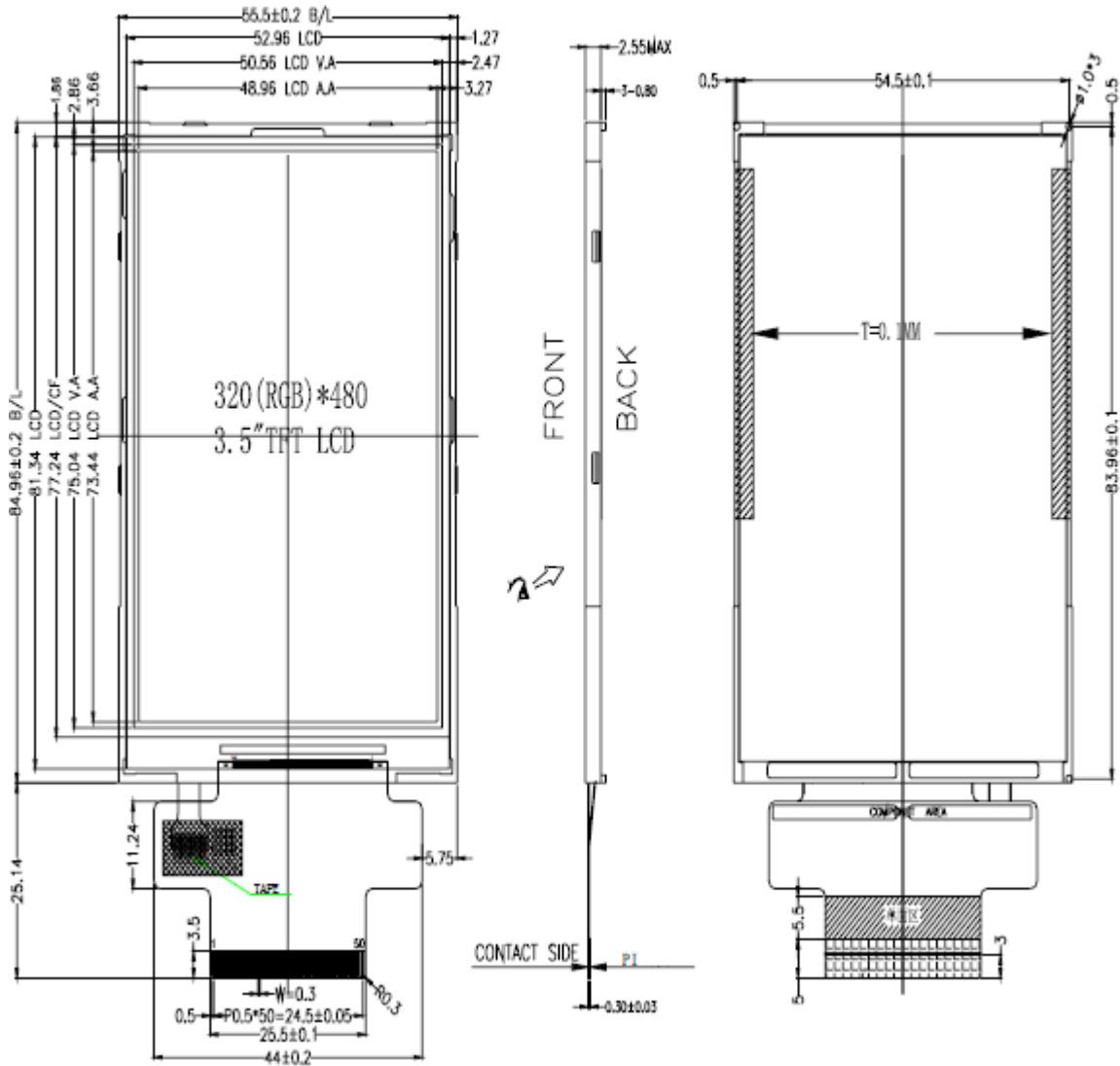


SPECIFICATION

3.5" TFT display No Touch Panel

- Active Matrix TFT LCD Module
- 320 x RGB x 480 Dots
- 65K/262K Colors
- Interfaces: 8080 8/9/16/18 bit MCU
16/18 bit RGB
3/4 wire SPI
- Connection Type: FPC Socket

Part Number: FDS320x480(55.5x84.96)RGE-35N



Features:

1. 3.5" TFT-LCD, 65K/262 COLORS
2. DRIVER IC: ILI9488V
3. OP: $-20^{\circ}\text{C} \sim 70^{\circ}\text{C}$ / ST: $-30^{\circ}\text{C} \sim 80^{\circ}\text{C}$
4. BACKLIGHT: LED
5. ROHS Compliant

