

PREPARED BY _____ DATE _____	SHARP APPLIANCE SYSTEMS GROUP SHARP CORPORATION SPECIFICATION	FILE NO. YH-7888-03
APPROVED BY _____ DATE _____		ISSUE Aug. 5, 1996
		PAGE 11 Pages
		APPLICABLE DIVISION YAO PLANT APPLIANCE SYSTEMS GROUP

Model No.

SPECIFICATION FOR COLOR CCD CAMERA

YH-7B58 ; NTSC

YH-7B68 ; NTSC (with microphone)

YH-8B58 ; PAL

YH-8B68 ; PAL (with microphone)

CUSTOMER'S APPROVAL

DATE _____

PRESENTED

BY H. Madono

H. Madono

General Manager

House Electronics Business Promotion Dept.

Appliance Systems Group

SHARP CORPORATION

Not Recommended for New Design

- Handle this document carefully for it contains material protected by international copyright law. Any reproduction, full or in part, of this material is prohibited without the express written permission of the company.
- When using the products covered herein, please observe the conditions and the precautions written herein. In no event shall the company be liable for any damages resulting from failure to strictly adhere to these conditions and precautions.
- Those contemplating using the products which demands high reliability, should accept responsibility for incorporating into the design fail-safe operation, redundancy, and other appropriate measures for ensuring reliability and safety of the equipment and the overall system.
- Do not use the products covered herein for the following equipment which demands extremely high performance in terms of functionality, reliability, or accuracy.
 - Aerospace equipment
 - Communications equipment for trunk lines
 - Control equipment for the nuclear power industry
 - Medical equipment related to life support, etc.
- Please direct all queries regarding the products covered herein to a sales representative of the company

RECORDS OF REVISION

SPEC No.	DATE	REVISED No.	PAGE	SUMMARY	NOTE
YH-7787-01		01			1st issue
YH-7787-02	Feb.28.1996	02	1	1. Adding of YH-7B67/YH-8B67 2.4) same as above 2.8) Adding of audio spec.	
			2	Deletion of maximum illumination DC power supply $\leq 500\text{mA}$ to $\leq 2\text{W}$ weight TBD to approx. 190g Horizontal resolution 300TV lines to 310 TV lines	
			7	Changing of drawings	
			8	Packaging spec. change	
YH-7787-03	May.10.1996	03	1	Iris control Adding of electric shutter time 1/100 sec. (YH-7B57/YH-7B67) 1/120 sec. (YH-8B57/YH-8B67)	
			2	Iris control Adding of electric shutter time Case size Deletion of (excluding tilt stand) 74(w) × 28(H) × 87(D) mm → 74(W) × 58(H) × 93(D) mm	
			8	Changing of drawing	
			9	Changing of drawing	
			10	Master carton Weight 7.0kg → 5.5kg Size 171(H) → 181(H)	
YH-7787-04	May.23.1996	04	1	2.8) audio spec. change	

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°C

*Normal operating humidity ; 65 ± 5%RH

The monitor to be used shall be standard monitor.

Model No.	TV system	Output signal	Iris control	Built-in microphone
YH-7B57	NTSC	Composite	Electronic Exposure (EE)	—
YH-7B67			1/100 sec.(fixed)	○
YH-8B57	PAL		Electronic Exposure (EE)	—
YH-8B67			1/120 sec.(fixed)	○

2. General Description

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

1) Focus ; manual adjustable

2) Structure ; Tilt base(up)45° ,(down)15°

3) Output signal; Composite

4) Connector (Audio,Video)

Model No.	Connector
YH-7B57	RCA pin jack (video)
YH-7B67	RCA pin jack x 2 (video,audio)
YH-8B57	RCA pin jack (video)
YH-8B67	RCA pin jack x 2 (video,audio)

DC power supply; power jack (EIAJ type A-2)
refer to see attached drawing (page YH-7787-04-7)

5) Iris control; EE type

6) White balance; Auto (TTL auto tracing white balance)

7) Contrast control; Adjustable contrast (up/down), Backlight compensation

- When power on, contrast level comes to factory preset level.
(NTSC;714mV,PAL;700mV)
- Push "UP" button for level up.
- Push "DOWN" button for level down.

