

*PRELIMINARY*

# TRANSBIT™ SCANNER

35mm Film Scanner/Transmitter  
featuring  
Transbit™ Image Compression

Eastman Kodak Company  
343 State Street  
Rochester, New York 14650

April 19, 1988

Prepared by Pete Sucy

# Scanner/Transmitter Product Requirements

## 1. SCOPE AND INTENT

This document is intended to define the features, functions and performance specifications for the entire scanner/transmitter product. Also the portions of the product to be provided by EPD and those to be provided by the bidding party will be defined. The document will attempt to provide enough detail to support a meaningful bid.

## 2. GENERAL DESCRIPTION

The KodaFax scanner/transmitter consists of a 35mm continuous tone scanner, monitor, keyboard and transmitter in a rugged, portable case compatible with airline carry-on luggage restrictions. The device is suitable for both field and office use.

35mm color or B&W negatives or slides are digitized by the scanner, then displayed on the monitor for real-time cropping, zooming or manipulating the contrast and exposure as desired. During this composition process resolution may be reduced if the digital zoom is employed. When the image is properly composed and ready for transmission, the optical system resets to the zoom and pan settings selected during the compose mode, and the recomposed image is scanned at high resolution for transmission.

In order to keep the transmission times as short as possible the image is compressed using Kodak's proprietary TransBit™ image compression algorithm. This significantly reduces the amount of time required to send an image while causing little or no image degradation.

The transmitter works over standard telephone lines to send compressed images to a digital receiver or uncompressed images to an analog Wirephoto receiver. The transmitter also works over ISDN High-Speed digital phone lines. The transmitter also has interchangeable computer interfaces for interfacing with higher bandwidth transmission equipment, such as communications satellites.

A short annotation may be entered via the keyboard to caption the image.

# Scanner/Transmitter Product Requirements

## 3. INPUT/OUTPUT REQUIREMENTS

### INPUTS

- 35mm size color or B&W slides or negatives (mounted in 2X2 mounts or unmounted in strips from 1 image to a full roll.)  
Other film sizes (TBD)
- TEL. Set USOC RJ-11C modular jack
- Power - detachable cord - 100-240VAC 50/60Hz  
12 Volt Power Input

### OUTPUTS

- TEL. Line USOC RJ-11C modular jack
- Interchangeable Computer Interfaces  
(SCSI, IEEE 488, Centronics, RS-232, etc. as determined by market needs)
- Acoustic Phone Interface - Analog Transmission Only
- Composite Video Output
- RS-170A RGB Output
- Integral Color Monitor  
RGB input  
768 X 480 Resolution  
Small, compact 3.5" to 5" screen
- ISDN Phone Line Interface

# Scanner/Transmitter Product Requirements

## 4. MODES OF OPERATION

### 4.1 COMPOSE MODE

The media is inserted into the device, the prescan button is pressed and the monitor displays the image. White balance, contrast, zoom and pan are all adjusted in whatever order the user desires. The image displayed on the monitor shows the effects of these adjustments in "real time". The monitor has a fixed, rectangular cursor that defines the portion of the image to ultimately be scanned and transmitted.

### 4.2 SCAN MODE

Composition controls are inoperative. The image is scanned based on the settings made in the compose mode. The data is transmitted or downloaded in real time, according to the output settings. When scanning is complete, the device returns to the compose mode.

## 5. USER INTERFACE

The description of user controls below is based on the user interface for the proposed Digitized Pixel Transfer Stand. It would be desirable if possible to have these two products which perform similar functions work in a similar fashion. However, this is only a proposal and is subject to change.

### 5.1 USER CONTROLS (Figure 1)

A proposed user interface for the Scanner/Transmitter based on the proposed interface for the Digitized Pixel Transfer Stand.

