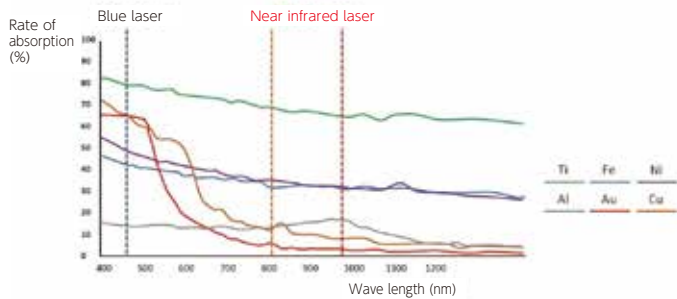


Two types of wave are available; infrared or blue wave

Options are an 80W laser with an infrared wavelength of 915nm, or 50W blue laser with a wavelength of 450nm.

Because the absorption rate of the blue laser in shiny metals such as gold and bronze, it requires less power to solder than the infrared laser. The light reflection is also lower, which helps avoid damaging the surrounding components or solder mask.

【 Absorption level of some metals 】



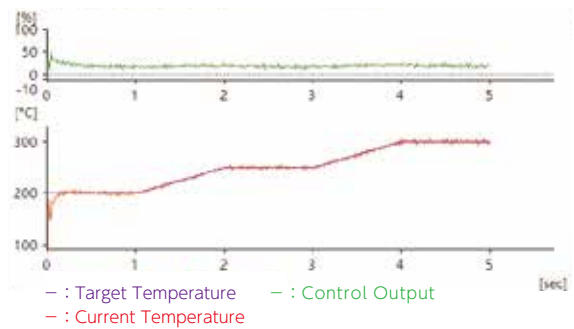
A minimum fiber size of 105µm

Thanks to the use of 105µm size fiber, it is possible to generate a beam from a diameter of Φ18µm.

*The minimum size of laser beam which can be controlled with temperature is Φ250µm or more.

Visualization of the Soldering temperature & laser power

Displays the control status through PC software.



MLU

Laser Soldering Unit

In-Line/ Cell production type

A low-priced, entry-level, conventional model laser solder machine. This system is controlled by laser power instead of temperature. It is composed of a laser controller, laser oscillator, and laser head.

Small size laser head

Due to its small size of 104 mm, it is perfect for mounting on In-Line machines. Furthermore, the laser beam and the camera are configured in a coaxial head, capable of microscopic adjustments.

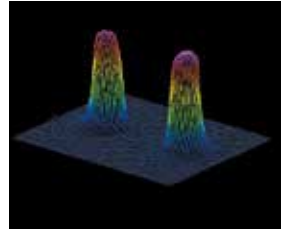
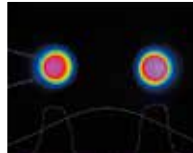
Inexpensive introduction cost

In cases where it is not necessary to control the laser power by temperature, it is more cost effective than STAR GATE.



Twin Beam Function

This special optical system splits one laser beam into two. The split beam easily mounts to the conventional laser head.

