

Product Introduction

■ TZM-Series Digital Microscope (TZ.M-Series)

WWW.OMSBIZ.COM

COMPANY OVERVIEW

OMS specializes in advanced microscopy and measurement solutions, with a focus on **3D EDOF (Extended Depth of Field)based 3D digital microscopes, confocal microscopes, optical microscopes, and integrated analysis systems.** Even prior to its official establishment in 2012, **OMS** had been supplying a wide range of 3D microscopes and analytical solutions to research institutes and quality assurance (QA/QC) sectors across Korean industries, building a strong sales and distribution network.

Today, **OMS** proudly serves as the **exclusive distributor of Microqubic (Switzerland) 3D digital microscopes and an authorized distributor of Leica Microsystems (Germany, Danaher Corp.),** delivering cutting-edge products to diverse industrial fields.

In response to the rapidly evolving demands of the **semiconductor, electronics, display, automotive, and materials industries,** OMS provides **customized modification services** tailored to each customer's environment. As a market leader in **3D digital, confocal, and optical microscopy,** OMS delivers precise and reliable solutions that empower innovation. Leveraging extensive expertise in inspection and measurement, **OMS also offers specialized, customized** solutions for optical components, illumination systems, and measurement software development—ensuring agile responses to the diverse needs of modern industries.

OMS is committed to being a trusted partner who understands your requirements and delivers optimal results.



2025 ~

- **Exclusive distributor** of  microqubic (Switzerland) 7-axis motorized 3D digital microscopes
- **Completion of Industry-Academia R&D Project (2023~2025)**
(Development of 3D optical profiling equipment using flow-scan method for 3D shapes and micro-pattern inspection)

2024 ~

- **CE certification for 4K digital inspection microscope and sales to AMKOR**
- **Delivery of export-oriented “Virtual Reality (VR) optical modules”** to Seoul National University Hospital and Gil Hospital(First in Korea)

2020~

- **Certification of corporate-affiliated research department**
- **Patent acquisition: “3D EDOF scanning device applying flow-scan method”**
- **CE certification for TZ/TZM series**



2017 ~

- Development and delivery of Radon automatic counter for Ministry of Environment | RPC-1000
- Supply of large-area pattern inspection microscope | MLM1210A
- Delivery of TTS1850x1500 Turn Table Station to BOE (China)
- Export contract worth 1.4 billion KRW for TZ/M series

2016 ~

- Registered as major business partners with Hyundai Motor, Amkor Technology, Samsung Electro-Mechanics,, LG Electronics, and SKC.



2015 ~

- Signed official distributor agreement with  **Leica Microsystems** (Germany) and became general distributor of 3D microscopes

2014 ~

- Established OMS Co., Ltd.
- Developed and launched “TZ/TZM Series Digital Microscopes” (first in Korea)
- Developed 2D measurement software for microscopes
- Modified and supplied ITO pattern inspection & measurement microscopes



■ TZM-Series DIGITAL MICROSCOPE

TZM Series “Flexible Resolution & Observation”

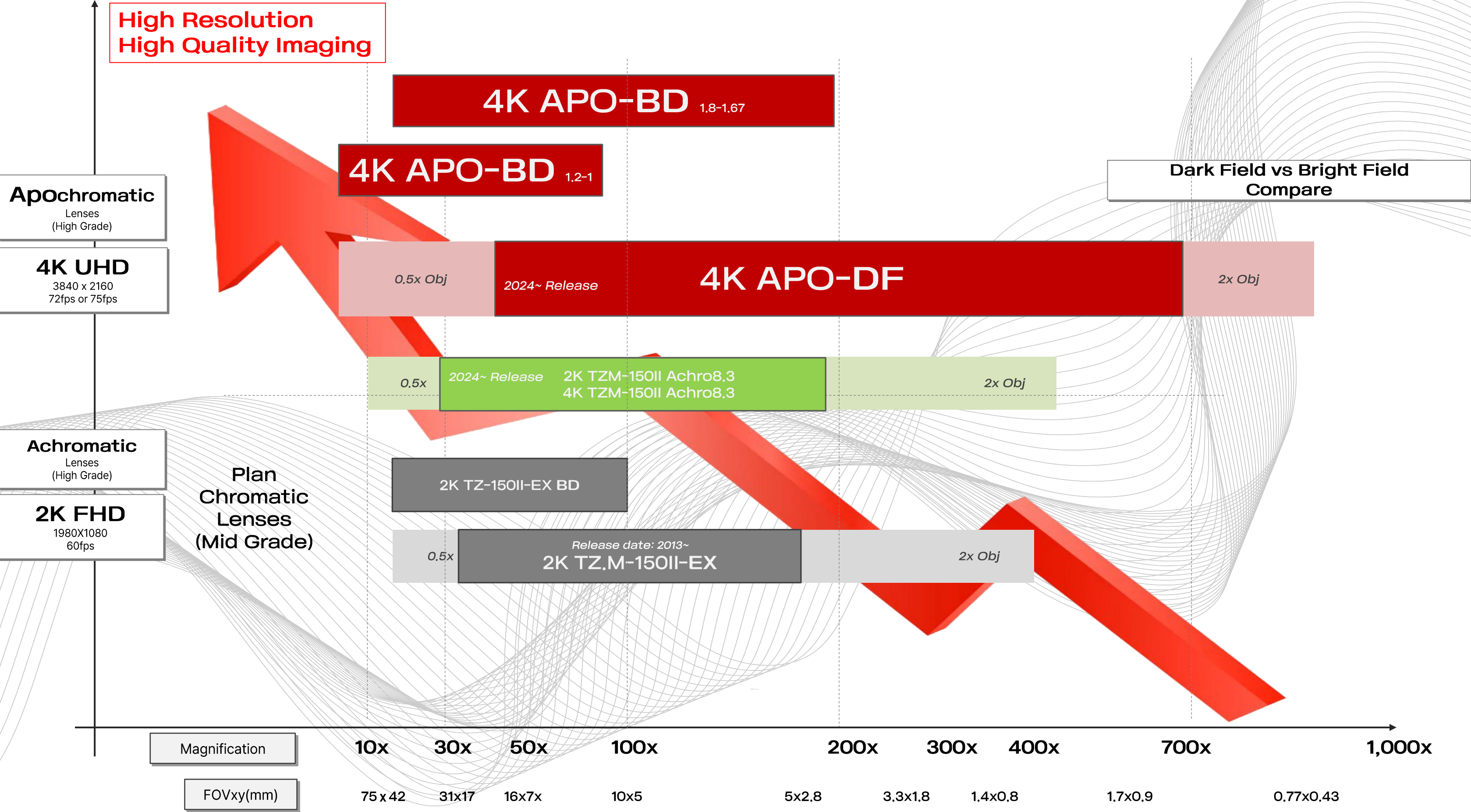
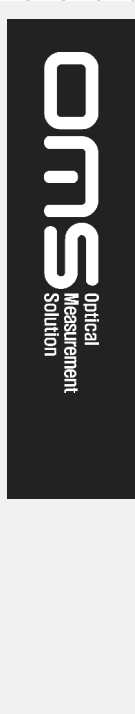
TZ/TZM-Series Specifications

