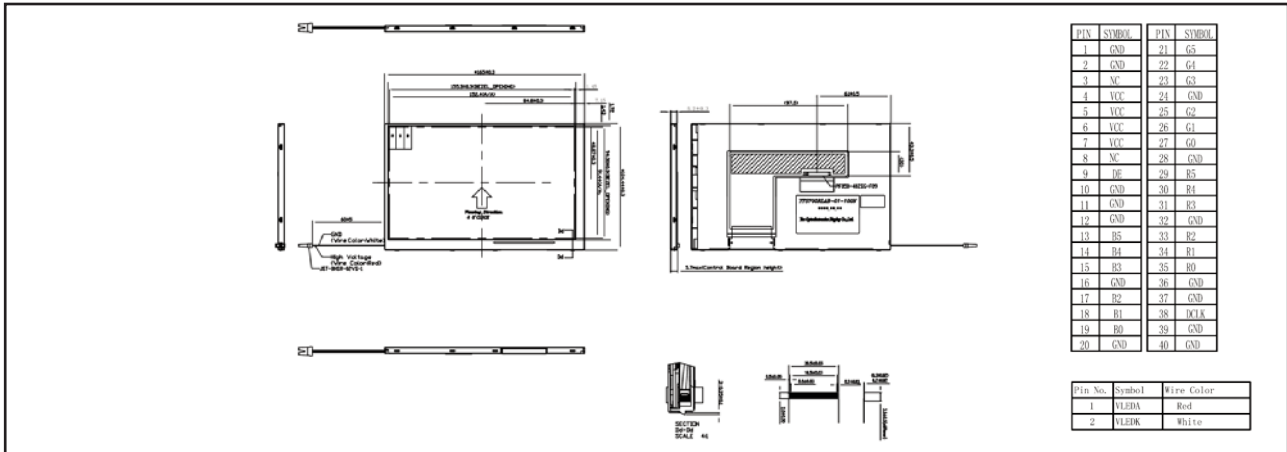


## TFT TRANSMISSIVE LCD MODULES YTS 700RLAB-01-100N

7", 800 X 480 DOTS, 1/480 DUTY

### EXTERNAL DIMENSION AND DISPLAY PATTERN



### MECHANICAL DATA

ITEM	SPECIFICATION	UNIT
Module Size (W x H x D)	165.0 x 104.44 x 5.2	mm
Active Area (W x H)	152.4 x 91.44	mm
Pixel Size	190.5 x 190.5	um
Viewing Direction	6:00	o'clock
Number of Dots	800 (RGB) x 480	dots
Color Sturation (NTSC)	45	%
Colors	16M	

### ABSOLUTE MAXIMUM RATINGS GND=0

PARAMETER	SYMBOL	MIN.	MAX.	UNIT
Power Voltage	V <sub>CC</sub>	-0.3	6.0	V
Input Logic Voltage <sup>(1)</sup>	V <sub>I</sub>	-0.3	V <sub>CC</sub> +0.3	V
Operating Temperature		See page 8		
Storage Temperature		See page 8		

Note (1): DCLK, DE, R<sub>0</sub> to R<sub>5</sub>, G<sub>0</sub> to G<sub>5</sub>, B<sub>0</sub> to B<sub>5</sub>.

### PIN CONFIGURATION

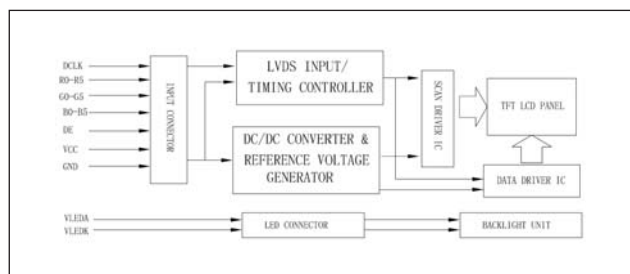
PIN	SYMBOL	SIGNAL DESCRIPTION
1-2	GND	Power Ground
3	NC	No Connection
4-7	V <sub>CC</sub>	Power Supply for Digital Circuit
8	NC	No Connection
9	DE	Data Enable
10-12	GND	Power Ground
13	B <sub>5</sub>	Blue Data 5 (MSB)
14	B <sub>4</sub>	Blue Data 4
15	B <sub>3</sub>	Blue Data 3
16	GND	Power Ground
17	B <sub>2</sub>	Blue Data 2
18	B <sub>1</sub>	Blue Data 1
19	B <sub>0</sub>	Blue Data 0 (LSB)
20	GND	Power Ground
21	G <sub>5</sub>	Green Data 5 (MSB)
22	G <sub>4</sub>	Green Data 4
23	G <sub>3</sub>	Green Data 3
24	GND	Power Ground
25	G <sub>2</sub>	Green Data 2
26	G <sub>1</sub>	Green Data 1
27	G <sub>0</sub>	Green Data 0 (LSB)
28	GND	Power Ground
29	R <sub>5</sub>	Red Data 5 (MSB)
30	R <sub>4</sub>	Red Data 4
31	R <sub>3</sub>	Red Data 3
32	GND	Power Ground
33	R <sub>2</sub>	Red Data 2
34	R <sub>1</sub>	Red Data 1
35	R <sub>0</sub>	Red Data 0 (LSB)
36-37	GND	Power Ground
38	DCLK	Clock Signals; Latch Data at the Falling Edge
39-40	GND	Power Ground

