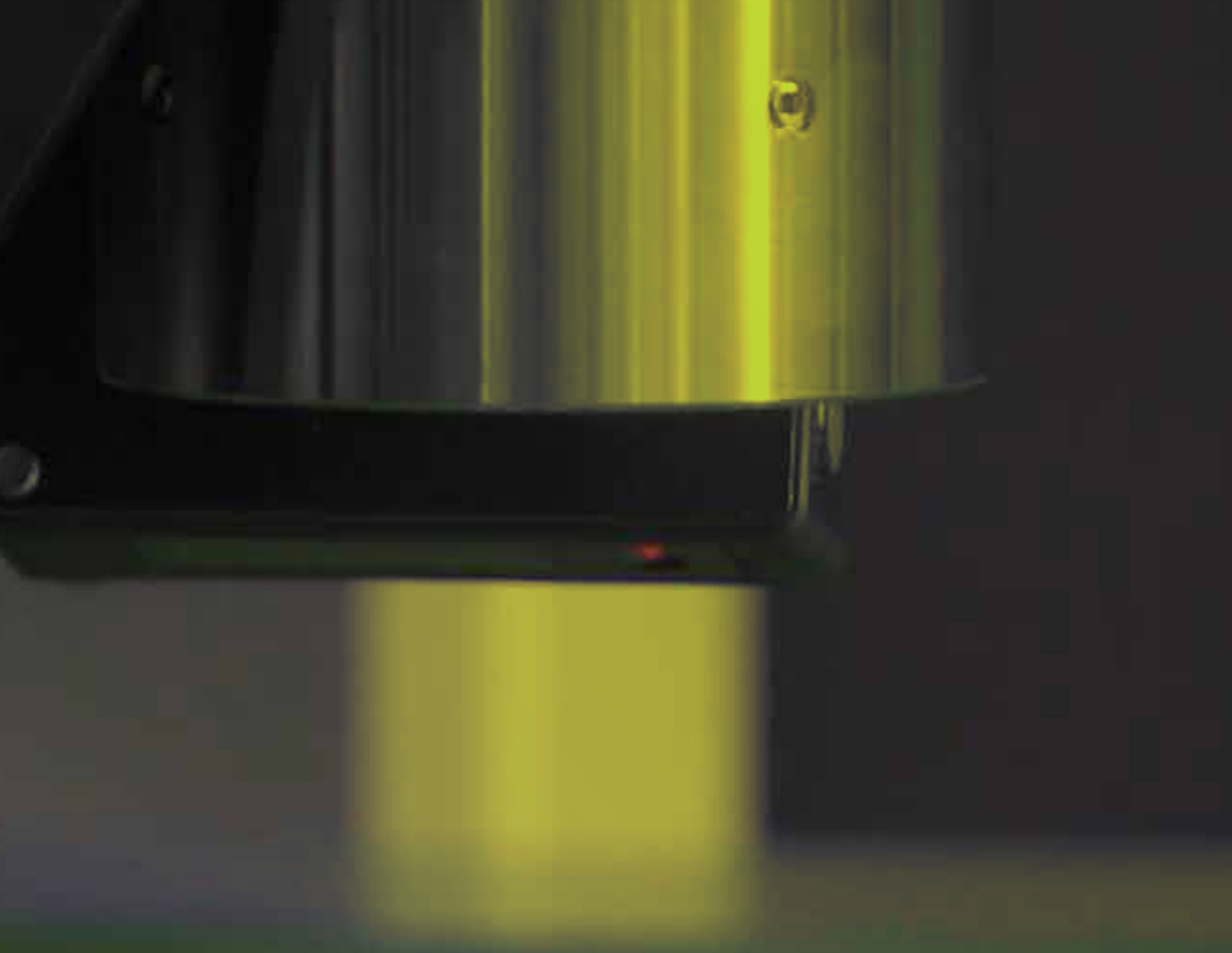


COMPUTER TO SCREEN

Textile / Decal / Graphic /
Auto / Packaging / PCB/
Label / Decoration

GIS Laser

About Us

GIS

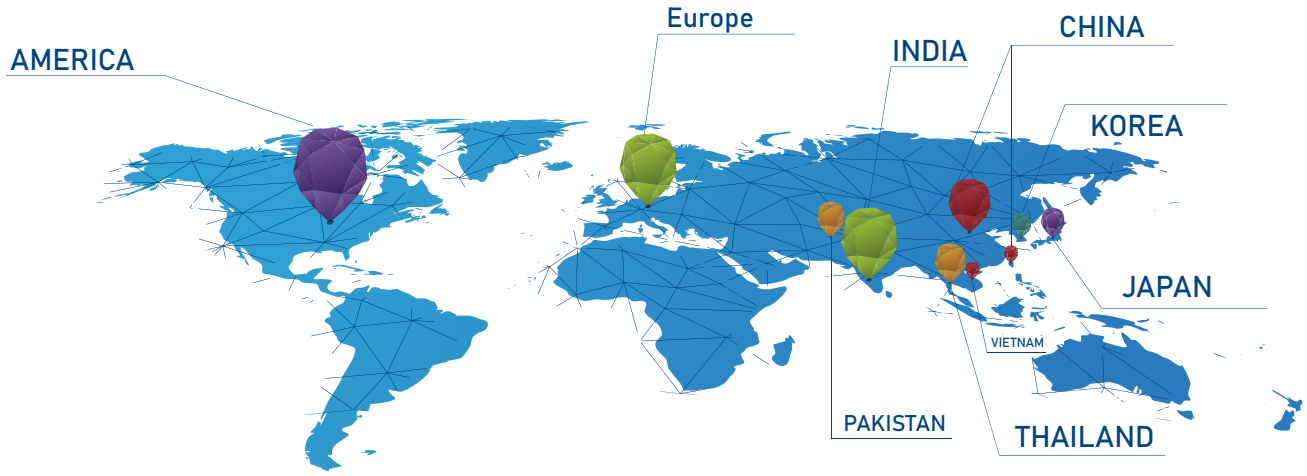
Jiangsu GIS Laser Technologies Inc. (hereafter referred to as GIS Laser) is a subsidiary of GIS Tech Inc. which is a multinational company providing advanced intelligent solutions in to the industries of New Energy, Semiconductor Packaging, Lithium Battery, PCB and Printing, with its incredible innovation. through its independent Next Tech Research Institute, Business Division and Manufacturing Plant.

Our mission is to be a professional supplier in product solutions and services, striving for sustainable optimization and innovation in manufacturing capabilities for customers.

GIS Laser has a strong professional R&D and after sales team with over 30 years experiences to enable the annual production output to be over 500 units, based on its professional manufacturing management SOP process through 10,000 square meter manufacturing center in Xuzhou city, Jiangsu province.

GIS Laser is the pioneer in introducing the DLP Technology into the laser imaging applications, owning the whole independent intellectual properties in the technologies of data processing, data transmission, sub-graph, electronic control, board card control, laser and optical lens etc. Our main products are CTS series (Computer to Screen system), and fully automatic printing plate developing system.

GIS Global Distribution & Strategic Cooperation



GIS Headquarters & Factory Photos





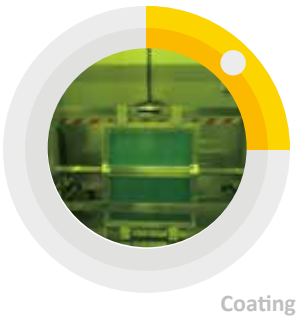
Table of Contents

GIS

What is CTS?

GIS

The CTS laser direct imaging machine uses TI's DMD digital imaging technology to form a clear and sharp direct network point image on the silk screen through laser projection. In this way, the digital graphics in the computer can be imaged on the screen. This system has become the process of making screen images before screen printing.



Coating

Step1

CTS Laser exposure

Step2

Washing

Step3

Drying

Step4

CTS Process

Compatible Processes with the Conventional Process. Data files are directly read by the CTS and then converted into images, which will be transmitted through laser beams onto screens by DMD and lens.