Category			TZ*M Serise				TZM-APO Serise				REMARK
MODEL		PRE	TZ-150II		TZM-150II						
		MID	EX	EX-BD	Achro 8.3	Achro 8.3	APO 8	APO10 -DF	APO10-BD	APO10-BD	16Y~ SDV, SEV, SEVT
		DETAIL			1.8-0.5	1.8-0.5	1.8-1	1.8-1.67		1.8-1.67	1.2-1
CAMERA	RESOLUTION, FPS		 2K , 60fps			 4K, 72fps				4K, 75fps	
OPTICAL	OPTICAL GRADE ZOOM RATIO Standard WD(mm) Click Stop		Achro				APO				Chromatic aberration
			6.3:1		8.3:1			10:1			
			100	70	86			100	70		
			N/A		YES						
	Standard magnification		x29~188	x29~188	x25~209	x23~194	x23~194	x39~387	x39~387	x16~159	
	FOV	X(mm)	18.1~2.8	18.1~2.8	21.2~2.5	25.7~3.1	25.7~3.1	15.45~1.54	15.45~1.54	37.7~3.77	
		Y(mm)	10.0~1.6	10.0~1.6	11.6~1.4	14.5~1.7	14.3~1.7	8.62~0.86	8.62~0.86	21.0~2.10	
	Option	Mag 2.0X (Option)	x58~375	x58~375	x50~417	x46~387	x46~387	x77~774	x77~774	x32~317	It allows up to 2x zoom
		FOVx	9.1~1.4	9.1~1.4	10.6~1.3	12.8~1.5	12.8~1.5	7.72~0.77	7.72~0.77	18.9~1.89	
		FOVy	5.0~0.8	5.0~0.8	5.8~0.7	7.3~0.9	7.3~0.9	4.31~0.43	4.31~0.43	10.5~1.05	WD: 39mm
		Mag 0.5X (Option)	x15~94	x15~94	x13~104	x12~97	x12~97	x19~194	x19~194	x8~x79	It can reduce to 0.5x zoom
		FOVx	36.3~5.6	36.3~5.6	42.3~5.1	51.3~6.2	51.3~6.2	30.9~3.09	30.9~3.09	X: 75.4~7.54	
		FOVy	20.0~3.1	20.0~3.1	23.3~2.8	29.0~3.5	29.0~3.5	17.25~1.72	17.25~1.72	Y: 42.0~4.20	WD: 180mm
illumination	Reflected	DF LED	YES								Ring(DF), Coaxial(BF) BD=BF+DF
		BF	N/A	YES	N/A			YES			
		BD									
	Transmitted	Transmitted LED	YES								
		FTG inspection		YES							
STAND	Focus Knob	Z-Stroke	 Z-Stroke: 50mm: Coarse, Fine/Coarse, Z-Stroke: 180mm: Fine/Coarse(Model: STL-420)								17.8mm / 100μm
	BASE	SIZE(X,Y,Z)	400x350x350mm								
DISPLAY	MONITOR	Size, Resolution	24" FHD			27" 4K UHD					
2D MEASUREMENT		Built-in	The Standard product offers live video and 2D measurement functions, and can run independently without a PC.								
		Data transfer	Supports 8G SD, PC connection USB 2.0			Supports USB&SD memory, Wi-Fi, and LAN, PC connection through a USB 3.0					
PC		PC & Monitor	27" Monitor & i5/8G/256G/Win11Pro or More								
		2D MEASURE TOOLS SW	Live video and 2D measurement functions require software installation								
		■ This option is required only if company security restrictions prohibit USB, Wi-Fi, LAN, and network usage, and data must be handled on an authorized PC. Otherwise, it is unnecessary as the product is capable of measurement and storage independently without a PC.									

TZM-Series Performance Guide



OPTICAL COMPONENT | 3D MEASUREMENT | MODIFY SOLUTION



TZM Series Digital Camera

4K Series (New)



4K UHD **STARVIS 2**

Item	Description
Resolution	8MP, 3840(H) x 2160(V)
Frame Rate	72fps
Pixel Size	2.0 x 2.0μm
Sensor Size	1/1.8" (8.86mm)
Sensor Type	CMOS
Shutter Mode	Rolling
ADC(bit)	10
Data Interface	HDMI, USB3.0, USB2.0, LAN, WiFi USB Memory Stick, SD Card
Dimensions	105.7mm x 78mm x 70.8mm
Weight	800g

4K UHD **STARVIS**

Item	Description
Resolution	8MP, 3840(H) x 2160(V)
Frame Rate	75fps
Pixel Size	2.9 x 2.9μm
Sensor Size	1/1.2" (13.33mm)
Sensor Type	CMOS
Shutter Mode	Rolling
ADC(bit)	10/12
Data Interface	HDMI, USB3.0, USB2.0, LAN, WiFi USB Memory Stick, SD Card
Dimensions	105.7mm x 78mm x 70.8mm
Weight	800g

2K Series

High Resolution TZ / TZM Serise is
High Speed Full Frame Rates
The built-in 2D Live Measurement function



Full HD **STARVIS**

Item	Description
Resolution	2.07MP, 1920(H) x 1080(V)
Frame Rate	30 fps @ USB 2.0, 25 fps @ HDMI
Pixel Size	2.9 x 2.9μm
Sensor Size	1/2.8"
Sensor Type	CMOS
Shutter Mode	Rolling
ADC(bit)	10/12
Data Interface	HDMI, USB 2.0, SD card
Dimensions	90.7mm x 78mm x 70.8mm
Weight	265g

