

## MEASUREMENT SPECIFICATIONS OF VK-S654R SERIES

### [A] Standard measurement condition

#### (1). Standard test conditions

Measure all characteristics (except those otherwise specified) under the conditions shown below.

( For measurement correlation purposes with the vendor, ambient test conditions for this spec will be as follows: )

1. Power voltage : DC 9~12±0.5V
2. Ambient temperature : 20±5°C
3. Relative humidity : 65±5%
4. Heat-up time : more than 5 min
5. Measuring instruments and jigs :
  - a). Camera jig (“VIDEO line” and “DC line” is through.  
“RS-232C level” converts from 5Vp-p to 12Vp-p.)
  - b). DC 9V±5% power supply
  - c). Underscanned color monitor : CMM20 [ShibaSoku] or equivalent
  - d). B/W monitor (more than 600TVL Horizontal Resolution)
  - e). Waveform/Vector monitor : 1735/1725 [Tektronix] or equivalent (NTSC)  
1741 [Tektronix] or equivalent (PAL)
  - f). Video noise (S/N) meter : VN31AX [ShibaSoku] or equivalent
  - g). Illumination meter : IM-3 [Tokyo Optical] or equivalent
  - h). Color temp. meter : CL-100 [Minolta Camera] or equivalent
  - i). Test chart :
    - <Transparent type> · the Gray Scale chart\*  
(with 3 color (R, Ye, Cy) chips) [Dai Nippon Printing]
    - the Retoma (resolution) chart [Dai Nippon Printing]
    - <Reflective type> · the Gray Scale chart\* [Murakami Shikisai]  
(reflectance of white area : 89.9%)
    - the Standard White chart [Murakami Shikisai]

NOTE : “\*”: Logarithmic gray scale chart with two horizontal rows of 11 grey scale chips and a white reference chip in the center. (GAMMA:2.2)

j). Light source :

<Light box> - DNP Standard Color Viewer (Model-V)

Color temp. ;  $5100 \pm 100\text{K}$

Use-Lamp ; Fluorescent lamp-10W×4 (inverter type)

Rating ; 100V-80W [Dai Nippon Printing]

<Incandescent light> - Video Light 1500 (Model-L2371)

Color temp. ;  $3100 \pm 100\text{K}$

Use-Lamp ; Tungsten halogen lamp-500W

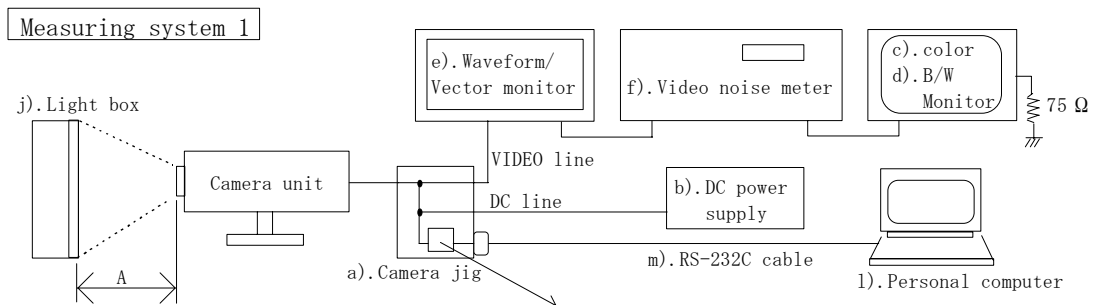
Rating ; 100V-500W [LPL]

k). Voltage regulator (0~240V)

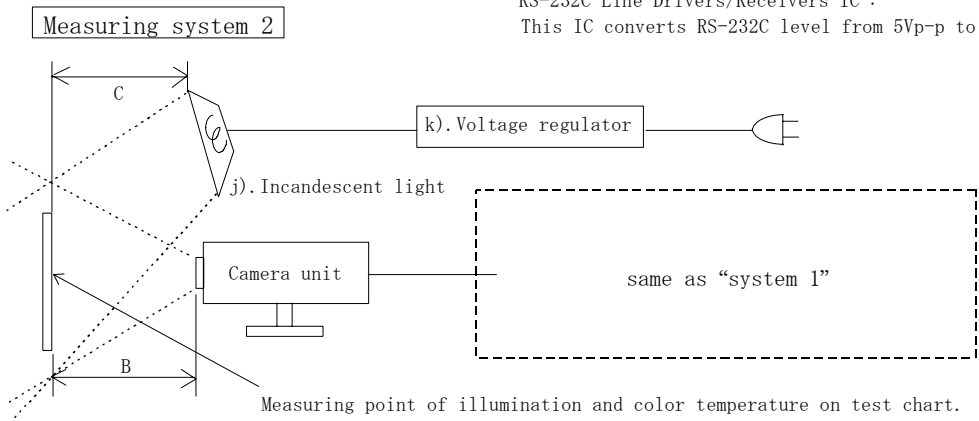
l). Personal computer (with serial port)

m). RS-232C cable

(2). Standard measuring systems



"RS-232C Line Drivers/Receivers IC":  
This IC converts RS-232C level from 5Vp-p to 12Vp-p.



Note : The intensity of illumination of the chart should be  $2000 \pm 100 \text{ lx}$   
and unevenness within 5 %.

<Minimum level of illumination of the object (Sensitivity)>

1. Test conditions:
  - Standard test conditions (Refer to Page. -1-)
  - Standard measuring systems 2 (Refer to Page. -2-)
2. Procedure:
  - ①. Aim the camera at the gray scale chart, and zooming wide by key operation on the personal computer.  
Next, locate the camera so that the size of the chart becomes less than a quarter of whole underscanned monitor screen.  
(Adjust the distance "B" between the chart and the camera.)
  - ②. Adjust the brightness of the incandescent light source using the voltage regulator so that the maximum white peak level of the output video signal becomes 50 IRE (NTSC) [350mV (PAL)] on the waveform monitor (FLAT mode).
  - ③. Set the illumination meter in front of the white area of the gray scale within one-inch distance from the chart, and face straightly the sensing area of illumination meter to the camera.
  - ④. Measure the level of illumination using the illumination meter.
3. Specification [LENS-F:F1.2(wide)]:
  - NTSC: less than 1.0 lx [Pro. AE+ mode:1/60s, at AGC\_MAX gain]
  - PAL : less than 1.0 lx [Pro. AE+ mode:1/50s, at AGC\_MAX gain]
4. Note: In the procedure "②", adjust the distance "C" between the chart and the incandescent light source in case of exceeding the color temperature range from 2500K to 3000K.