DE1-MT-SoCKit Upgrade ASSEMBLY GUIDE



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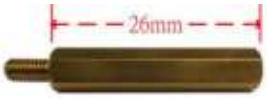
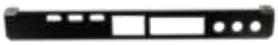
1. Introduction

1.1. Purpose

This document shows how to assemble SoCKit and **VEEK-MT-SoCKit Upgrade Kit** into **VEEK-MT-SoCKit.**

It covers the assembly procedures and lists the accessories required to complete the task.

1.2. Accessories from the Package

Item	Name	Picture	Quantity		Item	Name	Picture	Quantity
A	MTLC Display Module		1		F	26mm Standoff		5
B	VEEK-MT-SoCKit Acrylics		1		G	5mm Standoff		2
C	SoCKit Bracket		1		H	8mm Screw		10
D	HSMC Cable		1		I	4mm Screw		6
E	19mm Standoff		4		J	4-40 Thread Hex Nut		4

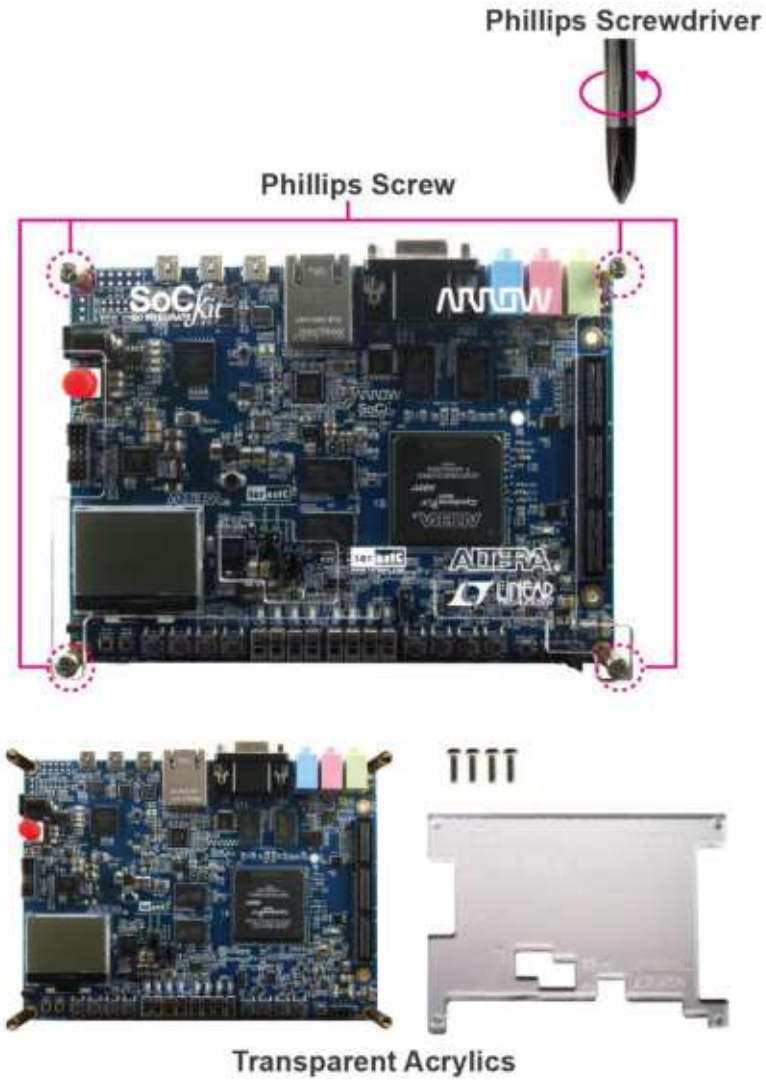
1.3. Requirement of Items Self-supplied

Item	Name	Picture	Quantity		Item	Name	Picture	Quantity
A	SoCKit		1		C	Hex Socket Wrench	(Recommend Spec.: 5.0mm) 	1
B	Phillips Screwdriver	Recommend Spec.:PH#2(6mm)	1					

