



MPI VEGA Series Wafer Prober

Product Brochure

VEGA TP8

VEGA TP60-A

VEGA TP60-W1

VEGA TP80-WA

VEGA TP60-LT

VEGA TP60-NS

VEGA FP80-C1

VEGA TP600-WA

VEGA TP600-WSE

VEGA TP600-PA

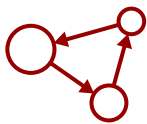
VEGA FP600-VC

MPI VEGA Series Wafer Prober - High performance Laser Diode probe & test solutions

+ MPI Solution Overview

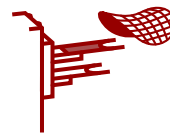
The MPI VEGA Series Wafer Probers are ready to meet the diverse test and materials handling requirements of the Laser Diode (VCSEL, EEL) and optical module markets. MPI VEGA probers are based on a highly flexible and reliable platform, enabling the test of a wide variety of device types (Wafer, Package & Singulated die) over temperatures with the ability to handle thin/warped wafers. The VEGA series probers deliver high throughput tests of Laser key device characteristics such as LIV sweep curve, Far Field, and Near Field measurements.

+ Key Features



Flexible Structure

Flexible structure for mounting multiple optic system for multi-site tests such as LIV sweep curve, Near Field pattern, and Far Field pattern testing.



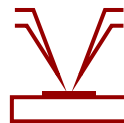
Device Handling

High performance loader system easily handles various device types such as thin/warped wafer, normal wafer, substrates, package or other devices.



Choice of Optics

Multiple optics / detector choices to meet your exact needs to test key Laser optical characteristics.



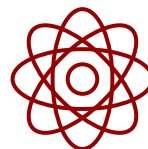
Contact Mechanism

Selectable contact mechanism options include Probe card holder (PCH), Wedge Probe Card and MPI F1 single probe module achieving high precision measurement.



Hot and Cold Testing

Supports a broad range of temperatures ranging from high temperature to sub-zero testing.



Comprehensive Support

Multiple probing schemes and optical input / output to suit individual customer process (R&D / Mass production) requirements.



MPI Prober Control

Comprehensive control functions from basic wafer alignment, mapping, probe mark inspection to advanced Needle Alignment Mechanism (NAM) technology.





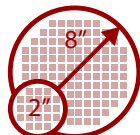

MPI Tester Suite

User-centric design that can be flexibly configured and programmed according to your unique test requirements.

+ Models Overview

VEGA TP8	VEGA TP60-A	VEGA TP60-W1	VEGA TP80-WA
 <p>MANUAL</p>	 <p>SEMI AUTO</p>	 <p>SEMI AUTO</p>	 <p>SEMI AUTO</p>
VEGA TP60-LT	VEGA TP60-N5	VEGA FP80-C1	VEGA TP600-WA
 <p>SEMI AUTO</p>	 <p>SEMI AUTO</p>	 <p>SEMI AUTO</p>	 <p>FULLY AUTO</p>
VEGA TP600-W5E	VEGA TP600-PA	VEGA FP600-VC	
 <p>FULLY AUTO</p>	 <p>FULLY AUTO</p>	 <p>FULLY AUTO</p>	

+ Capability

Market	Operation	Wafer Size	DUT
 <p>Optical Sensing</p>	 <p>Manual / Semi Auto / Fully Auto</p>	 <p>2" ~ 8"</p>	 <p>Laser Diodes</p>

