H2D Spec Sheet

Item		Specification
Printing Technology		Fused Deposition Modeling
Body	Build Volume (W*D*H)	Single Nozzle Printing: 325*320*325 mm³ Dual Nozzle Printing: 300*320*325 mm³ Total Volume for Two Nozzles: 350*320*325 mm³
	Chassis & Shell	Aluminum, Steel, Plastic and Glass
	Laser Safety Windows	Equipped on Laser Edition, normal H2D can upgrade through Laser Upgrade Kit
	Air Assist Pump	Equipped on Laser Edition, normal H2D can upgrade through Laser Upgrade Kit
Physical Dimensions	Physical Dimensions	492*514*626 mm³
	Net Weight	31 kg
Toolhead	Hotend	All Metal
	Extruder Gear	Hardened Steel
	Nozzle	Hardened Steel
	Max Nozzle Temperature	350 °C
	Included Nozzle Diameter	0.4 mm
	Supported Nozzle Diameter	0.2 mm, 0.4 mm, 0.6 mm, 0.8 mm
	Filament Diameter	1.75 mm
	Extruder Motor	Bambu Lab High-precision Permanent Magnet Synchronous Motor
Heatbed	Supported Build Plate Type	Textured PEI plate, Smooth PEI Plate
	Max Heatbed Temperature	120 °C
Speed	Max Speed of Toolhead	1000 mm/s
	Max Acceleration of Toolhead	20,000 mm/s²
	Max Flow for Hotend (Standard Flow Hotend)	40 mm³/s (Test parameters: 250 mm round model with a single outer wall; Bambu Lab ABS; 280 °C printing temperature)
	Max Flow for Hotend (Optional High Flow Hotend)	65 mm³/s (Test parameters: 250 mm round model with a single outer wall; Bambu Lab ABS; 280 °C printing temperature)
Chamber Temperature Control	Active Chamber Heating	Supported
	Max Temperature	65 °C
Air Purification	Pre-filter Grade	G3
	HEPA Filter Grade	H12
	Activated Carbon Filter Type	Granulated Coconut Shell
Cooling	Part Cooling Fan	Closed Loop Control
	Auxiliary Part Cooling Fan	Closed Loop Control
	Chamber Heat Circulation Fan	Closed Loop Control
	Cooling Fan for Hotend	Closed Loop Control
	Main Control Board Fan	Closed Loop Control
	Chamber Exhaust Fan	Closed Loop Control
Supported Filament Type	PLA, PETG, TPU, PVA, BVOH, ABS, ASA, PC, PA, PET, Carbon/Glass Fiber Reinforced PLA, PETG, PA, PET, PC, ABS, ASA, PPA-CF/GF, PPS, PPS-CF/GF	Supported

Item		Specification
Sensor	Live View Camera	Built-in; 1920*1080
	Nozzle Camera	Built-in; 1920*1080
	BirdsEye Camera	Built-in; 3264*2448　(Equipped with Laser Edition)
	Toolhead Camera	Built-in; 1920*1080
	Door Sensor	Supported
	Filament Run Out Sensor	Supported
	Filament Tangle Sensor	Supported
	Filament Odometry	Supported with AMS
	Power Loss Recovery	Supported
Electrical Requirements	Voltage	100-120 VAC / 200-240 VAC, 50/60 Hz
	Max Power*	2200 W@220 V / 1320 W@110 V
	Average Power	1050 W@220 V / 1050 W@110 V
Electronics	Touchscreen	5-inch 720*1280 Touchscreen
	Storage	Built-in 8 GB EMMC and USB Port
	Control Interface	Touchscreen, mobile App, PC App
	Neural Processing Unit	2 TOPS
Software	Slicer & Software	Bambu Studio, Bambu Suite, Bambu Handy Supports third-party slicers which export standard G-code, such as Super Slicer, PrusaSlicer and Cura, but certain advanced features may not be supported.
	Supported Operating System	MacOS, Windows
Wi-Fi	Operating Frequency	2412-2472 MHz, 5150-5850 MHz (FCC/CE) 2400-2483.5 MHz, 5150-5850 MHz (SRRC)
	Wi-Fi Transmitter Power (EIRP)	2.4 GHz: <23 dBm (FCC); <20 dBm (CE/SRRC/MIC) 5 GHz Band1/2: <23 dBm (FCC/CE/SRRC/MIC) 5 GHz Band3: <30 dBm (CE); <24 dBm (FCC) 5 GHz Band4: <23 dBm (FCC/SRRC); <14 dBm (CE)
	Wi-Fi Protocol	IEEE 802.11 a/b/g/n
10W & 40W Laser Module	Laser Type	Semiconductor Laser
	Laser Wavelength	Engraving Laser: 455 nm ± 5 nm Blue Light Height Measuring Laser: 850 nm ± 5 nm Infrared Light
	Laser Power	10 W ± 1 W; 40 W ± 2 W
	Laser Spot Dimension	10W: 0.03 mm * 0.14 mm; 40W: 0.14 mm * 0.2 mm
	Working Temperature	0 °C–35 °C
	Max Engraving Speed	10W: 400 mm/s; 40W: 1000 mm/s
	Max Cutting Thickness	10W: 5 mm; 40W: 15mm (Basswood Plywood)
	Laser Safety Class for Laser Module	Class 4
	Overall Laser Safety Class*	Class 1
	Engraving Area	10W: 310 mm * 270 mm; 40W: 310 mm * 250 mm
	XY Positioning Accuracy	< 0.3 mm
	Z Height Measuring Method	Micro Lidar

* To ensure the heatbed quickly reaches the needed temperature, the printer will maintain maximum power for no more than 3 minutes.

Item		Specification
10W & 40W Laser Module	Z Height Measuring Accuracy	± 0.1 mm
	Flame Detection	Supported
	Temperature Detection	Supported
	Door Sensor	Supported
	Laser Module Installation Detection	Supported
	Safety Key	Included
	Ventilation Pipe Adapter Outer Diameter	100 mm
	Supported Material Type	Wood, rubber, metal sheet, leather, dark acrylic, stone, and more
Cutting Module	Cutting Area	300*285 mm²
	Drawing Area	300*255 mm²
	Supported Pen Diameter	10.5 mm-12.5 mm
	Cutting Mat Type	LightGrip and StrongGrip Cutting Mats
	Blade Type	45°*0.35 mm
	Blade Pressure Range	50 gf-600 gf
	Max Cutting Thickness	0.5 mm
	Blade and Pen Recognition	Supported
	Cutting Mat Type Detection	Supported
	Supported Image Type	Bitmap and Vector Images
	Supported Material Type	Paper, vinyl, leather, and more