### ELECTRICAL CHARACTERISTICS, Ta = 25°C

ITEM	SYMBOL	CONDITION	SPEC. VALUE			UNIT
			MIN.	TYP.	MAX.	
Power Supply Voltage	V <sub>CC</sub>		3.0	3.3	3.6	V
Input Logic High Level <sup>(2)</sup>	V <sub>IH</sub>		0.7V <sub>CC</sub>		V <sub>CC</sub>	V
Input Logic Low Level <sup>(2)</sup>	V <sub>IL</sub>		0		0.3V <sub>CC</sub>	V

Note (2): DCLK, DE, R<sub>0</sub> to R<sub>5</sub>, G<sub>0</sub> to G<sub>5</sub>, B<sub>0</sub> to B<sub>5</sub>.

### BLOCK DIAGRAM



### BACKLIGHTING CHARACTERISTICS, Ta = 25°C, LED

ITEM	SYMBOL	CONDITION	SPEC. VALUE			UNIT
			MIN.	TYP.	MAX.	
LED Current <sup>(3)</sup>	I <sub>LED</sub>			160.0		mA
LED Voltage	V <sub>LED</sub>			9.9		V
LED Life Time <sup>(4)</sup>	L <sub>v</sub>		10000	20000		hr

Note (3): There are 8 groups LED shown as below, V<sub>LED</sub>=9.9V; I<sub>LED</sub>=160mA.

Note (4): Brightness to be decreased to 50% of the initial value.

Note (5): Pin 1 = V<sub>LED,A</sub> = Red, LED\_Anode; Pin 2 = V<sub>LED,K</sub> = White, LED\_Cathode.

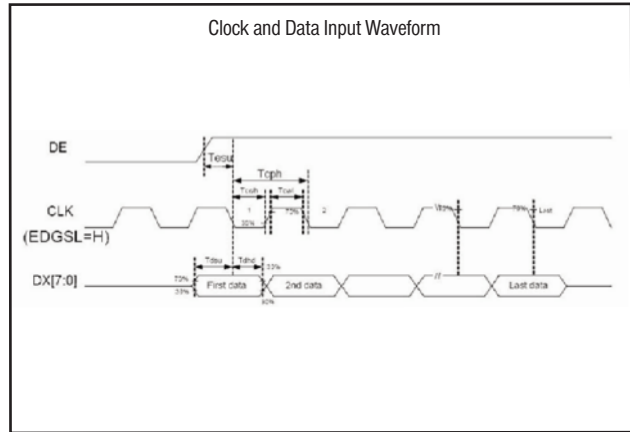
# TFT TRANSMISSIVE LCD MODULES

## YTS 700LAB-01-100N

7", 800 X 480 DOTS, 1/480 DUTY

### AC CHARACTERISTICS

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT
Data Setup Time	$T_{DSU}$	6			ns
Data Hold Time	$T_{DHD}$	6			ns
DE Setup Time	$T_{ESU}$	6			ns
CLK Frequency	$F_{CPH}$	29.40	33.26	42.48	MHz
CLK Period	$T_{CPH}$	23.54	30.06	34.01	ns
CLK Pulse Duty	$T_{CWH}$	40	50	60	%
	$T_{CWL}$	40	50	60	%
DE Period	$T_{DEH}+T_{DEL}$	1000	1056	1200	$T_{CPH}$
DE Pulse Width	$T_{DEH}$		800		$T_{CPH}$
DE Frame Blanking	$T_{DEB}$	10	45	110	$T_{DEH}+T_{DEL}$
DE Frame Width	$T_{DE}$		480		$T_{DEH}+T_{DEL}$



### DATA INPUT FORMAT

