



## Material Content Data Sheet



| <b>Sales Product Name</b> |                    |                |                    | SAK-TC1782F-320F180HR BA |                  | <b>Issued</b>  |                    | 19. January 2018 |  |
|---------------------------|--------------------|----------------|--------------------|--------------------------|------------------|----------------|--------------------|------------------|--|
| <b>MA#</b>                |                    |                |                    | MA001225628              |                  |                |                    |                  |  |
| <b>Package</b>            |                    |                |                    | PG-LQFP-176-20           |                  | <b>Weight*</b> |                    | 2050.51 mg       |  |
| Construction Element      | Material Group     | Substances     | CAS# if applicable | Weight [mg]              | Average Mass [%] | Sum [%]        | Average Mass [ppm] | Sum [ppm]        |  |
| chip                      | inorganic material | silicon        | 7440-21-3          | 65.128                   | 3.18             | 3.18           | 31762              | 31762            |  |
| leadframe                 | inorganic material | phosphorus     | 7723-14-0          | 0.155                    | 0.01             |                | 76                 |                  |  |
|                           | non noble metal    | zinc           | 7440-66-6          | 0.620                    | 0.03             |                | 302                |                  |  |
|                           | non noble metal    | iron           | 7439-89-6          | 12.403                   | 0.60             |                | 6049               |                  |  |
| wire                      | non noble metal    | copper         | 7440-50-8          | 503.632                  | 24.56            | 25.20          | 245613             | 252040           |  |
|                           | noble metal        | palladium      | 7440-05-3          | 0.041                    | 0.00             |                | 20                 |                  |  |
|                           | non noble metal    | copper         | 7440-50-8          | 4.066                    | 0.20             | 0.20           | 1983               | 2003             |  |
| encapsulation             | organic material   | carbon black   | 1333-86-4          | 7.026                    | 0.34             |                | 3426               |                  |  |
|                           | plastics           | epoxy resin    | -                  | 189.701                  | 9.25             |                | 92514              |                  |  |
|                           | inorganic material | silicondioxide | 60676-86-0         | 1208.466                 | 58.93            | 68.52          | 589350             | 685290           |  |
| leadfinish                | noble metal        | palladium      | 7440-05-3          | 0.142                    | 0.01             |                | 69                 |                  |  |
|                           | noble metal        | silver         | 7440-22-4          | 0.124                    | 0.01             |                | 61                 |                  |  |
|                           | noble metal        | gold           | 7440-57-5          | 0.228                    | 0.01             |                | 111                |                  |  |
|                           | non noble metal    | nickel         | 7440-02-0          | 4.888                    | 0.24             | 0.27           | 2384               | 2625             |  |
| plating                   | noble metal        | silver         | 7440-22-4          | 0.928                    | 0.05             |                | 453                |                  |  |
|                           | noble metal        | gold           | 7440-57-5          | 1.705                    | 0.08             |                | 832                |                  |  |
|                           | noble metal        | palladium      | 7440-05-3          | 1.061                    | 0.05             |                | 517                |                  |  |
|                           | non noble metal    | nickel         | 7440-02-0          | 36.558                   | 1.78             | 1.96           | 17829              | 19631            |  |
| glue                      | plastics           | epoxy resin    | -                  | 3.409                    | 0.17             |                | 1662               |                  |  |
|                           | noble metal        | silver         | 7440-22-4          | 10.226                   | 0.50             | 0.67           | 4987               | 6649             |  |
| *deviation                | < 10%              |                | Sum in total:      |                          |                  | 100.00         |                    | 1000000          |  |

### Important Remarks:

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This product is in compliance with EU Directive 2015/863/EU amending Annex II to EU Directive 2011/65/EU (RoHS) and does not use any exemption

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