TZM Series LENS

APO Zoom Series 10:1



SPECIFICATIONS	
Division	Detail
Zoom Ratio 10:1	0.5~5
Mag(27" Monitor) C=1.67, 1/1.2	39~387x
Working Distance	100mm
Max	774x (WD39mm)
Lens Grade	APO
Distortion	0.10%
Mount C-Mount	YES
Click-Stop	YES / 12step
Coaxial / Polarized	Option
Measurement Tools	YES

CHART							
보조대물	Zoom Indicator	27" 685				NA (mm)	DOF (mm)
		배율	X (mm)	Y (mm)	대각선	연동	연동(근사치)
1x WD 100mm	0.50	39	15.45	8.62	17.69	0.023	5.30
	0.70	54	11.04	6.16	12.64	0.030	3.11
	0.80	62	9.66	5.39	11.06	0.037	2.05
	1.00	77	7.72	4.31	8.85	0.041	1.67
	1.50	116	5.15	2.87	5.90	0.052	1.04
	2.00	155	3.86	2.16	4.42	0.057	0.86
	2.50	194	3.09	1.72	3.54	0.060	0.78
	3.00	232	2.57	1.44	2.95	0.063	0.71
	3.50	271	2.21	1.23	2.53	0.077	0.47
	4.00	310	1.93	1.08	2.21	0.090	0.35
	4.50	348	1.72	0.96	1.97	0.099	0.29
	5.00	387	1.54	0.86	1.77	0.107	0.25

APO Zoom Series 8:1



SPECIFICATIONS	
Division	Detail
Zoom Ratio 8.3:1	0.3~2.5
Magnification (27" Monitor)	23~194x
Working Distance	86mm
Max	388x (WD39mm)
Lens Grade	APO
Distortion	0.10%
Mount C-Mount	YES
Click-Stop	YES / 11step
Coaxial / Polarized	NA
Measurement Tools	YES

CHART							
보조대물	Zoom Indicator	모니터 27" 685				NA (mm)	DOF (mm)
		배율	X (mm)	Y (mm)	대각선	연동	연동(근사치)
1x WD 86mm	0.30	23	25.67	14.33	29.40	0.021	6.24
	0.40	31	19.25	10.75	22.05	0.029	3.27
	0.50	39	15.40	8.60	17.64	0.037	2.01
	0.75	58	10.27	5.73	11.76	0.041	1.64
	1.00	78	7.70	4.30	8.82	0.046	1.30
	1.25	97	6.16	3.44	7.06	0.052	1.02
	1.50	117	5.13	2.87	5.88	0.058	0.82
	1.75	136	4.40	2.46	5.04	0.064	0.67
	2.00	155	3.85	2.15	4.41	0.073	0.52
	2.25	175	3.42	1.91	3.92	0.082	0.41
	2.50	194	3.08	1.72	3.53	0.090	0.34

Achromatic Series 8.3:1



SPECIFICATIONS	
Division	Detail
Zoom Ratio 8.3:1	0.6~5
Magnification (27" Monitor)	23~194x
Working Distance	95mm
Max	388x (WD39mm)
Lens Grade	Acromatic
Distortion	0.10%
Mount C-Mount	YES
Click-Stop	YES / 11step
Coaxial / Polarized	Option
Measurement Tools	YES

CHART							
보조대물	Zoom Indicator	모니터 27" 685				NA (mm)	DOF (mm)
		배율	X (mm)	Y (mm)	대각선	연동	연동(근사치)
1x WD 86mm	0.60	23	25.67	14.50	29.48	0.021	3.13
	0.80	31	19.25	10.88	22.11	0.025	2.21
	1.00	39	15.40	8.70	17.69	0.033	1.27
	1.50	58	10.27	5.80	11.79	0.043	0.75
	2.00	77	7.70	4.35	8.84	0.053	0.49
	2.50	97	6.16	3.48	7.08	0.060	0.38
	3.00	116	5.13	2.90	5.90	0.067	0.31
	3.50	136	4.40	2.49	5.05	0.078	0.23
	4.00	155	3.85	2.18	4.42	0.790	0.00
	4.50	174	3.42	1.93	3.93	0.085	0.19
	5.00	194	3.08	1.74	3.54	0.090	0.17

Achromatic Series 6.3:1

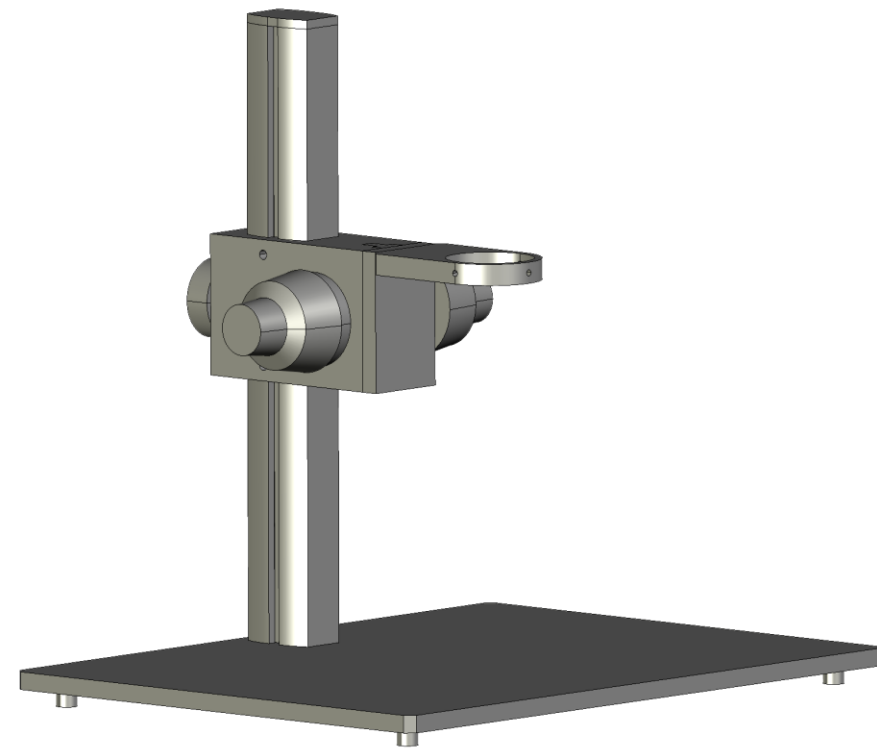


SPECIFICATIONS	
Division	Detail
Zoom Ratio 6.3:1	0.7~4.5
Magnification (24" Monitor)	29~188x
Working Distance	100mm
Max	375x (WD39mm)
Lens Grade	Acromatic
Distortion	0.10%
Mount C-Mount	YES
Click-Stop	NA
Coaxial / Polarized	NA
Measurement Tools	YES

