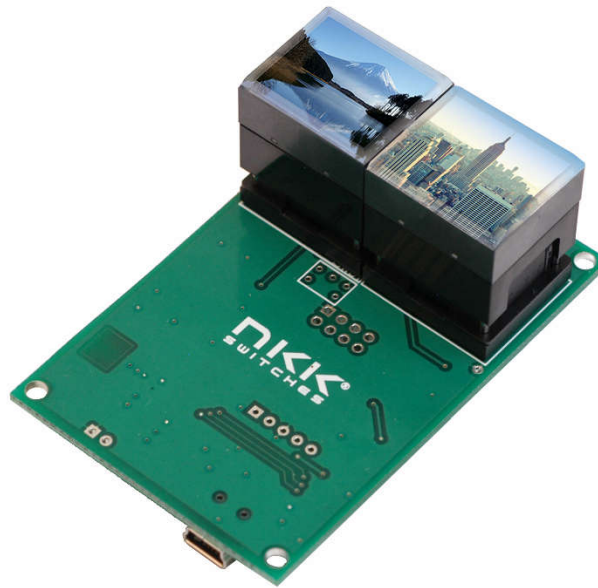


## IS-ENG-KIT Features

Revision B



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## 1. General Features

The Engineering Kits (IS-ENG-KIT-x) are designed to accelerate the incorporation of the SmartDisplay family of products into real world applications by, not only familiarizing design engineers to the SmartDisplay products, but also as a development platform for experimentation and design viability testing. The schematic and source codes in C language are provided.

Features:

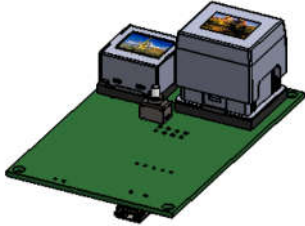
- Controls up to two SmartDisplays/SmartSwitches or one OLED Rocker (Table 1).
- 1M or 16M on-board NOR flash memory to store images, attributes or any other information.
- Serial communication via USB (115.2K, 1 start bit, 8-bit, 1 stop bit).
  - Additional serial communication via UART connector available for Arduino/Raspberry Pi/Microcontroller interface (on OLED Engineering Kits only)
- Auxiliary port with 7 I/O pins of microcontroller to control/sense other applications.
- Stand alone or real-time operation.
- Preprogrammed for basic operation.
- Reports via USB the switch closures, releases; timer expirations; and addresses of the images displayed.
- Programmable to change the displayed images based on a switch actuation and user defined timers for stand-alone operation.
- Schematics and firmware are provided for user firmware customization.
- User can program the engineering kits using The PickKit3 and an adaptor.
- The kits come with a 6-foot USB 2.0 A to Mini-B cable (IS-USB1).
- Power Specs: Maximum 150mA@5VDC.
- Can be powered either by USB or by optional 5V power connection (.100" spacing).
- Windows based software is provided for communication.
  - Accepts bitmap files, extracts the images and download them to the controller.
  - Allows typing of commands and downloading to the controller.
  - Extracts HEX or ASCII data from Excel files and downloads to the controller.
  - Messages to and from the controller are displayed in different colors.

There are ten development boards covering the four different SmartSwitch input and display architectures.