8) Built-in microphone

- Microphone type; No-directivity electret condenser microphone
- Output voltage(built-in); 150mVrms ± 6dB (input;0.1 Pa at 1KHz)
- Output impedance; 1K Ω ± 30%
- S/N ratio (built-in); ≥ 36dB(input;0.2 Pa at 1KHz,weighting filter A)

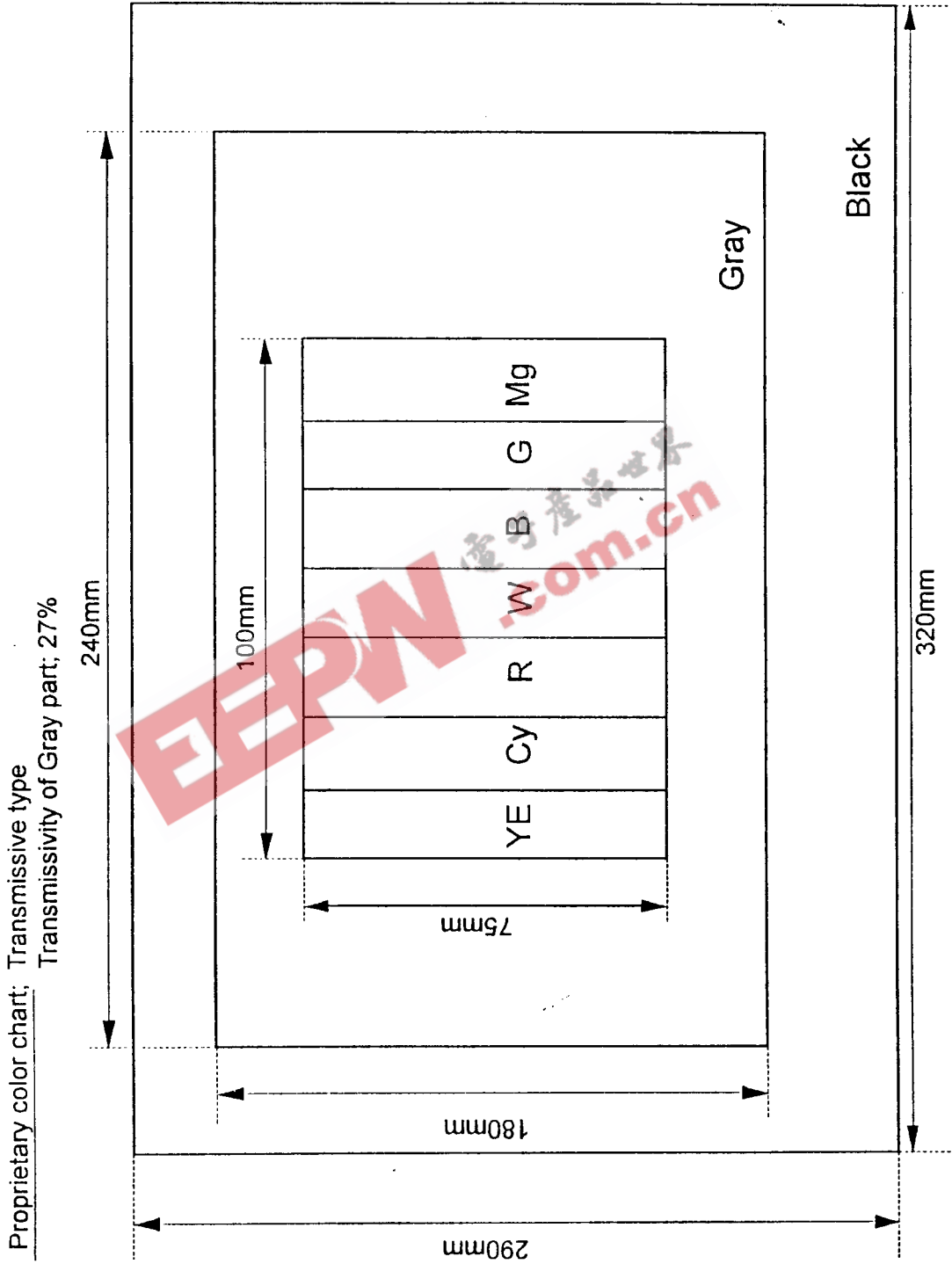
4. Specification

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 : 310 TV lines Vertical : 280 TV lines	Horizontal : 310 TV lines Vertical : 350 TV lines
Distance from chart to camera : 70cm		
Focus	manual adjustable (50mm to infinity)	
S/N ratio	$\geq 46\text{dB}$ Condition: AGC off High pass filter 10KHz Fsc trap Weighting filter on Low pass filter(NTSC;4.2MHz,PAL;5.0KHz) Light shield	
Minimum illumination	$\leq 20\text{ lx}$ Condition: ITE gray scale chart(Gamma=1.0) Y signal amplitude 350mV	
White balance	TTL auto tracing white balance, Range;2,800 to 6,800° K	
Iris control	EE, 1/100 sec. (fixed)	EE, 1/120 sec. (fixed)
Gamma correction	approx.0.6	
Auto gain control	auto only	
Sub-carrier frequency	3.57945MHz \pm 200Hz	4.43361875MHz \pm 200Hz
Sync. system	Internal only	
Output video signal		
Composite type	1.0Vp-p/75 Ω	1.0Vp-p/75 Ω
• Y signal amplitude	714mV \pm 100mV	700mV \pm 100mV
*(Condition 1)		
• Color signal*(Condition 2)		
R amplitude	88.25 IRE \pm 25%	94.8 IRE \pm 25%
R phase	103.4° \pm 15	103.4° \pm 15
B amplitude	62.2 IRE \pm 25%	67.2 IRE \pm 25%
B phase	347.1° \pm 15	347.1° \pm 15
• Sync.amplitude	286mV \pm 80mV	300mV \pm 80mV