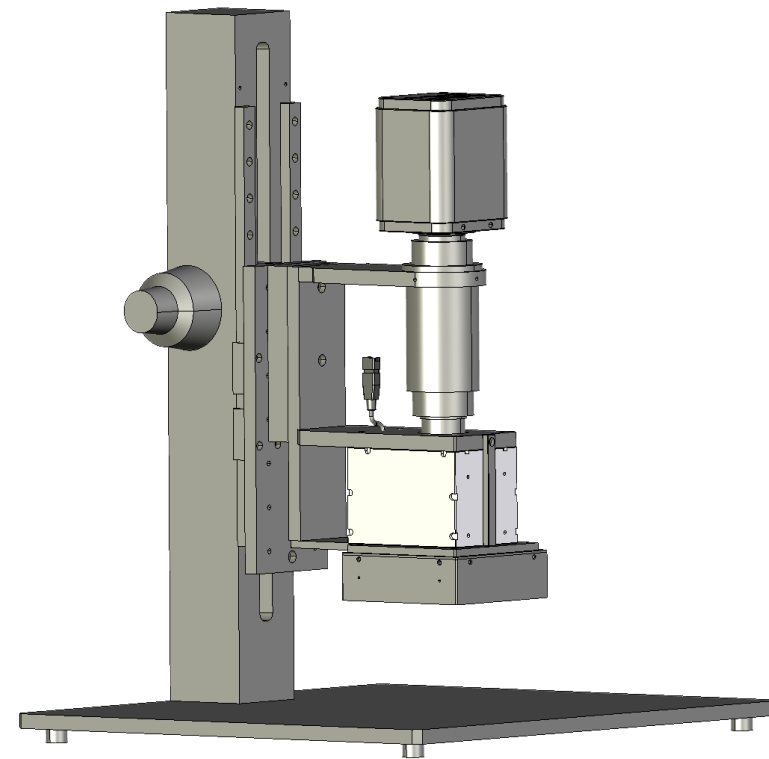
CHART

보조대물	Zoom Indicator	모니터 24" 605				NA (mm)	DOF (mm)
		배율	X (mm)	Y (mm)	대각선	연동	연동(근사치)
1x WD 86mm	0.70	29	18.14	10.00	20.72	0.025	2.04
	1.00	42	12.70	7.00	14.50	0.033	1.21
	1.50	63	8.47	4.67	9.67	0.043	0.80
	2.00	83	6.35	3.50	7.25	0.530	0.38
	2.50	104	5.08	2.80	5.80	0.060	0.29
	3.00	125	4.23	2.33	4.83	0.670	0.20
	3.50	146	3.63	2.00	4.14	0.078	0.16
	4.00	167	3.18	1.75	3.63	0.790	0.13
	4.50	188	2.82	1.56	3.22	0.090	0.09

