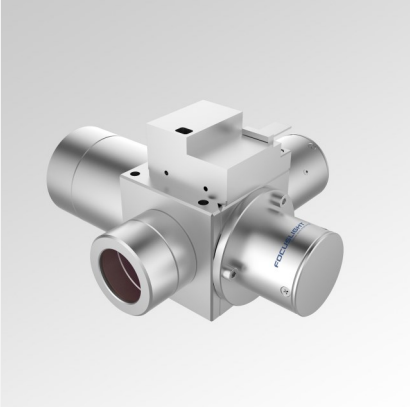
Industrial Laser System for Material Processing

Activation Series - Laser Process Heads



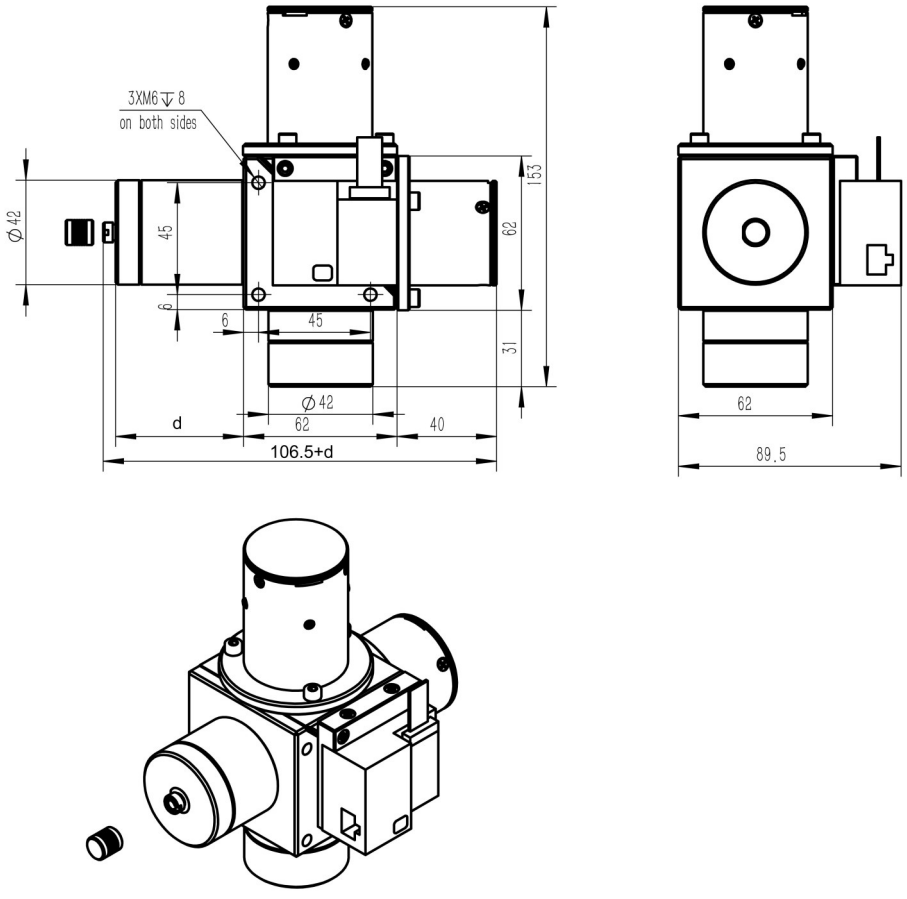
Features

- Optimized beam shaping
- Perfect process tool for welding and soldering
- Safe process data transfer
- Individual software package

Applications

- Material processing
- Laser annealing
- Laser reflow soldering
- Laser bonding
- Plastic welding
- Laser non-contact heating

Product Dimensions (mm)



Remark: The structure drawing is for reference only. Please feel free to contact us for any special requirements.

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Product Specifications

Product Code		**ACT000043**	**ACT000044**
Part No. [1]		LM-LPH-SMA-R-A35-200-PM	LM-LPH-LD80-R-35-125-PM
General Data	**Unit**	**Value**	
Housing Material	-	Anodized Aluminum	Anodized Aluminum
Dimensions (length × width × depth)	mm	153 × 142 × 89.5	153 × 142 × 89.5
Mounting Threads (on both sides)	-	3 × M6	3 × M6
Fiber Connector Types	-	SMA905	LD80
Length d (shown in the picture)	mm	35.5	35.5
Weight	g	1300	1300
Optical Data			
Max. Laser Power (CW)	W	120	500
Wavelength Range	nm	790 - 990	800 - 1000
Max. Numerical Aperture	-	0.23	0.23
Max. Fiber Core Diameter	μm	600	600
Transmission Rate	-	90% (typ. 95%)	90% (typ. 95%)
Collimation Focal Length	mm	35	35
Focusing Focal Length	mm	200	125
Working Distance	mm	180 ± 10	105 ± 10
Beam Size FWHM with 200μm Fiber	μm	1140	720
Beam Size (90% PE) with 200μm Fiber [2]	μm	1200	1100
Beam Size FWHM with 400μm Fiber	μm	2280	1440
Beam Size (90% PE) with 400μm Fiber [2]	μm	2280	1800
Thermal Data			
Operating Temperature	°C	5 ~ 40	5 ~ 40
Storage Temperature	°C	15 ~ 50	15 ~ 50
Max. Housing Temperature in Operation	°C	60	60
Pyrometer Control Data			
Detection Wavelength	nm	1100 - 2100	1100 - 2100
Temperature Measurement Range	°C	120 - 400	120 - 400
Sampling Rate (standard)	kHz	1	1
Calibration Standard Type	-	Black Body	Black Body
Power Monitoring Data			
Wavelength Range	nm	800 - 1000	800 - 1000
Sampling Rate (standard)	kHz	1	1
Operating Temperature Range	°C	15 - 40	15 - 40
Measurement Accuracy	%	0.2	0.2
Interfaces Data			
Interface Type	-	Ethernet	Ethernet
Data Cable Type	-	CAT5	CAT5
Socket Type	-	RJ45	RJ45
Communication Protocol of Laser Driver	-	CAN- / Profi - Bus	CAN- / Profi - Bus
Software			
Process Software	-	4PL Plus	4PL Plus

[1] Part No. = Brand Code - Series - Fiber Connector Type - Beam Type - Collimation Focal Length - Focusing Focal Length - Structure Type

[2] PE means power enclosed.

