


| Product | | | | |
|----------------------------------|---------------|--|------------------|------------|
| Mfr Item Number | Mfr Item Name | Version | Mfr Site | Date |
| STM32L433RC16 STM32L433RCT6TR | S05W*435XXXZ | A | 998Z | 2018-03-04 |
| Amount | UoM | Unit type | ST ECOPACK Grade | |
| 355.83 | mg | Each | ECOPACK® 2 | |
| | Comment | ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant (in each organic material) | | |

| Manufacturing information | | | | |
|--|---------------------|----------------------|---------|---|
| J-STD-020 MSL Rating | Classification Temp | Nbr of Reflow Cycles | |  life.augmented |
| 3 | 260 | 3 | | |
| bulk Solder Termination | Terminal Plating | Terminal Base Alloy | Comment | |
| able; if coating is used or other bulk | Tin (Sn), matte | Copper Alloy | | |

| Package Designator | Size | Nbr of instances | Shape | |
|--------------------|--|------------------|--------|--|
| QFP | 10X10X1.4 | 64 | L Bend | |
| Comment | Package : 5W LQFP 64 10x10x1.4 1 0051434 | | | |

| QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015 | |
|--|-------------|
| Query | Response |
| 1 - Product(s) meets EU RoHS requirement without any exemptions | TRUE |
| 2 - Product(s) meets EU RoHS requirements except lead in solder and this usage may qualify under the lead in solder '7b' exemption (other selected exemptions may apply) | FALSE |
| 3 - Product(s) meets EU RoHS requirements by application of the selected exemption(s) | FALSE |
| 4 - Product(s) does not meet EU RoHS requirements and is not under exemptions | FALSE |
| Exemption Id. | Description |
| | |

| QueryList : California Prop65 list, dated 27th January 2017 | | | |
|--|------------------------|-------------|----------------|
| Query | Response | | |
| 1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen | FALSE | | |
| 2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen | TRUE | | |
| Substance | amount in product (mg) | Application | ppm in product |
| Lead | 0.004 | Impurities | 12 |
| | | | |

| QueryList : REACH-12th January 2017 | | | | |
|--|-------------------------|------------------------|-------------|----------------|
| Query | Response | | | |
| 1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH | TRUE | | | |
| CategoryLevel_Name | CategoryLevel_Threshold | amount in product (mg) | Application | ppm in product |
| | | | | |

| Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document | | | | | | Mfr Item Name | S05W*435XXXZ | | | | 6000000.0 | 0.0 |
|--|---------------------------------|---------|-----|----------|--------------------|-----------------------------|--------------|--------|---------|-----|---|--------------------------------|
| Homogeneous Material | Material Group | Mass | UoM | Level | Substance Category | Substance | CAS | Exempt | Mass | UoM | Concentration in homogeneous material (ppm) | Concentration in product (ppm) |
| Die or dies | M-011 Other inorganic materials | 18.474 | mg | supplier | die | Silicon (Si) | 7440-21-3 | | 18.134 | mg | 981596 | 50963 |
| | | | | supplier | metallization | Aluminium (Al) | 7429-90-5 | | 0.016 | mg | 866 | 45 |
| | | | | supplier | metallization | Copper (Cu) | 7440-50-8 | | 0.144 | mg | 7795 | 405 |
| | | | | supplier | metallization | Tantalum (Ta) | 7440-25-7 | | 0.047 | mg | 2544 | 132 |
| | | | | supplier | metallization | Titanium (Ti) | 7440-32-6 | | 0.002 | mg | 108 | 6 |
| | | | | supplier | metallization | Tungsten (W) | 7440-33-7 | | 0.001 | mg | 54 | 3 |
| | | | | supplier | Passivation | Silicon Nitride | 12033-89-5 | | 0.037 | mg | 2003 | 104 |
| | | | | supplier | Passivation | Silicon Oxide | 7631-86-9 | | 0.093 | mg | 5034 | 261 |
| | | | | Supplier | Metals | Silver | 7440-22-4 | | 1.076 | mg | 901000 | 3024 |
| | | | | Supplier | Plastics/polymers | Highly cross-linked polymer | Proprietary | | 0.118 | mg | 99000 | 332 |
| Mold Compound_EME-G631SHQ_Sur | M-011 Other inorganic materials | 236.590 | mg | Supplier | Plastics/polymers | Epoxy Resin A | Proprietary | | 5.172 | mg | 21000 | 14535 |
| | | | | Supplier | Plastics/polymers | Epoxy Resin B | Proprietary | | 5.172 | mg | 21000 | 14535 |
| | | | | Supplier | Plastics/polymers | Phenol Resin | Proprietary | | 13.792 | mg | 56000 | 38760 |
| | | | | Supplier | Glass | Silica(Amorphous)A | 60676-86-0 | | 182.518 | mg | 780450 | -487066 |
| | | | | Supplier | Glass | Silica(Amorphous)B | 7631-86-9 | | 28.402 | mg | 115320 | 79818 |
| | | | | Supplier | Non-metals | Carbon Black | 1333-86-4 | | 1.534 | mg | 6230 | 4312 |
| Wire_AG SI TYPE_MKE | Bonding Wire | 0.634 | mg | Supplier | Metals | Silver | 7440-22-4 | | 0.609 | mg | 960000 | 1711 |
| | | | | Supplier | Metals | Others | Proprietary | | 0.025 | mg | 40000 | 71 |
| Plating anode_Pure Tin_Nuo Nengda | M-011 Other inorganic materials | 1.438 | mg | Supplier | Metals | Tin | 7440-31-5 | | 1.438 | mg | 1000000 | 4041 |
| Leadframe_C9+Ag_HDS | Copper & its alloys | 97.500 | mg | Supplier | Metals | Iron | 7439-89-6 | | 2.132 | mg | 21865 | 5991 |
| | | | | Supplier | Non-metals | Phosphorus | 7723-14-0 | | 0.071 | mg | 730 | 200 |
| | | | | Supplier | Metals | Zinc | 7440-66-6 | | 0.110 | mg | 1125 | 308 |
| | | | | Supplier | Metals | Copper | 7440-50-8 | | 89.040 | mg | 913235 | 250233 |
| | | | | Supplier | Metals | Silver | 7440-22-4 | | 6.143 | mg | 63000 | 17262 |
| | | | | JIG-R | Metals | Lead | 7439-92-1 | | 0.004 | mg | 45 | 12 |