SmartSwitch Product Selector

	DEVELOPMENT KITS All development kits include power supply and RS232 cable	PCB MOUNT MOMENTARY SWITCH 23.13 x 20.59 x 23mm	PCB MOUNT MOMENTARY COMPACT SWITCH 19 x 18 x 23mm	PCB MOUNT DISPLAY 17.8 x 17.2 x 9.9mm	PANEL MOUNT ROCKER (3 Momentary Switches) 37.9 x 50.7 x 5.6mm (Above Panel) 37.9 x 50.7 x 14.6mm (Behind Panel)
LCD 36 X 24		Monochrome Graphic Display **Pixels:** 36 x 24 **Life:** 50,000 hrs **Available Part Numbers:** 9 **Backlight:** Single/Bicolor or RGB **Switch:** 1.8mm Travel 1,000,000 Operation Minimum Same Footprint for All Products Except RGB **Dev Kit:** IS-DEV KIT-5	Monochrome Graphic Display **Pixels:** 36 x 24 **Life:** 50,000 hrs **Available Part Numbers:** 5 **Backlight:** Single/Bicolor or RGB **Switch:** 1.8mm Travel 1,000,000 Operation Minimum Same Footprint for All Products **Dev Kit:** IS-DEV KIT-5C	Monochrome Graphic Display **Pixels:** 36 x 24 **Life:** 50,000 hrs **Available Part Numbers:** 4 **Backlight:** Single/Bicolor or RGB Same Footprint for All Products **Dev Kit:** IS-DEV KIT-5D	Not Applicable
LCD 64 X 32		Monochrome Graphic Display **Pixels:** 64 x 32 **Life:** 50,000 hrs **Available Part Numbers:** 2 **Backlight:** RGB **Switch:** 1.8mm or 4.5mm Travel, 1,000,000 or 3,000,000 Operation Minimum Same Footprint as Compact Switch with 1.8mm Travel **Dev Kit:** IS-DEV KIT-6	Monochrome Graphic Display **Pixels:** 64 x 32 **Life:** 50,000 hrs **Available Part Numbers:** 1 **Backlight:** RGB **Switch:** 1.8mm Travel 1,000,000 Operation Minimum Same Footprint as Standard Switch with 1.8mm Travel **Dev Kit:** IS-DEV KIT-6C	Monochrome Graphic Display **Pixels:** 64 x 32 **Life:** 50,000 hrs **Available Part Numbers:** 1 **Backlight:** RGB **Dev Kit:** IS-DEV KIT-6D	Not Applicable
OLED COLOR		65K Colors per Pixel Graphic Display **Pixels:** 64RGB x 48 **Life:** 30,000 hrs **Available Part Numbers:** 1 **Switch:** 4.5mm Travel 3,000,000 Operation Minimum **Dev Kit:** IS-DEV KIT-7	Not Available	65K Colors per Pixel Graphic Display **Pixels:** 52RGB x 36 **Life:** 30,000 hrs **Available Part Numbers:** 1 **Dev Kit:** IS-DEV KIT-7D	Not Applicable
OLED MONO		Not Applicable	Not Applicable	Not Applicable	White Monochrome Graphic Display **Pixels:** 96 x 64 **Life:** 52,000 hrs **Available Part Numbers:** 1 **Switch:** 1.4mm Travel 1,000,000 Operation Minimum **Dev Kit:** IS-DEV KIT-8

SmartSwitch Product Selector

NKK SWITCHES

	LCD 36X24	LCD 64X32	OLED COLOR	OLED MONOCHROME
BACKLIGHT CONTROL	Discrete	Software Command	-	-
BACKLIGHT COLORS	Limited Only By Customer Design	64	-	-
DISPLAY CONTROL	Serial	Serial	Serial (SPI)	Serial (SPI)
VIEW ANGLE (UP AND DOWN)	90°	90°	180°	180°
VIEW ANGLE (RIGHT AND LEFT)	90°	90°	180°	180°
DISPLAY CONTROL PINS	4 (CLK, Data, LP, FLM)	2 or 3 (CLK, Data, Select)	5 (CLK, Data, D/C, Select, Reset)	5 (CLK, Data, D/C, Select, Reset)
VIDEO	No	No	100 Frames per Second	Animation
IMAGE SIZE	120 Bytes	256 Bytes	Switch 1 Byte/Pixel: 3,072 Bytes / 2 Byte/Pixel: 6,144 Bytes Display 1 Byte/Pixel: 1,872 Bytes / 2 Byte/Pixel: 3,744 Bytes	768 Bytes
MAXIMUM CLOCK FREQUENCY	6 MHZ	8 MHZ	6.6 MHZ	10 MHZ
DISPLAY REFRESH	Yes	No	No	No
INITIALIZATION	No	No	Yes	Yes
LOGIC VOLTAGE	5V	5V	3V	3V
LOGIC CURRENT	0.5mA Maximum	10mA Maximum	0.2mA Maximum	0.72mA Maximum
DISPLAY VOLTAGE	7.3V	-	16V	15V
DISPLAY CURRENT	2mA Max	Included in the Logic Current	All Pixels ON: 4.6mA Max	All Pixels ON: 13.62mA Max
BACKLIGHT CURRENT	0 to 40mA	0 to 40mA	-	-
OPERATING	-20° to +60° C	-15° to +50° C	-20° to +70° C	-20° to +70° C
STORAGE	-30° to +70° C	-20° to +60° C	-30° to +80° C	-25° to +80° C
IP-RATING	Not Applicable to PCB Mount Seal Possible with Overlay	Not Applicable to PCB Mount Seal Possible with Overlay	Not Applicable to PCB Mount Seal Possible with Overlay	IP64
FEATURES	Up to 3 lines, 6 Characters	Up to 4 lines, 10 Characters	Up to 6 Lines, 10 Characters	Up to 8 Lines, 16 Characters
	Backlight Control Flexibility	Ease of Control	Excellent Contrast	Excellent Contrast
	Multiple Displays can be Controlled with 4 Control Lines by Daisy-Chaining	Backlight and LCD Display are Controlled with 4 Commands	180° Viewing Angle	180° Viewing Angle
	Different Back Lighting for Different Modes of Operation	Different Back Lighting for Different Modes of Operation	65K Vivid Colors Per Pixel	Simplify Complex Panels with One Device
	Low Cost	8 Levels of Brightness Controlled via Software	Brightness Controlled via Software	Brightness Controlled via Software
	Sunlight Readable	Sunlight Readable	Graphics Capability via Software	Low Profile Panel Mount
	Low Power	Only Logic Voltage Required	Low Power	Low Power