2. Disassemble Original SoCKit

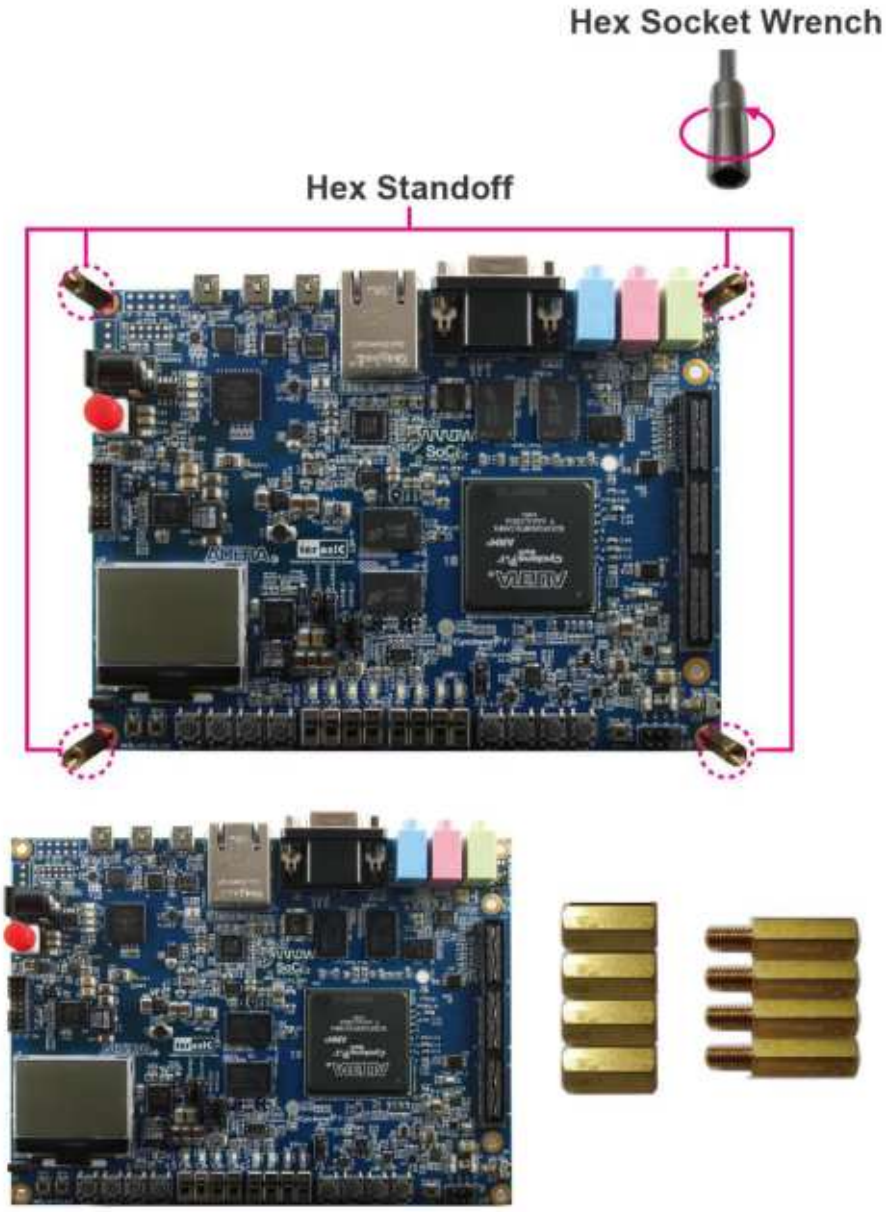
2.1. Unload Acrylics and Screws of SoCKit

■ Use a Phillips screwdriver to unload the four screws on the corners of SoCKit in anticlockwise direction and take off the acrylics of SoCKit.



2.2. Unload Standoffs

■ Use a hex socket wrench to unload the four standoffs in anticlockwise direction from the SoCKit. Do NOT take off the bracket if it's been installed.

