

對外發行
OCT 30, 1986
文件資料中心

PRODUCT SPECIFICATION	數南科技股份有限公司 DYNA IMAGE Co.	INTERNAL DATA STRICTLY PRIVATE
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PURPOSE :

TO DEFINE THE B/W CAMERA PRODUCT DESCRIPTION, POWER SUPPLY/
ENVIRONMENT AND ELECTRICAL-OPTICAL CHARACTERISTIC.

SCOPE :

ALL DYNA IMAGE'S DM332C-10(CCIR) CAMERA SPECIFICATION.

1. PRODUCT DESCRIPTION

ITEM	DESCRIPTION
IMAGE SENSOR	(1/3") SIZE INTERLINE TRANSFER CCD
USEFUL PIXELS	752 (H) X 582 (V) , (440,000 PIXELS)
TV MODE	CCIR
INTERLACE	2 : 1 INTERLACE
SYNC. SYSTEM	INTERNAL
VIDEO OUTPUT	1.0 V V _{p-p} / 75 Ω VIDEO LEVEL V _{p-p} 714mV ± 10% SYNC. LEVEL V _{p-p} 286mV ± 10% SYNC. NEGATIVE
IRIS METHOD	(1) AUTO ELECTRONIC EXPOSURE CONTROL(EE) (2) MECHANICAL IRIS CONTROL(ME)
SHUTTER SPEED (SEC)	1/50 - 1/10,000
LENS MOUNT	CS MOUNT (OR C MOUNT WITH ADAPTOR)
OUTLINE	56mm (W) X 50mm (H) X 111mm (L)
WEIGHT	230 GRAMS

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2. POWER SUPPLY/ ENVIRONMENT CHARACTERISTIC

ITEM	SYMBOL	MIN	TYP	MAX	UNIT
POWER SUPPLY	VDD	10.5	12	16	V
POWER CONSUMPTION (VDD= 12V)	IDD		130	200	mA
OPERATING TEMPERATURE	TOP	-10		55	DEG. C
OPERATING HUMIDITY	HOP	10		90	RH%
STORAGE TEMPERATURE	TSTG	-20		60	DEG. C
STORAGE HUMIDITY	HSTG	10		90	RH%

3. ELECTRICAL- OPTICAL CHARACTERISTIC (TYPICAL DATA UNLESS SPECIFIED)
TEST CONDITION : AMBIENT TEMPERATURE = 25 DEG. C
INPUT POWER (VDD) = 12.0 +/- 1.0 V

ITEM	SPEC	UNIT	
MINIMUM ILLUMINATION (F = 1.2)	0.2	LUX	NOTE 1
S/N RATIO	50	dB	NOTE 2
GAMMA	0.45	-	NOTE 3
DARK OUTPUT	100	mV	NOTE 4
HORIZONTAL RESOLUTION	560(CENTER)	TV LINE	NOTE 5

主題
TITLE : B/W CAMERA頁數 SHEET 2
OF 4

10-3012-100

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NOTE 1 : MINIMUM ILLUMINATION IS DEFINED AS THE OBJECT ILLUMINATION IN LUX FOR WHICH THE CAMERA PRODUCES 50% VIDEO OUTPUT (357 mV) OF THE RATED LEVEL.

- LIGHT SOURCE : HALOGEN LIGHT
- TEST CHART : ITE II GRAY SCALE CHART (GAMMA=0.45)
GET FULL SCENE
TESTED AT THE CENTRAL PART (BRIGHTEST)
OF THE CHART

- NOTE 2 : SIGNAL-TO-NOISE (S/N) RATIO IS DEFINED AS

$$S/N = 20 \log (V_{ref}/ V_{rms}) \quad \text{dB}$$

WHERE V_{ref} : CAMERA VIDEO OUTPUT AT WHITE PICTURE
 V_{rms} : CAMERA VIDEO OUTPUT RMS NOISE

TESTING CONDITION :

HIGH PASS FILTER	$f = 200 \text{ KHz}$
LOW PASS FILTER	$f = 4.2 \text{ MHz} \quad (\text{EIA})$ $= 5.0 \text{ MHz} \quad (\text{CCIR})$

NOTE 3 : GAMMA (γ) IS DEFINED AS THE EXPONENT OF VIDEO OUTPUT (V) FROM DARK LEVEL TO ILLUMINANCE (L)