+ Technical Data

SPECIFICATIONS		VEGA TP8	VEGA TP60-A	VEGA TP60-W1	VEGA TP80-WA	VEGA TP60-LT	VEGA TP60-NS
Wafer size max.		8"	6"	6"	8"	6"	6"
X axis	Travel	225mm (25 x 25 mm fine micrometer control)	230 mm	230 mm	230 mm	330 mm	330 mm
	Resolution	Manually adjust	0.4 µm	0.4 µm	0.4 µm	0.1 µm	0.1 µm
	Probing accuracy	Manually adjust	± 6 µm	± 6 µm	± 6 µm	± 4 µm	± 4 µm
Y axis	Travel	260 mm (25 x 25 mm fine micrometer control)	230 mm	230 mm	230 mm	410 mm	410 mm
	Resolution	Manually adjust	0.5 µm	0.5 µm	0.5 µm	0.1 µm	0.1 µm
	Probing accuracy	Manually adjust	± 6 µm	± 6 µm	± 6 µm	± 4 µm	± 4 µm
Z axis	Travel	5 mm	10 mm	10 mm	10 mm	16 mm	16 mm
	Resolution	Manually adjust	0.1 µm	0.1 µm	0.1 µm	0.1 µm	0.1 µm
	Probing accuracy	Manually adjust	± 8 µm	± 8 µm	± 8 µm	± 4 µm	± 4 µm
θ axis	Travel	± 5.0°	± 7.5°	± 7.5°	± 7.5°	± 7.5°	± 7.5°
	Resolution	7.5 x 10 ⁻³ gradient	0.00008551°	0.00040809°	0.00040809°	0.000152382°	0.000152382°
Display interface		22" TFT high resolution color LCD					
Loader	Cassette capacity	—	—	—	—	—	—
	Wafer handling	—	—	—	—	—	—
Dimension	WxDxH in mm	1100 x 1000 x 1724	800 x 870 x 1813	840 x 1240 x 1835	840 x 1240 x 1835	1040 x 1250 x 1927	1040 x 1250 x 1927
	WxDxH in inch	43.3 x 39.4 x 67.9	31.5 x 34.3 x 71.4	33.1 x 48.8 x 72.2	33.1 x 48.8 x 72.2	40.9 x 49.2 x 75.9	40.9 x 49.2 x 75.9
Weight (kgs / lbs)		520 / 1146	430 / 948	650 / 1433	650 / 1433	1100 / 2425	1100 / 2425
Air and vacuum	Vacuum	< -70 kpa @ 10 LPM flow rate					
	Clean dry air	4-6 kg / cm ² @ 2 LPM flow rate					
Facility requirement	Power input	220 VAC	110 / 220 VAC	110 / 220 VAC	110 / 220 VAC	110 / 220 VAC	110 / 220 VAC
	Power consumption	—	770 VA	660 VA	660 VA	1200 VA	1500 VA
	Hz	50/60 Hz					
Temperature	Operating range	19°C ~ 24°C					
	Target temperature	22°C					
	Temp. variation	1K					
Humidity	Tool area	25% ~ 60%					
	Support equipment area	25% ~ 60%					
Cleanroom class		Class 10000					
Vibration		For proper operation of the probe system, the environment should not exceed vibrations of ISO Operating Theatre Level					

Data and specifications will vary depending on individual probe system configuration.

Dimensions exclude standard accessories such as display monitor and signal tower. Refer to the Product's spec. sheet for further details.

Subject to change without notice.

