



SmartSwitch Engineering Development Kits Product Training Module



Introduction

Purpose:

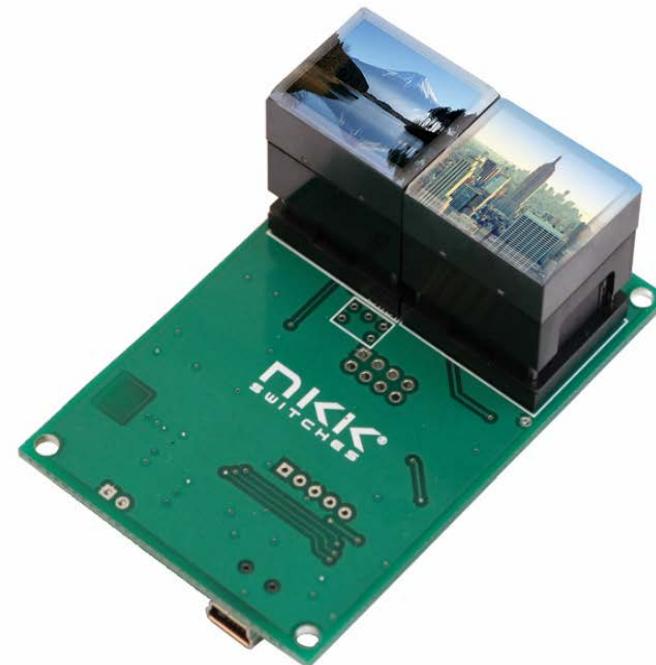
- To introduce the SmartSwitch® Engineering Development Kits

Objective:

- Present features and benefits
- Discuss kit options available

Contents

- 10 pages





Overview

SmartSwitch Engineering Development Kits

- Simplified Development Kit designed to accelerate the incorporation of SmartSwitch into applications
- Controls up to two SmartSwitches/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



Benefits

SmartSwitch Engineering Development Kits

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

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

I want to control my SmartSwitch kit with a computer.

Why should I use SmartSwitch?

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

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

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

SmartSwitch 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 SmartSwitch Engineering Kits**. S02L1 has 16M NOR flash memory



