| ASSOCIATION CONNECT | © Copyright 2005.] | Material Composition Declaration © Copyright 2005. IPC, Bannockburn, Illinois. All rights reserved under both international and Pan-American copyright conventions. | | | | This document is a declaration of the substances within the manufacturer listed item. Note: if the item is an assembly with low level parts, the declaration encompasses all lower level materials for which the manufacturer has engineering responsibility. | | | | | | | | | |
|----------------------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------------------------|----------------------------|--------------------------|---------------------------------|--------------------------|------------------------------|-----------|-----|
| 752-21.1 | | IPC Web Site for Information on IPC-1752 Standard Form Typ http://www.ipc.org/IPC-175x Form Typ Distribute | | | | Declaration Class * Class 6 - RoHS Yes/No, Homogeneous Mater | | | | | | ials and Mfg Information | | | |
| Supplier Infor | mation | | | | | | | | | | | | | | |
| Company name* | | | Company unique ID | | | τ | Unique ID Authority | | | | | Response Date* | | | |
| nsemi | | | | | | | | | | | | 2023-06-08 | | | |
| Contact Name | | | Title - Contact | | | I | Phone - Contact* | | | | | Email - Contact* | | | |
| Product-Env-Ste | wards | Product Enviro Compliance | | | | NA | | | | | Product-Env-Stewards@onsemi.com | | | | |
| authorized Repre | esentative* | Title - Representative | | | I | Phone - Representative* | | | | Email - Representative* | | | | | |
| Product-Env-Stewards | | | Product Enviro Compliance | | | | NA | | | | Product-Env-Stewards@onsemi.com | | | | |
| Reque | ster Item Number | | | | | | Effective Date | e Versio | Version Manufacturing Site | | W | eight* | UOM | Unit Type | |
| | | | | | | | 2023-06-08 | | TH2 | | 21 | 21.6199 mg | | Each | |
| Ianufacturin | g Proccess Informa | ition | | | | | | <u>'</u> | | | | | | ' | |
| Termin | al Plating / Grid Array Material | | Terminal Base Alloy | | J-STD-020 MS | ΓD-020 MSL Rating | | Peak Process Body Temperature | | Max Time at Peak Tempera | | Temperatu | ture Number of Reflow Cycles | | les |
| Preciou Sn) | Precious metal (e.g. Ag,Au, NiPdAu) (no Sn) | | CU Alloy 1 | | 1 | | 260 | | C 30 | | | second | 3 | | |
| Comments | | | | | | | | | | | | | | | |
| vel 1 - maximun | n time at peak temperat | ure during so | oldering is 10-3 | 80 seconds | | | | | | | | | | | |
| or more informa | tion regarding material | composition | please refer to | page 3 | | | | | | | | | | · | |

| RoHS Material Composition Declaration | | | Declaration Type * | Detail | ed | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-----------------------------------------|----------------------------------------------|-----------------------|-------------------------------------|--|--|--|--|--|--|
| Directive 2015/863/EU amending RoHS Directive 2011/65/EU RoHS Definition: Quantity limit of 0.01% by mass (100 PPM) in homogeneous material for Cadmium and quantity limit of 0.1% by mass (1000 PPM) in homogeneous material for: Lead (Pb), Mercury (Hg), Hexavalent Chromium (Cr6+), Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE), and Bis(2-ethylhexyl) phthalate (DEHP), Benzyl-butyl phthalate (BBP), Dibutyl phthalate (DBP), Diisobutyl phthalate (DIBP). | | | | | | | | | | | |
| Please indicate whether any homogeneous material (as defined by the RoHS Directive, EU 2011/65/EU and implemented by the laws of the European Union member states) of the part identified on this form contains lead, mercury, cadmium, hexavalentchromium, polybrominated biphenyls and/or polybrominated diphenyl ethers (each a "RoHS restricted substance") in excess of the applicable quantity limit identified above. If a homogeneous material within the part contains a RoHS restricted substance inexcess of an applicable quantity limit, please indicate below which, if any, RoHS exemption you believe may apply. If the part is an assembly with lower level components, the declaration shall encompass all such components. Supplier certifies that it gathered the information it provides in this form using appropriate methods to ensure its accuracy and that such information is true and correct to the best of its knowledge and belief, as of the date that Supplier completes this form. Supplier acknowledges that Company will rely on this certification in determining the compliance of its products with European Union member state laws that implement the RoHS Directive. Company acknowledges that Supplier may have relied on informationprovided by others in completing this form, and that Supplier may not have independently verified such information. However, in situations where Supplier has not independently verified information provided by others, Supplier agrees that, at a minimum, its suppliers have provided certifications regarding their contributions to the part, and those certifications are at least as comprehensive as the certification in this paragraph. If the Company and the Supplier has not orditions of that agreement, including any warranty rights and/or remedies provided as part of that agreement, will be the sole and exclusivesource of the Supplier's liability and the Company's remedies for issues that arise regarding information the Supplier provides in this form. In the absence of such written agreement, the warranty ri | | | | | | | | | | | |
| RoHS Declaration * 1 - Item | (s) does not contain RoHS restricted substar | nces per the definition above | Supplier A | cceptance * | Accepted | | | | | | |
| Exemption: If the declared item does not contain RoHS restricted substances per the definition above except for defined RoHS exemptions, then select the corresponding response in the RoHS Declaration above and choose all applicable exemptions. | | | | | | | | | | | |
| Exemption List Version | EL-2011/534/EU | | | | | | | | | | |
| Declaration Signature | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | e "Accepted" on the Supplier Acceptance | drop-down. This will display the signature a | rea. Digitally sign t | the declaration (if required by the | | | | | | |

