# Problems that should be paid attention to in the SMT production process

TECOO ELECTRONICS CO.,LTD Date : 2022-06-21

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| Approval number | 202206210958000397787 |
| Creater | Zhi-xiang zheng |
| Department of Founder | Manufacturing Center - Production Department -SMT |
| order number | TE211262 |
| Customer Name | XXXXX |
| product name | ATC7A-TOP |
| Is it a new product | yes |
| Date | 2022-06-21 |
| Production inspector | Tan Biao |
| production line | Line 2 |
| solder paste | 1. Solder paste that has not been used on the day cannot be stored in a mess with unused solder paste, and solder pastes of different types and manufacturers cannot be mixed to avoid affecting the quality;<br>2. It is recommended to use it within 24 hours after stirring. After the solder paste is printed on the substrate, reflow soldering should be completed within 2 hours to ensure<br>3. Need to check the solder paste model is correct |
| Printing machine parameters | 1. When adding solder paste, avoid the penetration of the solder paste to the bottom of the stencil through the stencil mesh;<br>2.It is necessary to check whether the parameters meet the process standards for making the product<br>printing speed<br>cleaning speed<br>Demoulding length<br>demoulding speed<br>Printing thickness<br>Squeegee pressure |
| SPI testing result | 1. Wear finger cots when holding the board, so as not to contaminate the PCB pads with sweat;<br>2. When holding the board, take the edge of the board lightly, so as not to touch the solder paste of the pad and cause the |

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| | solder paste to cover the pad poorly;<br>3.Check solder paste printing pass rate and adjust solder paste printing |
| Material verification of SMT machine | 1. When installing the thimble of the placement machine platform, avoid the thimble from hitting the circuit board components;<br>2. Be sure to pay attention to the type and specification of the material when changing materials to avoid using the wrong material;<br>3. The materials changed by the operator must be confirmed by the quality inspector and signed on the "SMT Material Change Control Form";<br>4. Check whether the placement machine program is consistent with the project BOM<br>5. Check that the materials and procedures of the placement machine are consistent |
| parameters of reflow oven | 1. A preheating zone: Insufficient preheating will easily lead to the occurrence of larger solder balls, and excessive preheating will cause the dense occurrence of small solder balls and large solder balls;<br>2.B constant temperature zone: too long or too short time will cause poor soldering after reflow;<br>3.C heating zone: quickly raise the temperature to make the alloy into a liquefied state;<br>4. D reflow area: the alloy in the solder paste melts;<br>5. E cooling zone: the liquid alloy is cooled to form an alloy;<br>6. Check that the program conforms to the product<br>Precautions<br>1. When connecting the tester and test board from the back of the furnace, special gloves should be worn to prevent hands from being scalded.<br>2. When testing the furnace temperature, it is necessary to use the corresponding production bottom plate to simulate the real trajectory of the furnace.<br>3. During the furnace temperature test, remember to stay beside the reflow furnace, and do not forget to take the tester, so as not to damage the machine and the furnace temperature tester; |
| Picture of the first product | |
| Are the inspection results qualified? | qualified |
| BOM Verification records | |

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| functional test | function independent testing |
| Functional test description | |
| quality inspector | LUO Ping |
| participant | Pan Yinliang |
| Cause of nonconformity | |
| approval process | OK<br>Pan Yinliang Agreed 2022-06-21 14:04:35<br>qualified<br>LUO Ping Agreed 2022-06-22 07:06:43<br>Cc: Zhao Huihui, Tang Zhenghua, Liu Yonghao 2022-06-22 07:06:43 |