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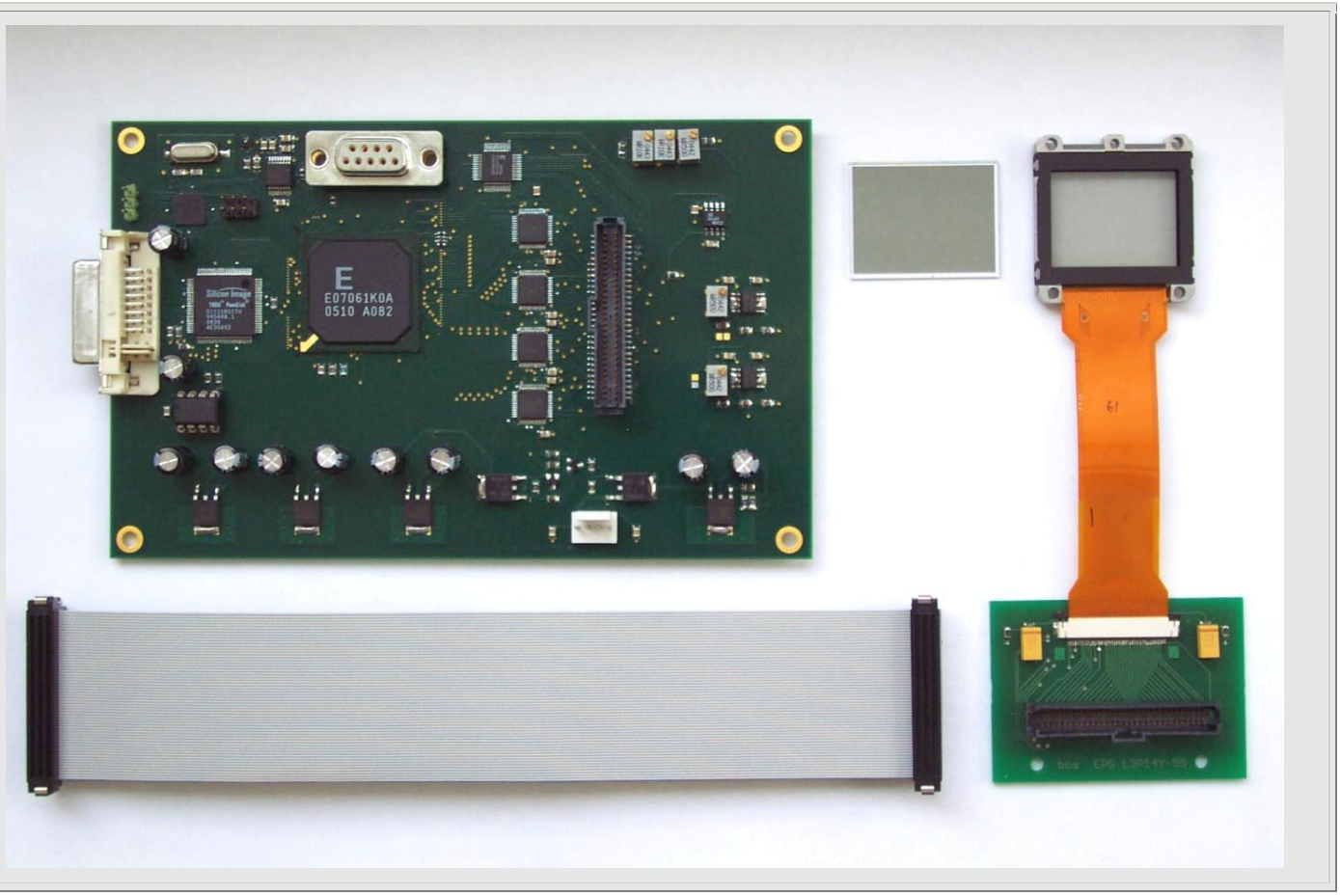
EPSON LCD-Kit DVI 12 bit digital

1400 x 1050 pixels (SXGA+) or 1920 x 1080 pixels (HDTV)