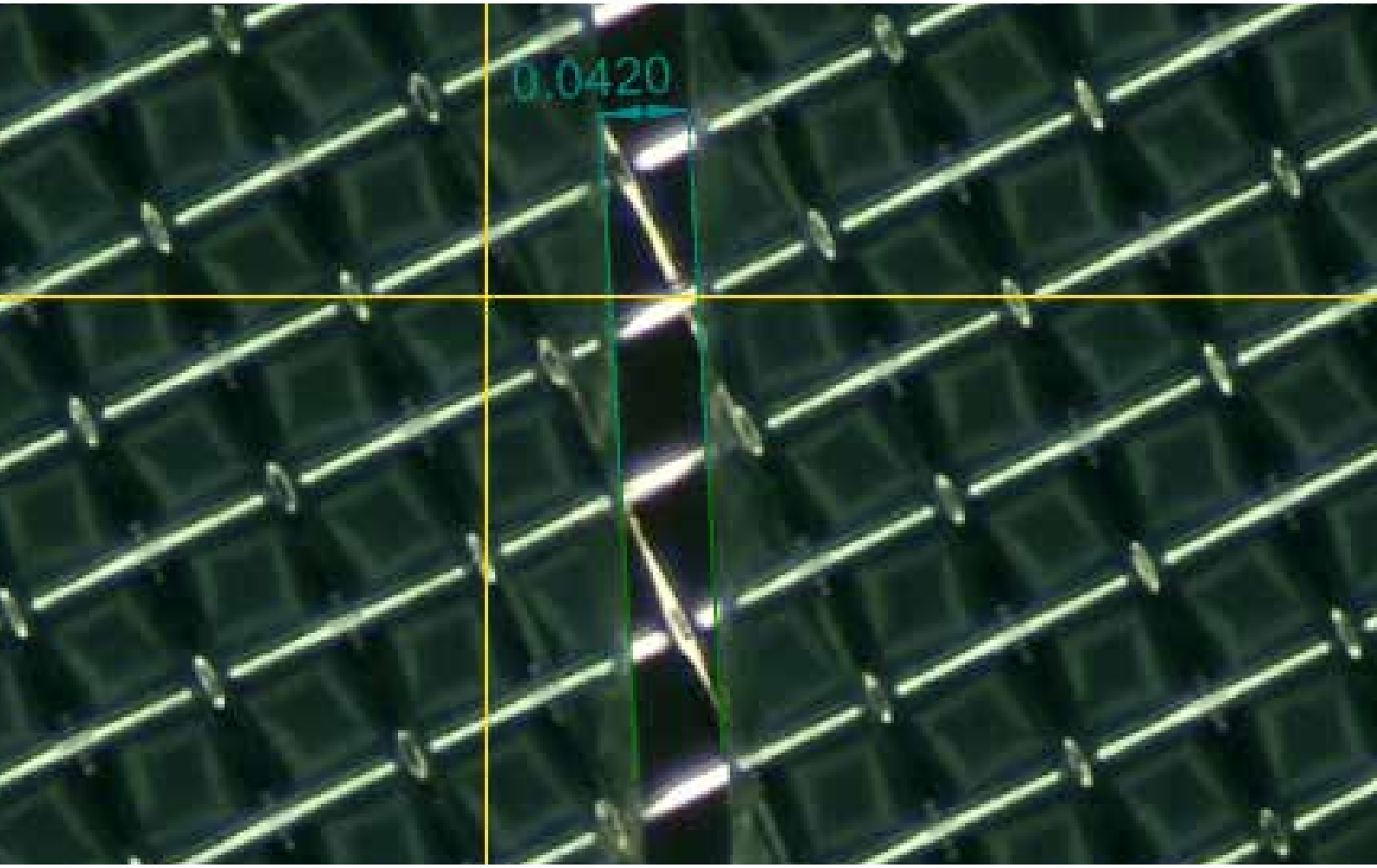
Digital Imaging Technology

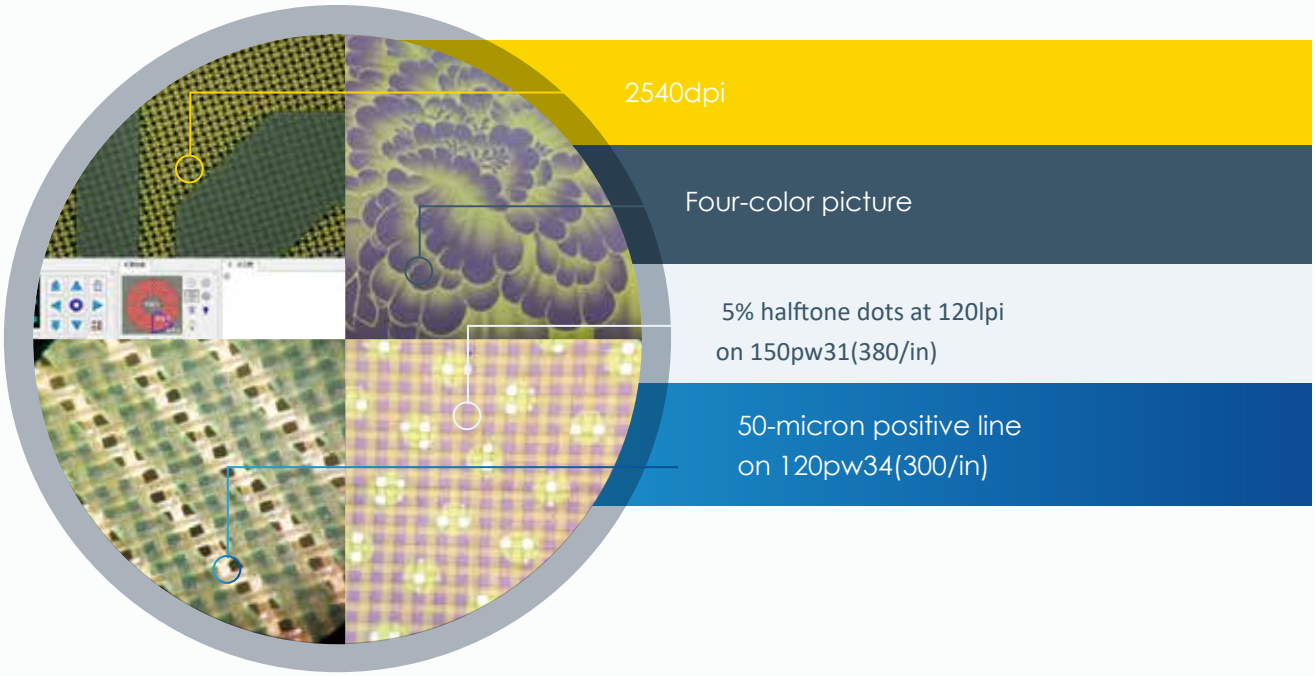
Digital images are produced by the DMD (digital micro-mirror device), which has over 800 thousand or 2 million micrometer micro-mirrors, enabling clear and sharp square dots. This latest digital exposure system has now become the new standard for the screen printing industry.

High Resolution

GIS

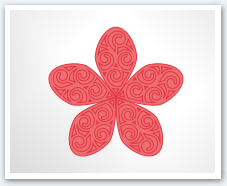
It is easy and fast to achieve raster 133LPI and high image screen dots by the image 1270dpi, while with the image 2540dpi, high definition curved lines and perfect FM screen dots can be realized.





CTS Advantages

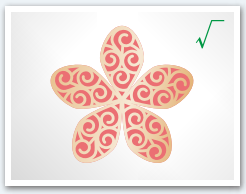
GIS



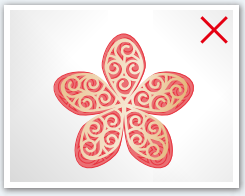
The 1st step Offset Printing
(paper printing)

+

the 2nd step Screen Printing
(special effect)



Paper expansion or shrinkage
CTS 311MAI automatic adjusting

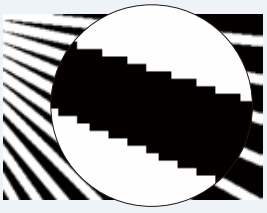


Expanded paper

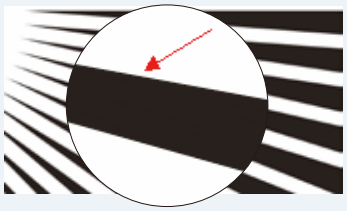
Shrinked paper

Automatic intelligent expansion and shrinkage function(AI).

