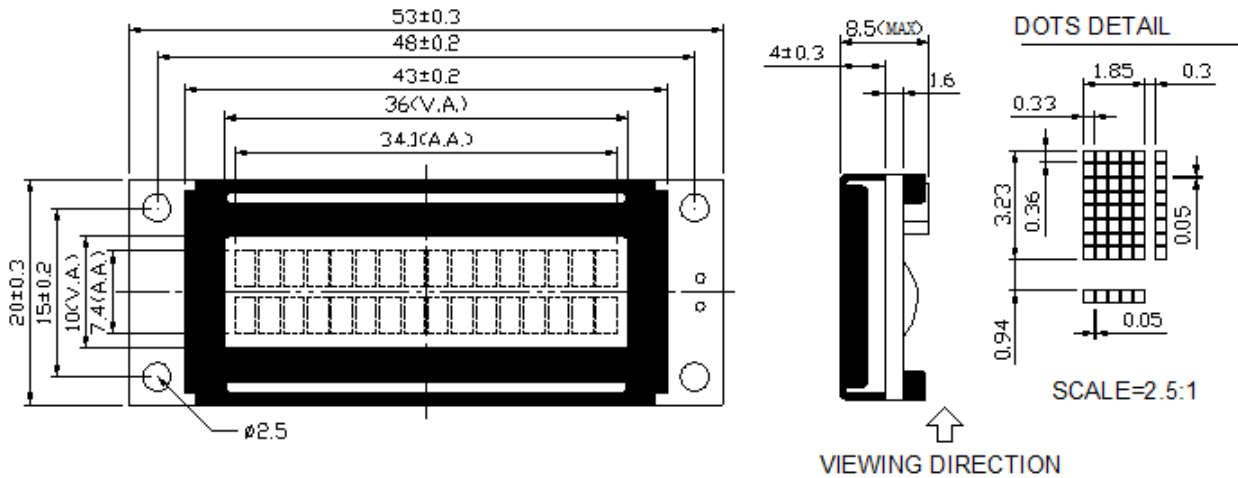




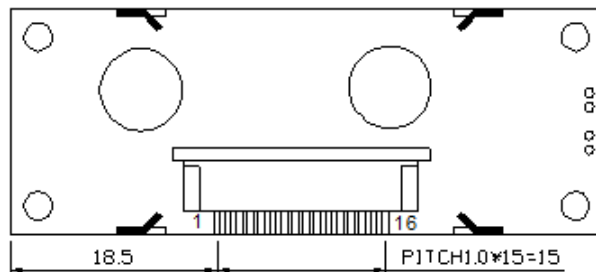
Basic Character LCD Drawing

Part Number: FDS16x2(48x15)LBC



Features:

1. 5x8 Dots with cursor
2. Built-in controller (SPLC780D or Equivalent)
3. +5V power supply
4. 4-bit or 8-bit MPU interfaces
5. BKL to be driven by pin 15, pin 16, or A, K



Mechanical Data

ITEM	STANDARD	UNIT
MODULE DIMENSION	53.0 x 20.0	mm
VIEWING AREA	36.0 x 10.0	mm
DOT SIZE	0.33 x 0.36	mm
CHARACTER SIZE	1.85 x 3.23	mm



Interface Pin Connections

NO	SYMBOL	LEVEL	FUNCTION
1	V _{SS}	Power Supply	Signal Ground for LCM
2	V _{DD}		Power supply for logic for LCM
3	V _O		Contrast Adjust
4	RS	MPU	Register Select signal
5	R/W	MPU	Read/Write Select signal
6	E	MPU	Operation (data read/write) enable signal
7~10	DB ₀ ~DB ₃	MPU	Four High Order bi-directional three-state data bus lines. Used for data transfer between the MPU and the LCM. These four are not used during 4-bit operation.
11~14	DB ₄ ~DB ₇	MPU	Four High Order bi-directional three-state data bus lines. Used for data transfer between the MPU.
15	LED+	LED BKL power supply	Power for Backlight
16	LED-		

Absolute Maximum Rating

ITEM	SYMBOL	MIN	TYP	MAX	UNIT
Power Voltage	V _{DD} -V _{SS}	0	--	7.0	V
Input Voltage	V _{IN}	V _{SS}	--	V _{DD}	
Operating Temperature Range	V _{OP}	-20	--	+70	°C
Storage Temperature Range	V _{ST}	-30	--	+80	

Electrical Characteristics

ITEM	SYM	CONDITION	MIN	TYP	MAX	UNIT
Supply Voltage for LCD	V _{DD} -V _O	T _a =25°C	--	4.5	--	V
Input Voltage	V _{DD}		4.7	5.0	5.5	
Supply Current	I _{DD}	T _a =25°C, V _{DD} =5.0V	--	1.5	2.0	mA
Input Leakage Current	I _{LKG}		--	--	1.0	uA
"H" Level Input Voltage	V _{IH}		2.2	--	V _{DD}	V
"L" Level Input Voltage	V _{IL}	Twice Initial Value or Less	0	--	0.6	
"H" Level Output Voltage	V _{OH}	LOH= -0.25mA	2.4	--	--	
"L" Level Output Voltage	V _{OL}	LOH= 1.6mA	--	--	0.4	
Backlight supply voltage	V _F		3.8	--	4.2	
Backlight supply current	I _{LED}	T _a =25°C, V=4.2V	30	--	40	