+ Technical Data

SPECIFICATIONS		VEGA FP80-C1	VEGA TP600-WA	VEGA TP600-WSE	VEGA TP600-PA	VEGA FP600-VC
Wafer size max.		8"	6"	6"	2"x2", 2"x4", 4"x4"	6"
X axis	Travel	215 mm	298 mm	335 mm	335 mm	298 mm
	Resolution	0.1 µm	0.1 µm	0.1 µm	0.1 µm	0.1 µm
	Probing accuracy	± 4 µm	± 6 µm (STD) ± 4 µm (OP)	± 6 µm	± 6 µm	± 6 µm
Y axis	Travel	240 mm	350 mm	235 mm	235 mm	350 mm
	Resolution	0.1 µm	0.1 µm	0.1 µm	0.1 µm	0.1 µm
	Probing accuracy	± 4 µm	± 6 µm (STD) ± 4 µm (OP)	± 6 µm	± 6 µm	± 6 µm
Z axis	Travel	100 mm	16 mm	16 mm	16 mm	19 mm
	Resolution	0.1 µm	0.1 µm	0.1 µm	0.1 µm	0.1 µm
	Probing accuracy	± 4 µm	± 8 µm (STD) ± 4 µm (OP)	± 8 µm	± 8 µm	± 8 µm
θ axis	Travel	± 11°	± 7.5°	± 7.5°	± 7.5°	± 15°
	Resolution	0.000112345°	0.00040809°	0.00040809°	0.00008551°	0.0012°
Display interface		22" TFT high resolution color LCD				
Loader	Cassette capacity	—	up to 3	up to 3	up to 3	up to 4
	Wafer handling	—	wafer back side surface handling dual fork			
Dimension	WxDxH in mm	1050 x 1150 x 1950	1250 x 1140 x 1700	1420 x 1270 x 1910	1420 x 1270 x 1910	1740 x 1200 x 1800
	WxDxH in inch	41.3 x 45.3 x 76.8	49.2 x 44.9 x 66.9	55.9 x 50 x 75.2	55.9 x 50 x 75.2	68.5 x 47.2 x 70.9
Weight (kgs / lbs)		750 / 1653	800 / 1764	1050 / 2315	1050 / 2315	950 / 2094
Air and vacuum	Vacuum	< -70 kpa @ 10 LPM flow rate				
	Clean dry air	4~6 kg / cm² @ 2 LPM flow rate				
Facility requirement	Power input	110 / 220 VAC	110 / 220 VAC	110 / 220 VAC	110 / 220 VAC	110 / 220 VAC
	Power consumption	800 VA	990 VA	675 VA	675 VA	720 VA
	Hz	50/60 Hz				
Temperature	Operating range	19°C ~ 24°C				
	Target temperature	22°C				
	Temp. variation	1K				
Humidity	Tool area	25% ~ 60%				
	Support equipment area	25% ~ 60%				
Cleanroom class		Class 10000				
Vibration		For proper operation of the probe system, the environment should not exceed vibrations of ISO Operating Theatre Level				

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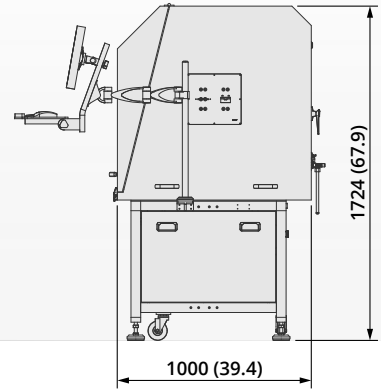
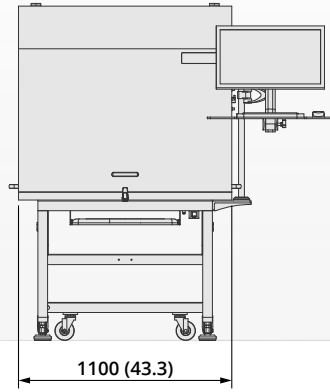
+ Floor Plan

Unit: mm (in.)

TP8

Front View

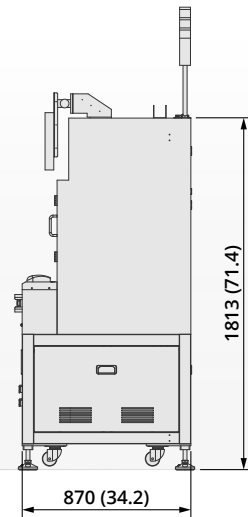
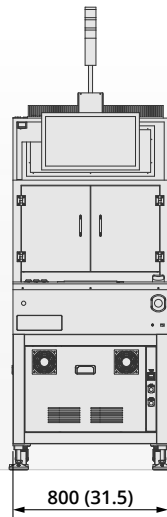
Side View