• Burst amplitude	286mV \pm 90mV	300mV \pm 90mV
Lens		
focal length	approx.4.3mm(fixed)	
F number	approx.2.4	
viewing angle	Horizontal: approx.46°	Vertical : approx.35°
TV distortion	approx.2%	
DC power supply	DC 4.5V - DC7.0V, \leq 2W	
Operating temperature	-10 to +40° C	
Storage temperature	-20 to +60° C	
Case size	74(W) x58(H) x93(D)mm (without connector)	
Weight	approx.190g	

*Condition 1: ITE_gray scale chart(Gamma=1.0)

*Condition 2: 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

EEPW 电子產品世界
.com.cn



5. 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°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

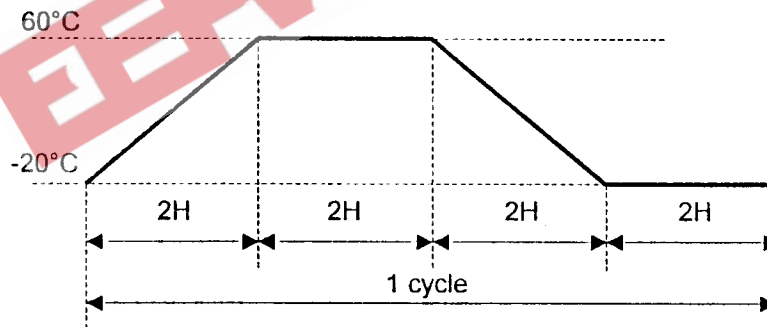
To prove that the camera shows no abnormal operation and function after it is stored at ambient temp. of 60°C for 24H and then left at room temp. for 2H min.

4) High temp. operation test

To prove that the camera normally operates for continuously 5H at the ambient temp. of 40°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°C and relative humidity of 90%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 $10\sim 55\sim 10\text{Hz/min}$. 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

6. 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.

7. Operating manual; Not included

8. 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.

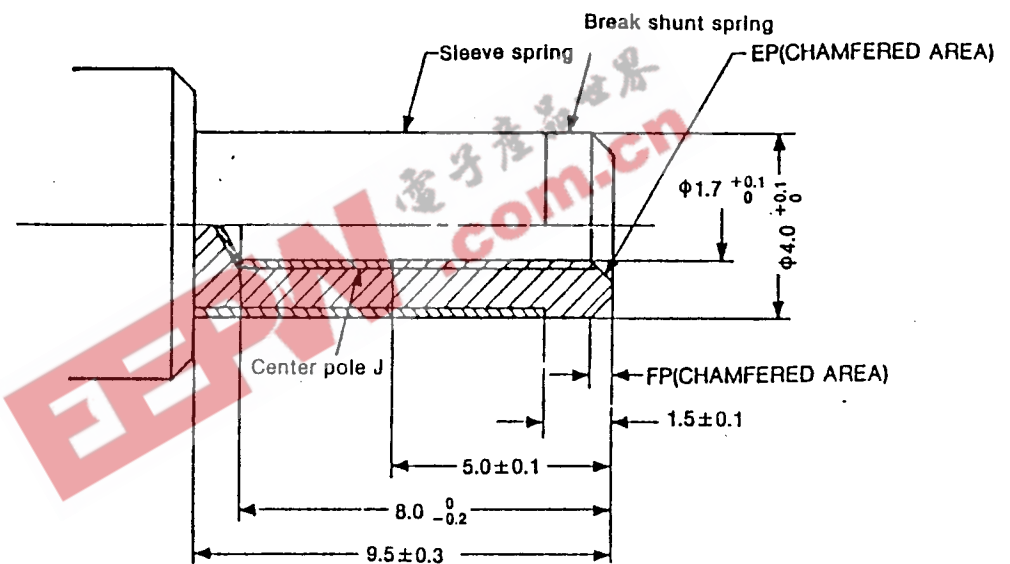
3) These products are made specifically for indoor use.
(Office and ordinary home-use environment.)

