

Supplier Name: Texas Instruments Inc. (DUNS# 00-732-1904)  
 Contact Info: [ti.com/support](http://ti.com/support)  
 Form/Declaration Type: Distribute - RoHS and IEC 62474 DB  
 Created on: 06/10/2022

Details for "TPS3809K33QDBVRQ1"

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)*
TPS3809K33QDBVRQ1	NIPDAU	Level-1-260C-UNLIM	Ext-Mfg	DBV   3	1.60X2.90X1.45	15.4

\*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
<b>Bond Wire</b>							
Precious Metals	Gold	7440-57-5	0.015271	100	1000000	0.099451	995
Sub-Total			<b>0.015271</b>	<b>100</b>	<b>1000000</b>	<b>0.099451</b>	<b>995</b>
<b>Die Attach Adhesive</b>							
Precious Metals	Silver	7440-22-4	0.0756	75	750000	0.492337	4923
Thermoplastics	Epoxy	85954-11-6	0.0252	25	250000	0.164112	1641
Sub-Total			<b>0.1008</b>	<b>100</b>	<b>1000000</b>	<b>0.65645</b>	<b>6564</b>
<b>Lead Frame</b>							
Copper and Its Alloys	Copper	7440-50-8	2.950602	99.280013	992800	19.215497	192155
Other Nonferrous Metals and Alloys	Chromium	7440-47-3	0.00743	0.25	2500	0.048387	484
Other Nonferrous Metals and Alloys	Tin	7440-31-5	0.00743	0.25	2500	0.048387	484
Zinc and Its Alloys	Zinc	7440-66-6	0.006538	0.219987	2200	0.042578	426
Sub-Total			<b>2.972</b>	<b>100</b>	<b>1000000</b>	<b>19.354849</b>	<b>193548</b>
<b>Lead Frame Plating</b>							
Nickel and Its Alloys	Nickel	7440-02-0	0.110339	95.119828	951198	0.718572	7186
Precious Metals	Gold	7440-57-5	0.000905	0.780172	7802	0.005894	59
Precious Metals	Palladium	7440-05-3	0.004756	4.1	41000	0.030973	310
Sub-Total			<b>0.116</b>	<b>100</b>	<b>1000000</b>	<b>0.755438</b>	<b>7554</b>
<b>Mold Compound</b>							
Other Inorganic Materials	Fused Silica	60676-86-0	10.024454	85.000002	850000	65.283242	652832
Other Plastics and Rubber	Carbon Black	1333-86-4	0.03538	0.299996	3000	0.230409	2304
Thermoplastics	Epoxy	85954-11-6	1.733641	14.700001	147000	11.290162	112902
Sub-Total			<b>11.793475</b>	<b>100</b>	<b>1000000</b>	<b>76.803812</b>	<b>768038</b>
<b>Semiconductor Device</b>							
Ceramics / Glass	Doped Silicon	7440-21-3	0.357779	100	1000000	2.33	23300
Sub-Total			<b>0.357779</b>	<b>100</b>	<b>1000000</b>	<b>2.33</b>	<b>23300</b>
<b>Total</b>			<b>15.355325</b>			<b>100</b>	<b>1000000</b>

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 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."

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

Name/Title: Hubie Payne, Vice President, Worldwide SC Quality  
 For further environmental statements, please go to [www.ti.com/econifo](http://www.ti.com/econifo)  
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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/szzq088>

**Green:** Means the content of Chlorine (Cl) and Bromine (Br)-based flame retardants meet JS709B 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.