TP60-A

Front View

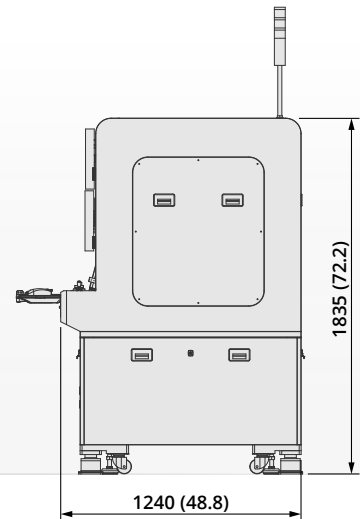
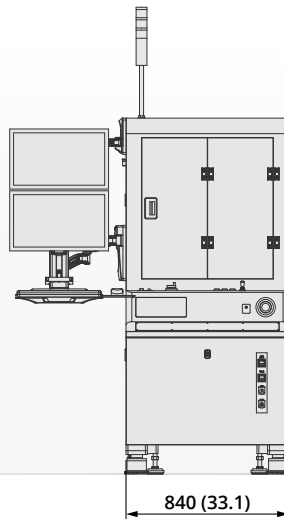
Side View



TP60-W1 TP80-WA

Front View

Side View



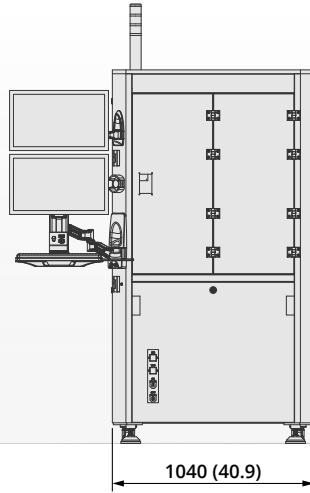
*Dimension excludes standard accessories such as signal tower and display monitor.

+ Floor Plan

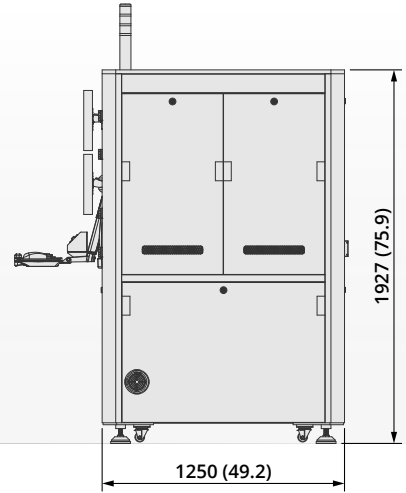
Unit: mm (in.)

