Test Procedure for the STK984-091AGEVB Evaluation Board

[Supply Voltage] VB1 (8 to 18V): Power Supply for 3-phase motor & Driver IC
Vcc (5V): Pull up Power Supply for DIAG1, DIAG2

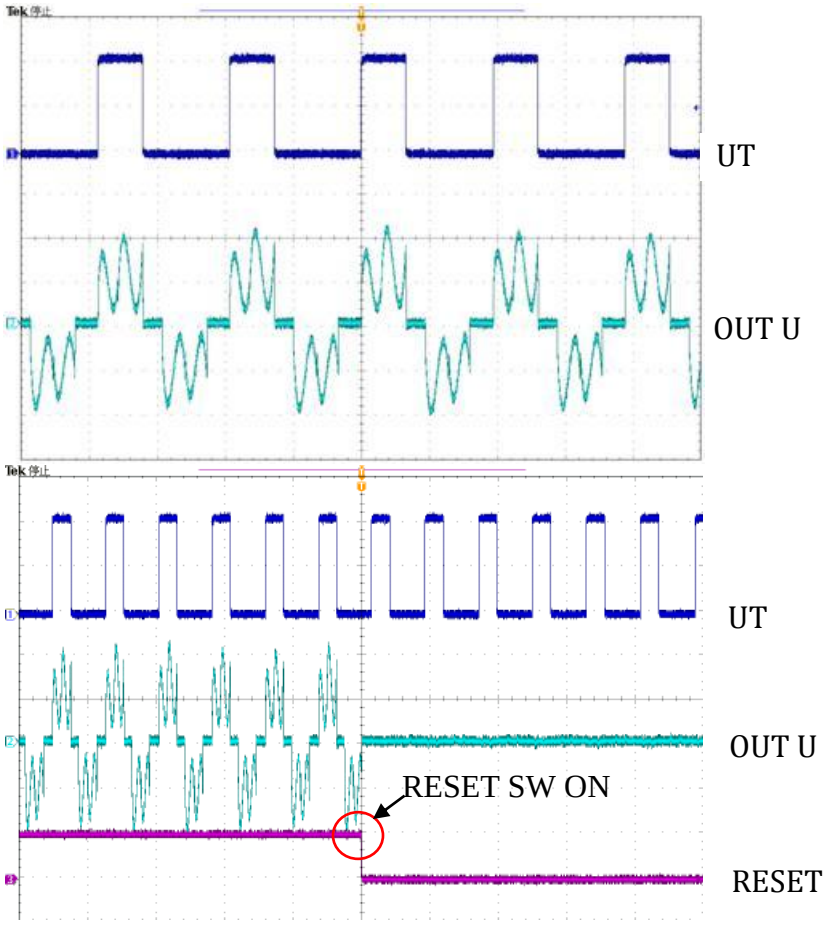
[Operation Guide]

1. Motor Connection:
   Connect the motor to OUT U and OUT V and OUT W.

2. Power Supply:
   At first, supply DC voltage to VB.
   Next, supply DC voltage to Vcc.

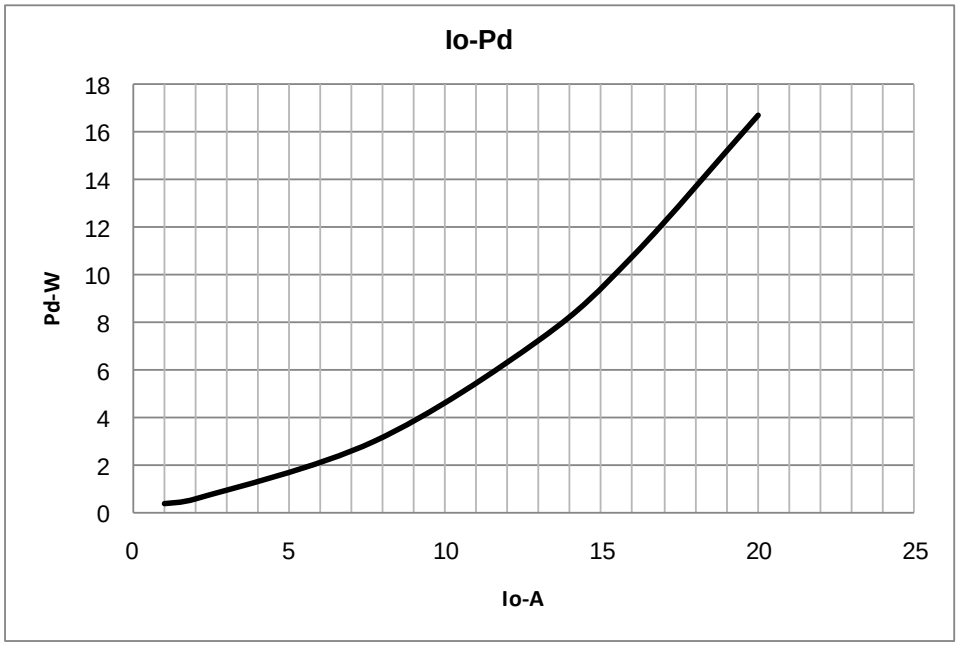
3. Motor Operation

Waveform example



Heat radiation fin design

・120-degree energization ・PWM frequency:20kHz
・Phase change frequency:400Hz ・ON Duty:90%



Thermal resistance calculation formula for Heat sink is as follows:

$$Rth = (Tc - Ta)/Pd$$