DLP® Discovery™ D4100 Development Kits Assembly Guide

This guide describes how to assemble the components of the DLP® Discovery™ 4100 series of development kits. Adhere to safety precautions when handling systems. The key components include the D4100 Controller Board and DMD Assembly. Review safety precautions prior to getting started.

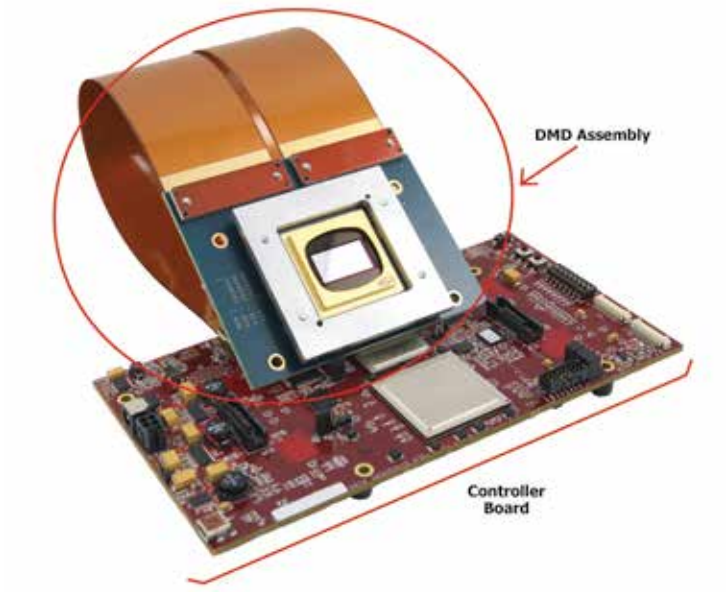
Items Needed:

- D4100 Controller Board
- DMD Assembly
  - DMD Board
  - DMD Hardware
  - Flex Cable(s) (XGA - 1 / 1080p - 2)
- Phillips head screwdriver
- Anti-static pad
- Anti-static strap