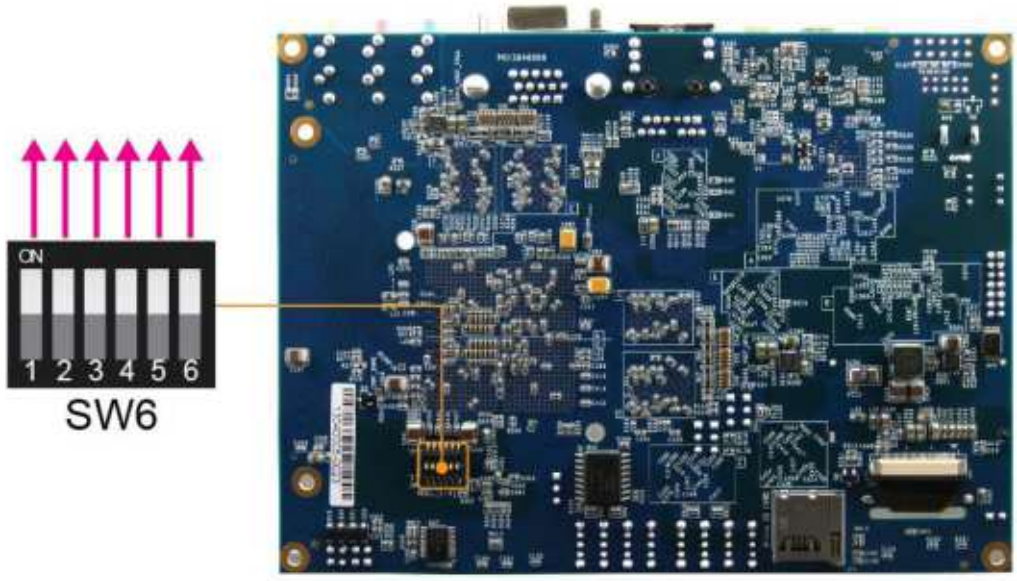


2.3. Standoffs / Screws / Acrylics Unloaded

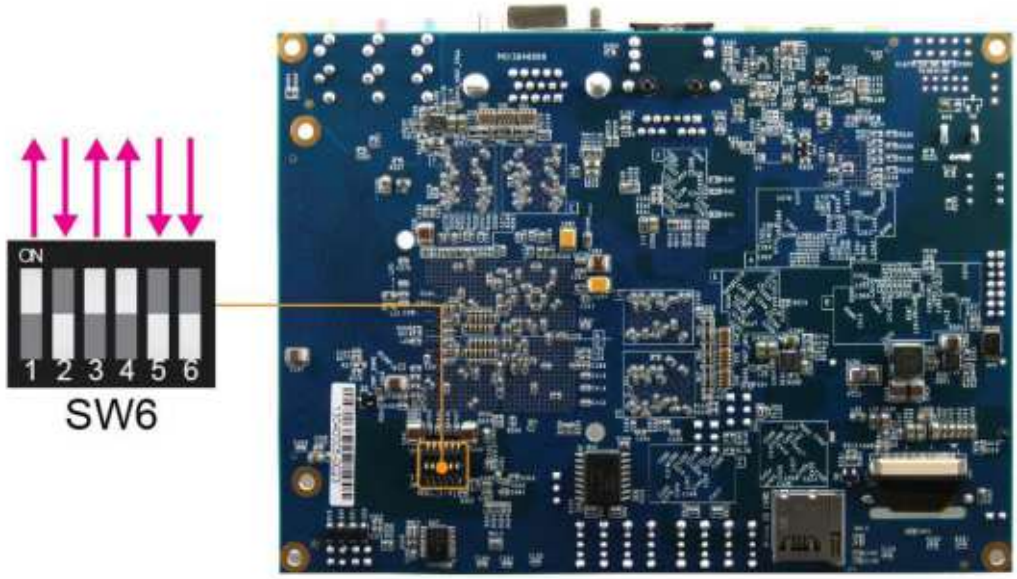
- They are not required for further use. Please put them away.

2.4. MSEL Setting on SoCKit

- Set MSEL[0:4] = **00000** to boot Linux from the microSD card



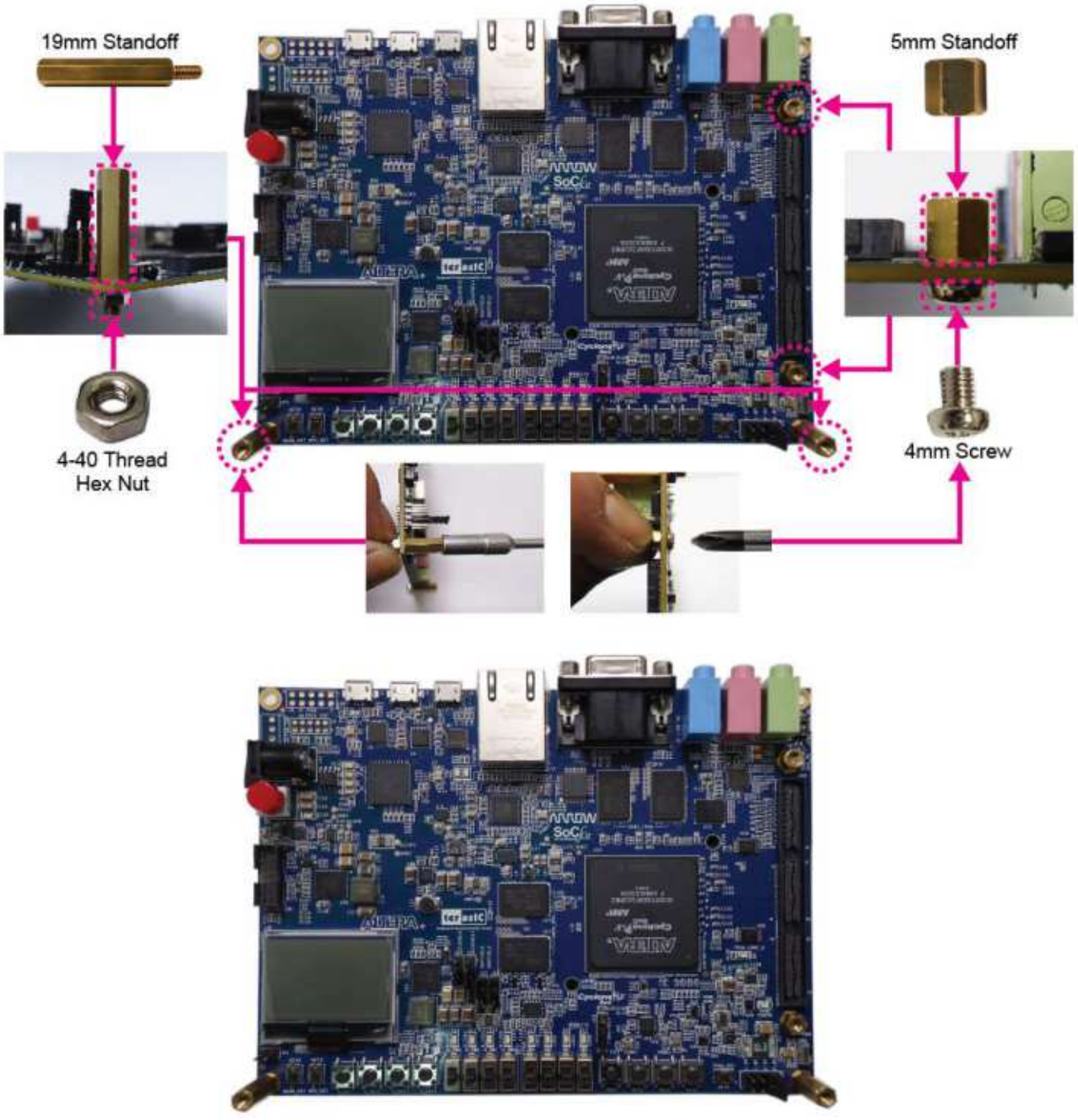
■ Set MSEL[0:4] = **01001** to configure the FPGA with data stored in the EPCQ device.



