

Light is OSRAM

15.08.2019

Dear Customer,

please find attached our **preliminary** OSRAM OS PCN:

Preliminary PCN OS-PCN-2020-007-A New Separation Technology for IR Pulsed Laser SPL PL90

Important information for your attention:

The information contained in this preliminary PCN is intended

- to inform our customers upfront about upcoming important product / process changes
- to provide to our customer a background of the intended change and the information about the qualification plan
- to get feedback on specific customer requirements at an early stage. For this, you may use the customer feedback form on the end of this document.

The corresponding **final PCN** containing the results from reliability testing is scheduled to be published on **17.02.2020**.

Your attention and response to this matter is highly appreciated.

Please direct your inquiries to your local Sales office.

Preliminary PCN OS-PCN-2020-007-A

New Separation Technology for IR Pulsed Laser

SPL PL90

Subject of change:	New Separation Technology for IR Pulsed Laser SPL PL90	
Affected products	SPL PL90	
Reason for change:	1. Improved automatization of singulation processes 2. Additional design changes on p-side	
Description of change	Please refer of customer information package 2_cip_OS-PCN-2020-007-A_Preliminary PCN	
Product identification:	Date code	
Time schedule for PCN material (after implementation of change):	Final qualification report	15.02.2020
	Samples available	will be produced on request
	Intended Start of delivery	01.04.2020 ^{*)} , ^{**)} *) or earlier if released by customer and upon mutual agreement **) mixable technologies
Assessment:	No change in mechanical dimensions No change in electro-optical performance No change in reliability	
Documentation:	2_cip_OS-PCN-2020-007-A_Preliminary PCN	

Note:

PCN material: Products with implementation of the changes as described in the PCN.

Customer feedback form

Preliminary PCN OS-PCN-2020-007-A New Separation Technology for IR Pulsed Laser SPL PL90

Please list product(s) affected in your application(s):

Please check the appropriate box below:

Not relevant:
Change is not relevant for products in use.

Objections:

We have objections:

Additional requirements:

We request following Information:

We request following Samples:

Volume requirements for Pre-PCN material:

Sender:

Company:

Address / Location:

Signature:

Date:

Please return this feedback form to your Sales partner.

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OSRAM
Opto Semiconductors



Preliminary PCN

OS-PCN-2020-007-A

**New Separation Technology for IR Pulsed
Laser SPL PL90**

Customer information package

OS QM CQM | 15.08.2019

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New Separation Technology for IR Pulsed Laser

SPL PL90



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New Separation Technology for IR Pulsed Laser

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Reason for change

Description why change will be introduced

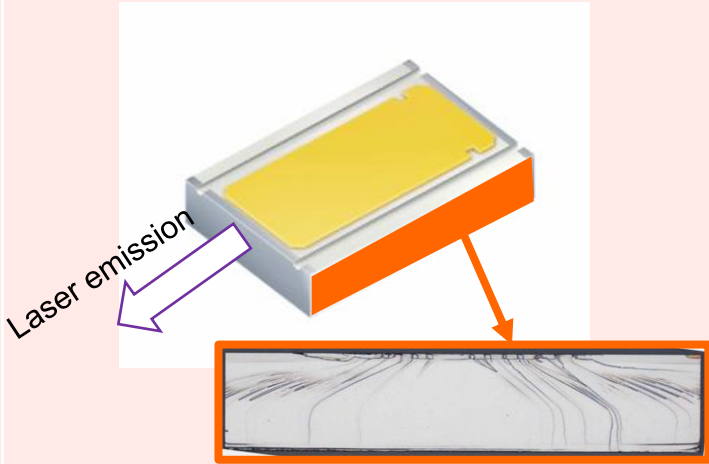
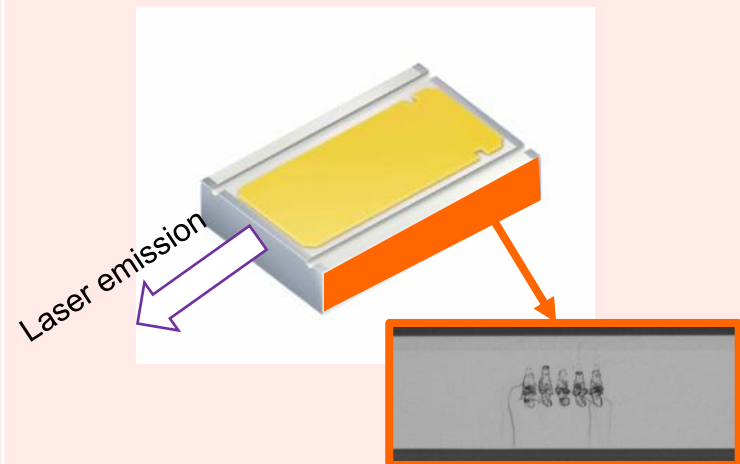
Item	Description
1	Improved automatization of singulation processes
2	Additional design changes on p-side

