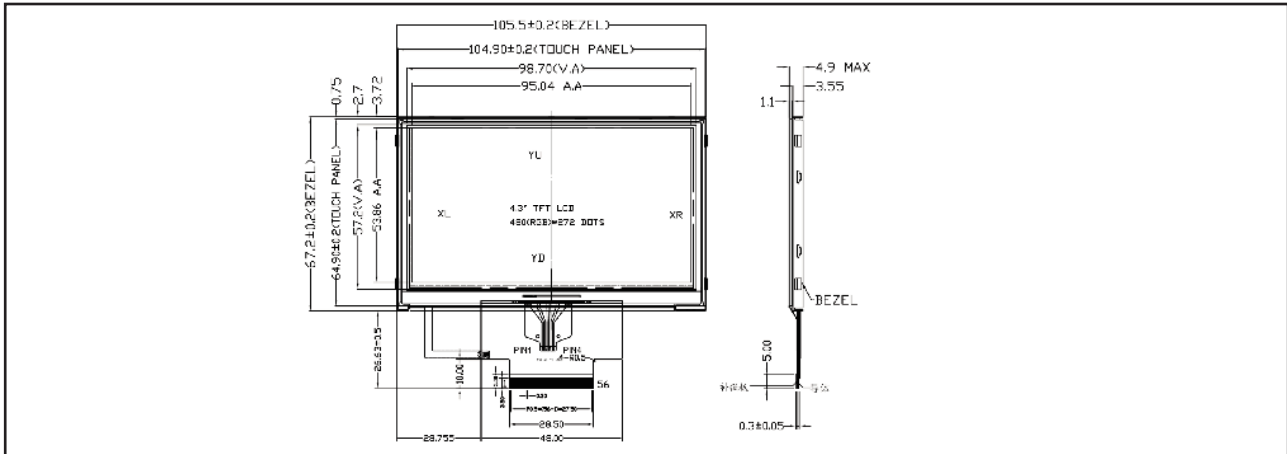


TFT TRANSMISSIVE LCD MODULES

YTS 430ILAC-01-100T

4.3", 480 X 272 DOTS, 1/272 DUTY

EXTERNAL DIMENSION AND DISPLAY PATTERN



MECHANICAL DATA

ITEM	SPECIFICATION	UNIT
Module Size (W x H)	105.5 x 67.2 x 4.9	mm
Active Area (W x H)	95.04 x 53.86	mm
Viewing Direction	12:00	o'clock
Number of Dots	480 (RGB) x 272	dots
Colors	16M	

PIN CONFIGURATION

PIN	SYMBOL	SIGNAL DESCRIPTION
1	NC	No Connection
2	LED_K	LED Power
3	LED_A	LED Power
4-5	NC	No Connection
6	GND	Ground
7	V _{CC}	Logic Regulator Power Supply
8	CPWM	Duty Cycle Control Signal of CABC Function
9	SDO	Data Output Pin in Serial Mode
10	SDI	Data Input in Serial Mode. Internal Pull High
11	SDL	Clock Pin of Serial Interface
12	CS	Chip Select Pin of Serial Interface
13	ENABLE	Input Data Enable Control
14	V _{SYNC}	Verical SYNC Input with Negative Polarity
15	H _{SYNC}	Horizontal SYNC Input with Negative Polarity
16	DISPLAY	Display ON/OFF Mode Control
17	DOTCLK	Clock Signal for Data Latching and Internal Counter of the Timing Controller.
18-33	GND	Ground
19-26	B ₇ -B ₀	Blue Data Bit
27-34	G ₇ -G ₀	Green Data Bit
35-42	R ₇ -R ₀	Red Data Bit
43	GND	Ground
44	RESET	Active Low Global Reset Signal Input
45	IOV _{CC}	Interface I/O Power Supply
46	V _{CI}	Liquid Crystal Analog Circuit Power Supply
47	GND	Ground
48	DRV ₁	Power Transistor Gate Signal for the Boost Converter 1
49	VFB ₁	Main Boost Regulator Feedback Input 1
50	GND	Ground
51-54	YU, XL, YD, XR	The Pins of Touch Panel
55	GND	Ground
56	NC	No Connection

