

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: 06/12/2022

Details for "TPS7A4401DGQR"

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)*
TPS7A4401DGQR	NIPDAUAG	Level-2-260C-1 YEAR	Ext-Mfg	DGQ   10	3x3x1	29.1

\*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>							
Copper and Its Alloys	Copper	7440-50-8	0.038172	96.623298	966233	0.131328	1313
Precious Metals	Gold	7440-57-5	0.000127	0.32147	3215	0.000437	4
Precious Metals	Palladium	7440-05-3	0.001207	3.055232	30552	0.004153	42
Sub-Total			<b>0.039506</b>	<b>100</b>	<b>1000000</b>	<b>0.135917</b>	<b>1359</b>
<b>Die Attach Adhesive</b>							
Precious Metals	Silver	7440-22-4	0.20174	82.00013	820001	0.69407	6941
Thermoplastics	Epoxy	85954-11-6	0.044284	17.99987	179999	0.152356	1524
Sub-Total			<b>0.246024</b>	<b>100</b>	<b>1000000</b>	<b>0.846426</b>	<b>8464</b>
<b>Lead Frame</b>							
Copper and Its Alloys	Copper	7440-50-8	13.04076	99.7	997000	44.865697	448657
Magnesium and Its Alloys	Magnesium	7439-95-4	0.00654	0.05	500	0.0225	225
Other Inorganic Materials	Silicon	7440-21-3	0.0327	0.25	2500	0.112502	1125
Sub-Total			<b>13.08</b>	<b>100</b>	<b>1000000</b>	<b>45.000699</b>	<b>450007</b>
<b>Lead Frame Plating</b>							
Nickel and Its Alloys	Nickel	7440-02-0	0.3892	97.3	973000	1.339012	13390
Precious Metals	Gold	7440-57-5	0.0012	0.3	3000	0.004129	41
Precious Metals	Palladium	7440-05-3	0.0084	2.1	21000	0.0289	289
Precious Metals	Silver	7440-22-4	0.0012	0.3	3000	0.004129	41
Sub-Total			<b>0.4</b>	<b>100</b>	<b>1000000</b>	<b>1.376168</b>	<b>13762</b>
<b>Mold Compound</b>							
Other Inorganic Materials	Fused Silica	60676-86-0	13.10544	93.499996	935000	45.088224	450882
Other Plastics and Rubber	Carbon Black	1333-86-4	0.070083	0.500003	5000	0.241115	2411
Thermoplastics	Epoxy	85954-11-6	0.840991	6.000001	60000	2.893363	28934
Sub-Total			<b>14.016514</b>	<b>100</b>	<b>1000000</b>	<b>48.222701</b>	<b>482227</b>
<b>Semiconductor Device</b>							
Ceramics / Glass	Doped Silicon	7440-21-3	1.284171	100	1000000	4.418088	44181
Sub-Total			<b>1.284171</b>	<b>100</b>	<b>1000000</b>	<b>4.418088</b>	<b>44181</b>
<b>Total</b>			<b>29.066215</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 (EMSIs 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: [\(click here for a fuller statement with a signed certificate\)](#)

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 For further environmental statements, please go to [www.ti.com/eoinfo](http://www.ti.com/eoinfo)  
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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.