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Product Specifications

Product Code		**ACT000045**	**ACT000046**
Part No. [1]		LM-LPH-LD80-R-A35-200-PM	LM-LPH-LD80-R-A35-250-PM
General Data	**Unit**	**Value**	
Housing Material	-	Anodized Aluminum	Anodized Aluminum
Dimensions (length × width × depth)	mm	153 × 142 × 89.5	153 × 142 × 89.5
Mounting Threads (on both sides)	-	3 × M6	3 × M6
Fiber Connector Types	-	LD80	LD80
Length d (shown in the picture)	mm	35.5	35.5
Weight	g	1300	1300
Optical Data			
Max. Laser Power (CW)	W	500	500
Wavelength Range	nm	790 - 990	790 - 990
Max. Numerical Aperture	-	0.23	0.23
Max. Fiber Core Diameter	μm	600	600
Transmission Rate	-	90% (typ. 95%)	90% (typ. 95%)
Collimation Focal Length	mm	35	35
Focusing Focal Length	mm	200	250
Working Distance	mm	180 ± 10	230 ± 10
Beam Size FWHM with 200μm Fiber	μm	1140	1430
Beam Size (90% PE) with 200μm Fiber [2]	μm	1200	1450
Beam Size FWHM with 400μm Fiber	μm	2280	2840
Beam Size (90% PE) with 400μm Fiber [2]	μm	2280	2700
Thermal Data			
Operating Temperature	°C	5 ~ 40	5 ~ 40
Storage Temperature	°C	15 ~ 50	15 ~ 50
Max. Housing Temperature in Operation	°C	60	60
Pyrometer Control Data			
Detection Wavelength	nm	1100 - 2100	1100 - 2100
Temperature Measurement Range	°C	120 - 400	120 - 400
Sampling Rate (standard)	kHz	1	1
Calibration Standard Type	-	Black Body	Black Body
Power Monitoring Data			
Wavelength Range	nm	800 - 1000	800 - 1000
Sampling Rate (standard)	kHz	1	1
Operating Temperature Range	°C	15 - 40	15 - 40
Measurement Accuracy	%	0.2	0.2
Interfaces Data			
Interface Type	-	Ethernet	Ethernet
Data Cable Type	-	CAT5	CAT5
Socket Type	-	RJ45	RJ45
Communication Protocol of Laser Driver	-	CAN- / Profi - Bus	CAN- / Profi - Bus
Software			
Process Software	-	4PL Plus	4PL Plus

[1] Part No. = Brand Code - Series - Fiber Connector Type - Beam Type - Collimation Focal Length - Focusing Focal Length - Structure Type

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Product Specifications

Product Code		**ACT000030**	**ACT000047**
Part No. [1]		LM-LPH-LD80-R-A60-200-PM	LM-LPH-LD80-R-50-200-PM
General Data	**Unit**	Value	
Housing Material	-	Anodized Aluminum	Anodized Aluminum
Dimensions (length × width × depth)	mm	93× 62 × 125.5	153 × 158 × 89.5
Mounting Threads (on both sides)	-	3 × M6	3 × M6
Fiber Connector Types	-	LD80	LD80
Length d (shown in the picture)	mm	63.5	51.5
Weight	g	1500	1400
Optical Data			
Max. Laser Power (CW)	W	500	500
Wavelength Range	nm	790 - 990	790 - 990
Max. Numerical Aperture	-	0.23	0.23
Max. Fiber Core Diameter	μm	600	600
Transmission Rate	-	90% (typ. 95%)	90% (typ. 95%)
Collimation Focal Length	mm	60	50
Focusing Focal Length	mm	200	200
Working Distance	mm	180 ± 10	180 ± 10
Beam Size FWHM with 200μm Fiber	μm	720	820
Beam Size (90% PE) with 200μm Fiber [2]	μm	800	1200
Beam Size FWHM with 400μm Fiber	μm	1400	1640
Beam Size (90% PE) with 400μm Fiber [2]	μm	1500	2000
Thermal Data			
Operating Temperature	°C	5 ~ 40	5 ~ 40
Storage Temperature	°C	15 ~ 50	15 ~ 50
Max. Housing Temperature in Operation	°C	60	60
Pyrometer Control Data			
Detection Wavelength	nm	1100 - 2100	1100 - 2100
Temperature Measurement Range	°C	120 - 400	120 - 400
Sampling Rate (standard)	kHz	1	1
Calibration Standard Type	-	Black Body	Black Body
Power Monitoring Data			
Wavelength Range	nm	800 - 1000	800 - 1000
Sampling Rate (standard)	kHz	1	1
Operating Temperature Range	°C	15 - 40	15 - 40
Measurement Accuracy	%	0.2	0.2
Interfaces Data			
Interface Type	-	Ethernet	Ethernet
Data Cable Type	-	CAT5	CAT5
Socket Type	-	RJ45	RJ45
Communication Protocol of Laser Driver	-	CAN- / Profi - Bus	CAN- / Profi - Bus
Software			
Process Software	-	4PL Plus	4PL Plus

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