OPTICON
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! - PRODUCT CHANGE NOTICE - !

DATE: 09/06/2023

PCN #: 230906-1

MDI3x00 module & product family

Green AIM LED Change

Dear valued Opticon customer,

The purpose of this communication is to inform you of an upcoming change to the following products listed below. This change is part of our effort and commitment to continuous improvement of our products and processes.

PCN Overview

PCN Issue Date:	9/06/2023
Effective Date of Change:	In 1 to 3 months from now
Expected First Ship Date:	TBD
Last Date to buy pre-change	
Change Type:	Component Change
New change Identified by:	Serial Number changes from 2xxxxxx to 3xxxxxx.
Reference Documents:	N/A – See specification differences and

Products Affected

MODULES:

- **MDI-3000:** Bar Code Scan Engine (2-piece Module)
- **MDI-3100:** Bar Code Scan Engine (1-piece Module)
- **M-10M:** M-10 module only

SCANNER PRODUCTS

- L-50X, M-10, NLV-3101, OPI-3301, OPI-3601, OPN-3002, OPN-3200

***Note**: Affects all standard and customization products for the base products listed above. And for all interface types (USB/RS232) and all optics ranges (SR, MR, HD, UD).*

Reason for Change

1. The current LED for aimer is end-of-life (EOL), we will replace it with an alternative.
2. The board-level footprint of the replacement LED is different, so the PCB board will be changed at the same time.

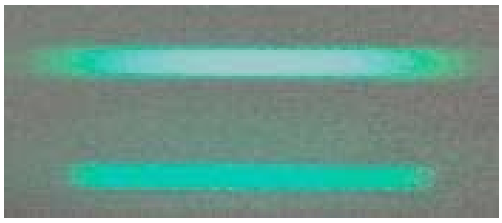
Description & Extent of Change

Opticon plans to replace the green AIM LED with a new part. This will require the printed circuit board (PCB) to change also.

		Before change	After change
1	LED (for aiming)	LT G6SP (OSRAM)	NCSGE17A (nichia)
2	CMOS PCB	MSI31005911-0-03	MSI31005911-0-04

Specification differences:

		(unit)	Current LED	Alternative LED
Type			LT G6SP	NCSGE17AT
Manufacture			OSRAM	nichia
Maximum Ratings	Operating Temperature	Top	-40～110 degrees	-40～100 degrees
	Storage Temperature	Tstg	-40～110 degrees	-40～100 degrees
	Junction Temperature	Tj	125 degrees	135 degrees
	Forward current	If	30 ~ 250 mW	550 mA max
	Surge Current	Ifs	750mA max. t ≤ 10 μs; D = 0.005	700mA max. t ≤ 10 ms; D ≤ 10%
Characteristics	Dominant Wavelength	λdin	528 nm typ.	539 nm typ. (By nichia's documentation)
	Forward Voltage	If	3.3V (If=140mA) typ.	3.3V (If=350mA) typ.
	Brightness	Φv	21 lm (If=140mA) typ. (Calculated the center of group "CD" and "EB")	208 lm (If=350mA) typ.



Effect of Change on “Form”, “Fit”, or “Function”

There will be no change to the product’s “Form”, “Fit”, nor “Function”. Only a slight variation in the green colored “AIM” bar illumination may be perceivable.

Test Results

Classification	Item	Judge	Criterion
Alternative device checking	Confirmation of new LED characteristics	OK	
	Confirmation of signal waveform	OK	To confirm that the design intent is met.
General operation	High-temperature operation test	OK	Readings, communications, auto-triggering, etc.
	Low-temperature operation test	OK	
Reliability	Thermal shock storage test	OK	To pass production line including checking aimer LED.
	Low-temperature storage test	OK	
	High-temperature and high humidity storage test	OK	
Electrical Specifications	Current consumption	OK	To meet product spec.
	DC power input ripple noise test	OK	No affect on reading performance.
	DC power input slow-up/down test	OK	
Durability	Shock and Vibration test	OK	No affect on reading performance. No problem with the mechanism.
	ESD	OK	

If you have any questions, please contact your sales representative or Opticon Technical Support at (800) 636-0090 ext 2127 or (425) 651-2127.