

# SMT Component Installation Guide

Rev. 01

## Important Notes:

1. This guide is only applicable to model 13804K.
2. SMD components must be installed **prior to** installation of through-hole components.
3. Before soldering check components against the part list to make sure you have correct parts.

\* U1 has been pre-soldered on the PCB

## Part List

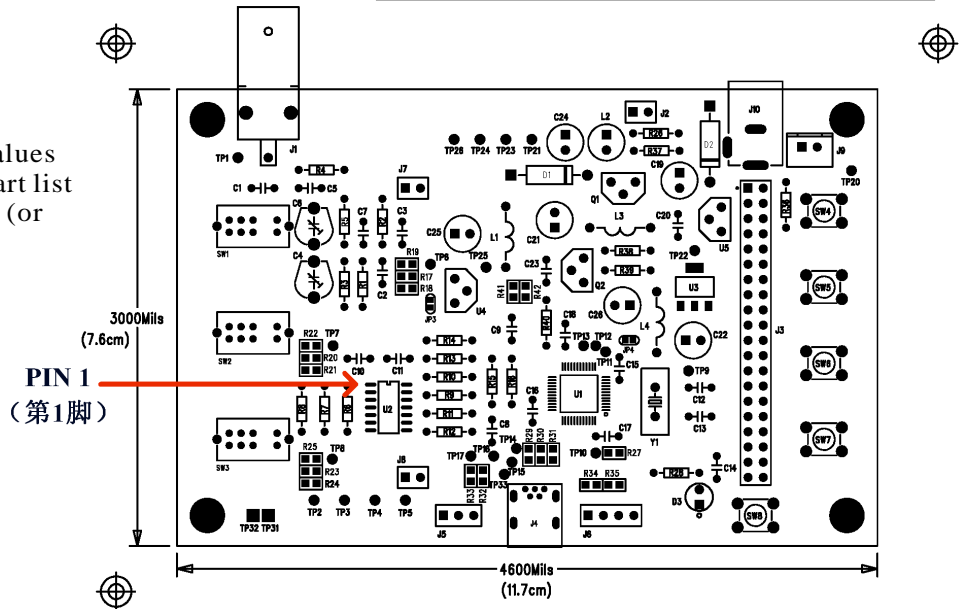
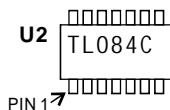
| Loc/Ref                      | Qty | Descriptions      |
|------------------------------|-----|-------------------|
| R17, R20, R23, R34, R35, R41 | 6   | 10K, 5%, 0805     |
| R18, R21, R24                | 3   | 3.3K, 5%, 0805    |
| R19, R22, R25, R31           | 4   | 1.5K, 5%, 0805    |
| R27, R32, R33, R42           | 4   | 1K, 5%, 0805      |
| R30, R29                     | 2   | 22 ohm, 5%, 0805  |
| U1*                          | 1   | STM32F103C8T6     |
| U2                           | 1   | TL084, SO14       |
| U3                           | 1   | LM1117-3.3, TO223 |

## Before you solder

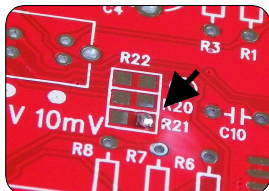
Identify component values and locations by the part list and assembly drawing (or prints on PCB).

## U2 Orientation

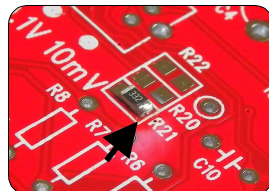
Make sure U2 is installed with correct orientation.



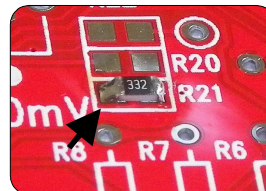
1. Install SMD resistors. Make sure correct locations and values are identified.



Apply solder to one pad

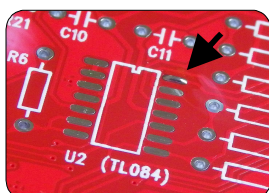


Solder resistor to the pad

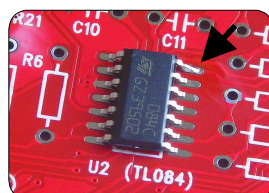


Solder the other pad

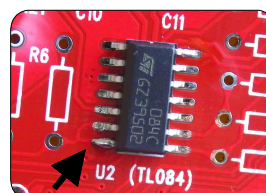
2. Install U2. Pay attention to orientation of the component (see drawing above).



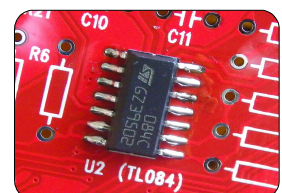
Apply solder to a corner pad



Solder U2 to the pad. Make sure pins are aligned to pads

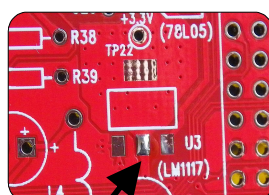


Solder the pin at the opposite corner so as chip is fixed

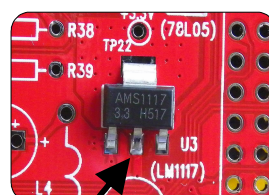


Solder all the rest pins one by one

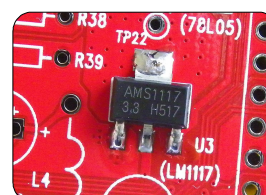
3. Install U3



Apply solder to one pad



Solder U3 to the pad. Make sure pins are aligned to pads



Solder all the rest pins one by one