

**NXP Semiconductors**  
**Product Content Declaration of MCIMX604AVT10AD**

**Last Revision (GMT):**  
**Thursday, 12 May 2022, 07:10:00 AM**

Part Type	Package Version	Package Name	Total part weight	Environment			Termination		2nd Level Interconnect	More Information	
				Halogen Free (Cl + Br)	Lead Free (Pb)	EU RoHS Compliant	Plating	Base Alloy			
MCIMX604AVT10AD	SOT1543-1	FRGA624	3311.325000 mg	Yes	Yes	Yes	Tin/Silver/Copper (Sn/Ag/Cu)	Other	e1	<a href="#">Contact Us</a>	
Manufacturer Part Number (MPN)	Effective Date	Version	Pb-free soldering Moisture Sensitivity Level / Floor Life	Peak package temperature	Max time at peak temperature	Sn/Pb soldering Moisture Sensitivity Level / Floor Life	Peak package temperature	Max time at peak temperature	Number of processing cycles	Manufacturing	
9353 180 05557	1/28/2021	12	3 / 168 hours	260	40 sec.	Not Applicable	Not Applicable	Not Applicable	3	Kuala Lumpur, Malaysia, External manufacturing	
Subpart	Homogeneous Material	Substance Category	Description	CAS number	Mass(g)	Mass(%) of Material	Mass(%) of Total part				
Epoxy Adhesive	Epoxy Adhesive	Inorganic Silicon compounds	Quartz	14808-60-7		8.240000	40.000000	0.248843			
		Organic Silicon compounds	Dimethylvinylated and trimethylated silica	68988-89-6		3.090000	15.000000	0.093316			
		Organic Silicon compounds	Siloxanes and silicones, di-Me, vinyl group-terminated	68083-19-2		9.270000	45.000000	0.279948			
			<b>SubTotal</b>				<b>20.600000</b>	<b>100.000000</b>	<b>0.622108</b>		
Heat Spreader	Heat Spreader	Copper and its compounds	Copper, metal	7440-50-8		1989.735117	99.179300	60.088790			
		Nickel and its compounds	Nickel, metal	7440-02-0		16.464883	0.820700	0.497229			
			<b>SubTotal</b>			<b>2006.200000</b>	<b>100.000000</b>	<b>60.586019</b>			
Semiconductor Die	Semiconductor Die	Inorganic Silicon compounds	Silicon, doped			36.736000	89.600000	1.109405			
		Miscellaneous substances	Other miscellaneous substances (less than 10%)			0.369000	0.900000	0.011144			
		Nickel and its compounds	Nickel, metal	7440-02-0		0.205000	0.500000	0.006193			
		Silver and its compounds	Silver, metal	7440-22-4		0.129150	0.315000	0.003900			
		Tin and its compounds	Tin, metal	7440-31-5		3.568050	8.685000	0.107336			
			<b>SubTotal</b>				<b>41.000000</b>	<b>100.000000</b>	<b>1.238175</b>		
Solder Ball - SAC, Lead Free	Solder Ball - SAC, Lead Free	Copper and its compounds	Copper, metal	7440-50-8		1.515849	0.509900	0.045778			
		Silver and its compounds	Silver, metal	7440-22-4		9.095092	3.005400	0.274666			
		Tin and its compounds	Tin, metal	7440-31-5		292.014060	96.493700	8.818647			
			<b>SubTotal</b>				<b>302.625000</b>	<b>100.000000</b>	<b>9.139991</b>		
Substrate	Copper Foil	Copper and its compounds	Copper, metal	7440-50-8		311.800638	99.900000	9.416189			
		Miscellaneous substances	Proprietary Material-Other miscellaneous substances.			0.312113	0.100000	0.009426			
			<b>SubTotal</b>				<b>312.112751</b>	<b>100.000000</b>	<b>9.425615</b>		
	Solder	Copper and its compounds	Copper, metal	7440-50-8		0.783657	0.500000	0.023606			
		Silver and its compounds	Silver, metal	7440-22-4		4.889944	3.000000	0.141633			
		Tin and its compounds	Tin, metal	7440-31-5		150.859849	96.500000	4.555876			
		<b>SubTotal</b>				<b>156.333450</b>	<b>100.000000</b>	<b>4.721115</b>			
	Solder Mask	Barium and its compounds	Barium sulfate		7727-43-7		30.379475	31.100000	0.913460		
		Copper and its compounds	Copper rhinocyanine		147-14-8		0.066750	0.200000	0.002016		
		Inorganic Silicon compounds	Silicon dioxide		7631-86-9		0.166878	0.500000	0.005039		
		Magnesium and its compounds	Talc		14807-96-6		1.201506	3.600000	0.032853		
		Miscellaneous substances	Proprietary Material-Other miscellaneous substances.			0.367127	1.100000	0.011087			
		Organic compounds	Proprietary Material-Other organic compounds.			0.033375	0.100000	0.001008			
		Polymers	Plastic EP - Epoxyde, Epoxy			21.159851	63.400000	0.639015			
		<b>SubTotal</b>				<b>33.375160</b>	<b>100.000000</b>	<b>1.007909</b>			
Substrate Build Up	Epoxy Resins	Phenolic Polymer Resin, Epikote 155		1675-54-3		7.847334	10.400000	0.226985			
		Inorganic Silicon compounds	Silicon dioxide	7631-86-9		31.426885	41.850000	0.949073			
		Polymers	Plastic EP - Epoxyde, Epoxy			27.972556	37.250000	0.844754			
			<b>SubTotal</b>				<b>75.046110</b>	<b>100.000000</b>	<b>2.267796</b>		
		Substrate Core	Inorganic Silicon compounds	Fibrous-glass wool		6997-17-3		169.993265	50.000000	5.133693	
Inorganic Silicon compounds	Silica, vitreous			60676-86-0		16.999326	5.000000	0.513369			
Polymers	Plastic EP - Epoxyde, Epoxy				152.999398	45.000000	4.620324				
	<b>SubTotal</b>				<b>339.986829</b>	<b>100.000000</b>	<b>10.267386</b>				
Thermally Conductive Gel	Thermally Conductive Gel	Aluminum and its compounds	Aluminum, metal	7429-90-5		5.640000	72.000000	0.260923			
		Organic Silicon compounds	Proprietary Material-Other siloxanes and silicones			1.200000	10.000000	0.056239			
		Zinc and its compounds	Zinc oxide	1314-13-2		2.160000	18.000000	0.065231			
	<b>SubTotal</b>				<b>12.000000</b>	<b>100.000000</b>	<b>0.382393</b>				
Underfill	Underfill	Inorganic Silicon compounds	Silica, vitreous	60676-86-0		7.200000	60.000000	0.217436			
		Inorganic compounds	Carbon Black	1333-86-4		0.012000	0.100000	0.000362			
		Miscellaneous substances	Proprietary Material-Other miscellaneous substances.			0.108000	0.900000	0.003262			
		Polymers	Plastic EP - Epoxyde, Epoxy			4.680000	39.000000	0.141333			
			<b>SubTotal</b>				<b>12.000000</b>	<b>100.000000</b>	<b>0.362393</b>		
<b>Total</b>						<b>3311.325000</b>	<b>100.000000</b>	<b>100.000000</b>			

**Notes:**  
 1 Some materials contains substances with a generic description as the actual composition of the substances are either considered proprietary or no official CAS number is available. If a CAS number is given, it is the closest match available.

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