

# HAA OPTICS CO.,LTD.

**Do you have ESD/ESA problem at electronics device visual inspection process?**

Being Movable to target position, magnifier lens for free arm stay without any fluctuation (sway). This HAA unique technology.



HAA introduces new ESD/ESA safe magnifier with LED illumination. Current products cannot change dissipative surface resistance for magnifier lens and other parts. However, HAA developed dissipative surface resistance optical lens and others by our patent technology. This dissipative resistance range is under IEC 61340-5-1 /5-2 recommendation.

## ESD/ESA-SAFE illuminated Magnifier

### Model

**ESKK-B**

"Table stand type"

**ESKK-F**

"Free arm type"

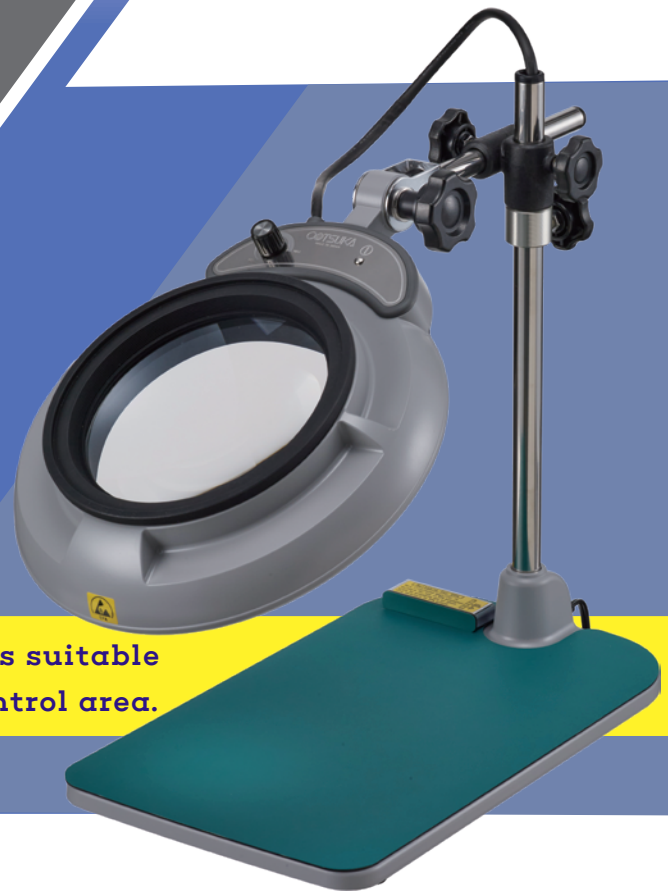
**ESKK-CF**

"Compact free arm type"

## What is ESD-SAFE?

Note: ESD/ESA Safe is protect electrostatic discharge for electronics device and also control electrostatic particle attraction. These products are compatible for EPA (Electrostatic Protection Area) and Clean Room.

**Table Stand Type is suitable for contamination control area.**



## Specification

Surface voltage	Less than 5V for main components (RH : More than 45%) Note : Unit must be connected ESD/EPA ground.
Ground Connector	5 slots of banana plug receptacle as EBP at EPA. Note : Note : This is patented.
Light source	10W High Color Rendering White LED, Integrated LED lamp and cover.
Dimmable Function	Dimmable Function: 10 to 100% (Stepless Adjustment)
Magnification	Magnification: X2, X3, X4 (ESD/ESA safe interchangeable lens)

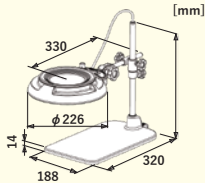
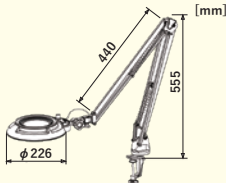
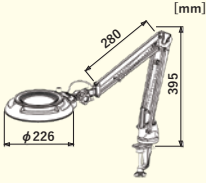
**HAA OPTICS CO.,LTD.**

7F, 3-15-6, Nishigotanda, Shinagawa-ku, Tokyo, 141-0031, Japan

**Contact Us**

+81-3-6417-4895

info@haa-op.com

Model	ESKK-B	ESKK-F	ESKK-CF
Out Looking Dimensions			
Surface Resistance	Less than dissipative range ( $\leq E11$ ), IEC-61340 5-1 Standards compliance		
Surface Voltage	Less than 5V for main components (RH : More than 45%) Note : Unit must be connected ESD/EPA ground.		
Lens Lineup	No lens, 2X, 3X, 4X		
Light source	High Color Rendering White LED, ( $Ra \geq 90$ )		
Line Voltage	Line Voltage (AC/DC Adaptor): AC 100 to 240V, 50/60Hz AC power cord (Choice): A plug (American type, 100 to 125V) SE plug (EU type, 240V) BF plug (British type, 240V)		
Power Consumption	10w		
Dimmable Function	Available 100 - 約 10%		
Weight(W/O lens)	2.2kg	2.8kg	2.5kg
Intensity of Illuminance	2X (W.D.=160mm)	Ma x : 4700      Min:240 (Lx) ※	
	3X (W.D.=130mm)	Ma x : 5800      Min:300 (Lx) ※	
	4X (W.D.=110mm)	Ma x : 6500      Min:330 (Lx) ※	

※Intensity of Illuminance is sampling measurement value, not guaranteed performance.

### Option & Parts

#### ESD safe lens cover TYPE:ESDLC



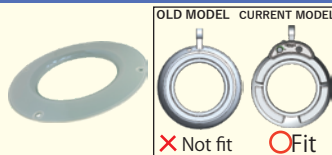
This cover is also made by dissipative material and protect fire by illumination flux convergence.

#### ESD/ESA safe replacement lens TYPE:ESDICL+Magnification



First step ESD/ESA solution for current products.

#### ESD/ESA safe diffuser plate TYPE:ESDDP



First step ESD/ESA solution for current products.

#### Dissipative Sleeve for free arm TYPE:ESDSV



This is not only ESD control but also Contamination control.

#### ESD safe matt (for B type) TYPE:ESDBM



First step ESD solution for current products.

#### Ground cord (for ESD safe matt) TYPE:ESDBMEC



L=2,000mm  
Note: This cable have not 1M $\Omega$  resistance

#### Ground cord TYPE:ESDECC1800



Connecting ESD ground  
Note: This cable have not 1M $\Omega$  resistance.

#### L300 extension bar for B Type TYPE:YB300



This can 140mm extend lens unit.  
Good for long length items inspection.



<https://www.haa-op.com>