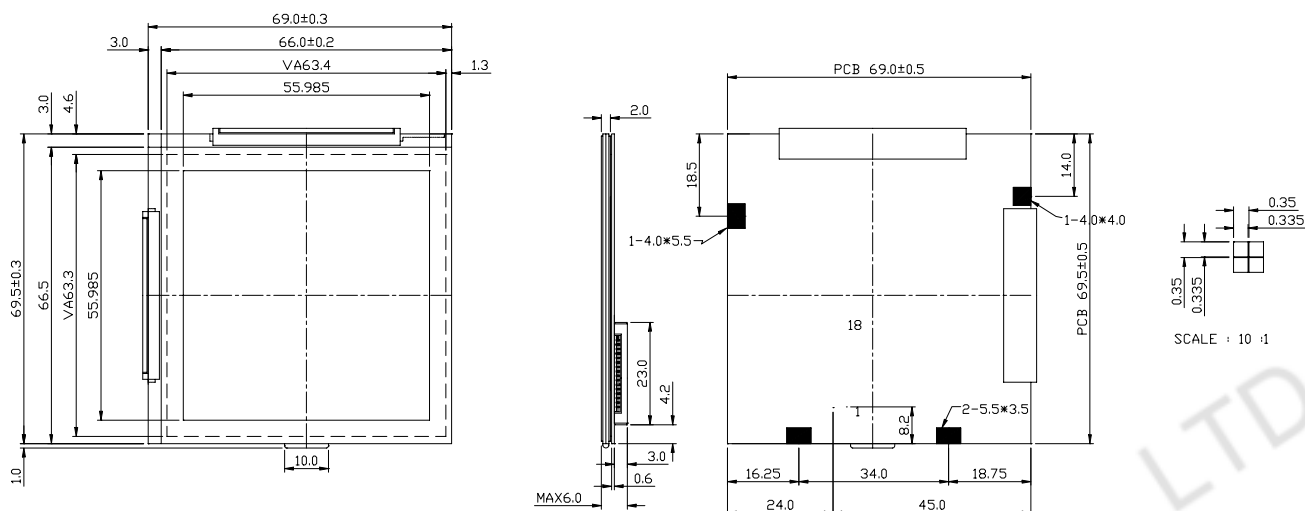




■ FEATURES

- ◆ NO BUILT-IN CONTROLLER
- ◆ +3.3V POWER SUPPLY
- ◆ 1/160 DUTY CYCLE
- ◆ 4-BIT PARALLEL INTERFACE
- ◆ BUILT-IN EL INVERTER

MECHANICAL DATA

ITEM	DIMENSIONS	UNIT
Module Size (W x H x T)	69.0 x 69.5 x 6.0	mm
Viewing Area (W x H)	63.4 x 63.3	mm
Active Area (W x H)	55.985 x 55.985	mm
Dot Size (W x H)	0.335 x 0.335	mm
Dot Pitch (W x H)	0.35 x 0.35	mm

■ INTERFACE PIN CONNECTIONS

NO.	SYMBOL	LEVEL	FUNCTION
1	V _{SS}	0V	Power Supply Ground
2	FLM	H	Frame Start Signal
3	CL1	H→L	Common Driver Data Shift Signal
4	CL2	H→L	Clock Pulse For Segment Shift Register
5	M	H/L	Control Signal For AC Driving
6	V _{DD}	3.3V	Power Supply Voltage
7	EL_ON	H	EL Control Signal
8	VEE	---	Power Supply Voltage For LCD
9~12	DB3~DB0	H/L	Data Bus Line
13~16	NC	-	No Connection

■ ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	MIN.	TYP.	MAX.	UNIT
Supply Voltage For Logic	V _{DD} -V _{SS}	0	-	7	V
Supply Voltage For LCD Drive	V _{DD} -V _o	0	-	30	V
Input Voltage	V _I	V _{SS}	-	V _{DD}	V

■ ELECTRICAL CHARACTERISTICS

ITEM		SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Voltage For Logic		V _{DD-VSS}	-	2.7	3.3	4.5	V
LCD Supply Voltage		V _{DD-Vo}	VDD=3.3V Ta=25°C	17.7	18.6	19.5	V
Supply Current		I _{DD}	VDD=3.3V	-	2.5	4.5	mA
Input	"HIGH" Level	V _{IH}	-	2.2	-	VDD	V
Voltage	"LOW" Level	V _{IL}	-	-	-	0.6	V
Output	"HIGH" Level	V _{OH}	-	2.4	-	-	V
Voltage	"LOW" Level	V _{OL}	-	-	-	0.4	V