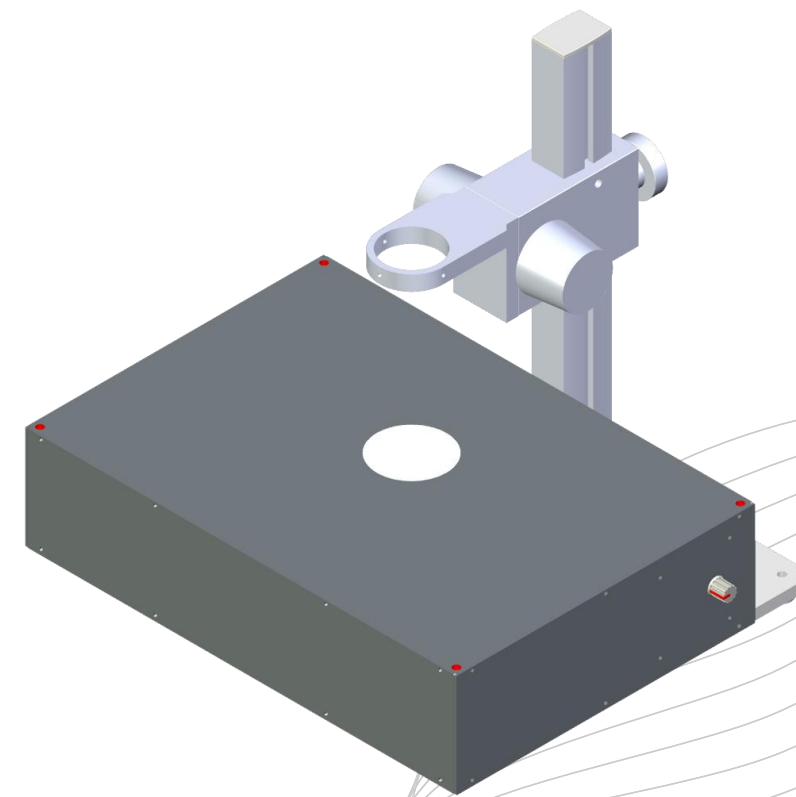
■ TZM Series STAND 선택가이드



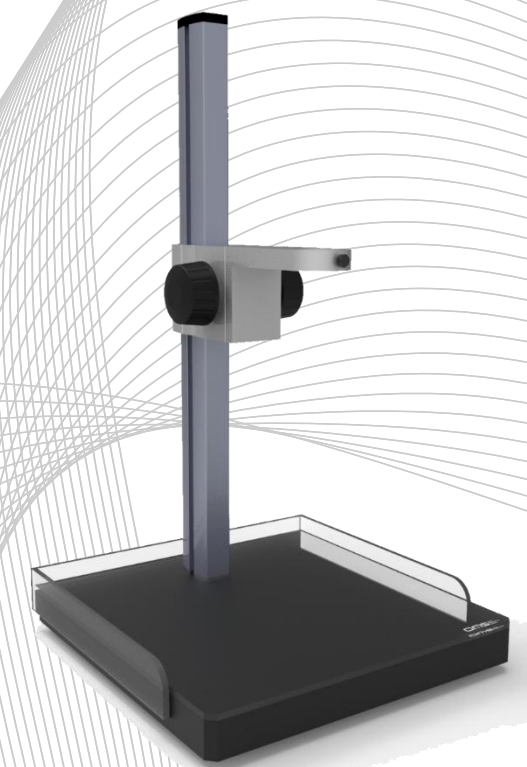
**ST-150II
(Standard)**



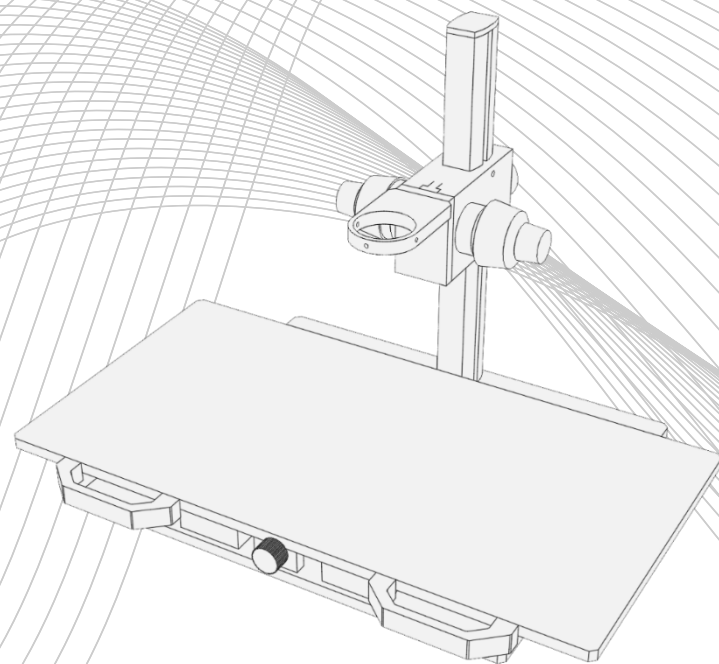
BD & STL-420



FTG(UTG)-Series



ST-350II



X-Silding



ST-7565-BL60



ROL-350II

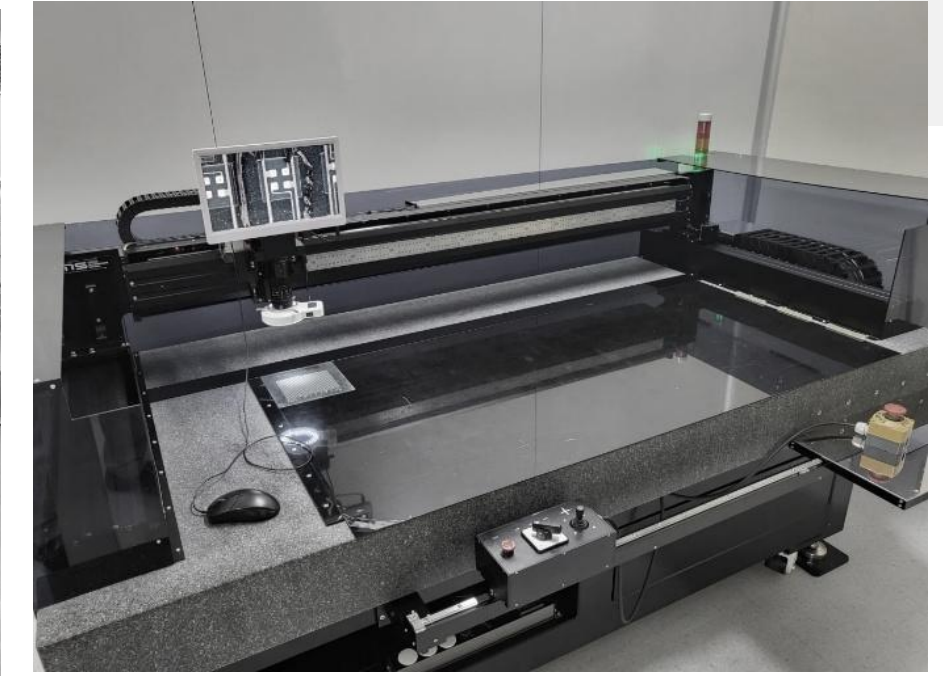
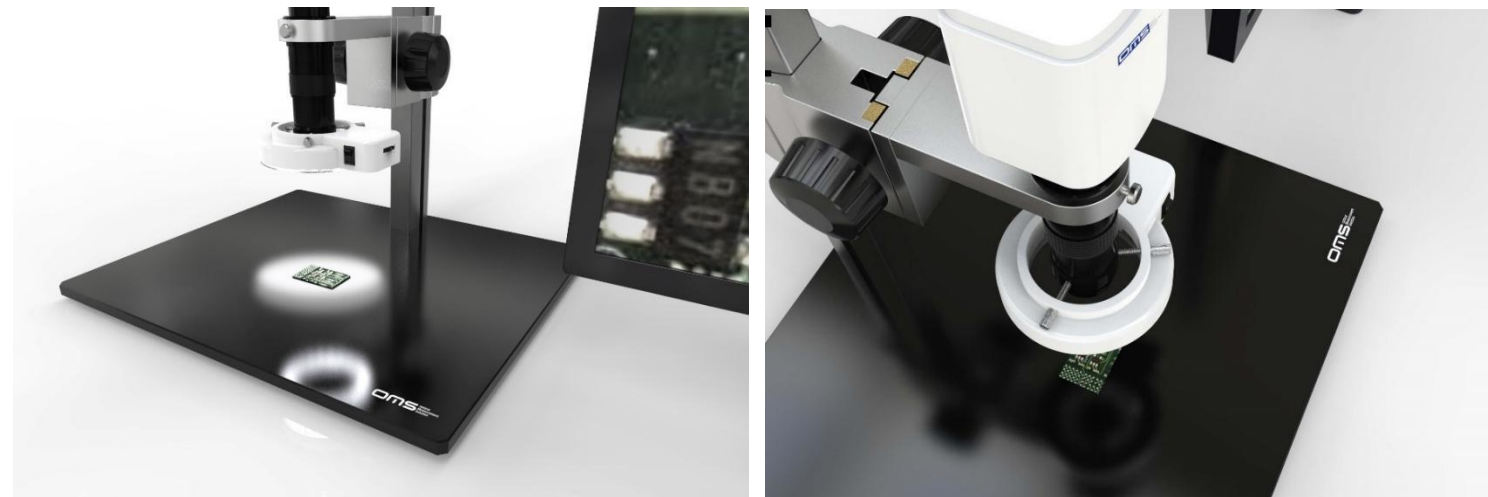
■ ODM & OEM