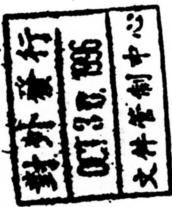
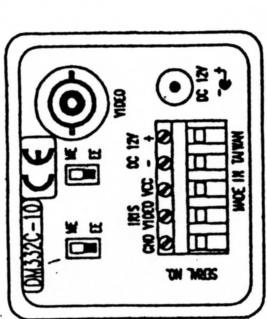
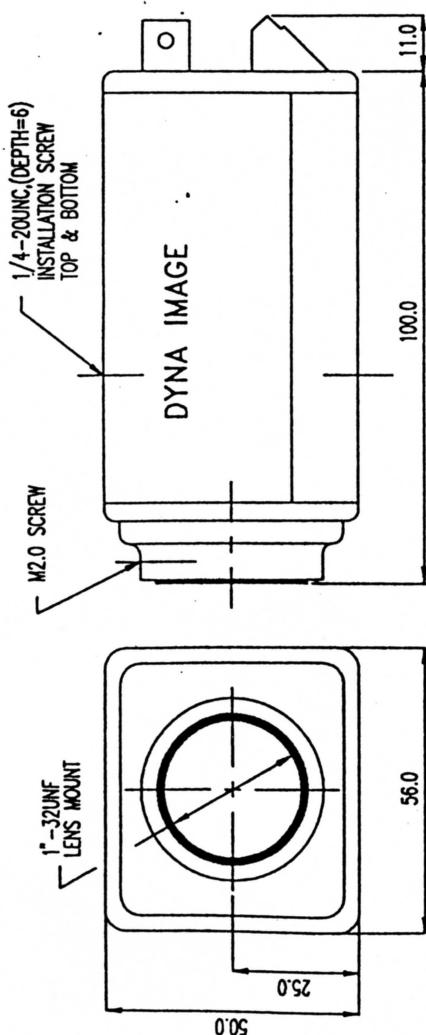
$$V = K \cdot L^{\gamma}$$

NOTE 4 : DARK OUTPUT IS DEFINED AS THE AVERAGE VIDEO OUTPUT FROM BLANKING LEVEL WHEN THE LIGHT IS TOTALLY SHIELDED.

NOTE 5 : HORIZONTAL RESOLUTION IS DEFINED AS THE CAMERA RESOLUTION POWER IN A HORIZONTAL DIMENSION EQUAL TO THE MONITOR PICTURE HEIGHT (TV LINES).

- TEST CHART : EIAJ TEST CHART A.
- MEASURE THE HORIZONTAL BLACK-WHITE TV LINE SETS TO GET MODULATION TRANSFER FUNCTION (MTF) BETTER THAN 5%.

REVISION	
A	05-15-'95 ADD DATA MARK S.J.YEI
B	04-18-'96 CHANGE REAR TAG Chan-Li Lin
	11/17/96



NOTE:

- * DC 12V JACK, \ominus CENTER PIN = 2.0 DIAMETER
- * SWITCH ME : MECHANICAL IRIS
- EE : ELECTRONIC EXPOSURE
- * TERMINAL DC 12V : ALTERNATIVE DC INPUT
- IRIS : MECHANICAL IRIS CONTROL TO LENS

DIMENSION : mm
TOLERANCE : ± 1.0 UNLESS SPECIFIED

MATERIAL:	DIMENSIONS		DRAWN BY: Chan-Li Lin DATE: 4/18/1996	DYNNA	TITLE: CAMERA OUTLINE DM332C	TOLERANCES UNLESS SPECIFIED	
	IN MILLIMETERS	IN INCHES				MILLIMETERS INCHES	
PROCESSES:	CHECKER DATE: 4/10/1996	CHECKER DATE: 4/10/1996	CHANGER DATE: 4/10/1996	IMAGE CORP.	DMC NO. 10-3012-232C	.X $\pm .005$.X $\pm .005$
	SURFACE ROUGHNESS	MICROMETERS	APPROVED DATE: 4/10/1996	APPROVED DATE: 4/10/1996	SCALE: B	.X $\pm .005$.X $\pm .005$

DYNA IMAGE

What you get is what you see

HIGH RESOLUTION B/W CCD CAMERA



EIA : 512 (H) x 492 (V) PIXELS

CCIR : 512 (H) x 582 (V) PIXELS

High Sensitivity : 0.1 Lux F1.2

Auto Electronic Shutter (EE)

Mechanical IRIS Control(ME)

Resolution : 380 TV Lines

EIA : 768 (H) x 494 (V) PIXELS

CCIR : 752(H) x 582 (V) PIXELS

High Sensitivity : 0.2 Lux F1.2

Auto Electronic Shutter (EE)

Mechanical IRIS Control(ME)

Resolution : 560 TV Lines



MODEL

DM330

IMAGE SENSOR

1/3 "INTERLINE TRANSFER CCD

PICTURE ELEMENTS

EIA : 512(H) x 492(V) CCIR : 512(H) x 582(V)

RESOLUTION

380 TV LINES

MIN. ILLUMINATION

0.1 LUX F1.2

IRIS METHOD

EE / ME

SHUTTER SPEED

EIA : 1/60 (CCIR : 1/50) - 1/10,000 SEC

S/N RATIO

50 dB

LENS MOUNT

C / CS MOUNT

POWER SUPPLY

DC 12V

POWER CONSUMPTION

100 mA

OUTLINE

56(W) x 50(H) x 111(L) mm

WEIGHT

230 GRAMS

DM332

1/3 "INTERLINE TRANSFER CCD

EIA : 768(H) x 494(V) CCIR : 752(H) x 582(v)

560 TV LINES

0.2 LUX F1.2

EE / ME

EIA : 1/60 (CCIR : 1/50) - 1/10,000 SEC

50 dB

C / CS MOUNT

DC 12V

130 mA

56(W) x 50(H) x 111(L) mm

230 GRAMS

ISO9001 Certified

LITEON

DYNA IMAGE CORPORATION

9F, NO. 233-2, PAO-CHIAO RD., HSIN-TIEN

TAIPEI HSIEN, TAIWAN, R. O. C.

TEL: 886-2-9160230 FAX: 886-2-9158475

E-MAIL:dyna1@ms7.hinet.net

Distributor