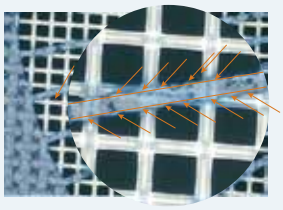
After paper printing, it exists the expansion and shrinkage situation. So the traditional way can only be done by the tedious manual film cuting. This way is time-consuming and no accuracy. AI latest expansion and shrinkage function, it can measure the size of paper expansion and shrinkage first, calculate deformation, and achieve the high-precision and fast problem solving.



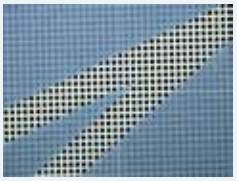
TIFF（Rough）



PDF（Sharp）



Traditional CTS:
PDF→RIP→TIFF→CTS
TIFF（Rough）



PDFadvanced segmentation algorithm:
PDF → CTS
PDF（Sharp）

PDF vector algorithm RIP 12700dpi.

The PDF advanced segmentation algorithm allows for direct imaging of PDF files at 12700 dpi. This method effectively prevents the jagged pattern issue that can occur during vector file conversion, leading to improved accuracy and smoother, more coherent images. It meets the high-quality printing standards of precision industries like TP and FPC, streamlines the file conversion process, and enhances production efficiency.

Low Cost:

Elimination of film positives. Litho film is becoming increasingly expensive, and the number of suppliers in the market is rapidly decreasing. One procedure of CTS digital screen making can replace five procedures from the conventional process.

High Precision

Resolutions 1270dpi or 2540dpi, with raster 133lpi/dpi (halftones printing)

Excellent Laser Piercing Power

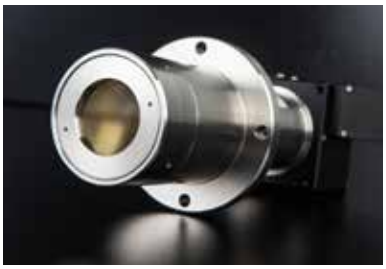
Excellent laser piercing power, 20W and 25W three laser powers are optional, and the thickness EOM 120μm with solvent resistant emulsion and EOM 220μm with water resistant emulsion

Advantages of GIS Laser

GIS

High-precision Optical Engine

According to customer requirements, it can be configured suitable lens 1.95 times (higher accuracy), 2.052 times, 3.1times (higher capacity).



405nm Laser

GIS develops the 405nm coupled laser and laser imaging system to increase laser utilization from 30% to 50% of the old type.

DMD Image System

It can achieve the minimum lattice 10.8 um and the minimum analytical line width 15 um by using DMD imaging technology. Due to the differences in the screen process, it can show the minimum of 40 um line width and 5% dot on the screen.

Stable Platform

It adopts HIWIN SP class guide rail, linear motor, Renishaw grating ruler, and marble base, etc., to ensure the stability of our equipment.

After - sales Service

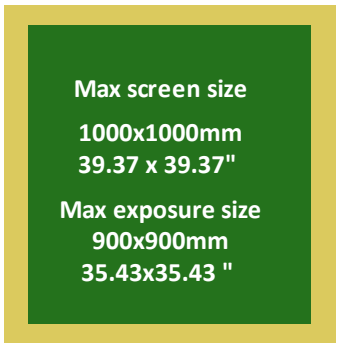
Our sales and service teams are professional . With the support of top technicians, we are committed to solving problems and failures in the sales process and maximizing the value of the equipment.

Independent R&D Software System

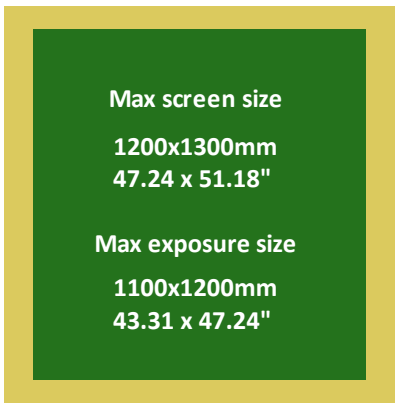
Independent exposure system, and according to customer requirements it can add reasonable required functions.

