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	SHARP CORPORATION	
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SPECIF	YH-7S50 ; NTSC YH-7S60 ; NTSC(with n	nicrophone)
SPECIF	YH-7S50 ; NTSC YH-7S60 ; NTSC(with n YH-8S50 ; PAL	nicrophone)
SPECIF	YH-7S50 ; NTSC YH-7S60 ; NTSC(with n YH-8S50 ; PAL	nicrophone)
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# **RECORDS OF REVISION**

SPEC No.	DATE	REVISED		SUMMARY	NOTE
		No.	PAGE	1 1 1	
YH-7S50-01	July.24.1997	01			1st issue
YH-7S50-02	Sept.12.1997	02	1	2.5) Changing of connector	2 <sup>nd</sup> issue
YH-7S50-03	Oct.24.1997	03	2	Resolution	3 <sup>rd</sup> issue
				280 TV lines into 300 TV lines	
				SN ratio	
				≧ 46dB into ≧43dB	
				weight TBD to approx.200g	
			7	Changing of drawing	
			8	Adding of drawing	
			9	Adding of drawing	
			10	Adding of drawing	
YH-7S50-04	Nov.14.1997	04	1,2	Changing of Iris control	
				NTSC;1/100 into 1/120	
				PAL; 1/120 into 1/100	
			5	Adding Notes	
				6) Don't touch lens.	
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# 1. Application

This document describes the specifications of Color CCD Camera to be supplied to \_\_\_\_\_\_.

All figures described in this document are based on the conditions that the camera is used under \*normal operating temperature, normal operating humidity.

\*Normal operating temperature ; +20 ~ +25 $^{\circ}$ C

\*Normal operating humidity ; 65±5%RH

The monitor to be used shall be standard monitor.

Model No.	TV system	Output signal	Iris control	<b>Built-in microphone</b>
YH-7S50	NTSC	Composite	Electronic Exposure (EE)	
YH-7S60			1/120 sec.(fixed)	0
YH-8S50	PAL			
YH-8S60			1/100 sec.(fixed)	0

# 2. General Description

This color CCD camera incorporates 1/4-inch CCD with following characteristics: 1) Hunting free

- 2) Focus ; manual adjustable
- 3) Structure ; Soft base with tilt adjustment
- 4) Output signal ; Composite

# 5) Integrated connecting cable

Connector	(Audio,Video)
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Model No.	Connector
YH-7S50	RCA pin jack(Video)
YH-7S60	RCA pin jack(Video) 1/8"mini-jack(Audio)
YH-8S50	RCA pin jack(Video)
YH-8S60	RCA pin jack(Video) 1/8"mini-jack(Audio)

• DC power supply ; DC plug male type

¢2.5 x ¢5.5 x 9.5

(+)

Cable and connector configuration, please see the page later.

- 6) Iris control; EE type
- 7) White balance; Auto (TTL auto tracing white balance)

# 9) Built-in microphone

- Microphone type;No-directiity electret condensor microphone
- Output voltage(built-in);150mVrms±6dB (input;0.1 Pa at 1KHz)
- Output impedance;  $1K\Omega \pm 30\%$
- · S/N ratio (built-in);≧36dB(input;0.2 Pa at 1KHz,weighting filter A)
- Frequency response;<7KHz(-3dB/1KHz)