Epson panel, LCD-controller, adapter board, 2 polarizers, flex cable

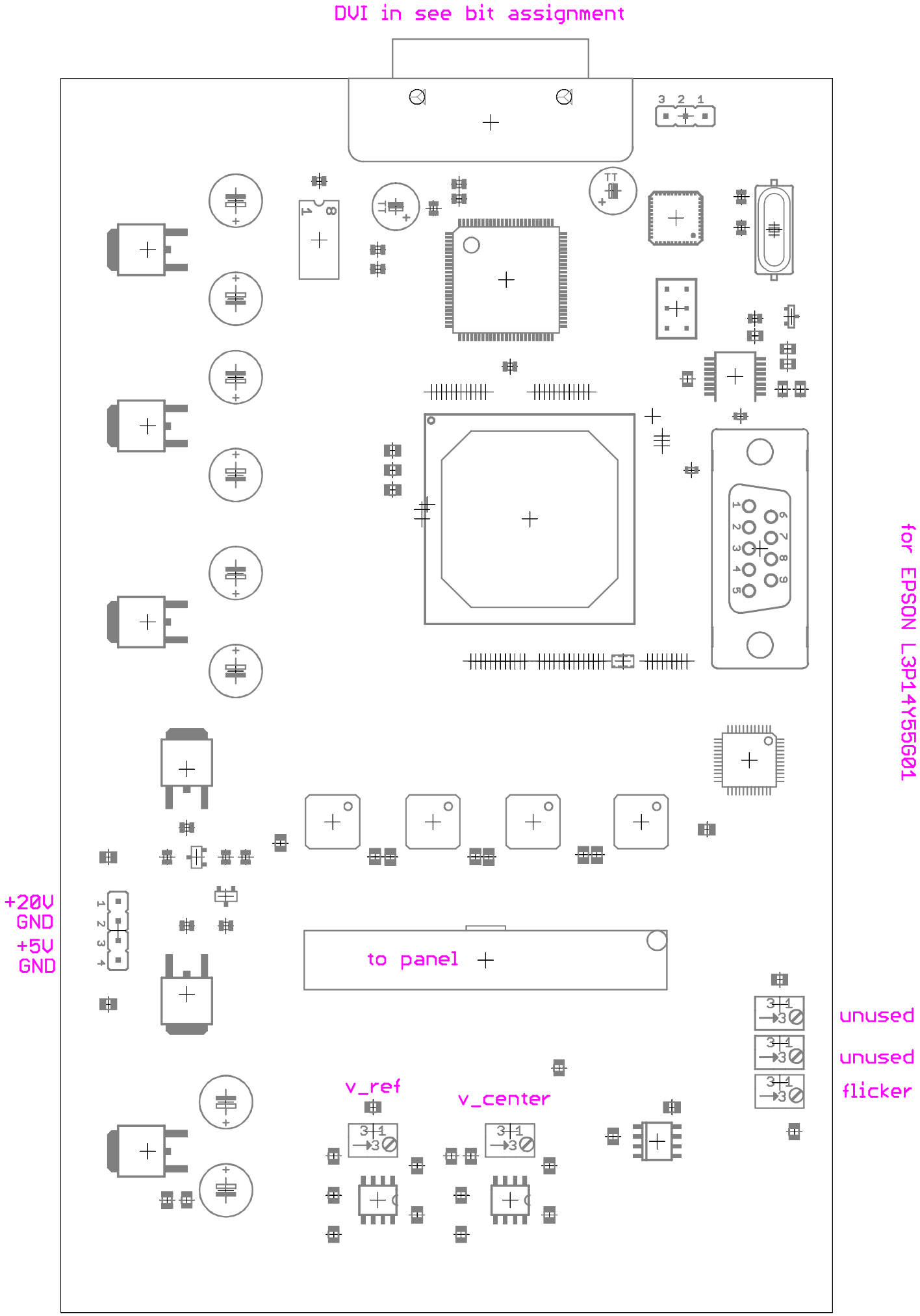


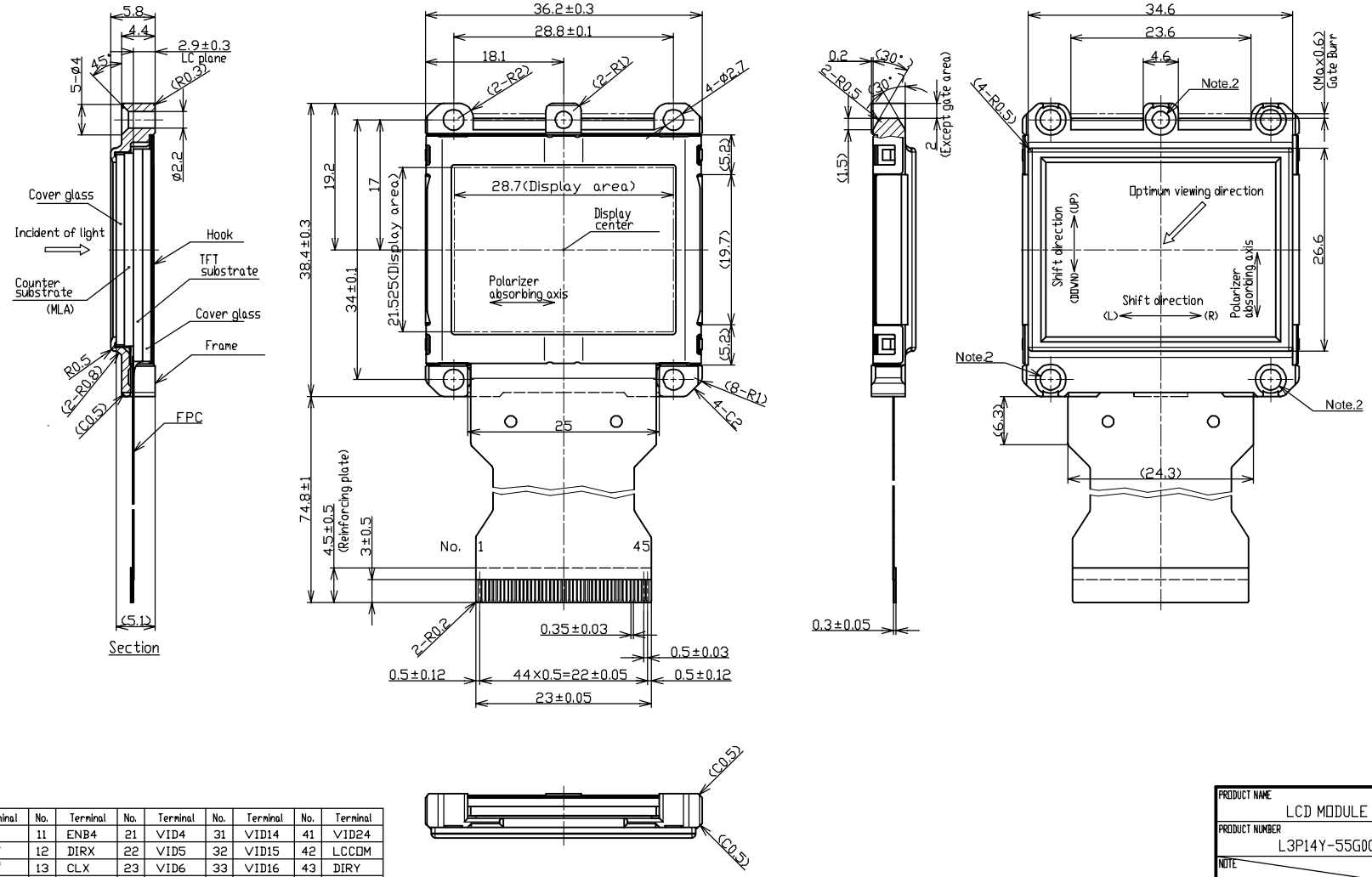
Specifications:

video signal from DVI socket	1400 x 1050 pixel (EPSON L3P14Y-55G00R) or 1920 x 1080 pixel (EPSON L3D13U - 1,3inch)
power supply	+ 5V (+/- 3%), stabilised, 0,7A +20V (19-25V), stabilized, 0,5A
Photo software available	necessary for exposing photographic paper to compensate panel shading and gradation.
dimensions controller	160 x 100 mm
dimensions flexible circuit adapter	42 x 58 mm
Settings (by software)	**mirror**: left + right
	mirror: up + down

Bit assignment:
12 bit digital LCD Controller

12bit	11(msb)	10	9	8	7	6	5	4	3	2	1	0(lsb)
RGB	G7	G6	G5	G4	G3	G2	G1	G0	B7	B6	B5	B4


DVI in see bit assignment
for EPSON L3P14Y55G01
+20V
GND
+5V
GND
to panel
unused
unused
flicker
v_ref
v_center



No.	Terminal	No.	Terminal	No.	Terminal	No.	Terminal	No.	Terminal
1	DY	11	ENB4	21	VID4	31	VID14	41	VID24
2	CLY	12	DIRX	22	VID5	32	VID15	42	LCCOM
3	$\overline{CLY}$	13	CLX	23	VID6	33	VID16	43	DIRY
4	VDDY	14	$\overline{CLX}$	24	VID7	34	VID17	44	VSSY
5	LCCOM	15	VDDX	25	VID8	35	VID18	45	DY
6	N.C.	16	DX	26	VID9	36	VID19		
7	NRG	17	VSSX	27	VID10	37	VID20		
8	ENB1	18	VID1	28	VID11	38	VID21		
9	ENB2	19	VID2	29	VID12	39	VID22		
10	ENB3	20	VID3	30	VID13	40	VID23		