Vertical CTS Frame Sizes

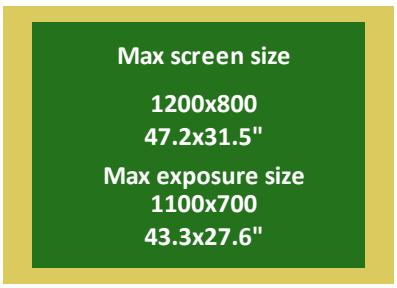
GIS



CTS1010V



CTS1213V

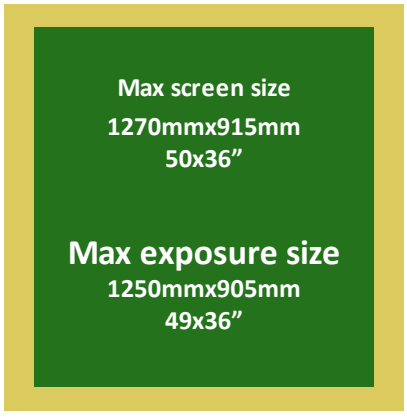


CTS1208V

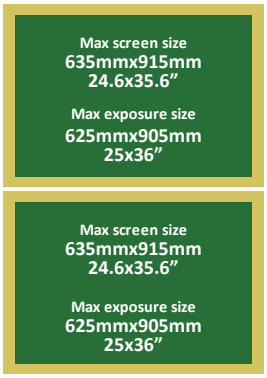
CTS1315V

CTS1418V

CTS2232V



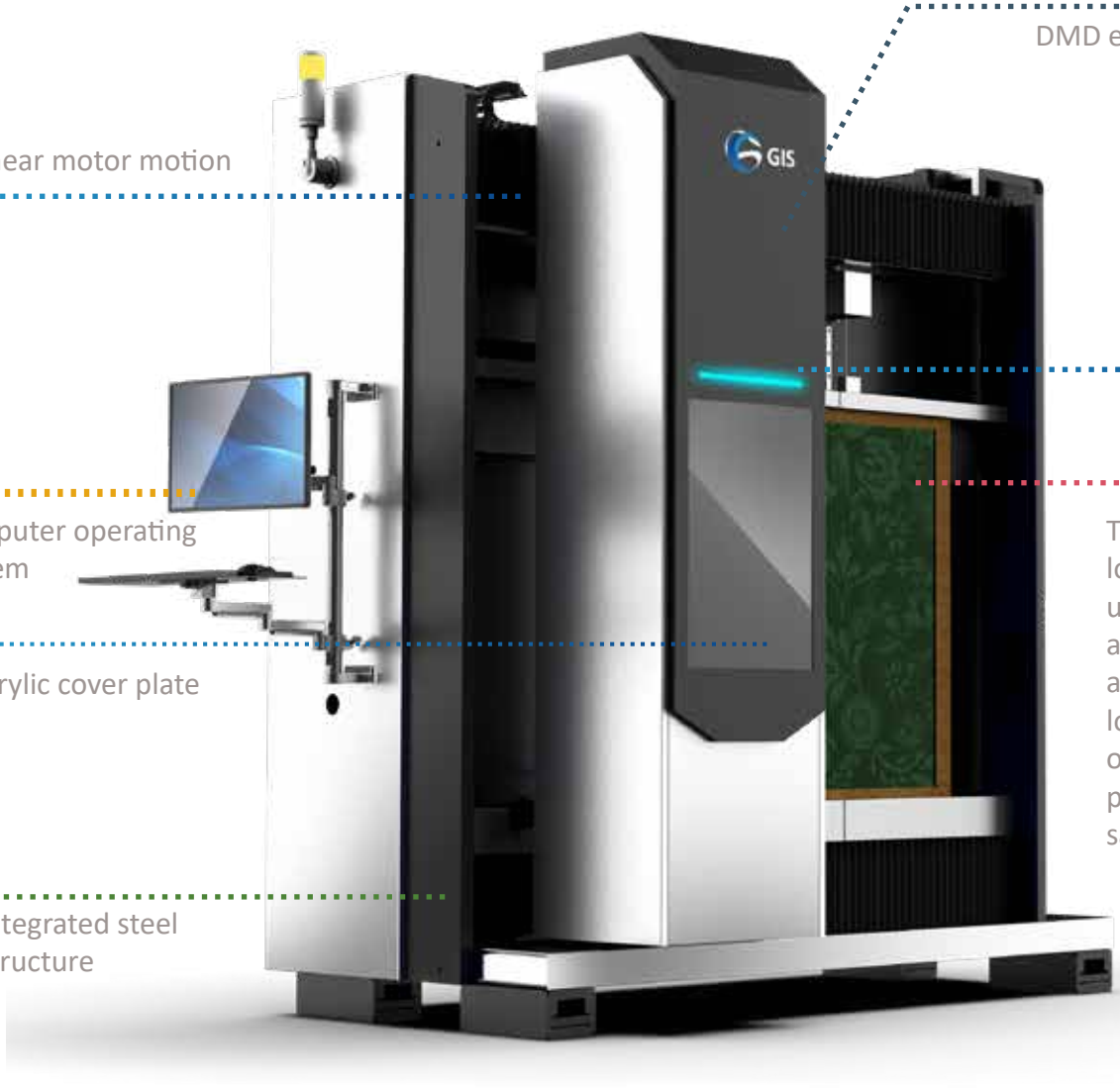
CTS1310DUO



2-up screen configurations

CTS1010V/1208V/1213V/1317V 1418V/2232V

GIS



CTS1010V/1208V/1213V

GIS

Specification / Model	CTS1010V	CTS1213V	CTS1208V
Max screen size	1000x1000mm/39.37 x 39.37"	1200x1300mm/ 47.24x51.18"	1140x800mm/ 44.88x31.50"
Min screen size	400x400mm/ 15.8x15.8"		500x500mm/ 19.69x19.69"
Max exposure size	900x900mm/ 35.43x35.43"	1100x1200mm/ 43.31x47.24"	1040x700mm/ 40.94x27.56"
Screen frame thickness	25-40mm(bespoke service is available)		
Registration pin	M&R Tri-loc/ ROQ pin		MHM pin
Imaging System	DMD DLP Technology		
Emulsion thickness (EOM)	Solvent resistant emulsion 3μm-150μm, water resistant emulsion 3μm-500μm		
Exposure time	120-240s/㎡, #350 yellow mesh		
Resolution	1270dpi/2540dpi/ 12700dpi(vector) (optional)		
Raster	Up to 133LPI		
Focus system	Automatic focusing		
File format	1_bit Tiff, Gerber, PDF vector etc.		
Laser type	UV laser, wavelength 405±5nm		
Laser power	20W/25W/30W(optional)		
Structure	Steel		
Equipment size	1750x1080x1970mm 68.9x42.5x77.2"	2000x1157x2200mm 78.74x45.51x86.61"	1880x1190x2270mm 74.02x46.85x89.37"
Equipment net weight	1250Kg	1400Kg	1750Kg
Conditions	Yellow light room with cleanliness Class 10000, temperature 22±2°C, 40-70% relative humidity (no condensation)		
Power	Single phase, AC220V, 50/60Hz, 4kW, Compressed air: 0.5MPa		

*Specifications subject to change without notice

CTS1317V/1418V/2232V

GIS

Specification / Model	CTS1317V	CTS1418V	*CTS2232V*
Max screen size	1300x1700mm/ 51.18 " x 66.93"	1400x1800mm/ 55.12" x 70.87"	2200x3200mm/ 86.61x125.98"
Min screen size	500x500mm/ 19.69" x 19.69"	500x500mm/ 19.69" x 19.69"	700x700mm/ 27.56x27.56 "
Max exposure size	1200x1600mm/ 47.24" x 62.99"	1300x1700mm/ 51.18" x 66.93"	2100x3100mm/ 82.64 x 122.05 "
Screen frame thickness	25-40mm(bespoke service is available)		
Imaging System	DMD DLP Technology		
Emulsion thickness (EOM)	Solvent resistant emulsion 3μm-150μm, water resistant emulsion 3μm-500μm		
Exposure time	120-240s/㎡, #350 yellow mesh		
Resolution	1270dpi/2540dpi/ 12700dpi(vector) (optional)		
Raster	Up to 133LPI		
Focus system	Automatic focusing		
File format	1_bit Tiff, Gerber, PDF vector etc.		
Laser type	UV laser, wavelength 405±5nm		
Laser power	20W/25W/30W(optional)		
Structure	Steel		
Equipment size	2500mmx1150mmx2300mm 98.43" x 45.28" x 90.55"	2600mmx1150mmx2400mm 102.36" x 45.28" x 94.49"	4580x1570x3500mm 180.31" x 61.81" x 137.80"
Equipment net weight	1760Kg	1800Kg	4150Kg
Conditions	Yellow light room with cleanliness Class 10000, temperature 22±2°C, 40-70% relative humidity (no conder		
Power	Single phase, AC220V, 50/60Hz, 4kW, Compressed air: 0.5MPa		

*Specifications subject to change without notice

CTS1310V DUO

GIS

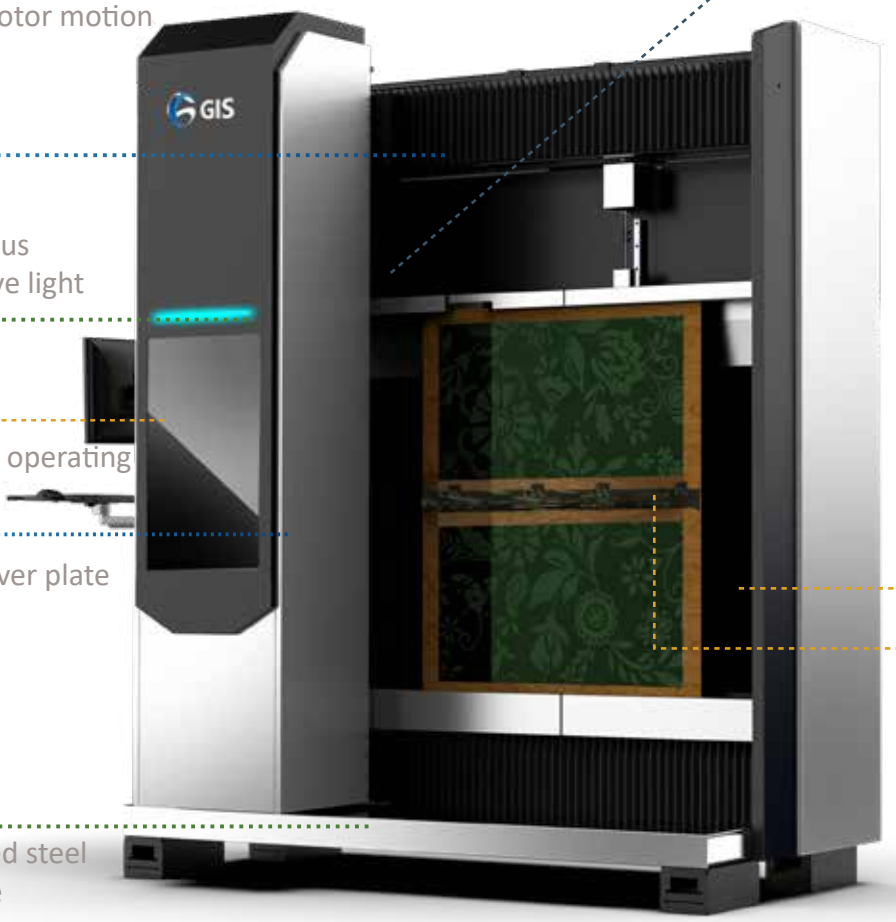
DMD exposure system

Linear motor motion

Max screen size
635mmx915mm
24.6x35.6”
Max exposure size
625mmx905mm
25x36”