TV system	NTSC	PAL									
Image sensor	1/4"Inter-line	transfer CCD									
Total pixels	542(H)x492(V)(Total;270K)	542(H)x582(V)(Total:320K)									
Effective pixels	512(H)x492(V)(Total;250K)	512(H)x582(V)(Total;300K)									
Resolution	Horizontal : 300 TV lines	Horizontal : 300 TV lines									
Distance from chart to camera : 70cm											
Focus	manual adjustable (30mm to infinity)										
S/N ratio	≧43dB										
	Condition: AGC off										
	High pass filter 1	0KHz									
	Fsc trap										
	Weighting filter o	n									
	Low pass filter(N	TSC;4.2MHz,PAL;5.0KHz)									
· · · · · · · · · · · · · · · · · · ·	Light shield										
Minimum illumination	≦20 lx										
	Condition: ITE gray scale ct	· · · · ·									
	Y signal amplitude 350mV										
White balance	TTL auto tracing white balan										
Iris control	1/120 sec.(fixed) 1/100 sec.(fixed										
Gamma correction	approx.0.6										
Auto gain control	Auto										
Sub-carrier frequency	3.579545MHz±200Hz	4.43361875MHz±200Hz									
Sync. system	Internal only										
Output video signal											
Composite type	1.0Vp-p/75Ω	1.0Vp-p/75Ω									
<ul> <li>Y signal amplitude</li> </ul>	714mV±100mV	700mV±100mV									
*(Condition 1)											
Color signal*(Condition 2)											
R amplitude	88.25 IRE±25%	94.8 IRE±25%									
R phase	103.4 ° ± 15	103.4 ° ±15									
B amplitude	62.2 IRE±25%	67.2 IRE±25%									
B phase	347.1 ° ±15	347.1 ° ±15									
Sync.amplitude	286mV±80mV	300mV±80mV									
Burst amplitude	286mV±90mV	300mV±90mV									
Lens											
focal length		approx.3.8mm(fixed)									
Fnumber	appro										
viewing angle	Horizontal:approx.51 °	Vertical :approx.39 °									
TV distortion		k.0.5%									
DC power supply		27.0V,≦1.8W									
Operating temperature		+40 ° C									
Storage temperature	-20 to -	+60 ° C									
Case size	86(W) x65(H) x50(D)	mm (without cable)									
Weight		x.200g									

\*Condition 2:

.

a

The gray scale chart(Gamma=1.0)

Exclusive color chart (YH-7787-03-4) Line select ; 141 lines (NTSC),166lines(PAL) Y (white) amplitude ; 714mV (NTSC),700mV(PAL) Color temp ; 5,100° K



4 Reliability Tests

Unless otherwise stated, the following reliability tests are conducted (sampling base) to confirm the reliability of the camera in the testing room kept in normal temp. and humidity.

1) Low temp. storage test

To prove that the camera shows no abnormal operation and function after it is stored at ambient temp. of  $-20^{\circ}$ C for 24H and then left at room temp. for 2H min.

2) Low temp. operation test

To prove that the camera normally operates for continuously 5H at the ambient temp. of -10°C.

3) High temp. storage test

To prove that the camera shows no abnormal operation and function after it is stored at ambient temp. of  $60^{\circ}$ C for 24H and then left at room temp. for 2H min.

4) High temp. operation test

To prove that the camera normally operates for continuously 5H at the ambient temp. of  $40^{\circ}$ C.

# 5) Temp. cycle test

To prove that the camera shows no abnormal operation and function during 5 cycles as stipulated in the following pattern and, then 2H storage at room temp.



#### 6) High humidity test

To prove that the camera shows no abnormal operation and function after the camera has been operated for 24H at ambient temp. of  $30^{\circ}$ C and relative humidity of  $90^{\circ}$ RH, and take out from test chamber with water drop removed.

#### 7) Vibration test for unpackaged unit

To prove that the camera shows no abnormal operation and function after vibration test under the condition of 10~55~10Hz/min. at acceleration speed 3.6G and up/down for 4H and left/right for 2H and back/forward for 2H.

8) Shock test

Three successive shocks shall be applied in both direction of 3 mutually perpendicular axes (a total of 18 shocks).

Peak acceleration : 50G, Duration of pulse : 10msec

5. Pixel Defect

Number of defective pixels not more than 10

Condition:

Temperature 25°C Shield the light AGC off Standard monitor (NTSC/PAL)

\*10 pixels in both horizontal edges and 9 pixels in both vertical edges shall be disregarded as a void area.

6. Operating manual; Not included

## 7. Precautions & Notes

1) Do not shoot at direct sunlight.

The display picture disappears in case of shooting at direct sunlight.

- 2) Care shall be used not to damage the camera during installation or removed of the extension cable.
- 3) These products are made specifically for indoor use. (Office and ordinary home-use environment.)
- 4) Since EMI and CE vary depending on various systems, these agency approvals need to be taken at customer side.

5) Any agency approval for safety is not applicable to this color CCD camera.

Please note that Sharp cannot guarantee the performance and quality under any use other than the conditions stated above, such as circumstances where vibrations are constant as in a moving vehicle, where shocks may occur as in a moving vehicle or where shocks exceed ordinary house-hold or office use.

6) Don't touch lens.

Keep lens away from dirt and dust.

Please don't touch lens. Cause it's made from plastic, it's scratched easily. In case of dust sticking, please blow it off in blower and never touch lens. As lens is spoiled, use of the solvent such as alcohol is strict prohibition.





Master carton

YH-7S50-04-10









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YH-7S50-03-8

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