

Product Change Notice

Issue Date: 1-Dec-2021

Change Description:

New dice replacement for Leadframe Seven Segment Display and Annunciator.

Parts Affected:

HLCP-A100	HDSP-A113	HDSP-F151-MN000	HDSP-K113
HLCP-A100-BC000	HDSP-A151	HDSP-F153	HDSP-K121
HLCP-B100	HDSP-A153	HDSP-F153-NO000	HDSP-K123
HLCP-B100-BC000	HDSP-A153-NO000	HDSP-F157	HDSP-N101
HLCP-C100	HDSP-E101	HDSP-F158	HDSP-N103
HLCP-C100-CD000	HDSP-E101-EF000	HDSP-F161	HDSP-N103-CD000
HLCP-D100	HDSP-E103	HDSP-F161-L0000	HDSP-N105
HLCP-E100	HDSP-E151	HDSP-H101	HDSP-N150
HLCP-E100-BC000	HDSP-E153	HDSP-H101-CD000	HDSP-N151
HLCP-G100	HDSP-F101	HDSP-H101-DE000	HDSP-N153
HLCP-H100	HDSP-F101-EF000	HDSP-H103	HDSP-U101
HLCP-J100	HDSP-F103	HDSP-H103-DE000	HDSP-U103
HDSP-A101	HDSP-F103-EF000	HDSP-H107	HDSP-U111
HDSP-A101-E0000	HDSP-F107	HDSP-H108	HDSP-U111-EG000
HDSP-A101-FG000	HDSP-F108	HDSP-H111	HDSP-U113
HDSP-A103	HDSP-F111	HDSP-H111-DE000	HDSP-U113-FG000
HDSP-A103-FG000	HDSP-F111-D0000	HDSP-H113	QDSP-S023
HDSP-A107	HDSP-F111-EF000	HDSP-H151	QDSP-S062
HDSP-A107-FG000	HDSP-F113	HDSP-H153	
HDSP-A111	HDSP-F151	HDSP-K111	

Description and Extent of Change:

The new die (AlInGaP) will replace current die (AlGaAs) for part numbers above.

Reasons for Change:

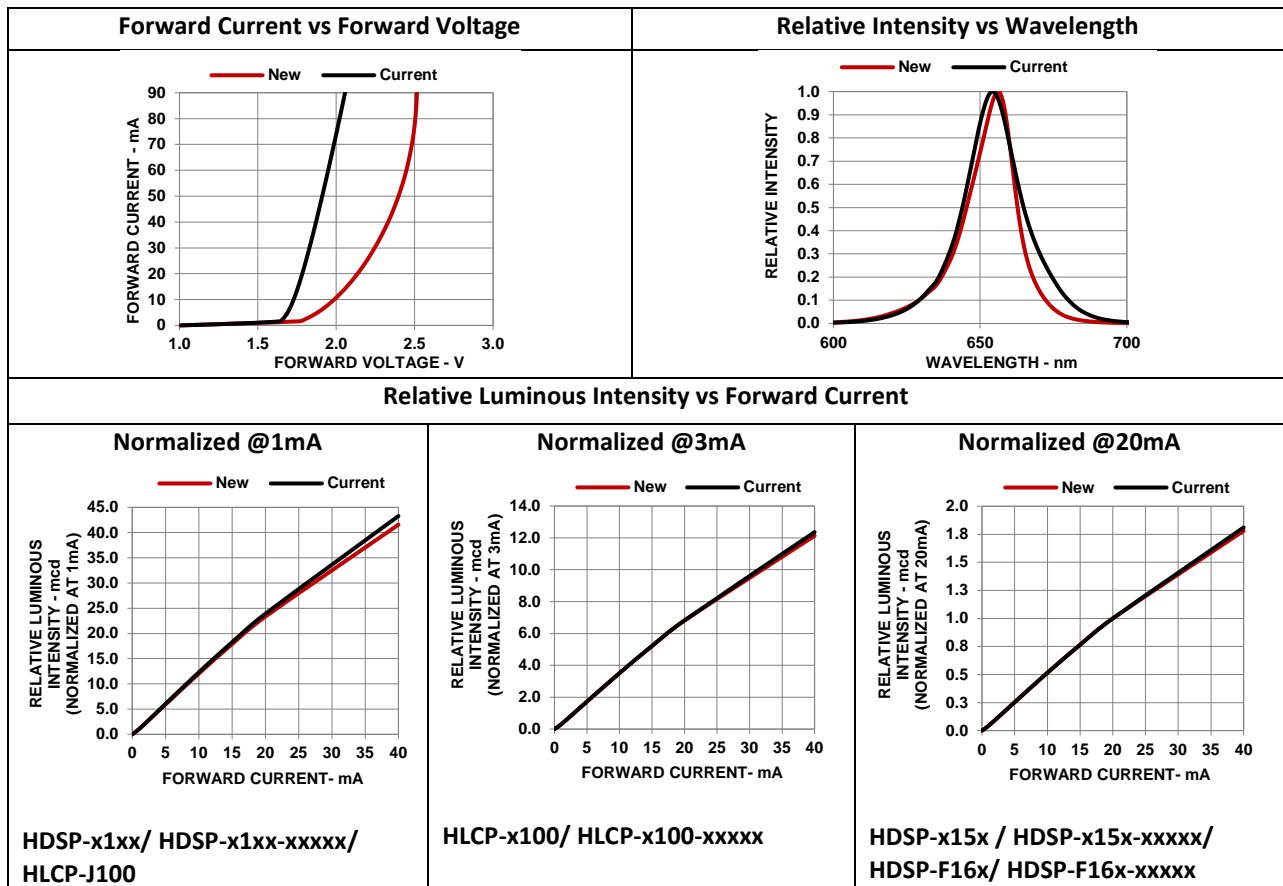
Supply of assurance.

