

High Quality A3/B size Color Image Scanner

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Abstract

Today, the Color Image Scanner is expanding its market and application due to the influence of high performance CPUs, the Internet, easy-to-use application software, etc.

EPSON has developed a high performance Color Image Scanner which features A3/B large-format compatibility and high quality 800dpi optical scanning density. This large-format scanner, called the Expression 836 XL in USA, (the ES-8000 in Japan, the GT-12000 in Europe) has several functions for various kinds of scanning applications.

In my presentation, along with a technical explanation, I will introduce the specifications and functions of the Expression 836 XL. Also, to show the advantages of large-format scanning, I will give examples of system solutions using the Expression 836.

Feature of EPSON's Color Imaging Scanners

The most valuable advantage of EPSON's Color Image Scanner is its basic performance for both capturing quality and capturing speed.

Hardware based image processing realizes high speed image capturing. The following image processing is done with a high speed ASIC.

- CCD line correction
- Shading correction
- Color correction
- Gamma correction
- Smoothing
- Edge enhancement
- Zooming
- Halftoning (Error diffusion, Dither)
- TET (Background removal)
- AAS (Area segmentation)

Precise and well organized optical design realizes the maximum performance of the CCD and high quality image capturing.

- High dynamic range CCD
- Bright and wide focus lens
- High capacity(long life and Xe cold cathode lamp without reflector)
- IR cut filter

The above devices offer:

- High image formation performance
- Excellent color balance
- Uniform capturing quality in the height of all images (from center to edge)

Outline of Product

Expression 836 XL / ES-8000 / GT-12000 is a business and professional flatbed scanner featuring:

- Super A3/B size
- Excellent capturing quality
- High speed image capturing
- Various capturing function
- System extendibility

Specifications

Maximum document size	310mm x 437mm	
Optical resolution	Main scanning	800dpi
	Sub scanning	1600dpi
Output resolution	up to 6400dpi	
Scanning speed	A4/Letter/Legal	10ms/line
	A3/B	15ms/line
Zoom	50 - 200 %	
Gradation	Input(RGB)	12bit
	Output(RGB)	12 or 8 bit
Brightness	7 level	
Gamma correction	Tone-curve	
Color correction	Printers, Monitors, User definition	
Interface	SCSI and Bi-D parallel	
Optional Unit	TPU ADF Film folder	

Capturing Performance

Quality

Dynamic Range :

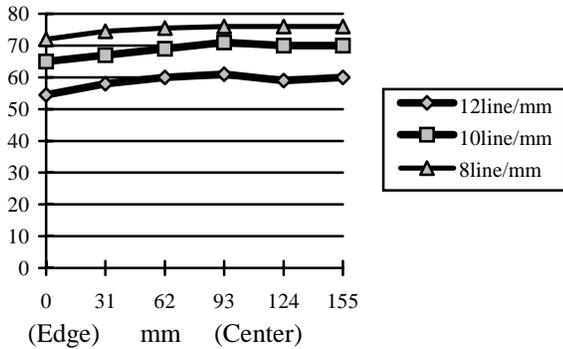
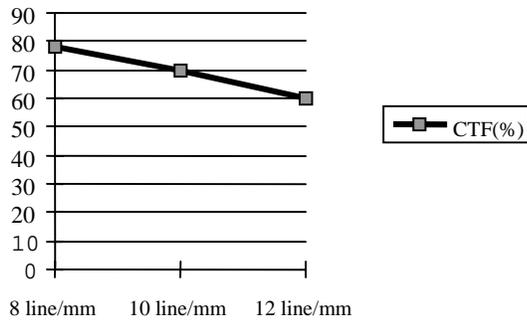
Expression 836 / ES-8000 / GT-12000 is able to distinguish up to 3.3 OD.

Image formation performance :

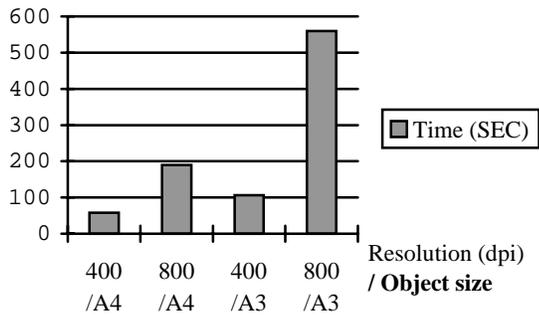
Through the ladder chart capturing test, The Expression 836 / ES-8000 / GT-12000 offers higher and uniform CTF (Contrast Transfer Function).

Capturing Function

To offer easy, high quality capturing from various kinds of captured objects, The Expression 836 / ES-8000 / GT-12000 has the following functions.



Speed (Full color)



Multiple-Marquee and Batch-Scanning

Two or more images can be captured in a batch easily. As for the number of Marquees, it is possible to set it unrestricted, and repetition is also possible. Moreover, it is possible to memorize some set of marquees.

Auto Focus

This function is the first in the world for a flatbed image scanner. The focus is automatically suitable within the range of 6mm from the surface of the document plate.

System Solution

Copy Solution

Combination with EPSON's photo quality inkjet printer (called PM-5000C in Japan) and EPSON's CS-5000 (available only in Japan) offers a color copy solution featuring the highest photo copy and lower TOC.

Network Solution

Also, in combination with EPSON's CS-5000N (available only in Japan) offers a network solution for the Expression 836 / ES-8000 / GT-12000.

Conclusion

The Expression 836 / ES-8000 / GT-12000 combines the hardware based, higher processing speed, well organized design of optical devices and other functions which could enhance high quality capturing. With this product, EPSON is able to offer a high performance product which fulfills professional user's needs.