

SmartDisplay™ Engineering
Development Kits Product
Training Module

Introduction

Purpose:

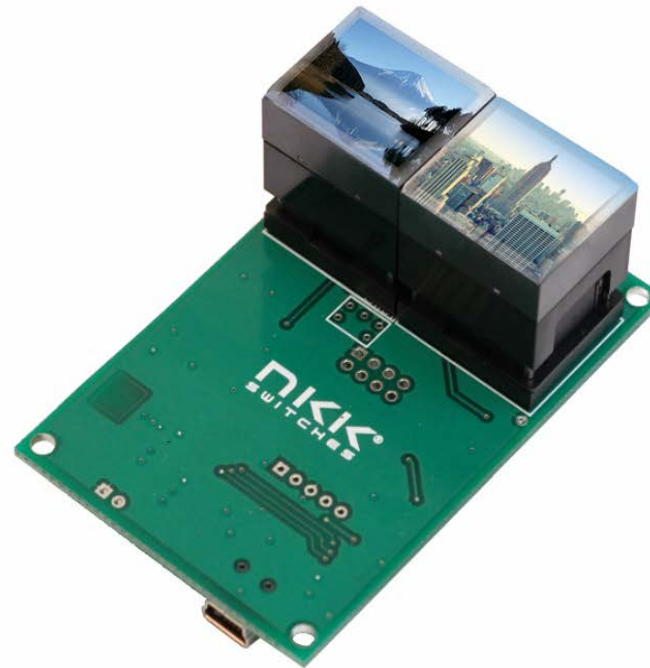
- To introduce the SmartDisplay Engineering Development Kits

Objective:

- Present features and benefits
- Discuss kit options available

Contents

- 10 pages



SmartDisplay Engineering Development Kits

- Simplified Development Kit designed to accelerate the incorporation of SmartDisplay into applications
- Controls up to two SmartDisplays or one OLED Rocker
- Ready to go – preprogrammed for demonstration
- Schematics and firmware provided
- Available in 10 different configurations





Features

- 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)
- Auxiliary port with 7 I/O pins of microcontroller to control/sense other applications
- Stand alone or real time operation
- Reports via USB the switch closures, releases, timer expirations, and addresses of the images displayed
- Programmed to change the displayed images based on a switch actuation and user defined timers for stand-alone operation

SmartDisplay Engineering Development Kits

I want to experiment with SmartDisplay without building my own board.

The SmartDisplay Kits provide a complete package of engineering tools to interact and design in the SmartDisplay products.

I want to add my own inputs and outputs to the SmartDisplay kit.

The SmartDisplay Kits have 7 I/O pins for user-designed additions. Firmware can be altered by user.

I want to control my SmartDisplay kit with a computer.

The SmartDisplay Kit reports activities via USB and can process both commands and images in real time.

Why should I use SmartDisplay?

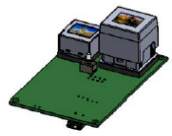
SmartDisplay is a space-saving, multi-function programmable device. It simplifies processes and improves operator interface by reducing the number of switches for multi-function operations.

Part Numbers and Product Description

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		

Kit Sets and Corresponding Controllers

NKK's **S02L1 Controller** is used for all **OLED** SmartDisplay Engineering Kits. S02L1 has 16M NOR flash memory



IS-ENG-KIT-7-DS

ISC01P

OLED 52x36 Display

ISC15ANP4

OLED 64x48 Standard



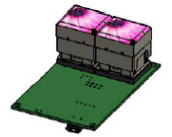
IS-ENG-KIT-7-FS

ISF15ACP4

OLED 96x64 Frameless

ISC15ANP4

OLED 64x48 Standard



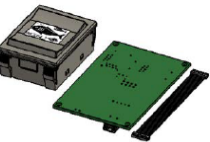
IS-ENG-KIT-7-FF

ISF15ACP4

OLED 96x64 Frameless

ISF15ACP4

OLED 96x64 Frameless

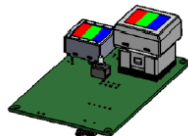


IS-ENG-KIT-8-R

IS18WWC1W

OLED 96x64 Rocker

NKK's **S02G1 Controller** is used for all **LCD 64x32** SmartDisplay Engineering Kits. S02G1 has 1M NOR flash memory.



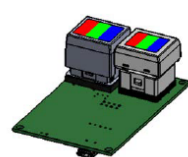
IS-ENG-KIT-6-DH

IS01EBFRGB

LCD 64x32 Display

IS15EBFP4RGB-09YN

LCD 64x32 Hybrid



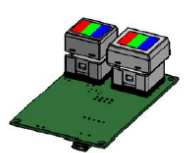
IS-ENG-KIT-6-SH

IS15EBFP4RGB

LCD 64x32 Standard

IS15EBFP4RGB-09YN

LCD 64x32 Hybrid



IS-ENG-KIT-6-CH

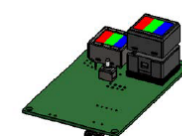
IS15ESBFP4RGB

LCD 64x32 Compact

IS15EBFP4RGB-09YN

LCD 64x32 Hybrid

NKK's **S0205 Controller** is used for all **LCD 36x24** SmartDisplay Engineering Kits. S0205 has 1M NOR flash memory.