Homogeneous Material Composition Declaration for Electronic Products

SubItem Instructions: The presence of any JIG Level A or B substances must be declared. [1] indicate the subpart in which the substance is located, [2] provide a description of the homogeneous material [3], enter the weight of the homogeneous material.

Substance Instructions: [A] select the Level (JIG A, JIG B, Requester or Supplier) [B] select the substance category (JIG or Requester) or enter a value (Supplier). [C] select the substance (JIG) or enter the substance and CAS (Other). [D] select a RoHS exemption, if applicable [E] enter the weight of the substance or the PPM concentration [F] Optionally enter the positive (+) and negative (-) tolerance in percent (Note: percent tolerance values are expected to cover a 3 sigma range of distribution unless otherwise noted).

| Homogeneous Material | Weight | Unit of Measure | Level | Substance | CAS | Exempt | Weight | Unit of Measure |
|----------------------|---------|-----------------|----------|---------------------------------------------------------------|------------------|--------|--------|-----------------|
| Die | 1.055 | mg | Supplier | Silicon (Si) | 7440-21-3 | | 1.055 | mg |
| Die Attach | 0.1359 | mg | Supplier | Isobornyl Methacrylate | 7534-94-3 | | 0.0082 | mg |
| | | | Supplier | Silver (Ag) | 7440-22-4 | | 0.1108 | mg |
| | | | Supplier | Isobornyl Acrylate | 5888-33-5 | | 0.0082 | mg |
| | | | Supplier | Misc. | Proprietary Data | | 0.0007 | mg |
| | | | Supplier | Tricyclo[5.2.1.02,6]decanedimethanol Diacrylate (C18H24O4) | 42594-17-2 | | 0.0082 | mg |
| Lead Frame | 9.565 | mg | Supplier | Zinc (Zn) | 7440-66-6 | | 0.0119 | mg |
| | | | Supplier | Iron (Fe) | 7439-89-6 | | 0.2247 | mg |
| | | | Supplier | Copper (Cu) | 7440-50-8 | | 9.3205 | mg |
| | | | Supplier | Phosphorus (P) | 7723-14-0 | | 0.0079 | mg |
| Mold Compound-Black | 10.3333 | mg | Supplier | Carbon Black (C) | 1333-86-4 | | 0.0517 | mg |
| | | | Supplier | Fused Silica (SiO2) | 60676-86-0 | | 9.0933 | mg |
| | | | Supplier | Ortho-Cresol Novolac Resin | 29690-82-2 | | 0.6717 | mg |
| | | | Supplier | Phenolic Resin (Novolac) | 9003-35-4 | | 0.5167 | mg |
| Plating | 0.1337 | mg | Supplier | Silver (Ag) | 7440-22-4 | | 0.0021 | mg |
| | | | Supplier | Palladium (Pd) | 7440-05-3 | | 0.0048 | mg |
| | | | В | Nickel (Ni) | 7440-02-0 | | 0.1241 | mg |
| | | | Supplier | Gold (Au) | 7440-57-5 | | 0.0027 | mg |
| Wire Bond - Au | 0.397 | mg | Supplier | Gold (Au) | 7440-57-5 | | 0.397 | mg |