TP60-LT TP60-NS

Front View

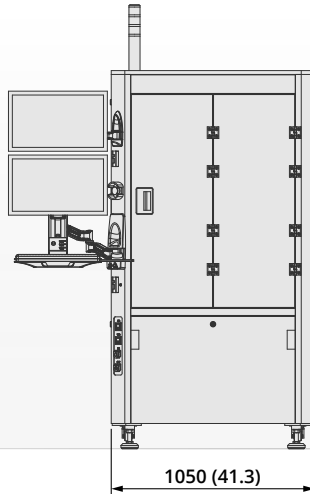


Side View

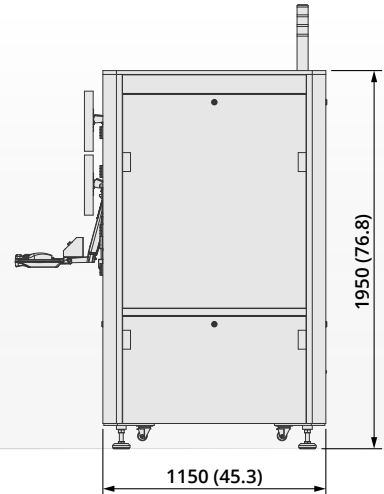


FP80-C1

Front View

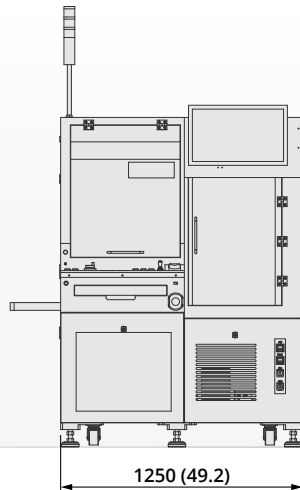


Side View

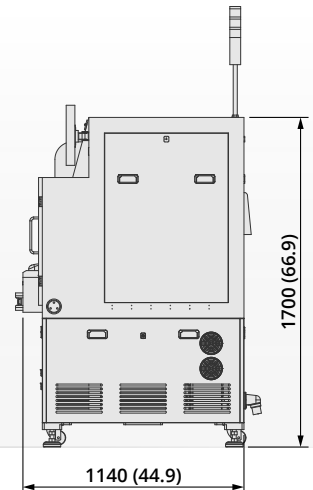


TP600-WA

Front View



Side View



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+ Floor Plan

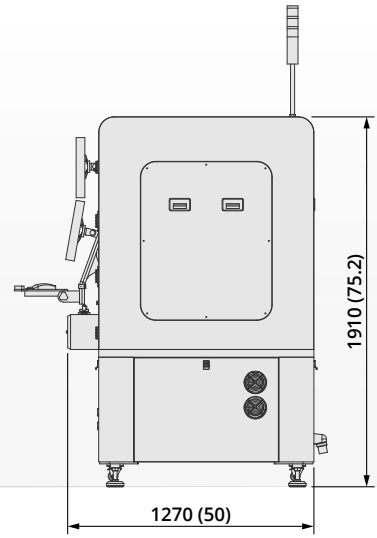
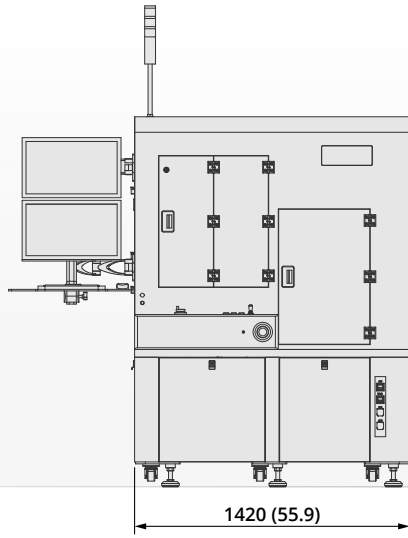
Unit: mm (in.)

TP600-WSE

TP600-PA

Front View

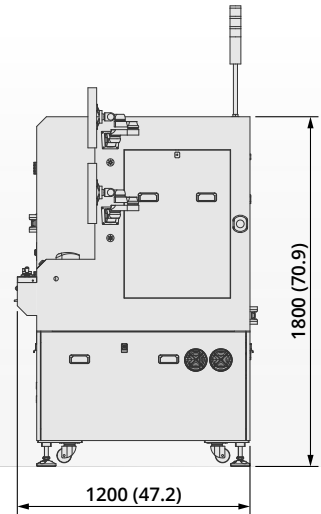
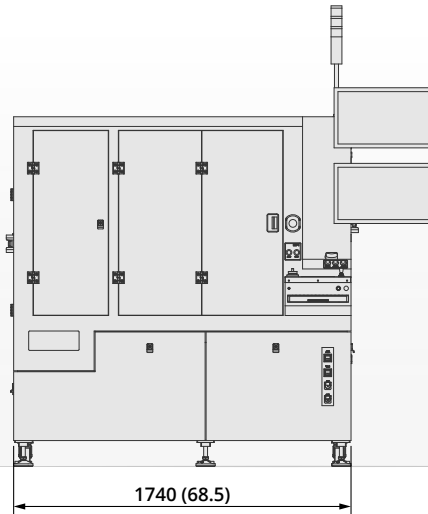
Side View