A luminous decorative light

Max screen size
635mmx915mm
24.6x35.6”
Max exposure size
625mmx905mm
25x36”



computer operating system

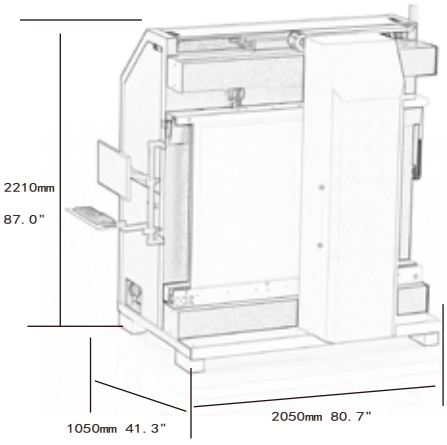
The frame can be loaded and unloaded automatically, and can be loaded with one or two pieces at the same time

Acrylic cover plate

The positioning device system used to fix the screen frame

Integrated steel structure

Water cooling system



CTS1310V DUO

GIS

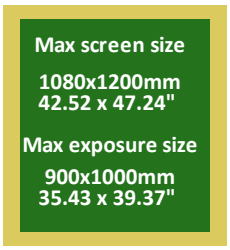
Specification / Model	CTS1310V DUO
Application	Textile, Decal, Label, Decoration, Packaging and PCB etc.
Max screen size	635x915mm / 25x36" two screen
Min screen size	508x584mm/ 20x23" two screen
Max exposure size	625x905mm/25x36" two screen
Screen frame thickness	25-40mm (bespoke service is available)
Imaging System	DMD DLP Technology
Emulsion thickness (EOM)	Solvent resistant emulsion 3μm-150μm, water resistant emulsion 3μm-500μm
Exposure Time	120-240s/ ㎡, #350 yellow mesh
Resolution	1270dpi/2540dpi/ 12700dpi(vector) (optional)
Raster	Up to 133LPI
Minimum line width of optical output	50μm
Repeat accuracy	±10μ m/1000mm
Focus system	Automatic focusing
File format	1_bit Tiff, Gerber, PDF vector etc.
Laser type	UV laser, wavelength 405±5nm
Laser power	20W/25W(optional)
Equipment size	2050x1050x2210mm/ 80.7" × 41.3" × 87.0"
Equipment net weight	1800Kg
Conditions	Yellow light room with cleanliness Class 10000, temperature 22±2°C, 40-70% relative humidity (no condensation)
Power	Single phase 110V/220V, 50/60Hz, 4kW, Compressor air 0.5MPa

*Specifications subject to change without notice

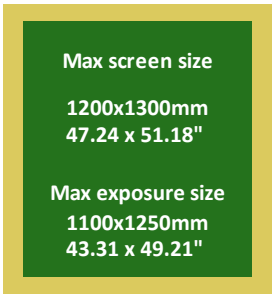
Horizontal CTS Frame Sizes

CTS0608

CTS1010
CTS1010M



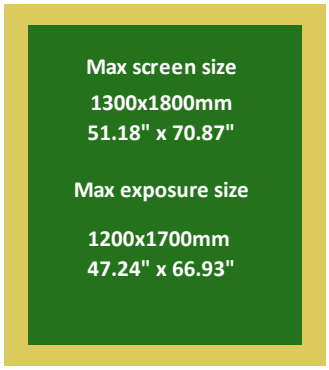
CTS1112M



CTS1213

CTS1130

CTS1213M

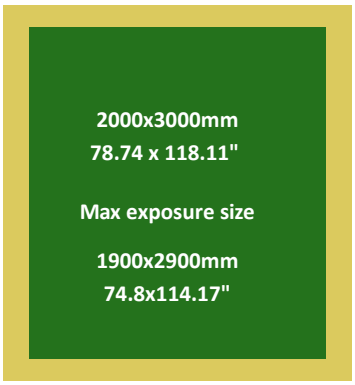


CTS1318

CTS1325

CTS1518

CTS1520



CTS2030

CTS2636

CTS0608/1130/1318/1325

GIS

HIWIN high precision guide rail,
linear electric motor,
Renishaw grating ruler

DMD exposure system

Up to 133 line;
Image 1270dpi/2540dpi (optional)

Integrated high
strength steel
structure

Water cooling system

CTS0608/1130

GIS

Specification / Model	CTS0608	CTS1130
Max screen size	600x800mm (23.62" x 31.50")	1100x3000(43.31x118.11)
Min screen size	300x300mm(11.81"x11.81")	400x400mm(15.8x15.8")
Max exposure size	500x700mm (19.69" x 27.56")	1000x2900(39.4 "x114.2")
Screen frame thickness	25-40mm(bespoke service is available)	
Registration pin	M&R Tri-loc/ ROQ pin	
Imaging System	DMD DLP Technology	
Emulsion thickness (EOM)	Solvent resistant emulsion 3μm-150μm, water resistant emulsion 3μm-500μm	
Exposure time	120-240s/㎡, #350 yellow mesh	
Resolution	1270dpi/2540dpi/ 12700dip(vector) (optional)	
Raster	Up to 133LPI	
Focus system	Automatic focusing	
File format	1_bit Tiff, Gerber, PDF vector etc.	
Laser type	UV laser, wavelength 405±5nm	
Laser power	20W/25W/30W(optional)	
Structure	Steel	
Equipment size	134x1400x1500mm 52.76x 55.12 x 58.98"	3740x1700x1500mm 147"x66.9"x59"
Equipment net weight	1000Kg	2500Kg
Conditions	Yellow light room with cleanliness Class 10000, temperature 22±2°C, 40-70% relative humidity (no condensation)	
Power	Single phase, AC220V, 50/60Hz, 4kW, Compressed air: 0.5MPa	

*Specifications subject to change without notice

CTS1318/1325

GIS

Specification / Model	CTS1318	CTS1325
Max screen size	1300x1800mm (51.18" x 70.87")	1300x2500mm (51.18" x 98.43")
Min screen size	500x500mm/ 19.69" x 19.69"	
Max exposure size	1200x1700mm (47.24" x 66.93")	1200x2400mm (47.24" x 94.49")
Screen frame thickness	25-40mm(bespoke service is available)	
Imaging System	DMD DLP Technology	
Emulsion thickness (EOM)	Solvent resistant emulsion 3μm-150μm, water resistant emulsion 3μm-500μm	
Exposure time	120-240s/ ㎡, #350 yellow mesh	
Resolution	1270dpi/2540dpi/ 12700dip(vector) (optional)	
Raster	Up to 133LPI	
Focus system	Automatic focusing	
File format	1_bit Tiff, Gerber, PDF vector etc.	
Laser type	UV laser, wavelength 405±5nm	
Laser power	20W/25W/30W(optional)	
Structure	Steel	
Equipment size	2460x1900x1500mm 96.85x74.81x58.98"	3310x1900x1500mm 130.31×74.80x59.06"
Equipment net weight	1800Kg	2500Kg
Conditions	Yellow light room with cleanliness Class 10000, temperature 22±2°C, 40-70% relative humidity (no condensation)	
Power	Single phase, AC220V, 50/60Hz, 4kW, Compressed air: 0.5MPa	

