MICROCHIP

Semiconductor Device Type: **S2X-PDIP-40-.600in-MatteTin**

Sub-Component	Basic Substance	CAS Number	% Total Weight	mg/part	ppm
Die	Silicon	7440-21-3	7.50	487.50	75000
Polyimide Film	Polyimide	Trade Secret	0.22	13.98	2150
Polyimide Film	p-tert-Butylphenol-formaldehyde-phenol copolymer	28453-20-5	0.03	1.95	300
Polyimide Film	Bisphenol A diphenyl ether bismaleimide	79922-55-7	0.03	1.95	300
Polyimide Film	Acrylonitrile-butadiene copolymer	9003-18-3	0.04	2.28	350
Polyimide Film	Poly(ethylene terephthalate)	25038-59-9	0.19	12.35	1900
Mold Compound	Phenolic Resin	Trade Secret	7.94	515.78	79350
Mold Compound	Carbon Black	1333-86-4	0.79	51.58	7935
Mold Compound	Other	Trade Secret	3.17	206.31	31740
Mold Compound	Epoxy Resin	Trade Secret	7.94	515.78	79350
Mold Compound	Vitreous silica	60676-86-0	59.51	3868.31	595125
Plating & Anode Ball	Lead	7439-92-1	0.00	0.04	6
Plating & Anode Ball	Tin	7440-31-5	1.25	81.21	12494
Die Attach Epoxy	Silver	7440-22-4	0.54	34.86	5363
Die Attach Epoxy	Formaldehyde, polymer with 2-(chloromethyl)oxirane and phenol	9003-36-5	0.11	7.31	1125
Die Attach Epoxy	p-tert-Butylphenyl glycidyl ether	3101-60-8	0.06	3.66	563
Die Attach Epoxy	Dicyandiamide	461-58-5	0.01	0.49	75
Die Attach Epoxy	Phenolic Resin	Trade Secret	0.02	1.22	188
Die Attach Epoxy	Amine	Trade Secret	0.02	1.22	188
Bonding Wire	Gold	7440-57-5	0.20	13.00	2000
Lead Frame	Phosphorus	7723-14-0	0.01	0.55	85
Lead Frame	Zinc	7440-66-6	0.01	0.83	128
Lead Frame	Copper	7440-50-8	9.99	649.27	99888
Lead Frame	Iron	7439-89-6	0.24	15.66	2409
Lead Frame	Silver	7440-22-4	0.20	12.94	1991
		TOTALS:	**100.00**	**6500.00**	**1,000,000**

6500.00 mg Total Mass

The information contained in this Material Content Declaration (MCD) consists of package-level information and is not part number specific. This information is considered to be sufficiently representative of all part numbers for the package type.

Microchip Technology Incorporated designs all products to comply with global product material compliance standards, including but not limited to RoHS, REACH, and China RoHS. Additionally, Microchip products are designed to be compliant with IEC62474. For specific compliance information, please check our product material compliance website on microchip.com or ask your local sales representative.

Microchip Technology Incorporated believes the information in this MCD is true and correct to the best of its knowledge and belief, as of the date listed in this form. Microchip Technology Incorporated cannot guarantee the completeness and accuracy of data in this form because It has been compiled based on the ranges provided In Safety Data Sheets provided by raw material suppliers. Supplier information is often protected from disclosure as trade secrets and some information may not have been provided by subcontract assemblers and raw material suppliers. Information is provided only as estimates of the average weight of these parts. These estimates do not include trace levels of dopants, impurities, metals, and non-metallic materials which may be contained within silicon devices (silicon IC) or the finished parts.

Microchip Technology Incorporated does not provide any warranty, express or implied, with respect to the Information provided in this declaration. The exclusive, limited product warranties provided by Microchip Technology Incorporated, and its subsidiaries are contained in Microchip's standard terms and conditions of sale. These are provided in Microchip's quotations, sales order acknowledgements, and invoices.

Microchip disclaims any duty to notify users of updates or changes to MCDs and shall not be liable for any damages, direct or indirect, consequential or otherwise, suffered by users or third parties as a result of the users' reliance on the information in MCDs.

Package Homogeneous Materials

487.50	**(mg) Total**	**Die**	**% of Total Weight**	**7.50**
	Silicon	7440-21-3	100.00	
		Total	**100.00**	
32.50	**(mg) Total**	**Polyimide Film**	**% of Total Weight**	**0.50**
	Polyimide	Trade Secret	43.00	
	p-tert-Butylphenol-formaldehyde-phenol copolymer	28453-20-5	6.00	
	Bisphenol A diphenyl ether bismaleimide	79922-55-7	6.00	
	Acrylonitrile-butadiene copolymer	9003-18-3	7.00	
	Poly(ethylene terephthalate)	25038-59-9	38.00	
		Total	**100.00**	
5157.75	**(mg) Total**	**Mold Compound**	**% of Total Weight**	**79.35**
	Phenolic Resin	Trade Secret	10.00	
	Carbon Black	1333-86-4	1.00	
	Other	Trade Secret	4.00	
	Epoxy Resin	Trade Secret	10.00	
	Vitreous silica	60676-86-0	75.00	
		Total	**100.00**	
81.25	**(mg) Total**	**Plating & Anode Ball**	**% of Total Weight**	**1.25**
	Lead	7439-92-1	0.05	
	Tin	7440-31-5	99.95	
		Total	**100.00**	
48.75	**(mg) Total**	**Die Attach Epoxy**	**% of Total Weight**	**0.75**
	Silver	7440-22-4	71.50	
	Formaldehyde, polymer with 2-(chloromethyl)oxirane and phenol	9003-36-5	15.00	
	p-tert-Butylphenyl glycidyl ether	3101-60-8	7.50	
	Dicyandiamide	461-58-5	1.00	
	Phenolic Resin	Trade Secret	2.50	
	Amine	Trade Secret	2.50	
		Total	**100.00**	
13.00	**(mg) Total**	**Bonding Wire**	**% of Total Weight**	**0.20**
	Gold	7440-57-5	100.00	
		Total	**100.00**	
679.25	**(mg) Total**	**Lead Frame**	**% of Total Weight**	**10.45**
	Phosphorus	7723-14-0	0.08	
	Zinc	7440-66-6	0.12	
	Copper	7440-50-8	95.59	
	Iron	7439-89-6	2.31	
	Silver	7440-22-4	1.91	
6500.00		**Total**	**100.00**	100.00