

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: **06/04/2022**

Details for "OPA210IDT"

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)*
OPA210IDT	NIPDAU	Level-2-260C-1 YEAR	TI MALAYSIA A/T	D 8	4.9x3.9x1.75	91.7

***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							
Copper and Its Alloys	Copper	7440-50-8	0.025646	97.583806	975838	0.027979	280
Not Categorized	Proprietary Materials		0.000003	0.011415	114	0.000003	0
Precious Metals	Palladium	7440-05-3	0.000631	2.400974	24010	0.000688	7
Precious Metals	Silver	7440-22-4	0.000001	0.003805	38	0.000001	0
Sub-Total			0.026281	100	1000000	0.028672	287
Die Attach Adhesive							
Precious Metals	Silver	7440-22-4	0.157614	80.000203	800002	0.171955	1720
Thermoplastics	Epoxy	85954-11-6	0.039403	19.999797	199998	0.042988	430
Sub-Total			0.197017	100	1000000	0.214943	2149
Lead Frame							
Copper and Its Alloys	Copper	7440-50-8	28.67088	97.52	975200	31.279523	312795
Copper and Its Alloys	Iron	7439-89-6	0.6762	2.3	23000	0.737725	7377
Copper and Its Alloys	Phosphorus	7723-14-0	0.00882	0.03	300	0.009622	96
Zinc and Its Alloys	Zinc	7440-66-6	0.0441	0.15	1500	0.048112	481
Sub-Total			29.4	100	1000000	32.074983	320750
Lead Frame Plating							
Nickel and Its Alloys	Nickel	7440-02-0	1.14144	95.12	951200	1.245295	12453
Precious Metals	Gold	7440-57-5	0.00936	0.78	7800	0.010212	102
Precious Metals	Palladium	7440-05-3	0.0492	4.1	41000	0.053677	537
Sub-Total			1.2	100	1000000	1.309183	13092
Mold Compound							
Other Inorganic Materials	Fused Silica	60676-86-0	52.367138	86.999999	870000	57.131805	571318
Other Organic Materials	Chlorine	7782-50-5	0.001204	0.002	20	0.001314	13
Other Plastics and Rubber	Carbon Black	1333-86-4	0.300961	0.500001	5000	0.328344	3283
Thermoplastics	Epoxy	85954-11-6	7.52281	12.498	124980	8.207279	82073
Sub-Total			60.192113	100	1000000	65.668742	656687
Semiconductor Device							
Ceramics / Glass	Doped Silicon	7440-21-3	0.644809	100	1000000	0.703477	7035
Sub-Total			0.644809	100	1000000	0.703477	7035
Total			91.66022			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."

[For additional information, please contact TI customer support.](#)

[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/ecoinfo
 Created on: 06/04/2022

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.