*Specifications subject to change without notice

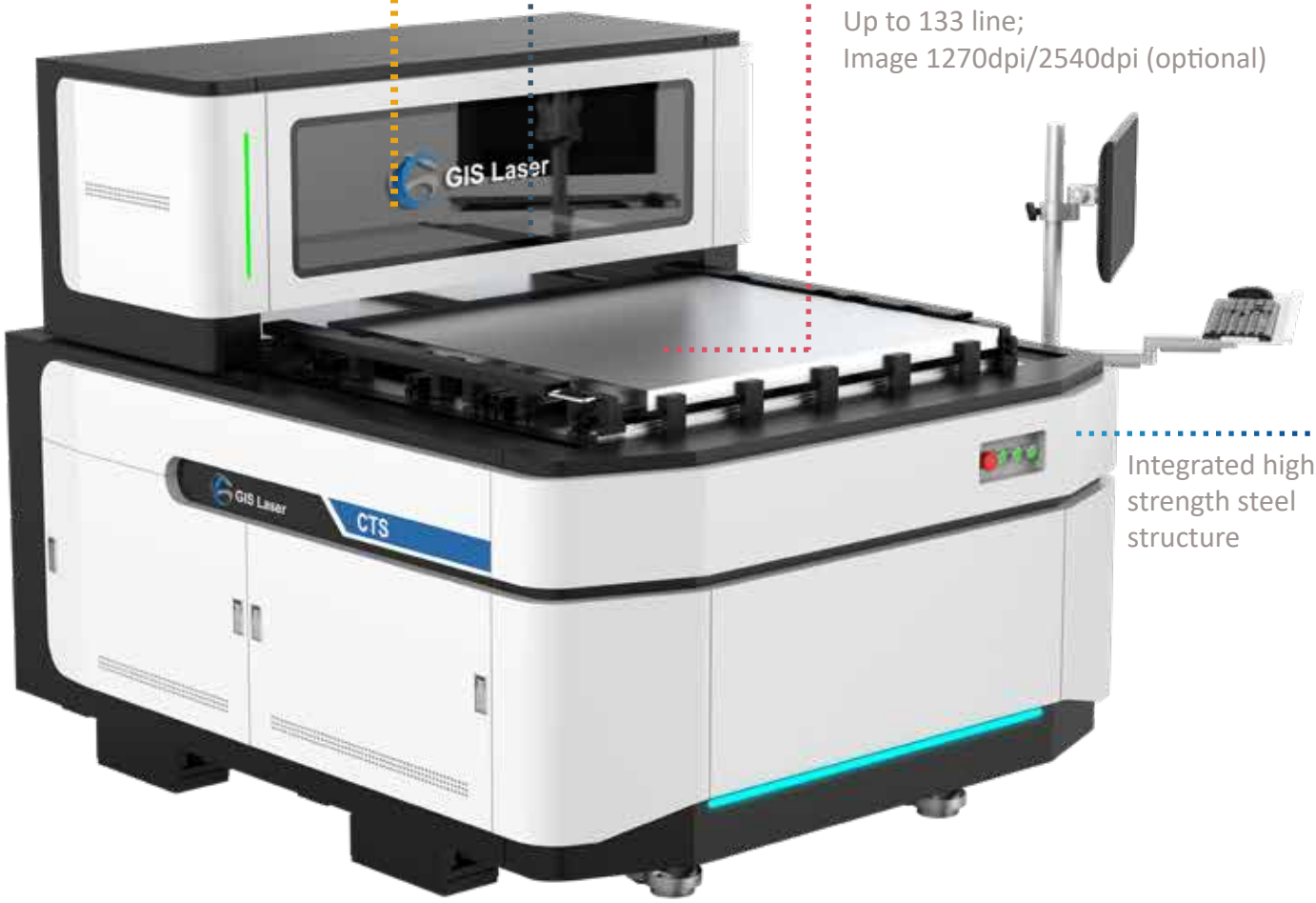
CTS1010/1213

GIS

HIWIN high precision guide rail,
linear electric motor,
Renishaw grating ruler

DMD exposure system

Up to 133 line;
Image 1270dpi/2540dpi (optional)



Integrated high
strength steel
structure

Water cooling system

CTS1010/1213

GIS

Specification / Model	CTS1010	CTS1213
Max screen size	1000x1000mm (39.37"x39.37")	1200x1300mm (47.24"x51.18")
Min screen size	400x400mm(15.8x15.8")	400x400mm(15.8x15.8")
Max exposure size	900x900mm (35.43 "x35.43 ")	1100x1200mm (43.31"x47.24")
Screen frame thickness	25-40mm(bespoke service is available)	
Registration pin	M&R Tri-loc/ ROQ pin	
Imaging System	DMD DLP Technology	
Emulsion thickness (EOM)	Solvent resistant emulsion 3μm-150μm, water resistant emulsion 3μm-500μm	
Exposure time	120-240s/m^2, #350 yellow mesh	
Resolution	1270dpi/2540dpi/ 12700dpi(vector) (optional)	
Raster	Up to 133LPI	
Focus system	Automatic focusing	
File format	1_bit Tiff, Gerber, PDF vector etc.	
Laser type	UV laser, wavelength 405±5nm	
Laser power	20W/25W/30W(optional)	
Structure	Steel	
Equipment size	1950x1660x1550mm 76.77x65.35x61.02"	2150x1860x1550mm 84.65 x 73.23 x 61.02"
Equipment net weight	1300Kg	1500Kg
Conditions	Yellow light room with cleanliness Class 10000, temperature 22±2°C, 40-70% relative humidity (no condensation)	
Power	Single phase, AC220V, 50/60Hz, 4kW, Compressed air: 0.5MPa	

*Specifications subject to change without notice

CTS1112M/1518

GIS

HIWIN high precision guide rail,
linear electric motor,
Renishaw grating ruler

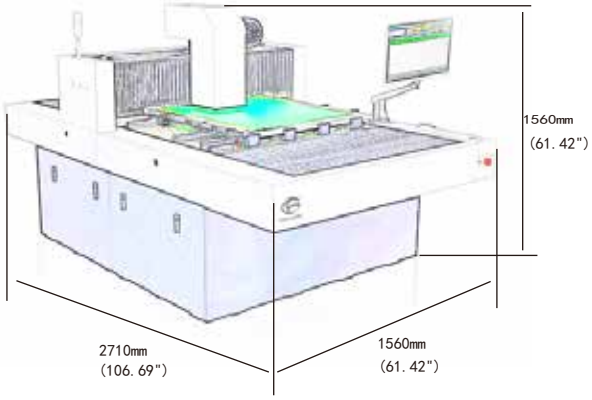
DMD exposure system

Up to 133L resolution
1270dpi/2540dpi (optional)

