



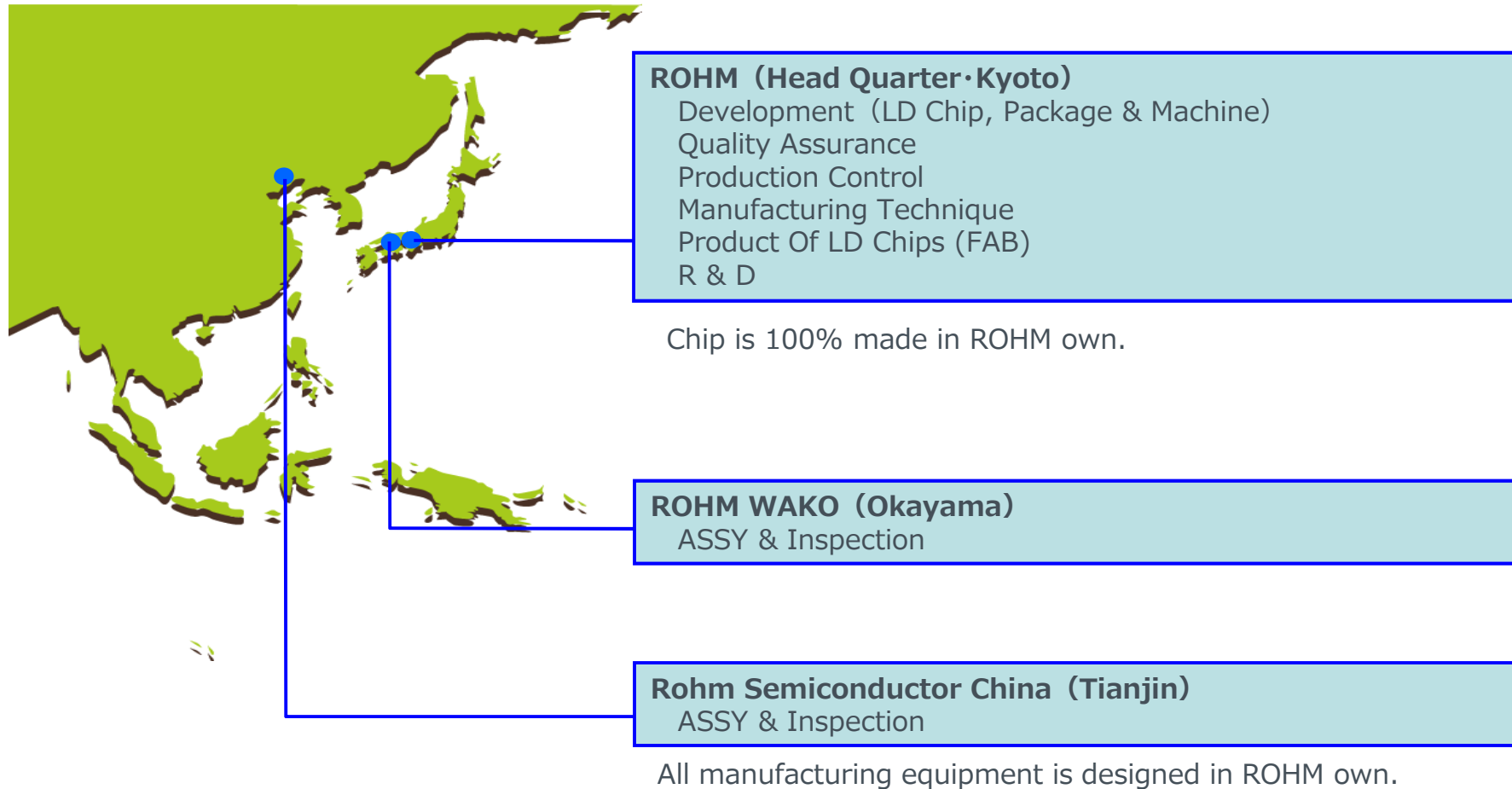
Laser Diode (LD) Lineups

Jun. 11, 2020
Optical module Business Unit
Photonics Div.
Product Development Dept. 1

Manufacturing Location Of ROHM LDs



- ✓ A quality control system is built by a continuous production from chips to finished products.
- ✓ ROHM commands and the larger share of LDs for CD/DVD playback, for laser printers, multi function printers and copiers and for sensors.



LD Lineups for sensor, leveling, ranging and etc.