Preliminary PCN – OS-PCN-2020-007-A

New Separation Technology for IR Pulsed Laser

SPL PL90

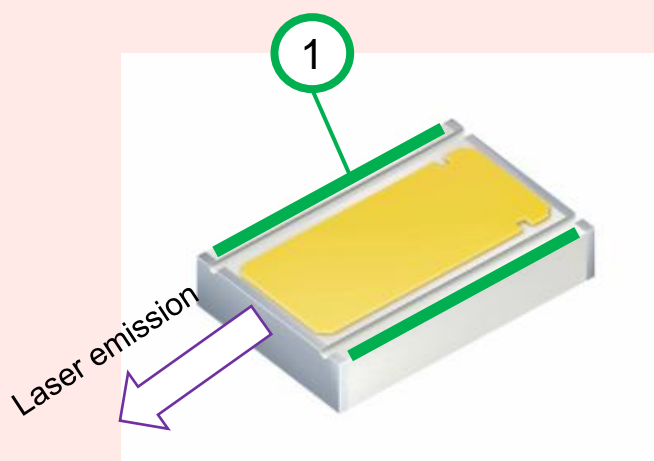
Description of change

Item	Current status	New status
1	<p>Visible at both laser bar non facet side</p> <p>Both technologies mixed in production.</p>	
1	 <p>Schematic drawing (front side)</p>	

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New Separation Technology for IR Pulsed Laser SPL PL90

Description of change

Item	New status (p-side)
2	<p>p-side</p> <p>1. 10µm back set of passivation at both inactive laser bar sides, semiconductors material is visible. 1</p> <p>n-side</p> <p>no changes</p>
2	<div style="text-align: center;">  </div> <p>(tolerances for all dimensions +-5µm)</p>

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New Separation Technology for IR Pulsed Laser

SPL PL90

QUALITY
FIRST

Data sheet changes

- No change in mechanical dimensions
- No change in electro-optical performance
- No change in reliability

Preliminary PCN – OS-PCN-2020-007-A

New Separation Technology for IR Pulsed Laser

SPL PL90

QUALITY
FIRST

List of affected products

Device
SPL PL90

Preliminary PCN – OS-PCN-2020-007-A

New Separation Technology for IR Pulsed Laser

SPL PL90

QUALITY
FIRST

PCN Samples

Device

will be produced on request



available



on request

Preliminary PCN – OS-PCN-2020-007-A

New Separation Technology for IR Pulsed Laser

SPL PL90



Qualification Plan (preliminary)

(SPL DS90A_3 mounted in TO56 will be tested due to higher stress conditions)

Test item	Test condition	Test duration	Sample Size
Temperature cycle (TC) <i>JESD22-A104</i>	$T_{\min} = -40^{\circ}\text{C}$, $T_{\max} = 125^{\circ}\text{C}$, 15min each extreme	1000 c	3x26
Pulse life test (PLT) <i>JESD22-A108</i>	$T_{\text{amb}} = -40^{\circ}\text{C}$, $I_{\text{pulse}} = 40\text{A}$, $t_p = 100\text{ns}$, DC = 0.1%	1000h	3x26
Pulse life test (PLT) <i>JESD22-A108</i>	$T_{\text{amb}} = 105^{\circ}\text{C}$, $I_{\text{pulse}} = 40\text{A}$, $t_p = 100\text{ns}$, DC = 0.1%	1000h	3x26

- Devices under test: see under test item
- Qualification results planned for February 2020
- First reliability results available for August 2019

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New Separation Technology for IR Pulsed Laser

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Time schedule

	Publication Final PCN	17.02.2020
<hr/>		
for <u>PCN material</u> (after implementation of change):	Final qualification report	15.02.2020
	Samples available	will be produced on request
	Intended Start of delivery	01.04.2020 ^{*)} , ^{**)}

^{*)} or earlier if released by customer and upon mutual agreement
^{**)} mixable technologies

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QUALITY
FIRST

Thank you.