

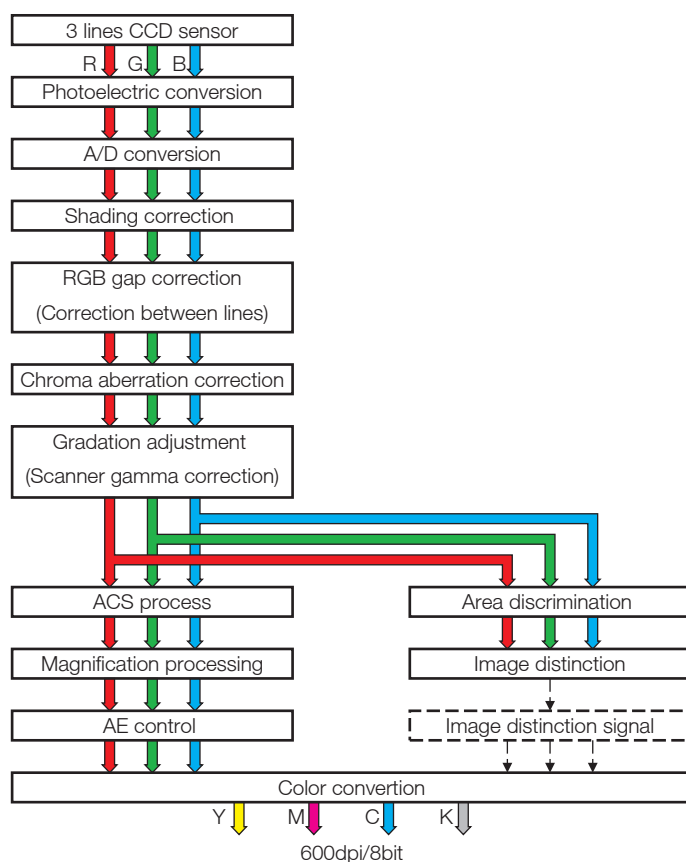
## O THEORY OF OPERATION bizhub PRESS C7000/C7000P/C6000

### 17. IMAGE PROCESSING SECTION

#### 17.1 Image processing in the scanner section

##### 17.1.1 Image processing flow in the scanner section

- The image process flow of the scanner section is shown below. (C7000, C6000 only)



##### 17.1.2 Photoelectric conversion

- The condensed color CCD sensor converts the reflection from the original into the digital signal.

##### 17.1.3 A/D conversion

- It combines the analog signal outputted from CCD into the 10bit digital signal.

##### 17.1.4 Shading correction

- This is a measure to obtain an even distribution from light of the CCD. It corrects the reading unevenness caused by the uneven sensitivity of each pixel of the CCD sensor or the uneven lighting of the exposure lamp.

##### 17.1.5 RGB gap correction

- Corrects the position difference of each RGB chip of the CCD sensor.

##### 17.1.6 Chroma aberration correction

- It corrects the chroma aberration of the lens used by scanner.

##### 17.1.7 Gradation adjustment

- Selects the density curve corresponding to the density value set in the quality adjustment on the operation panel.
- Set the proper density curve corresponding to the setting value of the text/photo distinction and color text distinction.

##### 17.1.8 Area discrimination

- To make a copy of the original under the correct condition (to make a correct filter processing), check the read section to see if it is a character or a dot picture, and use the results at the control section of the unit at the later stage.

##### 17.1.9 Image distinction

- A scanned image type is classified as text, dots, solid or chroma and the result is used for later control process.

**17.1.10 ACS processing**

- Judges whether the original is color or black-and-white.

**17.1.11 Magnification processing**

- The main scan direction magnification is made by processing images electrically.
- The sub scan direction magnification is roughly made by processing images electrically, and precise magnification is made by changing the scan speed of the exposure unit (original glass mode).

**17.1.12 AE control**

- The output density is automatically corrected to the value suited to the original density by the AE control.

**17.1.13 Color conversion**

- Converts the RGB data into each density data in YMCK.