

Change Notice

IS Series

Changes for OLED Module & Driver IC in SmartSwitch Rocker

Type of Change:

- Engineering Part Number
 Product Appearance



SmartSwitch Rocker Changes
for OLED Module & Driver IC

The IS Series Rocker will have a different OLED module and driver IC. This revision will effect standard and custom rockers, including any assembled in the IS Development or Engineering Kits. Standard part numbers are shown below. Tables depict the various specification differences before and after the change to the new module and IC driver.

IS Series Rocker Part Numbers							
IS18WWC1W				IS18WWC1W-K			
Recommended Operating Conditions							
(Temperature at 25°C)		Before Change			After Change		
Items	Symbols	Minimum	Typical	Maximum	Minimum	Typical	Maximum
Supply Voltage for Logic/Interface	VDDA	2.7V	2.8V	2.9V	2.7V	2.8V	2.9V
Supply Voltage for Drive	VAH	14.5V	15.0V	15.5V	14.5V	15.0V	15.5V
Input High Level Voltage	V _{IH}	0.75 x VDDA	—	VDDA	0.75 x VDDA	—	VDDA
Input Low Level Voltage	V _{IL}	0.0	—	0.25V x VDDA	0.0	—	0.25V x VDDA
Input High Level Voltage (XRES only)	V _{IH}				0.80 x VDDA	—	VDDA
Input Low Level Voltage (XRES only)	V _{IL}				0.0	—	0.20V x VDDA
Current Consumption							
(Temperature at 25°C, VDDA = 2.8V, VAH = 15.0V)		Before Change			After Change		
Items	Symbols	Minimum	Typical	Maximum	Minimum	Typical	Maximum
All-Pixels-On Mode * Drive System Power Current	I _{H1}	—	11.0mA	13.2mA	—	6.9mA	8.3mA
All-Pixels-On Mode * Logic/IF System Power Current	I _{DD1}	—	0.58mA	0.72mA	—	0.3mA	0.36mA
Sleep Mode ** Drive System Power Current	I _{H2}	—	—	10μA	—	—	10μA
Sleep Mode ** Logic/IF System Power Current	I _{DD2}	—	—	10μA	—	—	10μA
* All pixels shall be turned on with the maximum level gray scale				** All pixels shall be turned off (while chip is operating)			
Optical Characteristics							
(Temperature at 25°C, Initial Value: depends on initial setting)		Before Change			After Change		
Items		Minimum	Typical	Maximum	Minimum	Typical	Maximum
Brightness		75 cd/m ²	100 cd/m ²	125 cd/m ²	75 cd/m ²	100 cd/m ²	125 cd/m ²
Chromaticity	(x)	* 1	0.310	* 1	* 2	0.310	* 2
	(y)	* 1	0.320	* 1	* 2	0.330	* 2
Contrast		100	—	—	100	—	—
* Chromaticity range is the area of the ellipse. (See Chromaticity Diagram on page 2.) The ellipse passes through points A, B, C and D, designating the center of each side of the quadrangle.							

Effective Date

Changes for the SmartSwitch Rocker will be effective April 2019.

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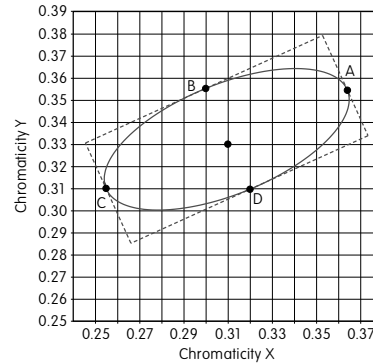
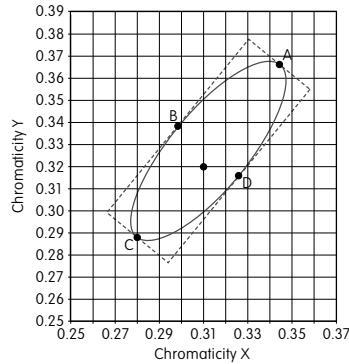
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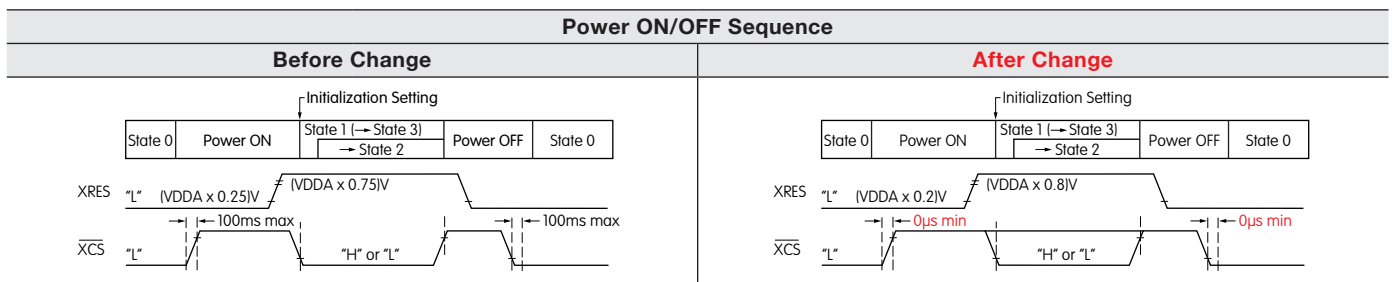
IS Series

Chromaticity Diagram				
Point	Before Change		After Change	
	Chromaticity X	Chromaticity Y	Chromaticity X	Chromaticity Y
A	0.3441	0.3663	0.3639	0.3535
B	0.2983	0.3384	0.3007	0.3552
C	0.2799	0.2881	0.2561	0.3105
D	0.3257	0.3160	0.3193	0.3088



Timing Specifications – AC Characteristics							
(Temperature at -20°C ~ +70°C), VDDA = 2.8V, VAH = 16V		Before Change			After Change		
Items	Symbols	Minimum	Typical	Maximum	Minimum	Typical	Maximum
Clock Cycle Time	t _{cycle}	100ns	—	—	100ns	—	—
A0 Setup Time	t _{SWDS}	65ns	—	—	65ns	—	—
A0 Hold Time	t _{SWDH}	35ns	—	—	35ns	—	—
XCS Setup Time	t _{CWS}	65ns	—	—	65ns	—	—
XCS Hold Time	t _{CWH}	95ns	—	—	35ns	—	—
High Level XCS Pulse Width	t _{CSBH}	* 10ns	—	—	30ns	—	—
Write Data Setup Time	t _{WDTS}	10ns	—	—	10	—	—
Write Data Hold Time	t _{WDTH}	20ns	—	—	30ns	—	—
SCL Low Time	t _{SCLL}	45ns	—	—	45	—	—
SCL High Time	t _{SCLH}	45ns	—	—	45	—	—
SCL Rise Time	t _r	—	—	15ns	—	—	15ns
SCL Fall Time	t _f	—	—	15ns	—	—	15ns

* Requires more than 100ns after resetting software



Initial Setting
Some of the command parameters are changing. Contact NKK Switches for the most recent data sheet.



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