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	MIN.	MAX.	UNIT
Logic Power Supply	V _{DDIO}	-0.3	4.0	V
Booster Power Supply	V _{CI}	-0.3	5.0	V
Analog Circuit Power Supply	V _{CIP}	-0.3	5.0	V
Power Supply of Analog Block and V _{LCD} /V _{OC} Regulation	V _{CIX2J}	-0.3	6.0	V
Power Pin for Internal Logic Circuit	V _{DD}	-0.3	2.7	V
Using External V _{GH} - V _{GL}	V _{GH} - V _{GL}	-0.3	45.0	V
Operating Temperature		See page 8		
Storage Temperature		See page 8		

ELECTRICAL CHARACTERISTICS, Ta = 25°C

ITEM	SYMBOL	CONDITION	SPEC. VALUE			UNIT
			MIN.	TYP.	MAX.	
TFT Gate ON Voltage	V _{GH}			15.0		V
TFT Gate OFF Voltage	V _{GL}	Ta = +25°C		-10.0		V
TFT Common Electrode Voltage	V _{COMH} V _{COML}			4.2 -1.4		V

Note (1): V_{COM} must be adjusted to optimize display quality: cross talk, contrast ratio and etc.
 Note (2): V_{GH} is TFT gate operating voltage.
 Note (3): V_{GL} is TFT gate operating voltage.
 Note (4): Environmental condition: 25°C ± 5°C.
 Note (5): Reference waveform for panel light on is as below: gate width is 1.5 ms. V_{GH} / V_{DH} / V_{GL} / V_{COM} are referred to driver IC specification.
 Note (6): Operating Voltage V_{CC} = 3.3V

BACKLIGHTING CHARACTERISTICS, Ta = 25°C, LED

ITEM	SYMBOL	CONDITION	SPEC. VALUE			UNIT
			MIN.	TYP.	MAX.	
Forward Voltage	V _f	I _f = 20mA;	18.6	19.8	21.0	V
Reverse Current	I _r	- Aperture: 1°, 12 Point;			15.0	mA
Luminous Intensity	L _v	- The Measurement Instrument is BM-7;	5200			cd/m ²
Average		- Average = min/max * 100%	75			%
Chromaticity Coordinate	X		0.245		0.295	
	Y		0.245		0.295	

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AC CHARACTERISTICS

V _{DDIO} =1.8 to 3.6V, DV _{SS} =0V, T _a =25°C, 480 RGB x 272					
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT
Clock Cycle	f _{CLK} ⁽¹⁾		9		MHz
H _{SYNC} Cycle	1/th		17.14		kHz
V _{SYNC} Cycle	1/tv		59.94		Hz
Horizontal Signal					
Horizontal Cycle	th	525	525	605	CLK
Horizontal Display Period	tdh	480	480	480	CLK
Horizontal Front Porch	thf	2	2	82	CLK
Horizontal Pulse Width	thp ⁽²⁾	2	41	41	CLK
Horizontal Back Porch	thb ⁽²⁾	2	2	41	CLK
Vertical Signal					
Vertical Cycle	tv	285	286	399	H ⁽¹⁾
Vertical Display Period	tvd	272	272	272	H ⁽¹⁾
Vertical Front Porch	tvf	1	2	227	H ⁽¹⁾
Vertical Pulse Width	tvp ⁽²⁾	1	10	11	H ⁽¹⁾
Vertical Back Porch	tvb ⁽²⁾	1	2	11	H ⁽¹⁾

Note (1): Unit: CLK=1/f_{CLK}, H=th
 Note (2): It's necessary to keep tvp+tvb=12 and thp+thb=43 in Sync Mode. DE Mode is unnecessary to keep it.