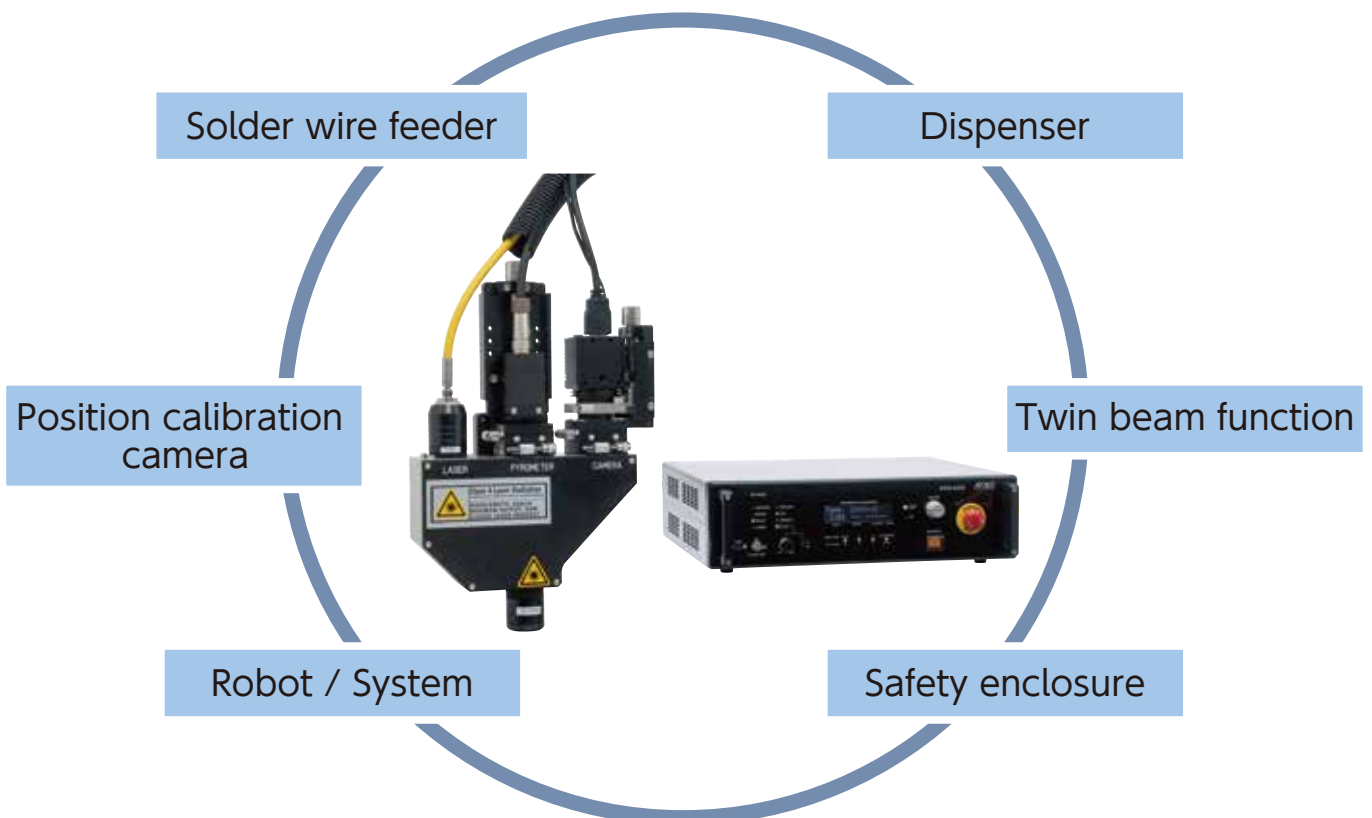


The electrodes on the right and left sides are heated by the laser at the same time. It prevents the flotation, inclination and the Manhattan phenomenon of the tip part and allows stable soldering. It can solder a pair of soldering points at the same time which shortens the cycle time.



Combination Variety

This system can easily meet virtually any user requirement & process flow.



*Please contact us for available configurations.

■ MLU / STAR GATE-E

Type		MLU-808FS	MLU-980FS	STAR GATE	STAR GATE BLUE
Material		Semiconductor Laser			
Oscillation		Continuous Wave			
Wavelength		808nm	980nm	915±15nm	450±15nm
LD Output		50 or 100W		80W	50W
Fiber Core Diameter		200 or 400μm		105 or 200μm	
Guide Beam		650nm (±10nm)		520nm (±15nm)	
Halation Prevention		Available			
LD Cooling System		Electric Cooling			
Coaxial Camera Monitoring Function		Available			
Coaxial Pyrometer Function		Not Available		Available	
Fiber Length		3M or 5M		3M or 5M	
Focused Beam Diameter		φ67μm~φ4000μm φ133μm~φ8000μm		φ18μm~φ2100μm φ33μm~φ4000μm	
Temperature Control	Upper Limit Type	Not Available		Not Available	
	Perfect Temperature Waveform Type	Not Available		Available (Internal Integrated Type)	
Pyrometer	Pyrometer Position	—		Arranged coaxially with the laser beam	
	Measurement Size	—		φ250μm	
	Measurement Temperature Range	—		140°C~700°C	
	Response Speed	—		0.0001sec	
Registered Waveform Capacity		16		32	
External Interface		RS232C or LAN + GPIO		RS232C + GPIO	
Dimensions (W×D×H)		【 Laser Head 】 104×192×63mm (Except projection) 【 Laser Oscillation Unit 】 270×260×230mm (50W) 430×360×242mm (100W) 【 Laser Controller 】 430×350×149mm (50W) 430×400×190mm (100W)		【 Perfect Coaxial Laser Head 】 185×58×279.5~43.75mm (Except projection) 【 Laser Oscillation Controller 】 ●915nm 80W Type 448mm×504mm×132mm ●450nm 50W Type 448mm×584mm×175mm	
Weight		【 Laser Head 】 Approx. 1kg 【 Laser Oscillation Unit 】 Approx.6.5kg(50W) Approx.21kg(100W) 【 Laser Controller 】 Approx.16kg(50W) Approx.17.5kg(100W)		【 Perfect Coaxial Laser Head 】 Approx. 2.1kg 【 Laser Oscillation Controller 】 ●915nm 80W Type Approx. 14kg ●450nm 50W Type Approx. 25kg	
Power		AC100V (Single Phase) 50~60Hz AC200V (Single Phase) 50~60Hz AC220V (Single Phase) 50~60Hz *Select one type		●915nm 80W Type AC100-120V /AC200-240V 50/60Hz ●450nm 50W Type AC100-120V/AC200-240V 50/60Hz (Switching System)	
Power Consumption		50W: 1.1kVA or less 100W: 1.4kVA or less		1.5kVA or less	

*These specifications may be changed for improvement without prior notice.

Type		J-CAT 330 STAR GATE-E	J-CAT 340 STAR GATE-E
Operation Range	X axis	300mm	400mm
	Y axis	320mm	400mm
	Z axis	100mm	150mm
Portable Weight ※1		15kg	
Program Capacity		999 programs	
Memory Capacity		32,000 points	
External Input / Output		IN: 16 OUT: 16	
Soldering Condition		500 conditions	
Power Source		AC200~240V (Single Phase)	
Program Consumption		1,850W (Maximum)	
Dimensions (W×D×H) ※2		682×613×925mm	674×673×931mm
Weight ※3		55kg	62kg

*These specifications may be changed for improvement without prior notice.

※1 It includes the jig plate. (J-CAT330: 1.6kg, J-CAT340: 1.7kg)

※2 This value differs according to the head position and output lens. (Except projection)

※3 It is the weight without the STAR GATE controller and monitor when it is full option. The weight of the STAR GATE controller differs depending on the model type.