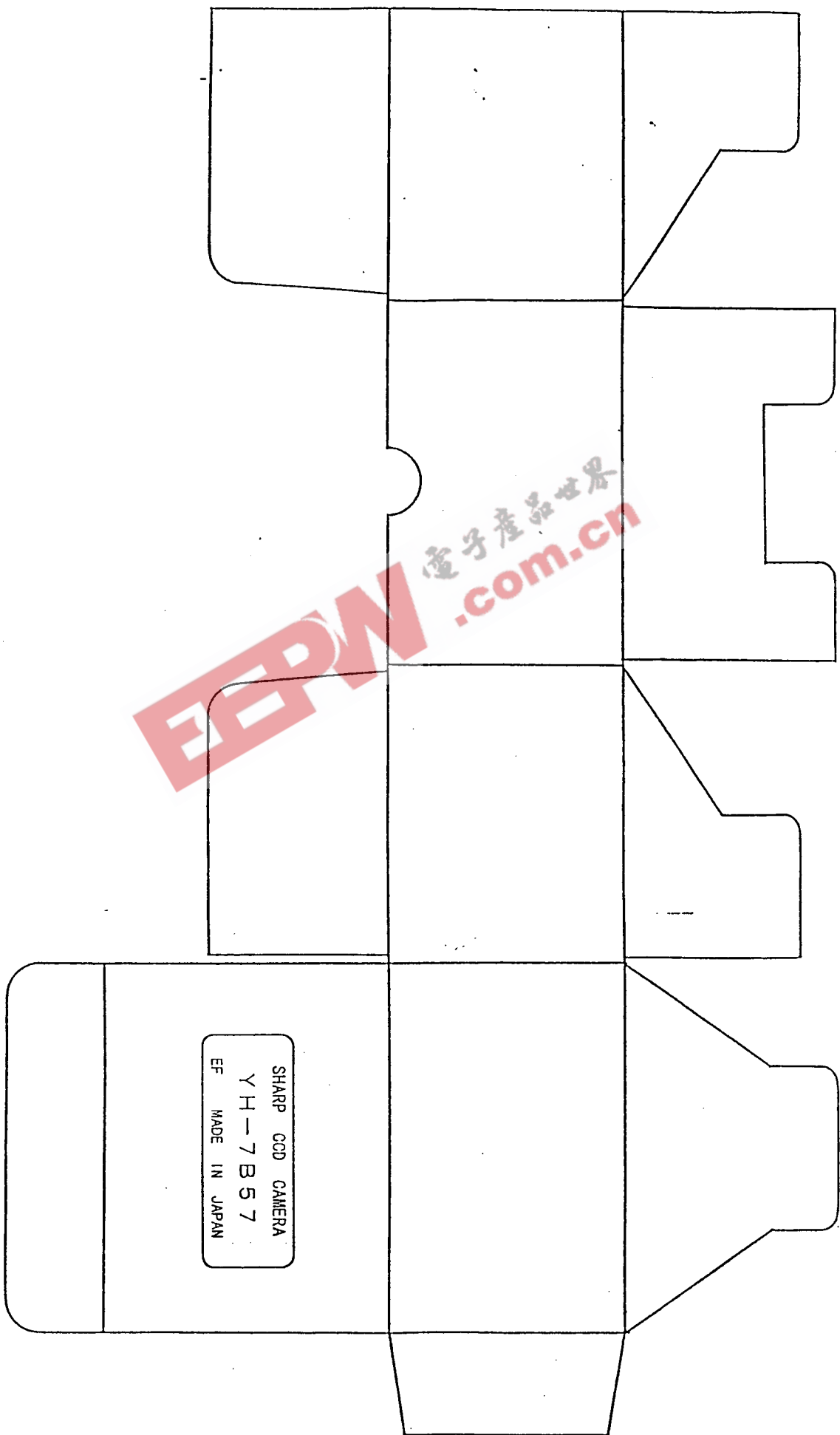
4) Since EMI and CE vary depending on various systems, these agency approvals need to be taken at customer side.