Part Number	Switch 1 / Display		Switch 2	
IS-ENG-KIT-7-DS	ISC01P	OLED 52x36 Display	ISC15ANP4	OLED 64x48 Standard
IS-ENG-KIT-7-FS	ISF15ACP4	OLED 96x64 Frameless	ISC15ANP4	OLED 64x48 Standard
IS-ENG-KIT-7-FF	ISF15ACP4	OLED 96x64 Frameless	ISF15ACP4	OLED 96x64 Frameless
IS-ENG-KIT-6-DH	IS01EBFRGB	LCD 64x32 Display	IS15EBFP4RGB-09YN	LCD 64x32 Hybrid
IS-ENG-KIT-6-SH	IS15EBFP4RGB	LCD 64x32 Standard	IS15EBFP4RGB-09YN	LCD 64x32 Hybrid
IS-ENG-KIT-6-CH	IS15ESBFP4RGB	LCD 64x32 Compact	IS15EBFP4RGB-09YN	LCD 64x32 Hybrid
IS-ENG-KIT-5-DC	IS01BBFRGB	LCD 36x24 Display	IS15BSBFP4RGB	LCD 36x24 Compact
IS-ENG-KIT-5-SC	IS15BBFP4RGB	LCD 36x24 Standard	IS15BSBFP4RGB	LCD 36x24 Compact
IS-ENG-KIT-5-BC	IS15BAFP4CF	LCD 36x24 Bicolor Standard	IS15BSAFP4CF	LCD 36x24 Bicolor Compact
IS-ENG-KIT-8-R	IS18WWC1W	OLED 96x64 Rocker		

## 2. Kit Sets

A) The controller S02L1 is used for all the OLED engineering kits. S02L1 has 16M NOR flash memory.



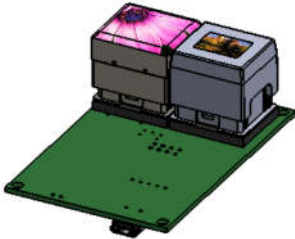
IS-ENG-KIT-7-DS

ISC01P

OLED 52x36 Display

ISC15ANP4

OLED 64x48 Standard



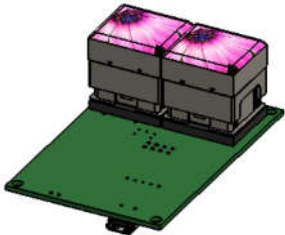
IS-ENG-KIT-7-FS

ISF15ACP4

OLED 96x64 Frameless

ISC15ANP4

OLED 64x48 Standard



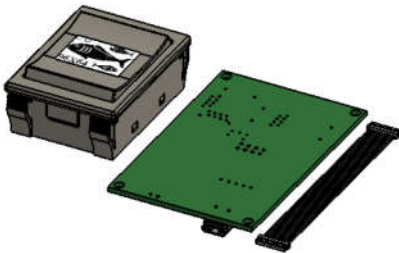
IS-ENG-KIT-7-FF

ISF15ACP4

OLED 96x64 Frameless

ISF15ACP4

OLED 96x64 Frameless

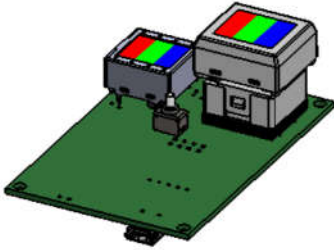


IS-ENG-KIT-8-R

IS18WWC1W

OLED 96x64 Rocker

**B) The controller S02G1 is used for all the LCD64x32 engineering kits. S02G1 has 1M NOR flash memory.**



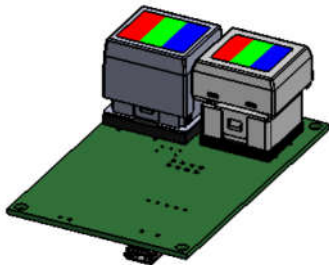
IS-ENG-KIT-6-DH

IS01EBFRGB

LCD 64x32 Display

IS15EBFP4RGB-09YN

LCD 64x32 Hybrid



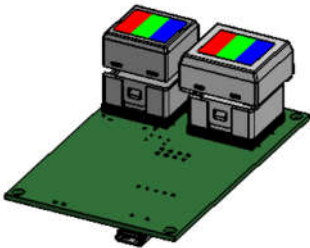
IS-ENG-KIT-6-SH

IS15EBFP4RGB

LCD 64x32 Standard

IS15EBFP4RGB-09YN

LCD 64x32 Hybrid



IS-ENG-KIT-6-CH

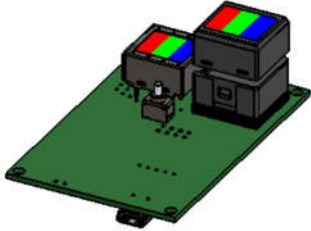
IS15ESBFP4RGB

LCD 64x32 Compact

IS15EBFP4RGB-09YN

LCD 64x32 Hybrid

C) The controller S0205 is used for all the LCD 36x24 engineering kits. S02G1 has 1M NOR flash memory.