We provide OEM and ODM services for our clients

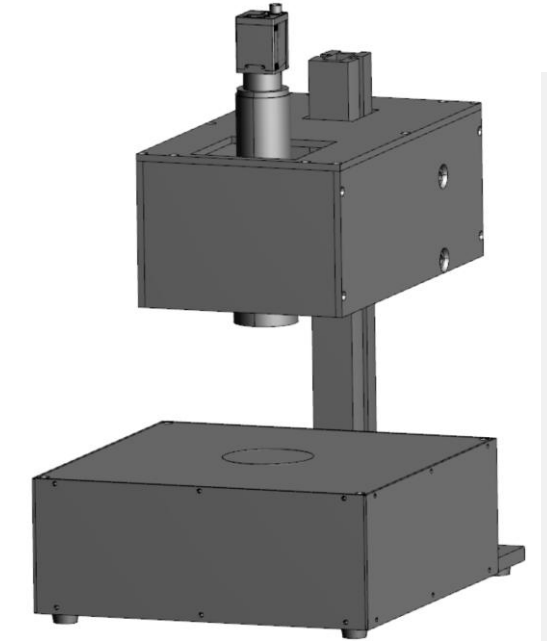
ODM & OEM

WHAT WE OFFER (TZM-Series)

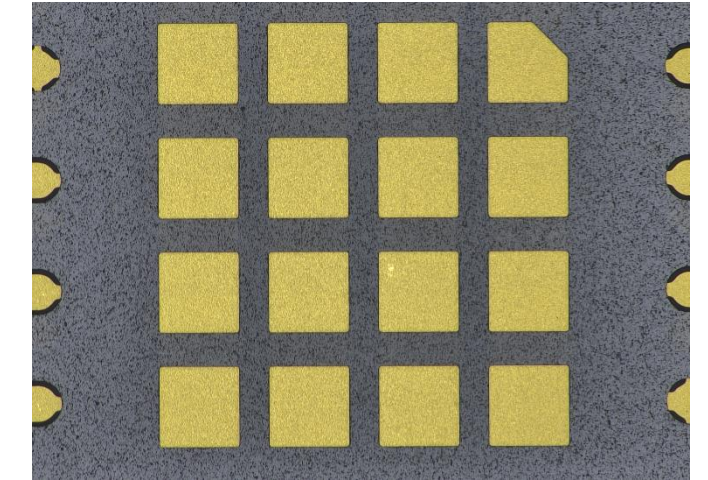
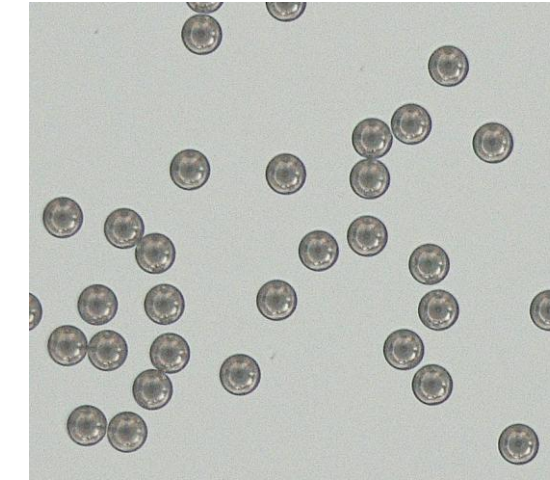
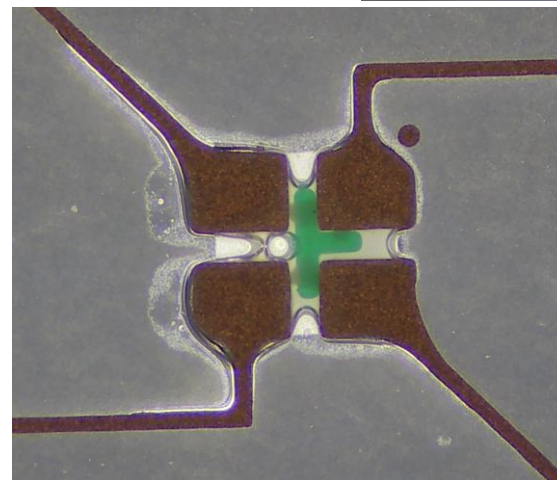
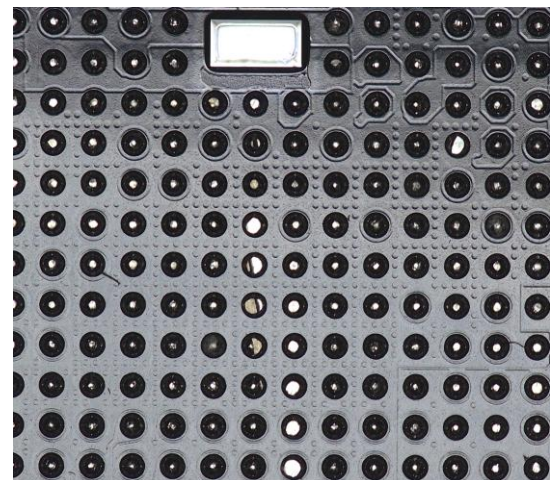
Launched in 2015 as Korea's first, the TZ.M Series 2D Digital Microscope delivers high-resolution images directly to a monitor without a PC. Trusted by Samsung & Electro-Mechanics, LG, and Amkor, it sets the standard in digital microscopy.