3. Assemble SoCKit

3.1. Install Standoffs

■ Install **Item E***2＋**Item J***2 and **Item G***2＋**Item I***2 onto the SoCKit with a hex socket wrench and Phillips screwdriver, respectively.



3.2. Install Bracket

■ The following section applies to SoCKit boards with micro USB connector only, as shown in the left figure below. If your SoKit board comes with mini USB connectors shown in the right figure below, please skip to the last part of this section on page 10.



mirco USB connector



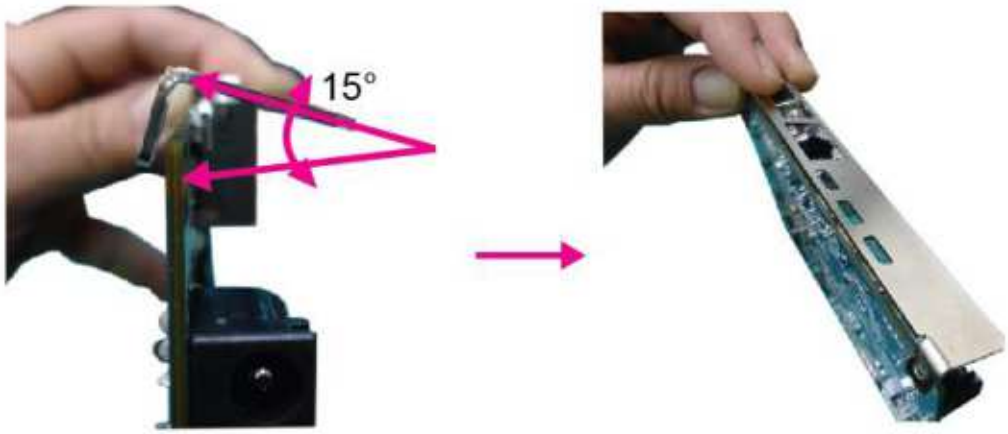
mini USB connector

■ Please be aware of the micro USB connectors during the installation. Improper installation could result in damage beyond repair by ripping the micro USB connectors off the board. Please follow the steps below strictly and re-adjust the angle of installation whenever any of the standoffs cannot not be screwed easily or tightly.

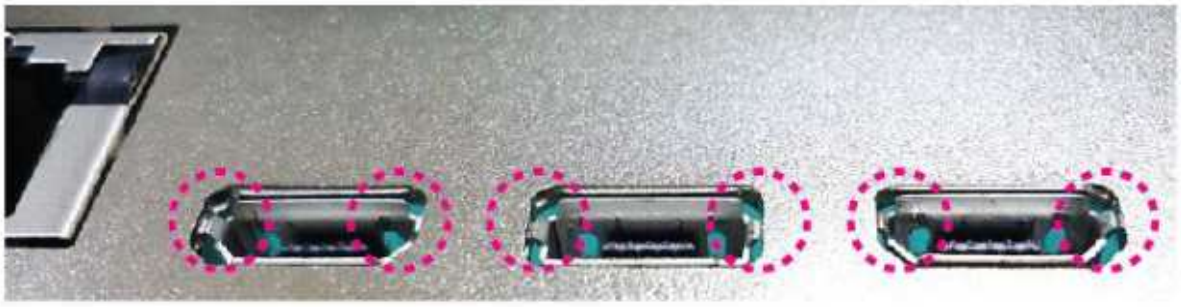
Should you experience any difficulty, please stop the installation immediately and contact us via

Email: support@terasic.com Tel: +886-3-5750-880

■ Install the bracket to the SoCKit approximately 15° to the micro USB connectors onboard.



