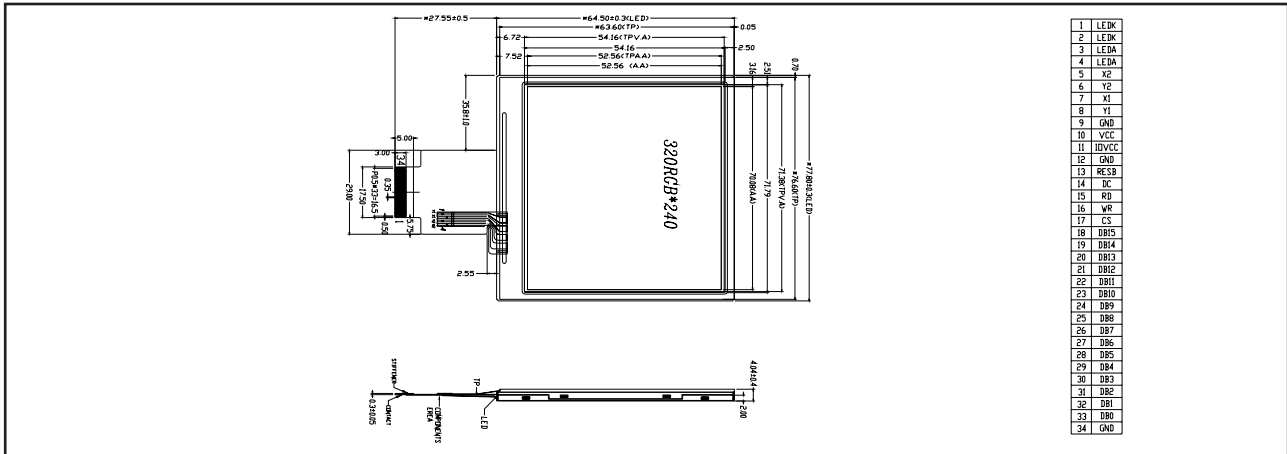


TFT TRANSMISSIVE LCD MODULES YTS 350ELAJ-01-100T

3.5", 320 X 240 DOTS, 1/240 DUTY

EXTERNAL DIMENSION AND DISPLAY PATTERN



MECHANICAL DATA

ITEM	SPECIFICATION	UNIT
Module Size (W x H)	77.80 x 64.50 x 4.04	mm
Active Area (W x H)	70.08 x 52.56	mm
Viewing Direction	12:00	o'clock
Number of Dots	320 (RGB) x 240	dots
Colors	262K	

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	MIN.	MAX.	UNIT
Supply Voltage	V _{DDIO}	-0.3	4.0	V
Input Voltage	V _{CI}	V _{SS} -0.3	5.0	V
Operating Temperature		See page 8		
Storage Temperature		See page 8		

Note (1): Current Drain per Pin excluding VDD and VSS: 25mA typical.

PIN CONFIGURATION

PIN	SYMBOL	SIGNAL DESCRIPTION	
1	LED_K	LED Backlight	
2			
3			
4			
5	X ₂	Touch Panel	
6			Y ₂
7			X ₁
8			Y ₁
9	GND	Ground	
10	V _{CC}	Interface I/O Power Supply	
11	IOV _{CC}	Power Supply for Analog Circuit	
12	GND	Ground	
13	RESB	System Reset	
14	DC	Data or Command	
15	RD	8080-System: RD (Read Strobe Signal)	
16	WR	8080-System: WR (Write Strobe Signal)	
17	CS	Chip Select	
18-33	DB ₁₅ -DB ₀	Data Bus	
34	GND	Ground	

ELECTRICAL CHARACTERISTICS, Ta = 25°C

ITEM	SYMBOL	CONDITION	SPEC. VALUE			UNIT
			MIN.	TYP.	MAX.	
TFT Gate ON Voltage	V _{GH}		+10.0		+16.0	V
TFT Gate OFF Voltage	V _{GL}	Ta = +25°C	-16.0		-9.0	V
TFT Common Electrode Voltage	V _{comH} V _{comL}		2.5 -2.0		+5.0 0	V

Note (2): V_{com} must be adjusted to optimize display quality: cross talk, contrast ratio and etc.

Note (3): V_{GH} is TFT gate operating voltage.

Note (4): V_{GL} is TFT gate operating voltage. The storage capacitance structure of this products is C_{st} (Storage on Common).

Note (5): Environmental condition: 25°C±5°C.

Note (6): TFT frame frequency advise 60 Hz.

