

LCE1403W Miniature Near-eye Display Optical Module

LCE1403w is an optical module developed and produced by Lochn Technology Co., Ltd., consisting of LCoS screen, LED backlight and optical prism. It is mainly used for virtual near-eye display in AR and is a penetrating auxiliary information display.

1, Parameters of LCE1410V :

Display	LCoS
Size of virtual screen	42" (3 m)
Resolution	800*400*3
Lens thickness	10 mm
FOV	19° (Diagonal)
Eye-relief	16 mm
OLED size	0.294 inch
FPS	120HZ

2, LCoS

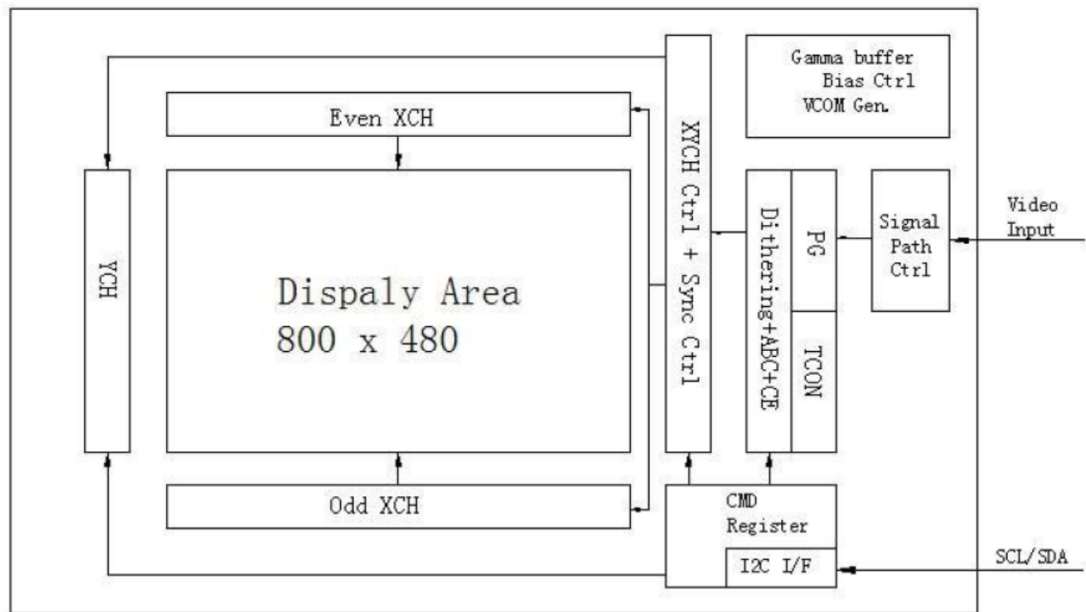
The specification of OLED screen is as following, whose resolution is in 800*400*3 with 150mW ultra-low power consumption, and RGB888 interface.

1) Basic parameters:

Display	LCoS
AA area	0.294 inch
Resolution	640(RGB) x 400 dots
FPS	120HZ
Interface	RGB888
Contrast ratio	120:1
AA area	6.4 x 3.84 mm

Module size	Refer to the 3D diagram
Power consumption	150Mw
Response time	15ms
Grayscale	256
Debug mode	I2C

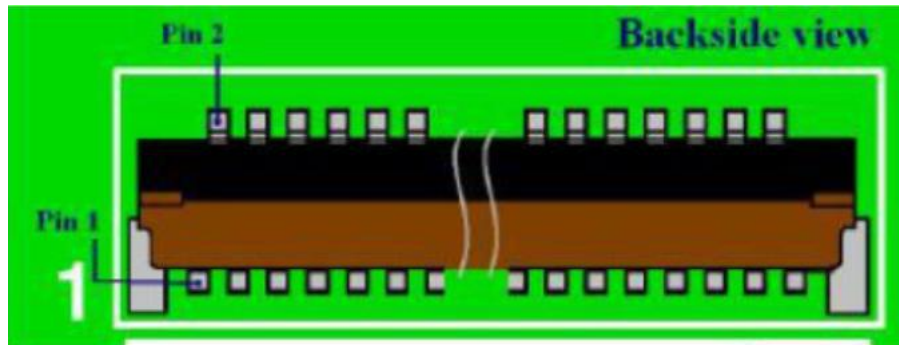
2) Function modules



3) Electric characteristics

Voltage		Symbol	Min.	Typical	Max.	Unit
Input	Analog Voltage	VDDA	-	10	-	V
	Digital Voltage	VDDD	1.65	1.8	1.95	V
Correction Voltage		Vy1~Vy6	0.5VDDA		VDDA-0.2	V
		Vy7~Vy12	0.2	VDDA/2	0.5VDDA	V

3, LCoS screen interface definition



1	TEST_HV	2	COM
3	CSTN	4	VDDA
5	VSSA	6	RESETB
7	SDA	8	SCL
9	R7	10	R6
11	R5	12	R4
13	R3	14	R2
15	VDDD	16	R1
17	R0	18	G7
19	G6	20	G5
21	G4	22	VSSD
23	CLKX	24	DE
25	G3	26	G2
27	G1	28	G0
29	B7	30	B6
31	VDDD	32	CABC
33	B5	34	B4
35	B3]	36	B2
37	B1	38	B0
39	NC		

4, The dimensions of the optical module