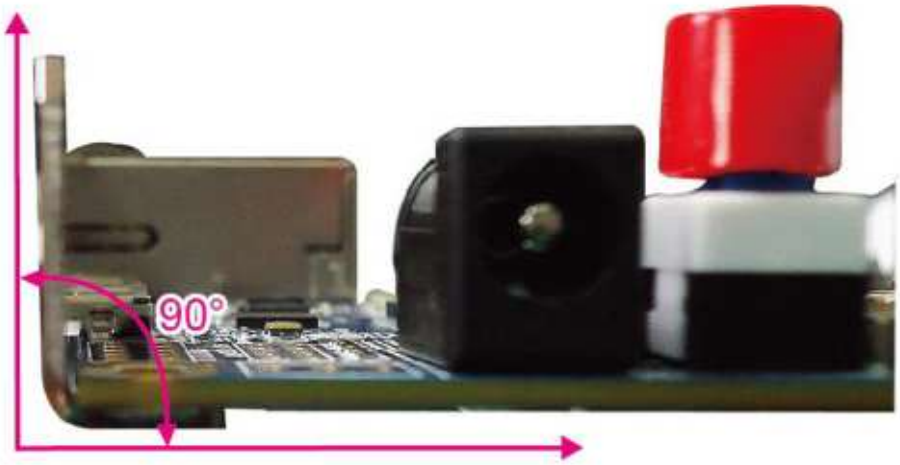
■ Please make sure both sides of the micro USB connectors (red dotted lines) stay within the bracket without exceeding the surface of the bracket. DO NOT force the installation to rip the connectors off the board.



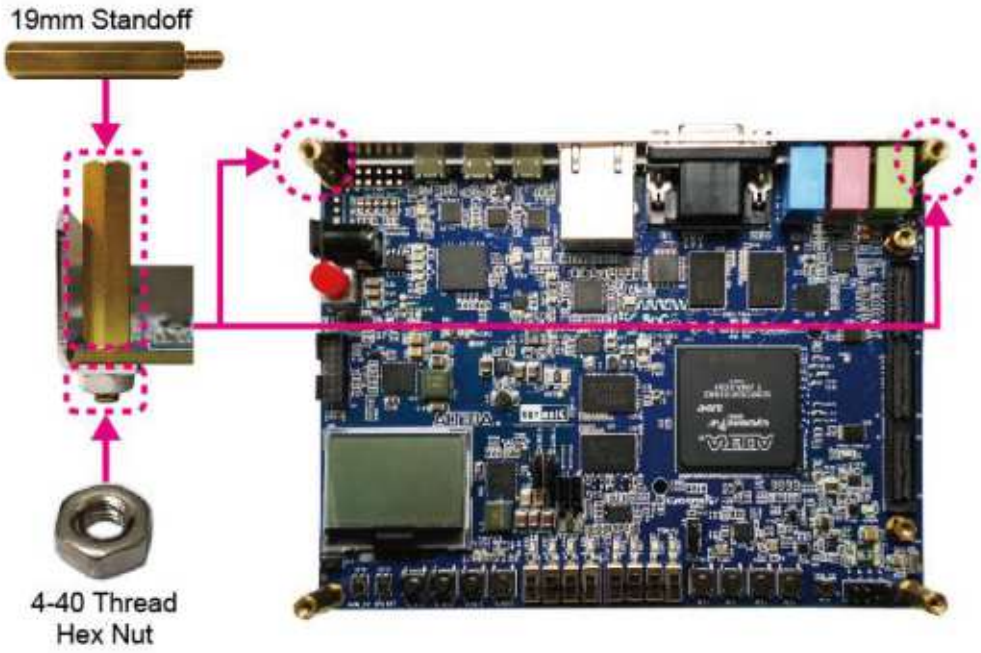
■ Push down the bracket to complete the installation.



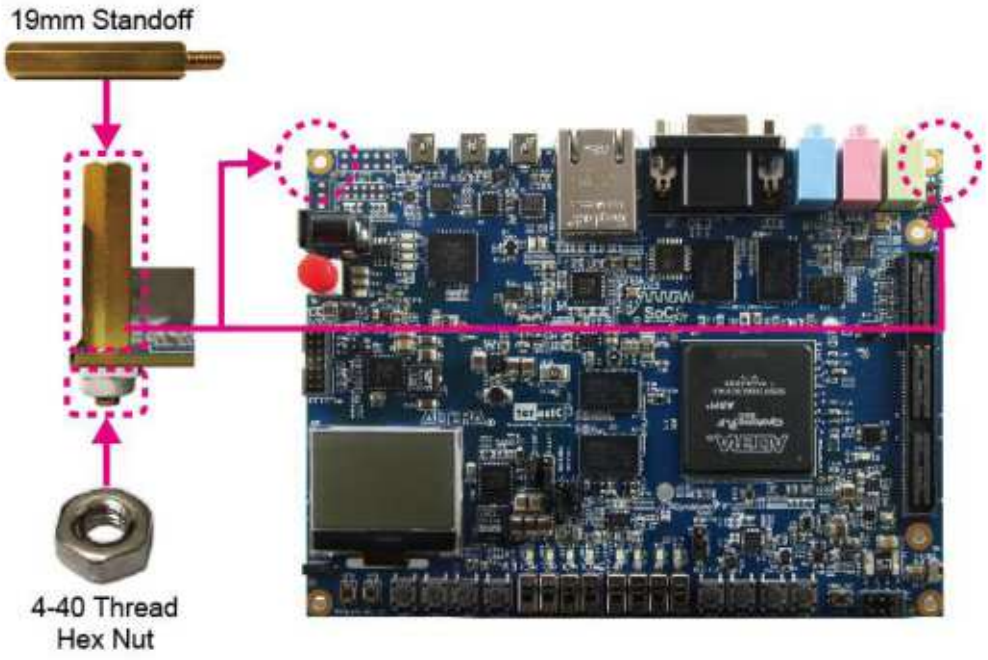
■ Please confirm the SoCKit and the bracket are perpendicular to each other, as shown below.