Main new product are high power IR LDs for motion sensing and ranging

λ Power	630-640 nm	650-670nm	780-800nm	800-950nm		
						LiDAR
>1W		PM2.5 Detect (Air Conditioner)		 Ranging for longer distance		
100-500mW	Leveling 		General sensor 	RLD82N/ZJ1 RLD82P/ZJ1	RLD84N/ZJ2 RLD84P/ZJ2	RLD90Q/ZW* 25~120W
20mW	RLD63N/P/C8 50°C Ranging for shorter distance		RLD78N/ZM7 RLD78M/ZM7 RLD78P/ZM7	 Motion sensing		
15mW	RLD63N/P/C7 50°C		SLAM (Robot cleaner) 	 Interactive projector (Laser Curtain)		
9-12mW	RLD63N/P/C6 50°C	RLD65P/ZX3	RLD78N/ZM5			
	Barcode scanner 	RLD65N/ZX1 80/85°C				
~5mW	RLD63P/ZCA 50°C RLD63N/ZCA 50°C	RLD65N/ZX2 RLD65P/ZX2	RLD78M/ZA6 Multi-mode			
	RLD63N/P/C5 40°C	RLD65M/ZT7				

Package
shown by the seventh character from the left of the name

Mark	Package	Mark	Package
Z	5.6φ 3Pin With glass W	N	5.6φ 4Pin With glass W
P	5.6φ 3Pin Without glass W		





Polarity
Shown by the sixth character from the left of the name

Mark	LD common	PD common
M	cathode	cathode
N	anode	cathode
P	cathode	anode
Q	cathode	No
S	floating	No

LD Lineups for laser printer, MFP & copier



All LDs for laser printer, MFP & copier are the custom specification items. It might be possible to customize for each specification request, lasing wavelength, polarity and output power, beam pitch and etc. Please contact Product development dept. through the sales dept., if you have any opportunity.

Number of Beams	5.6Φ 3Pin CAN  1Beam  *resin package					5.6Φ 4Pin CAN  2Beam			5.6Φ 6Pin CAN  4Beam		
λ	650-670nm		780-800nm			650-670nm	780-800nm		780-800nm		
Power											
25mW						RLD2BPND2 30μm Pitch	RLD2BPNG4 28μm Pitch	RLD2BPNG5 30μm Pitch			
20mW			RLD78MZM7	RLD78NZM7	RLD78PZM7						
15mW	RLD65NZN7 (670nm)					RLD2BPND1 30μm Pitch	RLD2BPNG3 14μm Pitch	RLD2BPNG2 28μm Pitch	RLD4BPMP2 28μm Pitch	RLD4BPMP5 30μm Pitch	RLD4BPMP6 14μm Pitch
10mW	RLD65NZN5	RLD65PZN5		RLD78NZM5	RLD78NRM8 *		RLD2BPNG5 28μm Pitch				
7mW							RLD2BPNG4 90μm Pitch				

Polarity
Shown by the sixth character
from the left of the name

Mark	LD common	PD common
M	cathode	cathode
N	anode	cathode
P	cathode	anode

LD Lineups for optical pick up



All LDs for optical pick up are the custom specification items.
Please contact Product development dept. through the sales dept., if you have any opportunity.

Power λ	650-670nm For DVD	650-670 / 780-800nm 2wavelength For CD / DVD		780-800nm For CD
4.5-7mW	RLD65MFX1 Single mode High-temp. 80°C  Flat resin flame	RLD2WMFV2 Single mode Standard 75°C  Flat resin flame	RLD2WMFL3 Single mode High-temp. 80°C  Flat resin flame	RLD78MRA6 Multi mode Low-Iop 70°C  5.6Φ compatible flame
		RLD2WMFR5 Self-pulsation Higher ESD/COD 70°C  Flat resin flame	RLD2WMNL2 Single mode High-temp. 90°C  5.6Φ4PinCAN with glass window	RLD78MFA7 Multi mode High-temp. 85°C  Flat resin flame