Section 1: Configurations

Figure 1-1. DLP Discovery 4100 .7" XGA Development Kit

Figure 1-2. DLP Discovery 4100 .95" 1080p Development Kit

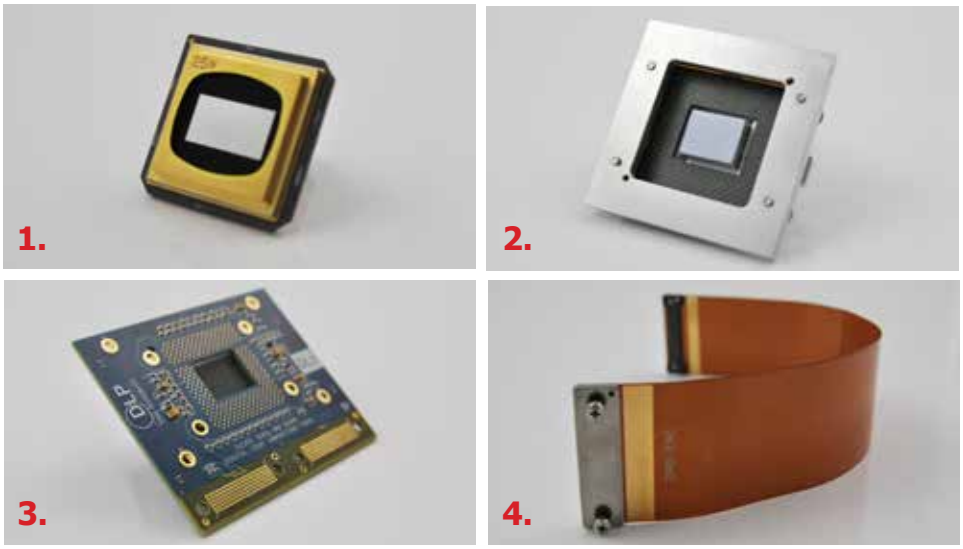


Section 2: Components

1. DMD Assembly Components

1. DMD
2. DMD Mounting Hardware
3. DMD Board
4. Flex Cable(s) (XGA - 1 / 1080p - 2)

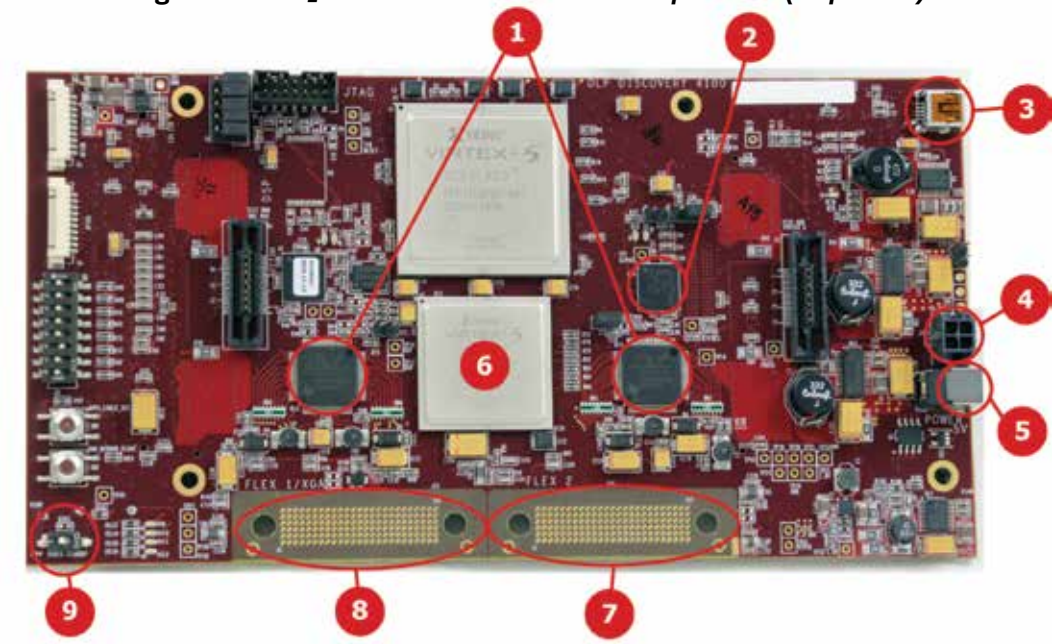
Figure 2-1. DMD Assembly Components



2. D4100 Controller Board Components:

1. DLPA200 Driver(s) (XGA - 1 / 1080p - 2)
2. DLPR410 PROM
3. USB Mini-B Connector
4. Power Connector
5. Power Socket
6. DLPC410 Digital Controller
7. DMD Flex Cable Connector 2 (XGA – Flex 1)
8. DMD Flex Cable Connector 1 (1080p – Flex 1 & 2)
9. Power Switch

Figure 2-2. D4100 Controller Board Components (Top View)