■ Install **Item E***2＋**Item J***2 to the SoCKit tightly with a hex socket wrench.

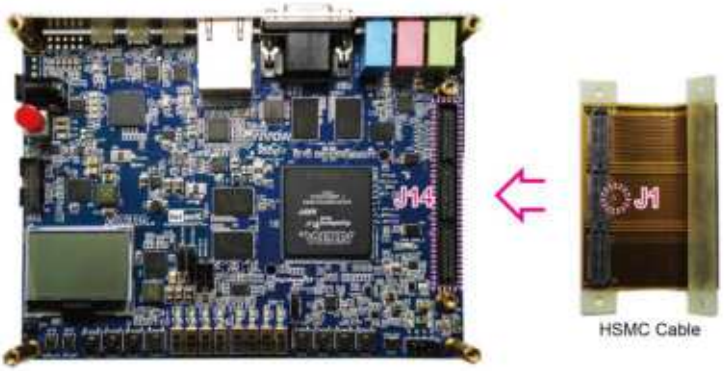


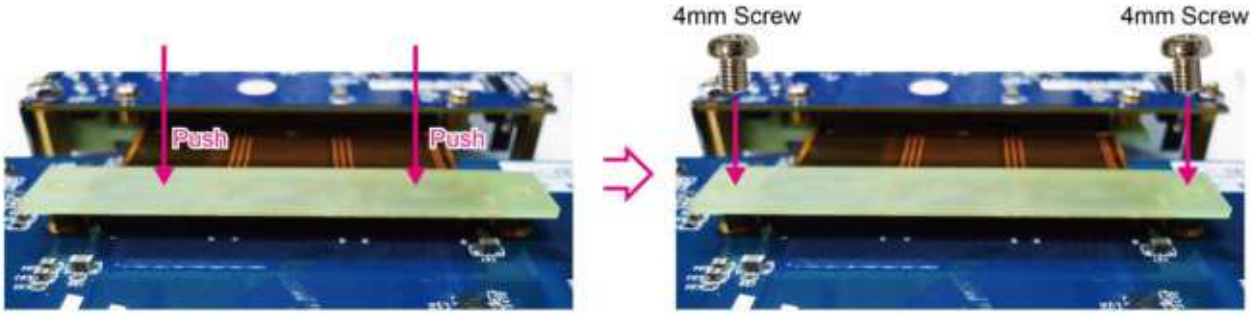
■ For a SoCKit with mini USB connectors populated, please install **Item E***2＋**Item J***2 to the SoCKit tightly with a hex socket wrench, as shown below.