Effect of Change on Fit, Form, Function, Quality, or Reliability:

There is no change in the product fit & form.

Following are changes in product characteristic:

1. Forward Current vs Forward Voltage
2. Relative Intensity vs Wavelength
3. Relative Intensity vs Forward Current
4. Peak forward current
5. 1 to 3 lv bin higher with the new die source



Part#	Vf max		Peak forward current	
	Current die	New die	Current die	New die
HDSP-A15x / HDSP-A15x-xxxxx HDSP-E15x / HDSP-H15x HDSP-N15x	3.0V @100mA	2.5V @20mA	160mA	90mA
HDSP-F15x / HDSP-F15x-xxxxx/ HDSP-F16x/ HDSP-F16x-xxxxx	2.2V@20mA	2.5V @20mA	160mA	90mA
HLCP-x100/ HLCP-x100-xxxxx	2.2V@20mA	2.5V @20mA	45mA	90mA
HDSP-x1xx/ HDSP-x1xx-xxxxx	2.2V@20mA	2.5V @20mA	45mA	90mA

Option part # (Current die) will be replaced with option part # (New die) once the PCN is effective and / inventory of current die is fully depleted. Information on option part # (New die) is as tabulated per table below:

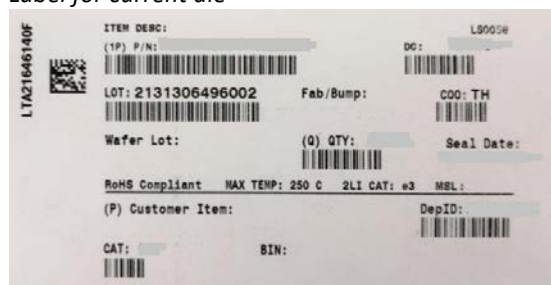
Option part # (Current die)	Option part # (New die)
HDSP-A101-FG000	HDSP-A101-GH000
HDSP-A103-FG000	HDSP-A103-GH000
HDSP-A107-FG000	HDSP-A107-GH000
HDSP-A153-NO000	HDSP-A153-OP000
HDSP-E101-EF000	HDSP-E101-FG000
HDSP-F101-EF000	HDSP-F101-GH000
HDSP-F103-EF000	HDSP-F103-GH000
HDSP-F111-EF000	HDSP-F111-FG000
HDSP-F151-MN000	HDSP-F151-NO000
HDSP-H101-CD000	HDSP-H101-EF000
HDSP-H101-DE000	HDSP-H101-EF000
HDSP-H103-DE000	HDSP-H103-EF000
HDSP-N103-CD000	HDSP-N103-DE000
HDSP-U111-EG000	HDSP-U111-GI000
HDSP-U113-FG000	HDSP-U113-GH000
HLCP-A100-BC000	HLCP-A100-CD000
HLCP-B100-BC000	HLCP-B100-CD000
HLCP-E100-BC000	HLCP-E100-CD000

Effective Date of Change:

Shipment may contain product from current die and new die starting 1st March 2022 until the inventory of current die is fully depleted. There will be no mixed die within the same tube/ lot.

Part identification:

Label for current die



Label for new die



Prefix "E" will be added to the Lot number

Qualification Data:

Reliability Test	Stress Condition	Result
Temperature Cycle	-55°C /100°C;15 5 15min	100x (PASSED)
Temperature Humidity Operating Life	85°C/85%RH; 18mA	1000hrs (PASSED)
High Temperature Operating Life	55°C; 35mA	1000hrs (PASSED)
Temperature Humidity Storage Life	85°C/85%RH	1000hrs (PASSED)
Low Temperature Operating Life	-40°C; 40mA	1000hrs (PASSED)

Please contact your Broadcom field sales engineer or Contact Center for any questions or support requirements. Please acknowledge the receipt of the notice within 30 days of delivery. Lack of acknowledgement within 30 days constitutes acceptance of the change per JEDEC J-STD-046.