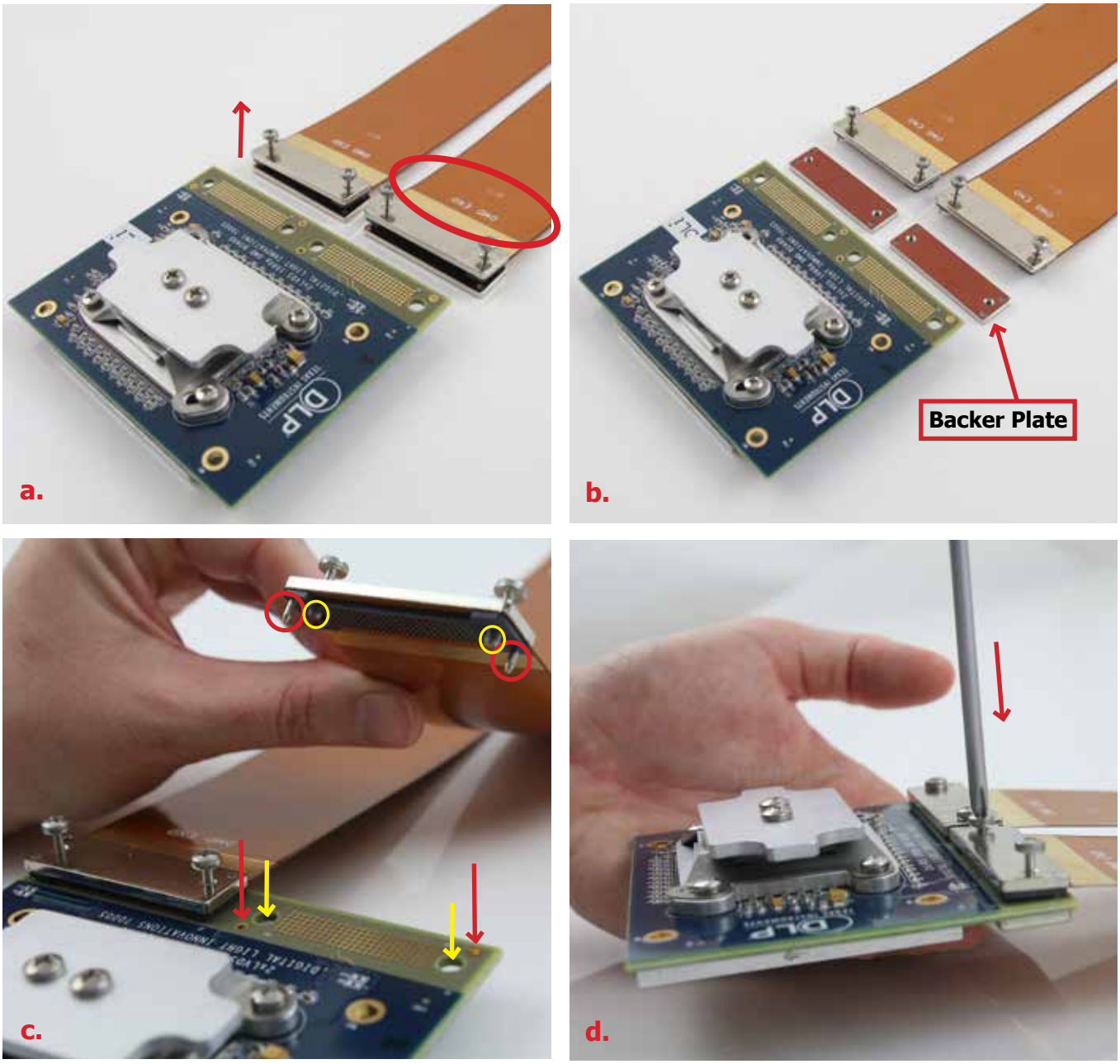


Section 3: Hardware Setup

1. Connecting Flex Cable(s) to DMD Board

- Locate end of the flex cable labeled **DMD END**
- Position DMD Assembly face down
- Unscrew flex cable screws from backer plate
- Position backer plate under DMD board
- Align flex cable screws and pins to corresponding holes on DMD board
- Screw flex cable(s) in place making sure not to overtighten