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.

DC POWER SUPPLY MATING PLUG





SHARP CCD CAMERA
YH-7B57
EF MADE IN JAPAN

EPM.com.cn
電子產品世界

HANDLE WITH CARE

SHARP®
COLOR CCD CAMERA



SHARP®
COLOR CCD CAMERA

20PIECES

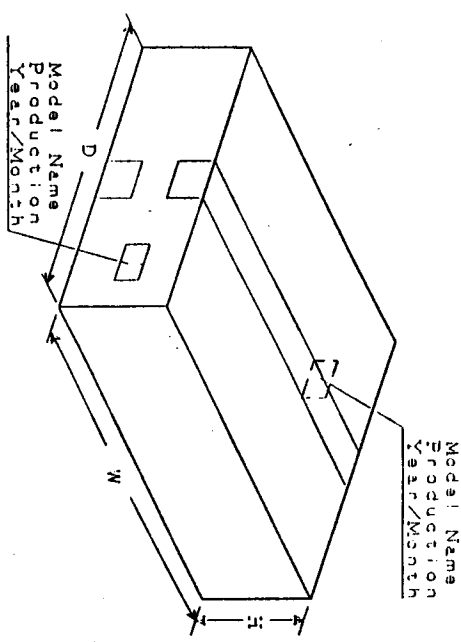
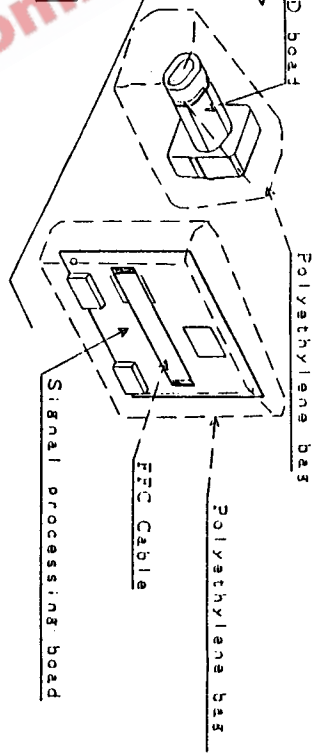
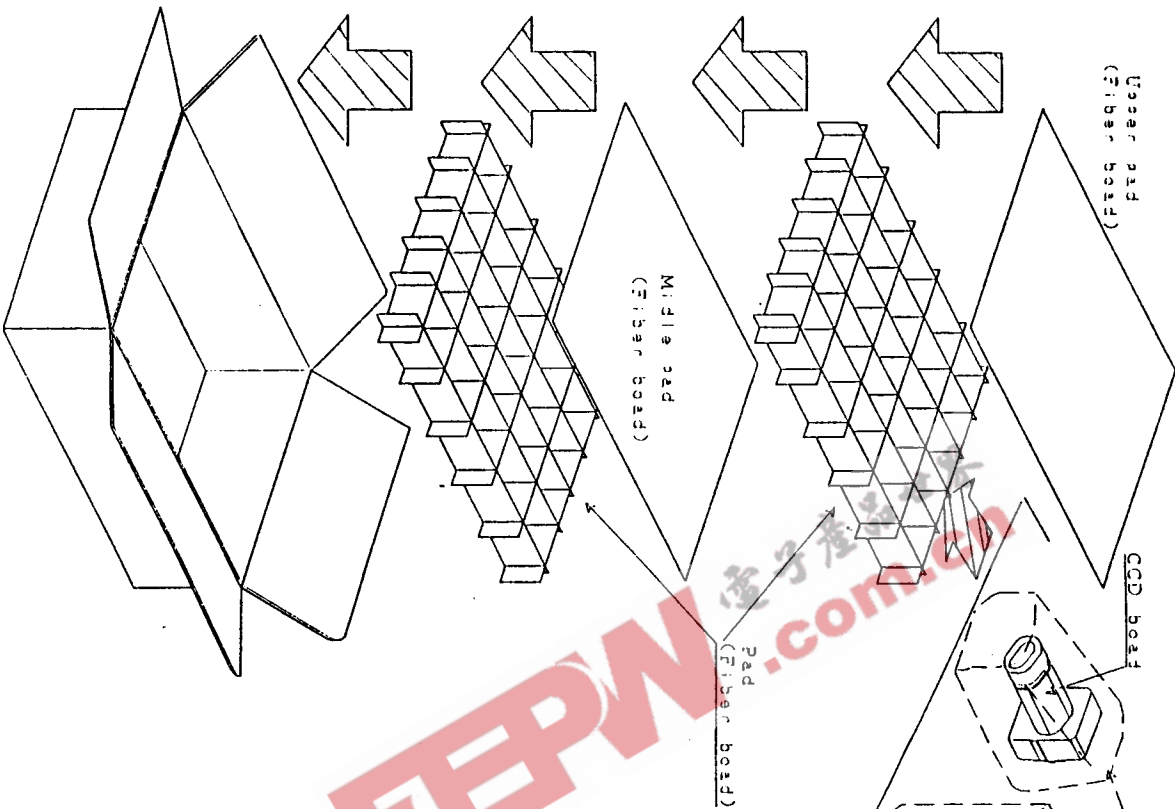