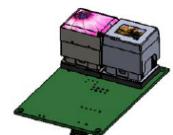
IS-ENG-KIT-7-DS

ISC01P

OLED 52x36 Display

ISC15ANP4

OLED 64x48 Standard



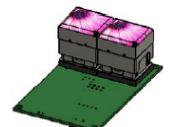
IS-ENG-KIT-7-FS

ISF15ACP4

OLED 96x64 Frameless

ISC15ANP4

OLED 64x48 Standard



IS-ENG-KIT-7-FF

ISF15ACP4

OLED 96x64 Frameless

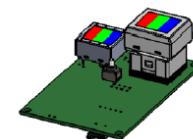
ISF15ACP4

OLED 96x64 Frameless



IS-ENG-KIT-8-R
IS18WWC1W

OLED 96x64 Rocker



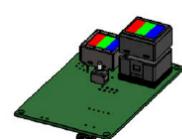
IS-ENG-KIT-6-DH

IS01EBFRGB

LCD 64x32 Display

IS15EBFP4RGB-09YN

LCD 64x32 Hybrid



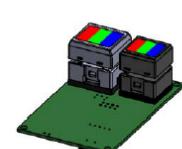
IS-ENG-KIT-5-DC

IS01BBFRGB

LCD 36x24 Display

IS15BSBFP4RGB

LCD 36x24 Compact



IS-ENG-KIT-6-SH

IS15EBFP4RGB

LCD 64x32 Standard

IS15EBFP4RGB-09YN

LCD 64x32 Hybrid

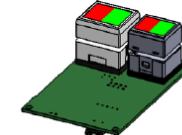
IS-ENG-KIT-5-SC

IS15BBFP4RGB

LCD 36x24 Standard

IS15BSBFP4RGB

LCD 36x24 Compact



IS-ENG-KIT-6-CH

IS15ESBFP4RGB

LCD 64x32 Compact

IS15EBFP4RGB-09YN

LCD 64x32 Hybrid

IS-ENG-KIT-5-BC

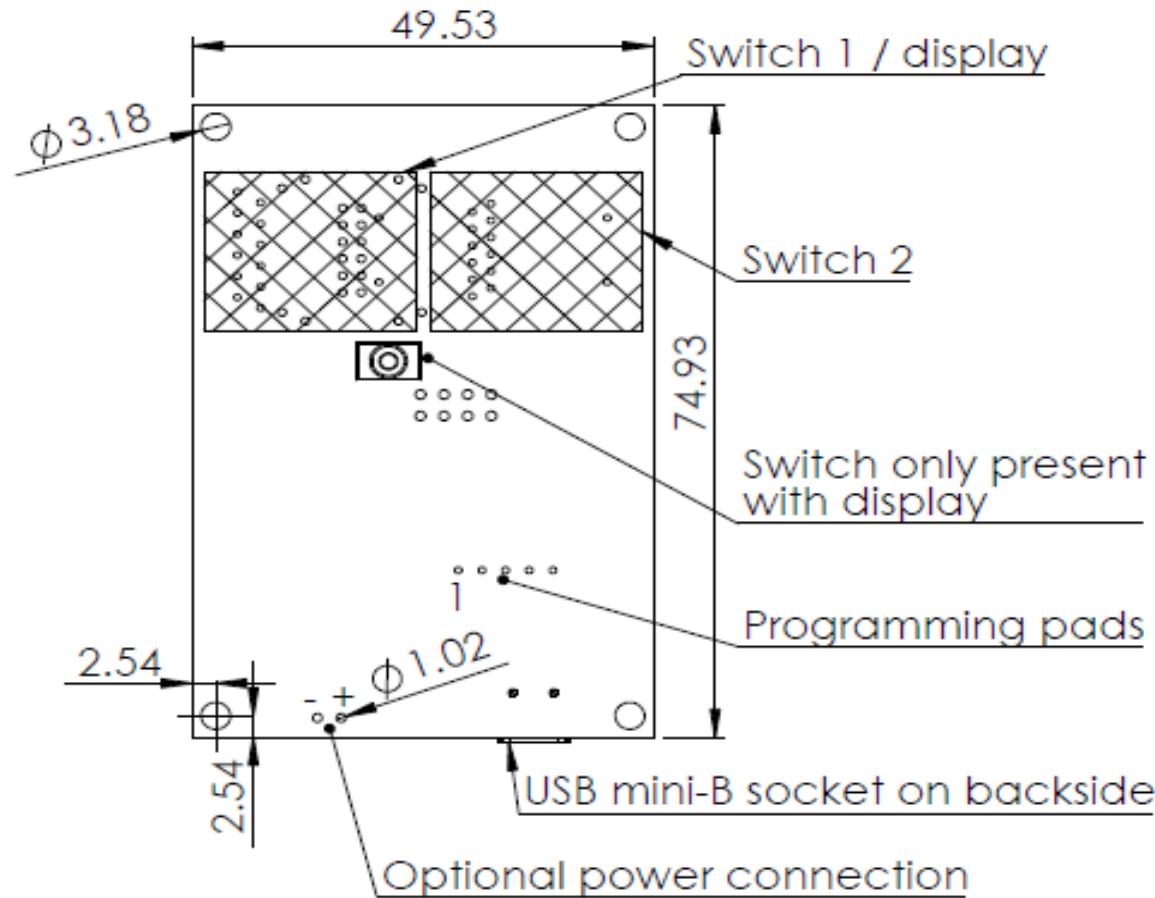
IS15BAFP4CF

LCD 36x24 Bicolor Standard

IS15BSAfp4CF

LCD 36x24 Bicolor Compact

Dimensions



Dimensions in mm.

*All controllers have the same dimensions



Summary

- Introduced the Engineering SmartSwitch Development Kits
- Simplified Development Kit designed to accelerate the incorporation of SmartSwitch 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

