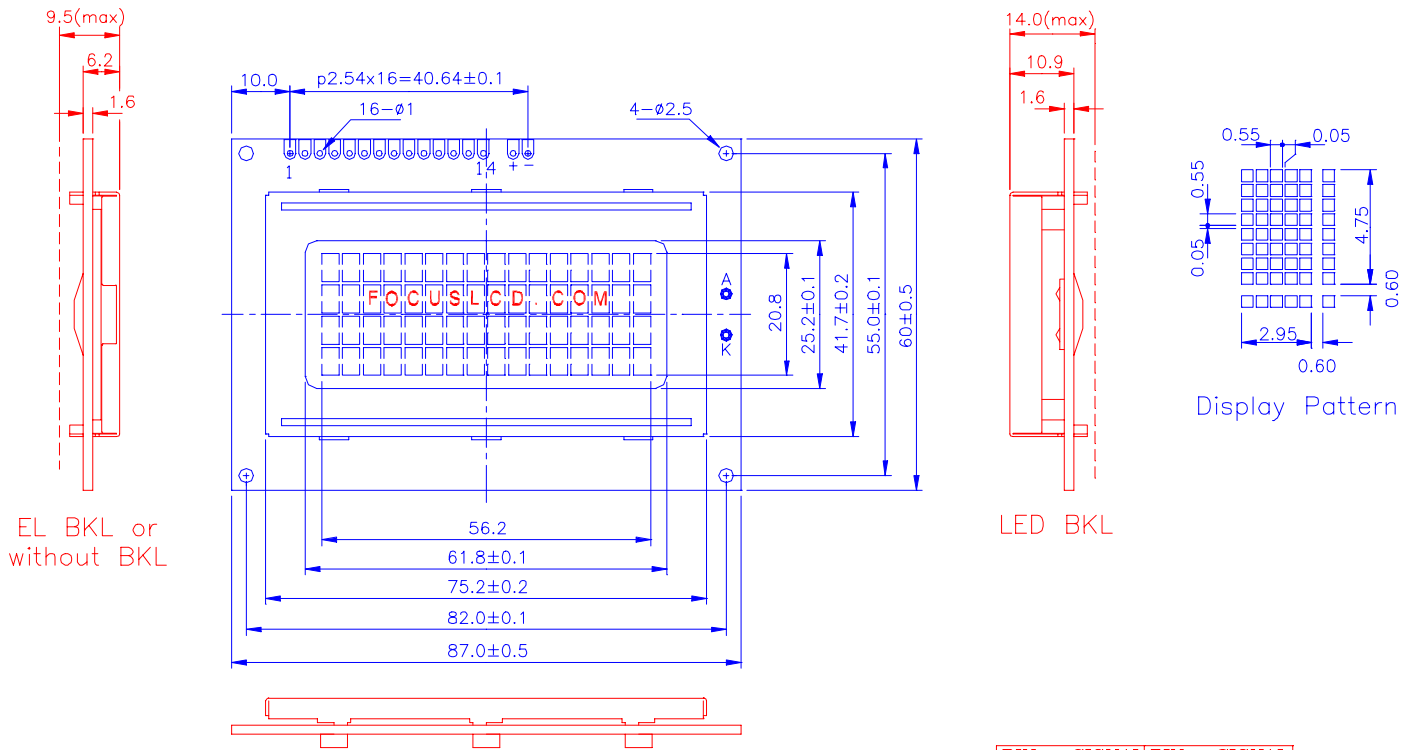


FOCUS DISPLAY SOLUTIONS

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FDS16x4(82x55)XBC



EL BKL or
without BKL

LED BKL

PERFORMANCE FEATURES	
LC FLUID:	TN, STN
POLARIZER:	REFLECTIVE, TRANSFLECTIVE TRANSMISSIVE
COLOR:	GRAY, YELLOW, BLUE
BACKLIGHT:	LED (YELLOW-GREEN)
TEMPERATURE RANGE:	STANDARD, WIDE
CONTROLLER:	KS0066

PIN	SIGNAL	PIN	SIGNAL
1	VSS	9	DB2
2	VDD	10	DB3
3	V0	11	DB4
4	RS	12	DB5
5	R/W	13	DB6
6	E	14	DB7
7	DB0	+	LED+
8	DB1	-	LED-

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	--	3	5	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	---	220	---	mA
EL POWER SUPPLY CURRENT	I _{EL}	V _{EL} = 110V AC 400Hz	---	---	---	mA

Mechanical Data

ITEM	STANDARD	UNIT
MODULE DIMENSION	87.0 X 60.0	mm
VIEWING AREA	61.8 X 25.2	mm
DOT SIZE	0.55 X 0.55	mm
CHARACTER SIZE	2.95 X 4.75	mm

DISPLAY CHARACTER ADDRESS CODE:

Display position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
DDRAM address	00	01	02	---	---	---	---	---	---	---	---	---	---	---	---	0FH
DDRAM address	40	41	42	---	---	---	---	---	---	---	---	---	---	---	---	4FH
DDRAM address	10	11	12	---	---	---	---	---	---	---	---	---	---	---	---	1FH
DDRAM address	50	51	52	---	---	---	---	---	---	---	---	---	---	---	---	5FH