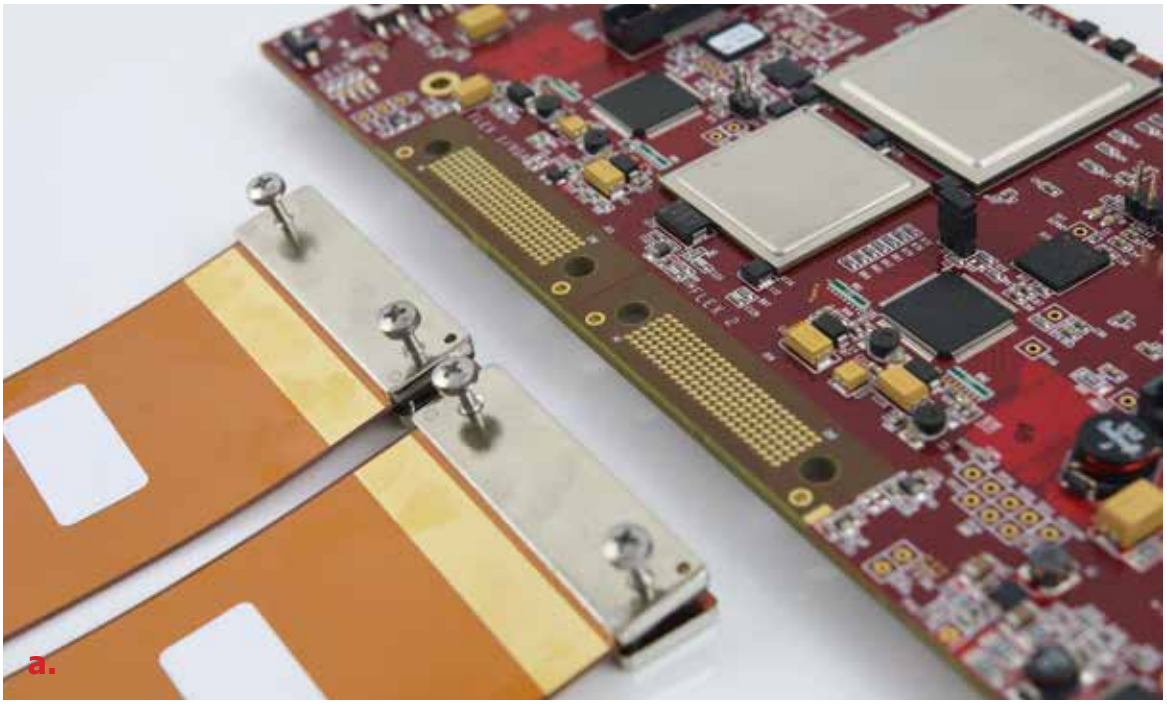
Figure 3-1. Connecting Flex Cable(s) to DMD Board



2. Connecting Flex Cable(s) to 4100 Controller Board

- Locate end of the flex cable **NOT** labeled **DMD END**
- Position controller board to face up
- Unscrew flex cable screws from backer plate
- Position backer plate under controller board
- Align screws and pins on the flex cable to corresponding holes on controller board
- Screw flex cable(s) in place making sure not to overtighten

Figure 3-2. Connecting Flex Cable(s) to DMD Board



PRECAUTIONS

Before handling, assembling or operating your development kit, please read the following precautions thoroughly. DLP® systems contain electrostatic discharge (ESD) sensitive components. Handle with care to prevent permanent damage. The system electronics are exposed and sensitive to electrostatic discharge, rough handling and contact with external elements. Utilize ESD procedures and equipment for proper grounding when handling kits to avoid electrostatic discharge damage.

ESD precautions include but are not limited to the following list:

- Discharge static electricity from your body before handling system
- Turn off the system and any attached peripherals
- Disconnect the system and any attached peripherals from AC power
- Wear an anti-static wrist strap that is properly grounded
- Work in clean, static-safe work areas
- Handle components on static protective work surfaces (i.e. anti-static discharge mats or bags)
- Avoid touching pins and circuit boards
- Store components in anti-static bags until ready to use
- Transport system in anti-static packaging

CAUTION! Contains parts and assemblies susceptible to damage by Electrostatic Discharge (ESD).

CAUTION! To minimize the risk of fire or equipment damage, make sure that air is allowed to circulate freely around the development kit when operating. Avoid touching components during operation.