



**Material Declaration**  
Statement of Materials, Construction

Product: XR21V1414IM48-F  
Package: 48L TQFP (7x7)

	Component		Material			Material Weight %	
	Name	Weight (g)	Element/Compound	CAS No.	Weight (g)	/Total Unit	/Component
1	Die	0.0018	Silicon	7440-21-3	0.0018426	1.35	99.99
			Other	-	0.0000002	0.00	0.01
2	Lead frame	0.0194	Cu	7440-50-8	0.0183919	13.47	94.82
			Zn	7440-66-6	0.000349	0.03	0.18
			Ag	7440-22-4	0.0009698	0.71	5.00
3	Die Attach	0.0014	Silver	7440-22-4	0.0010248	0.75	71.50
			Ref 10049	-	0.0001075	0.08	7.50
			Ref 10226	-	0.0000430	0.03	3.00
			Ref 10133	-	0.0000430	0.03	3.00
			Ref 10063	-	0.0000430	0.03	3.00
			Ref 10042	-	0.0000430	0.03	3.00
			Ref 10071	-	0.0000430	0.03	3.00
			Ref 10221	-	0.0000430	0.03	3.00
			Ref 10222	-	0.0000430	0.03	3.00
4	Mold Compound	0.1129	Silica fused	60676-86-0	0.0984243	72.11	87.20
			Epoxy resin	-	0.0084654	6.20	7.50
			Phenol resin	-	0.0056436	4.13	5.00
			Carbon Black	1333-86-4	0.0003386	0.25	0.30
5	Gold Wire	0.0002	Gold	7440-57-5	0.0002047	0.15	99.99
			Others	-	0.0000000	0.00	0.01
6	Plating	0.0008	Tin	7440-31-5	0.0007504	0.55	99.95
			Other	-	0.0000004	0.00	0.05

Total Unit Weight: 0.1365

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 | Compliant
- China RoHS | Compliant
- RoHS-6 | Compliant
- Non Use of PFOS & PFOA
- REACH | Compliant
- Halogen-free | Green
- Dodd-Frank Wall Street Reform and Consumer Protection Act, July 21, 2010

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 %)

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: L3 @ 260°C

QA Manager