FTG(UTG)-Series



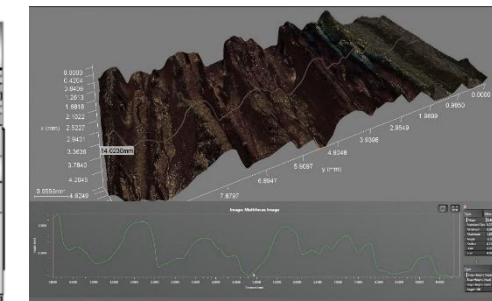
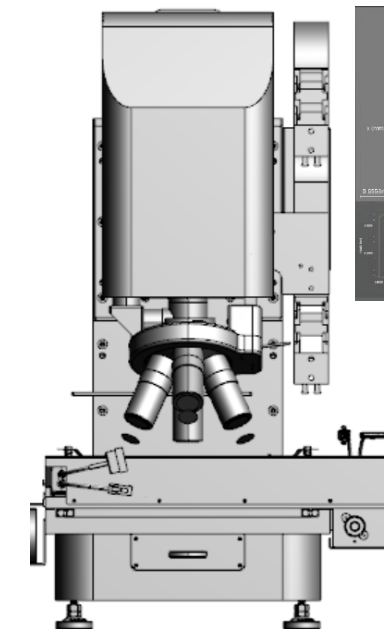
OMS
Optical
Measurement
Solution



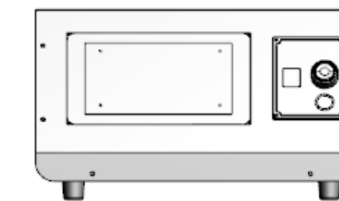
ODM & OEM

WHAT WE OFFER (Customized)

We specialize in the design, customization, and supply of optics, confocal microscopy, WSI systems, lighting, and software, all tailored to our customers' requirements.



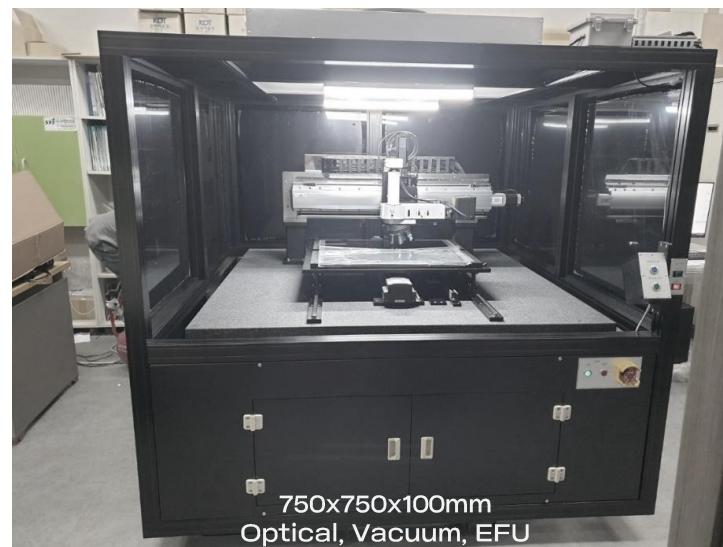
3D EDOF Scanning



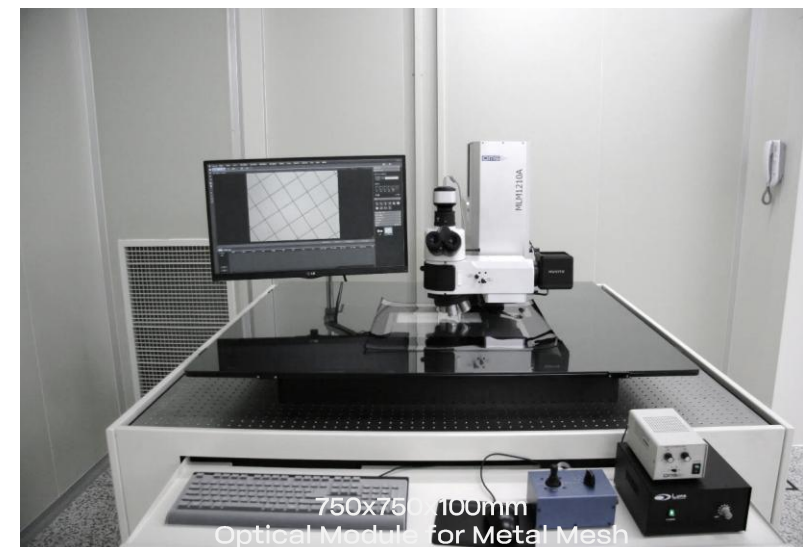
Rn Auto Scan Counter(RPC-2000PLUS)



