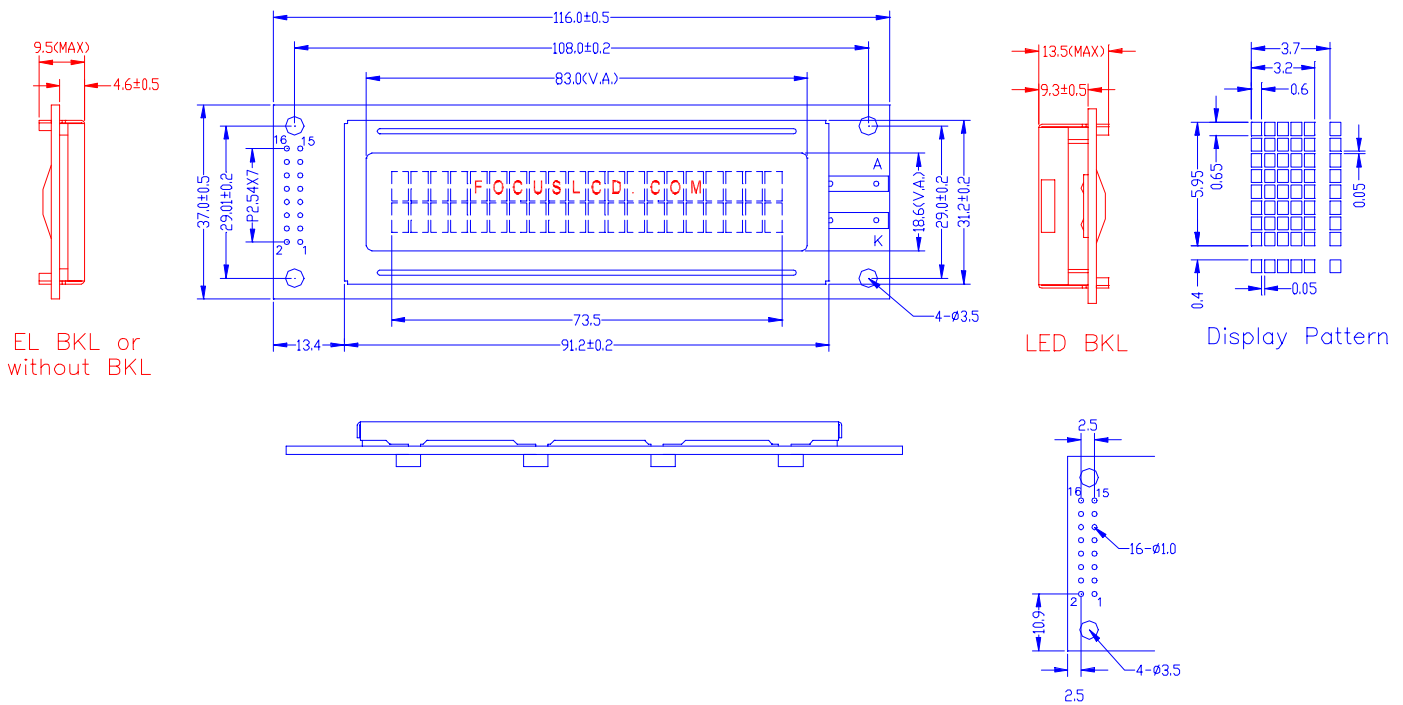


FOCUS DISPLAY SOLUTIONS

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FDS20x2(108x29)XBC



Feature:

1. 5x8 Dots with cursor
2. Built-in controller (KS0066U or Equivalent)
3. +5V power supply (also available for +3.0V)
4. 1/16 duty cycle
5. BKL to be driven by pin1, pin2, or pin15, pin16, or A,K
6. N.V. Optional

Interface Pin Connections

NO	SYM	LEVEL	FUNCTION	NO	SYM	LEVEL	FUNCTION
1	V _{SS}	-	GND	9	DB ₂	H/L	DATA BIT 2
2	V _{DD}	-	5V	10	DB ₃	H/L	DATA BIT 3
3	V _O	-	CONTRAST ADJUSTMENT	11	DB ₄	H/L	DATA BIT 4
4	RS	H/L	REGISTER SELECT	12	DB ₅	H/L	DATA BIT 5
5	R/W	H/L	READ/WRITE	13	DB ₆	H/L	DATA BIT 6
6	E	H/L	ENABLE SIGNAL	14	DB ₇	H/L	DATA BIT 7
7	DB ₀	H/L	DATA BIT0	15	A(+)	4.2V	BACKLIGHT
8	DB ₁	H/L	DATA BIT1	16	K(-)	0V	BACKLIGHT

Absolute Maximum Rating

ITEM	SYMBOL	MIN	TYP	MAX	UNIT
POWER SUPPLY	V _{DD} -V _{SS}	-0.3	---	5.5	V
INPUT VOLTAGE	V _I	-0.3	---	V _{DD}	

Electrical Characteristics

ITEM	SYM	CONDITION	MIN	TYP	MAX	UNIT
INPUT VOLTAGE	V _{DD}	+ 5V	4.7	5.0	5.5	V
		+3.3V	2.7	3.0	5.3	V
SUPPLY CURRENT	I _{DD}	V _{DD} = 5V	--	2.5	4	mA
RECOMMENDED LCD DRIVING VOLTAGE FOR NORMAL TEMPERATURE VERSION MODULE	V _{DD} -V _O	-20 C	----	---	---	V
		0 C	4.7	5.0	5.5	
		25 C	4.3	4.5	4.7	
		50 C	4.1	4.3	4.5	
		70 C	---	---	---	
LED FORWARD VOLTAGE	V _F	25 C	----	4.2	4.6	V
LED FORWARD CURRENT	I _F	25 C	---	140	---	mA
EL POWER SUPPLY CURRENT	I _{EL}	V _{EL} = 110V AC 400Hz	---	---	---	mA

Mechanical Data

ITEM	STANDARD	UNIT
MODULE DIMENSION	116.0 X 37.0	mm
VIEWING AREA	83.0 X 18.6	mm
DOT SIZE	0.60 X .65	mm
CHARACTER SIZE	3.20 X 5.95	mm

DISPLAY CHARACTER ADDRESS CODE:

Display position	1	2	3			18	19	20
DDRAM address	00	01	02	--	--	11	12	13H
DDRAM address	40	41	42	--	--	51	52	53H