Name	Weight (g)	Element/Compound	CAS No.	Weight (g)	/Total Unit	/ Component
1	Die	0.0016	Silicon	7440-21-3	0.0016	0.94	100.00
2	Die Attach	0.0003	Silver	7440-22-4	0.0002	0.14	80.50
			Carbocyclic Acrylates	-	0.0000	0.02	10.00
			Bismaleimide resin	-	0.0000	0.01	3.00
			2-preponoic acid, 2-methyl	68586-19-6	0.0000	0.01	3.00
			Additive	-	0.0000	0.01	3.00
			Dicumyl peroxide	80-43-3	0.0000	0.00	0.50
3	Leadframe	0.0617	Copper	7440-50-8	0.0595	35.28	96.59
			Iron	7439-89-6	0.0014	0.82	2.26
			Phosphorous	7723-14-0	0.0000	0.01	0.02
			Zinc	7440-66-6	0.0001	0.05	0.13
			Silver	7440-22-4	0.0006	0.37	1.00
			Others	-	0.0000	0.00	0.00
			Others	-	0.0000	0.00	0.00
4	Mold Compound	0.1025	Epoxy Resin-1	-	0.0031	1.82	3.00
			Epoxy Resin-2	-	0.0031	1.82	3.00
			Phenol Resin	-	0.0046	2.73	4.50
			Silica	60676-86-0	0.0895	53.01	87.30
			Carbon Black	1333-86-4	0.0002	0.12	0.20
			Others	-	0.0021	1.21	2.00
			Others	-	0.0000	0.00	0.00
5	Lead Finish	0.0026	Sn	7440-31-5	0.0026	1.51	99.99
			Others	-	0.0000	0.00	0.01
6	Wire	0.0002	Cu	7440-50-8	0.0002	0.12	99.99
			Palladium	7440-05-3	0.0000	0.00	0.01
Total Unit Weight:		0.1688					

Component weight is based on homogenous material used to assemble the unit. | Composition derived from the material declaration from vendors.

RoHS Certificate of Compliance

This package is fully RoHS compliant. The table above shows that this package meets the following RoHS requirements for EACH PACKAGE COMPONENT.

RoHS 2 (Recast) 2011/65/EU | Fully Compliant

China RoHS | Fully Compliant

RoHS-6 | Fully Compliant

Non Use of PFOS & PFOA

REACH | Fully Compliant

Halogen-free | Green

Dodd-Frank Wall Street Reform and Consumer Protection Act, July 21, 2010

We comply with this conflict metal free policy that restricts the use of those conflict metals, mining from the Democratic Republic of Congo (DRC) and it's adjoining countries. Exar will not accept product which uses these conflict metals from these areas. We require our suppliers to enforce this policy and be able to identify and verify from their sources of minerals are conflict free. Suppliers are required to report if they or any supplier through their supply chain use any of these conflict metals that are derived from certain conflict minerals originating in the DRC or an adjoining country. Exar Corporation is not aware of any conflict metals to be used in any of their products.

Flammability rating of UL 94-V0

MSL Pb-Free: L2 @ 260°C

EU RoHS Restricted Substance	Allowable Limit (at homogenous material level)
Cadmium & its compounds (Cd)	100 ppm (0.01 weight %)
Hexavalent Chromium & its compounds (Cr(VI))	1000 ppm (0.10 weight %)
Mercury & its compounds (HG)	1000 ppm (0.10 weight %)
Polybrominated biphenyls (PBB)	1000 ppm (0.10 weight %)
Polybrominated diphenyl ethers (PBDE)	1000 ppm (0.10 weight %)
Lead & its compounds (Pb)	1000 ppm (0.10 weight %)

Chiew Mee Foo, QA Manager