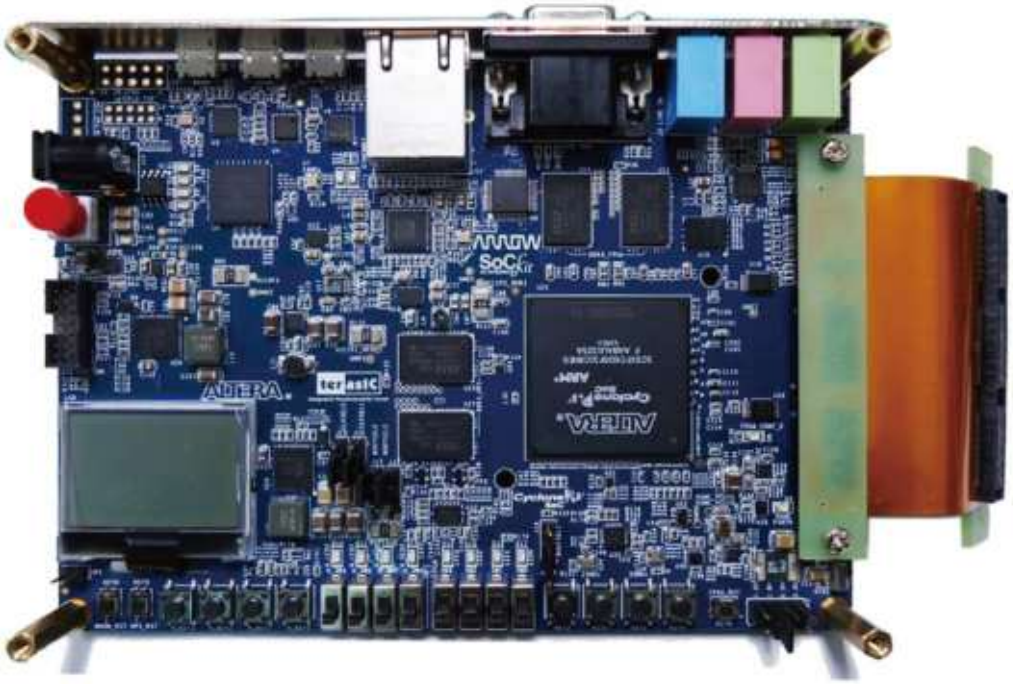


3.3. Install HSMC Cable

■ The HSMC cable has two HSMC connectors. One is male type (J1) and the other one is female type (J2). Please connect J1 to the HSMC connector (J14) on the SoCKit and force the installation with both thumbs pressing down the HSMC cable. Install **Item I***2 with a Phillips screwdriver to further secure the connection.


J14
J1
HSMC Cable


4mm Screw
4mm Screw
Push
Push



4. Installation of MTLC Display Module

4.1. Install Standoffs

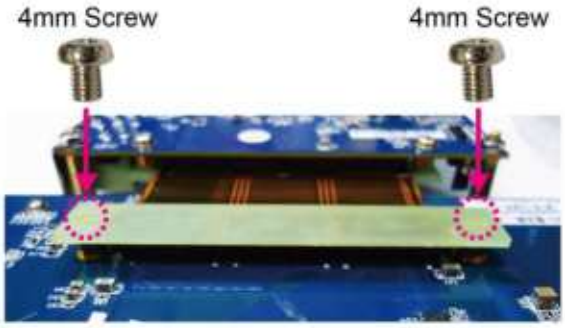
■ Install **Item F***5／**Item H***1 to the **MTLC display module** with a Philips screwdriver and a hex socket wrench in clockwise direction. Please pay extra attention to the installation to avoid permanent damage to the screw holes, which are made of plastic.



5. Assemble MTLC Display Module and SoCKit

■ Connect the assembled **SoCKit** to the **MTLC display module** with a HSMC cable. Press the joints circled in red with both thumbs to secure the installation. Install **Item I***2 with a Philips screwdriver on top of the joints to further enhance the installation.





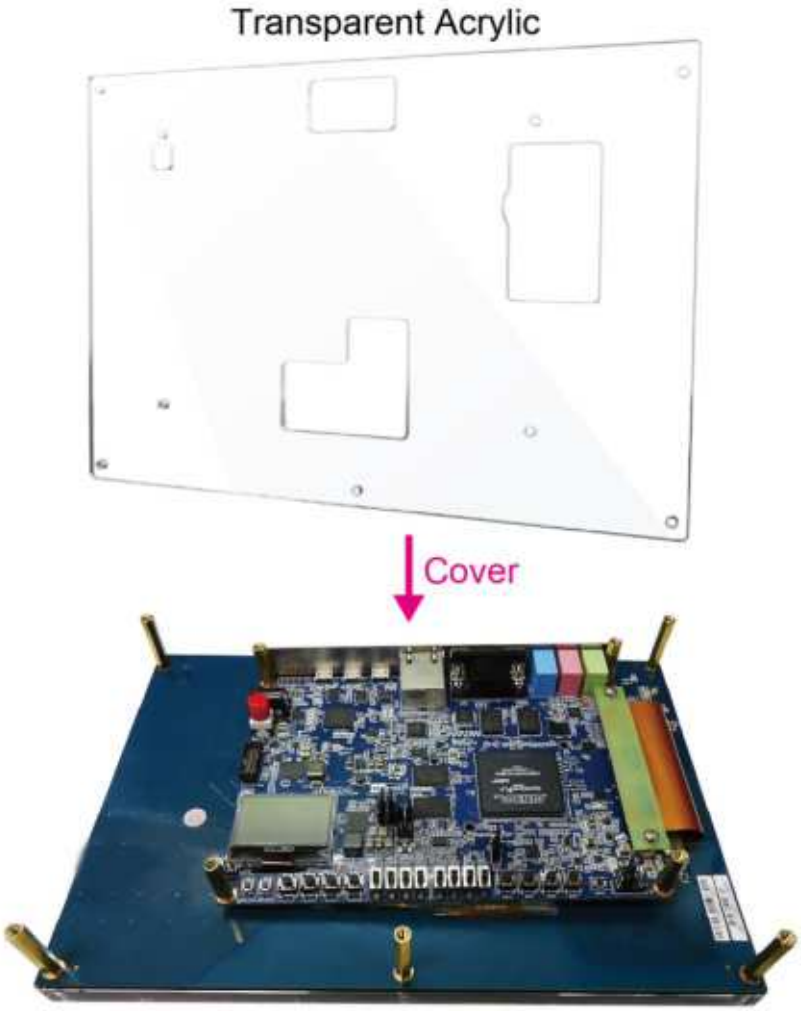


■ Turn the **SoCKit** over on top of the **MTLC display module**, as shown below.