Marble base to
guarantee the
stability of the
machine

computer operating system

Water cooling system



CTS1112M/1518

GIS

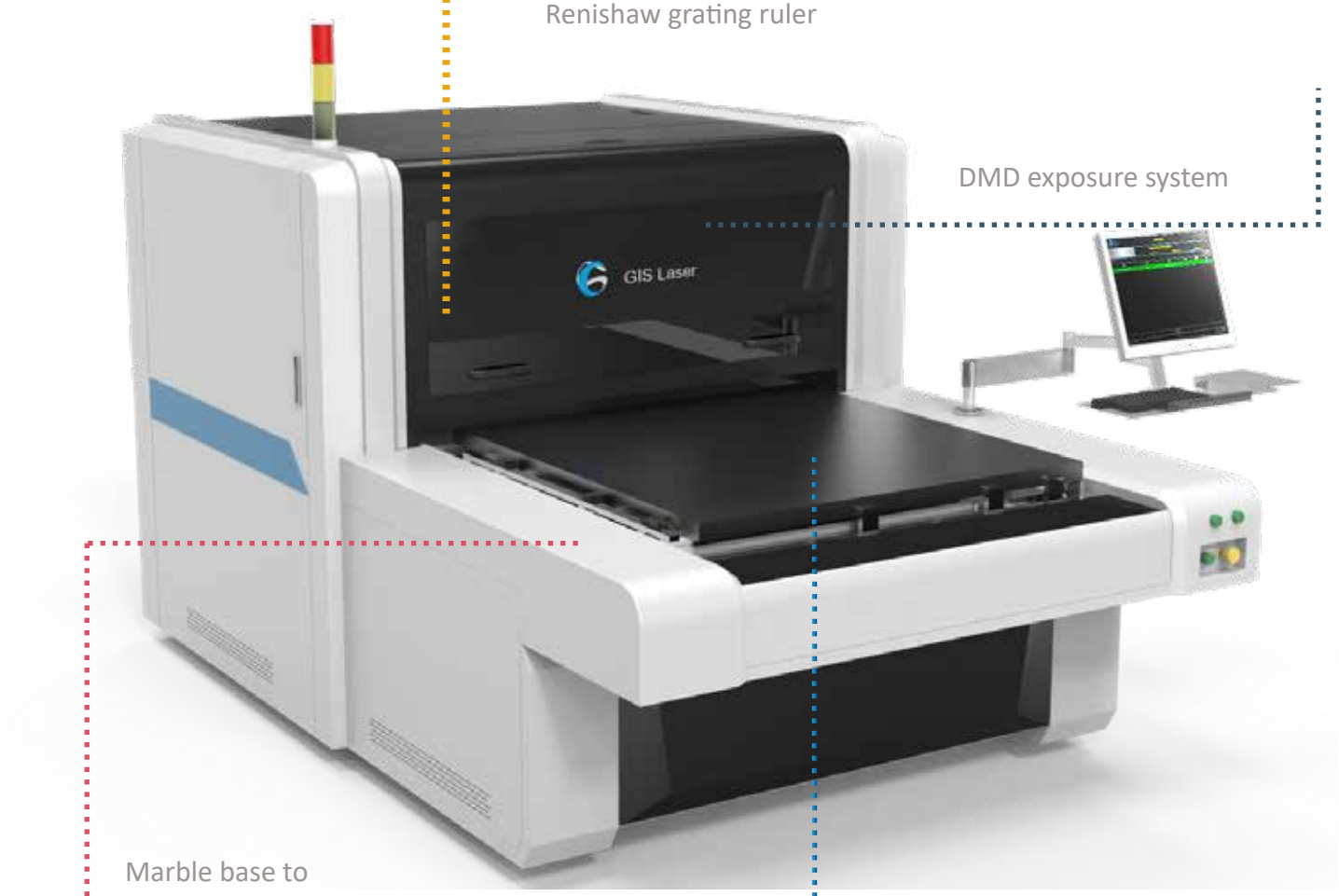
Specification / Model	CTS1112M	CTS1518
Max screen size	1080x1200mm(42.52x47.24")	1500x1800mm(59.06" × 70.87")
Min screen size	400x400mm/ 15.8x15.8"	
Max exposure size	900x1000mm(35.43x39.37")	1400x1700mm (55.12" × 66.93")
Screen frame thickness	25-40mm(bespoke service is available)	
Imaging System	DMD DLP Technology	
Emulsion thickness (EOM)	Solvent resistant emulsion 3μm-150μm, water resistant emulsion 3μm-500μm	
Exposure time	120-240s/ ㎡, #350 yellow mesh	
Resolution	1270dpi/2540dpi/ 12700dpi(vector) (optional)	
Raster	Up to 133LPI	
Focus system	Automatic focusing	
File format	1_bit Tiff, Gerber, PDF vector etc.	
Laser type	UV laser, wavelength 405±5nm	
Laser power	20W/25W/30W(optional)	
Structure	Marble	
Equipment size	3940x2000x1800mm (106.69x61.42x61.42")	3940x2000x1800mm(154.72× 78.74× 70.87")
Equipment net weight	1660Kg	2000Kg
Conditions	Yellow light room with cleanliness Class 10000, temperature 22±2°C, 40-70% relative humidity (no condensation)	
Power	Single phase, AC220V, 50/60Hz, 4kW, Compressed air: 0.5MPa	

*Specifications subject to change without notice

CTS1010M/1213M

HIWIN high precision guide rail,
linear electric motor,
Renishaw grating ruler

DMD exposure system



Marble base to
guarantee the
stability of the
machine

Up to 133L
resolution 1270dpi/2540dpi(optional)

Water cooling system

CTS1010M/1213M

GIS

Specification / Model	CTS1010M	CTS1213M
Max screen size	1000x1000mm (39.37x39.37")	1200x1800mm (47.24x70.87”)
Min screen size	400x400mm(15.8x15.8")	400x400mm(15.8x15.8")
Max exposure size	900x900mm (35.43 "x35.43 ")	1100x1250mm (43.31”x49.21”)
Screen frame thickness	25-40mm(bespoke service is available)	
Imaging System	DMD DLP Technology	
Emulsion thickness (EOM)	Solvent resistant emulsion 3μm-150μm, water resistant emulsion 3μm-500μm	
Exposure time	120-240s/㎡, #350 yellow mesh	
Resolution	1270dpi/2540dpi/ 12700dpi(vector) (optional)	
Raster	Up to 133LPI	
Focus system	Automatic focusing	
File format	1_bit Tiff, Gerber, PDF vector etc.	
Laser type	UV laser, wavelength 405±5nm	
Laser power	20W/25W/30W(optional)	
Structure	Marble	
Equipment size	2750x1680x1710mm 108.27 ×66.14 ×67.32”	2950x1980x1710mm 116 x78 x67.3”
Equipment net weight	2700Kg	3450Kg
Conditions	Yellow light room with cleanliness Class 10000, temperature 22±2°C, 40-70% relative humidity (no condensation)	
Power	Single phase, AC220V, 50/60Hz, 4kW, Compressed air: 0.5MPa	

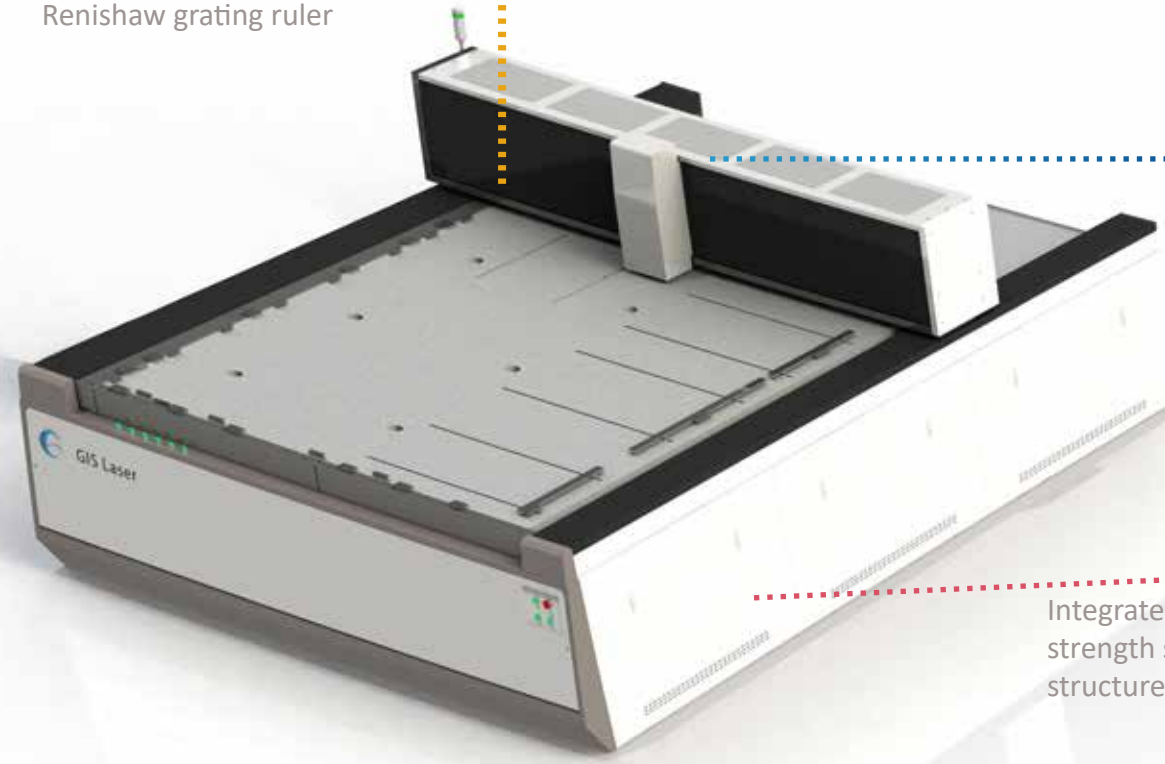
*Specifications subject to change without notice