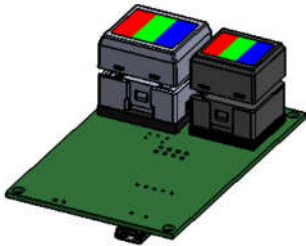
IS-ENG-KIT-5-DC

IS01BBFRGB

LCD 36x24 Display

IS15BSBFP4RGB

LCD 36x24 Compact



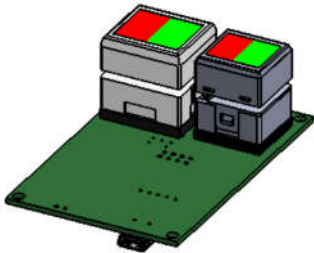
IS-ENG-KIT-5-SC

IS15BBFP4RGB

LCD 36x24 Standard

IS15BSBFP4RGB

LCD 36x24 Compact



IS-ENG-KIT-5-BC

IS15BAFP4CF

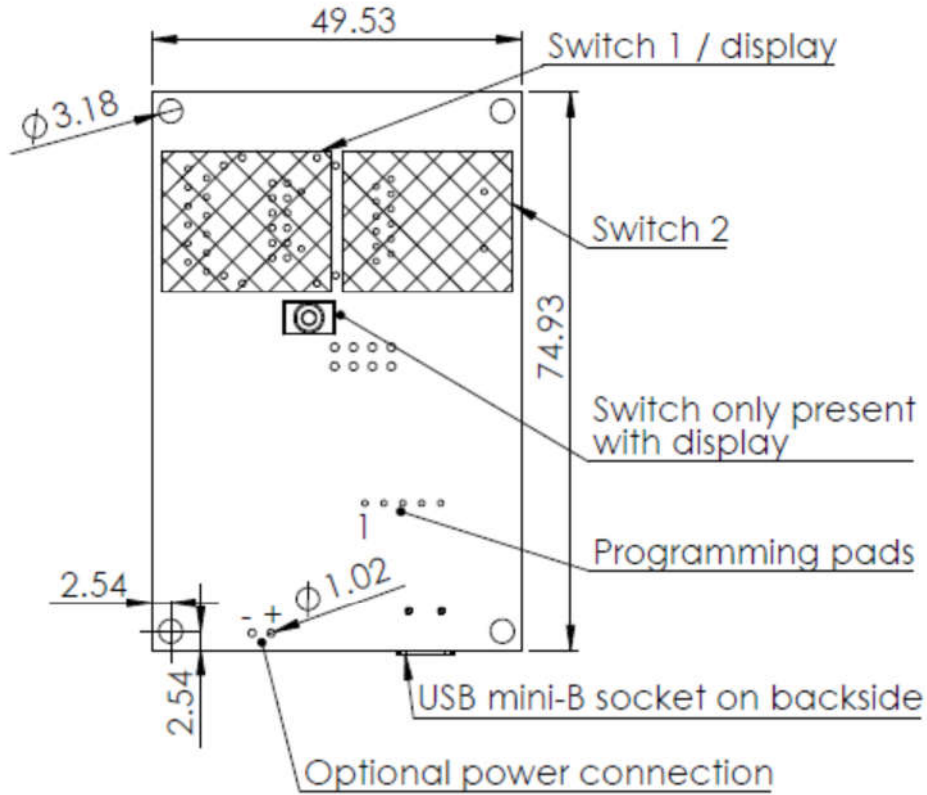
LCD 36x24 Bicolor Standard

IS15BSAFP4CF

LCD 36x24 Bicolor Compact

### 3. Dimensions

All the controllers have the same dimensions.



Dimensions in mm.