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	SPECIFICATION	APPLICABLE GROUP TFT Liquid Crystal Display Group

DEVICE SPECIFICATION FOR

TFT-LCD Module

MODEL No.

LQ196U1LG01

☐ CUSTOMER'S APPROVAL

DATE

BY

PRESENTED

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GROUP

SHARP CORPORATION

3. Mechanical Specifications

Parameter	Specifications	Unit
Display size	50 (Diagonal)	cm
	19.6 (Diagonal)	Inch
Active area	398.4 (H)×298.8 (V)	mm
Pixel format	1600 (H)×1200 (V)	Pixel
	(1 pixel=R+G+B dots)	
Pixel pitch	0.249 (H)×0.249 (V)	mm
Pixel configuration	R,G,B vertical stripe	
Display mode	Normally white	
Unit outline dimensions *1	452 (W)×356 (H)×25 (D)	mm
Mass	Max.3.0	Kg
Surface treatment	Anti-glare and hard-coating 2H (Haze value = 28)	

*1.Note: excluding back light cables.

The thickness of module (D) doesn't contain the projection.

Outline dimensions are shown in Fig.1.

4. Input Terminals

4-1. TFT-LCD panel driving

CN1A,CN1B (Interface signals and +12VDC power supply)

Using connectors : DF19G-20P-1H (Hirose Electric Co., Ltd.)

Corresponding connectors : DF19G-20S-1C (Hirose Electric Co., Ltd.)
DF19G-20S-1F (Hirose Electric Co., Ltd.)

Using LVDS receiver : THC63LVDF84A-L(Thine)

Corresponding LVDS transmitter : THC63LVDM83A-85(Thine) or compatible

CN1A

Pin No.	Symbol	Function	Remark
1	Vcc	+12V power supply	
2	Vcc	+12V power supply	
3	Vss	Gnd	
4	Vss	Gnd	
5	RAIN0-	Negative (-) LVDS differential data input (Odd data)	LVDS
6	RAIN0+	Positive (+) LVDS differential data input (Odd data)	LVDS
7	Vss	Gnd	
8	RAIN1-	Negative (-) LVDS differential data input (Odd data)	LVDS
9	RAIN1+	Positive (+) LVDS differential data input (Odd data)	LVDS
10	Vss	Gnd	
11	RAIN2-	Negative (-) LVDS differential data input (Odd data)	LVDS
12	RAIN2+	Positive (+) LVDS differential data input (Odd data)	LVDS
13	Vss	Gnd	
14	CKAIN-	Negative (-) LVDS differential clock input (Odd data)	LVDS
15	CKAIN+	Positive (+) LVDS differential clock input (Odd data)	LVDS
16	Vss	Gnd	
17	RAIN3-	Negative (-) LVDS differential data input (Odd data)	LVDS
18	RAIN3+	Positive (+) LVDS differential data input (Odd data)	LVDS
19	Vss	Gnd	
20	BLON	Back light ON signal (output) 【Note1】	3.3V C-MOS

【Note1】 BLON:It change from L to H at 7 frames after Vcc ON.

CN1B

Pin No.	Symbol	Function	Remark
1	Vcc	+12V power supply	
2	Vcc	+12V power supply	
3	Vss	Gnd	
4	Vss	Gnd	
5	RBIN0-	Negative (-) LVDS differential data input (Even data)	LVDS
6	RBIN0+	Positive (+) LVDS differential data input (Even data)	LVDS
7	Vss	Gnd	
8	RBIN1-	Negative (-) LVDS differential data input (Even data)	LVDS
9	RBIN1+	Positive (+) LVDS differential data input (Even data)	LVDS
10	Vss	Gnd	
11	RBIN2-	Negative (-) LVDS differential data input (Even data)	LVDS
12	RBIN2+	Positive (+) LVDS differential data input (Even data)	LVDS
13	Vss	Gnd	
14	CKBIN-	Negative (-) LVDS differential clock input (Even data)	LVDS
15	CKBIN+	Positive (+) LVDS differential clock input (Even data)	LVDS
16	Vss	Gnd	
17	RBIN3-	Negative (-) LVDS differential data input (Even data)	LVDS
18	RBIN3+	Positive (+) LVDS differential data input (Even data)	LVDS
19	Vss	Gnd	
20	SELLVDS	Select LVDS data order 【Note2】	3.3V CMOS Pull Up

【Note2】 SELLVDS(Thine:THC63LVDM83A)

Transmitter		SELLVDS	
Pin No	Data	=L	=H
51	TA0	R0(LSB)	R2
52	TA1	R1	R3
54	TA2	R2	R4
55	TA3	R3	R5
56	TA4	R4	R6
3	TA5	R5	R7(MSB)
4	TA6	G0(LSB)	G2
6	TB0	G1	G3
7	TB1	G2	G4
11	TB2	G3	G5
12	TB3	G4	G6
14	TB4	G5	G7(MSB)
15	TB5	B0(LSB)	B2
19	TB6	B1	B3
20	TC0	B2	B4
22	TC1	B3	B5
23	TC2	B4	B6
24	TC3	B5	B7(MSB)
27	TC4	WHT 【Note3】	WHT 【Note3】
28	TC5	(RSV1)	(RSV1)
30	TC6	DE	DE
50	TD0	R6	R0(LSB)
2	TD1	R7(MSB)	R1
8	TD2	G6	G0(LSB)
10	TD3	G7(MSB)	G1
16	TD4	B6	B0(LSB)
18	TD5	B7(MSB)	B1
25	TD6	(NA)	(NA)

【Note3】 WHT: It is a precedent signal for powering OFF. Use it in "Low" at a normal operation and Switch it to "High" about 2 vertical signal timings before powering off so that electrical charge remained at power-off can be reduced. When this function is not used, the signal should be fixed in "Low"(=GND) for usage.