Note:

1. Parenthetic values are only for reference.
2. Use these 3 holes for screw fixation.

PRODUCT NAME	LCD MODULE	
PRODUCT NUMBER	L3P14Y-55G00R	
NOTE		
TOLERANCE: ±0.2	UNIT 1=1mm	SCALE 2:1
SPECIFICATION NUMBER	TP05037	
PAGE NUMBER	20/20	

Optical-Characteristics Measurement Conditions

(1) Condition 2 to 5 Characteristics when viewed from a direction normal to the panel.
(lamp halogen, optical fiber used)
Condition 1 and 6 Characteristics when measured center of projection screen image.
(illumination F#2.5, projection lens F#2.0, lamp UHP120W)

(2) Polarizer used: a Polatechno SHC-13UHC-AR on the incoming side and
a Polatechno SHC-128UHC-AR(LS) on the outgoing side.
Polarizer absorbing axis: vertical against the display area on incoming side and
horizontal against the display area on the outgoing side.
Tolerance of alignment of absorbing axis : within $\pm 2.5^\circ$
The angle between 2 absorbing axes of the incoming side and the outgoing side should be $90^\circ \pm 1^\circ$.

Condition 1: The contrast ratio CR is defined as follows;

$$CR = \frac{[\text{(Screen luminance at video terminal 0 volt)} - \text{(Environmental luminance)}]}{[\text{(Screen luminance at video terminal 5 volt)} - \text{(Environmental luminance)}]}$$

Condition 2: In accordance to the panel contrast curve as shown in Fig.A,
In the normalized transmittance means the
panel central transmittance is defined as 100%
when the input voltage to the panel video
terminal is 0 volts.
V90, V50, and V10 signify input voltage of
the panel video terminal that provide a 90%,
50% and 10% normalized transmittance, respectively.

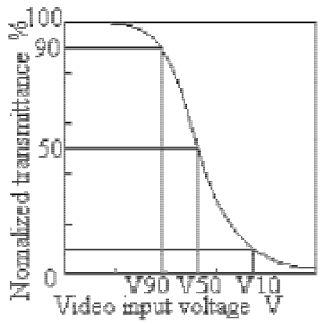


Fig. A Panel Contrast Curve

Condition 3: This shows the optical response time until the normalized transmittance become 10% when the applied voltage of pixel is from 0 [V] to 5 [V].

Condition 4: This shows the optical response time until the normalized transmittance become 90% when the applied voltage of pixel is from 5 [V] to 0 [V].

Condition 5: The total display, The center of the picture screen is measured by photo multiplier when the normalized transmittance is 50 %.

$$F = 20 \times \text{Log} \frac{\text{30Hz-component}}{\text{DC-component}} \quad \text{dB}$$

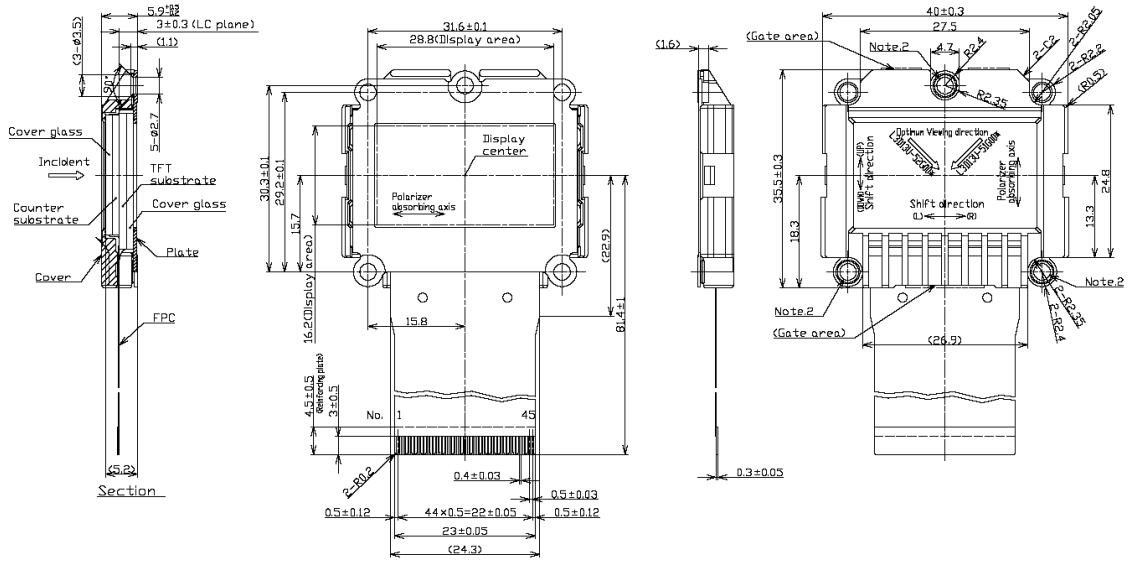
Condition 6: The ratio of the outgoing light brightness (TOUT nit) to the panel incident light brightness (TIN nit) when the panel video terminal input voltage is 0 volts.