SHARP.
COLOR CCD CAMERA

20PIECES

SHARP CORPORATION
MADE IN JAPAN

PACKAGE SPECIFICATION (Color CCD camera module)



EPW.com.cn

Master caton
 · A-I type (Regular Slotted Container)
 · I-Seal (Double wall corrugated fiberboard)
 · Weight : approx. kg
 · Size : 487(W) X 337(D) X 171(H) mm
 · Quantity : 50 pieces/CTN

PARTS CODE		PROCESS	MATERIAL	FINISH	PACKAGE SPEC.

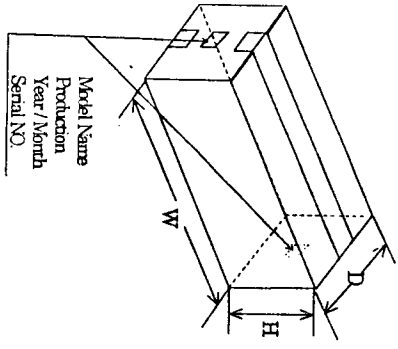
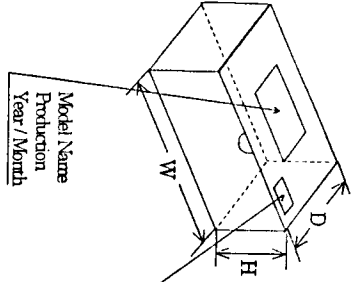
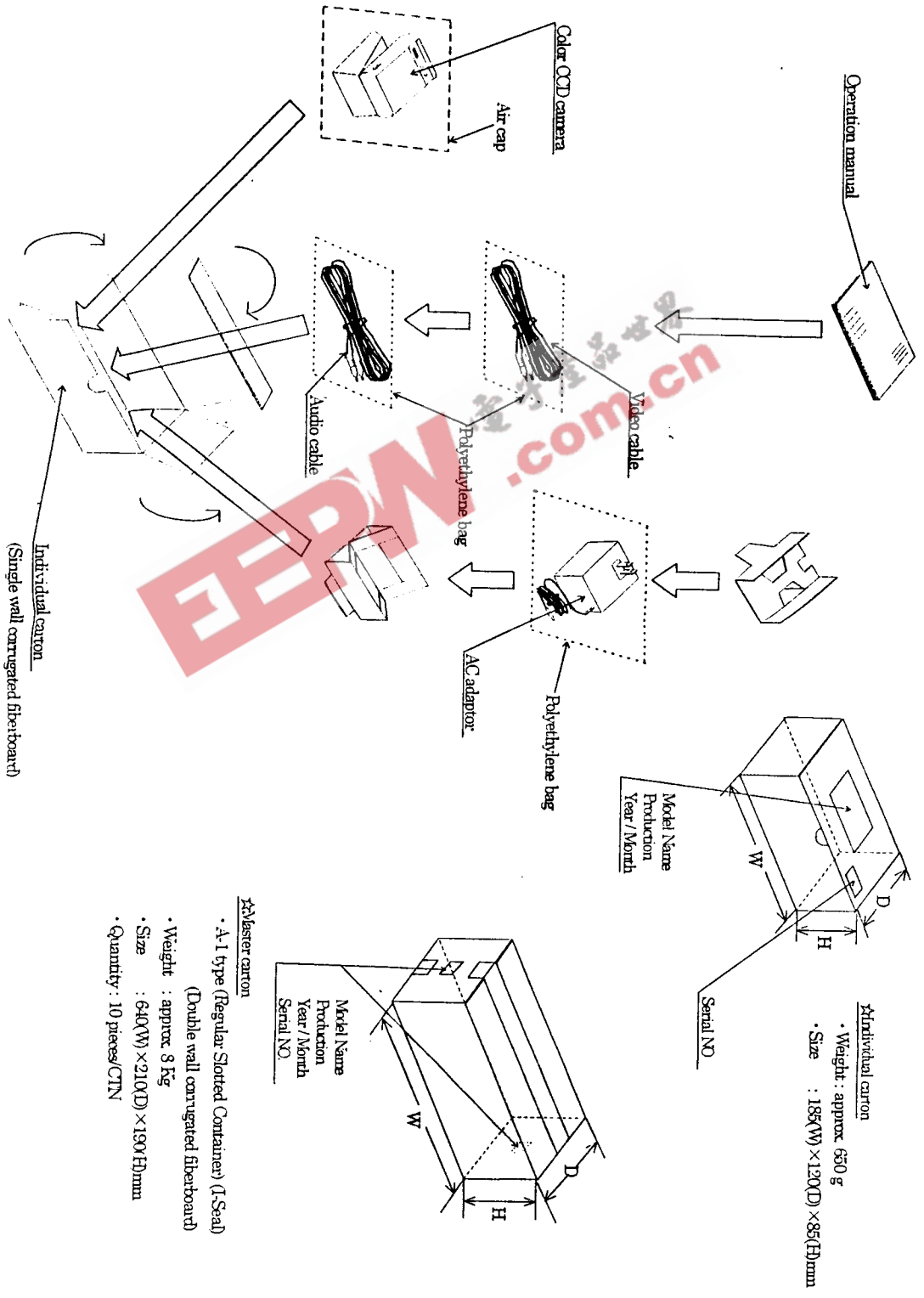
DATE 29 FEB 1988