FP600-VC

Front View

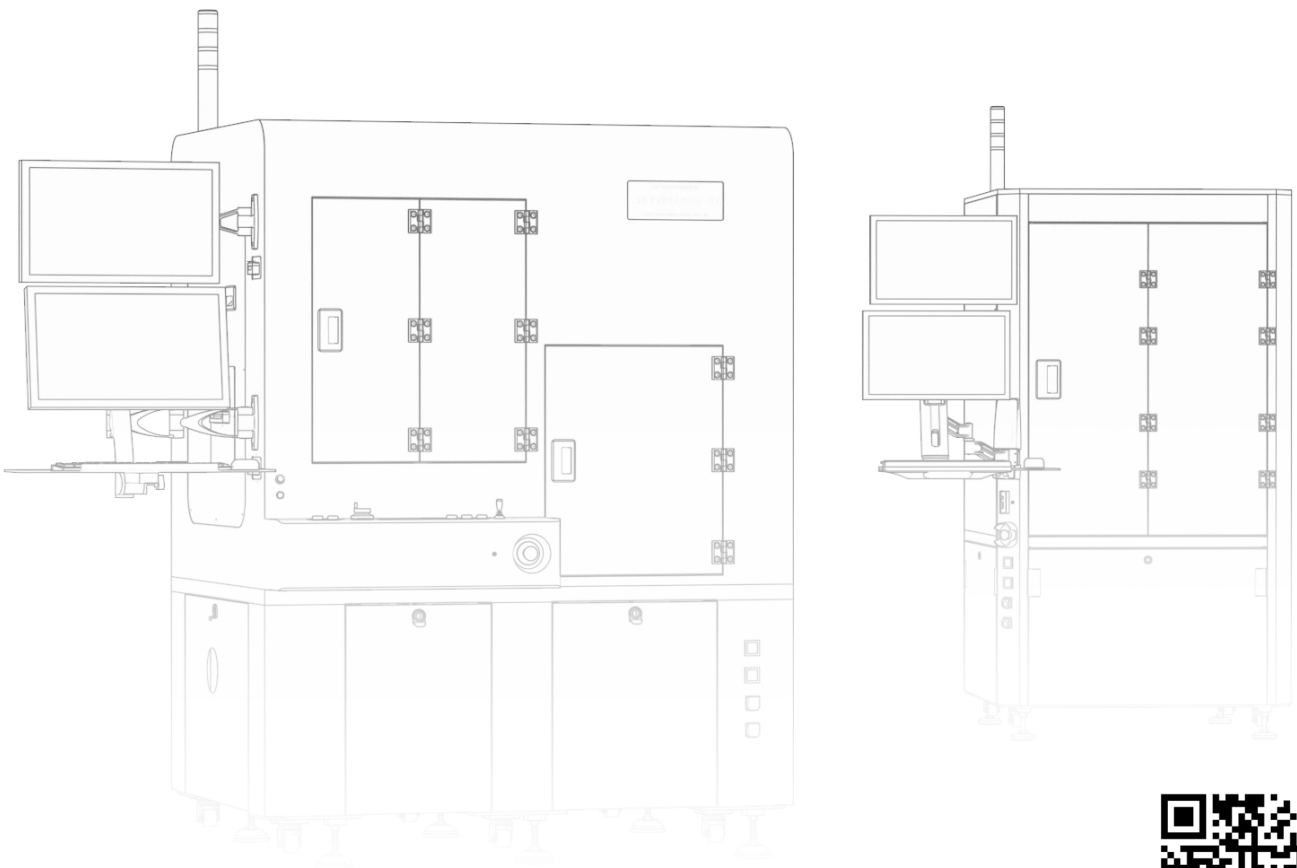
Side View



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