$$T = \frac{TOUT}{TIN} \times 100 \quad \%$$

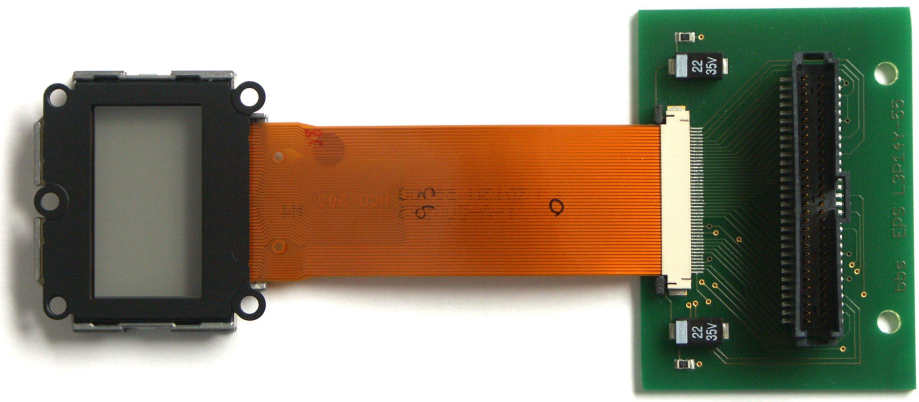
EPSON LCD L3D13U

1920 x 1080 pixels (HDTV)

Epson HDTV panel drawing

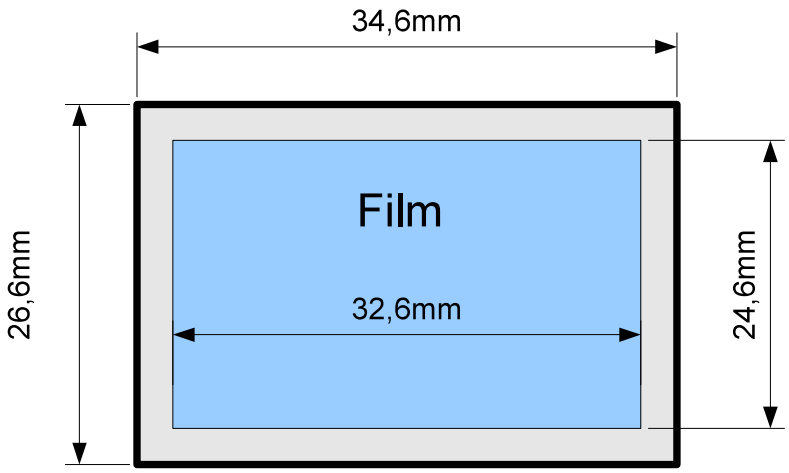


Epson HDTV panel + adapter board



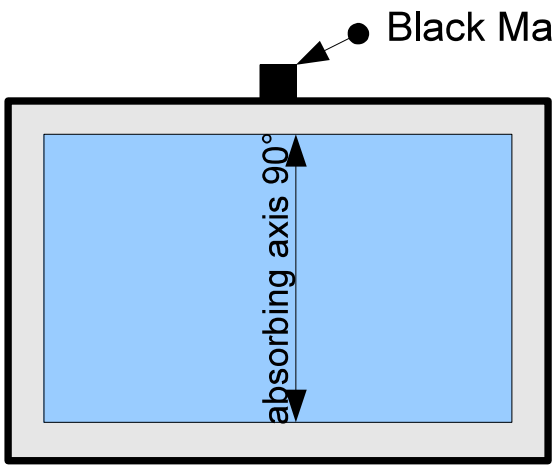
bbs EPSON Polarizer Drawing

The polarizing film should be mounted away from the panel



1,1 mm thick

mount on silver side of panel



mount on black side of panel