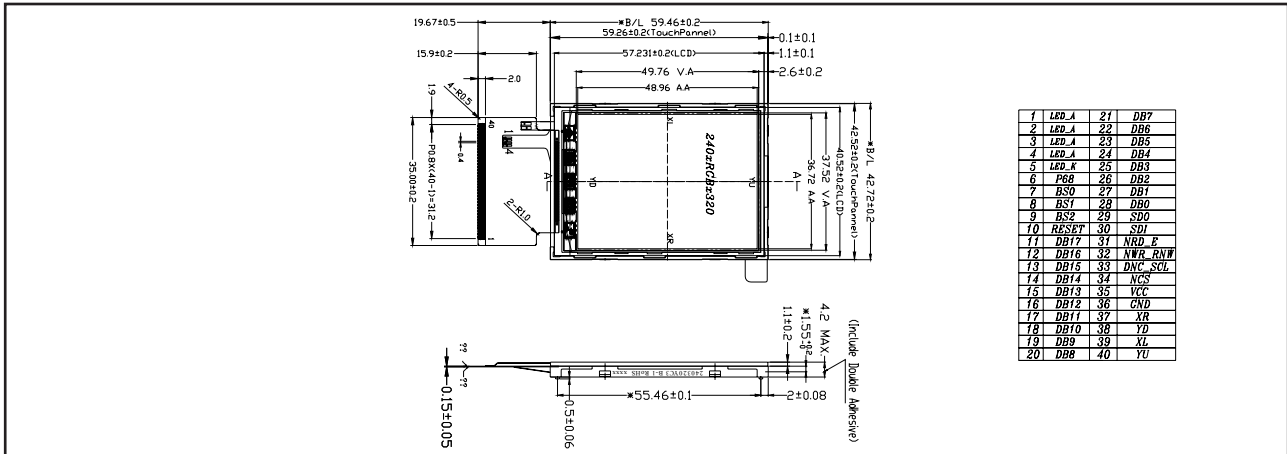


## TFT TRANSMISSIVE LCD MODULES YTS 240DLAC-03-100T

2.4", 240 X 320 DOTS, 1/320 DUTY

### EXTERNAL DIMENSION AND DISPLAY PATTERN



### MECHANICAL DATA

ITEM	SPECIFICATION	UNIT
Module Size (W x H)	42.72 x 59.46 x 4.2	mm
Active Area (W x H)	36.72 x 48.96	mm
Viewing Direction	6:00	o'clock
Number of Dots	240 (RGB) x 320	dots
Colors	262K	

### ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	MIN.	MAX.	UNIT
Supply Voltage 1	IOV <sub>CC</sub>	-0.3	4.6	V
Supply Voltage 2	V <sub>Cl</sub>	-0.3	4.6	V
Supply Voltage 3	DDV <sub>DH</sub>	-0.3	9.0	V
Supply Voltage 4	V <sub>CL</sub>	-4.6	0.3	V
Supply Voltage 5	V <sub>GH</sub>	-0.3	18.5	V
Supply Voltage 6	V <sub>GL</sub>	-18.5	0.3	V
Input Voltage	V <sub>IN</sub>	-0.3	V <sub>Cl</sub> + 0.3	V
Operating Temperature		See page 8		
Storage Temperature				

### PIN CONFIGURATION

PIN	SYMBOL	SIGNAL DESCRIPTION
1-4	LED_A	Backlight LED Power
5	LED_K	Backlight LED Power
6	P <sub>68</sub>	Select the MPU Interface Mode
7	BS <sub>0</sub>	Select the MPU Interface Mode
8	BS <sub>1</sub>	Select the MPU Interface Mode
9	BS <sub>2</sub>	Select the MPU Interface Mode
10	RESET	Reset Pin
11-28	DB <sub>17</sub> -DB <sub>0</sub>	Data Bus
29	SD <sub>0</sub>	Serial Data Output
30	SD <sub>1</sub>	Serial Data Input Pin
31	NRD_E	I80 System: Serves as a Read Signal and Read Data at the Low Level. M68 System: 0 - Read/Write Disable; 1 - Read/Write Enable. Fix it to IOV <sub>CC</sub> or V <sub>SSD</sub> Level when Using Serial Buss Interface.
32	NWR_RNW	I80 System: Serves as a Write Signal and Write Data at the Rising Edge. M68 System: 0 - Write; 1 - Read. Fix it to IOV <sub>CC</sub> or V <sub>SSD</sub> Level when Using Serial Buss Interface.
33	DNC_SCL	The Signal for Command or Parameter Select under Parallel Mode (i.e. Not Serial Interface). When under Serial Interface, it servers as SCL.
34	NCS	Chip Select Signal
35	V <sub>CC</sub>	Power Supply
36	GND	Ground
37	XR	The Pin of Touch Panel
38	YD	The Pin of Touch Panel
39	XL	The Pin of Touch Panel
40	YU	The Pin of Touch Panel

### ELECTRICAL CHARACTERISTICS, Ta = 25°C

ITEM	SYMBOL	CONDITION	SPEC. VALUE			UNIT
			MIN.	TYP.	MAX.	
TFT Gate ON Voltage	V <sub>GH</sub>			15.0		V
TFT Gate OFF Voltage	V <sub>GL</sub>	Ta = +25°C		-8.0		V
TFT Common Electrode Voltage	V <sub>comH</sub> V <sub>comL</sub>		2.5 -2.0		4.5 0	V

Note (1): V<sub>com</sub> must be adjusted to optimize display quality: cross talk, contrast ratio and etc.  
 Note (2): V<sub>GH</sub> is TFT gate operating voltage.  
 Note (3): V<sub>GL</sub> is TFT gate operating voltage. The storage capacitance structure of this products is C<sub>st</sub> (Storage on Common).  
 The low voltage level of V<sub>GL</sub> signal must be fluctuated with same phase as V<sub>com</sub>, in case of Storage on Gate structure.  
 Note (4): Environmental condition: 25°C ± 5°C.  
 Note (5): Operating Voltage V<sub>CC</sub> = 3.3V

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

ITEM	SYMBOL	CONDITION	SPEC. VALUE			UNIT
			MIN.	TYP.	MAX.	
Forward Voltage	V <sub>f</sub>	I <sub>f</sub> = 20mA		9.6		V
Reverse Current	I <sub>r</sub>	V <sub>r</sub> = 5.0V		20		μA
Luminance	L <sub>v</sub>	I <sub>f</sub> = 20mA	2900	3200		cd/m <sup>2</sup>
Average	Avg	- Aperture: 1°, 9 Point.	80			%
Colour Coordinate	X	- The Measurement Instrument is BM-7.	0.26		0.31	
	Y	- Average = min. / max. * 100%	0.26		0.31	