1900x1900mm
Turn Table



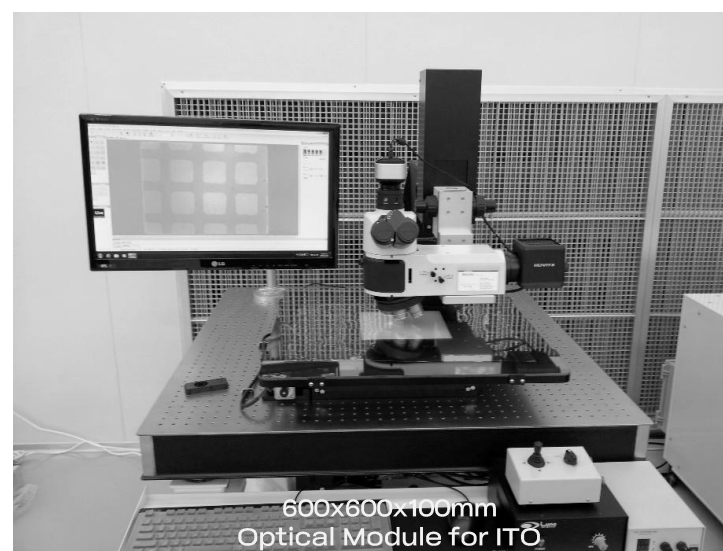
750x750x100mm
Optical, Vacuum, EFU



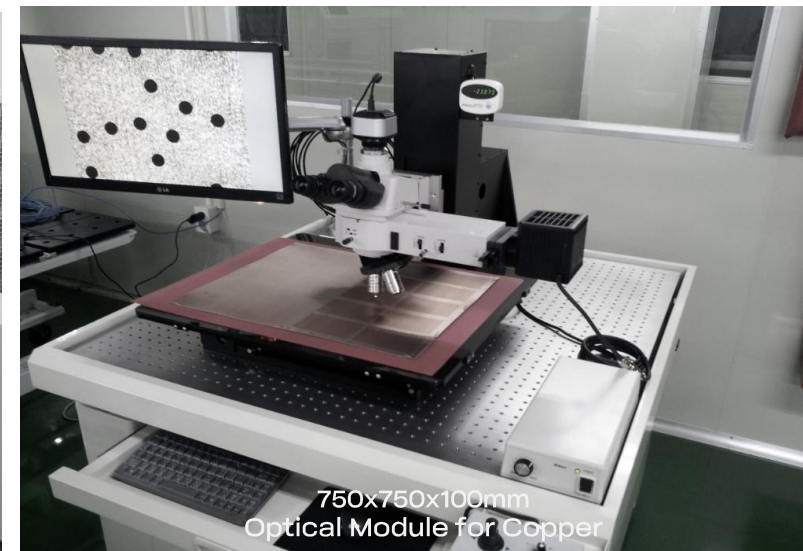
750x750x100mm
Optical Module for Metal Mesh



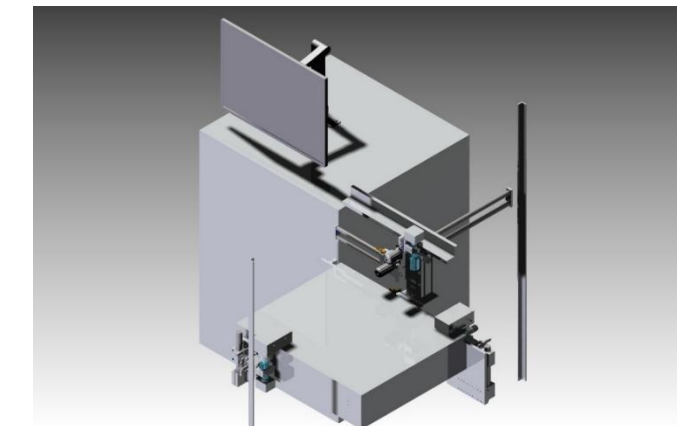
800x600x100mm
Interferometer(WSI) for LCD



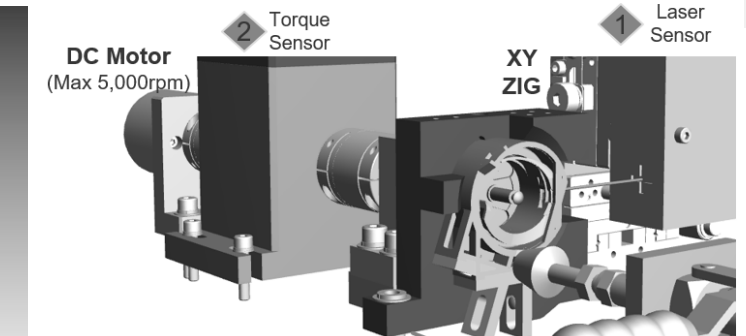
600x600x100mm
Optical Module for ITO



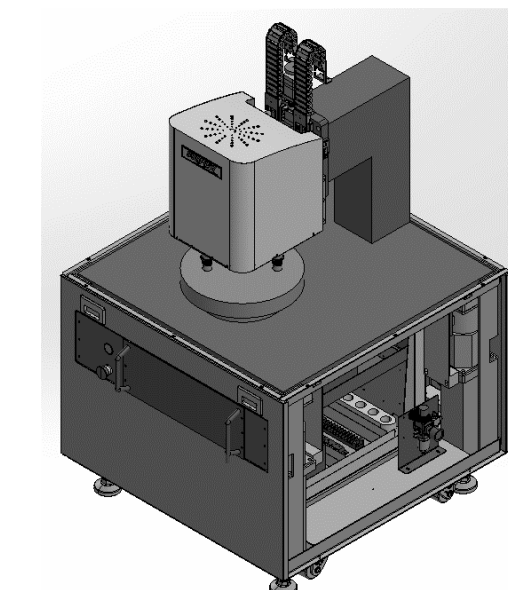
750x750x100mm
Optical Module for Copper



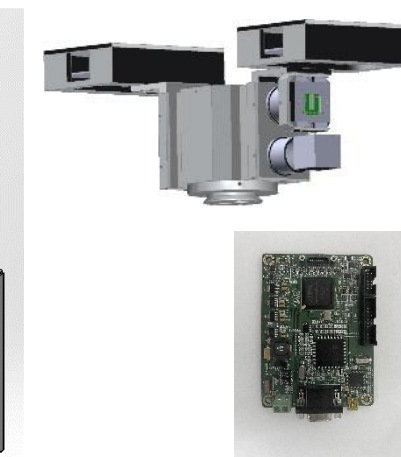
Roll to Roll Align



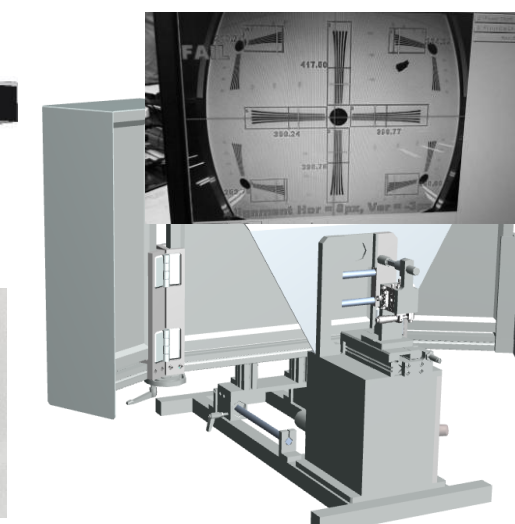
Bobbin Case Lock
(위치수정예정) □ Measuring System 3D Lay-out
Bobin Auto Measurement



Wafer Warpage Check(SK)



VR Module & PCB
for Microscope



Mobile Len Align

WE'D LOVE TO HEAR FROM YOU



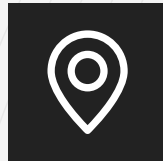
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