



# Material Composition Declaration

## EPC2029

|                |                                  |                  |                       |
|----------------|----------------------------------|------------------|-----------------------|
| Company Name   | Efficient Power Conversion (EPC) | Issue Date:      | 5/4/2016              |
| Contact Name:  | Yanping Ma                       | Contact Title:   | VP Quality            |
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| Part Weight:   | 18.6 mg                          | Type of Product: | eGaN FET              |

| Construction Element | Substance        | CAS No. If Applicable | Weight (mg) | Mass (%) | Sum (%) | Mass (ppm) |
|----------------------|------------------|-----------------------|-------------|----------|---------|------------|
| Chip                 | Silicon          | 7440-21-3             | 13.9274     | 74.87    | 77.69   | 748719     |
|                      | Silicon oxide    | 7631-86-9             | 0.0758      | 0.41     |         | 4077       |
|                      | Silicon nitride  | 12033-89-5            | 0.0270      | 0.14     |         | 1449       |
|                      | Gallium nitride  | 25617-97-4            | 0.0885      | 0.48     |         | 4760       |
|                      | Aluminum         | 7429-90-5             | 0.1446      | 0.78     |         | 7775       |
|                      | Aluminum nitride | 24304-00-5            | 0.0213      | 0.11     |         | 1148       |
|                      | Titanium         | 7440-32-6             | 0.0036      | 0.02     |         | 191        |
|                      | Titanium nitride | 25583-20-4            | 0.0132      | 0.07     |         | 712        |
|                      | Copper           | 7440-50-8             | 0.0048      | 0.03     |         | 258        |
|                      | Tungsten         | 7440-33-7             | 0.0052      | 0.03     |         | 277        |
|                      | Polyimide        |                       | 0.1403      | 0.75     |         | 7544       |
| Under Bump Metal     | Titanium         | 7440-32-6             | 0.0017      | 0.01     | 0.77    | 91         |
|                      | Nickel           | 7440-02-0             | 0.0000      | 0.00     |         | 0          |
|                      | Vanadium         | 7440-62-2             | 0.0000      | 0.00     |         | 0          |
|                      | Copper           | 7440-50-8             | 0.1417      | 0.76     |         | 7616       |
| Solder Bump          | Tin              | 7440-31-5             | 3.8262      | 20.57    | 21.54   | 205692     |
|                      | Silver           | 7440-22-4             | 0.1603      | 0.86     |         | 8615       |
|                      | Copper           | 7440-50-8             | 0.0200      | 0.11     |         | 1077       |
| Sum in total:        |                  |                       | 18.6        | 100.00   | 100     | 1000000    |

**Note:**

The substance content disclosed herewith is approximate and is based on engineering calculation. Statements are based on our present knowledge and may subject to change at any time due to technical requirements and development. EPC may update this document without notification. Statement may not include information regarding the minute quantities of dopant and metal materials in the electrical devices contained within the finished product.