



**Material Declaration**  
Statement of Materials, Construction

Product: XR17V352IB113-F  
Package: 113L FPBGA (9x9)

Component		Material			Material Weight %	
Name	Weight (mg)	Element/Compound	CAS No.	Weight (mg)	/Total Unit	/ Component
1	Die	Silicon	7440-21-3	5.2006	2.39	100.00
2	Die Attach	Silver	7440-22-4	0.2497	0.11	76.50
		Epoxy Resin - A	9003-36-5	0.0359	0.02	11.00
		Epoxy Resin - B	5026-74-4	0.0196	0.01	6.00
		t-Butyphenyl Glycidyl Ether	3101-60-8	0.0163	0.01	5.00
		Phenolic Hardener	92-886	0.0033	0.00	1.00
		Amine Type Hardener	38668-46-1	0.0016	0.00	0.50
3	Substrate	Plating Cu	7440-50-8	36.7104	16.87	52.72
		Plating Au	7440-57-5	0.1847	0.08	0.27
		Plating Ni	7786-81-4	1.4212	0.65	2.04
		Copper Foil	7440-50-8	7.1571	3.29	10.28
		Bismaleimide Triazine resin, Epoxy resin	-	1.9289	0.89	2.77
		Inorganic Filler	-	1.1574	0.53	1.66
		Continuous Filament Fiber Glass	65997-17-3	1.9289	0.89	2.77
		Copper	7440-50-8	2.7005	1.24	3.88
		Bismaleimide Triazine resin, Epoxy resin, other resin	105391-33-1, 25722-66-1, 9003-36-5,NA	4.9381	2.27	7.09
		Inorganic Filler	-	2.4690	1.13	3.55
		Continuous Filament Fiber Glass	65997-17-3	4.9381	2.27	7.09
		Talc containing no asbestiform fibers	14807-96-6	0.1639	0.08	0.24
		Morpholine derivative	-	0.1639	0.08	0.24
		Barium Sulfate	7727-43-7	1.8439	0.85	2.65
		Silica, amorphous	7631-86-9	0.0410	0.02	0.06
		Dipropylene glycol monomethyl ether	34590-94-8	0.9834	0.45	1.41
		Epoxy resin (MW ≤700)	-	0.5327	0.24	0.77
		Epoxy resin (MW ≤700, Carc. Cat. 3 ; R40, R43)	85954-11-6	0.3688	0.17	0.53
4	Mold Compound	Silica Fused	60676-86-0	81.7445	37.57	89.70
		Epoxy Resin	-	5.0122	2.30	5.50
		Phenol Resin	-	4.1009	1.88	4.50
		Carbon Black	1333-86-4	0.2734	0.13	0.30
5	Solder Balls	Sn	7440-31-5	48.4015	22.24	96.50
		Silver	7440-22-4	1.5047	0.69	3.00
		Copper	7440-50-8	0.2508	0.12	0.50
6	Wire	Gold	7440-57-5	1.1529	0.53	99.99
		Impurity	7440-70-2	0.0001	0.00	0.01

**Total Unit Weight: 217.6000**

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



**Material Declaration**  
Statement of Materials, Construction

Product: XR17V352IB113-F  
Package: 113L FPBGA (9x9)

**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: L4 @ 245°C

EU RoHS Restricted Substance	Allowable Limit <small>(at homogenous material level)</small>
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