KYOCERA

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Logic IC change Notice

Thank you for your continued support of Kyocera TFT products. Due to the end of life announcement from our logic IC supplier for the following displays, we will be transitioning to a new logic IC from the same supplier to support ongoing production. Thank you for your understanding.

1. Part Numbers

TCG057VGLAAANN-GN20
TCG075VGLDH-G20
TCG104VGLPCANN-AN40

2. Background

Due to the current logic IC end of life, we have identified an alternate IC that has the same characteristics resulting in no change to the optical specification or reliability. This will be considered a running change that will not result in a part number update for the effected parts and will be implemented based on the schedule outline below.

3. Description

		Current IC	Changed IC
Supplier		No change	
Mold resin		Halogen	Halogen free
Internal wire		Au	Cu
Terminal plate		Sn-Bi	Sn
Absolute maximum rating		No change	
Electrical characteristic	Range of motion temp.	-40～85c degrees	-40～125c degrees
	Others	No change	

The product specification and reliability will not change by changing the IC. Both absolute maximum rating and electrical characteristic are used within the range of parts rating.

4. Application timing

Estimated change over to the new IC is expected to be the production schedule from October 2023.

*This could change based on supply of current logic IC.

5. Evaluation result

■Reliability test-appreciable sample

Test item	Test condition	Sample number	Judgement standard	Judgment
High temp. activation	70c degrees,1000hrs	5pcs	Internal judgement standard	Pass
High temp. aging	80c degrees,1000hrs	5pcs	Internal judgement standard	Pass
Low temp. activation	-20c degrees, 1000hrs	5pcs	Internal judgement standard	Pass
Low temp. aging	-30c degrees,1000hrs	5pcs	Internal judgement standard	Pass
High temp./humidity activation	60c degrees 90%RH,1000hrs	5pcs	Internal judgement standard	Pass
Heat shock	-40c degrees⇔85c degrees 480cycle	5pcs	Internal judgement standard	Pass
ESD	150pF, 330Ω, 10 times	3pcs	Internal judgement standard	Pass

Result-All passed.

■Function evaluation

(1) Logic IC function

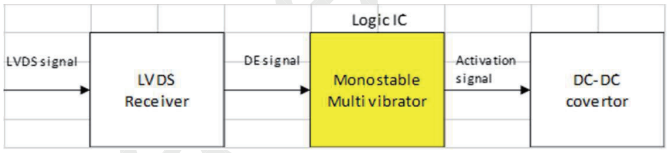

Fig.1: Structure of power activation of LCD

The structure of LCD power on, after power inputting, LOGIC IC catches DE signal activation which is included in LVDS signal, and turns on activation signal. Although activation signal's ON term is determined by capacitor C Ton=1.0×C×R(s), Ton is reset by recatch of DE signal activation during Ton term-activation signal keeps ON, and ON status is kept during LCD operation, because Ton starts again Design value of Ton during ON term is 56ms.

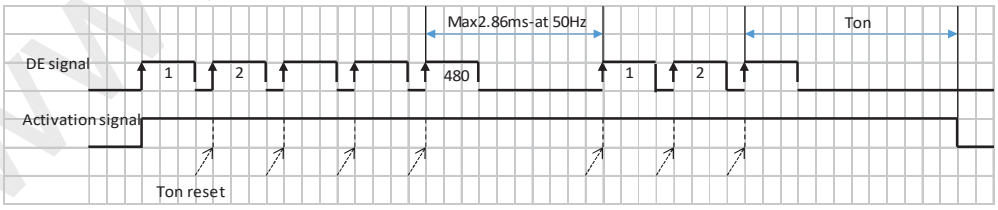

Fig.2: Relation between DE signal and activation signal

(2) Evaluation detail

Measurement condition: VDD=3.0V/3.6V evaluated each voltage, measure activation signal ON term Ton Evaluation sample N=1 *The time from DE signal activation (will

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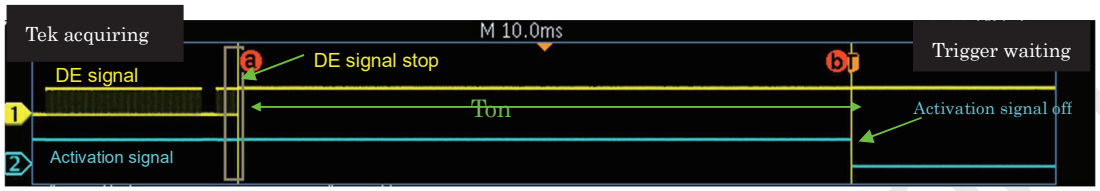
stop) to activation signal off



Evaluation item	Judgement standard	VDD	Current IC	Changed IC	Judgement
DE signal↑-activation signal off	2.86ms and above *DE signal max off term at frame cycle 50Hz	3.0V	62.6ms	59.9ms	Pass
		3.6V	63.0ms	60.3ms	

As a result of evaluation above, we concluded no change to function by this change.

We apologize for inconveniences and appreciate your cooperation.

Regards,

Kyocera International, Inc

Display Division