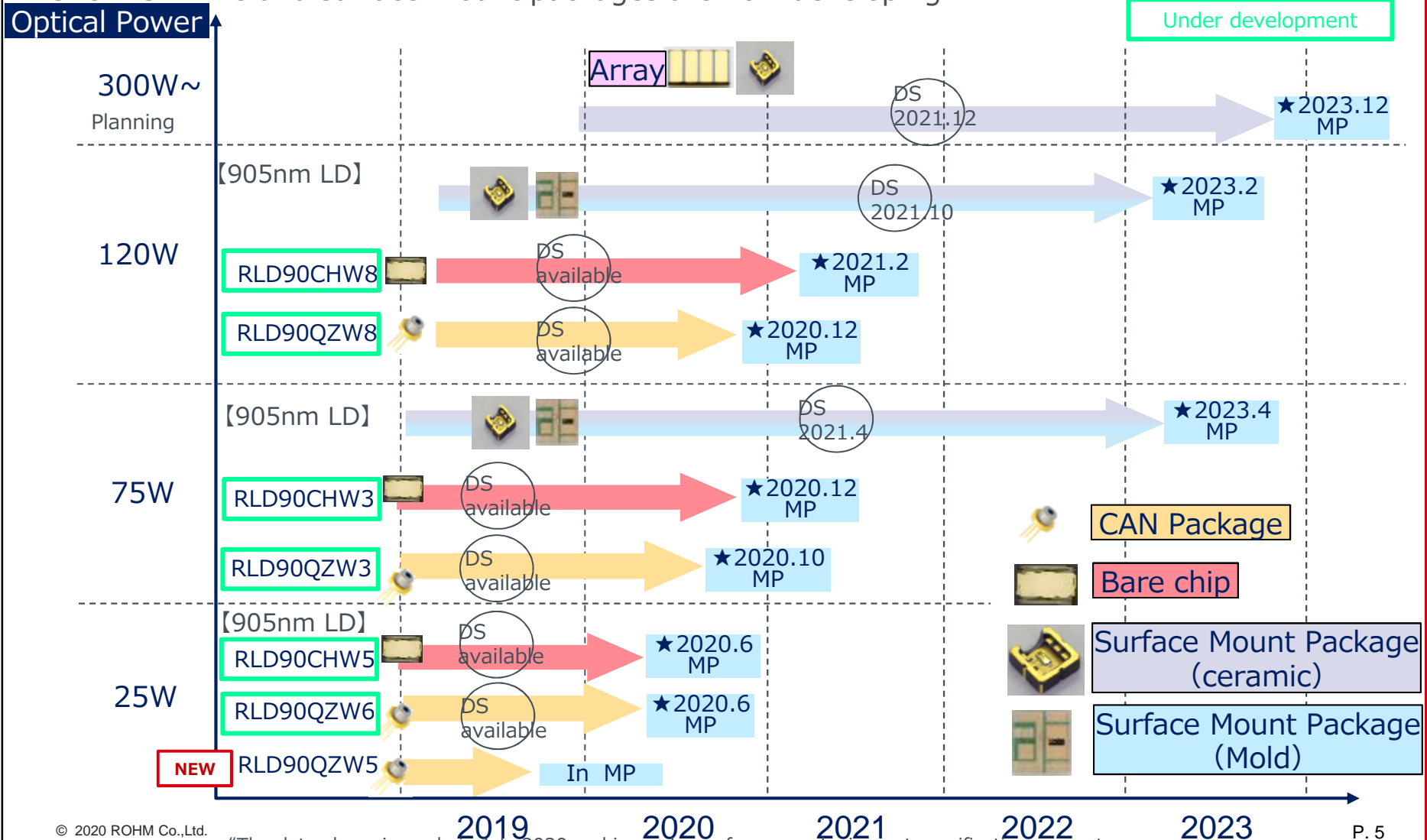
Polarity

All LDs for OPU are PD/LD cathode common

Roadmap of the Laser Diode for LiDAR



- ✓ 25W LD (RLD90QZW5) for consumer and industrial products has been in series-production since Nov. 2019.
- ✓ Over 75W LDs and surface mount packages are now developing.



ROHM VCSEL Roadmap



Under development

DS : Design Sample
MP : Mass Production

Optical Power

3~6W

[940nm LD]

RLD94SCQ* series

DS available

★2020.12 MP

High heat dissipation Package (Continuous Wave Drive)
4.5 x 4.5 mm

[850nm LD]

RLD85SCY* series

DS available

★2021.3 MP

*:9=3W
4=4W
5=6W

IR Illuminations



Surveillance Camera

1~2W

[940nm LD]

RLD94SAQ* series

DS available

★2020.10 MP

[850nm LD]

RLD85SAY* series

DS available

★2021.1 MP

W class VCSEL (Pulse Drive)
3.0 x 2.0 mm

*:7=1W
8=2W

3D Sensors

Object Recognition

Face Recognition

200mW

[940nm LD]

RLD94SAQ6

DS available

★2020.8 MP

[850nm LD]

RLD85SAY6

DS available

★2020.11 MP

200mW VCSEL
3.0 x 2.0 mm

Ranging/Obstacle detection

Drone

AGV

2020

2021

Surface Mount Package (Mold)

"The data above is made in July 2020 and is used as reference only, i.e. not specification guarantee. Specifications and data are subject to change without notice."

