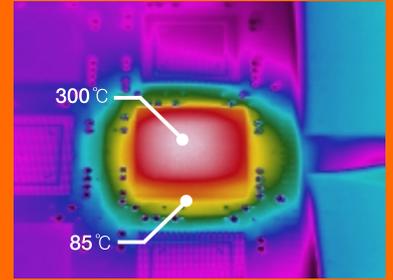


## LSR(Laser Selective Reflow)



Laser Selective Reflow (LSR) is designed to deliver a uniform defocused laser beam over a specifically tailored area on a PCB. The uniform defocused beam is controlled and delivered to the product via the BSOM (Beam Shaping Optic Module system) on user defined area. This unique feature permits the user to implement novel soldering solutions not possible with past techniques. It also allows the selective application of energy to locations that require soldering while not heating up potentially thermally sensitive areas. LSR is potentially a means to also mitigate or even eliminate the warpage of various packages. It provides super reliable and fast, only 1~3 seconds laser bonding per selected area, bonding process. It was made possible by highly uniform optic system and distinctive recipe developed by Laserssel.

### Heating only Selected Laser Region



When area laser is applied on chips, only chips are being heated up to targeted reflow temperature. Immediate outside of Laser beam area shows dramatically lower temperature



#### Model : LSR-500 (for Reflow)

Laser Max. Power : 500W

Beam size : 8 x 8mm ~ 30 x 30mm (variable)

Laser Selective Reflow (LSR) uses a uniform defocused laser beam over a specifically tailored area on a PCB with controlled beam intensity to implement novel soldering on specific component (or several components) while not heating up potentially thermally sensitive area adjacent to it.

#### Specification

ITEM	Specification
Equipment Size	1,700 x 1,750 x 1,660 mm (L x W x H)
Passline	850 mm
Material in/out	Manual loading / Auto loading Pallet
Bottom heater	Hot air 150°C ~ 600°C
PCB MAX Size	400 x 800 mm
PCB THICKNESS	FPCB
PCB Type	Rigid PCB
Utility	Power 220V / 1Ø / 15A Air : 200LPM MC Exhaust: Ø 100 / 2ea



#### Model : rLSR-200 (for Rework)

Laser Max. Power : 200W

Beam size : 8 x 8mm ~ 30 x 30mm (variable)

Stand alone or inline type equipment to selectively replace defective component with new component by uniformly defocused laser beam.

#### Specification

ITEM	Specification
Equipment Size	1,000 x 1,150 x 1,800 mm (L x W x H)
Passline	850 mm
Material in/out	Manual loading Stage type : JIG Type
Bottom heater	Hot air 150°C ~ 600°C
Component size	8 x 8mm ~ 30 x 30mm
PCB MAX Size	350 x 350 mm
PCB MIN Size	50 x 50 mm
PCB THICKNESS	0.4 ~ 2.0 mm
PCB Type	Rigid PCB
Utility	Power 220V / 1Ø / 15A Air : 200LPM MC Exhaust: Ø 100 / 2ea