

# MATERIAL DECLARATION SHEET



|                 |                           |     |   |                      |
|-----------------|---------------------------|-----|---|----------------------|
| Material Number | CR0805 Series             |     |   | Picture attached<br> |
| Product Line    | Thick Film Chip Resistors |     |   |                      |
| Compliance Date | 2021/02/17                |     |   |                      |
| RoHS Compliant  | Yes                       | MSL | 1 |                      |

| No.          | Construction Element(subpart) | Homogeneous Material | Material weight [mg] | Homogeneous Material\ Substances | CASRN if applicable | Materials Mass % | Material Mass % of total unit wt. | Subpart mass of total wt. (%) |
|--------------|-------------------------------|----------------------|----------------------|----------------------------------|---------------------|------------------|-----------------------------------|-------------------------------|
| 1            | Ceramic Substrate             | CRXXXX               | 3.81944              | Aluminum oxide                   | 1344-28-1           | 96%              | 85.56%                            | 89.13%                        |
|              |                               |                      |                      | Silicon dioxide                  | 14808-60-7          | 4%               | 3.57%                             |                               |
| 2            | Conductor Layer               | AZZ.002.5421         | 0.08224              | Silver                           | 7440-22-4           | 95%              | 1.82%                             | 1.92%                         |
|              |                               |                      |                      | Glass                            | 65997-17-3          | 5%               | 0.10%                             |                               |
| 3            | Resistive Element             | AZZ.002.00XXX        | 0.04328              | Ruthenium(IV) oxide              | 12036-10-1          | 25%              | 0.25%                             | 1.01%                         |
|              |                               |                      |                      | Silver                           | 7440-22-4           | 40%              | 0.40%                             |                               |
|              |                               |                      |                      | Palladium                        | 7440-05-3           | 15%              | 0.15%                             |                               |
|              |                               |                      |                      | Lead                             | 7439-92-1           | 20%              | 0.20%                             |                               |
| 4            | Over Coating                  | AZZ.002.1057A        | 0.06650              | Epoxy                            | 25068-38-6          | 100%             | 1.55%                             | 1.55%                         |
| 5            | Marking                       | ZSR-1XX              | 0.00361              | Epoxy                            | 25085-99-8          | 100%             | 0.08%                             | 0.08%                         |
| 6            | End Terminal                  | AZZ.003.0048         | 0.00337              | Nickel                           | 7440-02-0           | 80%              | 0.06%                             | 0.08%                         |
|              |                               |                      |                      | Chromium                         | 7440-47-3           | 20%              | 0.02%                             |                               |
| 7            | Ni Plating                    | Ni                   | 0.14111              | Nickel                           | 7440-02-0           | 100%             | 3.29%                             | 3.29%                         |
| 8            | Sn Plating                    | Sn                   | 0.12589              | Tin                              | 7440-31-5           | 100%             | 2.94%                             | 2.94%                         |
| TOTAL WEIGHT |                               |                      | 4.28544              |                                  |                     |                  |                                   |                               |

This Document was updated on: 2021/02/17 ← the Date you completed fulfillment.

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Important remarks: It is the responsibility of the user to verify they are accessing the latest version.