GENERAL DESCRIPTION

- 3.5" (diagonal), 320xRGBx480
- Transmissive/Normally White TFT module
- Viewing Direction: 12 o'clock
- Driving IC: ILI9488V or equivalent
- 250 NITS
- 8080 8/9/16/18 bit MCU, 3/4 wire SPI, 16/18 bit RGB interface options

General Specifications

PARAMETER	SPECIFICATIONS	UNIT
Outline dimensions	55.5(W) x 84.96(H) x 2.55(D) (Exclude FPC, cables of backlight)	mm
View area	50.96(W) x 75.44(H)	mm
LCD active area	48.96(W) x 73.44(H)	mm
Driver element	TFT Active Matrix	-
Pixel arrangement	RGB Vertical Stripe	-
Pixel pitch	0.153(W) x 0.153(H)	mm

ELECTRICAL Maximum Rating

ITEM	SYMBOL	MIN	MAX	UNIT	NOTE
Digital Supply voltage	V_{DD}	-0.3	4.6	V	
Digital Interface Supply voltage	V_{DDIO}	-0.3	4.6	V	

ELECTRICAL Specifications

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	REMARK
Digital supply voltage	V_{DD}	2.4	3.3	4.2	V	
Digital interface supply voltage	V_{DDIO}	1.65	3.3	4.2	V	
Normal mode current consumption	I_{DD}	--	8	--	mA	
Level input voltage	V_{IH}	$0.7V_{DDIO}$		V_{DDIO}	V	
	V_{IL}	GND		$0.3V_{DDIO}$	V	
Level output voltage	V_{OH}	$0.8V_{DDIO}$		V_{DDIO}	V	
	V_{OL}	GND		$0.2V_{DDIO}$	V	



Interface Pin Connections

PIN NO.	SYMBOL	DESCRIPTION	I/O
1	GND	Ground	P
2	LEDA	Anode pin of backlight	P
3	LEDK1	Cathode pin of backlight	P
4	LEDK2	Cathode pin of backlight	P
5	LEDK3	Cathode pin of backlight	P
6	LEDK4	Cathode pin of backlight	P
7	LEDK5	Cathode pin of backlight	P
8	LEDK6	Cathode pin of backlight	P
9	GND	Ground	P
10	GND	Ground	P
11	VCC	Supply voltage (3.3V)	P
12	VCC	Supply voltage (3.3V)	P
13	RESET	This signal will reset the device and must be applied to properly initialize the chip.	I
14	CSX	Chip select input pin ("Low" enable). Fix this pin at VCI or GND when not in use.	I
15	RS	This pin is used to select "Data or Command" in the parallel interface. When D/CX = '1', data is selected. When D/CX = '0', command is selected. This pin is used serial interface clock in 3-wire 9-bit / 4-wire 8-bit serial data interface. Fix this pin at VCI or GND when not in use.	I
16	WRX(SPI-SCL)	The data is applied on the rising edge of the SCL signal. If not used, Second Data lane in 2 data lane serial interface. Fix this pin at VCI or GND when not in use.	I
17	RDX	This data is applied on the rising edge of the SCL signal. If not used, Second Data lane in 2 data lane serial interface. Fix this pin at VCI or GND when not in use.	I
18	SPI-SDA	Data lane in 1 data lane serial interface. The data is latched on the rising edge of the SCL signal.	I
19	SDO	SPI interface output pin. --The data is output on the falling edge of the SCL signal. --If not used, let this pin open.	I
20-37	DB0-DB17	18-bit parallel bi-directional data bus for MCU system and RGB interface mode. Fix to GND level when not in use.	I/O

Interface Pin Connections (continued)

PIN NO.	SYMBOL	DESCRIPTION	I/O
38	DE	Data enable signal for RGB interface operation.	I
39	PCLK	Dot clock signal for RGB interface operation. Fix this pin at VCI or GND when not in use.	I
40	HSYNC	Line synchronizing signal for RGB interface operation. Fix this pin at VCI or GND when not in use.	I
41	VSYNC	Frame synchronizing signal for RGB interface operation. Fix this pin at VCI or GND when not in use.	I
42	IM2	MPU Parallel interface bus and serial interface select. If use RGB interface must select serial interface. Fix this pin at VCI and GND.	I
43	IM1		I
44	IM0		I
45	GND	Ground	P
46	YU(NC)	Touch panel Top Film Terminal	A/D
47	XL(NC)	Touch panel Left Glass Terminal	A/D
48	YD(NC)	Touch panel Bottom Film Terminal	A/D
49	XR(NC)	Touch panel Right Glass Terminal	A/D
50	GND	Ground	P

Environmental Conditions

ITEM	Operating Temperature (Topr)		Storage Temperature (Tstg)		REMARK
	MIN	MAX	MIN	MAX	
Operating Temperature	-20°C	+70°C	-30°C	+80°C	Dry

Note 1: Product cannot sustain at extreme storage conditions for long time.