

ELI70-IRHW, ELI70-IRHW-M, ELI70-IRHW-R1 Product Change Notification Form

PCN Number: 20251208-01	Rev: 4.2	Date: 12/08/2025
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Summary of Change: FDI has updated the ELI70-IRHW, ELI70-IRHW-M & ELI70-IRHW-R1 to a newer LCD process technology to allow continued longevity with our ELI guaranteed 10-year minimum availability.

Reason for Change:

The base Liquid Crystal Display (LCD) used in the ELI70-IRHW and ELI70-IRHW-R1 was upgraded to a newer process technology that is deemed to be 100% backward compatible. This upgrade from Amorphous-Silicon (a-Si) to Low Temperature Poly-Silicon (LTPS) did not change the P/N of the LCD itself, but it did change the Revision of the glass. LTPS offers superior performance over a-Si and allows a reduced LCD power and overall power supply consumption for the newer unit.

Detailed Description of Change:

The ELI70-IRHW and ELI70-IRHW-R1 LCD display has been updated with the following enhanced capabilities:

Specification	Rev 4.1	Rev 4.2
Brightness (nits typ)	700	1000
Operating Temperature	-30° to +80°C	-30° to +80°C
Backlight Life (Hrs typ) at 700 nits, -30° to +80°C	70K	70K
Backlight Life (Hrs typ) at 1000 nits, 30° to +80°C	N/A	50K
Backlight Power @700 nits	6.6W	4.7W
Backlight Power at 1000 nits	N/A	7.2W

The new LCD display is backward compatible, and all other specifications remain the same, so except for the enhanced brightness, customers should not see any functional difference in the product.

The new Rev 4.2 ELI70-IRHW and ELI70-IRHW-R2 can operate at up to 1000 nits of brightness, for enhanced sunlight readability in outdoor applications.

The LED Backlight Life on the new version is very robust and is still rated at the same 70K Hr typical lifetime as the previous version. Existing customers who do not need to take advantage of the enhanced brightness offered in the Rev 4.2 unit, can operate their ELI70-IRHW and ELI70-IRHW-R2 units at a 700 nit brightness

level and achieve the same 70K Hr rated Backlight Life. When operating the Rev 4.2 unit at full 1000 nit brightness levels, users should be aware of the Backlight Life derating factors as shown in the curves below:

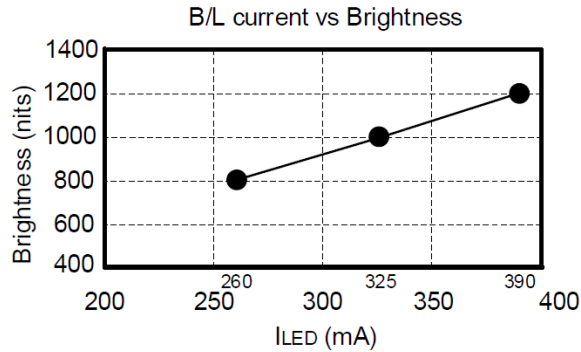


Fig 5.2 LED Current v.s. Brightness

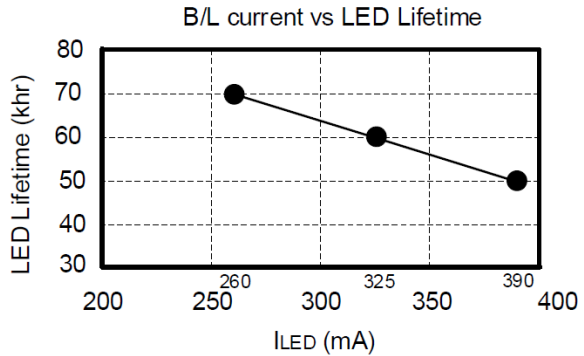


Fig 5.3 LED Current v.s. Lifetime

By supplying different ILED current values, the estimated brightness and Backlight LED lifetime curves can be adjusted for use in various environments (as shown above). The Backlight level is controlled by input adjustment at J2, as detailed in the ELI70-IRHW User's Manual (section 10 – PWM Control of Backlight). The estimated Backlight Lifetime is specified as the time to reduce 50% brightness by applying 390 mA at 25°C.

Products Affected:

Affected Product	Recommended Replacement Product
ELI70-IRHW (Rev 4.1)	ELI70-IRHW (Rev 4.2)
ELI70-IRHW-M (Rev 4.1)	ELI70-IRHW-M (Rev 4.2)
ELI70-IRHW-R1 (Rev 4.1)	ELI70-IRHW-R2 (Rev 4.2)

Availability of new revision stock at distributors:

Distributors will continue to sell through their existing available stock before filling customers' orders with stock of the new revision of the product.

All future shipments from Future Designs, Inc. will contain this improvement.



Reference Documents: <https://www.teamfdi.com/product-details/eli70-irhw#documentation>
(documentation tab)

1. [ELI70-IRHW and ELI70-IRHW-M Brochure](#)
2. [ELI70-IRHW and ELI70-IRHW-M Quick Start Guide](#)
3. [ELI70-IRHW and ELI70-IRHW-M User's Manual](#)

Forecasted Key Dates and Milestones:

12/08/25 PCN Date. The date this document was released for distribution to customers and distributors.

12/08/25 Production Date for Recommended Replacement Product. The first date that production quantities of the replacement units will be available for customer order.

FDI Contacts:

For additional information or details please contact any of our franchised Distributors including Avnet, Digi-Key, Mouser and WPGA.

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