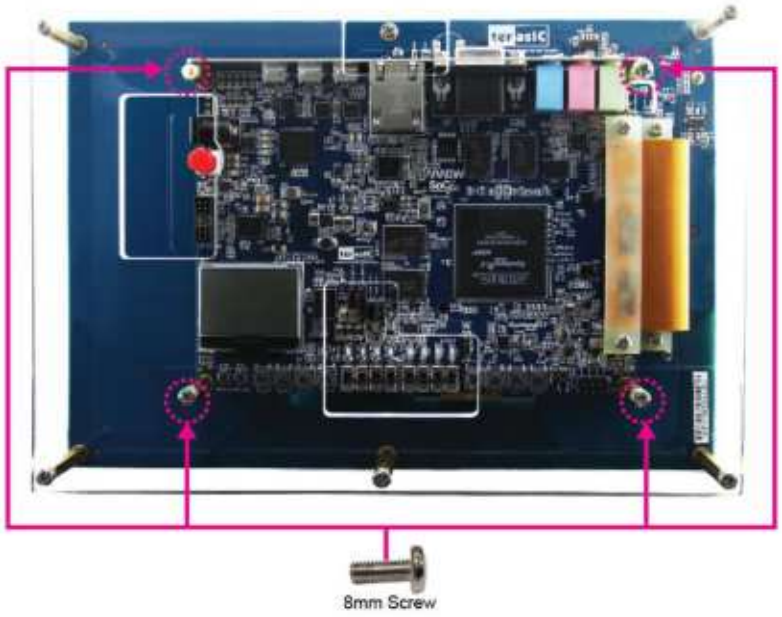


6. Assemble Acrylics for VEEK-MT-SoCKit Upgrade Kit

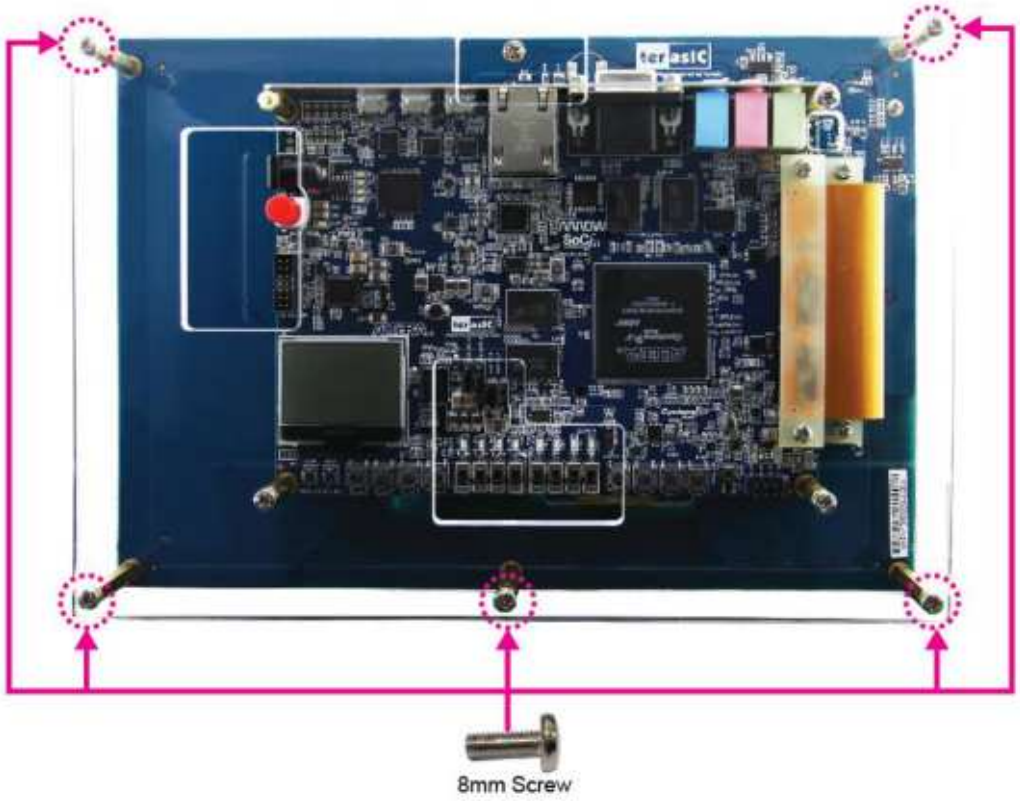
■ Put the acrylics on the SoCKit and MTLC display module, as shown below.



- Install **Item H***4 to the positions shown below to secure the acrylics and the SoCKit.



- Install **Item H***5 to fix the acrylics with the MTLC display module, as shown below.



7. Completion