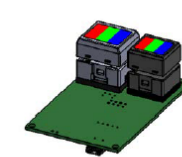
IS-ENG-KIT-5-DC

IS01BBFRGB

LCD 36x24 Display

IS15BSBFP4RGB

LCD 36x24 Compact



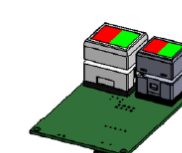
IS-ENG-KIT-5-SC

IS15BBFP4RGB

LCD 36x24 Standard

IS15BSBFP4RGB

LCD 36x24 Compact



IS-ENG-KIT-5-BC

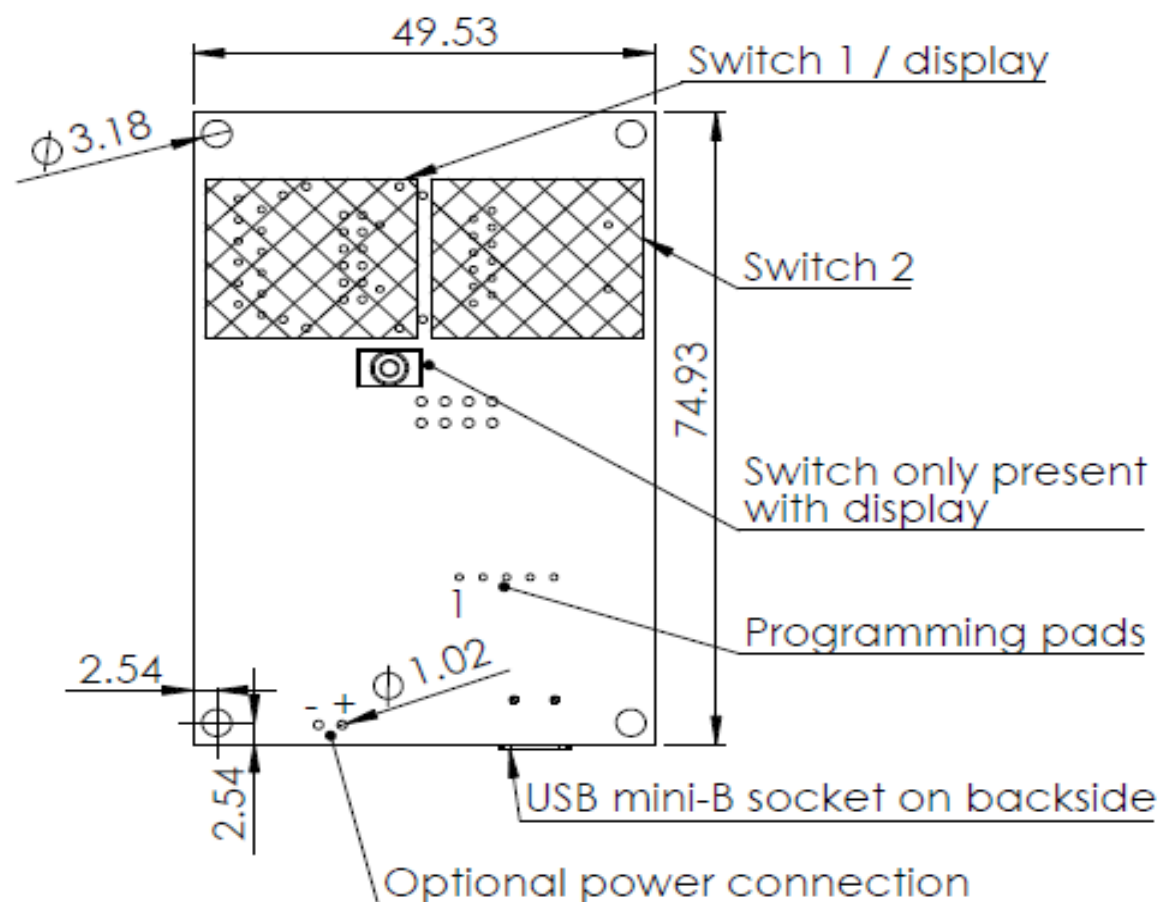
IS15BAFP4CF

LCD 36x24 Bicolor Standard

IS15BSAFP4CF

LCD 36x24 Bicolor Compact

Dimensions



Dimensions in mm.

*All controllers have the same dimensions



Summary

- Introduced the Engineering SmartDisplay Development Kits
- Simplified Development Kit designed to accelerate the incorporation of SmartDisplay into applications.
- Ready to go – preprogrammed for demonstration
- USB mini-B connection for power and communication
- Schematics and firmware provided
- Communication software provided
- 7 I/O Pins available



Additional Resources

With over half of a century of passion for innovation, NKK has continued to elevate the standard for switch solutions while maintaining an unwavering emphasis on quality, stability and reliability.

For additional information visit the NKK Switches website:

www.nkkswitches.com