

Product Change Notification

Date: Nov. 8th, 2017

Dear Valued Customer,

Thank you for choosing KYOCERA as your LCD solution provider. We appreciate the opportunity to support your business. This letter is to inform you of a product change due to component EOL.

1. Product

Part Number	Description
F-51320GNB-LW-AEN	2.8" 128x 64 STN blue mode LCD
F-51553GNBJ-LW-AGN	2.8" 128x 64 STN blue mode LCD
C-51505NFQJ-LW-ALN	20 x2 STN character LCD
C-51505NFJ-SLW-AQN	20 x 2 transfective character LCD
C-51847NFJ-SLW-AFN	20 x 4 FSTN character LCD
C-51849NFJ-SLW-ADN	40 x 4 FSTN character LCD
C-51850NFJ-SLW-ADN	40 x 2 transfective character LCD

2. Background

The component supplier discontinued the current LED chip, but a replacement LED chip has been identified with much higher efficiency, which will improve the overall optical performance. Please check the data on next page for details. The part number will remain the same.

3. Schedule:

- Sample shipment: Will be available between November and January 2018
- Changeover timing: Feb 2018. (Running change, schedule will vary based on stock of old LED chip).

4. Change Point

Operating Characteristic (Calculated from the supplier data sheet)

Table 1: For below parts, no LED driving condition change, the luminance of backlight surface increases.

Part Number	Parameter	Symbol	Condition	Min.	Typ.	Max.	Units
F-51320GNB-LW-AEN	Luminance of BL surface	L	IF=40mA	70	90 → (330)	-	cd/m ²
F-51553GNBJ-LW-AGN	Luminance of BL surface	L	IF=40mA	65	100 → (340)	-	cd/m ²
C-51505NFQJ-LW-ALN	Luminance of BL surface	L	IF=15mA	125	- → (340)	-	cd/m ²
C-51505NFJ-SLW-AQN	Luminance of BL surface	L	IF=15mA	125	- → (340)	-	cd/m ²

Table 2: For below parts, the Forward Voltage (VF) need to be reduced from 3.5V to 2.8V, Max value reduced from 4.0V to 3.2V. The luminance of backlight surface increases.

Part Number	Parameter	Symbol	Condition	Min.	Typ.	Max.	Units
C-51847NFJ-SLW-AFN	Luminance of BL surface	L	IF=30mA	28	40 → (200)	-	cd/m ²
	Forward Voltage	VF	IF=30mA	-	3.5 → (2.8)	4.0 → (3.2)	V
C-51849NFJ-SLW-ADN	Luminance of BL surface	L	IF=90mA	28	40 → (340)	-	cd/m ²
	Forward Voltage	VF	IF=90mA	-	3.5 → (2.8)	4.0 → (3.2)	V
C-51850NFJ-SLW-ADN	Luminance of BL surface	L	IF=60mA	28	40 → (350)	-	cd/m ²
	Forward Voltage	VF	IF=60mA	-	3.5 → (2.8)	4.0 → (3.2)	V



5. Reliability Test

LCD module reliability test is scheduled to be completed in Jan, 2018.

NO	Item	Condition	N (input)
1	High Temp. Operating	70°C/ Dry, 240h judge	3
2	Low Temp. Operating	-20°C/Dry, 240h Judge	3
3	High Temp. Storage	85°C/Dry, 240 Judge	3
4	Low Temp. Storage	-30°C/ Dry, 240 Judge	3
5	High Temp. Humidity Operating	40°C/90-95%RH, 240 Judge	3
6	Heat Shock Test Storage	-40 ↔80C, 240 cyc Judge	3
7	Vibration Test	Total fixed amplitude: 1.5mm Vibration Frequency: 10~55Hz 60sec//1cyc, X,Y,Z axis each 15min	3

We apologize for the inconvenience. Thank you in advance for your understanding and your cooperation.

If you have any questions, please contact your KYOCERA sales representative.

Sincerely yours,

KYOCERA International, Inc

Display Division