SHARP BUSINESS SYSTEMS GROUP

DRAWING NO. YH-7882-06-10

SHARP CORPORATION APPLIANCE SYSTEMS GROUP

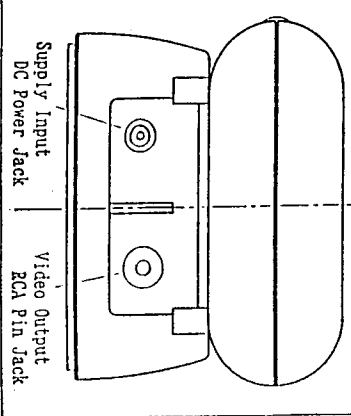
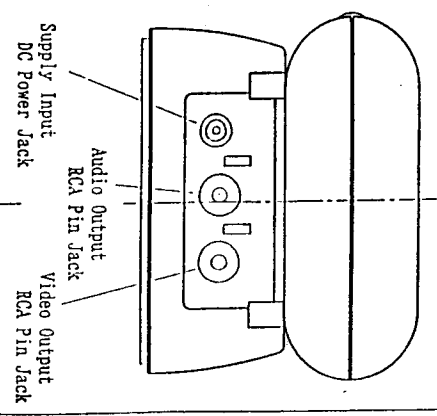
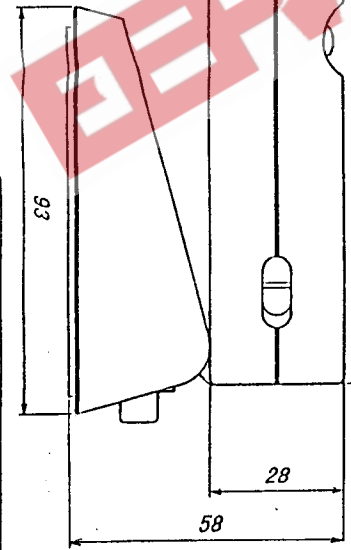
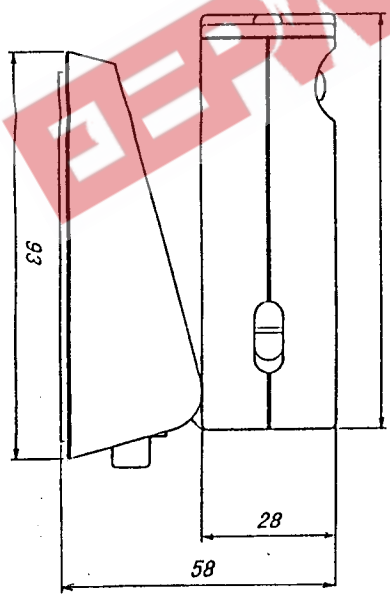
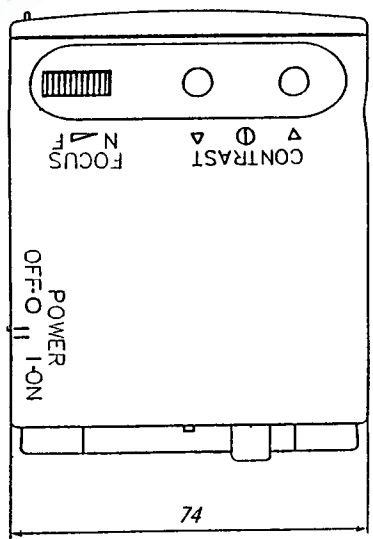
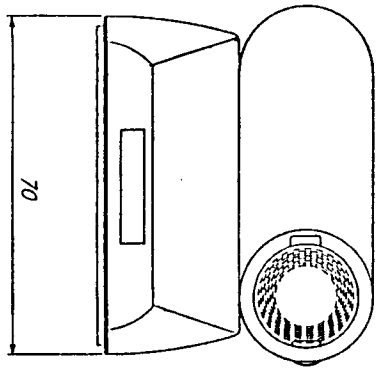
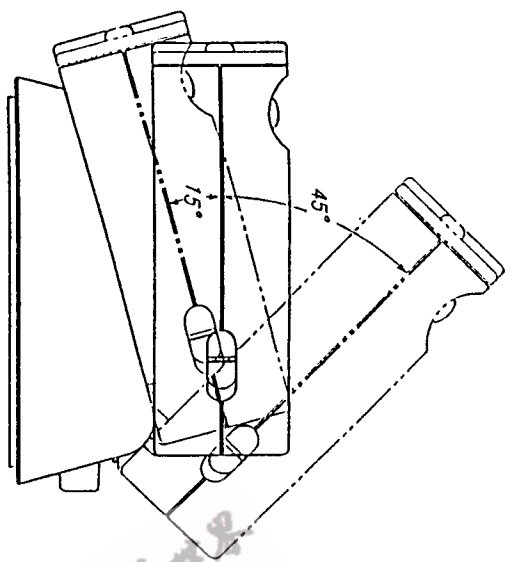
PACKAGE SPECIFICATION (Color CCD Camera)



SHARP CORPORATION APPLIANCE SYSTEM GROUP

SHARP
19

社名	SHARP
製品名	SHARP
部名	SHARP
部品名	SHARP
図面種別	SHARP
図面番号	SHARP
製図者	SHARP
検査者	SHARP
承認者	SHARP
製図日	SHARP
製図場所	SHARP
図面用紙	SHARP
縮尺	SHARP
備考	SHARP



12	17
11	16
	15
	14
	13
	12
	11
	10
	9
	8
	7
	6
	5
	4
	3
	2
	1

NO.		部品コード		加工工程		数量		材料		仕上		検査箇所
△								ABS		CA		カラー CCDカメラ
△												
△												
△												
△												
△												
DATE	1996.3.1	APPRIANCE SYSTEM 研	DATE	1996.3.1	ASSIGN NO.		DRAWING NO.					

承認者: *K. Kuroda*
 検査者: *S. Nakamura*
 製図者: *K. Higashi*

SHARP CORPORATION SHARP CORPORATION
 15 3 2374420

Camera, CCD, YH7B57, YH7B67, YH8B57, YH8B67

EEPW 电子产品世界
.com.cn