# A PROPOSED USER INTERFACE FOR 35mm SCANNER/TRANSMITTER

(Based On Proposed Digitized Pixel Transfer Stand)

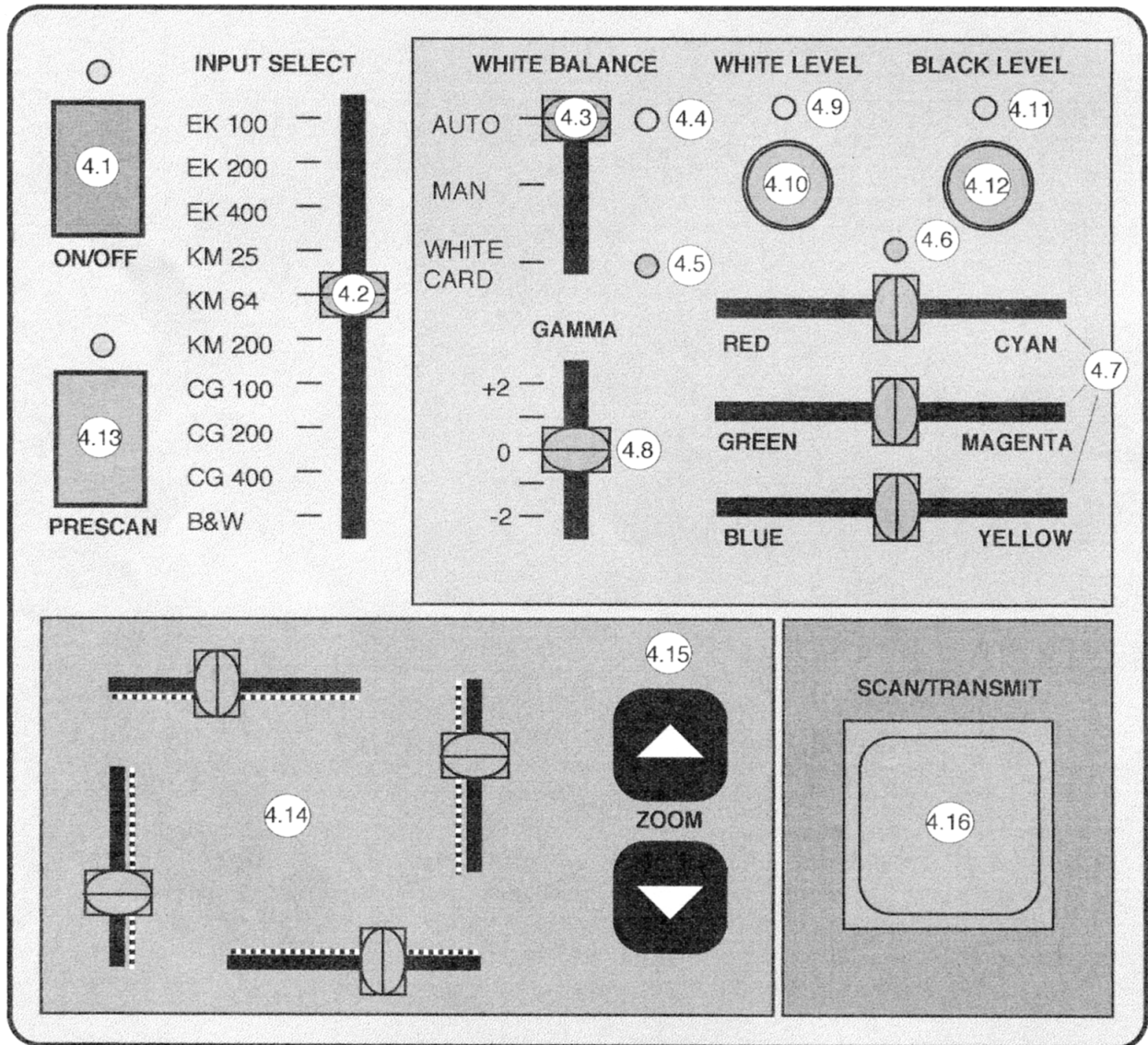
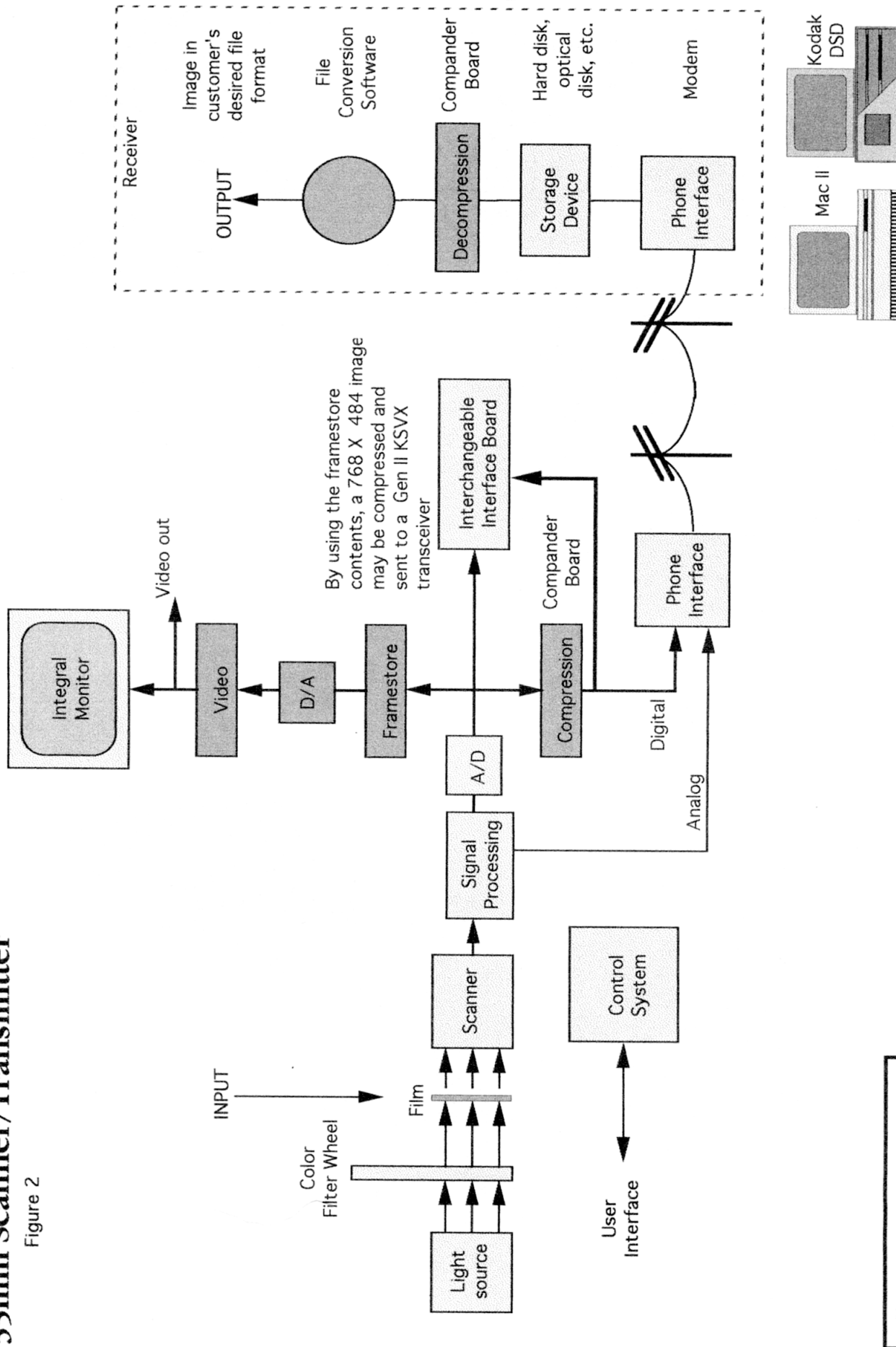


FIGURE 1

# 35mm Scanner/Transmitter

Figure 2



All of the above components could be bundled into a turnkey system based on a PC such as the Mac II or the Kodak Gen. II Digital Storage Device could be configured with the necessary boards.