Note (7): Operating Voltage V_{CC}=2.5 to 3.3V; IOV_{CC}=1.8 to 3.3V

BACKLIGHTING CHARACTERISTICS, Ta = 25°C, LED

ITEM	SYMBOL	CONDITION	SPEC. VALUE			UNIT
			MIN.	TYP.	MAX.	
Forward Voltage	V _f	I _F =20*2mA	9.0	10.2	10.8	V
Forward Current	I _F		20*2			mA
Power Dissipation	P _d	I _F =20*2mA	0.384			W
Reverse Voltage	V _r					3.0 V
Reverse Current	I _r					mA
Luminous Intensity	L _v	I _F =20*2mA	6000			cd/m ²
Luminous Uniformity	ΔL _v		75	80		%
Chromaticity Coordinate	X	I _F =20mA, Ta=25°C each chip	0.27			
	Y		0.27			

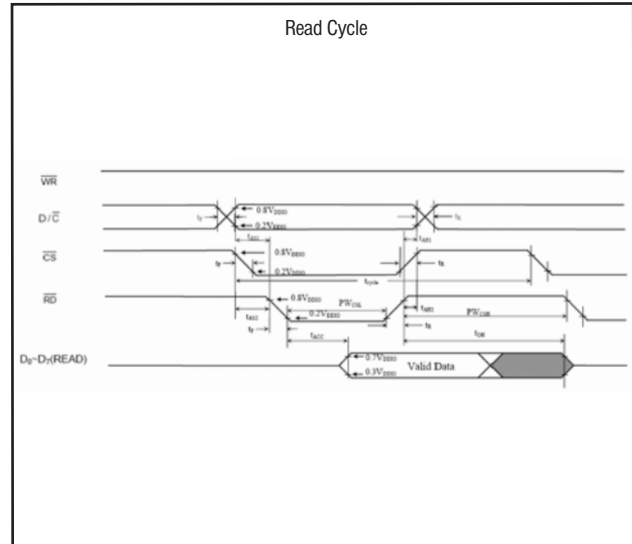
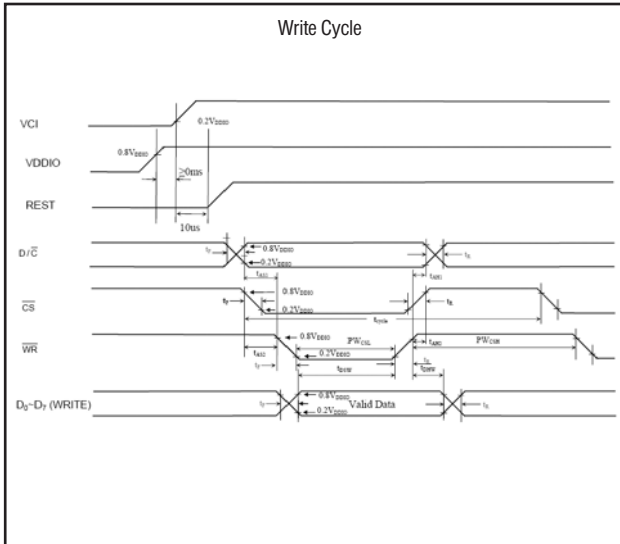
Note (8): Operating temperature range T_{opr} -30°C to +70°C; Storage temperature range T_{st} -40°C to +85°C.

TFT TRANSMISSIVE LCD MODULES

YTS 350ELAJ-01-100T

3.5", 320 X 240 DOTS, 1/240 DUTY

INTERFACE TIMING CHARACTERISTICS



Note (1): It's recommended that /RD remains high for the whole Write Cycle.

TIMING OF POWER SUPPLY: PARALLEL 8080 TIMING CHARACTERISTICS $V_{DDIO}= 1.4V$ to $3.6V$, $T_a=-40^{\circ}C$ to $85^{\circ}C$

PARAMETER	SYMBOL	MIN.	MAX.	UNIT
Clock Cycle Time (Write Cycle)	t_{CYCLE}	75		ns
Clock Cycle Time (Read Cycle) (Based on $V_{OL} / V_{OH} = 0.3 \cdot V_{DDIO} / 0.7 \cdot V_{DDIO}$)		450		ns
Address Setup Time between (R/W) and D/C	t_{AS1}	0		ns
Address Hold Time between (R/W) and D/C	t_{AH1}	0		ns
Address Setup Time between (R/W) and /CS	t_{AS2}	0		ns
Address Hold Time between (R/W) and /CS	t_{AH2}	0		ns
Data Setup Time (D ₀ to D ₇ Write)	t_{DSW}	5		ns
Data Hold Time (D ₀ to D ₇ Write)	t_{DHW}	5		ns
Data Access Time (D ₀ to D ₇ Read)	t_{ACC}	250		ns
Output Hold Time (D ₀ to D ₇ Read)	t_{OH}	100		ns
Pulse Width /CS Low (Write Cycle)	PW_{CSL}	40		ns
Pulse Width /CS High (Write Cycle)	PW_{CSH}	25		ns
Pulse Width /CS Low (Read Cycle)	PW_{CSL}	500		ns
Pulse Width /CS High (Read Cycle)	PW_{CSH}	500		ns
Rise Time	t_R		15	ns
Fall Time	t_F		15	ns