CTS2030

GIS

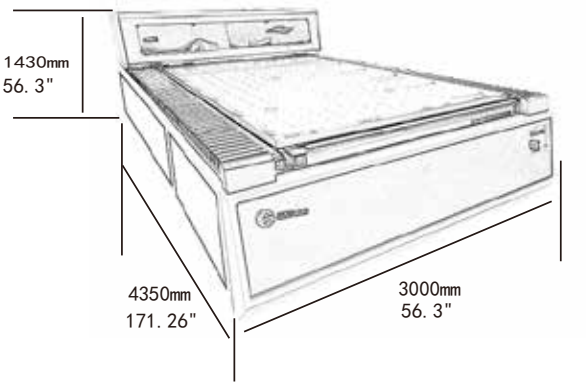
HIWIN high precision guide rail,
linear electric motor,
Renishaw grating ruler

DMD exposure system
Up to 133L resolution
1270dpi/2540dpi (optional)



Integrated high
strength steel
structure

Water cooling system



CTS2030

GIS

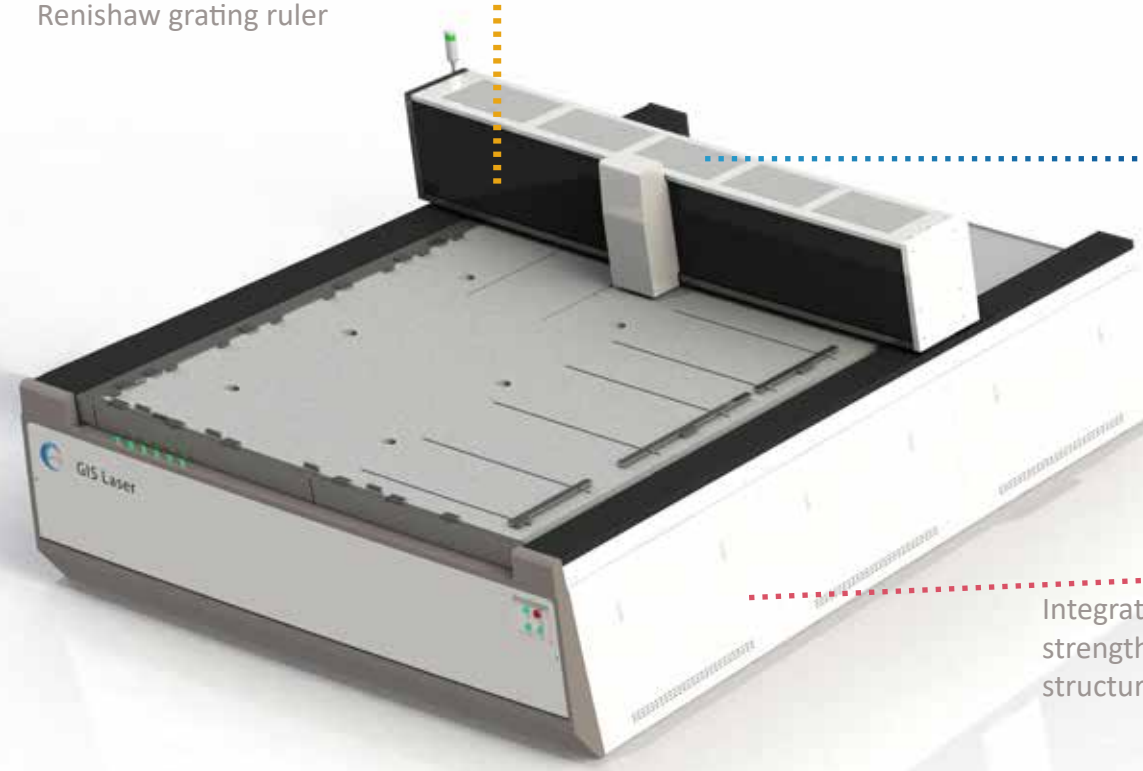
Specification / Model	CTS2030
Max screen size	2000x3000mm (78.74 x 118.11")
Min screen size	700x700mm(27.56x27.56 ")
Max exposure size	1900x2900mm(74.8x114.17")
Screen frame thickness	25-50mm(bespoke service is available)
Imaging System	DMD DLP Technology
Emulsion thickness (EOM)	Solvent resistant emulsion 3μm-150μm, water resistant emulsion 3μm-500μm
Exposure time	120-240s/ ㎡, #350 yellow mesh
Resolution	1270dpi/ 2540dpi/ 12700dpi(vector) (optional)
Raster	Up to 133LPI
Focus system	Dynamic focusing
File format	1_bit Tiff, Gerber, PDF vector etc.
Laser type	UV laser, wavelength 405±5nm
Laser power	20W/25W/30W(optional)
Equipment size	4350x3000x1430mm(171.26x118.11x56.3")
Equipment net weight	3800Kg
Conditions	Yellow light room with cleanliness Class 10000, temperature 22±2°C, 40-70% relative humidity (no condensation)
Power	Single phase 110V/ 220V, 50/60Hz, 4kW, Compressed air: 0.5MPa

*Specifications subject to change without notice

CTS2636/ CTS2642

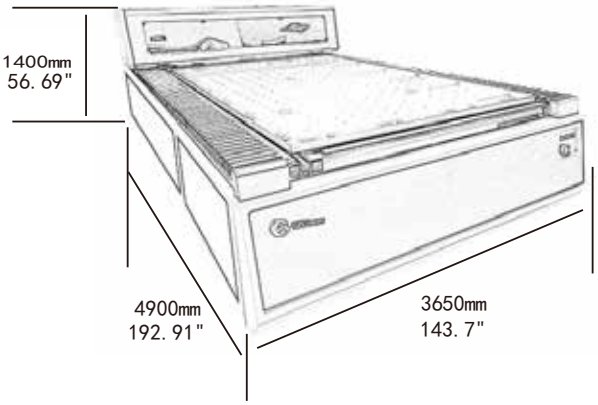
HIWIN high precision guide rail,
linear electric motor,
Renishaw grating ruler

DMD exposure system
Up to 133L resolution
1270dpi/2540dpi (optional)



Integrated high
strength steel
structure

Water cooling system



CTS2636/ CTS2642

GIS

Specification / Model	CTS2636	CTS2642
Max screen size	2600x3600mm(102.36x141.73")	2600x4200mm(102.36 x 165.35")
Min screen size	700x700mm(27.56x27.56 ")	
Max exposure size	2500x3500mm(98.43x137.80")	2500x4100mm(98.43 x 161.42")
Screen frame thickness	25-50mm (bespoke service is available)	
Imaging System	DMD DLP Technology	
Emulsion thickness (EOM)	Solvent resistant emulsion 3μm-150μm, water resistant emulsion 3μm-500μm	
Exposure time	120-240s/ ㎡, #350 yellow mesh	
Resolution	1270dpi/ 2540dpi/ 12700dpi(vector) (optional)	
Raster	Up to 133LPI	
Focus system	Dynamic focusing	
File format	1_bit Tiff, Gerber, PDF vector etc.	
Laser type	UV laser, wavelength 405±5nm	
Laser power	20W/25W/30W(optional)	
Equipment size	4900x3650x1440mm(192.9x143.7x56.7")	5500x3650x1440mm(216.5 x 143.7 x 56.7")
Equipment net weight	4800Kg	5500Kg
Conditions	Yellow light room with cleanliness Class 10000, temperature 22±2°C, 40-70% relative humidity (no condensation)	
Power	Single phase 110V/ 220V, 50/60Hz, 4kW, Compressed air: 0.5MPa	

*Specifications subject to change without notice

For a Better Screen

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