

Supplier Name: Texas Instruments Inc. (DUNS# 00-732-1904)
 Contact Info: ti.com/support
 Form/Declaration Type: Distribute - RoHS and IEC 62474 DB
 Created on: 05/31/2022

Details for "LM27313XQMF/NOPB"

Current Product Information

TI part number	Lead finish/Ball material	MSL rating/peak reflow	Assembly site	Package Pins	Package body size (mm)	Total device mass (mg)*
LM27313XQMF/NOPB	SN	Level-1-260C-UNLIM	Texas Instruments Electronics	DBV 5	2.9 x 1.6 x 1.45	18.2

*Total Device Mass

The summary mass is a rounded value and will be within approximately +/- 10% of the detailed mass value.

Environmental Ratings Information

RoHS	REACH	Green	IEC 62474 DB
Yes	Yes	Yes	Yes

Component Information

Component	Substance	CAS Number	Amount (mg)	Homogeneous Material Level		Component Level	
				Percentage %	ppm	Percentage %	ppm
Bond Wire							
Precious Metals	Gold	7440-57-5	0.064148	100	1000000	0.351711	3517
Sub-Total			0.064148	100	1000000	0.351711	3517
Die Attach Adhesive							
Precious Metals	Silver	7440-22-4	0.180193	75.000104	750001	0.987964	9880
Thermoplastics	Epoxy	85954-11-6	0.060064	24.999896	249999	0.329319	3293
Sub-Total			0.240257	100	1000000	1.317283	13173
Lead Frame							
Copper and Its Alloys	Copper	7440-50-8	5.436408	96.509995	965100	29.806789	298068
Copper and Its Alloys	Iron	7439-89-6	0.134065	2.379993	23800	0.735053	7351
Copper and Its Alloys	Phosphorus	7723-14-0	0.00169	0.030002	300	0.009266	93
Precious Metals	Silver	7440-22-4	0.054077	0.960004	9600	0.296494	2965
Zinc and Its Alloys	Zinc	7440-66-6	0.00676	0.120007	1200	0.037064	371
Sub-Total			5.633	100	1000000	30.884665	308847
Lead Frame Plating							
Other Nonferrous Metals and Alloys	Tin	7440-31-5	0.7	100	1000000	3.837967	38380
Sub-Total			0.7	100	1000000	3.837967	38380
Mold Compound							
Other Inorganic Materials	Silica	7631-86-9	9.570072	88.699993	887000	52.47088	524709
Other Nonferrous Metals and Alloys	Metal Hydroxide	Trade Secret	0.323678	3.000002	30000	1.774665	17747
Other Plastics and Rubber	Carbon Black	1333-86-4	0.032368	0.300002	3000	0.177468	1775
Thermoplastics	Epoxy	85954-11-6	0.863141	8.000003	80000	4.732438	47324
Sub-Total			10.789259	100	1000000	59.15545	591554
Semiconductor Device							
Ceramics / Glass	Doped Silicon	7440-21-3	0.812161	100	1000000	4.452924	44529
Sub-Total			0.812161	100	1000000	4.452924	44529
Total			18.238825			100	1000000

Important Note

The ppm calculations are at the homogeneous material level and are maximum concentration values. The ppm displayed represents the homogeneous material with the highest ppm for that substance. The amount (mg) calculations represent the maximum total amount of each substance within the component.

The ppm calculations are at the component level and are average concentration values. The amount (mg) calculations represent the average total amount of each substance within the component. See Glossary of Terms for more details.

Important Part Information

There is a remote possibility the Customer Part Number (CPN) your company uses could reference more than one TI part number. This is due to two or more users (EMSI's or subcontractors) using the same CPN for different TI part numbers. If this occurs, please check your Customer Part Number and cross reference it with the TI part number seen on this page.

Product Content Methodology

For an explanation of the methods used to determine material weights, See Product Content Methodology

Material Declaration Certificate for Semiconductor IC Packaged Products

TI certifies that the material content information provided by TI is representative and accurate to the best of their knowledge based on material information provided by its suppliers and their combination into finished IC packaged products. TI semiconductor products designated to be "Pb-free", "Green" or "RoHS Exempt" fully meets the latest EU RoHS Directive requirements along with other legislation as seen in the former JIG-101 list that has been transferred to the IEC 62474 database.

Important Information/Disclaimer

TI bases its material content information on information provided by third-party suppliers and has taken, and continues to take, reasonably diligent steps to provide any required or available information. TI may not have conducted destructive testing or chemical analysis on incoming materials and chemicals. TI and TI suppliers may consider certain information to be proprietary, and thus certain information may not be available for release by TI. The material content information is provided by TI "as is."

Signature: [\(click here for a fuller statement with a signed certificate\)](#)

Name/Title: Hubie Payne, Vice President, Worldwide 5C Quality
 For further environmental statements, please go to www.ti.com/ecoinfo
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RoHS: Means TI semiconductor products that are compliant with the current RoHS requirement that the maximum concentration values of the ten substances listed in RoHS Annex II do not exceed 0.1 % by weight in homogeneous materials. Where designed to be soldered at high temperatures, TI semiconductor products labeled as "RoHS Compliant" are suitable for use in specified lead-free processes. TI may also reference these types of semiconductor products as "Pb-Free." These TI semiconductor products are also fully compliant with GADSL and the IEC 62474 database for electronic requirements.

RoHS Exempt: Means TI semiconductor products that contain lead (Pb) above the RoHS Annex II threshold, but that fall within one of the specific RoHS exemptions noted above or documented in <http://www.ti.com/lit/pdf/szsq088>

Green: Means the content of Chlorine (Cl) and Bromine (Br)-based flame retardants meet J5709B low halogen requirements of <=1 000ppm threshold; Antimony trioxide (Sb2O3) contained in halogen based flame retardant materials meets the <=1 000ppm threshold requirement; and Beryllium Oxide (BeO) is <=1000ppm.